

**WESTFIELD TOWN COUNCIL
FIRST COUNCIL CONSIDERATION**

Petition Number	0710-PUD-04
Approximate Address	704 State Route 32
Petitioner	Wilfong & Kreutz Land Development, LLC
Request	Change the zoning of approximately 22.3 acres from the EI District to the Oak Ridge PUD District.
Current Zoning	EI (Enclosed Industrial)
Approximate Acreage	22.3 acres

PETITION HISTORY - MAY, 2007

This petition is appearing before the Westfield Town Council for initial consideration on October 8, 2007.

PROCEDURAL

Petitions requesting a change in zoning appear before the Westfield Town Council on at least one occasion, for the purpose of receiving comments from the Town Council Members.

The Town Council may opt to send the petition to the Advisory Plan Commission for public hearing after a single consideration, or may request the petition return at a later date for further consideration by the Council members.

REQUEST

The proposed change in zoning would provide for the creation of a new planned unit development, consisting of approximately 22.3 acres. The parcels subject to this request are identified in petitioner's Exhibit A-1.

The proposed Oak Ridge PUD district would provide for the development of the subject site with two land uses, retail and office. Figures provided in Exhibit 17 of the proposed PUD ordinance estimate a maximum retail square footage of 31,400. The petition also proposes approximately 83,000 square feet of office/service space. Plans show a significant area remaining undeveloped; however, those area calculations have not been provided.

INTRODUCTION

The request concerns property located both north and south of State Road 32. The portion of the subject site located north of State Road 32 is generally located at the intersection of State Road 32 (SR 32) and Oak Ridge Road (west of Oak Ridge, north and south of SR 32). The subject site extends west along State Road 32 approximately 830 feet.

The property extends north approximately 450 feet and includes two existing houses, a barn and a small assemblage of sheds. The approximate west boundary of the subject site north of SR32 is the Anna Kendall drain.

The property extends south approximately 875 feet and includes three unimproved farm fields. The west boundary of the subject site south of State Road 32 abuts the Town's Public Safety building and Quaker Park. The southern portion of the subject site abuts the Midland Trace Trail.

The subject site is comprised of eight parcels and consists of 22.3 acres. The subject site is located in the EI District; however, its primary use is agricultural in nature.

PUBLIC POLICIES

Comprehensive Plan

The Land Use Concept map included in the Westfield-Washington Township Comprehensive Plan (pg. 23) shows that the site is located within the Employment Corridor along SR 32.

The Plan states that the Employment Corridor is to consist of office and service uses, research and development, and retail and institutional uses that are subordinate to and supportive of the office and service uses. The Employment Corridor recommendations (page 52) further anticipate reserving employment corridors for employment-generating uses and related supporting service uses, as well as limiting industrial uses that would be visible to those that would not have negative land use impacts. The Employment Corridors recommendations specifically recommend smaller-scale local office and service uses along State Road 32, and cautions against permitting business uses on the south side of State Road 32 unless it can be demonstrated that no negative impact will be felt by abutting neighborhoods or residential uses.

Thoroughfare Plan

The Westfield Thoroughfare Plan roadway classification map identifies SR 32 as a "Primary Arterial 1," and recommends a minimum dedication of a seventy-five (75) foot half right-of-way. The subject site abuts the public right-of-way of SR 32 on both the north and south side. A full one hundred and fifty (150) foot right of way should be provided.

The adopted Westfield Thoroughfare Plan includes SR 32 in a Pedestrian Corridor as a component of the Bike and Pedestrian Plan section. This policy recommends pedestrian-scale structures and architecture, character, and amenities for the area abutting State Road 32.

The Westfield Thoroughfare Plan roadway classification map identifies Oak Ridge Road as a "Secondary Arterial," and recommends a minimum dedication of a sixty (60) foot half right-of-way. South of SR 32 the subject site abuts the public right-of-way of Oak Ridge Road on the west side. A sixty (60) foot half right-of-way should be provided. North of SR 32 the subject site abuts the future extension of Oak Ridge Road. The petitioner has indicated that they are aware they may have to dedicate more than half; however, no specific dimensions have been provided.

Water and Sewer

The Westfield Water Master Plan depicts the subject site as having water service available along the right-of-way of State Road 32. The Westfield Sewer Master Plan depicts the subject site as having sewer service available along the right-of-way of Dartown Road.

Annexation

Portions of the subject site are within the corporate limits. The Town has initiated an annexation request, separate from this petition that includes the parcels north of SR 32. That request appears later in the agenda.

TECHNICAL REVIEW

This petition has undergone preliminary review by the Technical Advisory Committee. Initial comments from the Westfield Fire Department were in regards to the southern portion of the site and access to it in the event of an emergency. The petitioner has indicated that they will examine the issue and propose a solution that will satisfy the Fire Department's needs.

The Hamilton County Surveyors Office also provided comments regarding detention and easements. The petitioner noted that they are considering underground storage, but have not made any final decisions. The technical details of detention and underground storage will be reviewed during the Development Plan Review phase of construction.

PUD REQUIREMENTS

Terms of the Westfield-Washington Township Planned Unit Development ordinance require a neighborhood meeting with abutting property owners, and a report on the events of such meeting. The petitioner has scheduled their meeting for October 11, 2007.

Further, the subject site has the potential to yield over 15,000 square feet of retail space and over 35,000 square feet of office space. This threshold would require the submittal of a Traffic Impact Study. A traffic impact study has been provided for the petition file.

ACTION

The Westfield Town Council may decide this petition should return to the Council for further discussion before proceeding to public hearing at the APC, or the Council may choose to forward this petition to the APC after the first consideration.

WESTFIELD, INDIANA
PROPOSED OAK RIDGE POINTE PROJECT
FISCAL IMPACT ANALYSIS

Prepared by:



231 East Main Street
Westfield, Indiana 46074
Ph. 317-867-5888
Fax 317-867-5898
www.owkcpa.com

September 7, 2007

Mr. Jose Kreutz
Wilfong & Kreutz
17830 Casey Road
Westfield, Indiana 46074

Re: Proposed Oak Ridge Pointe Project - Town of Westfield, Indiana

The attached schedules, listed below, present unaudited and limited financial information for the purpose of discussion and consideration of a proposed project by Wilfong & Kreutz in the Town of Westfield, Indiana. The purpose of this report is to quantify the anticipated fiscal impact that the proposed project could have on the Town.

The prospective financial impact calculations reflect assumptions provided by Wilfong & Kreutz management relative to the type of development within the Oak Ridge Pointe project and the anticipated market value of the ultimate product. We have also obtained additional information from local, county and state officials. The pay 2007 property tax rates and proportional income tax ratios serve as the basis for the revenue projections.

Schedules 1 through 3 represent a computed post build out financial impact computations. Estimates resulting from a 5-year build out scenario are presented in Appendix A.

FISCAL IMPACT

Schedule 1 Proposed Project Overview

This schedule summarizes the proposed Oak Ridge Pointe project, including the estimated total square footage per building, estimated market value, and the assumed true tax value (TTV). The TTV is based upon an assumed relationship of 65% of the market value for the office and commercial development. The estimated TTV for the proposed project is \$9,150,000 with approximately 114,000 square feet of commercial development.

Schedule 2 Estimated Annual Tax Revenues

This schedule summarizes the proposed project's potential impact on property tax, for the Town, School District, County, and other overlapping taxing units. Based upon pay 2007 tax rates, the proposed project at build out could generate an additional \$231,000 in property tax revenues for government units in Hamilton County, of which an estimated \$30,400 could be generated for the Town. We have used the pay 2007 COIT to property tax ratio to estimate an additional \$20,400 in COIT distributions to the Town of Westfield and \$12,800 to Hamilton County.

Schedule 3 **Estimated One-Time Impact Fees**

This schedule summarizes the proposed project's potential one-time impact fees that are anticipated from the Town's Road Impact Fees. The number of EDU's was provided by the developer. The Road Impact Fees were provided by the developer and are based trip fees.

Appendix 1A **Anticipated Marginal Revenues & Expenses for Westfield Municipal Water Utility**

This schedule is based upon an anticipated build out of 5 years for the project. The Town will receive \$1,800 per EDU in availability fees and \$500 per EDU in Tap Fees from the developer. Assuming approximately 5,000 gallons per month per EDU, the Town should realize an estimated \$239 per year per EDU from user charges. The estimated marginal treatment expenses include power and chemicals or an anticipated 25% of recurring annual revenues. At build out, the development is anticipated to produce an estimated annual marginal cash flow of approximately \$7,200.

Appendix 2A **Anticipated Marginal Revenues & Expenses for Westfield Municipal Wastewater Utility**

This schedule is based upon an anticipated build out of 5 years for the project. The Town will receive \$3,500 per EDU in availability fees and \$1,200 per EDU in Tap Fees from the developer. Assuming approximately 5,000 gallons per month per EDU, the Town should realize an estimated \$407 per year per EDU from user charges. The estimated marginal treatment expenses include power and chemicals or an anticipated 25% of recurring annual revenues. At build out, the development is anticipated to produce an estimated annual marginal cash flow of approximately \$12,000.

Appendix 3A **Anticipated Annual Tax Revenues & One Time Fees for Westfield**

Based upon the 5-year build out, this schedule illustrates the estimated total annual revenues to the Town as the proposed project is developed. We have assumed a 2-year lag in property tax collections from the start of construction of the project. The one-time development fees are assumed to be paid at the time of construction of each EDU. The assumed annual cost of \$1,029 is based upon the total pay 2007 certified levy and the pay 2007 COIT distribution divided by the number of households, as provided by the 2000 census and building permits issued for the last 5 years. Because there are no residential components to this project, we have assumed an annual cost of 50% of the household cost. At build out, the proposed project may result in an estimated annual marginal cash flow of \$30,000.

Actual results could vary from the prospective financial impact calculations and the variations could be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

DRAFT

O. W. Krohn & Associates, LLP

PROPOSED OAK RIDGE POINTE PROJECT - WESTFIELD, INDIANA

FINANCIAL IMPACT ANALYSIS

PROPOSED PROJECT OVERVIEW

PROPOSED PROJECT CONFIGURATION

	<u>COST/SQ FT</u>	<u>ESTIMATED TOTAL SQUARE FEET</u>	<u>TOTAL MARKET VALUE</u>	<u>ASSUMED TRUE TAX VALUE</u>
Office 1	\$115.00	56,100	\$6,451,500	\$4,193,475
Commercial 1	130.00	28,100	3,653,000	2,374,450
Commercial 2	142.00	10,400	1,476,800	959,920
Commercial 3	130.00	19,200	2,496,000	1,622,400
Total Commercial		<u>113,800</u>	<u>\$14,077,300</u>	<u>\$9,150,245</u>

SEE ACCOUNTANT'S REPORT
SCHEDULE 1

PROPOSED OAK RIDGE POINTE PROJECT - WESTFIELD, INDIANA

FINANCIAL IMPACT ANALYSIS

ESTIMATED ANNUAL TAX REVENUES

PROPOSED PROJECT CONFIGURATION

	ASSUMED TRUE TAX VALUE	TOWN OF WESTFIELD	SCHOOL DISTRICT	HAMILTON COUNTY	OTHER TAXING UNITS	TOTALS
TAX RATES - PAY 07		\$0.3322	\$1.9160	\$0.2092	\$0.0634	\$2.5208
Office 1	\$4,193,475	\$13,931	\$80,347	\$8,773	\$2,659	\$105,710
Commercial 1	2,374,450	7,888	45,494	4,967	1,505	59,854
Commercial 2	959,920	3,189	18,392	2,008	609	24,198
Commercial 3	1,622,400	5,390	31,085	3,394	1,029	40,898
TOTAL ESTIMATED ANNUAL PROPERTY TAXES		30,398	175,318	19,142	5,802	230,660
ESTIMATED ANNUAL COIT		20,367		12,825		33,192
TOTAL ESTIMATED ANNUAL REVENUES		<u>\$50,765</u>	<u>\$175,318</u>	<u>\$31,967</u>	<u>\$5,802</u>	<u>\$263,852</u>
ONE-TIME IMPACT FEES (SEE SCHEDULE 3)						<u>\$552,182</u>

SEE ACCOUNTANT'S REPORT
SCHEDULE 2

PROPOSED OAK RIDGE POINTE PROJECT - WESTFIELD, INDIANA

FINANCIAL IMPACT ANALYSIS

ESTIMATED ONE-TIME IMPACT FEES

<u>LAND USE</u>	<u>ACREAGE</u>	<u>POTENTIAL TOTAL (EQUIVALENT) UNITS (1)</u>	<u>ROAD IMPACT FEES (1)</u>	<u>TOTALS</u>
Office 1	9.41	19	\$252,977	\$252,977
Commercial 1	6.31	10	145,713	145,713
Commercial 2	2.84	4	53,930	53,930
Commercial 3	3.83	7	99,562	99,562
	<hr/>	<hr/>	<hr/>	<hr/>
Total Commercial	<u>22.39</u>	<u>40</u>	<u>\$552,182</u>	<u>\$552,182</u>

NOTES: (1) Number of EDU's and amount of Road Impact Fees by product type provided by developer.

SEE ACCOUNTANT'S REPORT
SCHEDULE 3

APPENDIX A

PROPOSED OAK RIDGE POINTE PROJECT - WESTFIELD, INDIANA

ANTICIPATED MARGINAL REVENUES & EXPENSES FOR
WESTFIELD MUNICIPAL WATER UTILITY

BASED UPON AN 5-YEAR BUILD OUT

<u>YEAR</u>		<u>ONE-TIME CONNECTION FEES (1)</u>	<u>RECURRING ANNUAL REVENUES (2)</u>	<u>TOTAL ANNUAL REVENUES</u>	<u>ESTIMATED MARGINAL TREATMENT EXPENSES (3) 25%</u>	<u>ESTIMATED ANNUAL MARGINAL CASH FLOW</u>
1	2008	\$ 18,400	\$ -	\$ 18,400	\$ -	\$ 18,400
2	2009	18,400	1,912	20,312	478	19,834
3	2010	18,400	3,824	22,224	956	21,268
4	2011	18,400	5,736	24,136	1,434	22,702
5	2012	18,400	7,648	26,048	1,912	24,136
6	2013		9,562	9,562	2,391	7,171
7	2014		9,562	9,562	2,391	7,171
8	2015		9,562	9,562	2,391	7,171
9	2016		9,562	9,562	2,391	7,171
10	2017		9,562	9,562	2,391	7,171
11	2018		9,562	9,562	2,391	7,171
12	2019		9,562	9,562	2,391	7,171
13	2020		9,562	9,562	2,391	7,171
14	2021		9,562	9,562	2,391	7,171
15	2022		9,562	9,562	2,391	7,171
TOTALS		<u>\$92,000</u>	<u>\$114,740</u>	<u>\$206,740</u>	<u>\$28,690</u>	<u>\$178,050</u>

SIGNIFICANT ASSUMPTIONS:

- (1) BASED UPON AVAILABILITY FEES OF \$1,800 AND TAP FEES OF \$500 PER EDU.
- (2) BASED UPON 5,000 GALLONS PER MONTH PER EDU AT CURRENT RATE STRUCTURE.
- (3) REVENUES AND EXPENDITURES ARE PRESENTED AT PRESENT DAY COSTS / RATES.
VARIABLE COSTS INCLUDE POWER & CHEMICALS.

SEE ACCOUNTANT'S REPORT
APPENDIX 1A
5 - YEAR BUILD OUT

PROPOSED OAK RIDGE POINTE PROJECT - WESTFIELD, INDIANA

ANTICIPATED MARGINAL REVENUES & EXPENSES FOR
WESTFIELD MUNICIPAL WASTEWATER UTILITY

BASED UPON AN 5-YEAR BUILD OUT

<u>YEAR</u>		<u>ONE-TIME CONNECTION FEES (1)</u>	<u>RECURRING ANNUAL REVENUES (2)</u>	<u>TOTAL ANNUAL REVENUES</u>	<u>ESTIMATED MARGINAL TREATMENT EXPENSES (3) 25%</u>	<u>ESTIMATED ANNUAL MARGINAL CASH FLOW</u>
1	2008	\$ 37,600	\$ -	\$ 37,600	\$ -	\$ 37,600
2	2009	37,600	3,259	40,859	815	40,044
3	2010	37,600	6,518	44,118	1,630	42,488
4	2011	37,600	9,777	47,377	2,444	44,933
5	2012	37,600	13,036	50,636	3,259	47,377
6	2013		16,296	16,296	4,074	12,222
7	2014		16,296	16,296	4,074	12,222
8	2015		16,296	16,296	4,074	12,222
9	2016		16,296	16,296	4,074	12,222
10	2017		16,296	16,296	4,074	12,222
11	2018		16,296	16,296	4,074	12,222
12	2019		16,296	16,296	4,074	12,222
13	2020		16,296	16,296	4,074	12,222
14	2021		16,296	16,296	4,074	12,222
15	2022		16,296	16,296	4,074	12,222
TOTALS		<u>\$188,000</u>	<u>\$195,550</u>	<u>\$383,550</u>	<u>\$48,888</u>	<u>\$334,662</u>

SIGNIFICANT ASSUMPTIONS:

- (1) BASED UPON AVAILABILITY FEES OF \$3,500 AND TAP FEES OF \$1,200 PER EDU.
- (2) BASED UPON 5,000 GALLONS PER MONTH PER EDU AT CURRENT RATE STRUCTURE.
- (3) REVENUES AND EXPENDITURES ARE PRESENTED AT PRESENT DAY COSTS / RATES.
VARIABLE COSTS INCLUDE POWER & CHEMICALS.

SEE ACCOUNTANT'S REPORT
APPENDIX 2A
5 - YEAR BUILD OUT

PROPOSED OAK RIDGE POINTE PROJECT - WESTFIELD, INDIANA

ANTICIPATED ANNUAL TAX REVENUES & ONE-TIME FEES FOR WESTFIELD

BASED UPON AN 5-YEAR BUILD OUT

YEAR	NUMBER OF EDU'S	ESTIMATED	ESTIMATED	ESTIMATED	TOTAL	ASSUMED	ESTIMATED
		ANNUAL PROPERTY TAXES	ANNUAL INCOME TAXES	ANNUAL ONE-TIME FEES	ANNUAL REVENUES	ANNUAL COSTS	ANNUAL MARGINAL CASH FLOW
						\$515	PER COMMERCIAL EDU
1	2009	8	\$ -	\$ -	\$ 110,436	\$ 4,120	\$ 106,316
2	2010	16	6,078	4,072	110,436	8,240	112,346
3	2011	24	12,157	8,145	110,436	12,360	118,378
4	2012	32	18,237	12,218	110,437	16,480	124,412
5	2013	40	24,317	16,292	110,437	20,600	130,446
6	2014	40	30,398	20,367	50,765	20,600	30,165
7	2015	40	30,398	20,367	50,765	20,600	30,165
8	2016	40	30,398	20,367	50,765	20,600	30,165
9	2017	40	30,398	20,367	50,765	20,600	30,165
10	2018	40	30,398	20,367	50,765	20,600	30,165
11	2019	40	30,398	20,367	50,765	20,600	30,165
12	2020	40	30,398	20,367	50,765	20,600	30,165
13	2021	40	30,398	20,367	50,765	20,600	30,165
14	2022	40	30,398	20,367	50,765	20,600	30,165
TOTALS			<u>\$ 334,371</u>	<u>\$ 224,030</u>	<u>\$ 552,182</u>	<u>\$ 247,200</u>	<u>\$ 863,383</u>

KEY ASSUMPTIONS:

ASSUMES 2 YEAR LAG IN PROPERTY TAX COLLECTIONS

ASSUMES ONE-TIME DEVELOPMENT FEES PAID AT TIME OF CONSTRUCTION OF EACH UNIT

ACTUAL 2007 EXPENDITURES FUNDED BY PROPERTY TAXES & COIT:

2007 CERTIFIED LEVY	\$4,131,305
2007 CERTIFIED COIT DISTRIBUTION	<u>2,701,861</u>
TOTAL	<u>\$6,833,166</u>

ESTIMATED NUMBER OF HOUSEHOLDS
(BASED UPON 2000 CENSUS AND BUILDING PERMITS ISSUED FOR THE LAST 5 YEARS) 6,641

2007 EXPENDITURES FUNDED BY PROPERTY TAXES & COIT - PER HOUSEHOLD: \$1,029

2007 EXPENDITURES FUNDED BY PROPERTY TAXES & COIT - PER COMMERCIAL EDU: \$515



8365 Keystone Crossing, Suite 201
Indianapolis, IN 46240
Phone: (317) 202-0864 Fax: (317) 202-0908

TRAFFIC IMPACT ANALYSIS

PROPOSED MIXED-USE DEVELOPMENT OAK RIDGE PUD

***SR 32 & OAKRIDGE ROAD
WESTFIELD, INDIANA***

***PREPARED FOR
WILFONG-KREUTZ LAND DEVELOPMENT***

AUGUST 2007

COPYRIGHT

This Analysis and the ideas, designs, concepts and data contained herein are the exclusive intellectual property of A&F Engineering Co., LLC. and are not to be used or reproduced in whole or in part, without the written consent of A&F Engineering Co., LLC.

©2007, A&F Engineering Co., LLC.

TABLE OF CONTENTS

LIST OF FIGURES III
 CERTIFICATIONIV
 INTRODUCTION..... 1
 PURPOSE..... 1
 SCOPE OF WORK..... 1
 DESCRIPTION OF THE PROPOSED DEVELOPMENT..... 2
 STUDY AREA 2
 DESCRIPTION OF THE ABUTTING STREET SYSTEM..... 5
 TRAFFIC DATA 5
 PEAK HOUR..... 5
 GROWTH RATE FOR BACKGROUND TRAFFIC (PROJECTED YEAR 2017 VOLUMES)..... 7
 GENERATED TRAFFIC VOLUMES FOR PROPOSED DEVELOPMENT 7
 TABLE 1 - GENERATED TRIPS FOR PROPOSED DEVELOPMENT 7
 INTERNAL TRIPS..... 8
 PASS-BY TRIPS..... 8
 TABLE 2 –PASS-BY TRIP SUMMARY FOR PROPOSED DEVELOPMENT 9
 ASSIGNMENT AND DISTRIBUTION OF GENERATED TRIPS 10
 PROPOSED DEVELOPMENT GENERATED TRIPS ADDED TO THE STREET SYSTEM 10
 CAPACITY ANALYSIS 21
 DESCRIPTION OF LEVELS OF SERVICE 21
 CAPACITY ANALYSES SCENARIOS..... 22
 TABLE 3 - LEVEL OF SERVICE SUMMARY: SR 32 & OAKRIDGE ROAD..... 26
 TABLE 4 - LEVEL OF SERVICE SUMMARY: SR 32 & WEST ACCESS DRIVE 27
 TABLE 5 - LEVEL OF SERVICE SUMMARY: SR 32 & EAST ACCESS DRIVE 28
 TABLE 6 - LEVEL OF SERVICE SUMMARY: OAKRIDGE ROAD & NORTH ACCESS DRIVE 29
 TABLE 7 - LEVEL OF SERVICE SUMMARY: OAKRIDGE ROAD & SOUTH ACCESS DRIVE..... 30
 TABLE 8 - LEVEL OF SERVICE SUMMARY: OAKRIDGE ROAD EXTENSION & NORTH ACCESS DRIVE 31
 TABLE 9 - LEVEL OF SERVICE SUMMARY: OAKRIDGE ROAD EXTENSION & SOUTH ACCESS DRIVE..... 32
 CONCLUSIONS 33
 RECOMMENDATIONS 35

LIST OF FIGURES

FIGURE 1A: SITE LOCATION MAP	3
FIGURE 1B: DETAILED SITE MAP	4
FIGURE 2: EXISTING AND FUTURE INTERSECTION GEOMETRICS.....	6
FIGURE 3A: ASSIGNMENT & DISTRIBUTION OF GENERATED NON PASS-BY TRAFFIC VOLUMES FOR NORTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT.....	11
FIGURE 3B: ASSIGNMENT & DISTRIBUTION OF GENERATED NON PASS-BY TRAFFIC VOLUMES FOR SOUTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT.....	12
FIGURE 3C: ASSIGNMENT & DISTRIBUTION OF GENERATED NON PASS-BY TRAFFIC VOLUMES FOR GAS STATION PORTION OF PROPOSED DEVELOPMENT	13
FIGURE 3D: ASSIGNMENT & DISTRIBUTION OF GENERATED NON PASS-BY TRAFFIC VOLUMES FOR GENERAL OFFICE PORTION OF PROPOSED DEVELOPMENT	14
FIGURE 3E: ASSIGNMENT & DISTRIBUTION OF GENERATED NON PASS-BY TRAFFIC VOLUMES FOR PHARMACY PORTION OF PROPOSED DEVELOPMENT	15
FIGURE 3F: ASSIGNMENT & DISTRIBUTION OF GENERATED PASS-BY TRAFFIC VOLUMES FOR NORTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT	16
FIGURE 3G: ASSIGNMENT & DISTRIBUTION OF GENERATED PASS-BY TRAFFIC VOLUMES FOR SOUTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT	17
FIGURE 3H: ASSIGNMENT & DISTRIBUTION OF GENERATED PASS-BY TRAFFIC VOLUMES FOR GAS STATION PORTION OF PROPOSED DEVELOPMENT	18
FIGURE 3I: ASSIGNMENT & DISTRIBUTION OF GENERATED PASS-BY TRAFFIC VOLUMES FOR PHARMACY PORTION OF PROPOSED DEVELOPMENT	19
FIGURE 4: TOTAL (NON PASS-BY & PASS-BY) TRAFFIC VOLUMES FOR ENTIRE PROPOSED OAK RIDGE PUD.....	20
FIGURE 5: EXISTING TRAFFIC VOLUMES	23
FIGURE 6: PROJECTED YEAR 2017 TRAFFIC VOLUMES.....	24
FIGURE 7: SUM OF PROJECTED YEAR 2017 TRAFFIC VOLUMES & GENERATED TOTAL TRAFFIC VOLUMES FOR ENTIRE PROPOSED OAK RIDGE PUD.....	25

CERTIFICATION

I certify that this **TRAFFIC IMPACT ANALYSIS** has been prepared by me and under my immediate supervision and that I have experience and training in the field of traffic and transportation engineering.

A&F ENGINEERING CO., INC.



Steven J. Fehribach, P.E.
Vice President
Indiana Registration 890237



R. Matt Brown, P.E.
Indiana Registration 10200056

INTRODUCTION

This **TRAFFIC IMPACT ANALYSIS**, prepared at the request of the Town of Westfield, on behalf of Wilfong-Kreutz Land Development, is for a proposed mixed-use commercial development called Oak Ridge PUD that will be constructed at the intersection of SR 32 and Oakridge Road in Westfield, Indiana.

PURPOSE

The purpose of this analysis is to determine what effect traffic generated by the proposed development, when fully occupied, will have on the existing adjacent roadway system. This analysis will identify any roadway deficiencies that may exist today or that may occur when this site is developed.

Conclusions will be reached that will determine if the roadway system can accommodate the anticipated traffic volumes or will determine the modifications that will be required to the system if it is determined there will be deficiencies in the system resulting from the increased traffic volumes.

Recommendations will be made that will address the conclusions resulting from this analysis. These recommendations will address feasible roadway system improvements which will accommodate the proposed development traffic volumes such that there will be safe ingress and egress, to and from the proposed development, with minimal interference to traffic on the public street system.

SCOPE OF WORK

The scope of work for this analysis is:

First, to obtain peak hour turning movement traffic volume counts at the intersection of SR 32 & Oakridge Road.

Second, to estimate the number of new trips that will be generated by the proposed development.

Third, to assign the generated traffic volumes to the driveways and/or roadways that will provide access to the proposed development.

Fourth, to distribute the generated traffic volumes from the proposed development onto the public roadway system and intersections identified in the study area.

Fifth, to make year 2017 traffic volume projections at the study intersections based on expected development growth outside of the study area considered in this analysis.

Sixth, to prepare a capacity analysis and level of service analysis for each intersection included in the study area considering each of the following scenarios:

Scenario 1 – Existing Traffic Volumes - Based on existing roadway conditions and traffic volumes.

Scenario 2 – Year 2017 Traffic Volumes - Projected Year 2017 traffic volumes due to background traffic growth.

Scenario 3 – Year 2017 Traffic Volumes + Proposed Development - New traffic volumes that will be generated by the proposed development added to the projected year 2017 traffic volumes.

Finally, to prepare a **TRAFFIC IMPACT ANALYSIS** documenting all data, analyses, conclusions and recommendations to provide for the safe and efficient movement of traffic through the study area.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The proposed mixed-use development will include retail and office land uses located on the north and south side of SR 32 just west of Oakridge Road. The development will be served via four access points (three full, one right-in/right-out) located along Oakridge Road and two access points (one full, one right-in/right-out) along SR 32. **Figure 1A** shows the general location of the site while **Figure 1B** shows a detailed layout of the site including the proposed access drives.

STUDY AREA

The study area defined for this analysis will include the following intersections:

- SR 32 & Oakridge Road
- All proposed access drives serving the proposed development.

Figure 1B is an area map illustrating the location of each of the study intersections and the site layout.

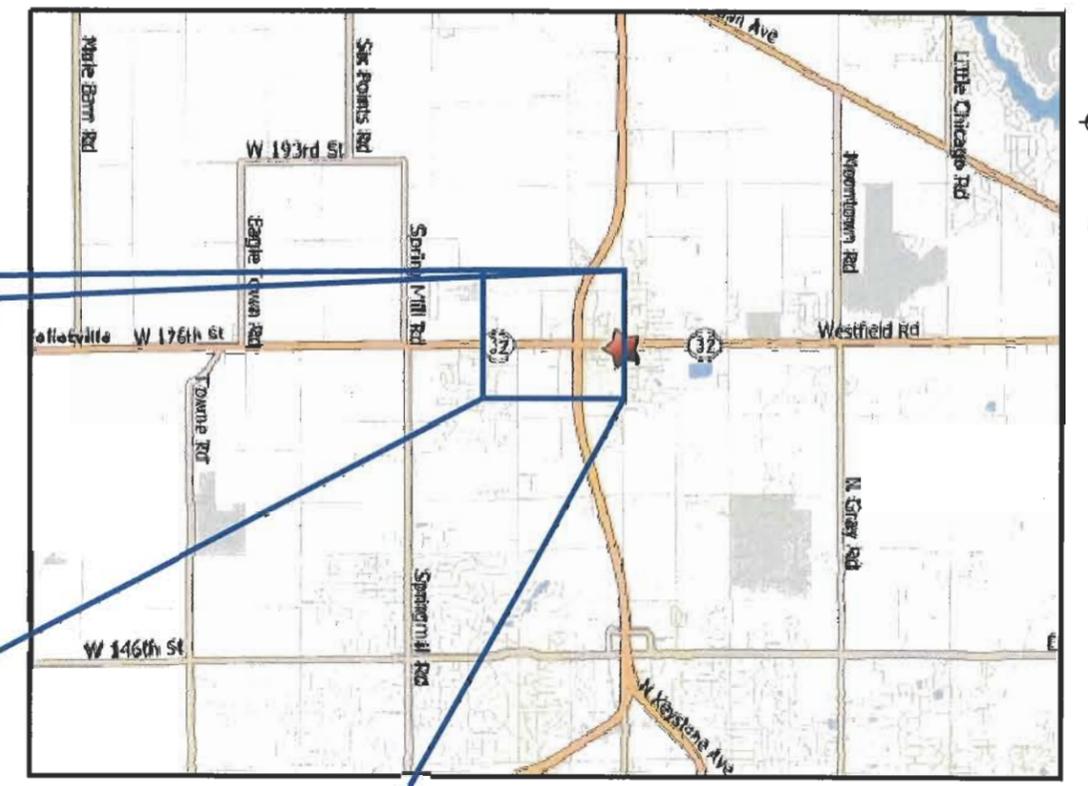


FIGURE 1A
SITE LOCATION MAP

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA



FIGURE 1B
DETAILED SITE MAP

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

DESCRIPTION OF THE ABUTTING STREET SYSTEM

The proposed development will be served by the public roadway system that includes SR 32 and Oakridge Road.

STATE ROAD 32 – is an east/west state roadway that travels across Hamilton County, connecting Westfield to Lebanon and Noblesville. In the vicinity of the site, State Road 32 is currently a two-lane roadway. However, the State of Indiana has plans to widen SR 32 to a five-lane roadway (two through lanes in each direction with a center median/opposing left-turn lanes) beginning in 2008.

OAKRIDGE ROAD – is a north/south two lane roadway that runs from 136th Street to SR 32 providing service to several residential areas.

SR 32 & Oakridge Road – This “T” intersection is controlled with Oakridge Road stopping for SR 32. Currently, the northbound approach includes a left-turn and a right-turn lane, the westbound approach has a through lane with a passing blister and the eastbound approach is made up of a through lane and a right-turn lane. The Indiana Department of Transportation has a future improvement plan for this intersection that will include the following:

- Reconstruction of SR 32 with two through lanes, an exclusive left-turn lane and an exclusive right-turn lane along the eastbound and westbound approaches at the intersection of Oak Ridge Road.
- Future traffic signal installation at the intersection.

The existing and future intersection conditions are graphically illustrated on **Figure 2**.

TRAFFIC DATA

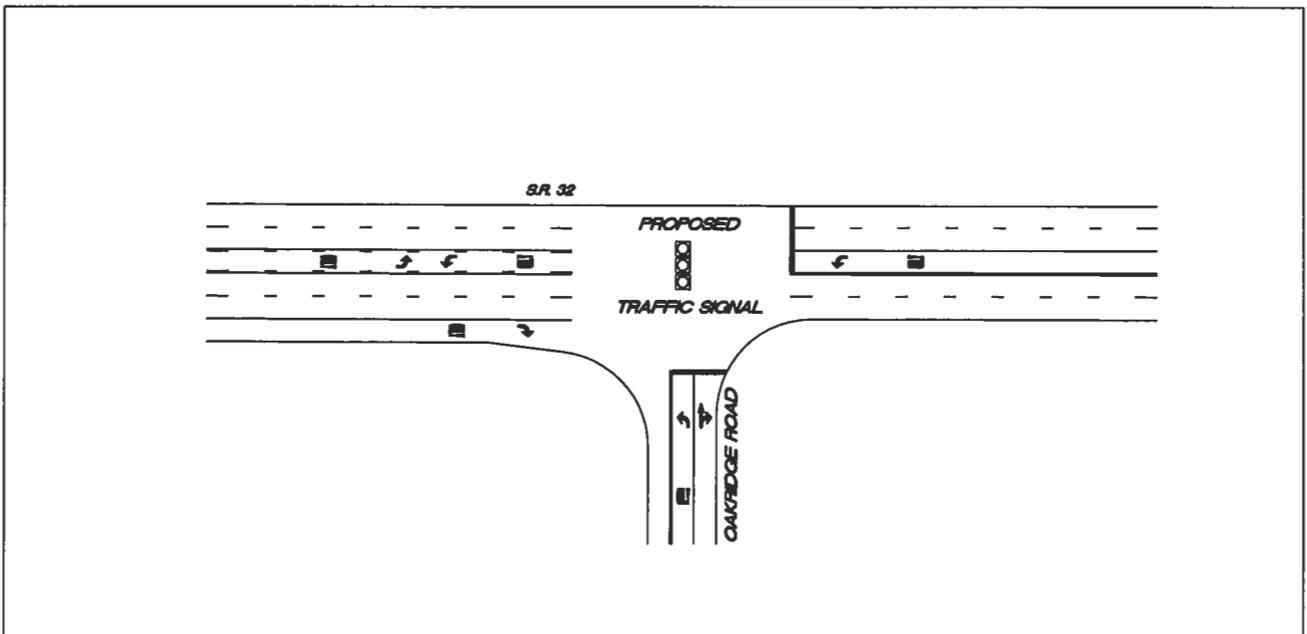
Peak hour manual turning movement traffic volume counts were made by A&F Engineering Co., LLC at the intersection of SR 32 and Oakridge Road. The counts include an hourly total of all "through" traffic and all "turning" traffic at the intersection. The counts were made during the hours of 6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM in August 2007. These traffic volume counts are summarized on **Figure 5** for the peak hours and computer printouts of the data collected for the counts are included in the **Appendix**.

PEAK HOUR

Based on the existing traffic volumes collected for this analysis, the AM weekday peak hour occurs from 7:15 to 8:15 while the PM weekday peak hour occurs from 5:00 to 6:00 within the study area. The traffic volumes collected during these hours will be used for this analysis to represent the maximum traffic volumes within the study area.



S.R. 32 AND OAKRIDGE ROAD - EXISTING



S.R. 32 AND OAKRIDGE ROAD - PROPOSED

FIGURE 2
EXISTING & FUTURE
INTERSECTION GEOMETRICS

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

GROWTH RATE FOR BACKGROUND TRAFFIC (PROJECTED YEAR 2017 TRAFFIC VOLUMES)

In order to estimate the long term traffic impact within the study area, year 2017 traffic volumes were estimated and a ten year analysis scenario was created. Based on past traffic data collected in the area and previous traffic studies completed by A&F Engineering for future developments near the study area, growth rates were formulated to provide an estimate of the year 2017 traffic that will be generated through the study area. At the intersection of SR 32 and Oakridge Road it is estimated that SR 32 through traffic will increase by approximately two and a quarter times over the next ten years if aggressive development patterns occur west on SR 32. Furthermore, Oakridge Road traffic volumes will likely increase by about fifteen percent over this time period. These growth rates were applied to the existing traffic volumes and rough estimates were formulated for northbound through traffic and total southbound traffic along Oakridge Road if it were extended north within the ten year time period. The projected year 2017 traffic volumes are summarized on **Figure 6**.

GENERATED TRAFFIC VOLUMES FOR PROPOSED DEVELOPMENT

The estimate of traffic to be generated by the proposed development is a function of the development size and of the character of the land use. *Trip Generation*¹ report was used to calculate the number of trips that will be generated by the proposed mixed-use commercial development. This report is a compilation of trip data for various land uses as collected by transportation professionals throughout the United States in order to establish the average number of trips generated by those land uses. The table below summarizes the trips that will be generated by the proposed development.

TABLE 1 - GENERATED TRIPS FOR PROPOSED DEVELOPMENT

DEVELOPMENT INFORMATION				GENERATED TRIPS			
LOCATION	LAND USE	ITE CODE	SIZE	AM ENTER	AM EXIT	PM ENTER	PM EXIT
NORTH OF SR 32	Retail	820	27,800 SF	44	28	129	140
	Service Station w/ Car Wash	946	12 Fueling Positions	65	63	80	80
SOUTH OF SR 32	Retail	820	12,600 SF	28	18	77	83
	Pharmacy w/ Drive-Through	881	15,500 SF	24	18	65	68
	General Office	710	56,100 SF	104	14	24	118

¹ *Trip Generation*, Institute of Transportation Engineers, Seventh Edition, 2003.

INTERNAL TRIPS

An internal trip results when a trip is made between two or more land uses without traversing the external public roadway system. Internal trip reduction procedures for mixed-use developments are published within the *ITE Trip Generation Handbook*². For the proposed development considered in this study, trip generation results for land use code 820 already includes internal trips between the general retail land uses within the site. Thus, additional reductions between the general retail land uses (code 820) are not needed. Internal trips between the other land uses within the site will most likely occur. However, trip reductions were not taken in order to create a “worst-case” traffic generation scenario within the study that considers the maximum amount of probable traffic at the study intersections.

PASS-BY TRIPS

Pass-by trips are trips already on the roadway system that are captured by a land use. Retail developments typically generate a significant amount of pass-by trips. Therefore, the pass-by trip procedures in the *ITE Trip Generation Handbook* were used to estimate the pass-by trips for the retail land uses within the proposed development. These uses include the general retail land uses (code 820), the service station and the pharmacy land use. **Table 2** summarizes the pass-by trips for the proposed development.

² *Trip Generation Handbook*, Institute of Transportation Engineers, 2001.

TABLE 2 –PASS-BY TRIP SUMMARY FOR PROPOSED DEVELOPMENT

DEVELOPMENT INFORMATION				GENERATED TRIPS			
LOCATION	LAND USE	ITE CODE	SIZE	AM ENTER	AM EXIT	PM ENTER	PM EXIT
NORTH OF SR 32	Retail	820	27,800 SF	44	28	129	140
	Non Pass-By Trips (43.5%)			19	12	56	61
	Pass-By Trips (56.5%)			25	16	73	79
	Service Station w/ Car Wash	946	12 Fueling Positions	65	63	80	80
	Non Pass-By Trips (44.0%)			29	28	35	35
	Pass-By Trips (56.0%)			36	35	45	45
	TOTAL NORTH NON PASS-BY TRIPS			48	40	91	96
	TOTAL NORTH PASS-BY TRIPS			61	51	118	124
SOUTH OF SR 32	Retail	820	12,600 SF	28	18	77	83
	Non Pass-By Trips (28.9%)			8	5	22	24
	Pass-By Trips (71.1%)			20	13	55	59
	Pharmacy w/ Drive-Through	881	15,500 SF	24	18	65	68
	Non Pass-By Trips (51.0%)			12	9	33	35
	Pass-By Trips (49.0%)			12	9	32	33
	General Office	710	56,100 SF	104	14	24	118
	TOTAL SOUTH NON PASS-BY TRIPS			124	28	79	177
TOTAL SOUTH PASS-BY TRIPS			32	22	87	92	
TOTAL DEVELOPMENT NON PASS-BY TRIPS				172	68	170	273
TOTAL DEVELOPMENT PASS-BY TRIPS				93	73	205	216

ASSIGNMENT AND DISTRIBUTION OF GENERATED TRIPS

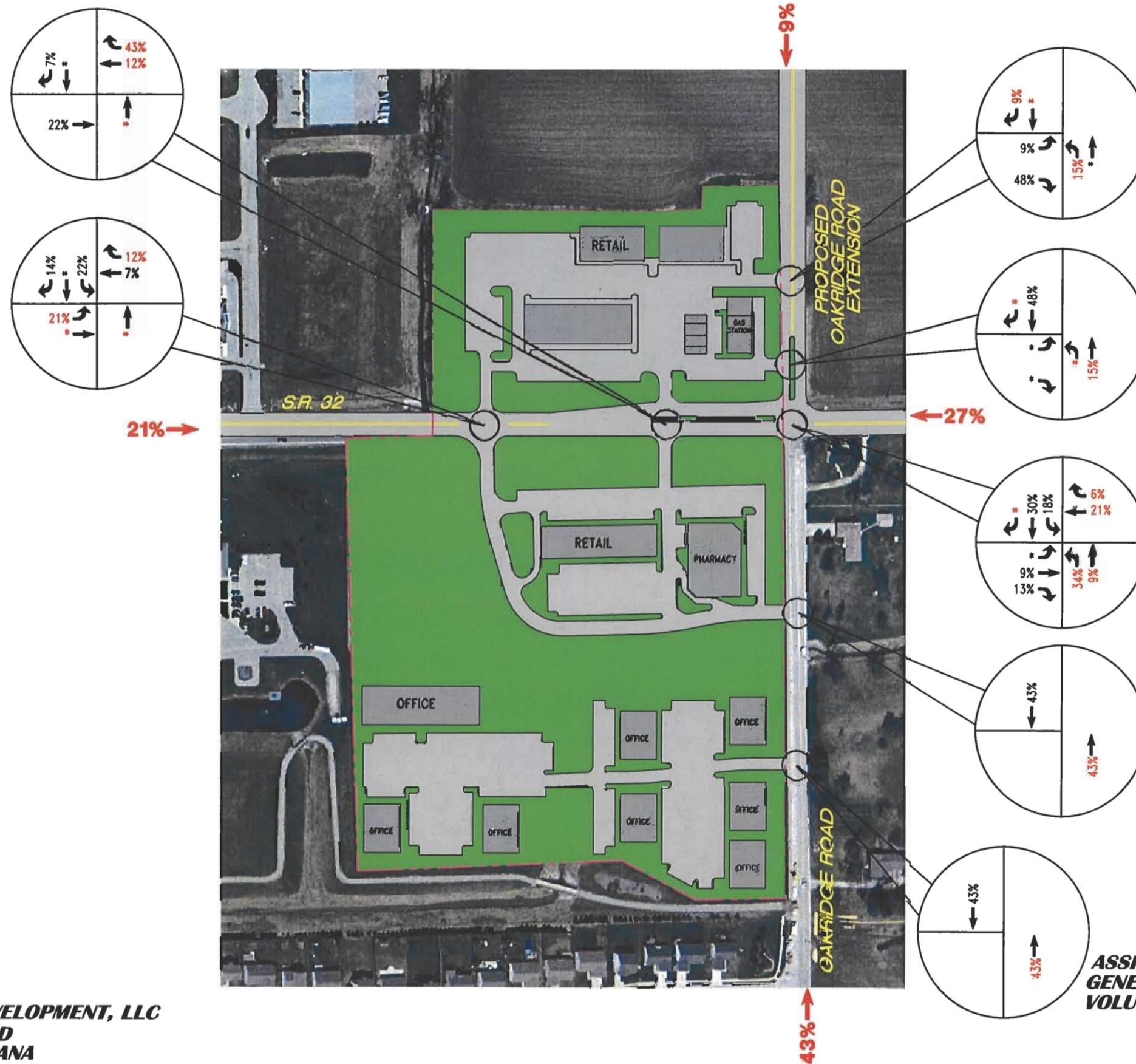
The study methodology used to determine the generated traffic volumes from the proposed development that will be added to the street system is defined as follows:

1. The volume of traffic that will enter and exit the proposed development must be assigned to the various access points and to the public street system. Using the traffic volume data collected for this analysis, traffic to and from the development has been assigned to the proposed driveways and to the public street system that will be serving the site.
2. To determine the volumes of traffic that will be added to the public roadway system, the generated traffic must be distributed by direction to the public roadways at their intersection with the driveways. For the proposed development, the distribution was based on the location of the development with respect to the surrounding public roadway system, the existing traffic patterns and the assignment of generated traffic.

The assignment and distribution of generated non pass-by and pass-by traffic volumes for each portion of the proposed development is shown on **Figure 3A** through **Figure 3I**.

PROPOSED DEVELOPMENT GENERATED TRIPS ADDED TO THE STREET SYSTEM

Generated traffic volumes that can be expected from the proposed development have been prepared at each of the study area intersections. The total generated traffic volumes (non pass-by plus pass-by) for the entire Oak Ridge PUD are shown on **Figure 4**. Additional figures in the **Appendix** show the non pass-by and pass-by generated traffic volumes for each separate land use. These data are based on the previously discussed trip generation data, assignment of generated traffic and distribution of generated traffic.



LEGEND
 OO = INBOUND TRAFFIC
 OO = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

FIGURE 3A
ASSIGNMENT & DISTRIBUTION OF
GENERATED NON PASS-BY TRAFFIC
VOLUMES FOR NORTH SIDE RETAIL
PORTION OF PROPOSED
DEVELOPMENT

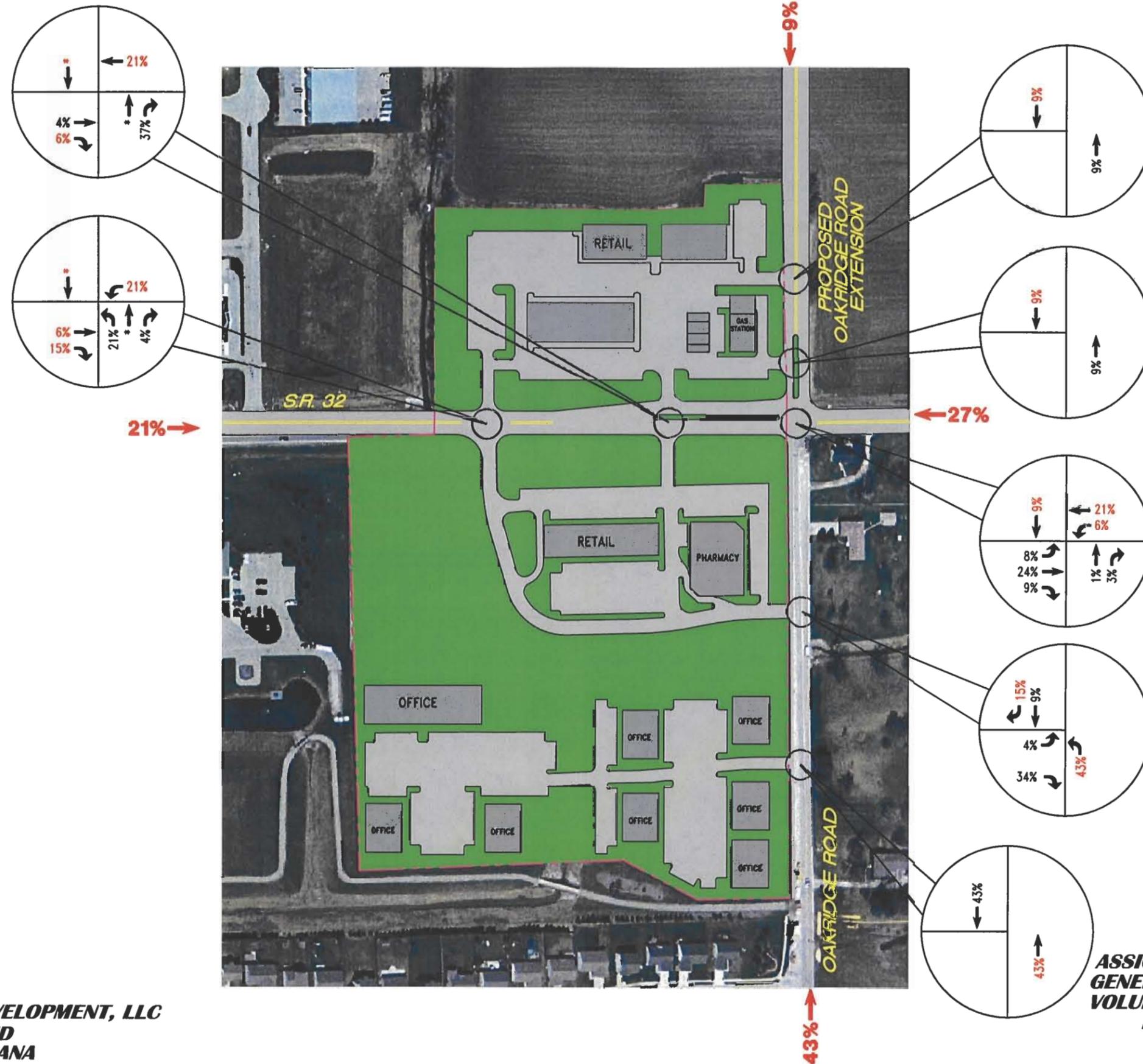
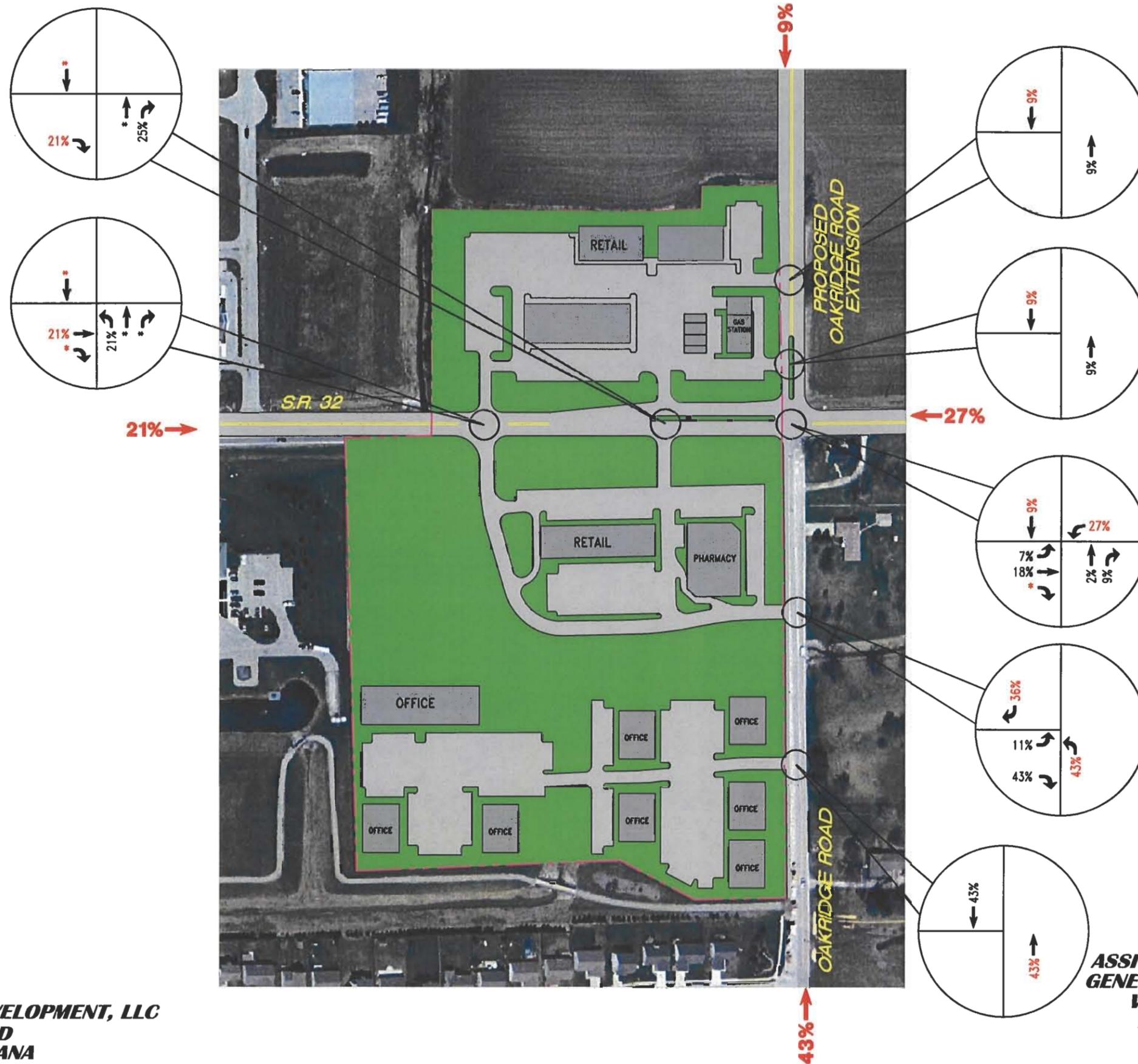


FIGURE 3B
ASSIGNMENT & DISTRIBUTION OF GENERATED NON PASS-BY TRAFFIC VOLUMES FOR SOUTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

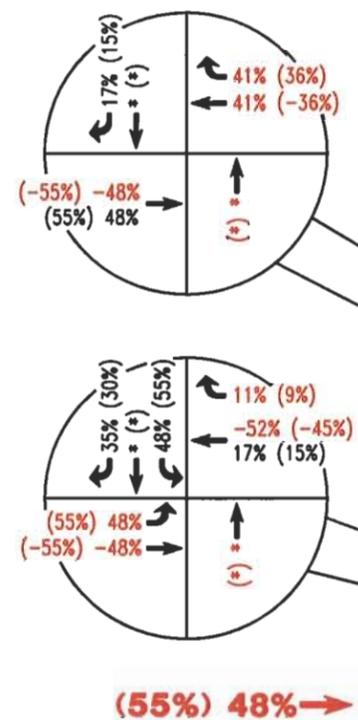


LEGEND
 OO = INBOUND TRAFFIC
 OO = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

FIGURE 3E
ASSIGNMENT & DISTRIBUTION OF
GENERATED NON PASS-BY TRAFFIC
VOLUMES FOR PHARMACY
PORTION OF PROPOSED
DEVELOPMENT

Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 RFL

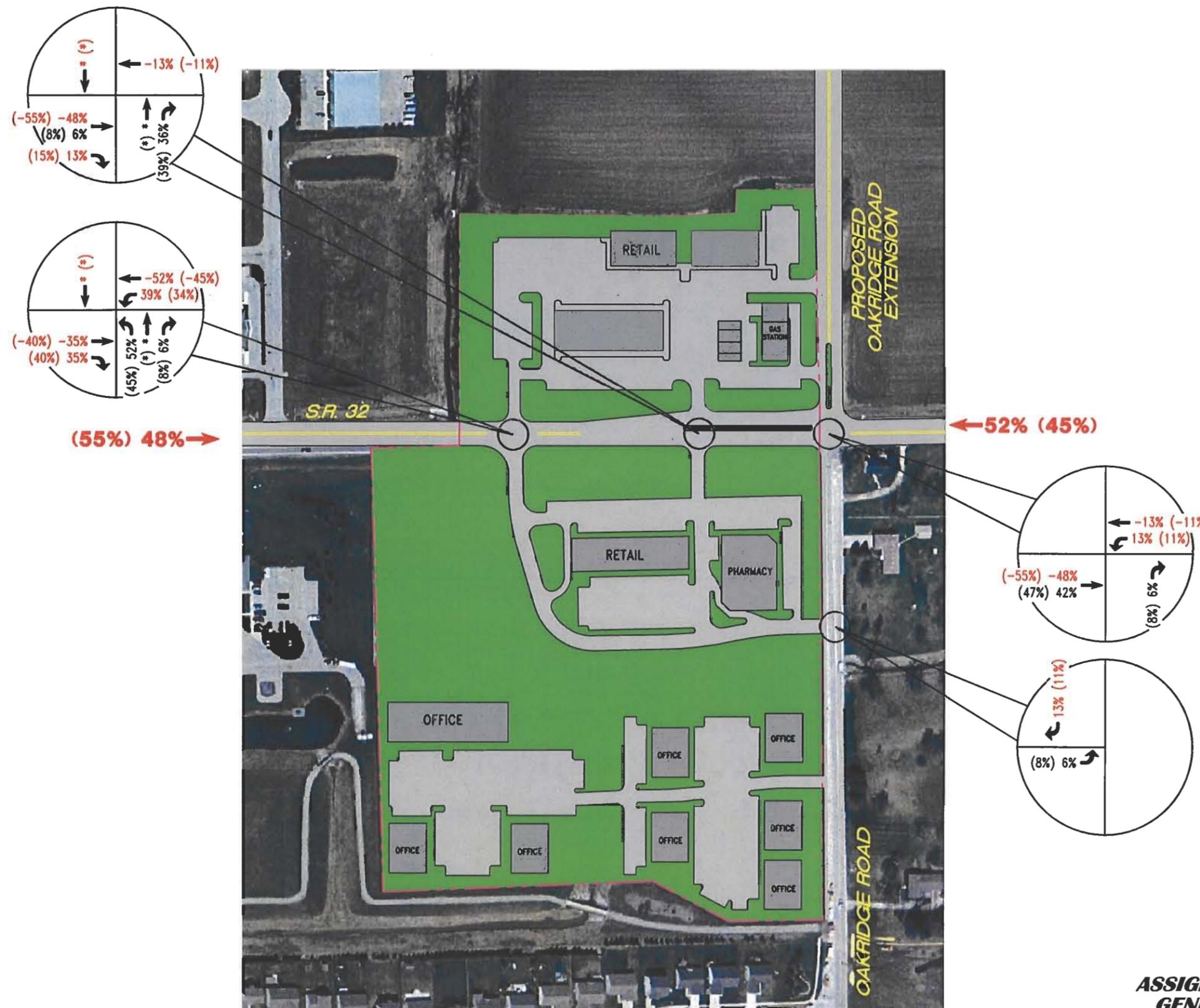


LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 00 = INBOUND TRAFFIC
 00 = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

FIGURE 3F
ASSIGNMENT & DISTRIBUTION OF
GENERATED PASS-BY TRAFFIC
VOLUMES FOR NORTH SIDE RETAIL
PORTION OF PROPOSED
DEVELOPMENT

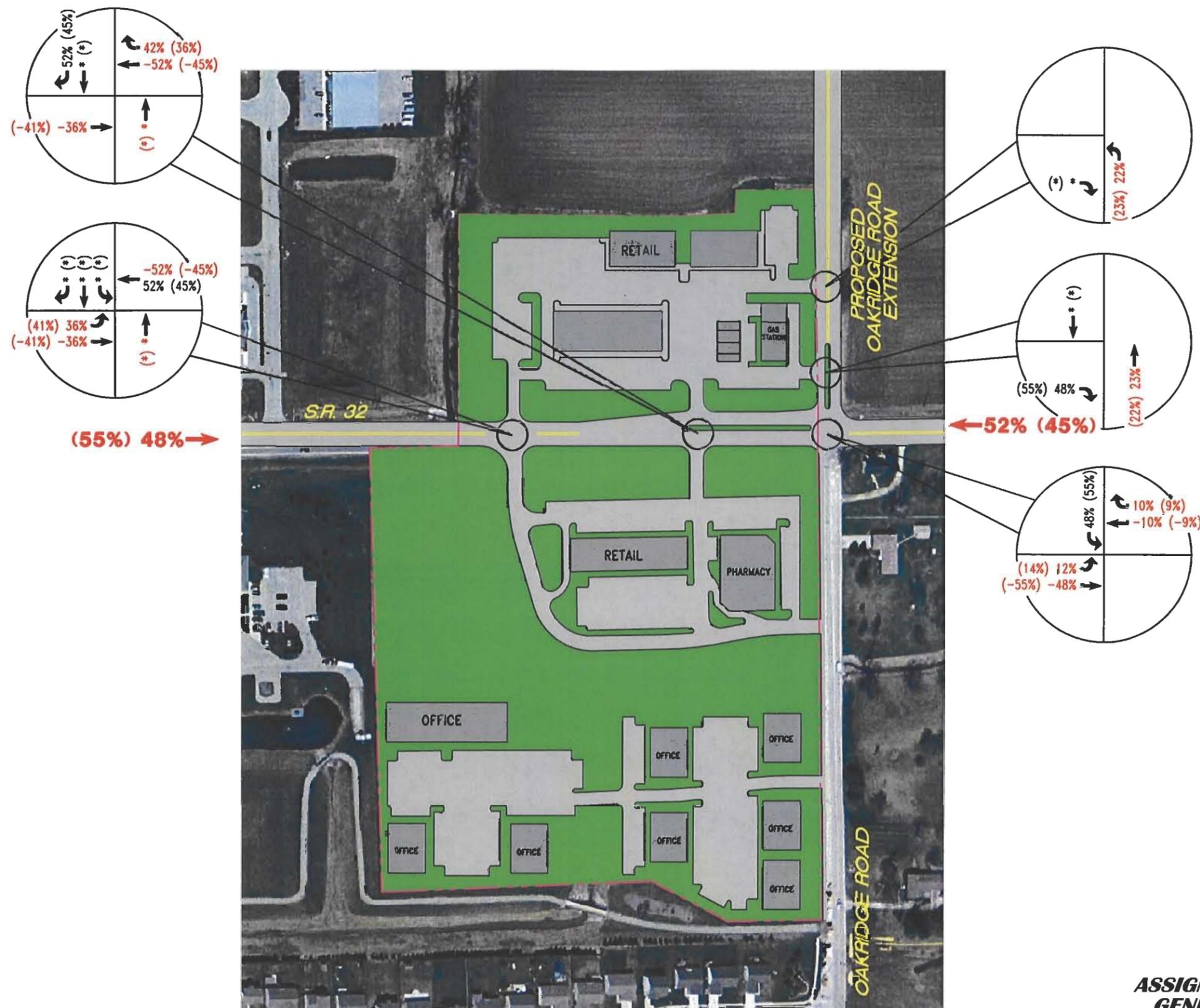
Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 RFL



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 00 = INBOUND TRAFFIC
 00 = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

FIGURE 3G
ASSIGNMENT & DISTRIBUTION OF
GENERATED PASS-BY TRAFFIC
VOLUMES FOR SOUTH SIDE RETAIL
PORTION OF PROPOSED
DEVELOPMENT

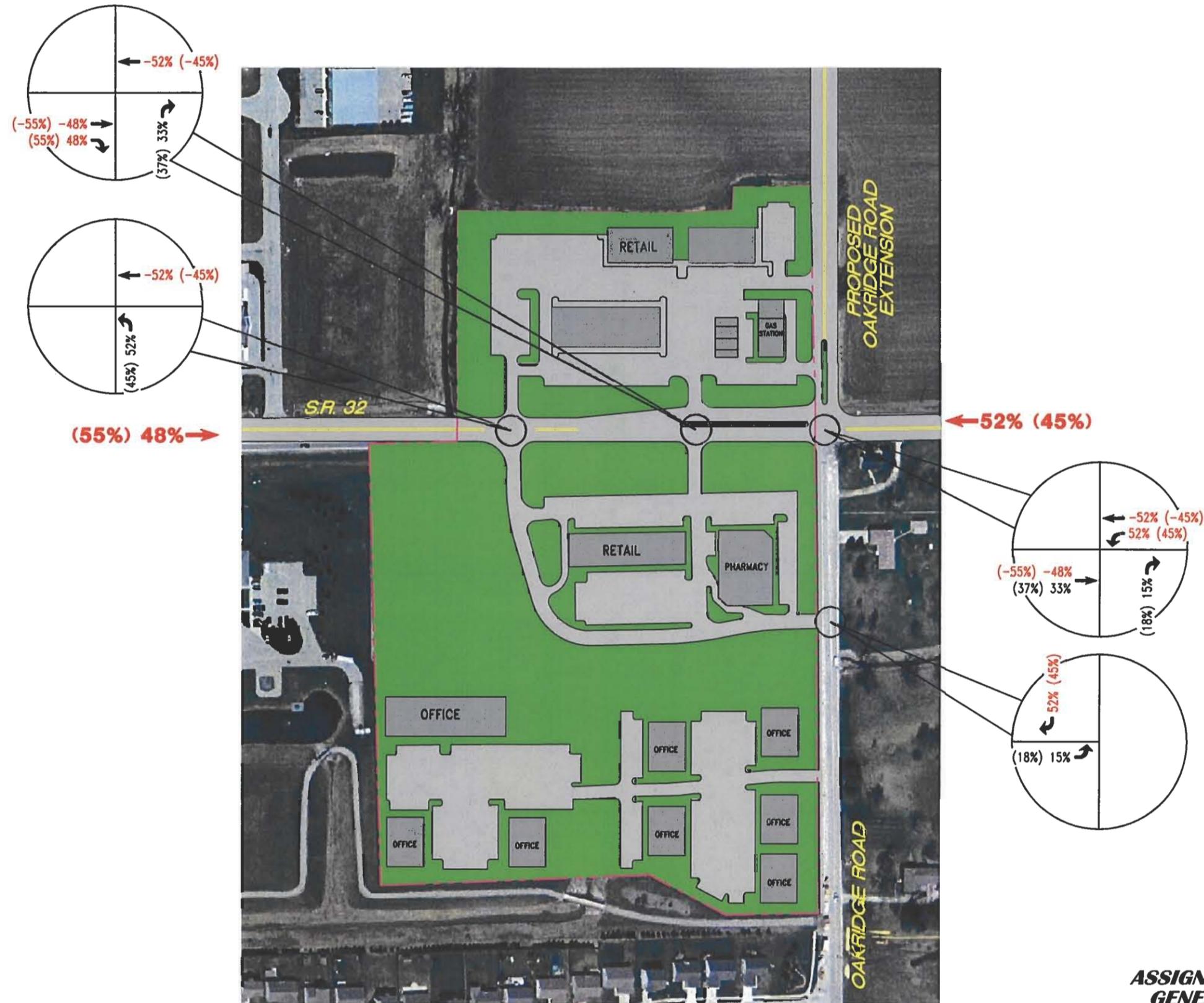


LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 00 = INBOUND TRAFFIC
 00 = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

FIGURE 3H
ASSIGNMENT & DISTRIBUTION OF
GENERATED PASS-BY TRAFFIC
VOLUMES FOR GAS STATION
PORTION OF PROPOSED
DEVELOPMENT

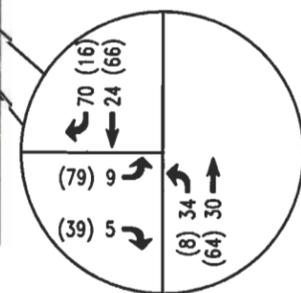
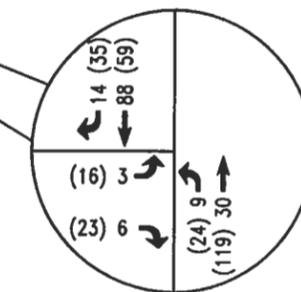
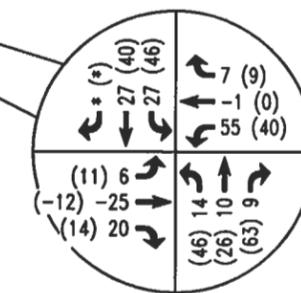
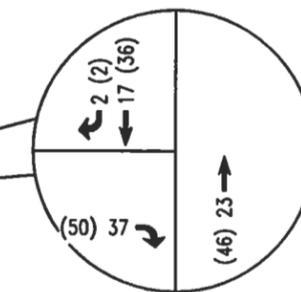
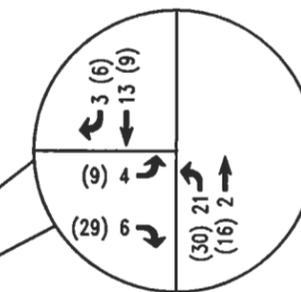
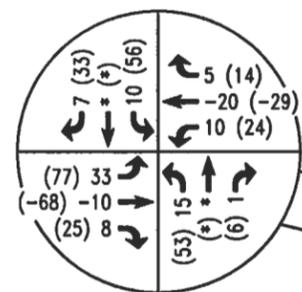
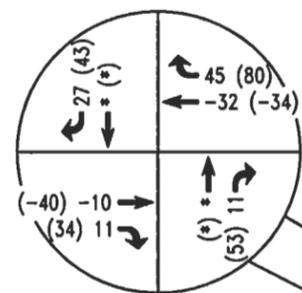
Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 RFL



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 00 = INBOUND TRAFFIC
 00 = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

**WILFONG - KREUTZ LAND DEVELOPMENT, LLC
 OAK RIDGE PUD
 WESTFIELD, INDIANA**

**FIGURE 31
 ASSIGNMENT & DISTRIBUTION OF
 GENERATED PASS-BY TRAFFIC
 VOLUMES FOR PHARMACY
 PORTION OF PROPOSED
 DEVELOPMENT**



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE 4
TOTAL (NON PASS-BY & PASS-BY)
TRAFFIC VOLUMES FOR
ENTIRE PROPOSED
OAK RIDGE PUD

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

CAPACITY ANALYSIS

The "efficiency" of an intersection is based on its ability to accommodate the traffic volumes that approach the intersection. It is defined by the Level-of-Service (LOS) of the intersection. The LOS is determined by a series of calculations commonly called a "capacity analysis". Input data into a capacity analysis include traffic volumes, intersection geometry, number and use of lanes and, in the case of signalized intersections, traffic signal timing. To determine the LOS at each of the study intersections, a capacity analysis has been made using the recognized computer program *Synchro*³. This program allows multiple intersections to be analyzed and optimized using the capacity calculation methods outlined within the *Highway Capacity Manual (HCM)*⁴.

DESCRIPTION OF LEVELS OF SERVICE

The following descriptions are for signalized intersections:

- Level of Service A** - describes operations with a very low delay, less than or equal to 10.0 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all.
- Level of Service B** - describes operations with delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression. More vehicles stop than LOS A, causing higher levels of average delay.
- Level of Service C** - describes operation with delay in the range of 20.1 seconds to 35.0 seconds per vehicle. These higher delays may result from failed progression. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- Level of Service D** - describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At level of service D, the influence of congestion becomes more noticeable. Longer delays may result from some combinations of unfavorable progression. Many vehicles stop, and the proportion of vehicles not stopping declines.
- Level of Service E** - describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression and long cycle lengths.
- Level of Service F** - describes operations with delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

³ *Synchro 7.0*, Trafficware, 2006.

⁴ *Highway Capacity Manual (HCM)* Transportation Research Board, National Research Council, Washington, DC, 2000.

The following list shows the delays related to the levels of service for stop sign controlled intersections.

<u>Level of Service</u>	<u>Control Delay (seconds/vehicle)</u>
A	Less than or equal to 10
B	Between 10.1 and 15
C	Between 15.1 and 25
D	Between 25.1 and 35
E	Between 35.1 and 50
F	greater than 50

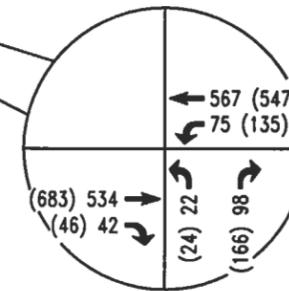
CAPACITY ANALYSES SCENARIOS

To evaluate the proposed development's effect on the public street system, the traffic volumes from each of the various parts must be added together to form a series of scenarios that can be analyzed. The analysis of these scenarios determines the adequacy of the existing roadway system. From the analysis, recommendations can be made to improve the public street system so it will accommodate the increased future traffic volumes. An analysis has been made for the AM peak hour and PM peak hour for each of the study intersections for each of the following scenarios:

- SCENARIO 1: *Existing Traffic Volumes* - These are the existing traffic volumes that were collected in August of 2007. **Figure 5** is a summary of these traffic volumes at the study intersections for the peak hours.
- SCENARIO 2: *Projected Year 2017 Traffic Volumes* – Projected year 2017 peak hour traffic volumes due to future development. These traffic volumes are shown on **Figure 6**.
- SCENARIO 3: *Projected Year 2017 Traffic Volumes & Generated Traffic Volumes from Proposed Development* – New traffic volumes generated by the proposed development added to the projected year 2017 traffic volumes. **Figure 7** is a summary of these traffic volumes at the study intersections for the peak hours.

The requested analyses have been completed and the computer solutions showing the level of service results are included in the **Appendix**. The following tables summarize the level of service analyses results:

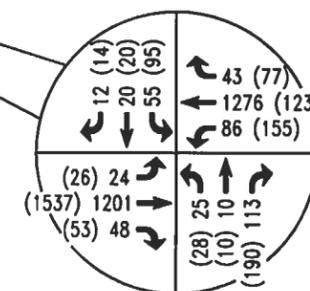
- Table 3** – SR 32 & Oakridge Road
- Table 4** – SR 32 & West Access Drive
- Table 5** – SR 32 & East Access Drive
- Table 6** – Oakridge Road & North Access Drive
- Table 7** – Oakridge Road & South Access Drive
- Table 8** – Oakridge Road Extension & North Access Drive
- Table 9** – Oakridge Road Extension & South Access Drive



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE 5
EXISTING TRAFFIC VOLUMES

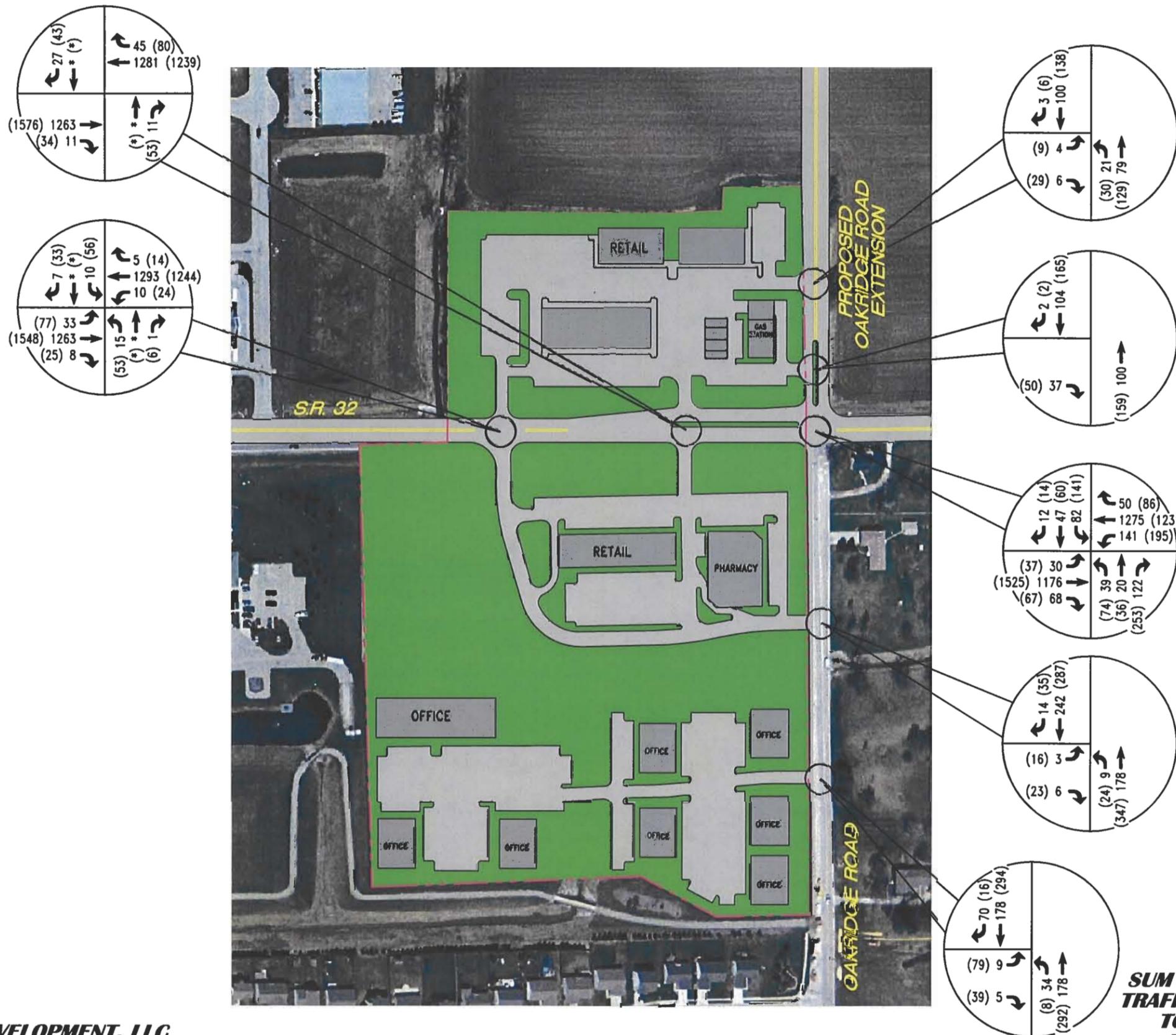
WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

FIGURE 6
PROJECTED YEAR 2017
TRAFFIC VOLUMES



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

FIGURE 7
SUM OF PROJECTED YEAR 2017
TRAFFIC VOLUMES & GENERATED
TOTAL TRAFFIC VOLUMES
FOR ENTIRE PROPOSED
OAK RIDGE PUD

Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 RFL

TABLE 3 - LEVEL OF SERVICE SUMMARY: SR 32 & OAKRIDGE ROAD

AM PEAK HOUR

MOVEMENT	SCENARIO		
	1	2	3
Northbound Approach	C	C	C
Southbound Approach	---	C	C
Eastbound Approach	---	B	B
Westbound Approach	A	B	B
Intersection	N/A	B	B

PM PEAK HOUR

MOVEMENT	SCENARIO		
	1	2	3
Northbound Approach	D	D	D
Southbound Approach	---	C	D
Eastbound Approach	---	C	C
Westbound Approach	B	B	C
Intersection	N/A	C	C

DESCRIPTION OF SCENARIOS:

SCENARIO 1: Existing Traffic Volumes with Existing Intersection Control and Geometrics

SCENARIO 2: Projected Year 2017 Traffic Volumes with Future Intersection Geometrics and Traffic Signal*

SCENARIO 3: Sum of Projected Year 2017 Traffic Volumes and Generated Traffic Volumes from Proposed Development with Future Intersection Geometrics and Traffic Signal*

* The future intersection geometrics as planned by INDOT include the following:

- Eastbound: Two through lanes, and a right-turn lane
- Westbound: Two through lanes and a left-turn lane
- Northbound: Two northbound lanes

In addition, the proposed development will facilitate a northern extension of Oakridge Road to the north site boundary. This extension will most likely be continued in the future by the Town of Westfield per long range plans. To immediately serve the proposed development the extension will be constructed to the north site boundary. The extension should be constructed with two southbound lanes at SR 32. Furthermore, the construction of a westbound right-turn lane and an eastbound left-turn lane should be required in addition to the SR 32 INDOT improvements to facilitate traffic movements from SR 32 onto the Oakridge Road extension.

TABLE 4 - LEVEL OF SERVICE SUMMARY: SR 32 & WEST ACCESS DRIVE

AM PEAK HOUR

MOVEMENT	SCENARIO
Northbound Approach	E
Southbound Approach	C
Eastbound Left-Turn	B
Westbound Left-Turn	B

PM PEAK HOUR

MOVEMENT	SCENARIO
Northbound Approach	F
Southbound Approach	E
Eastbound Left-Turn	B
Westbound Left-Turn	C

DESCRIPTION OF SCENARIOS:

SCENARIO 3: Sum of Projected Year 2017 Traffic Volumes and Generated Traffic Volumes from Proposed Development with Proposed Intersection Conditions*

- * The proposed intersection conditions include the following:
- The access drives (south and north legs) constructed with two outbound lanes and one inbound lane
 - The development of an eastbound and westbound left-turn lane along SR 32 at the access drives. The space for these turn lanes will be created under INDOT's future SR 32 expansion.
 - The construction of an eastbound right-turn lane along SR 32 to serve the south leg of the access drive.
 - The intersection stop controlled with the access drives stopping for SR 32.

TABLE 5 - LEVEL OF SERVICE SUMMARY: SR 32 & EAST ACCESS DRIVE

AM PEAK HOUR

MOVEMENT	SCENARIO
Northbound Approach	B
Southbound Approach	B

PM PEAK HOUR

MOVEMENT	SCENARIO
Northbound Approach	C
Southbound Approach	B

DESCRIPTION OF SCENARIOS:

SCENARIO 3: Sum of Projected Year 2017 Traffic Volumes and Generated Traffic Volumes from Proposed Development with Proposed Intersection Conditions*

* The proposed intersection conditions include the following:

- The access drives (south and north legs) constructed as right-in/right-out drives with one exiting lane and one entering lane.
- The construction of an eastbound and westbound right-turn lane along SR 32 at the access drives. A 100 foot recovery taper should also be constructed west of the access on the north side of SR 32.
- The intersection stop controlled with the access drives stopping for SR 32.

TABLE 6 - LEVEL OF SERVICE SUMMARY: OAKRIDGE ROAD & NORTH ACCESS DRIVE

AM PEAK HOUR

MOVEMENT	SCENARIO
	3
Northbound Left-Turn	A
Eastbound Approach	B

PM PEAK HOUR

MOVEMENT	SCENARIO
	3
Northbound Left-Turn	A
Eastbound Approach	B

DESCRIPTION OF SCENARIOS:

SCENARIO 3: Sum of Projected Year 2017 Traffic Volumes and Generated Traffic Volumes from Proposed Development with Proposed Intersection Conditions*

- * The proposed intersection conditions include the following:
- The access drive constructed with two outbound lanes and one inbound lane
 - The development of a northbound left-turn treatment (passing blister or turn-lane) along Oakridge Road at the access drive.
 - The construction of a southbound right-turn lane along Oakridge Road at the access drive.
 - The intersection stop controlled with the access drive stopping for Oakridge Road.

TABLE 7 - LEVEL OF SERVICE SUMMARY: OAKRIDGE ROAD & SOUTH ACCESS DRIVE

AM PEAK HOUR

MOVEMENT	SCENARIO
	3
Northbound Left-Turn	A
Eastbound Approach	B

PM PEAK HOUR

MOVEMENT	SCENARIO
	3
Northbound Left-Turn	A
Eastbound Approach	B

DESCRIPTION OF SCENARIOS:

SCENARIO 3: Sum of Projected Year 2017 Traffic Volumes and Generated Traffic Volumes from Proposed Development with Proposed Intersection Conditions*

- * The proposed intersection conditions include the following:
- The access drive constructed with two outbound lanes and one inbound lane
 - The development of a northbound left-turn treatment (passing blister or turn-lane) along Oakridge Road at the access drive.
 - The construction of a southbound right-turn lane along Oakridge Road at the access drive.
 - The intersection stop controlled with the access drive stopping for Oakridge Road.

TABLE 8 - LEVEL OF SERVICE SUMMARY: OAKRIDGE ROAD EXTENSION & NORTH ACCESS DRIVE

AM PEAK HOUR

MOVEMENT	SCENARIO
Northbound Left-Turn	A
Eastbound Approach	A

PM PEAK HOUR

MOVEMENT	SCENARIO
Northbound Left-Turn	A
Eastbound Approach	A

DESCRIPTION OF SCENARIOS:

SCENARIO 3: Sum of Projected Year 2017 Traffic Volumes and Generated Traffic Volumes from Proposed Development with Proposed Intersection Conditions*

* The proposed intersection conditions include the following:

- The access drive constructed with at least one outbound lane and one inbound lane
- The development of a northbound left-turn treatment (passing blister or turn-lane) along the Oakridge Road Extension at the access drive.
- The construction of a southbound right-turn lane along the Oakridge Road Extension at the access drive.
- The intersection stop controlled with the access drive stopping for the Oakridge Road Extension.

TABLE 9 - LEVEL OF SERVICE SUMMARY: OAKRIDGE ROAD EXTENSION & SOUTH ACCESS DRIVE

AM PEAK HOUR

MOVEMENT	SCENARIO
Eastbound Approach	A

PM PEAK HOUR

MOVEMENT	SCENARIO
Eastbound Approach	A

DESCRIPTION OF SCENARIOS:

SCENARIO 3: Sum of Projected Year 2017 Traffic Volumes and Generated Traffic Volumes from Proposed Development with Proposed Intersection Conditions*

- * The proposed intersection conditions include the following:
- The access drive constructed as a right-in/right-out drive with one exiting lane and one entering lane.
 - The construction of a southbound right-turn lane along the Oakridge Road Extension at the access drive.
 - The intersection stop controlled with the access drive stopping for the Oakridge Road Extension.

CONCLUSIONS

The conclusions that follow are based on existing traffic volume data, trip generation, assignment and distribution of generated traffic, capacity analyses with the resulting levels of service that have been prepared at the study intersections and the field review conducted at the site. These conclusions apply only to the AM peak hour and PM peak hour that were addressed in this analysis. These peak hours are when the largest volumes of traffic will occur. Therefore, if the resulting level of service is adequate during these time periods, it can generally be assumed that the remaining 22 hours will have levels of service that are equal to or better than the peak hour, since the roadway traffic volumes will be less during the other 22 hours.

SR 32 & OAKRIDGE ROAD

Existing Traffic (Scenario 1) - A review of the level of service for each of the intersection approaches, with the existing traffic volumes and existing intersection conditions, has shown that this intersection operates at acceptable levels during the AM peak hour and PM peak hour. However, short periods of extended delay are not uncommon along the northbound approach during the PM peak hour.

Projected Year 2017 Traffic Volumes (Scenario 2) - When the projected year 2017 traffic volumes are analyzed, results show that this intersection will operate at acceptable levels of service with the proposed intersection conditions proposed by INDOT.

Sum of Projected Year 2017 Projected Traffic Volumes and Generated Traffic from Proposed Development (Scenario 3) - When the traffic volumes generated by full build-out of the proposed Oak Ridge PUD are added to the projected year 2017 traffic volumes, this intersection will continue to operate at acceptable levels of service during the peak hours with the conditions proposed per the INDOT SR 32 reconstruction plans and minor modifications needed to accommodate an Oak Ridge Road extension to the north. These modifications include construction of a Oakridge Road extension with two southbound lanes and a single northbound lane and the construction of an exclusive eastbound left-turn lane and an exclusive westbound right-turn lane along SR 32 at the intersection with Oakridge Road.

SR 32 & WEST ACCESS DRIVE

Sum of Projected Year 2017 Projected Traffic Volumes and Generated Traffic from Proposed Development (Scenario 3) - When the traffic volumes generated by full build-out of the proposed Oak Ridge PUD are added to the projected year 2017 traffic volumes, the SR 32 approaches will operate at acceptable levels of service during the peak hours with the SR 32 improvements planned by INDOT and the recommended turn lanes for the development. The northbound and southbound approaches could experience short periods of delay during the peak hours due to the amount of traffic wishing to exit the drive and the amount of through traffic along SR 32. However, the proposed downstream traffic signal at Oakridge Road will create significant gaps in the through traffic stream along SR 32 that will be useful for vehicles exiting the drives.

SR 32 & EAST ACCESS DRIVE

Sum of Projected Year 2017 Projected Traffic Volumes and Generated Traffic from Proposed Development (Scenario 3) - When the traffic volumes generated by full build-out of the proposed Oak Ridge PUD are added to the projected year 2017 traffic volumes, all approaches at this intersection will operate at acceptable levels of service with the planned SR 32 improvements by INDOT, the proposed right-in/right-out access control for this drive and the recommended turn lanes along SR 32 for the development.

OAKRIDGE ROAD & NORTH ACCESS DRIVE

Sum of Projected Year 2017 Projected Traffic Volumes and Generated Traffic from Proposed Development (Scenario 3) - When the traffic volumes generated by full build-out of the proposed Oak Ridge PUD are added to the projected year 2017 traffic volumes, all approaches at this intersection will operate at acceptable levels of service with the conditions outlined in the *Recommendations* section of this report.

OAKRIDGE ROAD & SOUTH ACCESS DRIVE

Sum of Projected Year 2017 Projected Traffic Volumes and Generated Traffic from Proposed Development (Scenario 3) - When the traffic volumes generated by full build-out of the proposed Oak Ridge PUD are added to the projected year 2017 traffic volumes, all approaches at this intersection will operate at acceptable levels of service with the conditions outlined in the *Recommendations* section of this report.

OAKRIDGE ROAD EXTENSION & NORTH ACCESS DRIVE

Sum of Projected Year 2017 Projected Traffic Volumes and Generated Traffic from Proposed Development (Scenario 3) - When the traffic volumes generated by full build-out of the proposed Oak Ridge PUD are added to the projected year 2017 traffic volumes, all approaches at this intersection will operate at acceptable levels of service with the conditions outlined in the *Recommendations* section of this report.

OAKRIDGE ROAD EXTENSION & SOUTH ACCESS DRIVE

Sum of Projected Year 2017 Projected Traffic Volumes and Generated Traffic from Proposed Development (Scenario 3) - When the traffic volumes generated by full build-out of the proposed Oak Ridge PUD are added to the projected year 2017 traffic volumes, all approaches at this intersection will operate at acceptable levels of service with the conditions outlined in the *Recommendations* section of this report.

RECOMMENDATIONS

Based on the analysis and conclusions, the following recommendations are made to ensure that the roadway system will operate at acceptable levels of service after the future traffic volumes due to area growth and due to full development of the proposed Oak Ridge Point are added to the roadway network.

SR 32 & OAKRIDGE ROAD

The Indiana Department of Transportation will likely reconstruct this intersection within year 2008. The reconstruction plans for this intersection call for the following geometrics and the installation of a traffic signal.

Eastbound Approach: Two through lanes and an exclusive right turn lane

Westbound Approach: Two through lanes and an exclusive left-turn lane

Northbound Approach: An exclusive left-turn lane and an exclusive right-turn lane

In addition to the INDOT improvements, modification will be needed at this intersection to serve the proposed Oak Ridge PUD. These modifications include the construction of an Oakridge Road extension north of SR 32 that will serve the proposed development and could be extended in the future by the Town of Westfield. In addition, the construction of an exclusive eastbound left-turn lane and an exclusive westbound right-turn lane along SR 32 at Oakridge Road to serve vehicles

turning north from SR 32 onto the proposed extension will be necessary when the extension is constructed.

SR 32 & WEST ACCESS DRIVE

The Indiana Department of Transportation will likely begin construction on SR 32 at this location within year 2008. The SR 32 improvements will create a five-lane roadway section with two through lanes in each direction and a center median/left-turn lane. Additional improvements above those planned by INDOT will be required in order to adequately serve the development. These improvements include the following:

- The access drives (south and north legs) constructed with two outbound lanes and one inbound lane
- The development of an eastbound and westbound left-turn lane along SR 32 at the access drives. These turn lanes will be created within the added center turn-lane/median created by INDOT under the future SR 32 widening project.
- The construction of an eastbound right-turn lane along SR 32 to serve the south leg of the access drive.
- The intersection stop controlled with the access drives stopping for SR 32.

SR 32 & EAST ACCESS DRIVE

The Indiana Department of Transportation will likely begin construction on SR 32 at this location within year 2008. The SR 32 improvements will create a five-lane roadway section with two through lanes in each direction and a center median/left-turn lane. Additional improvements above those planned by INDOT will be required in order to adequately serve the development. These improvements include the following:

- The access drives (south and north legs) constructed as right-in/right-out only with one inbound lane and one outbound lane. Access control will be provided via the construction of a raised median on SR 32 in the vicinity of the drives.
- The construction of an eastbound and westbound right-turn lane along SR 32 at the access drives. A 100 foot recovery taper should also be constructed west of the access on the north side of SR 32.
- The intersection stop controlled with the access drives stopping for SR 32.

OAKRIDGE ROAD & NORTH ACCESS DRIVE

In order to safely and efficiently serve the generated traffic volumes from the proposed development, the intersection should be designed to include the following:

- The access drive constructed with two outbound lanes and one inbound lane
- The development of a northbound left-turn treatment (passing blister or turn-lane) along Oakridge Road at the access drive.
- The construction of a southbound right-turn lane along Oakridge Road at the access drive.
- The intersection stop controlled with the access drive stopping for Oakridge Road.

OAKRIDGE ROAD & SOUTH ACCESS DRIVE

In order to safely and efficiently serve the generated traffic volumes from the proposed development, the intersection should be designed to include the following:

- The access drive constructed with two outbound lanes and one inbound lane
- The development of a northbound left-turn treatment (passing blister or turn-lane) along Oakridge Road at the access drive.
- The construction of a southbound right-turn lane along Oakridge Road at the access drive.
- The intersection stop controlled with the access drive stopping for Oakridge Road.

OAKRIDGE ROAD EXTENSION & NORTH ACCESS DRIVE

In order to safely and efficiently serve the generated traffic volumes from the proposed development, the intersection should be designed to include the following:

- The access drive constructed with at least one outbound lane and one inbound lane
- The development of a northbound left-turn treatment (passing blister or turn-lane) along the Oakridge Road Extension at the access drive.
- The construction of a southbound right-turn lane along the Oakridge Road Extension at the access drive.
- The intersection stop controlled with the access drive stopping for the Oak Ridge Road Extension.

OAKRIDGE ROAD EXTENSION & SOUTH ACCESS DRIVE

In order to safely and efficiently serve the generated traffic volumes from the proposed development, the intersection should be designed to include the following:

- The access drive constructed as a right-in/right-out drive with one exiting lane and one entering lane.
- The construction of a southbound right-turn lane along the Oakridge Road Extension at the access drive.
- The intersection stop controlled with the access drive stopping for the Oak Ridge Road Extension.

TRAFFIC IMPACT ANALYSIS

APPENDIX

TABLE OF CONTENTS

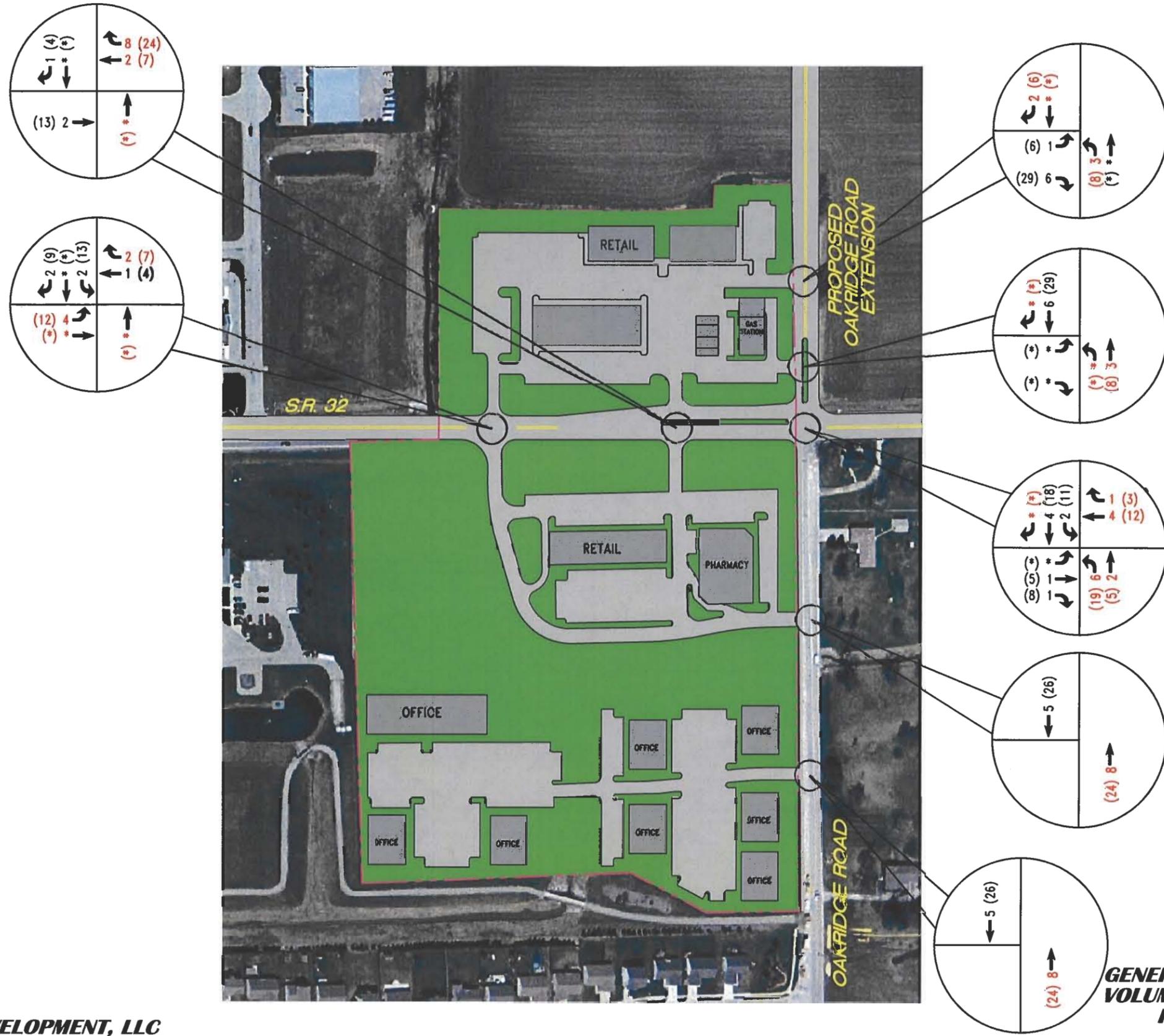
ADDITIONAL FIGURES	1
SR 32 & OAKRIDGE ROAD	15
SR 32 & WEST ACCESS DRIVE	24
SR 32 & EAST ACCESS DRIVE	27
OAKRIDGE ROAD & NORTH ACCESS DRIVE	30
OAKRIDGE ROAD & SOUTH ACCESS DRIVE	33
OAKRIDGE ROAD EXTENSION & NORTH ACCESS DRIVE	36
OAKRIDGE ROAD EXTENSION & SOUTH ACCESS DRIVE	39



Creating Order Since 1966

***8365 Keystone Crossing Boulevard, Suite 201
Indianapolis, IN 46240
Phone: (317) 202-0864 Fax: (317) 202-0908***

ADDITIONAL FIGURES

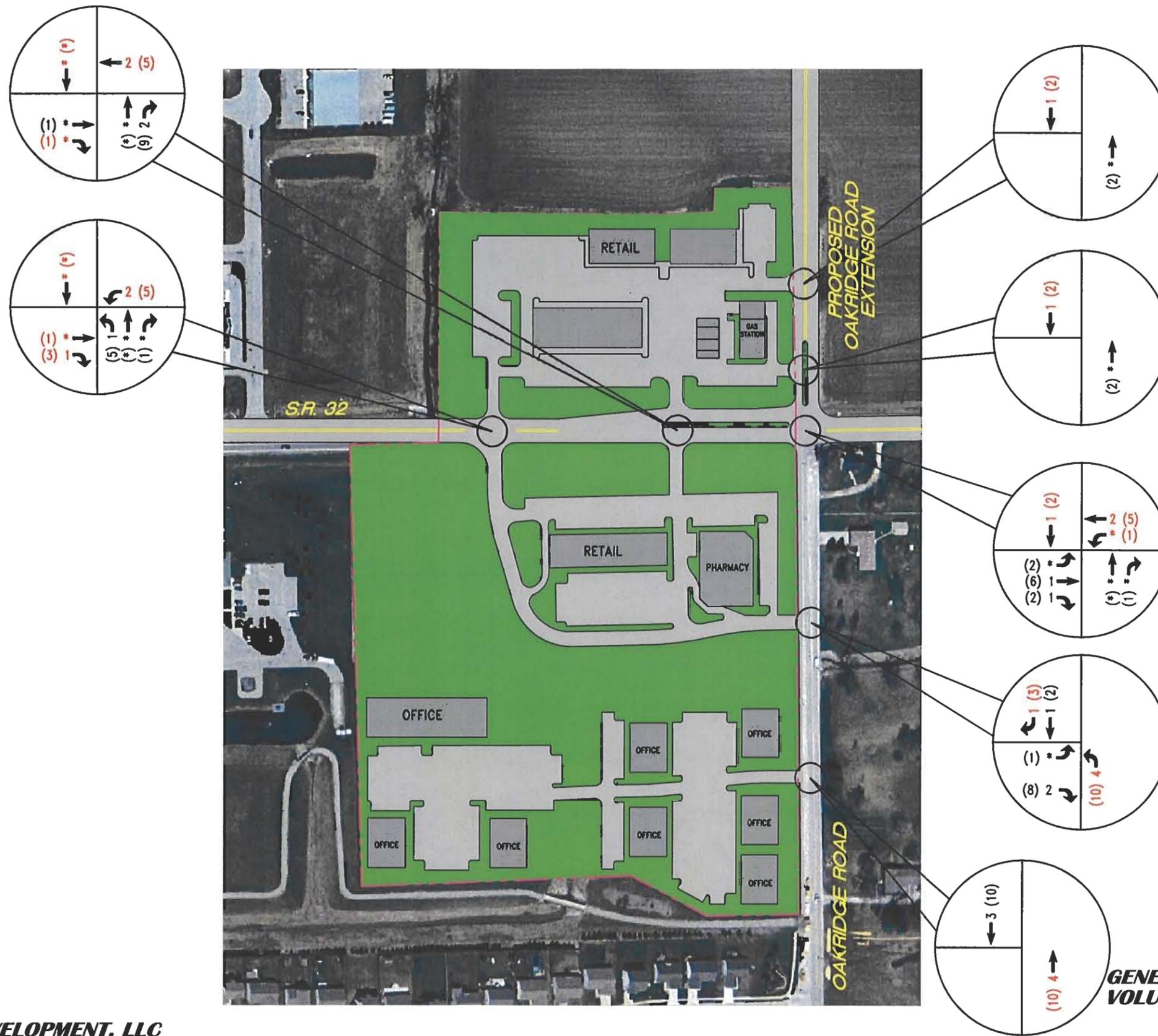


LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 00 = INBOUND TRAFFIC
 00 = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

FIGURE A
GENERATED NON PASS-BY TRAFFIC VOLUMES FOR NORTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 RFL

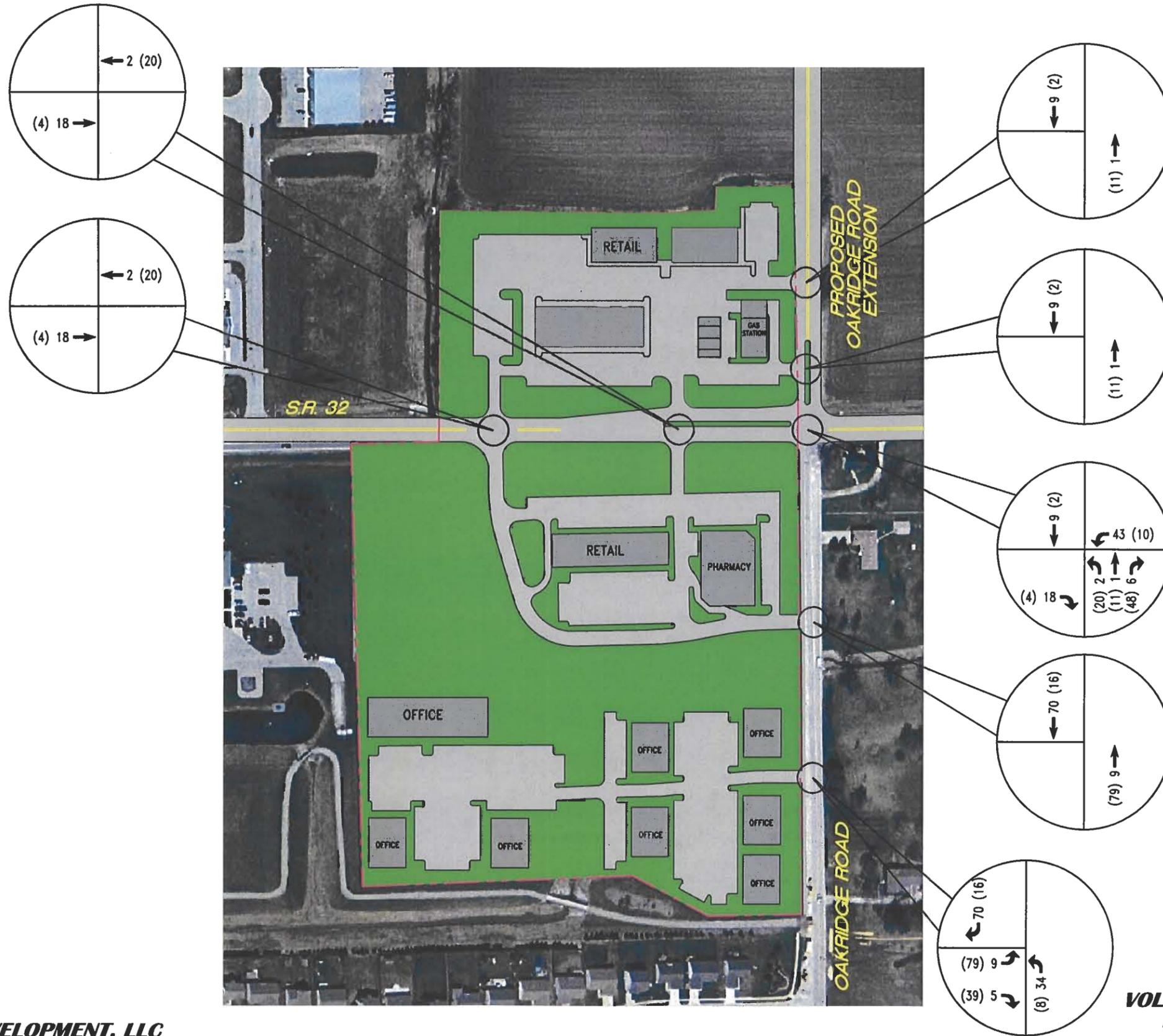


LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 00 = INBOUND TRAFFIC
 00 = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

FIGURE B
GENERATED NON PASS-BY TRAFFIC VOLUMES FOR SOUTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT

Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 RFL

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE D
GENERATED TRAFFIC VOLUMES FOR GENERAL OFFICE PORTION OF PROPOSED DEVELOPMENT

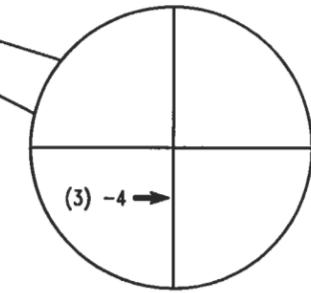
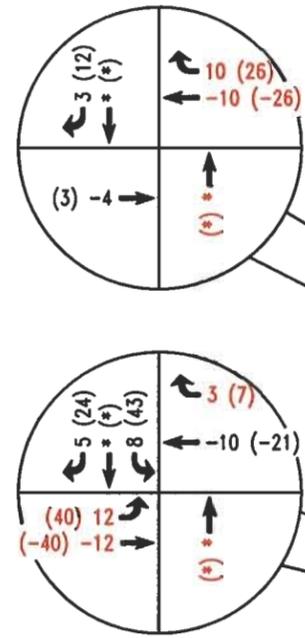
WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 RFL



Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 RFL

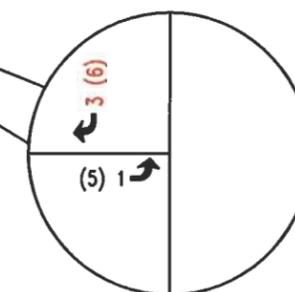
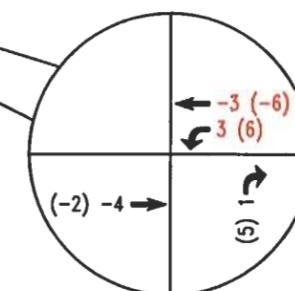
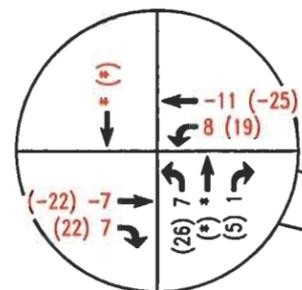
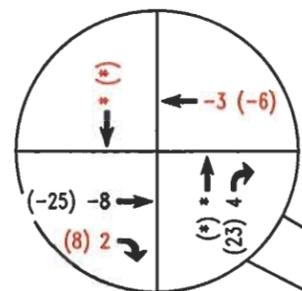
WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA



LEGEND	
00	= A.M. PEAK HOUR
(00)	= P.M. PEAK HOUR
00	= INBOUND TRAFFIC
00	= OUTBOUND TRAFFIC
*	= NEGLIGIBLE

FIGURE F
GENERATED PASS-BY TRAFFIC
VOLUMES FOR NORTH SIDE RETAIL
PORTION OF PROPOSED
DEVELOPMENT

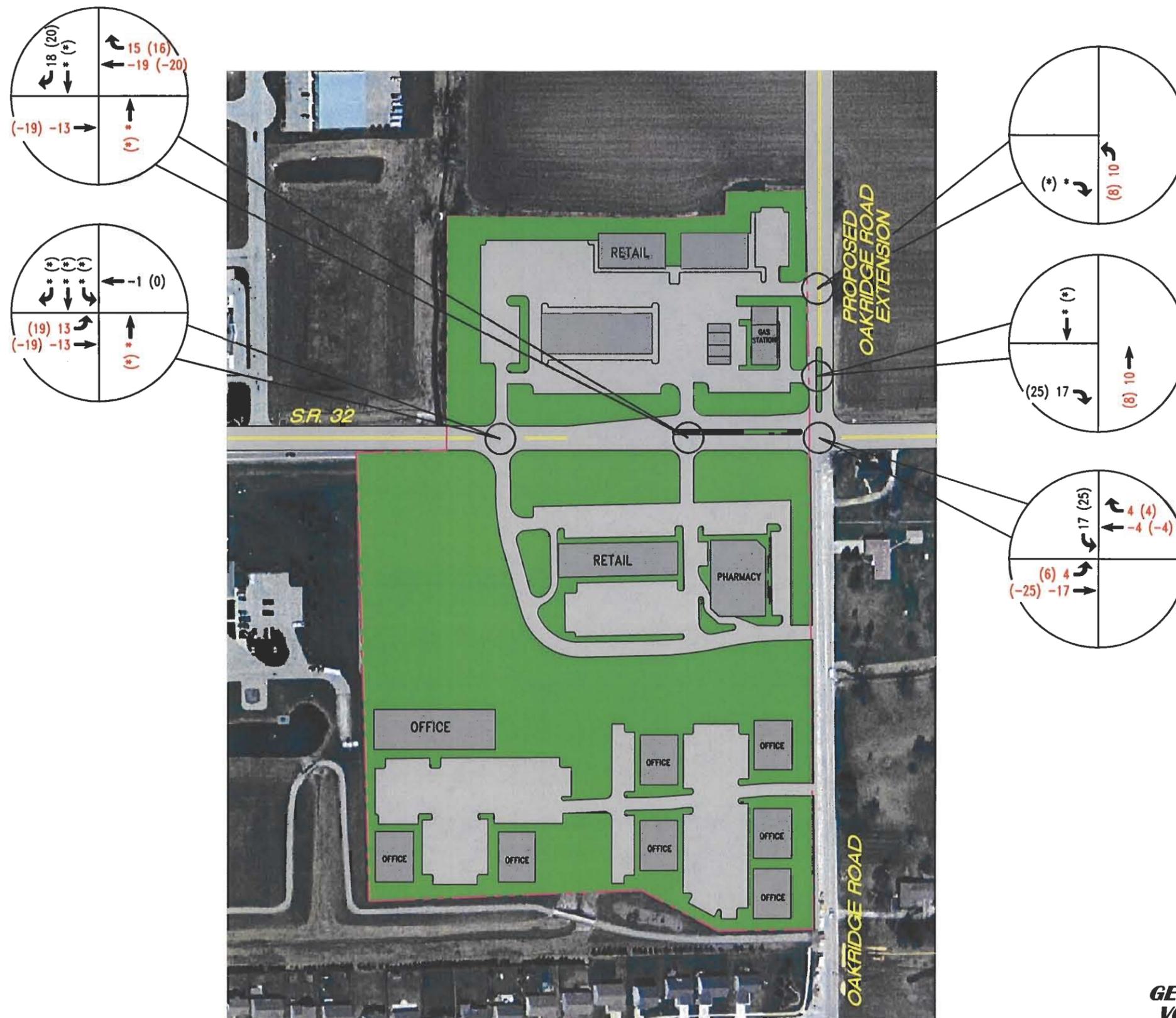
WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA



LEGEND	
00	= A.M. PEAK HOUR
(00)	= P.M. PEAK HOUR
00	= INBOUND TRAFFIC
00	= OUTBOUND TRAFFIC
*	= NEGLIGIBLE

FIGURE G
GENERATED PASS-BY TRAFFIC VOLUMES FOR SOUTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT

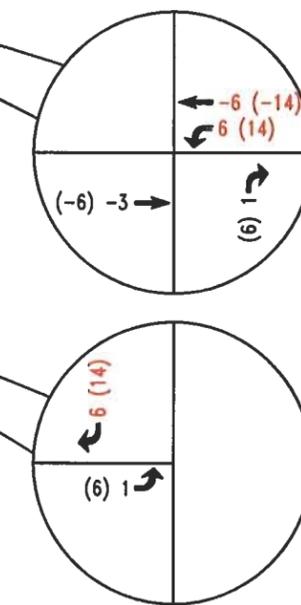
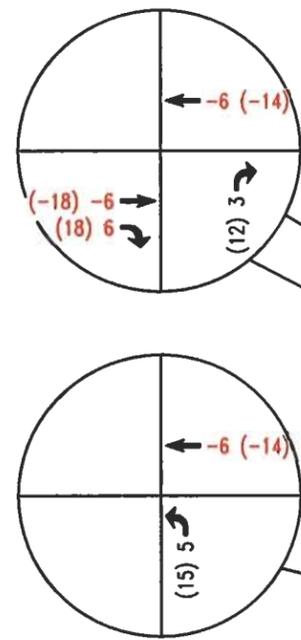
WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 00 = INBOUND TRAFFIC
 00 = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

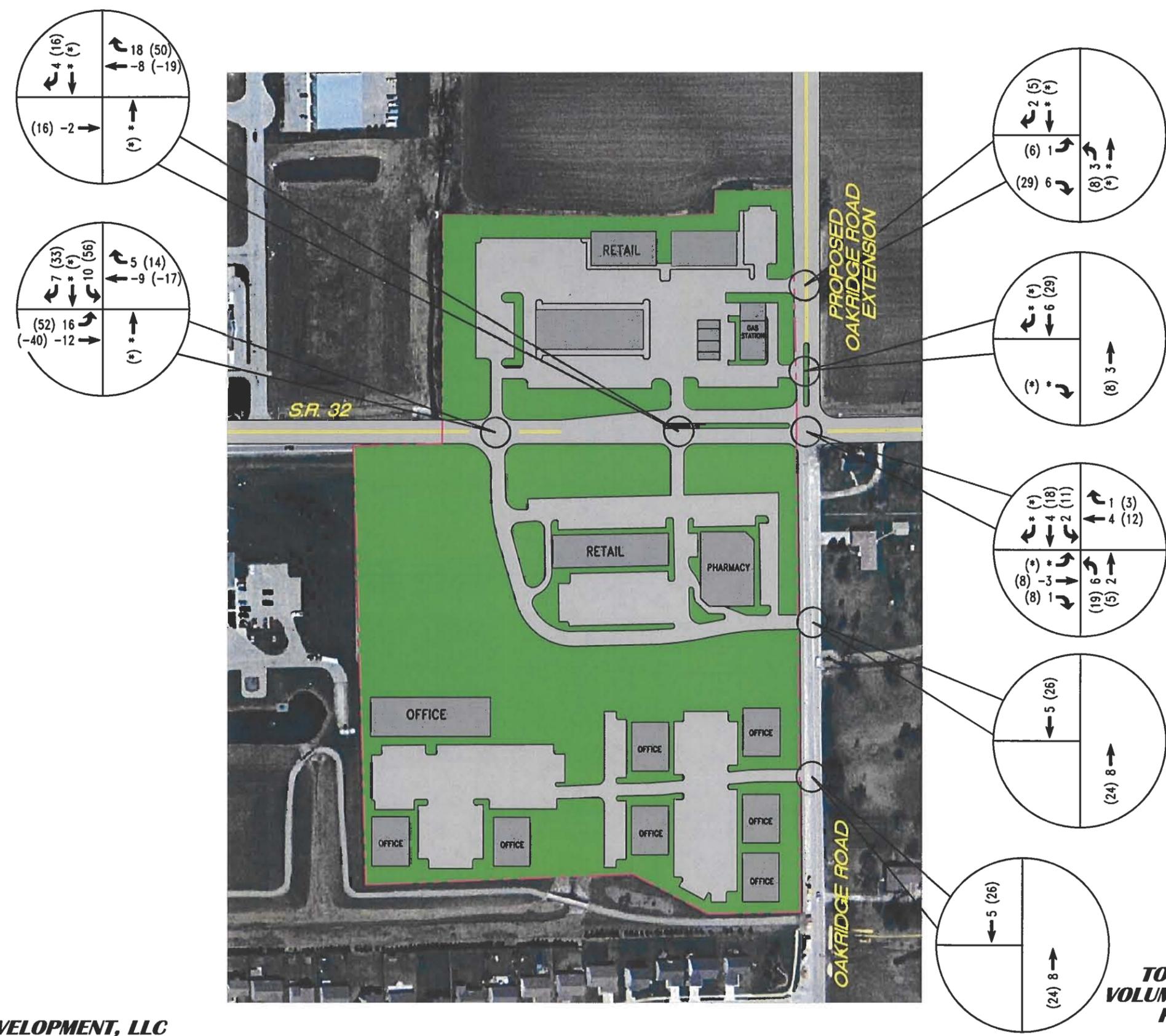
FIGURE H
GENERATED PASS-BY TRAFFIC
VOLUMES FOR GAS STATION
PORTION OF PROPOSED
DEVELOPMENT



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 00 = INBOUND TRAFFIC
 00 = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

FIGURE 1
GENERATED PASS-BY TRAFFIC VOLUMES FOR PHARMACY PORTION OF PROPOSED DEVELOPMENT

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

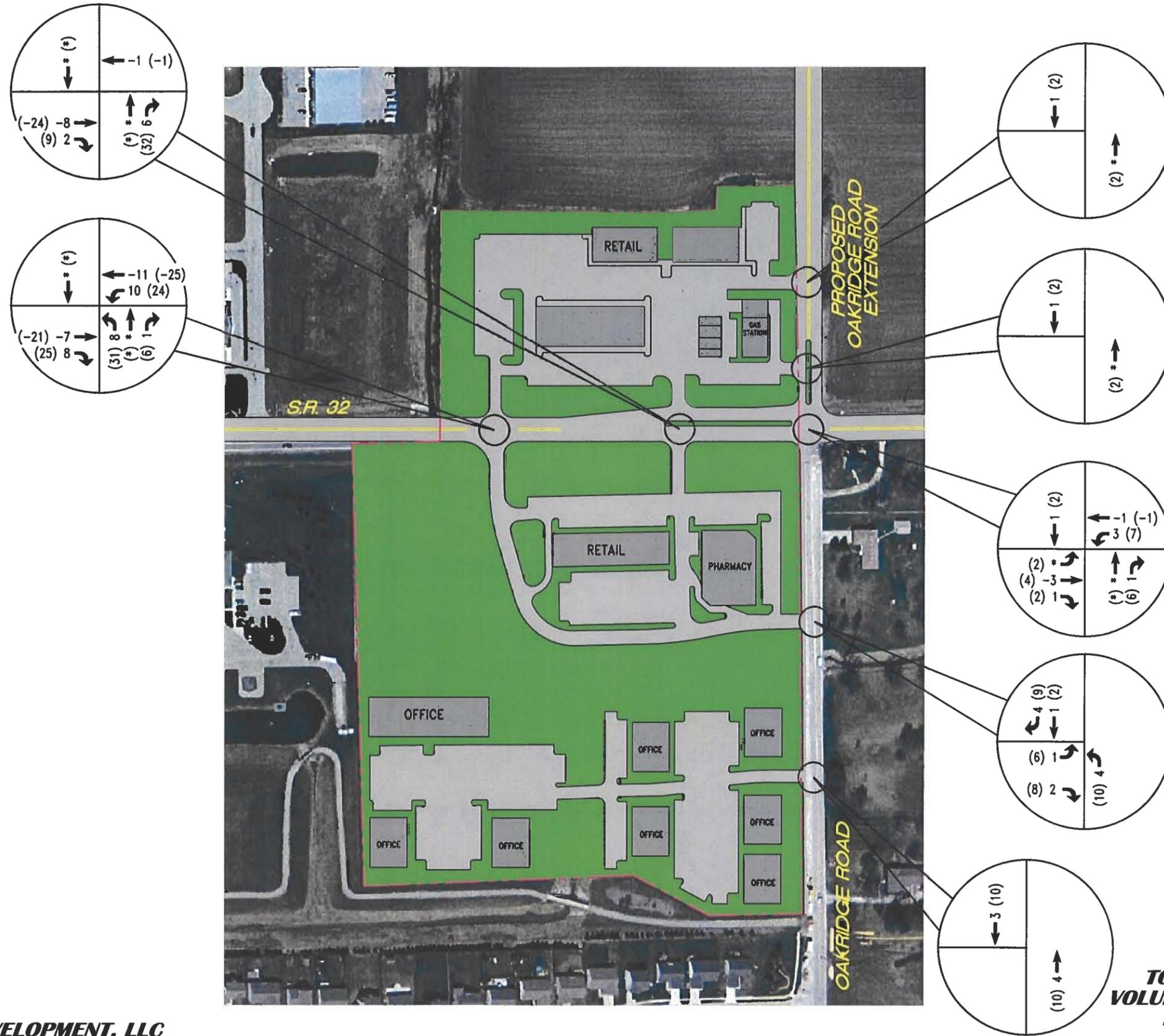


LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE J
TOTAL GENERATED TRAFFIC VOLUMES FOR NORTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 REL

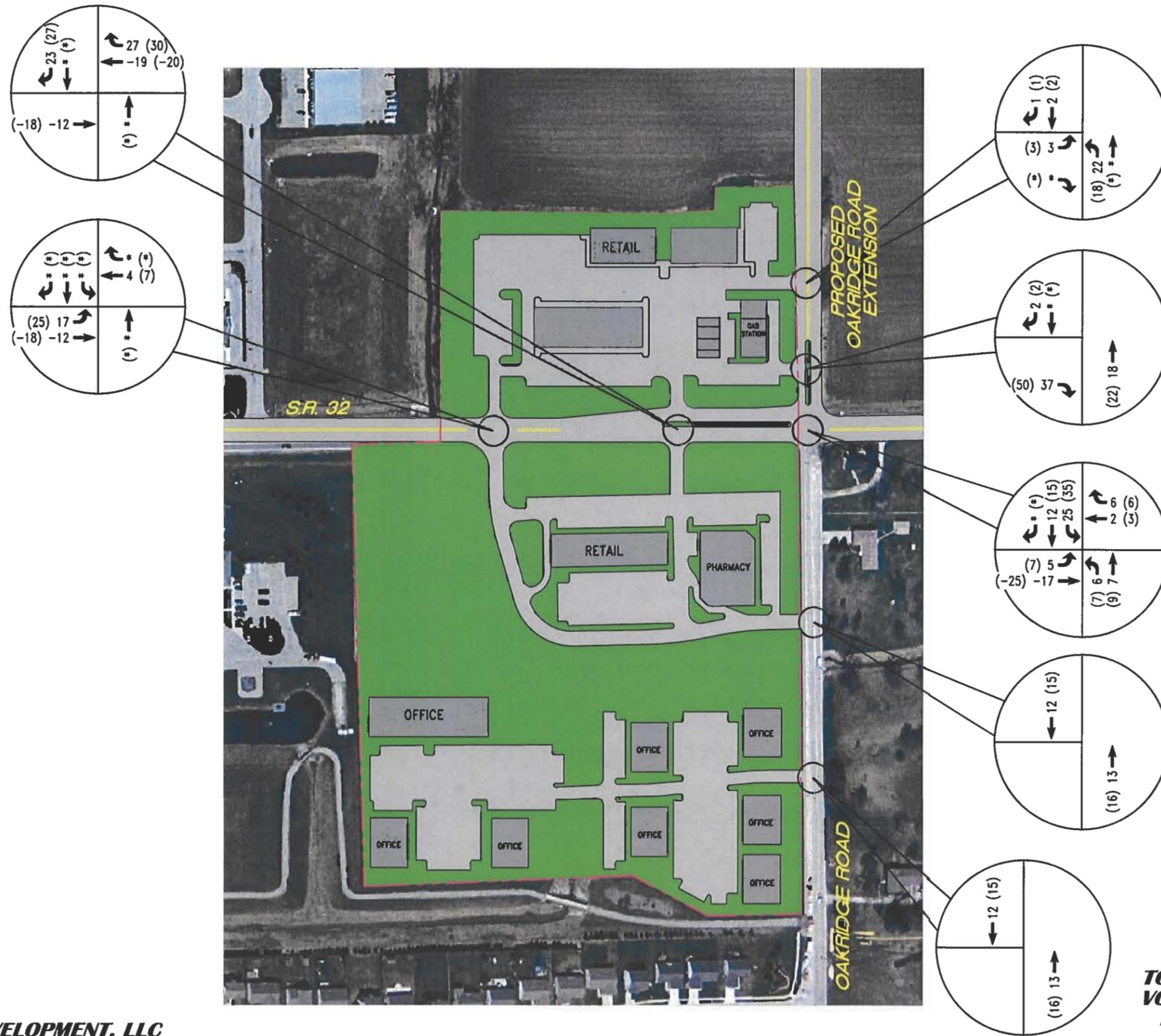


LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE K
TOTAL GENERATED TRAFFIC VOLUMES FOR SOUTH SIDE RETAIL PORTION OF PROPOSED DEVELOPMENT

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 REL

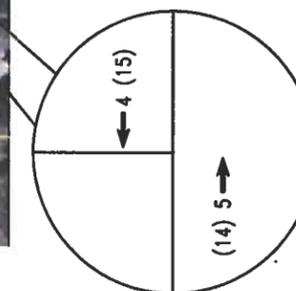
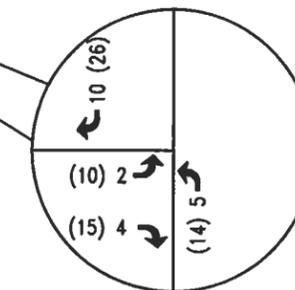
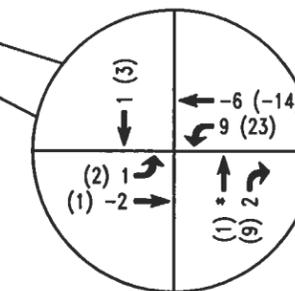
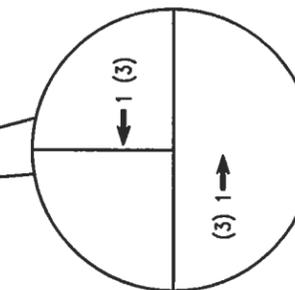
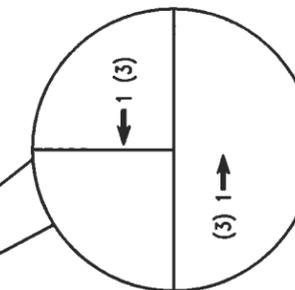
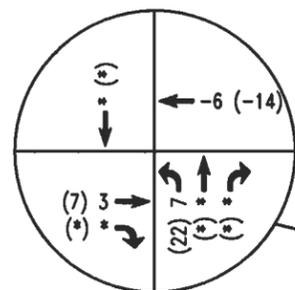
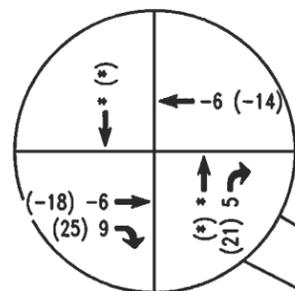


LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE 1
TOTAL GENERATED TRAFFIC VOLUMES FOR GAS STATION PORTION OF PROPOSED DEVELOPMENT

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

Z:\2007\07085 - WILFONG-KREUTZ\07085-EXH.DWG 1=1 08-14-07 REL



LEGEND
 00 = A.M. PEAK HOUR
 (00) = P.M. PEAK HOUR
 * = NEGLIGIBLE

WILFONG - KREUTZ LAND DEVELOPMENT, LLC
OAK RIDGE PUD
WESTFIELD, INDIANA

FIGURE M
TOTAL GENERATED TRAFFIC VOLUMES FOR PHARMACY PORTION OF PROPOSED DEVELOPMENT

SR 32 & OAKRIDGE ROAD

INTERSECTION DATA

TRAFFIC VOLUME COUNTS

CAPACITY ANALYSIS

A & F ENGINEERING CO., LLC
 TRAFFIC VOLUME SUMMARY

CLIENT :
 INTERSECTION :
 DATE :

Wilfong-Kruetz
 SR 32 & Oak Ridge Road
 8/7/2007

TOTAL VEHICLES (PASSENGER CARS + TRUCKS)												
	AM PEAK HOUR VOLUMES BEGINS 7:15 AM				OFF PEAK HOUR VOLUMES BEGINS				PM PEAK HOUR VOLUMES BEGINS 5:00 PM			
	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL
NORTHBOUND	22		98	120					24		166	190
EASTBOUND		534	42	576						683	46	729
WESTBOUND	75	567		642					135	547		682

PEAK HOUR FACTOR						
	AM PEAK HOUR FACTOR		OFF PEAK HOUR FACTOR		PM PEAK HOUR FACTOR	
	APPROACH	INTERSECTION	APPROACH	INTERSECTION	APPROACH	INTERSECTION
NORTHBOUND	0.73				0.90	
EASTBOUND	0.88	0.91			0.88	0.94
WESTBOUND	0.89				0.95	

TRUCK PERCENTAGE												
	AM PEAK HOUR PERCENTAGE				OFF PEAK HOUR PERCENTAGE				PM PEAK HOUR PERCENTAGE			
	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL
NORTHBOUND	0.0%		0.0%	0.0%					0.0%		0.6%	0.5%
EASTBOUND		10.5%	2.4%	9.9%						3.8%	0.0%	3.6%
WESTBOUND	1.3%	8.3%		7.5%					0.0%	4.6%		3.7%

HOURLY SUMMARY									
HOUR			NB	SB	NB+SB	EB	WB	EB+WB	TOTAL
6:00 AM	TO	7:00 AM	75		75	396	460	856	931
7:00 AM	TO	8:00 AM	118		118	556	648	1204	1322
8:00 AM	TO	9:00 AM	90		90	497	528	1025	1115
4:00 PM	TO	5:00 PM	120		120	674	680	1354	1474
5:00 PM	TO	6:00 PM	190		190	729	682	1411	1601
6:00 PM	TO	7:00 PM	117		117	480	514	994	1111
TOTAL VOLUME			710		710	3332	3512	6844	7554
PERCENTAGE			9.4%		9.4%	44.1%	46.5%	90.6%	100.0%

A & F ENGINEERING CO., LLC
TRAFFIC VOLUME SUMMARY

CLIENT :
INTERSECTION :
DATE :

Wilfong-Kruetz
SR 32 & Oak Ridge Road
8/7/2007

DIRECTION OF TRAVEL : NORTHBOUND

HOUR	LEFT			THROUGH			RIGHT			TOTAL		
	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH
AM TIME PERIOD												
6:00 AM - 7:00 AM	16	1	17				58	0	58	74	1	75
7:00 AM - 8:00 AM	19	0	19				98	1	99	117	1	118
8:00 AM - 9:00 AM	12	2	14				75	1	76	87	3	90
PM TIME PERIOD												
4:00 PM - 5:00 PM	43	1	44				74	2	76	117	3	120
5:00 PM - 6:00 PM	24	0	24				165	1	166	189	1	190
6:00 PM - 7:00 PM	16	0	16				101	0	101	117	0	117
PASSENGER	130 97.0%						571 99.1%			701 98.7%		
TRUCK	4 3.0%						5 0.9%			9 1.3%		
BOTH	134 18.9%						576 81.1%			710 100.0%		

DIRECTION OF TRAVEL : EASTBOUND

HOUR	LEFT			THROUGH			RIGHT			TOTAL		
	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH
AM TIME PERIOD												
6:00 AM - 7:00 AM				341	29	370	26	0	26	367	29	396
7:00 AM - 8:00 AM				466	46	512	43	1	44	509	47	556
8:00 AM - 9:00 AM				412	54	466	31	0	31	443	54	497
PM TIME PERIOD												
4:00 PM - 5:00 PM				608	28	636	38	0	38	646	28	674
5:00 PM - 6:00 PM				657	26	683	46	0	46	703	26	729
6:00 PM - 7:00 PM				433	17	450	30	0	30	463	17	480
PASSENGER				2917 93.6%			214 99.5%			3131 94.0%		
TRUCK				200 6.4%			1 0.5%			201 6.0%		
BOTH				3117 93.5%			215 6.5%			3332 100.0%		

DIRECTION OF TRAVEL : WESTBOUND

HOUR	LEFT			THROUGH			RIGHT			TOTAL		
	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH	PASS	TRUCK	BOTH
AM TIME PERIOD												
6:00 AM - 7:00 AM	50	0	50	395	15	410				445	15	460
7:00 AM - 8:00 AM	71	0	71	534	43	577				605	43	648
8:00 AM - 9:00 AM	44	2	46	440	42	482				484	44	528
PM TIME PERIOD												
4:00 PM - 5:00 PM	109	0	109	530	41	571				639	41	680
5:00 PM - 6:00 PM	135	0	135	522	25	547				657	25	682
6:00 PM - 7:00 PM	131	0	131	368	15	383				499	15	514
PASSENGER	540 99.6%			2789 93.9%						3329 94.8%		
TRUCK	2 0.4%			181 6.1%						183 5.2%		
BOTH	542 15.4%			2970 84.6%						3512 100.0%		

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↖	↗
Volume (veh/h)	534	42	75	567	22	98
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.89	0.89	0.73	0.73
Hourly flow rate (vph)	607	48	84	637	30	134
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			655		1412	607
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			655		1412	607
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		78	73
cM capacity (veh/h)			937		140	500

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	607	48	84	637	30	134
Volume Left	0	0	84	0	30	0
Volume Right	0	48	0	0	0	134
cSH	1700	1700	937	1700	140	500
Volume to Capacity	0.36	0.03	0.09	0.37	0.22	0.27
Queue Length 95th (ft)	0	0	7	0	20	27
Control Delay (s)	0.0	0.0	9.2	0.0	37.7	14.8
Lane LOS			A		E	B
Approach Delay (s)	0.0		1.1		19.0	
Approach LOS					C	

Intersection Summary						
Average Delay			2.5			
Intersection Capacity Utilization			45.6%		ICU Level of Service	A
Analysis Period (min)			15			

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↖	↗
Volume (veh/h)	683	46	135	547	24	166
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.95	0.95	0.90	0.90
Hourly flow rate (vph)	776	52	142	576	27	184
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			828		1636	776
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			828		1636	776
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			82		71	54
cM capacity (veh/h)			812		92	399
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	776	52	142	576	27	184
Volume Left	0	0	142	0	27	0
Volume Right	0	52	0	0	0	184
cSH	1700	1700	812	1700	92	399
Volume to Capacity	0.46	0.03	0.18	0.34	0.29	0.46
Queue Length 95th (ft)	0	0	16	0	27	59
Control Delay (s)	0.0	0.0	10.4	0.0	59.0	21.6
Lane LOS			B		F	C
Approach Delay (s)	0.0		2.1		26.3	
Approach LOS					D	
Intersection Summary						
Average Delay			4.0			
Intersection Capacity Utilization			56.8%		ICU Level of Service	B
Analysis Period (min)			15			

AM Peak
3: SR 32 & Oakridge Road Extension

S2-Year 2017
8/29/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	1201	48	86	1276	43	25	10	113	55	20	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.94	
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3252	1583	1787	3343	1599	1770	1606		1770	1759	
Fl _t Permitted	0.12	1.00	1.00	0.11	1.00	1.00	0.73	1.00		0.57	1.00	
Satd. Flow (perm)	226	3252	1583	204	3343	1599	1368	1606		1058	1759	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	27	1334	53	96	1418	48	28	11	126	61	22	13
RTOR Reduction (vph)	0	0	25	0	0	21	0	112	0	0	11	0
Lane Group Flow (vph)	27	1334	28	96	1418	27	28	25	0	61	24	0
Heavy Vehicles (%)	1%	11%	2%	1%	8%	1%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	40.1	38.1	38.1	45.9	41.0	41.0	10.4	8.2		12.8	9.4	
Effective Green, g (s)	40.1	38.1	38.1	45.9	41.0	41.0	10.4	8.2		12.8	9.4	
Actuated g/C Ratio	0.56	0.53	0.53	0.64	0.57	0.57	0.15	0.11		0.18	0.13	
Clearance Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	170	1730	842	239	1914	916	211	184		223	231	
v/s Ratio Prot	0.00	0.41		c0.03	c0.42		0.00	0.02		c0.01	0.01	
v/s Ratio Perm	0.08		0.02	0.23		0.02	0.02			c0.04		
v/c Ratio	0.16	0.77	0.03	0.40	0.74	0.03	0.13	0.14		0.27	0.10	
Uniform Delay, d ₁	8.5	13.3	8.0	8.3	11.4	6.7	26.6	28.5		25.0	27.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d ₂	0.4	2.2	0.0	1.1	1.6	0.0	0.3	0.3		0.7	0.2	
Delay (s)	8.9	15.5	8.0	9.5	12.9	6.7	26.9	28.9		25.7	27.6	
Level of Service	A	B	A	A	B	A	C	C		C	C	
Approach Delay (s)		15.1			12.5			28.5			26.4	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	71.6	Sum of lost time (s)	14.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

PM Peak
3: SR 32 & Oakridge Road Extension

S2-Year 2017
8/29/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	1537	53	155	1231	77	28	10	190	95	20	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frnt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3438	1599	1787	3438	1599	1770	1597		1770	1745	
Flt Permitted	0.15	1.00	1.00	0.08	1.00	1.00	0.73	1.00		0.39	1.00	
Satd. Flow (perm)	275	3438	1599	149	3438	1599	1364	1597		723	1745	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	29	1708	59	172	1368	86	31	11	211	106	22	16
RTOR Reduction (vph)	0	0	27	0	0	34	0	162	0	0	14	0
Lane Group Flow (vph)	29	1708	32	172	1368	52	31	60	0	106	24	0
Heavy Vehicles (%)	1%	5%	1%	1%	5%	1%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	49.3	46.9	46.9	57.8	51.9	51.9	12.7	8.9		15.5	10.3	
Effective Green, g (s)	49.3	46.9	46.9	57.8	51.9	51.9	12.7	8.9		15.5	10.3	
Actuated g/C Ratio	0.58	0.55	0.55	0.68	0.61	0.61	0.15	0.10		0.18	0.12	
Clearance Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	1888	878	243	2089	972	221	166		195	210	
v/s Ratio Prot	0.00	c0.50		c0.06	0.40		0.01	0.04		c0.03	0.01	
v/s Ratio Perm	0.08		0.02	0.42		0.03	0.01			c0.07		
v/c Ratio	0.14	0.90	0.04	0.71	0.65	0.05	0.14	0.36		0.54	0.11	
Uniform Delay, d1	8.7	17.2	8.9	18.8	10.9	6.8	31.5	35.6		30.7	33.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	6.6	0.0	9.1	0.7	0.0	0.3	1.3		3.1	0.2	
Delay (s)	9.1	23.8	8.9	27.8	11.7	6.8	31.8	36.9		33.8	33.7	
Level of Service	A	C	A	C	B	A	C	D		C	C	
Approach Delay (s)		23.1			13.1			36.3			33.8	
Approach LOS		C			B			D			C	

Intersection Summary

HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	85.4	Sum of lost time (s)	15.5
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

AM Peak
3: SR 32 & Oakridge Road Extension

S3-2017+Prop
8/29/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1176	68	141	1275	50	39	20	122	82	47	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.97	
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3252	1583	1787	3343	1599	1770	1622		1770	1807	
Fl _t Permitted	0.12	1.00	1.00	0.10	1.00	1.00	0.71	1.00		0.46	1.00	
Satd. Flow (perm)	217	3252	1583	182	3343	1599	1331	1622		851	1807	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	1307	76	157	1417	56	43	22	136	91	52	13
RTOR Reduction (vph)	0	0	38	0	0	25	0	121	0	0	10	0
Lane Group Flow (vph)	33	1307	38	157	1417	31	43	37	0	91	55	0
Heavy Vehicles (%)	1%	11%	2%	1%	8%	1%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	41.2	37.9	37.9	49.2	42.4	42.4	12.3	8.7		15.5	10.3	
Effective Green, g (s)	41.2	37.9	37.9	49.2	42.4	42.4	12.3	8.7		15.5	10.3	
Actuated g/C Ratio	0.54	0.49	0.49	0.64	0.55	0.55	0.16	0.11		0.20	0.13	
Clearance Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	184	1609	783	280	1850	885	234	184		235	243	
v/s Ratio Prot	0.01	0.40		c0.06	c0.42		0.01	0.02		c0.03	0.03	
v/s Ratio Perm	0.09		0.02	0.30		0.02	0.02			c0.05		
v/c Ratio	0.18	0.81	0.05	0.56	0.77	0.04	0.18	0.20		0.39	0.22	
Uniform Delay, d1	9.9	16.3	10.0	10.8	13.3	7.8	27.7	30.8		25.8	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	3.2	0.0	2.6	2.0	0.0	0.4	0.5		1.1	0.5	
Delay (s)	10.4	19.6	10.0	13.4	15.2	7.8	28.0	31.4		26.8	30.1	
Level of Service	B	B	B	B	B	A	C	C		C	C	
Approach Delay (s)		18.9			14.8			30.6			28.2	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	10.5
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

PM Peak
3: SR 32 & Oakridge Road Extension

S3-Year 2017+Prop
8/29/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	1525	67	195	1231	86	74	36	253	141	60	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Fr't	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3438	1599	1787	3438	1599	1770	1618		1770	1809	
Flt Permitted	0.12	1.00	1.00	0.08	1.00	1.00	0.70	1.00		0.28	1.00	
Satd. Flow (perm)	227	3438	1599	151	3438	1599	1310	1618		521	1809	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	41	1694	74	217	1368	96	82	40	281	157	67	16
RTOR Reduction (vph)	0	0	36	0	0	43	0	140	0	0	9	0
Lane Group Flow (vph)	41	1694	38	217	1368	53	82	181	0	157	74	0
Heavy Vehicles (%)	1%	5%	1%	1%	5%	1%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	50.3	46.4	46.4	57.8	50.4	50.4	18.3	12.8		21.3	14.3	
Effective Green, g (s)	50.3	46.4	46.4	57.8	50.4	50.4	18.3	12.8		21.3	14.3	
Actuated g/C Ratio	0.55	0.51	0.51	0.63	0.55	0.55	0.20	0.14		0.23	0.16	
Clearance Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	192	1751	814	238	1902	885	291	227		218	284	
v/s Ratio Prot	0.01	c0.49		c0.08	0.40		0.02	0.11		c0.06	0.04	
v/s Ratio Perm	0.11		0.02	0.50		0.03	0.04			c0.11		
v/c Ratio	0.21	0.97	0.05	0.91	0.72	0.06	0.28	0.80		0.72	0.26	
Uniform Delay, d1	11.4	21.6	11.2	25.7	15.1	9.4	30.5	37.9		30.4	33.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	14.4	0.0	35.4	1.3	0.0	0.5	17.4		11.1	0.5	
Delay (s)	11.9	36.0	11.3	61.0	16.4	9.4	31.0	55.3		41.5	34.2	
Level of Service	B	D	B	E	B	A	C	E		D	C	
Approach Delay (s)		34.5			21.8			50.4			39.0	
Approach LOS		C			C			D			D	

Intersection Summary

HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	91.1	Sum of lost time (s)	15.5
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

SR 32 & WEST ACCESS DRIVE

INTERSECTION DATA

CAPACITY ANALYSIS

AM Peak
9: SR 32 & West Access Drive

S3-2017+Prop
9/10/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	33	1263	8	10	1293	5	15	1	1	10	1	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	37	1403	9	11	1437	6	17	1	1	11	1	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage (veh)		2			2							
Upstream signal (ft)					532							
pX, platoon unblocked	0.67						0.67	0.67		0.67	0.67	0.67
vC, conflicting volume	1442			1412			2226	2941	702	2238	2947	721
vC1, stage 1 conf vol							1477	1477		1462	1462	
vC2, stage 2 conf vol							749	1464		777	1486	
vCu, unblocked vol	667			1412			1840	2912	702	1860	2921	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			98			86	99	100	94	99	99
cM capacity (veh/h)	613			479			119	136	381	195	135	724
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2	
Volume Total	37	702	702	9	11	958	484	17	2	11	9	
Volume Left	37	0	0	0	11	0	0	17	0	11	0	
Volume Right	0	0	0	9	0	0	6	0	1	0	8	
cSH	613	1700	1700	1700	479	1700	1700	119	201	195	469	
Volume to Capacity	0.06	0.41	0.41	0.01	0.02	0.56	0.28	0.14	0.01	0.06	0.02	
Queue Length 95th (ft)	5	0	0	0	2	0	0	12	1	5	1	
Control Delay (s)	11.2	0.0	0.0	0.0	12.7	0.0	0.0	40.0	23.1	24.6	12.8	
Lane LOS	B				B			E	C	C	B	
Approach Delay (s)	0.3				0.1			38.0		19.4		
Approach LOS								E		C		

Intersection Summary											
Average Delay			0.6								
Intersection Capacity Utilization			50.1%		ICU Level of Service				A		
Analysis Period (min)			15								

PM Peak
9: SR 32 & West Access Drive

S3-Year 2017+Prop
9/10/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	77	1548	25	24	1244	14	53	1	6	56	1	33
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	86	1720	28	27	1382	16	59	1	7	62	1	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			TWLTL							
Median storage (veh)		2			2							
Upstream signal (ft)					532							
pX, platoon unblocked	0.71						0.71	0.71		0.71	0.71	0.71
vC, conflicting volume	1398			1748			2673	3342	860	2482	3362	699
vC1, stage 1 conf vol							1891	1891		1443	1443	
vC2, stage 2 conf vol							782	1451		1038	1919	
vCu, unblocked vol	733			1748			2537	3484	860	2267	3512	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	86			92			2	99	98	53	98	95
cM capacity (veh/h)	613			355			60	82	299	133	66	766
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2	
Volume Total	86	860	860	28	27	921	476	59	8	62	38	
Volume Left	86	0	0	0	27	0	0	59	0	62	0	
Volume Right	0	0	0	28	0	0	16	0	7	0	37	
cSH	613	1700	1700	1700	355	1700	1700	60	217	133	584	
Volume to Capacity	0.14	0.51	0.51	0.02	0.08	0.54	0.28	0.98	0.04	0.47	0.06	
Queue Length 95th (ft)	12	0	0	0	6	0	0	115	3	53	5	
Control Delay (s)	11.8	0.0	0.0	0.0	16.0	0.0	0.0	222.0	22.2	53.7	11.6	
Lane LOS	B				C			F	C	F	B	
Approach Delay (s)	0.6				0.3			198.7		37.8		
Approach LOS								F		E		

Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			65.9%		ICU Level of Service					C		
Analysis Period (min)			15									

SR 32 & EAST ACCESS DRIVE

INTERSECTION DATA

CAPACITY ANALYSIS

AM Peak
6: SR 32 & East Access

S3-2017+Prop
8/29/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑			↑			↑
Volume (veh/h)	0	1263	11	0	1281	45	0	0	11	0	0	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	1403	12	0	1423	50	0	0	12	0	0	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage (veh)		2										
Upstream signal (ft)					215							
pX, platoon unblocked	0.67						0.67	0.67		0.67	0.67	0.67
vC, conflicting volume	1473			1416			2145	2877	702	2137	2839	712
vC1, stage 1 conf vol							1403	1403		1423	1423	
vC2, stage 2 conf vol							742	1473		714	1416	
vCu, unblocked vol	718			1416			1722	2816	702	1710	2759	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	96
cM capacity (veh/h)	588			477			141	158	381	222	161	725

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	702	702	12	712	712	50	12	30
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	12	0	0	50	12	30
cSH	1700	1700	1700	1700	1700	1700	381	725
Volume to Capacity	0.41	0.41	0.01	0.42	0.42	0.03	0.03	0.04
Queue Length 95th (ft)	0	0	0	0	0	0	2	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	14.8	10.2
Lane LOS							B	B
Approach Delay (s)	0.0			0.0			14.8	10.2
Approach LOS							B	B

Intersection Summary		
Average Delay		0.2
Intersection Capacity Utilization	45.4%	ICU Level of Service
Analysis Period (min)		15
		A

PM Peak
6: SR 32 & East Access

S3-Year 2017+Prop
8/29/2007

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑			↑			↑
Volume (veh/h)	0	1576	34	0	1239	80	0	0	53	0	0	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	1751	38	0	1377	89	0	0	59	0	0	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage (veh)		2										
Upstream signal (ft)					215							
pX, platoon unblocked	0.70						0.70	0.70		0.70	0.70	0.70
vC, conflicting volume	1466			1789			2487	3217	876	2311	3166	688
vC1, stage 1 conf vol							1751	1751		1377	1377	
vC2, stage 2 conf vol							736	1466		934	1789	
vCu, unblocked vol	821			1789			2272	3308	876	2022	3235	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	80	100	100	94
cM capacity (veh/h)	566			342			86	116	292	169	116	763

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	876	876	38	688	688	89	59	48
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	38	0	0	89	59	48
cSH	1700	1700	1700	1700	1700	1700	292	763
Volume to Capacity	0.52	0.52	0.02	0.40	0.40	0.05	0.20	0.06
Queue Length 95th (ft)	0	0	0	0	0	0	18	5
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	20.4	10.0
Lane LOS							C	B
Approach Delay (s)	0.0			0.0			20.4	10.0
Approach LOS							C	B

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		53.6%	ICU Level of Service
Analysis Period (min)		15	A

OAKRIDGE ROAD & NORTH ACCESS DRIVE

INTERSECTION DATA

CAPACITY ANALYSIS



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	6	9	178	242	14
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	7	10	198	269	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					314	
pX, platoon unblocked	0.99	0.99	0.99			
vC, conflicting volume	487	269	284			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	473	252	268			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	99			
cM capacity (veh/h)	538	776	1278			

Direction Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	3	7	10	198	269	16
Volume Left	3	0	10	0	0	0
Volume Right	0	7	0	0	0	16
cSH	538	776	1278	1700	1700	1700
Volume to Capacity	0.01	0.01	0.01	0.12	0.16	0.01
Queue Length 95th (ft)	0	1	1	0	0	0
Control Delay (s)	11.7	9.7	7.8	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	10.4		0.4		0.0	
Approach LOS	B					

Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			22.7%	ICU Level of Service		A
Analysis Period (min)			15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑	↑	↗
Volume (veh/h)	16	23	24	347	287	35
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	18	26	27	386	319	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					314	
pX, platoon unblocked	0.96	0.96	0.96			
vC, conflicting volume	758	319	358			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	726	268	309			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	97	98			
cM capacity (veh/h)	367	739	1200			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	18	26	27	386	319	39
Volume Left	18	0	27	0	0	0
Volume Right	0	26	0	0	0	39
cSH	367	739	1200	1700	1700	1700
Volume to Capacity	0.05	0.03	0.02	0.23	0.19	0.02
Queue Length 95th (ft)	4	3	2	0	0	0
Control Delay (s)	15.3	10.0	8.1	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	12.2		0.5		0.0	
Approach LOS	B					

Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			29.9%	ICU Level of Service		A
Analysis Period (min)			15			

OAKRIDGE ROAD & SOUTH ACCESS DRIVE

INTERSECTION DATA

CAPACITY ANALYSIS



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	5	34	178	178	70
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	6	38	198	198	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					584	
pX, platoon unblocked						
vC, conflicting volume	471	198	276			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	471	198	276			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	97			
cM capacity (veh/h)	535	843	1287			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	10	6	38	198	198	78
Volume Left	10	0	38	0	0	0
Volume Right	0	6	0	0	0	78
cSH	535	843	1287	1700	1700	1700
Volume to Capacity	0.02	0.01	0.03	0.12	0.12	0.05
Queue Length 95th (ft)	1	0	2	0	0	0
Control Delay (s)	11.9	9.3	7.9	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	10.9		1.3		0.0	
Approach LOS	B					

Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			26.0%	ICU Level of Service		A
Analysis Period (min)			15			

PM Peak
14: South Access Drive & Oakridge Road

S3-Year 2017+Prop
8/29/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	79	39	8	292	294	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	88	43	9	324	327	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					584	
pX, platoon unblocked	1.00	1.00	1.00			
vC, conflicting volume	669	327	344			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	669	326	344			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	79	94	99			
cM capacity (veh/h)	420	715	1215			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	88	43	9	324	327	18
Volume Left	88	0	9	0	0	0
Volume Right	0	43	0	0	0	18
cSH	420	715	1215	1700	1700	1700
Volume to Capacity	0.21	0.06	0.01	0.19	0.19	0.01
Queue Length 95th (ft)	19	5	1	0	0	0
Control Delay (s)	15.8	10.4	8.0	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	14.0		0.2		0.0	
Approach LOS	B					

Intersection Summary						
Average Delay			2.4			
Intersection Capacity Utilization			26.5%	ICU Level of Service		A
Analysis Period (min)			15			

OAKRIDGE ROAD EXTENSION & NORTH ACCESS DRIVE

INTERSECTION DATA

CAPACITY ANALYSIS

AM Peak
18: North Access & Oakridge Road Extension

S3-2017+Prop
8/29/2007

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	6	21	79	100	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	4	7	23	88	111	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				332		
pX, platoon unblocked						
vC, conflicting volume	246	111	114			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	246	111	114			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	98			
cM capacity (veh/h)	731	942	1475			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	11	23	88	111	3
Volume Left	4	23	0	0	0
Volume Right	7	0	0	0	3
cSH	845	1475	1700	1700	1700
Volume to Capacity	0.01	0.02	0.05	0.07	0.00
Queue Length 95th (ft)	1	1	0	0	0
Control Delay (s)	9.3	7.5	0.0	0.0	0.0
Lane LOS	A	A			
Approach Delay (s)	9.3	1.6		0.0	
Approach LOS	A				

Intersection Summary					
Average Delay			1.2		
Intersection Capacity Utilization			17.8%	ICU Level of Service	A
Analysis Period (min)			15		

PM Peak
18: North Access Drive & Oakridge Road Extension

S3-Year 2017+Prop
8/29/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑	↑	Y
Volume (veh/h)	9	29	30	129	138	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	32	33	143	153	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				332		
pX, platoon unblocked						
vC, conflicting volume	363	153	160			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	363	153	160			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	96	98			
cM capacity (veh/h)	621	893	1419			

Direction Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	42	33	143	153	7
Volume Left	10	33	0	0	0
Volume Right	32	0	0	0	7
cSH	809	1419	1700	1700	1700
Volume to Capacity	0.05	0.02	0.08	0.09	0.00
Queue Length 95th (ft)	4	2	0	0	0
Control Delay (s)	9.7	7.6	0.0	0.0	0.0
Lane LOS	A	A			
Approach Delay (s)	9.7	1.4		0.0	
Approach LOS	A				

Intersection Summary					
Average Delay			1.7		
Intersection Capacity Utilization		23.9%		ICU Level of Service	A
Analysis Period (min)			15		

OAKRIDGE ROAD EXTENSION & SOUTH ACCESS DRIVE

INTERSECTION DATA

CAPACITY ANALYSIS



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↑	↗
Volume (veh/h)	0	37	0	100	104	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	41	0	111	116	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				162		
pX, platoon unblocked						
vC, conflicting volume	227	116	118			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	227	116	118			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	96	100			
cM capacity (veh/h)	761	937	1470			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	41	111	116	2
Volume Left	0	0	0	0
Volume Right	41	0	0	2
cSH	937	1700	1700	1700
Volume to Capacity	0.04	0.07	0.07	0.00
Queue Length 95th (ft)	3	0	0	0
Control Delay (s)	9.0	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.0	0.0	0.0	
Approach LOS	A			

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization		15.5%	ICU Level of Service
Analysis Period (min)		15	A



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↑	↗
Volume (veh/h)	0	50	0	159	165	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	56	0	177	183	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				162		
pX, platoon unblocked						
vC, conflicting volume	360	183	186			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	360	183	186			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	639	859	1389			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	56	177	183	2
Volume Left	0	0	0	0
Volume Right	56	0	0	2
cSH	859	1700	1700	1700
Volume to Capacity	0.06	0.10	0.11	0.00
Queue Length 95th (ft)	5	0	0	0
Control Delay (s)	9.5	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	9.5	0.0	0.0	
Approach LOS	A			

Intersection Summary			
Average Delay		1.3	
Intersection Capacity Utilization		18.7%	ICU Level of Service
Analysis Period (min)		15	A

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING MAP
OF THE TOWN OF WESTFIELD-WASHINGTON TOWNSHIP, HAMILTON COUNTY,
INDIANA

This PUD Ordinance (the “Oak Ridge PUD”) amends the Zoning Map of the Town of Westfield-Washington Township, Hamilton County, Indiana;

WITNESSETH:

WHEREAS, the Plan Commission conducted a public hearing, as required by law, in regard to the application for a change of zoning filed by Wilfong & Kreutz Land Development, LLC with respect to the Real Estate; and

WHEREAS, under Docket Number _____, on the _____ day of _____, 2008, the Plan Commission, by a vote of _____, forwarded this matter to the City Council with a _____ recommendation.

WHEREAS, words and terms used throughout this Oak Ridge PUD shall have the meanings ascribed to them in Article 1, which follows.

NOW, THEREFORE, BE IT ORDAINED by the City Council, meeting in regular session, that the Zoning Ordinance and the Zone Map are hereby amended as follows:

SECTION 1. LEGISLATIVE INTENT. Having given reasonable regard to (i) the Comprehensive Plan, (ii) current conditions and the character of current structures and uses in the Real Estate, (iii) the most desirable use for which the Real Estate is adapted, (iv) conservation of property values through out the City of Westfield and Washington Township, and (v) responsible development and growth, it is the intent of the City Council in adopting, to:

- A. Encourage flexibility in the development of land in order to promote its most appropriate use;
- B. Improve the design, character and quality of new development;
- C. Encourage a harmonious and appropriate mixture of uses;
- D. Facilitate the adequate and economic provisions of streets, utilities, and municipal services;
- E. Preserve the natural environmental and scenic features of the Real Estate;
- F. Encourage and provide a mechanism for arranging improvement on-site so as to preserve desirable features; and

G. Mitigate the problems which may be presented by specific site conditions.

SECTION 2. EFFECT. As specified in the Table of Contents which follows on the next page, attached hereto and incorporated herein by reference are (i) Articles 1 thru 18 and (ii) Exhibits A thru F. The Zoning District Map, which is attached hereto and labeled as Exhibit B, allocates the Real Estate into the Oak Ridge - Office District, the Oak Ridge – Commercial 1 District, the Oak Ridge – Commercial 2 District, and the Oak Ridge – Commercial 3 District (collectively the “Districts”). It is the intention of this Oak Ridge PUD that the Zoning Ordinance, as modified by revisions, additions, and deletions, specified in the Articles 1 - 18 and Exhibits A - F which follow, shall govern the use and development of the Districts.

SECTION 3. SIZE OF DISTRICT – The size and configuration of any District may be increased or decreased by up to 15%.

Upon motion duly made and seconded, this Oak Ridge PUD was fully passed by the members of the City Council this ____ day of ____, 2008.

CITY COUNCIL, CITY OF WESTFIELD

BY:

AYE

NAY

_____	John Dippel	_____
_____	Robert L. Horkay	_____
_____	Ken Kingshill	_____
_____	Robert Smith	_____
_____	Rob Stokes	_____
_____	Tom Smith	_____
_____	Melody Sweat	_____

This Ordinance prepared by: Jon C. Dobosiewicz
Wilfong & Kreutz Land Development, LLC
17830 Casey Road
Westfield, In 46074

OAK RIDGE PUD TABLE OF CONTENTS

- Article 1. Definitions
- Article 2. Land Use Controls
- Article 3. Single Family Residential Districts
- Article 4. Multi-family Districts
- Article 5. Business Districts
- Article 6. State Highway 32 Overlay Zone
- Article 7. State Highway 32 Landscape Overlay Zone
- Article 8. Multi-Family Development Plan, Fencing, Accessory Buildings, Swimming Pools, and Trash Receptacles
- Article 9. Off-street Loading and Parking
- Article 10. Development Plan Review
- Article 11. Oak Ridge PUD - Table of Permitted Uses
- Article 12. Principle Standards of Design
- Article 13. Standards of Improvement
- Article 14. Landscaping Standards
- Article 15. Lighting Standards
- Article 16. Sign Standards
- Article 17. Use and Square Footage Statistics
- Article 18. Procedural Provisions

OAK RIDGE PUD TABLE OF EXHIBITS

Exhibit A	Legal Description and Boundary Information
Exhibit B	Zoning District Map
Exhibit C	Illustrative Site Development Plan / Concept Plan
Exhibit D	Trails Plan
Exhibit E	Construction Phasing Schedule
Exhibit F	Underlying Zoning Compendium – Filed with Department of Community Development under separate cover

ARTICLE 1. DEFINITIONS.

1. “Accessory Building” shall mean and refer to a subordinate building, the use of which is incidental to and customary in connection with the principal building or use and which is located on the same lot with such principal building or use and is under the same ownership. Accessory buildings must be subordinate in height, width, length, and bulk to the principal building. Buildings which are portable and do not have permanent foundations are also classified as Accessory Buildings but are not subject to improvement location permits.
2. “Advisory Plan Commission” shall mean and refer to the Westfield-Washington Township Advisory Plan Commission.
3. “Aggregate Lot Area” shall mean and refer to the sum of all land acreage within a given development (i.e. planned developments, planned business districts, local retail districts) including outlots.
4. “Agriculture” shall mean and refer to the art or science of cultivating the ground, and raising and harvesting crops, also often including feeding, breeding and management of livestock; tillage, husbandry, farming; in a broader sense, the science and art of the production of plants and animals useful to man. In this broad use it includes farming, horticulture, forestry, dairy farming, etc.
5. “Alley” shall mean and refer to any private drive, with the exception of private streets, open for the purpose of affording a secondary means of vehicular access to abutting property which otherwise abuts upon a street and which is not intended for traffic other than public services and circulation to and from said property.
6. “Alternative Transportation Plan” shall mean and refer to a plan which illustrates bicycle paths, walking paths, and sidewalks throughout and around a geographic area.
7. “Apartment” shall mean and refer to a building or portion thereof designed for or occupied by more than two families. Also a multi-family dwelling.
8. “Art Studio” shall mean and refer to the conducting of one or more of the following activities: painting, sculpturing, jewelry making, weaving or other similar function defined as a fine art.
9. “Assisted Living Facility” shall mean and refer to a facility for persons having such disabilities as to require assistance with daily living tasks. Such facilities contain four or more dwelling units and/or rooming units; provide a combination of housing, support services, personalized assistance, and healthcare; and respond to the individual needs of persons who need assistance with the activities of daily living, but do not require 24-hour skilled medical care.
10. “Banner” shall mean and refer to any hanging sign possessing characters, letters, illustrations or ornamentations which are designed or intended to convey any identification,

message or information other than an address number and which are applied to paper, plastic or fabric of any kind. This classification shall not include plastic or fabric signs which are permanently attached within a rigid frame which are intended to be used as a permanent sign. National flags, flags or political subdivisions and symbolic flags of any institution or business shall not be considered banners for the purpose of this chapter.

11. “Beauty Shop” shall mean and refer to the providing of beauty culture services to members of the general public as the result of being properly licensed and inspected.
12. “Block” shall mean and refer to a unit or property bounded by streets, or by streets and/’ or railroad right-of-way, waterways, or other barriers.
13. “Buffer Yard” shall mean and refer to a unit of yard together with the planting thereon.
14. “Building” shall mean and refer to a structure having a roof supported by columns or walls, for the shelter, support, enclosure or protection of persons, animals, chattels, or other property. When separated by party walls, without opening through such walls, each portion of such building shall be considered a separate structure.
15. “Building Area” shall mean and refer to the maximum horizontal projected area of the principal and accessory building, excluding open steps or terraces, porches without roofs not exceeding one story in height, or architectural appurtenances projecting not more than two feet.
16. “Building Commissioner” shall mean and refer to the official designated by the Westfield City Council, authorized to enforce the Westfield -Washington Township Comprehensive Zoning Ordinance and the Westfield -Washington Township Building Code.
17. “Building, Detached” shall mean and refer to a building having no structural connection with another building.
18. “Building, Front Line of” shall mean and refer to the line of the face of the building nearest the front lot line.
19. “Building Height” shall mean the vertical distance from the grade level at the main entrance to the top of the parapet that comprises the majority of the perimeter of the building for a flat roof; to the deck line of a mansard roof; and to the mean height between eaves and ridges for gable, hip, and gambrel roofs.
20. “Building Line (Building Setback Line)” shall mean and refer to the line nearest the front of and across a lot establishing the minimum open space to be provided between the front line of a building or structure and the front lot line as defined by the legal description.
21. “Building, Principal” shall mean and refer to a building in which is conducted the main or principal use of the lot on which said building is situated. Where a substantial part of an accessory building is attached to the principal building in a substantial manner, as by a roof,

such accessory building shall be counted as a part of the principal building.

22. “Business” shall mean and refer to the engaging in the purchase, sale, barter or exchange of goods, wares, merchandise or services, the maintenance or operation of offices, or recreational and amusement enterprises for profit.
23. “BZA” shall mean and refer to the Westfield-Washington Township Board of Zoning Appeals.
24. “Caliper” shall mean and refer to a standard trunk diameter measurement for trees. Caliper measurements are taken twelve inches above the finished grade.
25. “Church” shall mean and refer to a building and property used for public worship. A Church may include a daycare and meeting space facilities open to the general public at the election of the owner.
26. “Community Garden” shall mean and refer to a designated area within a subdivision common area set aside for use by residents for the growing of plants including fruits, vegetables and flowers. These areas may be segmented off for use by individual owners of lots within the subdivision.
27. “Construction Phasing Schedule” shall mean and refer to the Construction Phasing Schedule attached hereto and incorporated herein by reference as Exhibit E.
28. “Corner Break” shall mean and refer to the exterior corner along the facade of a home. The “exterior” corners of a covered porch, the outermost corners of the residence, and a projection with a height of no less than six (6) feet and depth of no less than two (2) feet shall count as a corner break.
29. “Cut-off fixtures, eighty-five degree. Eighty-five (85)” shall mean and refer to the degree cutoff fixtures means those fixtures that do not allow light to escape above an eight-five (85) degree angle measured from a vertical line from the center of the lamp extended to the ground.
30. “Cut-off fixtures, full” shall mean and refer to the full cut-off fixtures means those fixtures that are designed or shielded in such a manner that all light emitted by a fixture is projected below a horizontal plane running through the lowest point on the fixture where light is emitted.
31. “Declaration” shall mean and refer to any Declaration of Covenants, Conditions, or Restrictions prepared by the Developer with respect to all or any portion of the Real Estate, and recorded with the Recorder of Hamilton County, Indiana.
32. “Department” shall mean and refer to Westfield Community Development Department or its successors.

33. “Developer” shall mean and refer to Wilfong & Kreutz Land Development, LLC and its successors, assigns, and designees.
34. “Director” shall mean and refer to the Director of the Westfield Community Development Department.
35. “District” shall mean and refer to any of the four (4) Districts within the Oak Ridge PUD.
36. “Driveway” shall mean and refer to a private road which provides access to a lot, or to a use located on such lot, from a public way.
37. “Dwelling Unit” shall mean and refer to any room or group of rooms located within a dwelling, which forms a single habitable unit for occupancy by one (1) family unit. Dwelling units include facilities that are used, or intended for use as living, sleeping, cooking, and eating accommodations.
38. “Easement” shall mean and refer to land which has been designated by lawful agreement between the owner or owners of land and a person or persons for a specified use only by such person or persons.
39. “Educational Institution” shall mean and refer to public or parochial preprimary, primary, grade, junior high, high, preparatory school or academy; junior college, college or university, if public or founded or conducted by or under the sponsorship of a religious or charitable organization.
40. “Elevation” shall mean and refer to the front architectural façade of a dwelling.
41. “Evergreen” shall mean and refer to coniferous or broad-leaved plants whose leaves remain throughout the year and are continually dropping and being replaced by new springtime growth.
42. “Floor Area, Gross Ground” shall mean and refer to the square foot area of a residential building within its largest outside dimensions computed on a horizontal plane at the ground floor level exclusive of open porches, breezeways, terraces, garages and exterior stairways.
43. “Foot-candle” shall mean and refer to a unit of illumination produced on a surface, all points which are one foot from a uniform point source of one candle.
44. “Franchise Architecture” shall mean and refer to building design that is trademarked or identified with a particular chain or corporation and is generic in nature.
45. “Frontage” shall mean and refer to all the property on one side of a street between two intersecting streets measured along the line of the street, or if the street is dead-ended, then all of the property abutting on one side between an intersecting street and the dead end of the street.

46. “Grade” shall mean and refer to the average level of the finished surface of ground adjacent to the exterior walls of the building.
47. “Herein” shall mean and refer to the entirety of, and anywhere within, this Oak Ridge PUD, and shall not be restricted to a particular paragraph or section in which the word “herein” appears.
48. “Hospice” shall mean and refer to a facility that provides inpatient support care and attends to the emotional, spiritual, social, and financial needs of terminally ill patients and their families.
49. “Hotel” shall mean and refer to a building in which lodging is provided and offered to the public for compensation and which is open to transient guests in contradistinction to a boarding or lodging house.
50. “Illustrative Site Development Plan” shall mean and refer to the Illustrative Site Development Plan attached hereto and incorporated herein by reference as Exhibit C.
51. “In-line Tenant” shall mean and refer to any tenant within a multi-tenant building where each individual tenant has an exterior store front and patron entrance.
52. “Landscaping” shall mean and refer to the improvement of a lot, parcel, or tract of land with a combination of living plants such as grasses, shrubs, trees, and/or other plant materials and nonliving materials such as rocks, mulch, walls, fences, and/or ornamental objects designed and arranged to produce an aesthetically pleasing effect.
53. “Landscaping Plan” shall mean and refer to a plan which illustrates all details, cross-sections, rights-of-way, easements, property lines, plant materials and sizes, and slope information of all proposed mounds. (see Article 14 – Landscaping Standards)
54. “Lighting Plan” shall mean and refer to a plan depicting proposed design and materials of light fixtures, location of lighting, and directional focus of lights. (see Article 15 – Lighting Standards)
55. “Linear Footage, Wall” shall mean and refer to the horizontal length of a building wall. Linear footage shall be measured as the horizontal distance between building corners, regardless if the building wall is convex, concave, or has projecting or inset portions.
56. “Loading and Unloading Berths” shall mean and refer to the off-street area required for the receipt or distribution by vehicles of materials or merchandise, which in this Ordinance is held to be a 12 by 45 foot loading space with a 14 foot height clearance.
57. “Local Road or Street” shall mean and refer to local roads or streets accepting traffic from collector streets and distribute the traffic through subdivisions, neighborhoods and business areas to individual homes, apartments, business sites, and industrial sites.

58. "Lot" shall mean and refer to a land area with a properly recorded legal description, accessible by means of a street.
59. "Lot, Corner" shall mean and refer to a lot at the junction of and abutting two or more intersecting streets.
60. "Lot, Depth of" shall mean and refer to the mean horizontal distance between the front lot line and the rear lot line of a lot, measured in the general direction of the side lot line.
61. "Lot, Interior" shall mean and refer to a lot other than a corner lot or through lot.
62. "Lot Line, Front" shall mean and refer to, in the case of an interior lot, a line separating a lot from the street; and in the case of a corner lot, a line separating the narrowest frontage of a lot from the street, except in the case where deed restrictions specify another right-of-way line as the front lot line.
63. "Lot Line, Rear" shall mean and refer to a lot line which is opposite and most distant from the front lot line and, in the case of an irregular or triangle-shaped lot, a line ten feet in length within the lot, parallel to and at the maximum distance from the front lot line.
64. "Lot Line, Side" shall mean and refer to any lot boundary line not a front lot line or a rear lot line.
65. "Lot of Record" shall mean and refer to a lot which is part of a subdivision, the map of which has been recorded in the office of the Hamilton County Recorder, or a parcel of land, the deed to which has been recorded in the office of the Hamilton County Recorder prior to the date of passage of this Ordinance.
66. "Lot, Width" shall mean and refer to the dimension of a lot, measured between side lot lines on the building line.
67. "Masonry" Brick, limestone, natural stone, cultural stone, stucco and EIFS or other similar building material or a combination of the same, bonded together with mortar to form a wall, buttress or similar mass.
68. "Nursing Home" shall mean and refer to a facility licensed by the State Board of Health, which (1) provides nursing services on a continuing basis; (2) admits the majority of the occupants upon the advice of physicians as ill or infirm persons requiring nursing services; (3) provides for licensed physicians services or supervision; (4) maintains medical records. Such facility may also provide other and similar medical or health service provided that no occupant requires physical restraint within the facility. Examples of nursing home facilities that provide health services may include, if they comply with all the above criteria, nursing homes, convalescent homes, maternity homes, rest homes, homes for the aged, and the like.
69. "OR - Office District" shall mean and refer to what is identified on the Zoning District Map as the OR - Office District.

70. “OR – Commercial 1 District” shall mean and refer to what is identified on the Zoning District Map as the OR – Commercial 1 District
71. “OR – Commercial 2 District” shall mean and refer to what is identified on the Zoning District Map as the OR – Commercial 2 District
72. “OR – Commercial 3 District” shall mean and refer to what is identified on the Zoning District Map as the OR – Commercial 3 District
73. “Office, General” shall mean and refer to a place of business used exclusively for office purposes where no product of commodity for retail sales is located or sold, including but not limited to sales offices, real estate offices, financial offices and Professional Offices.
74. “Office Professional” shall mean and refer to the office of a recognized professional maintained for the conduct of the profession. A profession is a vocation, calling, occupation, or employment requiring training in the liberal arts or sciences, or a combination thereof, requiring advanced study in a specialized field; any occupation requiring licensing by the State and maintenance of professional standards applicable to the field.
75. “Outside Sales Display, Permanent” shall mean and refer to merchandise placed outside of a commercial structure for purpose of sales.
76. “Outside Sales Display, Temporary” shall mean and refer to merchandise placed outside of commercial structures only during business hours for the purpose of temporary sales or special sales events.
77. “Outlot” shall mean and refer to a lot of record in a subdivision, nonresidential center or planned unit development which is adjacent to a (public or private) street, roadway or frontage road and is intended for an additional and separate building or buildings within a development.
78. “Owner” shall mean and refer to any owner of any part of the Real Estate.
79. “Parcel” shall mean and refer to a land area with properly recorded legal description.
80. “Parcel Coverage” shall mean and refer to the total ground area, within any particular parcel, covered by the primary structures plus garages and carports and other accessory structures, which are greater than thirty-six inches above grade level, excluding fences and walls not attached in any way to the roof.
81. “Park” shall mean and refer to a public space and supporting facilities designed and used for a variety of recreational activities, a greater part of which take place outside of any structure.
82. “Parking Lot Planting Areas” shall mean and refer to areas within and adjacent to parking areas where trees, shrubs, and groundcovers are required to be planted in order to shade and

improve the aesthetic qualities of parking facilities and to avoid the creation of large, unbroken expanses of pavement.

83. “Parking Space” shall mean and refer to an area designed or used for parking a motor vehicle which complies with Article 9 of this Oak Ridge PUD.
84. “Plan Commission” shall mean and refer to the Westfield-Washington Township Advisory Plan Commission.
85. “Plat” shall mean and refer to a map or chart indicating the subdivision of land, intended to be filed for record.
86. “Public Utility Installations” shall mean and refer to the erection, construction, alteration, or maintenance by public utilities, municipal departments, commissions, or common carriers of underground, surface or overhead gas, oil, electrical, steam, pipes, conduits, cables, fire alarm boxes, police call boxes, traffic signals, hydrants, towers and other similar equipment and accessories in connection therewith, reasonable necessary for the furnishing of adequate service by public utility or municipal departments, commissions, or common carriers, for the public health or safety or general welfare.
87. “Real Estate” shall mean and refer to the real estate described in what is attached hereto and incorporated herein by references as Exhibit A.
88. “Retail Sales, General” shall mean and refer to enclosed establishments engaged in selling goods or merchandise to the general public for personal or household consumption and rendering services incidental to the sale of such goods.
89. “Right-Of-Way” shall mean and refer to a legally established property designated for transportation uses.
90. “Services, General Personal” shall mean and refer to an establishment or place of business primarily engaged in the provision of frequent or recurrent services of a personal nature. Typical uses include, but are not limited to , beauty and barber shops, shoe repair shops, and tailor shops.
91. “Shield” shall mean and refer to any attachment, which interrupts and blocks the path of light emitted from a luminaire or fixture.
92. “Shrub” shall mean and refer to a woody plant, smaller than a tree, consisting of several small stems from the ground or small branches near the ground.
93. “Sign” shall mean and refer to any display or device placed on a property in any fashion which is designed, intended, or used to convey any identification, message or information other than an address number.
94. “Sign area” shall mean and refer to the entire area within a single continuous perimeter

enclosing the extreme limits of a sign, including all background area figures and letters. However, such perimeter shall not include any structural elements lying outside the limits of the sign which are not part of the information, visual attraction, or symbolism of the sign.

95. “Sign awning” shall mean and refer to any advertising or display located on any non-rigid material that extends from the exterior wall of a building and is supported by or attached to a frame.
96. “Sign, center” shall mean and refer to a means of advertising used to identify a nonresidential center, which may include individual tenant advertising.
97. “Sign, projecting” shall mean and refer to any sign attached to a building or wall and extending laterally more than eighteen (18) inches from the face of a wall.
98. “Sign, residential complex or subdivision” shall mean and refer to residential complex or subdivision sign means a sign containing the name of a residential complex or subdivision, with or without its accompanying address.
99. “Sign, Under Canopy” shall mean and refer to small signs placed under a canopy or roof overhang to direct patron traffic to the store entrance.
100. “Sign, wall” shall mean and refer to a sign attached to and/or integral with an exterior wall or window surface of a building, the face of which is parallel to the surface.
101. “Street” shall mean and refer to a right-of-way designated for use by motor vehicles.
102. “Thoroughfare Plan” shall mean and refer to the Thoroughfare Plan adopted by the City of Westfield which sets forth the location, classification, and other information pertaining to existing and proposed streets in Washington Township.
103. “City Council” shall mean and refer to the Westfield City Council.
104. “Tree” shall mean and refer to a large, woody plant having one or several self-supporting stems or trunks and numerous branches.
105. “Tree, Shade” shall mean and refer to a large tree growing to over forty (40) feet in height at maturity, usually deciduous and planted to provide canopy cover shade.
106. “Tree, Street” shall mean and refer to a tree planted along the street right-of-way.
107. “Underlying Zoning Compendium” shall mean and refer to the Underline Zoning Compendium which is part of this Oak Ridge Crossing PUD but which was filed with the Westfield Community Development Department as a separate Underlying Zoning Compendium.
108. “Westfield Community Development Department” shall mean and refer to the Westfield

Community Development Department or its successors.

109. “Wireless Communication Service Facilities” shall mean and refer to antennas or antenna support structures for private or commercial mobile radio communications, broadcast radio or television; and associated equipment buildings, broadcasting studios, or radio or television business offices.
110. “WPWD” shall mean and refer to the Westfield Public Works Department or its successors.
111. “Yard” shall mean and refer to a space on the same lot with a principal building, open, unoccupied and unobstructed by structures, except as otherwise provided by this ordinance.
112. “Yard, Front” shall mean and refer to a yard extending across the full width of the lot unoccupied other than by steps, walks, terraces, driveways, lamp posts and similar structures, the depth of which is the least distance between the front lot line and the building line
113. “Yard, Rear” shall mean and refer to a yard extending across the full width of the lot between the rear of the principal building and the rear lot line, the depth of which is the least distance between the rear lot line and the rear of such principal building.
114. “Yard, Side” shall mean and refer to a yard between the principal building and the side lot line, extending from the front yard or from the front lot line where no front yard is required, to the rear yard. The width of the required side yard is measured horizontally at 90 with the side lot line, from the nearest part of the principal building, except in cases where irregular or pie shaped lots are located, then the width of the required side yard shall be an average of the width of the area between the side lot line and the principal building measured horizontally at 90 with the side lot line.
115. “Zoning District Map” shall mean and refer to the Zoning District Map attached hereto and incorporated herein by reference as Exhibit B.
116. “Zone Map” shall mean and refer to the official zone map corresponding to the Zoning Ordinance.
117. “Zoning Ordinance” shall mean and refer to the Zoning Ordinance of Westfield-Washington Township.

ARTICLE 2. LAND USE CONTROLS. Section 16.04.010 of the Zoning Ordinance entitled “General Provisions”, as contained in the Underlying Zoning Compendium, shall be inapplicable to the use and development of the Real Estate.

ARTICLE 3. SINGLE FAMILY RESIDENTIAL DISTRICTS. Section 16.04.030 of the Zoning Ordinance, entitled “Residential Districts”, shall be inapplicable to the use and development of the Real Estate, as no Residential uses are permitted as part of this Oak Ridge PUD.

ARTICLE 4. MULTI-FAMILY DISTRICTS. Section 16.04.040 of the Zoning Ordinance, entitled “Multi-Family Districts”, shall be inapplicable to the use and development of the Real Estate, as no Multi-family uses are permitted as part of this Oak Ridge PUD.

ARTICLE 5. BUSINESS DISTRICTS. The terms, conditions, and provisions of this Article 5 shall apply to the use and development of all the Districts within the Oak Ridge PUD.

Section 5.1. General Requirements. The following general requirements apply to all business districts within the Oak Ridge PUD.

- A. Groups of business uses requiring parking space may join in establishing group parking area with not less than 80% of the sum of the separate requirements for each participating use.
- B. Public parking area and loading and unloading berths shall be paved with a hard surface.
- C. Loading and unloading berths shall not be required for business uses, which demonstrate that they do not receive or transmit goods or wares in quantity by truck delivery.
- D. Parking may be permitted in all required Building Setback Areas in business districts.
- E. The maximum building height requirements may be increased if buildings are set back, from front and rear property lines, one foot for each two feet of additional height above the maximum building height requirement. In no case shall a building exceed forty-five (45) feet in height or three stories, whichever is greater.
- F. Chimneys, cooling towers, elevator bulkheads, fire towers, penthouses, stacks, tanks, water towers, distribution poles and lines, transmission towers, or essential mechanical appurtenances may be erected to exceed the maximum building height by no more than 15'.
- G. A suitable planting buffer shall be provided on any business yard that abuts a residential area in accordance with Article 14 – Landscaping Standards.
- H. There shall be no storage or display of merchandise outside of a building except in a permanent outside sales display area established for the purpose. Permanent outside sales display areas shall be permitted only in the OR – Commercial 2 District.
- I. Outside merchandise associated with sidewalk-type sales events of less than one (1) week in duration and with a frequency of no more than once every six (6) calendar months is permitted. Sidewalk cafes are exempt from time restrictions.
- J. Pedestrian walkways shall be provided between buildings and parking areas. Sidewalk connections shall also be made between buildings and adjacent sidewalks/paths within the right-of-way.

Section 5.2. OR - Office District - This district is established to accommodate the general office and service needs of the surrounding area.

The OR – Office District is reclassified on the Zone Map from the EI – Enclosed Industrial District classification to the Planned Unit Development District classification, the underlying zoning of which shall be the GO - General Office District in the Zoning Ordinance as specified in the Underlying Zoning Compendium. Said underlying zoning classification, specified in the Underlying Zoning Compendium, as modified below by the deletion, addition, or modification of the provisions and text thereof, shall govern the use and development of the OR – Office District.

A. Special Requirements.

1. Architectural Standards (see Section 5.6)

B. Permitted Uses.

1. See Article 11 (Table of Permitted Uses) for list of permitted uses.
2. Any other business not listed which can be classified as general office will be eligible with the approval by the Director.
3. No Retail Uses are permitted within the OR – Office District.

C. Minimum Development Plan Requirement. A minimum of three (3) acres is required for a Development Plan Application. Development Plan Amendments do not need to meet the minimum tract requirements of this section.

D. Minimum Lot Area. None

E. Minimum Development Plan Frontage on Road. 330 Feet

F. Minimum Building Setback Lines (applied to perimeter of the OR - Office District):

1. Front Yard: Sixty (60) feet along SR 32. Twenty (20) feet for all other streets.
2. Side Yard: Twenty (20) feet (Zero (0) feet for interior lot lines).
3. Rear Yard: Twenty (20) feet (Zero (0) feet for interior lot lines).

G. Maximum Building Height. Forty-five (45) feet.

- H. Minimum Building Height. Fourteen (14) feet, to the highest point of the roof for a building with a flat roof; twelve (12) feet to the lowest eaves for a building with a gable, hip or gambrel roof.
- I. Minimum Building Gross Floor Area. Four-thousand (4,000) square feet.
- J. Maximum Building Size. No individual building shall exceed a building footprint of 16,000 square feet or a maximum floor area of 32,000 square feet.
- K. Loading and Parking. See Article 9.
- L. Signs. See Article 16.
- M. Landscaping. See Article 14.
- N. Lighting. See Article 15.

Section 5.3. OR – Commercial 1 District. This district is established to provide goods and services used by nearby residents and employees on a day-to-day basis, as opposed to attracting customers and clients from a large geographic area. The purpose of this district is to allow retail, service, and office development of a nature that the area will be developed in a design generally consistent with Exhibit “C” of the Oak Ridge PUD.

The OR – Commercial 1 District is reclassified on the Zone Map from the EI – Enclosed Industrial District classification to the Planned Unit Development District classification, the underlying zoning of which shall be the LB (Local Business District) in the Zoning Ordinance as specified in the Underlying Zoning Compendium. Said underlying zoning classification, specified in the Underlying Zoning Compendium, as modified below by the deletion, addition, or modification of the provisions and text thereof, shall govern the use and development of the OR - Commercial 1 District.

- A. Special Requirements.
 - 1. Architectural Standards (see Section 5.6)
 - 2. No outside storage or sales display is permitted.
- B. Permitted Uses.
 - 1. See Article 11 (Table of Permitted Uses) for list of permitted businesses.
 - 2. Any other business not listed which can be classified as general retail sales, general personal services or general office will be eligible with the approval by the Director.

3. Retail Uses shall not exceed 21,800 square feet of total floor area within the district.
- C. Minimum Tract Requirement. A minimum of two (2) acres is required for a Development Plan Application. Development Plan Amendments do not need to meet the minimum tract requirements of this section.
 - D. Minimum Lot Area. None
 - E. Minimum Development Plan Frontage on Road. Three hundred and thirty (330) feet. Amendments do not need to meet the minimum tract requirements of this section.
 - F. Minimum Setback Lines (applied to perimeter of the OR - Commercial 1 District).
 1. Front Yard: Sixty (60) feet along SR 32. Twenty (20) feet for all other streets.
 2. Side Yard: Twenty (20) feet (zero (0) feet for interior lot lines)
 3. Rear Yard: Twenty (20) feet (zero (0) feet for interior lot lines)
 - G. Maximum Building Height. Thirty-five (35) feet.
 - H. Minimum Building Height (All Uses). Fourteen (14) feet to the highest point of the roof for a building with a flat roof; twelve (12) feet to the lowest eaves for a building with a gable, hip or gambrel roof.
 - I. Building Size.
 1. No building shall exceed a floor area of 18,000 square feet.
 2. The minimum building size shall be 8,000 square feet.
 - J. Loading and Parking. See Article 9.
 - K. Signs: See Article 16.
 - L. Landscaping: See Article 14.
 - M. Lighting: See Article 15.

Section 5.4. OR – Commercial 2 District. This district is established to provide goods and services used by nearby residents and employees on a day-to-day basis, as opposed to attracting customers and clients from a large geographic area. The purpose of this district is to allow retail,

service, and office development of a nature that the area will be developed in a design generally consistent with Exhibit “C” of the Oak Ridge PUD.

The OR – Commercial 2 District is reclassified on the Zone Map from the EI – Enclosed Industrial District classification to the Planned Unit Development District classification, the underlying zoning of which shall be the LB (Local Business District) in the Zoning Ordinance as specified in the Underlying Zoning Compendium. Said underlying zoning classification, specified in the Underlying Zoning Compendium, as modified below by the deletion, addition, or modification of the provisions and text thereof, shall govern the use and development of the OR - Commercial 2 District.

A. Special Requirements.

1. Architectural Standards (see Section 5.6)
2. Outside storage or sales display is shall not be located between the building and the street and shall occupy an area of no more than 800 square feet.

B. Permitted Uses.

1. See Article 11 (Table of Permitted Uses) for list of permitted businesses.
2. Any other business not listed which can be classified as general retail sales, general personal services or general office will be eligible with the approval by the Director.
3. Retail Uses shall not exceed 3,600 square feet of floor area within the district.

C. Minimum Tract Requirement. The acreage of the entire District is required for a Development Plan Application. Development Plan Amendments do not need to meet the minimum tract requirements of this section.

D. Minimum Lot Area. None

E. Minimum Development Plan Frontage on Road. Not applicable due to minimum tract requirement.

F. Minimum Setback Lines (applied to perimeter of the OR - Commercial 2 District).

1. Front Yard: Sixty (60) feet along SR 32. Twenty (20) feet for all other streets.
2. Side Yard: Twenty (20) feet (zero (0) feet for interior lot lines and ten (10) feet adjacent to the OR – Commercial 3 District)

3. Rear Yard: Twenty (20) feet (zero (0) feet for interior lot lines and ten (10) feet adjacent to the OR – Commercial 3 District)

G. Maximum Building Height. Thirty-five (35) feet.

H. Minimum Building Height. Fourteen (14) feet to the highest point of the roof for a building with a flat roof; twelve (12) feet to the lowest eaves for a building with a gable, hip or gambrel roof.

I. Building Size.

1. No individual building shall exceed a floor area of 10,000 square feet.
2. The minimum building size shall be 2,600 square feet.

J. Building Orientation.

1. The canopy constructed over fuel pump islands shall not extend forward of the primary building (closer to SR 32 or Oak Ridge Road).

K. Loading and Parking. See Article 9.

L. Signs: See Article 16.

M. Landscaping: See Article 14. Perimeter parking lot landscaping shall not be required along the perimeter of the OR - Commercial 2 District and the OR - Commercial 3 District.

N. Lighting: See Article 15.

Section 5.5. OR – Commercial 3 District. This district is established to provide goods and services used by nearby residents and employees on a day-to-day basis, as opposed to attracting customers and clients from a large geographic area. The purpose of this district is to allow retail, service, and office development of a nature that the area will be developed in a design generally consistent with Exhibit “C” of the Oak Ridge PUD.

The OR – Commercial 3 District is reclassified on the Zone Map from the EI – Enclosed Industrial District classification to the Planned Unit Development District classification, the underlying zoning of which shall be the LB (Local Business District) in the Zoning Ordinance as specified in the Underlying Zoning Compendium. Said underlying zoning classification, specified in the Underlying Zoning Compendium, as modified below by the deletion, addition, or modification of the provisions and text thereof, shall govern the use and development of the OR - Commercial 3 District.

A. Special Requirements.

1. Architectural Standards (see Section 5.6)
2. No outside storage or sales display is permitted.

B. Permitted Uses.

1. See Article 11 (Table of Permitted Uses) for list of permitted businesses.
2. Any other business not listed which can be classified as general retail sales, general personal services or general office will be eligible with the approval by the Director.
3. Retail Uses shall not exceed 6,000 square feet of floor area within the district.

C. Minimum Tract Requirement. The acreage of the entire District is required for a Development Plan Application. Development Plan Amendments do not need to meet the minimum tract requirements of this section.

D. Minimum Lot Area. None

E. Minimum Development Plan Frontage on Road. Not applicable due to minimum tract requirement.

F. Minimum Setback Lines (applied to perimeter of the OR - Commercial 1 District).

1. Front Yard: Sixty (60) feet along SR 32. Twenty (20) feet for all other streets.
2. Side Yard: Twenty (20) feet (zero (0) feet for interior lot lines and ten (10) feet adjacent to the OR – Commercial 2 District)
3. Rear Yard: Twenty (20) feet (zero (0) feet for interior lot lines and ten (10) feet adjacent to the OR – Commercial 2 District)

G. Maximum Building Height. Thirty-five (35) feet.

H. Minimum Building Height (All Uses). Fourteen (14) feet to the highest point of the roof for a building with a flat roof; twelve (12) feet to the lowest eaves for a building with a gable, hip or gambrel roof.

I. Building Size.

1. No individual building shall exceed a floor area of 14,000 square feet.
2. The minimum building size shall be 4,000 square feet.

- J. Loading and Parking. See Article 9.
- K. Signs: See Article 16.
- L. Landscaping: See Article 14. Perimeter parking lot landscaping shall not be required along the perimeter of the OR - Commercial 2 District and the OR - Commercial 3 District.
- M. Lighting: See Article 15.

Section 5.6. Architectural Standards.

A. General Requirements.

1. Development must conform generally with the exhibits contained within the Oak Ridge PUD. Zoning Districts may be individual development areas, with requirements specific to each area. (example: OR – Commercial 1 District on the south side of State Road 32 may have a unique and different design theme than development in the OR – Commercial 2 and 3 Districts on the north side of State Road 32.)
2. Signage shall be in conformance with regulations of an Architectural Tenant Criteria agreement and Article 16 of this Oak Ridge PUD. Signs may be lit externally and internally.
3. All heating, ventilating, communication, and other similar equipment located on the roof of any facility shall be screened from view on all sides in a manner that is homogenous with the balance of the structure.
4. Street light fixtures shall be pedestrian-scale fixtures.
5. Crosswalks shall be emphasized with special paving emphasis to reinforce pedestrian safety.
6. Building facades shall be articulated with canopies and/or covered entrances to encourage a more pedestrian friendly environment.
7. Sidewalks adjacent to buildings shall be a minimum of eight (8) feet wide and have a minimum clear width for walking of six (6) feet, unobstructed by any permanent or temporary streetscape elements, signs, displays or outdoor eating areas. Sidewalks may be used for outdoor eating, subject to approval by the Developer.
8. Buildings shown fronting State Highway 32 and Oak Ridge Road shall be required to subscribe to an overall architectural theme by District and buildings

shall be compatible with the character of the subject District as depicted in an approved Development Plan. Common design vocabulary shall include decorative pole lighting, similar landscape palette, and use of a similar building materials palette. Development within each District should be compatible in general exterior design and materials. “Franchise” architecture shall be modified to conform to the above noted design vocabulary.

9. Monument Signage shall be incorporated to match the general character and identity of the primary structures within each District. Iconic elements may be used as entry treatments at Oak Ridge Road and State Highway 32. Monument Signage shall be as directed in Article 16 of this Oak Ridge PUD.
10. Building Materials and Colors. Buildings shall have a simple palette of materials which may include:
 - a. Plaster, brick and stucco wall material
 - b. Split-faced block concrete
 - c. Glass
 - d. Masonry
11. Prohibited Building Materials. Prohibited materials include these materials on any building:
 - a. Rustic materials and overlay decorative materials
 - b. Heavy shakes, slump block and weeping mortar
 - c. Plastic, plywood, aluminum or vinyl siding

ARTICLE 6. STATE HIGHWAY 32 OVERLAY ZONE. Section 16.04.075 of the Zoning Ordinance, entitled “State Highway 32 Overlay Zone”, shall be inapplicable to the use and development of the Real Estate, as appropriate standards are specified in Article 5 – Business Districts and 14 – Landscaping Standards, and the corresponding Exhibits, of this Oak Ridge PUD.

ARTICLE 7. STATE HIGHWAY 32 LANDSCAPE OVERLAY ZONE. Section 16.04.077 of the Zoning Ordinance, entitled “State Highway 32 Landscape Overlay Zone”, as specified in the Underlying Zoning Compendium, and as modified in Section 14.8 of this Oak Ridge PUD by the deletion, addition, or modification of provisions and text thereof, shall govern the use and development of the applicable land uses.

ARTICLE 8. MULTI-FAMILY DEVELOPMENT PLAN, FENCING, ACCESSORY BUILDING REQUIREMENTS. Section 16.04.100 of the Zoning Ordinance, entitled (Multifamily Development Plan, Fencing, Accessory Building Requirements”, shall be inapplicable to the use and development of the Real Estate, as appropriate standards are specified in Article 5 of this Oak Ridge PUD.

ARTICLE 9. OFF-STREET LOADING AND PARKING

Section 9.1. Loading Berths.

- A. Loading Berths shall be screened per the requirements of Article 14.4.I of this Oak Ridge PUD.
- B. Off-street loading berths shall be provided only to the rear and side of buildings. Loading berths are not permitted along the front façade of building.
- C. Shared loading facilities may be provided for multiple businesses.
- D. Business and Professional Offices, Medical Facilities, Schools, Hotels and Similar Businesses shall provide one loading berth for each one hundred thousand (100,000) square feet of space or additional fraction thereof.
- E. Other business uses shall provide a minimum of one (1) loading berth for businesses with five thousand (5,000) square feet to fifteen thousand (15,000) square feet. A minimum of two (2) loading berths shall be provided for businesses with fifteen thousand one (15,001) square feet to one hundred thousand (100,000) square feet.

Section 9.2. Off-street Parking. In connection with any building or structure which is to be erected or substantially altered, and which requires off-street parking spaces, there shall be provided such off-street parking space in accordance with regulations set forth hereinafter:

- A. Use. Except as may otherwise be provided for the parking of trucks or for special uses, required accessory off-street parking facilities required as accessory to uses listed herein, lots shall be for the use of adjacent businesses, their patrons, occupants and employees. Areas of the lot may be designated to a specific business.
- B. Location. Parking spaces must be within six hundred (600) feet walking distance from the main entrance to the building served.
- C. Computation. When determination of the number of required parking spaces required by this section results in a requirement of fractional space, any fraction shall be counted as one parking space. On-street parking may be included in the parking count.
- D. Collective Provisions for Non-Residential Uses. Off-street parking facilities for separate uses may be provided collectively if the total number of spaces so provided is not less than 80% of the sum of the separate requirements of each such use.

- E. Size. A required off-street parking space shall be at least ten (10) feet in width and at least twenty (20) feet in length, exclusive of access drives, aisles, ramps, columns. Such space shall have vertical clearance of at least seven (7) feet. Parallel parking shall require twenty-two (22) feet in length.
- F. Access. Each required off-street parking space shall open directly upon an aisle or a driveway of such width and design as to provide safe and efficient means of vehicular access to such parking space.

Angle of Parking Space	Aisle Width
45 degree angle	14 Feet
60 degree angle	18 Feet
90 degree angle	24 Feet

All off-street parking facilities shall be provided with appropriate means or vehicular access to a street in a manner which will least interfere with traffic movements.

- G. Curbs. All parking lots (associated with non single-family residential uses) including access drives and parking spaces shall require concrete curbing.
- H. Surfacing. All open off-street parking areas shall be improved with a compacted gravel or stone base, or equal, not less than four (4) inches thick, and paved. The owner is to be responsible for any replacement of blacktop to said parking area necessitated by the Town's repair of underground facilities.
- I. Lighting. A system of pole lights shall be installed to provide an adequate standard of illumination over the parking lot of planned business developments during business hours and minimum security illumination during non-business hours. Emergency lighting shall be permitted during non-business hours.
- J. Required Spaces. Parking spaces accessory to designated uses shall be provided to meet the following minimum requirements:
 - 1. Hotels: One (1) parking space for each room plus one (1) parking space for each two (2) employees on day shift.
 - 2. Medical and Dental Clinics: Three (3) parking spaces for each examining or treatment room, plus one (1) parking space for each doctor and employee in the building.

3. Establishments handling the sale and consumption of food and refreshment on the premises: One (1) parking space for each three (3) seats of serving area plus one parking space for each employee on primary shift.
4. Banks, Savings and Loans, and Financial Institutions: One parking space per each three hundred (300) square feet of floor space.
5. General Offices: One (1) parking space per each two hundred fifty (250) square feet of assignable office area.
6. Retail Uses: One (1) parking space per each three hundred (300) square feet of floor space.
7. Service Stations: One (1) parking space for each employee, plus two (2) for each service stall.
8. Parking space requirements for other uses will be determined by the Director based upon data supplied by the applicant in response to traffic and parking data requested to be furnished with the application for an improvement location permit.

9.3 Bicycle Parking. To read as follows: In connection with any building or structure or structure which is to be erected or substantially altered, and which requires off-street vehicular parking spaces, there shall be provided such bicycle parking in accordance with regulations set forth hereinafter:

- A. Location. Bicycle parking must be provided within six hundred (600) feet from the main entrance to the building served.
- B. Required Number. Bicycle parking shall be provided to meet the following minimum requirements:
 1. Non-Residential Uses.
 - a. Facilities designed to accommodate five (5) bicycle parking spaces per one hundred (100) required vehicular parking spaces shall be provided for all non-residential uses.
 2. The required bicycle parking facilities noted in this section shall be designed to accommodate a minimum of four (4) bicycles.

ARTICLE 10. DEVELOPMENT PLAN REVIEW. Purpose: A Development Plan Review process is hereby established for the Oak Ridge PUD. The Development Plan Review Process shall be applicable to all zoning districts. The approval or disapproval of a Development Plan is hereby delegated to the Plan Commission or, in certain limited situations as set forth below, to the Director.

Section 10.1. Districts Designated for Development Plan Review.

- A. Development Plan Approval. The approval of a Development Plan shall be a prerequisite for any: (i) new construction; (ii) building additions; (iii) new or expanded surface parking areas; (iv) new or expanded surface loading areas; (v) exterior building renovations that require a building permit; or, (vi) permanent signs that require a permit pursuant to the Zoning Ordinance.

- B. Development Plan Authority.
 - 1. The authority to approve or disapprove a Development Plan within the Real Estate is delegated to the Advisory Plan Commission.
 - 2. The review process for Development Plans for individual outlots or blocks within a Development Plan previously approved by the Advisory Plan commission shall be delegated to the Director.

- C. Development Requirements (General). Each Development Plan shall demonstrate compliance with all applicable provisions of this Oak Ridge PUD;
 - 1. The applicable utilities have sufficient capacity to provide potable water, sanitary sewer facilities, electricity, telephone, natural gas, and cable service at a satisfactory level of service to meet the needs of the proposed development; and,
 - 2. The entrances, streets and internal traffic circulation facilities in the proposed development are compatible with existing and planned streets and adjacent development.

Section 10.2. Development Plan Review. Development Requirements for each District.

- A. Site Access and Site Circulation:
 - 1. All proposed site access locations shall comply with the requirements of the Indiana Department of Transportation, Driveway Permit Manual (1996 Version) and any amendments thereto, which is hereby incorporated into and made a part of this Ordinance by this reference;

2. All proposed site access locations shall provide for the safe and efficient movement of vehicular and pedestrian movement to and from the proposed development; and,
 3. Site circulation patterns shall be designed to minimize conflicts between vehicular and pedestrian traffic, and create a safe and efficient movement of both vehicular and pedestrian traffic in and around the site.
- B. Where site access has been officially approved by an agency other than the Town, the Plan Commission shall not be compelled to include such approved access in the approval of the Development Plan.
 - C. Landscaping: See Article 14.
 - D. Lighting: See Article 15.
 - E. Signs: See Article 16
 - F. Building Materials. In order to create variation and interest in the built environment, all new buildings or building additions shall use the exterior building materials specified in Article of this Oak Ridge PUD.
 - G. Development Plan as Requirement for Primary Plat Approval. Approval shall not be granted to any primary plat unless a development plan shall have been approved prior to or contemporaneous with the primary plat.

Section 10.3. Findings Required for Approval of a Development Plan. The Plan Commission or Director shall approve a Development Plan upon finding that the proposed development plan satisfies the development requirements specified in this Oak Ridge PUD.

Section 10.4. Plan Documentation and Supporting Information. All requests for Development Plan approval shall include the following plans:

- A. Site Plan.
- B. Overall Plan.
- C. Landscape Plan.
- D. Building Elevations.
- E. Lighting Plan.
- F. Sign Plan.
- G. Site Access and Site Circulation Plan.

H. Statement of Development Build-out.

Section 10.5. Procedures.

A. Application for Development Plan Approval by the Plan Commission shall be in compliance with the following procedures:

1. **Pre-Filing Conference.** A pre-filing conference with Staff is required prior to the filing of any Development Plan for public hearing before the Plan Commission. At the pre-filing conference, the petitioner shall provide three (3) copies of a preliminary sketch plan capable of depicting the proposed development. Staff may take up to ten (10) business days to review the proposed sketch plan and provide comments back to the petitioner. The petitioner is encouraged to incorporate the comments received from Staff into the design of the project prior to filing for Development Plan approval.

Notwithstanding anything contained in this Oak Ridge PUD to the contrary, neither the Staff's conceptual review of the sketch plan nor Staff's comments to the petitioner relating thereto shall be considered a denial, approval or decision concerning the proposed Development Plan.

2. **Who May File.** Development Plans may be initiated by a petition signed by the owners of the land involved in the petition, or the owner's authorized agent and the Developer. If an authorized agent files a petition, a signed and notarized consent form must accompany the application.
3. **Filing Deadline.** All Development Plans shall be filed at least forty (40) days prior to the initial public meeting at which they are to be considered by the Plan Commission.
4. **Forms of Filing.** All Development Plans for public hearing by the Plan Commission shall be on forms provided by the Community Development Department. In addition, Site Plans, Overall Plans, Landscape Plans, Building Elevations, Lighting Plans, Sign Plans, Site Access and Site Circulation Plans, surveys, legal descriptions, proposed commitments and any other relevant supporting documentation shall be of a usable scale and quality. The number of copies of all petitions and supporting documentation required to be filed shall be as established by the Community Development Department.
5. **Findings of Fact.** The petitioner shall, at the time of filing of the petition, file proposed detailed written findings of fact.

6. Specifying Request. All Development Plans shall specify the approvals or waivers requested. Any items, even if indicated on the proposed Site Plan, Overall Plan, Building Elevations or Site Access and Site Circulation Plan, shall not be considered a part of the request presented to the Plan Commission for its consideration unless specified in the Development Plan.
7. Docketing by the Community Development Department. Each Development Plan filed shall be reviewed for completeness. All Development Plans which are determined to be in proper form pursuant to the guidelines established by the Community Development Department shall, within ten (10) days of filing, be numbered and docketed by the Staff for an initial hearing by the Plan Commission.
8. Investigation of Petitions. Upon assignment of a number and hearing date, a copy of the Development Plan and relevant supporting documentation shall be distributed to members of Staff and the members of the Technical Advisory Committee for review and comment.

The Director may submit a written report to the Plan Commission stating any facts concerning the physical characteristics of the area involved in the Development Plan, together with a recital of surrounding land use and public facilities available to service the area, or other pertinent facts. The written report may also contain opinions of the Staff concerning the proposal contained in the Development Plan and a report from members of the Technical Advisory Committee. A copy of such statement shall be made available to the Petitioner and all remonstrators of record, if any.

9. Notice Requirements. All notices for public hearings regarding a Development Plan Approval before the Plan Commission shall be provided in accordance with the Plan Commission's Rules of Procedure. Any Development Plan, which has been delegated to Director for approval, may occur without public notice and without a public hearing. All detailed development plan approvals are delegated to the Director.

B. Application for Development Plan Approval by the Director shall be accomplished in compliance with the following procedures:

1. All Development Plans for approval by the Director shall be on forms provided by Community Development Department. In addition, Site Plans, Building Elevations, surveys, legal descriptions, proposed commitments and any other relevant supporting documentation shall be of a usable scale and quality. The number of copies of a Development Plan and supporting documentation required to be filed shall be as established by the Community Development Department.

2. Contact the Director to make an appointment to deliver the Development Plan and provide a brief explanation of the proposed development.
3. Director shall have a period of not more than fifteen (15) days in which to review the proposed Development Plan and either make a decision concerning the Development Plan or request, in writing, additional information from the applicant.
4. Director may seek the advice and comment of members of Staff or the Technical Advisory Committee prior to making a decision.
5. Any Development Plan, which has been delegated to the Director, may occur without public notice and without a public hearing.
6. Appeals of Determinations by Director. Any determination of the Director made under the authority of this Chapter may be appealed by any interested party to the Plan Commission within five (5) business days of such decision by filing a letter with the Plan Commission. Such letter shall request a hearing on the matter by the Plan Commission at the Plan Commission's next regularly scheduled meeting for which published notice of the appeal pursuant to I.C. 5-3-1 can be provided.

C. Fees. In order to defray administrative costs, the following fees shall be applicable:

1. Development Plans filed for Plan Commission approval – See the Adopted Fee Schedule or,
2. Development Plans filed for Director's approval – included in the building permit fee.

The applicant shall pay all fees at the time of filing of a Development Plan.

D. Hearings. All public hearings regarding a Development Plan before the Plan Commission shall be conducted in accordance with the procedures set forth in the Rules of Procedure of the Plan Commission and in this Subsection I.

E. Amendments.

1. Amendments to Development Plans pending determination by the Plan Commission.
 - a) Amendments Proposed at a Public Hearing. The applicant may make amendments to Development Plans pending determination by the Plan Commission at any time prior to a vote being called for by the Plan Commission. If, in the sole discretion of the Plan

Commission, the proposed amendment is of such a nature that additional time is needed for review, the Plan Commission may continue the consideration of such amended Development Plan to the next meeting of the Plan Commission.

The Plan Commission, in its sole discretion, may assign a continued Development Plan to a committee of the Plan Commission for further review and evaluation prior to the next meeting of the Plan Commission.

If amendments are presented by the Petitioner and agreed to by the Plan Commission at the public hearing, revised plans indicating all amendments, as approved by the Plan Commission, shall be filed with the Community Development Department within thirty (30) days of the Plan Commission hearing or prior to the issuance of an Improvement Location Permit, whichever is earlier.

- b) Amendments to Development Plans Prior To Preparation of a Staff Report. In order for the written Staff Report regarding a Development Plan to include comments and recommendations related to plans amended in response to comments provided by Staff or members of the Technical Advisory Committee, any such amendments must be received by Staff at least two (2) weeks prior to the scheduled public hearing by the Plan Commission.

If the Director determines that additional changes have been made to the Development Plan beyond those necessary to comply with the recommendations of Staff or members of the Technical Advisory Committee, the Director may continue the public hearing of the Development Plan before the Westfield – Washington Township Plan Commission and require the re-submittal of the amended plans for review by Staff and members of the Technical Advisory Committee.

- 2. Amendments to Development Plans Pending Determination by the Director. The applicant may make amendments to Development Plans pending determination by the Director at any time prior to a determination being made by the Director. If, in the sole discretion of the Director, the proposed amendment is of such a nature that additional time is needed for review, the amended Development Plan shall be deemed a new filing and shall be reviewed within the time frames set forth in WC 16.04.165, I., 2., above for the initial review of Development Plans by the Director.
- 3. Amendments to Approved Development Plans. Minor amendments to Development Plans which have already received approval from the Plan Commission or the Director and which do not involve: (a) an increase in

height, area, bulk or intensity of land uses; (b) the designation of additional land uses; (c) the reduction in perimeter yards; (d) the addition of driveways or access points; or, (e) reduction in the amount of parking for any use, may be authorized by the Director without a public hearing in its continuing administration of the Development Plan if, in the determination of the Director, the requested minor amendments do not adversely impact the purpose or intent of the overall development.

Such minor amendments authorized by the Director shall be reported, in writing, to the Plan Commission at the next regular meeting of the Plan Commission.

If the Director determines that the proposed minor modification is of such a nature as to adversely impact the purpose or intent of the overall development, or if the proposed modification includes an increase in intensity of any land use or if the proposed modification includes the designation of an additional land use(s), petitioner shall be required to file a new petition for Development Plan Approval.

Any decision of the Director regarding the amendment of Development Plan may be appealed by any interested party to the Plan Commission within thirty (30) days of such determination.

- F. Signature for Findings. All findings specified above for the approval of a Development Plan shall be reduced to writing and signed by the Director of the Community Development Department in the case of a determination by the Director, or by the President of the Plan Commission in the case of a determination by the Plan Commission, and retained as a part of the permanent record of the determination.

Section 10. 6. Plan Documentation. This section applies to all Development Plan Applications requiring Plan Commission Review.

- A. This section applies to all Development plan Applications requiring Plan Commission Review. A site plan (indicates the nature of the proposed development) filed in connection with the submission of a Development Plan shall be drawn to scale of not more than 1"=100' and shall include the following items:

1. North arrow;
2. Graphic scale;
3. Address of the site;
4. Proposed name of the development;

5. Area map insert showing the general location of the site referenced to major streets, section lines and Alternative Transportation System, as well as the zoning and land use of adjacent property;
6. Legal description of the site;
7. Boundary lines of the site including all dimensions of the site;
8. Names, centerlines and right-of-way widths of all streets, alleys and easements;
9. Layout, number, dimension and area (in square feet and acres) of all lots and out lots with zoning setback lines or building setback lines;
10. Location and dimensions of all existing structures, including paved areas;
11. Location and dimensions of all proposed structures, including paved areas, and indicated by cross-hatching;
12. Location and name of all existing and proposed public or private streets, access easements, Alternative Transportation System, and rights-of-way within two-hundred (200) feet of the site;
13. Location of all floodway and floodway fringe areas within the boundaries of the site;
14. Location of all existing and proposed utility facilities and easements, including, but not limited to: sanitary sewer, water, storm water management, electric, gas, telephone and cable;
15. Use of each structure by labeling including approximate density or size of all proposed uses and structures on the site (e.g. parking - # of parking spaces required and provided, residence - # of dwelling units per net acre, office - gross floor area);
16. Structures proposed for demolition should be indicated as such;
17. Distance of all structures from front, rear and side lot lines. (This distance is measured as a line from the point where the structure is closest to the lot line. This line is perpendicular to the lot line.);
18. Location of any proposed or existing driveway and its width at the lot line. (Any connection to an alley must also be indicated);
19. All improvements to street system on-site and off-site;

20. Plan for sidewalks or Alternate Transportation System;
21. Measurement of curb radius and/or taper;
22. Names of legal ditches and streams on or adjacent to the site;
23. Location and type (e.g. ground, pole, wall) of all signs on the site;
24. Areas reserved for park, recreation, conservation, wetland, common area, lake, trails or other similar uses;
25. Existing zoning and land use of all adjoining real estate; and,
26. All Elements as required by the Westfield Public Works Department and Town of Westfield.
27. Any other information necessary to support a thorough review of the project and as requested in writing by the Plan Commission or Director.
28. Director, in its sole discretion, may, in writing, waive or relax any of the Site Plan requirements listed above, which are not necessary to support a thorough review of the project.

B. This section applies to all Development plan Applications requiring review by the Director. A site plan (indicates the nature of the proposed development) filed in connection with the submission of a Development Plan shall be drawn to scale of not more than 1"=100' and shall include the following items:

1. North arrow;
2. Graphic scale;
3. Address of the site;
4. Legal description of the site;
5. Boundary lines of the site including all dimensions of the site;
6. Names, centerlines and right-of-way widths of all streets, alleys and easements;
7. Location and dimensions of all existing structures, including paved areas;
8. Location and dimensions of all proposed structures, including paved areas, and indicated by cross-hatching;

9. Location of all floodway and floodway fringe areas within the boundaries of the site;
 10. Location of all existing and proposed utility facilities and easements, including, but not limited to: sanitary sewer, water, storm water management, electric, gas, telephone and cable;
 11. Use of each structure by labeling and size (e.g. one story house – 1,200 sq. ft., detached garage – 576 sq. ft., storage shed – 120 sq. ft.);
 12. Structures proposed for demolition should be indicated as such;
 13. Distance of all structures from front, rear and side lot lines. (This distance is measured as a line from the point where the structure is closest to the lot line. This line is perpendicular to the lot line.);
 14. Location of any proposed or existing driveway and its width at the lot line. (Any connection to an alley must also be indicated);
 15. Measurement of curb radius and/or taper;
 16. Names of legal ditches and streams on or adjacent to the site; and,
 17. All Elements as required by the Westfield Public Works Department and Town of Westfield.
 18. Any other information necessary to support a thorough review of the project and as requested in writing by the Plan Commission or Director.
 19. Director, in its sole discretion, may, in writing, waive or relax any of the Site Plan requirements listed above, which are not necessary to support a thorough review of the project.
- C. Overall Plan. An Overall Plan indicates the nature of the subject project and its relationship to the major features of the larger integrated center of which the project is a part filed in connection with the submission of a Development Plan shall be drawn to scale of not more than 1"=100' and shall include the following items:
1. North arrow;
 2. Graphic scale;
 3. Address of the site;

4. Proposed name of the development;
5. Area map insert showing the general location of the site referenced to major streets, section lines and Alternative Transportation System, as well as the zoning and land use of adjacent property;
6. Legal description of the site;
7. Boundary lines of the site including all dimensions of the site;
8. Names, centerlines and right-of-way widths of all streets, alleys and easements;
9. Layout, number, dimension and area (in square feet and acres) of all lots and out lots with zoning setback lines and/or building setback lines;
10. Location and name of all existing and proposed public or private streets, access easements, Alternative Transportation System, and rights-of-way within two-hundred (200) feet of the site;
11. Location of all floodway and floodway fringe areas within the boundaries of the site;
12. Location of all existing and proposed utility facilities and easements, including, but not limited to: sanitary sewer, water, storm water management, electric, gas, telephone and cable;
13. All improvements to street system on-site and off-site;
14. Plan for sidewalks or Alternate Transportation System;
15. Location, dimensions, and type (e.g. ground, pole, wall) of all signs on the site. Include separate elevations of proposed sign structures with all dimensions drawn to scale;
16. Areas reserved for park, recreation, conservation, wetland, common area, lake or other similar uses;
17. Any other information necessary to support a thorough review of the project and as requested in writing by the Plan Commission or Director.
18. Director, in its sole discretion, may, in writing, waive or relax any of the Overall Plan requirements listed above, which are not necessary to support a thorough review of the project.

- D. Landscape Plan Landscape Plans filed in connection with the submission of a Development Plan shall indicate compliance with the requirements of Article 14 - Landscaping Standards; be drawn to scale of not more than 1"=100'; and, include the following items:
1. Names and addresses of owners, developers, plan preparers, plan preparation dates, graphic scale of drawings, and north arrow;
 2. Address of the site;
 3. Proposed name of the development;
 4. Locations and dimensions of all existing and proposed structures, parking lots, driveways, roadways, rights-of-way, sidewalks, pedestrian pathways, bicycle pathways, ground signs, refuse disposal areas bicycle parking areas, freestanding electrical equipment, recreation facilities, utility lines, easements, freestanding structural features, landscape improvements, earth berms, walls, fences, screens, sculptures, fountains, street furniture, lights, courts, paved areas, buffer yards, primary and secondary green space areas, and green belt space;
 5. Locations, quantities, sizes and names (botanical names and common names) – of planting materials;
 6. Existing and proposed grading plans, indicating contours at not more than two-foot intervals;
 7. Locations of barriers to be placed at or beyond the driplines of trees to be preserved and types of materials to be used for barriers;
 8. Planting and installation details as necessary to ensure conformance with required standards;
 9. Details indicating specific grading measures or protective devices to be utilized where trees are to be preserved in areas of cut and fill;
 10. Tables clearly displaying relevant statistical information, including numbers of existing trees, numbers of trees to be preserved, etc.;
 11. Overlay sheets at the same scale as landscape plans that display locations, sizes, and common names of individual trees that measure eight (8) inches or more in caliper, areas of dense trees or shrubs, and other natural areas which are to be preserved or removed; and,
 12. Any other information necessary to support a thorough review of the project and as requested in writing by the Plan Commission or Director.

13. Director, in its sole discretion, may, in writing, waive or relax any of the Landscape Plan requirements listed above, which are not necessary to support a thorough review of the project.
- E. Building Elevations. Building Elevations filed in connection with the submission of a Development Plan shall be drawn to scale and shall include the following items:
1. Address of the site;
 2. Proposed name of the development;
 3. Graphic scale;
 4. Elevations for each facade of the building;
 5. Specification or sample of the type and color of building materials to be used for all wall, window, roof and other architectural features;
 6. A separate true color rendering of the proposed building, including any proposed wall sign;
 7. Placement, size, color and illumination details for any proposed wall sign;
 8. Details of any exterior architectural lighting proposed on or around the building;
 9. Any other information necessary to support a thorough review of the project and as requested in writing by the Plan Commission or Director.
 10. Director, in its sole discretion, may, in writing, waive or relax any of the Building Elevation requirements listed above, which are not necessary to support a thorough review of the project..
- F. Lighting Plan. Lighting Plans filed in connection with the submission of a Development Plan shall: indicate compliance with the requirements of Article 15. Lighting Standards, be drawn to scale of not more than 1"=100', and, include the following items:
1. North arrow;
 2. Graphic scale;
 3. Address of the site;

4. Proposed name of the development;
 5. Boundary lines of the site including all dimensions of the site;
 6. Location and dimensions of all existing structures, parking areas and walkways;
 7. Type and location of all exterior of lighting fixtures, including, wattage and type of light;
 8. Intensity of lighting at base of light structure and at the lot line measured in foot-candles;
 9. If architectural building lighting is proposed, indicate the location, type and intensity of lighting on each building façade. (If architectural building lighting is proposed, the photometric plan required in item h. above, shall include the architectural building lighting in the measurement of overall light intensity at the lot line.);
 10. Timing of lighting and method of control of lighting; and,
 11. Any other information necessary to support a thorough review of the project and as requested in writing by the Plan Commission or Director.
 12. Director, in its sole discretion, may, in writing, waive or relax any of the Lighting Plan requirements listed above, which are not necessary to support a thorough review of the project.
- G. Sign Plan. Sign Plans filed in connection with the submission of a Development Plan shall; indicate compliance with the requirements of Article 16 - Sign Standards; be drawn to scale; and, include the following items:
1. Address of the site;
 2. Proposed name of the development;
 3. Graphic scale;
 4. A site plan indicating the location of any existing or proposed freestanding signs;
 5. A site plan indicating the location of any building upon which a sign is to be mounted, with the location of the signs indicated;
 6. Elevation of proposed signs including size, materials and color;

7. A true color rendering of the proposed signs;
 8. Illumination details for proposed signs, including the timing of sign illumination and method of control of such illumination; and,
 9. Any other information necessary to support a thorough review of the project and as requested in writing by the Plan Commission or Director.
 10. Director, in its sole discretion, may, in writing, waive or relax any of the Sign Plan requirements listed above, which are not necessary to support a thorough review of the project.
 11. All signs and areas for the signs, residential, non-residential, and temporary, will be in accordance within Town construction Standards and Specifications. A sign plan for the entire development shall be submitted and approved by the Community Development Department and WPWD. Any non-standard road signs that are proposed will be the responsibility of the Developer or the HOA to replace after installation. WPWD will only replace signs that are standard to the current “stock” signs utilized by WPWD.
- H. Site Access and Site Circulation Plan. A Site Access and Site Circulation Plan shall be required for all development, except individual single-family homes. The Site Access and Site Circulation Plan shall be drawn to scale of not more than 1"=100' and shall include the following items:
1. North arrow;
 2. Graphic scale;
 3. Address of site;
 4. Proposed name of the development;
 5. Area map insert showing the general location of the site referenced to major streets, section lines and Alternate Transportation System;
 6. Names, centerlines and right-of-way widths of all streets, alleys and easements;
 7. Location and name of all existing and proposed public or private streets, access easements and rights-of-way within two-hundred (200) feet of the site;
 8. Location of any proposed or existing driveway onto a street or alley and its width at the lot line;

9. Depictions of all travel lanes, turning movements, vehicle storage areas and tapers, including dimensions, at all driveways;
 10. All improvements to the street system on-site and off site;
 11. Centerline measurements between all existing and proposed driveways within two-hundred (200) feet of the site;
 12. Measurement of curb radius and/or taper;
 13. Location and dimensions of primary vehicular ways in and around the proposed development;
 14. Location of any proposed or existing sidewalk or pathway;
 15. Any other information necessary to support a thorough review of the project and as requested in writing by the Plan Commission or Director.
 16. The Site Access and Site Circulation Plan requirements listed above may be incorporated into the required Site Plan.
 17. Director, in its sole discretion, may, in writing, waive or relax any of the Site Access and Site Circulation Plan requirements listed above, which are not necessary to support a thorough review of the project.
- I. Traffic Impact Study. A Traffic Impact Study shall be provided upon the submittal of the first Development Plan Application for the Real Estate. A registered professional engineer shall prepare the Traffic Impact Study. The Traffic Impact Study shall evaluate the impact of present and future traffic generated by the proposed development on the adjacent roadway system. Prior to commencement, an applicant shall meet with the Staff of the Community Development Department and WPWD to determine an appropriate scope for the Traffic Impact Study.
- J. Statement of Development Build-Out. Petitioner shall indicate, either on the submitted site plan, overall plan or in writing, a statement of: (i) the order of development of the major infrastructure elements of the project; (ii) project phase boundaries, if any; (iii) the order and content of each phase; and, (iv) an estimate of the time frame for build-out of the project.

ARTICLE 11. OAK RIDGE PUD - TABLE OF PERMITTED USES

PUD Districts	OR - Office District	OR - Commercial 1 District	OR - Commercial 2 District	OR - Commercial 3 District
Office Uses				
General Office	x	x	x	x
Accountants, Architects, Engineers, Consultants	x	x	x	x
Charitable Institution	x	x	x	x
Consumer Service Office	x	x	x	x
Credit Union Offices	x	x	x	x
Dentists	x	x	x	x
Employment Agencies				
Government Offices-Universities				
Insurance Companies	x	x	x	x
Lawyers	x	x	x	x
Loan Offices	x	x	x	x
Newspaper Publishing				
Optometrists	x	x	x	x
Philanthropic Institutions	x	x	x	x
Physicians and other Health Care Personnel	x	x	x	x
Real Estate Offices	x	x	x	x
Testing Laboratories				
Travel Bureaus	x	x	x	x
Hospitals				
Office Buildings-General Purpose	x	x	x	x
Data Processing	x	x	x	x
Scientific and other Research Laboratories and Facilities	x			
Service Uses				
General Personal Services	x	x	x	x
Hotels, Motels, Bed and Breakfasts				
Assembly Hall / Conference Center				
Auto Rental		x	x	x
Auto Repair Garages				
Auto Rustproofing				
Auto Storage				
Banks, S&Ls and Financial Institutions with or without drive-through		x	x	x
Barber, beauty shops, spas, tanning salons, fitness centers	x	x	x	x
Blueprinting, photocopying Job Printing	x	x	x	x
Car Wash			x	
Charitable donation Pick-Up Station		x	x	x

ARTICLE 11. OAK RIDGE PUD - TABLE OF PERMITTED USES

PUD Districts	OR - Office District	OR - Commercial 1 District	OR - Commercial 2 District	OR - Commercial 3 District
Commissary, Food Catering Services		x	x	x
Crating and Packaging Service		x	x	x
Custard, Ice Cream, Dessert, Candy Shops		x	x	x
Delicatessen		x	x	x
Drive Through Food and Beverage		x	x	x
Drive-In food and Beverage		x	x	x
Dry cleaning and Laundry Pick up with and without Drive-Through		x	x	x
Electronics, computer, cable, TV, Internet & related sales & service		x	x	x
Gasoline Service Stations			x	
Health, Fitness, and Exercise Center	x	x		
Home Remodeling Company	x			
Hospitals(Minor), Medical and Dental Clinics and Labs	x			
Interior Decorating	x			
Laundromats and Self-Service Dry Cleaning		x		x
Locksmith Shops		x		
Mortuaries				
Newspaper Distribution Station	x	x	x	x
Pet Grooming		x	x	x
Photography Studio	x	x	x	x
Picture Framing	x	x	x	x
Printing and Photocopying, small Jobs	x	x	x	x
Radio and TV Service				
Recycling Collection Centers, Drop Off (small)				
Restaurants and dining facilities having > 50% gross sales from food		x	x	x
Restaurants and dining facilities having < 50% gross sales from food		x	x	x
Restaurants with Live Entertainment		x	x	x
Roller and Ice Skating Rinks				
Root beer, coffee, non-alcoholic beverage store with or without drive thru		x	x	x
Semi-Automatic Car Wash			x	
Shoe Repair	x	x	x	x
Tailor or Seamstress	x	x	x	x
Tire and Auto Service Center				
Upholsters				
Veterinarians-Small Animals, No Outdoor Runs	x			x
Concession / Mobility Rental Stand	x			

ARTICLE 11. OAK RIDGE PUD - TABLE OF PERMITTED USES

	OR - Office District	OR - Commercial 1 District	OR - Commercial 2 District	OR - Commercial 3 District
PUD Districts				
Day Care Centers	X			X
Rehabilitation Centers				
Retail Uses				
General Retail Sales		X	X	X
Antiques		X	X	X
Auto Parts Sales		X	X	X
Artisan, pottery, craft production shop		X	X	X
Auto sales, New or used, service				
Bakeries		X	X	X
Bicycle and electric scooter sales, service and repair		X	X	X
Boat and Trailer Sales and Service				
Book stores		X	X	X
Book Stores, Adult				
Camera stores		X	X	X
China and Glassware Shops		X	X	X
Coin shops		X	X	X
Department Stores-Under 10,000 sq.,ft				
Department stores over 10,000 sq.ft				
Discount Stores-Under 10,000 sq.,ft		X	X	X
Discount stores over 10,000 sq.ft		X	X	X
Drug Stores		X	X	X
Electrical or non-polluting vehicle service, rental & sales				
Electrical Supply Store				
Fabric Shops		X	X	X
Floor Coverings				
Florists		X	X	X
Frozen Food Stores and Lockers				
Fruit Stands, Permanent				
Fruit Stands, Temporary(Farmers Mkt)				
Furniture Stores				
Furrier Shops				
Garden and Lawn Materials and Supply Stores				
Gift Shops		X	X	X
Greenhouses, Retail				
Grocery Stores				
Hardware Stores				
Hobby Shops		X	X	X
Home Remodeling Supplies and Materials				
Jewelry Stores		X	X	X
Liquor stores		X	X	X

ARTICLE 11. OAK RIDGE PUD - TABLE OF PERMITTED USES

PUD Districts	OR - Office District	OR - Commercial 1 District	OR - Commercial 2 District	OR - Commercial 3 District
Luggage Stores	X	X	X	
Mail Order Stores	X	X	X	
Major Appliance Store				
Millinery	X	X	X	
Motorcycle sales, rental and service (indoor display)				
Music, Records, Instruments	X	X	X	
Nursery-Plants, Retail				
Paint and Wallpaper Stores	X	X	X	
Pet Shops	X	X	X	
Photography Supplies	X	X	X	
Plumbing Showrooms and Shop				
Racquetball and Handball Clubs, Fitness Centers, and Spas				
Sewing Machine Sales and Service				
Shoe Stores				
Sporting Goods				
Stationery Stores				
Tobacco Shops	X	X	X	
Toy Stores				
Wearing Apparel and Accessory Shops				
Christmas Tree Sales	X	X	X	
Video, DVD Stores	X	X	X	
Wireless Communicaton Devises, Sales and Service	X	X	X	
Educational Uses				
Art Schools	X			
Artisan School	X			
Barber and Beauty Schools	X			
Business and Clerical Schools	X			
Dancing Schools	X			
Educational Institutions Public and Private				
Embalming School				
Language Schools	X			
Music Schools	X			
Photography School	X			
Professional and & Technical Schools	X			
Schools and Kindergartens				
Transportation and Communication Uses				
Bus Stations				

ARTICLE 11. OAK RIDGE PUD - TABLE OF PERMITTED USES

	OR - Office District	OR - Commercial 1 District	OR - Commercial 2 District	OR - Commercial 3 District
PUD Districts				
Bus Stops	X	X	X	X
Commercial Parking Lots and Structures				
Distributors--Inside Storage				
Heliports				
Utilities-Regulated except transmission substations and power generation	X	X	X	X
Utilities-Unregulated except facilities that create air or noise pollution	X	X	X	X
Wireless Communications Towers or Transmission Facilities				
Institutional Uses				
Churches, Chapels, and Places of Worship				
Libraries				
Fire Stations				
Museums				
Police Stations				
Post Offices				
Convents, Manasteries, Theological Schools				
Fraternities, Lodges				
Miscellaneous Uses				
Auditoriums				
Billiard Parlor				
Bowing Alley				
Caskets and Casket Supplies				
Civic centers				
Civic Clubs				
Exhibition Halls				
Galleries				
Miniature golf, batting range, rock climbing & other small recreation				
Tennis Facilities				
Theaters-Indoor				
Tool and light Equipment Rental				
Wholesalers-Inside Storage				
Private Clubs and Lodges				
Tennis and Swim Clubs				

ARTICLE 12. PRINCIPALS AND STANDARDS OF DESIGN.

Section 12.1. General. Subdivision plans shall conform to the principles and standards which are contained in this section or as may be further supplemented by “Construction Standards” adopted by the Westfield Town Council and administered by the Westfield Public Works Department.

Section 12.2. Streets.

- A. The street and alley layout shall provide access to all lots and parcels of land within the subdivision, and where streets cross other streets, jogs shall not be created.
- B. Proposed streets shall be adjusted to the contour of the land so as to produce useable lots and streets of reasonable gradient.
- C. Certain proposed streets, where appropriate, shall be extended to the boundary line of the tract to be subdivided so as to provide for normal circulation of traffic within the vicinity.
- D. Wherever there exists a dedicated or platted portion of a street or alley adjacent to the proposed subdivision, the remainder of the street or alley to the prescribed width shall be platted within the proposed subdivision.
- E. Widths of streets shall conform to the standards specified in the Westfield Thoroughfare Plan.
- F. The maximum length of cul-de-sacs shall be eight hundred and fifty (850) feet measured along the centerline from the intersection at origin to the center of the circle. Each cul-de-sac shall have a terminus of nearly circular shape with a minimum right-of-way diameter of one hundred (100) feet for streets abutting single family residential districts seventy (70) feet for alleys abutting single family residential districts and one hundred twenty (120) feet for streets abutting all other districts. If lengths greater than six hundred (600) feet are allowed, a turn around point must be provided at approximately half way between the intersection and the cul-de-sac. Where a cul-de-sac is greater than four hundred (400) feet in length, a sidewalk shall be constructed between the end of the cul-de-sac and the adjacent street.
- G. Alleys shall be at least sixteen (16) feet in width with a twenty-four (24) foot right-of-way. No alley shall terminate in a dead end.
- H. At intersections of streets the property line corners shall be rounded by arcs with radii of not less than twenty (20) feet, or by chords of such arcs.
- I. If the smaller angle of intersection of two streets is less than 60 degrees, the radius

of the arc at the intersection of property lines shall be increased as deemed advisable by the Plan Commission.

- J. Intersections of more than four (4) streets at one (1) point shall not be permitted.
- K. Where parkways or special types of streets are involved, details of the design will be supplied.
- L. When subdividing land, consideration shall be given to all natural features, such as existing stands of trees, streams and creeks, historic locations, or similar conditions which, if preserved, will add attractiveness and value to the community.
- M. A temporarily dead-ended street shall be permitted in any case in which a street is proposed to be and should logically be extended but is not yet constructed. An adequate easement for a turn-around shall be provided for any such temporary dead-end street which extends 200 feet or more in length. Such easement shall be automatically vacated to abutting property owners when said dead-ended street is legally extended and shall be confirmed per the Westfield Public Works Department's specifications.
- N. Horizontal visibility on curved streets and vertical visibility on all streets must be maintained along the center line in accordance to the town construction standards and specifications.
- O. Curvature measured along the center line shall have a minimum radius as follows:
 - 1. Primary Arterials and Secondary Arterials: Six hundred seventy-five (675) feet
 - 2. Collectors: Three hundred (300) feet
 - 3. Local Roads or Streets: One hundred fifty (150) feet
- P. Between reversed curves on primary arterials and secondary arterials there shall be a tangent of not less than 100 feet; on local roads and streets such tangent shall be not less than 40 feet.
- Q. Maximum grades for streets shall be as follows:
 - 1. Primary arterials and secondary arterials; not greater than five percent (5%).
 - 2. Collectors and local roads and streets, not greater than eight percent (8%).
- R. The minimum grade of any street gutter shall not be less than five-tenths percent

(0.5%).

- S. No fence, wall, hedge, tree, or shrub planting which obstructs sight lines and elevations between three (3) and twelve (12) feet above the street shall be placed or permitted to remain on any corner lot within the triangular area formed by the inside curb lines and a line connecting points:
1. Twenty-five (25) feet from intersections of Collectors or Local Roads or Street,
 2. Twenty (75) feet from intersections of Expressways, Primary Arterials, or Secondary Arterials, and
 3. Five (10) feet from intersections of driveways or alleys.

In the case of rounded property corners, the above distances shall be measured from the point at which the inside curb lines would intersect if they were not to have been rounded at the corner. Clear zone and site distance shall be in accordance with the INDOT Road Design Manual.

- T. No driveway shall be located within twenty-five (25) feet of the intersection of two street lines. Individual access driveways within 600' of State Road 32 will be permitted only with a right-in configuration and only where a center median separates opposing traffic lanes. No full access shall be permitted between State Road 32 and an interior frontage drive at entrance locations along State Road 32.
- U. Minimum Right-of-way Width - Minimum right-of-way widths that are required to be dedicated to Hamilton County or the Town of Westfield are established as follows:
1. Primary Arterial 1- (State Road 32) - varies, minimum of seventy-five (75) feet of half right-of-way
 2. Secondary Arterial - (Oak Ridge Road) - One hundred twenty (120) feet.
 3. Local Roads and Streets – Fifty (50) feet
- V. At the intersection of any proposed Local Road or Street with and Expressway, Primary Arterial, Secondary Arterial, or Collector; acceleration lanes, deceleration lanes, passing blisters, or left turn lanes may be required to be constructed.
- W. Standards for frontage places shall be submitted to the Westfield Public Works Department for review and approval prior to the submittal of a Primary Plat and Development Plan Application for a subdivision utilizing frontage places.

- X. Right-of-way necessary for the future construction of roundabouts shall be provided at the intersection of all Arterial and Collector roadways. Parking and building setbacks including landscaping requirements shall still be measured from the right-of-way widths prescribed under Section 12.2.U of this ordinance in these cases.
- Y. Roundabouts and the approaches should be designed for 40 mph for arterials and 30 mph for local and collector roadways. On Collectors and arterials roundabouts shall be designed to accommodate a WB-67 design vehicle.

Section 12.3. Blocks.

- A. Block lengths should be at least two lot depths in length or approximately 300 feet.
- B. The maximum block length shall be one thousand six hundred (1600) feet.
- C. Blocks shall be of sufficient width to permit two tiers of appropriate depth, except where an interior street parallels an expressway, primary arterial, or secondary arterial.

Section 12.4. Lots.

- A. All lots in the Rural Southwest District shall abut on a street.
- B. Side lines of lots shall be at approximately right angles to straight streets and on radial lines on curved streets, some variation from this rule is permissible, but pointed or very irregular lots should be avoided.
- C. Corner residential lots shall be of sufficient width to permit appropriate setbacks from both streets.

Section 12.5. Easements. Easements for utilities shall be provided. Such easements shall have a minimum width of 20 feet, and where located along lot lines, one-half of the width shall be taken from each lot. Before determining the location of easements the plan shall be discussed with the local public utility companies to assure their proper placing and the installation of such services.

Section 12.6. Building Setback Lines. See zoning districts.

ARTICLE 13. STANDARDS OF IMPROVEMENT. The final plats of the real estate shall conform to the following standards of improvement:

Section 13.1 Monuments and Markers.

- A. Shall be placed so that the center of the pipe or marked point shall coincide exactly with the intersection of lines to be marked, and shall be set so that the top of the monument or marker is level with the finished grade.
- B. Monuments shall be set:
 - 1. At the intersection of lines forming angles in the boundary of the subdivision.
 - 2. At least two (2) monuments shall be set on each side of a straight section of street, such monuments shall be on lot corners near each end of the street.
 - 3. At least two monuments shall be set on any straight line over 400 feet in length. Such monuments shall be on lot corners near each end of the line.
- C. Markers shall be set:
 - 1. At the beginning and ending of all curves along street property lines.
 - 2. At all points where lot lines intersect curves, either front or rear.
 - 3. At all angles in property lines of lots.
 - 4. At all other lot corners not established by a monument.
- D. Monuments shall be of stone, pre-cast concrete, or concrete poured in place with minimum dimensions of four inches by four inches by thirty inches, set vertically in place. They shall be marked on top with an iron or copper dowel set flush with the top of the monument or deeply scored on top with a cross. Markers shall consist of iron pipes or steel bars at least 30 inches long, and not less than 5/8 inch in diameter.

Section 13.2. Streets.

- A. Streets and alleys should be completed as shown on approved plans, profiles and cross-sections provided by the subdivider, and prepared by a qualified engineer or surveyor.
- B. Streets shall be graded, surfaced and improved to the dimensions required by the cross-sections and the work shall be constructed and inspected in accordance to

Town Constructions Standards and Specifications

- C. Underdrains are required for all roadways and must meet the Town of Westfield Standards and Specifications. Prior to placing street surfaces, adequate subsurface drainage for streets shall be provided by the subdivider. Subsurface drainage pipe, when required, shall be as described by the current edition of INDOT standard specifications and as approved by the Plan Commission. Upon completion of street improvements, plans and profiles as built shall be filed with the Westfield Public Works Department. As built drawings must be submitted to the GIS Division of WPWD in the appropriate format for approval.
- D. All traffic control devices shall comply with guidelines and requirements of the current edition of the Indiana Manual on Uniform Traffic Control Devices.
- E. Before any bond covering a street installation is released, the Plan Commission, Town Council, or Building Commissioner may request that core borings (asphalt or concrete) of the street be provided to the Westfield Utilities Department or the Hamilton County Highway Department, or their designated representative(s), at the subdivider's expense, for thickness determination.
- F. Prior to the acceptance of asphalt streets, the subdivider shall employ and pay for the services of an independent testing laboratory to take cores at selected locations and perform Marshall stability, flow and density test, and perce of compaction determination on completed asphalt work.
- G. Prior to acceptance of concrete street, the subdivider must provide satisfactory test results from an independent testing laboratory to the Westfield Utilities Department or the Hamilton County Highway Department.
- H. A developer may request permission from the Director of the Westfield Public works Department to delay the installation of the one (1) inch surface layer of asphalt until the binder layer of asphalt has had sufficient time to prove its durability under the stress of heavy construction traffic, but this delay shall not exceed one (1) year. The developer shall be required to submit a separate performance bond to cover the cost of the installation of the one (1) inch surface layer of asphalt. All bonds are approved through WPWD for performance and maintenance of infrastructure. Performance bonds of 110% of the construction cost are required during construction. At substantial completion a punch list is developed by a WPWD inspector. Once the punch list items are complete, outstanding fees paid, and digital as built approved, the performance bond can be "flipped" to a maintenance bond. The maintenance bond is a 3 year bond that is set at 10% of the construction cost.

Section 13.3. Sewers.

- A. The subdivider shall provide the subdivision with a complete sanitary sewer system, which shall connect with a sanitary sewer outlet approved by the Health Officer. The subdivider shall be responsible for providing sewer extensions from any subdivision(s) located within the Oak Ridge PUD to a main sewer connection point as may be established by written agreement between the subdivider and the Town Council.

- B. When an approved outlet is not available, one of the following methods of sewage disposal shall be used:
 - 1. A complete sanitary sewer system to convey the sewage to a treatment plant, to be provided by the subdivider in accordance with minimum requirements of the environmental protection agency.

- C. All development within the Town of Westfield and/or to be annexed by the Town of Westfield must install sanitary sewers per the Town's Sanitary Sewer Master Plan. Individual lot septic systems and development wide treatment facilities are not allowed. Construction plans must be provided to the WPWD for review and approval prior to construction. Construction plans must contain the standard specifications and details from the Town's Standards and Specifications for approval. WPWD also issues sanitary sewer construction permits that must be applied for at the time that construction drawings are submitted. Digital as built must be submitted after construction for review and approval by the GIS Division of the WPWD. Performance and maintenance bonds will be required as described in Art 13.2.H.

- D. In sections 16.04.240 C -Sewers and 16.04.240 D of the Zoning Ordinance - Water, the phrase "The subdivider shall provide" shall be interpreted to mean that the subdivider shall install the facility referred to, or whenever a private sewage disposal system or an individual system or an individual water supply is to be provided, that the subdivider shall require, as a condition of the sale of each lot or parcel in the subdivision, that the facilities referred to in these sections shall be installed by the developer of the lots in accordance with these regulations.

Section 13.4. Water.

- A. All development shall install water main per the Town's Water Master Plan and Town Standards and Specifications. Individual wells are not allowed. Construction plans must be provided to the WPWD for review and approval prior to construction. Construction plans must contain the standard specifications and details from the Town's Standards and Specifications for approval. WPWD also issues water main extension permits that must be applied for at the time that construction drawings are submitted. Digital as built must be submitted after construction for review and approval by the GIS Division of the WPWD. Performance and maintenance bonds will be required as described in Art. 13.2.H.

Section 13.5. Storm Drainage.

- A. All development within the Town shall adhere to the Town's Stormwater Technical Standards Manual. Construction plans must be provided to the WPWD for review and approval prior to construction. Construction plans must contain the standard specifications and details from the Town's Standards and Specifications for approval. WPWD issues a stormwater permit that must be applied for at the time that construction drawings are submitted. Digital as built must be submitted after construction for review and approval by the GIS Division of the WPWD. Performance and maintenance bonds will be required as described in Art. 13.2.H.
- B. All Development shall adhere to erosion control requirements (Ordinance 06-16).

Section 13.6. Curbs and Gutters. The subdivider shall provide curbs and gutters on each side of the street surface in the proposed subdivision.

Section 13.7. Sidewalks, Pedestrian Paths, Jogging Paths, and Bicycle Paths.

- A. The Plan Commission shall require sidewalks or paths (see Exhibit D) to be installed on each side of the street in all districts.
- B. Where a proposed subdivision abuts an existing street right-of-way, the Plan Commission shall require the developer to construct sidewalks parallel to the existing street.
- C. The Plan Commission may require developers to construct off-site sidewalks adjacent to the developers' project to respond to infrastructure demands created by said project.
- D. When a proposed subdivision lies between or adjacent to existing subdivisions which have been provided with sidewalks, the Plan Commission shall require connecting sidewalks (which are extensions of the existing sidewalks) to be constructed.
- E. If a sidewalk, pedestrian path, jogging path and/or bicycle way is to be installed, a plan shall be submitted to the Plan Commission with the Primary Plat and Secondary Plat drawings.
- F. Sidewalks shall be provided on both sides of all roadways. Handicap ramps shall conform to the latest INDOT/ADA requirements for color and tactile edges.
- G. When a sidewalk, pedestrian path, jogging path, and/or bicycle way crosses a street intersection within or adjacent to a subdivision (where one of the streets is a

primary arterial or a secondary arterial), necessary safety devices, such as painted crosswalks, signs, or other traffic control devices shall be installed at the developer's expense.

- H. When sidewalks, pedestrian paths, jogging paths, and/or bicycle ways are to be installed, they shall be constructed in accordance with the Hamilton County Alternative Transportation Plan and the Construction Standards for the Town of Westfield, which have both been adopted by the Town of Westfield.

Section 13.8. Street Signs. The subdivider shall provide the subdivision with street signs which shall meet the standards of the Town of Westfield and/or the standards of the Hamilton County Highway Department at the intersection of all streets. Such street signs shall be installed in all subdivision sections which have received Secondary Plat approval prior to the issuance of any Building Permits in such subdivision sections.

- A. **Street Lights** -The subdivider shall provide the subdivision with street lights, the type of which will be determined by the subdivider, at locations as the subdivider shall determine.
- B. **Fire Hydrants** -The subdivider shall provide the subdivision with fire hydrants. The types of hydrants and location of hydrants shall be determined by the Westfield -Washington Township Fire Department and approved by Plan Commission.
- C. **Landscaping** -Suitable landscaping plan shall be developed for review and approval by the Plan Commission including procedures to be utilized for maintaining the landscaped area (see Article 14 - Landscaping).

Section 13.9 . Construction Standards.

- A. Construction plans shall meet the most current Westfield Public Works Department standards and be approved by the Westfield Public Works Department.
- B. Construction standards for the following items may be found in "Town of Westfield Construction Standards", administered by the Westfield Public Works Department:
 - 1. Paving and Surfacing
 - 2. Erosion Control
 - 3. Principles and Standards of Roadway Design
 - 4. Minimum Standards of Improvement

5. Landscaping for Utilities
6. Monuments and Markers
7. Curbs and Gutters
8. Street Signs
9. Water Mains
10. Storm Sewers
11. Gravity Sanitary Sewers
12. Force Mains
13. Submersible Lift Stations, and
14. Sidewalks

ARTICLE 14. LANDSCAPING STANDARDS

Section 14.1. General Landscaping Provisions.

- A. Purpose and Intent. This Article establishes regulations for the provision, installation, and maintenance of landscape materials. The regulations specified herein are intended to promote the health, attractiveness, and safety of the community; foster aesthetically pleasing and environmentally sensitive development that protects and preserves the appearance and character of the community.

This Article establishes standards to manage and control drainage and erosion; to increase the compatibility of development with the natural environment and adjacent developments; and to maintain and increase the value of land by requiring landscaping to be incorporated into developments. The standards set forth herein promote important physical and psychological benefits through the use of landscaping to reduce noise and lighting; promote innovative and cost conscious approaches to the design, installation, and maintenance of landscaping; and establish procedures and standards for the administration and enforcement of this Article.

- B. Applicability.

1. This Article shall apply to all zoning districts and all public, private, and institutional developments.
2. This Article shall apply to all developments that require site development plan approval.

- C. Content of Landscape Plan. Landscaping plans shall comply with the following standards:

1. Landscape plans shall be submitted for all required green belt buffer areas, buffer yards, conservation easements, landscape easements, and areas owned in common within proposed developments. It is recommended that landscape plans be prepared by licensed landscape architects, nurserymen, or other professionals experienced in landscape design, installation, and maintenance. A narrative describing ownership, use, and maintenance responsibilities of these areas should be specified in the submittal.
2. Landscape plans shall show the entire project drawn to scale on standard sized sheets (minimum 24" x 36") and shall contain the following information:
 - a. Standard size sheets at the same scale as landscape plans that

display locations, sizes, and common names of existing individual trees that measure twelve (12) inches or more in caliper, areas of dense trees or shrubs, and other natural areas.

- b. Names and addresses of owners, developers, plan preparers, plan preparation dates, scale of drawings, and north arrows;
 - c. Locations and dimensions of all existing and proposed structures, parking lots, driveways, roadways, rights-of-way, sidewalks, pedestrian pathways, bicycle pathways, ground signs, refuse disposal areas, bicycle parking areas, freestanding electrical equipment, recreation facilities, utility lines, easements, freestanding structural features, landscape improvements, earth berms, walls, fences, screens, sculptures, fountains, street furniture, lights, courts, paved areas, buffer yards, primary and secondary green space areas, and green belt space;
 - d. Locations, quantities, sizes, and names (botanical names and common names) of planting materials;
 - e. Existing and proposed grading plans, indicating contours at not more than two-foot intervals;
 - f. Locations of barriers to be placed at or beyond driplines of trees to be preserved and types of materials to be used for barriers;
 - g. Planting and installation details as necessary to ensure conformance with required standards;
 - h. Details indicating specific grading measures or protective devices to be utilized where trees are to be preserved in areas of cut and fill; and
 - i. Tables clearly displaying relevant statistical information, including numbers of existing trees and numbers of trees preserved, for example.
- D. Modifications. When a change in use occurs, or when modifications that require a building permit are made to existing structures, landscaping shall be required to be installed in a manner that is comparable in nature and extent to the impact of the proposed change or modification.

Section 14.2. Preservation and Replacement of Trees.

- A. Developers shall take reasonable measures to design and locate proposed structures in a manner that minimizes the destruction of significant tree

specimens.

- B. Prior to site development plan approval or the issuance of a building permit, developers shall inventory all trees which possess a caliper measure of at least twelve (12) inches. Tree inventories shall depict locations, sizes, and common names of existing trees and individual shrubs; areas containing dense trees or shrubs; and other natural site features. Existing trees that are to be preserved shall be credited toward required landscaping requirements based on the sizes of such preserved trees.
- C. The following considerations shall be made in regard to tree preservation efforts:
 - 1. The practicability of arranging site plan components around existing features;
 - 2. The condition of vegetation with respect to continued vitality;
 - 3. The possibility of preserving vegetation through pruning rather than removal.
 - 4. The desirability of a particular tree or species by reason of its appearance; historic or ecological significance; botanical characteristics; and the function the vegetation would fulfill as a site plan component;
 - 5. The practical and economic possibility of designing the location and grades of proposed structures and paving to preserve existing vegetation; and
 - 6. The potential for interference with utility services along the use of roads and walkways.
- D. Tree preservation plans shall be submitted with site plans that detail locations, sizes, and common names of preserved trees; individual shrubs; areas of dense tree or shrub concentrations, and other natural features which are to be preserved or removed. No disturbance shall be permitted in the critical root zones of preserved trees. Disturbances include trenching, backfilling, driving or parking equipment, and dumping trash, oil, paint, or other materials detrimental to plant health.
- E. Should any tree designated for preservation die within five (5) years of project completion, the owner shall replace such tree with a tree (or trees) of equal tree preservation value within 180 days (see following paragraph for value calculation).
- F. Incentives to Preserve Trees – Existing trees that are preserved shall contribute to required on-site landscaping, based proportionally on their caliper measure. Certain “cull” species and deformed trees may not be permitted to be credited.

Preserved trees under eight (8) inches in caliper shall be credited at the rate of one (1) times the caliper measure of such trees. However, trees with a caliper of less than two (2) inches shall not qualify for credit. Preserved trees between eight (8) and sixteen (16) inches in caliper shall be credited at the rate of two (2) times the caliper measure of such trees. If preserved trees possess caliper measures of sixteen (16) inches or greater, credit shall be calculated at the rate of four (4) times the caliper measure of such trees. A qualifying six (6) inch caliper preserved tree shall be credited as three (3) required two (2) inch caliper trees. A qualifying fourteen (14) inch caliper preserved tree shall be credited as twenty-eight (28) required two (2) inch caliper trees. And, a qualifying eighteen (18) inch caliper preserved tree shall be credited as thirty-six (36) required two (2) inch caliper trees.

- G. Barriers shall be used to protect trees during site development. Barriers shall be specified on landscape plans and shall be placed at or beyond the driplines of trees to be preserved. Such barriers shall remain in place during site construction. No vehicles, machinery, tools, chemicals, construction materials, or temporary soil deposits shall be permitted within such barriers. No notices or other objects shall be nailed or stapled to preserved trees.
- H. Grading measures or protective devices, such as tree wells, tree walls, or specialized fill and pavement designs, shall be installed when necessary to preserve identified tree specimens.

Section 14.3. Selection, Installation, and Maintenance of Plant Materials.

A. Selection.

1. Shade Trees -Shade trees shall be a minimum of eight (8) feet in height and have a caliper measure of at least two (2) inches, measured twelve (12) inches above finished grade. Shade trees shall be of a variety that will attain an average mature spread greater than twenty (20) feet.
2. Evergreen Trees -Evergreen trees shall be a minimum height of six (6) feet.
3. Ornamental Trees -Ornamental trees shall have a minimum trunk size of two (2) inches in caliper, measured twelve (12) inches above finished grade.
4. Shrubs shall possess a minimum height of eighteen (18) inches at the time of planting.
5. Substitutions – If plant substitutions become necessary due to seasonal planting problems or a lack of plant availability, revisions to planting plans shall be permitted based on the substitution list below. For on-site requirements only, substitutions may be made for up to one-half (50%) of

required plants. If plant substitutions do not fulfill the following criteria, changes to previously-approved plans shall be resubmitted and reviewed for new approval.

- a) One (1) shade tree shall equal two (2) ornamental trees which shall also equal two (2) evergreen trees
- b) One (1) ornamental tree shall equal one (1) evergreen tree.
- c) One (1) evergreen tree shall equal three (3) evergreen shrubs.
- d) Only one (1) level of substitution is permitted per substitution

B. Installation.

- 1. Landscaping materials shall be installed in accordance with planting procedures established by the American Association of Nurseryman.
- 2. Required landscaping of development projects shall be completed prior to the issuance of Certificates of Occupancy for non-residential and multi-family projects, and prior to the issuance of building permits for more than fifty percent (50%) of the lots within each section of residential subdivisions. Landscaping installation may be delayed up to 120 days due to the following:
 - a. Periods of adverse weather, or
 - b. Conflicts between construction scheduling and proper planting conditions.

C. Maintenance.

- 1. All newly planted vegetative material shall meet minimum American Standard for Nursery Stock Standards.
- 2. Landscaping shall be maintained in healthy growing condition. This includes:
 - a. Regular irrigation, weeding, fertilizing, pruning, mowing, and other maintenance of outside plant materials on the property;
 - b. Mature trees shall not be topped. They shall be pruned according to procedures established in the National Arborist Association Standards, published by the National Arborist Association;
 - c. Treating plant materials that exhibit evidence of insect pest or

disease damage;

- d. Replacement of dead or dying plant materials with specimens in good, healthy, growing condition. Replacement shall be completed using the same plant materials approved on landscape plans.
 - e. Replenishing natural landscape materials such as rock, stone, bark chips and shavings that no longer cover the area in which they were originally deposited.
 - f. Repairing, replacing, or maintaining structural landscaping features including, but not limited to fountains, reflecting pools, outdoor art work, screening walls, retaining walls, fences, benches or other street furniture elements, as necessary to maintain these items in good condition.
 - g. Any other action necessary to maintain landscaping installed in accordance with an approved landscape plan.
3. Plantings and landscaping features required by this Chapter shall be subject to inspection to verify continued compliance with this Chapter.

Section 14.4. General Landscape Design Standards.

- A. Consultation -A landscape architect, nurseryman, or other professional experienced in the installation and care of plant materials shall be consulted to ensure that proposed plants are appropriate and will survive.
- B. Scale and Nature of Landscaping. The scale and nature of landscaping materials shall be appropriate to the size of proposed structures. Large-scale buildings should be complemented by large-scale plants. Form, texture, color, pattern of growth, and adaptability to local conditions shall be considered when selecting plant materials.
- C. Clearance. Trees shall be planted so that when they reach maturity, there will be a minimum of ten (10) feet of clearance between tree trunks and structures, building overhangs, walls, fences, and other trees.
- D. Materials. Grass and other vegetative ground cover shall be used in all green space areas, including parking lot islands, except for decorative mulch planting beds containing trees and/or shrubs; and inert stabilization in areas subject to severe runoff or erosion.
- E. Lines of Sight. Plantings in landscaped areas shall not obstruct sight lines as per Section 16.04.230 2.v of the Zoning Ordinance.

- F. Energy Conservation. Plantings shall be arranged to promote energy conservation wherever practical. This includes using deciduous trees on the south and west sides of buildings to provide shade from summer sun and planting evergreens on the north of buildings to insulate against winter winds.
- G. Noise Reduction. Properties adjacent to highly trafficked roads or businesses shall arrange landscaping to reduce the intensity of noise by reflecting, deflecting, or absorbing sound. Some techniques to accomplish this include using earth berms, walls, fences, or plantings to provide physical separation and to absorb noise. When a berm is used to form a visual screen in lieu of or in conjunction with a hedge or wall, it shall not exceed a slope of forty-five (45) degrees and shall be completely covered with shrubs, grass, or other living ground cover.
- H. Ground Cover. Landscape plans shall clearly identify areas where stone or other inert materials are to be used as ground cover. Areas not so designated shall be required to have grass or other vegetative ground cover.
- I. Trash and Loading Facilities. Trash dumpsters, trash pads, loading areas consisting of two or more loading spaces, loading docks, service areas, and maintenance areas shall be screened from residential uses and public roads. Screening of such facilities shall be achieved by using an eight (8) foot high, completely opaque fence or wall, a six (6) foot high berm, or an eight (8) foot high evergreen screen planted nine (9) feet on center in a double staggered row. Within all zoning districts, trash receptacles shall be enclosed on three (3) sides by masonry (brick, stone, stucco veneer, or fiber cement) wall and include a solid metal or wood gate. Enclosures shall also be located behind the front yard line. When a roof is provided over the dumpster enclosure, no minimum height shall be required. Trash Dumpsters enclosures shall be required to have a secondary means of access including a solid door or gate or be screened by other appropriate means such as by the positioning of the access across from an adjacent building wall.
- J. Heating and Cooling Facilities. Ground-mounted heating and cooling units for nonresidential or multi-family structures shall be completely screened.
- K. Softening of Walls and Fences. Plant materials other than ground cover shall be placed intermittently (approximately every 40 feet) against long expanses (over 80 feet) of building walls, fences, and other barriers to create a softening effect. However, ground cover plants may supplement the plant materials required by this paragraph.
- L. Detention/Retention Basins and Ponds. Detention/retention basins and ponds shall be landscaped in a manner that replicates the natural form of ponds. Such landscaping shall include shade trees, ornamental trees, evergreens, shrubbery, hedges, and/or other plant materials.

- M. Monument Sign Landscaping. A landscape area a minimum of the sign square footage plus one (1) shrub per thirty (30) square feet of sign area shall be provided.

Section 14.5. On-Site and Street Frontage Landscaping Requirements

A. On-Site Standards

1. Yards, setback areas, and green space areas within developments shall be landscaped with live vegetation.
2. The minimum numbers of shade trees, evergreen trees, ornamental trees, and shrubs required to be planted are set forth in Table 14.5.1.

Table 14.5.1: Minimum On-Site Requirements

Land Use Type	Plant Materials		
	Shade Trees	Ornamental or Evergreen Trees	Shrubs
All Uses	8 per acre	8 per acre	20 per acre

A proportional decrease in the required number of trees is allowed if larger caliper trees are planted. Trees with caliper measures of four (4) inches may replace two (2) required two (2) inch caliper trees.

3. Trees should be grouped together whenever possible to simulate natural tree stands, versus trees being planted in straight rows. Except in the case of street trees, which should be aligned in a row parallel to the street.
4. Required trees and plantings within each district must be planted somewhere within each district. All plantings may be credited toward overall on-site landscaping requirements set forth in Table 14.5.1.
5. Existing trees or woodlands that are preserved may be counted toward minimum planting requirements.

B. Road Frontage/Street Tree Standards

1. Where property abuts any public right-of-way, except State Road 32, at least one shade tree per forty (40) linear feet of road frontage may be planted within the road rights-of-way. Trees planted along road frontage in all developments shall be credited toward overall on-site landscaping

requirements set forth in Table 14.5.1.

2. Shade trees required to be planted along road frontage shall be located outside drainage and utility easements, shall be located in a manner that mitigates interference with infrastructure located within such easements and may be clustered or grouped in order to attain creative site design.
3. When evergreen and/or ornamental trees are preserved along road frontage and qualify for preservation credit, they may count 1:1 toward road frontage requirements.

Section 14.6. Buffer Yard Requirements.

A. Buffer Yard Requirements

1. Buffer yard shall not be required internal to any District, and shall be required only in areas adjacent to (i) streets on the perimeter of Districts, and (ii) along the south perimeter of the Real Estate. All buffer yards shall be a minimum of twenty (20) feet in width.
 - a. Within buffer yards, at least one (1) evergreen tree per thirty (30) linear feet and three (3) evergreen shrubs per thirty (30) linear feet shall be planted. Shade Trees may be substituted for evergreen trees at a one-to-one (1:1) basis (shade:evergreen) along road frontages. In order to create a more effective buffer, evergreen trees may be substituted in lieu of evergreen shrubbery on a one-to-three (1:3) basis (tree:shrub).
 - b. If woodlands are located within buffer yards, preserved trees may be substituted for required plants in buffer yards.
 - c. Trees required to be planted in buffer yards shall be credited toward total on-site landscaping requirements set forth in Table 14.5.1.
 - d. Buffer yard requirements, Road Frontage Standards, perimeter parking lot landscaping, and State Road 32 Landscaping are not intended to be cumulative. Where overlapping the more restrictive planting standard shall apply.

Section 14.7. Parking Area Landscaping. The following landscape requirements shall be applied to parking lots to screen parking areas from streets, to prevent the creation of large expanses of paving, and to provide shade to paved areas.

A. Parking Lot Landscaping

1. Area Required – A portion of vehicular use areas shall be maintained as landscaped area. The total amount of interior parking lot area that must be landscaped shall be based on the total number of proposed parking spaces.

Such standards are set forth in Table 14.6.1:

Table 14.6.1: Percentage of Parking Lot Landscaping

Number of Parking Spaces	Percentage of Vehicular Use Area to be landscaped
0 to 4	0 %
5 to 24	5 %
25 to 49	7.5 %
50 or more	10 %

2. Parking Lot Islands

- a. Parking lot islands shall be located at the perimeter of parking lots rather than the interior, to screen the lot from the street and act as a buffer between the road and the lot.
- b. Parking lot islands shall be constructed at least six (6) inches above the surface of parking lots; there shall be no minimum area or required width.
- c. Interior landscaped areas shall be curbed in a manner that restricts vehicles from driving over landscaped areas.
- d. Interior landscaped areas shall be dispersed so as to define aisles and limit unbroken rows of parking spaces to a maximum of three hundred (300) feet in length.
- e. Parking lot islands shall include at least one (1) tree and four (4) shrubs per parking lot island. One hundred (100) percent of every parking island shall be covered with permitted groundcover material to achieve complete coverage.
- f. No landscaping within parking lot islands may unreasonably obstruct visibility for vehicles entering, maneuvering in, or exiting parking areas. Such landscaping shall be constructed in compliance with visibility standards set forth in the Zoning Ordinance.
- g) Trees and shrubs required to be planted in parking lot landscape islands shall be counted toward meeting total on-site landscaping requirements as set forth in Table 14.5.1.

B. Perimeter Parking Lot Landscaping

1. Application

- a. Perimeter landscaping is required for parking lots with ten (10) or more spaces where:
 - 1.) the parking lot is located within a required yard; or
 - 2.) the parking area is located within one hundred (100) feet of the perimeter of a District or a right-of-way line.
 - b. Perimeter parking lot landscape areas shall be at least five (5) feet wide and shall extend along the perimeter of parking lots. Plantings should be grouped an aesthetically pleasing manner.
 - c. Trees and shrubs required to be planted in perimeter parking lot landscape areas may be counted toward meeting total on-site landscaping requirements as set forth in Table 14.5.1.
2. Requirements - Perimeter parking lot landscape areas shall include the following landscape improvements:
- a. There shall be one tree per thirty (30) linear feet of parking lot length. Trees may be clustered.
 - b. There shall be one shrub per three (3) feet of parking lot length. Shrubs may be clustered.
 - c. Perimeter parking lot landscape areas not planted with trees or shrubs shall be covered with grass or other permitted groundcover or mulch.
 - d. Perimeter parking lot landscaping requirements, buffer yard requirements, road frontage standards, and State Highway 32 landscaping are not intended to be cumulative. State Highway 32 standards shall supersede the buffer yard planting standard which shall supersede the perimeter parking area requirements which shall supersede the road frontage standards where overlapping.

Section 14.7. Plant Materials.

- A. A minimum of three (3) different species of shade trees shall be used per each development site.
- B. A minimum of three (3) different species of shrubs shall be required per development site.

Section 14.8. State Highway 32 Landscaping.

- A. It is the purpose of the State Highway 32 Landscape Overlay Zone to promote the public health, safety, comfort, and general welfare by providing for consistent and

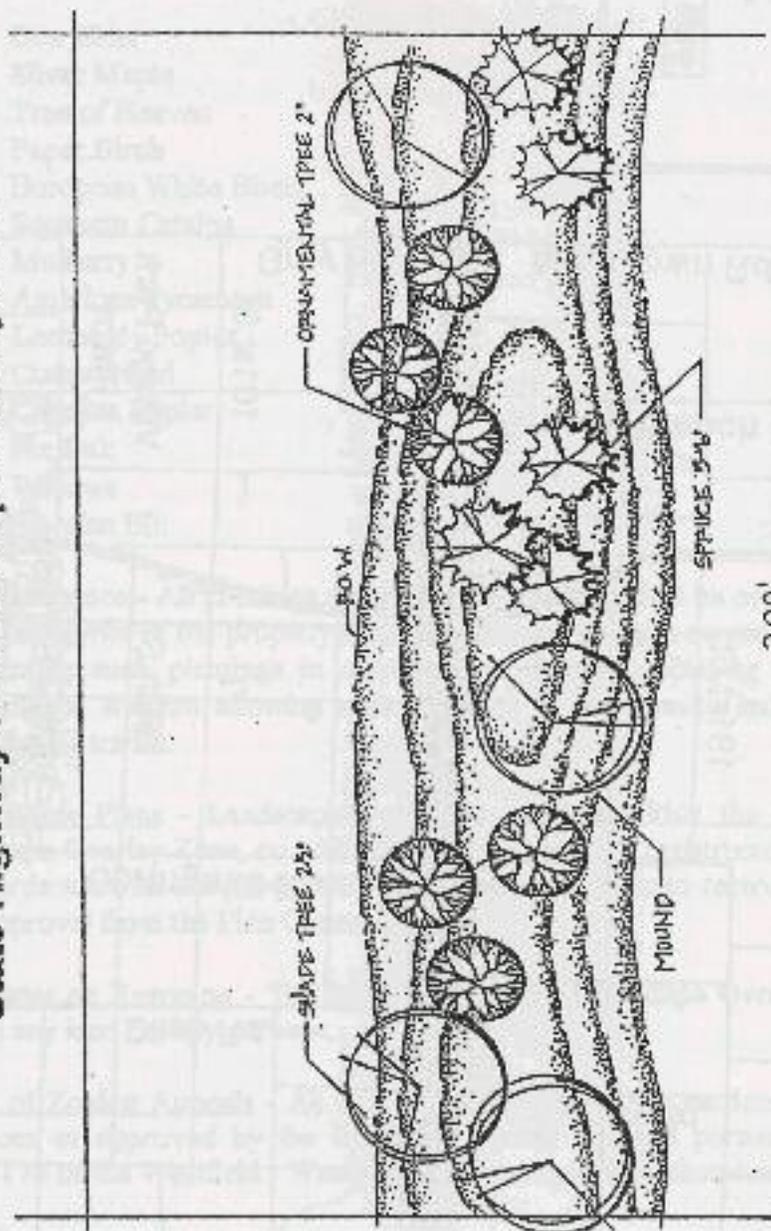
coordinated landscaping of the properties bordering State Highway 32 in Washington Township, Hamilton County.

1. Application.
 - a. This section (14.8) shall apply to all land uses that lie within an area of 200 feet of the right-of-way of State Highway 32.
 - b. The standards of this section and other landscaping requirements are not intended to be cumulative. Where overlapping the State Highway 32 landscaping standards shall apply.
 - c. Trees and shrubs required to be planted under this section shall be counted toward meeting total on-site landscaping requirements as set forth in Table 14.5.1.
2. Landscaping - In conjunction with other landscaping requirements established in this Oak Ridge PUD, all development activities in the State Highway 32 Landscape Overlay Zone shall meet the following minimum landscaping requirements:
 - a. Frontage along State Highway 32:
 1. All development activities on properties having frontage on State Highway 32 shall include construction of landscaping consistent with that which is established in Figure 14.1.

Figure 14.1

Frontage Along State Highway 32

State Highway 32 Landscape Overlay Zone

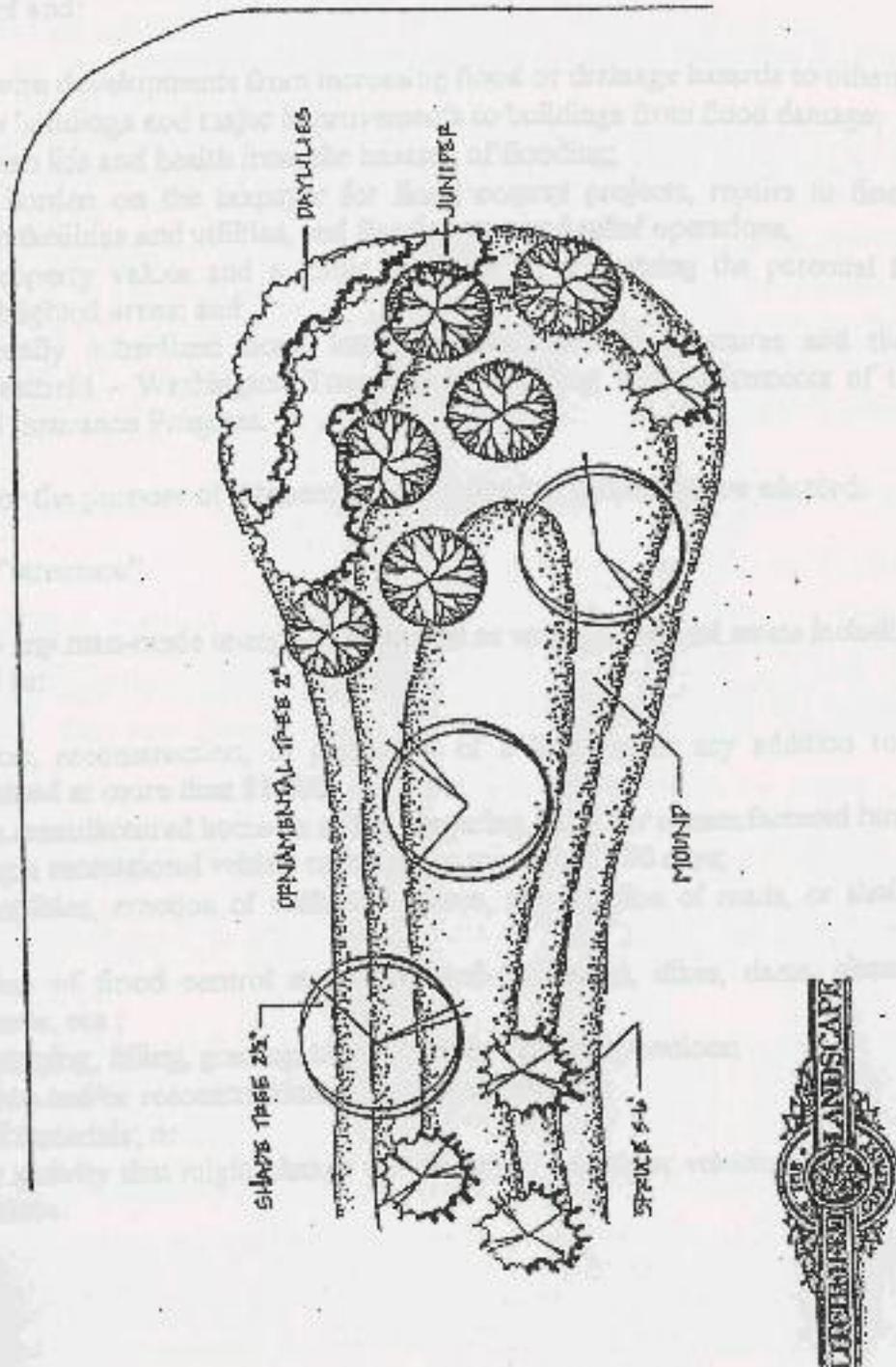


2. This exhibit illustrates four shade trees, six ornamental trees, and five evergreen trees to be planted every two hundred lineal feet in a staggered manner, on a 3-4' mound, along such frontage.
 3. All mounding along State Highway 32 shall be located outside of the existing State Highway 32 right-of-way.
 4. No mounding or landscaping shall be permitted to interfere with drainage and/or utilities.
 5. Any partial section of the two hundred foot frontage landscaping depicted in Figure 14.1, shall be landscaped in a manner which is proportionate to its size (i.e., a one hundred foot section of road frontage would be planted with half the number of trees as a two hundred foot section).
 6. When calculating the number of trees to be planted along such frontage results in a fraction, the number of trees required shall be rounded up to the nearest whole number (i.e., a calculation of 2.3 trees results in 3 trees being required).
 7. It is not necessary for such plantings to be placed identically to those illustrated in Figure 14.1;
 8. The minimum width of the landscape planting area under the overlay requirements shall be twenty (20) feet from the existing SR 32 right-of-way.
- b. Intersections along State Highway 32
1. All development activities on properties which include or abut intersections along State Highway 32 (including all thoroughfares, driveways, and vehicular accesses to property) must include construction of landscaping consistent with that which is established in Figure 14.2.

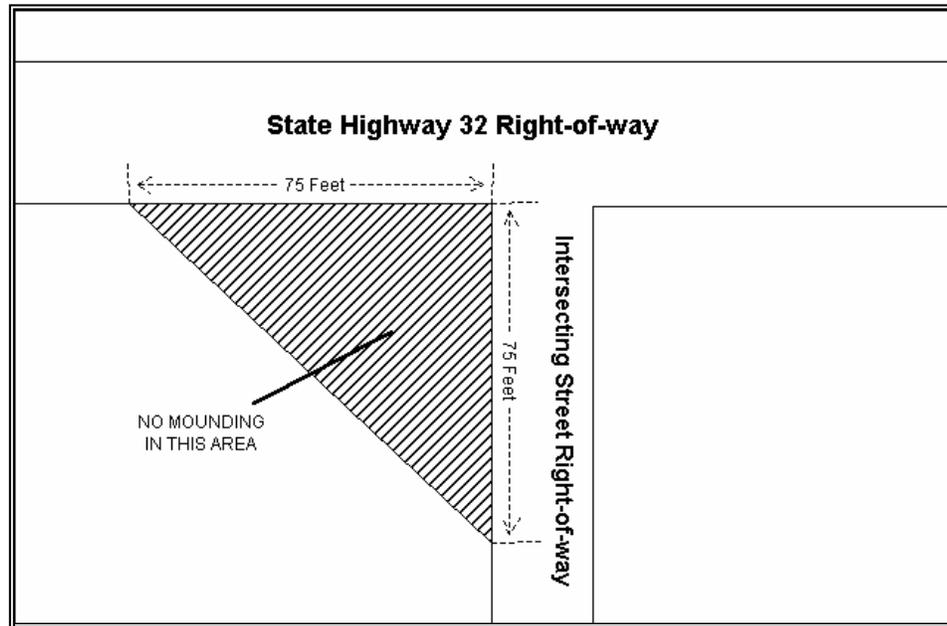
Figure 14.2

Intersections Along State Highway 32

State Highway 32 Landscape Overlay Zone



2. This exhibit illustrates daylilies, junipers, and six ornamental trees to be planted on the bulb-like termination of the 2-3' foot frontage mounding facing State Highway 32 at each intersection.
3. Such mounding shall not be placed or permitted to remain on any corner lot within the triangular area formed by the intersection of rights-of-way lines and points seventy-five



(75) feet from such intersection.

4. In the case of rounded rights-of-way intersections, the seventy-five (75) feet distance shall be measured from the point at which the rights-of-way lines would intersect if they were not to have been rounded at the corner.
5. All mounding shall be located outside of the existing State Highway 32 right-of-way and the rights-of-way of intersecting streets.
6. No mounding or landscaping shall be permitted to interfere with drainage and/or utilities.
7. It is not necessary that mounding required within the State Highway 32 Landscape Overlay Zone meet the requirements established elsewhere in Oak Ridge PUD.

8. It is not necessary for such plantings to be placed identically to those illustrated in Figure 14.2.
 9. The minimum width of the landscape planting area under the overlay requirements shall be twenty (20) feet as measured from the existing State Road 32 right-of-way.
- c. Species shall include three (3) varieties each of shade trees, ornamental trees, and evergreens which shall produce a design that is consistent along the State Road 32 frontage of this Oak Ridge PUD.

ARTICLE 15. LIGHTING STANDARDS

Section 15.1

- A. Purpose and Intent. It is the purpose of this section to enhance the visual environment of the nighttime sky, protect the public health, safety and welfare, provide safe roadway conditions for motorists, cyclists, and pedestrians, and promote energy efficient, cost effective lighting while minimizing light pollution, intrusion and trespass from uncontrolled light sources. It is the intent of this section to minimize the intrusion of lighting across property lines and into the nighttime sky, thereby avoiding a disruption to the quality of life of Washington Township residents.
- B. Applicability. These regulations shall be applicable to all outdoor lighting sources within the Oak Ridge PUD, which are newly designed, constructed, erected or placed into operation.
- C. Exceptions. Exceptions to these lighting standards shall include the following:
1. All outdoor light fixtures permitted prior to the adoption of the Oak Ridge PUD.
 2. All hazard warning lighting required by Federal and State regulatory agencies shall be exempt from the requirements of this chapter;
 3. All temporary emergency lighting required by local law enforcement, emergency service and utility department(s), shall be exempt from the requirements of this chapter;
 4. All traffic control and directional lighting shall be exempt from the requirements of this chapter;
 5. All underwater lighting used for the illumination of swimming pools and water features shall be exempt from the lamp type and shielding standards of this chapter;
 6. All lighting for temporary festivals and carnivals shall be exempt from the requirements of this chapter; and
 7. All low wattage residential accent and landscape lighting fixtures having a maximum output of 1600 lumens (equal to one 100 watt incandescent light) per fixture shall be exempt from the requirements of this chapter.
- D. Prohibitions. Prohibitions to the lighting standards of these regulations shall include the following:

1. The installation, sale, lease, or purchase of any mercury vapor lamp shall be prohibited;
 2. The use of laser source light or other similar high intensity light for outdoor advertising, when projected above the horizontal shall be prohibited;
 3. The operation of searchlights and floodlights for advertising purposes shall be prohibited;
 4. The use of any lighting source on towers shall be prohibited except as required by the Federal Aviation Administration; and
 5. The illumination of off-site advertising signs shall be prohibited.
- E. General Lighting Standards. For all areas located in the Oak Ridge PUD the following standards shall apply:
1. All light fixtures shall be fully shielded and direct light downward toward the earth's surface;
 2. All lighting sources shall be directed away from reflective surfaces to minimize glare upon adjacent property and public rights-of-way;
 3. All lighting sources shall be positioned in such a manner as to direct light away from adjacent property and public rights-of-way;
 4. Light pole height shall not exceed twenty-five feet (25'). All parking area light fixtures shall be designed and located to confine emitted light to the parking area; and
 5. All lighting fixtures must meet building code requirements for their appropriate construction class;
- F. Additional Standards. For all uses the following standards shall apply:
1. All light fixtures shall be positioned in such a manner so that no light-emitting surface is visible from a residential area or public right-of-way when viewed at ground level;
 2. Light meter readings shall not exceed: one-half (0.5) foot-candles at a single-family residential property line, or one-half a (0.5) foot-candle at a multi-family residential property line or one (1.0) foot-candle at all other non-residential property lines. (It should be understood that, with all of these measurements, light will still be visible at or beyond property lines.)

3. All lights on poles, stands, or mounted on a building shall have a shield, adjustable reflector, and non-protruding diffuser;
4. All canopy structures shall have lights with diffusers which are recessed, and which do not extend below the surface of the canopy as measured on a plane parallel to the earth's surface;
5. Lighting under awnings and canopies shall only illuminate a building front, a sign under an awning or canopy, or the sidewalk, but shall not illuminate the awning or canopy itself;
6. Thirty (30) percent of all parking area lighting shall be turned off within 30 minutes of closing of the last business or no later than 11:00 p.m.; and

G. Sign Lighting.

1. Lighting fixtures used to illuminate ground mounted or monument signs may be illuminated with a ground mounted or bottom mounted lighting fixture, provided that the fixture is fully shielded and all light output is directed onto the sign surface.
2. No sign lighting shall pulse, rotate, blink, flash or simulate motion, except a display containing only the time and temperature; and
3. Lamps utilized for the internal illumination of wall signs shall be turned off at 11:00 p.m. or when business closes.
4. Lamps utilized in the internal illumination of wall signs turned on between 11:00 p.m. and 5:00 a.m. shall be reduced to a maximum of 75 percent of their lumen output.

H. Lighting Plans. The applicant for any permit required by the Community Development Department that proposes outdoor lighting shall submit a lighting plan set which includes:

1. A site plan indicating the location of all lighting structures, supports and fixtures, including those fixtures which presently exist on site and those which are proposed for the site;
2. A graphic and/or textual description of all lighting fixtures, both proposed and existing on-site. The description may include, but is not limited to cut sheets and illustrations by the manufacture, lamp types, wattages, and lumen outputs;

3. A site plan with illuminance levels superimposed on the site plan in the form of an ISO foot-candle diagram or point-by-point grid diagram.
4. All plot lighting levels shall be depicted at ten (10) foot intervals or less.
5. The ISO foot-candle diagram shall plot foot-candle increments of one-half (0.5) footcandle or less;
6. Photometric data depicting the angle of cut off of light emissions; and
7. Any other information that the Director determines necessary to ensure compliance with the provisions of this chapter.

ARTICLE 16. SIGN STANDARDS

Section 16.1. Purpose and Intent. To provide a reasonable and impartial means to permit communication, protect the public health, safety, and general welfare, minimize hazards to pedestrians and motorists along thoroughfares and at intersections, enhance the aesthetic environment of Westfield-Washington Township, safeguard property values, minimize possible adverse effects of signs on nearby property, protect public and private investment in buildings and open spaces and implement relevant provisions of the comprehensive plan as updated on an annual basis.

Section 16.2. Applicability. WC 16.08.010 Sign Standards – General Provisions in the Zoning Ordinance as specified in the Underlying Zoning Compendium and as modified below by the deletion, addition, or modification of provisions and text thereof, shall govern all signs within the Oak Ridge PUD. These regulations shall be applicable to all signs within the Oak Ridge PUD, which:

- A. Are newly constructed, erected, or placed into operation after the effective date of this chapter; and
- B. Involve relocation or replacement of existing sign structures or supports commenced after the effective date of this chapter.
- C. To the extent that any of the developmental standards specified in this Article 16 differ from or conflict with the sign standards specified in any other Article of this PUD, the sign standards in such other Articles and Exhibits shall control and apply.

Section 16.3. Exceptions. All signs require a sign permit from the Community Development Department. Exceptions to the sign standards and permit requirements under this chapter shall include:

- A. All regulatory, informational, identification, or directional signs required by law or government entity;
- B. Temporary signs advertising annual events put on by Westfield or Washington Township public entities and school districts;
- C. Scoreboards for public and private recreational facilities and institutions that do not provide for commercial or business advertising displays;
- D. Permanent drive-thru menu boards where drive-thru uses are permitted;
- E. Window signage placed upon the building interior, or flush with window surface, not covering more than 50 percent of the window upon which it is placed.
- F. Postal signs, historic site makers or plaques, flags of government or

noncommercial institutions, and address numbers;

- G. Structures and/or containers intended for separate use such as phone booths, waste management containers, and point-of-purchase advertising displays;
- H. Lettering or symbols placed directly onto a licensed and operable motor vehicle or trailer operating in the normal course of business provided that a vehicle or trailer is not parked or positioned solely for advertising purposes;
- I. Private informational signs such as “no trespass,” “private,” “sale,” etc. which do not exceed four (4) square feet in surface area;
- J. Signs offering commercial or industrial property for sale, lease, or rent, provided that such signs shall not exceed sixty-four (64) square feet per face, are placed wholly on the subject property, do not exceed ten (10) feet in height, and are limited to a maximum of one (1) sign per street frontage;
- K. Signs advertising construction projects, provided that such signs shall not exceed sixty-four (64) square feet per face, are placed wholly on the subject property, do not exceed ten (10) feet in height, are limited to a maximum of one (1) sign per street frontage, and shall be removed at the end of construction;
- L. Political signs which do not impair lines of sight for vehicles or pedestrians;
- M. Seasonal decorations within the appropriate holiday season or civic festival season;
- N. Signs attached to light poles identifying parking areas as long as they do not exceed three (3) square feet in surface area; and

Section 16.4. Prohibitions. Prohibitions to these sign standards shall include the following:

- A. No signs or sign structure shall be similar in coloring, shape, function or location nor resemble, conflict with or be confused with any approved traffic-control sign or device;
- B. No sign shall create a safety hazard for vehicles or pedestrians as determined by the Town Engineer;
- C. No sign shall be placed in any public right-of-way except publicly owned traffic-control and transit signs, informational, identification, and directional signs;
- D. No pole signs shall be permitted within this PUD;
- E. No off-premise sign shall be permitted within this PUD unless otherwise

permitted in this Article;

- F. No display of temporary signs such as banners, flags, posters, pennants, ribbons, streamers, spinners, strings of lights, balloons or inflatable signs shall be permitted except for banners permitted on a limited basis pursuant to Section WC 16.08.010 L;
- G. No sign shall project into the public right-of-way; except that a business sign mounted on a building may be permitted to project eighteen (18) inches from the face of a building elevation. Relief from this standard may be granted by the Town Council or designee;
- H. No sign shall be mounted on a roof or extend above an eave or parapet of a building wall. This does not prohibit the placement of signage on the facade of a canopy;
- I. No sign shall be permitted to revolve, flash, blink, swing or appear to move if otherwise permitted by the standards of this Article or other signage standards in this PUD;
- J. No sign shall be affixed to trees, fence posts, utility poles or other support structures; and
- K. No sign shall be placed on a personal or commercial vehicle or trailer which is then parked or positioned for the primary purpose of displaying the said sign.

Section 16.5. General Sign Regulations. All signs shall conform to the following regulations:

- A. Signs must be kept clean, painted, in working operation and free of hazards, such as but not limited to, faulty wiring and loose fastenings, and must be maintained at all times in a safe condition so as not to be detrimental to the public health, safety or general welfare;
- B. Abandoned sign copy shall be removed by the owner or lessee of a site upon which the sign is located within three (3) months after the business or service advertised by the sign ceases operations;
- C. Sign foundations and structures with copy removed may remain upon a site for twenty-four (24) months with the property owner's written consent provide that the foundations and structure are maintained pursuant to WC 16.08.010 E, 1.
- D. All monument signs shall be designed and located to maintain clear lines of sight along public rights-of-way;
- E. Maximum sign height shall be measured from the natural grade elevation upon

which the sign is placed or crown height of the adjacent roadway, whichever is higher;

- F. Illumination of signs shall be regulated per Article 15: Lighting of this Oak Ridge PUD;
- G. Illuminated non-residential signs shall be setback a minimum distance of twenty-five (25) feet from the south property line of the Real Estate;
- H. In no instance shall a permitted nonresidential use or tenant be restricted to less than twenty-five (25) square feet of sign area, nor shall any permitted nonresidential use or tenant be permitted to display more than five hundred square feet of sign area;
- I. Sign area shall be computed as the smallest continuous rectangular figure that circumscribes a single sign display including writing, representations, emblems, logos or other displays, exclusive of the supporting framework, base, or structural bracing clearly incidental to the sign display;
- J. In no instance shall wall sign square footage exceed the linear footage of the wall on which it is placed.
- K. Changeable copy signage shall be allowed only when incorporated into a permanent sign structure as allowed by this ordinance; and,
- L. For signage with changeable copy area, the entire changeable copy area shall be counted toward sign display area square footage, regardless of the amount of information placed upon the changeable copy area.
- M. Identification with the Town of Westfield. Title signs shall include, as an integral part of the sign design, the words "of Westfield" following any designation of an industrial park, office park, apartment development, subdivision development or shopping center name and alike. The size of the words "of Westfield" may be a minimum of 50% of the size of the development's name on the sign, and shall not be counted toward square footage allowed or cost. If the word "Westfield" is already part of the development's name on the sign, there shall be no requirement for the location of the words "of Westfield" on the sign. Further, where "of Westfield" is required on a sign, the design and material used to include this wording shall be the same as the other lettering on the sign.
- N. Setbacks:
 - 1. All signs shall conform to the side and rear yard setback requirements for structures as set forth in this PUD; and
 - 2. Signs shall have a minimum front yard or right-of-way setback

requirement of five (5) feet from a property line or right-of-way.

Section 16.6. Nonresidential Center Signs. Signs within the Real Estate shall be regulated per Article 5 in addition to the requirements of this Article.

A. Monument Sign(s):

1. Number and Size:

a. The Oak Ridge - Office District shall be permitted the following monument signs:

1) One (1), monument sign, which shall be no greater than six (6) feet in height and have no more than thirty (30) square feet of sign area per face along its Oak Ridge Road frontage.

b. The Oak Ridge – Commercial 1 District shall be permitted the following monument signs:

1) One (1), monument sign, which shall be no greater than fifteen (15) feet in height and have no more than one hundred and twenty (120) square feet of sign area per face; along the south side of the State Highway 32 frontage.

3) One (1), monument sign, which shall be no greater than six (6) feet in height and have no more than thirty (30) square feet of sign area per face along its Oak Ridge Road frontage.

c. The Oak Ridge – Commercial 2 District shall be permitted the following monument signs:

1) One (1), monument sign, which shall be no greater than fifteen (15) feet in height and have no more than one hundred and twenty (120) square feet of sign area per face; along the north side of the State Highway 32 frontage.

3) One (1), monument sign, which shall be no greater than six (6) feet in height and have no more than thirty (30) square feet of sign area per face along its Oak Ridge Road frontage.

d. The Oak Ridge – Commercial 3 District shall be permitted the following monument signs:

1) One (1), monument signs, which shall be no greater than nine (9) feet in height and have no more than sixty (60) square feet of sign area per face along its Oak Ridge Road frontage.

- c. Nonresidential center monument signs shall have a minimum base height of two (2) feet and a minimum cap height of six (6) inches. Total aggregate sign cap and base height shall not exceed six (6) feet; and,
- d. Sign caps and bases shall not be used for display or advertising purposes and cap height shall not be counted against overall sign height; and,
- e. Uses within the Oak Ridge – Office District may display signage on the monument sign that is along the SR 32 frontage within the Oak Ridge – Commercial 1 District; and,
- f. Uses within the Oak Ridge – Commercial 3 District may display signage on the monument sign that is along the Oak Ridge Road frontage within the Oak Ridge – Commercial 2 District.

B. Interior Circulation Sign(s):

- 1. Nonresidential centers are permitted interior circulation signage containing traffic directing information only (such as “Enter”, “Exit”, “Do Not Enter”, etc.). Circulation signage shall be limited to a maximum of three (3) feet in height, and a sign area of two (2) square feet per sign face.
- 2. Additional interior circulation signage with no copy restriction shall be permitted. This type of signage shall be limited to a maximum of six (6) feet in height, and a sign area of six (6) square feet per sign face.

D. Center In-Line Tenant and Multi-Tenant Building Signage:

- 1. All in-line tenants of nonresidential centers shall be permitted one (1) square foot of signage for each linear foot of tenant space;
- 2. Corner in-line tenants shall have only one front façade unless both facades face a public street.
- 3. The total permitted sign area allocation may be divided between wall and awning signs;
- 4. Wall signs in nonresidential centers shall be located on front building elevations except that those tenants with corner locations are permitted to place signage on a sidewall;
- 5. Any side wall sign square footage shall be deducted from the total sign

allocation for the tenant space; and

6. Center in-line tenants shall not be permitted individual monument signs.

E. Outlot Signage:

- a. All outlots of nonresidential centers shall be permitted two (2) square foot of sign area for each one (1) linear foot of building fronting on a public right-of-way;
- b. The total permitted sign area allocation may be divided between wall and awning signs;
- c. Signs may be located on any building elevation;
- d. All sign square footage shall be deducted from the total sign allocation for the outlot;
- e. Outlots within a nonresidential center shall not be permitted individual monument signs.

Section 16.7. Sign Area Bonus. The total sign allotment for an individual nonresidential use, tenant, or a nonresidential center may be increased by a specified percentage for compliance with design criteria as listed below. Percentage increases shall be based on the original sign allotment calculation. If more than one criterion is met, then sign area bonuses will be granted cumulatively.

A. Sign Area Allotment Bonuses:

1. **Sign Number:** For individual non-residential signs and outlots, a five percent sign area allotment bonus shall be granted for limiting the total number of signs to three (3) or less;
2. Where monument signs are permitted, a ten (10%) percent sign area allotment bonus shall be granted for not having a monument sign.
3. **Alternative Materials.** A ten (10%) sign area allotment bonus shall be granted when all signage on site is primarily comprised of decorative wood, brick, stone, sculpted metal, or equivalent substitutes. This bonus is also available on a Tenant/Outlot basis in Nonresidential Centers.
4. **Nonresidential Center Sign Plan.** A ten (10%) percent sign area and height allotment bonus shall be granted if a uniform and complimentary sign plan is mandated for all signage on site, including center, tenant, and outlot signage. A sign plan must address colors and materials and be approved by the Community Development Director prior to the issuance of

individual permanent sign permits for tenants and outlots.

B. Wall Sign Bonuses:

1. Individual Letters. A ten (10%) percent wall sign area bonus shall be granted for individual nonresidential uses, tenants, or outlots whose wall signs consist primarily of individual letters mounted directly on a building surface.

C. Monument Signs:

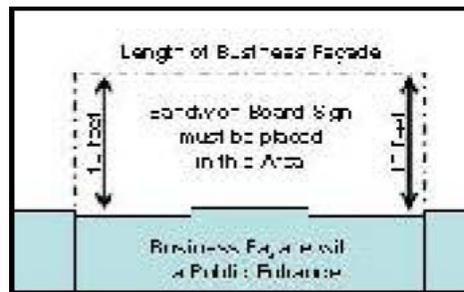
- a. Materials. A ten (10%) percent monument sign area and height bonus shall be granted for using brick, stone or equivalent substitute in the construction of a sign base, cap and supporting structure.
- b. Matching Materials. A ten (10%) percent monument sign area bonus shall be granted if over fifty (50%) percent of the sign base, cap, and supporting structure matches the building materials used on a front elevation of the building(s).
- c. Landscaping. A ten (10%) percent monument sign area bonus shall be granted for landscaping the area around a base of a monument sign. Refer to Article 14 for landscaping details.

Section 16.8. Sandwich Board Signs. Sandwich board signs shall be permitted and shall conform to the following regulations:

- A. The placement of sandwich board signs shall not impede pedestrian or vehicular traffic;
- B. One (1) sandwich board sign shall be permitted per individual commercial or business use;
- C. Sandwich board signs shall not count toward the total sign allotment for a commercial use or business;
- D. Sandwich board signs shall not exceed six (6) square feet per sign face;
- E. Sandwich board sign faces shall be constructed of a chalk board type material or equivalent substitute which permit the application of any identification, message or information with a non-permanent type of text, design or logo;
- F. Sandwich board sign width shall not exceed three and one-half (3.5) feet when measured from the outside of a sign support and/or sign face;
- G. Sign height shall not exceed five (5) feet when measured from the ground to the

top of a sign face or sign support structure;

- H. Sandwich board signs shall have a base support and the base support shall be weighted with a minimum ten (10) pound ballast to ensure sign stability;
- I. Sandwich board signs shall not be permanently affixed to any structure or sidewalk, and must be removed at the end of each business day;
- J. Signs shall only be placed within 10 feet of, and directly in front of, a business façade having a public entrance. See the graphic below:



- K. Placement of sandwich board signs in a public right-of-way shall require approval by the Westfield Town Council, or designee; and
- L. More than two (2) sign violations of this ordinance in one calendar year shall result in the termination of the sandwich board sign permit and require removal of the sandwich board for that calendar year.

Section 16.9. Under Canopy Signs. Under canopy signs shall be permitted and shall conform to the following regulations:

- A. Under canopy signs shall be placed under canopies or roof overhangs.
- B. Under canopy signs shall not count toward the total sign allotment for a commercial use or business;
- C. Under canopy signs shall not exceed one (1) per building entrance;
- D. Under canopy signs shall not exceed three (3) square feet in area;
- E. Under canopy signs shall not be separately illuminated; and,
- F. Under canopy signs shall contain only the address, logo, or name of the occupant or business served by the entrance.

Section 16.12. Temporary and Special Event Signs. Temporary and special event signs

shall only be allowed for permitted non residential uses and for all permitted uses in commercial zoning districts. All temporary and special event signage shall conform to the following regulations:

- A. New businesses, seasonal businesses, grand openings, or special events may display a banner that does not exceed 32 square feet in size, and is securely attached to a structure or support device.
- B. Application must be made, and a temporary sign permit issued prior to the display of temporary signage.
- C. All existing business shall be limited to one (1) temporary sign permit annually;
- D. All temporary signs shall be placed on the property on which the permitted use is being conducted;
- E. Temporary sign permits shall be limited to fifteen (15) calendar days per quarter; and
- F. Temporary sign permits may be issued for a calendar year or renewed on a quarterly basis at the Community Development Department

Section 16.10. Nonconforming Signs. All existing signs which do not conform to this section are designated lawfully nonconforming and shall either be removed or brought into compliance with these regulations at such a time when new development or expansion is proposed, or when a change in signage is proposed for the property upon which the sign is located. Lawful nonconforming signs shall not be relocated, expanded, or altered except to permit routine maintenance and repairs. In no case shall the replacement of individual tenant name panels on a non-residential center sign constitute the need to bring the non-residential center sign into compliance with these sign regulations.

Section 16.11. Permits. After the effective date of the ordinance codified in this title, and except as otherwise provided, no person shall erect any sign as defined herein without first obtaining a sign permit from the Community Development Department. The Community Development Department Director and his/her designated staff shall have the authority to review and decide upon all sign permit applications. Signs which shall not require a permit include all signs or displays permitted in Section 16.3, Exceptions. Application for a permit shall be made in writing, upon forms prescribed and approved by the Director and shall contain the following information:

- A. Name, address, and telephone number of applicant or business;
- B. Site address;
- C. Graphic scale;
- D. A site plan indicating the location of any building upon which a sign is to be mounted, with the location of the signs indicated;

- E. A site plan indicating the location of any existing or proposed monument signs;
- F. A square footage calculation of any proposed sign(s), as well as the location and square footage of all existing on-site sign(s);
- G. Elevation of proposed signs including size, materials, color and dimensions;
- H. A true color rendering of the proposed signs;
- I. Illumination details for proposed signs, including the timing of sign illumination and method of control of such illumination;
- J. Indication of sign type(s) as defined in this chapter;
- K. Written consent of the owner of the building, structure, or land on which the sign is to be erected if the applicant is not the owner; and
- L. Temporary and special event sign displays shall provide a schedule for sign displays which indicate the dates and duration of the sign displays.
- M. Any other information necessary to support a thorough review of the project and as requested in writing by the Director
- N. All applications for permits shall be accompanied by payment of fees. The fee schedule shall be kept on file in the Community Development Department. If the proposed sign plan is in compliance with all the requirements of this zoning ordinance, a permit shall be issued.

ARTICLE 17. USE AND SQUARE FOOTAGE STATISTICS

Section 17.1 Square Footage and Use Estimates:

OR - Office District: 9.4 Acres (Approximate)
Office/Service Space: 56,000 Sq.Ft. (Approximate)
Retail Space: 0 (retail uses not permitted)

OR – Commercial 1 District: 6.3 Acres (Approximate)
Office/Service Space: 6,500 Sq.Ft. (Approximate)
Retail Space: 21,800 Sq. Ft. (Maximum)

OR – Commercial 2 District: 2.8 Acres (Approximate)
Office/Service Space: 6,800 Sq.Ft. (Approximate)
Retail Space: 3,600 Sq. Ft. (Maximum)

OR – Commercial 3 District: 3.8 Acres (Approximate)
Office/Service Space: 13,200 Sq.Ft. (Approximate)
Retail Space: 6,000 Sq. Ft. (Maximum)

Aggregate Data:

PUD - total acreage: 22.3 Acres (Approximate)
Office/Service Space - total Sq. Ft.: 83,000 Sq.Ft. (Approximate)
Retail Space - total Sq. Ft.: 31,400 Sq.Ft. (Maximum)

ARTICLE 18. PROCEDURAL PROVISIONS

Section 18.1. Developer's Consent. Without the consent of the Developer, no other developer, user, or tenant may obtain any permits or approvals, whatsoever, with respect to the Real Estate or any portion thereof, and as such, and by way of example but not by limitation, none of the following may be obtained without the approval and consent of the developer:

- A. Improvement location permits for any improvements within the Real Estate;
- B. Sign permits for any signs within the Real Estate;
- C. Building permits for any buildings within the Real Estate;
- D. Primary or secondary plat approval for any part of the Real Estate;
- E. Development plan approval or detail development plan approval for any part of the Real Estate;
- F. Any taxed amendments or other variations to the terms and conditions of this Oak Ridge PUD.

Section 18.2. Plan Commission. The Plan Commission, upon petition of the Developer at a public hearing conducted per the rules of the plan commission, may approve a development standard or guideline that is not included in, or is different from, those set forth in this Oak Ridge PUD, so long as the Plan Commission determines that any such addition or modification would not substantially affect the integrity of the development of the Real Estate, and is appropriate for the site and its surroundings.

Section 18.3. Appeal. The denial by the Department of Development of any requests for approvals may be appealed to the Plan Commission, which may affirm or reverse the decision of the Department of Development, and any denial by the Plan Commission of any requests for any approvals may be appealed to the Town Council, which may affirm or reverse the decision of the Plan Commission. In circumstances permitted under the Zoning and Oak Ridge PUD Ordinances, appeal may also be made to the Town's Board of Zoning Appeals.

Section 18.4. Detailed Development Plans and Secondary Plats. Detailed Development Plan and Secondary Plat Approval is hereby delegated to and shall be by the Director.

Section 18.5. Primary Plats in Business Districts. A Primary Plat shall not be required but may be submitted for real estate within the Real Estate at the time of Development Plan Review.

Section 18.6. Existing Uses and Structures. Notwithstanding anything to the contrary in this Oak Ridge PUD, any parcel or portion of Real Estate, which is being used for residential or agricultural uses or purposes on the date of enactment of this Oak Ridge PUD, along with any structures existing on the date of the enactment of this Oak Ridge PUD, may continue and shall

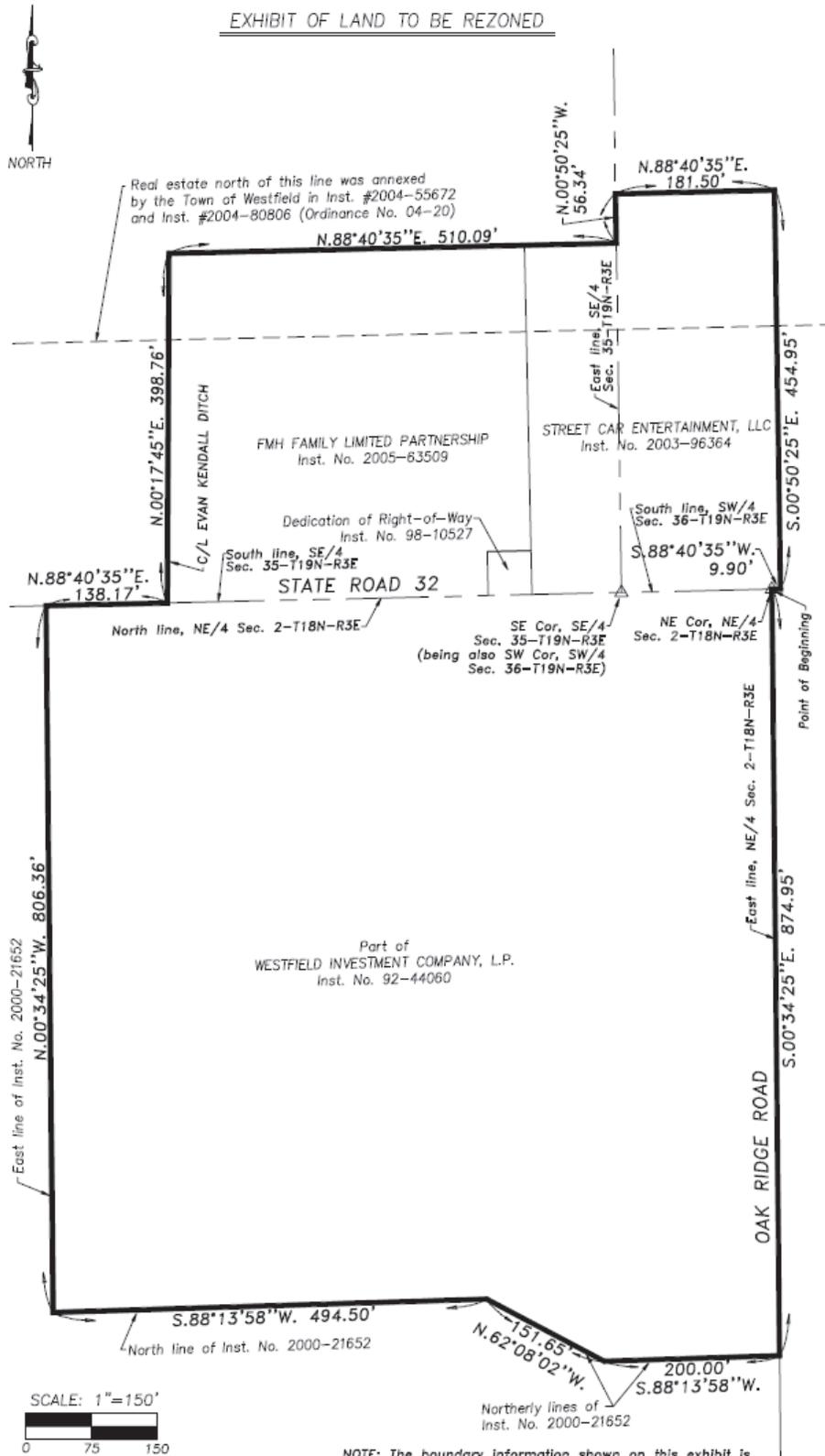
be permitted until the commencement of development of that parcel per the terms of this Oak Ridge PUD.

Section 18.7. Phasing Schedule Procedures.

- A. The Real Estate will be developed in multiple phases, and separate Development Plans may be submitted for approval. The Phasing Schedule in Exhibit E, as approved as part of this Oak Ridge PUD, including estimates of intervals during which Development Plans will be submitted and during which development will commence, are hereby deemed to be reasonable. Nothing in Exhibit E or elsewhere in this Oak Ridge PUD or in WC 16.04.190(D)(5) and WC 16.04.190(J) shall prohibit the filing of Development Plans for any particular District or portion thereof before or after the dates in the Exhibit E Phasing Schedule. In the absence of intentional misrepresentation or gross negligence by the Developer, extensions shall be granted and no penalties shall be sought or imposed for changes. The terms of WC 16.04.190(D)(5) and WC 16.04.190(J) are superseded and replaced by the terms stated herein.

“Section 18.8. Other Local, State and Federal Requirements. The Oak Ridge PUD shall not exempt development of the real estate from compliance with all applicable local, state, and federal requirements and standards including but not limited to Wellhead Protection and regulations for property in proximity to public-use airports.” This section does not apply to local zoning ordinance requirements which are superseded and replaced by the terms stated in the Oak Ridge PUD.”

EXHIBIT OF LAND TO BE REZONED



NOTE: The boundary information shown on this exhibit is not based upon a Retracement Survey of the parcels, and is only to be used for zoning purposes.

This drawing is not intended to be represented as a retracement or original boundary survey, a route survey, or a Surveyor Location Report.

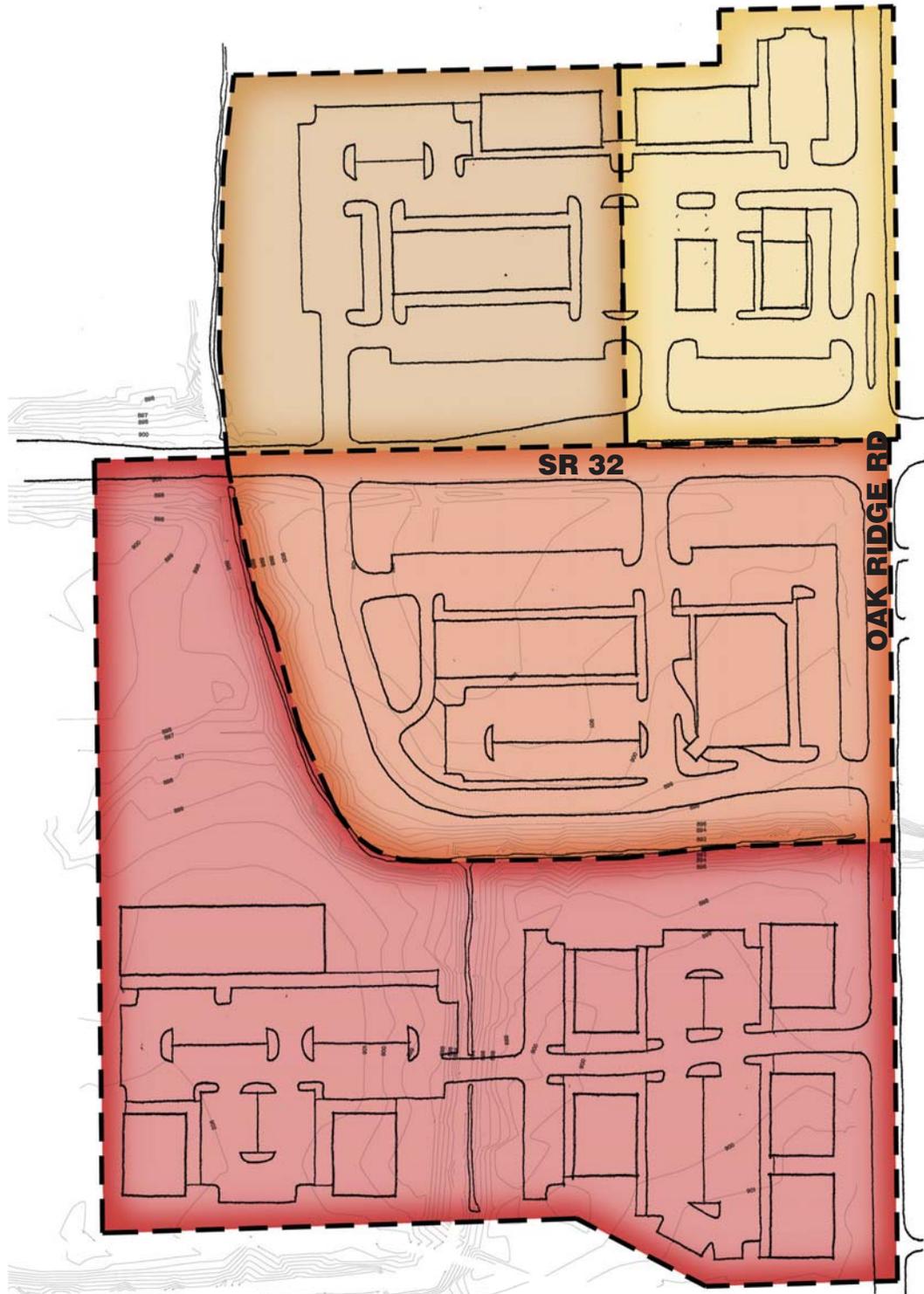
EXHIBIT A
LEGAL DESCRIPTIONS AND BOUNDARY INFORMATION
OAK RIDGE PUD

LAND DESCRIPTION OF REAL ESTATE AT THE INTERSECTION OF OAK RIDGE ROAD AND STATE ROAD 32
TO BE REZONED

A part of the Northeast Quarter of Section 2, Township 18 North, Range 3 East, a part of the Southeast Quarter of Section 35, Township 19 North, Range 3 East, and a part of the Southwest Quarter of Section 36, Township 19 North, Range 3 East, all in Washington Township, Hamilton County, Indiana, being more particularly described as follows:

Beginning at the northeast corner of the Northeast Quarter of Section 2, Township 18 North, Range 3 East, Hamilton County, Indiana; thence South 00 degrees 34 minutes 25 seconds East (assumed bearing) on the east line of said Northeast Quarter 874.95 feet to a northeast corner of the real estate described in Instrument No. 2000-21652 in the Office of the Recorder of Hamilton County, Indiana; thence the following four calls on the perimeter of said real estate: 1.) South 88 degrees 13 minutes 58 seconds West 200.00 feet; 2.) North 62 degrees 08 minutes 02 seconds West 151.65 feet; 3.) South 88 degrees 13 minutes 58 seconds West 494.50 feet; 4.) North 00 degrees 34 minutes 25 seconds West 806.36 feet to a point on the north line of said Northeast Quarter; thence North 88 degrees 40 minutes 35 seconds East 138.17 feet to the centerline of the Evan Kendall Ditch; thence North 00 degrees 17 minutes 45 seconds East along said centerline 398.76 feet to the northwest corner of the real estate described in Instrument No. 2005-63509 (bearing and distance provided for closure purposes); thence North 88 degrees 40 minutes 35 seconds East on the north line of said real estate and also on the north line of the real estate described in Instrument No. 2003-96364 a distance of 510.09 feet to a corner of said Instrument No. 2003-96364, said point also being on the east line of the Southeast Quarter of Section 35, Township 19 North, Range 3 East; thence the following four calls on the perimeter of said Instrument: 1.) North 00 degrees 50 minutes 25 seconds West on said east line 56.34 feet; 2.) North 88 degrees 40 minutes 35 seconds East 181.50 feet; 3.) South 00 degrees 50 minutes 25 seconds East 454.95 feet to a point on the south line of said Southwest Quarter; 4.) South 88 degrees 40 minutes 35 seconds West on said south line 9.90 feet to the Point of Beginning, containing 22.3 acres, more or less.

NOTE: This land description is not based upon a Retracement Survey and is to be used only for zoning purposes.



NOT TO SCALE

- OR- OFFICE 1
- OR- COMMERCIAL 1
- OR- COMMERCIAL 2
- OR- COMMERCIAL 3

LEGEND



NOT TO SCALE

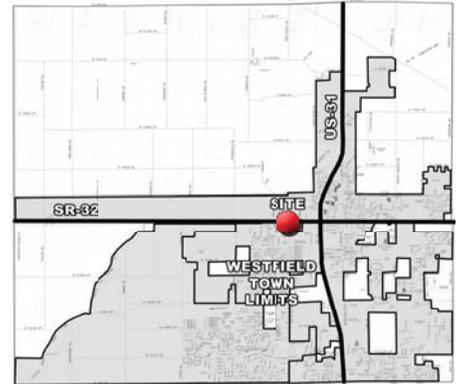
Illustrative Site Development Plan

OAK RIDGE

09.04.2007

W
K WILFONG • KREUTZ
LAND DEVELOPMENT, LLC

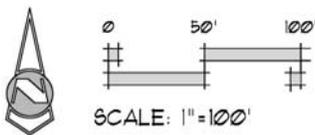
MKEC
ENGINEERING
CONSULTANTS, INC.

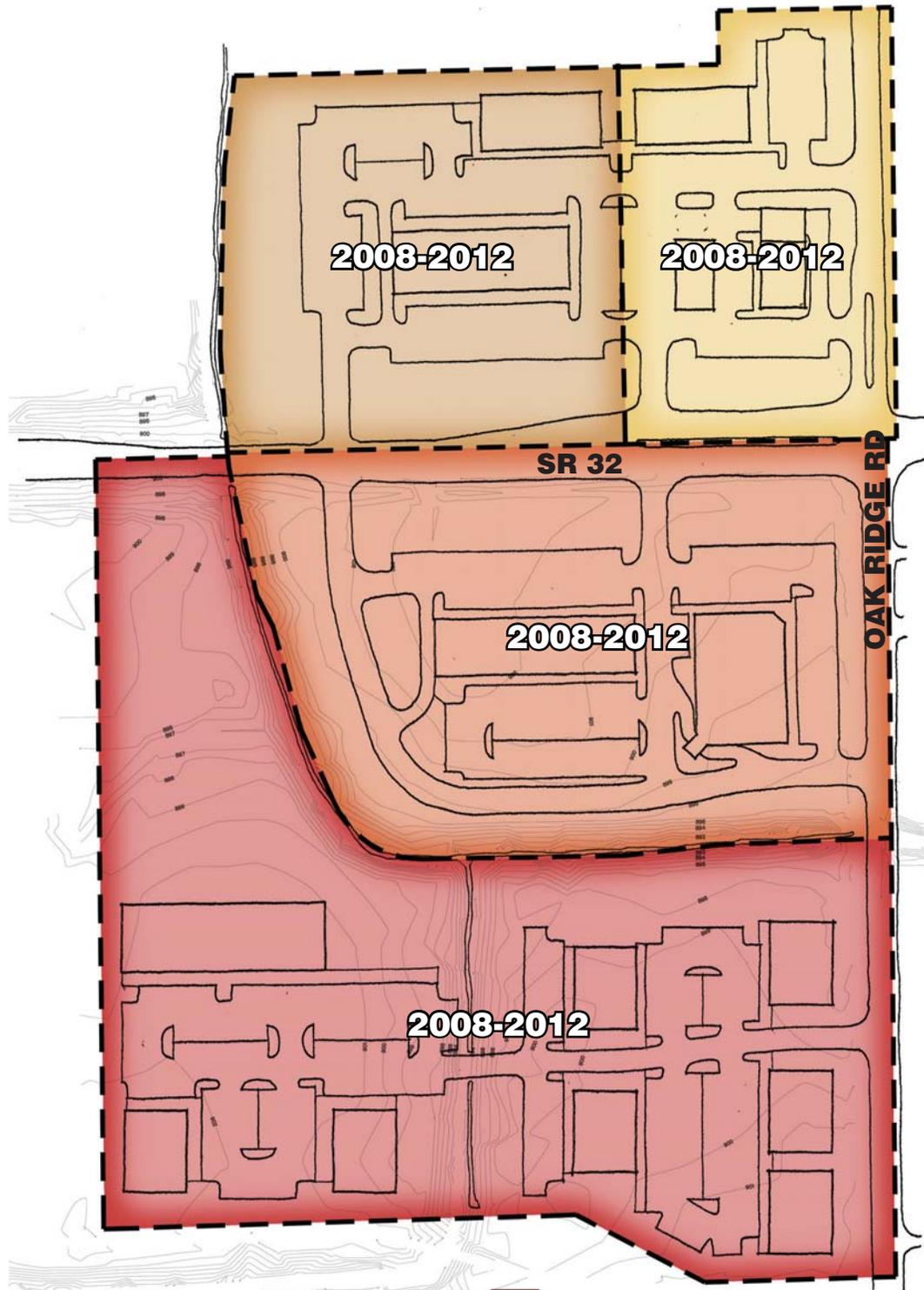


LOCATION MAP

-  BICYCLE PARKING
-  PROPOSED SIDEWALK OR PATH
-  PROPOSED BUILDING CONNECTION
-  EXISTING MIDLAND TRACE TRAIL

LEGEND





NOT TO SCALE

- OR- OFFICE 1
- OR- COMMERCIAL 1
- OR- COMMERCIAL 2
- OR- COMMERCIAL 3

LEGEND

Construction Phasing Schedule

OAK RIDGE

09.04.2007

