



Preliminary Subdivision Data Sheet

Subdivision File Number: PP-2019-082

Subdivision Name: Garden Oaks

Submittal Date: June 5, 2019

SAC Meeting Date/Time: June 17, 2019 @ 9:30 am

SAC Meeting Location: County Square Conference Rm H

Planning Commission Meeting Date/Time: July 24, 2019 @ 4:30 pm

Planning Commission Meeting Location: County Square Conference Rm D

Developer: Randy Brewer

Developer Address: 3620 Pelham Road PMB 15 Greenville, SC

Developer Telephone: 864-313-7900



Authorized: Paul Harrison, P.E., Bluewater Civil Design LLC

Authorized Address: 718 Lowndes Hill Rd, Greenville, SC

Authorized Telephone: 864-735-5068

Tax Map Number: P/O 0610030101100 & P/O 0610030101500

Streets: 32,723 LF (public)

Zoning: Unzoned

Existing Access: Bessie & Old Pelzer Rd (State)

Extension of Existing Development: n/a

Sewer District: Metropolitan Sewer

Water Provider: Greenville Water

Fire District: Piedmont

Cluster Development: Yes XNo

Option:

Acres: 335.20

Number of Lots: 870

Council District: 26

Census Tract: 33.01

Municipality: Greenville Unincorporated

Variance Requested: No

Group Development: XNo Yes

New Lots: No XYes

TRAFFIC IMPACT STUDY

for the

OLD PELZER ROAD TRACT

Located in

Greenville County, South Carolina

Prepared for

Huff Creek Venture, LLC

Prepared by

Ramey Kemp & Associates, Inc.



June 2019

RKA Project #19159

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Huff Creek Venture, LLC
3620 Pelham Road, PMB #15
Piedmont, South Carolina 29615

Prepared by

Ramey Kemp & Associates, Inc.
7301 Rivers Avenue, Suite 242
North Charleston, South Carolina 29406



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RKA Project #19159



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EXECUTIVE SUMMARY

A traffic impact study was conducted for the proposed Old Pelzer Road Tract development in accordance with SCDOT guidelines. The proposed development is located east of Old Pelzer Road and south of Highway 86 in Piedmont, South Carolina. The proposed development is planned to consist of residential use.

Two development scenarios are considered. Scenario 1 would construct 471 single-family residences over the next 5 years; Scenario 2 would construct 1,020 single-family residences over the next 10 years. Both plans would include two access points on Highway 86 and one access point on Old Pelzer Road.

Scenario 1: 471 residential units

Based on the anticipated build out volumes, a westbound left-turn lane and an eastbound right-turn lane on Highway 86 are warranted at the West Access. Auxiliary turn lanes are not warranted at the East Access on Highway 86 or the South Access on Old Pelzer Road.

The site accesses on Highway 86 and Old Pelzer Road should function with minimal delays in the peak hours. The signals on Highway 86 at Old Pelzer Road and at Sandy Springs Road/Augusta Road should continue to function adequately with only minor timing adjustments.

Recommendations for Scenario 1 (2024):

- Install a westbound left-turn lane and an eastbound right-turn lane on Highway 86 at the West Access
- Monitor signal timings at Highway 86 intersections with Old Pelzer Road and Sandy Springs Road/Augusta Road

Scenario 2: 1,020 residential units

A westbound left-turn lane and an eastbound right-turn lane on Highway 86 are warranted at the West Access. A southbound left turn lane on Old Pelzer Road is warranted at the South Access. Auxiliary turn lanes are not warranted at the East Access on Highway 86.

At the West Access on Highway 86, the outbound side street approach may experience moderate delays during peak periods. Signalization is not recommended; if delays become excessive, site traffic will divert to other access points. The East Access on Highway 86 and South Access on Old Pelzer Road should function adequately in peak hours.

By 2029, traffic growth in the area may cause some relatively long delays at the Highway 86/Sandy Springs Road & Augusta Road intersection with or without the proposed development. Based on the future build out volumes, the addition of a southbound right turn lane on Augusta Road and an additional eastbound left turn lane on Highway 86 are recommended.

The Scenario 2 build out volumes also indicate that without any lane additions, some significant delays may also occur at the Highway 86 & Old Pelzer Road intersection. Providing eastbound and westbound left turn lanes on Highway 86 approaching Old Pelzer Road could alleviate these delays.

Recommendations for Scenario 2 (2029):

- Install a westbound left-turn lane and an eastbound right-turn lane on Highway 86 at the West Access
- Install a southbound left-turn lane on Old Pelzer Road at the South Access
- At the Highway 86/Sandy Springs Road & Augusta Road intersection, provide a southbound right turn lane on Augusta Road with 100 feet of storage and an additional eastbound left turn lane (dual left) on Highway 86 with 150 feet of storage
- At the Highway 86 & Old Pelzer Road intersection, provide an eastbound and westbound left turn lane on Highway 86 with 150 feet of storage

1. INTRODUCTION

The purpose of this report is to document a traffic impact study for the proposed Old Pelzer Road Tract development in accordance with SCDOT guidelines. This report summarizes the procedures and findings.

1.1. Project Background

The proposed development is located east of Old Pelzer Road and south of Highway 86 in Piedmont, South Carolina. The proposed development is planned to consist of residential use. Two development scenarios are considered.

Scenario 1 would construct 471 single-family residences over the next 5 years; Scenario 2 would construct 1,020 single-family residences over the next 10 years. Both plans would include two access points on Highway 86 and one access point on Old Pelzer Road.

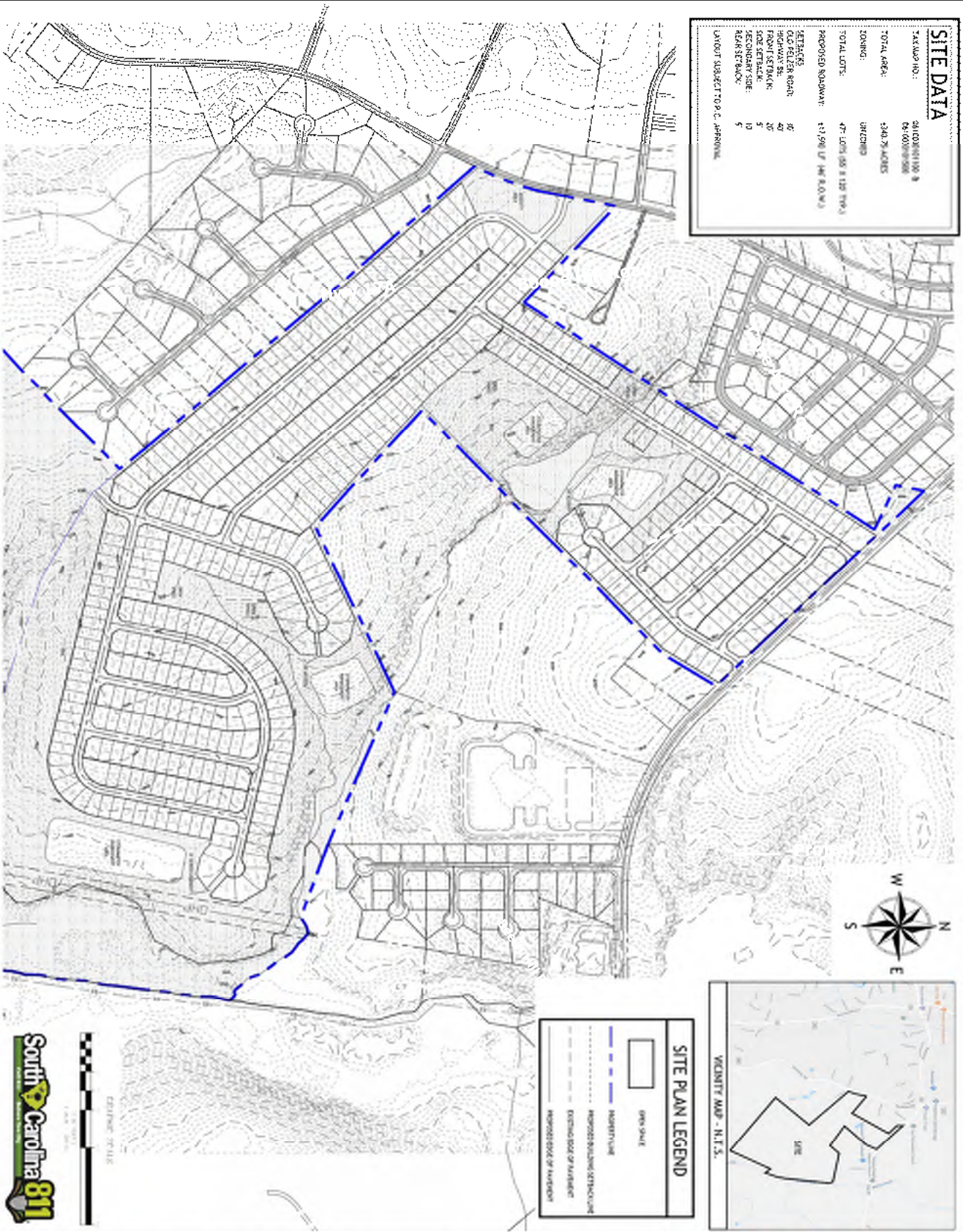
The traffic impact study considers the weekday AM peak period (between 7:00 AM and 9:00 AM) and the weekday PM peak period (between 4:00 PM and 6:00 PM) as the study time frames. The following intersections are studied:

- Highway 86 & Old Pelzer Road
- Highway 86/Sandy Springs Road & Augusta Road
- Highway 86 & West Access
- Highway 86 & East Access
- Old Pelzer Road & South Access

A build out year of 2024 is assumed for Scenario 1 and a build out year of 2029 is assumed for Scenario 2. Figure 1 shows the location of the project site. Figures 2 and 3 illustrate the preliminary site plans for Scenarios 1 and 2.



SITE DATA	
TAX MAP NO.:	24100001100 & 24100001200
TOTAL AREA:	542.75 ACRES
ZONING:	UR-CR200
TOTAL LOTS:	47 LOTS (35 & 120 TYP.)
PROPOSED ROADWAY:	±1.5% LT (46 R.O.W.)
DETAILED:	45'
RIGHT-OF-WAY:	45'
PROPOSED ROADWAY:	45'
SIDE SETBACK:	5'
REAR SETBACK:	10'
REAR SETBACK:	5'
LAYOUT SUBJECT TO P.C. APPROVAL	

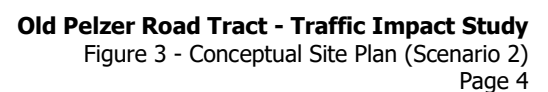


South Carolina 811

SP-1A

OLD PELZER ROAD TRACT
Single-Family Subdivision
Old Pelzer Road & Bessie Road
Piedmont, SC 29673

blueWATER
civil design
bluewater civil design, Inc.
718 Lowndes Road • Greenville, SC 29607
www.bluewaterinc.com • info@bluewaterinc.com



1.2. Existing Roadway Conditions

A review of the existing roadway conditions in the study area was conducted and is summarized in Table 1. Figure 4 illustrates the existing lane geometry.

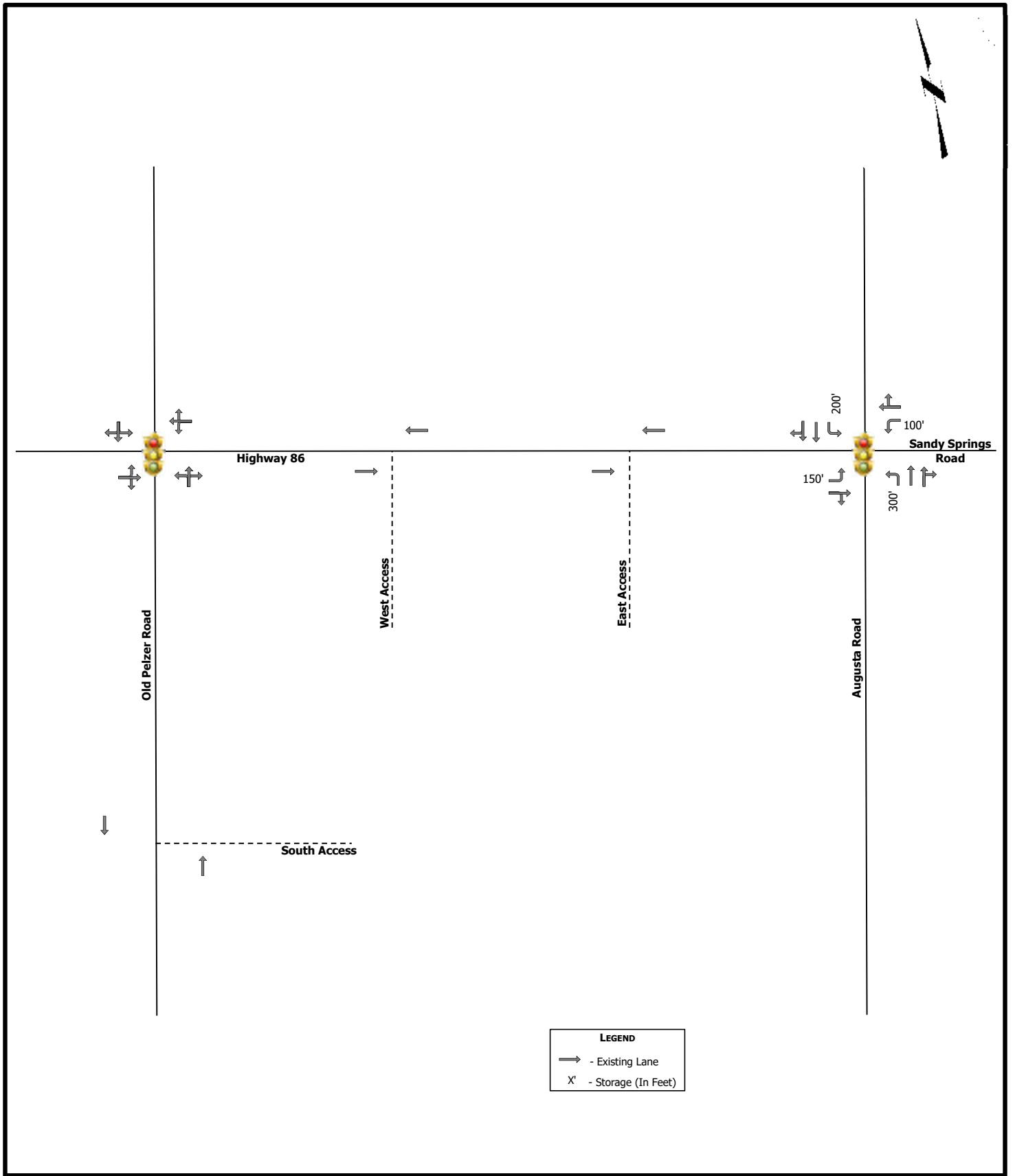
Table 1 – Street Inventory

Facility Name	Route #	Typical Cross Section	Speed Limit	2018 ADT	Maintained By
Highway 86	SC 86	2-lane undivided	45 MPH	7,600	SCDOT
Old Pelzer Road	S-52	2-lane undivided	45 MPH	1,400	SCDOT
Sandy Springs Road	L-2673	2-lane undivided	40 MPH	3,500	SCDOT
Augusta Road	US 25	5-lane undivided	55 MPH	16,800	SCDOT

1.3. Driveway Location

Access to Old Pelzer Road Tract development is proposed at two full access points (referred to as West Access and East Access) on Highway 86 and one full access point (referred to as South Access) on Old Pelzer Road.

With the 45-mph posted speed limit on Highway 86 and on Old Pelzer Road, a minimum driveway spacing of 325 feet is recommended. The spacing of the proposed access points meet SCDOT's criteria.



2. PROJECT TRAFFIC

2.1. Trip Generation Estimates

Two development scenarios are being considered. Scenario 1 would construct 471 single-family residences over the next 5 years; Scenario 2 would construct 1,020 single-family residences over the next 10 years. The site is currently vacant.

The trip generation potential for the development was estimated using information contained in ITE's *Trip Generation Manual*, 10th Edition (2017) for land use code (LUC) 210 – Single-Family Detached Housing. The weekday daily, the weekday AM peak hour of the adjacent street, and the weekday PM peak hour of the adjacent street time periods were considered. The trip generation estimates are shown in Table 2 and documented in Appendix A.

Table 2 - Trip Generation Estimates

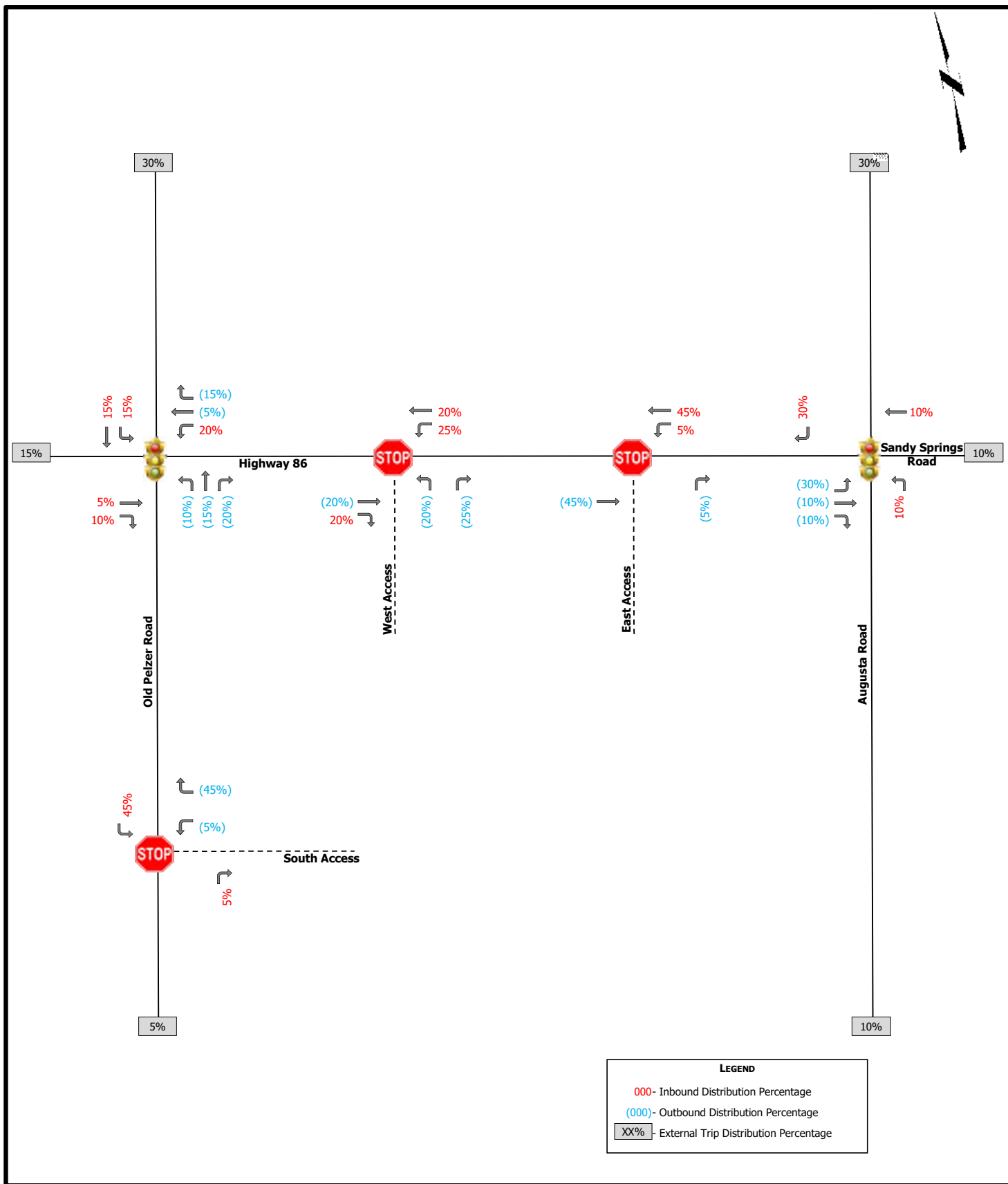
Land Use	ITE LUC	Size	Daily Traffic	AM Peak			PM Peak		
				Enter	Exit	Total	Enter	Exit	Total
Scenario 1									
Single-Family Detached Housing	210	471 Dwelling Units	4,326	85	255	340	284	166	450
Scenario 2									
Single-Family Detached Housing	210	1,020 Dwelling Units	8,808	183	547	730	595	349	944

2.2. Trip Distributions and Assignment

New trips expected to be generated by the project was distributed and assigned to the roadway network based upon existing travel patterns. The general distribution is assumed as follows:

- 30% to/from the north via Old Pelzer Road
- 30% to/from the north via Augusta Road
- 15% to/from the west via Highway 86
- 10% to/from the east via Highway 86
- 10% to/from the south via Augusta Road
- 5% to/from the south via Old Pelzer Road

The distribution of the project traffic is illustrated in Figure 5.



3. TRAFFIC VOLUME DEVELOPMENT

3.1. Existing Traffic Volumes

Vehicle turning movement counts were conducted during the weekday AM peak period (7:00 AM to 9:00 AM) and the weekday PM peak period (4:00 PM to 6:00 PM) at the following intersections:

- Highway 86 & Old Pelzer Road
- Highway 86/Sandy Springs Road & Augusta Road

The counts were conducted while the local school district was in session. The raw traffic counts are provided in Appendix B and illustrated in Figure 6.

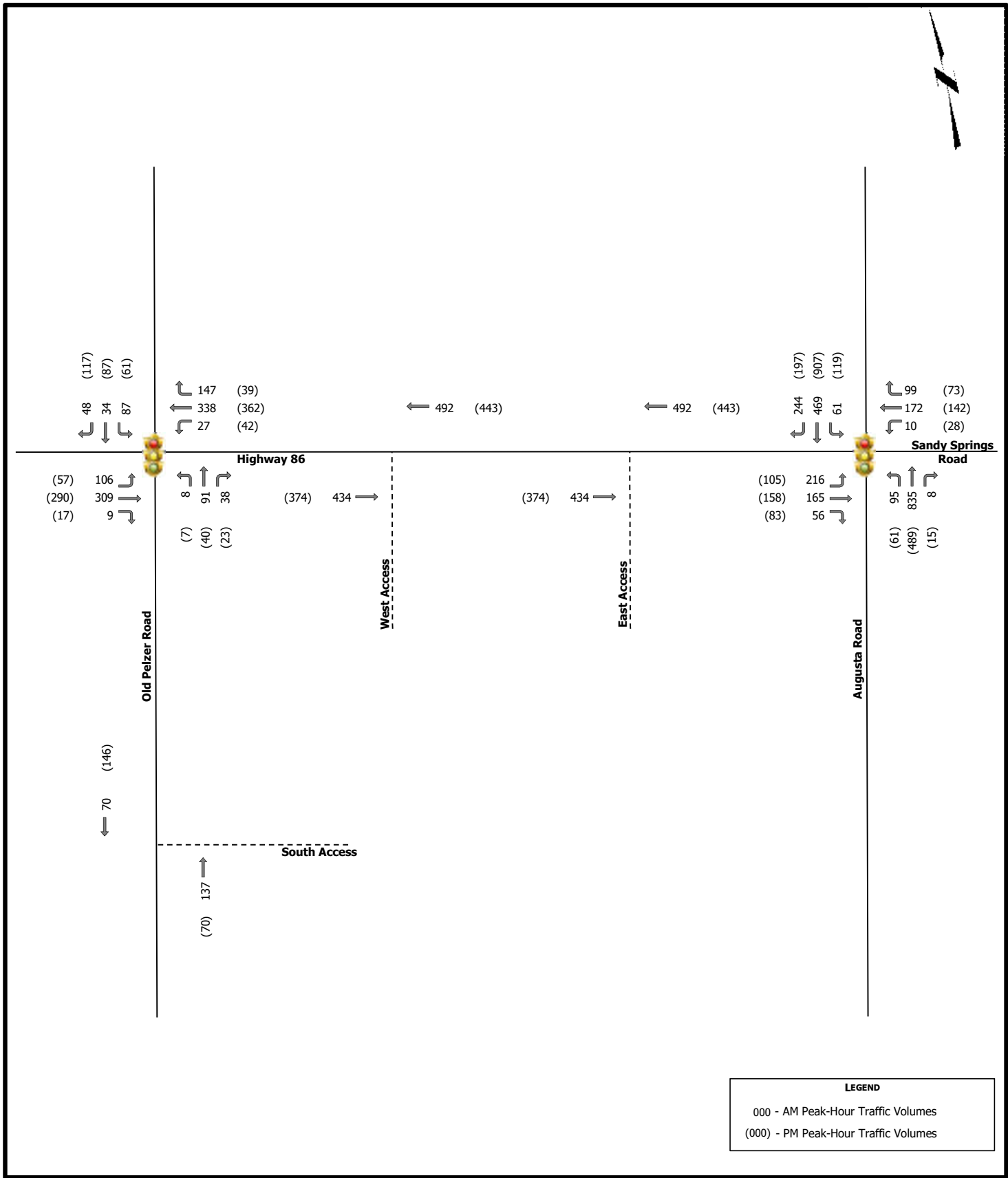
3.2. Future No-Build Traffic Volumes

Historical count data along Highway 86 (SCDOT count station #213) and Augusta Road (SCDOT count station #103) showed roughly 2.5% to 3% annual growth over the past ten years. An annual growth rate of 3% is applied to the 2019 counts to develop the 2024 and 2029 No-Build volumes.

3.3. Build Out Traffic Volumes

The site generated traffic volumes for each scenario are added to the 2024 and 2029 No-Build traffic volumes to determine the 2024 and 2029 Build volumes.

Traffic volume development is documented and attached in Appendix C.



4. TRAFFIC IMPACT ANALYSIS

4.1. Turn Lane Analysis

Auxiliary turn-lane analyses were conducted for both scenarios using the Build volumes.

The need for an exclusive right-turn lane eastbound on Highway 86 and northbound on Old Pelzer Road is based upon *Figure 9.5-A, Guidelines for right-turn lanes at Unsignalized Intersections on Two Lane Highways* of the *Roadway Design Manual*. The need for an exclusive left-turn lane westbound on Highway 86 and southbound on Old Pelzer Road is based upon *Figure 9.5-F, Volume guidelines for left-turn lanes at Unsignalized Intersections on Two-Lane Highways* of the *Roadway Design Manual*. Turn lane analyses are provided in Appendix D.

4.2. Intersection LOS Analysis

Using the existing and proposed traffic volumes, intersection analyses were conducted for the study and project driveway intersections. This analysis was conducted using the Transportation Research Board's *Highway Capacity Manual 2010 (HCM 2010)* methodologies of the *Synchro*, Version 9 software.

Intersection level of service (LOS) grades range from LOS A to LOS F, which are directly related to the level of control delay at the intersection and characterize the operational conditions of the intersection traffic flow. LOS A operations typically represent ideal, free-flow conditions where vehicles experience little to no delays, and LOS F operations typically represent poor, forced-flow (bumper-to-bumper) conditions with high vehicular delays, and are generally considered undesirable. Table 3 summarizes the *HCM 2010* control delay thresholds associated with each LOS grade for unsignalized and signalized intersections.

Table 3 – HCM 2010 LOS Criteria for Unsignalized Intersections & Signalized Intersections

Unsignalized Intersections		Signalized Intersections	
LOS	Control Delay per Vehicle (seconds)	LOS	Control Delay per Vehicle (seconds)
A	≤ 10	A	≤ 10
B	> 10 and ≤ 15	B	> 10 and ≤ 20
C	> 15 and ≤ 25	C	> 20 and ≤ 35
D	> 25 and ≤ 35	D	> 35 and ≤ 55
E	> 35 and ≤ 50	E	> 55 and ≤ 80
F	> 50	F	> 85

As part of the intersection analysis, SCDOT’s default *Synchro* parameters were utilized. Existing PHF was utilized for all the existing scenarios. A minimum PHF of 0.90 and a maximum PHF of 0.95 were applied. Existing heavy vehicle percentages were utilized for Existing and No-Build scenarios, with a minimum percentage of 2% considered.

Using the *Synchro* software, intersection analyses were conducted for 2019 Existing conditions, 2024 No-Build conditions, 2024 Build conditions, 2029 No-Build conditions, and 2029 Build conditions for the weekday AM peak-hour and weekday PM peak-hour time periods.

Scenario 1 – 471 single-family residences (2024)

Build scenario 1 assumes construction of 471 single family residences. Trip generation for this size development is shown in Table 4.

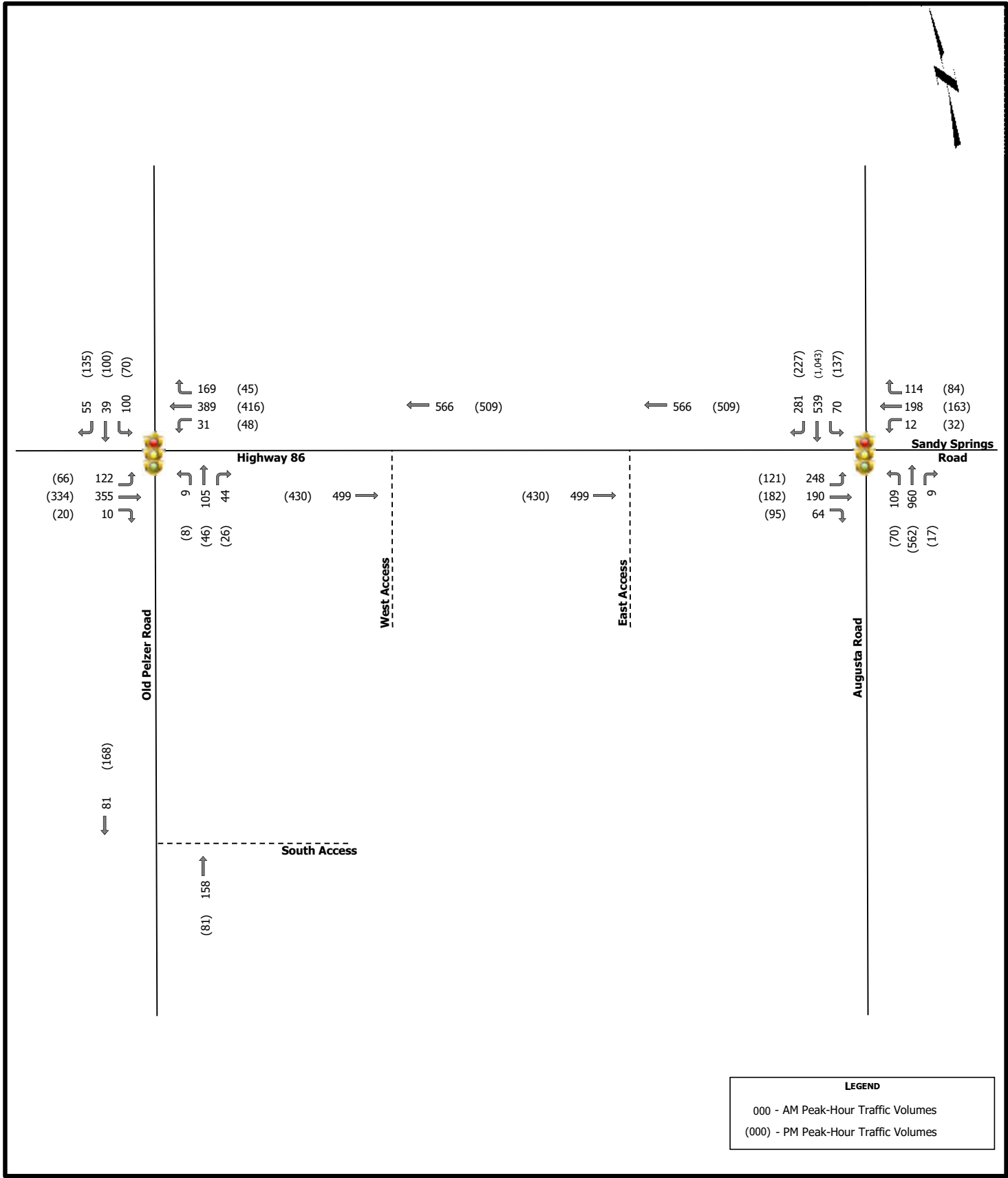
Table 4 - Trip Generation Estimates (Scenario 1)

Land Use	ITE LUC	Size	Daily Traffic	AM Peak			PM Peak		
				Enter	Exit	Total	Enter	Exit	Total
Single-Family Detached Housing	210	471 Dwelling Units	4,326	85	255	340	284	166	450

Trip assignments based on the distributions noted in section 2.2 (and shown in Figure 4) are shown in Figure 7.

Based on the anticipated build out volumes for Scenario 1, a westbound left-turn lane and an eastbound right-turn lane on Highway 86 are warranted at the West Access. Auxiliary turn lanes are not warranted at the East Access on Highway 86 or the South Access on Old Pelzer Road.

The 2024 No-Build and 2024 Build volumes for Scenario 1 are shown in Figures 8 and 9. Results of the intersection analyses are summarized in Tables 5 and 6.



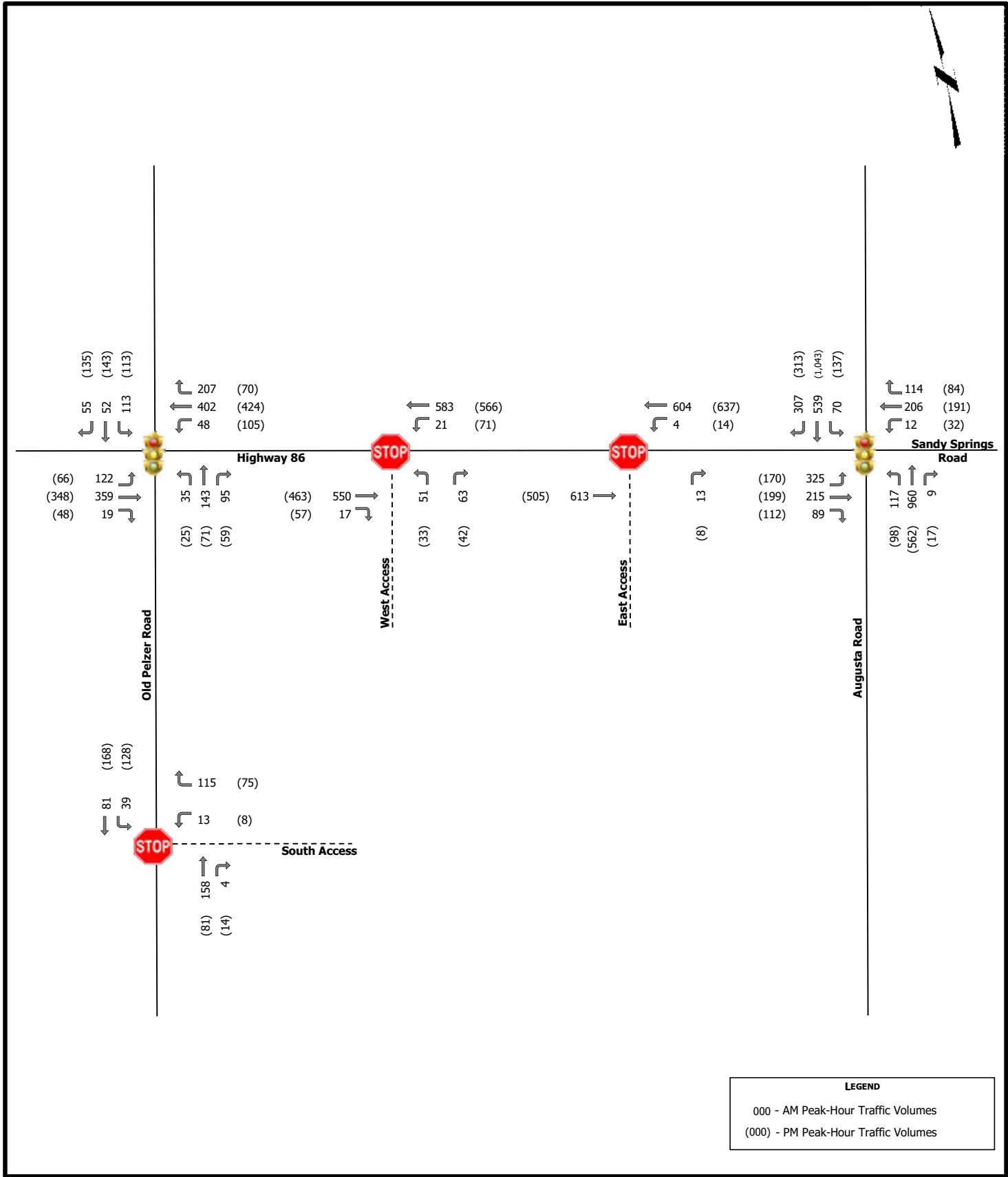


Table 5 - Unsignalized Intersection Analysis Results (Scenario 1)

Intersection	Approach	2019 Existing		2024 No-Build		2024 Build	
		AM	PM	AM	PM	AM	PM
Highway 86 & West Access	EB	-	-	-	-	A/0.0	A/0.0
	WB	-	-	-	-	A/0.3	A/1.0
	NB	-	-	-	-	C/23.4	C/21.2
Highway 86 & East Access	EB	-	-	-	-	A/0.0	A/0.0
	WB	-	-	-	-	A/0.1	A/0.2
	NB	-	-	-	-	B/13.3	B/11.9
Old Pelzer Road & South Access	WB	-	-	-	-	B/10.0	A/9.5
	NB	-	-	-	-	A/0.0	A/0.0
	SB	-	-	-	-	A/2.5	A/3.3

Table 6 – Signalized Intersection Analysis (Scenario 1)

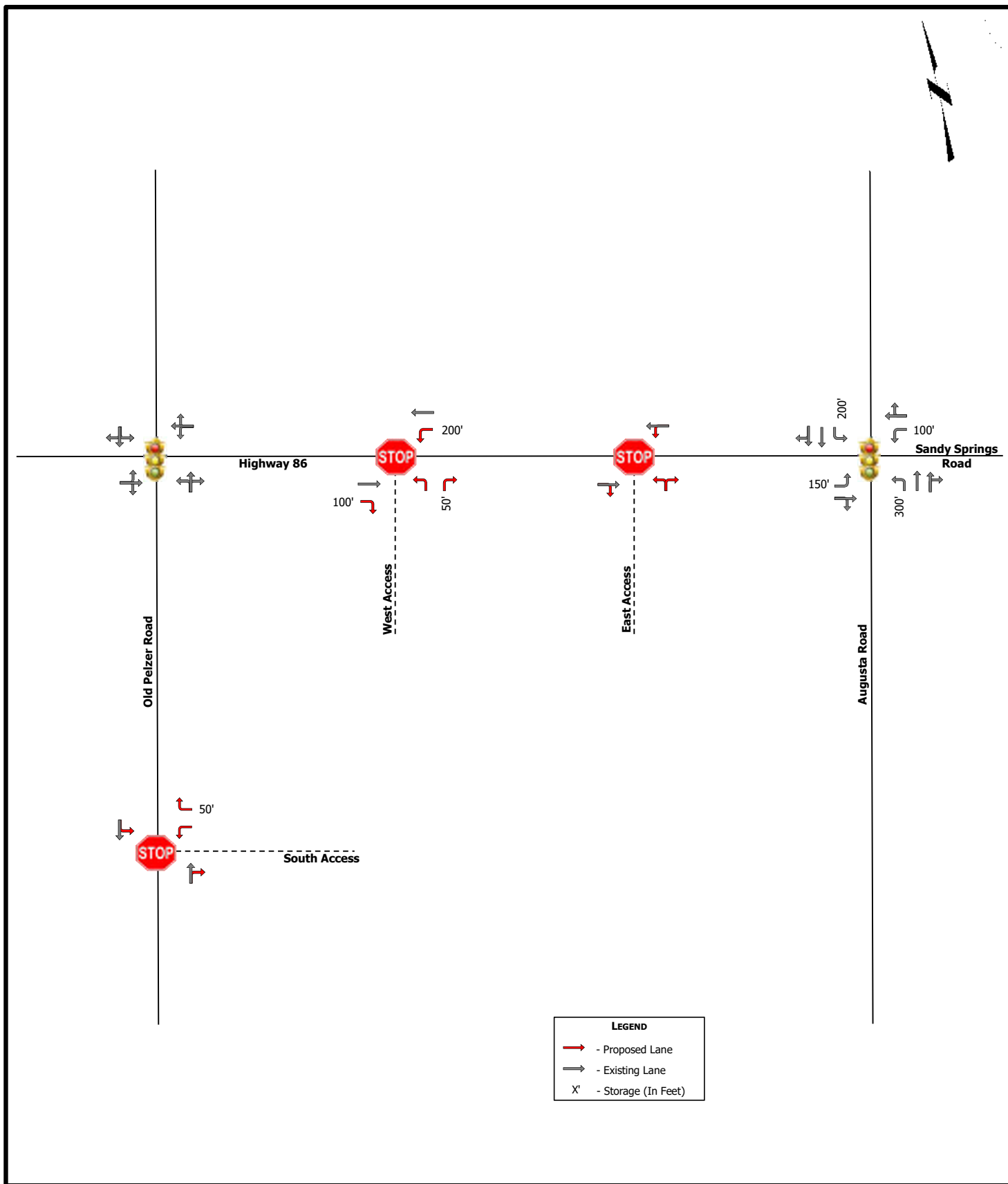
Intersection	Approach	2019 Existing		2024 No-Build		2024 Build	
		AM	PM	AM	PM	AM	PM
Highway 86 & Old Pelzer Road	EB	A/7.2	A/8.3	A/7.7	A/9.1	A/9.7	B/11.2
	WB	A/8.2	A/9.1	A/8.6	B/10.3	B/11.9	B/16.1
	NB	B/14.7	B/10.7	B/15.8	B/11.9	B/19.0	B/14.6
	SB	B/15.3	B/13.0	B/16.4	B/15.0	B/18.6	C/21.2
	Overall	A/9.6	A/9.9	B/10.1	B/11.1	B/13.3	B/15.8
Highway 86/Sandy Springs Road & Augusta Road	EB	C/20.6	B/18.2	C/33.7	C/23.3	D/35.7	C/30.6
	WB	D/44.4	C/28.5	E/78.9	D/44.9	E/73.4	E/56.8
	NB	D/37.4	B/18.1	D/37.5	B/19.9	D/44.0	C/23.2
	SB	C/34.9	D/41.8	D/36.2	D/44.6	D/47.8	D/45.6
	Overall	C/34.4	C/31.4	D/41.2	D/35.6	D/46.7	D/39.2

The site accesses on Highway 86 and Old Pelzer Road should function with minimal delays in the peak hours. The signals on Highway 86 at Old Pelzer Road and at Sandy Springs Road/Augusta Road should continue to function adequately with only minor timing adjustments.

Recommendations for Scenario 1 (2024):

- Install a westbound left-turn lane and an eastbound right-turn lane on Highway 86 at the West Access
- Monitor signal timings at Highway 86 intersections with Old Pelzer Road and Sandy Springs Road/Augusta Road

The recommended lane configurations for Scenario 1 are shown in Figure 10.



Scenario 2 – 1,020 single-family residences (2029)

Build scenario 2 assumes construction of 1,020 single family residences. Trip generation for this size development is shown in Table 7.

Table 7 - Trip Generation Estimates

Land Use	ITE LUC	Size	Daily Traffic	AM Peak			PM Peak		
				Enter	Exit	Total	Enter	Exit	Total
Single-Family Detached Housing	210	1,020 Dwelling Units	8,808	183	547	730	595	349	944

Trip assignments for the Scenario 2 volumes, based on the distributions noted in section 2.2 (and shown in Figure 4), are shown in Figure 11.

A westbound left-turn lane and an eastbound right-turn lane on Highway 86 are warranted at the West Access. A southbound left turn lane on Old Pelzer Road is warranted at the South Access. Auxiliary turn lanes are not warranted at the East Access on Highway 86.

The 2029 No-Build and 2029 Build volumes for Scenario 2 are shown in Figures 12 and 13. Results of the intersection analyses are summarized in Tables 8 and 9.

Table 8 - Unsignalized Intersection Analysis Results (Scenario 2)

Intersection	Approach	2019 Existing		2029 No-Build		2029 Build	
		AM	PM	AM	PM	AM	PM
Highway 86 & West Access	EB	-	-	-	-	A/0.0	A/0.0
	WB	-	-	-	-	A/0.6	A/1.7
	NB	-	-	-	-	F/96.1	F/85.3
Highway 86 & East Access	EB	-	-	-	-	A/0.0	A/0.0
	WB	-	-	-	-	A/0.1	A/0.3
	NB	-	-	-	-	C/16.7	B/13.8
Old Pelzer Road & South Access	WB	-	-	-	-	B/11.5	B/10.8
	NB	-	-	-	-	A/0.0	A/0.0
	SB	-	-	-	-	A/3.7	A/4.8

Table 9 – Signalized Intersection Analysis (Scenario 2)

Intersection	Approach	2019 Existing		2029 No-Build		2029 Build	
		AM	PM	AM	PM	AM	PM
Highway 86 & Old Pelzer Road	EB	A/7.2	A/8.3	B/10.1	B/10.2	E/60.0	B/16.6
	WB	A/8.2	A/9.1	B/10.5	B/12.3	D/44.7	F/118.0
	NB	B/14.7	B/10.7	B/17.7	B/13.1	D/41.7	B/17.2
	SB	B/15.3	B/13.0	B/18.6	B/17.4	D/45.6	E/61.3
	Overall	A/9.6	A/9.9	B/12.2	B/12.9	D/48.4	E/64.8
Highway 86/Sandy Springs Road & Augusta Road	EB	C/20.6	B/18.2	D/51.8	C/23.7	F/92.4	D/52.4
	WB	D/44.4	C/28.5	F/124.4	D/53.5	F/136.5	F/121.6
	NB	D/37.4	B/18.1	D/50.9	C/22.6	E/62.6	C/34.3
	SB	C/34.9	D/41.8	D/50.6	F/88.2	E/69.0	F/99.0
	Overall	C/34.4	C/31.4	E/59.5	E/59.7	E/79.7	E/78.8

At the West Access on Highway 86, the outbound side street approach may experience moderate delays during peak periods. Side street delays such as this are typical of unsignalized approaches to higher-volume arterial roadways. Signalization is not recommended; if delays become excessive, site traffic will divert to other access points. The East Access on Highway 86 and South Access on Old Pelzer Road should function adequately in peak hours.

By 2029, traffic growth in the area may cause some relatively long delays at the Highway 86/Sandy Springs Road & Augusta Road intersection with or without the proposed development. Based on the future build out volumes, the addition of a southbound right turn lane on Augusta Road and an additional eastbound left turn lane on Highway 86 are recommended. These additions could provide the Levels of Service shown in Table 10.

The Scenario 2 build out volumes also indicate that without any lane additions, some significant delays may occur at the Highway 86 & Old Pelzer Road intersection. Providing eastbound and westbound left turn lanes on Highway 86 approaching Old Pelzer Road could alleviate these delays.

Table 10 – Signalized Intersection Analysis (Scenario 2) With Noted Improvements

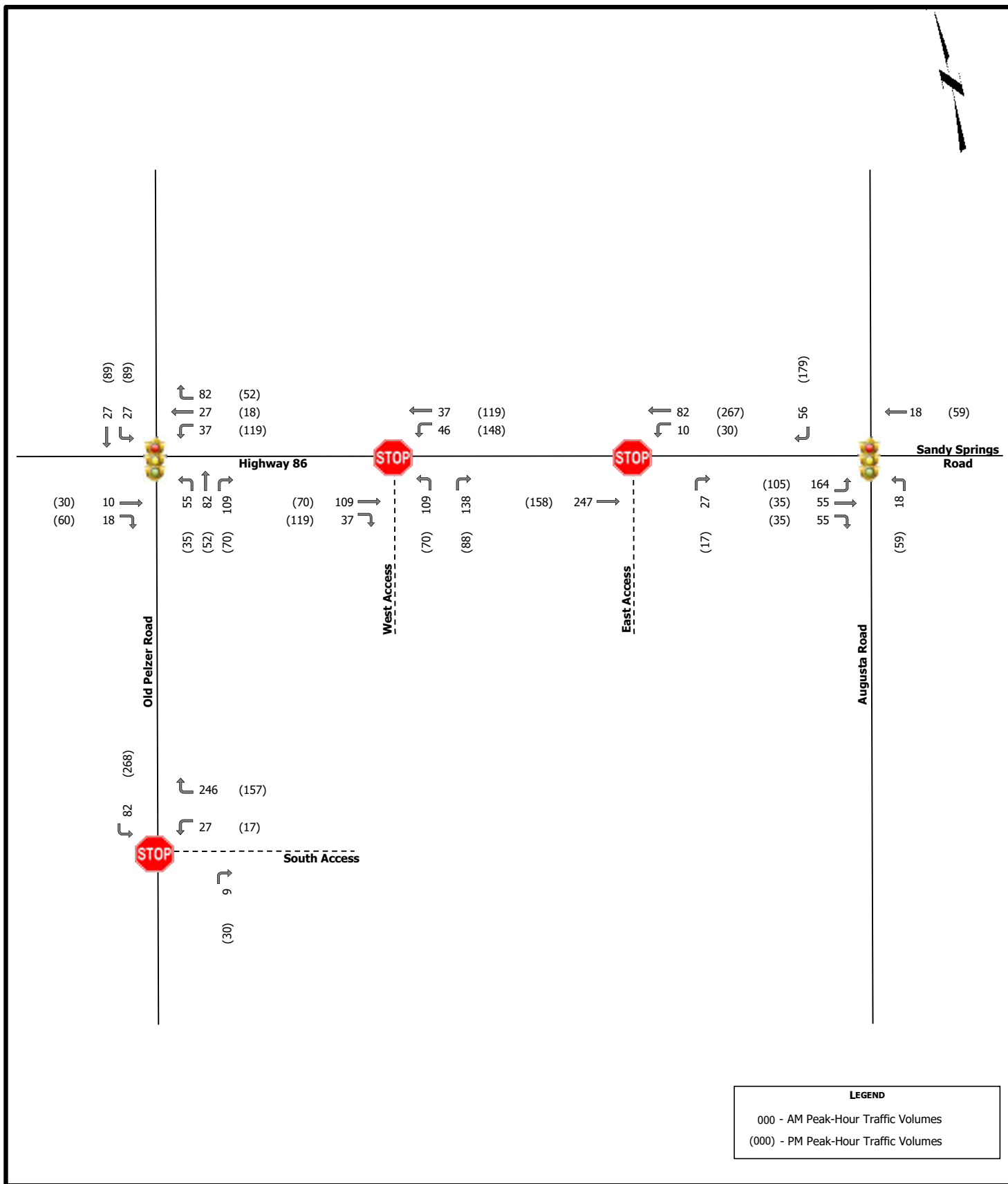
Intersection	Approach	2029 Build	
		AM	PM
Highway 86 & Old Pelzer Road	EB	D/35.6	B/19.9
	WB	C/33.6	C/32.8
	NB	C/29.5	B/13.3
	SB	C/30.2	C/24.1
	Overall	C/32.9	C/24.9
Highway 86/Sandy Springs Road & Augusta Road	EB	D/42.4	D/48.5
	WB	F/95.7	E/61.5
	NB	D/54.6	C/29.0
	SB	C/30.7	C/33.5
	Overall	D/48.9	D/38.1

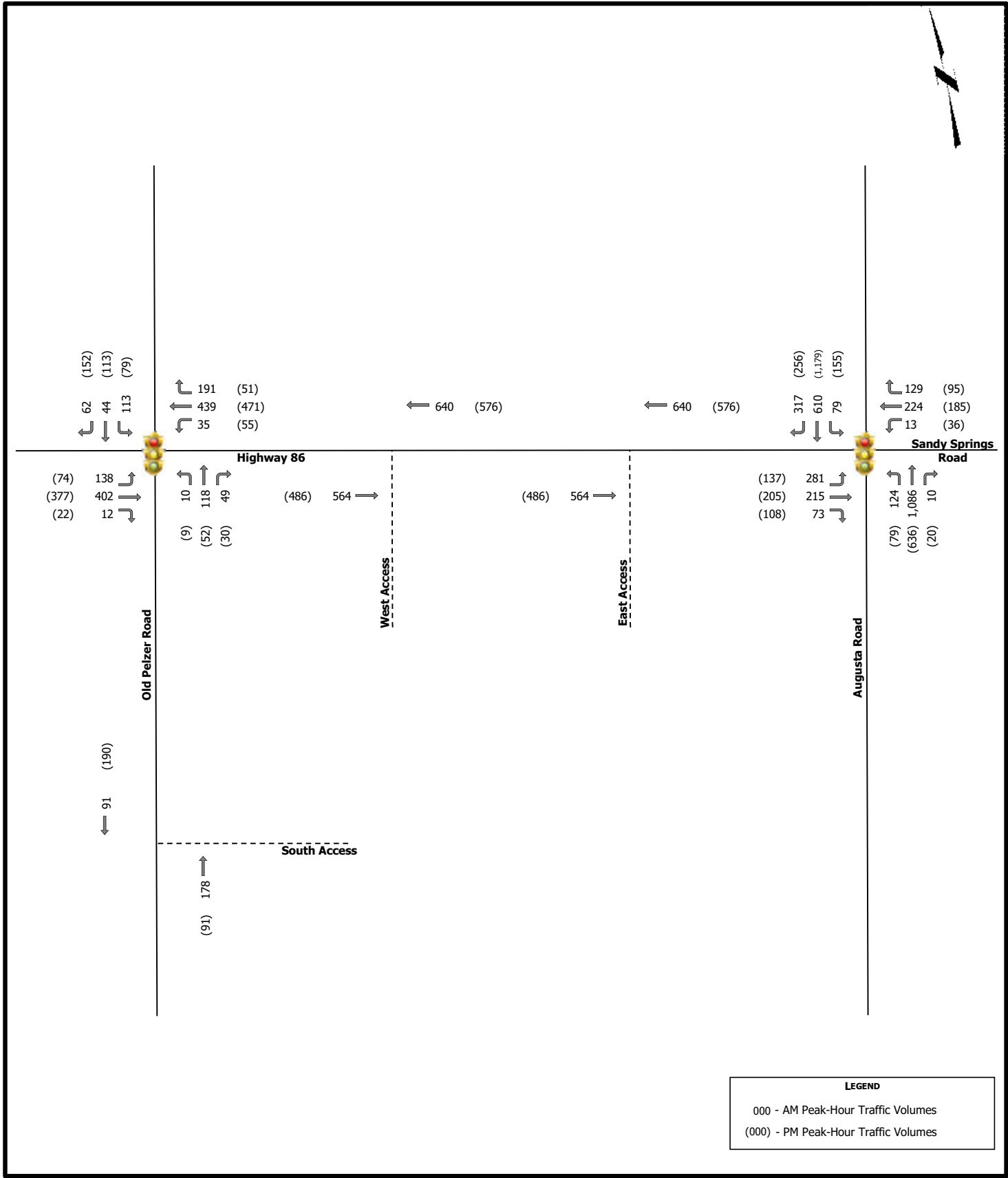
Recommendations for Scenario 2 (2029):

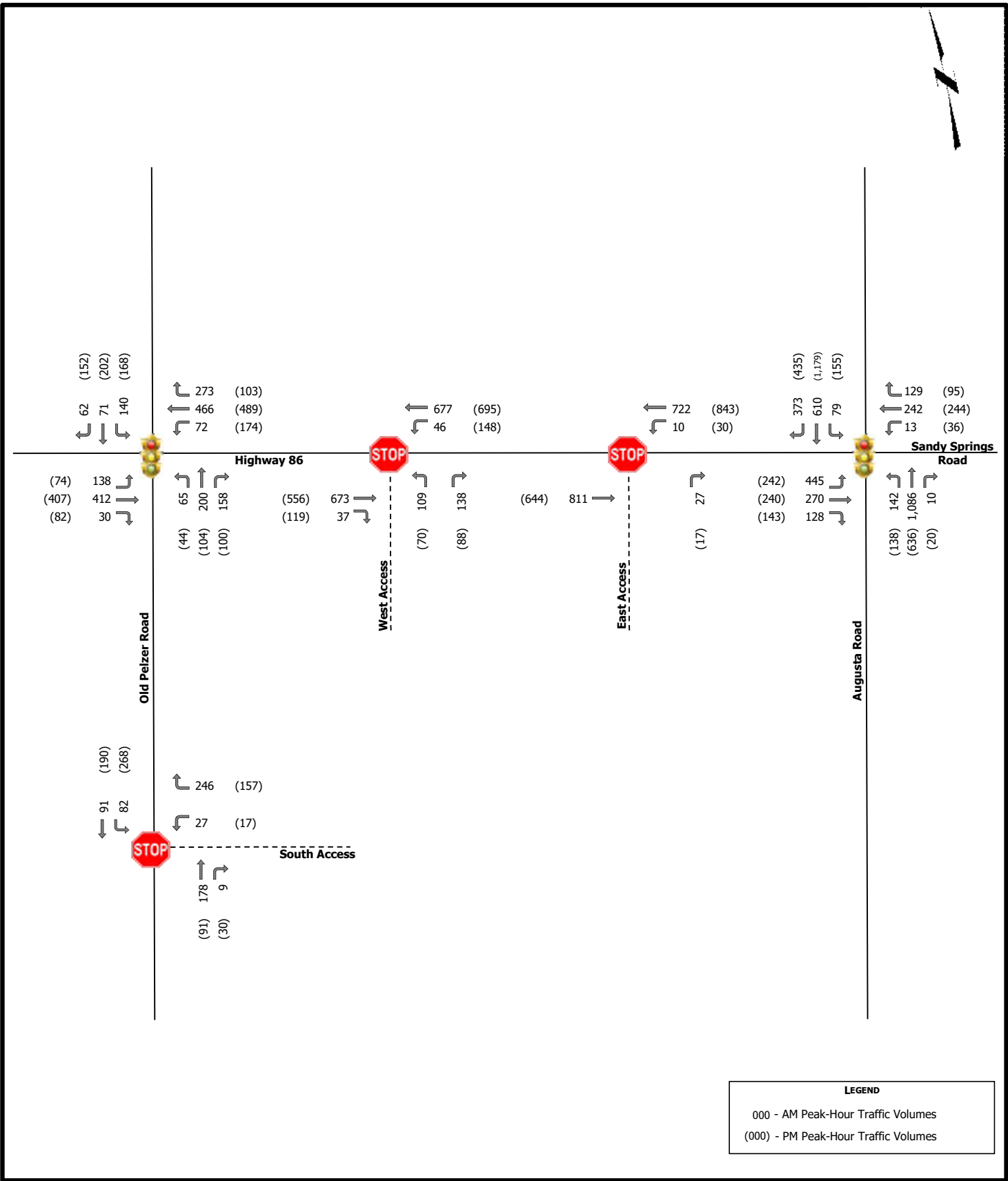
- Install a westbound left-turn lane and an eastbound right-turn lane on Highway 86 at the West Access
- Install a southbound left-turn lane on Old Pelzer Road at the South Access
- At the Highway 86/Sandy Springs Road & Augusta Road intersection, provide a southbound right turn lane on Augusta Road with 100 feet of storage and an additional eastbound left turn lane (dual left) on Highway 86 with 150 feet of storage
- At the Highway 86 & Old Pelzer Road intersection, provide an eastbound and westbound left turn lane on Highway 86 with 150 feet of storage

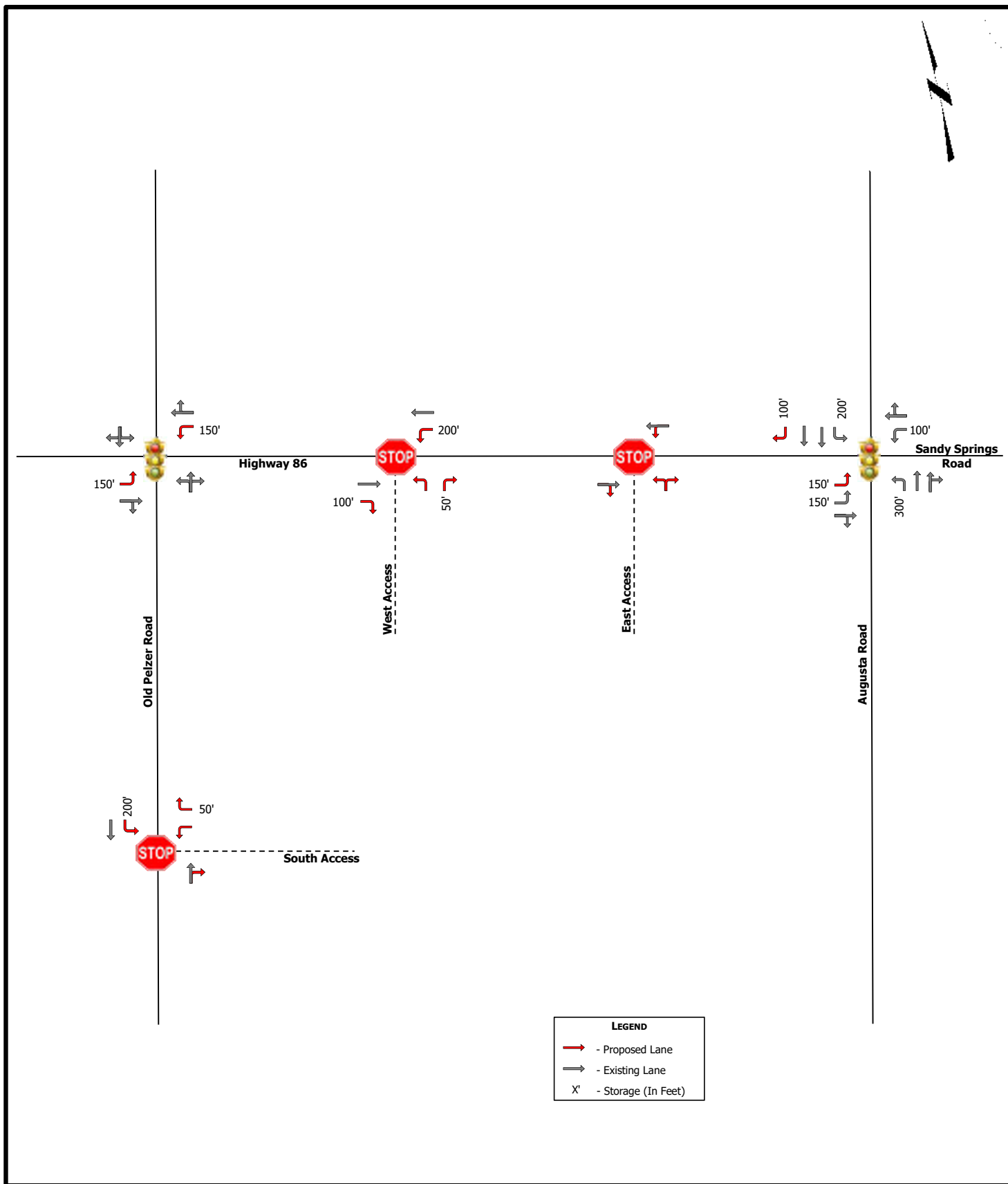
The recommended lane configurations for Scenario 2 are shown in Figure 14.

Worksheets documenting the intersection analyses are provided in Appendix E for 2019 Existing conditions, Appendix F for Scenario 1 conditions and Appendix G for Scenario 2 conditions.









5. SUMMARY OF FINDINGS AND RECOMMENDATIONS

A traffic impact study was conducted for the proposed Old Pelzer Road Tract development in accordance with SCDOT guidelines. The proposed development is located east of Old Pelzer Road and south of Highway 86 in Piedmont, South Carolina. The proposed development is planned to consist of residential use.

Two development scenarios are considered. Scenario 1 would construct 471 single-family residences over the next 5 years; Scenario 2 would construct 1,020 single-family residences over the next 10 years. Both plans would include two access points on Highway 86 and one access point on Old Pelzer Road.

Scenario 1: 471 residential units

Based on the anticipated build out volumes, a westbound left-turn lane and an eastbound right-turn lane on Highway 86 are warranted at the West Access. Auxiliary turn lanes are not warranted at the East Access on Highway 86 or the South Access on Old Pelzer Road.

The site accesses on Highway 86 and Old Pelzer Road should function with minimal delays in the peak hours. The signals on Highway 86 at Old Pelzer Road and at Sandy Springs Road/Augusta Road should continue to function adequately with only minor timing adjustments.

Recommendations for Scenario 1 (2024):

- Install a westbound left-turn lane and an eastbound right-turn lane on Highway 86 at the West Access
- Monitor signal timings at Highway 86 intersections with Old Pelzer Road and Sandy Springs Road/Augusta Road

Scenario 2: 1,020 residential units

A westbound left-turn lane and an eastbound right-turn lane on Highway 86 are warranted at the West Access. A southbound left turn lane on Old Pelzer Road is warranted at the South Access. Auxiliary turn lanes are not warranted at the East Access on Highway 86.

At the West Access on Highway 86, the outbound side street approach may experience moderate delays during peak periods. Signalization is not recommended; if delays become excessive, site traffic will divert to other access points. The East Access on Highway 86 and South Access on Old Pelzer Road should function adequately in peak hours.

By 2029, traffic growth in the area may cause some relatively long delays at the Highway 86/Sandy Springs Road & Augusta Road intersection with or without the proposed development. Based on the future build out volumes, the addition of a southbound right turn lane on Augusta Road and an additional eastbound left turn lane on Highway 86 are recommended.

The Scenario 2 build out volumes also indicate that without any lane additions, some significant delays may also occur at the Highway 86 & Old Pelzer Road intersection. Providing eastbound and westbound left turn lanes on Highway 86 approaching Old Pelzer Road could alleviate these delays.

Recommendations for Scenario 2 (2029):

- Install a westbound left-turn lane and an eastbound right-turn lane on Highway 86 at the West Access
- Install a southbound left-turn lane on Old Pelzer Road at the South Access
- At the Highway 86/Sandy Springs Road & Augusta Road intersection, provide a southbound right turn lane on Augusta Road with 100 feet of storage and an additional eastbound left turn lane (dual left) on Highway 86 with 150 feet of storage
- At the Highway 86 & Old Pelzer Road intersection, provide an eastbound and westbound left turn lane on Highway 86 with 150 feet of storage