TRAFFIC IMPACT STUDY
FOR
SANCTUARY PARK
Development of Regional Impact # 2057
ALPHARETTA, GEORGIA

Prepared for:

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November 12, 2009
A&R Project No: 09-042

EXECUTIVE SUMMARY

The purpose of this study is to determine the traffic impact that will result from the addition of office space to the existing Sanctuary Park development, which is located on both sides of Sanctuary Parkway, to the north of the intersection of Westside Parkway / Rock Mill Road / Sanctuary Parkway in Alpharetta, Georgia. The existing Sanctuary Park development is proposing to include two additional 12 story office buildings with a total of 600,000 sf. of office space.

The traffic analysis evaluated the following scenarios: existing conditions, year 2014 conditions without additional traffic generated by the site, and year 2014 conditions with the traffic generated by the development. Currently, and at the time of collection of the traffic counts, Westside Parkway is closed for major construction from the intersection of Mansell Road / Old Roswell Road to Westside Parkway / Rock Mill Road / Sanctuary Parkway due to a road widening and bridge replacement project (PI 752970). The striping plans for this project are included in the Appendix. The existing traffic volumes, which are shown in Figure 5, were redistributed based on the traffic information provided from a previous study done by Day Wilburn and Associates in March 2005 and conversations with local jurisdictions. It is these adjusted traffic volumes that were used to evaluate the existing conditions LOS at the study intersections.

From the existing condition, it was found that all study intersections within the study area are currently operating at the LOS standard of D or better. From the base year 2014 condition analysis, it was found that two of the study intersections within the study area will not meet the LOS standard of D. Future 2014 traffic volumes, including the site-generated traffic, were then evaluated using the future lane geometry after the opening of Westside Parkway. Two study network intersections will not meet the required LOS standard after the project is completed if no roadway improvements are implemented. Improvements were recommended to restore this intersection back to the LOS standard. Recommendations to allow the site accesses to operate satisfactorily were also identified. Details on these recommendations can be found in the site access analysis section of the report.

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1. PROJECT DESCRIPTION

Sanctuary Park is an existing development located in the City of Alpharetta, east of city limit for the city of Roswell. The purpose of this study is to determine the traffic impact that will result from the addition of office space to the existing Sanctuary Park development which is located on both sides of Sanctuary Parkway to the north of the intersection of Westside Parkway / Rock Mill Road / Sanctuary Parkway in Alpharetta, Georgia. The existing Sanctuary Park development is proposing to include two additional 12 story office buildings with a total of 600,000 sf. of office space. The additional office space proposes one full access driveway on Sanctuary Parkway, which aligns with the existing First Driveway (Commercial) on Sanctuary Parkway, and another full access driveway on Westside Parkway. A location map for the site is shown in Figure 1.

1.1 Site Plan

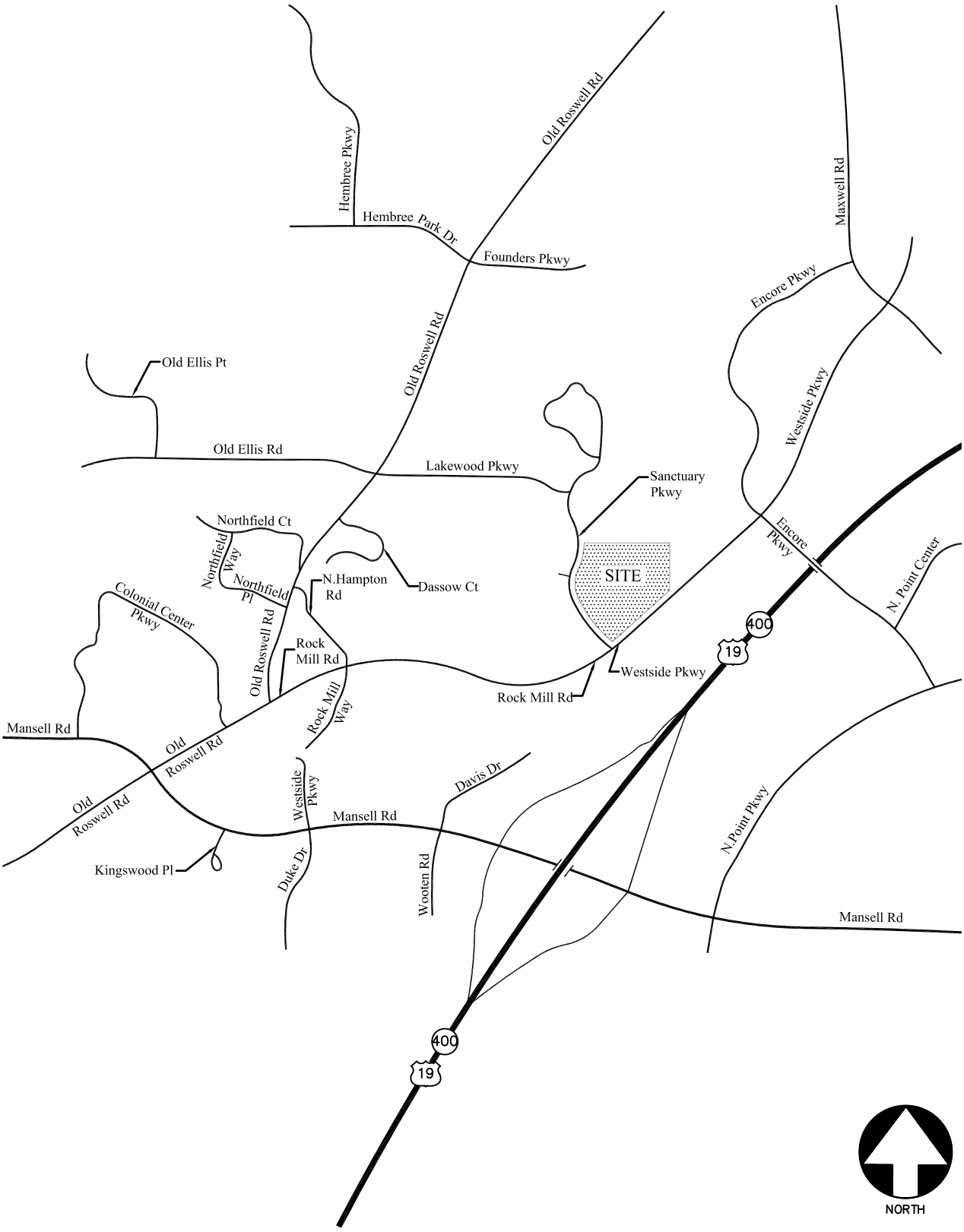
A site plan for this project is shown in Figure 2. A larger size drawing and a digital copy of the site plan are also provided with this report.

1.2 Consistency with Adopted Comprehensive County Plan

The proposed additions of two office buildings to the Sanctuary Park Development will not conflict with Alpharetta's future land use map or comprehensive plan. The current and future zoning shown for the area is shown as "Office Center". This land use also extends a mile to the northeast, following Westside Parkway, in the future land use map. Other land uses in the vicinity of the site include "Retail Sales and Services" to the south (along Rock Mill Road and Mansell Road) and east (across GA 400).

1.3 Project Phasing

The project's impact has been evaluated in one phase, estimated for completion in the year 2014. This study will evaluate the traffic operations in the vicinity of the site for existing conditions year 2009, year 2014 without additional traffic generated by the site, and the year 2014 with the additional traffic generated by the development.



LOCATION MAP

FIGURE 1

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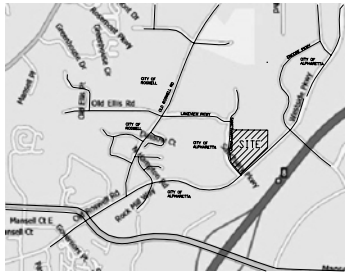
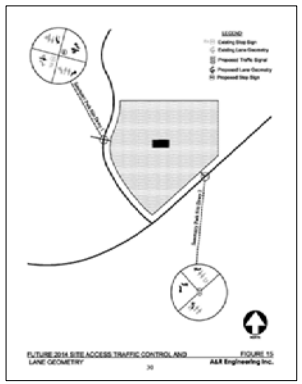
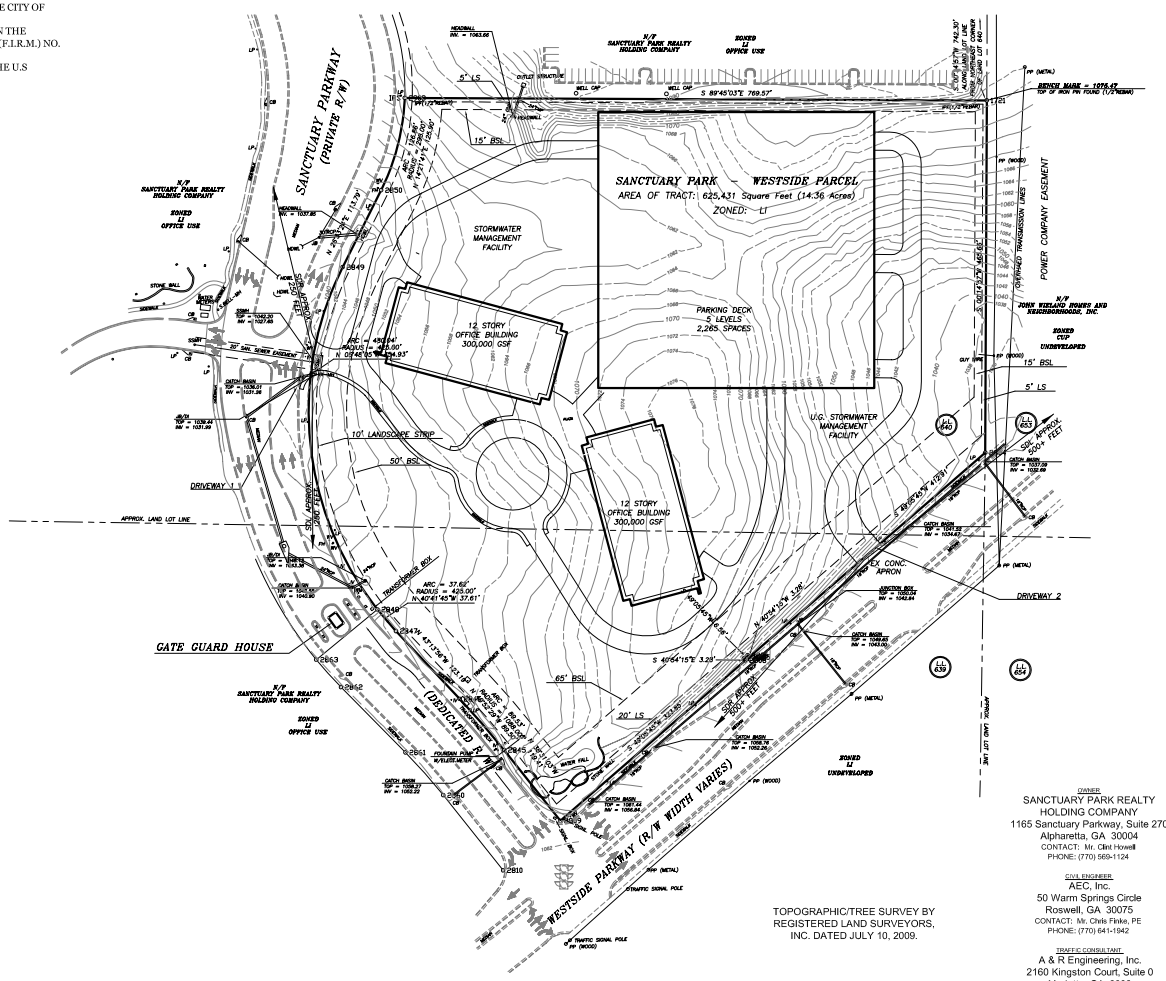


LOCATION MAP

NOTE:
1. BASE INFORMATION IS FROM A TOPOGRAHIC SURVEY BY REGISTERED LAND SURVEYORS, INC., DATED JULY 10, 2009.
2. LOCATED IN L.L.639 & 640 - 1ST DISTRICT, 2ND SECTION, CITY OF ALPHARETTA, FULTON COUNTY, GEORGIA
3. PROPERTY IS ENTIRELY LOCATED WITHIN THE CITY OF ALPHARETTA.
4. NO PORTION OF THE PROPERTY IS LOCATED IN THE FLOODPLAIN AS PER FULTON COUNTY PANEL (F.I.R.M.) NO. 13121C0066 E REVISED JUNE 22, 1998.
5. THER ARE NO JURISDICTIONAL WATERS OF THE U.S LOCATED ON THIS SITE.

SITE DATA
LAND LOT 639 & 640 - 1ST DISTRICT, 2ND SECTION, CITY OF ALPHARETTA, FULTON COUNTY, GEORGIA
PARCEL ACREAGE: 14.36 acres OVERALL OFFICE PARK ACREAGE: 157.7 acres
EXISTING ZONING: LI
PROPOSED PARCEL USE: 600,000 sf Office
PROPOSED PARCEL DENSITY: 41,783 sf/acre PROPOSED OVERALL OFFICE PARK DENSITY INCLUDING THIS DEVELOPMENT: 15,288 sf/acre
PROPOSED PARCEL F.A.R.: 0.96 PROPOSED OVERALL OFFICE PARK F.A.R. INCLUDING THIS DEVELOPMENT: 0.35
PROPOSED PARCEL OPEN SPACE: 7.8 acres (54% of site)
PARKING REQUIRED BY CODE (@1 space/250sf): 2,400 spaces PARKING ALLOWED PER VARIANCE (@1 space/265sf): 2,265 spaces
TOTAL PARKING PROPOSED: 2,265 spaces
* DENSITY BASED UPON OVERALL SITE ACREAGE.





LEGEND
- Existing Lane Geometry
- Proposed Lane Geometry
- Existing Traffic Signal

TOPOGRAPHIC/TREE SURVEY BY REGISTERED LAND SURVEYORS, INC. DATED JULY 10, 2009.

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GRTA Plan for DRI 2057

Sanctuary Park

WESTSIDE MASTERPLAN

Alpharetta, Georgia

November 12, 2006

NORTH

Scale 1" = 60'

AEC #09-2923.10

2. TRIP GENERATION

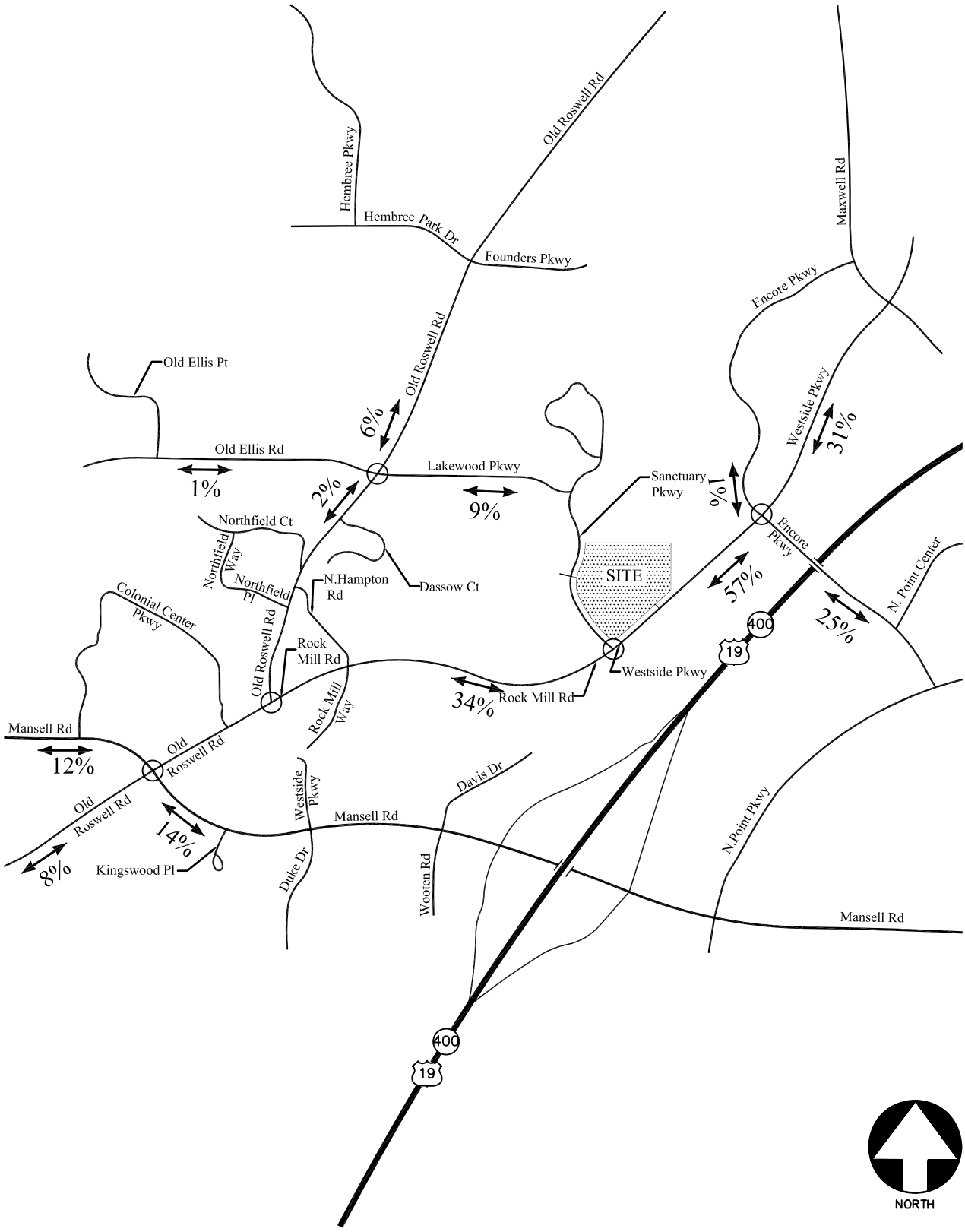
Trip generation estimates for the project were based on the rates and equations published in the 8th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. The ITE Trip Generation report contains traffic volume count data collected at similar facilities nationwide. The existing Sanctuary Park development is proposing to include two additional 12 story office buildings with a total of 600,000 sf. of office space. Trip generation calculations for the Sanctuary Park additional development are shown in Table 1.

TABLE 1
TRIP GENERATION

Land Use	Total Size	A.M. Peak Hour			P.M. Peak Hour			24-Hour
		Enter	Exit	Total	Enter	Exit	Total	
710 – General Office	600,000 s.f.	692	94	786	128	623	751	5,301

3. TRIP DISTRIBUTION & ASSIGNMENT

The trip distribution is the percentage of the traffic generated by the site that travels to and from the site on each segment of the surrounding roadway network. The trip distribution, shown in Figure 3, was estimated based on the residential concentrations and the location of major roadways and highways that will serve the development. Conversations with city of Alpharetta and examination of previous study performed by Wilburn and Associates (2005), which was performed prior to the closure of Westside Parkway, were also considered. The site-generated volumes were then distributed to the surrounding roadway network based on the driver's destination, and the most easily accessible route.



TRIP DISTRIBUTION FIGURE 3

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4. STUDY NETWORK DETERMINATION

The study network was determined by evaluating the amount of traffic that the proposed development will add to each roadway segment in the area. According to GRTA requirements, a roadway segment carries a "significant" amount of traffic if the project contributes 7% or more trips to the two-way daily service volumes of the roadway at the appropriate level of service standard. Upon agreement with GRTA a level of service standard of "D" was used for determining the study area network.

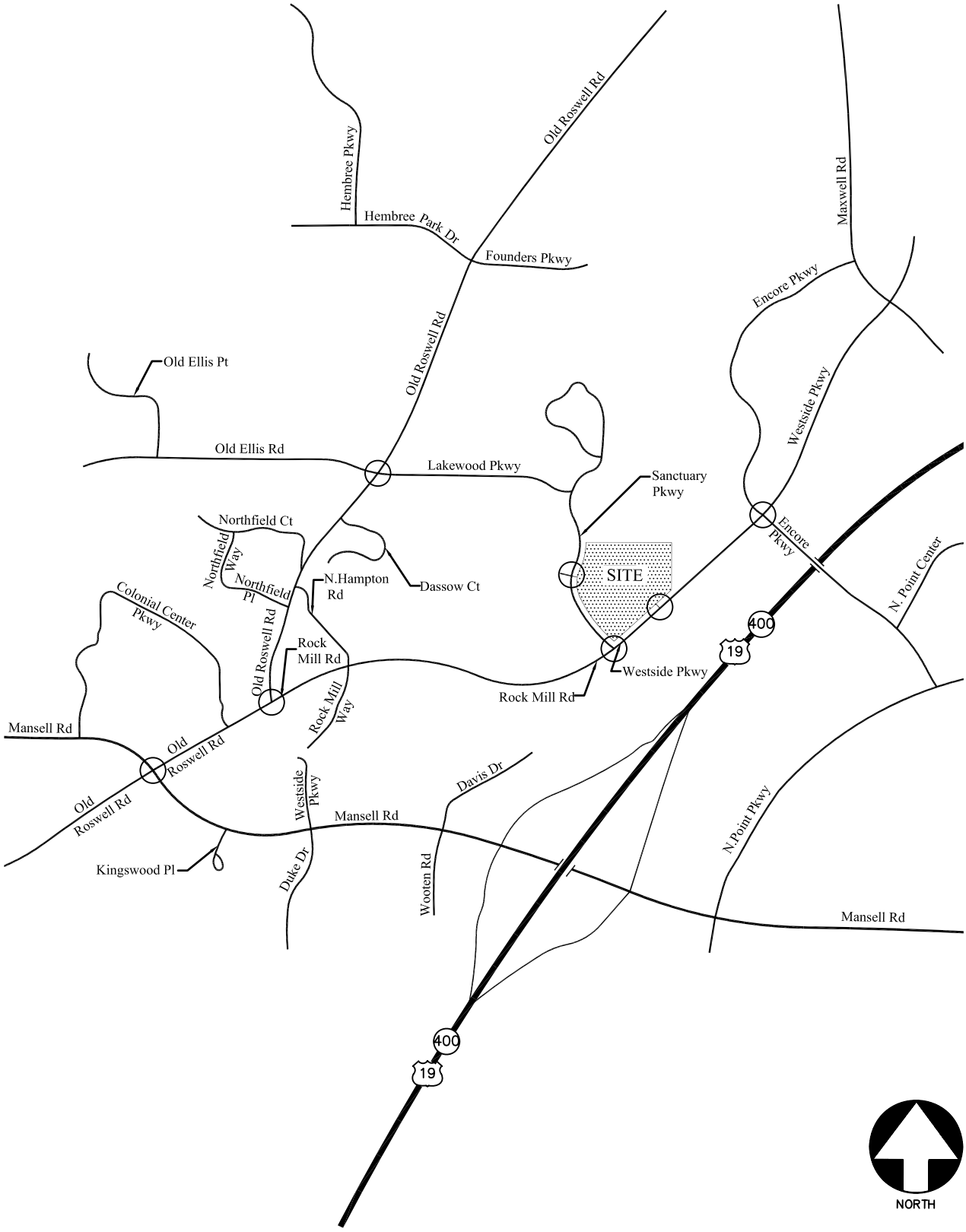
The traffic generated by the proposed project was then assigned to the area roadways using the trip distribution to determine the site-generated traffic on each roadway segment. The boundaries of the study network extend to the most distant intersections where at least 7% of the service volumes on the segment are attributed to project traffic. The following intersections fell within the 7% rule and have been included in the traffic study:

1) Mansell Road / Old Roswell Road
2) Rock Mill Road / Westside Parkway / Sanctuary Parkway
3) Westside Parkway / Encore Parkway
4) Old Roswell Road / Old Ellis Road / Lakewood Parkway
5) Old Roswell Road / Rock Mill Road
6) Sanctuary Parkway / First Driveway (Commercial)

The study intersections are shown graphically in Figure 4. Other intersections within this corridor, such as unsignalized side streets, right-in / right-out driveways or private driveways were viewed as insignificant and have not been included in the study network.

LEGEND

◯ - Intersections identified by the 7% rule to be included in the detailed analysis



STUDY INTERSECTIONS FIGURE 4

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5. PLANNED & PROGRAMMED IMPROVEMENTS

The following improvements have been identified in the Atlanta Regional Commission's Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP). These improvements are within the vicinity of the proposed development. Additional improvements for Fulton County have been identified, but they are not relevant to this project. Details of the planned programs can be found in the Appendix.

ARC Number	Route	Type of Improvement	Scheduled Completion Year
FN-173A	WESTSIDE PARKWAY: SEGMENT 2 - ROCK MILL ROAD / OLD ROSWELL ROAD	General Purpose Roadway Capacity	2009
FN-173B	WESTSIDE PARKWAY: SEGMENT 2 - ROCK MILL ROAD / OLD ROSWELL ROAD	General Purpose Roadway Capacity	2009
FN-174	HEMBREE ROAD	Bridge Upgrade	2009
FN-246	SR 9 (ATLANTA STREET) REPAVING	Roadway Maintenance / Operations	2010
AR-936	SR 400 FLEXIBLE SHOULDER LANES	General Purpose Roadway Capacity	2011
FN-202	NORTH POINT PARKWAY TRAFFIC SIGNAL INTERCONNECTIONS	ITS-Other	2011
AR-H-400	SR 400 HOV LANES	Managed Lanes (Auto/Bus)	2020
FN-145	COMMERCE PARKWAY EXTENSION	General Purpose Roadway Capacity	2020
FN-067B	SR 9 (SOUTH MAIN STREET)	General Purpose Roadway Capacity	2030

6. EXISTING CONDITIONS

An inventory was performed of the roadways in the area surrounding the site. The following is a brief description of each of these facilities.

6.1 Description of Transportation Facilities in Study Network

Mansell Road

Mansell Road is a four-lane divided roadway with a speed limit of 40 mph. It runs between SR 92 (E. Crossville Road) and Haynes Bridge Road. After the road widening for is completed for PI 752970, Mansell Road will have an additional southbound lane exiting the intersection of Mansell Road / Old Roswell Road for approximately 300'.

Old Roswell Road

Old Roswell Road is a north-south, two-lane, undivided roadway. It is posted with a speed limit of 45 mph between Hembree Road in the north and Rock Mill Road in the south and with a speed limit of 35 mph between Rock Mill Road to the north and SR 140 (Holcomb Bridge Road) to the south. After the completion of PI 752970, Old Roswell Road will be a four-lane divided roadway between Mansell Road and Rock Mill Road and a three-lane road just north of Rock Mill Road.

Westside Parkway

Westside Parkway is a north-south, four-lane, divided roadway with a speed limit of 40 mph in the vicinity of the site. It runs between Hembree Road to the north and Sanctuary Parkway to the south. After the road widening is completed for PI 752970, Westside parkway will continue to be a four-lane divided roadway.

Encore Parkway

Encore Parkway is a four-lane undivided roadway with a speed limit of 25 mph between Maxwell Road and Westside Parkway. It is a two-lane roadway with a speed limit of 35 mph between Westside Parkway and N. Point Parkway. This road is not included in PI 752970.

Rock Mill Road

Rock Mill Road is a two-lane undivided roadway with a speed limit of 40 mph. It runs between Old Roswell Road and Sanctuary Parkway. After the road widening for is completed for PI

752970, Rock Mill Road will be a four-lane divided roadway.

Old Ellis Road

Old Ellis Road is an east-west three-lane roadway with a two-way turn lane and has a posted speed limit of 35 mph. It extends west from Old Roswell Road and terminates to a dead end at approximately 2,850 feet. This road is not included in PI 752970.

Lakewood Parkway

Lakewood Parkway is an east-west, four-lane, median divided roadway with a posted speed limit of 25 mph. It runs between Sanctuary Parkway to the east and Old Roswell Road to the west. This road is not included in PI 752970.

6.2 Existing Analysis Summary

Existing traffic counts were performed at the intersections listed in "Section 4 - Study Area Network". In addition to traffic counts, intersection geometry data was also obtained. Currently, and at the time that the traffic counts were collected, Westside Parkway is closed for major construction from the intersection of Mansell Road / Old Roswell Road to Westside Parkway / Rock Mill Road / Sanctuary Parkway due to a road widening and bridge replacement project (PI 752970). The striping plans for this project are included in the Appendix.

Turning movement counts were collected during the hours of 7:00 AM – 9:00 AM and 4:00 PM – 6:00 PM on weekdays. The four consecutive 15-minute interval volumes that summed to produce the highest volume at each intersection during each two-hour period were then determined. These volumes make up the AM and PM peak hour traffic volumes for the intersections counted. The existing traffic volumes are shown in Figure 5 and the existing intersections traffic control and lane geometry for the study area network before Westside Parkway is widened is shown in Figure 6.

The existing traffic volumes, which are shown in Figure 5, were redistributed based on the traffic information provided from a previous study done by Day Wilburn and Associates in March 2005 and conversations with the city of Alpharetta. The adjusted traffic volumes for the study intersection, after Westside Parkway is widened, are shown in Figure 7. The traffic control and lane geometry for the study area network, after Westside Parkway is widened, are shown in Figure 8. From this point on, apart from Figures 5-6, the traffic volumes and lane geometry for the road network referred to as "existing" include the improvements from the widening project on Westside Parkway (PI 752970) and the adjusted traffic volumes. Striping plans for this project are available in the Appendix.

The site-generated volumes, shown in Table 1, were distributed to the surrounding roadway network in accordance with the trip distribution, shown in Figure 3. The resulting site-generated volumes for the study intersections are shown in Figure 9. The adjusted traffic volumes were used to analyze the existing traffic operations at all existing intersections in accordance with HCM methodology using Synchro software. The results of the analysis are shown in Table 2.

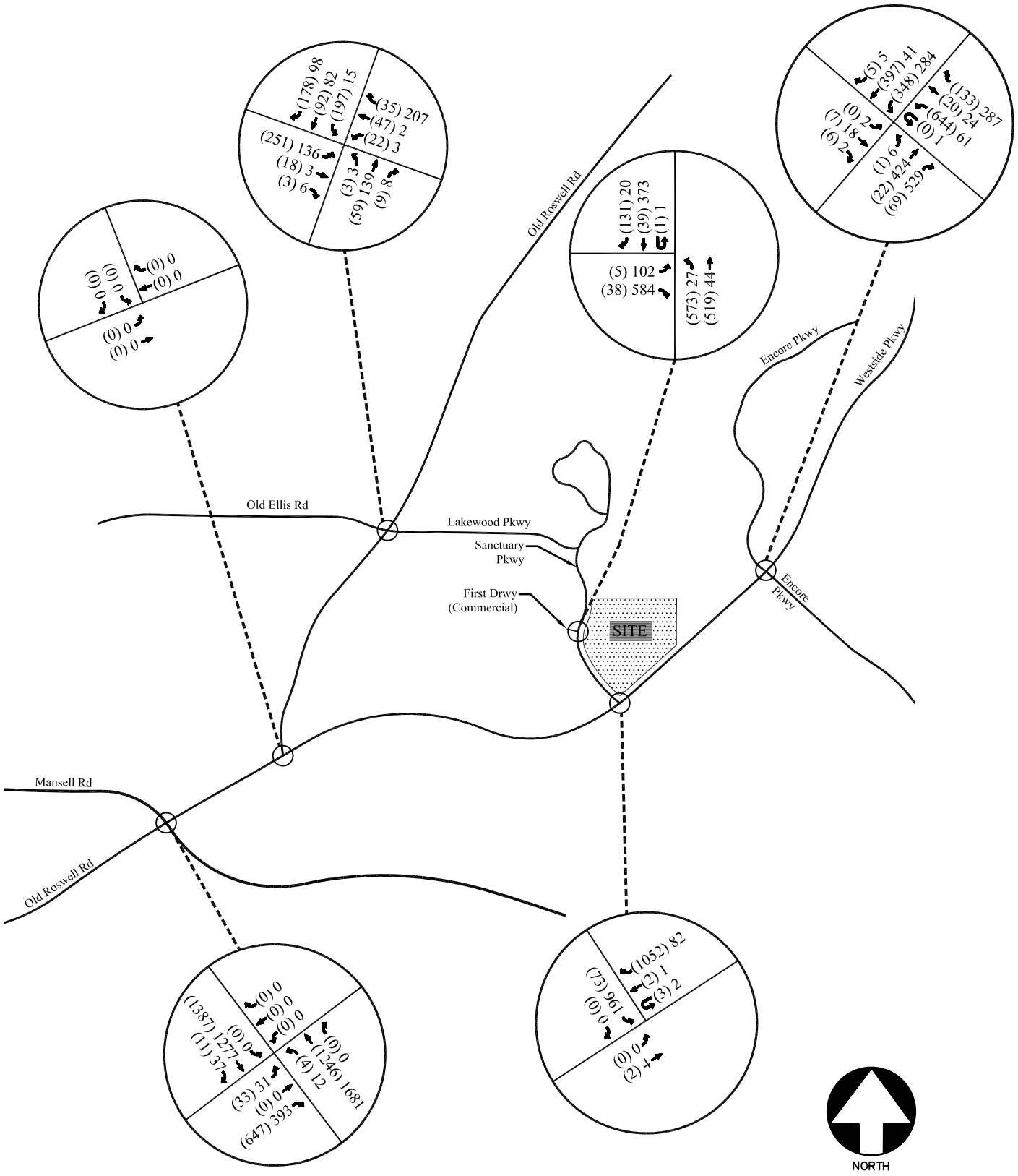
TABLE 2

EXISTING INTERSECTION OPERATIONS - WITH ADJUSTED VOLUMES

Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c ratio	LOS (Delay)	v/c ratio
Mansell Rd / Old Roswell Rd	D / D	Signalized	D (50.6)	0.95	D (43.8)	0.91

Old Roswell Rd / Rock Mill Rd	D / D	Signalized	B (17.2)	0.63	B (17.3)	0.46
Old Roswell Rd / Old Ellis Rd / Lakewood Pkwy	D / D	Signalized	C (20.3)	0.61	C (23.5)	0.49
Westside Pkwy / Rock Mill Rd / Sanctuary Pkwy	D / D	Signalized	A (3.8)	0.59	C (21.1)	0.55
Westside Pkwy / Encore Pkwy	D / D	Signalized	B (17.7)	0.38	C (20.2)	0.44
Sanctuary Pkwy / First Drwy (Commercial) - Eastbound Approach - Northbound Left	 D / D D / D	Stop Controlled on First Drwy (Commercial	 B (14.8) B (11.3)	 0.07 0.52	 D (30.7) A (8.6)	 0.23 0.03

As shown in Table 2, all study intersections are operating at the acceptable level of service.



EXISTING PEAK-HOUR VOLUMES FIGURE 5

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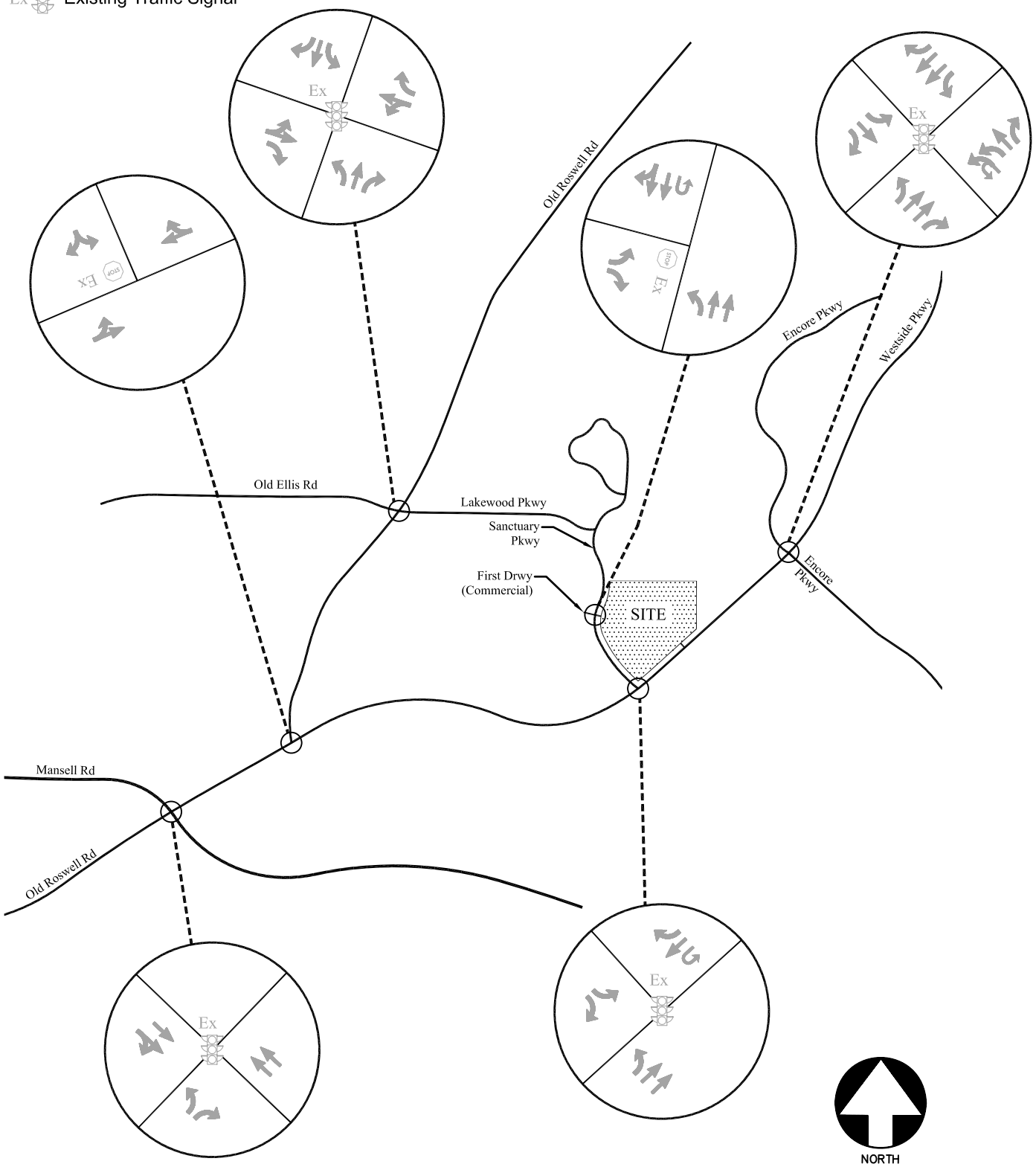
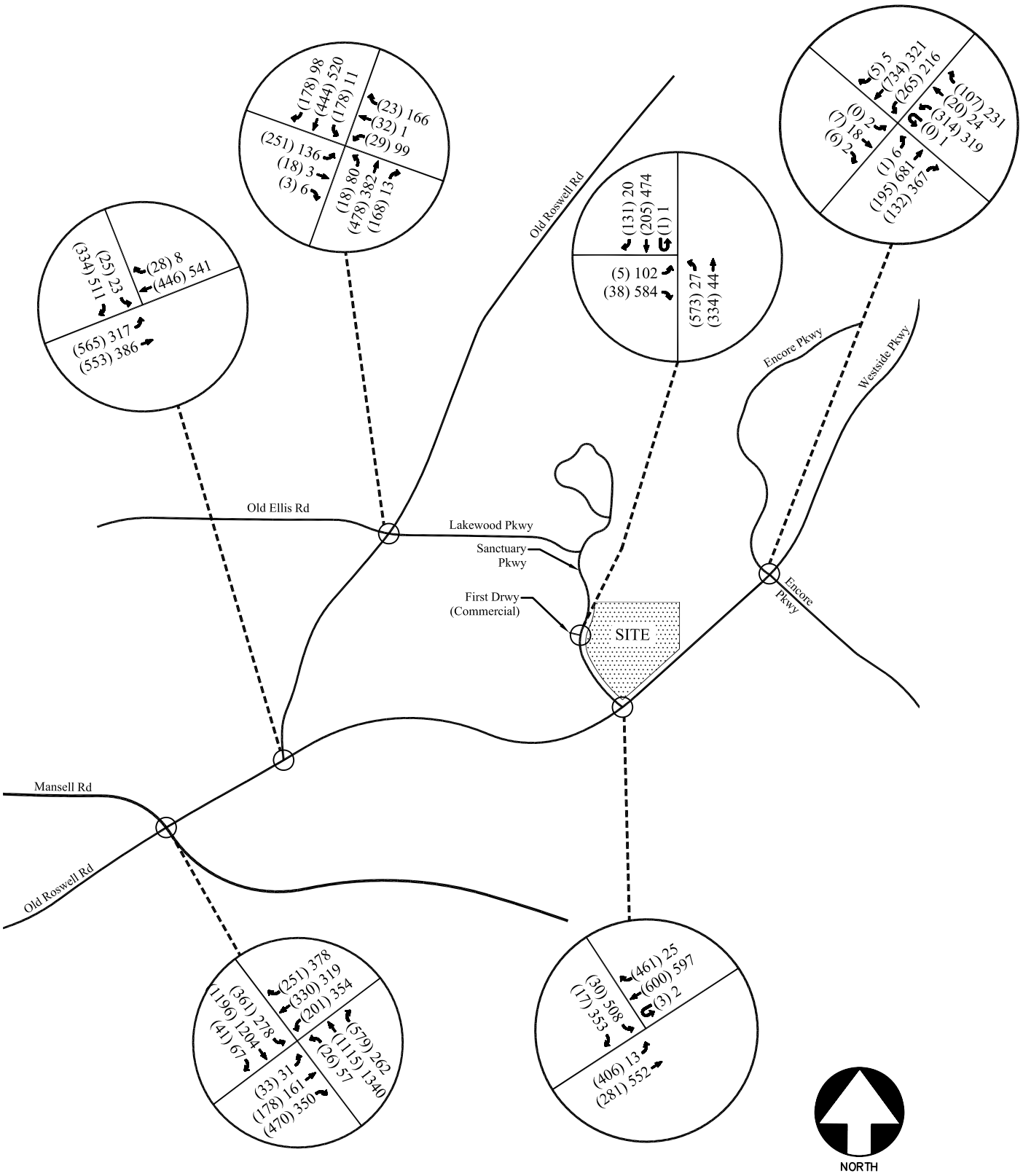


EXISTING TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 6

(Before Westside Parkway is Widened) **A&R Engineering Inc.**



ADJUSTED EXISTING TRAFFIC VOLUMES FIGURE 7

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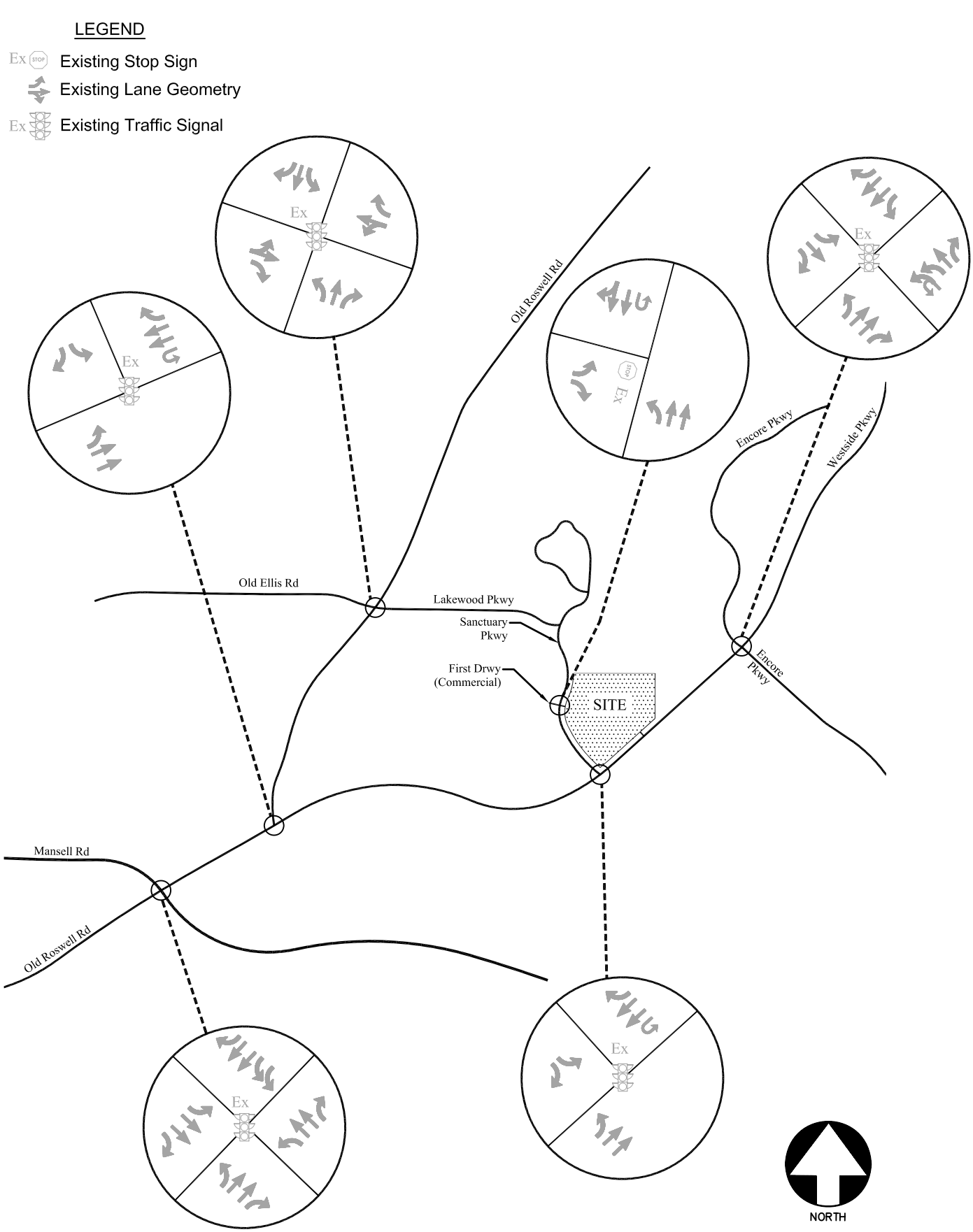
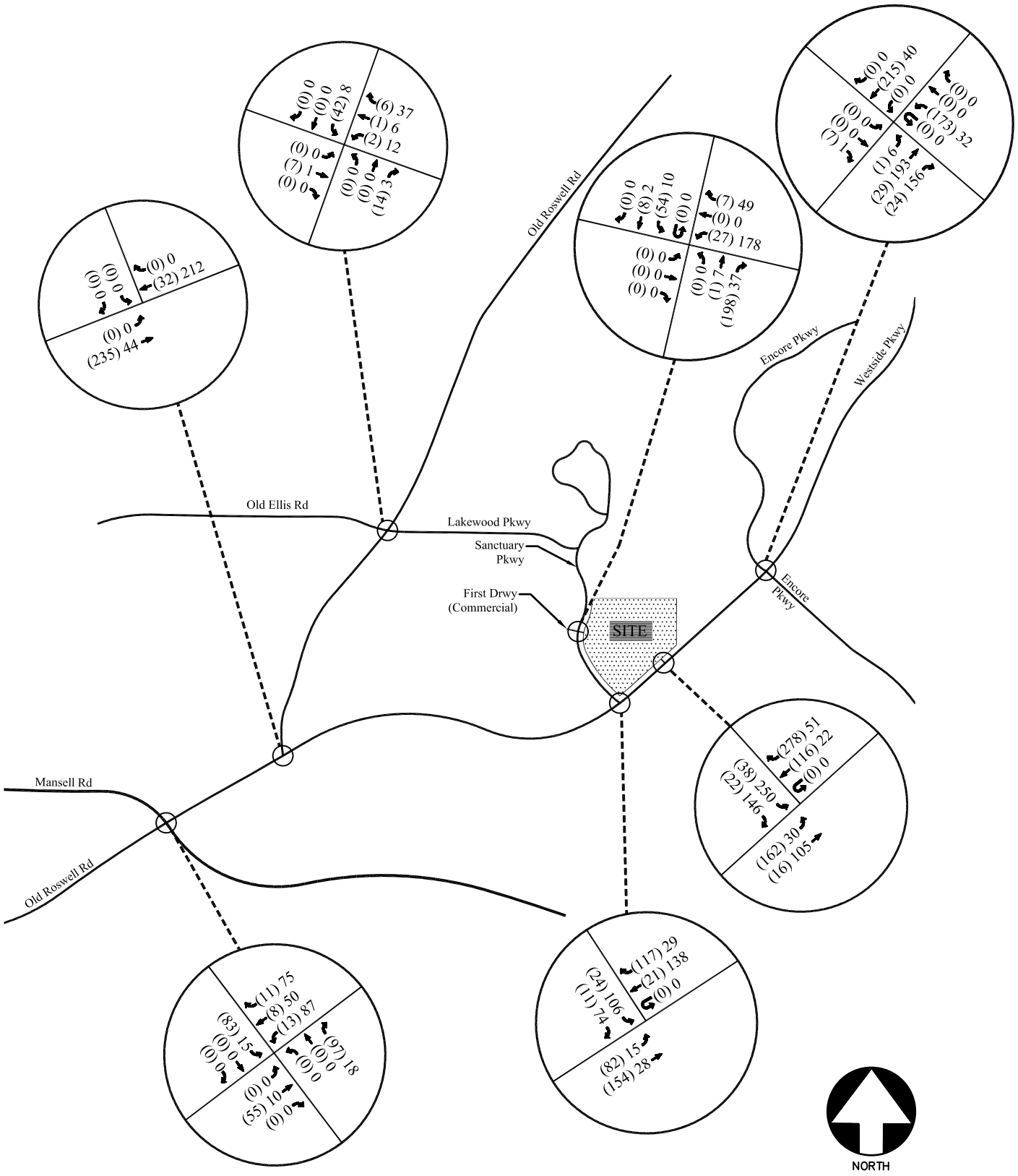


EXISTING TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 8

(After Westside Parkway is Widened) **A&R Engineering Inc.**



SITE-GENERATED PEAK-HOUR VOLUMES FIGURE 9

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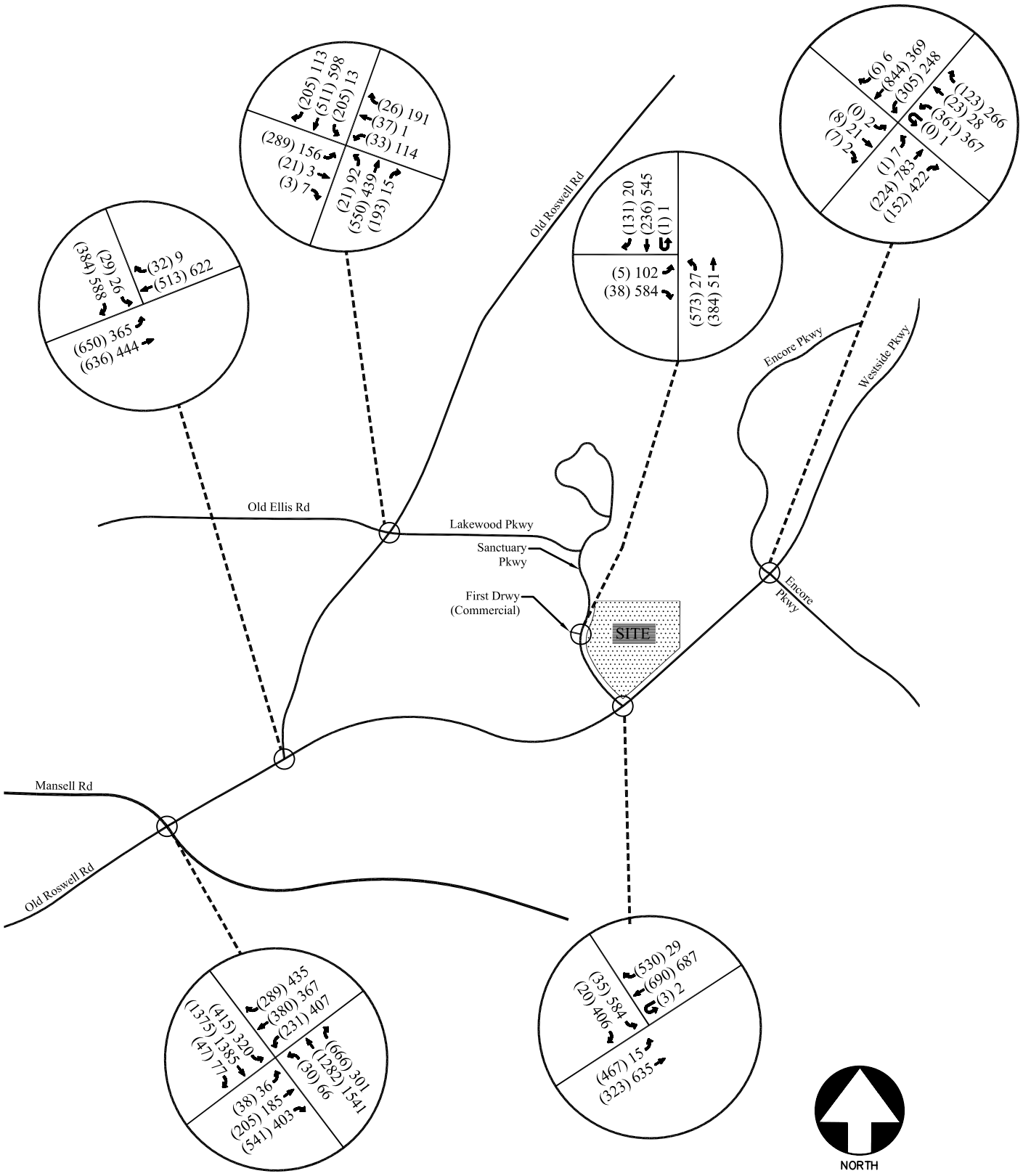
7. FUTURE YEAR BACKGROUND TRAFFIC

In order to evaluate future traffic operations in this area, a projection was made for base year traffic volumes. It was agreed upon with GRTA to use a growth factor of 3.0% per year up to 2014. This growth factor was applied to the existing traffic volumes on the roadways to estimate the future year 2014 traffic volumes prior to the addition of the site-generated volumes. Future year (base) traffic volumes for 2014 for the study intersections are shown in Figure 10.

A traffic operation analysis for the following Base Scenario was performed:

- Base Year 2014 traffic with existing lane geometry.
- Base Year 2014 traffic with recommended improvements to bring all intersections to LOS standard.

Results of the analyses for the above scenarios are shown in Tables 3 and 4. Recommendations to bring the intersections back to the LOS standard are discussed after Table 3.



BASE 2014 PEAK-HOUR VOLUMES FIGURE 10

A&R Engineering Inc.

TABLE 3 BASE 2014 INTERSECTION OPERATIONS						
Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c ratio	LOS (Delay)	v/c ratio
Mansell Rd / Old Roswell Rd	D / D	Signalized	E (75.3)	1.10	E (67.1)	1.12
Old Roswell Rd / Rock Mill Rd	D / D	Signalized	C (20.5)	0.70	C (20.3)	0.60
Old Roswell Rd / Old Ellis Rd / Lakewood Pkwy	D / D	Signalized	C (22.8)	0.71	C (24.4)	0.58
Westside Pkwy / Rock Mill Rd / Sanctuary Pkwy	D / D	Signalized	B (12.5)	0.66	C (22.6)	0.65
Westside Pkwy / Encore Pkwy	D / D	Signalized	C (20.5)	0.45	B (19.4)	0.60
Sanctuary Pkwy / First Drwy (Commercial) - Eastbound Approach - Northbound Left	 D / D D / D	Stop Controlled on First Drwy (Commercial	 C (15.3) B (11.7)	 0.07 0.54	 E (38.4) A (8.9)	 0.25 0.03

Analysis of the future year (Base 2014) traffic volumes indicates that two of the study intersections will not operate within the LOS standard. The following improvements were identified for those intersections that did not comply with the LOS standard.

- Mansell Road / Old Roswell Road
  - Add an additional southbound left turn lane creating dual left turn lanes with protected phasing on Mansell Road.
  - Extend the island in the southwest corner of the intersection to allow the phasing for the eastbound right movement to change from a yield condition to free-flow.
  - Provide permissive + overlap signal phasing for westbound right turn movement on Old Roswell Road.

- Sanctuary Parkway / First Driveway (Commercial)
  - The eastbound approach to the intersection will operate at LOS E during the PM peak hour. It is not uncommon for side streets to experience delays during the peak hours. Left and right turn lanes currently exist for the eastbound approach to this intersection and there is already a left turn lane in place on Sanctuary Parkway. No further improvements can be recommended at the intersection to improve the LOS; however, the intersection does not have the necessary volumes to warrant a traffic signal. Therefore, no improvements are recommended for this intersection.

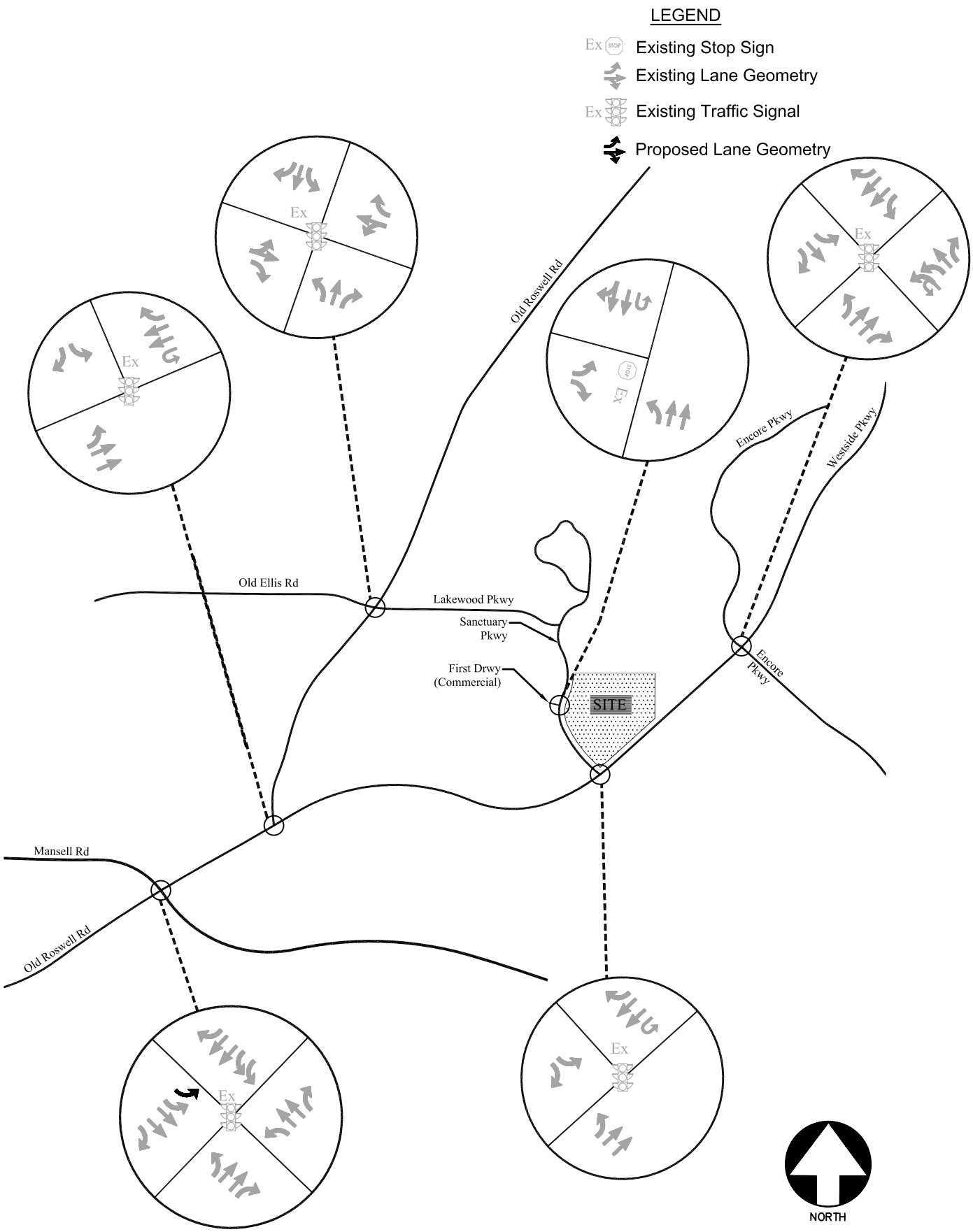
The LOS at the above intersections in the year 2014, with just background traffic, after the above improvements are implemented is shown in Table 4. The recommended base intersections traffic

control and lane geometry are shown in Figure 11.

TABLE 4

BASE 2014 INTERSECTION OPERATIONS – WITH IMPROVEMENTS

Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c ratio	LOS (Delay)	v/c ratio
Mansell Rd / Old Roswell Rd	D / D	Signalized	C (29.9)	0.72	C (33.1)	0.91
Sanctuary Pkwy / First Drwy (Commercial)		Stop Controlled				
- Eastbound Approach	D / D	on First Drwy	C (23.8)	0.16	E (38.4)	0.25
- Northbound Left	D / D	(Commercial	B (11.7)	0.54	A (8.9)	0.03



BASE 2014 TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 11

A&R Engineering Inc.

8. FUTURE YEAR TOTAL TRAFFIC

The traffic volumes that will be generated by the proposed development were added to the base year 2014 traffic volumes in order to determine the traffic volumes that will be on the roadway network after completion of the project. The future traffic volumes for 2014, including the site-generated volumes for the study intersections, are shown in Figure 12.

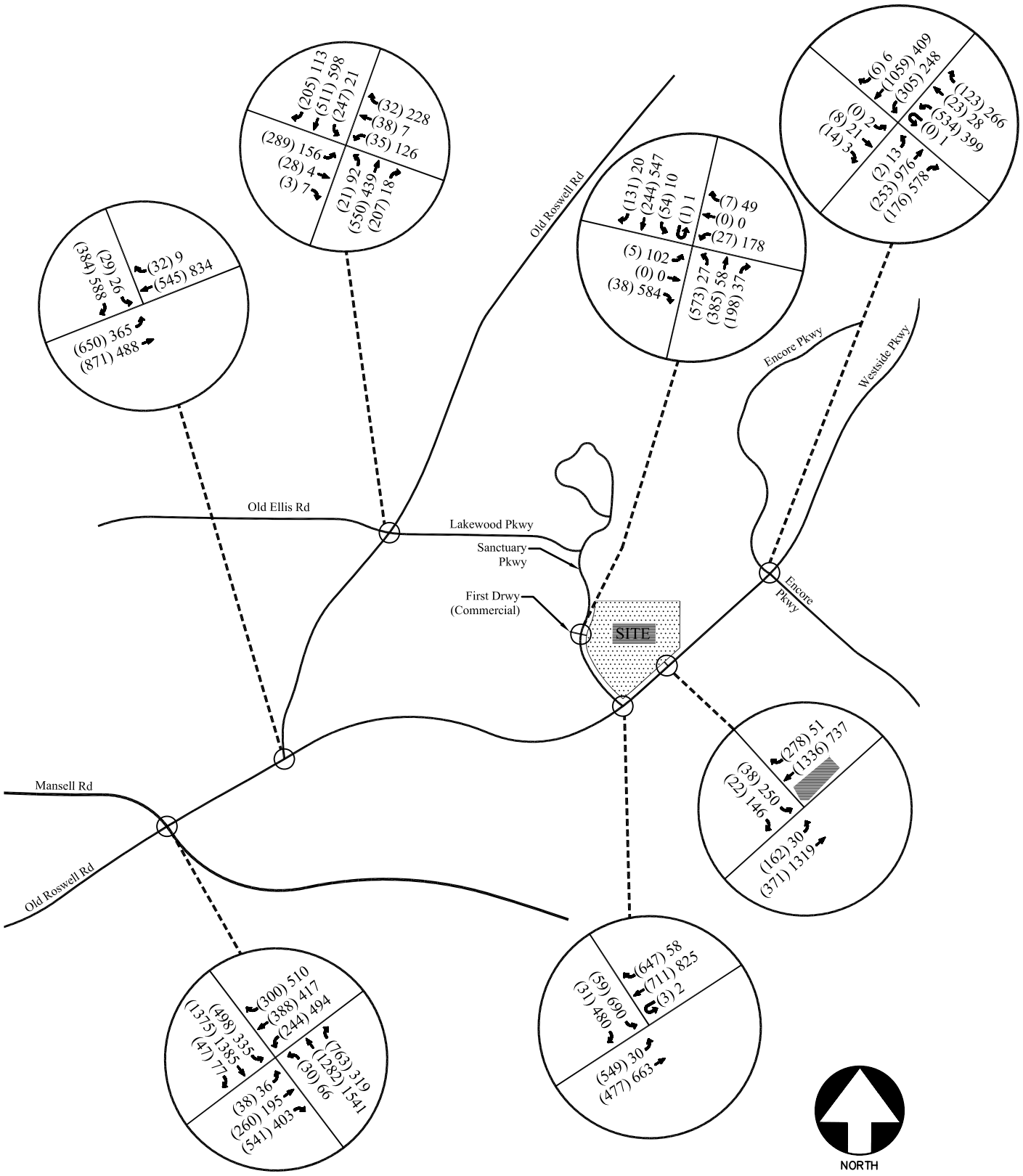
9. FACILITY NEEDS ANALYSIS

9.1 Intersection Analysis

The future year total traffic volumes were used to analyze the study network intersections. Traffic operations analyses for the following scenarios were performed:

- Future Year 2014 Traffic Volumes including site generated traffic with existing lane geometry.
- Future Year 2014 Traffic Volumes including site generated traffic and the recommended improvements to bring all intersections to LOS standard.

The results of the analysis for the above scenarios are shown in Tables 5 and 6. Recommendations to bring the intersections to the LOS standard are discussed after each section, respectively.



FUTURE 2014 PEAK-HOUR VOLUMES FIGURE 12

A&R Engineering Inc.

TABLE 5 FUTURE 2014 INTERSECTION OPERATIONS						
Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c ratio	LOS (Delay)	v/c ratio
Mansell Rd / Old Roswell Rd	D / D	Signalized	F (101.2)	1.16	E (78.0)	1.12
Old Roswell Rd / Rock Mill Rd	D / D	Signalized	C (23.9)	0.71	B (17.3)	0.71
Old Roswell Rd / Old Ellis Rd / Lakewood Pkwy	D / D	Signalized	C (22.2)	0.71	C (27.3)	0.61
Westside Pkwy / Rock Mill Rd / Sanctuary Pkwy	D / D	Signalized	A (8.3)	0.77	C (25.4)	0.78
Westside Pkwy / Encore Pkwy	D / D	Signalized	C (21.9)	0.57	C (22.5)	0.59
Sanctuary Pkwy / First Drwy (Commercial) / Sanctuary Park Site Drwy 1		Stop Controlled on First Drwy (Commercial) / Sanctuary Park Site Drwy 1				
- Eastbound Approach	D / D		D (33.5)	0.25	E (39.2)	0.31
- Westbound Approach	D / D		F (525.9)	1.48	F (7842.5)	14.89
- Northbound Left	D / D		B (11.8)	0.54	A (8.9)	0.03
- Southbound Left	D / D		A (9.1)	0.06	A (7.4)	0.01

The results of the future 2014 conditions analysis indicate that two of the study intersections will not operate within the LOS standard. The following improvements were identified for those intersections that did not comply with the LOS standard for the future year 2014 traffic:

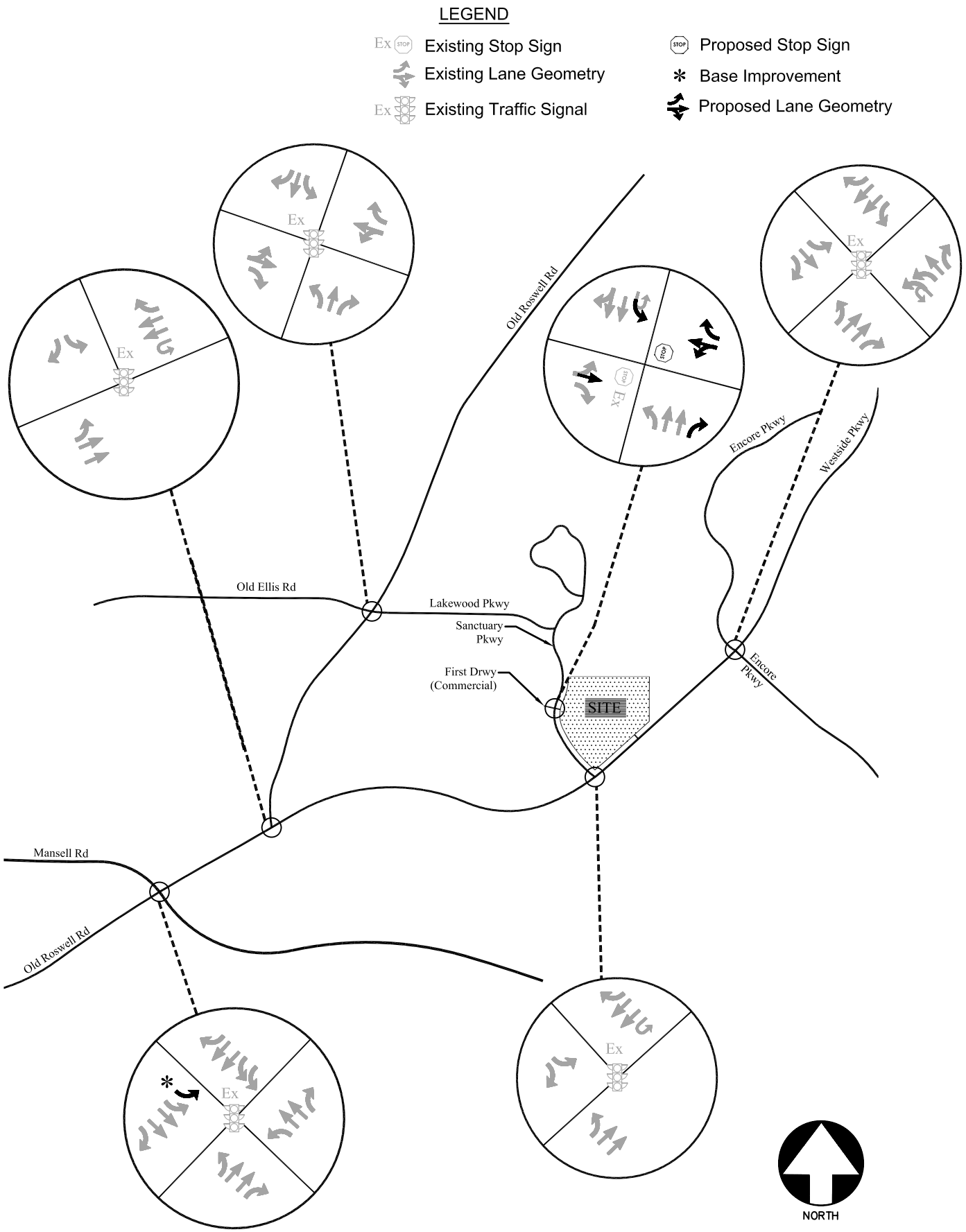
- Mansell Road / Old Roswell Road
  - Add an additional southbound left turn lane creating dual left turn lanes with protected only phasing on Mansell Road.
    (This improvement was identified in the Base Conditions)
  - Extend the island in the southwest corner of the intersection to allow the phasing for the eastbound right movement to change from a yield condition to free-flow.
    (This improvement was identified in the Base Conditions)
  - Provide permissive + overlap signal phasing for westbound right turn movement on Old Roswell Road.
    (This improvement was identified in the Base Conditions)

- Sanctuary Parkway / First Driveway (Commercial) / Sanctuary Park Site Driveway 1
  - Discussed in section 9.2 Site Access Analysis section of the report

The LOS for the above intersections in the year 2014, with the addition of site-generated traffic and the implementation of the above improvements, is shown in Table 6.

TABLE 6						
FUTURE 2014 INTERSECTION OPERATIONS – WITH IMPROVEMENTS						
Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c ratio	LOS (Delay)	v/c ratio
Mansell Rd / Old Roswell Rd	D / D	Signalized	C (32.7)	0.87	D (42.2)	0.93

The future intersection traffic control and lane geometry for the study area network needed to bring all intersections to the LOS standard is shown in Figure 13.



FUTURE 2014 TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 13

A&R Engineering Inc.

9.2 Site Access Analysis

The site proposes one full access driveway on Sanctuary Parkway which aligns with the existing First Driveway (Commercial) and another full access driveway on Westside Parkway. The future traffic volumes at the site driveways are shown in Figure 14. The recommended traffic control and lane geometry at these driveways are presented in the following sections.

The site access analysis was performed for the Future Year 2014 traffic volumes with recommended lane geometry. Results of the analysis are shown in Table 7. The recommended traffic control and lane geometry for the proposed intersections is discussed in the following pages.

TABLE 7

FUTURE SITE DRIVEWAY OPERATIONS

Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c ratio	LOS (Delay)	v/c ratio
Sanctuary Pkwy / First Drwy (Commercial) / Sanctuary Park Site Drwy 1		Stop Controlled on First Drwy (Commercial) / Sanctuary Park Site Drwy 1				
- Eastbound Approach	D / D		D (33.5)	0.25	E (39.2)	0.31
- Westbound Approach	D / D		F (525.9)	1.48	F (7842.5)	14.89
- Northbound Left	D / D		B (11.8)	0.54	A (8.9)	0.03
- Southbound Left	D / D		A (9.1)	0.06	A (7.4)	0.01
	D / D	If signalized	A (4.6)	0.72	C (33.8)	0.58
Westside Pkwy / Sanctuary Park Site Drwy 2	D / D	Signalized	A (3.2)	0.62	B (11.6)	0.60

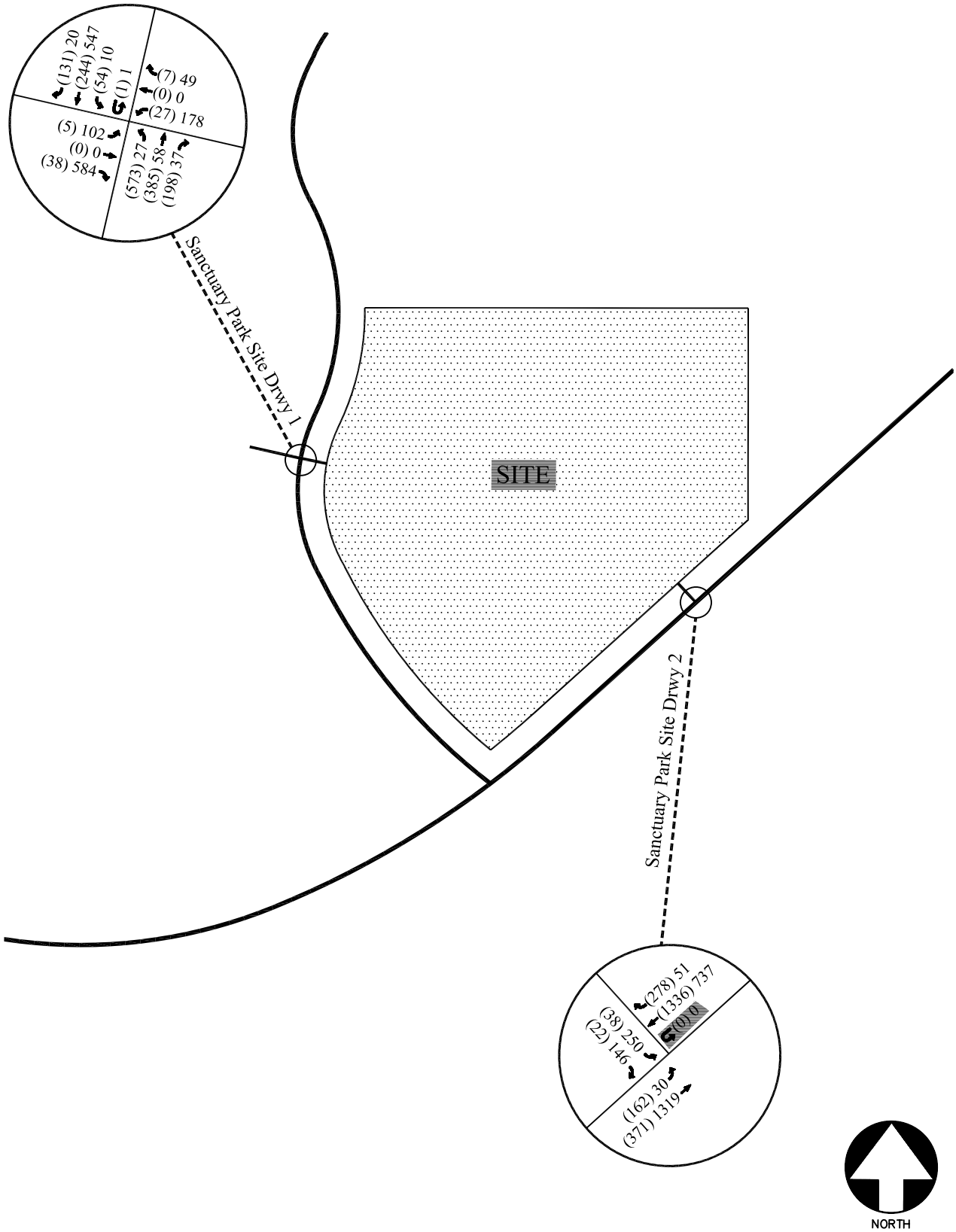
The following lists the recommended lane geometry for the site driveways.

- Sanctuary Parkway / First Driveway (Commercial) / Sanctuary Park Site Driveway 1
  - It is recommended that the intersection have a stop controlled side streets (First Driveway (Commercial) and Sanctuary Park Site Driveway 1) with Sanctuary Parkway remaining free flow.
  - Add a dedicated northbound right turn lane on Sanctuary Parkway for traffic entering the development.
  - Restripe the existing southbound U-turn lane on Sanctuary Parkway to a shared left / U-turn lane.
  - Provide separate right and shared through / left turn lanes for the Sanctuary Park Site Driveway 1 westbound approach for traffic exiting the development.
  - The westbound approach to the intersection will operate at LOS F during both the AM and PM peak hours and the eastbound approach to the intersection will

operate at LOS E during the PM peak hour even after implementing the above improvement. It is not uncommon for side streets to experience delays during the peak hours. Left and right turn lanes currently exist for the eastbound approach to this intersection and there is already a left turn lane in place on Sanctuary Parkway. No improvements can improve the LOS for the westbound approach except for the installation of a traffic signal. The intersection does not have the necessary volumes to warrant a traffic signal; however, it is recommended that the volumes at this intersection be monitored for possible signal installation. If intersection is signalized, it will operate at LOS A in the AM and LOS C in the PM peak hour. As an alternative a two-lane roundabout with an inscribed diameter of 150' could be considered at this intersection. The installation of a roundabout would improve this intersection to LOS D.

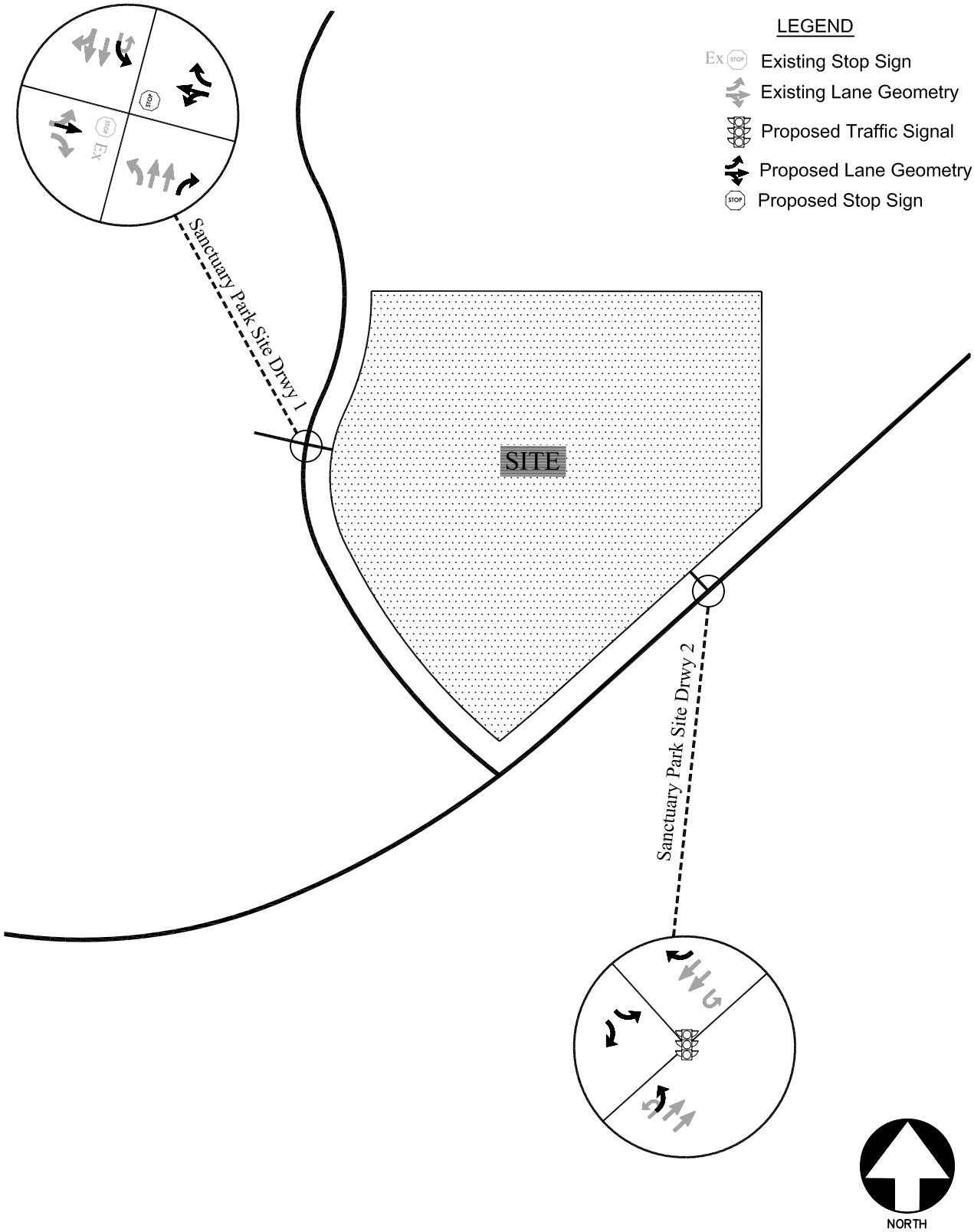
- Westside Parkway / Sanctuary Park Site Driveway 2
  - It is recommended that this intersection be studied as a candidate for signalization. Based on existing traffic volumes, this intersection will meet the MUTCD warrant for the peak hour condition. It should be noted, however, that the nearest signalized intersection is located approximately 600' to the west (at the intersection of Westside Parkway / Sanctuary Parkway). Without the installation of a traffic signal, the side street approach to this intersection will have a level of service E in the AM peak hour and a level of service F in the PM peak hour.
  - Restripe the existing eastbound U-turn lane on Westside Parkway to include a shared left / U-turn lane.
  - Add a dedicated westbound right turn lane on Westside Parkway for traffic entering Driveway 2.
  - Provide separate left and right turn lanes for the Sanctuary Park Site Driveway 2 approach for traffic exiting the development.

The recommended traffic control and lane geometry for the site driveways are shown in Figure 15.



FUTURE 2014 SITE ACCESS PEAK HOUR VOLUMES FIGURE 14

A&R Engineering Inc.



FUTURE 2014 SITE ACCESS TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 15

A&R Engineering Inc.

10. NON-EXPEDITED CRITERIA

10.1 Regional Mobility and Location

1. Quality, Character, Convenience, and Flexibility of Transportation Options
The proposed development will be comprised of office uses. The development will provide pedestrians connections between the proposed office buildings and the rest of the development. These features will provide the quality, character, and convenience that are desired in developments of this magnitude.

2. Vehicle Miles Traveled
The table below displays the 24-hr trip generation without any reductions.

24-hour Trip Generation	5,301 Trips

3. Relationship between Location of Proposed DRI and Regional Mobility
The proposed development is not located within an area where rail stations, bus stops or other transit facilities are within close proximity to the site.

4. Relationship between Proposed DRI and Existing or Planned Transit Facilities
There are no existing or planned public transit facilities in the vicinity of the site.

5. Transportation Management Area Designation
This part of Fulton County is not designated as a transportation management area.

6. Offsite Trip Reduction and Trip Reduction Techniques
Due to the nature of the development, there will be no pass by trip reductions.

7. Relationships between Proposed DRI and Existing Development and Infrastructure
The proposed DRI is located in an area where adequate public facilities will be available to serve the proposed development.

10.2 Pedestrian and Internal Circulation

The existing public road frontage currently contains pedestrian friendly improvements which include sidewalks, lighting, and street trees. Amenities such as benches and trash cans are anticipated within the site's open spaces. Please refer to the site plan for more information regarding pedestrian facilities.

Regarding internal circulation, as shown in the traffic study, vehicles will be able to access the adjacent roadway efficiently and the site plan provides for sufficient internal circulation.

11. Other Pertinent Information

The property owner has made a commitment to LEED construction and one of the new buildings recently received LEED Core and Shell Silver certification. It is anticipated that this project will pursue LEED certification.

The Sanctuary Park office development has made a commitment to preserve green space since construction began at the park almost twenty years ago. Approximately 30 to 40% of the site is expected to be maintained as open space. Most of this open space is planned as passive green space. Native and drought tolerant landscape plant material will be a component of the site planting plan.

This development will incorporate several alternative site design principles. Service areas and building system equipment will be screened from view. Site grading will be approached with the intent of preserving several pockets of existing tree canopies around the proposed building and parking structures. The use of structured parking will allow the design team to minimize the proposed impervious coverage. This parking structure will be positioned behind the proposed twelve story buildings which will provide visual screening from the street. Easy and safe pedestrian access will be provided between the two buildings and the deck.

12. Significant Impact Analysis

After the implementation of the recommended improvements, all intersections in the study area network will operate at acceptable levels of service with the exception of one unsignalized side street, located within the Sanctuary Park Office Park.

Appendix