Transportation Analysis

Ellsworth Perennial DRI
DRI# 1349
City of Atlanta, Georgia

Prepared for:
Perennial Properties, Inc.

March 2007
019608000

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EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts of the proposed Ellsworth Perennial, an approximate 5.765-acre mixed-use development located in the City of Atlanta, Georgia. This report is being prepared as part of a submittal requesting a rezoning from I-2 (Heavy Industrial) to MRC-3 (Mixed Residential Commercial District) with the City of Atlanta. Because the project will contain over 400,000 square feet of mixed-use floor area, the proposed development is considered a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review. The site is currently zoned I-2 and occupied by approximately 109,933 square feet of warehouse-style retail and an unmarked surface parking lot. All land uses currently located on the site will be demolished upon build-out of the Ellsworth Perennial development.

The proposed development is a mixed-use development that will consist of 340 residential apartment units and 16,304 square feet of retail space. The development is expected to be completed in one phase by year 2009, and is analyzed as such in this report.

The results of the detailed intersection analysis for the 2009 No-Build (including background traffic growth but excluding traffic associated with the Ellsworth Perennial) and 2009 Build conditions (including traffic associated with the Ellsworth Perennial) identified improvements that will be necessary in order to maintain the Level of Service standard (LOS D or E) within the study network. Per GRTA's Letter of Understanding guidelines, improvements were made to the intersections until the Level of Service was elevated to an appropriate range. These improvements are listed below:

The following intersection geometry and improvements are recommended at the project site driveway along the proposed New Parkway:

- Huff Road @ Driveway #1
    - Construct a shared southbound left / right-turn lane exiting the site.
- Ellsworth Industrial Boulevard @ Driveway #2
    - Construct a shared westbound left / right-turn lane exiting the site.

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the proposed Ellsworth Perennial, an approximate 5.765-acre mixed-use development located in the City of Atlanta, Georgia. This report is being prepared as part of a submittal requesting a rezoning from I-2 (Heavy Industrial) to MRC-3 (Mixed Residential Commercial District) with the City of Atlanta. Because the project will contain over 400,000 square feet of mixed-use floor area, the proposed development is considered a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review. The site is currently zoned I-2 and occupied by approximately 109,933 square feet of warehouse-style retail and an unmarked surface parking lot. All land uses currently located on the site will be demolished upon build-out of the Ellsworth Perennial development.

The proposed development is a mixed use development that will consist of 340 residential apartment units and 16,304 square feet of retail space. The development is expected to be completed in one phase by year 2009 and is analyzed as such in this report.

The City of Atlanta 15-Year Future Land Use Plan identifies this area as Mixed Use. The proposed development is located within the Upper Westside LCI.

A summary of the proposed land uses and densities can be found below in **Table 1.**

Table 1
Proposed New Land Uses

Residential	Apartment Units	340 residential units
Non-Residential	Neighborhood Retail	16,304 square feet

Figure 1 and **Figure 2** provide a location map and an aerial photograph of the site.

1.2 Site Plan Review

The development master plan consists of 340 residential apartment units and 16,304 square feet of retail space. Parking is planned within a proposed parking garage on the site containing 596 spaces. Additionally, on-street parking is proposed along Huff Road and Ellsworth Industrial Boulevard in front of the site.

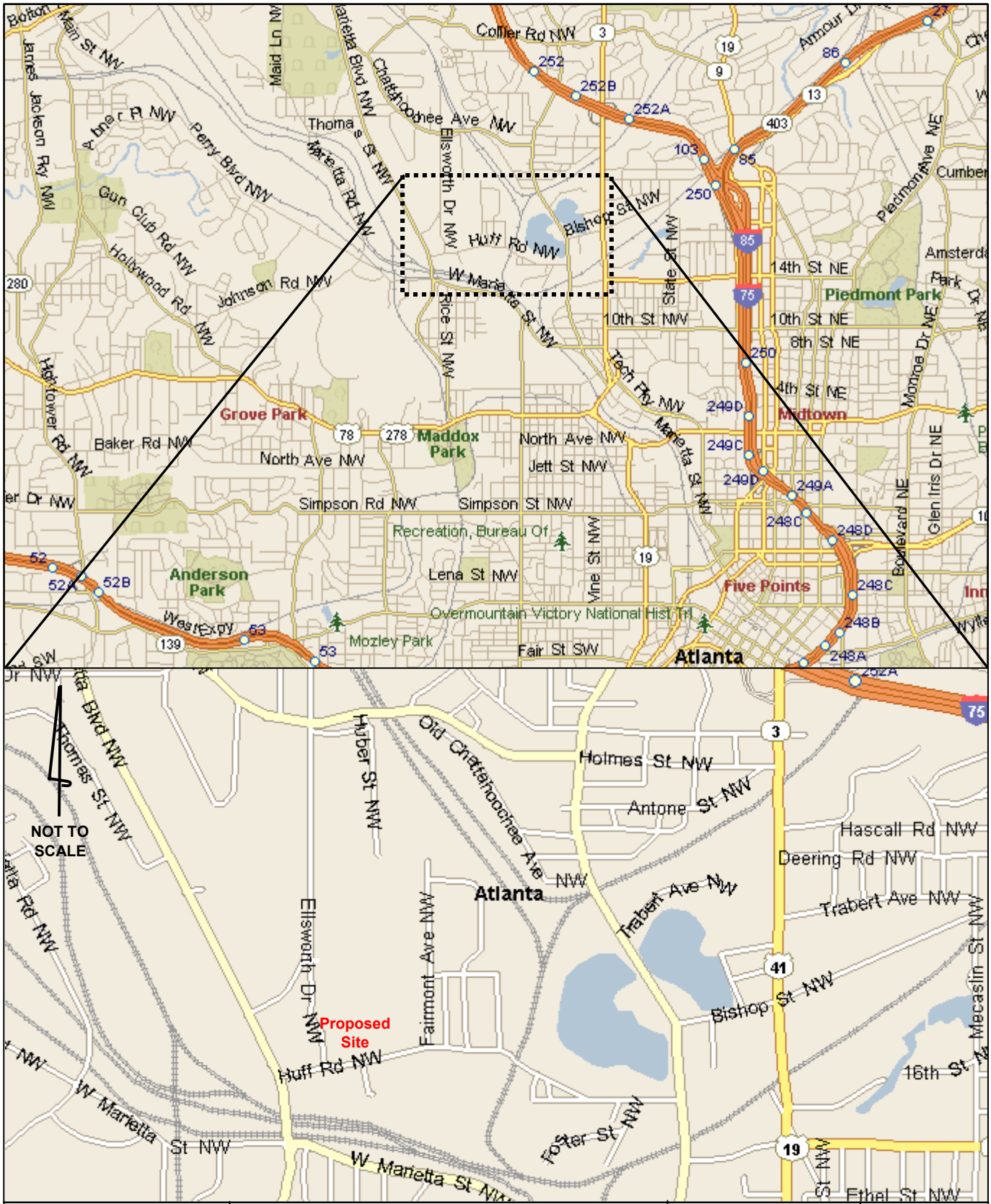
Figure 3 is a small-scale copy of the site plan. A full-size site plan consistent with GRTA's Site Plan Guidelines is also being submitted as part of the Review Package.

1.3 Site Access

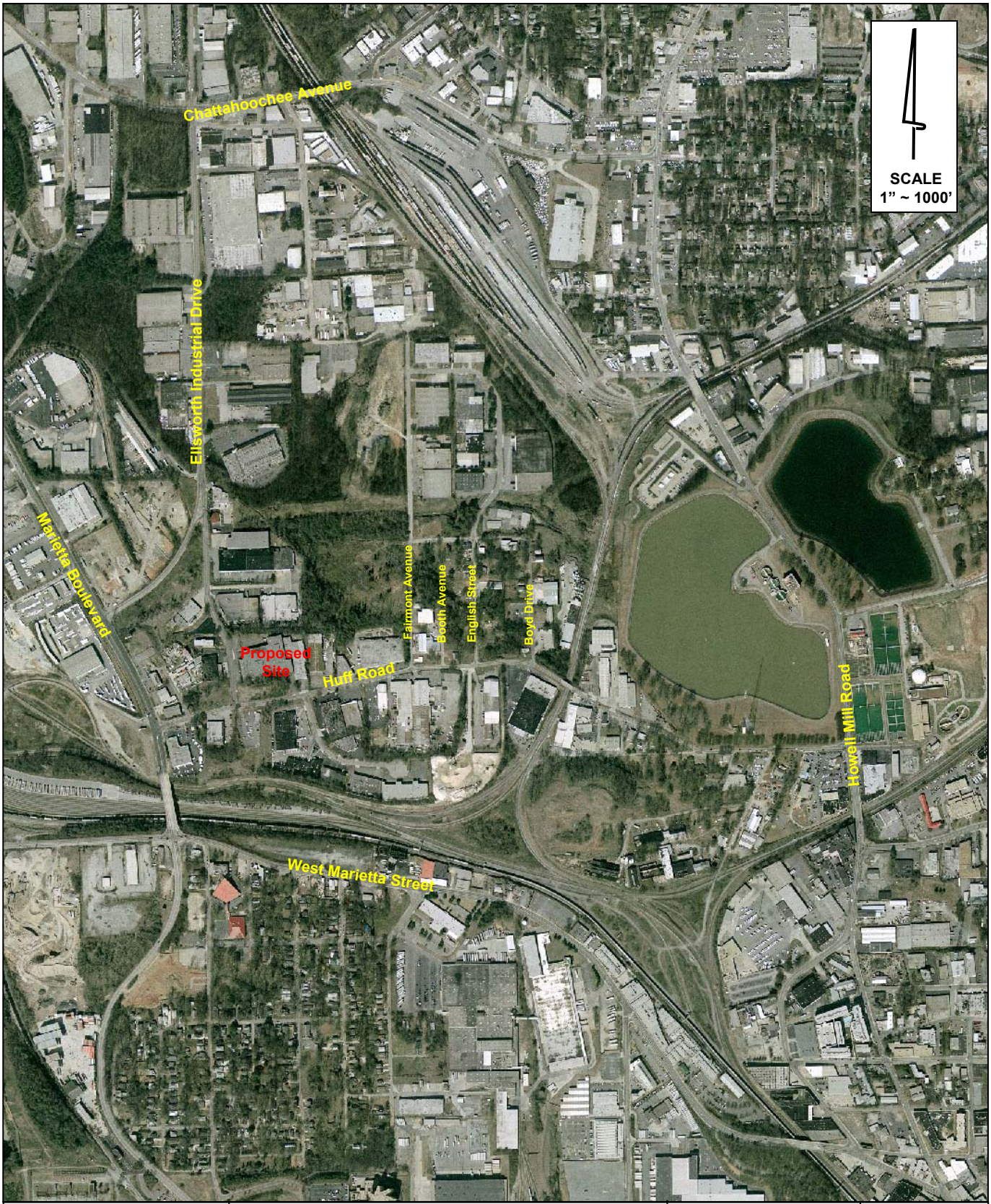
The proposed project is proposed to have vehicular access at two locations:

- A full-movement driveway is proposed on Huff Road approximately 225 feet east of its intersection with Ellsworth Industrial Boulevard. (Driveway #1)

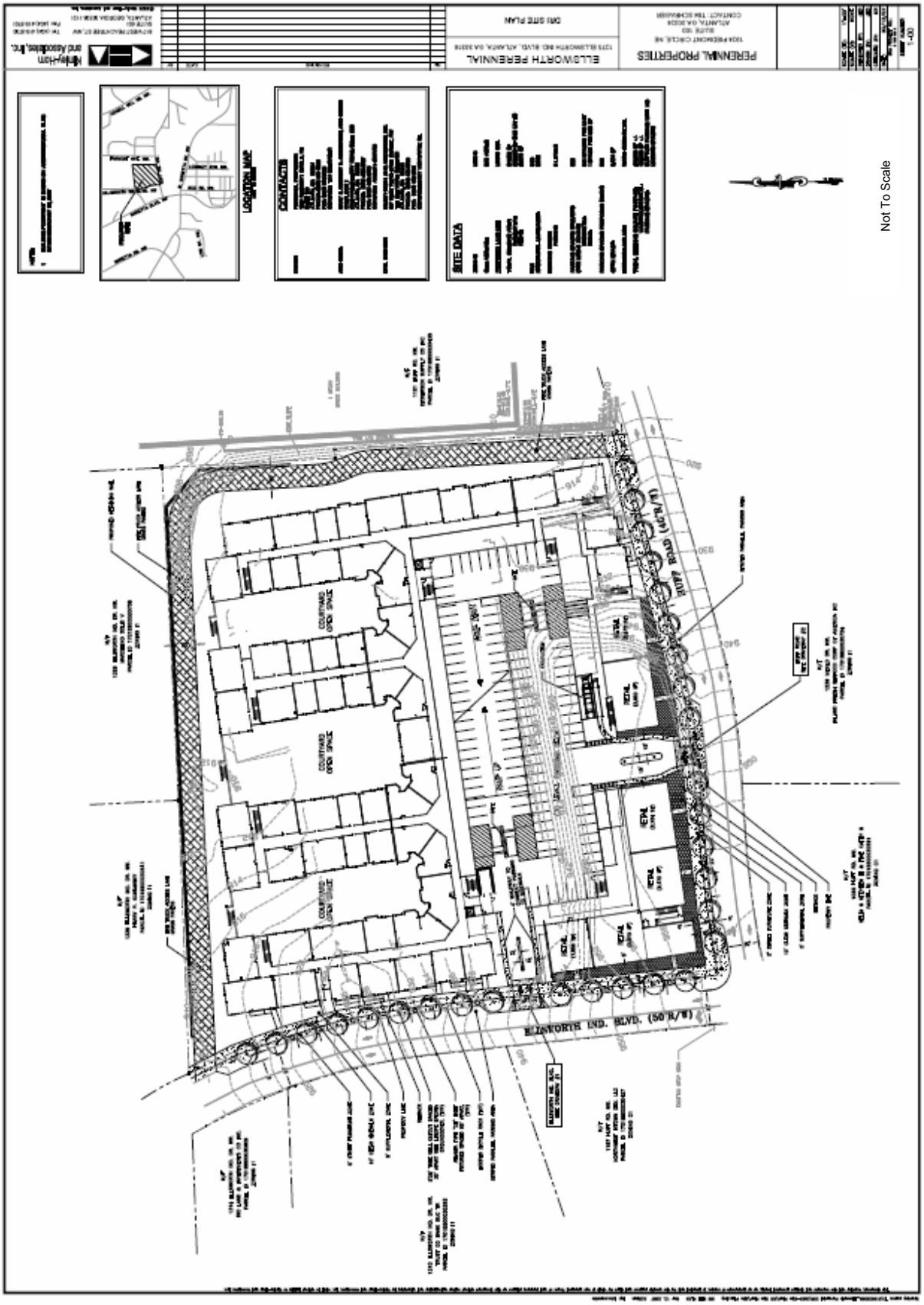
- A full-movement driveway is proposed on Ellsworth Industrial Boulevard approximately 195 feet north of its intersection with Huff Road. (Driveway #2)



Kimley-Horn and Associates, Inc.	**Ellsworth Perennial DRI Transportation Analysis**	**Site Location**	**Figure 1**



Kimley-Horn and Associates, Inc.	**Ellsworth Perennial DRI Transportation Analysis**	**Aerial Figure**	**Figure 2**



Kimley-Horn and Associates, Inc.	**Ellsworth Perennial DRI Transportation Analysis**	**Site Plan**	**Figure 3**

See the attached preliminary site plan for a visual representation of access to the proposed development as well as the above description of driveway locations.

The City of Atlanta will be the permitting agency for the proposed driveways along Ellsworth Industrial Boulevard and Huff Road.

1.4 Bicycle and Pedestrian Facilities

Pedestrian facilities (sidewalks) currently exist along the south side of Huff Road and along the north side of Elaine Avenue. The proposed Beltline multi-use trail is expected to pass near the site, providing bicycle and pedestrian facilities near the site. The Upper Westside LCI also plans for pedestrian facilities along adjacent roadways.

1.5 Transit Facilities

The proposed development is located along MARTA bus route 1 – Coronet Way, which has 15-20 minute headways. Route 1 begins at the Georgia State MARTA station, traveling along Huff Road and Ellsworth Industrial Boulevard, circling at its northernmost point along Moores Mill Road. The site plan is designed to accommodate future MARTA service, thereby increasing its availability to residential areas.

The proposed Beltline transit system is also expected to pass near the site, providing alternate modes of transportation to and from the Ellsworth Perennial. Also, the Beltline is expected to intersect with five MARTA rail stations.

2.0 TRAFFIC ANALYSES METHODOLOGY AND ASSUMPTIONS

2.1 Growth Rate

Background traffic is defined as expected traffic on the roadway network in future year(s) absent the construction and opening of the proposed project. Historical traffic count data from the Georgia DOT was reviewed for the area surrounding the proposed development, and a growth rate of 2% per year along all roadways was agreed upon during the methodology meeting with GRTA staff.

2.2 Traffic Data Collection

Existing weekday peak hour turning movement counts were conducted on September 19, 2006 at three signalized intersections during the weekday AM and PM peak periods for a previous Kimley-Horn project. Since the intersections were recently counted in 2006, the observed volumes for the intersections listed below were grown at a rate of 0.5% (partial year growth rate) for one year to obtain existing 2007 volumes. The intersections that were counted, along with their respective AM and PM peak hours, are listed below.

- Marietta Boulevard at West Marietta Street (AM Peak 7:45 – 8:45; PM Peak 5:00 – 6:00)
- Marietta Boulevard at Huff Road (AM Peak 7:30 – 8:30; PM Peak 4:45 – 5:45)
- Howell Mill Road at Huff Road (AM Peak 7:45 – 8:45; PM Peak 4:45 – 5:45)

The other weekday peak hour turning movement count was conducted on January 9, 2007 at the unsignalized intersection of Ellsworth Industrial Boulevard at Huff Road during the weekday AM and PM peak period:

- Ellsworth Industrial Boulevard at Huff Road (AM Peak 8:00 – 9:00; PM Peak 5:00 – 6:00)

All raw count data is included in the Appendix.

2.3 Detailed Intersection Analysis

Level of Service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists perceptions within a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F being the worst. Level of service analyses were conducted at all intersections within the study network using *Synchro Professional, Version 6.0*.

Levels of service for signalized intersections are reported for the intersection as a whole. One or more movements at an intersection may experience a low Level of service, while the intersection as a whole may operate acceptably.

Levels of service for unsignalized intersections, with stop control on the minor street only, are reported for the side street approaches. Low levels of service for side street approaches are not uncommon, as vehicles may experience delay in turning onto a major roadway.

3.0 STUDY NETWORK

3.1 Gross Trip Generation

As stated earlier, the proposed new development is expected to consist of approximately 340 residential apartment units and 16,304 square feet (SF) of retail space.

Traffic for the research and development land use was calculated using equations contained in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Seventh Edition, 2003*. Gross trips generated are displayed below in **Table 2**.

Table 2
Ellsworth Perennial DRI
Gross Trip Generation

Land Use	ITE Code	Daily Traffic		AM Peak Hour		PM Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
Build-Out (Year 2009)							
Residential Apartment 340 Units	220	1,097	1,097	34	136	133	72
Shopping Center 16,304 SF	820	1,045	1,045	32	21	91	98
Total		**2,142**	**2,142**	**66**	**157**	**224**	**170**

3.2 Trip Distribution

The directional distribution and assignment of new project trips was based on a review of the land uses in the area, engineering judgment, and discussions with GRTA staff at the methodology meeting.

3.3 Level of Service Standards

For the purposes of this traffic analysis, a level of service standard of D was assumed for all intersections and segments within the study network. If, however, an intersection or segment currently operates at LOS E or LOS F

during an existing peak period, the LOS standard for that peak period becomes LOS E, consistent with GRTA's Letter of Understanding.

3.4 Study Network Determination

A general study area was determined using the 7% rule. This rule recommends that all intersections and segments be analyzed which are impacted to the extent that the traffic from the proposed site is 7% or more of the Service Volume of the facility (at a previously established LOS standard) be considered for analysis. This general study area was agreed upon during the pre-application meeting, and includes the following intersections:

- Intersection #1 - Marietta Boulevard at West Marietta Street (Signalized)
- Intersection #2 - Marietta Boulevard at Huff Road (Signalized)
- Intersection #3 - Ellsworth Industrial Boulevard at Huff Road (Unsignalized)
- Intersection #4 - Howell Mill Road at Huff Road (Signalized)

The above listed intersections were analyzed for the Existing 2007 Conditions, the 2009 No-Build Conditions, and the 2009 Build Conditions. The 2009 No-Build Conditions represents the existing traffic volumes grown at 2% per year for two years. The 2009 Build Conditions adds the project trips associated with the Ellsworth Perennial development to the 2009 No-Build Conditions.

The two proposed driveways were only analyzed in the 2009 Build scenario.

3.5 Existing Facilities

Huff Road

- Huff Road is an east-west oriented roadway extending from Marietta Boulevard to Howell Mill Road in northwest Atlanta. Huff Road is a two-lane undivided roadway. According to GDOT, Huff Road is classified as an Urban Collector Street. The posted speed limit along Huff Road in this area is 35 MPH.

Ellsworth Industrial Boulevard

- Ellsworth Industrial Boulevard is a north-south oriented roadway extending from Huff Road up to Chattahoochee Boulevard in northwest Atlanta. Ellsworth Industrial Boulevard is a two-lane undivided roadway classified as an urban collector street. The posted speed limit along Ellsworth Industrial Boulevard in this area is 35 MPH.

Marietta Boulevard

- Marietta Boulevard is a north-south oriented roadway extending from Bolton Road / Moores Mill Road to Highway 78 in northwest Atlanta. Marietta Boulevard is a four-lane undivided roadway classified as an Urban Minor Arterial. The posted speed limit along Marietta Boulevard in this area is 45 MPH.

West Marietta Street

- West Marietta Street is an east-west oriented roadway extending from Marietta Road / Johnson Road to Highway 41 in northwest Atlanta. Marietta Boulevard is a four-lane undivided roadway classified as an Urban Minor Arterial east of Marietta Boulevard and as a Collector Street west of Marietta Boulevard. The posted speed limit along West Marietta Street in this area is 35 MPH.

Howell Mill Road

- Howell Mill Road is a north-south oriented roadway extending from West Wesley Road to Highway 41 in northwest Atlanta. Howell Mill Road is a four-lane undivided roadway classified as an Urban Minor Arterial south of Interstate 75 and as a Collector Street north of Interstate 75. The posted speed limit along Howell Mill Road in this area is 35 MPH.

Road Name	Character	Speed Limit	Functional Classification
Huff Road	2-Lane Undivided	35 MPH	Urban Collector Street
Ellsworth Industrial Boulevard	2-Lane Undivided	35 MPH	Urban Collector Street
Marietta Boulevard	4-lane Undivided	45 MPH	Urban Minor Arterial
West Marietta Street	4-Lane Undivided	45 MPH	Urban Minor Arterial
Howell Mill Road	4-Lane Undivided	35 MPH	Urban Minor Arterial

3.6 Planned Facilities

The Beltline

- The Beltline envisions a transit corridor and linear park through the city on existing railroad rights-of-way connecting MARTA stations and numerous neighborhoods. It is proposed that the Beltline will provide increased connectivity by intersecting with five MARTA rail stations. The Beltline project will route through northwest Atlanta, passing near the proposed Ellsworth Perennial development and continuing to the east / northeast. The Beltline project will connect existing neighborhoods with activity centers, provide new development opportunities, and create new walking and bicycling paths.

4.0 TRIP GENERATION

As stated earlier, trips associated with the proposed development were estimated using the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Seventh Edition, 2003*, using equations where available.

Mixed-use vehicle trip reductions were taken according to the *ITE Trip Generation Handbook, June 2004*. Total daily internal capture and vehicle trip reduction between the residential and retail land uses is expected to be 9.76%, whereas total PM peak hour internal capture is 10.15%.

Alternative transportation (walking, bicycle, and transit) mode reductions were taken at 2% for the residential and non-residential portions of the proposed development, as agreed during the methodology meeting with GRTA staff. Pass-by vehicle trip reductions were estimated using the ITE accepted value of 34% for general retail.

The total (net) trips generated and analyzed in the report are listed in **Table 3**.

Table 3
Ellsworth Perennial DRI
Net Trip Generation

Land Use	Daily Traffic		AM Peak Hour		PM Peak Hour	
	Enter	Exit	Enter	Exit	Enter	Exit
Build-Out (Year 2009)						
Gross Trips	**2,142**	**2,142**	**66**	**157**	**224**	**170**
Internal Capture	*-209*	*-209*	*0*	*0*	*-20*	*-20*
Alternative Mode Reduction	*-39*	*-39*	*-2*	*-3*	*-4*	*-3*
Driveway Volumes	1,894	1,894	64	154	200	147
Pass-by Trips	*-320*	*-320*	*0*	*0*	*-29*	*-29*
Net New Trips	**1,574**	**1,574**	**64**	**154**	**171**	**118**

5.0 TRIP DISTRIBUTION AND ASSIGNMENT

New trips were distributed onto the roadway network using the percentages agreed to during the methodology meeting. **Figure 4** displays the expected trip percentages for the residential portions of the development, and **Figure 5** displays the expected non-residential trip percentages throughout the roadway network. These percentages were applied to the new trips generated by the development (see Table 3, above), and the volumes were assigned to the roadway network. The expected peak hour turning movements generated by the proposed development are shown in **Figure 6**.

6.0 TRAFFIC ANALYSIS

6.1 Existing Traffic

The existing 2007 traffic volumes are shown in **Figures 7A** and **7B**. It should be noted that the existing weekday peak hour turning movement counts were conducted on September 19, 2006 at three signalized intersections during the weekday AM and PM peak periods for a prior Kimley-horn project at Intersections #1, #2, and #4. The observed volumes at these three intersections were grown at 0.5% (partial year growth rate) for one year to account for background traffic that occurred in the three months that elapsed between the two traffic count dates. The existing 2007 volumes were input in *Synchro 6.0*, along with the existing signal cycle lengths, splits, and offsets, and an Existing Conditions analysis was performed. The results are displayed below in **Table 4**.

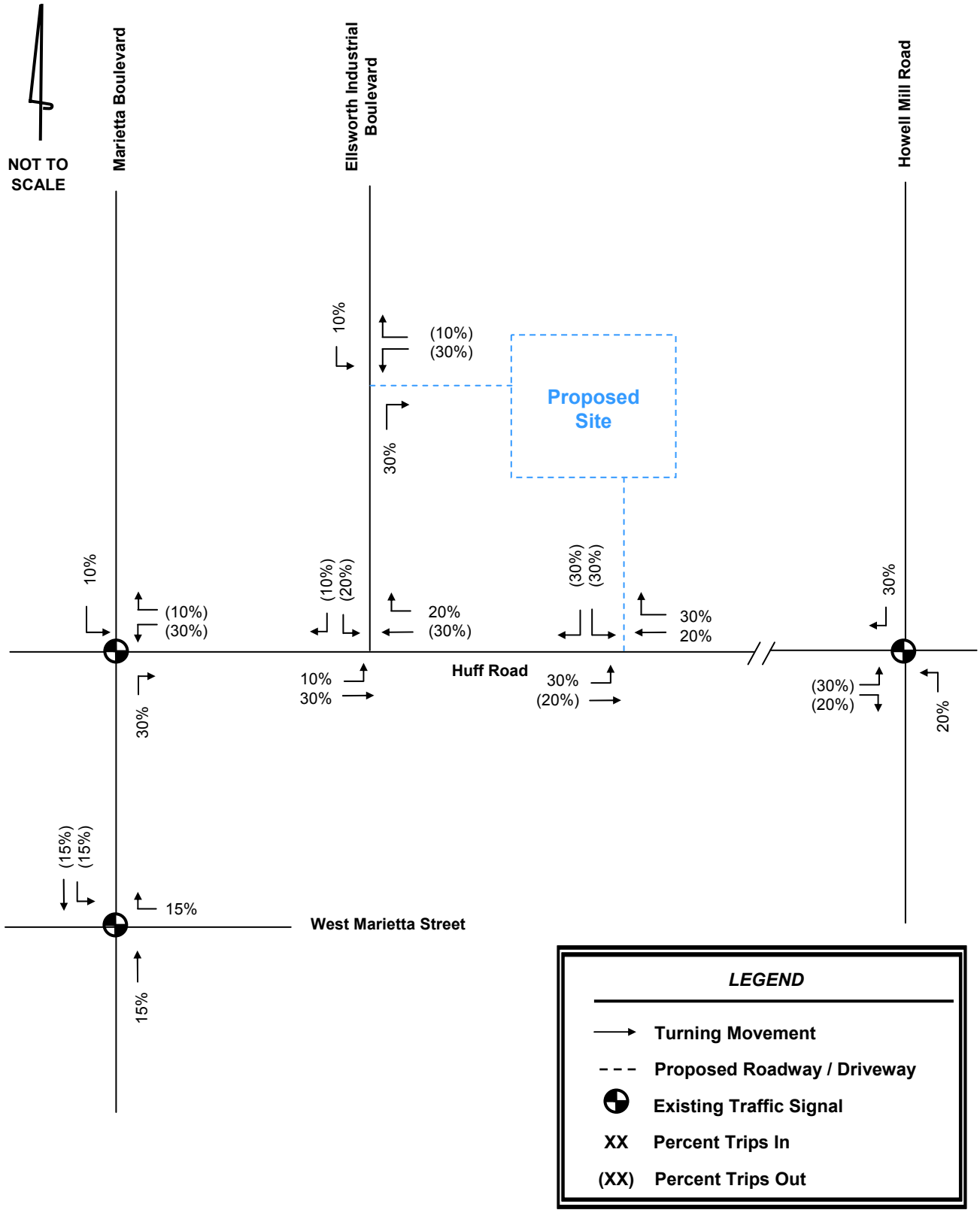
Table 4
Ellsworth Perennial DRI
Existing 2007 Intersection Levels of Service
(delay in seconds)

Intersection		Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	Marietta Boulevard @ W. Marietta Street	Signalized	D	C (28.4)	C (22.4)
2	Marietta Boulevard @ Huff Road	Signalized	D	A (7.0)	B (12.9)
3	Huff Road @ Ellsworth Industrial Boulevard	Side-Street Stop Control	D	C (18.2)	C (18.9)
4	Howell Mill Road @ Huff Road	Signalized	D	B (19.9)	C (20.7)

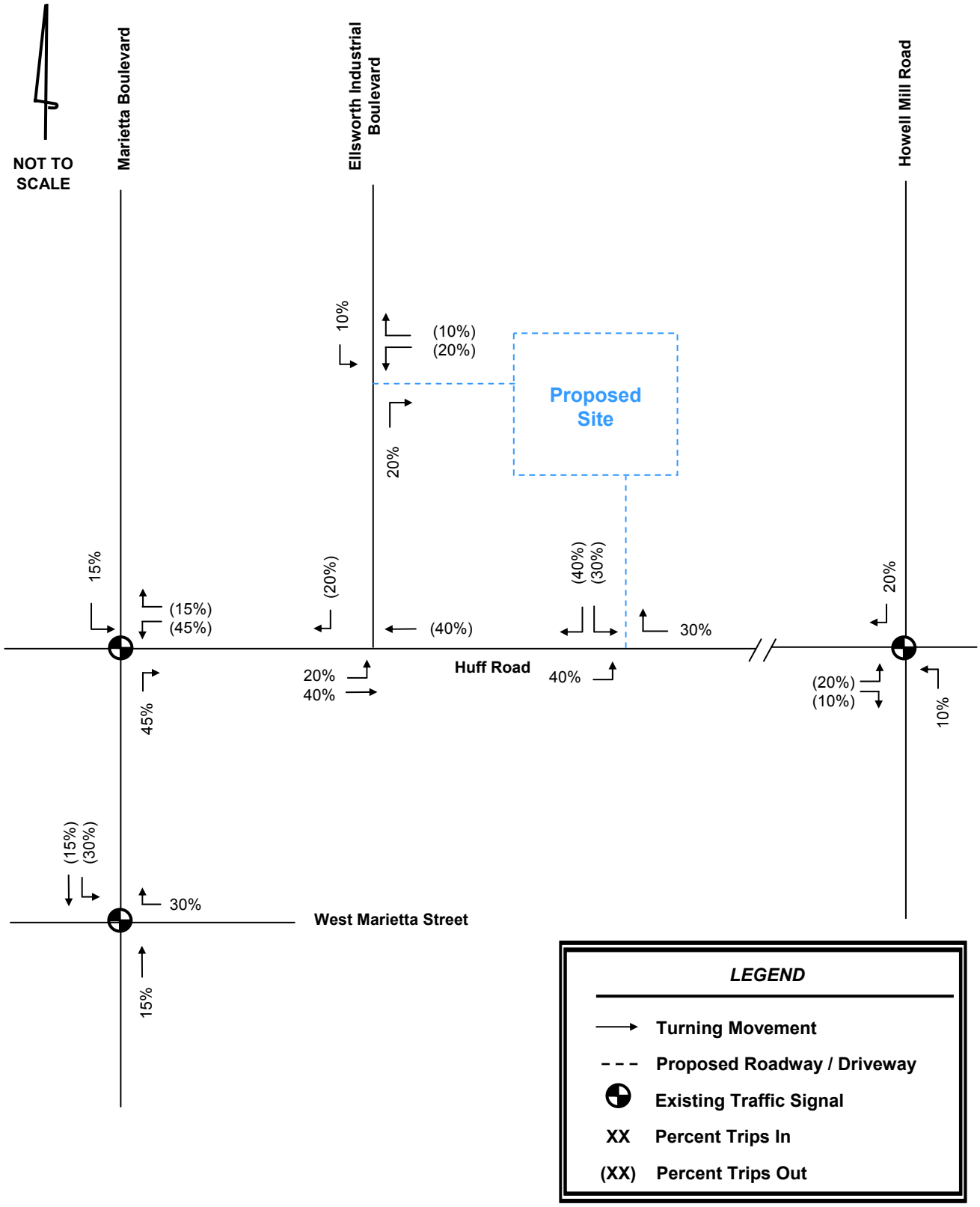
As shown in the table above, all of the intersections are expected to operate at acceptable levels of service (LOS D) during both the AM and PM peak hours. Therefore, these intersections will be analyzed against a level of service standard D.

6.2 2009 No-Build Traffic

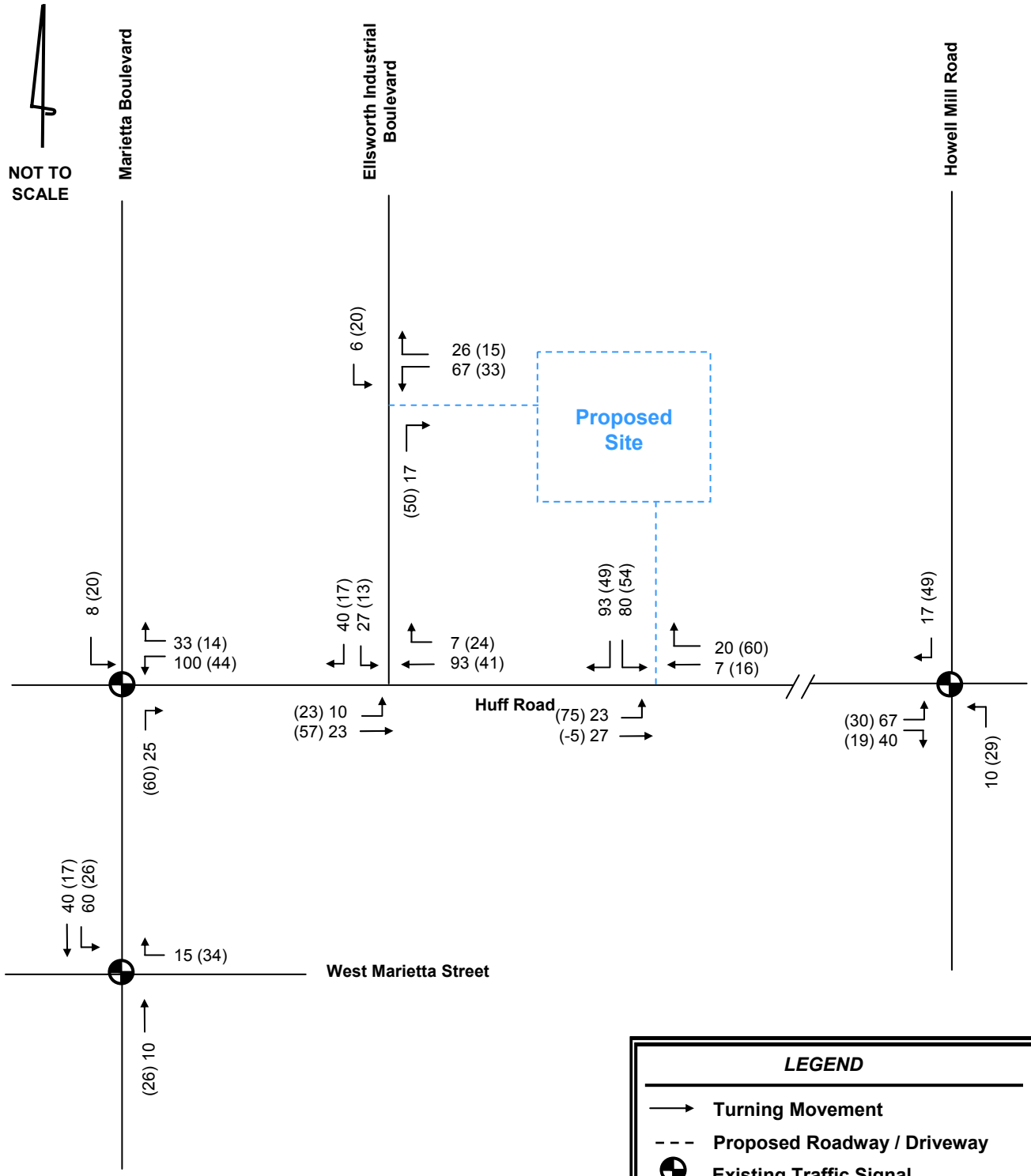
The existing 2007 traffic volumes were grown at 2% per year, for five years, along all roadway links within the study network. No traffic associated with other proposed developments in the area will be added to the no-build volumes, per the GRTA methodology meeting.



Kimley-Horn and Associates, Inc.	**Ellsworth Perennial DRI Transportation Analysis**	**Residential Distribution**	**Figure 4**

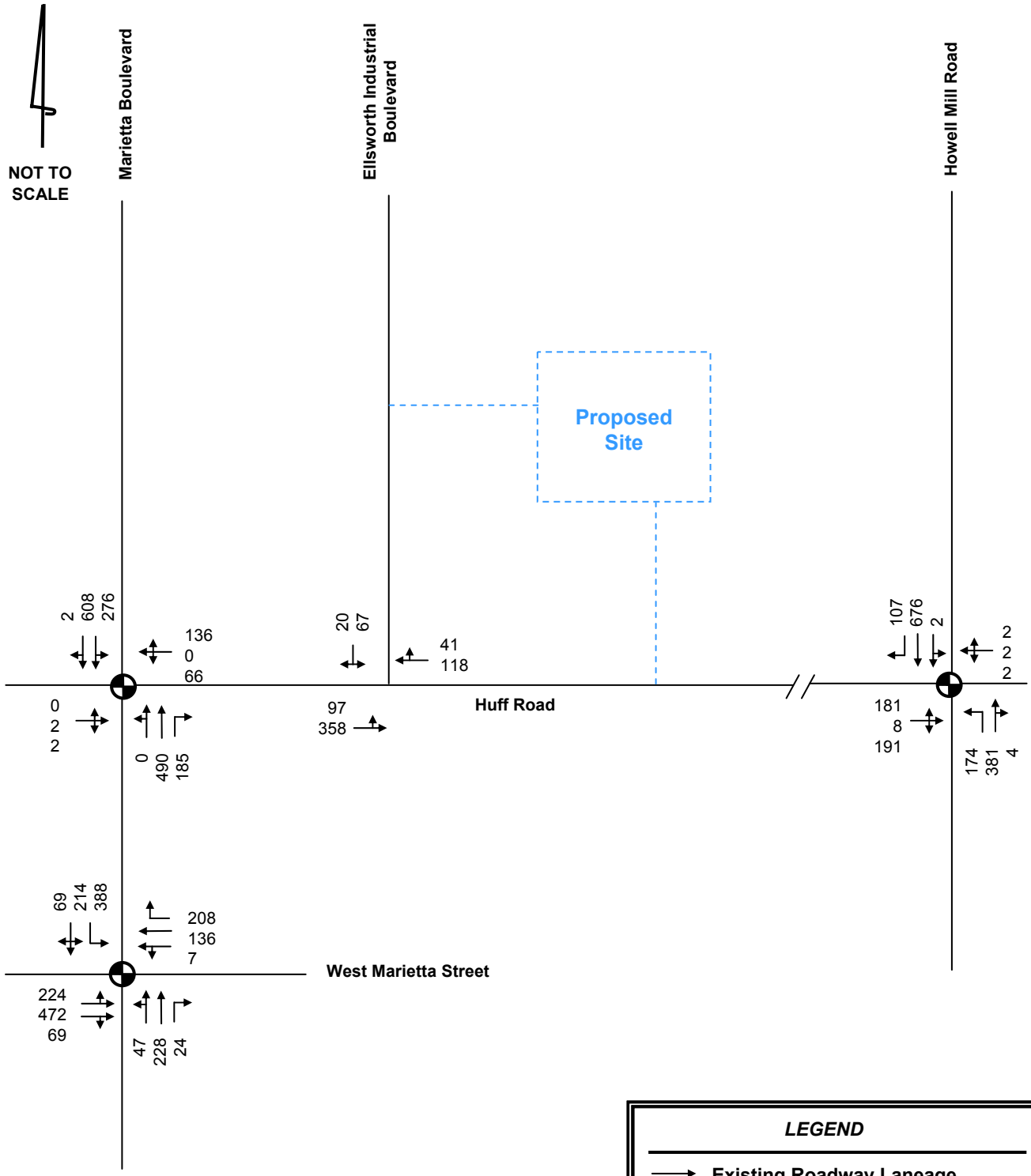


Kimley-Horn and Associates, Inc.	Ellsworth Perennial DRI Transportation Analysis	Non-Residential Distribution	Figure 5

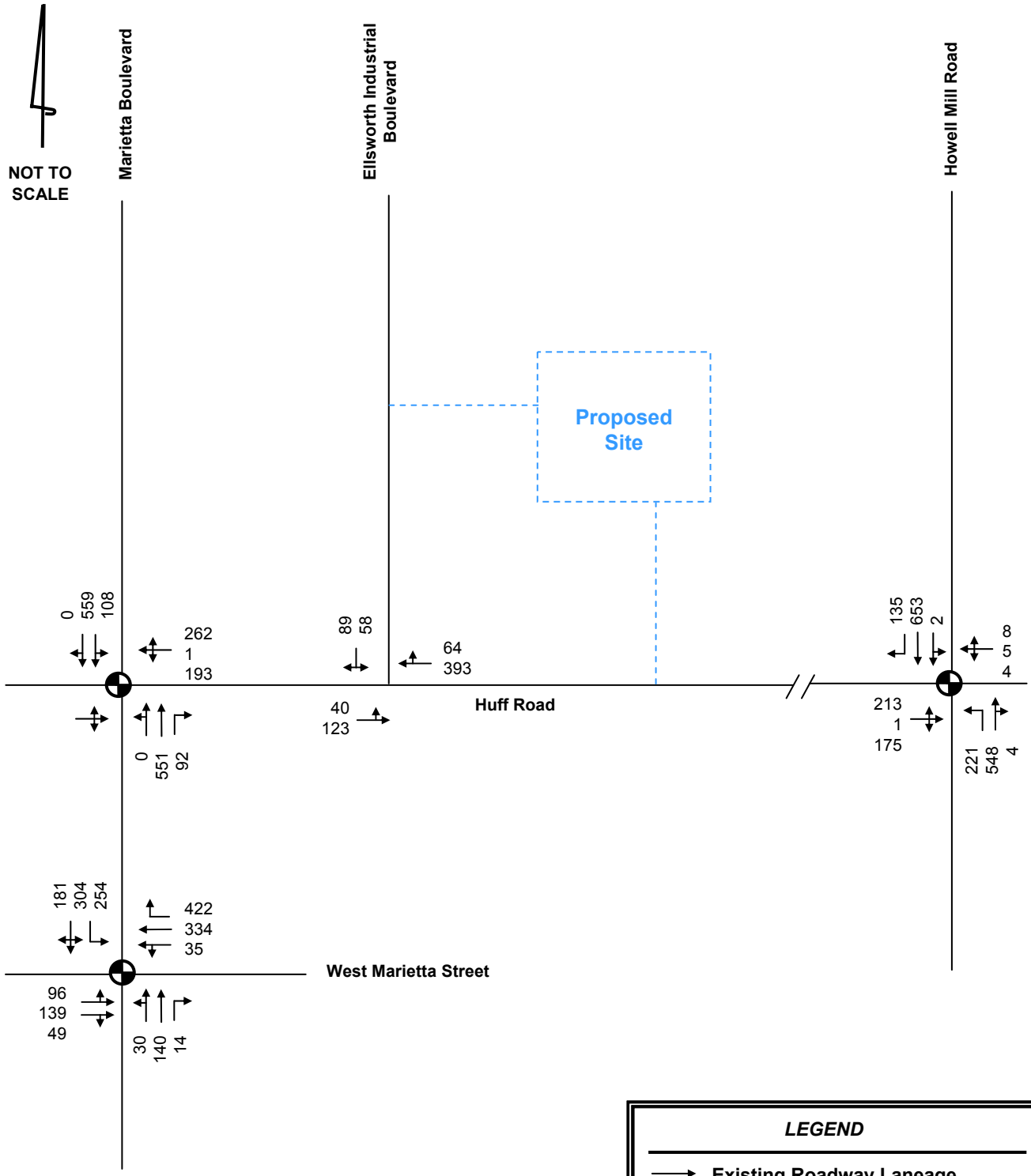


* Note: Project trips include pass-by reductions

Kimley-Horn and Associates, Inc.	Ellsworth Perennial DRI Transportation Analysis	Project Trips	Figure 6



Kimley-Horn and Associates, Inc.	**Ellsworth Perennial DRI Transportation Analysis**	**AM Peak Hour 2007 Existing Conditions**	**Figure 7A**



Kimley-Horn and Associates, Inc.	**Ellsworth Perennial DRI Transportation Analysis**	**PM Peak Hour 2007 Existing Conditions**	**Figure 7B**

These volumes were input into *Synchro 6.0* and analyses of the projected 2009 No-Build Conditions were performed. The results are displayed below in **Table 5.**

Table 5
Ellsworth Perennial DRI
2009 No-Build Intersection Levels of Service
(delay in seconds)

	Intersection	Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	Marietta Boulevard @ W. Marietta Street	Signalized	D	C (30.1)	C (23.4)
2	Marietta Boulevard @ Huff Road	Signalized	D	A (7.2)	B (14.2)
3	Huff Road @ Ellsworth Industrial Boulevard	Side-Street Stop Control	D	C (19.3)	C (20.4)
4	Howell Mill Road @ Huff Road	Signalized	D	C (20.5)	C (21.7)

All of the intersections meet acceptable Level of Service standards for the year 2009 No-Build condition. Therefore, no improvements will be needed for the No-Build scenario.

The no-build intersection volumes and laneages for the year 2009 No-Build Conditions are illustrated in **Figures 8A and 8B**.

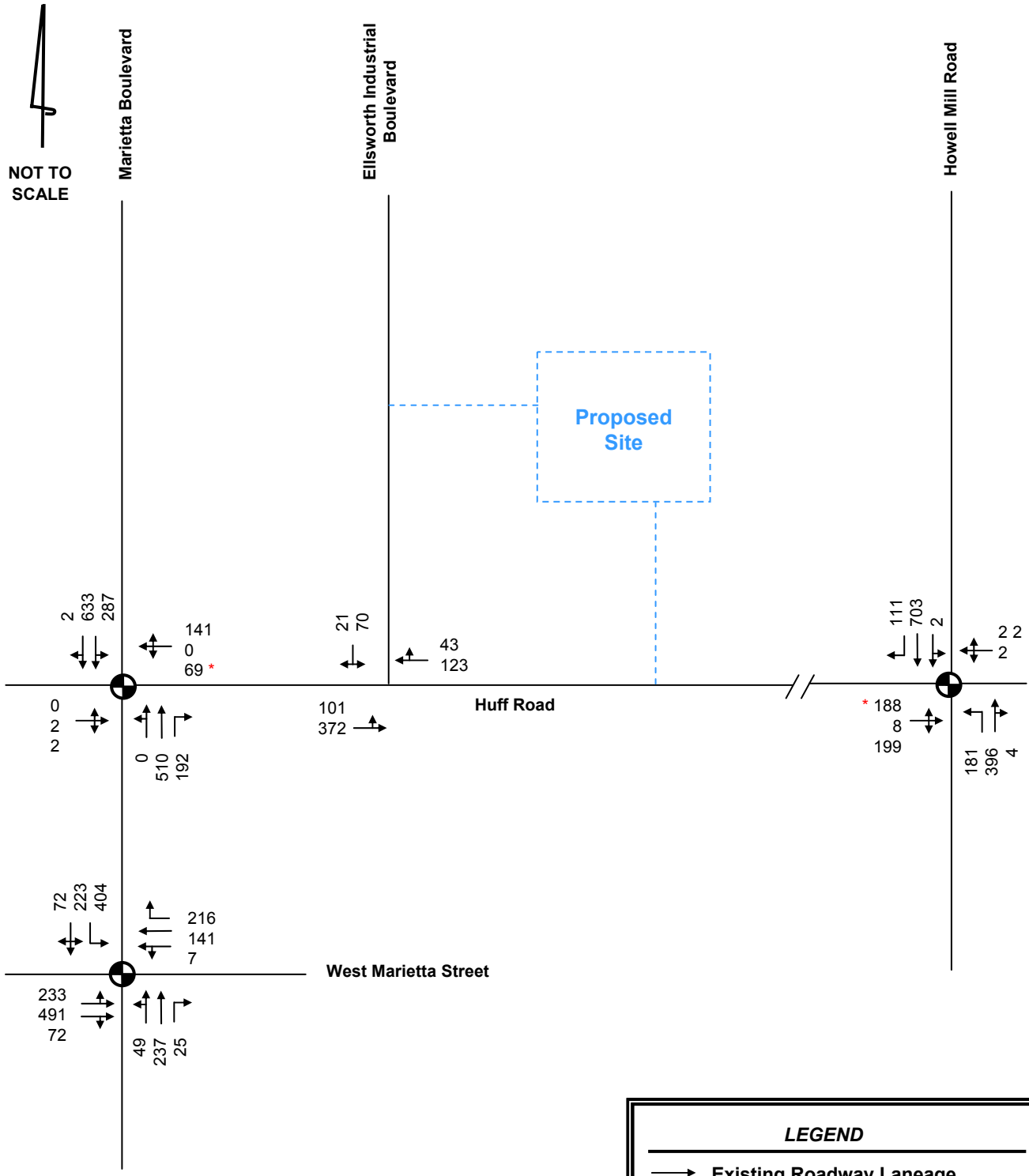
6.3 2009 Build Traffic

The traffic associated with the proposed development was added to the 2009 No-Build volumes. The 2009 Build volumes were then analyzed.

The 2009 build volumes and driveway laneage were then input into *Synchro 6.0*. The results of the analyses are displayed below in **Table 6**.

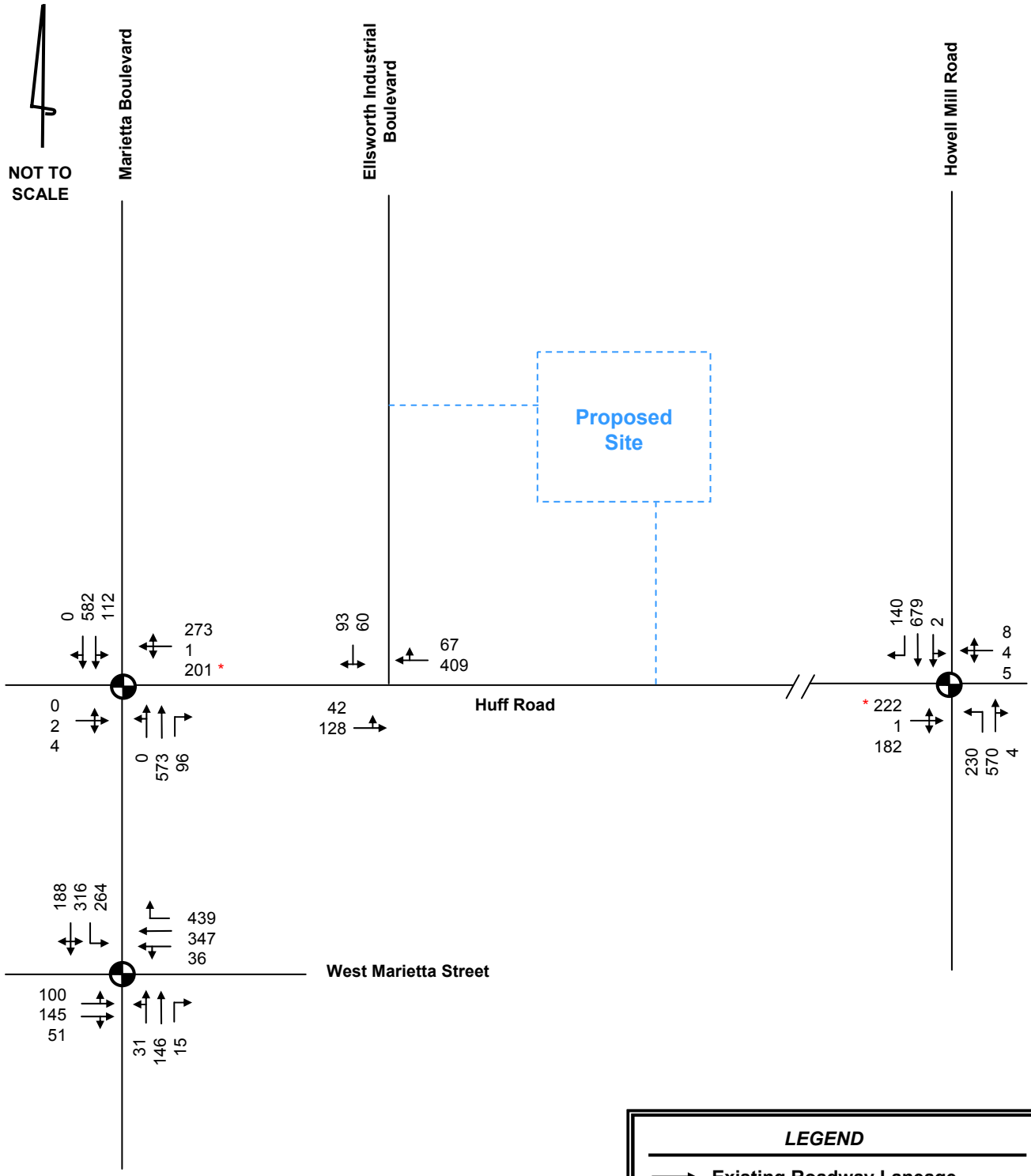
Table 6
Ellsworth Perennial DRI
2009 Build Intersection Levels of Service
(delay in seconds)

	Intersection	Control	LOS Standard	AM Peak Hour	PM Peak Hour
1	Marietta Boulevard @ W. Marietta Street	Signalized	D	C (32.6)	C (25.8)
2	Marietta Boulevard @ Huff Road	Signalized	D	B (13.6)	B (17.9)
3	Huff Road @ Ellsworth Industrial Boulevard	Side-Street Stop Control	D	D (30.8)	D (25.4)
4	Howell Mill Road @ Huff Road	Signalized	D	C (25.7)	C (24.5)



* Improving to a two-lane approach would improve traffic operations.

Kimley-Horn and Associates, Inc.	**Ellsworth Perennial DRI Transportation Analysis**	**AM Peak Hour 2009 No Build Conditions**	**Figure 8A**



* Improving to a two-lane approach would improve traffic operations.

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Ellsworth Perennial DRI Transportation Analysis

PM Peak Hour 2009 No Build Conditions

Figure 8B

All of the intersections meet acceptable Level of Service standards for the year 2009 No-Build condition. Therefore, no improvements will be needed for the No-Build scenario.

The 2009 Build driveway Levels of Service are displayed in **Table 7**.

Table 7
Ellsworth Perennial DRI
2009 Build Driveway Levels of Service
(delay in seconds)

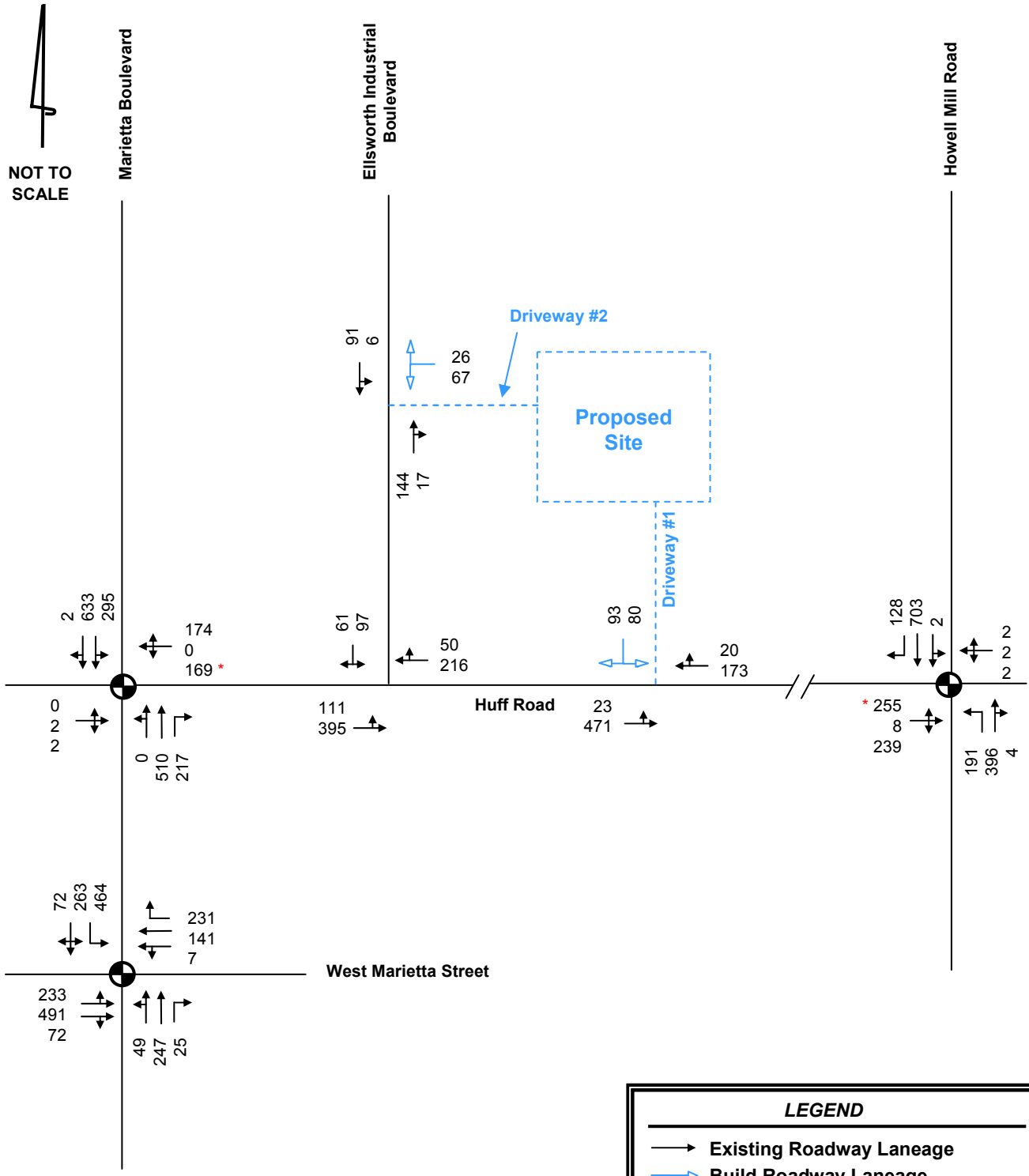
	Intersection	Control	LOS Standard	AM Peak Hour	PM Peak Hour
5	Huff Road @ Driveway #1	Side-Street Stop Control	D	C (15.6)	C (20.0)
6	Ellsworth Industrial Boulevard @ Driveway #2	Side-Street Stop Control	D	B (10.6)	B (10.5)

The 2009 Build conditions, along with driveway geometries, are shown in **Figures 9A and 9B**, and are listed below by intersection:

- Huff Road @ Driveway #1
  - Construct a shared southbound left / right-turn lane exiting the site.
- Ellsworth Industrial Boulevard @ Driveway #2
  - Construct a shared westbound left / right-turn lane exiting the site.

7.0 IDENTIFICATION OF PROGRAMMED PROJECTS

The *TIP, STIP, RTP, and GDOT's Construction Work Program* were searched for currently programmed transportation projects within the vicinity of the proposed development. Several projects are programmed for the area surrounding the study network. Information on the projects, including a map of the programmed improvements, is included in the Appendix.



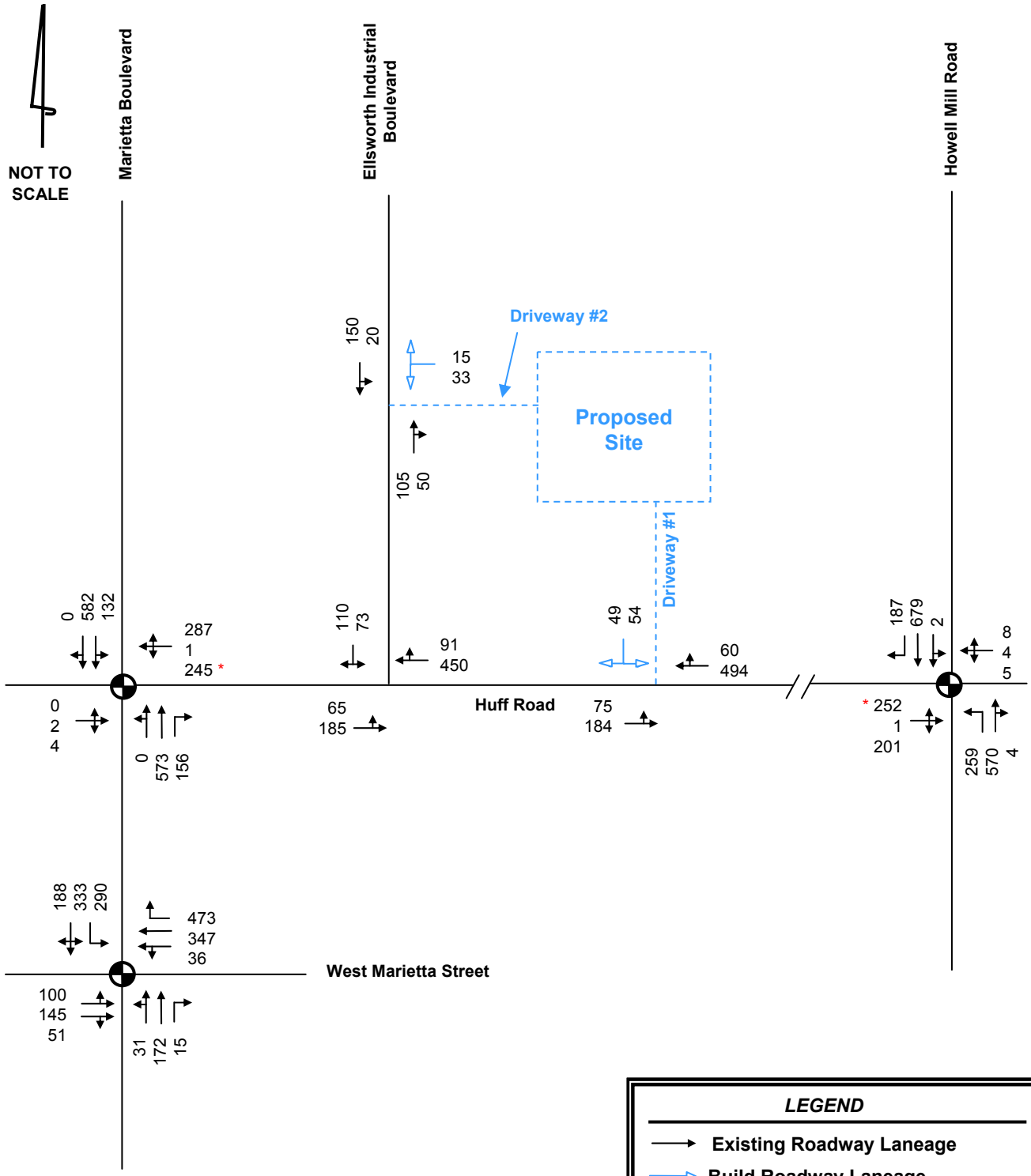
* Improving to a two-lane approach would improve traffic operations.

Kimley-Horn and Associates, Inc.

Ellsworth Perennial DRI Transportation Analysis

AM Peak Hour 2009 Build Conditions

Figure 9A



LEGEND

- Existing Roadway Laneage
- Build Roadway Laneage
- Existing Traffic Signal
- XX PM Peak Hour Traffic Volumes

* Improving to a two-lane approach would improve traffic operations.

Kimley-Horn and Associates, Inc.

Ellsworth Perennial DRI Transportation Analysis

PM Peak Hour 2009 Build Conditions

Figure 9B

1. AR-450A, B, C and D GDOT # 0006841, #0007683 ARC RTP, STIP,	Belt Line Multi-Use Path right of way acquisition and construction of multi-use trail along the alignment in the northeast quadrant. Completion Date: 2011 Pages 1, 2, 3, 4, 12, 13
2. AR-451D1, AR-451D2 GDOT # N/A	Inner Core Transportation Corridor to provide transit service in the northwest quadrant. Completion Date: Long term Pages 5, 6
3. AR-909 B GDOT # N/A	Northwest corridor arterial bus rapid transit (BRT) to provide service companion to the I-75 BRT project. The actual alignment Is yet to be determined, but the project will likely serve US 41 and Marietta Boulevard. Completion Date: 2016 Pages 7
4. AT-026 GDOT # 751560-	Project will upgrade Howell Mill Road from Chattahoochee Avenue to Bellemeade Avenue by widening narrow lanes. The project will improve truck traffic serving the Chatahoochee Industrial Area. The project will include sidewalks and bicycle lanes. Completion Date: 2008 Pages 8, 10, 11
5. AT-AR-BP303 GDOT # 0004493 ARC RTP, ARC TIP, STIP, GDOT CWP	Improvements to the streetscape along Marietta Street from West Marietta Street to the Atlanta city limits. It will repair sidewalks where needed and add sidewalks where none exist. It will also add "Share the Road" signage for bicyclists. Completion Date: 2010 Pages 9, 12, 13

In addition, the Upper Westside LCI Study (2005) and discussions with the City of Atlanta were used to compile the list of other recommended future roadway and pedestrian improvements in the immediate vicinity of the proposed development. Several improvements were identified and are listed below:

Upper Westside LCI Study:

- Increase the capacity of Huff Road through widening. Additionally, "to minimize conflicts with the emerging mixed use pattern of the corridor, the plan recommends that trucks adhere to designated state truck routes and seek feasible alternatives to east-west movement along Huff Road, such as Hollowell Parkway to Marietta Boulevard." This improvement, if approved, will detract trucks from using Huff Road as and east-west connection from Marietta Boulevard to Howell Mill Road.
- Intersection improvements at Bishop Street and Howell Mill Road
- Intersection improvements at Marietta Boulevard and Marietta Street
- Construct a new east-west link between Fairmont Avenue and Huber Street
- Construct a new east-west link between Marietta Boulevard and Ellsworth Industrial Boulevard
- Construct a new Knight Park – Huff Road connector
- Extend Menlo Drive into a loop with Huff Road

8.0 INGRESS/EGRESS ANALYSIS

The proposed project is proposed to have vehicular access at two locations:

- A full-movement driveway is proposed on Huff Road approximately 225 feet east of its intersection with Ellsworth Industrial Boulevard. (Driveway #1)
- A full-movement driveway is proposed on Ellsworth Industrial Boulevard approximately 195 feet north of its intersection with Huff Road. (Driveway #2)

See the attached preliminary site plan for a visual representation of access to the proposed development as well as the above description of driveway locations.

The City of Atlanta will be the permitting agency for the proposed driveways along Ellsworth Industrial Boulevard and Huff Road.

9.0 INTERNAL CIRCULATION ANALYSIS

The proposed master site plan consists of two site driveways which allow for multiple vehicular and pedestrian ingress and egress options. The parking deck with an entrance at each driveway located underneath the building will provide organized circulation to the parking within the development.

10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The City of Atlanta 2015 Future Land Use Plan identifies this area as Mixed Use.

11.0 NON-EXPEDITED CRITERIA

11.1 Quality, Character, Convenience, and Flexibility of Transportation Options

The proposed development is located along MARTA bus route 1 – Coronet Way, which has 15-20 minute headways. Route 1 begins at the Georgia State MARTA station, traveling along Huff Road and Ellsworth Industrial Boulevard, circling at its northernmost point along Moores Mill Road.

Pedestrian facilities are proposed in both the Upper Westside LCI and the Beltline Project, both of which are in the direct vicinity of the project.

11.2 Vehicle Miles Traveled

The following table displays the reduction in traffic generation expected due to alternative mode reductions.

	Build-out Total
Daily Gross Trip Generation:	4,283
(-)Mixed-use reductions (internal capture)	-418
(-)Pass-by trips	-78
(-)Alternative modes	-639
Net Trips:	3,149

11.3 Relationship Between Location of Proposed DRI and Regional Mobility

The proposed development is located along MARTA bus route 1 – Coronet Way, which has 15-20 minute headways. Route 1 begins at the Georgia State MARTA station, traveling along Huff Road and Ellsworth Industrial Boulevard, circling at its northernmost point along Moores Mill Road.

The proposed Beltline transit system is also expected to pass near the site, providing alternate modes of transportation to and from the Ellsworth Perennial. The Beltline is expected to intersect with five MARTA stations, providing access to other parts of the city.

11.4 Relationship Between Proposed DRI and Existing or Planned Transit Facilities

The proposed development is located along MARTA bus route 1, beginning at the Georgia State MARTA station, traveling along Huff Road and Ellsworth Industrial Boulevard, and circling at its northernmost point along Moores Mill Road.

11.5 Transportation Management Area Designation

The proposed development is not located within a Transportation Management Area.

11.6 Offsite Trip Reduction and Trip Reduction Techniques

Pedestrian facilities are proposed in both the Upper Westside LCI and the Beltline Project, both of which are in the direct vicinity of the project. Given the transit and pedestrian opportunities available in the vicinity of the project, an alternate mode reduction was applied to both residential and non-residential uses as agreed upon during the methodology meeting.

11.7 Balance of Land Uses – Jobs/Housing Balance

Refer to the Area of Influence Analysis, located in *Section 12.0* of this report.

11.8 Relationship Between Proposed DRI and Existing Development and Infrastructure

The development is located in an area where the existing infrastructure is expected to be adequate to serve the needs of the development upon build-out (2009).

12.0 AREA OF INFLUENCE

This section will describe the Area of Influence (AOI) demographics, AOI average wage levels, expected DRI housing costs, and the availability of jobs within the AOI that would reasonably position employees to purchase housing or rent within the proposed DRI.

12.1 Criteria

As part of the non-expedited review process for a DRI, an Area of Influence Analysis must be performed to determine the impact of the proposed development on the balance of housing and jobs within the immediate area surrounding the proposed development. For this proposed development expansion, the non-expedited review criterion is as follows:

> 7. The proposed DRI:
>
> (c) Is located in an area of influence with employment opportunities which are such that at least twenty-five percent (25%) of the persons that are reasonably anticipated to live in the proposed DRI and are reasonably expected to be employed will have an opportunity to find employment appropriate to such persons' qualifications and experience within the Area of Influence;

12.2 Study Area Determination and Characteristics

The Area of Influence is comprised of the area within six road-miles of the proposed development. To determine the AOI, *TransCAD* was used to measure six road miles from the nearest intersection to the project (Huff Road and Fairmont Avenue). The population and housing statistics for the AOI were determined by taking the area outlined in *TransCAD*, creating a boundary in GIS format, and overlaying the boundary with a GIS layer containing Census tract information. The Area of Influence (located within Fulton, Cobb, and DeKalb Counties) can be seen in **Figure 10**. Information obtained from the census tracts can be seen in **Table 8**.

Table 8
Area of Influence
Census Tract Information

Total Households	112,642
Population in Households	238,008
Average household size	2.11
Total Workers	121,564
Workers per Household	1.08
Owner Occupied	40.2%
Renter Occupied	59.8%

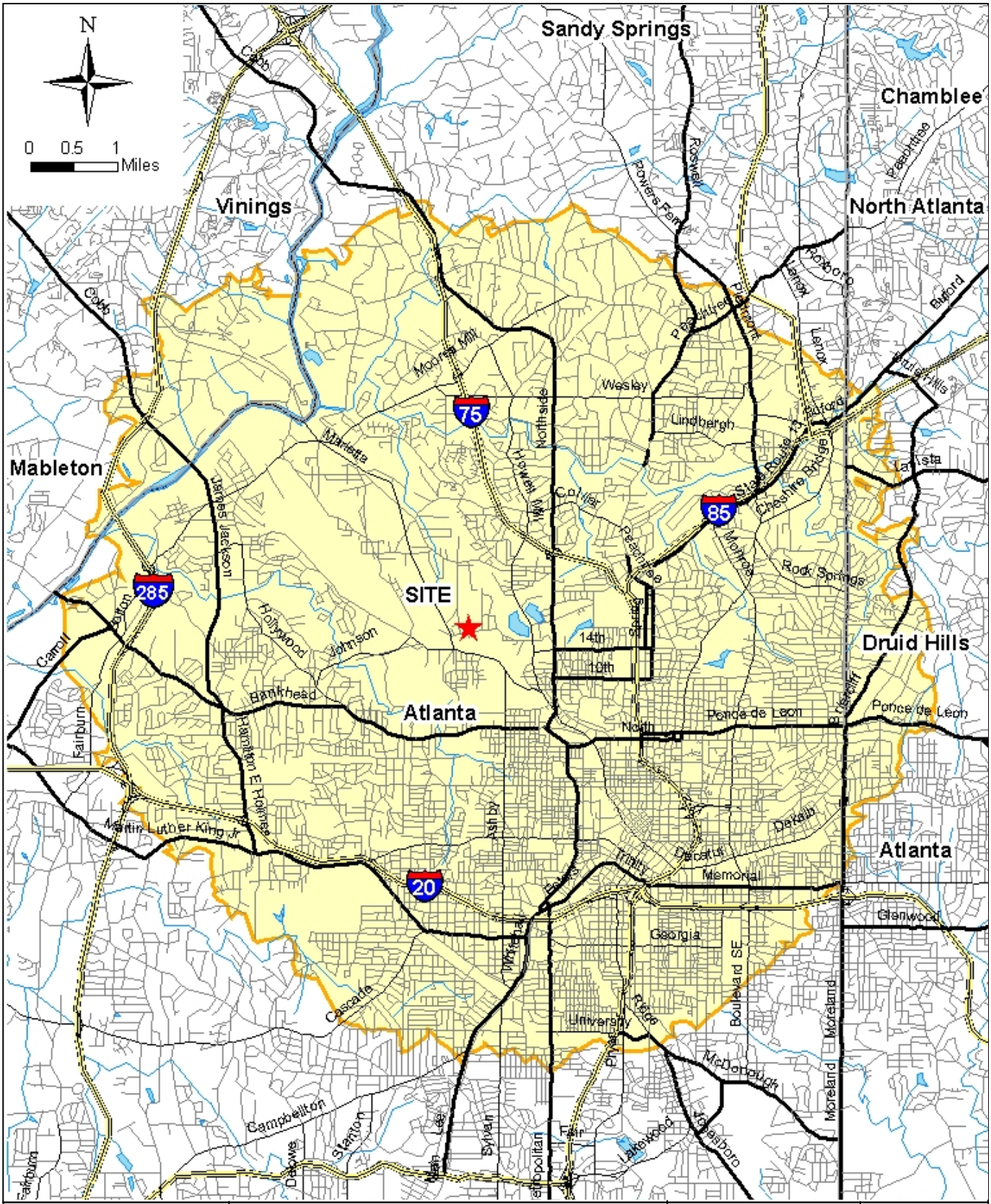
As can be seen from the table above, the total population within the Area of Influence is 238,008, residing within 112,642 households (an average of 2.11 people per household). The AOI area totals 47,070 acres.

Using the above calculated average of 2.11 persons per household, it can be anticipated that the proposed DRI will house approximately 718 people (340 proposed dwelling units multiplied by 2.11). Based on information obtained from the Census tracts, it is estimated that approximately 367 of these expected 718 residents would be workers. The remainder of this section will demonstrate the availability of jobs for these expected workers within the development at or above the necessary income level to afford housing within the DRI.

The Atlanta Journal-Constitution website was researched to find current listings of condominiums/townhouses for sale and apartments for rent in the vicinity of the proposed development (30318 Zip Code). At the time of this report, approximately 87 apartments/homes were available for rent, ranging in price from $375 to $2,800 (monthly rental).

12.3 Development Housing Analysis

Approximately four different price ranges of apartments will be available for rent within the proposed development. **Table 9** displays the number of units available for rent, the average rental price, and the number of workers expected to reside in homes at each price range.



Kimley-Horn and Associates, Inc.	**Ellsworth Perennial DRI Transportation Analysis**	**AOI Location**	**Figure 10**

Table 9 Estimated Workers per Household (Rental)			
	Number of Units	**Average Cost/Month**	**Number of Workers**
Studio	33 units for rent	$750	36
1 BR	145 units for rent	$950	156
2 BR	144 units for rent	$1,200	155
3 BR	18 units for rent	$1,500	19
	340 total units	**-**	**366 total workers**

In order to determine the number of jobs available within the AOI that would provide adequate income, information about the types of jobs within the AOI and the average salaries for these positions was collected first. Information about the types of jobs available within the AOI was obtained from Claritas, a data solutions company. A map with the boundary of the AOI was sent to Claritas, and a report containing the types of employment opportunities and number of each type of job was compiled. The Claritas report is included in the Appendix of this report. Next, the Georgia Department of Labor website was researched to obtain average salary information for the positions available within the AOI. Average salary information for jobs in Fulton, Cobb, and DeKalb Counties was matched to the jobs existing within the AOI. This information (also available in the Appendix), along with the information provided by Claritas, is included in **Table 10**, on the following page.

Table 10
Area of Influence
Jobs and Average Salaries

Industry / Business Type	# Businesses	# Employees	Average Salary
Retail Trade	3,790	49,242	$28,739
Building Materials and Garden Supply	129	3,426	-
General Merchandise Stores	63	1,476	-
Food Stores	291	3,939	-
Auto Dealers and Gas Stations	194	1,717	-
Apparel and Accessory Stores	445	2,569	-
Home Furniture, Furnishings, and Equipment	469	4,311	-
Eating and Drinking Places	1,202	22,784	-
Miscellaneous Retail Stores	996	9,021	-
Finance	1,923	24,413	$61,654
Banks, Savings and Lending Institutions	395	7,198	-
Securities and Commodity Brokers	244	4,225	-
Insurance Carriers and Agencies	195	2,690	-
Real Estate	1,089	10,300	-
Trusts, Holdings, and Other Investments	68	1,094	-
Services	9,169	138,147	-
Hotels and Other Lodging	108	8,558	$18,970
Personal Services	1,656	8,334	-
Business Services	2,707	39,600	$72,252
Motion Picture and Amusement	459	7,137	$45,602
Health Services	1,138	26,890	$44,913
Legal Services	1,256	13,128	$72,252
Education Services	259	17,280	$36,252
Social Services	464	17,280	$44,913
Miscellaneous, Membership Organizations and Nonclassified	1,122	9,255	-
Agriculture	242	2,321	$1,945
Mining	11	79	$4,386
Construction	998	9,493	$49,301
Manufacturing	773	20,946	$59,582
Transportation, Communication/Public Utilities	637	27,560	$88,644
Wholesale Trade	814	17,916	$63,596
Public Administration	1,047	55,149	$44,136
Total	34,285	566,384	-

12.4 Affordable Housing Analysis

In order to calculate the number of expected workers likely to find appropriate employment within the AOI, it was necessary to first estimate the yearly cost of each tier. It was assumed that no more than one-third of an individual's income would go to housing costs. Monthly rentals were multiplied by 12 to determine the yearly housing cost. Because there is an average of 1.08 workers expected per household, the required income for each range was divided by 1.08 to determine the average salary each worker within the development would be expected to earn in order to provide their "fair share" of the housing costs. This methodology assumes an equal burden on all workers within the development, and is considered to be a conservative approach since it eliminates the lower paying positions within the AOI from consideration in the analysis. **Table 11** displays the number of workers expected in each price range, as well as the number of jobs available at the necessary average income level to afford housing within that price range. As can be seen in the table, there are more than enough positions available within the AOI for expected workers within the proposed development to find employment at the required minimum income level for both levels of pricing within the development, thus satisfying the GRTA requirement of 25%.

Table 11
Expected Workers

	Average Monthly Price	Necessary Income per Expected Worker (Yearly)	Expected Workers per Price Range	Jobs at or above Necessary Income
Studio	33 units for rent	$25,000	36	326,034
1 BR	145 units for rent	$31,667	156	276,792
2 BR	144 units for rent	$40,000	155	259,512
3 BR	18 units for rent	$50,000	19	143,563
Percent of expected workers likely to find necessary employment within the AOI				**100%**

13.0 ARC'S AIR QUALITY BENCHMARK

The development is a mixed-use development, containing 340 residential units and 16,304 square feet of retail space on approximately 5.765 acres. Because residential is the dominant use and the number of units per acre is greater than 15 (59), the development meets the ARC criteria for a 6% reduction.

The MARTA Bus Route #1 (Coronet Way) travels along Huff Road and Ellsworth Industrial Boulevard in front of the site. This transit access allows for a 3% reduction.

Additionally, the proposed development will connect with the existing sidewalks along Huff Road. Pedestrians will also be able to access other uses within the proposed development. The pedestrian network within and adjoining the site meets the ARC criteria for a 4% reduction.

The proposed development is very close to meeting the ARC criteria of 15%, with a total 13% VMT reduction. These reductions are summarized in **Table 12**.

Table 12
ARC VMT Reductions

Mixed-Use Projects where Residential is the dominant use	
Greater than 15 dwelling units	-6%
Project is located within ¼ mile of a bus stop	-3%
Bike/ped networks in development that meet one density 'target' and connect to adjoining uses	-4%
Total Reductions	**13%**