Transportation Analysis

Alexan CityScapes DRI #1318 City of Atlanta, Georgia

Prepared for: Trammell Crow Residential

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EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts associated with the proposed Alexan CityScapes project, a proposed approximate 9.5-acre residential development located west of Jackson Street and north of Irwin Street in the City of Atlanta, Georgia. This report is being prepared as part of a submittal requesting an open space variance from the City of Atlanta, Georgia. Because the project will contain over 400 residential units, 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. This document is being submitted under GRTA's non-expedited review process.

The proposed development is expected to consist of approximately 600 apartment dwelling units. The development is scheduled to be completed in one phase by year 2011. The site is zoned RG-4 (General Residential), and currently consists of approximately 260 residential units in two-and three-story buildings with surface parking on three parcels. The redevelopment plan calls for all of the existing structures and surface parking to be eliminated before construction of the new development begins.

The results of the detailed intersection analysis for the 2011 No-Build Conditions (includes 3% per year background traffic growth, but excludes trips generated by the Alexan CityScapes DRI project) and 2011 Build Conditions (includes trips generated by the Alexan CityScapes DRI project) identify suggested improvements that will be necessary in order to maintain the Level of Service standard within the study network. These improvements are listed below.

2011 No-Build recommended improvements (includes background traffic growth of 3% per year but does not include the Alexan CityScapes DRI project traffic):

Freedom Parkway @ Boulevard (Intersection #6)

- Two improvement options are suggested at this intersection:
 - <u>OPTION A</u> Install a third westbound through lane along Freedom Parkway to create two through lanes and a shared through/right-turn lane; install a second southbound right-turn lane to create dual southbound right-turn lanes and modify the signal timing for this movement to only allow protected-overlap phasing. Modify offsets and green timing for this intersection and for the intersection of JW Dobbs Avenue @ Boulevard, which is included in the coordinated system.
 - <u>OPTION B</u> Install a third westbound through lane along Freedom Parkway to create two through lanes and a shared through/right-turn lane; install a fourth westbound lane on Freedom Parkway west of Boulevard and modify the southbound right-turn movement to be free-flow with its own lane. Modify offsets and green timing for this intersection and for the intersection of JW Dobbs Avenue @ Boulevard, which is included in the coordinated system.

2011 Build site driveway recommendations/configuration:

JW Dobbs Avenue/Site Driveway #1 @ Jackson Street (Intersection #4)

 Construct one eastbound approach at the existing signalized intersection with the proposed realignment of JW Dobbs Avenue (Site Driveway #1) west of the intersection.

Irwin Street @ Site Driveway #2 (Intersection #7)

• Provide two southbound egress lanes in the site driveway for separate right- and left-turn movements.

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analysis of the anticipated traffic impacts associated with the proposed Alexan CityScapes project, a proposed approximate 9.5-acre residential development located west of Jackson Street and north of Irwin Street in the City of Atlanta, Georgia. This report is being prepared as part of a submittal requesting an open space variance from the City of Atlanta, Georgia. Because the project will contain over 400 residential units, 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. This document is being submitted under GRTA's non-expedited review process.

The proposed development is expected to consist of approximately 600 apartment dwelling units. The development is scheduled to be completed in one phase by year 2011. The site is zoned RG-4 (General Residential), and currently consists of approximately 260 residential units in two-and three-story buildings with surface parking on three parcels. The redevelopment plan calls for all of the existing structures and surface parking to be eliminated before construction of the new development begins.

A summary of the proposed land-uses and densities is provided below in Table 1.

Tabl	le 1
Alexan CityS	Scapes DRI
Proposed L	Land Uses
Apartment	600 dwelling units

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

1.2 Site Plan Review

The development site plan consists of two four-story buildings each with an integrated parking deck. The site is generally bounded by Irwin Street to the south, Jackson Street to the east, Freedom Parkway to the north, and Austin T. Walden Middle School to the west. The proposed site driveway locations are provided in *Section 1.3 Site Access*. Parking is proposed within the two parking garages and along interior roadways within the site.

Additionally, a parcel of City of Atlanta right-of-way exists at the John Wesley (JW) Dobbs Avenue @ Jackson Street intersection. The abandonment of this parcel is currently being considered by the City of Atlanta.

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 DRI Review Package.

1.3 Site Access

Access to the existing land uses is currently provided by one signalized access point intersecting with Jackson Street at its signalized intersection with JW Dobbs Avenue, one access point along Irwin Street approximately 175 feet west of Jackson Street (signalized), and one access point on Irwin Street approximately 60 feet east of Hilliard Street. The proposed development will eliminate the eastern driveway along Irwin Street, reconstruct the western driveway along Irwin Street and maintain the curb cut location, and straighten out the access point along Jackson Street at JW Dobbs Avenue to intersect with Jackson Street at an approximate 90-degree angle. The two access points will provide access to all uses within the site. In addition, the site plan proposes to connect the two access points within the site, which would create a right-angle connection on-site between Jackson Street at JW Dobbs Avenue and Irwin Street near Hilliard Street.



Kimley-Horn and Associates, Inc. Alexan CityScapes DRI Transportation Analysis	Site Location Map	Figure 1
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1.4 Bicycle and Pedestrian Facilities

Pedestrian facilities (sidewalks) currently exist along Irwin Street and Jackson Street and along most area roadways. The proposed development will connect to the existing sidewalks. In addition, the beginning of the Stone Mountain Trail of the PATH (a multi-modal trail restricting motorized vehicles) is currently located across Jackson Street to the east of the proposed development (just north of Cain Street), and continues east out of the city to Stone Mountain Park (approximately 17 miles). The PATH allows pedestrians and bicyclists and has specific width and thickness requirements to support these alternative modes of transportation. Designated bicycle lanes also currently exist along Jackson Street and Edgewood Avenue.

1.5 Transit Facilities

The proposed development is located near several MARTA bus routes: Route 3 – Auburn/MLK (approximate 35minute headways along Irwin Street east of Boulevard), Route 17 – Inman Park (approximate 35-minute headways along Edgewood Avenue) and Route 99 – King Memorial (60-minute headways along JW Dobbs Avenue and Jackson Street). See the attached route maps and descriptions for detailed MARTA bus route information. The King Memorial MARTA Rail Station is located approximately one-half mile from the site.

2.0 TRAFFIC ANALYSIS 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 3% per year for four years along all adjacent roadways was agreed upon during the pre-application meeting with GDOT and City of Atlanta staff.

2.2 Traffic Data Collection

Year 2007 weekday peak hour turning movement counts were conducted on Tuesday, February 27, Wednesday, February 28, and Thursday, March 1, 2007, at six signalized intersections during the AM and PM peak periods.

The morning and afternoon peak hours varied between the six (6) study intersections and are listed below:

- o John Wesley Dobbs Avenue @ I-75/85 NB Ramps 2/27/07 (AM Peak 8:00-9:00, PM Peak 5:00-6:00)
- o Irwin Street/JW Dobbs Avenue @ Hilliard Street 2/28/07 (AM Peak 8:00-9:00, PM Peak 5:00-6:00)
- Irwin Street @ Jackson Street 2/27/07 (AM Peak 7:45-8:45, PM Peak 5:00-6:00)
 John Wesley Dobbs Avenue @ Jackson Street 2/28/07 (AM Peak 7:45-8:45, PM Peak 4:45-5:45)
- John Wesley Dobbs Avenue @ Boulevard 2/28/07
 (AM Peak 8:00-9:00, PM Peak 5:00-6:00)
- Freedom Parkway @ Boulevard 3/1/07 (AM Peak 7:30-8:30, PM Peak 4:45-5:45)

These study intersections are listed in Section 3.4 Study Network Determination.

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 development is expected to consist of approximately 600 apartment dwelling units,.

Traffic projections for these land uses was calculated using equations contained in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Seventh Edition, 2003.* Average rates were used only when equations were not provided. Gross trips generated are displayed below in **Table 2**.

Table 2 Alexan CityScapes DRI Gross Trip Generation								
		Daily Traffic		AM Peak Hour		PM Peak Hour		
Land Use	ITE Code	Enter	Exit	Enter	Exit	Enter	Exit	
	Build-Out (Year 2011)							
600 Apartment Dwelling Units	220	1,878	1,878	60	238	226	122	
Total		1,878	1,878	60	238	226	122	

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 (aerial mapping), engineering judgment, and methodology discussions with GRTA, ARC, GDOT, and City of Atlanta staff.

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 GRTA's 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, typically LOS D) be considered for

analysis. The study area was agreed upon during methodology discussions with GRTA, ARC, GDOT, and City of Atlanta staff, and includes the following intersections:

0	John Wesley Dobbs Avenue @ I-75/85 NB Ramps	(Signalized)
0	Irwin Street/JW Dobbs Avenue @ Hilliard Street	(Signalized)
0	Irwin Street @ Jackson Street	(Signalized)
0	John Wesley Dobbs Avenue (Site Driveway #1) @ Jackson Street	(Signalized)
0	John Wesley Dobbs Avenue @ Boulevard	(Signalized)
0	Freedom Parkway @ Boulevard	(Signalized)

Each of the above listed intersections was analyzed for the Existing 2007 Conditions, the 2011 No-Build Conditions, and the 2011 Build Conditions. The 2011 No-Build Conditions represents the existing traffic volumes grown at 3% per year for four years. Additionally, it should be noted that the 2011 No-Build Conditions were not reduced based on the existing uses on-site that will be demolished. The 2011 Build Conditions adds the projected trips associated with the Alexan CityScapes DRI development to the 2011 No-Build Conditions.

The additional proposed site access point listed below was only analyzed for the 2011 Build Conditions:

• Site Driveway #2 @ Irwin Street

3.5 Existing Facilities

Irwin Street (also known as John Wesley Dobbs Avenue or JW Dobbs Avenue near I-75/85)

Irwin Street is a two-way, four-lane undivided roadway oriented in the east-west direction in the vicinity of the proposed development and extends from Lake Avenue to west of Hilliard Street, where it changes to John Wesley Dobbs Avenue and continues into Downtown Atlanta. On-street parking is allowed in the vicinity of the development, which can restrict Irwin Street to one through travel lane in each direction. Irwin Street is classified as an Urban Collector Street with a posted speed limit in the vicinity of the proposed development of 30 MPH. No GDOT historical count data is available along Irwin Street in the vicinity of the project.

Jackson Street

Jackson Street is a two-way, two-lane undivided roadway oriented in the north-south direction in the vicinity of the proposed development and extends from Decatur Street to Highland Avenue, where it changes to Parkway Drive and Charles Allen Drive and ends at 10th Street. Jackson Street is classified as an Urban Collector Street with a posted speed limit in the vicinity of the proposed development of 30 MPH. According to the GDOT historical count data, the 2004 (most recent available) daily traffic volume along Jackson Street was 5,393 vehicles per day south of Irwin Street.

John Wesley Dobbs Avenue (between Jackson Street and Boulevard)

John Wesley (JW) Dobbs Avenue is a two-way, four-lane undivided roadway oriented in the east-west direction just east of the proposed development and extends from Jackson Street to east of Sampson Street, with a jog at Randolph Street. On-street parking is allowed east of Boulevard, which restricts JW Dobbs Avenue to one through travel lane in each direction. JW Dobbs Avenue in this location is classified as an Urban Local Street with a no posted speed limit in the vicinity of the proposed development. No GDOT historical count data is available along JW Dobbs Avenue in the vicinity of the project.

Boulevard

Boulevard is a two-way, four-lane undivided roadway oriented in the north-south direction in the vicinity of the proposed development and extends from McDonough Boulevard to Ponce de Leon Avenue (US 29/278), where it changes to Monroe Drive and ends at Piedmont Circle near Buford Highway. Boulevard is classified as an Urban Minor Arterial with a posted speed limit of 35 MPH in the vicinity of the proposed development. No GDOT historical count data is available along Boulevard in the vicinity of the project.

Freedom Parkway (State Route 10)

Freedom Parkway is a two-way, four-lane divided roadway oriented in the east-west direction in the vicinity of the proposed development and extends from Ponce de Leon Avenue (US 29/278) to Interstate 75/85, where it changes to Andrew Young International Boulevard and continues into Downtown Atlanta. Freedom Parkway is classified as an Urban Principal Arterial with a posted speed limit of 35 MPH in the vicinity of the proposed development. According to the GDOT historical count data, the 2005 (most recent available) daily traffic volume along Freedom Parkway was 16,600 vehicles per day just west of the Jackson Street overpass.

Table 3 Alexan CityScapes DRI Roadway Classification									
Roadway	Road Type	Number of Lanes	Posted Speed Limit (MPH)	GDOT Functional Classification	Annual Average Daily Traffic (Veh/Day)				
Irwin Street	Two-Way	4	30 MPH	Urban Collector Street	5,770 (2007)*				
Jackson Street	Two-Way	2	30 MPH	Urban Collector Street	5,393 (2004)				
John Wesley Dobbs Avenue	Two-Way	4	N/A	Urban Local Street	1,600 (2007)*				
Boulevard	Two-Way	4	35 MPH	Urban Minor Arterial	17,830 (2007)*				
Freedom Parkway (SR 10)	Two-Way	4	35 MPH	Urban Principal Arterial	16,600 (2005)				

Roadway classification descriptions are provided in Table 3.

* No GDOT count available. This represents estimated AADT based on peak hour traffic counts.

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.

Alternative transportation mode (walking, bicycle, and transit) reductions were applied at 5% for the proposed development, as agreed upon during methodology discussions with GRTA, ARC, GDOT, and City of Atlanta staff.

The total (net) trips generated and analyzed in this report are listed in Table 4.

Table 4 Alexan CityScapes DRI Net Trip Generation						
Daily Traffic AM Peak Hour PM Peak				ak Hour		
	Enter	Exit	Enter	Exit	Enter	Exit
Gross Project Trips	1,878	1,878	60	238	226	122
Alternative Mode Reduction	-94	-94	-3	-12	-11	-6
Net New Trips	1,784	1,784	57	226	215	116

5.0 TRIP DISTRIBUTION AND ASSIGNMENT

New trips were distributed onto the roadway network using the percentages agreed to during methodology discussions with GRTA, ARC, GDOT, and City of Atlanta staff. **Figure 4** displays the expected residential trip percentages for the development throughout the roadway network. These percentages were applied to the new trips generated by the development (see Table 4, above), and the volumes were assigned to the roadway network. The expected peak hour turning movements (project trips) generated by the proposed development are shown in **Figure 5**.

6.0 TRAFFIC ANALYSIS

6.1 Existing Traffic

The observed existing peak hour traffic volumes (as well as pedestrian volumes and heavy vehicle factors) were input in *Synchro 6.0*, along with the existing traffic signal cycle lengths, splits, and offsets, and an Existing 2007 Conditions analysis was performed. The results are displayed below in **Table 5**.

The existing peak hour traffic volumes are shown in Figure 6.

Table 5 Alexan CityScapes DRI Existing 2007 Intersection Levels of Service (delay in seconds)								
	Intersection Control LOS Standard AM Peak Hour PM Peak Hour							
1	Irwin Street @ NB I-75/85 Ramps	Signalized	D	B (16.4)	B (18.3)			
2	Irwin Street @ Hilliard Street	Signalized	D	B (17.2)	A (6.6)			
3	Irwin Street @ Jackson Street	Signalized	D	C (21.0)	B (16.8)			
4	JW Dobbs Avenue @ Jackson Street	Signalized	D	A (3.3)	A (3.9)			
5	JW Dobbs Avenue @ Boulevard	Signalized	D	A (5.7)	B (10.1)			
6	Freedom Parkway @ Boulevard	Signalized	D	F (163.4)	D (50.5)			

One intersection currently operates below the acceptable Level of Service standard (LOS D) during the AM peak hour. The signalized intersection of Freedom Parkway @ Boulevard currently operates at LOS F during the AM peak hour. This intersection's No-Build and Build AM peak pour LOS standard is therefore lowered to LOS E







per GRTA guidelines in the Letter of Understanding (LOU). It is important to note that the signal timings obtained from the City of Atlanta were different than field-observed timings. In addition, the delay reported by Synchro for the field-observed timings is lower than the delay reported using City timings. Therefore, the green time assigned to each phase was adjusted to reflect actual timings during both AM and PM peak hours.

6.2 2011 No-Build Traffic

To account for growth in the vicinity of the proposed development, the existing traffic volumes were grown at 3.0% per year, for four years, along all roadway links within the study network. Additionally, it should be noted that the volumes associated with the existing land uses were not subtracted, thereby resulting in a slightly conservative (higher) analysis).

These volumes and the existing signal cycle lengths, splits, and offsets were input into *Synchro 6.0* and an analysis of the projected No-Build Conditions was performed. The results are displayed below in **Table 6**.

	Table 6 Alexan CityScapes DRI Projected 2011 No-Build Intersection Levels of Service (delay in seconds)								
	Intersection Control LOS Standard AM Peak Hour PM Peak Hour								
1	Irwin Street @ NB I-75/85 Ramps	Signalized	D	B (18.3)	B (19.1)				
2	Irwin Street @ Hilliard Street	Signalized	D	C (20.5)	A (7.0)				
3	Irwin Street @ Jackson Street	Signalized	D	C (20.5)	B (17.7)				
4	JW Dobbs Avenue @ Jackson Street	Signalized	D	A (3.8)	A (4.6)				
5	JW Dobbs Avenue @ Boulevard	Signalized	D	A (7.2)	B (10.9)				
6	Freedom Parkway @ Boulevard	Signalized	E-AM/D-PM	F (898.9)	F (80.5)				

Maintaining existing signal timings and roadway geometry, the intersection from the existing analysis IS projected to operate below the acceptable Level of Service standard for the year 2011 No-Build Conditions during both AM and PM peak hours.

The intersection of Freedom Parkway @ Boulevard is projected to operate at an LOS F during the AM and PM peak hours. Two options for improvements at this intersection have been developed for the purpose of meeting the LOS E standard during the AM peak hour and LOS D standard during the PM peak hour. Further data collection and studies (such as weave and queue analyses) should be performed at this intersection to take into account all factors in the area before deciding on one improvement option. The two options are summarized below and are shown graphically in **Figures 7A and 7B**:

- <u>OPTION A</u> Install a third westbound through lane to create two through lanes and a shared through/right-turn lane; install a second southbound right-turn lane to create dual southbound right-turn lanes and modify the signal timing for this movement to only allow protected-overlap phasing. Modify offsets and green timing for this intersection and for the intersection of JW Dobbs Avenue @ Boulevard, which is included in the coordinated system.
- <u>OPTION B</u> Install a third westbound through lane to create two through lanes and a shared through/right-turn lane; install a fourth westbound lane on Freedom Parkway west of Boulevard and modify the southbound right-turn movement to be free-flow with its own lane. Modify offsets and green timing for this intersection and for the intersection of JW Dobbs Avenue @ Boulevard, which is included in the coordinated system.

The intersection of JW Dobbs Avenue @ Jackson Street is projected to operate at an acceptable level of service; however, the number of approach lanes at the east approach does not match the number of receiving lanes to the





west of the intersection. Therefore, it is recommended to change the pavement marking at this approach to one shared left-through lane and an exclusive right-turn lane.

Incorporating these improvements, Table 7 shows the level of service and delay for each intersection.

Table 7 Alexan CityScapes DRI Projected 2011 No-Build <u>IMPROVED</u> Intersection Levels of Service (delay in seconds)						
	Intersection Control LOS Standard AM Peak Hour PM Peak Hour					
1	Irwin Street @ NB I-75/85 Ramps	Signalized	D	B (18.3)	B (19.1)	
2	Irwin Street @ Hilliard Street	Signalized	D	C (20.4)	A (7.0)	
3	Irwin Street @ Jackson Street	Signalized	D	C (20.6)	B (18.0)	
4	JW Dobbs Avenue @ Jackson Street	Signalized	D	A (3.8)	A (4.7)	
5	JW Dobbs Avenue @ Boulevard	Signalized	D			
3	Same for Both Options:			A (6.7)	B (10.7)	
	Freedom Parkway @ Boulevard	Signalized	E-AM/D-PM			
6	OPTION A:			E (69.7)	D (39.1)	
	OPTION B:			E (64.5)	D (37.3)	

The projected intersection laneage, proposed improvements and traffic volumes for the year 2011 No-Build Conditions are shown in **Figure 7A** (Option A) and **Figure 7B** (Option B).

6.3 2011 Build Traffic

The traffic associated with the proposed development was added to the 2011 No-Build volumes. Existing signal timings and roadway geometry were maintained at those intersections meeting the LOS standard with the No-Build Conditions, and the two improvement options from the No-Build analysis at Freedom Parkway @ Boulevard were incorporated in this analysis. The Build volumes were then input into *Synchro 6.0*. The results of the analysis are displayed in **Table 8**. An analysis of the proposed site driveway at the intersection of JW Dobbs Avenue @ Jackson Street is included in that intersection, and an analysis of the proposed unsignalized driveway along Irwin Street was also performed. The improvement recommended in the No-Build analysis for the east approach of JW Dobbs Avenue @ Jackson Street has been incorporated into this analysis.



Table 8 Alexan CityScapes DRI Projected 2011 Build Intersection Levels of Service (delay in seconds)					
Intersection Control LOS AM Peak Hour PM Peak Hou					PM Peak Hour
1	Irwin Street @ NB I-75/85 Ramps	Signalized	D	B (19.8)	B (18.8)
2	Irwin Street @ Hilliard Street	Signalized	D	C (21.7)	A (6.8)
3	Irwin Street @ Jackson Street	Signalized	D	C (20.6)	C (21.4)
4	JW Dobbs Ave/Driveway #1 @ Jackson Street	Signalized	D	B (17.0)	C (20.7)
5	JW Dobbs Avenue @ Boulevard	Signalized	D		
5	Same for Both Options:			B (15.7)	B (13.6)
	Freedom Parkway @ Boulevard*	Signalized	E-AM/D-PM		
6	OPTION A:			E (76.8)	D (40.6)
	OPTION B:			E (71.6)	D (38.7)
7	Irwin Street @ Site Driveway #2	Side-Street Stop Control	D	SB - D	SB - B

*Includes the No-Build Improvements.

Including the improvement options from the No-Build Conditions analysis and the recommendations for the site driveways listed below, all intersections and the site driveways are projected to operate at or above the acceptable Level of Service standard during both the AM and PM Peak Hours.

The proposed development will eliminate the eastern driveway along Irwin Street, reconstruct the western driveway along Irwin Street and maintain the curb cut location, and straighten out the access point along Jackson Street at JW Dobbs Avenue to intersect with Jackson Street at an approximate 90-degree angle. In addition, the site plan proposes to connect the two access points within the site, which would create a right-angle connection on-site between Jackson Street at JW Dobbs Avenue and Irwin Street near Hilliard Street.

The projected intersection laneage, proposed improvements and traffic volumes for the year 2011 Build Conditions are shown in **Figure 8A** (Option A) and **Figure 8B** (Option B). Recommended driveway configurations are also shown in **Figures 8A and 8B** and are listed below.

JW Dobbs Avenue/Site Driveway #1 @ Jackson Street (Existing Signal)

• Construct one eastbound approach at the existing signalized intersection with the proposed realignment of JW Dobbs Avenue (Site Driveway #1) west of the intersection.

Irwin Street @ Site Driveway #2

• Provide two southbound egress lanes in the site driveway for separate right- and left-turn movements.

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. Research concluded that several projects are currently programmed in the area surrounding the proposed development. Area projects are displayed in **Table 9** and shown in **Figure 9**. Detailed information on the projects is also included in the Appendix.







Table 9 Alexan CityScapes DRI Programmed Area Projects		
GDOT #: 0001895 ARC #: AT-AR-BP302	Highland Avenue from University Avenue to Freedom Parkway; pedestrian and bicycle improvements – 2007	
GDOT #: 0004399 ARC #: AT-212	Linden/Ponce de Leon/Spring/Piedmont; intersection improvements - CST 2007	
GDOT #: 0006259 ARC #: AT-227B	Piedmont Avenue from Georgia State MARTA station to J.W. Dobbs Avenue; pedestrian improvements – 2008	
GDOT #: N/A ARC #: AT-AR-213	I-75/85 at Edgewood Avenue; capacity improvements at interchange – 2025	

8.0 INGRESS/EGRESS ANALYSIS

Access is proposed at two driveways; one full access driveway at the signalized intersection of JW Dobbs Avenue and Jackson Street (Site Driveway #1) to form the west leg of that signalized intersection, and one full access driveway along Irwin Street (Site Driveway #2) located 60 feet east of Hilliard Street. The existing curb cut located 60 feet east of Hilliard Street along Irwin Street is being maintained with the proposed Site Driveway #2. It is proposed that all vehicles will have access to both driveways. Below is a description of recommended driveway geometries.

Site Driveway # 1 – Jackson Street (Intersection #4)

• The proposed full access driveway should consist of one westbound ingress lane and one eastbound egress lane.

Site Driveway # 2 – Irwin Street (Intersection #7)

• The proposed full access driveway should consist of one northbound ingress lane and two southbound egress lanes. The driveway should operate under side-street stop-controlled conditions.

9.0 INTERNAL CIRCULATION ANALYSIS

The proposed site plan consists of two vehicular driveways. Site Driveway #1 is located along Jackson Street at its intersection with JW Dobbs Avenue to form the west leg of this signalized intersection. Site Driveway #2 is located on Irwin Street at the western boundary of the site and is anticipated to operate as a full-access driveway with side-street stop controlled operation. The two driveways will intersect internally to provide vehicular connections within the site. Internal sidewalks are also proposed to provide pedestrian circulation within the site.

10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The City of Atlanta 2004-2019 Future Land Use Plan designates the project site as high density residential, which is consistent with the Comprehensive Plan.

11.0 NON-EXPEDITED CRITERIA

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

The proposed development is located within a quarter of a mile of MARTA Bus Route 3 on Irwin Street, Route 17 on Edgewood Avenue, and Route 99 on Boulevard. In addition, the King Memorial MARTA Rail Station is located approximately one-half mile from the proposed development. See the attached route maps for detailed route descriptions. Sidewalks are proposed within the development and along Jackson Street and Irwin Street in the vicinity of the site.

Those traveling by vehicle have excellent access to I-75/85 and Downtown Atlanta from Irwin Street (also known as JW Dobbs Avenue west of the proposed development). Jackson Street and Boulevard provide access to the Midtown area north of the site, Boulevard provides access south to I-20 and Grant Park, and Edgewood Avenue and Freedom Parkway provide access east to Inman Park and the Highlands and west into Downtown Atlanta.

11.2 Vehicle Miles Traveled

Table 10 displays the reduction in traffic generation due to alternative mode reductions. Total trip reductions equal 5% of gross trips.

Table 10 Trip Reductions	
	Build-out Total
Daily Gross Trip Generation	3,756
(-) Alternative Mode Reductions	- 188
Net Trips	3,568

11.3 Relationship Between Location of Proposed DRI and Regional Mobility

The proposed development is located in East Atlanta, just southeast of the Freedom Parkway @ I-75/85 interchange. The site is also located directly east of the interchange of I-75/85 and Irwin Street/JW Dobbs Avenue. Many of the residents of this development will likely work in town, so vehicular commuting trips have the potential to be short (or even a reverse commute).

11.4 Relationship Between Proposed DRI and Existing or Planned Transit Facilities

The proposed development is located along MARTA Bus Route 99 on Jackson Street and near two other MARTA Bus Routes (3 and 17), and approximately half a mile from the King Memorial MARTA Rail Station. The PATH is located across Jackson Street from the site, just north of Cain Boulevard. Current pedestrian crosswalks exist at the south and east approaches to the unsignalized intersection of Cain Street and Jackson Street, and the development is proposing to construct sidewalks along Jackson Street to connect to these crosswalks and therefore connect to the PATH. Discussions with the PATH Foundation resulted in future plans to extend the PATH from its termination point at Jackson Street over Freedom Parkway, then turning west on Highland Avenue to Piedmont Avenue. No other existing or planned transit facilities are within the area of the proposed site.

11.5 Transportation Management Association Designation

The proposed development is located within the Central Atlanta Progress/Atlanta Downtown Improvement District Transportation Management Association (TMA) jurisdiction. The downtown TMA focuses on providing commuter incentives, public education, technical services, and other benefits for residents and commuters.

11.6 Offsite Trip Reduction and Trip Reduction Techniques

An alternative mode reduction of 2% was taken as agreed upon by GRTA, ARC and the City of Atlanta based on the current MARTA presence in the vicinity of the development. No other reductions were taken for this project.

11.7 Balance of Land Uses – Jobs/Housing Balance

Please refer to the Area of Influence Analysis, located in Section 13.0 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 adequate to serve the needs of the development upon build-out (2011).

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 (Irwin Street and Jackson Street). 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 and DeKalb Counties) can be seen in **Figure 10**. Information obtained from the census tracts can be seen in **Table 11**.



Table 11 Area of Influence Census Tract Information		
Total Households	139,113	
Population in Households	311,487	
Average household size	2.24	
Total Workers	153,047	
Workers per Household	1.10	
Owner Occupied	42.5%	
Renter Occupied	57.5%	

As can be seen from the table, the total population within the Area of Influence is 311,487, residing within 139,113 households (an average of 2.24 people per household). The AOI area totals 54,746 acres.

Using the above calculated average of 2.24 persons per household, it can be anticipated that the proposed DRI will house approximately 1,343 people (600 proposed dwelling units multiplied by 2.24). Based on information obtained from the Census tracts, it is estimated that approximately 660 of these expected 1,343 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 (30312 Zip Code). At the time of this report, approximately 39 apartments/homes were available for rent, ranging in price from \$400 to \$2,200 (monthly rental).

12.3 Development Housing Analysis

Approximately six different price ranges of apartments will be available for rent within the proposed development. Table 12 below 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.

Table 12 Estimated Workers per Household (Rental)				
	Number of Units	Average Cost/Month	Number of Workers	
S-1	91 units for rent	\$1,020	100	
A-1	120 units for rent	\$1,150	132	
A-2	158 units for rent	\$1,250	174	
B-1	50 units for rent	\$1,425	55	
B-2	130 units for rent	\$1,525	143	
B-3	51 units for rent	\$1,650	56	
	600 total units	-	660 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 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 13**.

Table 13 Area of Influence Jobs and Average Salaries					
Industry / Business Type # Businesses # Employees Average Salary					
Retail Trade	4,054	49,312	\$27,939		
Building Materials and Garden Supply	119	3,277	-		
General Merchandise Stores	69	1,617	-		
Food Stores	350	5,180	-		
Auto Dealers and Gas Stations	246	1,646	-		
Apparel and Accessory Stores	442	2,499	-		
Home Furniture, Furnishings, and Equipment	464	3,728	-		
Eating and Drinking Places	1,299	22,768	-		
Miscellaneous Retail Stores	1,065	8,597	-		
Finance	1,921	23,907	\$58,761		
Banks, Savings and Lending Institutions	407	7,127	-		
Securities and Commodity Brokers	212	3,873	-		
Insurance Carriers and Agencies	196	2,643	-		
Real Estate	1,038	9,170	-		
Trusts, Holdings, and Other Investments	68	1,094	-		
Services	10,080	174,983	-		
Hotels and Other Lodging	110	8,639	\$17,805		
Personal Services	1,830	8,984	-		
Business Services	2,755	38,556	\$69,492		
Motion Picture and Amusement	523	7,932	\$41,172		
Health Services	1,298	39,343	\$42,720		
Legal Services	1,349	13,257	\$69,492		
Education Services	344	35,723	\$39,454		
Social Services	560	8,630	\$42,720		
Miscellaneous, Membership	1 211	12 010			
Organizations and Nonclassified	1,311	13,919	-		
Agriculture	279	2,222	\$5,029		
Mining	8	71	\$19,073		
Construction	1088	9,457	\$47,783		
Manufacturing	763	23,129	\$56,600		
Transportation, Communication/Public Utilities	655	27,495	\$93,730		
Wholesale Trade	826	17,669	\$62,257		
Public Administration	1,250	69,734	\$44,946		
Total	20,924	397,979			

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. Monthly rentals were multiplied by 12 to determine the yearly housing cost. Because there is an average of 1.10 workers expected per household, the required income for each range was divided by 1.10 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 14** 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 14 Expected Workers				
	Average Monthly Price	Necessary Income per Expected Worker (Yearly)	Expected Workers per Price Range	Jobs at or above Necessary Income
S-1	91 units for rent	\$33,382	100	314,832
A-1	120 units for rent	\$37,636	132	314,832
A-2	158 units for rent	\$40,909	174	279,109
B-1	50 units for rent	\$46,636	55	153,470
B-2	130 units for rent	\$49,909	143	144,013
B-3	51 units for rent	\$54,000	56	144,013
Pe	Percent of expected workers likely to find necessary employment within the AOI 100%			

13.0 ARC'S AIR QUALITY BENCHMARK

The proposed development is residential, containing 600 apartment units on approximately 9.5 acres. Because residential is the only use and the dwelling unit to acre ratio is greater than 15 units per acre, the development meets the ARC criteria for a 6% reduction.

The site is located within a quarter mile of a MARTA bus stop and within a half mile of a MARTA rail station; therefore, the development meets the ARC criteria for an 8% reduction. In addition, the site is located within the downtown TMA and qualifies for a 3% reduction.

The proposed site plan shows bike/ped networks providing connections to uses within the site as well as to uses adjoining the site; therefore, the development meets the ARC criteria for a 4% reduction.

The proposed development meets the ARC criteria of 15% with a total of 21% VMT reduction. These reductions are displayed below in **Table 15**.

Table 15 ARC VMT Reductions	
Units per acre greater than 15 du/ac	-6%
Located within ¼ mile of a MARTA bus stop	-3%
Located within ¹ / ₂ mile of a MARTA rail station	-5%
Located within a transportation management association	-3%
Provides bike/ped connections within/adjoining the site	-4%
Total Reductions	21%