Transportation Analysis

Midtown Heights DRI DRI #1296 City of Atlanta, Georgia

Prepared for: Midtown Heights, LLC

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EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts associated with the proposed Midtown Heights development, a proposed approximate 3.14-acre mixed-use development located east of interstate 75/85 in Midtown Atlanta. This report is being prepared as part of a submittal requesting a Special Administrative Permit (SAP) from 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. This document is being submitted under GRTA's non-expedited review process.

The proposed development is expected to consist of approximately 300 high-rise apartment dwelling units, 555,000 square feet of office space, and 38,900 square feet of retail space (23,900 square feet specialty retail and 15,000 square feet quality restaurant). The development is scheduled to be completed in one phase by year 2010. The site is zoned SPI16SA1 and currently consists of three one-story buildings (approximately 16,100 square feet) and several surface parking lots consisting of approximately 240 parking spaces. The development plan calls for all of the existing structures and surface parking to be eliminated before construction of the development begins.

The results of the detailed intersection analysis for the 2010 No-Build Conditions (includes 2% per year background traffic growth, but excludes trips generated by the Midtown Heights development) and 2010 Build Conditions (includes trips generated by the Midtown Heights development) identify suggested improvements that will be necessary in order to maintain the Level of Service standard (LOS D) within the study network. These improvements are listed below.

2010 No-Build recommended improvements (includes background traffic growth of 2% but does not include the Midtown Heights project traffic):

All signalized intersections in the network

The Spring Street and West Peachtree Street corridors should be retimed periodically in order to account for overall shifts in traffic volumes and patterns in the area, mainly due to the ongoing build-out of the Atlantic Station development (which is currently approximately ¹/₂ built-out), located approximately ¹/₄ mile west of the proposed development.

Spring Street @ Seventeenth Street (Intersection #1)

• Restripe the eastbound approach FROM three exclusive through lanes and one exclusive rightturn lane TO two exclusive through lanes, one shared through/right-turn lane, and one exclusive right-turn lane.

Williams Street @ Sixteenth Street (Intersection #3)

 Realignment of the intersection to provide a westbound right-turn free flow movement. This is being performed as part of GDOT project # 0001298 and ARC # AT-AR-224D and is scheduled for completion before the 2010 build-out of the proposed development.

West Peachtree Street @ Sixteenth Street (Intersection #5)

 Restripe Sixteenth Street to allow for an exclusive left-turn and a shared left-turn/through lane for the eastbound approach. (The pavement width is 32 feet, and this laneage currently exists along the westbound approach of the intersection of Spring Street @ Sixteenth Street.) 2010 Build recommended improvements (adds the Midtown Heights project traffic to the 2010 No-Build traffic):

Spring Street @ Seventeenth Street (Intersection #1)

- Construct an additional westbound left-turn lane (creating dual left-turn lanes). This improvement can be constructed within the existing center island median.
- 2010 Build site driveway recommendations/configuration (adds the Midtown Heights project traffic):

Site Driveway #1 @ West Peachtree Street (Shared with Arthritis Foundation)

 Provide one westbound ingress lane and one eastbound left-turn egress lane along West Peachtree Street, side-street stop-controlled.

Site Driveway #2 @ Spring Street

• Provide one eastbound ingress lane and one westbound left-turn egress lane along Spring Street, side-street stop-controlled.

Site Driveway #3 @ Spring Street

• Provide one eastbound ingress lane and one westbound left-turn egress lane along Spring Street, side-street stop-controlled.

Site Driveway #4 @ Sixteenth Street

• Provide one southbound shared left-turn/right-turn egress lane along Sixteenth Street, side-street stop-controlled.

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analysis of the anticipated traffic impacts associated with the proposed Midtown Heights development, a proposed approximate 3.14-acre mixed-use development located east of interstate 75/85 in Midtown Atlanta. This report is being prepared as part of a submittal requesting a Special Administrative Permit (SAP) from 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. This document is being submitted under GRTA's non-expedited review process.

The proposed development is expected to consist of approximately 300 high-rise apartment dwelling units, 555,000 square feet of office space, and 38,900 square feet of retail space (23,900 square feet specialty retail and 15,000 square feet quality restaurant). The development is scheduled to be completed in one phase by year 2010. The site is zoned SPI16SA1 and currently consists of three one-story buildings (approximately 16,100 square feet) and several surface parking lots consisting of approximately 240 parking spaces. The development plan calls for all of the existing structures and surface parking to be eliminated before construction of the development begins.

Table 1 Midtown Heights DRI Proposed Land Uses					
High-Rise Apartment	300 dwelling units				
General Office	555,000 square feet				
Specialty Retail	23,900 square feet				
Quality Restaurant	15,000 square feet				

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

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 high-rise buildings. An office building with street level retail will be located along the northern edge of the property while an apartment building resting atop a parking structure and street level retail will be located along the south and west portion of the site. The site is bounded by Seventeenth Street to the north, Sixteenth Street to the south, West Peachtree Street/office, retail, and hotel parcels to the east, and Spring Street to the west. A public alley currently separates the site from the adjacent parcels to the east. The proposed development plan does not provide vehicular access to this alley. The proposed site driveway locations are provided in *Section 1.3 Site Access*. Two loading areas are proposed, one accessed via proposed site driveway #2 along Spring Street and one accessed via proposed site driveway #4 along Sixteenth Street.

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 driveway along West Peachtree Street, three driveways along Spring Street, and two driveways along Sixteenth Street. The driveways along West Peachtree Street and Spring Street currently primarily serve as access to surface parking, while the driveways along Sixteenth Street provide entry to parking for the existing retail parcels.

The proposed development will eliminate all existing driveways and reconstruct curb and gutter around the entire site (note: this does not include the adjacent office, retail, and hotel parcels to the east).

Four new site driveways are currently proposed for the development: one site driveway along West Peachtree Street, two site driveways along Spring Street, and one site driveway along Sixteenth Street (exit only). The first site driveway located along West Peachtree Street (approximately 150' south of Seventeenth Street) will operate under two-way conditions and serve as access for the office use. Additionally, this driveway will provide access to the adjacent Arthritis Foundation (eliminating the existing Arthritis Foundation's driveway). The second site driveway, located along Spring Street (approximately 175' south of Seventeenth Street), will operate under two-way conditions and will serve the office and retail uses of the development. This driveway will also serve as service for the office and retail portions of the development. The third site driveway, located along Spring Street (approximately 175' north of Sixteenth Street), will operate under two-way conditions and will serve as exclusive access to the residential portion of the development. The fourth site driveway, located along Sixteenth Street (approximately 175' east of Spring Street), will serve as an exit only for the office portion of the development. This driveway will also serve as service for the residential portion of the residential portion of the development.

The West Peachtree Street driveway is several levels higher than the Sixteenth Street driveway, which is higher than the Spring Street driveways. This is due to the difference in grade between West Peachtree Street and Spring Street.

1.4 Bicycle and Pedestrian Facilities

Pedestrian facilities (sidewalks) currently exist along Seventeenth Street, Sixteenth Street, West Peachtree Street, and Spring Street. Additionally, bicycle lanes are provided along Seventeenth Street. The proposed development will connect to the existing sidewalks as well as provide improvements to the existing sidewalks adjacent to the site.

1.5 Transit Facilities

The proposed development is located approximately 150 yards north and west of the Arts Center MARTA station at West Peachtree Street and Fifteenth Street. This station lies on the North-South MARTA rail line (10 – 20 minute headways) which intersects the East-West rail line (to the south) at the Five Points station. Five MARTA bus routes operate from this station including the following: Route 10 – Peachtree (30-minute headways), Route 23 – Lenox / Arts Center (10-minute headways), Route 27 – Monroe Drive / Lindbergh – Sundays only (27-minute headways – Saturday, 45-minute headways – Sunday), Route 36 – North Decatur (30-minute headways), and Route 98 – West End / Arts Center (39-minute headways). See the attached route maps for detailed route descriptions.

Two express bus systems utilize the Arts Center MARTA station: Cobb Community Transit (CCT) and Gwinnett County Transit (GCT). Routes 10, 10A, 10B, 10C, 102, and 481 of CCT transport patrons from various locations in Cobb County to Midtown Atlanta via the Arts Center Station. Headways for these routes vary. Routes 101A, 102A, and 103A of the GCT system utilize the Arts Center station as well for reverse commute trips. Routes primarily operate at half-hour headways. See the attached route maps for detailed route descriptions.

The Atlantic Station Shuttle, which transports riders from Atlantic Station residential areas and points of interest, terminates at the Arts Center MARTA station. The shuttle currently has headways ranging from 15 minutes during peak periods to 30 minutes during off-peak periods. Headways may become shorter as the Atlantic Station development reaches build-out and demand for the shuttle increases. See the attached route map for detailed route descriptions.

Pedestrian facilities are currently in place along all adjacent roadways. Given the numerous transit options within the vicinity of the project (for both residential and non-residential trips), the overall project location within the densely developing area of Midtown, and new bike and pedestrian facilities highlighted by the ARC and GDOT, transit is a viable option for many of the residents, workers, and other patrons of the proposed development.

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 2% per year for two 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 2006 weekday peak hour turning movement counts were conducted on Wednesday and Thursday, November 8 and 9, 2006 at three signalized intersections during the AM and PM peak periods. Additionally, year 2007 weekday peak hour turning movement counts were conducted on Tuesday, January 9, 2007 at one unsignalized intersection and one signalized intersection during the AM and PM peak periods. It was agreed upon with GRTA staff that the counts will represent existing 2007 conditions, and that no growth of the 2006 counted volumes was necessary. All counts included heavy vehicle and pedestrian counts.

The morning and afternoon peak hours varied between the five (5) study intersections and are listed below:

0	Spring Street @ Seventeenth Street (Signalized)	(AM Peak 8:15-9:15, PM Peak 5:30-6:30)
0	West Peachtree Street @ Seventeenth Street (Signalized)	(AM Peak 8:15-9:15, PM Peak 5:15-6:15)
0	Williams Street @ Sixteenth Street (Unsignalized)	(AM Peak 8:00-9:00, PM Peak 5:15-6:15)
0	Spring Street @ Sixteenth Street (Signalized)	(AM Peak 8:15-9:15, PM Peak 4:45-5:45)
0	West Peachtree Street @ Sixteenth Street (Signalized)	(AM Peak 7:45-8:45, PM Peak 5:00-6:00)

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

Vehicular volume counts were also performed on Tuesday, January 9, 2007 at the existing surface parking driveway and Arthritis Foundation driveway along West Peachtree Street.

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 300 apartment dwelling units, 555,000 square feet of office space, 23,900 square feet of specialty retail space, and 15,000 square feet of quality restaurant space.

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 Midtown Heights DRI Gross Trip Generation								
		Daily	Traffic	AM Pea	ak Hour	PM Pea	ık Hour	
Land Use	ITE Code	Enter	Exit	Enter	Exit	Enter	Exit	
	В	uild-Out (Y	'ear 2010)					
300 High-Rise Apartment Dwelling Units	222	693	693	23	68	66	42	
555,000 Square Feet General Office	710	2,496	2,496	650	89	119	581	
23,900 Square Feet Specialty Retail	814	530	530	112	121	35	44	
15,000 Square Feet Quality Restaurant	931	675	675	N/A	N/A	75	37	
Total		4,394	4,394	785	278	295	704	

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. While only two intersections (Williams Street @ Sixteenth Street and Spring Street @ Sixteenth Street) were identified by the 7% rule, the study area was extended east and north to West Peachtree Street and Seventeenth Street. The study area was agreed upon during methodology discussions with GRTA, ARC, GDOT, and City of Atlanta staff, and includes the following intersections:

0	Spring Street @ Seventeenth Street	(Signalized)
0	West Peachtree Street @ Seventeenth Street	(Signalized)
0	Williams Street @ Sixteenth Street	(Unsignalized)
0	Spring Street @ Sixteenth Street	(Signalized)
0	West Peachtree Street @ Sixteenth Street	(Signalized)

Each of the above listed intersections was analyzed for the Existing 2007 Conditions, the 2010 No-Build Conditions, and the 2010 Build Conditions. The 2010 No-Build Conditions represents the existing traffic volumes grown at 2% per year for three years. The 2010 Build Conditions adds the projected trips associated with the Midtown Heights development to the 2010 No-Build Conditions.

The additional proposed site access points listed below were only analyzed for the 2010 Build Conditions:

- Proposed Site Driveway #1 @ West Peachtree Street
- Proposed Site Driveway #2 @ Spring Street
- Proposed Site Driveway #3 @ Spring Street
- Proposed Site Driveway #4 @ Sixteenth Street

3.5 Existing Facilities

Williams Street

 Williams Street is a one-way, northbound two-lane roadway in the vicinity of the proposed development which extends from Forth Street in Midtown Atlanta, becoming the on-ramp to Interstate 75 just north of Sixteenth Street. Williams Street is classified as an Urban Collector Street. Since the facility serves as an on-ramp in the vicinity of the proposed development, a speed limit of 50 MPH was use in the capacity analysis. No GDOT historical data is available for Williams Street in the vicinity of the proposed development.

Spring Street (US 19/ SR 9)

 Spring Street is a one-way, southbound four-lane roadway in the vicinity of the proposed development which extends from Peachtree Road just north of the proposed development, to Centennial Olympic Park Drive in Downtown Atlanta. Spring Street is classified as an Urban Minor Arterial with a posted speed limit in the vicinity of the proposed development of 35 MPH. According to the GDOT historical count data, the 2004 (most recent available) daily traffic volumes along Spring Street north of Seventeenth Street were 19,910 vehicles per day.



West Peachtree Street (US 19/ SR 9)

 West Peachtree Street is a one-way northbound roadway which extends from Pine Street in Downtown Atlanta to Peachtree Street, just north of the proposed development. The facility is a five-lane roadway classified as an Urban Minor Arterial with a posted speed limit in the vicinity of the proposed development of 35 MPH. According to the GDOT historical count data, the 2004 (most recent available) daily traffic volumes along West Peachtree Street north of Seventeenth Street were 25,787 vehicles per day.

Seventeenth Street

 Seventeenth Street is a two-way, east-west oriented roadway which extends from Northside Drive in northwest Atlanta to Ansley Park in Midtown Atlanta. West of West Peachtree Street, the facility is a divided six-lane roadway classified as an Urban Collector Street. East of West Peachtree Street, the facility is an undivided two-lane roadway classified as an Urban Local Street. The posted speed of the facility is 35 MPH. No GDOT historical data is available for Seventeenth Street in the vicinity of the proposed development.

Sixteenth Street

 Sixteenth Street is a two-way, east-west oriented roadway that extends from Williams Street to West Peachtree Street. Sixteenth Street is an undivided two-lane roadway classified as an Urban Local Street. There is no posted speed limit along Sixteenth Street; therefore, a speed limit of 25 MPH was used in the capacity analysis. No GDOT historical data is available for Sixteenth Street in the vicinity of the proposed development.

Table 3 Midtown Heights DRI Roadway Classification									
Roadway	Road Type	Number of Lanes	Posted Speed Limit (MPH)	GDOT Functional Classification	Annual Average Daily Traffic (Veh/Day)				
Williams Street	One-Way	2	Not Posted	Urban Collector Street	20,340 (2007)*				
Spring Street (US 19/ SR 9)	One-Way	4	35 MPH	Urban Minor Arterial	19,910 (2004)				
West Peachtree Street (US 19/ SR 9)	One-Way	5	35 MPH	Urban Minor Arterial	25,787 (2004)				
Seventeenth Street	Two-Way	6	35 MPH	Urban Collector/Local Street	15,510 (2007)*				
Sixteenth Street	Two-Way	2	Not Posted	Urban Local Street	5,620 (2007)*				

Roadway classification descriptions are provided in **Table 3**.

* No GDOT count available. This represents estimated AADT based on 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.

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 apartment, office, and retail land uses is expected to be 7.87%, whereas total PM peak hour internal capture is expected to be 5.01%.

Alternative transportation mode (walking, bicycle, and transit) reductions were applied at 20% for the residential and non-residential portions of the proposed development, as agreed upon during methodology discussions with GRTA, ARC, GDOT, and City of Atlanta staff.

Pass-by vehicle trip reductions were taken for the proposed retail uses at 34% daily and 34% PM peak hour rates following the internal capture and alternative mode reductions. These values are consistent with those recommended in the *ITE Trip Generation Handbook*, 2004.

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

Table 4 Midtown Heights DRI Net Trip Generation						
	Daily Traffic AM Peak Hour PM Peak Hou					
	Enter	Exit	Enter	Exit	Enter	Exit
В	uild-Out (Y	'ear 2010)				
Gross Project Trips	4,394	4,394	785	278	295	704
Mixed-Use Reduction	-346	-346	-0	-0	-25	-25
Alternative Mode Reduction	-810	-810	-157	-56	-54	-136
Pass-By Reduction	-284	-284	-0	-0	-23	-23
Net New Trips	2,954	2,954	628	222	193	520

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, Figure 5, and Figure 6 display the expected residential, office, and retail 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 7.









6.0 TRAFFIC ANALYSIS

6.1 Existing 2007 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 8.

	Table 5 Midtown Heights DRI Existing 2007 Intersection Levels of Service (delay in seconds)							
	Intersection Control LOS AM Peak Standard Hour PM Peak Hour							
1	Seventeenth Street @ Spring Street	Signalized	D	D (44.3)	D (35.6)			
2	Seventeenth Street @ West Peachtree Street	Signalized	D	C (24.3)	F (142.9)			
3	Sixteenth Street @ Williams Street	Side-Street Stop Control	D	WB – C (18.9)	WB – F			
4	Sixteenth Street @ Spring Street	Signalized	D	B (16.8)	C (27.5)			
5	Sixteenth Street @ West Peachtree Street	Signalized	D	B (14.4)	B (14.2)			

In addition to the intersections analyzed for this report, two other major intersections were included in the Synchro model in order to adequately model the downstream effects of queuing as a result of spillback that occurs at these locations. The two additional intersections included are West Peachtree Street @ Peachtree Street and Spring Street @ Fourteenth Street. Another constraint added to the model includes a metering system for entrance onto Williams Street from its intersection with Fourteenth Street during the PM peak hours. This calibration affects the available gaps for vehicles to use to exit from Sixteenth Street onto Williams Street.

As shown in the table, two intersections currently operate below the acceptable Level of Service standard (LOS D) during the PM Peak Hour. The signalized intersection of West Peachtree Street @ Seventeenth Street and the westbound approach of the unsignalized intersection of Williams Street @ Sixteenth Street intersection currently operate at LOS F during the PM peak hour. The intersections' No-Build and Build PM Peak Hour LOS standard is therefore lowered to LOS E per GRTA guidelines in the Letter of Understanding (LOU).

While Highway Capacity Manual (HCM) methods calculate delay for only the vehicles served at the study intersections (and not spillback from downstream signals), field observations provide that additional delay is incurred from queuing along both Spring Street and West Peachtree Street at times during AM and PM peak periods. Northbound delay at West Peachtree Street @ Seventeenth Street is mainly caused by the high vehicular volume along Seventeenth Street and not spillback from the intersection of West Peachtree Street @ Peachtree Street. Conversely, additional delay not accounted for in HCM at Spring Street @ Sixteenth Street is mainly attributed to queues forming along Spring Street at Fourteenth Street and along Sixteenth Street at Williams Street. Queuing along these roads during the AM peak is less than during the PM peak.



The existing West Peachtree Street and Spring Street queues will sometimes require two to three cycles to clear during AM peak periods. The PM peak period, however, has more excessive queuing along both roadways and may not clear queues for a large segment of the peak period. Because this queuing did occur on Spring Street during the PM period on the day when counts were conducted, the level of service calculated is most likely higher (better) than what would be reported if actual demand was captured in the volume counts.

Another location with considerable queuing includes Sixteenth Street eastbound at West Peachtree Street during the AM peak period. The green signal time for this phase is short, and vehicles arrive rapidly from the intersection of Spring Street @ Sixteenth Street. The queuing sometimes prevents vehicles traveling eastbound along Sixteenth Street at Spring Street from traveling through the intersection during the available split, and many times blocking the intersection of Spring Street @ Sixteenth Street. As mentioned previously, during the PM peak periods, high northbound volumes along Williams Street prevent available gaps from occurring, which creates excessive queuing along westbound Sixteenth Street. This queuing often stretches onto the north leg of Spring Street @ Sixteenth Street.

6.2 2010 No-Build Traffic

To account for growth in the vicinity of the proposed development, the existing traffic and pedestrian volumes were grown at 2.0% per year, for three years, along all roadway links and study intersections within the study network.

These volumes and the existing signal cycle lengths, splits, and offsets were input into *Synchro 6.0* and an analysis of the projected 2010 No-Build Conditions was performed. **Table 6** displays the results of the No-Build analysis.

	Table 6 Midtown Heights DRI 2010 No-Build Intersection Levels of Service (delay in seconds)							
	Intersection Control LOS AM Peak Hour PM Peak Hou							
1	Seventeenth Street @ Spring Street	Signalized	D	D (48.3)	D (39.2)			
2	Seventeenth Street @ West Peachtree Street	Signalized	E (PM Only)	C (25.2)	F (171.3)			
3	Sixteenth Street @ Williams Street	Side-Street Stop Control	E (PM Only)	WB – C (21.0)	WB – F			
4	Sixteenth Street @ Spring Street	Signalized	D	B (17.7)	C (28.0)			
5	Sixteenth Street @ West Peachtree Street	Signalized	D	B (15.3)	B (15.2)			

Maintaining existing signal timings and roadway geometry, two intersections are projected to continue to operate below the acceptable Level of Service standards for the year 2010 No-Build Conditions during the PM peak hour. Intersection timing (splits and offsets optimized, cycle lengths maintained) and operational improvements were made to the roadway network until the Levels of Service were elevated to an appropriate range. The improvements made to the system are listed below, by intersection:

2010 No-Build recommended improvements (includes background traffic growth of 2% but does not include the Midtown Heights project traffic):

All signalized intersections in the network

• The Spring Street and West Peachtree Street corridors should be retimed periodically in order to account for overall shifts in traffic volumes and patterns in the area, mainly due to the ongoing build-out of the Atlantic Station development.

Williams Street @ Sixteenth Street (Intersection #3)

 Realignment of the intersection to provide a westbound right-turn free flow movement. This is being performed as part of GDOT project # 0001298 and ARC # AT-AR-224D and is scheduled for completion before the 2010 build-out of the proposed development.

While *Synchro 6.0* reports an acceptable level of service for the intersection of Spring Street @ Seventeenth Street and West Peachtree Street @ Sixteenth Street, field observations and a review of existing and 2010 No-Build volumes and queue lengths at the intersections yield additional recommended improvements. The 2010 No-Build volumes and queue lengths for the intersections of Spring Street @ Seventeenth Street and West Peachtree Street @ Sixteenth Street Street @ Sixteenth Street following the above No-Build improvements are listed below in **Table 7**.

Table 7 Midtown Heights DRI 2010 No-Build Intersection Volumes and Queues											
			AM	Peak H	our			PN	l Peak H	our	
Spring Street		EBT	EBR	WBL	WBT	SBT	EBT	EBR	WBL	WBT	SBT
a a	Volume (veh)	868	405	81	205	2180	727	365	219	531	1752
Seventeenth	50% Queue (ft)	298	500	82	238	457	142	223	~205	413	265
Street	95% Queue (ft)	354	#713	m130	303	501	182	#393	m#148	m338	309
W. Peachtree		EBL	NBT				EBL	NBT			
Street @	Volume (veh)	360	1315				391	2459			
Sixteenth	50% Queue (ft)	137	123				242	138			
Street	95% Queue (ft)	m162	147				306	362			

~ Volume exceeds capacity, queue is theoretically infinite.

95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. m Volume for 95th percentile queue is metered by upstream signal.

Spring Street @ Seventeenth Street (Intersection #1)

Two areas are of particular importance and should be analyzed for expected queue length; they are both the east and westbound approaches to the intersection. Given the programmed northbound I-75/85 exit ramp's connection to Seventeenth Street and the short link distance of Seventeenth Street between Spring Street and West Peachtree Street, minimizing queue lengths will become increasingly important with the additional growth. Ongoing buildout of the Atlantic Station development will continue to add length to these queues. West Peachtree Street @ Sixteenth Street (Intersection #5)

The eastbound approach to this intersection is of particular importance. Existing field observations show that periodically, queues block the intersection of Spring Street @ Sixteenth Street. Additionally, long queues currently restrict movements in and out of several driveways located along Sixteenth Street from Spring Street to West Peachtree Street.

The following additional improvements are recommended to be made in order for the two above intersections to operate with acceptable queue lengths during 2010 No-Build Conditions:

Spring Street @ Seventeenth Street (Intersection #1)

• Restripe the eastbound approach FROM three exclusive through lanes and one exclusive rightturn lane TO two exclusive through lanes, one shared through/right-turn lane, and one exclusive right-turn lane.

West Peachtree Street @ Sixteenth Street (Intersection #5)

• Restripe Sixteenth Street to allow for an exclusive left-turn and a shared left-turn/through lane for the eastbound approach. (The pavement width is 32 feet, and this laneage currently exists along the westbound approach of the intersection of Spring Street @ Sixteenth Street.)

With the above recommended improvements, the intersections of Spring Street @ Seventeenth Street and West Peachtree Street @ Sixteenth Street operate with shorter and more acceptable queue lengths as shown in **Table 8**.

Table 8 Midtown Heights DRI 2010 No-Build Intersection Volumes and Queues <u>IMPROVED</u>											
	AM Peak Hour					PM Peak Hour					
Spring Street		EBT	EBR	WBL	WBT	SBT	EBT	EBR	WBL	WBT	SBT
a a	Volume (veh)	868	405	81	205	2180	727	365	219	531	1752
Seventeenth	50% Queue (ft)	346	287	70	218	536	191	156	154	207	307
Street	95% Queue (ft)	382	402	m#143	254	642	241	#265	m152	m202	361
W. Peachtree		EBL	NBT				EBL	NBT			
Street @	Volume (veh)	360	1315	1			391	2459	1		
Sixteenth	50% Queue (ft)	193	62]			126	107			
Street	95% Queue (ft)	m237	73				167	129			

95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. m Volume for 95th percentile queue is metered by upstream signal.

Given the above recommended improvements, the improved 2010 No-Build Conditions Levels of Service are displayed in **Table 9** below and the projected 2010 No-Build intersection laneage and traffic volumes are shown in **Figure 9**.

	Table 9 Midtown Heights DRI 2010 No-Build <u>IMPROVED</u> Intersection Levels of Service (delay in seconds)								
	Intersection Control LOS Standard AM Peak Hour PM Peak Hor								
1	Seventeenth Street @ Spring Street	Signalized	D	D (37.9)	C (28.8)				
2	Seventeenth Street @ West Peachtree Street	Signalized	E (PM Only)	B (19.7)	D (49.4)				
3	Sixteenth Street @ Williams Street	Free Flow	E (PM Only)	WB – Free-Flow	WB – Free-Flow				
4	Sixteenth Street @ Spring Street	Signalized	D	B (16.7)	C (28.9)				
5	Sixteenth Street @ West Peachtree Street	Signalized	D	B (16.0)	A (9.9)				

6.3 2010 Build Traffic

The traffic associated with the proposed development was added to the 2010 No-Build volumes. These volumes, as well as optimized intersection signal timings and improvements from the No-Build Condition, were then input into *Synchro 6.0*. The results of the analyses are displayed in **Table 10**. Analysis of the proposed four site driveways was also performed and results are provided in Table 10.

	Table 10 Midtown Heights DRI 2010 Build Intersection Levels of Service (delay in seconds)								
Intersection Control LOS AM Peak Hour PM Pea									
1	Seventeenth Street @ Spring Street	Signalized	D	D (50.5)	C (31.4)				
2	Seventeenth Street @ West Peachtree Street	Signalized	E (PM Only)	C (25.1)	E (74.3)				
3	Sixteenth Street @ Williams Street	Free Flow	E (PM Only)	WB – Free-Flow	WB – Free-Flow				
4	Sixteenth Street @ Spring Street	Signalized	D	B (18.6)	C (30.1)				
5	Sixteenth Street @ West Peachtree Street	Signalized	D	B (19.6)	B (12.4)				
6	Site Driveway #1 @ West Peachtree Street	Unsignalized	D	*	*				
7	Site Driveway #2 @ Spring Street	Unsignalized	D	WB – C (17.9)	WB – B (12.9)				
8	Site Driveway #3 @ Spring Street	Unsignalized	D	WB – B (11.3)	WB – B (10.4)				
9	Site Driveway #4 @ Sixteenth Street	Unsignalized	D	SB - B(12.3)	SB – C (16.2)				

*Synchro does not provide a Level of Service for an unsignalized intersection with more than four lanes along the mainline.

Maintaining 2010 No-Build Improved signal timings and roadway geometry, all intersections continue to operate at an acceptable Level of Service standards for the year 2010 Build Conditions.

While *Synchro 6.0* reports an acceptable level of service for the intersection of Spring Street @ Seventeenth Street, field observations and a review of 2010 Build volumes and queue lengths at the intersection yield additional recommended improvements. The 2010 Build intersection volumes and queue lengths for the intersection of Spring Street @ Seventeenth Street are listed below in **Table 11**.

	Table 11 Midtown Heights DRI 2010 Build Intersection Volumes and Queues										
		AM Peak Hour PM Peak Hour					our				
Spring Street		EBT	EBR	WBL	WBT	SBT	EBT	EBR	WBL	WBT	SBT
a.	Volume (veh)	868	593	139	218	2366	727	419	283	559	1809
Seventeenth	50% Queue (ft)	406	308	~158	208	677	205	159	200	204	325
Street	95% Queue (ft)	475	#496	m#251	265	#783	260	#293	m181	m191	378

~ Volume exceeds capacity, queue is theoretically infinite.

95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. m Volume for 95th percentile queue is metered by upstream signal.

The westbound left-turn movement currently operates under protected-only signal phasing which reduces the lane capacity (given permitted-protected signal phasing). Additionally, the existing westbound left-turn turn bay is approximately 160 feet long. Queues forming longer than 160 feet quickly block the westbound through travel lane, and tend to block the intersection of West Peachtree Street @ Seventeenth Street. The following additional improvements are recommended to be made in order for the intersection to operate with acceptable queue lengths during 2010 Build Conditions:

2010 Build recommended improvements (adds the Midtown Heights DRI project traffic to the 2010 No-Build traffic):

Spring Street @ Seventeenth Street (Intersection #1)

• Construct an additional westbound left-turn lane (creating dual left-turn lanes). This improvement can be constructed within the existing center island median.

With the above recommended improvement, the intersection of Spring Street @ Seventeenth Street operates with shorter and more acceptable queue lengths as shown in **Table 12**.

Table 12 Midtown Heights DRI 2010 Build Intersection Volumes and Queues IMPROVED											
		AM Peak Hour PM Peak Hour									
Spring Street		EBT	EBR	WBL	WBT	SBT	EBT	EBR	WBL	WBT	SBT
a a	Volume (veh)	868	593	139	218	2366	727	419	283	559	1809
Seventeenth	50% Queue (ft)	406	406 308 61 222 677 195 151 100 213 316					316			
Street	95% Queue (ft)	475	#496	m73	m275	#783	259	#290	m85	m191	378

95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. m Volume for 95th percentile queue is metered by upstream signal.

2010 Build site driveway recommendations/configuration (adds the Midtown Heights DRI project traffic):

Site Driveway #1 @ West Peachtree Street (Shared with Arthritis Foundation)

 Provide one westbound ingress lane and one eastbound left-turn egress lane along West Peachtree Street, side-street stop-controlled.

Site Driveway #2 @ Spring Street

• Provide one eastbound ingress lane and one westbound left-turn egress lane along Spring Street, side-street stop-controlled.

Site Driveway #3 @ Spring Street

 Provide one eastbound ingress lane and one westbound left-turn egress lane along Spring Street, side-street stop-controlled.

Site Driveway #4 @ Sixteenth Street

Provide one southbound shared left-turn/right-turn egress lane along Sixteenth Street, side-street stop-controlled.

Given the above proposed driveway configuration and recommended improvements, the improved 2010 Build Levels of Service are displayed in **Table 13** below and the projected 2010 Build intersection laneage and traffic volumes are shown in **Figure 10**.

	Table 13 Midtown Heights DRI 2010 Build IMPROVED Intersection Levels of Service (delay in seconds)								
	Intersection Control LOS Standard AM Peak Hour PM Peak Hour								
1	Seventeenth Street @ Spring Street	Signalized	D	D (45.6)	C (28.3)				
2	Seventeenth Street @ West Peachtree Street	Signalized	E (PM Only)	C (31.5)	E (75.0)				
3	Sixteenth Street @ Williams Street	Free Flow	E (PM Only)	WB – Free-Flow	WB – Free-Flow				
4	Sixteenth Street @ Spring Street	Signalized	D	B (18.7)	C (30.1)				
5	Sixteenth Street @ West Peachtree Street	Signalized	D	B (19.5)	B (12.4)				
6	Site Driveway #1 @ West Peachtree Street	Unsignalized	D	*	*				
7	Site Driveway #2 @ Spring Street	Unsignalized	D	WB – C (17.8)	WB – B (12.7)				
8	Site Driveway #3 @ Spring Street	Unsignalized	D	WB – B (11.3)	WB – B (10.3)				
9	Site Driveway #4 @ Sixteenth Street	Unsignalized	D	SB – B (12.3)	SB – C (16.2)				

*Synchro does not provide a Level of Service for an unsignalized intersection with more than four lanes along the mainline.

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 14** and shown graphically in **Figure 11**. Detailed information on the projects is included in the Appendix.

	Table 14 Midtown Heights DRI Programmed Area Projects							
GDOT #: 0004390 ARC #: AT-200	Streetscaping on Peachtree Street between 10 th Street and I-85 North in Midtown Atlanta							
GDOT #: 0004397 ARC #: AT-210	Addition of traffic signals at five key locations in Midtown: Peachtree Street @ 8 th Street, Juniper Street @ 8 th Street, Piedmont Avenue @ 8 th Street, Spring Street @ 12 th Street, West Peachtree Street @ 12 th Street							
GDOT #: 0001298 ARC #: AT-AR-224D	Relocation of Williams Street and the northbound off-ramp from the Downtown Connector at 14 th Street in order to accommodate new ramps to the 17 th Street Bridge							
GDOT #: 0006980 ARC #: AT-AR-249	Pedestrian improvements along West Peachtree Street from 14 th Street to Peachtree Street							
GDOT #: 0004426 ARC #: AT-202	Streetscape / pedestrian improvements along Spring Street from Pine Street to Peachtree Street							
GDOT #: 0004392 ARC #: AT-203	Bicycle and pedestrian improvements along West Peachtree Street from Pine Street to North Avenue and 14 th Street to Peachtree Street							
GDOT #: 0005945 ARC #: AT-189	Addition of one left turn lane in each direction between Spring Street and West Peachtree Street							
GDOT #: 0004393 ARC #: AT-205	Streetscape / pedestrian improvements along 14 th Street from West Peachtree Street to Piedmont Avenue							

8.0 INGRESS/EGRESS ANALYSIS

All existing curb-cuts that serve the site will be closed while four new site driveways are currently proposed for the development: one site driveway along West Peachtree Street, two site driveways along Spring Street, and one site driveway along Sixteenth Street (exit only). Give the current parking spaces provided within the site, the zoning ordinance requires reservoir space for 12 spaces for the office, one space for the retail, and five spaces for the residential. All driveways are currently designed to accommodate adequate reservoir space.

Proposed Site Driveway #1 @ West Peachtree Street

This driveway is located approximately 150' south of Seventeenth Street and will operate under two-way conditions and serve as access for the office use. Additionally, this driveway will provide access to the adjacent Arthritis Foundation (eliminating the existing driveway). It is anticipated that because maneuvers during the AM peak hour will be mainly ingress (and given that parking controls will be located several hundred feet into the site) little delay will occur during the AM peak hour. Due to existing and projected 2010 Build queuing along West Peachtree Street, it is expected that some delay will occur along the driveway during the PM peak hour. It is anticipated that exiting vehicles will be given the opportunity to exit the driveway by "courteous drivers" and available gaps created by longer start-up time from heavy vehicles. Currently 71 vehicles exit onto West Peachtree Street from the two existing driveways during the PM peak hour with little delay. It is anticipated that the volumes created by the proposed development will incur some delay within the development, but add very little delay along West Peachtree Street. Other methods of egress for the office use of the development also exist along Spring Street and Sixteenth Street.

Proposed Site Driveway #2 @ Spring Street

This driveway is located approximately 175' south of Seventeenth Street and will operate under two-way conditions and will serve the office and retail uses of the development. This driveway will also serve as service for the office and retail portions of the development. Very little queuing is expected to occur along Spring Street at this location during 2010 Building Conditions, therefore adequate gaps are expected to be provided for egress onto Spring Street during both the AM and PM peak hours. AM peak hour ingress volumes are expected to be heavy, however, design calls for parking controls to be located several hundred feet within the development, providing sufficient reservoir space for any vehicle queues.

Proposed Site Driveway #3 @ Spring Street

This driveway is located approximately 175' north of Sixteenth Street and will operate under two-way conditions and will serve as exclusive access to the residential portion of the development. Some queuing is expected along Spring Street at this location, however, only 49 vehicles are expected to exit the development through this driveway during the PM peak hour. It is expected that delay will be minimal due to the "courtesy driver" and heavy vehicle factors discussed above.

Proposed Site Driveway #4 @ Sixteenth Street

This driveway is located approximately 175' east of Spring Street and will serve as an office exit only. This driveway will also serve as service for the residential portion of the development. With No-Build improvements along Sixteenth Street (at Williams Street and West Peachtree Street), it is anticipated that queue lengths will allow adequate egress operations.

9.0 INTERNAL CIRCULATION ANALYSIS

The proposed site plan consists of three vehicular driveways, two of which include service/loading areas. Consistent with previously approved DRI's in the area, activity associated with the service/loading operations was not included in the traffic analysis.

The site is proposed to be served by a single parking structure which will be located below the residential tower. In order to separate residential parking from office and retail parking, the parking deck will be designed as a double helix structure. The office use will have exclusive exit only access to site driveway #4 along Sixteenth Street. Site driveway #1 along West Peachtree Street will be shared between the office use and the adjacent Arthritis Foundation and site driveway #2 along Spring Street will be shared between the office and retail uses, as well as provide access to the Arthritis Foundation (Arthritis Foundation access to Spring Street is not currently provided).

Because of the intricate nature of the structure and the difference in grade between West Peachtree Street, Spring Street, and Sixteenth Street, a single driveway (site driveway #3) will be provided for residential parking. It is anticipated that one driveway will provide adequate capacity for the relative low expected traffic volume demands of the residential land use (see entering/exiting volumes in Figure 10).

Internal pedestrian access between all uses will be provided.

10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The City of Atlanta NPU-E 2004-2019 Future Land Use Plan designates the project site as High Density Commercial, 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 approximately 150 yards north and west of the Arts Center MARTA station at West Peachtree Street and Fifteenth Street. This station lies on the North-South MARTA rail line (10 – 20 minute headways) which intersects the East-West rail line (to the south) at the Five Points station. Five MARTA bus routes operate from this station including the following: Route 10 – Peachtree (30-minute headways), Route 23 – Lenox / Arts Center (10-minute headways), Route 27 – Monroe Drive / Lindbergh – Sundays only (27-minute headways – Saturday, 45-minute headways – Sunday), Route 36 – North Decatur (30-minute headways), Route 98 – West End / Arts Center (39-minute headways). See the attached route maps for detailed route descriptions.

Two express bus systems utilize the Arts Center MARTA station: Cobb Community Transit (CCT) and Gwinnett County Transit (GCT). Routes 10, 10A, 10B, 10C, 102, and 481 of CCT transport patrons from various locations in Cobb County to Midtown Atlanta via the Arts Center Station. Headways for these routes vary. Routes 101A, 102A, and 103A of the GCT system utilize the Arts Center station as well for reverse commute trips. Routes primarily operate at half-hour headways. See the attached route maps for detailed route descriptions.

The Atlantic Station Shuttle, which transports riders from Atlantic Station residential areas and points of interest, terminates at the Arts Center MARTA station. The shuttle currently has headways ranging from 15 minutes during peak hours to 30 minutes during off-peak hours. Headways may become shorter as the entire development reaches build out and demand for the shuttle increases. See the attached route map for detailed route descriptions.

In addition to transit options, sidewalks are located within the development and in surrounding areas. Bicycle lanes are also located along Seventeenth Street west of West Peachtree Street and are an added improvement to West Peachtree Street in GDOT # 0004392/ARC # AT-203.

Those traveling by vehicle have convenient access to the downtown connector (I-75/85) via Spring Street south. Direct access to Interstate 75 North is provided by Sixteenth Street @ Williams Street and access to Interstate 85 North is provided by Buford Highway, via West Peachtree Street. Those exiting Interstates 75/85 Southbound gain direct access to the proposed development by utilizing the Seventeenth Street exit and the GDOT # 0001298 / ARC # AT-AR-224D project will soon provide northbound exit ramps to Seventeenth Street as well. Peachtree Street, the spine of Atlanta's retail district is also located just one block to the east of the proposed development.

11.2 Vehicle Miles Traveled

Table 15 displays the reduction in traffic generation due to mixed-use, alternative mode, and pass-by reductions. Total combined trip reductions equal approximately 32% of gross trips.

Table 15 Trip Reductions						
	Build-out Total					
Daily Gross Trip Generation	8,787					
(-) Mixed-use reductions (internal capture)	- 692					
(-) Alternative modes	- 1,619					
(-) Pass-by trips	- 567					
Net Trips	5,909					

11.3 Relationship Between Location of Proposed DRI and Regional Mobility

The proposed development is located in Midtown Atlanta, just east of the Downtown Connector (Interstate 75/85). Patrons and residents of the development have access to MARTA bus and rail, commuter bus, and are provided with an existing pedestrian network. The site is located within a well defined grid system, which provides convenient access to many of Atlanta's major arterials and highways in a mater of a few minutes. 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 approximately 150 yards north and west of the Arts Center MARTA station at West Peachtree Street and Fifteenth Street. This station lies on the North-South MARTA rail line which intersects the East-West rail line (to the south) at the Five Points station. Five MARTA bus routes, two express bus systems utilize the station, and the Atlantic Station shuttle operate from this station. See the attached route maps for detailed route descriptions.

11.5 Transportation Management Area Designation

The proposed development is located within the Midtown Transportation Solutions (MTS) Transportation Management Association (MTA) jurisdiction. MTS is an affiliate of the Midtown Community Improvement District (Midtown Alliance) and focuses on promoting a balanced transportation system to improve mobility and is charged with changing commuter habits and providing transportation options that are convenient, safe and cost-effective. Per SPI-16 zoning ordinance, A Transportation Management Plan (TMP), which contains strategies to reduce single occupancy vehicle trips generated by the proposed Midtown Heights development by a minimum of 25 percent during a five-year period from the initial date of occupancy, is also being submitted.

11.6 Offsite Trip Reduction and Trip Reduction Techniques

Mixed-use, alternative mode, and pass-by trip reductions were taken according to the *ITE Trip Generation Handbook, 2003.* Approximately 7.87% of the gross daily trips will be internal and approximately 5.01% of the gross PM peak hour trips will be internal. A 20% alternative mode reduction (those using transportation modes such as walking, bicycling, transit, etc.) was taken for all uses. Additionally, for the projected new daily and PM peak hour trips, a 34% daily and PM peak pass-by reduction was used for the proposed retail portion of the development.

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 (2010).

12.0 AREA OF INFLUENCE

The proposed development, Midtown Heights, is expected to consist of 300 high-rise apartment dwelling units, 555,000 square feet of office space, 23,900 square feet of specialty retail, and a 15,000 square feet of quality restaurant. Due to the nature of the development, it will be classified as "predominantly employment" for purposes of the AOI. The following section will describe the Area of Influence demographics, DRI average wage levels, expected AOI housing costs, and the opportunity for workers who are employed in the DRI to find housing within the AOI.

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 development. For this proposed development classified as "predominantly employment," the non-expedited review criterion is as follows:

The proposed DRI:

(b) Is located in an Area of Influence where the proposed DRI is reasonably anticipated to contribute to the balancing of land uses within the Area of Influence such that twenty-five percent (25%) of the persons that are reasonably anticipated to be employed in the proposed DRI have the opportunity to live 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 (Spring Street at 17th 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, DeKalb, and Cobb counties) can be seen in **Figure 12**.

The total population within the Area of Influence is 277,469, residing within 131,891 households (an average of 2.10 people per household). There are approximately 148,791 workers in the AOI for an average of 1.13 workers per household. The AOI area over the three counties totals 50,099 acres.

12.3 DRI Employment and Salary Figures

The DRI is expected to employ approximately 1,926 workers in the following land uses: General Office, Specialty Retail, and Quality Restaurant. The numbers of workers for the office and shopping center land uses are based on assumptions provided in the *Area of Influence (AOI) Guidebook for Non-Expedited Reviews, April 2003.* For the office land use, 1 employee per 300 square foot yields 1,850 office employees. For the specialty retail land use, 1 employee per 560 square feet results in 43 retail employees. Finally, for the quality restaurant land use, 1 employee per 450 square feet yields 33 employees.

For the office land use, employees are assumed to work in the following occupations: management, technical, office and administrative support, computers, and business and financial operations. The specialty retail land use includes retail managers and retail salespersons, and the quality restaurant land use includes food service managers and food preparation and service employees.

Using the departmental and occupational guidelines provided by the client, along with the U.S. Department of Labor's *May 2005 Metropolitan Area Occupational Employment and Wage Estimates Atlanta-Sandy Springs-Marietta, GA*, salaries were approximated for each occupation. The following occupational codes were used for the above jobs:

- 11-0000 Management Occupations
- 11-9051 Food Service Managers
- 13-0000 Business and Financial Operations Occupations
- 15-0000 Computer Occupations
- 17-0000 Technical Occupations
- 35-0000 Food Preparation and Serving Related Occupations
- 41-1011 Managers of Retail Sales
- 41-2031 Retail Salespersons
- 43-0000 Office and Administrative Support Occupations

Household salary was calculated based on the computed workers per household ratio of 1.13 multiplied by the salary in each bracket. It is assumed then that each household has 1.13 workers who contribute to the monthly household salary. The affordable housing payment is calculated as 30% of the monthly household salary, as based on GRTA's *Area of Influence (AOI) Guidebook for Non-Expedited Reviews*. **Table 16** displays the department positions, the numbers of employees in each occupation, the monthly employee and household salaries, and the respective affordable housing payments.

Table 16 Employment, Salary, and Affordable Housing Payment by Occupation								
Land Use	Occupation	Employees	Monthly Employee Salary	Monthly Household Salary	Affordable Housing Payment			
General	Management Occupations	370	\$7,690	\$8,690	\$2,607			
	Technical Occupations	463	\$5,020	\$5,673	\$1,702			
	Office and Administrative Support	185	\$2,541	\$2,871	\$861			
Onice	Computer Occupations	370	\$5,501	\$6,216	\$1,865			
	Business and Financial Operations	463	\$5,049	\$5,706	\$1,712			
Specialty	Managers of Retail Sales	9	\$2,937	\$3,318	\$996			
Retail	Retail Salespersons	34	\$1,932	\$2,183	\$655			
Quality	Food Service Managers	7	\$3,945	\$4,458	\$1,337			
Restaurant	Food Preparation and Serving	27	\$1,403	\$1,586	\$476			
	Total Employees	1,926						

Given the above calculated salaries, each household is eligible for a specific housing tier within the Area of Influence. Table 17 below displays the number of households that fall into each tier based on the household salary.

Table 17 Number of Households in the DRI by Range of Monthly Income						
Range of Monthly Number Income for Housing Househo						
\$499 or less	27					
\$500 to \$599	0					
\$600 to \$699	34					
\$700 to \$799	0					
\$800 to \$899	185					
\$900 to \$999	9					
\$1,000 to \$1,249	0					
\$1,250 to \$1,499	7					
\$1,500 to \$1,999	1,295					
\$2,000 or more	370					
Total	1,926					

12.4 AOI Occupied Housing Figures

An analysis of existing occupied housing was conducted based on 2000 Census data for owner- and renteroccupied housing. A GIS analysis identified approximately 53,000 owner-occupied units and 77,000 renteroccupied units in the AOI. **Table 18** below displays the housing units in comparable price tiers as are shown in Table 17. Owner-occupied housing includes housing with and without a mortgage. Renter-occupied housing includes all rental units with the exception of those with no cash rent.

Table 18 Selected Monthly Costs for All Occupied Housing Units in the AOI								
Monthly Dollar Range	Owner-Occupied Housing Units in the AOI	Renter-Occupied Housing Units in the AOI	Total Occupied Housing Units in the AOI					
\$499 or less	10,435	28,228	38,663					
\$500 to \$599	2,430	8,573	11,003					
\$600 to \$699	2,378	8,713	11,091					
\$700 to \$799	2,522	8,476	10,998					
\$800 to \$899	2,365	6,875	9,240					
\$900 to \$999	2,259	4,547	6,806					
\$1,000 to \$1,249	6,592	6,251	12,843					
\$1,250 to \$1,499	4,914	2,518	7,432					
\$1,500 to \$1,999	7,642	1,870	9,512					
\$2,000 or more	11,864	764	12,628					
Total	53,401	76,815	130,216					

Using the households in the DRI per price tier information in Table 17 and the renter / owner distribution of occupied housing in the AOI in Table 18 above, a comparison was done to analyze the available housing by price range within the AOI against the number of households per price tier expected within the proposed DRI. This comparison is shown below in **Table 19**.

Table 19 Workers' Monthly Household Incomes Vs. Monthly Costs of Housing Units in the AOI				
Monthly Dollar Range	Total Occupied Housing Units in the AOI	Number of DRI Households with One or More Workers Working in the DRI	Difference in Number of Housing Units in AOI and Number of Households with Workers in DRI	
\$499 or less	38,663	27	38,636	
\$500 to \$599	11,003	0	11,003	
\$600 to \$699	11,091	34	11,057	
\$700 to \$799	10,998	0	10,998	
\$800 to \$899	9,240	185	9,055	
\$900 to \$999	6,806	9	6,797	
\$1,000 to \$1,249	12,843	0	12,843	
\$1,250 to \$1,499	7,432	7	7,425	
\$1,500 to \$1,999	9,512	1,295	8,217	
\$2,000 or more	12,628	370	12,258	
Total	130,216	1,926	128,290	

As can be seen from Table 19, adequate housing opportunities exist for all wage-earning levels in the DRI for both owner and renter properties. Additionally, because the salaries of the employees are concentrated at the upper limits of the price tiers, considerable extra housing is available in lower price tiers if a household desires to choose a more conservative price range. Given this information, over 25% of the employees of the DRI have an opportunity to reside within the Area of Influence.

13.0 ARC'S AIR QUALITY BENCHMARK

The proposed development is mixed-use, containing 300 high-rise apartment dwelling units, 555,000 square feet of office, and 38,900 square feet of retail (23,900 square feet specialty retail and 15,000 square feet quality restaurant) on approximately 3.14 acres. Because office is the dominant use and the floor to area ratio is great than 0.8, the development meets the ARC criteria for a 6% reduction.

Because the dominant use is office and over ten percent of the development consists of residential space, it meets the ARC criteria for a 4% reduction.

The Arts Center MARTA rail station is located approximately 150 yards southeast of the proposed development. Five MARTA bus routes, two express bus routes, the Atlantic Station shuttle, and rail all serve the station. Since a bus stop is within one fourth of a mile and a rail station is within one half of a mile from the project, the development meets the ARC criteria for an additional 8% reduction.

The proposed development is located within the Midtown Transportation Solutions (MTS) Transportation Management Association (TMA) jurisdiction. The midtown TMA focuses on promoting a balanced transportation system to improve mobility and is charged with changing commuter habits and providing transportation options that are convenient, safe and cost-effective. This allows for a 3% reduction.

Additionally, the proposed development will connect with the existing sidewalks along Spring Street, West Peachtree Street, Seventeenth Street, and Sixteenth Street. Pedestrians will also be able to access other uses within the proposed development. This pedestrian network meets the ARC criteria for a 5% reduction.

The proposed development meets the ARC criteria for a total 26% VMT reduction. These reductions are displayed below in **Table 20**.

Table 20 ARC VMT Reductions				
Mixed-Use Projects where Residential is the dominant use				
FAR greater than 0.8	-6%			
Dominant use office, with over 10% residential	-4%			
Project is located within 1/4 mile of a bus stop	-3%			
Project is located within 1/2 mile of a rail station	-5%			
Located within a Transportation Management Association	-3%			
Bike/Ped network that meets density 'target' and connects to adjacent uses	-5%			
Total Reductions	26%			