

Atlanta Regional Commission
200 Northcreek, Suite 300
3715 Northside Parkway
Atlanta, Georgia 30327-2809

50 YEARS 1947-1997
of Regional Cooperation, Leadership & Planning

Harry West
Director



April 1, 1997

Honorable Mitch Skandalakis, Chairman
Fulton County Commission
141 Pryor Street, SW
Atlanta, GA. 30303

Re: Development of Regional Impact
Hines' Georgia 400 Mixed Use Development (Deerfield)

Dear Mitch:

I am writing to officially transmit the resolution which the Commission adopted on March 26, 1997, concerning the Development of Regional Impact (DRI) review of the Hines' Georgia 400 Mixed Use Development (Deerfield). As you know, the Commission found the proposed DRI is in the best interest of the State. This favorable finding was made possible by Hines' agreement to include measures in the development that will control the quantity and quality of stormwater runoff to pre-development levels and by the agreement of Fulton and Forsyth Counties and the Cities of Alpharetta and Roswell to participate in and to fund a study for a watershed protection plan as allowed in EPD's Rules for Protection of Small Water Supply Watersheds.

In addition, if the County allows this project to move forward, the ARC staff suggests that the County require a monitoring, maintenance, and remediation agreement concerning stormwater runoff. (See enclosed suggestions.)

Enclosed with the Commission's March 26 resolution are copies of the letters from the above agencies concerning the watershed study, a copy of our Review Report, stormwater monitoring and maintenance suggestions, and copies of comments received during the review.



Honorable Mitch Skandalakis
April 1, 1997
Page 2

We appreciate the applicant's responsiveness to the DRI concerns and ask that you call me or Beverly Rhea (404-364-2562) if we can provide any further information.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Harry West', is written over a circular stamp or seal.

Harry West
Director

Enclosure

- c Ms. Nancy Leathers, Fulton Co.
- Mr. Bob Voyles, Hines Interests
- Mr. Richard J. Holder, Fulton Co. Schools
- Mr. Wayne Shackelford, GDOT
- Mr. Harold Reheis, GEPD
- Mr. Rick Brooks, GDCA



MAYOR
Chuck Martin

CITY ADMINISTRATOR
J. Michael Wilkes

Barbara Hurt-Simmons
Sandra B. Johnson
R.J. Kurey

COUNCIL

FILE COPY

Arthur Letchas
Jim Matoney
Jim Paine

January 30, 1997

Ms. Beverly Rhea
Review Coordinator
Atlanta Regional Commission
200 Northcreek, Suite 300
3715 Northside Parkway
Atlanta, Ga 30327-2809

Re: DRI for Hines 400 Mixed Use Development

Dear Ms. Rhea;

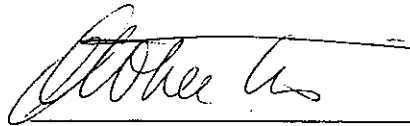
I am in receipt of your letter dated January 13th regarding an application received by your office for a development of regional impact on the north side of Windward Parkway between GA 400 and Hwy 9. Although the review material provided was very minimal, the magnitude of the proposal triggers concerns regarding specific issues. The City is currently grappling with issues that would be further exacerbated by the proposed development if they are not addressed in conjunction with the project. In overview form, these issues include the following:

1. Traffic and Roadway Improvements. The intersections of Windward Parkway / GA 400 and Windward Parkway / Hwy 9 are substandard and need improvement. Additional roadway trips resulting from this project would likely require improvements to other transportation links. Participation in the Westside Parkway project, for example, may be appropriate. A requirement to locate a MARTA Park and Ride site on this property may be appropriate.
2. Schools. The residential component of the proposal will potentially add a significant number of school children to an area that is currently underserved and overwhelmed by the educational demands. Development of this site should include the donation of land for an additional educational facility.
3. Community Facilities. A proposal of this size should include its fair share of amenities and community facilities such as parks and open space; a police / fire station and library.
4. Environmental Impacts. Careful consideration should be given to air quality, storm water management and the existing natural environment (particularly wetlands and specimen trees) as it relates to this project. If Fulton County is unable to closely monitor these items during the course of development, a management consultant could be retained to perform this function.

5. Density. The densities for development, whether they be commercial, office or residential, should be consistent with those of surrounding areas. In Alpharetta, multi-family densities do not exceed 10 units per acre; single family developments generally range from 2 to 4 units per acre; and office development is usually 15,000 to 18,000 square feet per acre. We have found that these density levels allow infrastructure and services to keep pace with development demands.

Please consider these issues when reviewing the Hines 400 Mixed Use Development proposal. I know that we share many of the same concerns regarding the preservation of quality of life in North Fulton. Thank You.

Sincerely,

A handwritten signature in dark ink, appearing to read "Diana Wheeler", is written over a horizontal line.

Diana Wheeler
Community Development Director

DEVELOPMENTS OF REGIONAL IMPACT

Comments from Affected Parties Form

Project I.D.: Z-96-123 To 126
(From Request for Comments Form)

Name of Commenting Organization: FULTON COUNTY SCHOOLS

Address: 786 CLEVELAND AVE. SW.

ATLANTA GEORGIA 30315

Contact Person: RICHARD HOLDER Telephone Number: 404-763-6854

Do you believe your jurisdiction will be affected by the proposed development? ☒ Yes ☐ No

Please describe the effects (positive and/or negative) the proposed project could have on your jurisdiction:

THE 1302 MULTI-FAMILY UNITS WILL GENERATE
FROM A LOW OF 295 TO A HIGH OF 715
STUDENTS BASED ON CURRENT MULTI-FAMILY
DATA FROM NORTH COUNTY.

- THE SCHOOLS IN THIS AREA CAN NOT
MEET THIS INCREASED DEMAND.

- SEE ATTACHED IMPACT STATEMENT
SUBMITTED TO THE FULTON COUNTY GOVT. ON
THIS IMPACT.

(Attach Additional Pages if Necessary)

Form Completed By:

Richard J. Holder
RICHARD J. HOLDER

Title: EX. Director Planning & Research

Signature:

Date: 1/22/97

RETURN TO: ATLANTA REGIONAL COMMISSION
3715 Northside Parkway
200 Northcreek, Suite 300
Atlanta, Ga. 30327

ATTENTION: REVIEW OFFICE

FAX NO. 404-364-2599

DCA/OCP 10/7/91

DEVELOPMENTS OF REGIONAL IMPACT

Comments from Affected Parties Form

Project I.D. HINES 400 MIXED USE
(From Request for Comments Form)

Name of Commenting Organization: Georgia Department of Transportation
Address: Georgia Department of Transportation
No. 2 Capitol Square
Atlanta, Georgia 30334
Contact Person: George Boulineau Telephone Number: 656-0610

Do you believe your jurisdiction will be affected by the proposed development X Yes No
Please describe the effects (positive and/or negative) the proposed project could have on your jurisdiction:

" HINES 400 MIXED USE DEVELOPMENT "

This development will have a major impact on existing and proposed transportation facilities. Existing proposed improvements, identified in the Atlanta Regional Transportation Plan, will not mitigate the surrounding transportation system needs. The applicant needs to address what roadway capacity improvements, travel demand strategies and related development patterns can be implemented to either support or mitigate the transportation demands of the proposed project initially and at build out.

The development build out will place it in a similar transportation position that has happened, and is continuing to happen in north Fulton County. The area is experiencing major transportation problems. The development transportation needs will have to be addressed before build out occurs. The proposed development will generate additional vehicle miles of travel, which could adversely affect air quality in the region. The daily estimated traffic volume of 44,000 will create a major strain on the existing transportation system and cause longer peak period delays.

(Attach Additional Pages if Necessary)

Form Completed By: Donald W. Mills Title: USPE 3
Signature: Donald W. Mills Date: 1-28-97

DCA/OCF 10/7/91

RETURN
TO: ATLANTA REGIONAL COMMISSION
3715 Northside Parkway
200 Northcreek, Suit 300
Atlanta, Ga. 30327
ATTENTION: REVIEW OFFICE

FAX NO. 404-364-2599

Georgia Department of Natural Resources

205 Butler St. S.E. , East Floyd Tower, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Harold F. Reheis, Director

Environmental Protection Division
(404) 856-3084

February 21, 1997

Ms Patricia Stevens
Atlanta Regional Commission
200 Northcreek, Suite 300
Atlanta, Georgia 30327

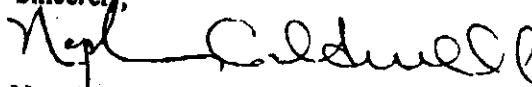
RE: Proposed ARC Resolution Regarding Hines' Georgia 400 Development in Big Creek Watershed

Dear Ms. Stevens:

The Environmental Protection Division (EPD) has reviewed the Atlanta Regional Commission's draft resolution which finds that the proposed 339 acre Hines' Georgia 400 development near Windward Parkway West is not in the best interest of the State. EPD agrees with the provisions of the draft resolution which relate to the probable adverse impacts of such a development (with impervious surface of approximately 40%) on the Big Creek water supply watershed (source of water supply for the City of Roswell). The findings of the draft resolution are consistent with the Criteria for Water Supply Watersheds section of the *Rules for Environmental Planning Criteria* which were developed pursuant to the Georgia Planning Act of 1989.

Please contact me if I can be of further assistance.

Sincerely,



Napoleon Caldwell
Program Manager
Water Resources Management Program

cc Harold Reheis
David Word

W:\CALDWELL\WRMP\CRSFNDNC\ARC\DRILLTR

Facility: Hines 400 Mixed Use Development

Preliminary Report: January 13, 1997

Final Report: February 4, 1997

DEVELOPMENTS OF REGIONAL IMPACT

REVIEW REPORT

GENERAL

According to information on the review form or comments received from potentially affected governments:

Is the proposed project consistent with the host-local government's comprehensive plan? If not, identify inconsistencies.

Yes, according to information submitted by the County.

Is the proposed project consistent with any potentially affected local government's comprehensive plan? If not, identify inconsistencies.

This proposed development site is included in both the Fulton County and City of Alpharetta Future Land Use Plans. The City of Alpharetta Plan proposes annexation of the property. The proposed use projected by Alpharetta is consistent.

Will the proposed project impact the implementation of any local government's short-term work program? If so, how?

No.

Will the proposed project generate population and/or employment increases in the Region? If yes, what would be the major infrastructure and facilities improvements needed to support the increase?

According to regional averages the multi-family component of the development could accommodate a population of 1,953, including 374 students. The office and hotel development proposed could accommodate 9,335 jobs according to regional averages. School and transportation improvements would be needed to serve the development.

What other major development projects are planned in the vicinity of the proposed project?

ARC has reviewed numerous proposed large-scale developments nearby, including Windward directly across GA 400.

Will the proposed project displace housing units or community facilities? If yes, identify and give number of units, facilities, etc.

No.

Will the development cause a loss in jobs? If yes, how many.

No.

LOCATION

Where is the proposed project located within the host-local government's boundaries?

The site proposed for development is on the west side of GA 400 between Windward Parkway West and McGinnis Ferry Roads -- 34°05'30" / 84°16'.

Will the proposed project be located close to the host-local government's boundary with another local government? If yes, identify the other local government.

Yes. Forsyth County and the City of Alpharetta.

Will the proposed project be located close to land uses in other jurisdictions that would benefit or be negatively impacted by the project? Identify those land uses which would benefit and those which would be negatively affected and describe impacts.

No impacts were noted by the above jurisdictions.

ECONOMY OF THE REGION

According to information on the review form or comments received from potentially affected governments:

What new taxes will be generated by the proposed project?

\$10.98 million annually at build out.

How many short-term jobs will the development generate in the Region?

The developer estimates 1,600.

Is the regional work force sufficient to fill the demand created by the proposed project?

Yes.

In what ways could the proposed development have a positive or negative impact on existing industry or business in the Region?

Obviously the development will compete with Windward (across GA 400) and other nearby developments.

NATURAL RESOURCES

Will the proposed project be located in or near wetlands, groundwater recharge area, water supply watershed, protected river corridor or other environmentally sensitive area of the Region? If yes, identify those areas.

In what ways could the proposed project create impacts that would damage or help to preserve the resource?

The proposed project site is located in the Big Creek Water Supply Watershed. Under DNR watershed protection criteria, the Big Creek Watershed is a small water supply watershed; less than 100 mi². The following DNR minimum planning criteria apply to the proposed project site:

1. A buffer shall be maintained for a distance of 50 feet on both sides of any perennial flowing streams as measured from the stream banks.
2. No impervious surface shall be constructed within a 75 foot set-back area on both sides of any perennial flowing streams as measured from the stream banks.
3. The impervious surface area, including all public and private structures, utilities, or facilities, of the entire water supply watershed shall be limited to twenty-five (25) per cent, or existing use, whichever is greater.
4. New facilities which handle hazardous materials of the types and amounts determined by the Department of Natural Resources, shall perform their operations on impermeable surfaces having spill and leak collection systems as prescribed by the Department of Natural Resources.

The development should conform to DNR buffer and impervious surface criteria for small water supply watersheds. While DNR criteria do not restrict every property to 25 percent impervious, allocating too much impervious surface to a single development could have the effect of reducing development potential in the other properties within the Big Creek basin. (Information submitted on Hines indicates a proposed 43.72 percent impervious surface.)

Areas within the proposed project site are located within the 100 year floodplain. Fulton County should ensure that the developer takes steps to mitigate potential impacts on these floodplains. The Atlanta Regional Commission's Regional Development Plan notes that "all structures that can be damaged or land uses that can impede flood waters or reduce storage volume must be built outside the intermediate region (one percent) flood limits (i.e., outside the 100-year flood limit), with the exception that a stream crossing may vary from this policy, if constructed so as to permit passage of a 100-year flood with minimum feasible flow impedance, storage volume reduction, and upstream or downstream erosion or deposition."

Water quality in the Chattahoochee River and its tributaries can be impacted without stormwater pollution controls both during and after construction. Need for appropriate erosion and sedimentation measures during construction are essential. In addition, the amount of pollutants that will be produced after construction of the proposed Hines 400 Mixed Use Development was estimated by ARC. These estimates are based on some simplifying assumptions for typical pollutant loading factors (lbs/ac/year). The loading factors are based on the results of regional storm water monitoring data from the Atlanta Region. The following table summarizes the results of the analysis.

Estimated Pounds Of Pollutants Per Year

Land Coverage	Total Phosphorus	Total Nitrogen	TSS	BOD	Zinc	Lead
Office (204.6ac)	263.9	3,504.8	144,856.8	23,324.4	302.8	38.9
Hotel (25.6ac)	1,715.2	274.2	15,488.0	1,715.2	19.5	3.6
Residential (108.5ac)	113.9	1,162.0	65,642.5	7,269.5	82.5	15.19
Total	2,093.0	4,941.0	225,987.3	32,309.1	404.8	57.7

The county should ensure that the developer takes steps to mitigate potential impacts. The proposed site's close proximity to Big Creek and upstream location to the Big Creek Water Supply Intake highlights the need to mitigate the quantity and quality of stormwater runoff from this site. The "Interim Regional Storm Water Quality Management Guidelines," adopted by the Atlanta Region provide suggestions for addressing stormwater quality (find attached).

The proposed site includes both wetlands and perennial streams which flows into Big Creek. Site design features such as incorporating wetlands into landscaping and maintaining natural buffers adjacent to streams and wetland areas should be considered. Both of these approaches are suggested in the "Interim Regional Storm Water Quality Management Guidelines".

HISTORIC RESOURCES

Will the proposed project be located near a national register site? If yes, identify site.

No.

In what ways could the proposed project create impacts that would damage the resource?

N/A.

In what ways could the proposed project have a positive influence on efforts to preserve or promote the historic resource?

N/A.

INFRASTRUCTURE

Transportation

How much traffic (both average daily and peak am/pm) will be generated by the proposed project?

Land Use	Sq. Feet Rooms or Units	Weekday	AM Peak Hour		PM Peak Hour	
			Enter	Exit	Enter	Exit
Office Space	3,486,000	20,565	2,593	423	433	2,113

Hotel	620 rooms	5,398	456	182	237	201
Apartments	1,302 units	8,550	110	533	237	201

The above trip generation figures were calculated using the Institute of Traffic Engineers Trip Generation (5th Edition) manual.

What are the existing traffic patterns and volumes on the local, county, state and interstate roads that serve the site?

The following volumes are based on 1995 GDOT coverage counts from area facilities that will likely provide the primary routes for traveling to the Hines 400 Mixed Use Development. 2010 volumes for these facilities were obtained from the ARC Regional Transportation Model.

Facility	1995 Number of Lanes	1995 Volume	1995 V/C Ratio	2010 Number of Lanes	Forecast 2010 Volume	2010 V/C Ratio
Bethany Road from SR 9/Cumming Hwy to McGinnis Ferry Road	2	1,120	.06	2	7,537	0.3
SR 9/ Cumming Hwy from Webb Road to Bethany Road	2	9,580	.38	2	10,809	0.42
McGinnis Ferry Road from Bethany Road to Union Hill Road	2	1,800	.09	2	14,156	0.45
GA 400 from Forsyth County to Windward Parkway	4	42,790	.47	4	97,120*	1.18
GA 400 from Windward Parkway to State Bridge Road	4	55,560	.61	4	121,894*	1.48

* Figure based partially on Georgia Department of Transportation estimate.

The above table indicates that roads in the vicinity of the site currently operate at an acceptable level of service. However, while future 2010 volumes indicate that adjacent streets will operate at an acceptable level of service, SR 400 will be severely congested.

What transportation improvements are under construction or planned for the Region that would affect or be affected by the proposed project? What is the status of those improvements (long or short range or other)?

The ARC's adopted Atlanta Regional Transportation Improvement Program FY 1996 - FY 2001 (TIP) includes two proposed transportation projects in the vicinity of this development:

FN 067 SR 9 from Academy Street to Windward Parkway widening from two to four lanes. Preliminary engineering is underway. Right of way acquisition and construction are scheduled for FY 2002 or later.

FN 081 Construction of bicycle/pedestrian facilities in the City of Alpharetta. Construction is underway.

In addition, the Long Range Element of ARC's Regional Transportation Plan: 2010 includes three proposed projects in the vicinity of the proposed development:

FN 038 Upgrade Cumming St./Union Hill Road from SR 9 to SR 400. All project phases are scheduled for FY 2002 or later.

FN-R 032 Interchange construction for SR 400 @ McGinnis Ferry Road. All project phases are scheduled for FY 2002 or later.

RT-015 Construction a park and ride lot at SR 400 and SR 120/State Bridge Road. All project phases are scheduled for FY 2002 or later.

The Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan, 1995 Update includes the following Class 2 on-road bicycle facility.

Class 2 on-road bicycle facility from Forsyth County to the Chattahoochee River via Cumming Hwy./Alpharetta Rd./ SR 9/SR 120. All project phases are scheduled for FY 2002 or later.

Will the proposed project be located in a rapid transit station area? If yes, how will the proposed project enhance or be enhanced by the rapid transit system?

No.

Is the site served by transit? If so, describe type and level of service.

No, however it is within the MARTA service area.

Are there plans to provide or expand transit service in the vicinity of the proposed project?

No.

What transportation demand management strategies does the developer propose (carpool, flex-time, transit subsidy, etc.)?

None.

What is the cumulative generation of this and other DRIs or major developments? Is the transportation system (existing and planned) capable of accommodating these trips?

Three Major Development Area Plans/DRIs have been reviewed in the project area. One Major Development/DRI application, the Pavillion Piedmont Development, was withdrawn. The cumulative trip generation for the Windward, Oxford Green, and the proposed Hines 400 Mixed Use Development appear below.

	Weekday	AM Peak Hour		PM Peak Hour	
		Enter	Exit	Enter	Exit
Windward	159,700	12,840	2,935	5,005	12,220
Oxford Green	42,448	4,789	829	1,473	4,569
Subtotal	202,188	17,629	3,764	6,478	16,789

Hines 400 MUD	34,513	3,159	1,138	907	2,515
Total	236,701	20,788	4,902	7,358	19,304

The previous table shows that both developments at buildout will add approximately 236,700 additional daily trips to the local road network. Future 2010 volumes indicate that SR 400 will be severely congested. McGinnis Ferry Road, Windward Parkway and other roads are expected to operate at or near capacity, and will be congested during the morning and evening peak hours.

This part of north Fulton County continues to experience new single family, multi-family and commercial development. Increased congestion on SR 400 and major routes in North Fulton as a result of continuing development will result in a degradation of the areawide transportation system.. In order to ensure the integrity and efficient operation of the Atlanta Region's transportation facilities, County officials should work with ARC, MARTA and the Georgia Department of Transportation to identify roadways that will ultimately become congested so that appropriate transportation projects and demand management programs can be formulated and included in local and regional transportation plans.

However, for this development to be consistent with air quality goals, several complementary strategies should be incorporated into it's design. Some address the design of the proposed development itself, while others relate to surrounding land uses in addition to those included in this DRI..

Fulton County should continue to employ policies that encourage developers to include strategies that encourage public transit use. Such action by local governments is supported by ARC's Regional Development Plan (RDP) which states "Public transportation in the region should be used to provide an affordable alternative to automobile travel, to relieve traffic congestion, to add to the mobility of travel, to relieve traffic congestion, to add to the mobility of households without automobiles, and to increase access to employment and human services." and "transit service should be made cost effective by tailoring the type of service to the type of demand." Furthermore, the policies "encourage local governments to use coordinated land use controls and transportation facility design to increase the effectiveness of highway and transit systems." In keeping with these policies, it is essential that the local government, Georgia DOT, ARC, and the developer continue cooperative efforts to lessen traffic congestion in the area.

Developers should be encouraged to pursue additional strategies to mitigate the increases in traffic congestion associated with new development. These strategies should include:

1. **Developing the proposed site and the surrounding area into a full scale activity center.** Surrounding development should include a balance of complementary land uses such as office and residential to create a balance between jobs and housing. Mixed uses tend to be more pedestrian friendly and to reduce the need for internal trips by car. Locating and orienting buildings, driveways and any required parking areas so as to facilitate walking trips, and providing convenient pedestrian paths are essential to facilitating the development of a mixed use activity center. Mixed-use activity centers are also more amenable to the development of transportation alternatives such as transit, paratransit, shuttle services and others.

2. **Encouraging people to walk and take transit by designing a pedestrian and transit friendly development.** Bike and pedestrian friendliness go hand in hand with transit friendliness (e.g. express bus, park and ride lots, HOV lanes) and can help eliminate the need for internal trips in a development such as this. A 1995 study by Reid Ewing lists the following "essential" features that must be in place to be considered "friendly"; medium to high densities, mixed land uses, short to medium block lengths, transit routes every half

mile, two or four lane streets, continuous sidewalks with safe crossing facilities, appropriate buffering from traffic, street oriented buildings set back no farther than 25 feet, and comfortable and safe places to wait. In addition, Ewing notes the following highly desirable elements necessary to create a transit and pedestrian friendly environment; supportive commercial uses, grid-like street networks, traffic calming measures such as speed humps, closely spaced shade trees along access routes, minimal "dead" space, nearby parks and public spaces, small-scale buildings and attractive transit facilities. The following elements are considered "nice additions" to such a development; streetwalls (uninterrupted building facades or storefronts), functional street furniture, small scale signage, special pavements and objects such as public art.

3. Initiating and funding carpooling and vanpooling programs and equipment.

4. Establishing Transportation Management Associations (TMAs) to address the specific transportation needs in the area. TMAs are partnerships of businesses implementing transportation solutions. They are formal organizations of employers, developers, and other businesses working together, often with public agencies, on local transportation concerns. Most are incorporated nonprofit organizations with structured business operations. Although many TMAs receive public funding and offer some services to the general public, they are primarily private membership organizations supported by, and attuned to, the specific needs of their members. The vast majority of TMAs are located in employment settings and focus on the travel needs of employees and employers. The development of a properly conceived, efficiently operated and adequately funded TMA can be an important component of an area's efforts to combat traffic congestion and shift people out of their drive alone habits.

5. Encouraging employers in the proposed development to establish Employee Commute Options programs. Commute Options programs are employer-based programs that provide a variety of commuting alternatives and programs to reduce single occupant vehicle trips to a particular worksite. The programs are specialized for each employer based upon the work schedules, policies and needs of that particular employer and its employees. The package of commuting options may range from ridesharing to suggestions on flex hours, flextime, guaranteed ride home and telecommuting as well as many others. ARC's Commute Connections Program is available to work with individual employers in the region to establish such a program free of charge.

6. Using private sector resources to subsidize transit service to employees of this and other major developments in the area.

7. Identifying and supporting the development of air quality beneficial projects to reduce congestion on main access routes to proposed development. The proposed development does not include provisions for alternative ways of accessing the site other than by vehicle. Options such as express lanes and various forms of transit should be considered feasible given the developments proximity to major thoroughfares and its high density. Transit options can range from shuttle service within the development to express bus routes connecting to existing rail stations, park and ride lots, and bus stops to direct rail and bus service. These connections to the site allow trips to be made by some mode other than the car and thus reduce the number of trips and consequently emissions attributable to the development.

AIR QUALITY IMPACT

ANALYSIS METHODOLOGY

The emissions analysis for the Hines development was based on trip generation estimates for the facility. The estimated emissions are based on light duty gas vehicles (passenger automobiles) for a mix of peak and off-peak speeds. Due to the fact that this development is planned as mixed use it was assumed for this analysis that a portion of the trips generated by this facility would be internal trips.

RESULTS OF ANALYSIS

Estimates for both hydrocarbons and nitrogen oxides resulting from this development are presented in the following table:

	<u>TONS PER YEAR</u>	<u>TONS PER DAY</u>
Nitrogen Oxides	52.1	.2002
Hydrocarbons	34.1	.1313

Despite the fact that this analysis reveals an increase in pollutants it should not necessarily be viewed as having a negative impact on the regions' air quality as properly planned and developed mixed use facilities have a potential for helping improve the regions' air quality.

INFRASTRUCTURE

Wastewater and Sewage

How much wastewater and sewage will be generated by the proposed project?

According to regional averages, the development could generate 1.08MGD of wastewater.

Which facility will treat wastewater from the project?

Big Creek Wastewater Treatment Plant.

What is the current permitted capacity and average annual flow to this facility?

24MGD capacity and 12.53MGD annual average flow in 1993. Future plans include expansion to 40MGD but any expansion will require EPD approved.

What other major developments will be served by the plant serving this project?

ARC has reviewed many large-scale developments which would add flow to Big Creek. Some of the developments are partially or totally complete. Developments will have to be time to available capacity.

INFRASTRUCTURE

Water Supply and Treatment

How much water will the proposed project demand?

Again, according to regional averages, the proposed development could have a demand for 1.25MGD of water.

How will the proposed project's demand for water impact the water supply or treatment facilities of the jurisdiction providing the service?

The County anticipates being able to serve the development with water and sewer.

INFRASTRUCTURE

Solid Waste

How much solid waste will be generated by the project? Where will this waste be disposed?

Approximately 7,535 tons per year by estimates provided. Waste collection and disposal is by private contract and is not regulated by Fulton County.

Other than adding to a serious regional solid waste disposal problem, will the project create any unusual waste handling or disposal problems?

No.

Are there any provisions for recycling this project's solid waste.

None stated.

INFRASTRUCTURE

Other facilities

According to information gained in the review process, will there be any unusual intergovernmental impacts on:

- Levels of governmental service?
- Administrative facilities?
- Schools?
- Libraries or cultural facilities?
- Fire, police, or EMS?
- Other government facilities?
- Other community services/resources (day care, health care, low income, non-English speaking, elderly, etc.)?

This is a rapidly growing area which requires an increasing level of all services, particularly schools.

HOUSING

Will the proposed project create a demand for additional housing?

Yes.

Will the proposed project provide housing opportunities close to existing employment centers?

Yes.

Is there housing accessible to the project in all price ranges demanded?

Yes.

Is it likely or unlikely that potential employees of the proposed project be able to find affordable* housing?

Likely.

* Defined as 30 percent of the income of a family making 80 percent of the median income of the Region. 1996 median family income of \$52,100 for Atlanta MSA.