

**Northeast Georgia Regional Commission
Development of Regional Impact
Supplemental Information Checklist**

- **Types of uses, acreages of each type use**

Land Use	Total Land Area	
	Acres	%
Residential	725	45%
City Center	65	4%
Commercial	64	4%
Flexible (Commercial or Residential)	125	8%
Environmental / Open Space	417	26%
Schools	24	1%
Wastewater Treatment Plant	6	0%
Roads	137	9%
Major Energy Easements	41	3%
Total	1,604	100%

- **Detailed summary of housing units including:**

- **Number of new housing units**

- 3,999 units proposed
- Up to 4,810 units proposed if the Flexible Land Use is developed as all residential.
- The areas designated as Flexible land use were originally planned for medium and high density residential uses; however, the City prefers that these areas be used for additional commercial or institutional uses. The applicant will explore, and if practicable, develop these areas for additional commercial, office, or institutional uses as requested. Any areas designated as Flexible land use that cannot feasibly be put into commercial, office, or institutional uses may be redesignated in whole or in part as residential.

- **Dwelling types**

- Single family, townhomes, senior housing, and multi-family units

- **Number of bedrooms for each type**

- That level of detail has not been determined at this time

- **Estimated value for each type**

- That level of detail has not been determined at this time

- **Square footage for each type**

- Low Density Residential = minimum of 1,000 sq. ft. per unit
- Medium Density Residential = minimum of 1,000 sq. ft. per unit
- High Density Residential = minimum of 600 sq. ft. per unit (senior housing is excluded from the minimum)

- **Types of commercial, industrial, or any other uses and square footage by use**
 - City Center = 65 acres
 - Commercial = 64 acres (minimum requirement)
 - Flexible (commercial and/or residential) = 125 acres
 - Approximately 4.1 million square feet of non-residential area is available if the Flexible land use areas are developed as all non-residential. (Note: The traffic study estimated approximately 3.8 million sq. ft. of commercial development.)
 - Approximately 1.9 million sq. ft. is available if the Flexible land use areas are developed as all residential.
 - The areas designated as Flexible land use were originally planned for medium and high density residential uses; however, the City prefers that these areas be used for additional commercial or institutional uses. The applicant will explore, and if practicable, develop these areas for additional commercial, office, or institutional uses as requested. Any areas designated as Flexible land use that cannot feasibly be put into commercial, office, or institutional uses may be redesignated in whole or in part as residential.
- **Estimated completion date (month, year) for each phase and square footage by use for each phase**
 - The development is proposed to be constructed in multiple phases with an anticipated buildout of 15 – 30 years. The phases will be dictated by the market and current demand.
- **Number of displaced housing units and range of value for any displaced structures**
 - The proposed development will not displace any actively lived in housing units. There are several old home sites and previous livestock operation areas scattered throughout the site. The home sites contain homes in various stages of disrepair.
- **Detailed summary of solid waste service including**
 - **Potential solid waste providers**
 - The City currently has a five-year contract with Waste Pro located in Athens, Georgia. Waste Pro is responsible for disposing of the trash and locating a landfill.
 - **Anticipated receiving landfill**
 - Waste is transported from Arcade to a transfer station in Jefferson, Georgia. From there the waste goes to three possible landfills: one in Clark County, Georgia; R&B in Gainesville, Georgia; or one in Holmer, Georgia.
 - **Remaining capacity of receiving landfill**
 - Clark County Landfill capacity – The landfill currently has a capacity of 6-8 years. Staff is in the process of negotiating an expansion of the landfill which would increase the life to 14-18 years.
 - R&B Landfill capacity – Estimated capacity of 15-20 years
 - Holmer capacity – Estimated capacity of 15-20 years

- **Receiving land fill expansion plans (date and expansion capacity)**
 - Clark County landfill – Staff is in the process of negotiating an expansion of the landfill which would increase the life to 14-18 years.
- **Description of any onsite provisions for recycling waste**
 - The City doesn't currently have recycling facilities but are pursuing implementing services through Waste Pro. The City would like to encourage recycling as the development moves forward.
- **Percentage of site to be impervious surface at build-out**
 - The site will have approximately 39% impervious surfaces at buildout
- **Amount of tree canopy to be reduced, and percentage of tree canopy within 5 years of buildout and at tree maturity**
 - 1,085 acres of existing tree canopy (67% of the site)
 - Estimated 300 acres of tree canopy in 5 years (19% of the site)
 - Estimated 430 acres of tree canopy in 20 years (27% of the site)
 - In order to estimate the density of the trees onsite, tree sample areas were surveyed. In February and March of 2010, seventeen 100' x 100' squares were located, and the tree types and sizes in each square were determined. The tree squares were located in areas representative to the variety onsite, including undeveloped forested areas, pasture lands closer to the existing homesteads, stream buffers, and planted pines.
 - The diameter at breast height (DBH) in inches within the tree squares ranged from 147 inches in the lowest density square to 496 inches in the highest.
 - Per the City of Arcade definitions of specimen trees, there were only five hardwood specimen trees, over 20 small tree specimen trees, and no softwood specimen trees within all 17 squares.
 - This is consistent with the property being cleared for farm land and/or planted for timbering operations. The majority of older, large trees were found within the stream buffers, which will be protected during development.
- **Detailed summary of receiving schools including:**
 - **Affected school district including**
 - Jackson County School System and Jefferson School System
 - **Name and address of district superintendent**
 - Jackson County Superintendent is Dr. Shannon Adams located at 1660 Winder Highway, Jefferson, Georgia.
 - Jefferson City Schools Superintendent is Dr. John Jackson located at 575 Washington Street, Jefferson, Georgia.
 - **Receiving public schools**
 - The schools most affected by the proposed Arcade Master Plan development are South Jackson Elementary, Kings Bridge Middle, and East Jackson County Comprehensive High School within the Jackson County School District. Adjacent

schools that may be affected would be the Jefferson School System (all four schools), Benton Elementary, and Jackson County High School

- **Name and address of schools' principal**
 - South Jackson Elementary
 - Principals Pam Johns and Dr. Jane Scales
 - 8144 Jefferson Road, Athens, GA 30607
 - Kings Bridge Middle
 - Principal Debra Morris
 - 1630 Kings Bridge Road, Athens, Georgia 30607
 - East Jackson Comprehensive High
 - Principal Dr Patricia Stueck
 - 1435 Hoods Mill Road, Commerce, Georgia 30529
- **Capacity of receiving school**
 - South Jackson Elementary = 600 students
 - Kings Bridge Middle = 450 students
 - East Jackson Comprehensive High = 1,800 students
- **Identify rivers or streams on and adjacent to the subject property that are on the Georgia 305(b)/303(d) List**
 - A portion of the site is within one mile of the Mulberry River, which is listed on the 305(b)/303(d) List. A TMDL was completed for Fecal Chloriform in 2002 and 2007, and for Biota impacted – Macroinvertebrate Community in 2002.
- **Summary of affected fire and emergency services including infrastructure, equipment, and capacity available to service proposed development**
 - The City of Arcade is the current service provider for emergency services and Jackson County is the provider for fire services. The site is primarily within the Arcade Fire District and a small portion is within the South Jackson Fire District. Both are volunteer fire departments. Map 5.2 identifies the Fire Districts within Jackson County.
 - The nearest fire station is located two miles from Arcade Meadows on Swann Road just off of Highway 82 and Highway 129.
 - The response time is approximately five minutes.
 - The station includes the following
 - Two engines
 - One medium rescue truck
 - One water tanker
 - The consulting firm CH2MHill created an economic model to identify the financial benefits and impacts that the development will have on infrastructure services and a variety of other factors. The economic model verifies that the development will support continued service to the area and will provide additional revenue as the development grows. Additionally, a site will be provided as emergency services are required in the area.

- **Detailed summary of receiving wastewater and sewage treatment facility including**
 - **Design/Permitted Capacity**
 - Water = JCWSA has an allocation of 13.5 MGD from the Bear Creek Reservoir
 - Wastewater = at full buildout the treatment facility will have a permitted capacity of 2 MGD
 - **Average Daily Demand**
 - Water = 2.4 MGD at buildout
 - Wastewater = 1.2 MGD at buildout
 - **Planned expansion and date of expansion**
 - Water = The development will not require expansion of the facility
 - Wastewater = A wastewater treatment plant has been permitted for the project
- **Description of any on-site bicycle or pedestrian facilities**
 - Pedestrian/Bicycle Trails are included as part of the transportation system. They function as both transportation systems and recreational systems and are intended to connect the different parts of the community.
 - Paved trails shall be a minimum of 8' wide and tie into the Pedestrian circulation system on the roadway network.
 - All sidewalks must be paved and a minimum of 5'.
 - A 12-mile multi-use trail is located within the greenway and traverses the entirety of the site.
- **Proximity to public transit**
 - Public transit is not currently available in the area
- **Identify any best management practices for water quality protection that will be utilized**
 - The design guidelines for the development encourage local water quality and quantity treatment with an emphasis on a variety of site appropriate LID techniques. Examples include stormwater detention ponds, unconcentrated overland flow, grass swales, level spreaders, pervious pavement, disconnecting roof drains, and rain gardens. Water quality treatment will be integrated with boulevards through bioretention strips and swales will be used where appropriate.
- **Identify any required LEED-certified building materials that promote environmental protection and energy efficiency that will be utilized.**
 - Sustainable development, including LEED practices, is encouraged but not required in the development's design guidelines.
 - The proposed project will follow many design practices identified by LEED. Some of the strategies proposed to be implemented are:
 - Low Impact Design Stormwater techniques
 - Decentralized stormwater
 - Stormwater detention ponds
 - Unconcentrated overland flow
 - Grass swales

- Level spreaders
 - Pervious pavement
 - Disconnecting roof drains
 - Rain gardens
 - Preserving natural resources
 - Developing outside of steep slopes
 - Reducing vehicle miles traveled
 - Mixed use, compact development design
- **Traffic Summary**
 - **Trip Generation Analysis**
 - A full traffic analysis was completed by Stantec in May 2011
 - **AM Peak Hour**
 - 3,205 two-way trips
 - **PM Peak Hour**
 - 4,023 two-way trips
 - **24 hr 2-way ADT**
 - 41,670
 - **ITE Land Use Code used**
 - The ITE codes used include 210, 220, 230, 252, 312, 411, 520, 560, 565, 710, 720, 733, and 820.
 - **Traffic Volumes of existing roads**
 - The traffic volume of the road is currently 15,800 (2010 count on US 129).
 - **Planned road improvements**
 - The Traffic Study's recommendations are largely dependent on the number of site trips generated by the development. The number of site trips is based on the proposed land uses which are preliminary and may be largely driven by market conditions. This means that the land uses are subject to change and therefore it should be noted that a significant change in proposed land use could alter the recommended improvements.

At buildout the roadways within the proposed development will include roundabouts or traffic signals at two driveways as well as signal timing and phasing optimization to adjust for changing traffic patterns. The complete traffic analysis, included as an attachment, identifies any impacts and additional proposed improvements that would be needed to support the development.

Additional Information

Economic Development

- **Estimated Value at Build Out:**

- A market analysis completed during the planning phase indicated that the existing uses proposed for the area would not meet the markets demands due to an oversupply of large lot, traditional suburban subdivisions. This fact coupled with the City's desire for job generating mixed-use development, helped to develop the foundation for the proposed design of the site. While no formal appraisal has been done of the property considering both the residential and non-residential development, the market analysis indicates that the proposed development plan will make the property feasible for development.
- **Estimated annual local tax revenues likely to be generated by the proposed development:**
 - In order to estimate the annual local tax revenues likely to be generated by the development property taxes are generally used. However, the City of Arcade does not impose a property tax. Property taxes are remitted to Jackson County based on the associated Fire District and millage rate. The current millage rate is 33.44 for residents in the City of Arcade. The City does however; collect sales tax, insurance premium tax, franchise fees, and alcohol beverage tax. The cumulative local tax revenue by year 2034 for the non-residential uses in those categories are anticipated as follows:
 - Sales Tax: \$3.2 mil,
 - Insurance Premium Tax: \$900,000,
 - Franchise Fees: \$280,000, and
 - Alcohol Beverage Tax: \$180,000.

The Special purpose local option sales tax (SPLOST) and local option sales tax (LOST) are also tax revenues collected, SPLOST is earmarked and LOST is capped at 2.96%.

1.0 General Information

This package contains a Development of Regional Impact (DRI) application for approximately 1,604 acres of land within the City of Arcade. An annexation and rezoning application are running concurrently with this DRI application. The rezoning application proposes to change 1,604 acres from Planned Community Development (PCD) within the City of Arcade, and Low Density Single Family Residential (R-1) and Agricultural Residential (AR) within Jackson County to Planned Community Development (PCD). The annexation application proposes to annex the 366 acres currently within Jackson County into the City; 0.48 acres will remain under the County's R-1 zoning designation.

The proposed project is located approximately three miles southeast from the center of the City of Arcade, Jackson County, Georgia. It is bordered by US Highway 129 to the north, B. Whitfield Road to the northwest and Holiday Cemetery Road to the southwest. 4W Farms Road borders the property on the eastern edge along with Redstone Creek. The southern portion of the property is bisected by B. Whitfield Road and bordered by a residential neighborhood to the north and wooded, privately owned lands to the south. The Location Map is included as Figure 1.1.

The applicant is creating an innovative and sustainable development that highlights the unique environmental characteristics of the site. The Arcade Meadows development will create a mixed-use community containing a city center for community events; a commercial center with office, research facility, commercial, and retail opportunities; and a multitude of life-cycle housing options to satisfy the community's needs. All of these uses will be linked through a multimodal transportation network providing a system of greenways, parks, and trails.

The residential component of the mixed-use development will include a variety of housing types and price ranges to meet the housing needs of a fully functioning community. The home sites consist of single family, townhomes, senior housing, and multi-family housing. The residential areas will be designed to ensure compatibility with the existing residential areas immediately adjacent to the development. Additionally, two elementary school sites are proposed to be integrated into the residential neighborhoods. By incorporating the school sites in the development, the schools will become an essential part of the community and aid in creating a sense of place. Students will be able to safely walk to and from school which many studies show is a desirable amenity for developments. It will also aid in reducing the number of vehicle miles traveled.

The City Center incorporates many different uses in a pedestrian friendly atmosphere and provides job opportunities within walking distance of the residences. Uses within the City Center include offices, shops, civic uses, live / work space, a hospitality area and open spaces. A gathering space will be provided in the heart of the City Center for special functions. The gathering space provides a community identity and creates a sense of place for the development. Buildings in the City Center range from

midrise multi-use commercial, office, and retail uses to townhomes, senior living housing, and live /work spaces.

The two commercial centers provide office, research facility, commercial, retail, and recreational opportunities close to established neighborhoods, thus reducing traffic congestion as well as reducing Vehicle Miles Traveled (VMT). The commercial centers will be linked through an internal network of bicycle trails, pedestrian ways and / or multi-use facilities to further reduce VMT's and integrate the development within the existing fabric of the City of Arcade. Through this integrated transportation network, residents located both within existing neighborhoods and the proposed Arcade Meadows development will have direct access to the commercial center as well as civic and recreation areas.

The natural areas, the organizing element of the site, are enhanced by connecting the natural environment with greenways, parks, and trails providing residents with opportunities for a healthier lifestyle. The park system includes active recreation fields including multi-purpose fields, pocket parks, and neighborhood parks. In addition to the parks there are clubhouses proposed within the residential areas which will have a variety of activities including playgrounds, pools, tennis courts, and other active recreation opportunities. All of these recreation areas will be linked through a 12-mile multi-use trail system containing natural materials, gravel and paved portions. The multi-use trail is located within the greenway system which aligns with the unique environmental areas, and along with the pedestrian ways, serves as the connection between the development and the recreation areas. They provide residents and visitors the opportunity to traverse the development without ever having to get in their cars.

A summary of the Northeast Georgia Regional Commission Development of Regional Impact Supplemental Information checklist is included as Appendix F of this report.

2.0 Project Summary

The Arcade Meadows development will contain a mix of residential uses; a City Center with civic uses, retail and commercial uses, residential units, senior housing, and a hospitality area; the commercial uses will range from large scale uses such as big box retail to local neighborhood uses such as veterinarians offices or dry cleaners; the flexible use area has the opportunity to develop as commercial or a blend of commercial and residential uses; and other uses will include environmental and open space. These uses will be functionally integrated into a cohesive development and connected by a multimodal transportation system comprised of pedestrian paths, bicycle paths, and multi-use trails. Table 2.1 identifies the proposed land use and development summary. A Concept Plan identifying the conceptual proposed layout is included as Figure 2.1.

Table 2.1: Land Use and Development Summary

Land Use	Total Land Area	
	Acres	%
Residential	725	45%
City Center	65	4%
Commercial	64	4%
Flexible (Commercial or Residential)	125	8%
Environmental / Open Space	417	26%
Schools	24	1%
Wastewater Treatment Plant	6	0%
Roads	137	9%
Major Energy Easements	41	3%
Total	1,604	100%

Buildout is anticipated to be completed in 15 – 30 years. The development will be constructed in multiple phases which will be determined by market demand.

In order to maintain the existing fabric of the area and the unique environmental characteristics, limitations and other special requirements have been placed on the residential and non-residential development. As part of those requirements design guidelines were created and submitted with the rezoning application. The Guidelines are intended to provide direction on the implementation and appearance of the development.

The density in the residential land use areas will be limited to a maximum of 3,999 new dwelling units. Residential units will include low density, medium density, and high density units. The low density lots contain a mix of estate lots and other single family lot sizes varying in size with a minimum lot size of 6,900 sq.ft. Medium density lots will contain a mix of single family lots varying in size with a minimum lot size of 4,400 sq.ft. High density lots are proposed to include townhomes, senior housing, and multi-

family units with a minimum lot size of 2,160 sq.ft. All residential lot types will be allowed within any area designated as residential.

The City Center is centrally located in the community; is proposed to occupy approximately 65 acres; and will include offices, shops, civic uses, live / work space, a hospitality area and open spaces. The design of the City Center is intended to incorporate elements that create a vibrant street edge such as found in a traditional "Main Street." Buildings range from midrise multi-use commercial, office, and retail uses to townhomes, senior living housing, and live /work spaces. Convenient pedestrian trails and routes connect the City Center and the residential neighborhood.

The commercial land use areas will contain a minimum of 64 acres and will include retail, office, and other similar uses. It is intended to be a more intensive commercial use than the City Center. The Commercial area provides maximum pedestrian accommodation as well as controlled access to Highway 129 and Holiday Cemetery Road. There is convenient access for vehicles, pedestrians, and bicycles to traverse to and from residential areas.

The planning areas designated as Flexible land use on the Concept Plan were originally designated for medium and high density residential uses. The City prefers that these areas be used for additional commercial or institutional development. The Applicant (and its successors in interest) will explore and if practicable, develop these areas for additional commercial, office or institutional use. Any areas designated as Flexible land use that are not being put to a commercial, office or institutional use may be redesignated in whole or in part as Residential and developed in accordance with the standards identified by the Arcade Meadows Planned Community Development designation.

Based on the proposed plan, including the City Center and the Flexible land use areas, the site can accommodate over 3 million square feet of retail and commercial uses.

2.1 Adjacent Uses

The adjacent area to the west of the subject site is B. Whitfield Road and Holiday Cemetery Road with residential areas and forested land as well as a scattering of cultivated fields. US Highway 129 forms the northern boundary of the subject tract with the adjacent land in this area dominated by agriculture and forest with minor intermixed residential and commercial uses. The adjacent areas east and south of the site are residential, agricultural, forested land with Brock Road beyond to the south and US Highway 129 curving around to the east. The area to the west is agricultural with a mix of residential neighborhoods. Overall, the majority of the surrounding area is agricultural and forested land.

Table 2.2: Adjacent Uses

	Existing Uses	Future Land Use Designations	Zoning Districts
North	Agriculture, forest, residential, commercial	Retail Sales and Services, Agriculture / Forest / Open Field	City - C-2, RR-1
South	Residential, agricultural, forested	County - Agriculture / Forestry, Intensive Agriculture, Residential	County - PCFD, A2
East	Residential, agricultural, forested	County - Agriculture / Forestry, Residential	County - A2
West	Residential, forested	Low Density Residential, Residential Estate, County - Agriculture / Forestry, Residential	County - R1, A2 City - RR-1, RR-2

Source: Stantec, 2011

As previously mentioned the adjacent property is mostly agricultural and forested land with a mix of some residential and commercial areas. The proposed development has been designed in a manner to ensure compatibility with the adjacent and nearby existing uses. Intensive uses will be focused on the interior of the site near the existing roadways of US Highway 129 and Holiday Cemetery Road. Less intensive components of the development will transition into and converge with the existing residential and agricultural areas; thereby minimizing any impacts to adjacent residences.

The project will enhance the existing use and usability of the adjacent and nearby properties by providing additional commercial centers, retail areas, and a variety of job and housing opportunities for residents in the area. Instead of having to drive miles away from their homes, the proposed development will offer live, work, and play opportunities for citizens to enjoy within close proximity to their own homes. Adjacent properties, particularly the established residential neighborhoods, will be able to capitalize on the proposed development and will be offered new and exciting opportunities for shopping, entertainment, employment, and recreation.

3.0 Economic Development

The City of Arcade currently has a limited economy and depends on nearby cities and the region for employment and services. The majority of the labor force living in Arcade work outside the city limits. Increased development within the city will provide jobs and economic opportunities. The proximity of Arcade to Athens-Clarke County, Gainesville, Interstate 85 and the 129 Bypass between Jefferson and Athens geographically position Arcade with an opportunity to draw from a sufficient local and regional workforce to fill the demand created by the proposed project.

The site proposed for development is currently used primarily for agriculture purposes. There are also several old home sites and previous livestock operation areas scattered throughout the site. The home sites contain homes in various stages of disrepair. The livestock areas are in a similar state of disrepair with some containing abandoned buildings and others containing active storage spaces. The proposed development will allow the agricultural uses to continue as buildout progresses.

A market analysis completed during the planning phase indicated that the existing uses proposed for the area would not meet the markets demands due to an oversupply of large lot, traditional suburban subdivisions. This fact coupled with the City's desire for job generating mixed-use development, helped to develop the foundation for the proposed design of the site. Although no formal appraisal has been done of the existing value of the property, under the market conditions that currently exist and are expected to continue, market analysis indicates that the property cannot be feasibly developed with the existing zoning restrictions. Because the property cannot be feasibly developed as zoned, the property will remain undeveloped and unproductive. However, if developed in accordance with the proposed rezoning and DRI applications, it is feasible for the development to become productive.

Typically, property taxes are used to determine annual local tax revenue. However, the City of Arcade does not impose a property tax. Property taxes are remitted to Jackson County based on the associated Fire District and millage rate. The City does however; collect sales tax, insurance premium tax, franchise fees, and alcohol beverage tax. The cumulative local tax revenue by year 2034 for the non-residential uses in those categories are anticipated as follows:

- Sales Tax: \$3.2 mil
- Insurance Premium Tax: \$900,000
- Franchise Fees: \$280,000
- Alcohol Beverage Tax: \$180,000

The Special purpose local option sales tax (SPLOST) and local option sales tax (LOST) are also tax revenues collected, SPLOST is earmarked and LOST is capped at 2.96%.

A commonly used assessment of the impacts of the development on the local government to determine if they are capable of adequately providing new facilities/services is the Cost of Community Services and the comparison of the revenues and expenditures. The estimated annual Cost of Community Services to the residential and commercial areas in Arcade Meadows is approximately \$5.7 million by 2034. The estimated annual revenue over the same twenty year build-out is \$6.3 million. Cumulative excess revenues over expenditures are projected to be \$3.8 million. Additionally, the proposed development is providing a wastewater treatment facility, internal road construction, public parks and open space, on-site stormwater management, and opportunities for two elementary school sites. Lastly, through coordination with the Georgia Transmission Corporation and the property owner, a 30.4 acre electric substation site was constructed on dedicated land that was previously a portion of the site.

4.0 Environmental Quality

The following section addresses the major environmental characteristics of the site. The development is not located within nor is it likely to affect any of the following resources: water supply watersheds, significant groundwater recharge areas, protected mountains, and protected river corridors. However, any impacts to wetlands, floodplains, surface waters, trees, and historic resources will be discussed below.

4.1 Site Description

The subject site is 1,604 acres located in the City of Arcade and Jackson County, Georgia and is located approximately three miles southeast from the center of the City of Arcade, Jackson County, Georgia. It is bordered by US Highway 129 to the north, B. Whitfield Road to the northwest and Holiday Cemetery Road to the southwest. 4W Farms Road borders the property on the eastern edge along with Redstone Creek. The southern portion of the property is bisected by B. Whitfield Road and bordered by a residential neighborhood to the north and wooded, privately owned lands to the south.

The site contains several surface water bodies in addition to two named water bodies. Davis Lake is a nine acre lake located in the north-central portion of the property. Redstone Creek flows east to west through the southern portion of the property. There are additional other small tributaries and unnamed ponds located throughout the property.

There are several old home sites and previous livestock operation areas scattered throughout the site. The home sites contain homes in various stages of disrepair. The livestock areas are in a similar state of disrepair with some containing abandoned buildings and others containing active storage spaces.

The site contains two power line easements and one gas line easement. The 100' Georgia Power Company Easement contains Georgia Transmission Corporation power lines that run north to south in the central portion of the site. The 125' Winder-Hartwell transmission line runs from west to east through the southern portion of the site. There is also a 40' maintained natural gas line owned by Atlanta Gas Light that runs through the northwest corner of the subject tract, parallels Holiday Cemetery Road onsite, crosses Holiday Cemetery Road and runs parallel to the road offsite, crosses Holiday Cemetery Road again and cuts through the southwestern portion of the tract. This gas line is in a maintained easement, although no easement has been recorded. Both the Georgia Power Easement and the gas line easement are being relocated in coordination with the development.

4.2 Wetlands

Stantec conducted site visits in February and May of 2010. The NRCS Soil Survey and National Wetland Inventory (NWI) maps did not prove to be accurate indicators of the wetlands found in the review area.

In most cases throughout the review area, they underestimated the hydric soils and/or the wetland extents.

A total of thirty-eight separate wetlands were observed on the property for a total of approximately 25 acres. The wetlands are identified on Figure 4.1. Many potential wetland areas, especially those confined to the floodplains whose source would have been groundwater connection to the stream, no longer exhibited wetland hydrology due to severe incision of many of the stream channels. No isolated wetlands were discovered on the property. One basic Cowardin classification system of wetland, palustrine, was observed (Cowardin, et al., 1979). The palustrine wetlands were all located either in the floodplains, in the headwaters of various stream types, or along the fringes of the onsite ponds. Palustrine wetlands are defined as all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5%. Palustrine wetlands can best be described as having such names as marsh, swamp, bog, fen, and prairie.

The wetlands, along with the surface waters described below, will be preserved to the maximum extent possible. It is their unique and pristine character that makes the site such a special place. The wetlands will be incorporated into the greenways and open space areas in order to provide protection and additional buffering from adjacent development. Per the City of Arcade requirements, a 50' buffer will be maintained around the onsite wetlands. Passive recreation, such as onsite trails will be allowed within the wetland buffers.

Minor impacts are anticipated around the dam on Davis Lake. Because the dam is not structurally sound, it will need to be redesigned and updated. These updates could impact the wetlands surrounding the lake. Any wetlands that will be impacted by the dam redesign will be restored or mitigated.

In developing the road network, care was taken to minimize impacts to streams and wetlands. Where possible, road crossings have been proposed in areas where there are no wetlands. Only minor impacts to wetlands are anticipated from the construction of the internal road network.

4.3 Floodplains

A portion of the Arcade Meadows site is located within Flood Zone A as identified on the Federal Emergency Management Agency's Flood Insurance Rate Maps (Map # 13157C0275C). Zone A is defined as "Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage." The areas that have been identified as Zone A are primarily made up of streams and buffers and currently there is no development proposed in those locations. The locations will remain as natural areas and will become the greenways that connect the neighborhoods. Refer to Figure 4.1 for a map of the floodplains.

4.4 Surface Waters

Stantec conducted site visits in February and May of 2010. Surface waters within the project area are located in the Redstone Creek watershed of the Oconee River Basin. Redstone Creek is a perennial stream on the Jefferson USGS Topographic Quadrangle map and flows westward along and through the southern portion of the subject property. Davis Lake is located in the north-central portion of the property and is artificially impounded. In addition to Davis Lake, the subject property also contains four smaller, unnamed ponds. They are identified in Figure 4.1.

Six major stream networks (Stream A, Stream C, Stream D, Stream E, Stream F, and Streams H/G/D) consisting of various unnamed tributaries exist on the property. Many jurisdictional streams were mapped within the property boundary.

Stream A (Redstone Creek), is the largest system in terms of flow volume. Its general flow direction is from northeast to southwest through the southeastern corner of the review area.

Two additional streams are located on the western portion of the tract and are tributaries to the Middle Oconee River which is also part of the Upper Oconee River Basin. Stream D is an ephemeral channel at the northwest corner of the property and is not jurisdictional and is not shown on any maps. Stream C flows west from the center of the western portion of the tract and leaves the property at the western property corner. Stream D also flows west from the lower western portion of the tract. Both Stream C and D originate on the property and have a short intermittent section before becoming perennial near large headcuts. Both streams have steep valleys with small floodplains. Areas of streambank erosion were observed.

Stream E, originates on the property from a wetland and braided ephemeral channels just south of Highway 129 on the northeastern corner of the property. It flows into Stream D downstream of the confluence of Stream F and Stream D. This system's intermittent origin, like that of Stream F is located inside the property line.

Stream F originates upstream of Davis Lake and continues downstream of the lake's dam and flows into Stream D at the approximate center of the site. This system's intermittent origin is located inside the property line.

Stream H/G/D crosses Highway 129 and flows into the property from the north, discharging into the unnamed pond at the Northwestern corner of the property and eventually flowing downstream from the pond's dam into Redstone Creek. This stream is perennial when it enters the property.

Numerous unnamed tributaries converge with each of the systems described above. A variety of stream types exist on the property. Some smaller streams are confined only to the floodplains of larger streams

while others originate in pastures as ephemeral, multi-thread systems and flow through highly incised valleys downstream before they converge with the larger stream system. Some of the tributaries have short ephemeral channels and short intermittent sections, while others have long ephemeral channels with no intermittent sections. Many of the shorter tributaries are draining wetlands at their headwaters.

A portion of the site is within one mile of the Mulberry River, which is listed on the 305(b)/303(d) List. A TMDL was completed for Fecal Chloriform in 2002 and 2007, and for Biota impacted – Macroinvertebrate Community in 2002.

Past land use, most likely mixed agricultural, has caused significant channel incision (average of 4-6 feet) and sediment deposition. The level of bank erosion within the system is causing high sediment loads in the streambed. Most of the reaches on site are currently in an intermediate stage of channel succession. Most are still incised and actively eroding, however a few of the streams onsite are relatively stable.

The number of stream crossings has been limited as much as possible, and where stream crossings are required care has been taken to select locations that would minimize impacts. Impacts will be mitigated either through a mitigation bank or with on-site stream and wetland remediation. Per the City of Arcade regulations, the streams onsite will have a 50' buffer consisting of a 25' impervious buffer in addition to the 25' state required buffer.

Low Impact Design (LID) and other innovative techniques such as open swales, reduced roadway widths, decentralized stormwater management, and water quality controls will be used to ensure that the site retains its environmental character.

4.5 Trees

In order to estimate the density of the trees onsite, tree sample areas were surveyed in February and March of 2010. Seventeen 100' x 100' squares were located, and the tree types and sizes in each square were determined. The tree sample areas and specimens are included in Appendix A. The tree squares were located in areas representative to the variety onsite, including undeveloped forested areas, pasture lands closer to the existing homesteads, stream buffers, and planted pines. The diameter at breast height (DBH) in inches within the tree squares ranged from 147 inches in the lowest density square to 496 inches in the highest. Per the City of Arcade definitions of specimen trees, there were only five hardwood specimen trees, over 20 small tree specimen trees, and no softwood specimen trees within all 17 squares. This is consistent with the property being cleared for farm land and/or planted for timbering operations. The majority of older, large trees were found within the stream buffers, which will be protected during development.

Based on the information provided in the tree survey, specimen trees and existing vegetation will be preserved when possible. Revegetation will include the replication of local and regional plant

communities. Dense arrangements of vegetation will adequately supply shade and provide wildlife habitat within the microclimate.

In addition to revegetation, a close planting of trees will be used to create a canopy that will provide shade and cool the pavement. This will reduce the “heat island effect” while providing an aesthetically pleasurable environment.

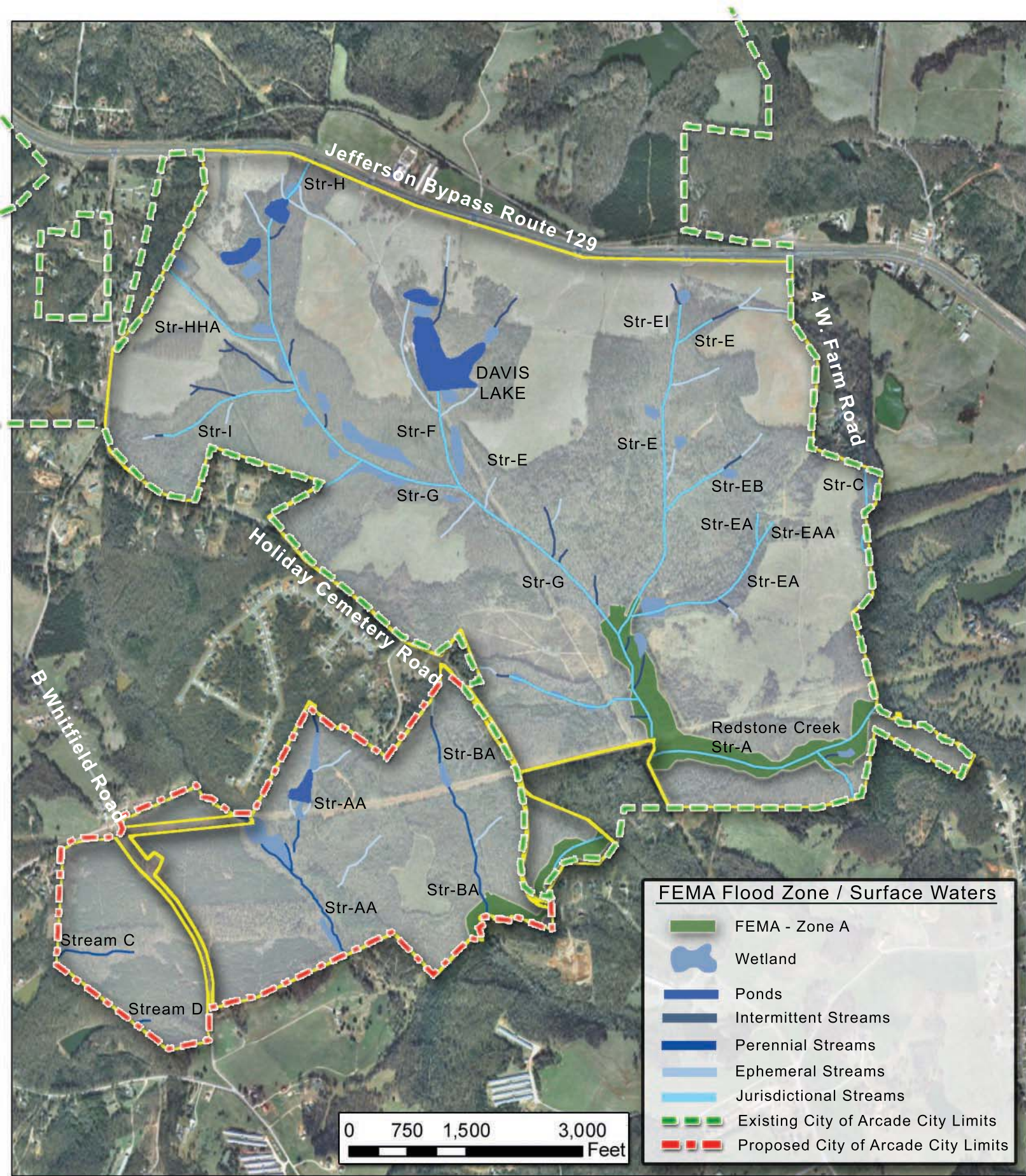
In order to further encourage sustainable landscaping and to provide aesthetic enhancements and environmental benefits, the following landscape design concepts will also be applied:

1. Create green connections to the regional ecosystem and public amenities that connects the City Center with surrounding neighborhoods.
2. Provide biodiversity and habitat preservation/restoration in the greenway network.
3. Pair infrastructure with park and open space opportunities.
4. Manage stormwater and infiltration as close to the source as possible to restore the natural hydrological patterns.
5. Honor regionalism and seasonality with the use of native plant material in their habitat.

4.6 Historic Resources

There are three cemeteries located on or adjacent to the site. One cemetery is located on the southernmost tract, just north of B. Whitfield Road. A second cemetery is located within the right-of-way on the south side of Holiday Cemetery Road, adjacent to the proposed site. The third cemetery is located in the northeast corner of the proposed site between the fork of two creeks. Their location will be preserved and access will be provided as the development builds out.

In 2008 a preliminary archaeological investigation was conducted on the site. The investigation included research on regional archaeology and history, a search of archaeology maps, record forms, and technical reports relevant to the project site and vicinity. The records indicated that there were sites previously identified, and all were located adjacent to Redstone Creek. A full site survey will be completed during subsequent federal permitting for future development activities if required.



FEMA Flood Zone Surface Waters

Project
Arcade Meadows DRI Application
 Arcade, GA



Date	MAY 20, 2011
Figure	FIG 4.1

5.0 Public Facilities

5.1 Water Supply

The average daily flow for the project at buildout is estimated to be 2.4 million gallons per day (MGD). The Jackson County Water and Sewerage Authority (JCWSA), the potable water service provider, has an allocation of 13.5 MGD from Bear Creek Reservoir. They are using approximately 1.9 MGD and have 9 MGD of treated water available. Based on current conditions, at buildout, JCWSA will have excess capacity to accommodate the proposed development. A Will-Serve letter from the Jackson County Water and Sewerage Authority is included as Appendix B.

Treated wastewater (re-use water) will be used to irrigate public areas such as boulevard landscaping, parks, fields, etc., which will reduce the demand on the potable water system. The proposed development will not require facility expansions or water line extensions. Water lines currently exist on Highway 129 and Holiday Cemetery Road.

5.2 Wastewater Disposal

In total, the project is anticipated to generate 1.2 MGD of wastewater when buildout is reached. A conservative generation rate of 300 GPD / unit was used in order to estimate both residential and non-residential generation rates.

In order to provide treatment for on-site flows, a wastewater treatment plant is proposed for construction and will be coordinated with the City of Arcade. At full buildout the permitted capacity of the treatment facility will be 2 MGD. In the interim, the facility will be built at 0.5 MGD increments. The facility will be designed to allow for reuse water to be used for irrigation on the site. The City of Arcade plans to reserve capacity within the facility for possible future connections.

EPD has permitted a 0.25 MGD Land Application System (LAS), which will allow treated effluent irrigation, and approved related Construction Documents. However, the original proposed plant site was sold to Georgia Transmission Corporation (GTC) so the proposed treatment facility was relocated to a site just south of the existing substation. The updated construction plans will be resubmitted for approval.

A permit for direct discharge to the Middle Oconee River for 2 MGD is also in process with EPD. Modification to the Drawings & Project Manual are approved by EPD which now show the current site and higher treatment capacity. Also, a collection sewer and reuse/discharge force main are included. To complete the discharge requirements, the Watershed Assessment and Watershed Protection Plan have been submitted to EPD for concurrence. Review comments need to be addressed but are minimal.

The current permits that have been issued for the facility are included as Appendix C.

5.3 Land Transportation

A full traffic analysis was completed by Stantec in May 2011 to determine whether or not transportation or access improvements will be needed to serve the project. The ITE Trip Generation 8th Edition rates and equations were used to calculate the number of trips expected to be generated by the proposed development. The ITE codes used include 210, 220, 230, 252, 312, 411, 520, 560, 565, 710, 720, 733, and 820.

The traffic volume of the road is currently 15,800 (2010 count on US 129). The proposed development is expected to create 4,023 two-way trips in the PM peak hour and 3,205 trips in the AM peak hour. Further detail shows that at 16 access points, nine of which currently exist on US 129 with the remaining proposed on existing local routes, there will be 1,335 entering and 2,688 existing new vehicle trips in the 4:00 – 5:00 PM weekday peak hour and approximately 2,066 entering trips and 1,139 exiting new vehicular trips in the 7:00 – 8:00 AM peak hour. The 24 hour two-way AADT is estimated at 41,670 new external trips at build out. This assumes approximately 45% internal capture within the site and pass-by or diverted trips reduction of approximately 19% of the retail trips only. Approximately half of the new trips will access the site via US 129 in each direction.

Currently there are no improvements planned for the existing roadways. At buildout the roadways within the proposed development will include roundabouts or traffic signals at two driveways on Highway 129 as well as signal timing and phasing optimization to adjust for changing traffic patterns. The complete traffic analysis, included as Appendix D, identifies any impacts and additional proposed improvements that would be needed to support the development. Additionally, the existing transportation network as well as the funded portion of the applicable transportation plan mitigates the project impacts. The project is also consistent with the regional transportation plans. The project does not currently have access to public transit.

As an alternative to vehicles, bicycle lanes, sidewalks, and multi-use trails will be provided throughout the site. The multi-use trail is a 12-mile system located within the greenway that traverses the length of the site. The project is also proposed to include paved sidewalks on the collector and internal roads. This will provide opportunities for residents and guests to walk or ride their bikes throughout the development. Bike lanes are also proposed on many of the internal roads. Additionally, bicycle parking is proposed to be provided in the City Center and Commercial areas to further encourage alternative modes of transportation.

5.4 Stormwater Management

Stormwater management will meet the standards of Section 27.5.1 of the City of Arcade Land Use Management Code dated May 8, 2006. The stormwater approach is decentralized; each site will be

looked at individually with regards to the stormwater design and will take into account the characteristics of the site such as topography, soils, natural vegetation, exposure, and use. The design guidelines will encourage each residential lot to be responsible for on-site water quality treatment.

Additionally, the design guidelines for the development encourage local water quality and quantity treatment with an emphasis on a variety of site appropriate Low Impact Development techniques. Examples include stormwater detention ponds, unconcentrated overland flow, grass swales, level spreaders, pervious pavement, disconnecting roof drains, and rain gardens. Water quality treatment will be integrated with boulevards through bioretention strips and swales will be used where appropriate.

5.5 Solid Waste

An average of 4.59 pounds of solid waste per person per day is identified in the 2009 Northeast Georgia Multi-Jurisdictional Solid Waste Management Plan Short-Term Work Program Update as the average generation rate in Jackson County. The 2010 Census estimates the average household size within Jackson County to be 2.8 persons per household. Based on the buildout of 3,999 units the total population generated by the development would be approximately 11,197 people. Using the generation rate provided by the Jackson County Solid Waste Management Plan, the development would produce 51,394 pounds per day of solid waste or 9,379 tons per year.

The City currently has a five-year contract with Waste Pro located in Athens, Georgia. Waste Pro is responsible for disposing of the trash and locating a landfill. The Applicant has contacted WastePro and will coordinate with them to find the appropriate location for solid waste generated by the site. Additionally, the Short-Term Work Program Update includes a letter of disposal capacity assurance for the 10 County Solid Waste Authority from 2009 to 2018 which includes Jackson County, attached as Appendix E.

The City doesn't currently have recycling facilities but are pursuing implementing services through Waste Pro. The City would like to encourage recycling as the development moves forward. The development does not propose any uses that would generate hazardous waste.

5.6 Recreation and Open Space

Approximately 417 acres, over 25% of the site, will be dedicated to common open space uses. All parks, recreational areas, trails, easements, lakes, green space, and other landscape areas shall be designated as open space. Open spaces shall be used for social, recreational, stormwater management, and / or natural environmental preservation purposes. The uses allowed within the parks will be appropriate to the character of the open space, including its topography, size, and vegetation; as well as the character of the development.

A signature feature of Arcade Meadows will be the parks and natural areas linked together by multi-use trails, greenways and sidewalks. The park system will include a minimum of 15 acres of active recreation fields including multi-use fields; a minimum of 2 acres of pocket parks; and a minimum of 28 acres of neighborhood parks. A pocket park is a small, local park under an acre in size and intended to serve the needs of a specific neighborhood within a ¼ mile radius. A neighborhood park, pocket park, and/or trail system will be located within a 15 minute walking distance or within 1,500 feet of a residential neighborhood.

In addition to the parks there are clubhouses proposed within the residential areas which will have a variety of activities including playgrounds, pools, tennis courts, and other active recreation activities. The multi-family areas will also contain their own clubhouse facilities. All of these recreation opportunities will be linked through sidewalks as well as a 12-mile multi-use trail system located within the greenway that weaves throughout the entirety of the site. The greenway and trail system allows for interaction between the urban and the rural without turning a back on either. It is this synergy between the natural and the built environment that will make Arcade Meadows a special place.

5.7 Schools

Jackson County has three separate Public School Districts within the County; the County system, City of Jefferson, and the City of Commerce. Each system operates independently under the Georgia Department of Education. The Jackson County Superintendent is Dr. Shannon Adams and is located at 1660 Winder Highway, Jefferson, Georgia. The Jefferson City Schools Superintendent is Dr. John Jackson and is located at 575 Washington Street, Jefferson, Georgia. The City of Commerce system was not included as it is not anticipated to be affected by the proposed Arcade Master Plan development.

The schools most affected by the proposed Arcade Master Plan development are South Jackson Elementary (Principals: Pam Johns and Dr. Jane Scales), Kings Bridge Middle (Principal: Debra Morris), and East Jackson County Comprehensive High School (Principal: Dr. Patricia Stueck). Adjacent schools that may be affected would be the Jefferson School System (all four schools), Benton Elementary, and Jackson County High School. See Figure 5.1 for the school location map.

Data was gathered from the Web Sites for the Jackson County School System, the City of Jefferson School System and Jefferson County Government. Additional data was provided by the Office of the Superintendent for Jackson County School System, the Office of the Superintendent of the Jefferson School system and Dennis Patrick from the Jackson County Planning Department. All of the offices contacted were unaware of any Housing Generation Rates that would be used for forecasting student populations from proposed developments.

Impacts to local school systems from specific residential developments can be calculated by using Housing Generation Rates for Public Schools (see table below). This will approximate the number of students of each education level based on the number of housing types planned for the development.

The rates used in this report are derived from our experience in a similarly rural county (Polk County Florida Public School System).

Table 5.1, below, shows the generation rates for each education level by housing type. The estimated number of students generated by the development is shown in Table 5.2.

Table 5.1: Housing Generation Rates for Public Schools

Type of Unit	Elementary	Middle	High
Single Family	0.205	0.126	0.118
Multi-Family	0.132	0.071	0.074

Table 5.2: Estimated Student Generation

	Proposed Development	Student Generation		
		Elementary School	Middle School	High School
	Number of Units*			
Single Family	2,845	583	358	336
Multi-Family	954	126	68	71
Total	3,799	709	426	407

*The 200 senior housing units were removed from the calculations

Table 5.3: School Capacity

School	Current Enrollment	Permanent Capacity	Committed Capacity	Students Generated by Project	Capacity Availability, Y/N
South Jackson Elementary	568	600	--	709	N
Kings Bridge Middle	388	450	--	426	N
East Jackson Comprehensive High	953	1,800	--	407	Y

As identified in Table 5.3, additional capacity will be needed for both elementary and middle school students. The proposed design includes opportunities for two elementary school sites to mitigate the impacts of the development. For the middle school, there are options to offset the additional students generated: Kings Bridge Middle School has existing land suitable for expansion or district lines could be re-drawn to redistribute children when the new Middle School is constructed in the northwest part of Jackson County.

5.8 Public Services

The City of Arcade is the current service provider for emergency services and Jackson County is the provider for fire services. The site is primarily within the Arcade Fire District and a small portion is within the South Jackson Fire District. Both are volunteer fire departments. Figure 5.2 identifies the Fire Districts within Jackson County.

The consulting firm CH2MHill created an economic model to identify the financial benefits and impacts that the development will have on infrastructure services and a variety of other factors. The economic model verifies that the development will support continued service to the area and will provide additional revenue as the development grows. Additionally, a site will be provided as emergency services are required in the area.

6.0 Consistency

6.1 City of Arcade 2008-2028 Comprehensive Plan

The City of Arcade's vision includes the following statement: *"New development is family oriented, compliments the rural setting, and provides employment opportunities, services, recreation, parks, and shopping."* As described below, Arcade Meadows is consistent with the Vision and the intent of the City of Arcade 2008-2028 Comprehensive Plan.

6.1.1 Character Areas

The Arcade Meadows development falls within the following character areas: Gateway Corridors, Town Center, Traditional Neighborhood, and Conservation / Recreation. Refer to Figure 6.1: Future Policies Map. Both the implementation measures and the implementing zoning districts of each character area align with the proposed uses of the development.

Gateway Corridor

Along the Jefferson Bypass, on the northeastern portion of the subject property lays the Gateway Corridor character area. This area is intended to provide an entryway into the City. As stated in the comprehensive plan, *"Well designed community gateways evoke a strong sense of place."* The development intends to extend that principal throughout the entire project area. Through the Design Guidelines, included as part of the rezoning application, the gateway corridor and the entirety of the development will be held to a higher standard and will apply additional aesthetics requirements.

Town Center

"The town center will serve as the new heart of Arcade." This character area, located adjacent to the Highway 129 Bypass, is within a portion of Arcade Meadows. The development has identified this area as City Center. The uses will include a dense mix of retail, office, services and employment as the character area description requires. The town center will become the place you go to meet friends for an afternoon of shopping, spend the day by the lake with your family, or have a meeting with your local business person. It will become the hub of the community.

Traditional Neighborhood

The comprehensive plan identifies the Traditional Neighborhood area as *"areas where pressures for suburban residential subdivision are the greatest."* Arcade Meadows will fulfill this need by providing over 3,000 housing units with a variety of housing types including single family with varied lot sizes, townhomes, multi-family units, and senior housing. The densities will range from low density to high density and will be spread throughout the development with the average density of the development

equaling approximately 2.5 dwelling units per acre. These residential areas will be interspersed among commercial areas, civic uses, schools, parks, and interconnected with trails and sidewalks. The community will be a compact, multimodal, walkable community, with a mix of uses to satisfy residents and visitors needs a like.

Conservation / Recreation

Approximately 417 acres, 26% of the site, will be dedicated to common open space uses. All parks, recreational areas, trails, easements, lakes, green space, and other landscape areas shall be designated as open space. Open spaces shall be used for social, recreational, stormwater management, and / or natural environmental preservation purposes. The uses allowed within the parks will be appropriate to the character of the open space, including its topography, size, and vegetation; as well as the character of the development.

The entirety of the development will be linked through trails, greenways, open space, and sidewalks. These paths will follow the natural features on the site including the wetlands and streams and will connect the park system with the remainder of the site. The parks will include 15 acres of active recreation fields including multi-use fields; 2 acres of pocket parks; and 28 acres of neighborhood parks. In addition to the parks there are clubhouses proposed within the residential areas which will have a variety of activities including playgrounds, pools, tennis courts, and other active recreation activities. The multi-family areas will also contain their own clubhouse facilities.

6.1.2 Future Land Use

The proposed amendment lies within the Planned Community and Parks / Recreation / Conservation Future Land Use Categories. Refer to Figure 6.2: Future Land Use Map.

The Planned Community category is intended to develop as a *“planned community with several land uses including commercial, single family, and multi-family residential.”* As proposed, Arcade Meadows will include the uses specified in the future land use category as well as civic uses, interconnected trails, parks, and open space.

The Parks / Recreation / Conservation category is intended for “public or private activities or passive recreation uses such as playgrounds, parks, nature preserves, golf courses, and recreation centers.” The proposed development will provide parks and recreation areas accessible to the public. The parks will include pocket parks and neighborhood parks interspersed throughout the development. In addition clubhouses and recreational facilities will be located among the single family and multi-family residential areas. A 12-mile passive greenway and multi-use trail will weave among the parks, residential areas, city center, and commercial center interlinking the development together.

6.1.3 Policies

The City of Arcade includes policies within their Comprehensive Plan to guide their future growth and to aid in the decision-making process. The policies listed below are examples of how the proposed Arcade Meadows project is consistent with and will further implement the plan.

Economic Development

- Our community will accommodate new development while enhancing existing local assets.

Natural and Cultural Resources

- We will incorporate the connection, maintenance and enhancement of greenspace in all new development.
- We will encourage new development in suitable locations in order to protect natural resources and environmentally sensitive areas.

Facilities and Services

- We will coordinate public facilities and services with land use planning to promote more compact urban development.
- Our community will use planned infrastructure to support areas identified as suitable for development.

Housing

- Development shall provide for a variety of residential types and densities.
- Our neighborhoods will be interactive communities where people have easy access to parks, common open space, residences and businesses through walkways, bike paths, and roads.
- We will accommodate our diverse population by encouraging a harmonious mixture of housing types and uses.
- We will promote walkable, safe neighborhoods
- We will provide pleasant, accessible public gathering places.
- We will encourage parks and community facilities to be located as focal points in neighborhoods.

Land Use

- We will promote efficient use of land by promoting well-designed, more pedestrian friendly, development patterns with a mix of uses and an efficient, creative use of land.
- We will develop a recognizable transition from the urban to the rural areas of the community.
- We will encourage the use of landscaping, lighting, signage, underground utilities and building design to add value to our community.
- Our gateways and corridors will create a “sense of place” for our community.

- We will reduce the adverse visual impact of the automobile in both commercial and residential areas of our community.
- Greenspace will be a major component within our neighborhoods, along our streets, parking lots, and within commercial and industrial development.
- Commercial nodes of varying sizes should be located at the intersections of arterial streets.
- We will employ innovative planning concepts to achieve desirable and well-designed neighborhoods, protect the environment, preserve meaningful open space, improve traffic flow, and enhance the quality of life in our community.

Transportation

- Our new and reconstructed roadways will reflect community standards of aesthetics, environmental stewardship, and urban design.
- Our new and reconstructed roadways will fully accommodate multiple functions, including pedestrian movements, parking, alternate modes of transportation, and local vehicular circulation.

6.2 Northeast Georgia Resource Management Plan

According to the Northeast Georgia Resource Management Plan for Regionally Important Resources adopted September 16, 2010, no regionally important resources are within one mile of the proposed Arcade Meadows site. See Figure 6.3 for the Regionally Important Resources map. Although there are no Regionally Important Resources adjacent to the proposed development, the project is still meeting many of the “Appropriate Development Practices” as suggested in the Resource Management Plan. The relevant policies are listed below.

- Establish a complementary mix of land uses (residential, commercial, civic, etc.), both vertically and horizontally, within convenient walking distance of one another (a quarter-mile, or 5-10 minutes) via direct and safe connections. By creating projects with multiple land uses, automobile trips become less necessary and pavement may be used more sparingly, reducing impacts to traffic, air quality, and water quality.
- Link to adjacent developments and neighborhoods via a trail and/or greenspace system.
- Utilize shared parking opportunities.
- Site plans and building design should be sensitive to the natural features of the site, including woodlands, steep slopes, wetlands, and floodplains.
- Enlist significant site features including view shed corridors, trees, and existing heritage resources, as amenities that shape the identity and character of new and infill development, and redevelopment.
- Preserve historic and cultural resources located on or adjacent to the site.

- Buffer the periphery of the development site with natural landscaping that maintains the vegetative and aesthetic character of surrounding roadways.
- Create linkages to and between existing or planned green infrastructure corridors (riparian areas, utility easements, etc.)
- Establish aquatic buffers, beyond the minimum required by state law, that serve as natural boundaries between waterways and new development to provide greater filtering and better protect wetlands and water quality.
- Utilize Low-Impact Development (LID) practices to employ a range of economical devices to control runoff at the source instead of relying solely on complex and costly collection, conveyance, storage and treatment systems to protect water quality.
 - Limit the proportion of the site that can be covered in impervious roofs and pavement to protect water quality through the use of green roofs and porous pavement materials, where possible, to allow underlying soil to absorb rainfall and treat pollutants, shared parking, shared driveways, or landscaped detention islands within cul-de-sacs.
 - Address stormwater management through site design modification and BMPs to reduce runoff volume and decentralize flows to allow natural infiltration to occur as close as possible to pre-development conditions through the use of bioretention areas or rain gardens, vegetated swales, filter strips, cistern collection systems, preservation of existing wooded areas, mature trees, and natural terrain, and clustering homes on smaller lots. This will create a more hydrologically functional landscape and offer developers a more cost-effective alternative to address storm water management in lieu of costly conveyance systems.
- Survey and analyze the environmental features of the site (topography, soils, wildlife habitat, hydrology, trees and vegetation, and historical and cultural sites) to minimize the potential for negative impacts; to avoid sensitive areas, land physically unsuitable for development, and prime agricultural land; and, to identify areas that may be suitable for parks, trails, or greenbelts.

In addition to the Development Practices listed in the Resource Management Plan, the proposed development will integrate additional other sustainable measures. The site will be a mix of uses with a multi-modal transportation network. Opportunities for biking and walking will be provided in addition to standard vehicle transportation. Multiple modes of transit combined with a compact development pattern leads to a reduction in the vehicle miles traveled in the development. Another sustainable feature of the site is the proposed Low Impact Design stormwater management system. The stormwater approach is decentralized; each site will be looked at individually with regards to the stormwater design and will take into account the characteristics of the site such as topography, soils, natural vegetation, exposure, and use. Other stormwater techniques may include stormwater detention ponds, unconcentrated overland flow, grass swales, level spreaders, pervious pavement, disconnecting roof drains, and rain gardens. Water quality treatment will be integrated with boulevards through bioretention strips and swales will be used where appropriate.