



City of Johns Creek Comprehensive Plan Community Agenda Transportation Recommendations

July 14, 2008

Transportation and the Comprehensive Plan

- Comprehensive Plan Community Assessment
 - Outlines City's vision, needs and opportunities
 - Provides assessment of current conditions and future needs regarding multi-modal transportation network
- Comprehensive Plan Community Agenda
 - Establishes policies and associated strategies in response to identified needs and opportunities
 - Recommends individual projects/programs that address policies and strategies
 - Short Term Work Program (STWP) includes only those projects/programs to be implemented within first 5 years (2009-2013)
- Transportation Master Plan (Comprehensive Plan Appendix B)
 - Provides additional detail regarding transportation system recommendations
 - 20-year plan "horizon" addresses short and longer term needs
 - Highest priority projects are those from the STWP
 - Serves as the "platform" for future detailed project development studies



Important Transportation Considerations

- Coordinated development of Transportation Master Plan with Comprehensive Plan ensures strong connection between land use and transportation and mutually complementary policies and recommendations
- Transportation needs identification relied on growth patterns and projections regarding population and employment as determined through the Comprehensive Plan process
- Travel demand model enables evaluation of Johns Creek's transportation system within a regional context that also considers growth in adjacent jurisdictions
- Local travel needs internal to Johns Creek evaluated, as well as needs related to travel to/from and through the city
- Transportation assessment and program is multi-modal; pedestrian, bicycle and transit modes were considered in addition to roadway
- Individual project recommendations are defined only to characterize the need; future concept development studies will provide details and specifics



Transportation Issues

- Through trips contribute significantly to peak hour congestion
- Key intersection operations constrain corridor capacity
- Limited roadway connectivity requires travel through major intersections
- Effective local transit connections could serve emerging activity areas and connect to regional transit in Johns Creek
- Transit mixed with vehicular traffic has limited travel time advantage over automobiles
- Neighborhoods are not well connected to schools, parks and community facilities with sidewalks and bicycle facilities
- Longer distance bicycle and trail routes are needed to access parks and provide recreational opportunities
- Enhancing transportation safety for all travel modes is a priority



Transportation Opportunities

- Maximize corridor efficiency through improvement of congested intersections
- Add road connectivity to increase options beyond use of congested corridors
- Consider use of undeveloped land and/or easements to add pedestrian and bicycle connectivity
- Maximize use of technology to assist in traffic operations improvements
- Increase emphasis on transit through application and expansion of planned transit improvements
- Plan and build multimodal connections in potentially high pedestrian activity areas



Transportation Policies and Strategies



Transportation Policies

- Facilitate safe and efficient movement of traffic along key corridors to minimize congestion.
- Apply innovative approaches and technologies to improve mobility, safety and environmental quality.
- Enhance capacity along key corridors while preserving the existing character of the two-lane residential roads in Johns Creek.
- Connect the sidewalk and multi-use trail network to allow safe pedestrian and bicycle travel throughout Johns Creek.
- Explore public transportation options for Johns Creek commuter travel to the Atlanta core, Hartsfield-Jackson Airport, and surrounding communities.



Transportation Policies and Strategies

- Policy: Facilitate safe and efficient movement of traffic along key corridors to minimize congestion.
 - Improve connectivity to reduce congestion at critical intersections as development/redevelopment occurs.
 - Provide necessary operation at key intersections to prevent bottlenecks from limiting overall capacity along roadways, including alternative intersection treatments where needed.
 - Develop multi-modal circulation and loading area plans for all schools to reduce school related congestion.



Transportation Policies and Strategies

- Policy: Apply innovative approaches and technologies to improve mobility, safety and environmental quality.
 - Utilize access management techniques to increase mobility, safety, and interconnectivity.
 - Continue development and application of ITS (Intelligent Transportation Systems) and incident management technology.
 - Promote state-of-the-art signal system technology.
 - Promote travel demand management (TDM) strategies to reduce trips.
 - Encourage increased mixed use development/redevelopment.
 - Facilitate public-private funding partnerships for improvements.
 - Coordinate with state, regional and, local agencies responsible for environmental compliance and guidelines.



Transportation Policies and Strategies

- Policy: Enhance capacity along key corridors while preserving the existing character of the two-lane residential roads in Johns Creek.
 - Enhance roadway capacity along high demand corridors.
 - Improve two-lane roads for efficient operations and safety.
 - Preserve current transportation investment through effective maintenance of transportation system.
 - Manage speed as appropriate to functional classification and adjacent land uses.



Transportation Policies and Strategies

- Policy: Connect the sidewalk and multi-use trail network to allow safe pedestrian and bicycle travel throughout Johns Creek.
 - Provide sidewalk and multi-use trail improvements to facilitate pedestrian and bicycle access within ½-mile of all schools, libraries, parks, and Chattahoochee River public use areas.
 - Connect sidewalk network to provide continuous sidewalk along all arterial and collector roads.
 - Create multi-use trail network based on adopted Multi-Use Trail Plan to include connections to adjacent jurisdictions' facilities and the Chattahoochee River.
 - Establish pedestrian and bicycle friendly policies and standards.



Transportation Policies and Strategies

- Policy: Explore public transportation options for Johns Creek commuter travel to the Atlanta core, Hartsfield-Jackson Airport, and surrounding communities.
 - Support GRTA, MARTA and GDOT efforts related to express transit service and commuter rail.
 - Support regional bus rapid transit (BRT) initiatives to connect Johns Creek to surrounding communities via State Bridge Road.
 - Provide adequate, safe and secure parking to support multi-modal and transit services.



Transportation Recommendations



Short Term Work Program

- Approximately 60 transportation projects/programs for implementation in 2009-2013
 - Concept design studies
 - Intersection and corridor operational and geometric improvements
 - Roadway and bridge widening
 - Park and ride lots and Travel Demand Management strategies
 - Greenway and sidewalk construction
 - Pedestrian and bicycle plans and programs
 - System monitoring and maintenance



Transportation Master Plan Recommendations

- Approximately 115 projects/programs including roadway, intersection, pedestrian and bicycle, and transit improvements
- Highest priority recommendations included within the 5-year Short Term Work Program
- Additional, policy related recommendations
 - Functional classification system
 - Level of service (LOS) standard
- Phasing plan provides starting point for decision makers to use in prioritizing improvements for funding and implementation
- Implementation time period dependent on factors including level of need, estimated cost, available funding, and difficulty of implementation from a planning, design and/or permitting perspective



Legend

2030 Recommended Roadway Functional Classification

2030 Recommended Functional Classification and Roadway Network

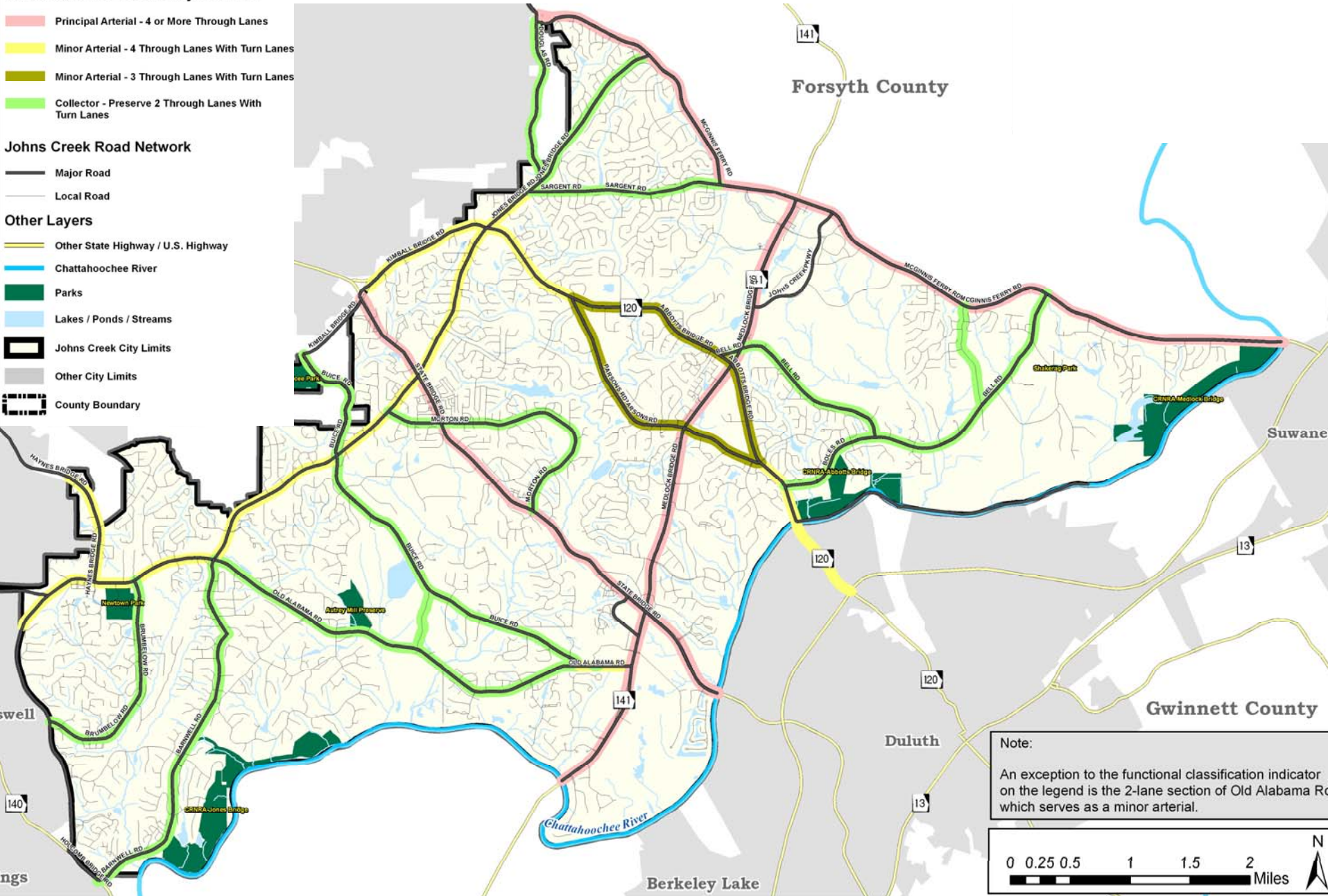
- Principal Arterial - 4 or More Through Lanes
- Minor Arterial - 4 Through Lanes With Turn Lanes
- Minor Arterial - 3 Through Lanes With Turn Lanes
- Collector - Preserve 2 Through Lanes With Turn Lanes

Johns Creek Road Network

- Major Road
- Local Road

Other Layers

- Other State Highway / U.S. Highway
- Chattahoochee River
- Parks
- Lakes / Ponds / Streams
- Johns Creek City Limits
- Other City Limits
- County Boundary



Note:
An exception to the functional classification indicator on the legend is the 2-lane section of Old Alabama Rd which serves as a minor arterial.



Legend

2030 Intersection Improvement Projects*

- Major Intersection Improvement (Grade Separation at Unconventional / At-Grade)
- Intersection Improvement (Short Term Work Program)
- ▲ Intersection Improvement (Mid and Long Term)

2030 Recommended Roadway Improvements

- Support Regional Efforts for Future Widening - 6 Lanes
- Transit Enhanced Corridor to Support Regional Bus Rapid Transit (BRT)
- Widening to 4 Through Lanes
- Improve 4 Lane Road
- Corridor Operational Improvements - Maintain 2 Through Lanes
- Widening to 3 Through Lanes
- Foster Increased Local Roadway Connectivity

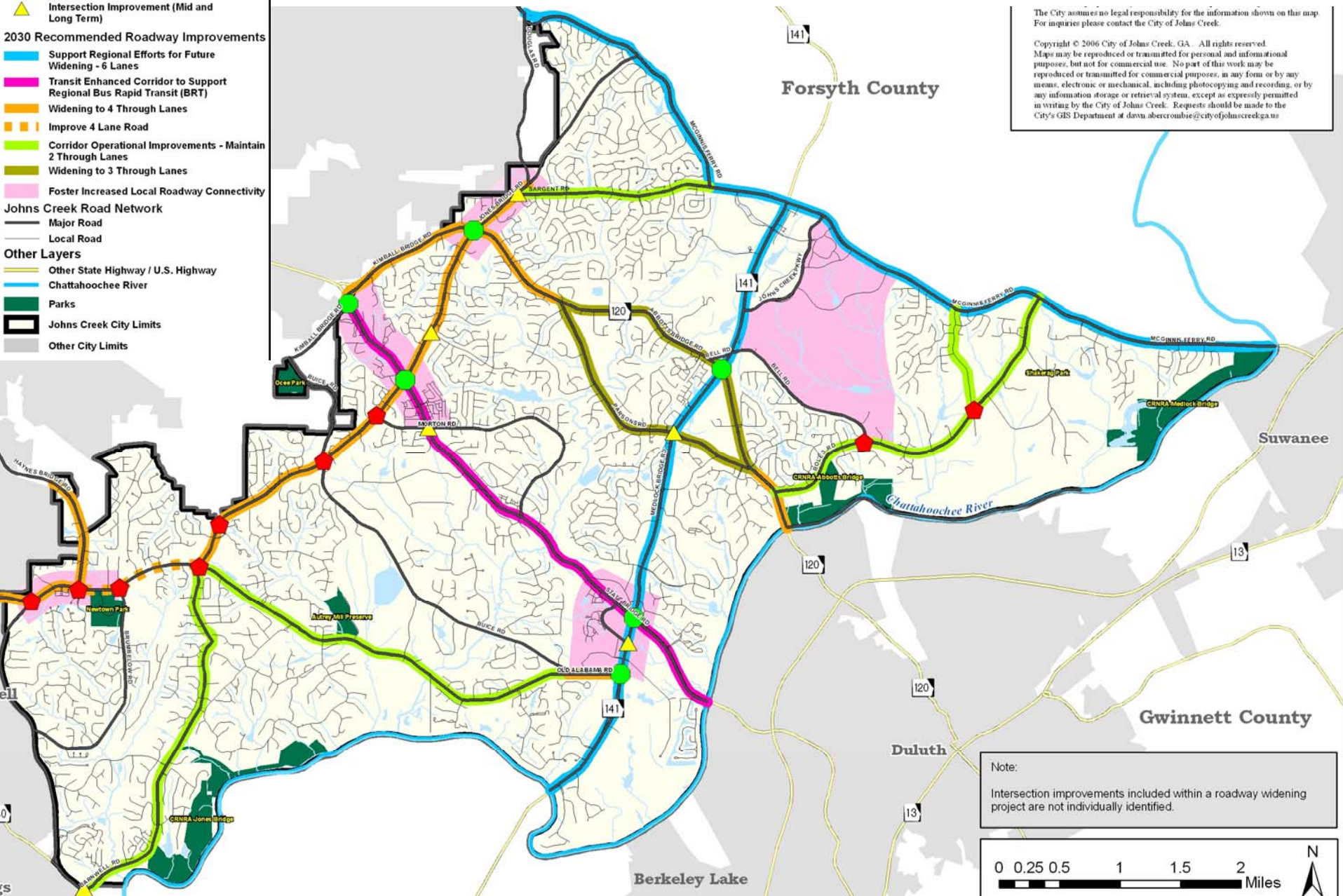
Johns Creek Road Network

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- Local Road

Other Layers

- Other State Highway / U.S. Highway
- Chattahoochee River
- Parks
- Johns Creek City Limits
- Other City Limits

2030 Recommended Transportation Projects



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Note:
Intersection improvements included within a roadway widening project are not individually identified.



Transportation Master Plan Program Recommendations

- Signal installation and timing
- Intersection improvement
- Access management
- Bridge maintenance
- Safe Routes to School
- Sidewalk connectivity and reconstruction
- Transit and Travel Demand Management (TDM)
- Road resurfacing
- Neighborhood traffic management



Transportation Master Plan Effectiveness



Comparison to *Focus Fulton 2025* Comp Plan

- Several projects are carried forward into current plan
 - Medlock Bridge Rd at Old Alabama Rd intersection improvements
 - Medlock Bridge Rd at Abbotts Bridge Rd intersection improvements
 - Old Alabama Rd at Nesbit Ferry Rd intersection improvements
 - Medlock Bridge Rd capacity
- Some intersection improvements would be incorporated within programmed or planned corridor improvement or widening projects
 - McGinnis Ferry Rd
 - Old Alabama Rd
 - Medlock Bridge Rd
 - Parsons Rd
 - Sargent Rd
- A few projects were not included
 - Sargent Rd capacity
 - Buice Rd intersection improvements
- Number of total improvements greatly expanded



Overall Conditions in Year 2030 with Plan

- Overall roadway volume to capacity (v/c) ratio is slightly improved over today's conditions while absorbing significant growth
 - 24,250 additional population
 - 24,600 additional employment
- V/C ratio is greatly improved over 2030 conditions without improvements (40% reduction in overall v/c)
- Severe congestion avoided through improvements compatible with functional classification
 - Medlock Bridge Road – 4 to 6 lanes
 - Jones Bridge Road – 2 to 4 lanes
 - Abbots Bridge Road – 2 to 4 lanes
 - Old Alabama Road east of Jones Bridge Road – improved 2 lane
 - Old Alabama Road west of Jones Bridge Road – improved 4 lane



Transportation Master Plan Effectiveness

- Reduced delay at critical intersections through application of effective intersection improvements
 - Medlock Bridge Road
 - State Bridge Road
- Additional options for making short trips
 - Activity center connectivity
 - Pedestrian connectivity
- Advanced signal control system to move cars more efficiently and provide priority for express buses
- Support of regional transit initiatives to provide commute options



Comparison to Sandy Springs Results

- Johns Creek will absorb more growth
 - 24,250 additional population vs. 6,900 in Sandy Springs
 - 24,600 additional employment vs. 21,700 in Sandy Springs
- Sandy Springs has major freeway and transit facilities to handle long trips
 - GA 400 and I-285
 - Marta rail line
- Johns Creek serves more through trips along major arterial corridors
 - Medlock Bridge Road = 52%* vs. Roswell Road = 16%*
 - State Bridge Road = 37%* vs. Abernathy Road = 33%*
- V/C ratio improvement of 16% over conditions without improvements vs. 40% in Johns Creek
- Sandy Springs roads are more connected



* Percent through traffic, year 2030

Providing for Future Demand

- How much traffic must be handled to provide LOS D in Johns Creek?
 - North-south movement = 1,400 peak hour vehicles
 - Medlock Bridge Rd, Jones Bridge Rd
 - East-west movement = 1,600 peak hour vehicles
 - McGinnis Ferry Rd, Abbotts Bridge Rd, State Bridge Rd, Old Alabama Rd
- Improvements needed to provide LOS D
 - Providing LOS D through roadway improvements would require additional widening of principal arterials
 - State Bridge Road – 6 lanes
 - Medlock Bridge Road – 8 lanes
 - McGinnis Ferry Road – 6 lanes
 - These widened roads might draw additional through traffic



Recommended Solutions to Maintain Mobility

- Provide widening of facilities compatible with recommended functional classification system
- Increase capacity along Medlock Bridge through widening to 6 lanes and implementing major intersection improvements
- Support regional efforts to implement commuter rail to south and Bus Rapid Transit (BRT) along State Bridge Road
- Other transit solutions to encourage shared ride and park and ride lot utilization to enhance access and connectivity to regional transit
- Provide signal timing to favor express bus operations
- Provide options for short trips to allow residents to avoid congestion



Next Steps

- July-August – Finalization of outstanding Transportation Master Plan work activities and preparation of draft deliverables
- Mid-September – Public meeting regarding proposed Transportation Master Plan recommendations
- Mid-October – Draft Transportation Master Plan loaded to City web site for public review and comment
- November 10 – Public Hearing #4 for Comprehensive Plan, including Transportation Master Plan

