



***DRAFT* Freight Cluster Plan Guidelines**

The *Atlanta Regional Freight Mobility Plan Update* recommendations include a list of regionally significant freight projects. The plan also identified the need for additional subarea plans in locations with clusters of industrial development. These are the areas in the Atlanta region with the most significant freight activity, and the primary purpose of these plans is to assist local jurisdictions and Community Improvement Districts (CIDs) with identifying first mile/last mile projects. The ARC Freight Cluster Plans will focus primarily on:

- Transportation Planning
- Traffic Engineering
- Safety
- Intersection Design
- Cost Estimation
- Future Needs

Prior planning work has identified that not enough transportation plans and traffic studies have been conducted within industrial areas in the Atlanta region. The goal of freight cluster planning is to address transportation planning, traffic analysis, and related planning needs in these industrial areas and identify recommended projects and policy changes. The recommended projects should aim to be competitive for local, state, and federal funding with adequate information and cost estimates to complete potential grant applications.

The freight cluster plans are a new planning program at ARC. A total of \$200,000 - \$250,000 in federal transportation planning funds are projected to be available per plan. A local match of 20% of the total plan cost is also required. All potential funding for this planning program is contingent on funding availability and ARC committee/board approval. The following is a draft list of topics to consider for inclusion in freight cluster plans in the ARC region.

Transportation

- Subarea connectivity analysis
 - Roadways
 - New roadway needs
 - Roadway extensions
 - Identification of primary freight routes
 - Freight origin/destination patterns within subarea
 - Route conflicts/issues
 - Left-turn movements at unsignalized locations
 - Freight trips in residential areas
 - Access management
 - Driveway spacing
 - Interparcel connectivity
 - Potential need for backage roads
- Crash data review

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- Crash hotspots
- Crash causes and potential ways to address them
- Truck parking needs
 - Identify locations where trucks may be parking illegally in the study area
 - Focus primarily on truck staging needs for pickup/delivery at warehouses/distribution centers
- Bridges
 - Identify weight restricted bridges in the study area
 - Analyze the sufficiency ratings from GDOT of bridges in the study area for future needs
- Rail
 - Identification of at-grade crossing locations
 - Number of trains per day at crossings
 - Roadway vehicular traffic volumes
 - Vehicle operations and geometric design analysis at crossings
 - Proposed grade separation projects, if any
- Alternative modes – Focused on access to jobs
 - Transit
 - Transit user needs
 - Design issues – bus needs are similar to trucks
 - Bike/pedestrian infrastructure with focus on access to jobs
 - Identify safety issues
 - Context sensitive design needed due to high truck volumes

Traffic and Design

- Traffic analysis along key corridors and at key intersections
 - Conduct vehicle classification counts at key locations
 - Conduct AM and PM peak hour turning movement counts at appropriate intersections and along key corridors
 - Additional peak periods may be counted if hourly traffic volumes, known shift change times, or other issues result in peak periods outside of the standard AM and PM peak hours
 - Use the collected traffic data to conduct existing conditions peak hour traffic analyses, focusing on:
 - Overall intersection LOS
 - Delays on individual turning movements
 - Queue Lengths
 - Conduct a field review to determine any discrepancies between the existing condition traffic analysis results and the field conditions
 - Develop existing conditions traffic recommendations based on the traffic analysis and field review. These should focus on signal timing/phasing changes and ITS enhancements, potentially including:
 - Intersection operations and signal coordination along corridors
 - Roadway capacity needs
 - Extension of green with more than one set of detectors on an approach
 - Longer yellow phases to accommodate trucks where needed

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- Changeable message signage
 - Conduct at least one future traffic analysis assuming growth in the area, either based on a background growth rate, ITE trip generation rates, or a combination of both
 - Develop future year traffic recommendations focusing on similar issues as the existing conditions recommendations
- Geometric design review
 - Intersection turning radii
 - Intersection and driveway turning conflicts
 - Sight distance problems, horizontal and vertical
 - Median design
 - Additional shoulder width to accommodate U-turns (aka loons), where needed
 - Wider paved shoulders where appropriate

Supportive Tasks

- Land use/development
 - Review the jurisdiction(s)' future land use map to determine future growth potential
 - Identify land use/zoning conflicts, i.e. single family residential adjacent to industrial
 - Impacts of changing warehouse/distribution center design
 - Increased density due to higher ceilings with smaller footprints
 - Additional automation in warehouse/distribution center operations
- Adequacy of Signage and Lighting
- Future needs
 - Advanced supply chain logistics and the Physical Internet
 - The Georgia Tech Supply Chain and Logistics program can serve as a resource
 - Alternative fuels/energy
 - Compressed natural gas (CNG) and liquefied natural gas (LNG) fueling options
 - Electrification of truck parking
- Freight industry disrupters
 - Increased home delivery
 - Connected and Autonomous Vehicles (CAV)
 - Internet of things/Advanced supply chain management
- Optional Tasks
 - Urban design and landscaping improvements
 - Market analysis if warranted

Project Management and Outreach

- Develop a technical advisory committee with ARC, GDOT, local jurisdictions, transit agencies, and other relevant parties
- Develop a stakeholder advisory committee with business and community leaders
- Public meetings
- ARC Freight Advisory Task Force (FATF) – Presentation/discussion at a minimum of two FATF meetings during the planning process
- Stakeholder interviews with logistics companies in the area, developers, truck drivers, etc.

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Deliverables

- Plan documents with traffic analysis, maps/figures, and other supporting documentation
- Raw traffic count data
- Prioritized list of recommended projects
- Detailed cost estimates for high priority projects, with planning level cost estimates for the remaining projects