



ONE **great** REGION

Freight Transportation: Moving Our Economies **NADO National Regional Transportation Conference** **July 21, 2026**

2024 Atlanta Regional Freight Mobility Plan

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Industrial Development as of Q4 2022

Existing Development

MPO Properties: **14,880**

MPO Rentable Building Area (RBA): **717.4M SF**

Max MPO RBA: **2.8M SF**

Min MPO RBA: **240 SF**

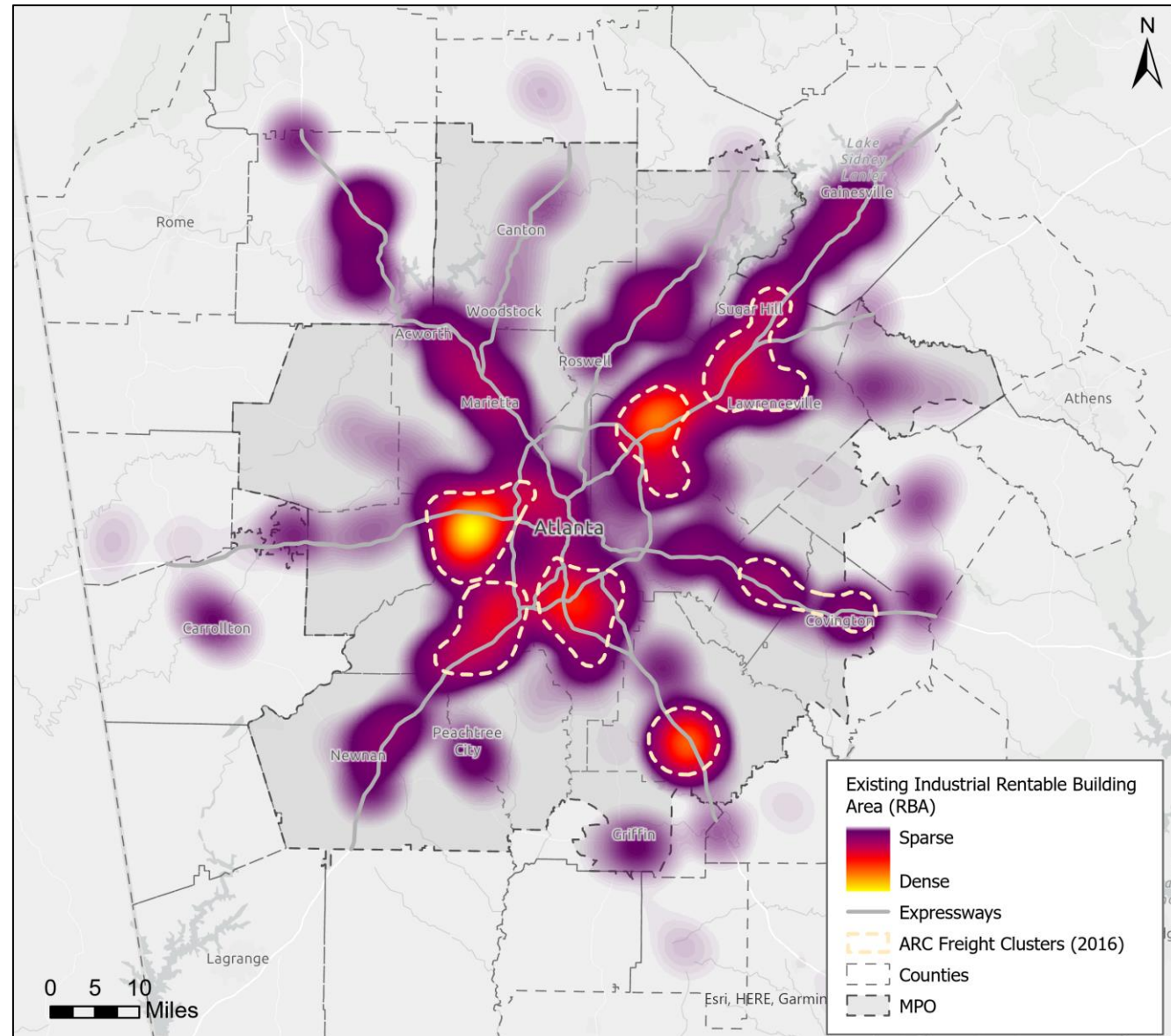
MPO+ Properties: **18,114**

MPO+ Rentable Building Area (RBA): **846.2M SF**

Max MPO+ RBA: **2.8M SF**

Min MPO+ RBA: **240 SF**

MPO+ is ARC MPO boundary plus some areas that border MPO boundary

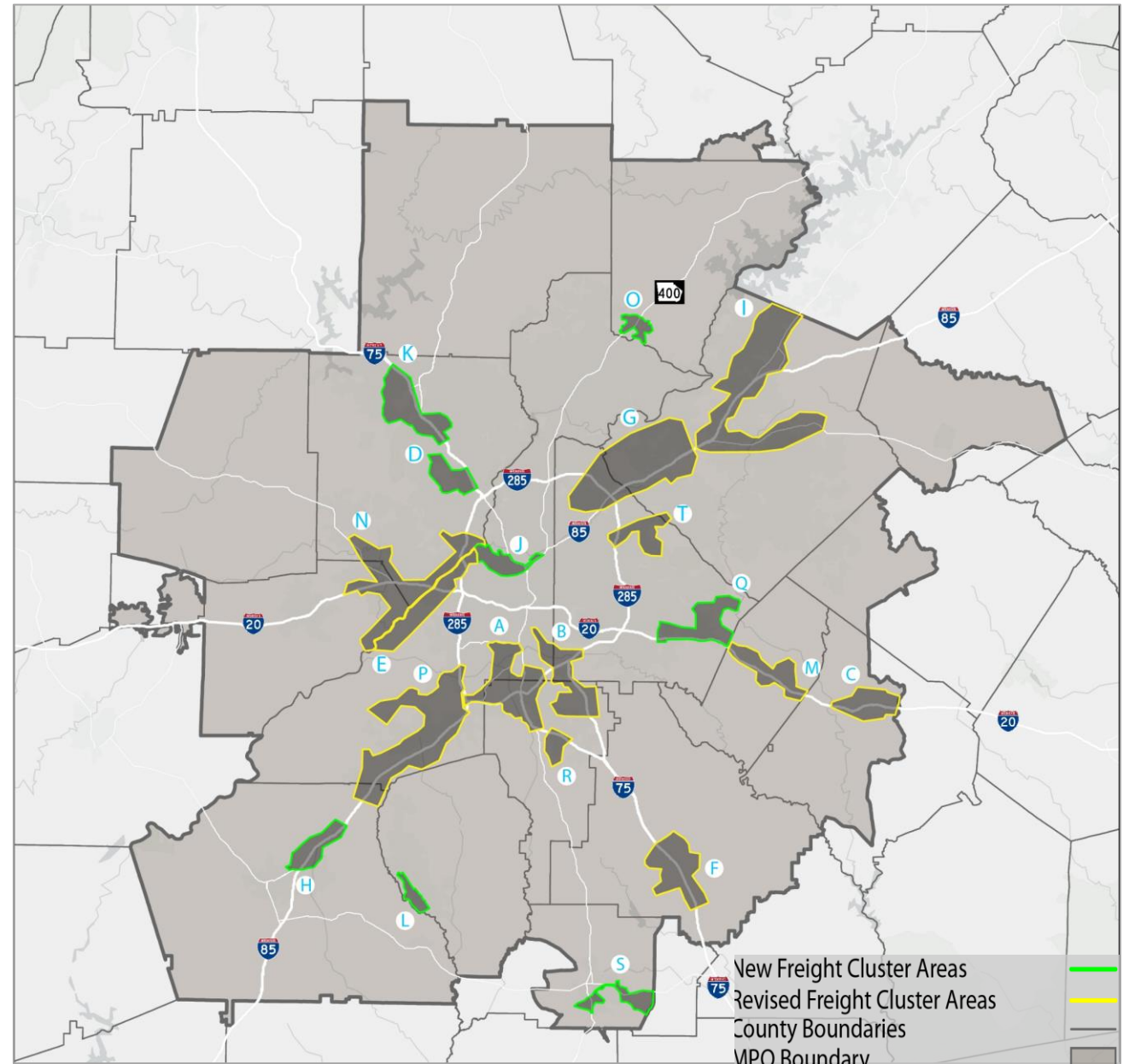


2024 Freight Clusters

Revised based on CoStar data

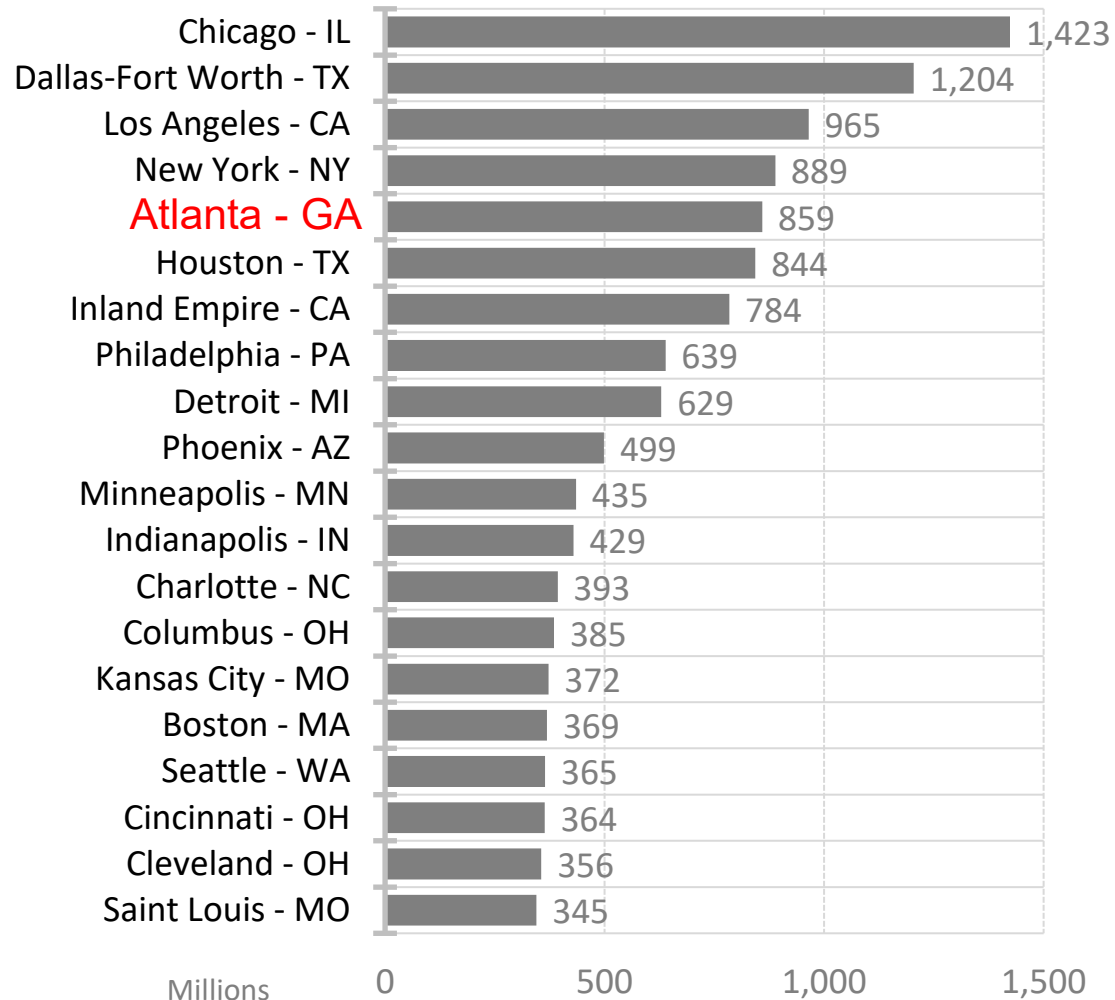
MPO Industrial Properties	14,880
MPO Total Industrial SQ.FT.	717,471,097
Cluster Industrial Properties	9,025
Cluster Total Industrial SQ.FT.	580,585,937
Percent of MPO SQ.FT	81%

- | | |
|-----------------------------------|-------------------------------|
| (A) Airport | (K) Northwest Cobb |
| (B) Conley | (L) Peachtree City |
| (C) Covington | (M) Rockdale |
| (D) Dobbins | (N) South Cobb/Douglas |
| (E) Fulton Industrial Blvd | (O) South Forsyth |
| (F) Henry | (P) South Fulton |
| (G) Norcross | (Q) Southeast DeKalb |
| (H) North Coweta | (R) Southlake |
| (I) North Gwinnett | (S) Spalding |
| (J) Northwest Atlanta | (T) Tucker |

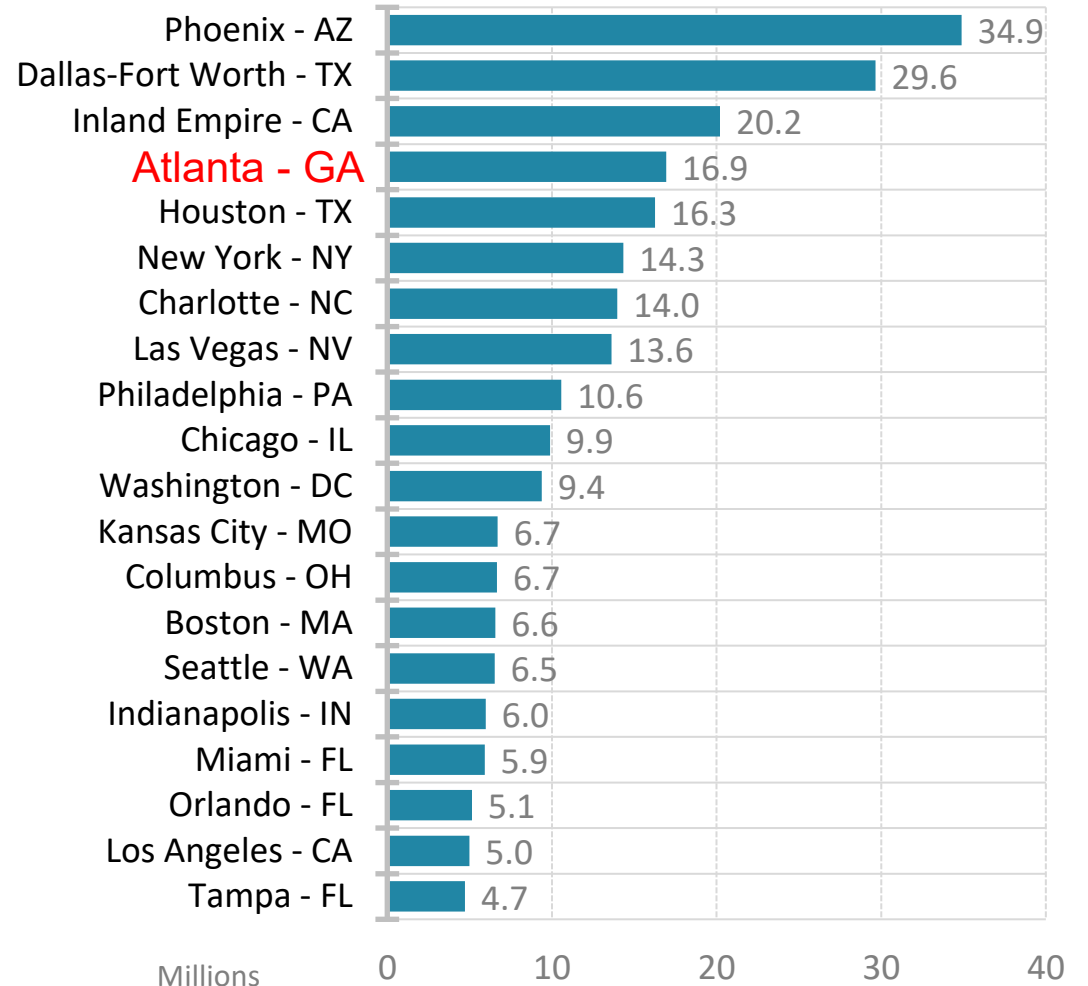


MSA Industrial Rankings, Q1/March 2025

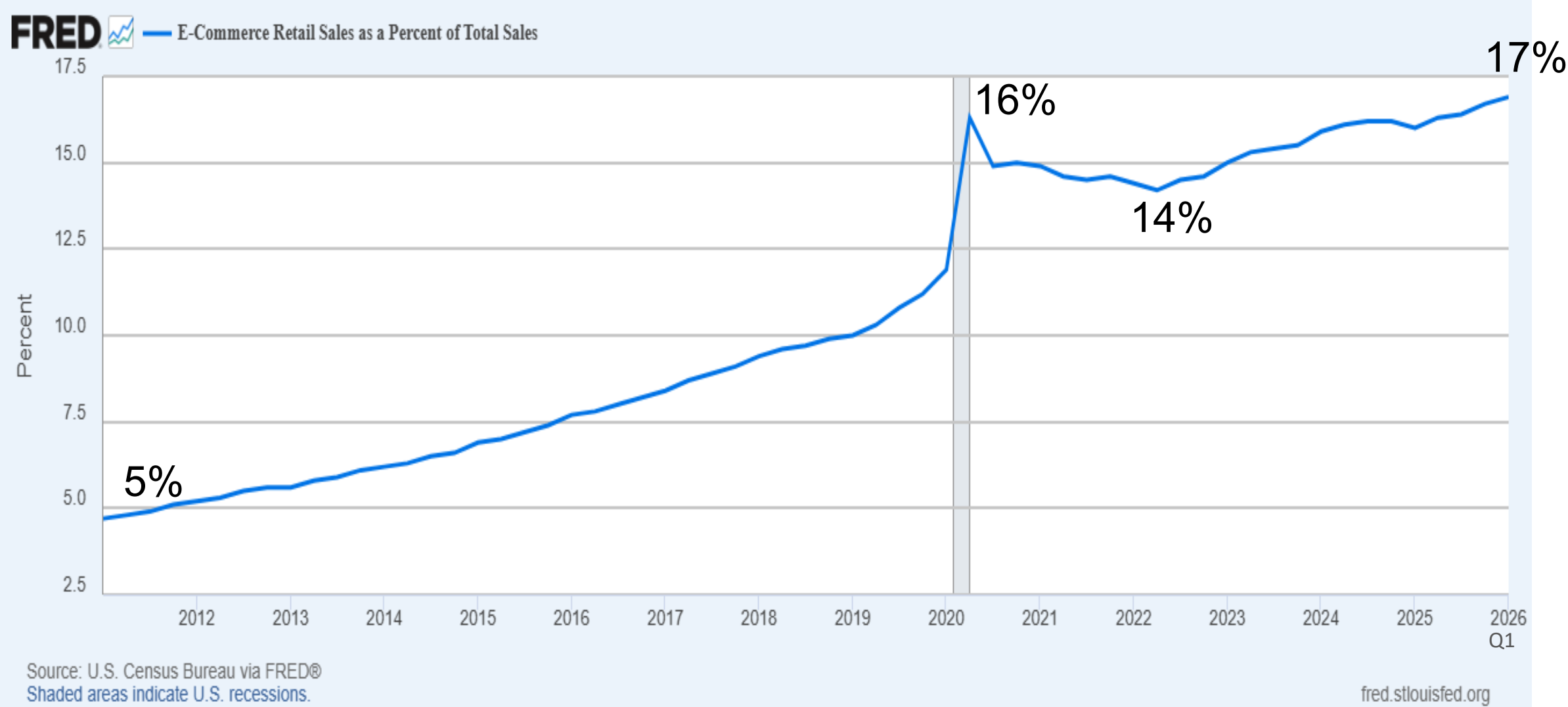
Inventory Square Footage



Net Delivered Square Footage 12 Months



National Trends - Online Retail Spending



Metro Atlanta Freight Flow and Projected Growth

231 million tons

2019 Total tonnage of freight with an origin, destination, or both in Metro Atlanta (truck, train, and air)

\$398.5 billion

2019 Total value of freight with an origin, destination, or both in Metro Atlanta (truck, train, and air)

Tonnage Mode Split



83.8%



15.9%



0.3%

Value Mode Split



60.1%



22.6%



17.3%

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Estimated growth in tonnage (2019 – 2050) for all modes

69% – Low Growth Scenario

1.7% Compound Annual Growth Rate

2050 Projected Tonnage = 389,410,368 tons

118% – High Growth Scenario

2.5% Compound Annual Growth Rate

2050 Projected Tonnage = 502,749,170 tons

Savannah Port Growth – Impacts Georgia

- OOCL *Iris* – Largest capacity vessel to ever call the Port of Savannah
- Maximum capacity of 16,828 twenty-foot equivalent container units (TEUs)
- Project to raise the Talmadge Bridge height begins in 2026

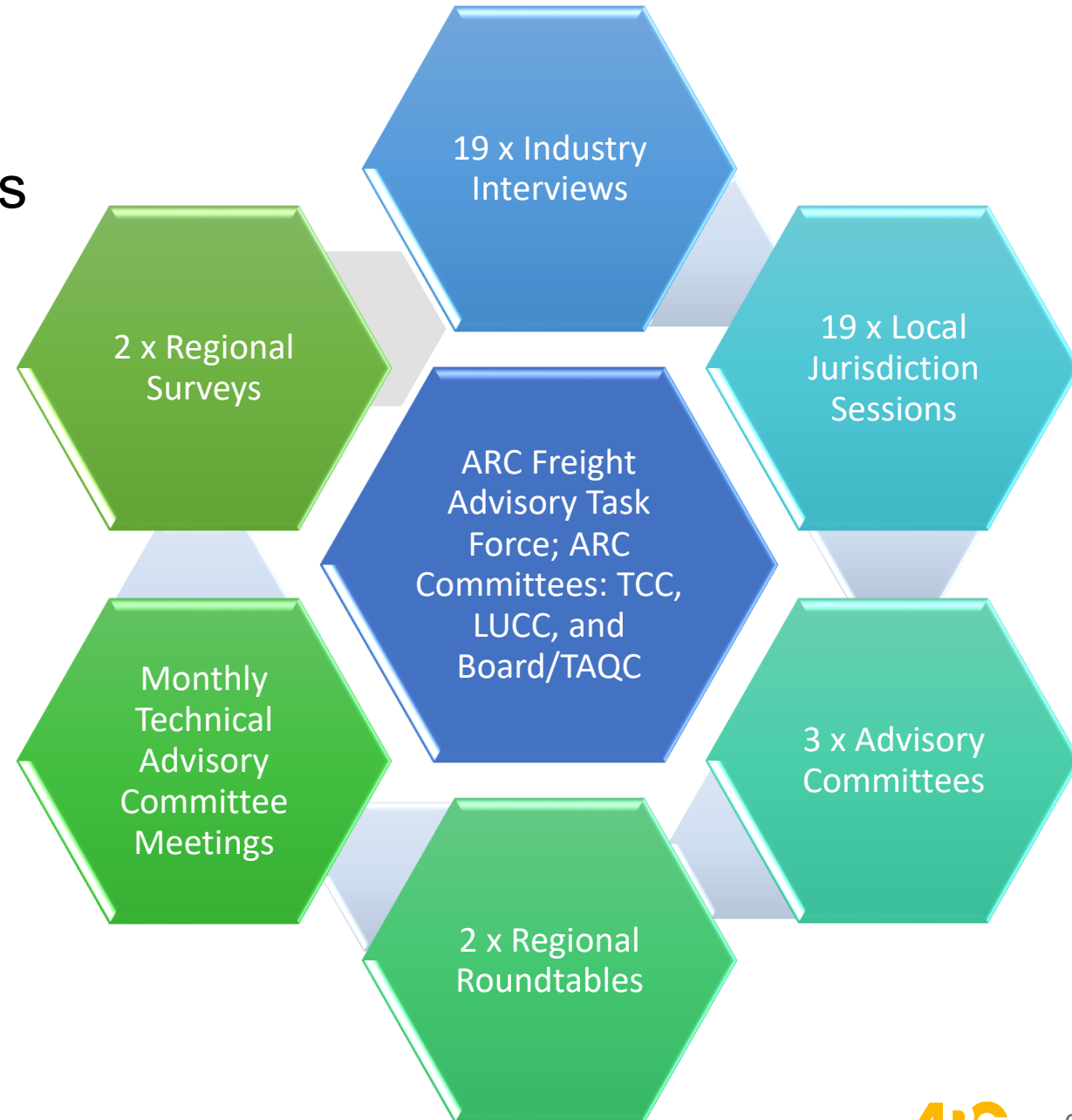


Georgia Ports Authority Press Release, February 26, 2025, <https://gaports.com/press-releases/oocl-iris-becomes-largest-vessel-to-serve-savannah/>

Stakeholder Engagement

Atlanta Region Engagement Challenges

- Freight partners are time-limited because they are operating at peak capacity, often understaffed
- Communities and partners never-before involved in freight movement are now at the heart of freight operations because of COVID-19
- Much of the private freight industry operates behind closed doors with a key contact required for access



Industry Interviews



Industry Partners



Railroads

E-Nest LLC

Minority-Owned Small Business



Freight Focused Corporations



Outreach: Stakeholder Engagement Takeaways

Jurisdiction Level Sessions – Top Needs and Challenges

Truck Parking	Land -Use	Workforce	Local Delivery	Railroad Crossings
• Overnight and long-term parking • Need of policy guidance • Safe truck parking	• Industrial space conflicts with residential • Some communities limit industrial opportunities/ while others embrace them	• Access to the workplace (transit and roadway congestion) • Workforce safety • Hiring and retention	• Guidance around policy for curbside management • Implementation and enforcement	• Train blocking crossings • Trucks stuck at grade crossings

Truck Parking Challenges

Why should we care about Truck Parking? Safety!

- Federal Regulations – **Mandatory 10 hours of rest** after driving a max of 11 hours in a 14-hour window
- Lack of truck parking nationally and in major urban areas
- Unauthorized parking on highway ramps, shoulder of roads, vacant lots, commercial parking lots
- Crime and safety impacts to drivers
- Safety of other motorists
- Street and parking lot maintenance issues



Truck Parking Supply/Demand Analysis

County	Supply	Demand	Surplus/Deficit
Barrow	0	20	-20
Carroll	395	119	276
Cherokee	0	196	-196
Clayton	78	289	-211
Cobb	52	471	-419
Coweta	194	249	-55
DeKalb (North)	9	341	-332
DeKalb (South)	106	236	-130
Douglas	37	251	-214
Forsyth	0	88	-88
Fulton (North)	0	192	-192
Fulton (South)	611	419	192
Gwinnett	0	513	-513
Henry	45	358	-313
Newton	0	134	-134
Rockdale	0	120	-120
Spalding	0	34	-34
Walton	0	13	-13
Total	1,527	4,043	-2,516

Order of magnitude analysis for surplus or lack of truck parking in each county

Corridor level analysis of interstate highways and other controlled access highways (GA 400, GA 316) was conducted

Results at the corridor level are also in the plan's final report

Federal Highway Administration truck parking demand methodology used for analysis

Methodology source: Federal Highway Administration (2002). Study of Adequacy of Commercial Truck Parking Facilities. Technical Report. Report number: FHWA-RD-01-158.

<https://highways.dot.gov/research/publications/safety/FHWA-RD-01-158>

Truck Parking – Three Forms Addressed

Short-term Truck Parking Facilities and Truck Stops

- Federal requirements on driving hours and stops
- Typically accommodated at truck stops, travel plazas, rest areas, weigh stations
- Limited number of these facilities in Metro Atlanta
- High demand and high priority
- Overnight Truck Parking Model Ordinance

Temporary Truck Staging

- Designated space for truck parking prior to a scheduled delivery or pick-up
- Intended length of occupancy is up to four hours
- Should be available when nearby industrial businesses are open
- High demand and moderate priority
- Suggested additions to industrial zoning and parking requirements

Long-Term Truck Parking (Industrial Outdoor Storage)

- Designated space to store trucks or trailers for multiple nights or weeks at a time
- Primarily for independent owner-operators or small businesses
- Not intended for overnight stays of drivers or short-term parking
- Suggested addition to industrial outdoor storage section of zoning code

Overnight Truck Parking Facilities and Truck Stops

Purpose

- A designated space for long-haul truck drivers to complete mandatory rest breaks.

Location

- Future land use and zoning – industrial or similar designation, like, heavy industrial, light industrial, manufacturing, warehousing districts, heavy commercial, and highway commercial.
- Location in or near industrial area
- Allowed within a half a mile of highways, major roadways or other roadways identified by a city or county.
- Not allowed within 500 feet of an existing residential structure

Design Standards

- Sufficient maneuvering room
- Emergency services access
- Security measures including fencing and lighting
- Truck parking space dimensions
- Accessory uses encouraged

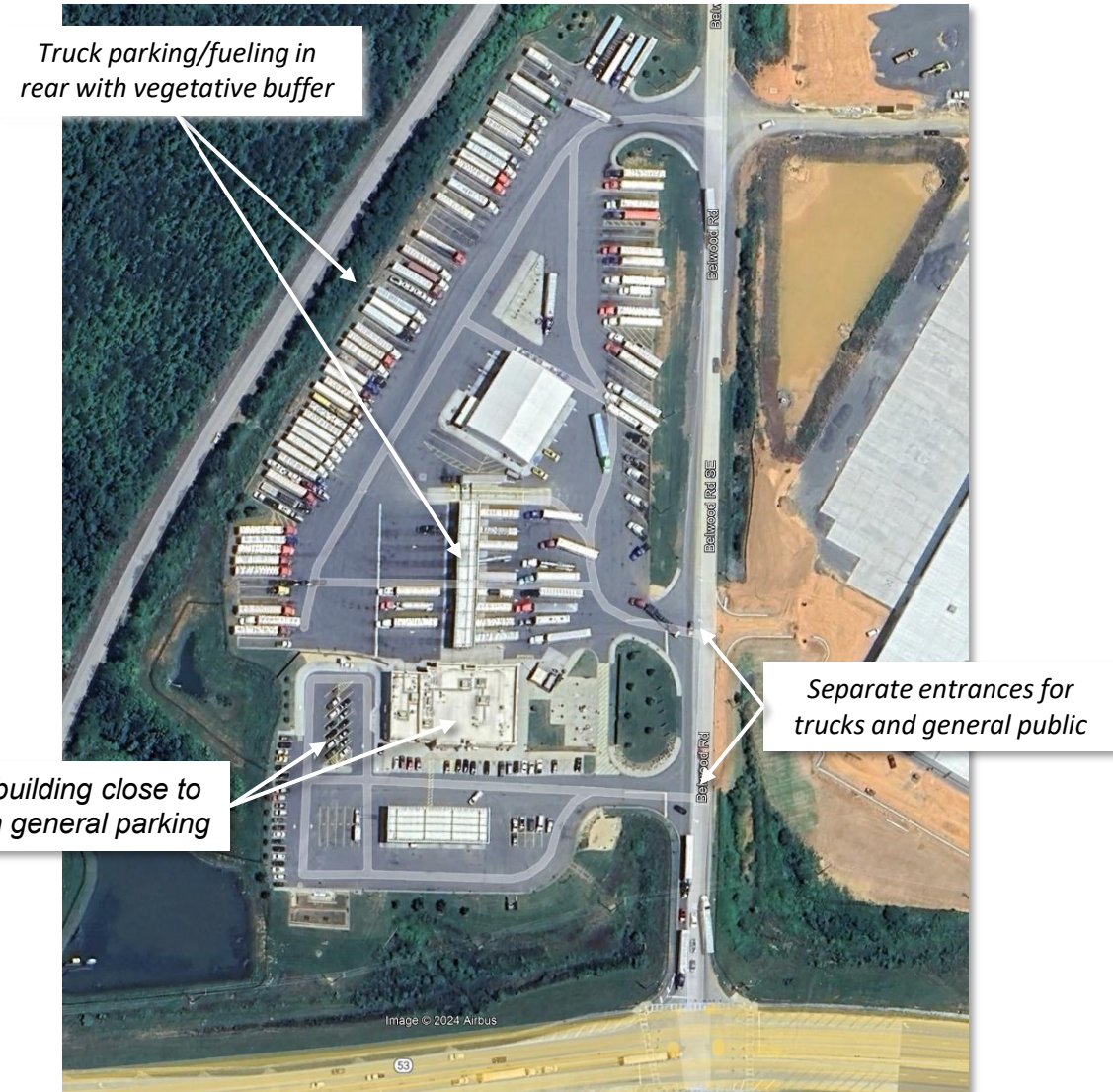
Overnight Truck Parking Facilities and Truck Stops

Overnight Truck Parking Facility Elements

- Security elements including fencing, security lights, access control, etc.
- Vegetative buffers
- Bathroom facilities

Additional Truck Stop Elements

- Inclusion of passenger vehicle fuel bays in front or to the side of building
- Passenger vehicle parking to the side or rear of building
- Truck fueling to the rear of building
- Parking to the rear of the site
- Separate access for passenger vehicles and trucks
- Allow accessory uses like restaurants, convenience stores, pharmacy, bank, etc.
- Encourage inclusion of greenspace like picnic areas, dog parks, etc.



Truck stop example: Belwood Road at Union Grove Road, Adairsville

Temporary Truck Staging and Operational Truck Parking

Purpose

- A designated space for truck parking prior to a scheduled delivery or pick-up

Location

- Require in industrial districts and heavy commercial districts

Temporary Truck Staging Space Requirements

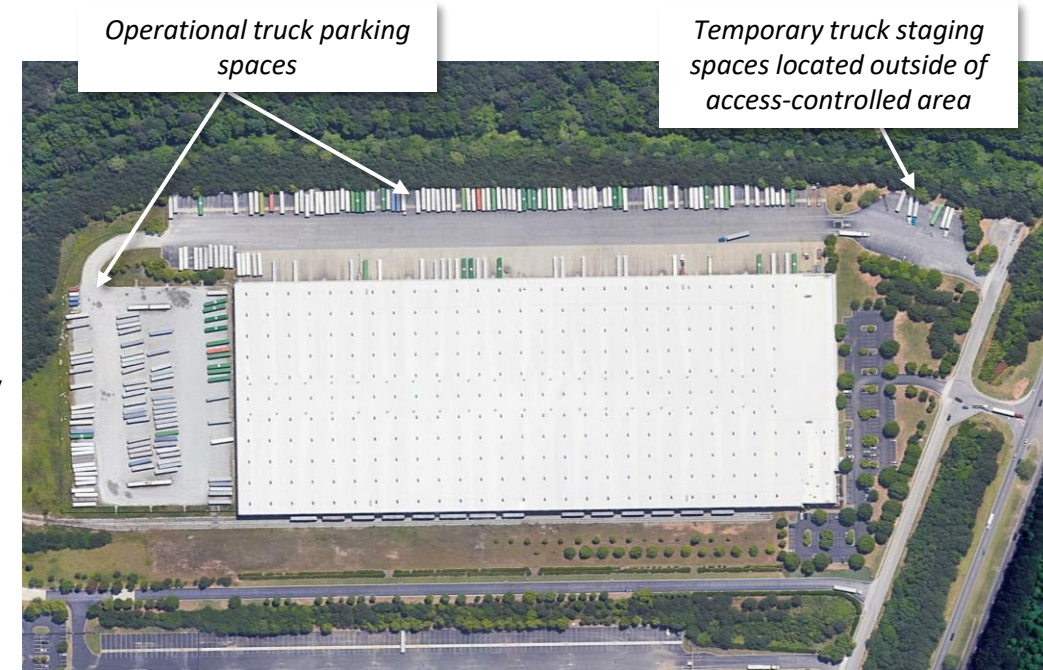
- Required number of truck parking spaces available to drivers when industrial businesses are open.
 - One 10' x 80' space per two loading docks
- These spaces are used by drivers as they wait for a scheduled delivery or pick-up.

Operational Truck Parking Space Requirements

- Guidance for truck parking spaces to support operations based on the facility square footage or number of loading docks.
 - One 10' x 80' space per loading dock
- These spaces are used for operations and do not need to be available to drivers at all hours of the day.

Exceptions

- Provide exceptions for on-site staging requirements if facility contributes to a shared lot or publicly-owned lot



Example of Temporary Truck Parking Spaces and Operational Truck Staging Spaces

Long-Term Truck Parking (Industrial Outdoor Storage)

Purpose

- A designated space where truck drivers can store their trucks when they're not actively using them.

Zoning Recommendations

- Amend or adopt industrial outdoor storage section of zoning code to include truck parking as an allowed use

General Requirements

- Screening
 - At a minimum, a fence or wall of at least 6 feet in height. Ideally, fence or wall and screening landscaping.
- Lighting
- Security
 - At a minimum, a security fence. Ideally, additional security measures like security cameras, access control or security personnel.

Truck Parking – Development Partnerships

- Challenge: High land prices in much of the region can make new truck parking financially infeasible
- Truck parking is a public need for safety/security of truck drivers and the general public
- Potential Solution: Development partnership
 - Development Authority
 - Regional Industrial Development Authorities
 - Downtown Development Authority
- Potential Options include
 - Low-cost leasing or other land agreements
 - Tax abatement
 - Streamlined permitting
 - Low or no cost permitting and other regulatory agreements
 - Utilities installation
- Local examples in Elmira, NY and Weed, CA, from the FHWA National Coalition on Truck Parking

https://ops.fhwa.dot.gov/Freight/infrastructure/truck_parking/coalition/state_reg_lgov_coord/product/requirements.pdf



Truck stop, Bouldercrest Road at Continental Way, Dekalb County

Freight Design Guidelines

Why did we create design guidelines?

- Provide a basis for how areas should be designed to accommodate freight in different contexts
- Mitigate the impacts of freight in growing industrial areas and activity centers
- Improve the design of developments for the benefit of nearby residents and workers

How they are used

- Three chapters for three types of land use, ranging from least to most dense, containing recommendations for how freight must be considered in context
 - Industrial Areas
 - Downtowns and Small Regional Centers
 - Major Activity Centers
- First half of each chapter focuses on public design considerations
- Second half focuses on private development considerations

Freight Design Examples – Industrial

Access Management

Access management refers to how properties and other developments are connected to roadways. Typically, developments in an industrial area are accessed by large driveways.

Driveways

Similar to intersection design, driveways in industrial areas must be designed to account for the design vehicle based on the driveway's curb radius to ensure a smooth entry and exit for large trucks. A 75-foot radius is typical for driveways within industrial land uses, as shown in Table 1.

Other driveway design considerations include:

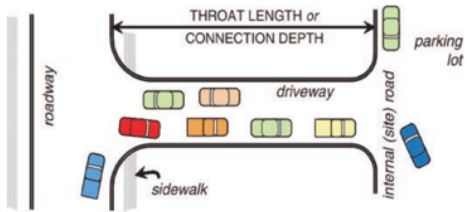
- Ensuring guard or gate houses should not cause trucks to back onto public roadways.
- Providing sidewalks or other pedestrian infrastructure to keep pedestrians out of the driveway when walking from the roadway to the development.
- Separating employee driveways from truck driveways so that employee traffic does not interfere with truck traffic into and out of the property.
- Ensuring driveways are long enough or have a long enough "throat" (Figure 27), that a truck can completely vacate the public roadway before needing to make turns or parking maneuvers.
- Ensuring guard or gate houses should not cause trucks to back onto public roadways.
- Providing sidewalks or other pedestrian infrastructure to keep pedestrians out of the driveway when walking from the roadway to the development.

Table 1: Minimum Corner Radii Determined by the Development Use Typical Design Vehicle

Driveway Use	Minimum Radius, Feet
Residential	15
Commercial	35
When Designed for Trucks	75

Source: Regulations for Driveway & Encroachment Control Manual, GDOT, 2024

Figure 27: Illustration of Driveway Throat Length or Connection Depth



Source: Report 943- Design and Access Management Guidelines for Truck Routes: Planning and Design Guide, NCHRP, 2020

Pavement Strength

Pavement type and thickness depend on the volume of heavy vehicular traffic anticipated, the underlying soil characteristics and regional environmental factors. Roadways with greater freight volumes require thicker pavement to withstand the additional load. Public roads are typically designed for a 20-year design life with two repaving cycles included to maintain pavement integrity. Typical pavement designs in the Atlanta area include the following:

- Roads averaging up to 50 heavy vehicles a day per lane:
 - 1.25 inches of asphalt surface mix
 - 2 inches of asphalt binder
 - 3 inches of asphalt base
 - 8 inches of graded aggregate base OR 7 inches concrete pavement
 - 10 inches graded aggregate base
- Roads averaging up to 250 heavy vehicles a day per lane:
 - 1.5 inches of asphalt surface mix
 - 2 inches of asphalt binder
 - 4 inches of asphalt base OR 12 inches of graded aggregate base OR 10 inches concrete pavement
 - 10 inches graded aggregate base
- Roads averaging up to 500 heavy vehicles a day per lane:
 - 1.5 inches of asphalt surface mix
 - 2 inches of asphalt binder
 - 6 inches of asphalt base
 - 12 inches of graded aggregate base OR 11 inches concrete pavement
 - 10 inches graded aggregate base
- Roads averaging up to 2,500 heavy vehicles a day per lane:
 - 1.5 inches of asphalt surface mix
 - 2 inches of asphalt binder
 - 9 inches of asphalt base
 - 12 inches of graded aggregate base OR 12 inches concrete pavement
 - 10 inches graded aggregate base

For roads averaging more than 2,500 heavy vehicles a day per lane and for other pavement design guidance, consult the GDOT Pavement Design Manual and the AASHTO Guide for Design of Pavement Structures (1993).

Pavement Maintenance

Roads with high volumes of truck traffic may need more frequent pavement maintenance due to the extra pavement stress caused by heavy vehicles. Roadway owners should closely monitor high truck volume routes for any necessary resurfacing, restriping, pothole filling, and curb repair. If a curb requires frequent repair, consider moving the curb location to decrease the likelihood of off-tracking.

Industrial areas should take into consideration:

- Infrastructure designed to prioritize freight/large trucks
- Wide lanes and curb radii
- Pedestrian and bicycle facilities for employees
- Well-maintained pavement
- Large, separated driveways
- Clear pedestrian access points from the road
- Clear wayfinding on-road and on-site at access points and internal intersections

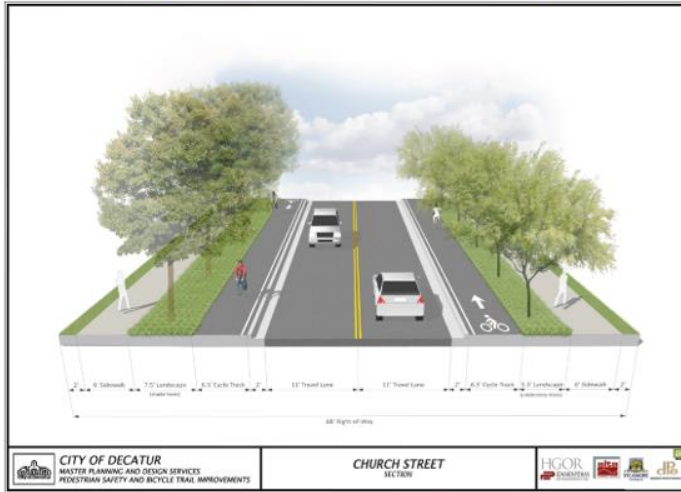
Freight Design Examples – Downtowns and Small Regional Centers

block crossings where pedestrian-truck conflicts may be common. Further, pedestrian refuge areas in medians can improve safety for those crossing by allowing them to traverse one side of the street at a time.

Sidewalks

Sidewalks play a vital role in city life. As conduits for pedestrian movement and access, they enhance connectivity and promote walking. Safe, accessible, and well-maintained sidewalks are a fundamental and necessary investment for cities and have been found to enhance public health and maximize social capital. Prevailing design guidelines recommend a minimum sidewalk cross-section of 5 feet, though they are often larger in downtowns with many storefronts and high pedestrian activity. Because sidewalk accessibility is emphasized, however, truck mobility is impeded. Larger sidewalks and other multimodal elements result in narrower lane widths, as shown in Figure 10. On roadways with expected truck traffic, it is important to give extra consideration to sidewalks and curbs near intersections to ensure trucks can safely off-track when necessary.

Figure 10: Example Multimodal Street with Small Travel Ways



Source: Pedestrian Safety and Bicycle Trail Improvements Church Street Section, City of Decatur, 2014

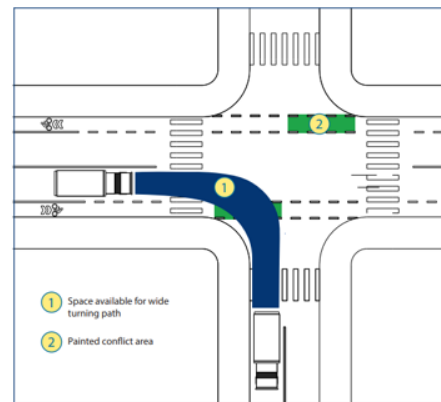
Bike Facilities

In downtowns and small regional centers, bicycles usually travel in mixed traffic when dedicated bike lanes are not provided. On roads with a high percentage of truck traffic, this can be especially dangerous, as the wide turns and large blind spots of freight vehicles can put bicyclists at risk.

11

Separated bike lanes can be mutually beneficial for trucks and bicyclists. Dedicated lanes remove bicyclists from mixed traffic while also providing additional space outside the travel lane for trucks to make turning movements. Roadway markings such as bright paint can be provided at conflict locations for bikes and trucks to increase awareness for truck drivers and improve safety for bicyclists. Figure 11 demonstrates how bike lanes can benefit trucks by effectively increasing curb radii for turns. It also provides an example of how bike lanes can be marked to alert road users at bike-truck conflict locations.

Figure 11: Example Design for Bike Lanes on Truck Travel Ways



Source: Accommodating Freight in Complete Streets, NYSDOT, 2019

12

Downtowns and Small Regional Centers should take into consideration:

- Narrow roads adapted to accommodate trucks
- Multimodal needs and presence of space-constrained areas
- Collaborative and innovative curbside management to maximize curb space
- Peak hour restrictions for truck deliveries
- Alleys for off-street deliveries

Freight Design Examples – Major Activity Centers

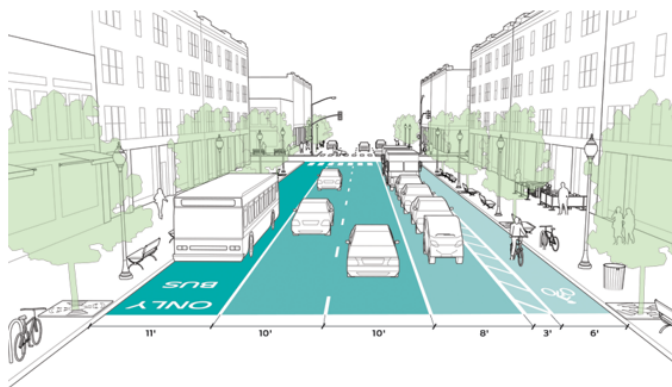
Roadway Design

In major activity centers, roadway design should consider the context of high pedestrian activity, heavy transit usage, and larger retail and commercial areas that require combination truck deliveries.

Lane Widths

Lane widths should be a minimum of 11 feet on collector and arterial streets with higher percentages of truck traffic. On principal arterials that operate at high speeds with mostly free flow, lane widths of 12 feet are desirable if feasible, especially when high truck volumes are anticipated. A lane width of 10 feet, while sometimes used on more constrained streets, should be avoided if possible unless truck volumes are low and speeds are under 35 miles per hour. While narrower lanes are often unavoidable in major activity centers due to space constraints, roadway designers can make accommodations for trucks on these streets. Narrowing the inside lanes while widening the outside lanes is one such accommodation, as seen in Figure 3; providing suitable space for off-tracking is another. Narrower lanes can also be acceptable on local streets that are used for deliveries provided that they 1) meet the design criteria for single-unit truck travel, and 2) have suitable accommodations for combination truck travel.

Figure 3: One Wide Outside Lane for Freight and Transit



Source: Urban Street Design Guide, NACTO, 2013

On curves, some pavement widening may be necessary to ensure trucks that take up more horizontal space can maneuver safely. Table 4.2 of GDOT's *Design Policy Manual* should be referenced when designing curves for trucks.

4

Supplemental Signal Faces

Signal head visibility is of vital importance to the safe and smooth operation of a roadway intersection. Because roadway geometry is typically uniform in major activity centers, signal visibility is rarely impeded by horizontal or vertical alignments. However, at intersections with high percentages of trucks, signal faces are often obscured from passenger vehicles by large trucks ahead of them. When this is the case, supplemental signal heads should be placed at the intersection to provide optimal visibility to vehicles. This may be achieved through additional signal heads on span wire or through signal heads on pedestals at the side of the road, as shown in Figure 6. Signal heads mounted on pedestals should have their lowest parts between 12 and 19 feet above the sidewalk. Designers should consider the operating environment as a whole when determining if supplemental signal heads are necessary, but general benchmarks for where they may be desirable include roadways whose traffic is at least 10% trucks and roads with design speeds of 45 miles per hour or faster. See the FHWA *Manual on Uniform Traffic Control Devices* for more guidance on the design and installation of supplemental signal heads.

Figure 6: Supplemental Signal Heads on Pedestals in Downtown Atlanta



Source: Google Street View

5

Major Activity Center areas should take into consideration:

- Presence of wide high- and medium-speed arterials, narrow local roads
- Signal coordination adjustments for truck traffic
- Supplemental signal faces
- Multimodal design with separated and buffered pedestrian and bike facilities
- Sufficient off-street loading spaces with potential for collaboration

Design Guidelines – Access to Jobs

Pedestrian infrastructure

- New industrial developments should build sidewalks along the edge of the property along all roadways
- Minimum 5-feet wide, set 2 feet back from the curb
- Setback buffer is needed due to high truck volumes and potential high vehicle speeds
- Wider sidewalks/buffers, streetscapes, and/or trails are also options



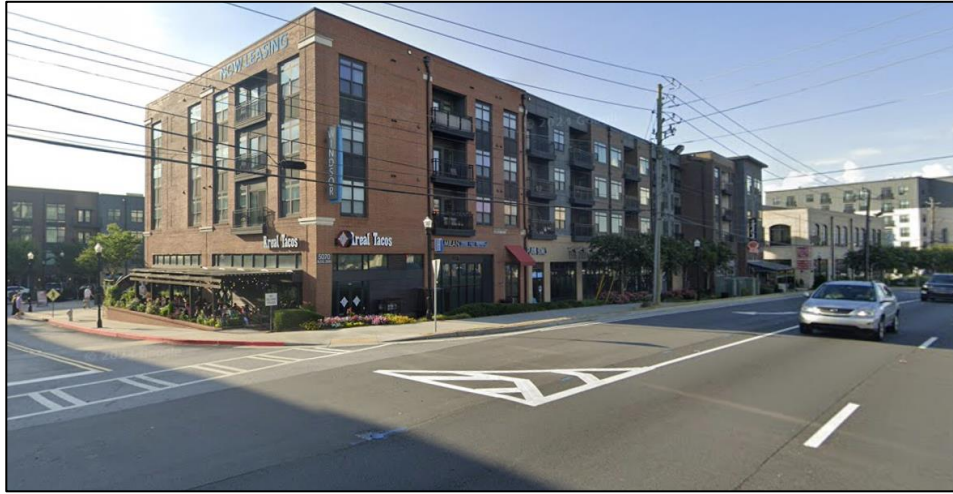
Employee access to industrial sites

- Vehicular driveways often don't have sidewalks
- Pedestrians have to walk in the driveways or next to them without a sidewalk to access their jobs
- Clear, safe pedestrian access from roadways to buildings via sidewalks and crosswalks should be provided in all new developments

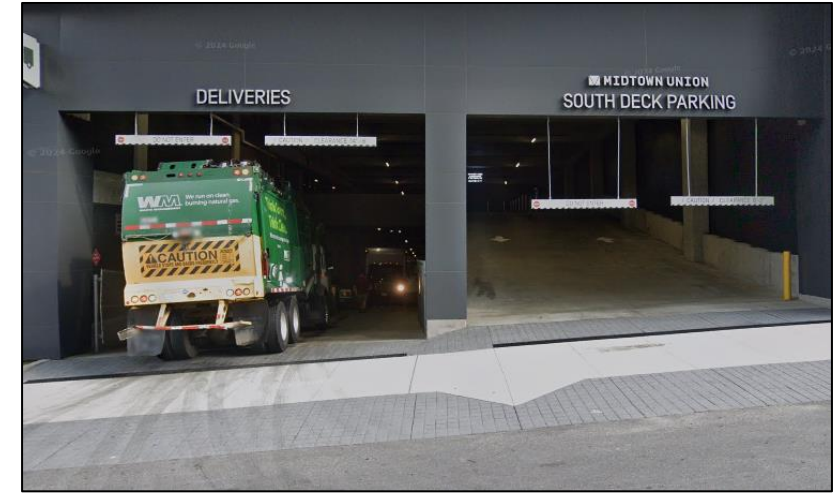


Design Guidelines – Urban Delivery, Arterial Development

- New residential/ mixed-use developments along arterial roadways
- On-street loading can block high-volume, high-speed roadways, impacting safety and traffic congestion
- Designated off-street spaces needed for:
 - Freight deliveries
 - Rideshare pickup-up/drop-off
 - Food delivery/pick-up



Mixed-Use Development, Peachtree Boulevard/SR 141, City of Chamblee; Source: Google Street View



Off-Street Truck Loading and Vehicle Parking, Midtown Atlanta; Source: Google Street View



Rideshare Pick-Up Signage, Ponce City Market, Midtown Atlanta; Source: Google Street View



Designated Restaurant Pick-Up Space, Condo Building, Buckhead, Atlanta; Source: ARC

Design Guidelines – Urban Delivery

- Activity centers have different needs than industrial areas

- Freight loading/unloading can impact other modes

- Loading docks or spaces on-site where possible



✗ Truck is blocking multiple travel modes



✓ Loading with no impacts to other modes



✗ Vehicle blocking crosswalk



✓ Loading space ends at bulb-out

Design Guidelines – Traffic Signals

Supplemental Signal Faces

- Signal head visibility is important for safe intersection operations
- If a driver can't see a red signal, they won't stop!
- Poor visibility due to curves or hills, or a significant amount of large trucks, may obscure the view of primary signal heads
- Trucks need a longer stopping distance than cars, so this is more important in areas with a lot of trucks



Freight Resources

County Factsheets

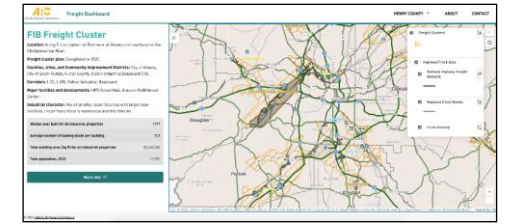
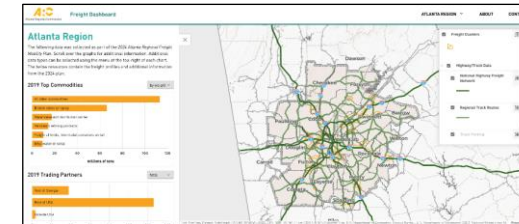
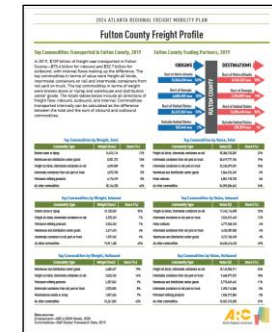
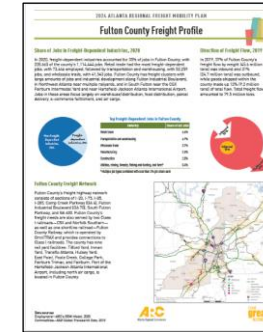
- Freight dependent jobs, trading partners, commodity data
- Freight network overview and direction of freight flow

Freight Dashboard

- Interactive way to view data from county factsheets
- Freight cluster data, truck parking, and more included

Freight Design Guidelines

- Provides a design basis to better accommodate freight while mitigating its impacts
- Three chapters for three types of land use
 - Industrial Areas
 - Downtowns and Small Regional Centers
 - Major Activity Centers
- Focuses on private development considerations (i.e., site design, curb management) and on public design considerations (i.e., transportation infrastructure)



Freight Resources

Classification Counts Summary

- Classification counts were collected at various industrial developments throughout the Atlanta region
- Performed an analysis between the collected data and the Institute of Transportation Engineers (ITE) Trip Generation Manual
- This data can be used to supplement the ITE Trip Generation Manual where needed

Guidance for Developing Truck Routes

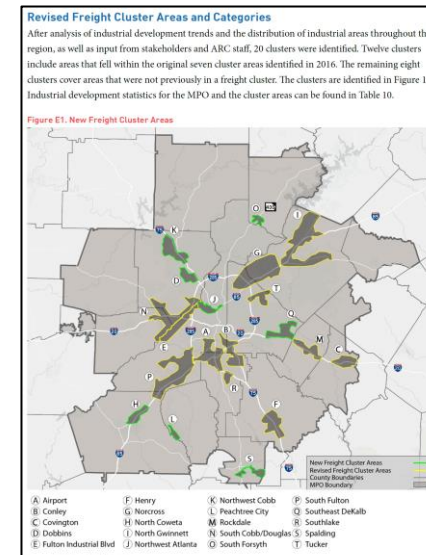
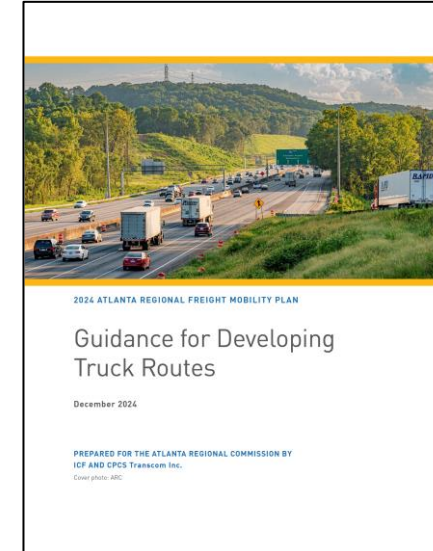
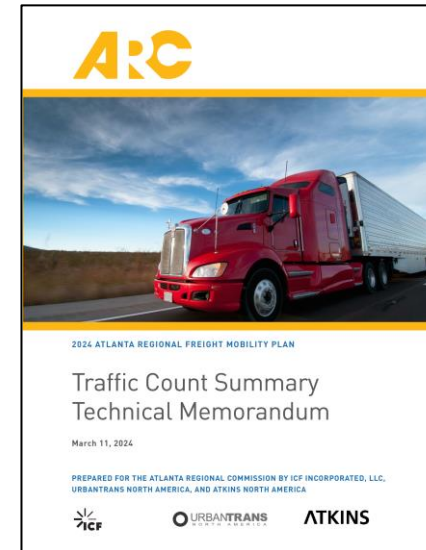
- Provides criteria and considerations for designating corridors as local truck routes or applying truck prohibitions

2024 Freight Cluster Statistics

- Identifies locations of freight clusters in the Atlanta region
- Provides statistics such as square footage of industrial development, median year built, and other data for each cluster

Stakeholder Engagement Summary – Survey 1

- Survey results and summary of interactive mapping exercise for every county in the region

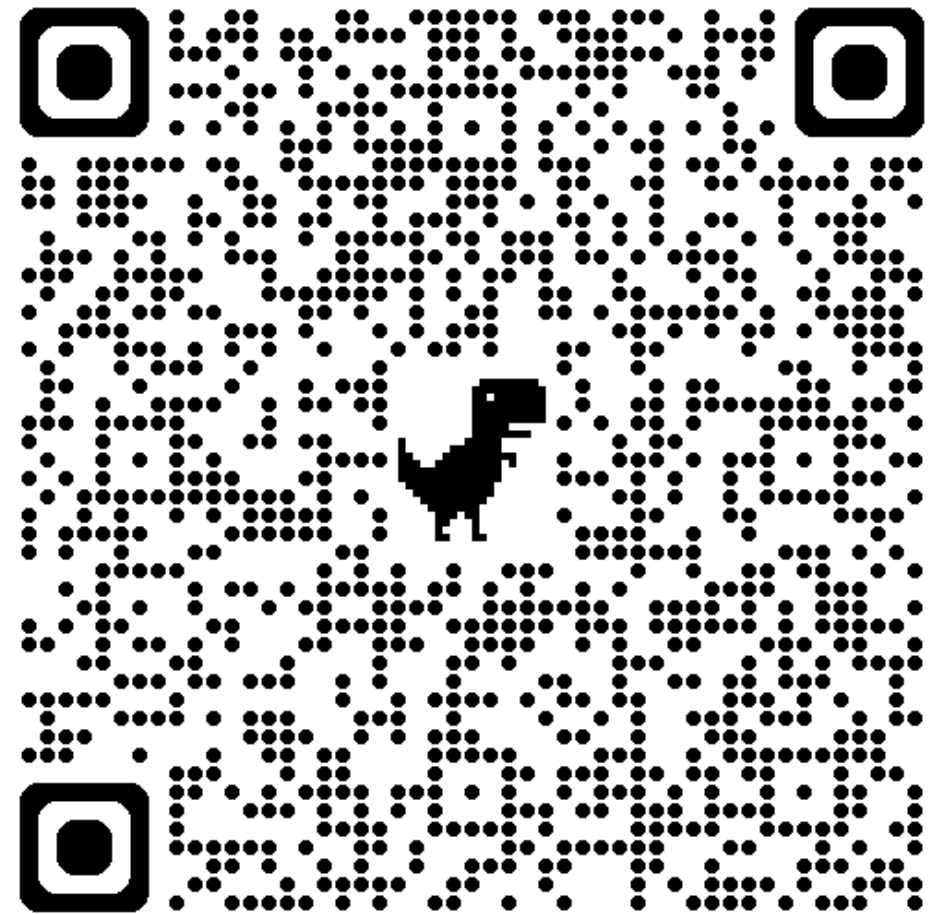




Questions?

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<https://atlantaregional.org/2024-freight-plan>