

METRO ATLANTA FREIGHT AND LOGISTICS ECOSYSTEM

Georgia Freight and Logistics Commission

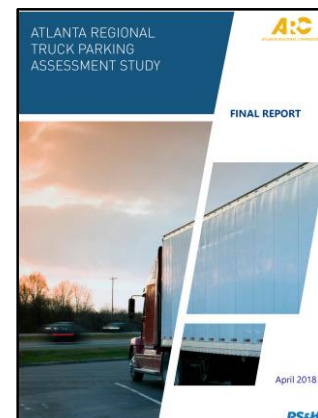
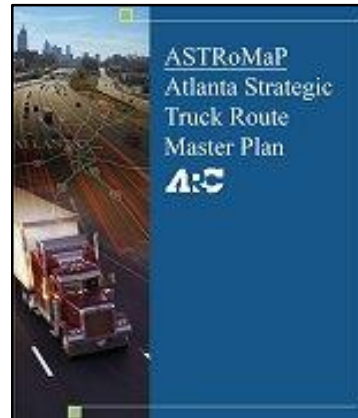
October 16, 2019

Daniel Studdard, AICP
Principal Planner
Atlanta Regional Commission



ATLANTA REGIONAL COMMISSION

Core ARC Freight Planning Work Activities



Freight Advisory
Task Force
Formed

Atlanta Regional
Freight Mobility
Plan

Truck Route
Master Plan

Atlanta
Regional
Freight
Mobility
Plan Update

Truck
Parking
and Freight
Cluster
Studies

2003

2005-2008

2010

2015-2016

2017-2021

Next FATF Meeting is **November 20th**, 2019, 8:30-10:00 AM at
ARC's Office, 229 Peachtree Street NE, Suite 100, Atlanta, GA

Land Use and Industrial Growth



BISNOW CITIES EVENTS JOBS EDU ABOUT CONTACT US

News

1B SF Of New Industrial Deliveries Not Enough To Satisfy Demand

February 20, 2019 | Dees Stribling, Bisnow National ✉

*Want to get a jump-start on upcoming deals? Meet the major players at **one of our upcoming national events!***



"In recent years, the impact of e-commerce has brought about an explosion of demand in **Atlanta**, from 1M SF distribution facilities to smaller infill locations, to assist with local delivery. Based on current trends, **we see strong demand continuing for the foreseeable future.**" Transwestern Director of Research (Atlanta) Keith Pierce said.

1B SF Of New Industrial Deliveries Not Enough To Satisfy Demand, Dees Stribling, Bisnow National, 2/20/19

Land Use and Industrial Growth



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Industrial Development

2018, 4th Quarter	Metro Atlanta
Inventory (SF)	617,954,832
Overall Vacancy Rate	5.20%
12-Month Absorption (SF)	18,075,179
Under Construction (SF)	15,574,803

Transwestern Real Estate Outlook, US Market, Industrial, Fourth Quarter 2018

Freight Data to Inform Planning

Decisions...Goods Movement



- **Over 151 million tons of freight** moved into, out of, and within the Atlanta Region in 2013
- **76% increase to 266 million tons** is projected from 2013 to 2040

Freight Flows (2013 tonnage) in the Atlanta Region

Direction	Inbound	Outbound	Local	Total	% of Total
Truck	54,222,761	31,406,110	40,274,889	125,903,760	83%
Rail	16,825,270	8,202,260	179,200	25,206,730	17%
Air	107,077	110,312	-	217,389	<1%
Total	71,155,108	39,718,682	40,454,089	151,327,878	100%
% of Total	47%	26%	27%	100%	

Source: 2013 Transearch Database. (Note: Numbers may not sum to total due to rounding.)

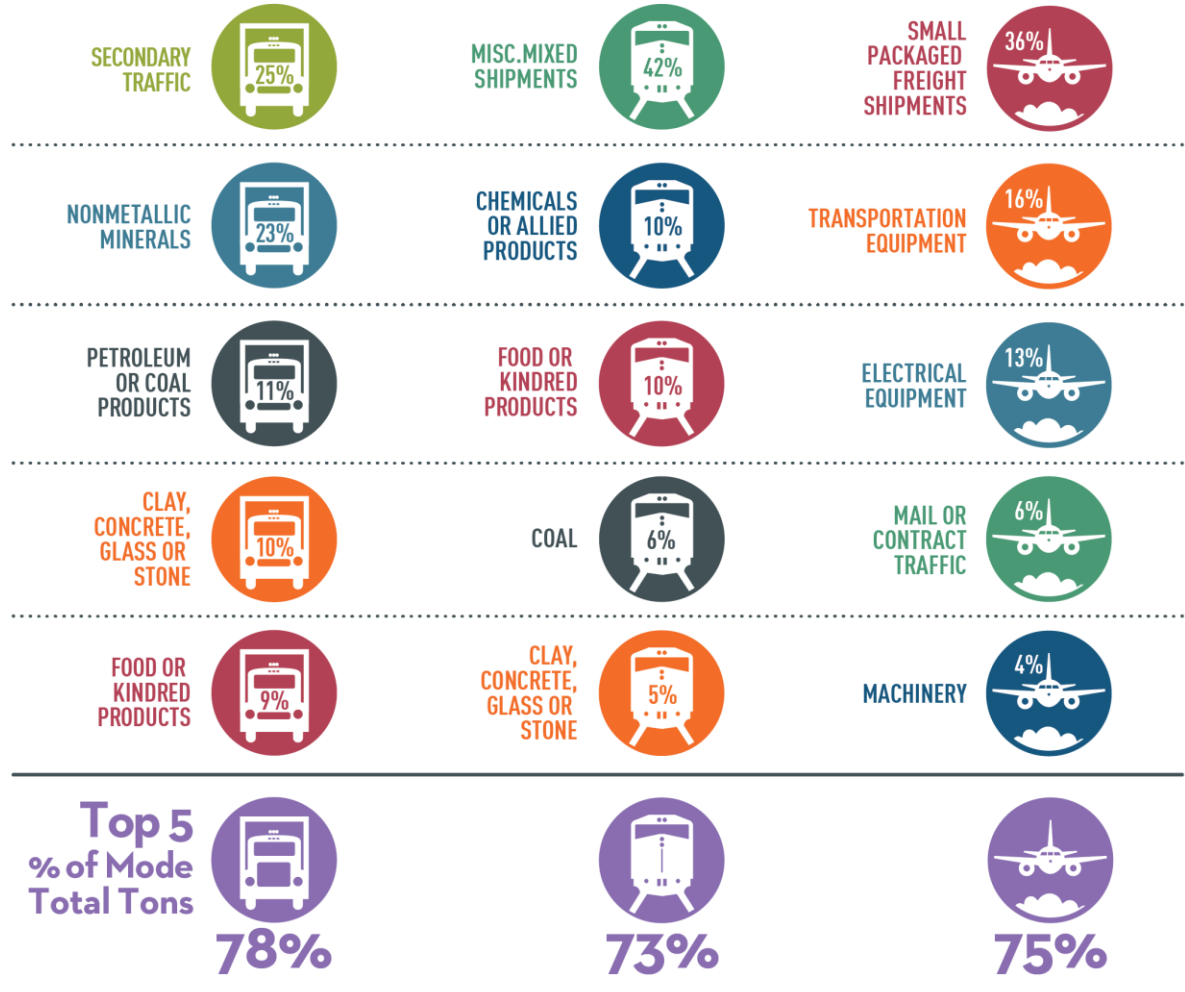
Freight Commodity Movement



Major commodities moved in the Atlanta Region include:

- Goods for stores
- Food
- E-commerce shipments
- Construction materials
- Petroleum and Coal

Atlanta Region: Top 5 Commodities by Mode



Freight Data – Savannah Connection



MODE	BETWEEN METRO ATLANTA AND PORT OF SAVANNAH	BETWEEN METRO ATLANTA AND REST OF CHATHAM COUNTY	TOTAL BETWEEN METRO ATLANTA AND CHATHAM COUNTY
Loaded Trucks Annual	71,532	31,967	103,499
Loaded Trucks per Day	286	128	414
Total Trucks Annual	162,500	72,750	235,250
Total Trucks Per Day*	650	291	941
Number of Intermodal Trains Per Day	3	0	3

Note: Data represent both directions of traffic. Daily figures based on 250 workday year
Source: 2013 ARC Transearch Data, *2015 Draft GDOT Truck Survey, GDOT OTD, consultant analysis

Freight Data – Truck Trips in Metro Atlanta



On an average weekday . . .

- **17,500** heavy trucks pass through the Atlanta Region
- This is about **12%** of the **146,100** total heavy truck trips in the Region

Vehicle Types



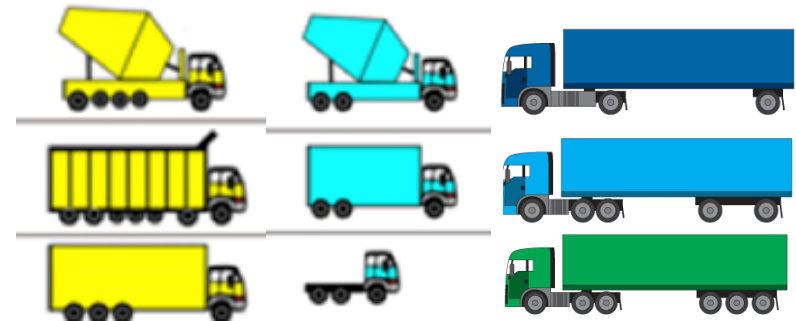
Freight Data – Truck Trips in Metro Atlanta



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- **19,900** total commercial/truck trips pass through the Atlanta Region
- This is about **1%** of the **1,795,100** total commercial/truck trips

Vehicle Types



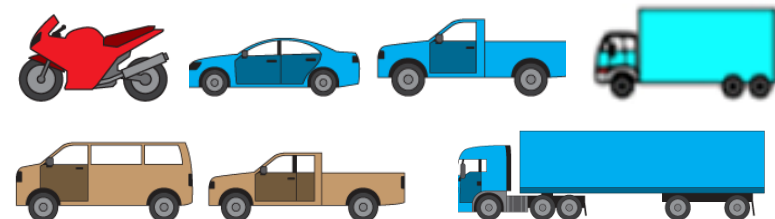
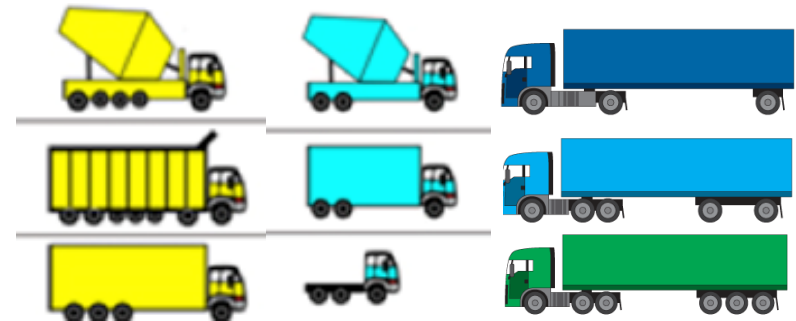
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- **19,900** total commercial/truck trips pass through the Atlanta Region
- This is about **1%** of the **1,795,100** total commercial/truck trips
- There are about **15,811,100** total vehicular trips daily in the Region

Vehicle Types



Freight Data – Vehicle Miles Traveled in Metro Atlanta



On an average weekday . . .

- Heavy trucks travel **1,613,000** miles passing through the Atlanta Region
- This is **32%** of the **5,037,000** total heavy truck miles in the Region

Vehicle Types



Freight Data – Vehicle Miles Traveled in Metro Atlanta



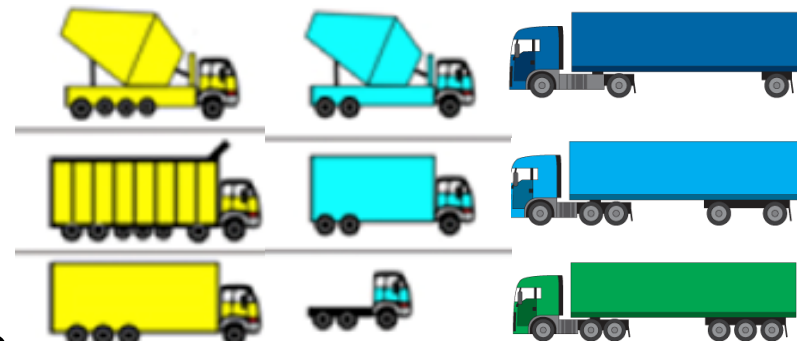
On an average weekday . . .

- Heavy trucks travel **1,613,000** miles passing through the Atlanta Region
- This is **32%** of the **5,037,000** total heavy truck miles in the Region

Vehicle Types



- Commercial/truck trips travel **1,824,000** miles passing through the Atlanta Region
- This is **6%** of the **31,772,000** total commercial/truck miles in the Region



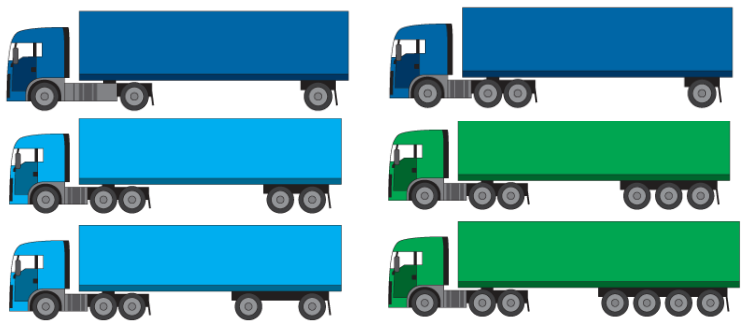
Freight Data – Vehicle Miles Traveled in Metro Atlanta



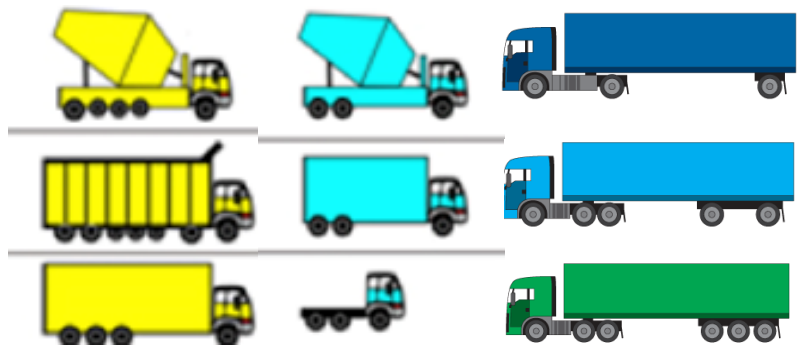
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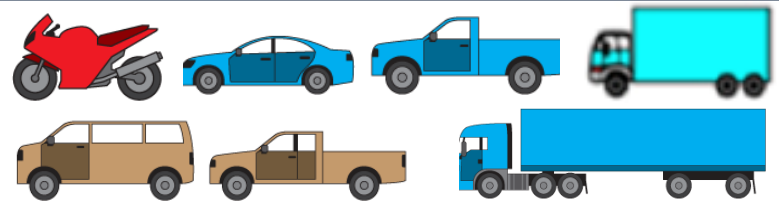
Vehicle Types



- Commercial/truck trips travel **1,824,000** miles passing through the Atlanta Region
- This is **6%** of the **31,772,000** total commercial/truck miles in the Region



- There are about **152,750,000** total vehicle miles traveled in the Region

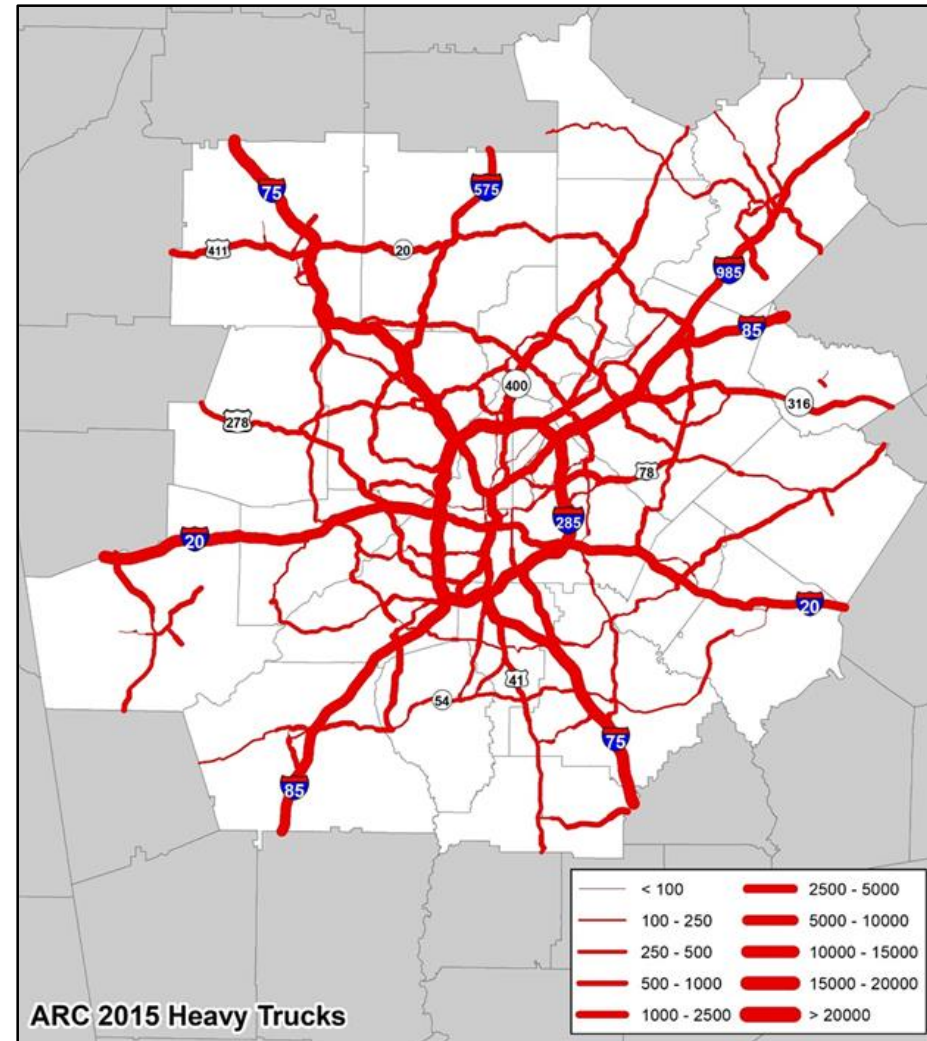


Freight Data – Congestion Cost in Metro Atlanta



Annual Congestion Cost:

- Commercial Vehicle (all trucks) Congestion Cost: \$1.665 Billion
- Passenger Vehicle Congestion Cost: \$3.660 Billion
- Total Annual Congestion Cost \$5.325 Billion
- Commercial Vehicle Congestion Costs are about 31% of total Congestion Costs



Source: ARC 2015 Base Year Model

GDOT Major Mobility Investment Program



4 Major Interchange Projects



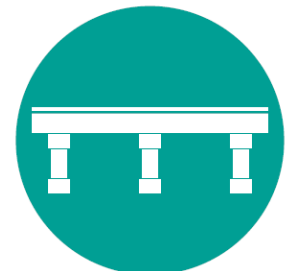
5 Major Express Lanes Projects



4 Major Interstate Widening Projects



1 Commercial Vehicle Lanes Project



4 Bridge Replacement Projects



Interchange Reconstruction:

1. I-16/I-95
2. I-285/I-20 West
3. I-285/I-20 East

Express Lanes:

4. I-285 Eastside
5. I-285 East Metro
6. I-285 West Metro
7. I-285 Westside
8. SR 400

Interstate Widening:

9. I-85 Phase I
10. I-85 Phase II
11. I-16

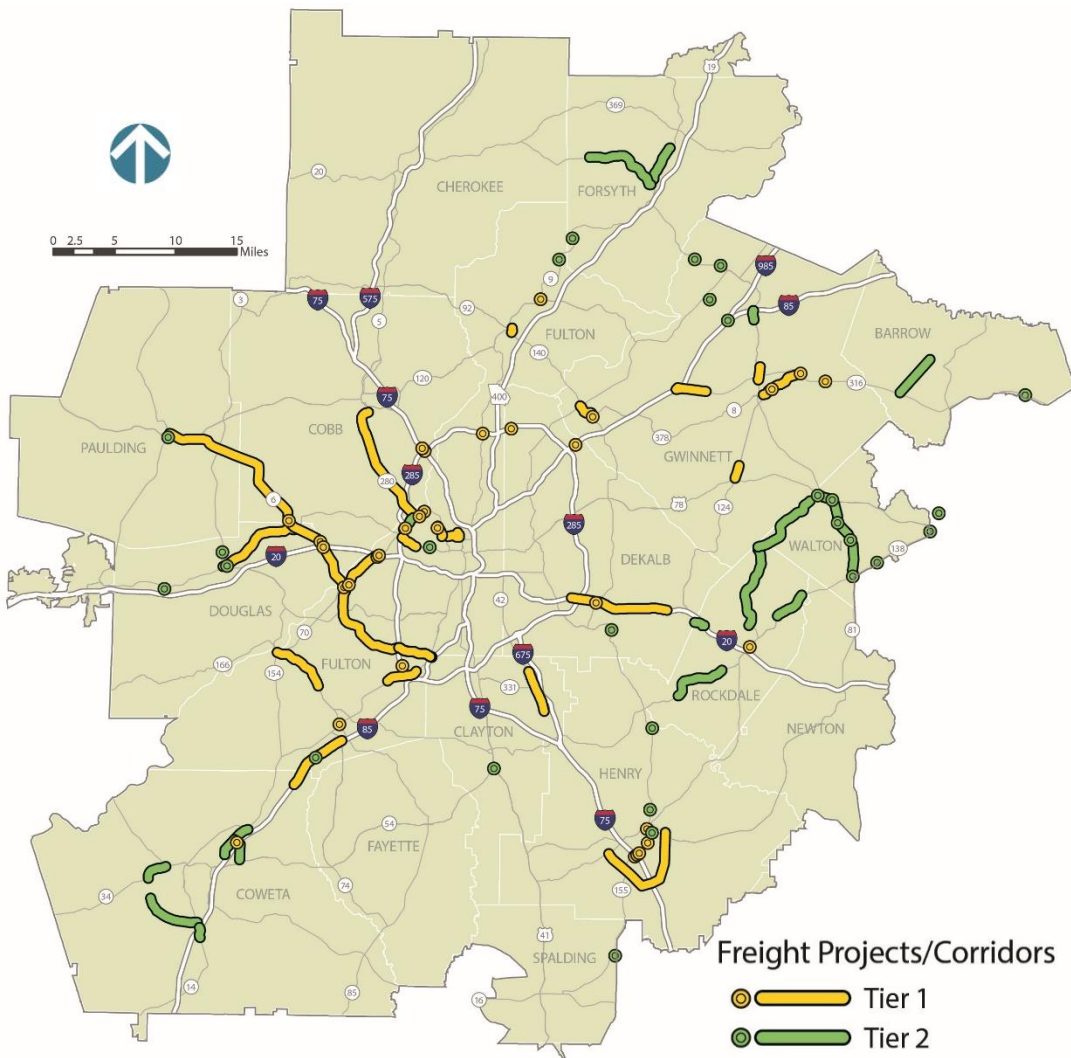
Commercial Vehicle Lanes:

12. I-75

I-285 Advanced Improvement Projects:

13. I-285 Westbound Collector-Distributor Lanes
14. I-285/Peachtree Industrial Boulevard Interchange Improvements
15. I-285 Westside Railroad Crossings
16. I-285 Westside Bridge Replacements
17. I-285 Eastside Bridge Replacements
18. I-285 Westbound Auxiliary Lane Extension

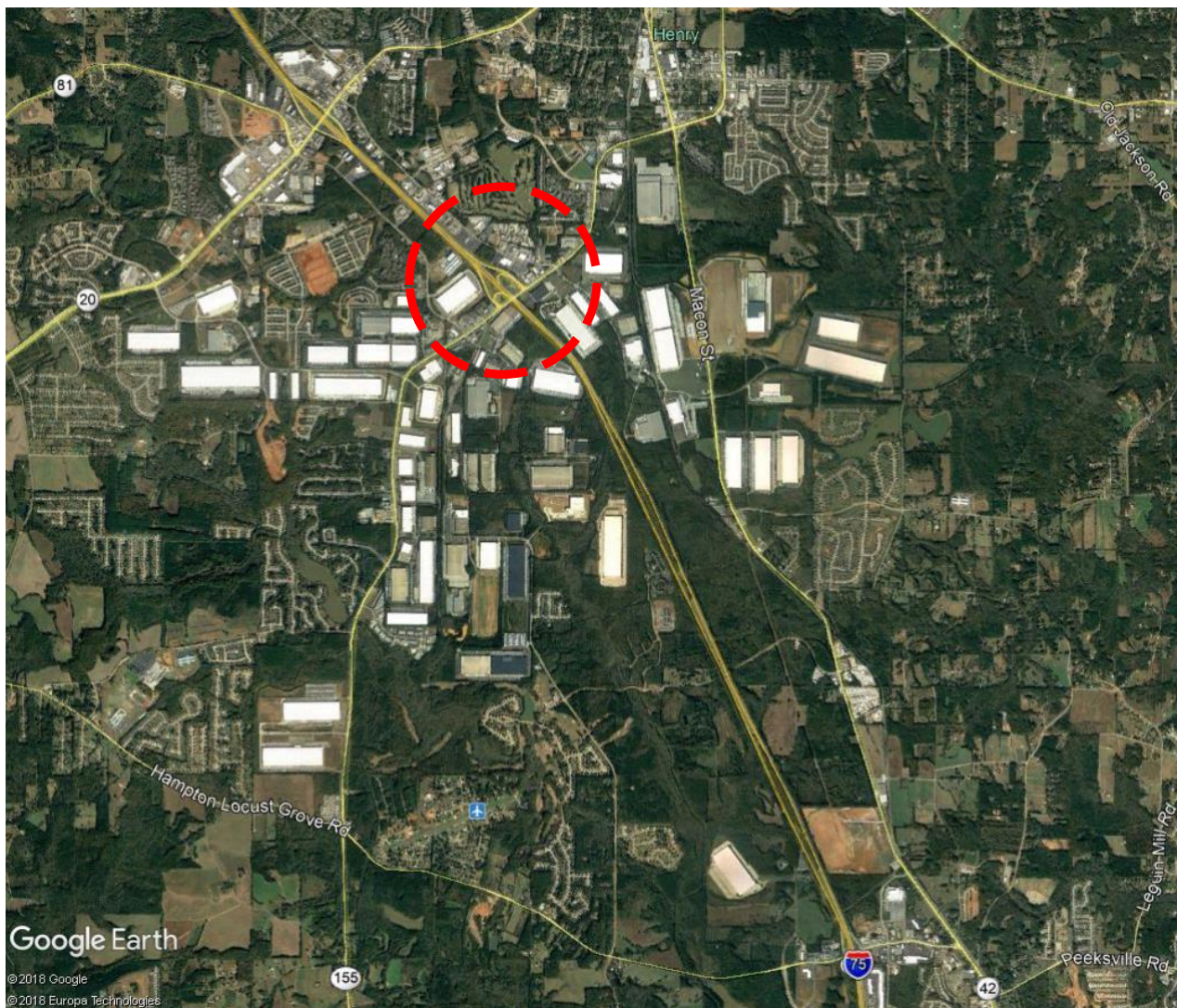
The Planning Foundation: Regional Freight Mobility Plan



Project List:

- 16 projects programmed to begin construction in the 2016-2021 Transportation Improvement Program
- 91 additional freight projects recommended
- Timeframes include:
 - 2021-2030
 - 2031-2040
 - Unconstrained – Beyond 2040

Henry County Congestion at I-75

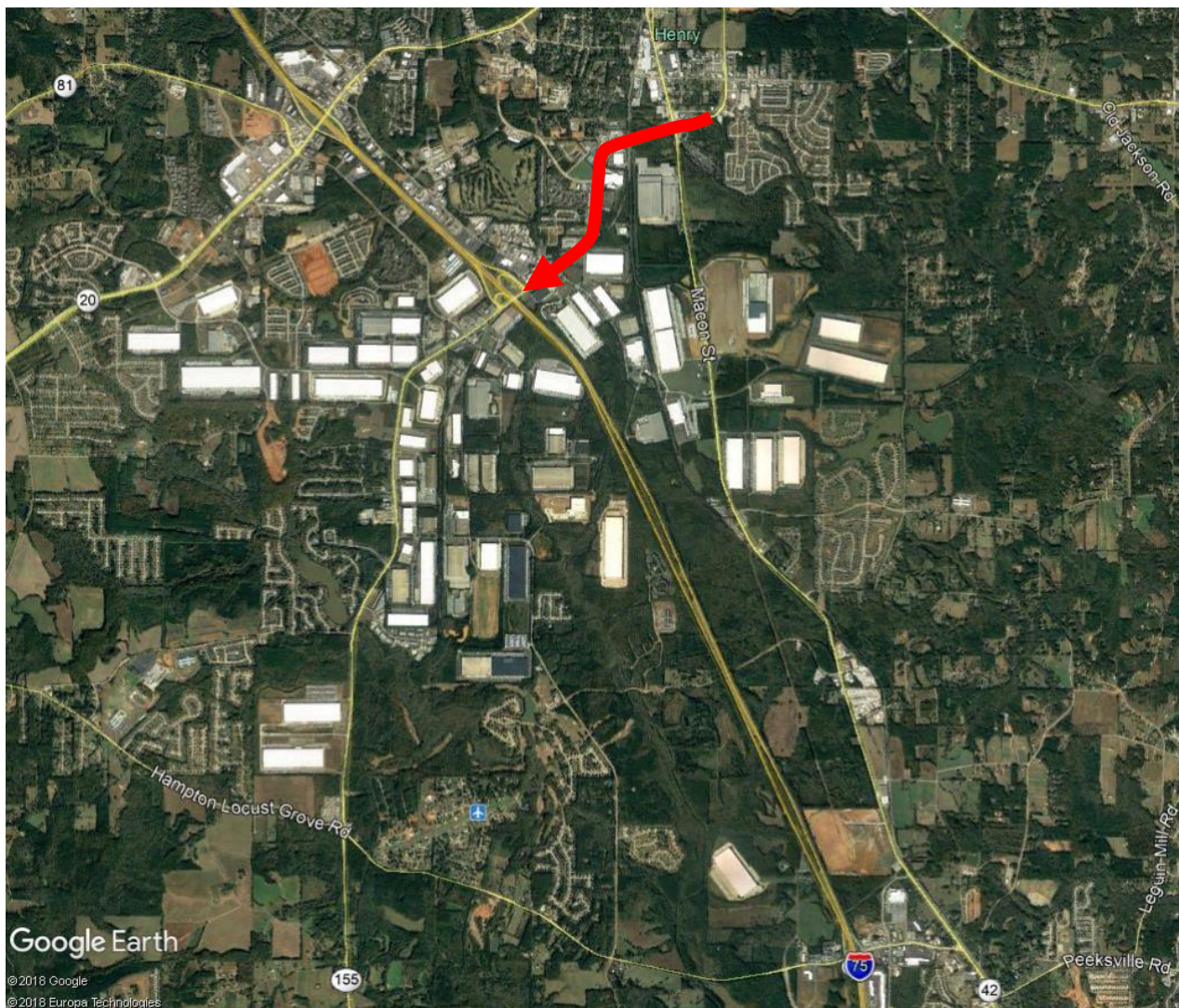


SR 155

Interchange:

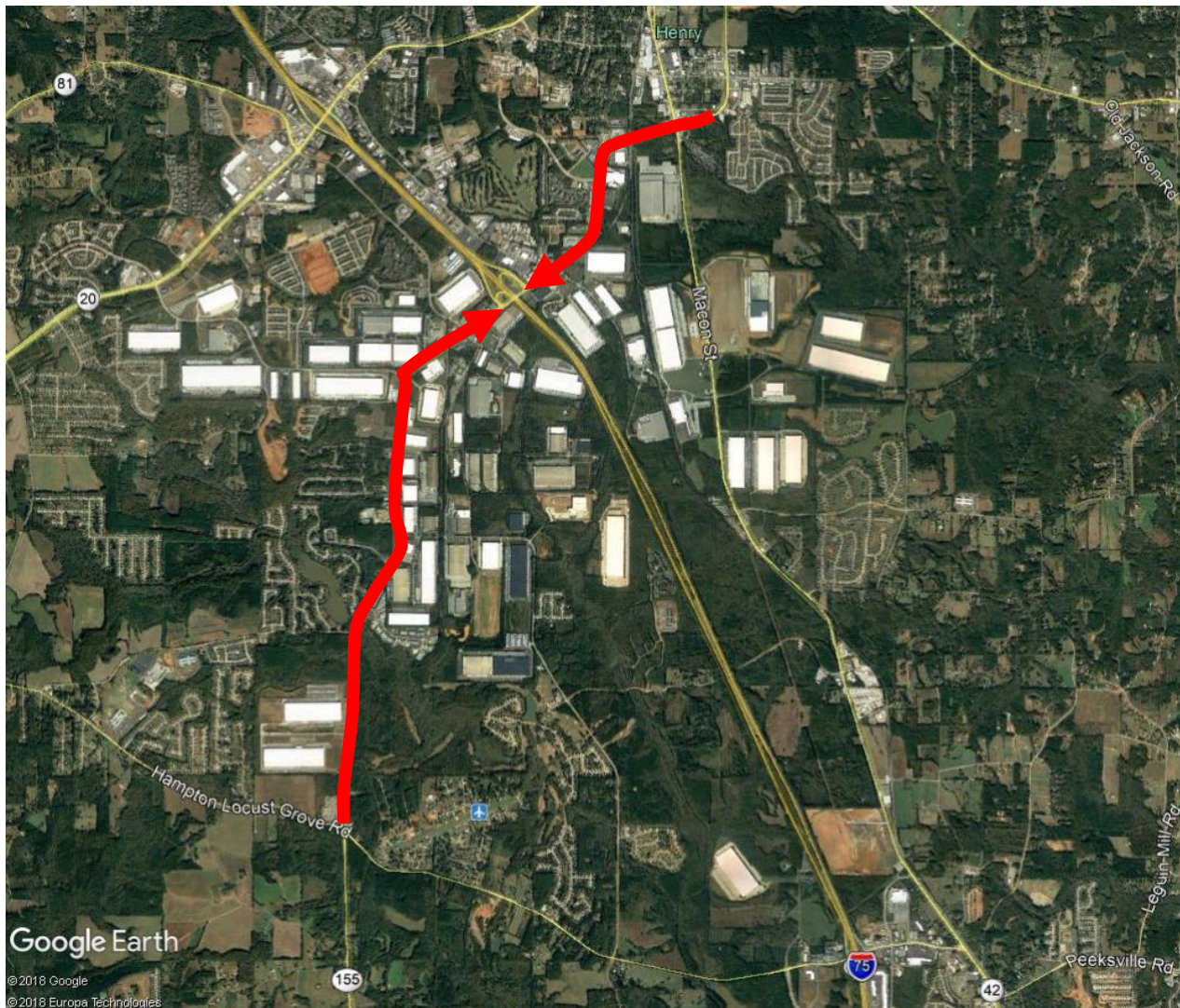
- Key location for distribution from the Port of Savannah
- Truck drivers can drive to Savannah and back in one day and meet their Hours-of-Service Requirements

Henry County Congestion at I-75



Peak hour
congestion:

- SR 155
Southbound
maximum average
queue length of
1.77 miles



- SR 155
Southbound
maximum average
queue length of
1.77 miles
- SR 155
Northbound
maximum average
queue length of
3.59 miles

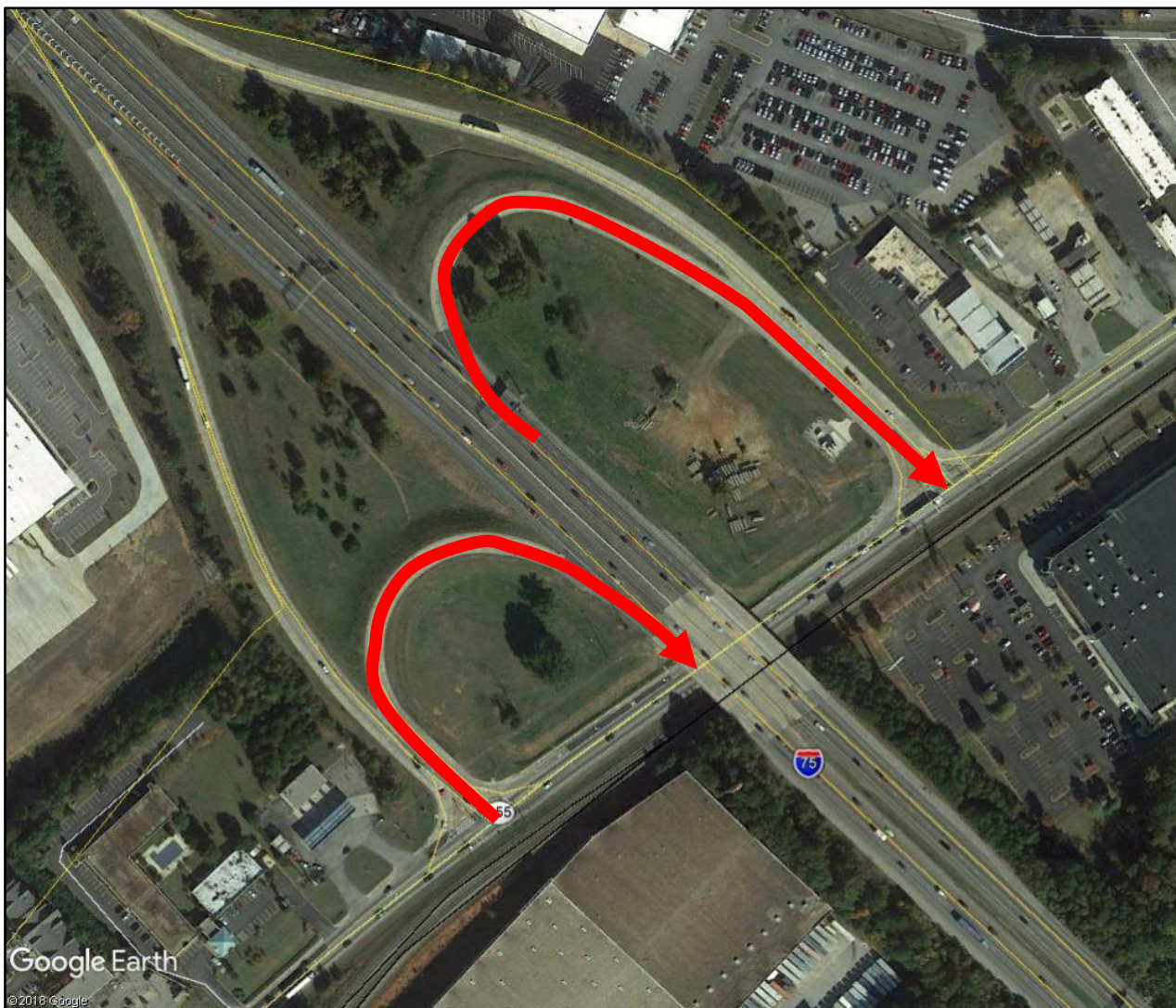
Henry County Congestion at I-75



Interchange Constraints:

- Inadequate space under I-75 to accommodate through lanes and turn lanes

Henry County Congestion at I-75



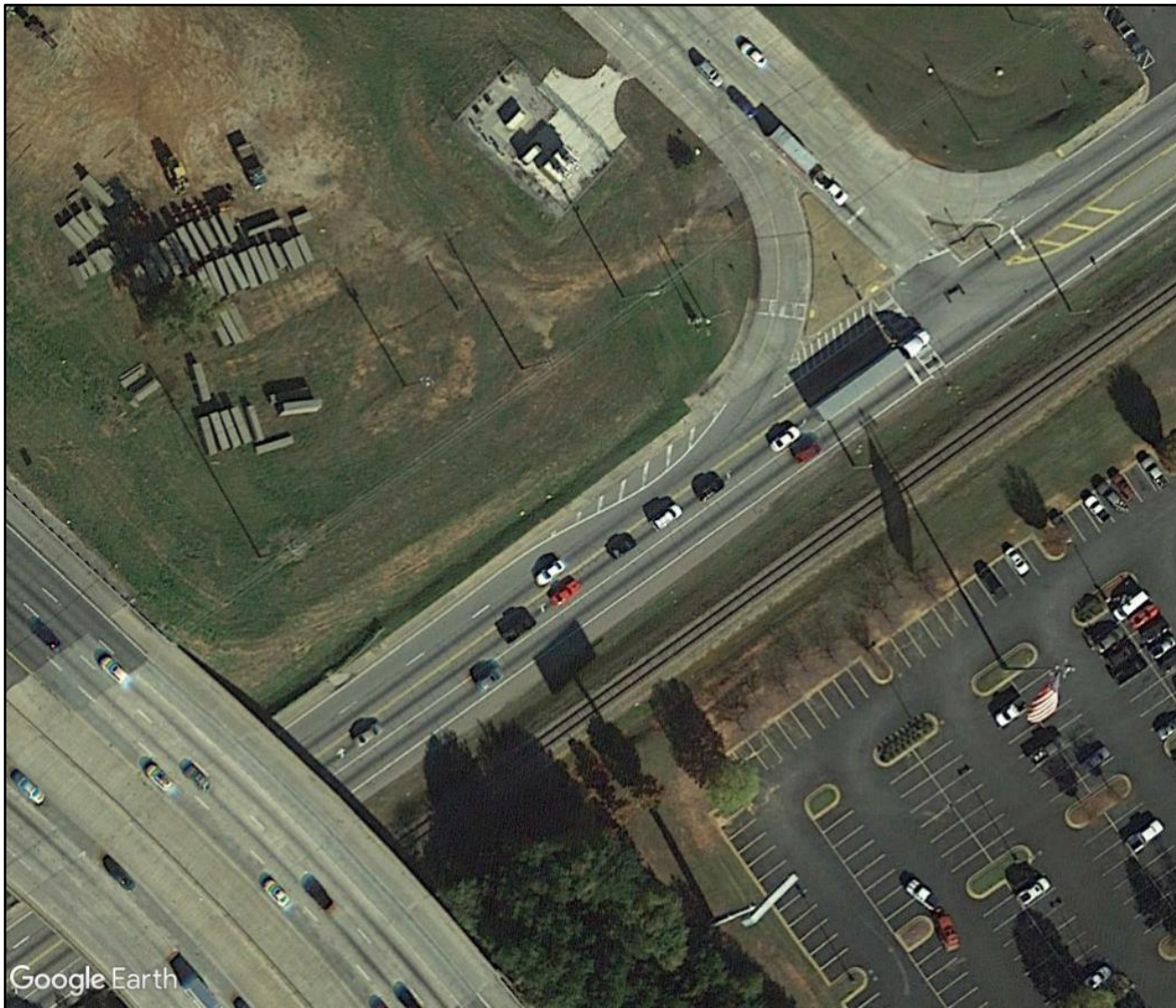
Interchange Constraints:

- Inadequate space under I-75 to accommodate through lanes and turn lanes
- Loop ramps slow all traffic
- Trucks must drive even slower on tight loop ramps

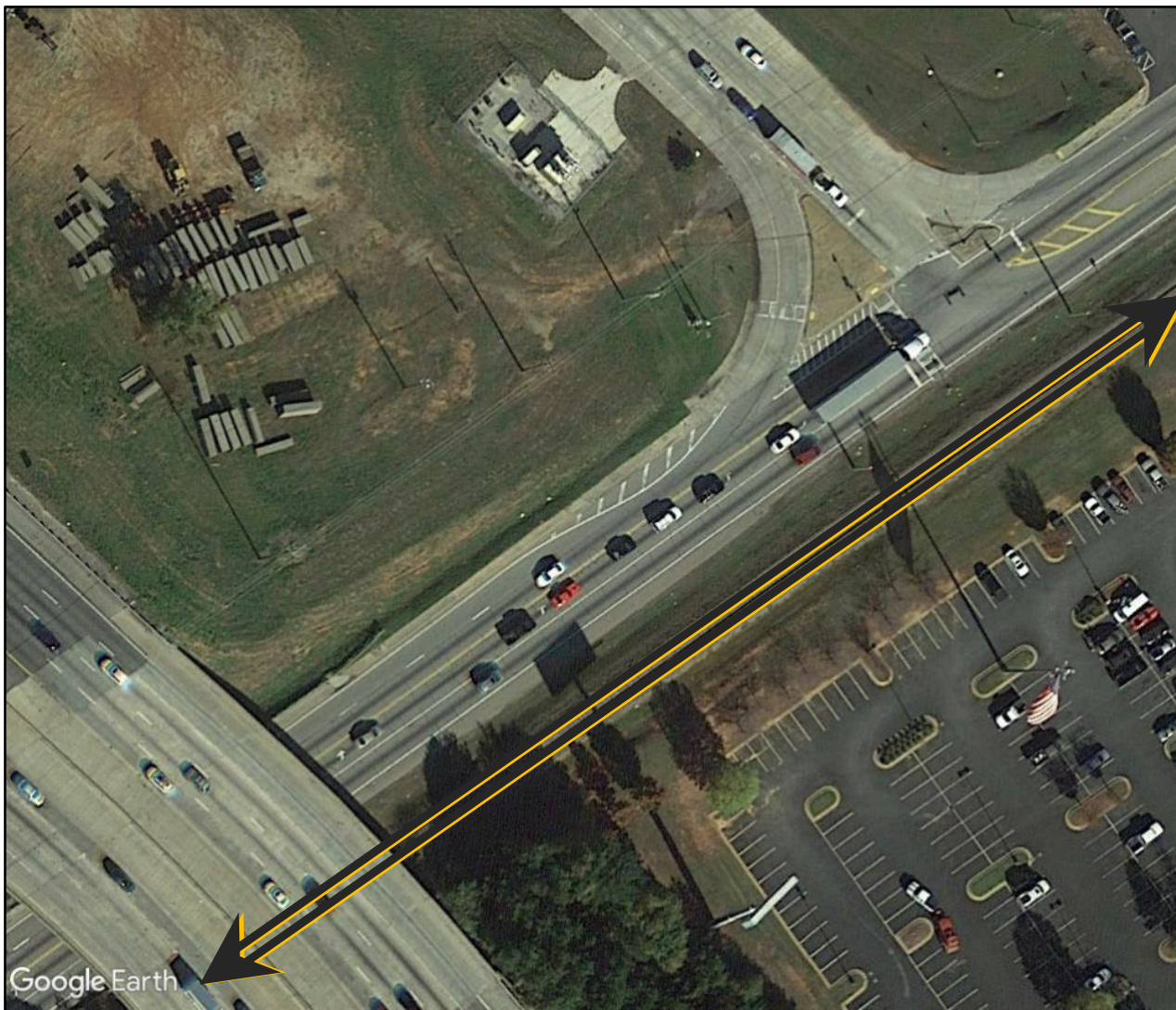
Henry County Congestion at I-75



Interchange
Constraints:



Henry County Congestion at I-75



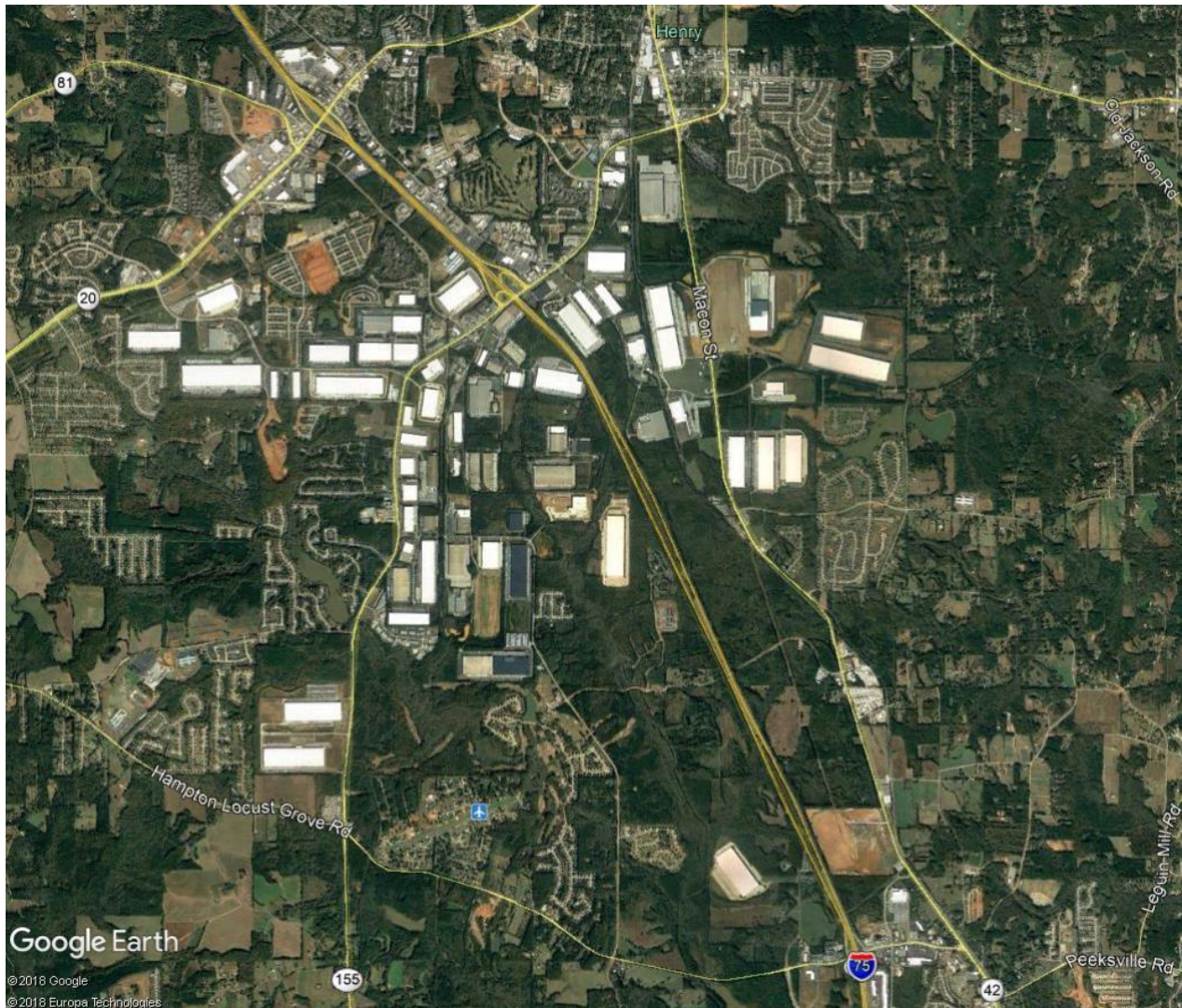
Interchange Constraints:

- Railroad tracks are parallel to SR 155
- This prevents construction of a standard diamond interchange
- Flyover ramps are expensive
- Wider loop ramps would decrease delay

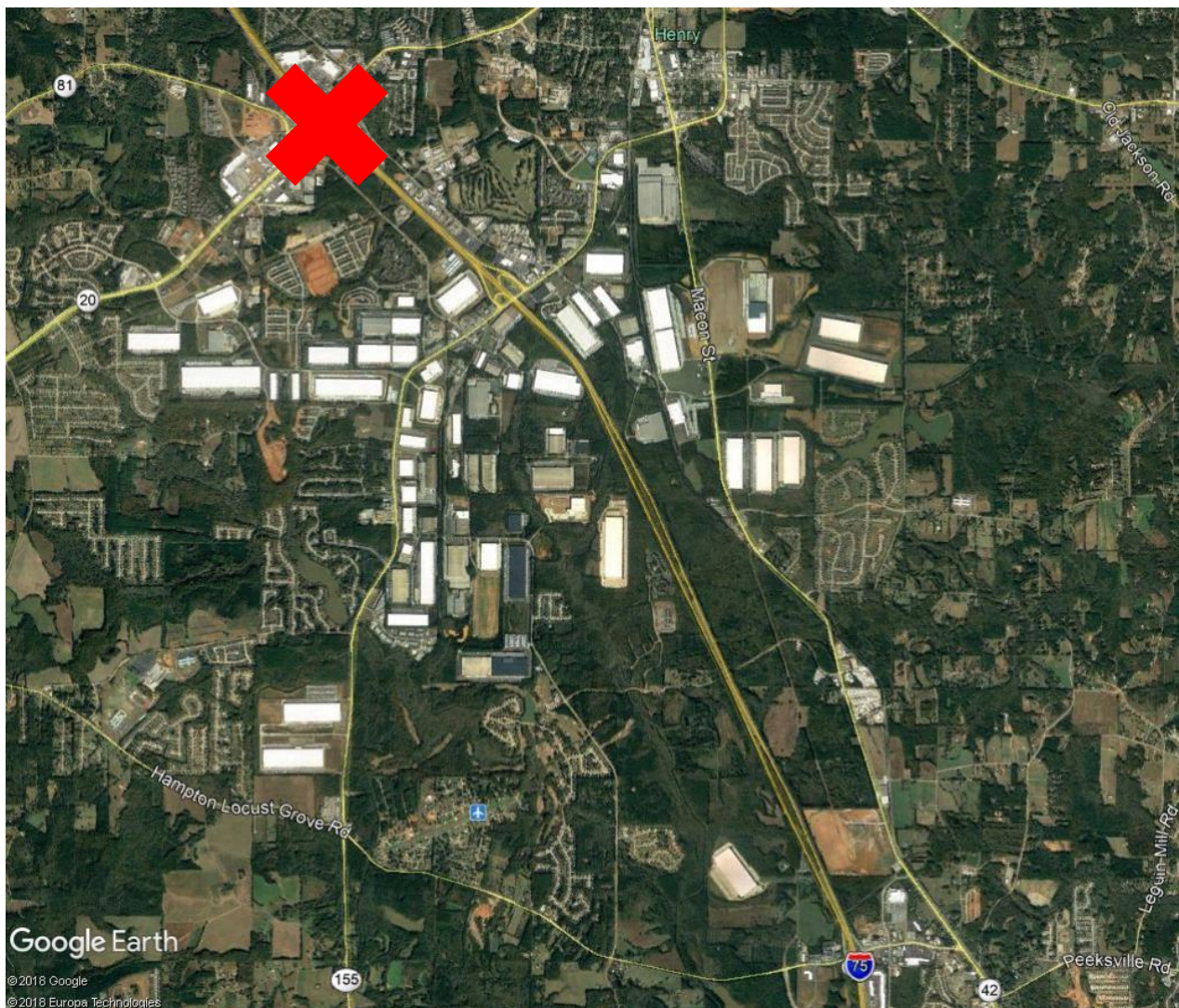
Henry County Congestion at I-75



I-75 Access:



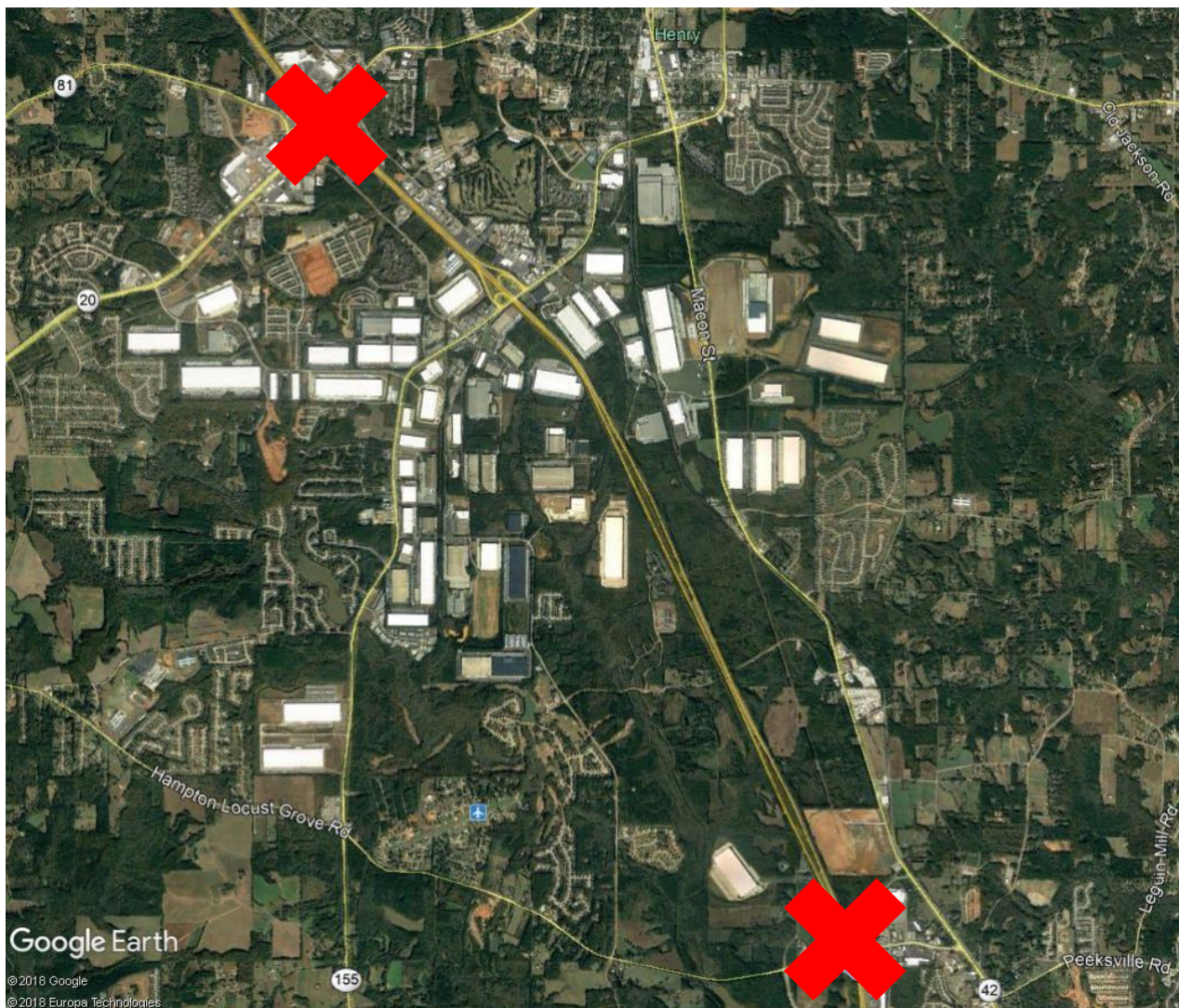
Henry County Congestion at I-75



I-75 Access:

- SR 20 interchange is congested
 - Serves significant amount of retail, restaurant, and commuter traffic

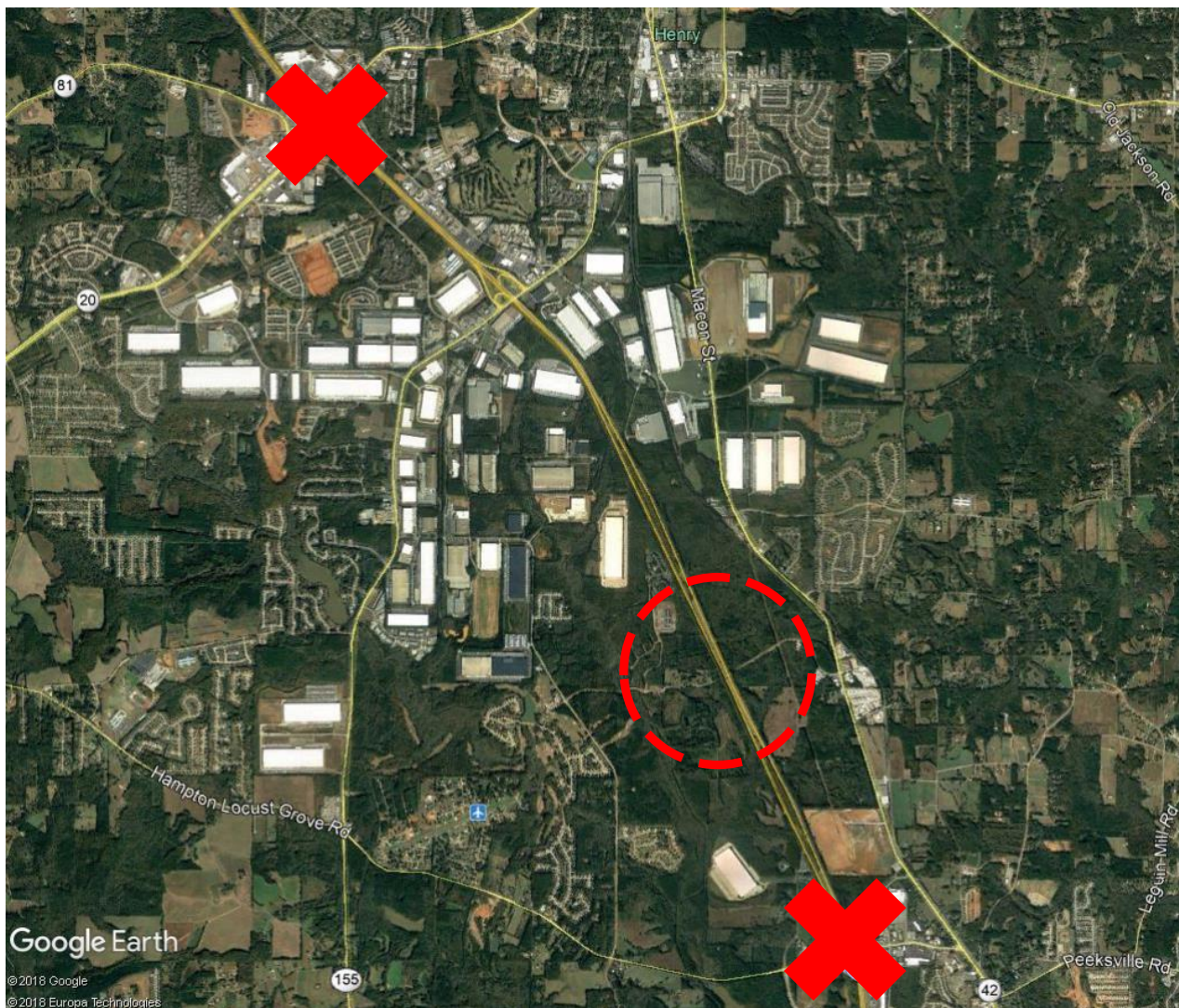
Henry County Congestion at I-75



I-75 Access:

- SR 20 interchange is congested
 - Serves significant amount of retail, restaurant, and commuter traffic
- Bill Gardner Parkway
 - Further from industrial development
 - Growing congestion from retail and commuter traffic

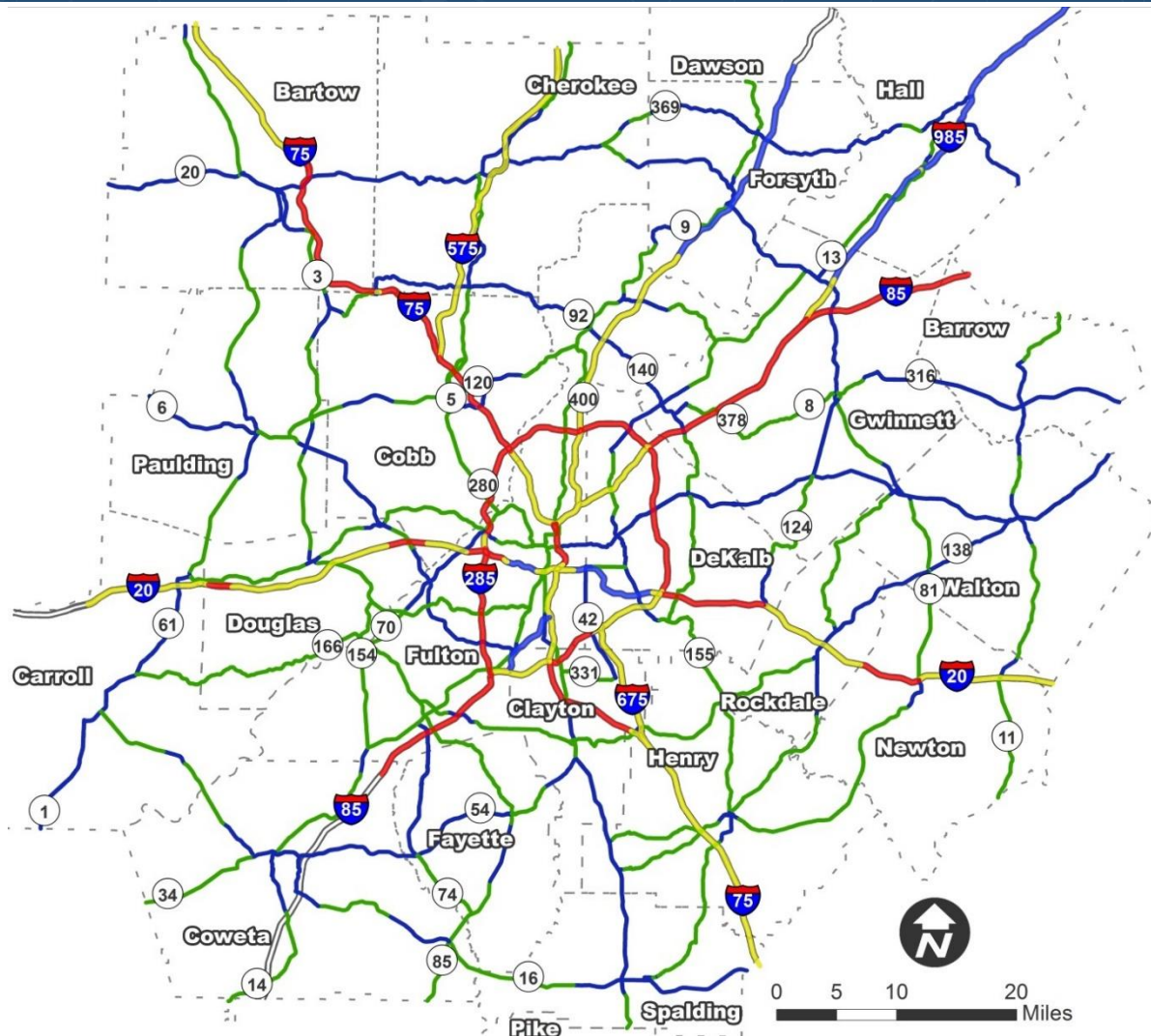
Henry County Congestion at I-75



I-75 Access:

- 4.5 miles between SR 155 interchange and Bill Gardner Parkway interchange
- Proposed Bethlehem Road interchange

Regional Truck Routes “ASTRoMaP” System



“ASTRoMap” is the Atlanta Strategic Truck Route Master Plan. It assists in regional freight and goods movement planning.

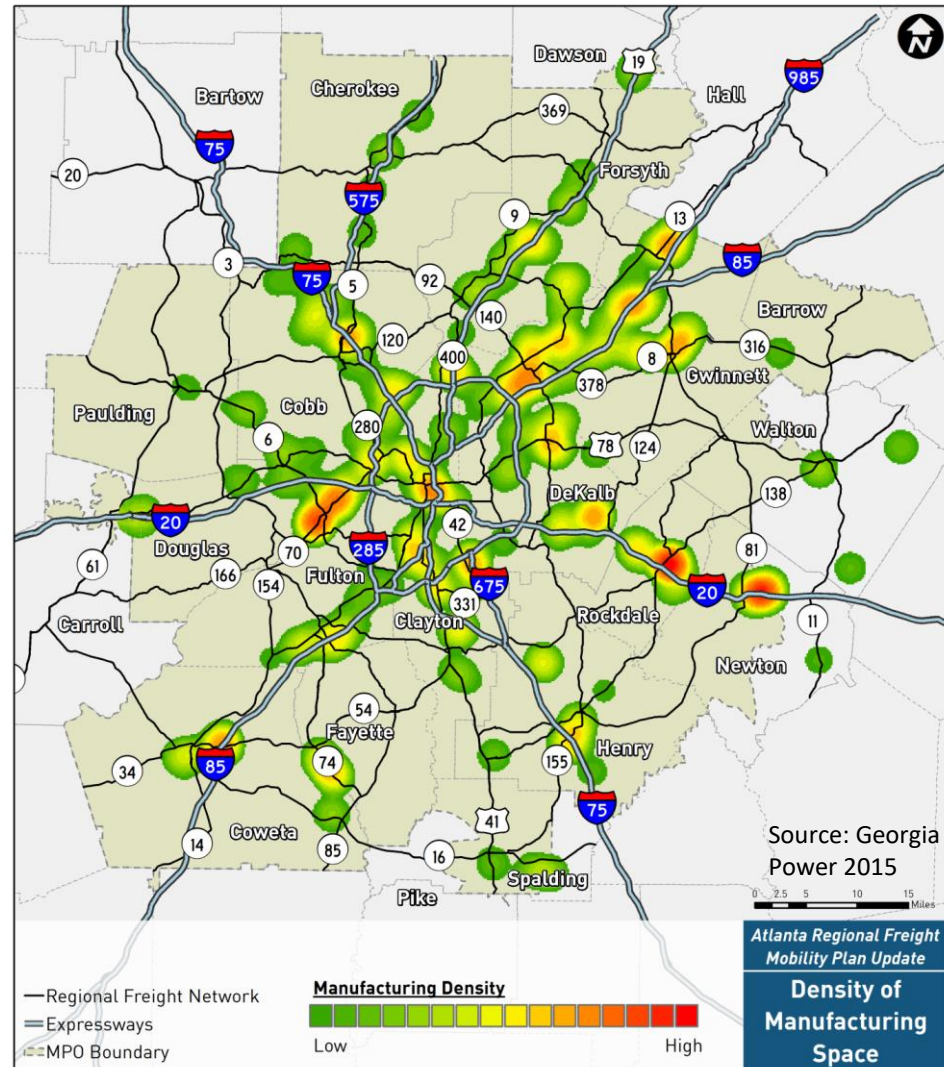
Truck Counts

- Less than 1k
- 1k to 5k
- 5k to 10k
- More than 10k
- Regional Truck Routes
- Expressways
- Counties

Industrial Development - Manufacturing



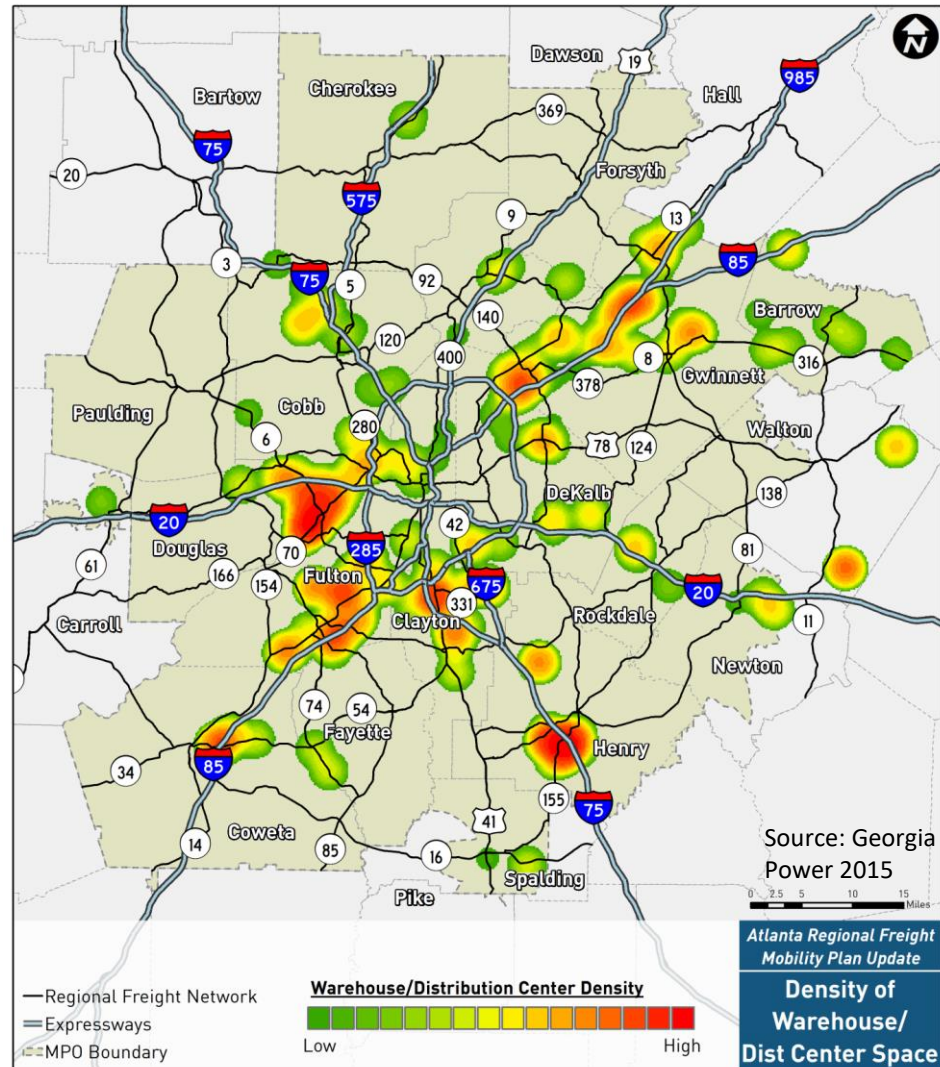
- Includes buildings and operations of all sizes
- Spread throughout the region
- Key locations include:
 - Fulton Industrial Boulevard
 - Along I-20 in Rockdale and Newton Counties
 - I-85 in Gwinnett and Dekalb Counties

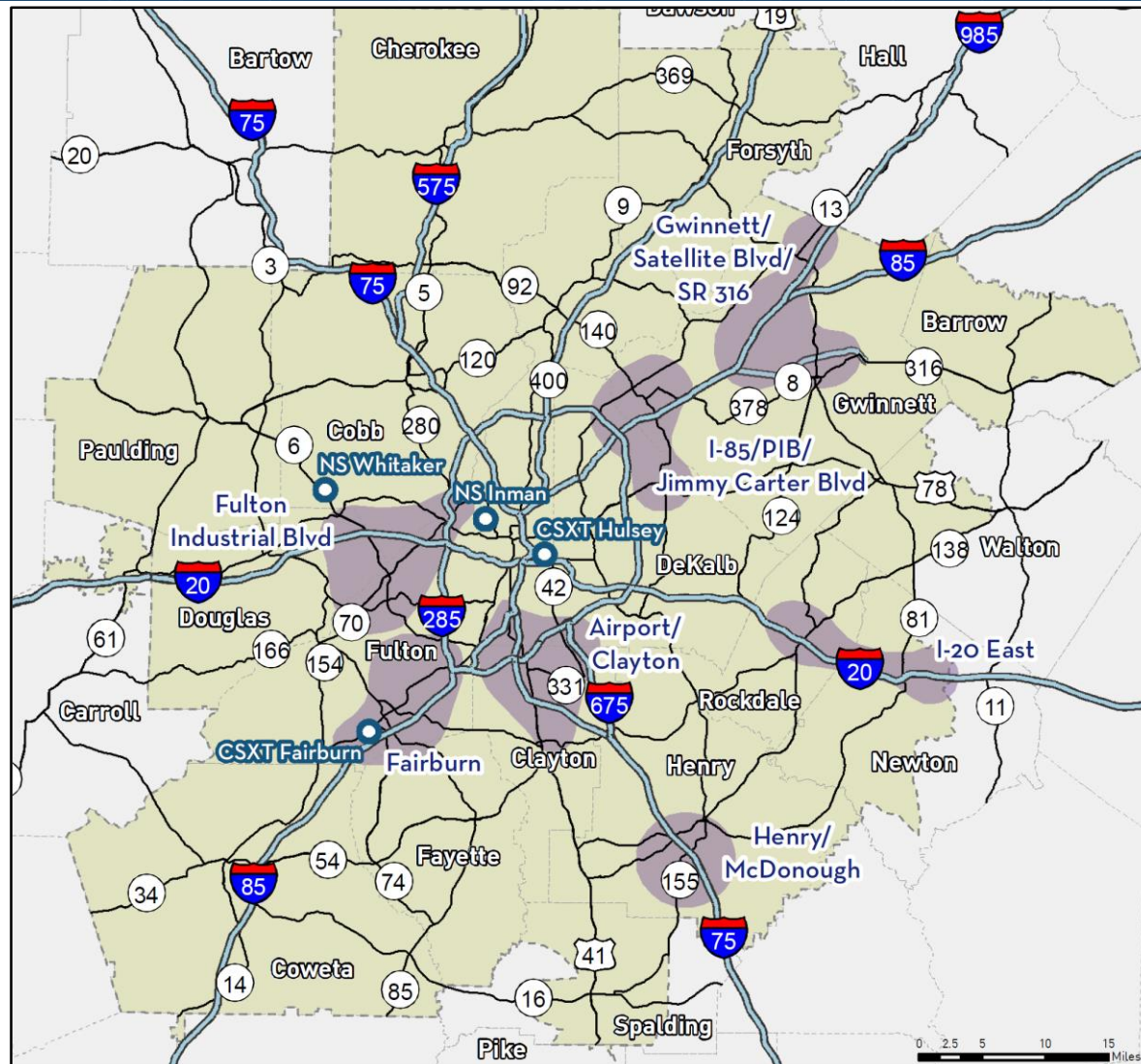


Industrial Development - Warehouses

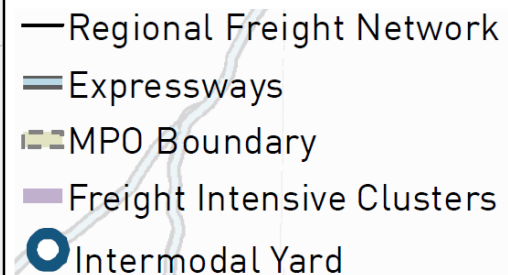


- Older buildings tend to be smaller, while new buildings are larger
- Focused along interstate highways
- Key locations include:
 - South and west sides of the region
 - Airport Area
 - Henry County
 - Gwinnett County





- Regional Freight Network
- == Expressways
- ▬ MPO Boundary
- Freight Intensive Clusters
- Intermodal Yard



Freight Cluster Plans

Scope Content



Regional
Transportation Plan

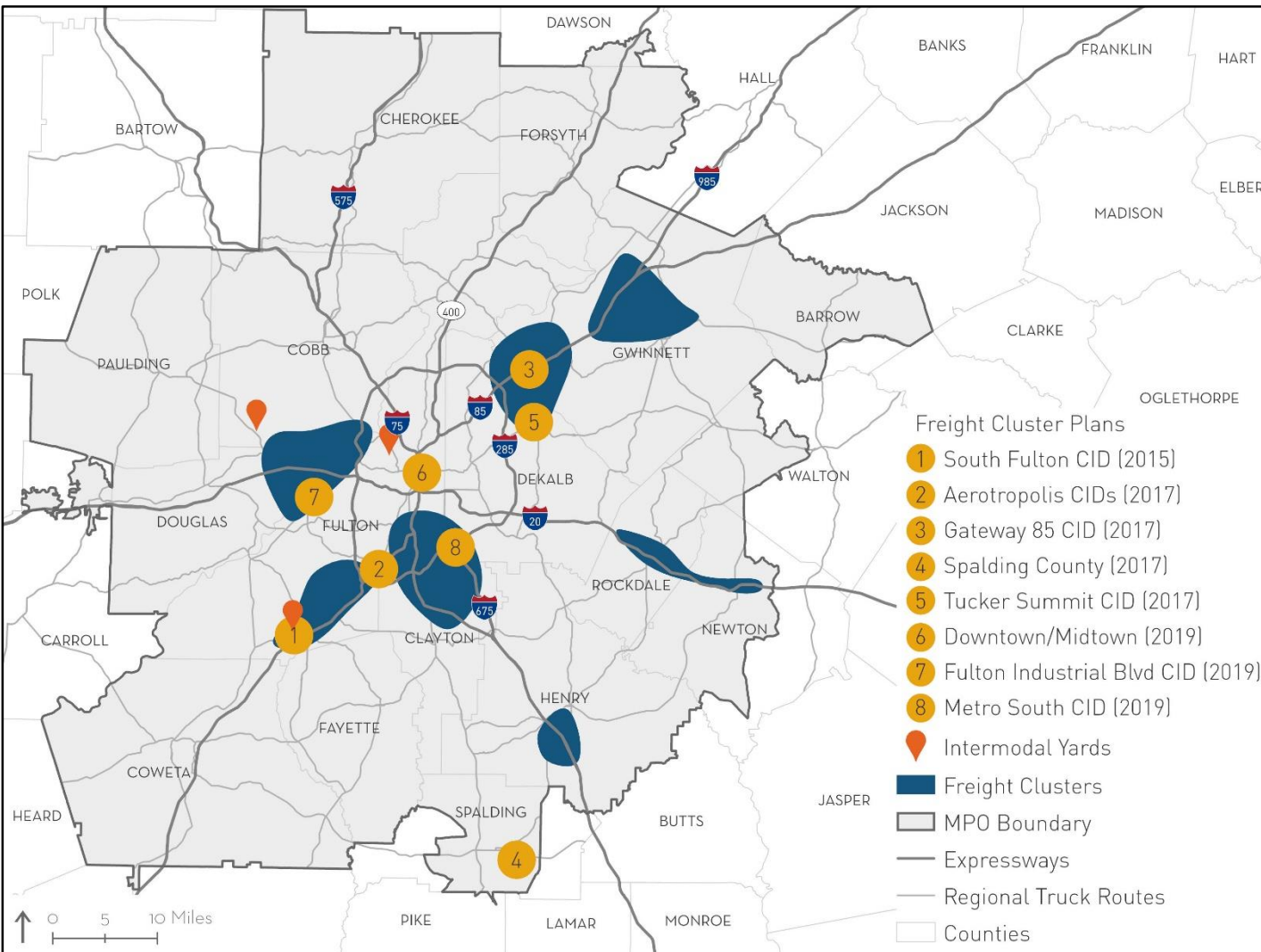


Freight Cluster
Plan

Local Plans in Industrial Areas

- Roadways/Connectivity/Traffic
- Safety/Crash Data Review
- Access to Jobs – Bike/Ped/Transit
- Changing freight/logistics industry
- Technology Impacts
- Growth potential
- Land use conflicts
- Truck Parking
- Alternative fuels
- Bridges
- Signage
- Rail Activity
- Lighting

Freight Cluster Plans Underway in 2019



- South Fulton CID Multi-Modal Plan: Completed in 2018
- Four plans kicked off this year
- More plans kicking off in 2020

Atlanta Regional Truck Parking Assessment Study



ATLANTA REGIONAL
TRUCK PARKING
ASSESSMENT STUDY



FINAL REPORT

April 2018

RS&H

2016 Atlanta Regional Freight Mobility Plan Update identified the need for a truck parking study

- Elected officials and planners in the Atlanta Region noted that they had more trucks parking in unauthorized locations
- Lack of data on truck parking
- It was not possible to know if truck parking was a widespread problem
- FHWA was focused on truck parking via Jason's Law
- *The Atlanta Regional Truck Parking Assessment Study* was conducted in 2017-2018

Safety Impacts – Unauthorized Parking Locations

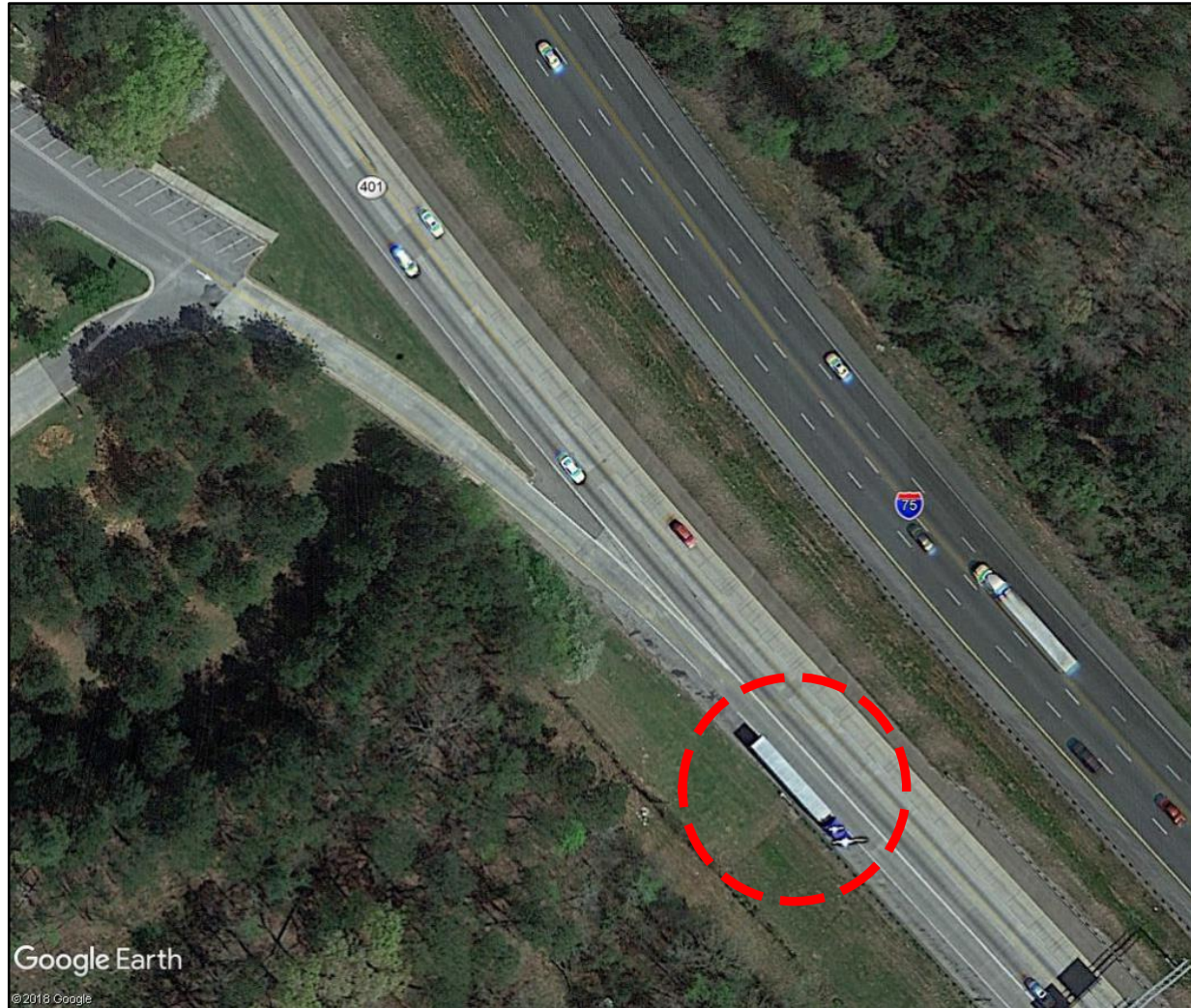


Parking on highway ramps

- Creates a crash risk
- These crashes are rare, but significant

Parking on the side of a road

- Creates a crash risk
- Causes sight distance issues for vehicles turning from nearby cross streets/driveways



Jason's Law - Safety for Truck Drivers



- Section 1401 of MAP-21
"Jason's Law" (10/1/2012)
- "National priority on addressing the shortage of long-term parking for commercial motor vehicles on the National Highway System to improve the safety of motorized and non-motorized users and for commercial motor vehicle operators."

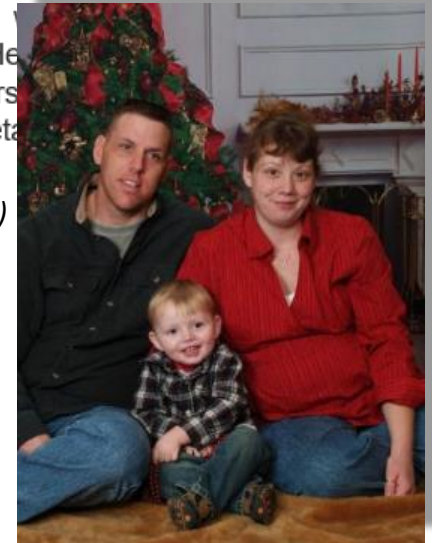
Jason H. Rivenburg Obituary



Rivenburg, Jason H. FULTONHAM Jason H. Rivenburg, 35, of Tetterbark Rd., died unexpectedly Thursday, March 5, 2009 in Orangeburg, S.C. Jason was born in Cobleskill, N.Y. on October 28, 1973 the son of Dawn (Cater) and Hezekiah Rivenburg Jr.

Jason was a 1991 graduate of Schoharie Central School. He was a construction worker with Local 106 in Albany, N.Y. He drove tractor trailers for many years and owned a vehicle cleaning and detailing business.

*Albany, NY Times
Union (3/10/2009)*



Regional Truck Parking Study

Regulatory “Perfect Storm”



**Hours of
Service (HOS)
Requirements**



**Electronic Logging
Devices (ELDs)
Dec. 2017**

Property-Carrying Commercial Vehicle Drivers:

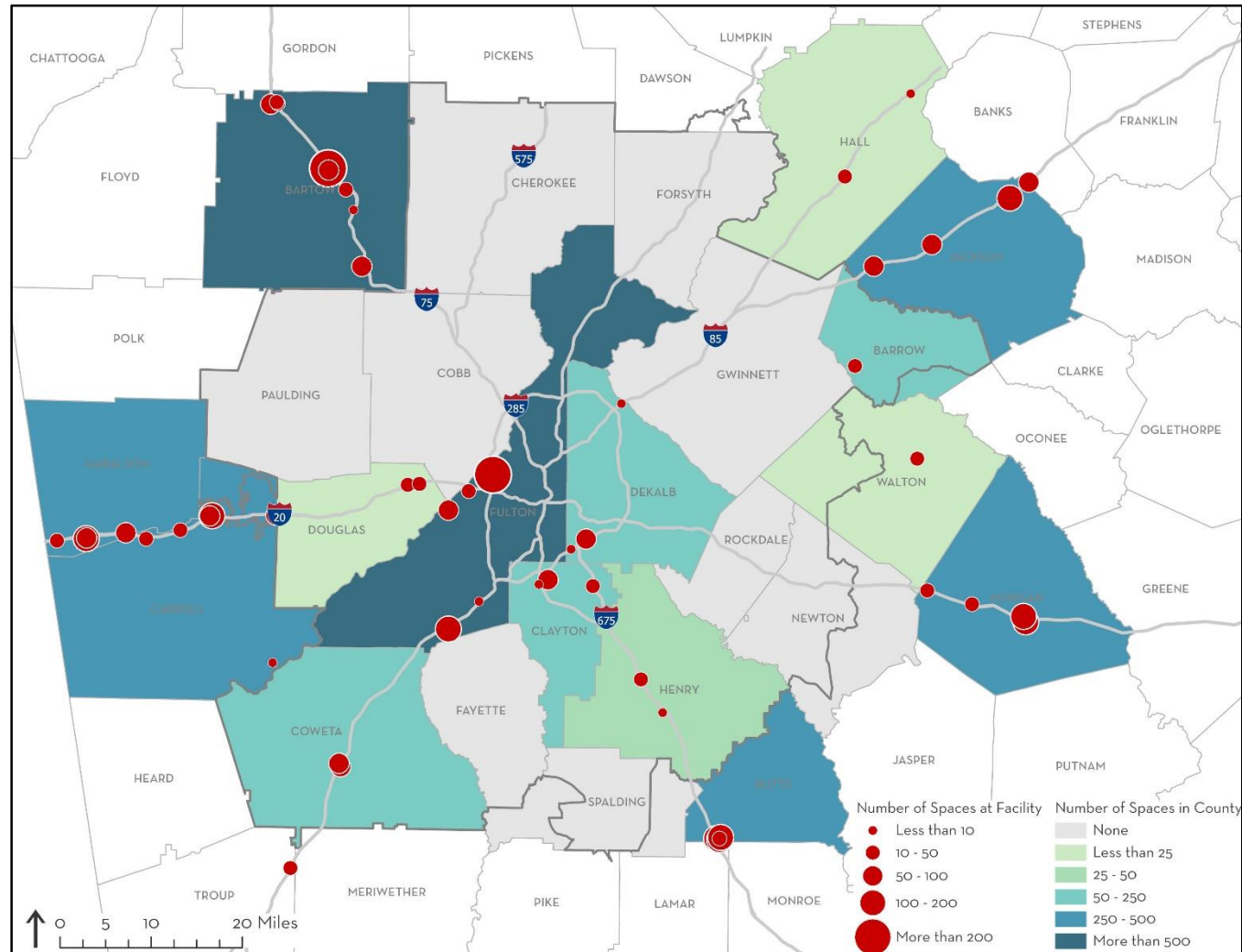
- Daily 11-hour Driving Limit: May drive a maximum of 11 hours after 10 consecutive hours off duty
- 14-Hour Limit: May not drive beyond the 14th consecutive hours after coming on duty, following 10 consecutive hours off-duty. Off-duty time does not extend the 14-hour period.

Regional Truck Parking Study - Inventory



Parking Space Inventory

County	Spaces
Fulton	698
Bartow	575
Butts	450
Carroll	360
Haralson	332
Jackson	309
Morgan	259
Coweta	165
DeKalb	114
Clayton	105
Barrow	85
Henry	40
Walton	25
Douglas	20
Hall	19
Total	3,556



Regional Truck Parking Study

Truck Driver Survey



- 277 Responses
- How long does it usually take you to find truck parking in the Atlanta region?

Length of time	Response
Less than 15 minutes	1.3%
15 – 30 minutes	6.5%
30 minutes – 1 hour	41.3%
More than 1 hour	51.0%

Supply Expansion Example: Pilot Parking Program



Drivers Requirements:

- Wear safety vests at all times
- Carry a flashlight at night
- Follow safety rules
- De-couple tractor from trailer
- May not move tractor
- Preferential treatment for no-idle cabs

truck news.com

News

Kriska partners with Unilever to create safe haven parking program

December 15, 2015

How one shipper took a challenging run and made it a driver favourite

PRESCOTT, Ont. — A successful pilot project that allows Kriska Transportation Group drivers to park overnight at a major customer's facility is proving that collaboration between shippers and carriers can be more than just a buzzword.

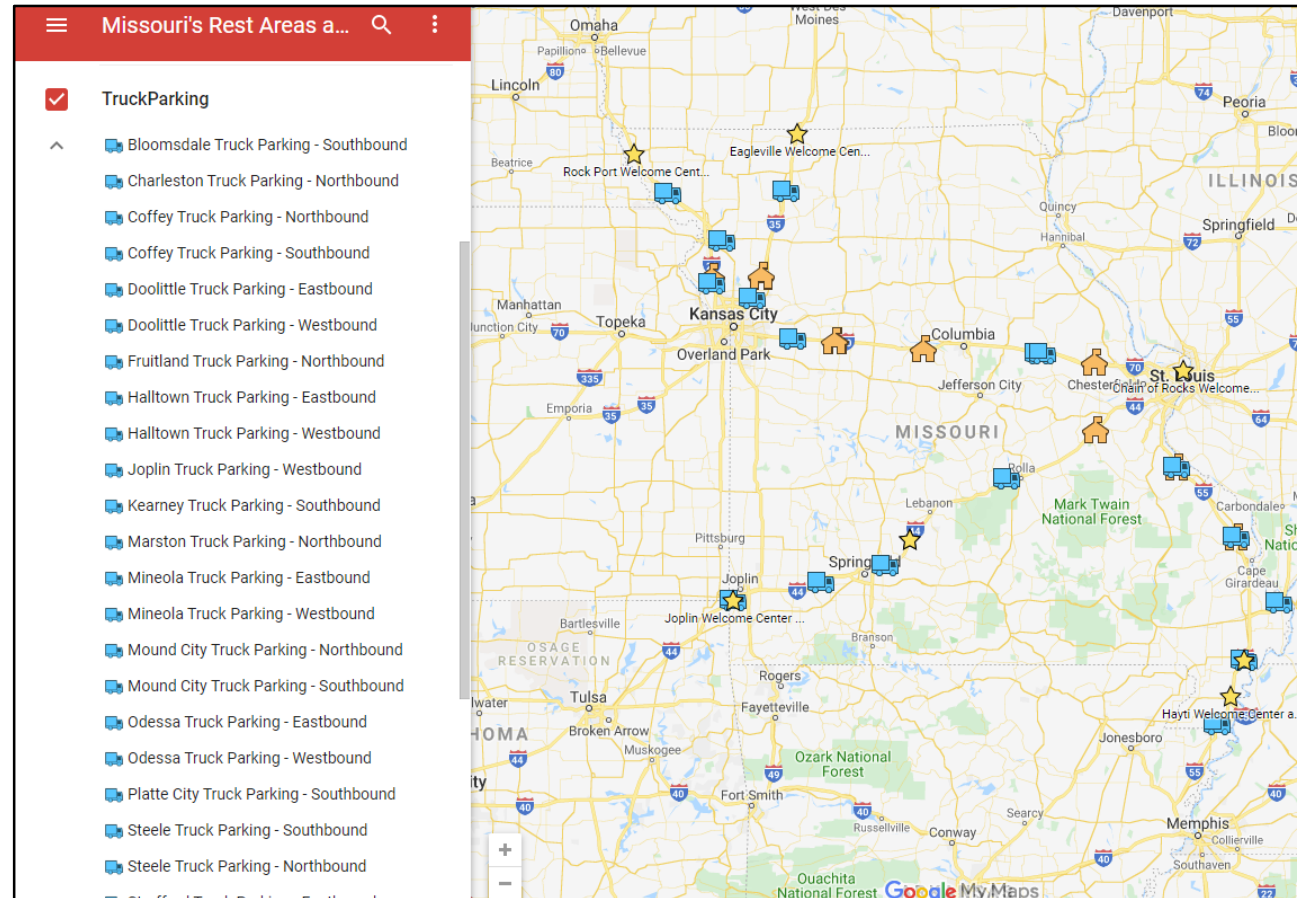
Regional Truck Parking Study

MoDOT Truck Parking



Missouri DOT

- Converted rest areas and weigh stations to truck parking facilities
- Total of 23 truck-only parking sites across the state
- Online map shows locations of spaces, amenities, etc.
- Similar approach in South Dakota



Regional Truck Parking Study



Nebraska Truck Parking

Nebraska DOT

- Converted interior of a large loop ramp to truck parking
- Up to 200 trucks can park in the lot
- Stabilized the interior and then surfaced with gravel



Aerial view of parking area at Big Springs, Nebraska.

Source: Map data ©2018 Google, DigitalGlobe.

Regional Truck Parking Study



Municipal Parking Lots

Elmira, NY

- Industrial-zoned parcel adjacent to a carpool parking lot
- Provides 25 truck parking spaces, for which the city charges \$5 per day
- Trucks are permitted to park for up to 30 days

City of Weed, CA

- Located on I-5
- 30 truck parking spaces on industrial zoned parcels
- Trucks are permitted to park for up to 72 hours



Aerial view of municipal truck parking lot in Elmira, NY.
Source: Map data ©2018 Google, DigitalGlobe

FDOT Real Time Truck Parking Information, TPAS



Florida DOT

- Truck Parking Availability System (TPAS)
- FASTLANE Grant from FHWA
- Installed sensors, known as “pucks” in truck parking spaces in rest areas and welcome centers
- Very accurate, but expensive
- Maintenance needs haven’t been determined yet
- FDOT’s Regional Transportation Management Centers (RTMCs) integrate and disseminate the TPAS information



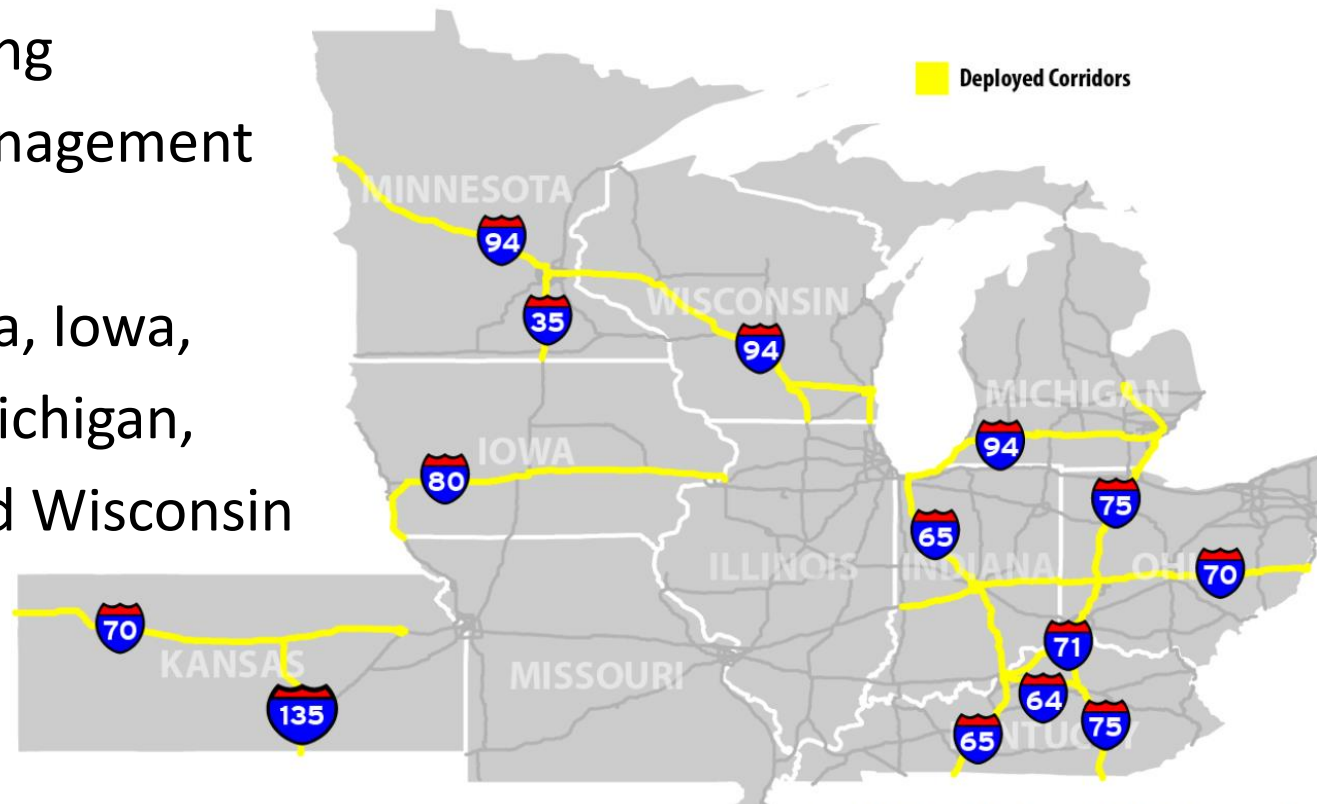
TPIMS Real Time Truck Parking Information



Mid America Association of State Transportation Officials (MAASTO)

- Regional Truck Parking Information and Management System (TPIMS)
- Eight states – Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Ohio and Wisconsin
- \$25 million Federal TIGER grant
- \$28.6 million total cost

TRUCK PARKING INFORMATION DEPLOYMENT CORRIDORS

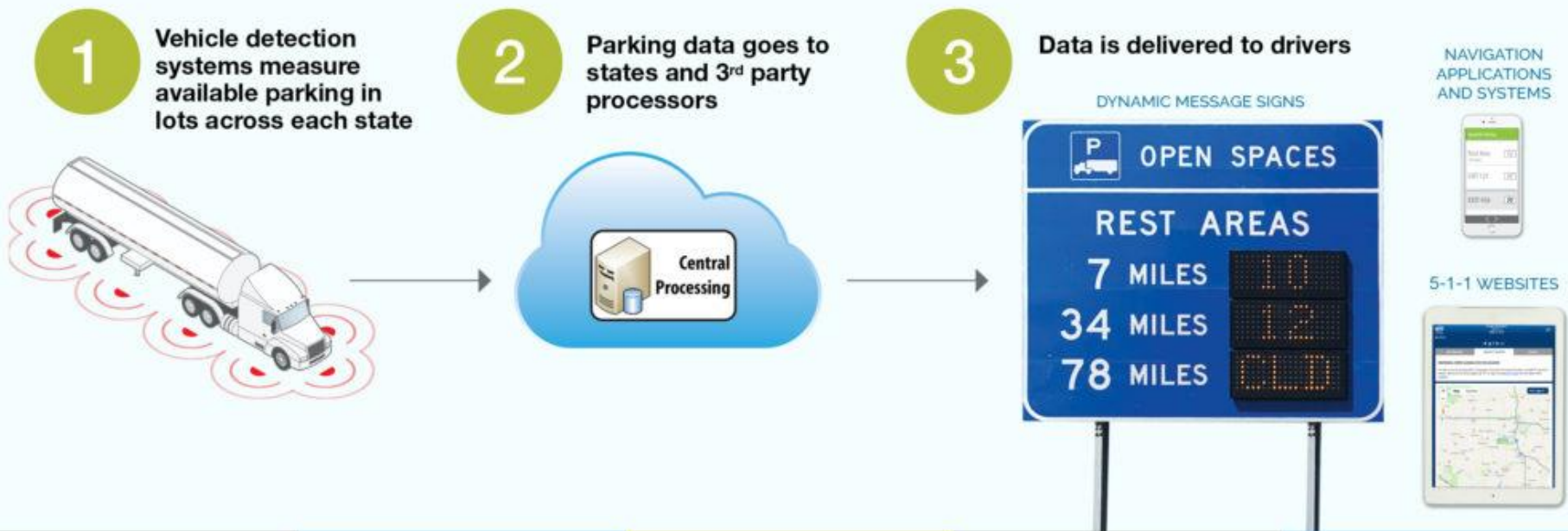


TPIMS Real Time Truck Parking Information



- Parking availability is provided via road side signs, online, and via apps
- Parking data can be used by 3rd parties

HOW TPIMS WORKS



TPIMS Real Time Truck Parking Information



Interchanges

1

	P	SPACES OPEN
EXIT 104	15	
EXIT 105 B	10	
EXIT 123	35	

Unnumbered or Consecutive

2

	P	SPACES OPEN
NEXT RIGHT	15	
9 MILES	10	
19 MILES	35	

Combination

3

	P	SPACES OPEN
EXIT 104	15	
REST AREA	10	
9 MILES		

Rest Areas Only*

4

	P	SPACES OPEN
REST AREAS		
5 MILES	6	
20 MILES	10	
39 MILES	35	

OR

OR

MAX. 2 SITES WHEN
DISTANCE SHOWN WITH SITE.

MUST INCLUDE DISTANCE
WHEN NOT WITHIN ADVANCE
SIGN SEQUENCE IF
NO EXIT NUMBER OR
CONSECUTIVE EXIT
NUMBERING USED.

5

	P	SPACES OPEN
5 MILES	15	
20 MILES	10	
39 MILES	35	

6

	P	SPACES OPEN
REST AREA		
5 MILES	6	
WEIGH STATION		
6 MILES	10	

OR

7

	P	SPACES OPEN
NEXT RIGHT	15	
EXIT 168	10	
EXIT 220	35	

TPIMS Real Time Truck Parking Information



Public Data Feed

Element	Type	Description
siteId	string	Unique fixed-length identifier including state, route number, route type, reference post, side of road and unique location number or name abbreviation. See more detailed description in appendix.
timeStamp	string	Provides the date and time that the site record was last updated. See more detailed data and time representation description in appendix.
timeStampStatic	String	Provides the date and time that the site static record was last updated. See more detailed data and time representation description in appendix.
reportedAvailable	string	Number of available spots shared through the data feed. The number is capped at the total number of parking spots at the site and "Low" is reported if the low threshold is reached.
	string	Optional. Reports whether the site is emptying, steady or filling. Accepted values: "CLEARING" / "STEADY" / "FILLING" / null . See more detailed description in appendix.
	boolean	Will report open unless the parking site is closed to parking for maintenance or another situation. Possible values: true / false / null
	boolean	This flag will report that the site is operating normally. Possible reasons for a "false" value include periods where the site is under construction while open to traffic, IT maintenance windows, or equipment failures. Possible values: true / false / null

Dynamic Public Feed - example

JSON format

```
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```

Dynamic Public Feed - live URL

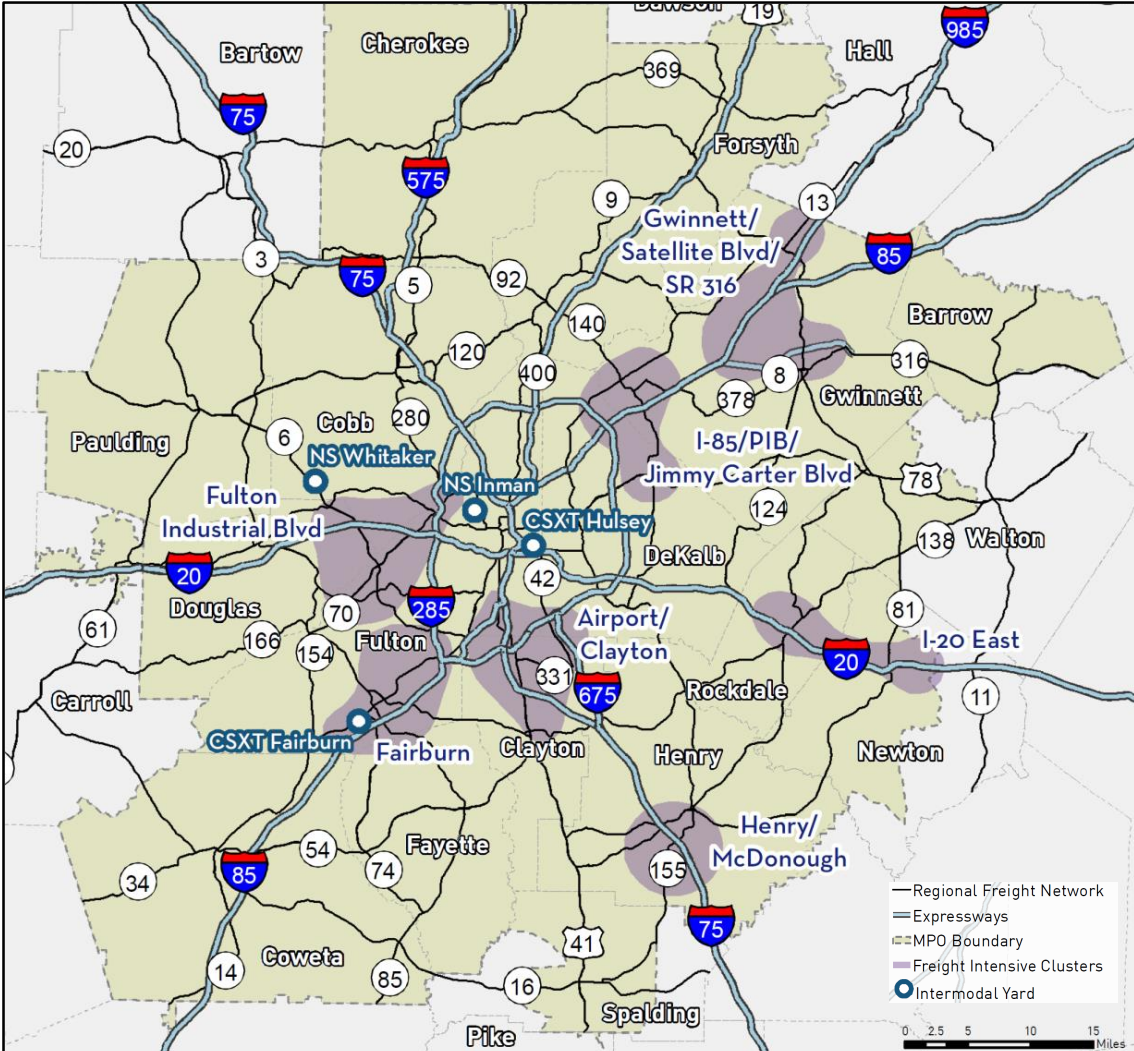
<https://transportal.cee.wisc.edu/TPIMS/dynamic>

Truck Parking Next Steps



- Gwinnett County Truck Parking Study
- National Economic Partnership Study
- Real-time truck parking information?
- Potential zoning code changes?
- Private sector companies have shown interest in operating truck parking lots in the region
- County Comprehensive Transportation Plans (CTPs) and local Freight Cluster Plans will analyze truck parking





- Big projects such as new/upgraded highway interchanges
- Smaller, local projects to move trucks between highways and their destination
- Truck Parking facilities and real-time information

QUESTIONS?

METRO ATLANTA FREIGHT AND LOGISTICS ECOSYSTEM GEORGIA FREIGHT AND LOGISTICS COMMISSION

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