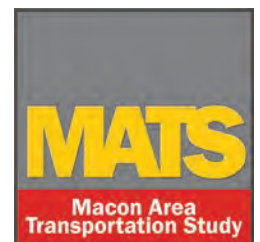


Freight Needs Assessment

Existing Conditions and Future Freight Movement

Chapter 3 Freight Generators



Freight-Generating Facilities

The MATS MPO planning area is home to a complex mix of residential, commercial, industrial, and agricultural land uses. The term land use refers to the purpose or activity conducted on the land, or how the land is being used. Using data from Jones, Macon-Bibb, and Monroe Counties, the team examined a combination of land use and zoning data to identify current land use patterns. (The Bibb County 2019 zoning layer acts as a proxy for “current land use” as the county does not maintain an existing land use dataset.) As seen in Figure 37 on the following page, vacant or undeveloped land (much of it within floodplains, protected areas, and wetlands) accounts for the largest land area within the MPO boundary by acreage. Vacant/undeveloped land is followed closely by agricultural and forestry land, and residential land uses.

Much of the undeveloped/vacant land is found south of I-16 in the southeastern portion of the MPO, between US 129 and US 23. A significant portion of this area is comprised of floodplain, wetlands, and other water bodies and considered undevelopable. A significant amount of land classified as agriculture/forestry is concentrated in the western portion of the MPO, along with significant portions in Jones and Monroe Counties.

Industrial land use is concentrated on the eastern side of Macon as well as between Macon and the southern edge of the MPO along US 129. Additionally, there are industrial uses concentrated near the Middle Georgia Regional Airport. There are other smaller concentrations of industrial land uses near the northeastern MPO boundary in Jones County, in the eastern part of the region between US 23 and US 80, and scattered throughout a few other spots near major roadways.

Table 06. Current Land Uses by Acre in MATS Region

Land Use Category	Acres	Percent of Total
Undeveloped/Vacant	67,473	33.7%
Agriculture/Forestry	62,700	31.3%
Residential	46,591	23.2%
Industrial	9,160	4.6%
Commercial	7,550	3.8%
Park/Recreation/Conservation	3,058	1.5%
Transportation/Communication/Utilities	3,105	1.5%
Public/Institutional	867	0.4%
TOTAL	200,504	100%

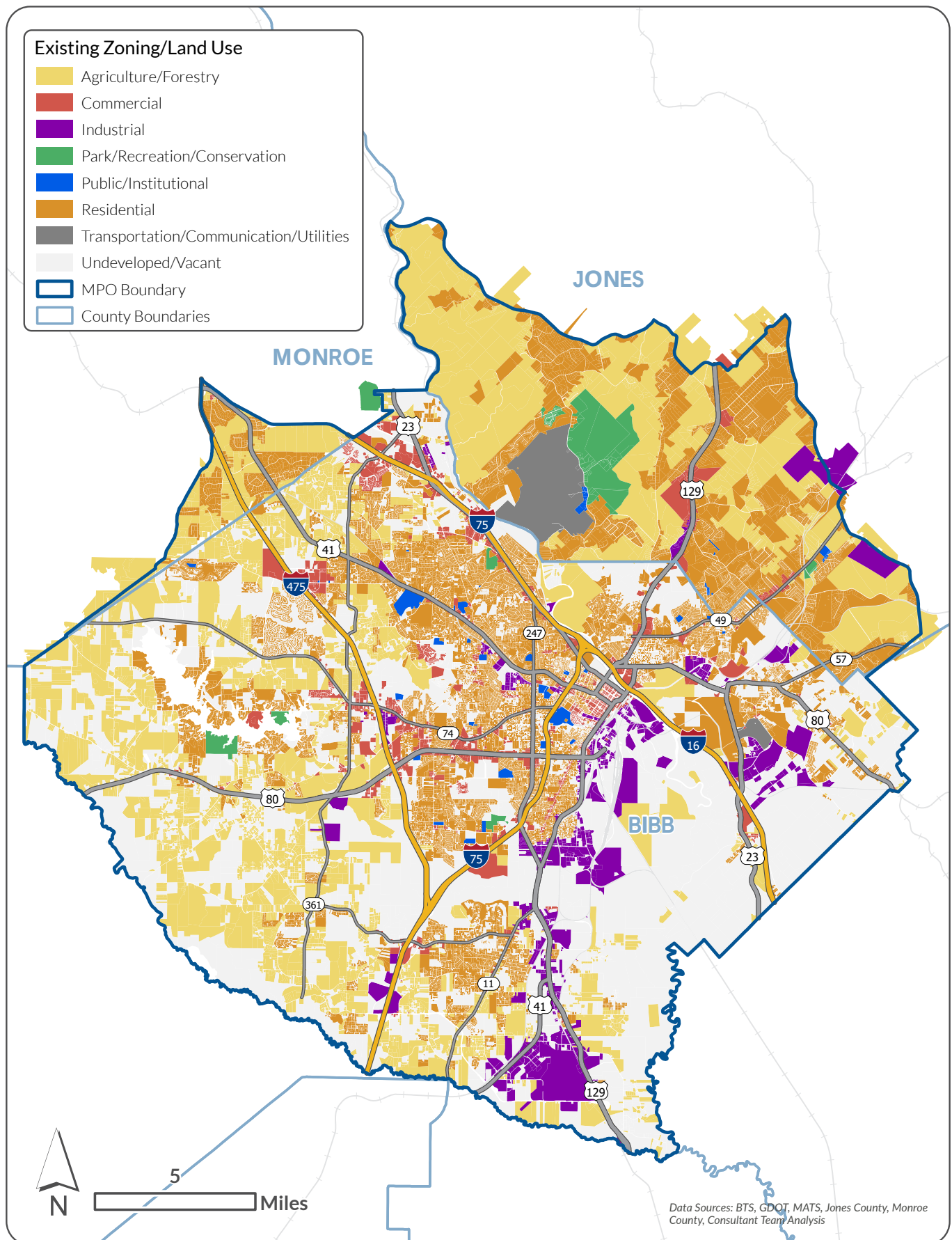


Figure 37. Existing Land Use in the MATS Planning Area

Freight Active Parcels

Using a combination of land use descriptions, zoning codes, building square footage, and satellite imagery from Macon-Bibb, Jones, and Monroe Counties, the project team identified “freight active” areas within the MATS MPO planning area. In total, the team identified more than 1,100 freight active parcels. These parcels are primarily located in central and southern Bibb County with a significant concentration within the former City of Macon. The Jones County portion of the MATS region contains a linear concentration of industrial sites along US 129, including a small cluster of freight-related sites surrounding the Postell and Ruby Quarries. Similarly, in Monroe County, there are a couple of industrial parcels along SR 41 adjacent to the railroad tracks at the northern end of the region.

The majority of these correspond to manufacturing, industrial, and/or light industrial zoning classifications. They include a variety of warehouses, manufacturing and distribution centers, pipeline terminals, and a number of smaller parcels that generate freight, such as car dealerships. There are a small number of parcels with zoning codes not typically thought to be industrial related, including Agricultural, Commercial, and Planned Development District. The parcels with these codes were identified through building square footage queries (large building footprints) and a visual scan using satellite imagery and street view to confirm the presence of freight activity, particularly loading docks and semi-trucks.

After mapping the freight active parcels across the MATS region, a heat map was generated showing the concentration of freight active parcels across the region - see Figure 37. This heat map shows areas of sparse freight activity in beige to yellow and dense concentrations of freight uses in orange to magenta. As is evident in the heat map, there are various sized clusters of freight-related sites located in Bibb County. The team grouped these into large, medium, and small clusters, based on the number of parcels. Each cluster is numbered and discussed below.

Large Cluster

1. The largest cluster of identified freight operations is located in the former City of Macon along US 129/US 41/US 80/Broadway and east of I-75. This cluster is adjacent to US 129/41 and expands north-east toward I-16. Large industrial facilities in this area include the Norfolk Southern Brosnan Yard, Graphic Packaging International, Armstrong World Industries, and the Macon-Bibb County Landfill. This cluster is close to residential neighborhoods on the western side of US 129/US 41/US 80/Broadway and downtown Macon.

Medium Clusters

2. At the southern part of the region, in the triangular area bordered by US 129, US 41, and Avondale Mill Road, freight active sites are located within close proximity to the Middle Georgia Regional Airport. This freight-centric area extends northward along US 129/US 41, staying close to the highway without significant deviations east or west. Some facilities in this cluster include Nichiha USA Inc., Pactiv Corporation, Diamond Plastics, Solenis, and Kohl's Distribution Center. Located immediately south of this cluster and across the MPO boundary is the city of Warner Robins in Houston County.
3. Another medium sized cluster of freight-related parcels surrounds the intersection of I-475 and SR 74 west of Macon. Facilities in this cluster include Keller Interiors, RBX Macon, Hartson Kennedy Inc., Trane Supply, and Industrial Supply Solutions. To the east of this cluster, there is a significant amount of residential and retail development. Middle Georgia State University is located south of this cluster, near the I-475/US 80 intersection.

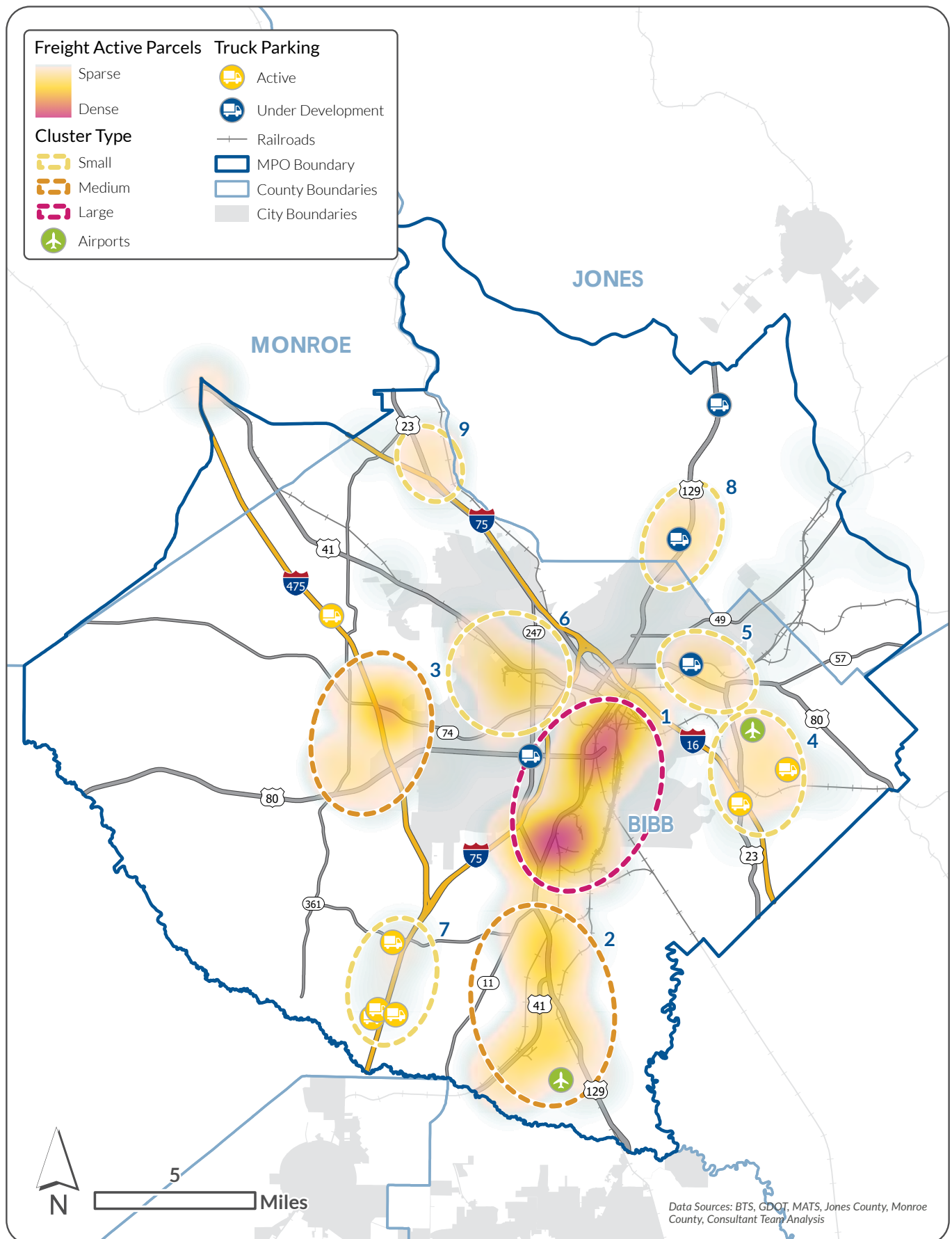


Figure 38. Active Freight Clusters in the MATS Planning Area

Small Clusters

4. East of cluster #1 lies a smaller cluster of freight active sites surrounding the Macon Downtown Airport. This cluster is adjacent to residential developments to the east and traversed by I-16 on the west. Irving Products, McLane Macon, and YKK (USA) Inc. are in this cluster along with various trucking companies, utility companies, and a couple of other warehouses and distribution centers. The Georgia Central Railway bisects this cluster from east to west.
5. Northwest of cluster #4, between US 23/US 80 and Jeffersonville Road is a smaller cluster (#5). The Georgia Central Railway also crosses this cluster, which is adjacent to Lakeside Reservoir. Residential neighborhoods surround this cluster except in the southwest direction. Identified facilities in this cluster include Midstate Steel, KT Recycling, and WM - Macon Hauling.
6. Slightly northwest of cluster #1, there is a small group of freight-related uses along Roff Avenue and Hillcrest Industrial Boulevard. This cluster is between Payne and Macon, largely surrounded by residential neighborhoods and Freedom Park to the northwest. Freight-related facilities in this cluster include FedEx Freight, A1 Polymer Recycling, and Custom Floors of Georgia.
7. Another small cluster is located along I-75 just west of MCN and cluster #2. Facilities in this area include the Tractor Supply Co. Macon Distribution Center, Tyson Foods, Sara Lee Southeast Mixing Center, and an Amazon Fulfillment Center.
8. Cluster #8 is a small group of developments in Jones County along US 129 consisting of auto body shops, construction and professional services, and the Tractor & Equipment Company. Small bodies of water surround this cluster, with Walnut Creek to the west and Smith Lake, Nelson's Lake, and Dry Bone Creek to the east. There are some retail and residential developments scattered around this cluster as well.
9. Cluster #9 is a small linear development along US 23, just off I-75, headed toward Monroe County. There are a few car dealerships in this cluster located alongside retail and shopping facilities. Situated to the south of cluster #9 is Beaver Dam Creek. There are small residential areas to the north and west respectively. Freight facilities in this cluster include Tencarva Machinery Company and GHS Distribution Inc.

In addition, there is an area of freight active parcels at the northern end of the MATS region in Monroe County. This area is smaller than the other clusters (only a few parcels) and is adjacent to the railroad.

The largest freight active parcel in the region is roughly 670 acres, while the smallest one is less than one tenth of an acre. Freight active parcels average seven acres in area. The largest parcel of



Figure 39. Postell Quarry Parcel



Figure 40. Volumatic, Inc. Parcel

approximately 670 acres (~29 million square feet) is part of the Postell Quarry in Jones County on the northeast MATS boundary (Figure 39). The mean parcel area of approximately seven acres is comparable to the size of the parcel containing Volumatic, Inc. (Figure 40).

Approximately 37% of freight active parcels in the MATS region are 2.3+ acres (100,000+ square feet) in size. Most of the parcels (48%), however, are between 0.50 and 2.30 acres (or between 20,000 and 100,000 square feet). An examination of building footprints in conjunction with the parcel data can help explain this higher number of small parcels. For example, there are 1,048 building footprints between 0.05 and 0.50 acres, but there are only 180 parcels between 0.05 and 0.50 acres. This likely indicates that multiple small buildings can be sited on one parcel, such as auxiliary buildings or small storage facilities (shed, silo, etc.).

The team also looked at the size of building footprints within freight active parcels. The smallest size building is just over 2,000 square feet, while the largest building is more than 1.5 million square feet. Overall, the average size of buildings on these parcels is just shy of 24,000 square feet. The Macon Water Authority's Lower Poplar Street Plant has the largest building footprint at 1,526,564 square feet. The smallest building footprint (2,019 square feet) corresponds to a Blake & Pendleton building located in cluster #1. The average area of approximately 24,000 square feet is comparable to the size of Pyles Plumbing & Utility Contractors, located in cluster #6 (Figure 41).

Approximately 80% of the freight active building footprints fall under 20,000 square feet. Due to zoning code classifications and aerial imagery reviews, there are many smaller businesses including trade shops, auto body shops, and dealerships being classified as "freight-related" buildings, which are often much smaller than industrial sized warehouses or distribution centers. Many buildings under 20,000 square feet are auxiliary buildings (silos, sheds, etc.) or individual supplementary storage-related buildings and are less likely to truly be freight generative. The map in Figure 42 shows an example of a parcel containing multiple building footprints. It contains KT Recycling, Midstate Steel, Crane Services, and Williams Auto Paint & Body Shop, some of which include small out-buildings with their own footprints, such as a shed or storage building.



Figure 41. Pyles Plumbing Parcel



Figure 42. Freight Active Parcel with Multiple Buildings

Commodity Flow Assessment

Assessing the type and volume of goods traveling into and out of the MATS region can help provide a better understanding of how the freight network is used, anticipated growth areas, and areas of focus for potential needs. This information can help MATS staff, partners, and decision-makers make more informed decisions, fine tune freight planning, assess future demand, and plan for shifts in the freight and goods-movement economy. Commodity flow data is a reflection of the regional economy and helps inform the overall picture of the freight industry, complementing jobs, tax revenue, and land use data. When paired with these data, commodity flow data can inform prioritization of investments, planning for land use, development, network resiliency, and attraction/retention of businesses.

Inbound and Outbound Commodity Flow Mix

To assess commodity flows, the project team used TRANSEARCH data provided by GDOT for the years 2020 and 2050 that measure the flow of goods by the number of daily truck trips (derived from the statewide travel demand model). TRANSEARCH uses a variety of mode-specific data sources to create a picture of national freight traffic flow on a market-to-market commodity basis.¹ The data is based on samples from carriers in both the private and for-hire segments of the industry. This information helps paint a picture of the region's top imports and exports, the top origin and destination zones within the region, and top trading partners outside of the region, such as other counties in Georgia and other states. Each record represents the flow from an origin zone to a destination zone. The data is broken down into 2020 traffic analysis zones (TAZs) for the counties within the MATS region, the remaining 156 counties within the state of Georgia, the five adjacent southeastern states (Alabama, Florida, North Carolina, South Carolina, and Tennessee), and the rest of the United States ("all others"). It is important to note that the data here is based on samples and is best used at a high level for relative comparison. Findings from this assessment provide an overall sense of regional freight supply and demand now and in the future.

Existing Trip Mix: Top Commodities by Daily Trips (2020)

As a measure of daily trips (taken from the Georgia Statewide Travel Demand Model), the top inbound commodities to the MATS region by daily number of trips include mining products, wood, stone, petroleum, and bulk/secondary products (see Table 07). The TAZs that receive the most commodity-carrying truck trips include those around the Macon Downtown Airport and off of SR 57 and SR 49 on the east side of the region, as well as a couple of zones on the west side of the region, as shown in Figure 43 (below).

Table 07. Top Five Commodities in MATS Region by Daily Trips (2020)

Top 5 Inbound Commodities (2020)			Top 5 Outbound Commodities (2020)		
Commodities	Daily Trips (per GSTDM)	Percent	Commodities	Daily Trips (per GSTDM)	Percent
Mining	219	43.42%	Mining	598	49.20%
Wood	59	11.65%	Petroleum	203	16.70%
Stone	47	9.36%	Stone	157	12.88%
Petroleum	35	6.98%	Paper	116	9.57%
Bulk/Secondary	34	6.83%	Bulk/Secondary	41	3.39%
Others	110	21.75%	Others	100	8.26%
Total	504	100%	Total	1,216	100%

As shown in Table 07, top outbound resources include mining products, petroleum, stone, paper, and bulk/secondary products. Mining products account for the largest share of trips, either inbound or outbound. The zones where most outbound trips carrying commodities start are primarily located on the east side of the region, including those around Macon Downtown Airport and the Middle Georgia Regional Airport, as shown in Figure 44. Trips carrying mining products account for nearly half of all daily trips carrying commodities - 43% of inbound trips and 49% of outbound trips, while trips carrying petroleum account for roughly 14% of all inbound and outbound trips combined and stone products comprise about 12% of combined trips. The MATS region is a net importer of wood, which accounts for roughly 59 daily trips into the region, while it is a net exporter of paper products, which account for 116 daily trips from MATS to other areas. Together delivery of all commodities accounts for over 500 daily trips into the region and over twice as many (1,216 trips) out of the region. This indicates that MATS is a net “exporter” of trips delivering goods.

Top Trading Partners by Daily Trips

Top destinations for trips carrying the most common commodities out of the MATS region include the states of Alabama, South Carolina, and Tennessee, as well as Cobb, Chatham and Fulton Counties in Georgia. They vary by commodity, as shown in Table 08. Where applicable, “all others” refers to states outside of the adjacent five southeastern states. Trading partners are listed in order from highest to lowest, based on the number of daily trips from the MATS planning area to the listed destination, carrying each of the top five outbound commodities.

Table 08. Top Destinations for Outbound Commodities (2020)

Top Trading Partners for Outbound Commodities (2020)				
Mining	Petroleum	Stone	Paper	Bulk/Secondary
All Others (47%)	All Others (20%)	All Others (46%)	All Others (83%)	Fulton County (41%)
Alabama (10%)	Fulton County (13%)	South Carolina (9%)	South Carolina (6%)	Chatham County (18%)
Tennessee (6%)	Cobb County (7%)	Tennessee (8%)	Tennessee (5%)	Cobb County (13%)
Fulton County (5%)	Chatham County (6%)	Fulton County (6%)	Alabama (3%)	Murray County (8%)
Florida (3%)	Gwinnett County (6%)	Chatham County (5%)	Florida (2%)	DeKalb County (3%)

Top sources of trips carrying the most common commodities that enter the MATS planning area are shown in Table 09. They vary by commodity, but include Cobb, Fulton, and Chatham Counties

Table 09. Top Sources of Inbound Commodities (2020)

Top Trading Partners for Inbound Commodities (2020)				
Mining	Wood	Stone	Petroleum	Bulk/Secondary
All Others (43%)	All Others (63%)	All Others (53%)	All Others (15%)	Fulton County (40%)
Tennessee (13%)	Tennessee (8%)	Washington County (7%)	Fulton County (10%)	Oglethorpe County (19%)
South Carolina (13%)	Florida (7%)	Richmond County (6%)	Chatham County (10%)	Chatham County (14%)
Alabama (9%)	South Carolina (5%)	Wilkinson County (5%)	Cobb County (9%)	Cobb County (7%)
Florida (5%)	Alabama (5%)	Fulton County (4%)	DeKalb County (9%)	Murray County (7%)

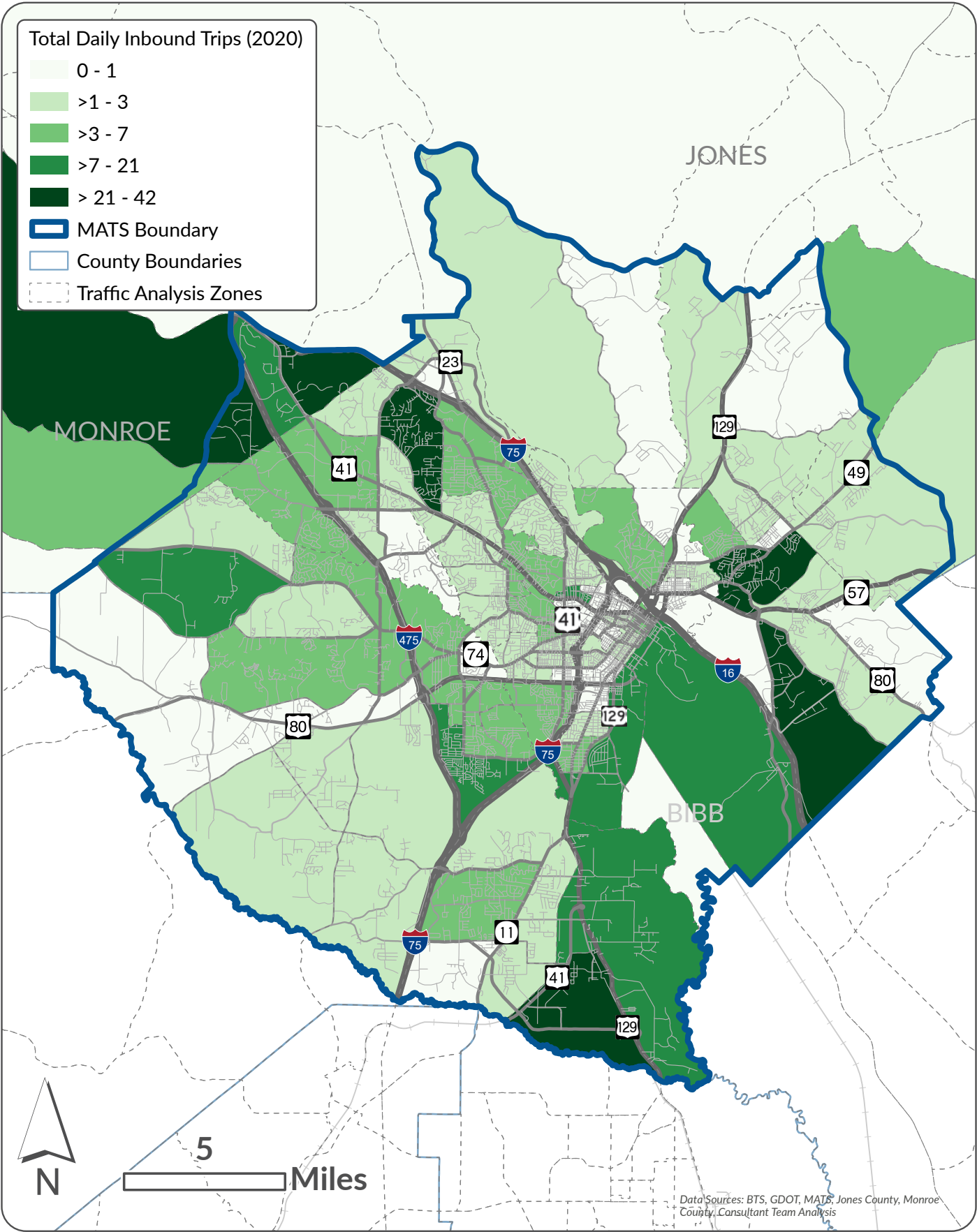


Figure 43. Top Inbound Commodity Trips by TAZ (2020)

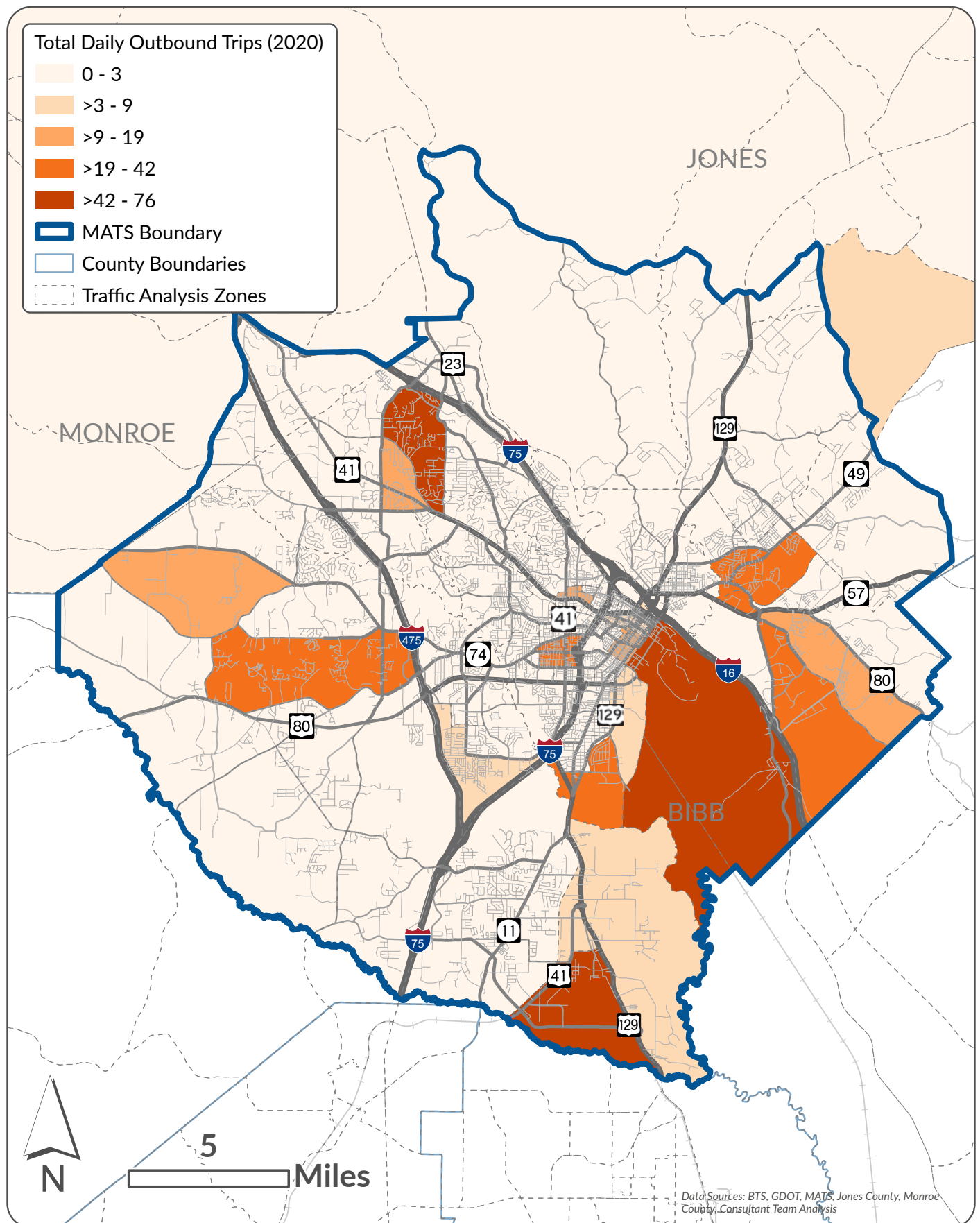


Figure 44. Top Outbound Commodity Trips by TAZ (2020)

(in Georgia), as well as the states of Alabama, South Carolina, and Tennessee. Where applicable, “all others” refers to other states and locations not specifically listed. As with the table above, top trading partners are listed for each of the top five inbound commodities in order from most to fewest daily trips.

Future Trip Mix: Top Commodities by Daily Trips (2050)

To help with estimating future demand for freight and the need for potential improvements to support goods movement, the team also reviewed TRANSEARCH data with daily trip projections by commodity category anticipated for the year 2050.

As a measure of projected future daily trips (in the year 2050), top inbound commodities coming into the MATS planning area from other locations include mining, bulk secondary products, petroleum products, stone, and chemical products. Collectively, these are projected to account for more than 1,100 daily trips coming into the region, or roughly 75% of all inbound commodity-carrying trips. Mining is projected to account for the greatest number of inbound commodity-carrying trips - roughly 300 daily trips or about 25% of inbound trips. This is followed by trips carrying bulk/secondary materials (270 daily trips or 23%).

The areas that receive the most truck trips carrying commodities largely mimic patterns seen in the 2020 data; they correspond to areas with predominantly industrial land uses. These include the TAZs around the Macon Downtown and Middle Georgia Regional Airport, the Kohl's Distribution Center on East Airport Parkway, and an area between Bass Road and I-75 on the west side of the region. Top receiving zones in the year 2050 are shown in Figure 45. The zone containing the Middle Georgia Regional Airport accounts for roughly 10% of forecasted daily commodity trips in the year 2050.

Top outbound commodities include petroleum, bulk secondary materials, paper, stone, and mining products. Collectively, these account for more than 1,900 projected daily outbound trips - roughly 87% of total daily outbound trips. Petroleum and bulk/secondary materials account for a majority of future projected outbound trips, representing 33% and 27% respectively. These are followed by paper (11%), stone (9%), and mining (7%). It is projected that in the year 2050, the MATS region will be a net exporter of products overall, with more outbound trips (1,904) compared to inbound trips (1,168). Petroleum, bulk secondary, paper, and stone products lead the way with more outbound trips (more than 1,500) carrying these materials projected than inbound trips (753).

The zones that “send out” the most truck trips carrying commodities are also similar to those patterns seen in the 2020 outbound trips data. The zones just south of I-16 near Brosnan Yard and Armstrong

Table 10. Top Five Projected Future Commodities in MATS Region by Daily Trips (2050)

Top 5 Inbound Commodities (2050)			Top 5 Outbound Commodities (2050)		
Commodities	Daily Trips (per GSTDM)	Percent	Commodities	Daily Trips (per GSTDM)	Percent
Mining	300	25.70%	Petroleum	629	33.06%
Bulk/Secondary	270	23.10%	Bulk/Secondary	513	26.93%
Petroleum	125	10.70%	Paper	217	11.38%
Stone	113	9.68%	Stone	168	8.84%
Chemical	77	6.61%	Mining	129	6.80%
Others	283	24.21%	Others	248	13.00%
Total	1,168	100%	Total	1,904	100%

World Industries along Guy Paine Road as well as the zone containing the Middle Georgia Regional Airport are the top areas for outbound trips. Likewise, the zone west of I-475 and north of US 80 is also projected to be a top 'exporter' of commodity-carrying trips, as shown in Figure 46.

Top Trading Partners by Daily Trips

Looking at both projected inbound and outbound trips, common trading partners in the year 2050 are anticipated to include Chatham, Cobb, and Fulton Counties along with the states of Alabama, South Carolina, and Tennessee. Top trading partners vary by commodity and direction of flow. For example, stone carried out of the MATS region ends up in Fulton, Gwinnett, Cobb, and DeKalb Counties; however, stone brought into the MATS region comes from Fulton, Richmond, Washington, and Chatham Counties.

Top projected sources of inbound commodities in 2050 include Fulton County for bulk/secondary, petroleum, and stone and Chatham County for petroleum, stone, and chemical products, as shown in Table 11. Mining and chemical products are primarily brought in from other states, such as Alabama and South Carolina, while other commodities are brought from other counties in Georgia into the MATS region.

Table 11. Top Sources of Projected Inbound Commodities (2050)

Top Trading Partners for Inbound Commodities (2050)				
Mining	Bulk/Secondary	Petroleum	Stone	Chemical
All Others (38%)	Fulton County (43%)	Cobb County (20%)	All Others (36%)	All Others (67%)
Tennessee (12%)	All Others (21%)	Fulton County (10%)	Fulton County (6%)	Alabama (6%)
South Carolina (11%)	Gwinnett County (7%)	All Others (9%)	Richmond County (5%)	Richmond County (6%)
Alabama (7%)	Cobb County (6%)	Chatham County (8%)	Washington County (5%)	Chatham County (3%)
Florida (3%)	DeKalb County (3%)	Henry County (6%)	Chatham County (4%)	South Carolina (3%)

Top destinations for outbound commodities in the year 2050, shown in Table 12, include: Fulton County for each commodity; Cobb County for petroleum, bulk/secondary, and stone; and Gwinnett County for bulk/secondary, stone, and mining products. A substantial proportion of trips from the MATS region are destined for the Atlanta area, as indicated by the moderately high percentages of trips bound for Fulton County, Cobb County, and Gwinnett County.

Table 12. Top Destinations for Projected Outbound Commodities (2050)

Top Trading Partners for Outbound Commodities (2050)				
Petroleum	Bulk/Secondary	Paper	Stone	Mining
All Others (29%)	All Others (36%)	All Others (72%)	All Others (21%)	All Others (34%)
Fulton County (9%)	Fulton County (24%)	South Carolina (6%)	Fulton County (11%)	Fulton County (9%)
South Carolina (8%)	Cobb County (8%)	Tennessee (5%)	Gwinnett County (8%)	Alabama (7%)
Cobb County (5%)	Gwinnett County (2%)	Alabama (3%)	Cobb County (7%)	Tennessee (6%)
Chatham County (5%)	DeKalb County (3%)	Fulton County (3%)	DeKalb County (5%)	Gwinnett County (5%)

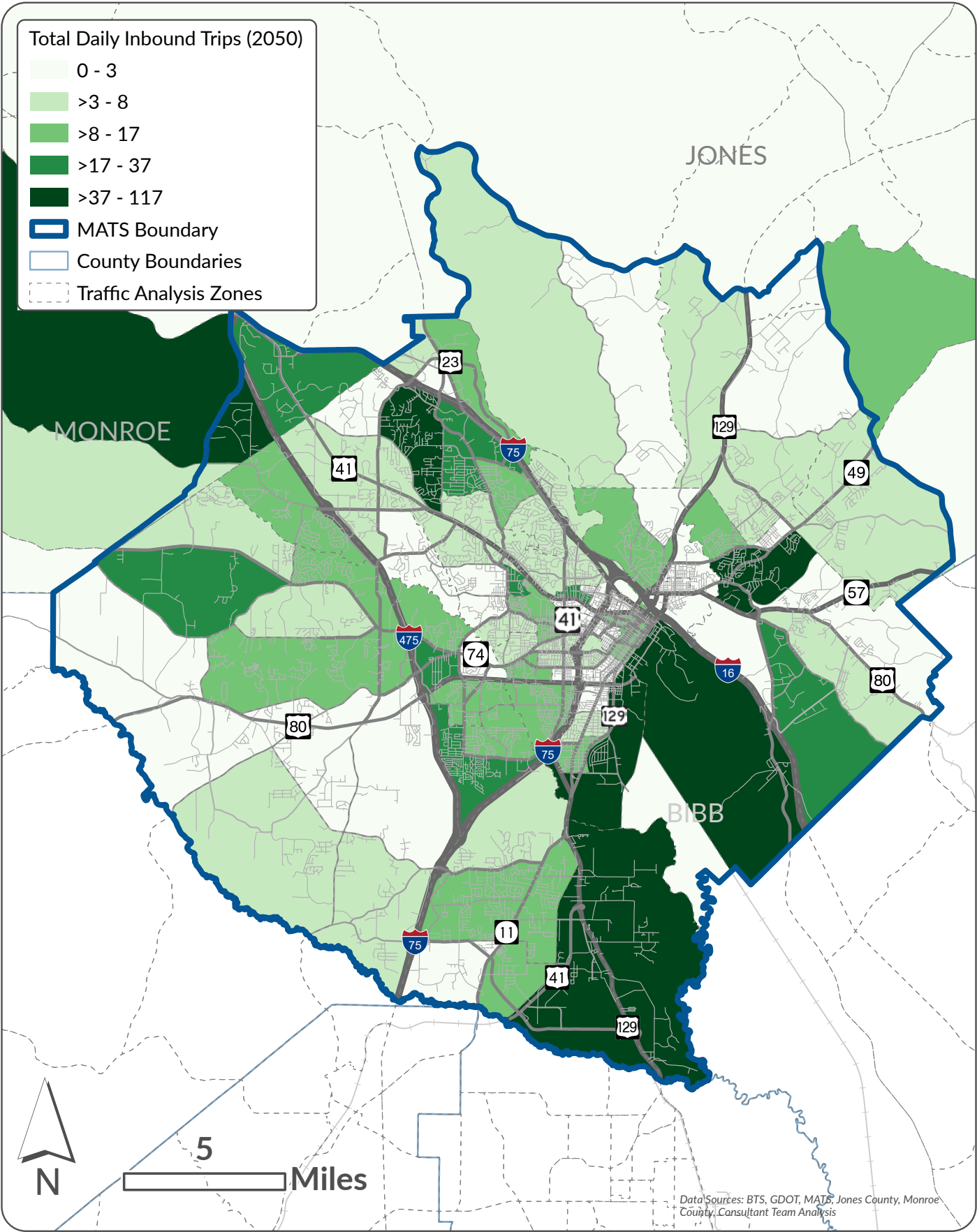


Figure 45. Top Inbound Commodity Trip by TAZ (2050)

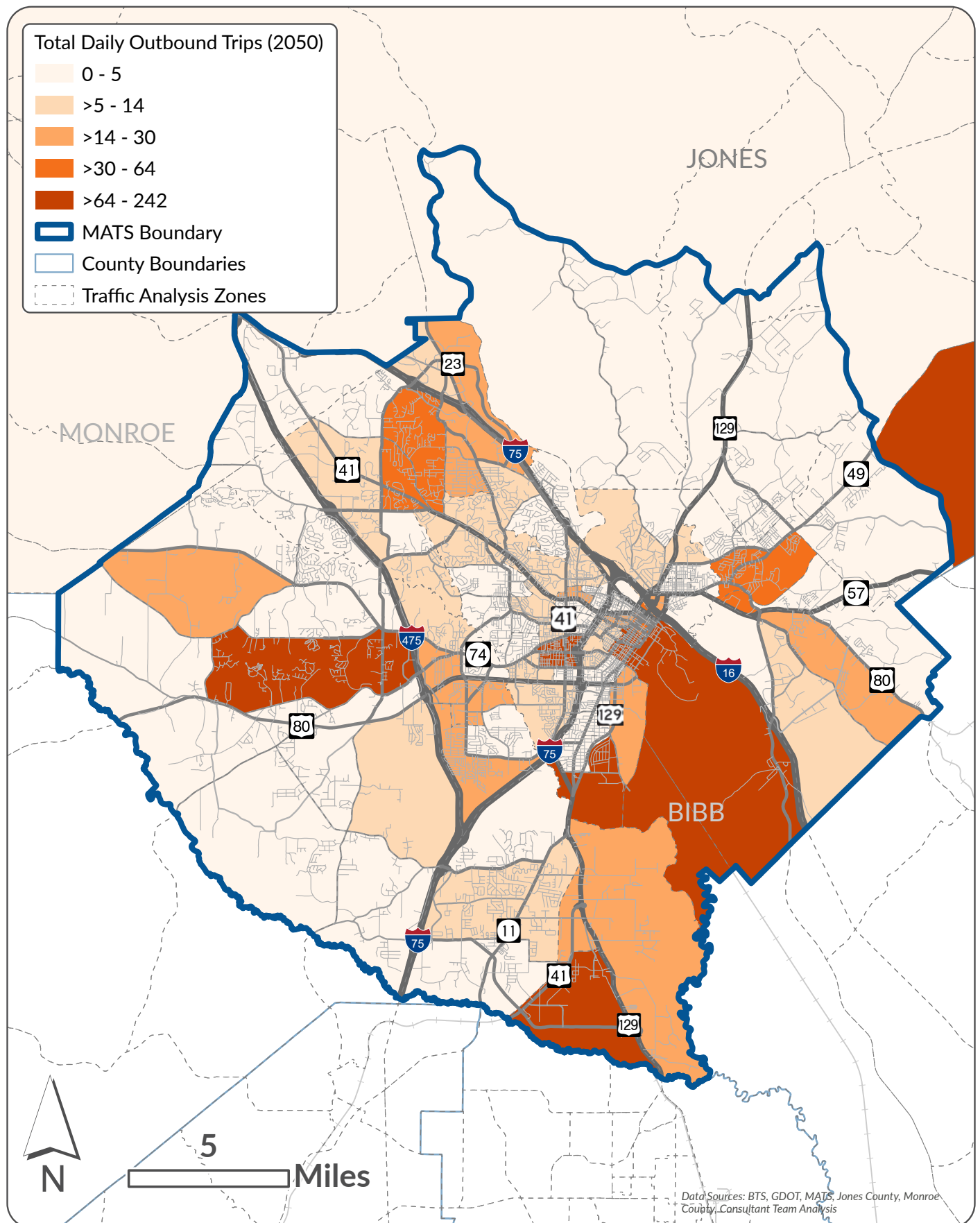


Figure 46. Top Outbound Commodity Trips by TAZ (2050)

Origin-Destination Patterns

This analysis utilized the Origin-Destination Matrix tool in the Regional Integrated Transportation Information System (RITIS) Trip Analytics suite. The RITIS Trip Analytics platform provides access to INRIX data for trips in Georgia from select time periods since 2019. The analysis identifies origins for truck traffic that ends within the MATS region, and destinations for freight traffic that begins within the MATS region. RITIS derives this data from sources such as mobile phones, navigation systems, and other portable, global positioning systems (GPS)-enabled devices. The data represents a broad sample of truck trips (medium and heavy duty) on all days and during all hours from March 1 to March 31, 2023. For the purposes of this analysis and for clarity and legibility of the maps, a threshold of 125 trips was set, so that any origins or destinations receiving or exporting fewer than 125 trips is not shown. These zone maps are essentially map-based versions of origin-destination matrices where all origins or all destinations are rendered on a map with the boundary of the study area. This information can be used at a high level to paint a picture of where trips that start in the MATS region tend to end up and where trips that end in the MATS region typically come from.

External-to-Internal Truck Trip Origins

Of the total truck trips that began outside the MATS region (outlined in purple) and ended anywhere within the region, the majority originated in an area within about 50 miles of the MATS region. The greatest number of truck trips are from Peach County along I-75 and US 41 to the south (3,900 trips), Twiggs County along US 80 (3,700 trips) including Jeffersonville, and Monroe County along US 41 to the northwest (11,000 trips). The area in Peach County is the site of the Georgia National Fairgrounds and Agricultural Center. Collectively, more than 64,000 trips were made by medium- and heavy-duty trucks entering the MATS region during the month of March 2023. Origins of external-to-internal truck trips that ended in the MATS region are displayed in Figure 47.

A significant number of truck trips also came from the vicinity of Robins AFB. Other common origins include Henry County along SR 155 and I-75 to the north, and areas around Cordele and Tifton along I-75 to the south. Truck trips into the MATS region also come from an area around the City of Dublin along I-16.

For comparison purposes, the project team also looked at trips for the month of April 2024. While the overall patterns remained largely the same, a few differences were noticeable. These include more trips originating from locations along I-16 near Dudley and Dublin, as well as farther to the east in Bryan County. Notably, that area in Bryan County includes the Seaport 16 Trade Center - a 797-acre master planned business park in Bryan County, which is currently under construction, and which will provide more than seven million square feet of Class A warehouse and logistics space at full build-out.² This area also houses Automation Systems & Controls, Inc. - a company that offers engineering, design, fabrication, and commissioning services to industrial clients. It can be expected that in the future these sites will generate more trips bound for the MATS region.

The relatively short distances of origins for trips that end in the MATS region reinforces the patterns observed as more companies move to distribution and fulfillment center models, in which companies set up or use distribution centers or fulfillment centers closer to the destinations of products for sorting, scanning, picking/packing, and shipping of goods. This is mainly utilized in the e-commerce sector (retailers selling to consumers) as opposed to large, heavy duty bulk goods or commodities such as petroleum, agricultural products, and the like. It is also worth noting that the Monroe County rest area on I-75 southbound (mile marker 179) in Juliette is the only rest area along I-75 between Atlanta and Macon; therefore it is a common place for drivers to stop and is likely over-represented among trip origins and destinations. There is also a rest area on I-475 northbound (mile marker 7.7) inside the MATS region.

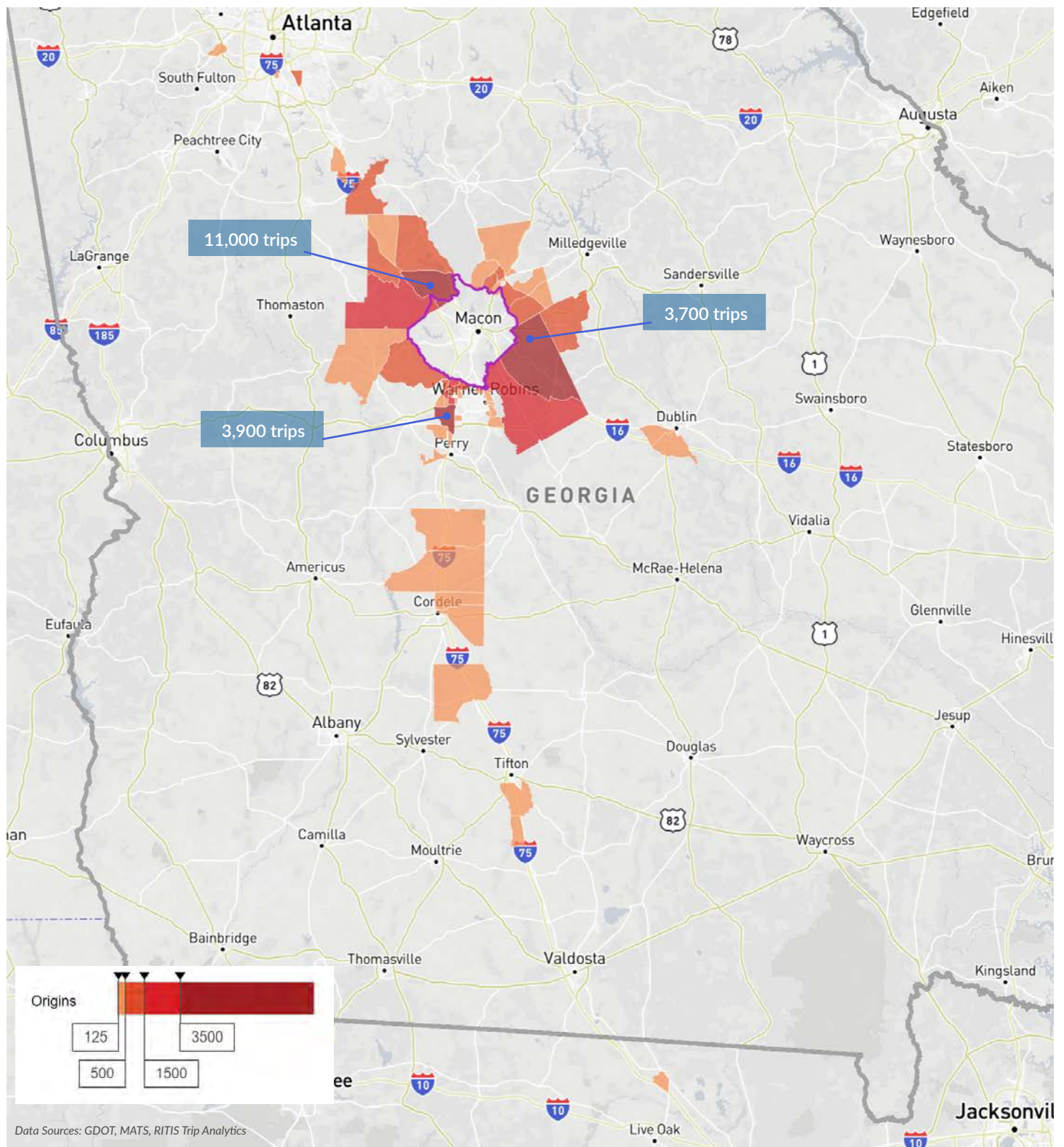


Figure 47. Origins of Truck Trips that Ended Inside the MATS Planning Area

Destinations for Inbound Trips

The destinations for these external-to-internal trips are (the zones inside the MATS region where trips coming from elsewhere most commonly end) tend to be clustered in the southern part of the region, south of I-16 around Brosnan Yard, around the Middle Georgia Regional Airport, and the area containing the warehouses clustered west of I-75 just south of I-475 along Frank Amerson Parkway. Common destinations for truck trips entering the MATS region in March 2023 are shown in Figure 48.

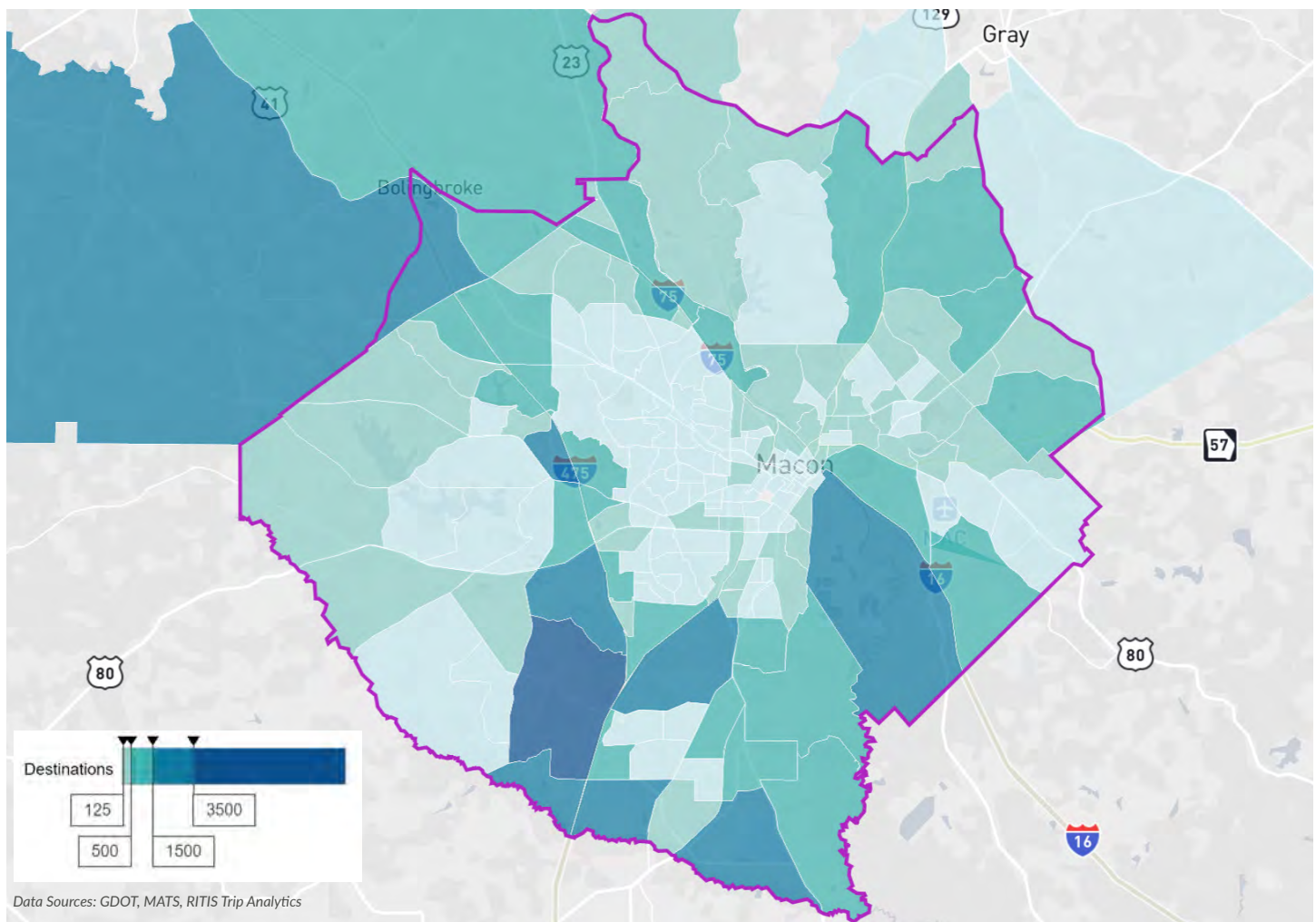


Figure 48. Destinations for Inbound Trips to the MATS Planning Area

Internal-to-External Truck Trip Destinations

In total, more than 65,000 truck trips began within the MATS region (outlined in purple) and ended outside the region during the month of March 2023, the majority ended in an area within about 50 miles of the MATS region. The patterns for internal-to-external trips are similar to those for external-to-internal trips, as shown in Figure 49 on the next page. Destinations for trips that originate inside the MATS planning area include locations right on the border of the MPO, the area around Robins AFB, near Perry, as well as along the I-16 corridor east of the region, and farther south along I-75.

As with trips entering the MATS region, many destinations for trips leaving the region are along interstate highway corridors. The greatest number of truck trips (11,400) ended in a portion of Monroe County along I-75 between US 23 and US 41 to the northwest and the zone in Peach County along I-75, north of Perry (3,500 trips). These were followed by the zones north and south of I-16 east of the MATS planning area along US 80 and US 23, respectively - each received roughly 2,500 trips from the region in March 2023. Likewise, approximately 500-700 truck trips ended in the area around Robins AFB. Hundreds of truck trips also ended in Perry, Cordele, and south of Tifton along I-75.

The patterns for truck trips leaving the Macon area in April 2024 look very similar to those of March 2023, with slightly more trips destined for areas north of Macon along I-75, in Henry County and in the Milledgeville and Sandersville areas, northeast of the Macon region.



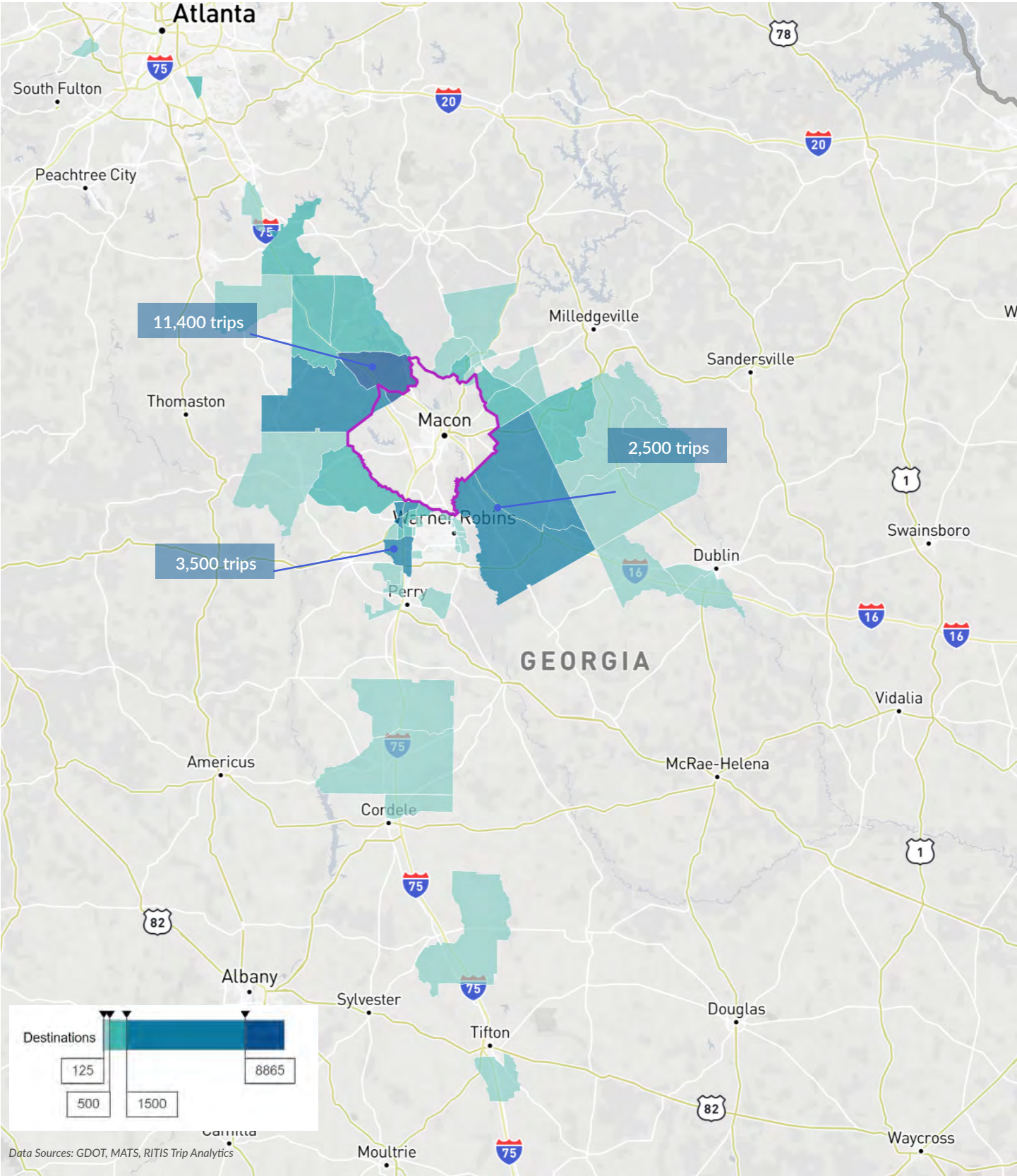


Figure 49. Destinations of Truck Trips that Began Inside the MATS Planning Area

Origins of Outbound Trips

The specific areas within the MATS region where significant numbers of external-bound truck trips originate largely reflect the same locations where truck trips coming the other direction are headed. They tend to be clustered along interstate highways, in the vicinity of industrial parks, the airports, and Brosnan Yard. Origins zones within MATS include the area south of I-16 and Macon Downtown Airport (which includes Brosnan Yard), the zone containing the Middle Georgia Regional Airport, and the area containing the warehouses clustered west of I-75 just south of I-475 along Frank Amerson Parkway. Other common origin zones about the west side of I-475, as well as smaller zones on the north side of I-75 approaching Monroe County. Common origin zones for truck trips bound for areas outside of the MATS region are shown in Figure 50.

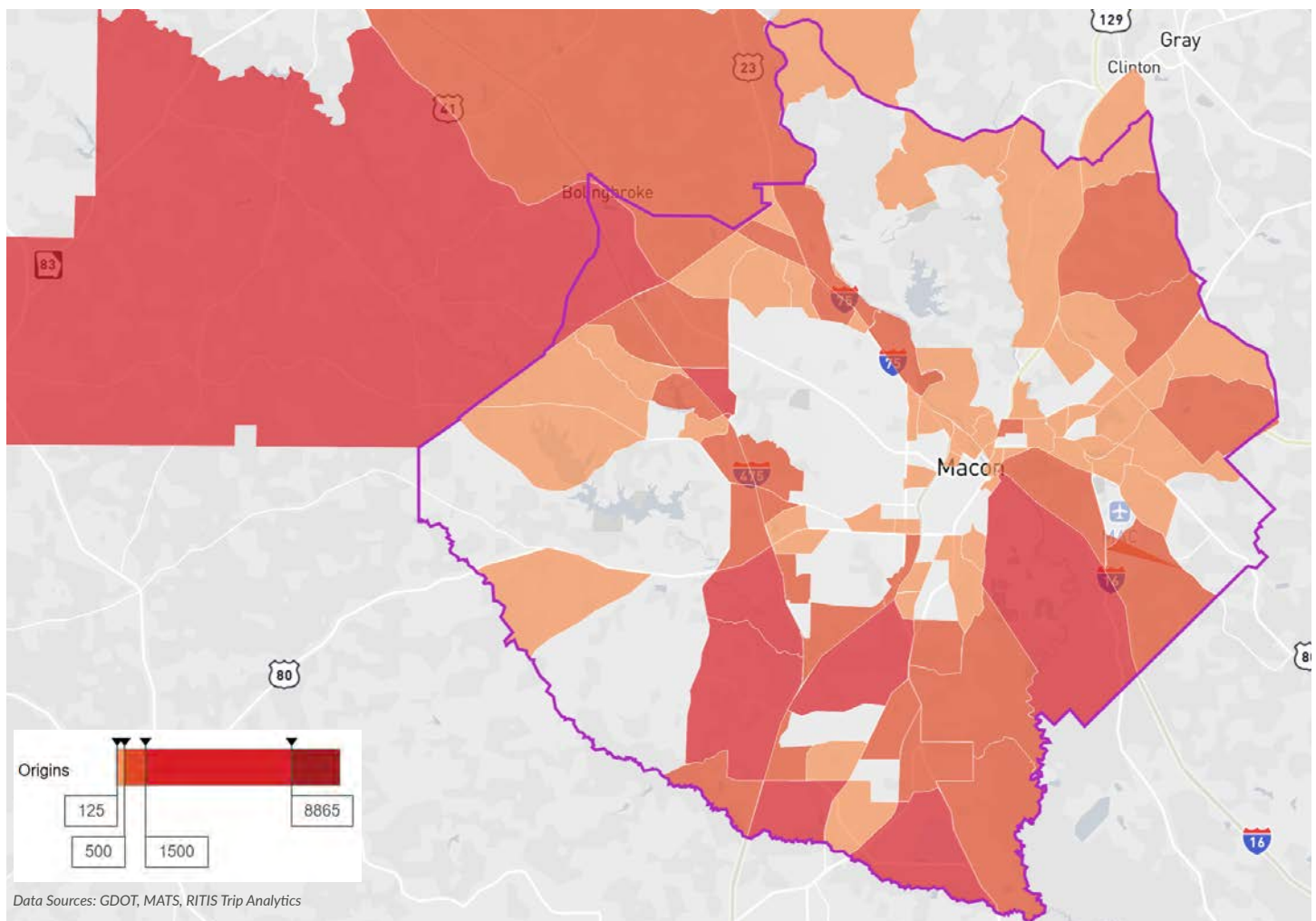


Figure 50. Origins of Outbound Trips from the MATS Planning Area

Truck Parking

Shortages of truck parking are a national concern and a key issue in many states, including Georgia. Federal regulations limit the number of hours of service (HOS) that drivers are allowed to be on the road, based on the type of commercial activity, and also require breaks after certain increments of time, most commonly for long-haul drivers. The intent behind the HOS limits and required breaks are to improve highway safety by preventing crashes related to drivers operating vehicles while tired. The limits result in the need for greater numbers of rest stops and short-term parking areas where drivers can pull off the road and rest or sleep to meet federal requirements, thereby driving up demand for truck parking.

Additionally, shortages of truck parking are often associated with concern about finding space that is suitable, providing staging areas near and within industrial and freight intensive areas, and ownership and operation of truck parking locations. Driver faced with narrow timeslots for picking up or dropping off cargo may find themselves looking for a place to wait if they arrive early or late for an appointment. In Georgia, these challenges have been exacerbated by the incredible growth in e-commerce, increases in freight moving through the Ports of Savannah and Brunswick, and the associated warehouses, distribution facilities, and fulfillment centers scattered throughout communities in an effort to bring goods closer to their destinations.

As part of a small area or regional freight study, an examination of truck parking can not only document where truck parking already exists, but can help shed light on the need for additional parking locations, based on a review of industrial development and travel patterns, as well as stakeholder and community observations. As part of the MATS 2050 Freight Plan, the project team is conducting an online survey with questions aimed at people who work directly in the freight and logistics fields, including truck drivers. Responses from these activities may help point to solutions to help address the need for additional local truck parking.

Authorized Parking Locations

Within the MATS MPO, existing truck parking locations can be divided into two categories: public or private. Public truck parking locations within the MATS MPO can be found at rest stops along major interstates, while private truck parking locations are found closer to freight-dependent industries, or near major intermodal hubs or other freight facilities (Brosnan Yards, an airport, etc.). Table 13 (next page) summarizes all known truck parking locations within the MATS planning area, based on data provided by the MATS MPO and consultant team analysis. The largest provider of truck parking in the MATS MPO is the Macon USA Tractor Trailer Parking Center located on Pio Nono Avenue. The truck parking center provides hundreds of parking spaces, overnight parking, and some amenities.

Macon-Bibb County permits truck terminals within wholesale and light industrial districts (M-1), heavy industrial districts (M-2), and in highway commercial districts (C04). Monroe County allows trucking, motor freight companies, and truck stops as conditional uses within commercial districts, as well as highway-oriented commercial districts. Jones County allows truck terminals within wholesale and light industrial districts (M-1) and in heavy industrial districts (M-2). The code specifically states in Sec. 63.4 that truck terminals shall provide sufficient space to accommodate the maximum number of trucks to be stored or loaded at the terminal at any one time.

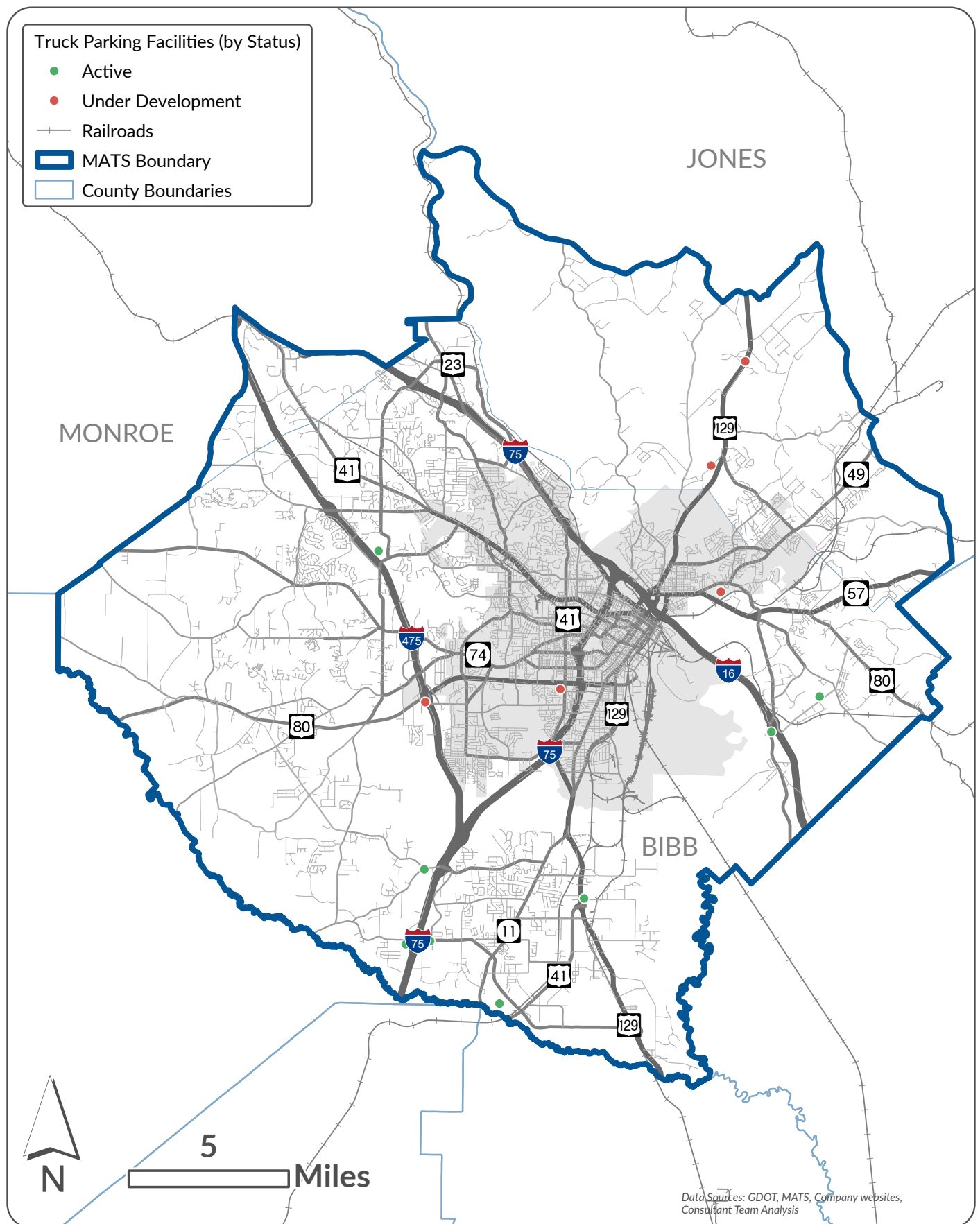


Figure 51. Known Truck Parking Locations in MATS Planning Area

In addition to existing truck parking locations, at the time of this report, a few new truck parking locations appeared to be under development. Facilities in development include 2525 Pio Nono Avenue - a re-purposed former shopping center, now signed as “Middle Georgia Industrial Park.” Others include two locations north of Macon on Old Gray Highway and Gray Highway (SR 11/SR 22), a location near Exit 3 on I-475 on Hawaiian Village Drive, and a location on Jeffersonville Road, near older industrial facilities off of US 23 and a rail line. A new fuel center was recently approved as part of the Development of Regional Impact (DRI) process, at 4992 and 4970 Sardis Church Road, to be developed by Caliber Capital LLC. A small number of parking facilities are located several miles outside of the MATS planning area, including near Forsyth, Juliette, Jeffersonville, and Perry, Georgia.

Observed Locations of Unauthorized Parking

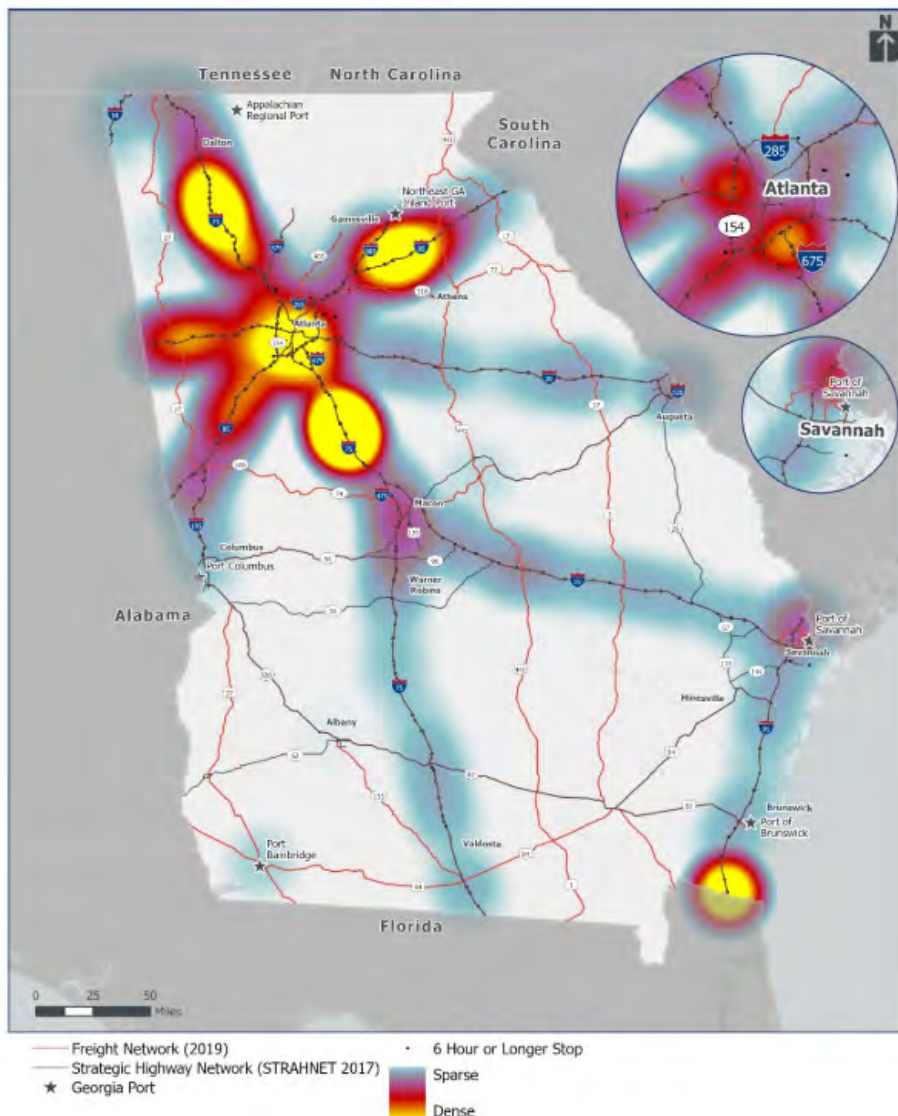
Truck parking shortages are a well-known nationwide concern for freight-related businesses – a reality from which the MATS MPO is not immune. Limits to operators “hours of service” (HOS) have increased the need for truck parking where operators can rest when required (and comply with federal regulations), in an effort to improve safety on roadways. The *Georgia Statewide Freight Plan* details how identifying clusters of freight-related vehicles parking along interstate ramps is a good indicator of a lack of truck parking in that area. Looking at the heatmap of trucks parked along interstate ramps (see Figure 52), there seems to be a significant demand for additional truck parking in the stretch of I-75 between Atlanta and Macon.

Table 13. Truck Parking Locations in MATS Planning Area

Truck Parking Facility	Location	Ownership	Status	Est. # Parking Spaces
Asphalt Cowboy Parking	8231 Industrial Hwy	Private	Existing	179
Atlanta USA Tractor Trailer Parking	2525 Pio Nono Ave	Private	In Development	400
Big Space Parking	2270 Barnes Ferry Rd	Private	Existing	10
Circle K	4706 Hartley Bridge Rd	Private	Existing	10
DG Development Truck Stop	5250 Sardis Church Rd	Private	Existing	121
Gibbs Nation Semi & RV Station	2732 Old Gray Hwy	Private	In Development	-
GDOT Rest Area #19	I-475	Public	Existing	26
John's Truck Parking	3476 Gray Hwy	Private	In Development	-
Joyride Logistics	4739 Hawaiian Village Dr	Private	Existing	39
JP Travel Center	517 Perry Pkwy	Private	Existing	25
Love's Truck Stop	1190 Frank Amerson Pkwy	Private	Existing	119
Macon Truck Parking	1773 Jeffersonville Rd	Private	In Development	-
Ocmulgee Travel Plaza	4900 Ocmulgee E Blvd	Private	Existing	75
QuikTrip	4934 Sardis Church Rd	Private	Existing	10
Terry's Big Rig Parking	859 Joe Tamplin Industrial Blvd	Private	Existing	240

There is a mix of regulations and enforcement regarding truck parking within the MPO. Macon-Bibb Planning and Zoning's *Comprehensive Land Development Resolution* Sec. 26.08 prohibits commercial vehicles weighing over 10,000 pounds (depending on specific typology) from being parked in front of residences (and some commercial areas). Parking up to one commercial vehicle is still allowed in residential areas as long as the vehicle sits behind the front yard building line. However, this policy was not enforced fully until January 1st, 2023. This shift in enforcement may increase demand for local truck parking (both permitted and prohibited).

Jones County Code Sec. 70-36 explicitly prohibits parking of any motor vehicle, including trucks and tractor trailers, in deceleration or acceleration lanes. Similarly, Sec. 70-33 authorizes the sheriff to designate and maintain parking and truck traffic control via signs, markings, and devices. Monroe County's Code of Ordinance regulates storage and parking of trailers and commercial vehicles in residential districts, limiting to one commercial vehicle per dwelling and prohibiting commercial vehicles licensed by the state in excess of 11,000 pounds gross vehicle weight in most residential districts (Sec. 65.8).



Source: ATRI, 2021

Figure 52. Demand for Truck Parking Along Interstate Highways

(Source: GDOT (2023 Georgia Freight Plan))

Chapter 3 Endnotes

- 1 Georgia Department of Transportation. (2019). 2015/2050 Georgia Statewide Travel Demand Model Report. <https://www.dot.ga.gov/InvestSmart/TravelDemandModels/Development%20of%20Statewide%20Model.pdf>
- 2 Development Authority of Bryan County. Seaport 16 Trade Center. https://bryancountyga.com/sites_buildings/details/156