CDTC
Capital District Transportation Committee

CDTA

CAPITAL REGION BUS LANE FEASIBILITY STUDY

BASELINE CORRIDOR ASSESSMENT AND PRIORITIZATION

CONTENTS

FIGURES

TABLES

1. INTRODUCTION

The purpose of this technical memorandum is to summarize the process by which the potential bus lane corridors were identified, screened, and ranked. Potential corridors are those that may warrant dedicated bus lanes or other priority treatments to improve service and realize operational cost savings.

Throughout the Capital Region, potential corridors for bus lanes were identified using a variety of inputs. Building upon a review of previous plans, corridors with the following aspects were focused on:

- Relatively high bus density and/or congestion
- Lower transit speeds
- Higher value to the network based on transfer opportunities to other routes
- Identified for growth and/or redevelopment with higher concentrations of equity populations.

A screening methodology and criteria were developed in order to narrow down the list of potential corridors. The methodology focused those with the highest potential benefits for reducing passenger and bus delay and serving the most people now and in the future with the implementation of bus priority implementation.

A bus priority toolbox was also developed with various bus priority treatments to improve speed and reliability, as well as supporting strategies and amenities. This memo includes the results of each step of the analysis and includes the bus priority toolbox as **Appendix E: Bus and Bike Priority Toolbox**.

2. EXISTING CONDITIONS ASSESSMENT

The Capital Region is made up of the cities and surrounding areas of Albany, Troy, Schenectady, and Saratoga Springs. For this study, the region is defined as the core four counties of Albany, Rensselaer, Saratoga and Schenectady with a population of 850,000 over 2,250 square miles. The Capital District Transportation Authority (CDTA) is the mobility company serving the Capital Region with an annual ridership of 15.3 million, a fleet of 248 buses, and 50 routes. In May 2022, Montgomery County was added to the core four counties CDTA serves but was not included in this assessment due to the type of services being offered. CDTA's premier services in the core counties include two current BRT routes in operation, the BusPlus Red Line and the BusPlus Blue Line, and the BusPlus Purple Line expected to open in early 2023.

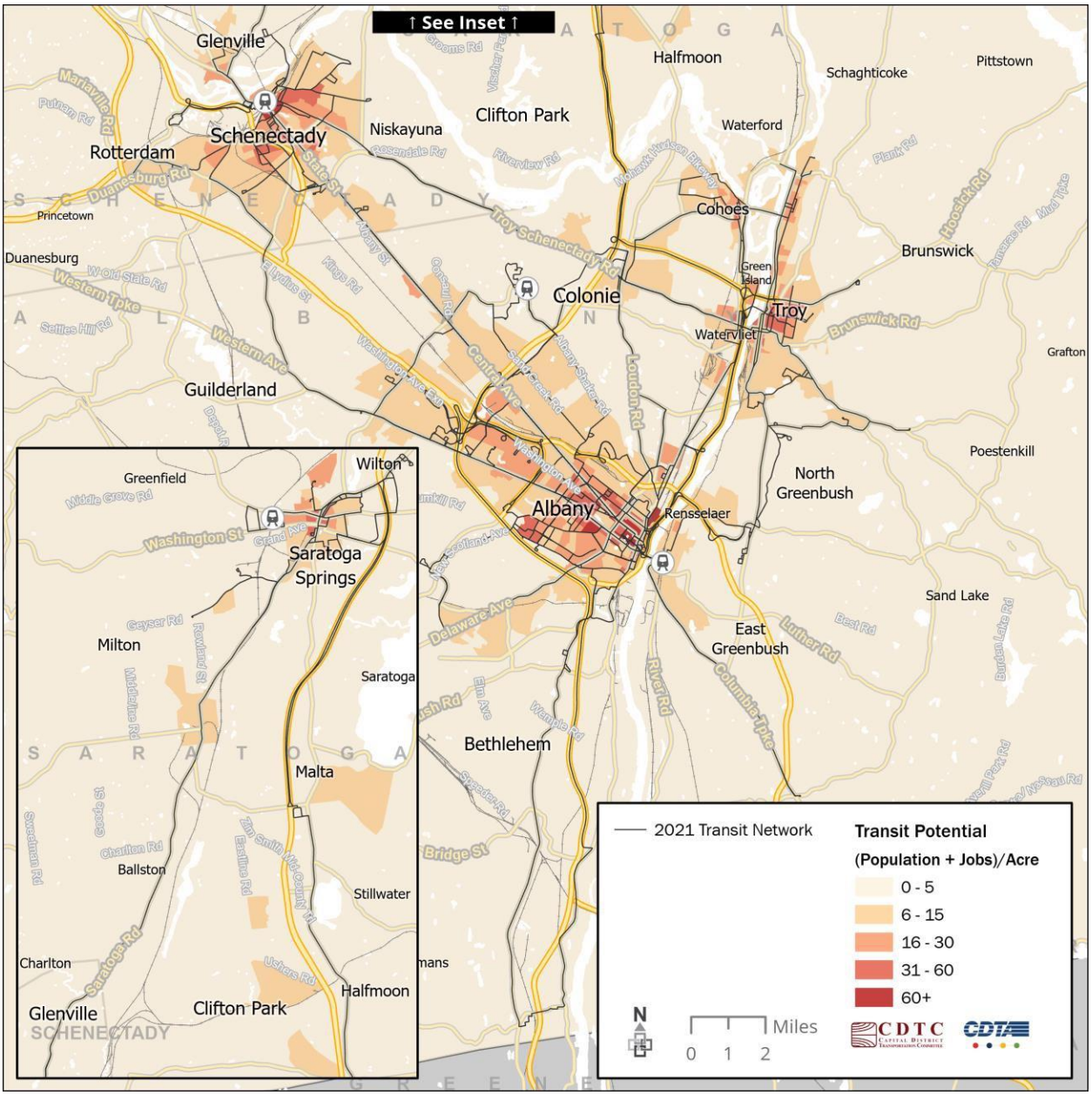
An existing conditions assessment was conducted to identify potential corridors for dedicated bus lanes or other priority treatments. The existing conditions assessment began with an analysis of transit potential, looking at both population and employment densities in 2020 and 2030, and transit need that focuses on transit reliant populations. Transit potential and transit need will be used as primary metrics to screen and prioritize the potential corridors.

Transit potential, or density of both people and jobs, is shown in **Figure 1**. Higher transit potential is found in the following areas:

- Albany
  - Arbor Hill and West Hill neighborhoods
  - Downtown east of Swan Street and north of Madison Avenue
  - Neighborhoods west of Washington Park
  - Community around Russell Sage College
  - Community around Maria College.
- Troy
  - Neighborhoods and downtown Troy bounded by Hoosick Street to the north, 8th street to the east, and Division Street to the south
  - Communities around Rensselaer Polytechnic Institute.
- Schenectady
  - Neighborhoods downtown south of Broadway and north of Nott Terrace
  - Communities surrounding Union College
  - Mount Pleasant neighborhood west of I-890.
- Saratoga Springs
  - Downtown west of Broadway, south of Van Dam Street, and north of Lincoln Avenue
  - Downtown east of Broadway, south of Lake Avenue, and north of Congress Park.
- Watervliet
  - Neighborhood north of 21st Street, east of 5th Avenue, and south of 24th Street.
- Cohoes

— Neighborhood southeast of Ontario Street.

Figure 1: Transit Potential

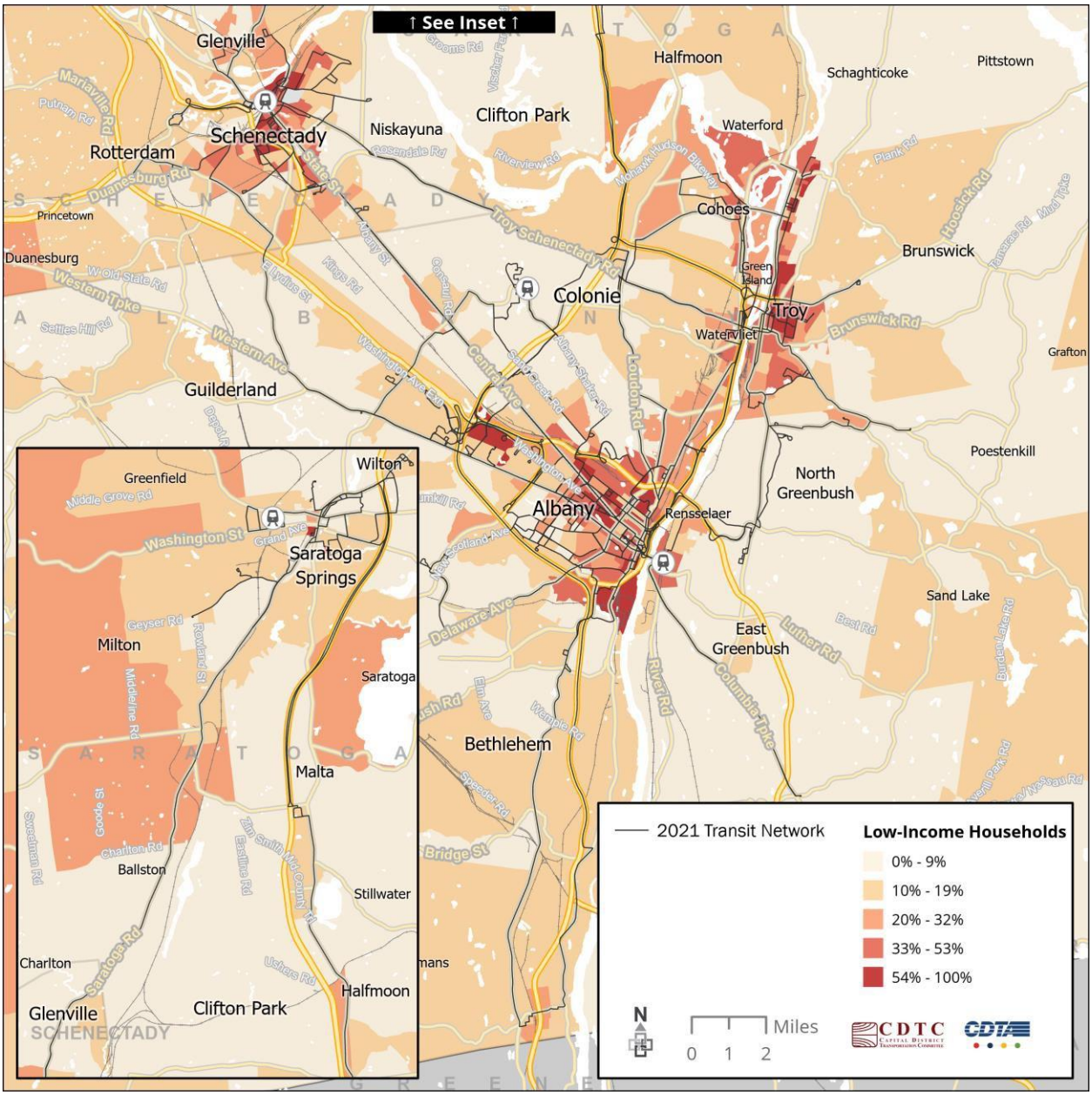


Equity Analysis

LOW-INCOME HOUSEHOLDS

Figure 2 shows the density of low-income households—those that have an annual household income less than 150 percent of the federal poverty line—in the region. Higher densities of low-income households in Albany can be found in the Mount Hope neighborhood south of I-787, the Arbor Hill neighborhood in the northeast corner of the city, and the community west of SUNY Albany. In Troy, the communities around Rensselaer Polytechnic Institute and the communities north of Hoosick Street have the highest densities of low-income households, and in Schenectady, the neighborhoods around Union College have the highest low-income household density.

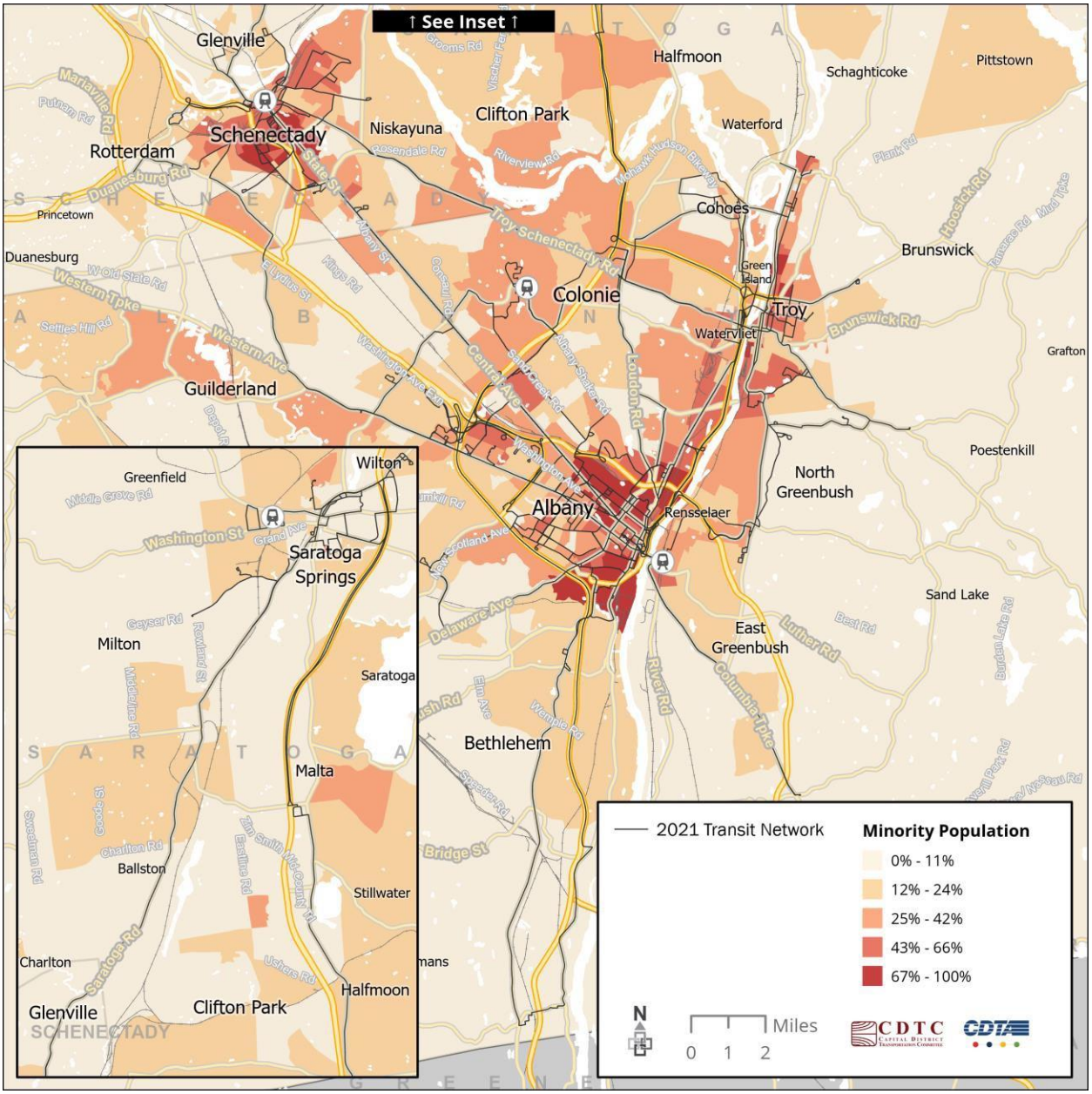
Figure 2: Low-Income Households



MINORITY POPULATIONS

The minority population density is shown in **Figure 3**. The areas with the highest density of minorities are in Albany in the Mount Hope neighborhood south of I-787 and the West Hill and Arbor Hill neighborhoods north of Central Avenue. In Troy, the neighborhoods with the highest density of minorities are those north of Hoosick Street, and in Schenectady, south of Nott Terrace.

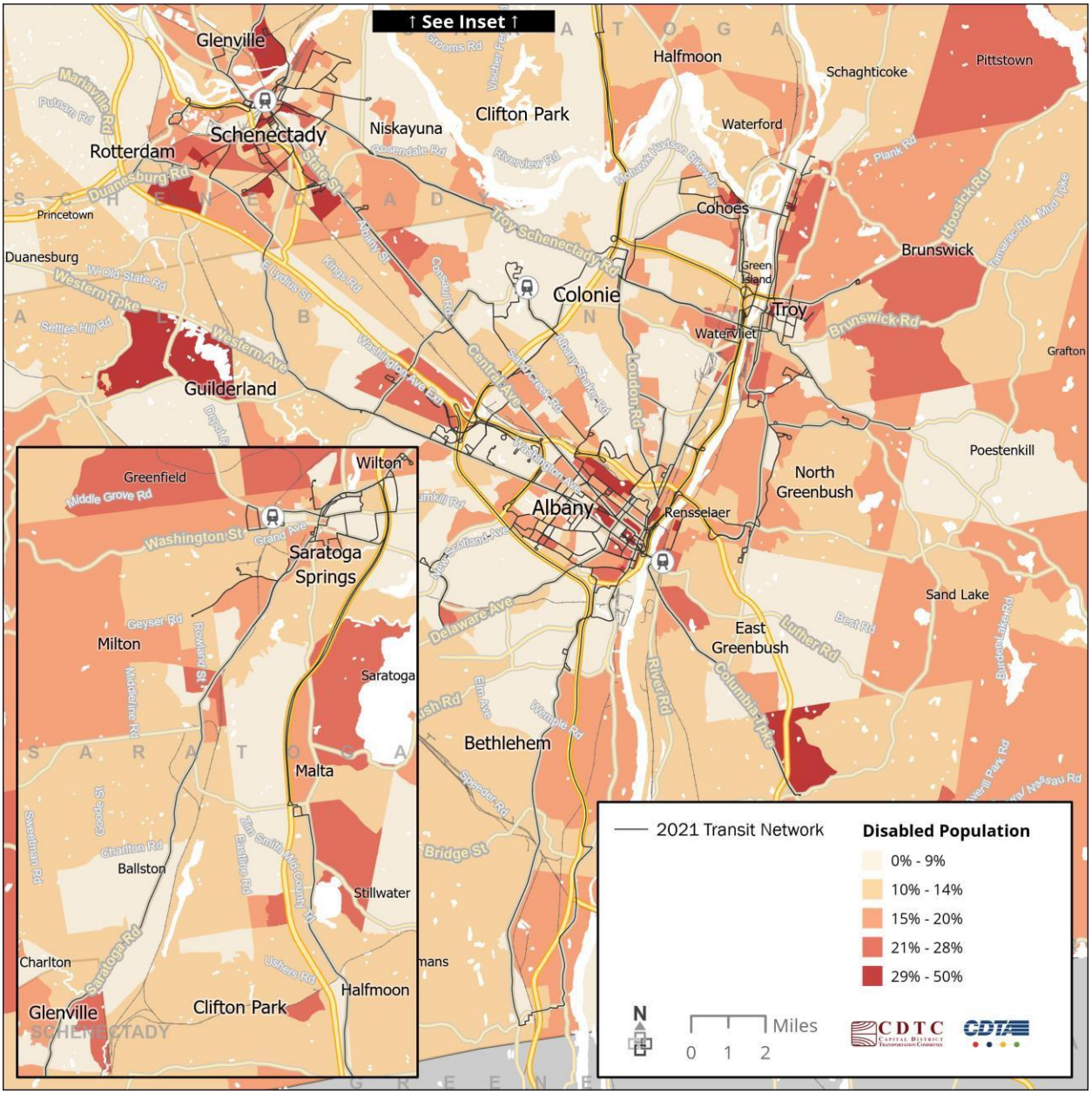
Figure 3: Minority Populations



DISABLED POPULATIONS

The disabled population density in the region is shown in **Figure 4**. The areas with the highest densities of disabled persons are found in Guilderland; Schodack Center; and outside of Schenectady in the communities southwest of Rotterdam, around Stadium Golf Club, and south of the Schenectady County Airport.

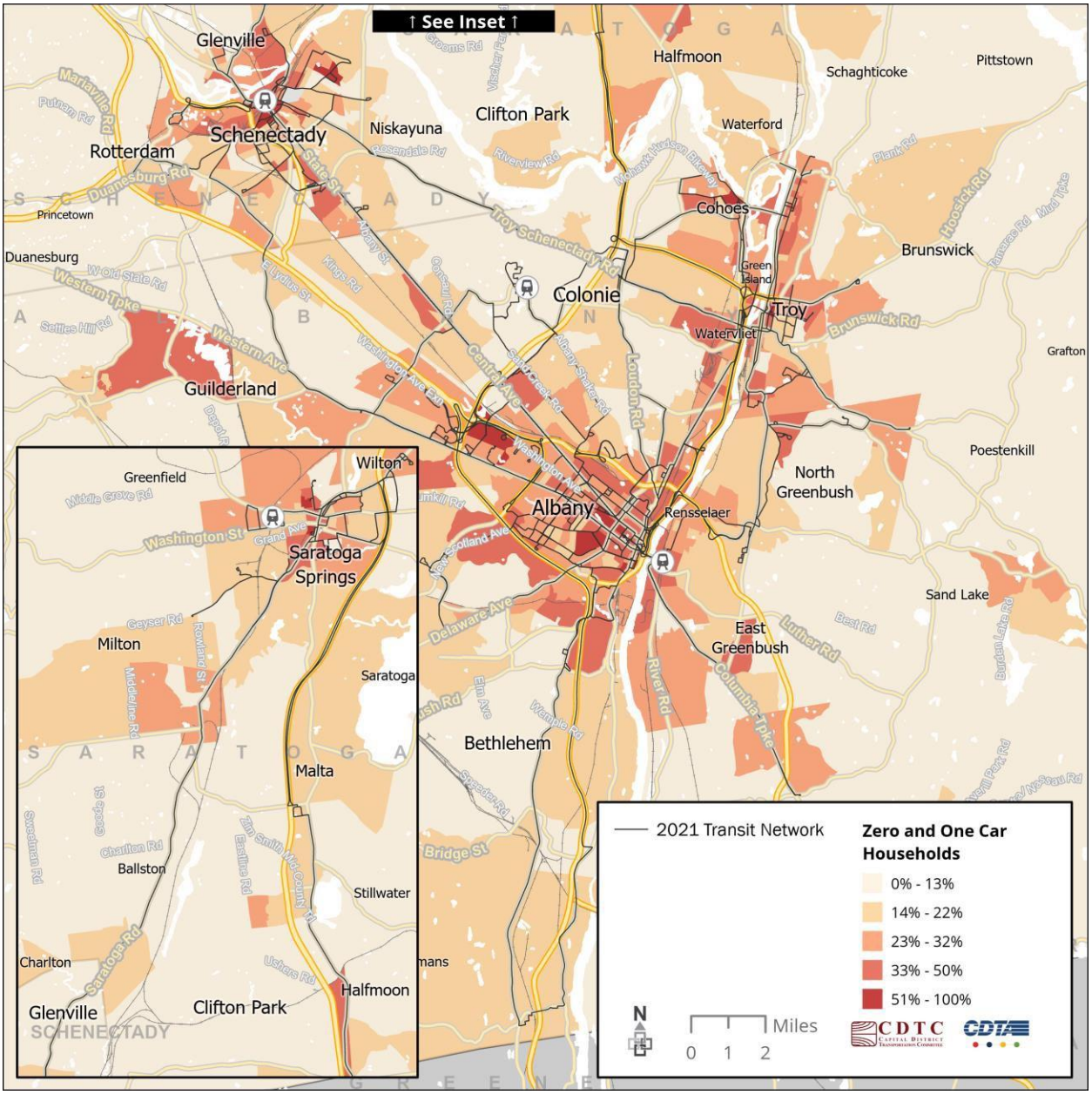
Figure 4: Disabled Populations



ZERO AND ONE CAR HOUSEHOLDS

Figure 5 shows the density of zero and one car households in the region. The highest concentrations of zero or one car households are found in Albany in the communities around Russell Sage College and Albany Medical Center and the communities around the University at Albany.

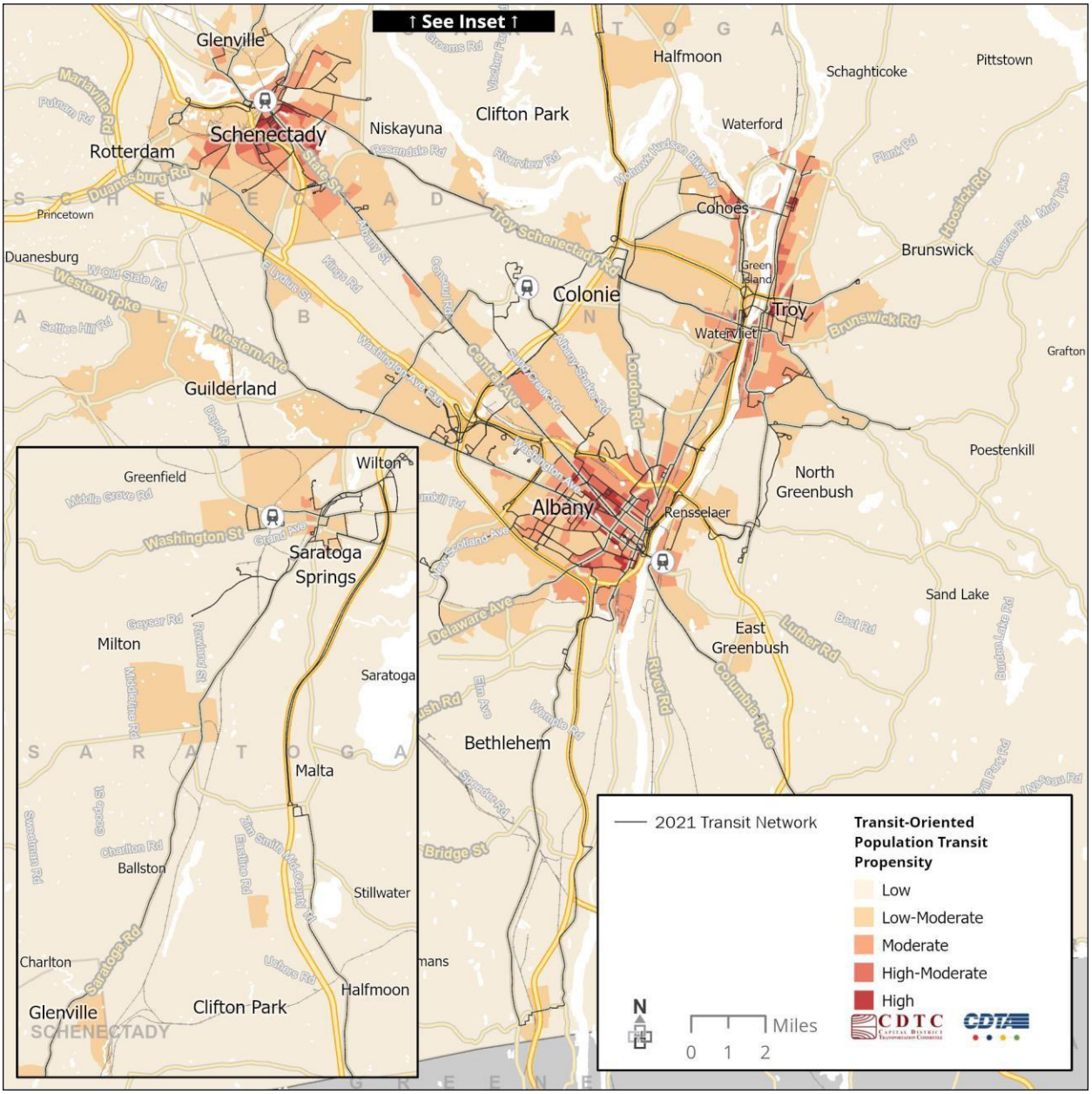
Figure 5: Zero and One Car Households



TRANSIT-ORIENTED POPULATION PROPENSITY INDEX

Figure 6 shows the composite of the equity variables into a single transit-oriented population propensity index. This combined index shows the highest propensity in the region's denser urban cores (Albany, Troy, and Schenectady) with moderate propensity scores extending out along major transportation arteries (such as Central Avenue and the Hudson River).

Figure 6: Transit Oriented Population Transit Propensity



Existing System

As part of the process to identify potential bus lane corridors, the existing system was analyzed to understand which corridors would benefit the most from priority treatments. The data used to produce the following maps are from 2021. Transit across the country was impacted by the COVID-19 pandemic in both 2020 and 2021. While ridership started to rebound in late 2020 and 2021, the Delta and Omicron variants and the nationwide operator shortage affected transit operations and ridership.

Effective headway, speed, schedule deviation, ridership activity, and throughput were analyzed in order to evaluate existing conditions, which corridors have the highest ridership, and which corridors experience the most delays due to congestion. These metrics are mapped for the AM Peak and Midday periods because those periods are most reflective of the trends in the region.

The existing CDTA system is shown in **Figure 7**. CDTA operates 50 routes, including two current BRT routes and one future BRT route, shown in **Figure 8**. The BusPlus system includes the Red Line, a 17-mile route between Downtown Albany and Downtown Schenectady; the Blue Line, a 16-mile route in the Hudson River communities of Albany, Menands, Watervliet, Troy, Cohoes and Waterford; and the Purple Line, an eight-mile route from Downtown Albany to Crossgates Mall, expected to open in early 2023. **Figure 9** shows the existing bus priority treatments. The existing queue jumps and transit signal priority treatments are along the Red and Blue BusPlus routes.

Figure 7: 2021 CDTA System Map

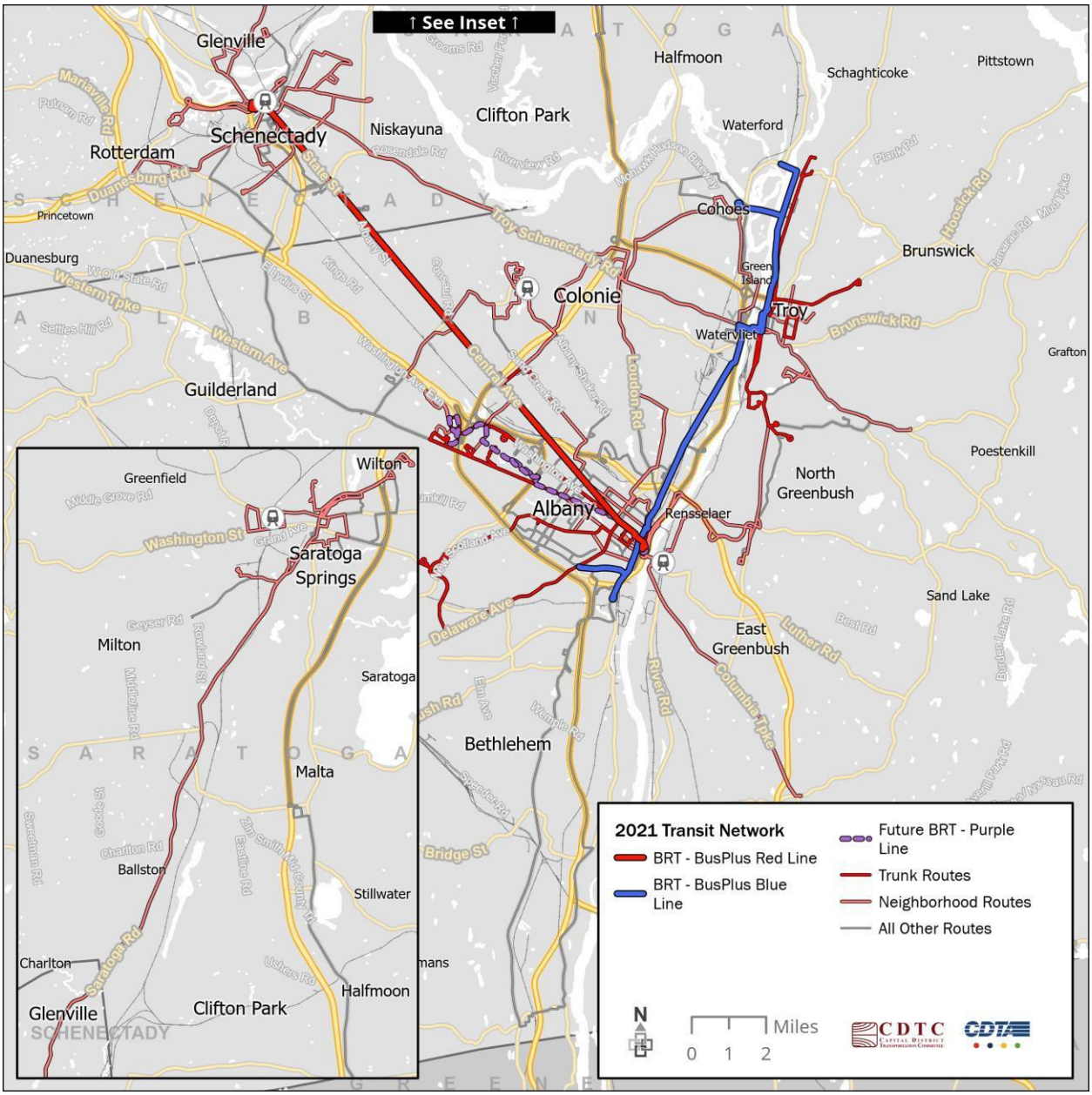


Figure 8: CDTA BRT Routes

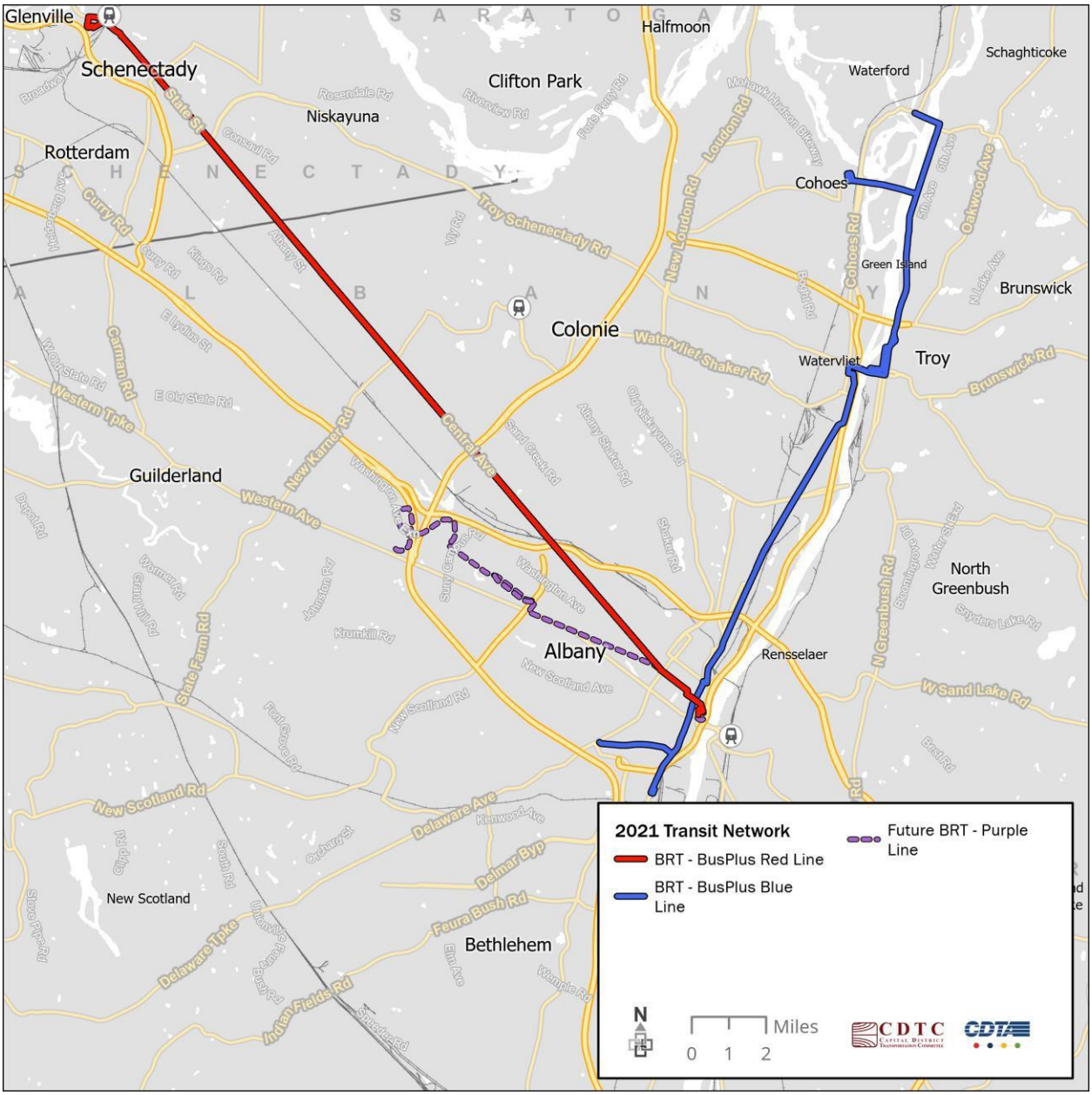
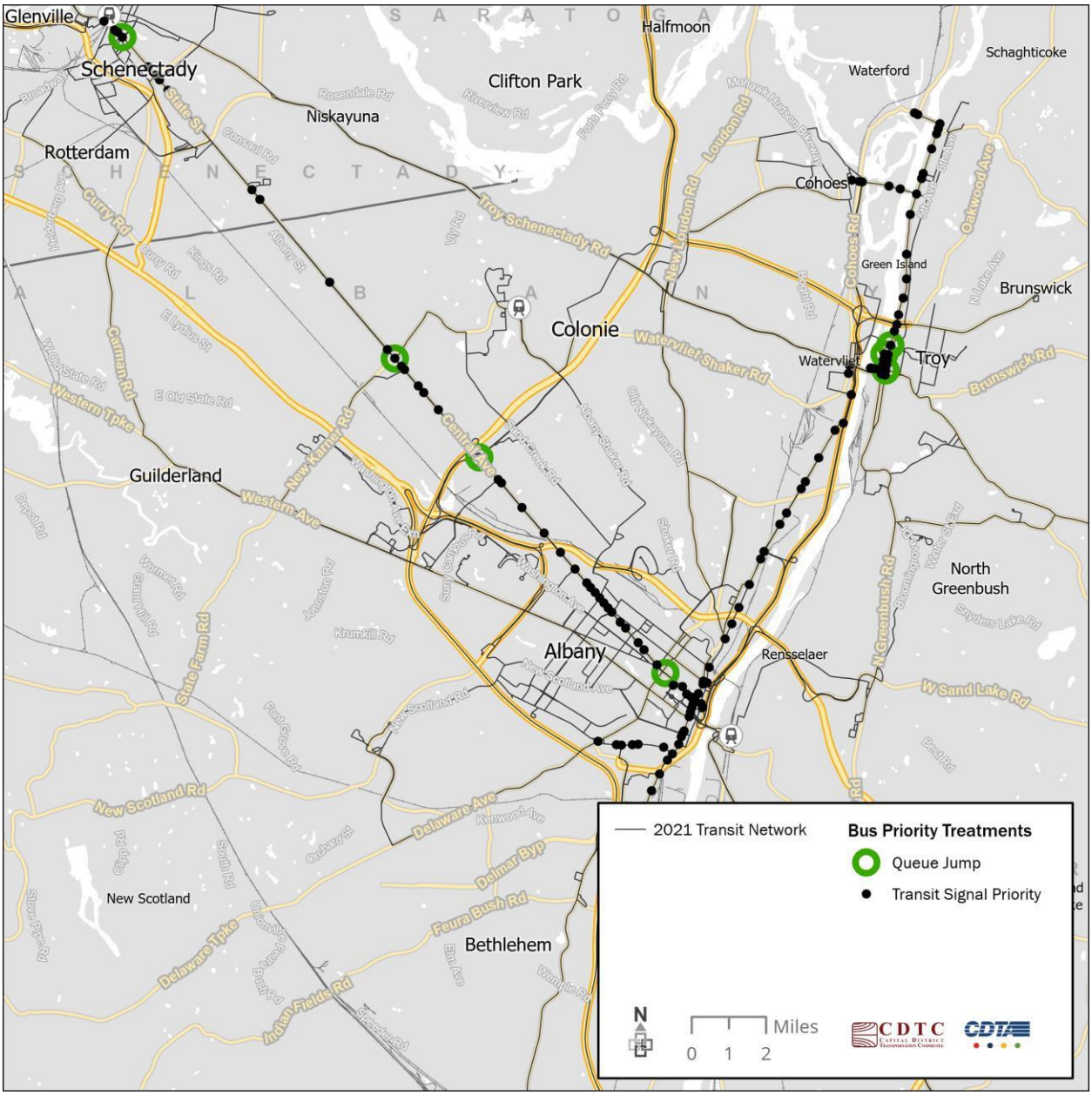


Figure 9: Existing Priority Treatments



HEADWAY

Effective headways along each corridor measure which corridors have the most frequent bus service. Headways during the AM peak period in 2021 are shown in **Figure 10**. The areas with the most frequent bus service, with effective headways of 30 minutes or less, are those along the following major corridors:

- Albany
  - Washington Avenue
  - Central Avenue
  - Pearl Street
  - Broadway
  - Madison Avenue
  - Western Avenue
  - Quail Street
  - Henry Johnson Boulevard
  - New Scotland Avenue
  - Allen Street
  - Whitehall Road
  - Delaware Avenue
  - Mount Hope Drive.
- Troy
  - Broadway
  - 3rd Street
  - 4th Street
  - 6th Avenue
  - Burdett Avenue
  - Hoosick Street.
- Schenectady
  - Altamont Avenue west of Chrisler Avenue
  - Main Avenue
  - Craig Street
  - Nott Terrace.

Figure 11 shows the headways of bus service during the midday period in 2021. The midday headways are similar to the AM peak headways with shorter headways in downtown Troy and longer headways on Columbia Turnpike southeast of Albany and Loudon Road between Albany and Colonie.

Figure 10: 2021 AM Peak Effective Headway

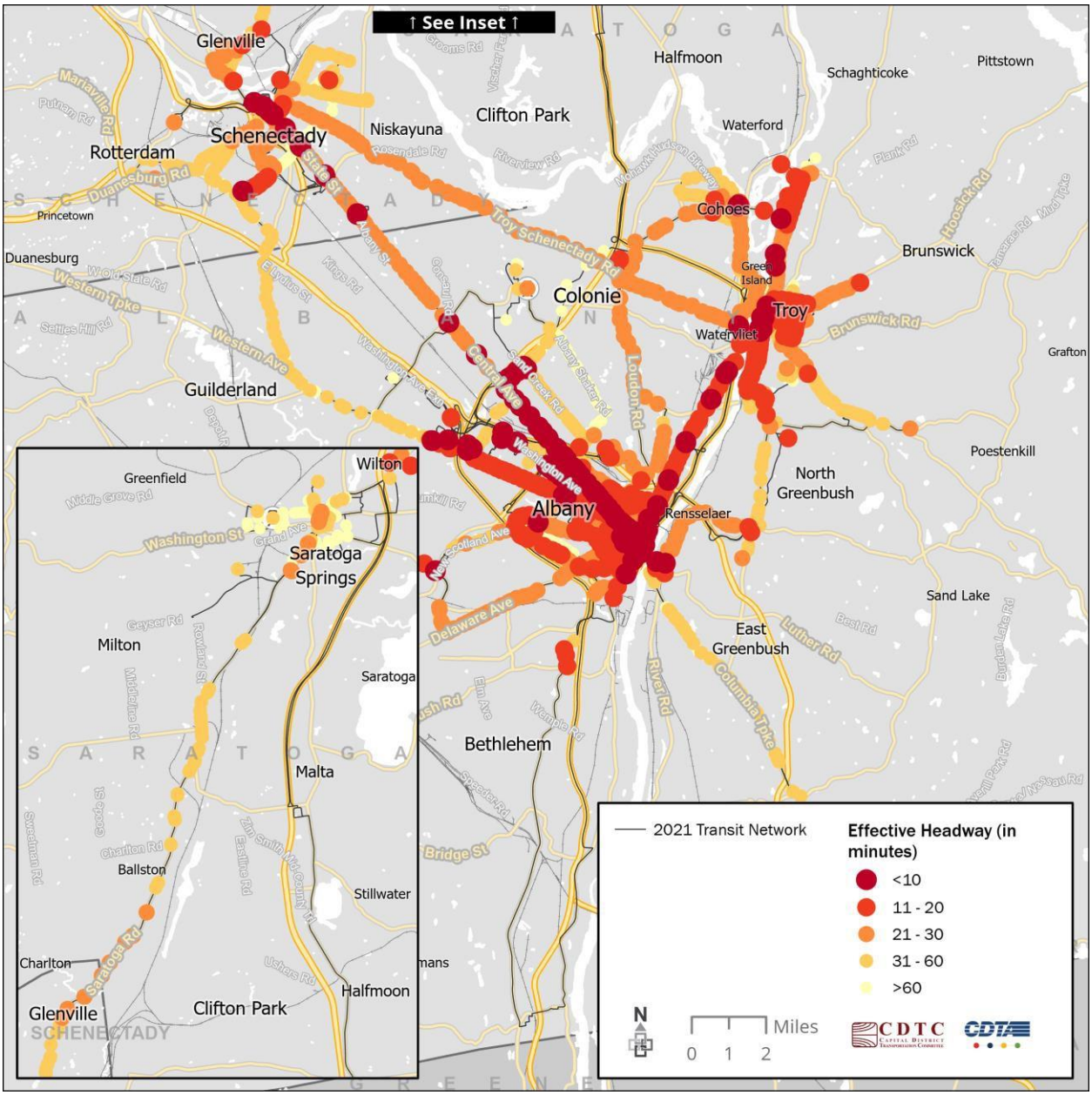
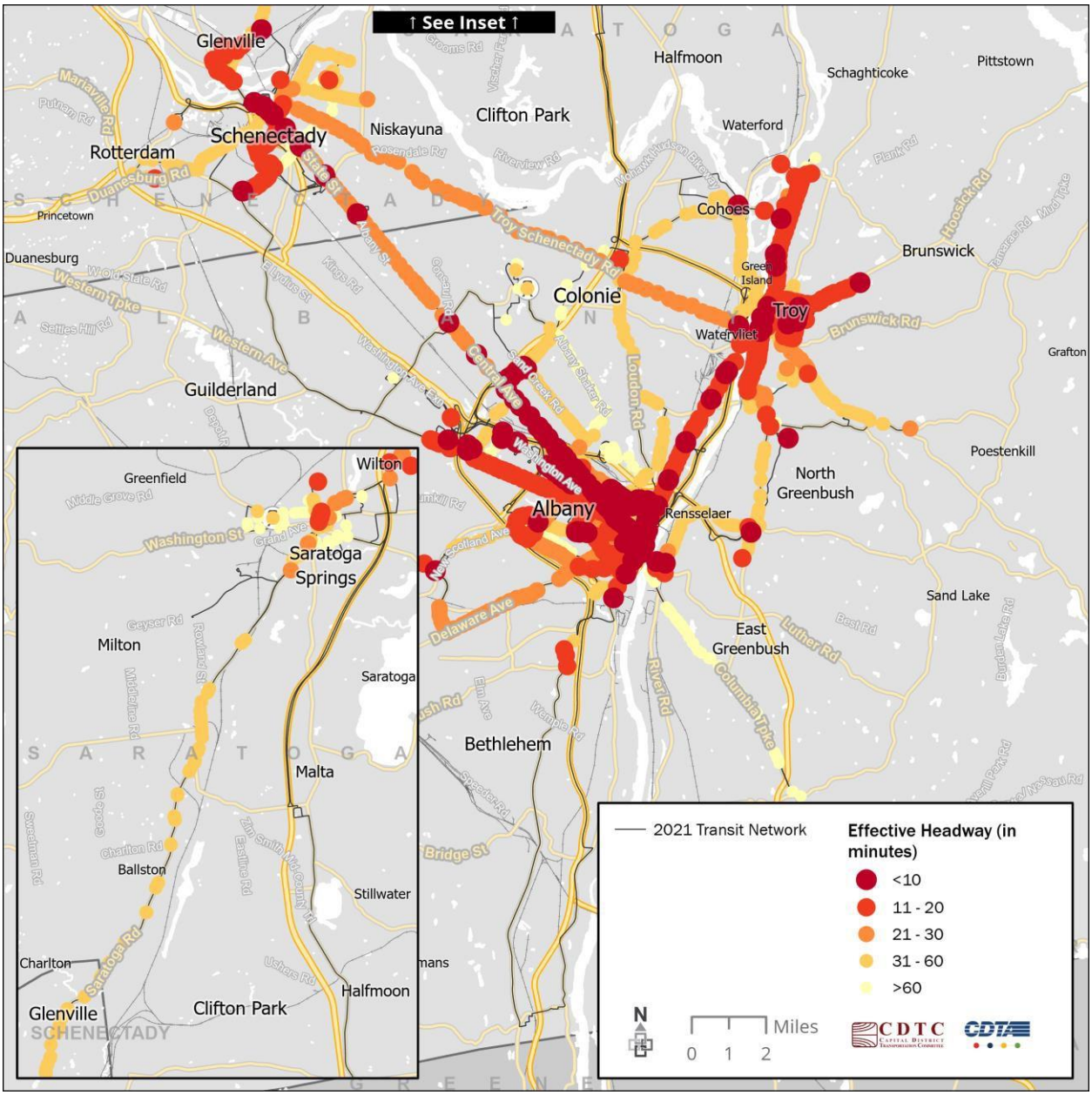


Figure 11: 2021 Midday Effective Headway



SPEEDS

Speed data is an effective measure of where buses and single occupancy vehicles alike might be experiencing delay based upon congestion of the roadway network. **Figure 12** shows average bus speeds, in miles per hour, during the AM peak period in 2021. Buses move the slowest, under 15 miles per hour, in the downtown areas of Albany, Troy, Schenectady, and Saratoga Springs. During the midday period, shown in **Figure 13**, the average speeds are similar to the AM peak period. In some cases, the average speed is lower in the midday period on roads outside of the urban cores, such as Central Avenue between Albany and Schenectady, Troy Schenectady Road between Troy and Schenectady, and Columbia Turnpike southeast of Albany.

Figure 12: 2021 AM Peak Speeds

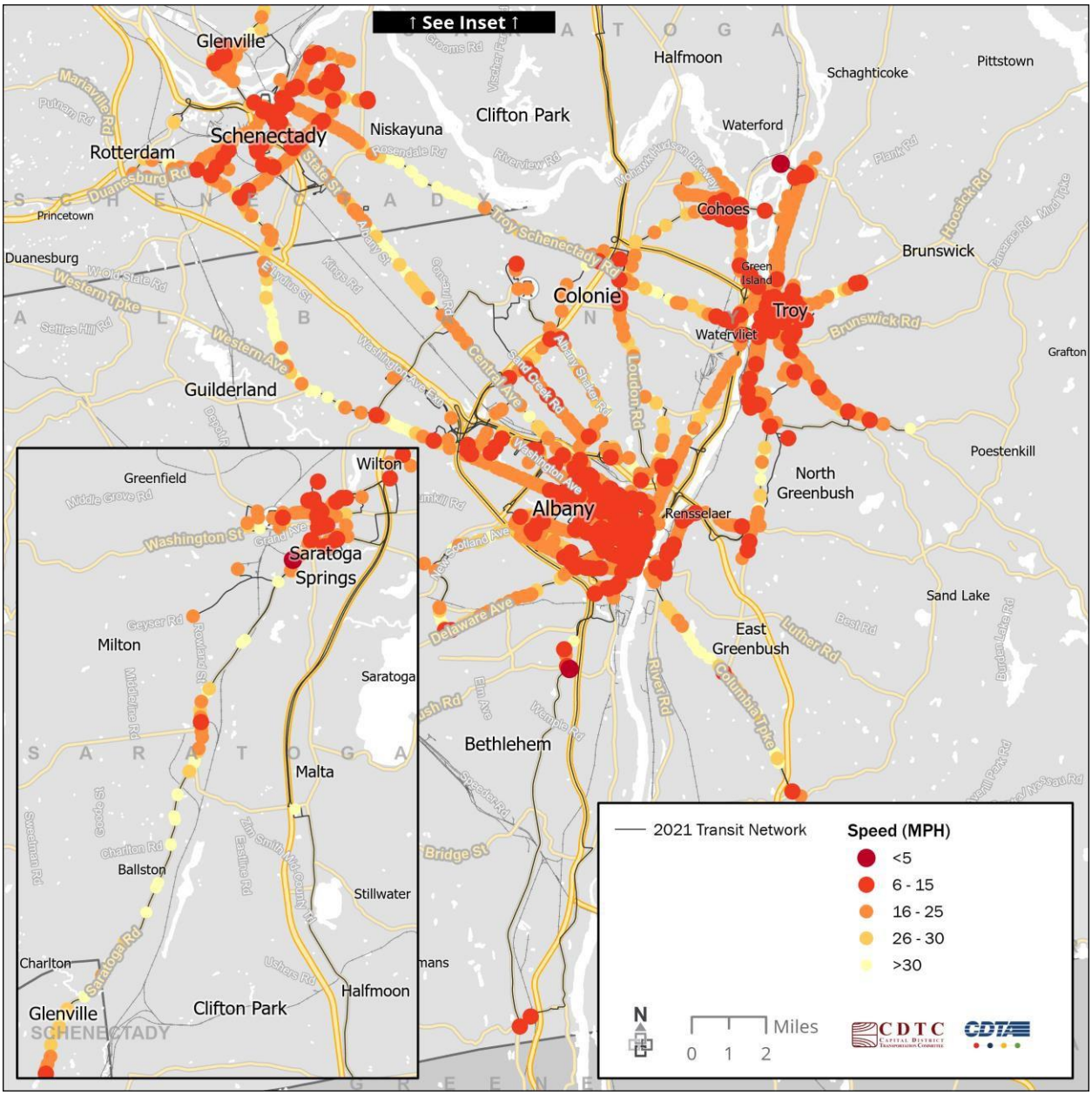
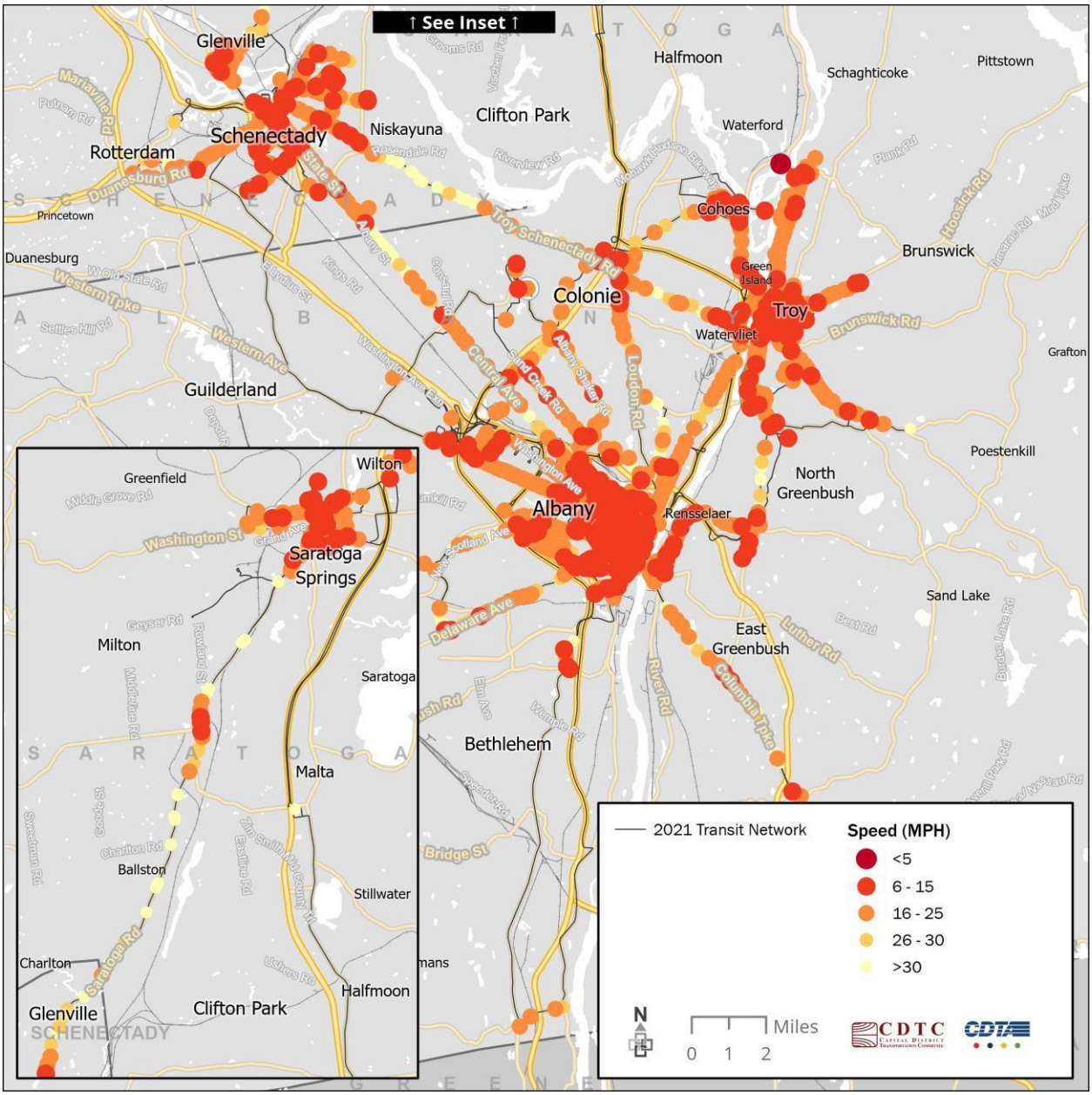


Figure 13: 2021 Midday Speeds



SCHEDULE DEVIATION

Schedule deviation is a measure of reliability of CDTA along each corridor. Schedule deviation, in minutes, during the AM peak period in 2021 is shown in **Figure 14**. The largest schedule deviations occur in the downtown areas of Troy, Albany, and Saratoga Springs. The areas with the lowest schedule deviations are the corridors connecting the cities, including Western Avenue and Carman Road between Albany and Schenectady; Central Avenue and State Street between Albany and Schenectady; Troy Schenectady Road between Troy and Schenectady; and Columbia Turnpike southeast of Albany. The 2021 midday schedule deviations, shown in **Figure 15**, are similar to those in the AM peak period, with higher deviations in Schenectady, Cohoes, and Ravena.

Figure 14: 2021 AM Peak Schedule Deviation

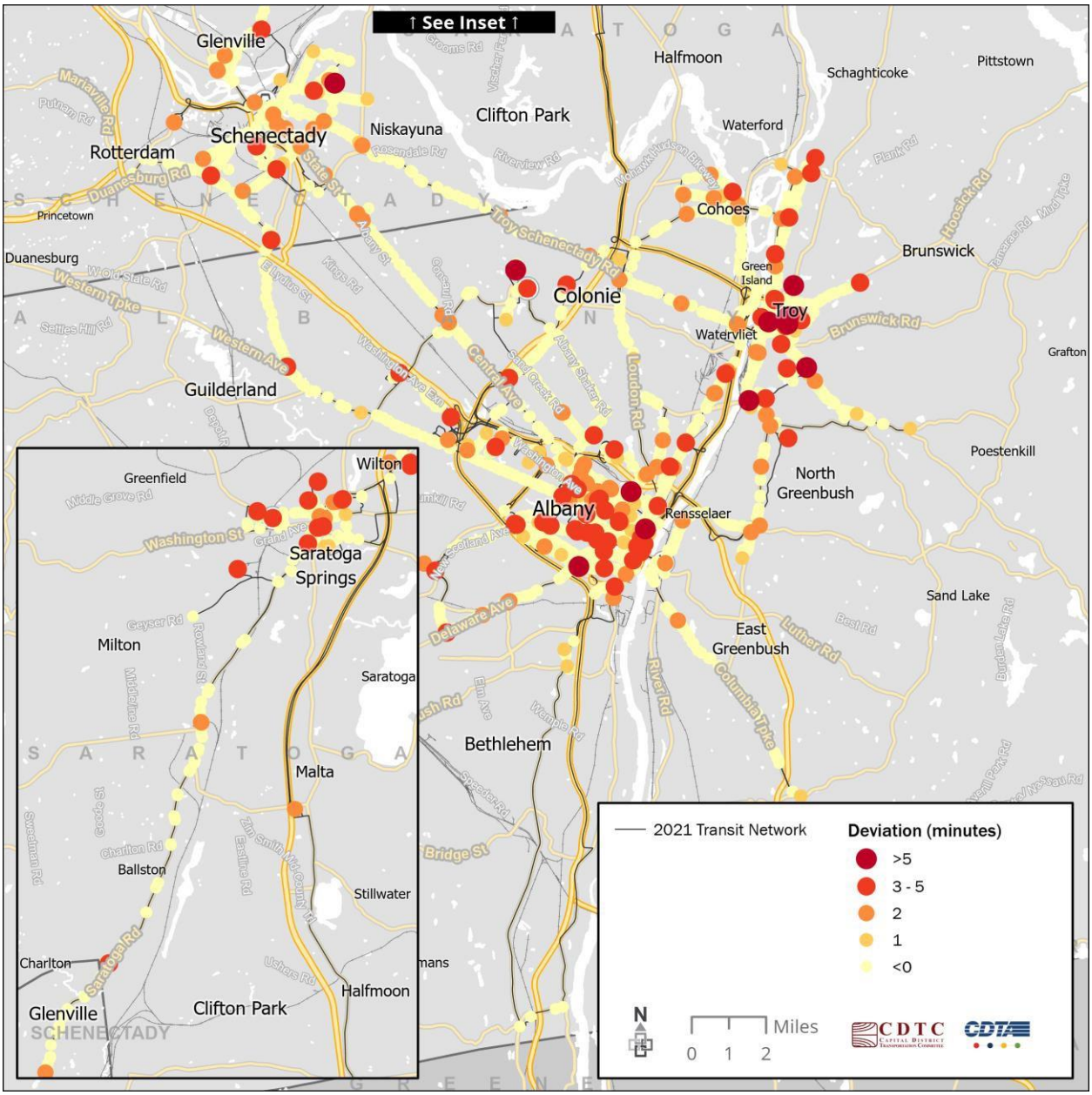
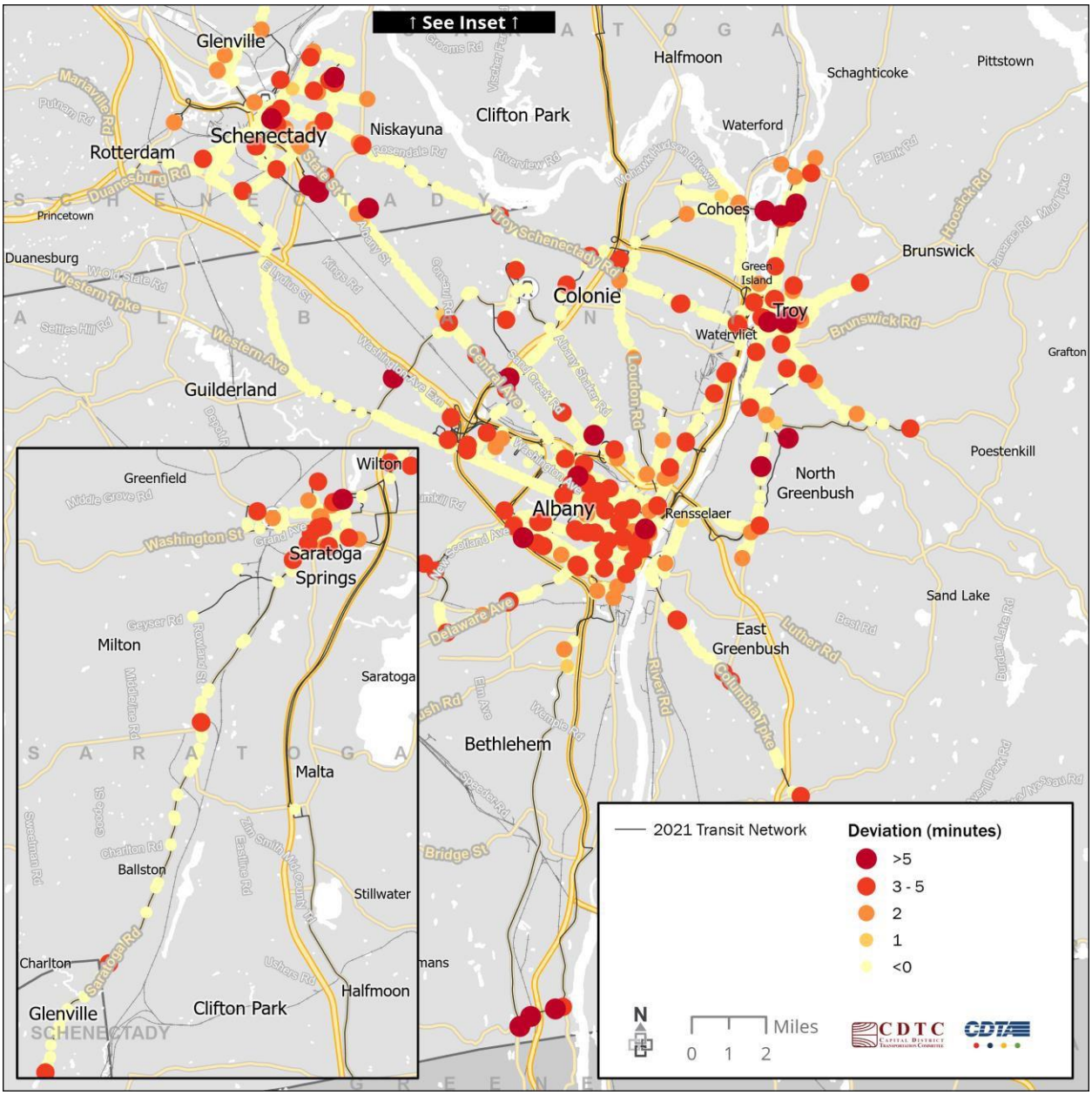


Figure 15: 2021 Midday Schedule Deviation



RIDERSHIP ACTIVITY

Boardings and alightings during the AM peak period in 2021 is shown in **Figure 16**. The highest ridership areas are in downtown Albany, primarily around the State Street and Pearl Street intersection, Central Avenue southeast of Manning Boulevard, and stops near I-87; Downtown Troy, and Downtown Schenectady. The midday ridership activity in 2021 is shown in **Figure 17**. While midday ridership appears much higher than AM peak ridership on the map, the AM peak period is measuring ridership over three hours, 6:00 a.m. to 9:00 a.m., while the midday period is six hours, 9:00 a.m. to 3:00 p.m. The highest ridership areas are similar to those in the AM peak period, with the addition of increased activity in Saratoga Springs and the Town of Wilton.

Figure 16: 2021 AM Peak Ridership Activity

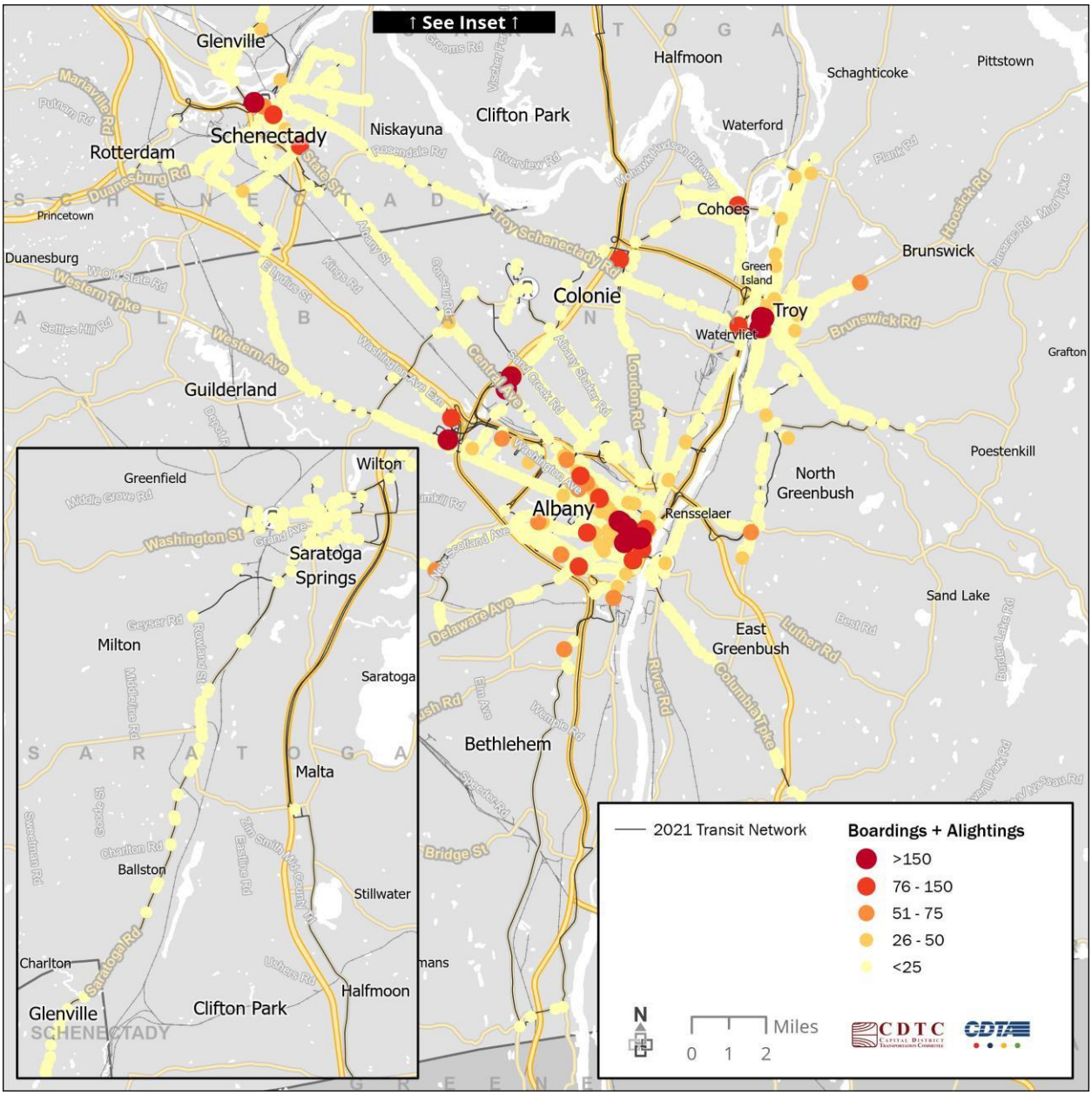
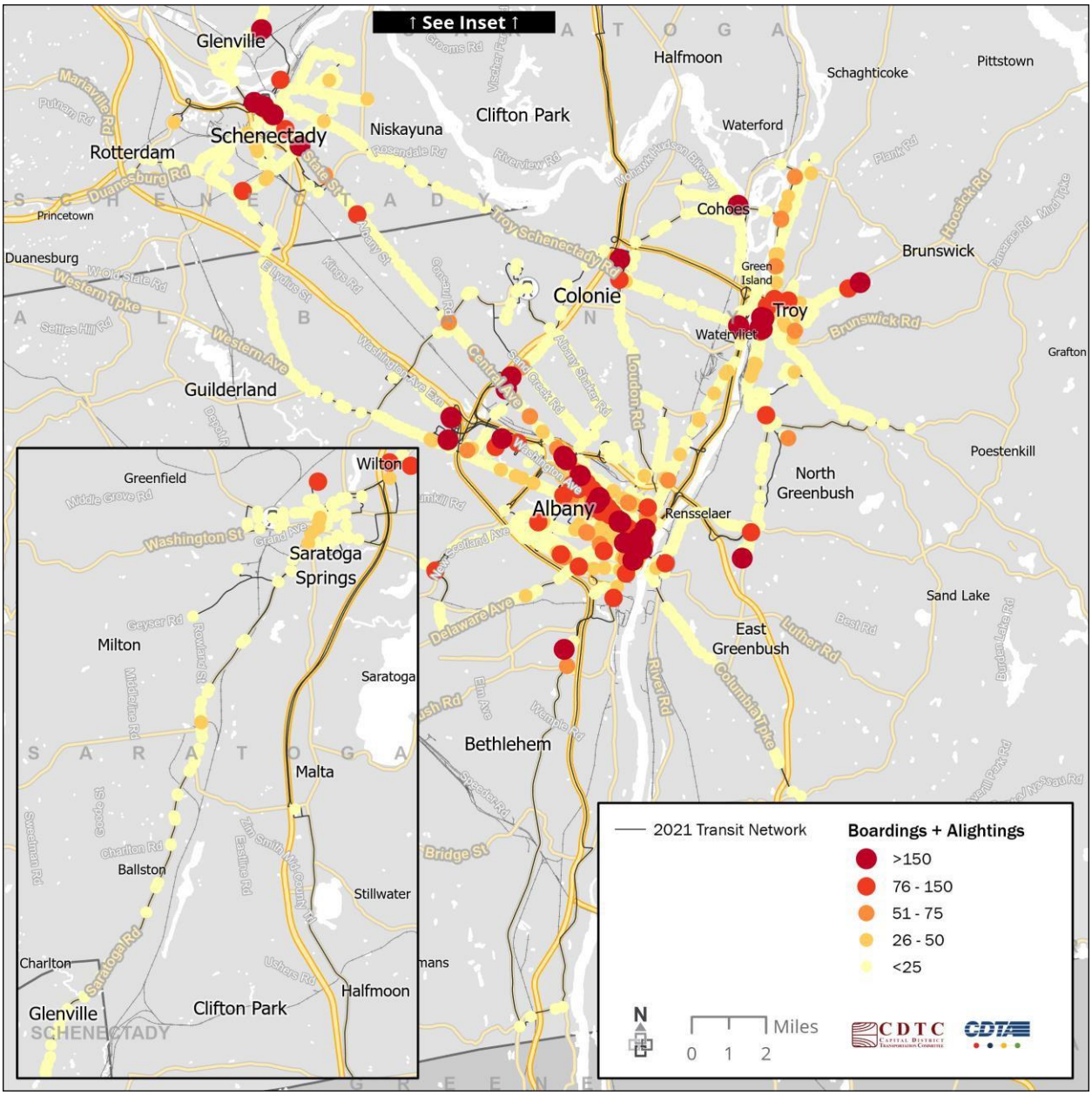


Figure 17: 2021 Midday Ridership Activity



THROUGHPUT

Throughput measures the number of riders using each segment of a bus route regardless of where they enter the system. As shown in **Figure 18**, the corridors with the highest hourly throughput in the AM peak period in 2021 include Central Avenue in Albany, Washington Avenue in Albany, and the full stretch of Broadway between Albany and Troy. Western Avenue in Albany and State Street in Schenectady have a moderate hourly throughput. **Figure 19** shows midday hourly throughput in 2021. The midday hourly throughput is similar to that of the AM peak period with a higher hourly throughput on Central Avenue and a lower hourly throughput on State Street and Broadway. In 2020, the hourly throughput was higher in both the AM peak and midday periods. In 2020, Western Avenue, Washington Avenue, Central Avenue, and Broadway in Albany and State Street in Schenectady had the highest hourly throughputs, followed by Quail Street in Albany; 3rd Street, 4th Street, River Street, 6th Avenue, and 19th Street in Troy; Garner

Street and Simmons Avenue in Cohoes; and the full stretch of Central Avenue from Albany to Schenectady.

Figure 18: 2021 AM Peak Throughput

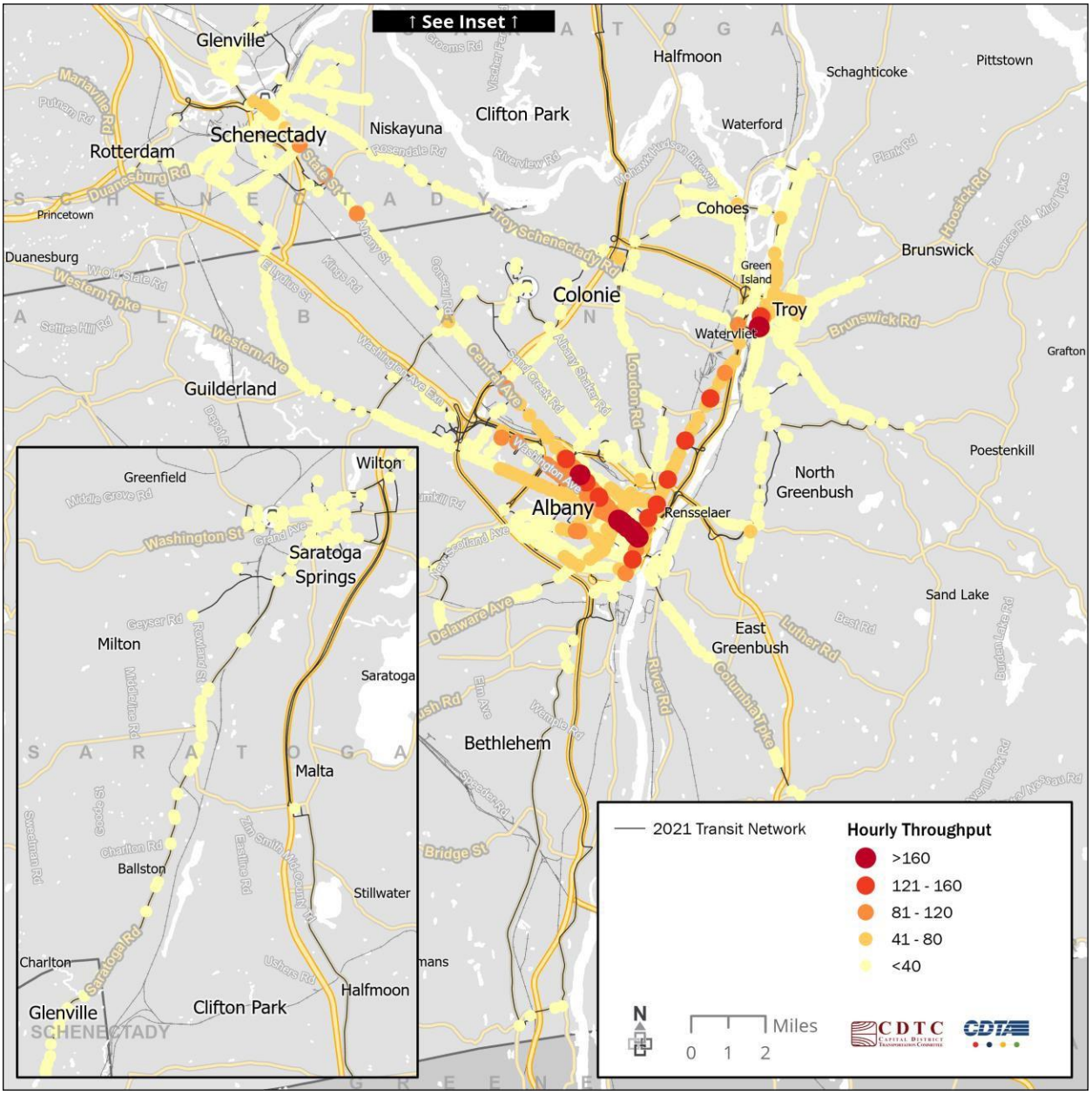
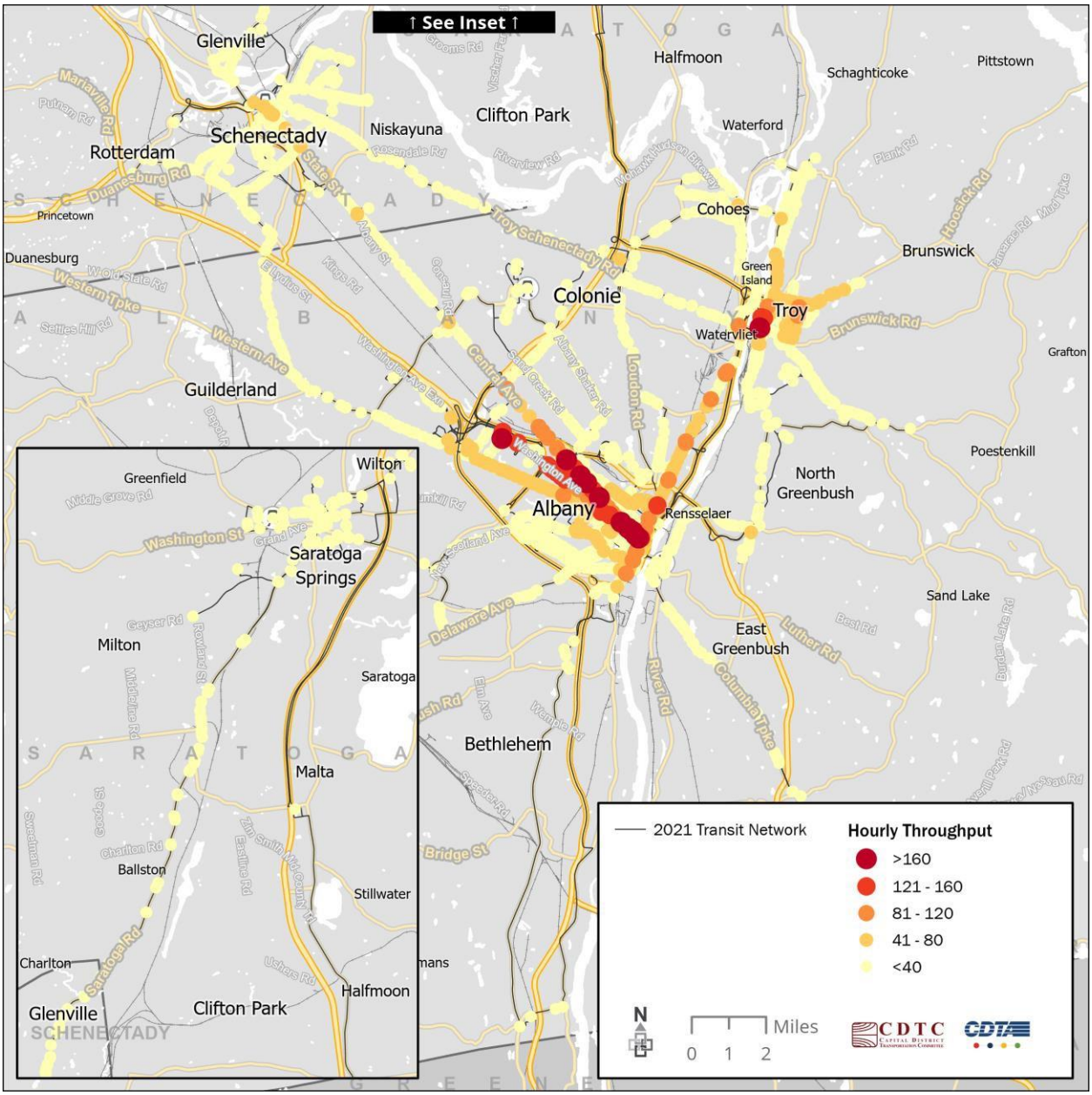


Figure 19: 2021 Midday Throughput



3. SCREENING PROCESS

Priority Corridors

Based on the analysis described in the previous section, the corridors with more than four buses per hour, relatively low speeds, and relatively high throughput were identified as potential candidates for bus lanes and priority treatments. The number of routes the corridor serves, land use and roadway cross section, and a comparison between pre-COVID and current data was also considered.

The potential priority corridors are shown in **Figure 20**, with detailed views in **Figure 21**, **Figure 22**, and **Figure 23**. These corridors are:

- A: State Street between Veeder Avenue and Division Street
- B: Central Avenue between New Karner Road and Woollard Avenue
- C: Central Avenue between Sand Creek Road and Colvin Avenue
- D: Washington Avenue between SUNY Albany and Sprague Place
- E: Western Avenue between Hillcrest Avenue and Sprague Place
- F: Central Avenue between Colvin Avenue and Lark Street
- G: Washington Avenue / State Street between Sprague Place and Broadway
- H: Pearl Street between Clinton Avenue and McCarty Avenue
- I: Broadway between Clinton Avenue and Riverview Center
- J: 3rd Avenue / Broadway between Harts Lane and 16th Street
- K: 3rd Street / 4th Street between Grand Street and Congress Street / Ferry Street
- L: Downtown Broadway between Clinton Avenue and Hudson Avenue.

Figure 20: Potential Priority Corridors

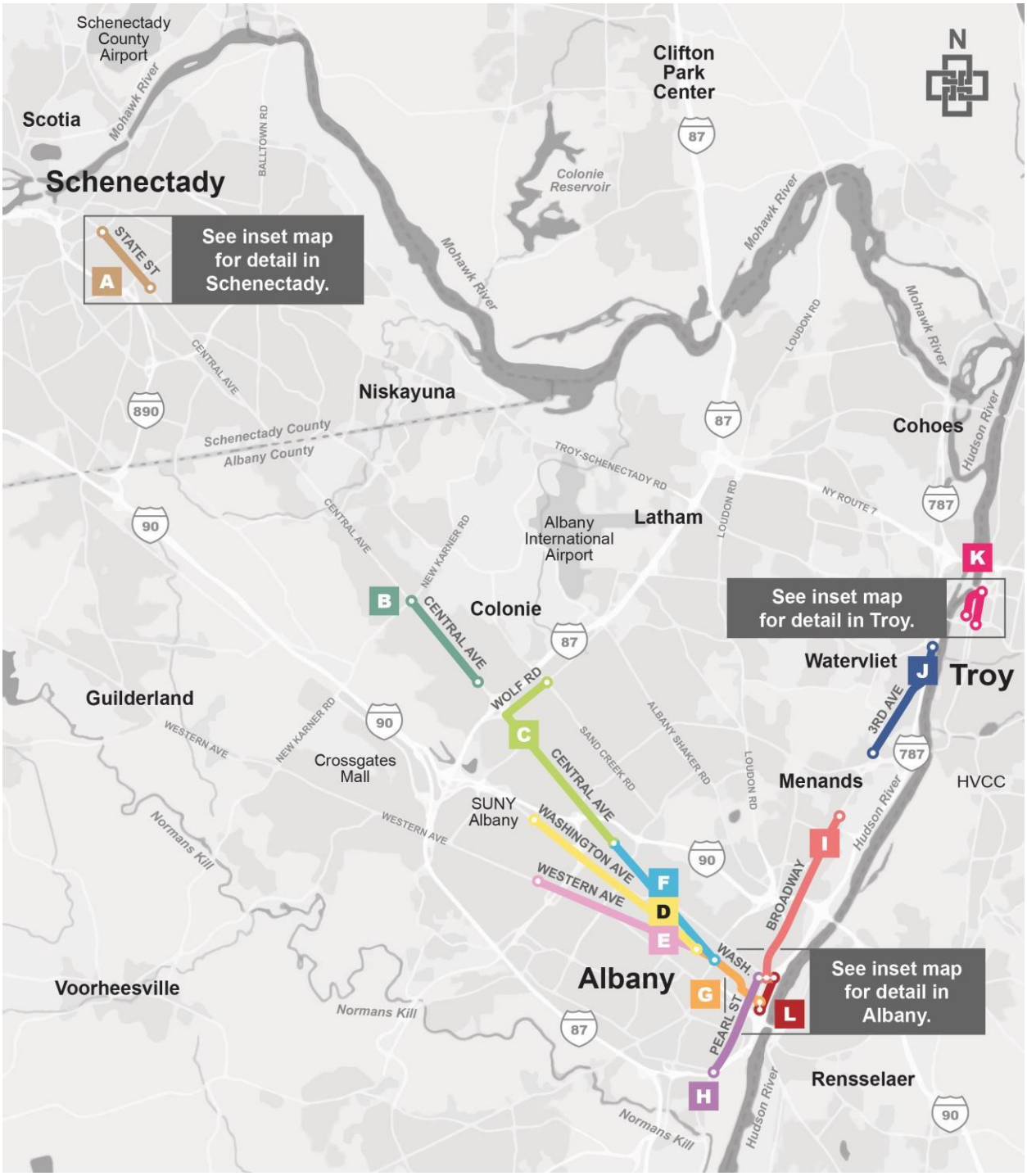


Figure 21: Detailed View of Albany Potential Priority Corridors

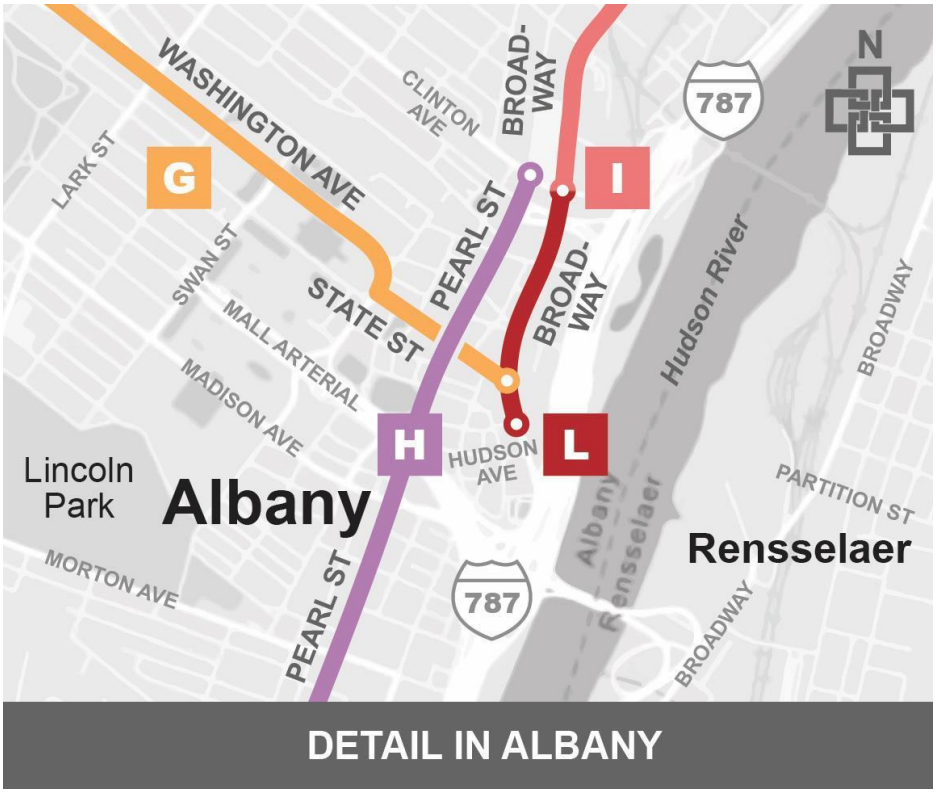
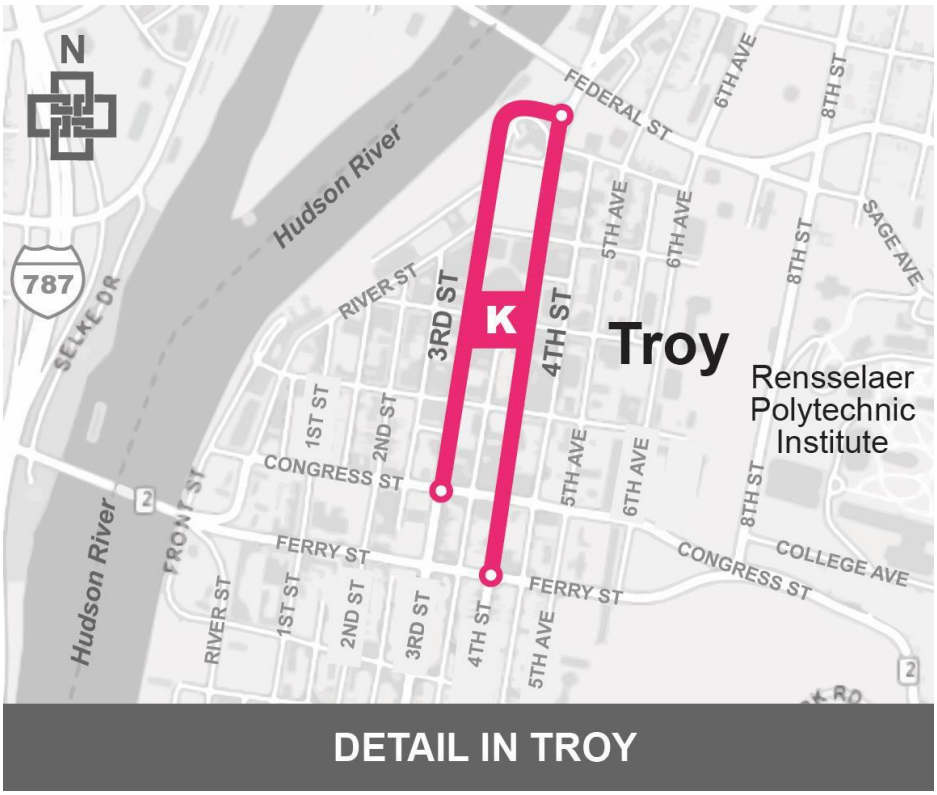


Figure 22: Detailed View of Schenectady Potential Priority Corridor

Figure 23: Detailed View of Troy Potential Priority Corridor



Prioritization Methodology

This section describes the proposed evaluation metrics for potential bus lanes and other priority improvements on the 12 identified corridors in the CDTA/CDTC service area. These metrics were used to identify the corridors to be retained and further analyzed in the evaluation and ranking process. The goal of the methodology is to produce a ranking of the corridors, and, after stakeholder engagement, screen the corridors down to those with the highest potential for bus priority implementation.

The following metrics (divided into the following scores) were used for the evaluation and ranking:

- Transit Score[1]
  - Passenger Delay
  - Bus Delay
- Equity Score
  - Densities within a ¼ mile of the corridor of:
    - Persons with Disabilities
    - Minority Populations
    - Low-income Households
    - Low-wage Jobs
    - Zero-car Households
    - Renter-occupied Households

[1] Bus speed, ridership (person throughput), and bus volume (trips) are inputs for passenger delay and bus delay. These metrics may be used to assist in decision making.

- Land Use Score
  - Current population and employment density within a ¼ mile of the corridor
  - Future population and employment density within a ¼ mile of the corridor (*2030 from MPO model at TAZ level*)
- Commuter Score
  - Number of Park & Ride locations within a ¼ mile of the corridor
  - Total External Commuter Trips to Corridor
  - Total Internal Commuter Trips on Corridor
- Existing Investment Score
  - Serves current or future BRT route
  - Overlap Length of BRT on corridor
  - Number of priority treatments per corridor mile
- Qualitative Assessments
  - "Feasibility filter" after ranking the corridors based on need
    - Traffic volumes (average AADT)
    - Roadway width
    - Number of lanes
    - Parking
    - Intersection design
  - Geographic diversity that incorporates other issues/typologies/regional pilots
  - Public/stakeholder/public input

The transit score will identify where bus priority treatments can provide the most benefit to operations, users, and to the public transit network. The equity score ensures that vulnerable populations are equitably recognized and served in final prioritization of corridors. The land use score provides insight on where improving bus service can provide the greatest additional benefit to residents and workers. The commuter score helps ensure that new bus priority treatments enhance movement throughout the region. The existing investment score will identify corridors with existing priority treatment, such as transit signal priority and queue jumps, or existing bus rapid transit services and will help leverage existing investments in transit.

METRICS

Transit Score

To understand where the passengers on all buses experience the most congestion and delay, information from speed and person throughput was utilized to calculate the total passenger delay by corridor mile. To understand where buses are most delayed by traffic, speed and bus volumes were used to calculate the total bus delay per corridor mile. This was provided for peak (sum of AM and PM Peak periods) and off-peak (sum of all other periods) and summed to together to create an all-day estimate for each corridor. The passenger/bus delay inputs are further detailed below:

- **Bus Speeds** were evaluated as an input to passenger and bus delay and to identify where some of the greatest operational challenges exist within the system. Average bus speeds were visualized on all corridors by stop. The average speed for each corridor is based on speeds calculated on timepoint segments assigned to stops on the same segment. CDTA Automated Passenger Counter (APC)[2] /

[2] A device which records boarding and alighting data on transit vehicles.

Automatic Vehicle Location (AVL)[3] data was used to assign speeds.

- **Person Throughput** was used as an input to passenger delay, to understand where the greatest potential benefit to riders exists. Person throughput miles combined vehicle load information (number of riders on the bus) with the distance between stops to provide information on how many transit riders are using a given corridor at a given time. This metric is a good indication of how each corridor is being used in its entirety by calculating the total miles a passenger will be using the corridor. It was normalized based upon the length of the corridor. CDTA APC/AVL data was used for this effort.
- **Bus Volumes** were used as an input to bus delay, to understand where the greatest benefit operationally and financially to the transit network in the system would be. The max hourly bus volumes were calculated for each corridor. This was done by aggregating the total number of trips per period, and then dividing by the total number of service hours during that period. CDTA APC/AVL data and CDTA General Transit Feed Specification (GTFS)[4] data was used for this effort.

Passenger delay is reported as daily (weekday) minutes of delay per corridor mile. Bus delay is reported as daily (weekday) minutes of delay per corridor mile. To calculate passenger delay per mile the CDTA APC/AVL data was used in the following manner (**Equation 1**):

- Find the average runtime on each route, direction, and stop segment for the overnight period. Subtract the overnight average runtime from the observed segment runtimes and then average this difference by period. This provides the average delay along a given segment for every period.
- Multiply this "average delay" by the person throughput observed on each route, direction, and stop segment by period.
- Sum person delay for each corridor and divide by the roundtrip corridor length.

Bus delay per mile is calculated in the same manner except the number of trips on each route, direction, and stop segment by period is used in place of person throughput (**Equation 2**).

Equation 1: Passenger Delay Per Mile

$$Passenger\ Delay\ Per\ Corridor\ Mile = Sum_{Corridor}((SegmentRuntime_{Period} - SegmentRuntime_{Fastest\ Period}) \times SegmentPersonThroughput_{Period}) \div Roundtrip\ Length_{Corridor}$$

Equation 2: Bus Delay Per Mile

$$Bus\ Delay\ Per\ Mile = Sum_{Corridor}((SegmentRuntime_{Period} - SegmentRuntime_{Fastest\ Period}) \times SegmentTrips_{Period}) \div Roundtrip\ Length_{Corridor}$$

Equity Score

In order to ensure that improvements are prioritized to serve transit dependent and under-resourced populations, the density of the following groups were included: minority[5] and persons with disabilities populations[6], low-income households[7] and low-wage jobs[8], all of which are a subset of activity (the

[3] A device used to track vehicle locations along a transit route
[4] Data specification that allows public transit agencies to publish their transit data in a format that can be consumed by a wide variety of software applications.
[5] All groups identified by the Census, except white non-Hispanic or Latino
[6] Identified by the Census as living with a disability
[7] Households making less than 150 percent of poverty level, identified by the Census
[8] 2019 LEHD, jobs paying under $3333 / month ($39,996 / year; $19.23 / hour).

general population and job opportunities). The density of these groups was calculated within a ¼-mile buffer of each corridor.

Land Use Score

To understand the population and employment activity that a potential bus priority corridor will serve, baseline and forecasted population and employment data was utilized. Future population, job estimates and growth rates for both were used to ensure that corridor prioritization includes anticipated growth in the region.

Commuter Score

To ensure that improvements meet commuting patterns and demand, the commuter score looks at the proximity of Park & Ride locations, along with existing commuter travel trends. The presence of existing commuter trips was assessed by evaluating the percentage of external commuter trips that end along the corridor, and therefore would benefit the most from the Park & Ride connection, as well as commuter trips that start and end along the corridor providing a direct connection between home and work locations.

Existing Investment Score

To ensure that priority is given to corridors that have already been invested in, this metric measures the number of priority treatments per corridor mile and whether a corridor is being served by a bus rapid transit route.

METRIC SCORING

For each metric, every corridor was assigned a percentile score based on their value compared to the maximum value (**Equation 3**).

Equation 3: Percentile Score

$$Corridor\ Score = (Value_{Corridor} \div MaxValue_{AllCorridors}) * 100$$

4. SCREENING RESULTS

Five different scenarios were analyzed using different weighting of the metrics described above. Also considered were parking, intersections and turns, and other factors that could affect implementation of bus lanes. For example, irregular intersections, narrow roadways, and high parking demand can make it more difficult to construct and implement bus lanes. As these factors were adjusted and compared across the five different scenarios described in the Scenarios section, the priority corridors were narrowed down from twelve to five.

Scenarios

TRANSIT PERFORMANCE PRIORITIZATION

This scenario prioritizes transit performance and doesn't take commuter or existing investment scores into account. **Table 1** shows the weighting for this scenario and **Table 2** shows the results.

Table 1: Transit Performance Prioritization Weights

Metric	Weighting
Transit Score	60%
Land Use Score	20%
Equity Score	20%
Commuter Score	0%
Existing Investment Score	0%

Table 2: Transit Performance Prioritization Results

Rank	Corridor	Segment ID	Score
1	Washington Avenue / State Street	G	88
2	Central Avenue (between Colvin Avenue and Lark Street)	F	61
3	3rd Street / 4th Street	K	58
4	Downtown Broadway	L	53
5	Pearl Street	H	49

EQUITY PRIORITIZATION

This scenario prioritizes equity score and doesn't take commuter or existing investment scores into account. **Table 3** shows the weighting for this scenario and **Table 4** shows the results.

Table 3: Equity Prioritization Weights

Metric	Weighting
Transit Score	10%
Land Use Score	10%
Equity Score	80%
Commuter Score	0%
Existing Investment Score	0%

Table 4: Equity Prioritization Results

Rank	Corridor	Segment ID	Score
1	Central Avenue (between Colvin Avenue and Lark Street)	F	78
2	Washington Avenue / State Street	G	77
3	3rd Street / 4th Street	K	73
4	State Street	A	60
5	Western Avenue	E	53

CURRENT AND FUTURE LAND USE PRIORITIZATION

This scenario prioritizes land use score and doesn't take commuter or existing investment scores into account. **Table 5** shows the weighting for this scenario and

Table 6 shows the results.

Table 5: Current and Future Land Use Prioritization Weights

Metric	Weighting
Transit Score	20%
Land Use Score	60%
Equity Score	20%
Commuter Score	0%
Existing Investment Score	0%

Table 6: Current and Future Land Use Prioritization Results

Rank	Corridor	Segment ID	Score
1	Washington Avenue / State Street	G	75
2	3rd Street / 4th Street	K	61
3	Central Avenue (between Colvin Avenue and Lark Street)	F	61
4	Downtown Broadway	L	59
5	State Street	A	50

EQUAL PRIORITIZATOIN

This scenario equally prioritizes transit, land use, and equity scores and doesn't take commuter or existing scores into account. **Table 7** shows the weighting for this scenario and **Table 8** shows the results.

Table 7: Equal Prioritization Weights

Metric	Weighting
Transit Score	34%
Land Use Score	33%
Equity Score	33%
Commuter Score	0%
Existing Investment Score	0%

Table 8: Equal Prioritization Results

Rank	Corridor	Segment ID	Score
1	Washington Avenue / State Street	G	81
2	Central Avenue (between Colvin Avenue and Lark Street)	F	65
3	3rd Street / 4th Street	K	62
4	Downtown Broadway	L	54
5	State Street	A	49

ALL METRICS

This scenario considers all metrics, but gives priority to transit, land use, and equity scores. The top five corridors in this scenario were Washington Avenue / State Street in Albany; Central Avenue (between

Colvin Avenue and Lark Street) in Albany; 3rd Street / 4th Street in Troy; State Street in Schenectady; and Pearl Street in Albany. **Table 9** shows the weighting for this scenario and **Table 10** shows the results.

Table 9: All Metrics Weights

Metric	Weighting
Transit Score	25%
Land Use Score	25%
Equity Score	25%
Commuter Score	13%
Existing Investment Score	13%

Table 10: All Metrics Results

Rank	Corridor	Segment ID	Score
1	Washington Avenue / State Street	G	72
2	Central Avenue (between Colvin Avenue and Lark Street)	F	60
3	3rd Street / 4th Street	K	56
4	State Street	A	49
5	Pearl Street	H	49

Results

To determine the five corridors to move forward in the conceptual design process, multiple rounds of stakeholder engagement and field work were conducted. These touchpoints were used to educate participants on the data assessed in determining top priority corridors and to gain additional insight into the feasibility of each priority corridor for implementation based upon roadway conditions and future community projects.

Key discussion points heard within each group that fed into the final five corridors selected were as follows:

- **CDTC and CDTA Working Group** –
  - Central Avenue in Albany is currently proposed for inclusion in the 2022-2027 Transportation Improvement Program (scheduled for approval in September 2022) with a road-diet project that scored highly. Pedestrian safety is the highest priority along this corridor.
  - Pearl Street in Albany, while it scored highly, is very narrow and has many events throughout the year that result in road closures.
  - Western Avenue in Albany is narrow, with lots of traffic and street parking. This corridor is already slated for queue jump and TSP priority treatments, between Allen and Quail, for the proposed new BRT line.

- 3rd / 4th Street in Troy has some feasibility issues related to on-street parking, peak period bus lanes could be an option.
- Other types of treatments where bus lane may not be feasible should be considered. Within Albany, a majority of congestion is caused by traffic signals which may provide an opportunity where bus lanes don't fit.

- **Stakeholder Advisory Committee (SAC)** –
  - Interested in seeing how the concept on 3rd / 4th Street in Troy would be designed. CDTC has a study going on just north of this area (Federal Street Corridor Study).
  - State Street in Schenectady has a potential TIP project, Nott Terrace to Hulett Street, the timing of this project could work well with that.
  - Albany is prioritizing enhanced pedestrian safety, so road diet on Central Avenue is in the immediate future.
  - Washington Avenue in Albany is having general transit service reduced because of the soon-to-be implemented BRT increasing service on Western Avenue.
- **Field Visit –**
  - Along State Street and Washington Avenue in Albany parking seemed to be a major concern.
  - Central Avenue in Albany:
    - Routes 905 & 1 are frequent, but perhaps not enough issues in this corridor to get the space.
    - There is potential to look at queue jumps at intersections.
  - Downtown Broadway in Albany:
    - South of State Street there is approximately 60' of right-of-way, with two travel lanes in each direction plus parking in southbound direction.
    - Currently half of the buses go left at State Street and the rest go right, if Albany intermodal is built all buses will go right on State Street.
    - North of State Street might not make sense long-term if routes change, but there is adequate width between State Street and Maiden Lane to accommodate bus only lanes.
  - State Street in Schenectady:
    - East of Brandywine Avenue could be difficult for bus lane implementation.
    - There is less frequent service in this corridor and lots of pedestrian safety issues.
  - 3rd / 4th Street in Troy –
    - Would need to consider this as part of larger curbside/parking management study.
    - Where there is less right-of-way, it will be easier to move forward with peak period only bus lanes.

Based upon the results of the corridor evaluation, the stakeholder engagement, and the field work, the five following corridors were moved forward for preliminary concept design (**Figure 24**):

- Washington Avenue / State Street - Albany
- Central Avenue (between Colvin Avenue and Lark Street) - Albany
- Downtown Broadway - Albany
- State Street - Schenectady
- 3rd Street / 4th Street - Troy

Figure 24: Top Five Bus Priority Corridors