



STRATEGIC MOBILITY PLAN COST & RIDERSHIP PROJECTIONS

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EXECUTIVE SUMMARY

The Strategic Mobility Plan (SMP) recommends a significant increase in transit service throughout Greater New Orleans. This document discusses the cost and ridership impacts of implementing the recommended improvements in the SMP, including the methodologies for developing these projections.

Investment Scenarios

Cost and Ridership impacts of the SMP are provided for three different investment scenarios because the Plan does not recommend specific modes, or vehicle types, for High-Capacity Transit corridors or Downtown Mobility Improvements. Instead, the following scenarios are provided for context:

- **Bus Rapid Transit:** All High-Capacity Transit corridors and Downtown Mobility Improvements are implemented with Bus Rapid Transit, with the exception of existing streetcars.
- **Streetcar:** All High-Capacity Transit corridors and Downtown Mobility Improvements are implemented with Streetcars.
- **Light Rail:** All High-Capacity Transit corridors and Downtown Mobility Improvements are implemented with Light Rail Transit, with the exception of existing streetcars.

Cost Projections

RTA’s current operations budget for streetcar, bus, ferry, and paratransit service is approximately \$100 million. By implementing the service improvements recommended in the SMP, the annual operations cost is projected to grow somewhere between \$239 million and \$289 million, depending on the investment scenario.

The capital cost to implement these improvements range from \$846 million to \$8.3 billion, again depending on the investment scenario.

Ridership Projections

RTA currently serves approximately 64,000 trips each weekday on all modes. By implementing the service improvements recommended in the SMP, ridership is projected to increase to approximately 96,000 trips each weekday, regardless of investment scenario.

Ultimately though, actual ridership growth is likely to be higher as these projections do not account for improvements in rider amenities, improved rider communication (e.g. real-time tracking), new development, or local policy changes.

Table 1: Cost and Ridership Projections

Projections	Existing	Investment Scenario		
		Bus Rapid Transit	Streetcar	Light Rail
Operating Cost	\$100M	\$239M	\$289M	\$258M
Capital Cost	n/a	\$846M	\$3,192M	\$8,304M
Ridership	64,000	96,000	96,000	96,000

1.0 COST PROJECTIONS

This section describes the methodologies used to develop operating and capital cost estimates for all services and improvements suggested for RTA in the Strategic Mobility Plan (SMP). All cost estimates are in 2017 dollars and are high-level estimates. More detailed analysis will be needed as planning and implementation proceeds.

1.1 OPERATING COSTS

The additional operating costs for implementing the recommended services in the Strategic Mobility Plan are discussed in this section, including the cost projections and methodologies behind them. Due to different methodologies, costs for fixed route services are discussed separately from on-demand and paratransit services.

Fixed Route Service

Fixed route service include High-Capacity Transit routes, Select Service routes, Regional Express Service routes, all other bus routes already in service, Downtown Mobility Improvements, Microtransit shuttles, and Water Transportation.

To calculate the additional operating costs for the recommended improvements to existing fixed-route services in the region, the following three steps were followed:

1. Input the one-way route mileage, average vehicle speed, span of service by time period, and frequency by time period.
2. Calculate the cycle time required, number of trips, vehicles needed, and hours and miles of operation in revenue service.
3. Apply the appropriate cost per mile for the type of service, and calculate annual operating cost for the improvements.
4. Add costs for existing service and make adjustments as necessary.

Step 1. Input Mileage, Speed, Span, Frequency

The one-way route mileage was based on the expected (or existing) path of the service. The following average vehicle speeds were then applied by type of service for all time periods (speed includes all stops for passenger boarding/alighting, but does not include layover time at the beginning/end of a trip):

- **High-Capacity Transit and Select Service** – 12 MPH for existing streetcars and the Magazine corridor and 15 MPH for all others. These are vast improvements over existing streetcars and buses and would be some of the fastest non-express services in the country. These speeds assume all-door boarding as well as some transit priority treatments (signal priority, queue jumps, etc.).
- **Downtown Mobility Improvements** – 10 MPH. These services would operate in highly congested areas. These speeds assume all-door boarding as well as some transit priority treatments (signal priority, queue jumps, etc.).
- **Microtransit Shuttles** – 12 MPH. Similar to most local urban bus service, including currently in New Orleans. Increased speed from somewhat fewer bus stops may be offset by traveling on smaller streets with slower speeds.

- **Regional Express Service** – 20 MPH. Since these services travel on highways with limited stops, the average speed is significantly higher than local bus service. This speed is similar to express services in Seattle and Charlotte.
- **Water Transportation** – 4 MPH. On average, this is faster than the current ferries, which are limited by traffic on the Mississippi River. Docking takes a significant percentage of overall trip time, reducing the average speed.

The span of service (number of hours per weekday, Saturday, and Sunday that service will be operated) was then input for each route as delineated in the Strategic Mobility Plan. All services were assumed to have 6 weekday hours of peak service (approximately 6-9AM and 3:30-6:30PM). Other weekday off-peak and weekend hours varied for each route, depending on the specifications in the Strategic Mobility Plan. Frequencies for each time period were then input for each route, again based on the Strategic Mobility Plan. See the Mobility Options and Corridors report for more details on service characteristics.

Step 2. Calculate Cycle Time, Trips, Vehicles, Hours, Miles

The inputs above for mileage and speed allow for the round trip running time to be calculated. A minimum layover equal to 10 percent of the round trip running time was then added to allow recovery time for a vehicle running late to get back on schedule before the next trip. The layover also provides the vehicle operator with time for a short break between trips. The round trip running time and the minimum layover combined equal the minimum cycle time. This minimum cycle time was then rounded up to the nearest multiple of the route frequency for that time period – for example, if the minimum cycle time was 50 minutes and the Saturday frequency was 15 minutes, then the actual Saturday cycle time is 60 minutes. This rounding ensures that a whole number of vehicles can serve the route as planned.

The span and frequency inputs allow calculation of the number of trips for each time period. Based on the number of trips, as well as prior inputs for mileage and speed, the total number of revenue hours and revenue miles can be calculated. Finally, the actual cycle time calculated for each route is divided by the frequency for each time period, in order to determine the number of vehicles needed to serve the route during each time period.

Step 3. Cost per Mile and Annual Cost

The fully allocated cost per mile for existing RTA bus, streetcar, and ferry services was obtained from the National Transit Database (NTD) for 2016. This cost includes expenses for vehicle operations, vehicle maintenance, non-vehicle maintenance (e.g. facilities), and general administration. Since new services would not require the entire fully allocated agency cost (some existing fixed costs in staff and facilities would overlap), an amount of 80 percent of total costs was used for marginal costs of new services. This 80 percent factor is based on industry standards. This resulted in the following marginal costs per mile:

- Local Bus = \$9.39
- Streetcars = \$21.14
- Ferry = \$338.16

For new types of services recommended in the Strategic Mobility Plan, the following adjustments were made:

- Buses for High-Capacity Transit and Select Service – add 10 percent to Local Bus; this is because there may be segregated fleets for branding or operational purposes, which decrease overall efficiency, and because there may be some operating costs for maintenance of amenities.
- Regional Express Bus – add 40 percent to Local Bus; this is due to the fact that these services usually have long return trips in the reverse-peak direction with little or no ridership.

- Microtransit Shuttle – subtract 20 percent from Local Bus; since vans are likely to be utilized, there should be some savings on operating expenses.
- New Water Transportation vehicles – subtract 10 percent from Ferry; this is because the newer vehicles will be less expensive to maintain and operate
- Light Rail - \$14.79; similar to the cost relative to operating streetcars in Charlotte and Dallas – two cities with both streetcars and light rail.

Once all the costs per mile were designated, the annual costs for each route were calculated by multiplying the total annual revenue miles by the corresponding rate.

Step 4. Add Costs for Existing Service

In order to compare the cost of implementing the Strategic Plan to existing conditions, the additional costs had to be added to the baseline costs. The only adjustments that had to be made were to remove service made redundant by improvements.

For existing routes along High-Capacity Transit, Select Service corridors, and Water Transportation routes, the following approaches were taken:

- For local routes entirely replaced with improved service, existing service was removed. This included the Magazine bus route, Riverfront Streetcar, and Algiers Point ferry.
- For all others, one-third of existing service was removed and two-thirds was maintained. The assumption is that High-Capacity Transit and Select Service improvements would act as a quicker service with more limited stops, while the local service would be maintained at lower level of service. This is consistent with the application of Bus Rapid Transit in Los Angeles.

On-Demand Service and Paratransit

The operating cost for the proposed on-demand connectors was calculated separately. Since these services are rapidly evolving, it is more difficult to base cost estimates on existing programs. However, modern on-demand services allow for many levers to balance productivity and customer service. Therefore, the available resources can be determined, and the fares, response time, and parameters of service offered can be adjusted as appropriate.

Based on pilot services being operated around the country, a subsidy of \$5.00 per passenger trip would match comparable services. For example, the Direct Connect program in Pinellas County, Florida, which has been operating for more than a year, has a subsidy of \$5 per passenger trip. The service is envisioned to provide relatively short trips in the New Orleans area. For these estimates, a total budget for subsidies of \$1M per year was assumed.

The cost to operate Paratransit is projected to grow by 25 percent to meet growing demand for additional service.

Summary of Operating Costs

Tables 2 and 3 show the breakdown of operating costs by service type for all of the recommended service improvements in the Strategic Mobility Plan, plus existing service. Costs are in 2017 dollars.

For High-Capacity Transit, Select Service, and Downtown Mobility Improvements, three scenarios are provided depending on the ultimate mode, or vehicle type, chosen to operate on these corridors. For each scenario, it is assumed that streetcar service will remain on existing streetcar lines.



Table 2: Summary of Operating Costs by Scenario

Improvement Type	Cost by Investment Scenario		
	Bus Rapid Transit	Streetcar	Light Rail
High-Capacity Transit (HCT) Corridors			
Veterans/Airport	\$11,338,000	\$23,292,000	\$16,220,000
Elmwood/Claiborne	\$8,053,000	\$16,471,000	\$11,589,000
West Bank Exwy.	\$7,072,000	\$14,509,000	\$10,243,000
Rampart/St. Claude	\$8,053,000	\$9,148,000	\$6,342,000
Canal	\$11,954,000	\$11,954,000	\$11,954,000
St. Charles	\$14,600,000	\$14,600,000	\$14,600,000
Broad/Gentilly/Chef	\$12,068,000	\$24,638,000	\$17,315,000
Tulane	\$3,536,000	\$7,323,000	\$4,996,000
Downtown Mobility Improvements			
Central Business District	\$3,171,000	\$6,342,000	\$4,517,000
French Quarter	\$2,441,000	\$4,882,000	\$3,536,000
All Other Services	\$156,242,610	\$156,242,610	\$156,242,610
TOTAL	\$238,528,610	\$289,401,610	\$257,554,610

Table 3: Summary of Operating Costs Included in All Scenarios

Improvement Type	Cost
Select Service Corridors	
General De Gaulle	\$4,266,000
Elysian Fields	\$3,536,000
Magazine	\$3,171,000
Riverfront	\$1,825,000
Microtransit Shuttles	
New Orleans East	\$4,745,000
Algiers	\$3,285,000
Regional Express Service	
Slidell	\$2,510,000
Covington	\$3,012,000
Chalmette	\$753,000
Water Transportation	
Lower Algiers/Chalmette	\$4,464,139
Algiers Point/Canal Street	\$5,384,000
Gretna	\$25,688,000
Poland Ave	\$23,726,000
On-Demand Service	
New Orleans East	\$250,000
Algiers	\$250,000
All Other Areas	\$500,000
Other Existing Services	\$68,877,471
TOTAL	\$156,242,610

2.2 CAPITAL COSTS

The capital costs for implementing the recommended services in the Strategic Mobility Plan have been divided into infrastructure, vehicle, and facility costs. These costs are described below.

Infrastructure and Vehicle Costs

For the proposed High-Capacity Transit, Select Service, and Downtown Mobility Improvements, it is assumed that there will be significant infrastructure improvements and new vehicle acquisitions. While the Strategic Mobility Plan does not specify a mode, or vehicle type, for these services, the options include Light Rail Transit, Bus Rapid Transit, and Streetcars. These all include some dedicated right-of-way for vehicles where feasible, transit signal priority, platforms for level boarding, fare machines to reduce or eliminate on-board payment, information systems, and other amenities.

Light Rail Transit

The cost per mile for light rail investments was projected by evaluating the implementation costs for 11 recently completed projects (2015-2018), including:

- Blue Line Extension, Charlotte, NC
- R Line, Denver, CO
- South Oak Cliff Blue Line Extension, Dallas, TX
- Expo Line Phase 2, Los Angeles, CA
- Gold Line Extension to Azusa, Los Angeles, CA
- Northwest Extension Phase 1, Phoenix, AZ
- South 200th Link Extension, Seattle, WA
- Green Line (East End) and Purple Line (Southeast), Houston, TX
- Orange Line (Portland-Milwaukie), Portland, OR
- Blue Line Extension, Sacramento, CA
- Central Mesa Extension, Phoenix, AZ

These costs were averaged and rounded to \$125M per mile for infrastructure and vehicles.

Bus Rapid Transit (BRT)

The cost per mile for BRT investments was projected by evaluating the implementation costs for 15 recently completed projects (2015-2018), including:

- FAX Q, Fresno, CA
- GRTC Pulse, Richmond, VA
- Alameda Brio, El Paso, TX
- Dyer Brio, El Paso, TX
- South Bay Rapid BRT, San Diego, CA
- CMAX, Columbus, OH
- Central Avenue BRT, Albuquerque, NM
- EmX West, Eugene, OR
- Woodhaven/Cross Bay Boulevard Select Bus Service, New York, NY
- Alum Rock/Santa Clara BRT, San Jose, CA

- First Coast Flyer Blue Line (Southeast), Jacksonville, FL
- Flamingo Road, Las Vegas, NV
- A Line, Minneapolis, MN
- Crystal City-Potomac Yard Transitway, Arlington, VA
- First Coast Flyer Green Line (North) and Downtown, Jacksonville, FL

These costs were averaged and rounded to \$8M per mile for infrastructure and vehicles.

Streetcar

The cost per mile for streetcar investments was projected by evaluating the implementation costs for 13 recently completed projects (2015-2018), including:

- Milwaukee Streetcar Phase 1, Milwaukee, WI
- El Paso Streetcar, El Paso, TX
- OKC Streetcar, Oklahoma City, OK
- St. Louis Loop Trolley, St. Louis, MO
- Q Line, Detroit, MI
- Rampart/St. Claude Streetcar, New Orleans, LA
- Bell Connector, Cincinnati, OH
- Oak Cliff Streetcar Extension, Dallas, TX
- KC Streetcar, Kansas City, MO
- First Hill Streetcar, Seattle, WA
- H Street/Benning Road Line, Washington, D.C.
- CityLYNX Gold Line, Charlotte, NC
- Dallas Oak Cliff Streetcar Phase 1, Dallas, TX

These costs were averaged and rounded to \$45M per mile for infrastructure and vehicles. This cost is slightly higher than the cost of the recently completed Rampart-St. Claude Streetcar extension, but this is appropriate since this extension did not require the purchase or construction of additional vehicles.

For improvements to existing streetcar lines, a cost of \$1.5M per mile was assumed – this allows for upgrades to fare payment, amenities, lighting, and traffic signals, while recognizing that the basic infrastructure for the corridor and stations already exists.

Other Vehicle Costs

While vehicle costs are included in the costs for the High-Capacity, Select Service, and Downtown Mobility Improvements, they were projected as separate costs for Microtransit Shuttles, Water Transportation, and Regional Express Service, and On-Demand Connectors. These follow cost assumptions were made for these vehicles:

- **Microtransit Shuttles:** \$100,000 per vehicle, based on recent costs for sprinter vehicles and inflation-adjusted costs for Lil Easy vehicles.
- **Water Transportation:** \$5M per vehicle, based on recent costs for new ferries in New Orleans.
- **Regional Express Service:** \$600,000 per vehicle, based on recent costs for commuter coaches.
- **On-Demand Connectors:** These were not assigned a vehicle cost, since it is assumed that this cost would be absorbed into operating costs.

Facility Costs

Facility cost assumptions were informed by the consultant team’s experience with similar projects. These costs include real estate/right-of-way acquisition, design, and construction. Four types of major facilities were included in the projections, as follows:

- **Downtown Transit Center at \$35M.** Costs are based on preliminary estimates developed by RTA Staff, assuming construction of a 2-story facility with 200,000 square foot, including some retail space.
- **Suburban Transit Centers at \$8M.** These transit centers are proposed for New Orleans East and Algiers and would serve multiple routes. This cost is similar cost to a recent cost estimate developed for an FTA grant application for a transit center in New Orleans East.
- **Ferry Terminals at \$5M each.** Includes water-side and land-side renovation of existing ferry terminals in Algiers Point, Gretna, and Poland Avenue. Costs are similar for recently completed Hingham terminal near Boston.
- **Regional Express Park-and-Ride Lots at \$2M each.** It is assumed that the Slidell and Mandeville/Covington routes would have two park-and-ride lots a piece and the Chalmette route would have one. Costs assume 200 parking spaces are provided and are estimated using information from the International Parking Institute and National Parking Association.

Summary of Capital Costs

Tables 4 and 5 show the breakdown of capital costs by improvement type for all of the recommended service improvements in the Strategic Mobility Plan. Costs are in 2017 dollars.

For High-Capacity Transit, Select Service, and Downtown Mobility Improvements, three scenarios are provided depending on the ultimate mode, or vehicle type, chosen to operate on these corridors. For each scenario, it is assumed that streetcar service will remain on existing streetcar lines.

Table 4: Summary of Capital Costs by Scenario

Improvement Type	Cost by Investment Scenario		
	Bus Rapid Transit	Streetcar	Light Rail
High-Capacity Transit (HCT) Corridors			
Veterans/Airport	\$116,000,000	\$652,500,000	\$1,812,500,000
Elmwood/Claiborne	\$81,600,000	\$459,000,000	\$1,275,000,000
West Bank Exwy.	\$72,000,000	\$405,000,000	\$1,125,000,000
Rampart/St. Claude	\$48,250,000	\$151,950,000	\$415,950,000
Canal	\$7,050,000	\$7,050,000	\$7,050,000
St. Charles	\$9,900,000	\$9,900,000	\$9,900,000
Broad/Gentilly/Chef	\$123,200,000	\$693,000,000	\$1,925,000,000
Tulane	\$36,000,000	\$202,500,000	\$562,500,000
Downtown Mobility Improvements			
Central Business District	\$32,000,000	\$180,000,000	\$500,000,000
French Quarter	\$24,000,000	\$135,000,000	\$375,000,000
All Other Services	\$296,200,000	\$296,200,000	\$296,200,000
TOTAL	\$846,200,000	\$3,192,100,000	\$8,304,100,000

Table 5: Summary of Capital Costs Included in All Scenarios

Improvement Type	Cost
Select Service Corridors	
General De Gaulle	\$58,400,000
Elysian Fields	\$48,000,000
Magazine	\$44,150,000
Riverfront	\$2,400,000
Microtransit Shuttles	
New Orleans East	\$3,500,000
Algiers	\$2,500,000
Regional Express Service	
Slidell	\$12,750,000
Covington	\$15,250,000
Chalmette	\$4,500,000
Water Transportation	
Lower Algiers/Chalmette	\$0
Algiers Point/Canal Street	\$10,975,000
Gretna	\$22,875,000
Poland Ave	\$19,900,000
On-Demand Service	
New Orleans East	\$0
Algiers	\$0
All Other Areas	\$0
Major Transit Centers	
Downtown Transit Center	\$35,000,000
New Orleans East Transit Center	\$8,000,000
Algiers Transit Center	\$8,000,000
TOTAL	\$296,200,000

2.0 RIDERSHIP PROJECTIONS

This section describes the methodologies used to develop ridership projections for the service improvements recommended in the Strategic Mobility Plan.

2.1 FIXED-ROUTE SERVICE

Fixed route services include High-Capacity Transit routes, Select Service routes, Regional Express Service routes, all other bus routes already in service, Downtown Mobility Improvements, Microtransit shuttles, and Water Transportation.

Improvements to Existing Fixed-Route Services

For recommended improvements to existing fixed-route services in the region, the following four steps were followed to project ridership impacts:

1. Determine baseline ridership.
2. Adjust baseline ridership for route modifications.
3. Determine ridership increases due to service improvements.
4. Add ridership increases due to service simplification.

Step 1. Determine Baseline Ridership

For proposed routes that mirror existing routes, existing ridership was used as the baseline.

For proposed routes that would consolidate multiple existing routes, ridership figures for these existing routes were combined and used as the baseline. These include:

- **Elmwood/Claiborne:** Combination of RTA's 16-S. Claiborne and JeT's E-3 Kenner Local.
- **Rampart/St. Claude:** Combination of RTA's Rampart-St. Claude Streetcar and 88-St. Claude/Jackson Barracks.
- **General DeGaulle:** Combination of RTA's 114/115-General DeGaulle routes.

Step 2. Adjust Baseline Ridership for Route Modifications

Some of the proposed routes require extensions or other modifications to existing routes. Baseline ridership figures for these routes were adjusted upward or downward, as appropriate. These routes include:

- **Veterans/Airport:** Extension of JeT's E-1 Veterans route to the new airport terminal and New Orleans' Central Business District.
- **Elmwood/Claiborne:** Modification of JeT's E-3 Kenner Local route to travel along Clearview Parkway and terminate near the Jefferson Parish Government Building instead of continuing along Jefferson Highway to Kenner.
- **Westbank Expressway:** Modification of JeT's W-2 Westbank Expressway route to terminate near the Walkertown terminal.

- **Broad/Gentilly/Chef:** Extension of RTA's 94-Broad route uptown, along Napoleon Avenue, and modification in New Orleans East to terminate near Walmart on Bullard Avenue instead of in the Michoud area.
- **General DeGaulle:** Simplification of RTA's 114/115-General DeGaulle routes with less deviation from major roadways.
- **Riverfront Streetcar:** Extension of route to existing, but currently out-of-use John Churchill Chase station.
- **M.L. King:** Adjustment to remove overlap with extension of Broad/Gentilly/Chef route.

For the modifications above that result in less coverage in some areas, it is assumed that coverage will be provided by new services or by existing services being adjusted slightly.

Step 3. Determine Ridership Increases Due to Service Improvements

The Strategic Mobility recommends drastically improving service in High-Capacity Transit corridors, Select Service corridors, and for the Algiers Ferry. Using elasticity factor equations from the Transportation Research Board's TCRP Report 95, "Traveler Response to Transportation System Changes", ridership changes resulting from the recommended improvements to frequencies and travel times along these corridors were projected. Elasticity factors assume that ridership will grow at a certain rate, relative to improvements in service frequency or corridor travel time.

Still, improvements to service frequencies and corridor travel times are only one part of the equation. Upgrading service along a corridor to rail service or full-featured Bus-Rapid Transit has been shown to attract up to 25 percent more riders than would otherwise be obtained by applying elasticity factors alone.

Therefore, as recommended by TCRP Report 95, additional growth rates were applied to the High-Capacity Transit and Select Service corridors, ranging from 10 percent to 25 percent depending on the anticipated additional improvements above the baseline conditions. These improvements include high-visibility branding, more attractive and comfortable vehicles, station area improvements, and longer hours of operations.

Though the Strategic Mobility Plan does not recommend specific modes for High-Capacity Transit corridors, it is not projected that the mode, nor vehicle type, will impact ridership.

Step 4. Determine Changes Due to Simpler Service

This step accounts for ridership increases resulting from redesigning the transit system and schedules to be easier to understand, as recommended by the Strategic Mobility Plan. These simplification improvements will be implemented in the short-term, through incremental improvements made each year and through a more comprehensive network redesign planned to be implemented by 2022.

Because more detailed ridership projections were done for High-Capacity Transit routes, Select Service routes, and the Algiers ferry, this step only applies to the remaining, existing fixed-routes, all of which are bus routes.

Experience from other cities indicates that service simplification efforts can increase ridership by 10 to 20 percent (see Table 6). Considering the relative complexity of existing RTA service, a simpler route structure and clockface headways would be expected to increase ridership by at least 10 percent. Therefore, a "Service Simplification" factor of +10 percent was applied to the baseline ridership figures for all existing bus routes not proposed for High-Capacity Transit or Select Service.

Table 6: Service Simplification Results in Other Areas

COMMUNITY	ACTIONS	RESULTS
Orange County, CA	Increase service on key routes; Headways made more consistent; unproductive routes eliminated; new community & feeder routes. Overall service hours slightly reduced.	Ridership: +10%
Riverside, CA	Increased frequency on key direct routes; implemented clockface headways. Overall service hours slightly reduced.	Ridership: +20%

Source: TCRP Report 95, Chapter 10 – Bus Routing and Coverage

New Fixed-Route Services

For proposed services recommended in the Strategic Mobility Plan where no similar route or service exists in the region, a variety of methods were used to project ridership. These methodologies are provided by service type below.

Downtown Mobility Improvements

Ridership experiences from similar downtown services in other regions were used to project ridership for Downtown Mobility Improvements in the French Quarter and Central Business District, including:

- Savannah, Georgia: Downtown circulators here average approximately 24 passengers per revenue hour.
- Washington, D.C.: Downtown circulators here average approximately 30 passengers per revenue hour.

New Orleans’ land use patterns and existing ridership trends suggest that the French Quarter and Central Business District Mobility Improvements may be able to generate ridership at levels in between downtown circulators in Savannah and Washington, D.C.

However, unlike those circulators, the Downtown Mobility Improvements will operate 24/7. So, while the proposed improvements may be similarly productive during most parts of the day, they will also operate during more late-night hours when demand is typically below average. This will dilute ridership per hour overall. Therefore, a productivity rate of 25 passengers per revenue hour was used for the Downtown Mobility Improvements.

To calculate ridership, the rate of passengers per revenue hour was multiplied by the projected revenue hours for the French Quarter Mobility Improvements and Central Business District Mobility Improvements. These revenue hours were developed while projecting costs, as discussed earlier in this report.

Though the Strategic Mobility Plan does not recommend a specific mode for the Downtown Mobility Improvements, it is not projected that the mode, nor vehicle type, will impact ridership.

Microtransit Shuttles

Microtransit shuttles are proposed for New Orleans East and Algiers. In these areas, they would operate as flexible and dynamic routes, supplementing existing fixed-routes. Changes to existing fixed-routes may be made to fully integrate these new services.

The productivity (passengers per revenue hour) of these microtransit shuttles is projected to be low because of their suburban service areas, the operating characteristics of microtransit, and the presence of existing fixed-route services in the area.

The productivity rate for both microtransit shuttles is assumed to be five passengers per revenue hour. To calculate ridership, the rate of passengers per revenue hour was multiplied by the projected revenue hours for the shuttles. These revenue hours were developed while projecting costs, as discussed earlier in this report.

New Water Transportation Routes

The two new water transportation routes proposed in the Strategic Mobility Plan are between Canal Street and Gretna and from the Poland Avenue wharf to a terminal to be determined.

For the new Gretna water transportation route, historical ridership for the Gretna-Jackson Avenue ferry and the short-lived Gretna-Canal Street ferry were considered. This historical data indicates that in their final years, both Gretna ferries had significantly lower ridership than the Algiers Point ferry. Therefore, it is assumed that ridership on the new Gretna-Canal Street water transportation route will also be lower than that of the improved Algiers Point ferry.

However, the difference in ridership between the new Gretna water transportation route and the Algiers Point ferry is expected to be less dramatic. New service to Gretna should be more reliable and quicker than the former Gretna-Canal Street ferry service and the local (non-tourist) demand in Gretna is assumed to be similar to that of Algiers Point.

Ridership on the Poland Avenue water transportation route is projected to be lower than the Gretna water transportation route due to lower overall demand, based on existing and proposed land use patterns. However, it is worth noting that there is a cruise terminal being considered for this site and this may cause large spikes in ridership from disembarking tourists.

Regional Express Service

Ridership experiences from similar services were used to project ridership for regional express service routes, including:

- A similar, though short-lived service that RTA operated in surrounding parishes before Hurricane Katrina.
- A similar service operating today in the Charlotte, North Carolina region. This service was especially valuable because it serves similar markets and ridership data by route was available.

Because the Mandeville/Covington and Slidell express routes serve larger markets than Chalmette, ridership for these express service routes is projected to be higher than that of Chalmette.

2.2 ON-DEMAND AND PARATRANSIT SERVICE

The proposed on-demand connectors, which would start as a pilot project and ideally expand to anywhere more than ¼-mile from a fixed-route, would operate 24/7 similar to existing Uber or Lyft ride-sharing services. Since this is a relatively new model, ridership was based on an average cost per trip and the assumed annual operating cost. Each zone, New Orleans East and Algiers, was allocated \$500,000 in annual operating costs. The approximate cost per trip, which was estimated from a similar pilot project in Pinellas County, FL, is \$5.

Paratransit ridership is projected to grow in proportion to the increase in service, by 25 percent.

Table 7: Ridership Projections for High-Capacity Transit and Select Service Improvements

Service	Factors Analyzed for Ridership Impacts							Average Weekday Ridership				
	Travel Time		Peak Frequency		Off-Peak Frequency		Additional Improvements	Baseline	Proposed	Change		
	Baseline	Proposed	Baseline	Proposed	Baseline	Proposed				Number	Percent	
High-Capacity Transit Corridors												
Veterans/Airport	90	58	20	10	30	15	High	1,966	4,091	2,125	108.1%	
Elmwood/Claiborne	53	41	30	10	60	15	High	2,327	4,327	2,000	85.9%	
Westbank Exwy.	41	36	30	10	60	15	High	1,045	2,509	1,464	140.1%	
Rampart/St. Claude	36	23	15	10	20	15	Medium	3,705	5,445	1,740	47.0%	
Canal-Cemeteries	31	19	10	10	15	15	Low	6,829	9,108	2,279	33.4%	
Canal-City Park	31	19	20	10	20	15	Low	3,539	5,173	1,634	46.2%	
St. Charles	45	33	10	10	10	10	Low	11,151	13,875	2,724	24.4%	
Broad/Gentilly/Chef	66	50	15	10	20	15	High	5,189	7,663	2,474	47.7%	
Tulane	27	18	13.5	10	20	15	High	2,648	4,249	1,601	60.5%	
Select Service Corridors												
General De Gaulle	40	29	25	15	30	20	High	2,075	3,073	998	48.1%	
Elysian Fields	30	24	30	15	35	20	High	1,362	2,619	1,257	92.3%	
Magazine	30	27	17.5	15	25	20	Medium	1,864	2,957	1,093	58.6%	
Riverfront	14	12	15	15	20	20	Low	2,466	3,148	682	27.7%	

Table 8: Ridership Projections for All Proposed Improvements

Service	Average Weekday Ridership			
	Baseline	Proposed	Change	% Change
High-Capacity Transit (HCT) Corridors	38,399	56,440	18,041	47.0%
Select Service Corridors	7,767	11,797	4,030	51.9%
Downtown Mobility Improvements				
Central Business District Mobility Improvements	0	2,150	2,150	n/a
French Quarter Mobility Improvements	0	1,625	1,625	n/a
Microtransit Shuttles				
New Orleans East	0	720	720	n/a
Algiers	0	480	480	n/a
Regional Express Service				
Slidell	0	175	175	n/a
Covington	0	175	175	n/a
Chalmette	0	100	100	n/a
All Other Bus Service	18,348	20,182	1,834	10.0%
Water Transportation				
Lower Algiers/Chalmette	883	883	0	0.0%
Algiers Point/Canal Street	1,596	2,000	404	25.3%
Gretna	0	1,000	1,000	n/a
Poland Ave	0	750	750	n/a
On-Demand Service				
New Orleans East	0	137	137	n/a
Algiers	0	137	137	n/a
All Other Areas	0	274	274	n/a
Paratransit	720	900	180	25.0%
Totals				
Total	67,713	99,925	32,212	47.6%
Total, excluding JeT ridership in HCT corridors*	63,572	95,784	32,212	50.7%
*Assumes underlying local service for regional HCT corridors will continue to be operated by JeT and all new ridership will be for RTA-operated regional HCT service.				