SUFFOLK COUNTY TRANSIT (SCT)

- **14,000 +** daily weekday riders
- **912** square mile service area
- **43** bus routes, including two summer-only routes
- **2** service types - fixed route & paratransit (SCAT)
CHALLENGES FOR SUFFOLK COUNTY TRANSIT

DECLINING RIDERSHIP

Individual Passenger Boardings (in Millions)

- 2013: 6.4
- 2014: 6.2
- 2015: 5.8
- 2016: 5.3
- 2017: 5.0

ESCALATING OPERATING COST

Operating Cost (in $ Millions)

- 2008: 14
- 2013: 24
- 2016: 32
- 2017*: 34

&emsp;Fixed &emsp;SCAT

- 2008: 35 &emsp;24
- 2013: 42 &emsp;24
- 2016: 45 &emsp;32
- 2017*: 42 &emsp;34

* Route cuts were made in Oct 2016

LAGGING SUBSIDY

2016 Operating Costs

- Annual Revenue: 12%
- State Aide: 32%
- County: 53%
- Federal Aide: 3%
LACK OF TRANSIT OPTIONS: *Same fixed-route transit solution for very diverse geographic areas*

<table>
<thead>
<tr>
<th>Area</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Western Towns – 62%</td>
<td>9%</td>
</tr>
<tr>
<td>5 Eastern Towns – 38%</td>
<td></td>
</tr>
</tbody>
</table>

91%

LACK OF DATA AVAILABLE TO INFORM TRANSIT PLANNING: *Just beginning to collect real-time data (TransLoc, AVL)*

- 2014: Started Installation of Automatic Vehicle Location (AVL) in Para-transit buses
- 2015: Started Installation of AVL in fixed route transit buses
- 2016: Launch of TransLoc Rider App (real time passenger information)
- 2017: AVL Status – 100% - Transit; 80% - Para-transit
- 2018: Fast FareBox; Automatic Passenger Counters (APC); Mobile Ticketing is being explored
OPPORTUNITIES FOR SUFFOLK COUNTY TRANSIT

COUNTY’s PAST
- Decades of low-density residential and commercial land use sprawl
- Predominantly auto-dependent communities
- 30 year old fixed-route transit – “one size fits all” solution

COUNTY’s RECENT INITIATIVES
- Compact walkable downtowns; mixed use developments
- Transit oriented developments
- Investments for improved transportation infrastructure

OPPORTUNITIES!
- Evaluate and reimagine the transportation network
- Offer better and efficient mobility services to more people
- Develop a more resilient system aligned with evolving technologies and needs
NEW APPROACH TO MOBILITY FOR SUFFOLK COUNTY

“MOBILITY as a SERVICE (MaaS)”

KEY DESIRED CHARACTERISTICS

- Logical and Easy to understand Routes
- Efficient, Modern, Productive System
- Link Transit Nodes with Points of Interest
- Serves existing Riders + Attracts New Riders
- Cost Effective and Fiscally Adaptable
- Support Growth now and into Future

TASKS TO GET THERE

- Right-size Transit System to be efficient and resilient
- Determine Potential Transit-supportive Markets
- Establish Data-driven Process to Inform Strategies
- Design state-of-art suburban transit model
- Identify Mobility Options for current & future riders / travel patterns
STUDY PROCESS AND TIMELINE

November 2016 – June 2018

TRANSIT ANALYSIS
- Trip Pattern Analysis of Work Trips
- SCT System and Route Review
- Socio-economic analysis
- Identification of Transit Service Gaps & Potential Transit Markets

STUDY RECOMMENDATIONS
- Strategies and actions to improve suburban mobility
- Focused on transit planning approach, infrastructure and technology improvements, and stakeholder engagement

MOBILITY SUITE
- Development of Mobility Suite - Optimized Transit, Transportation Network Companies (TNCs), Vanpooling, Microtransit, Bikeshare
- Mode Evaluation and Suitability Assessment
- Mobility Suite Evaluation Matrix

MOBILITY WORKSHOP
November 2017
- Suffolk County Economic Development and Planning, Suffolk County Public Transportation Working Group, and Arup (Consultant on the study)
- Share initial analysis & findings and solicit input to inform context and recommendations
TRIP PATTERN ANALYSIS FINDINGS

MOST AREAS IN THE COUNTY HAVE LOW ACCESS TO TRANSIT

Access to Transit Score index was calculated based on access via walkability to transit routes analyzed with quantity and frequency of route service.

A score of 10 is for the areas with highest transit access in Suffolk County, and zero represents areas with the lowest (or no) transit access.
TRIP PATTERN ANALYSIS FINDINGS

SOME AREAS IN THE COUNTY ARE NOT IDEAL FOR FIXED ROUTE SERVICE
**TRIP PATTERN ANALYSIS FINDINGS**

**UNEXPECTED DISTRIBUTION OF POTENTIAL TRANSIT MARKETS**

*Potential Transit Markets were determined based on car ownership, income and specific age range.*
MOBILITY SUITE

TRANSIT ANALYSIS

STUDY RECOMMENDATIONS
MOBILITY SUITE

DEVELOPMENT OF MOBILITY SUITE

REVIEW OF CASE STUDIES AND BEST PRACTICES

MODE PERFORMANCE AND SUITABILITY EVALUATION

DEVELOPMENT OF MOBILITY MATRIX
DEFINITION
The network redesign of existing fixed routes to provide more people with access to more frequent transit service.

CASE STUDY: HOUSTON METRO BUS NETWORK REDESIGN

- **Goal:** More Service, Better Service and Your Service
- **Process:**
  - 2013-2014 – Planning and Outreach
  - 2015 – Implementation of New Service
  - Move from a peak-oriented low frequency radial network to grid network with high-frequency service.
- **Results:**
  - 11% overall increase in ridership within a year
  - Overtime – 3.3% growth rate each year
  - 95% of Houston’s population is within ¼ mile of service
DEFINITION
Use of online platforms to connect passengers with drivers for point-to-point trips while automating reservations and payments, and providing customers with travel times, wait times and pricing.

CASE STUDY: PINELLAS SUNCOAST TRANSIT AUTHORITY, FL
- Transit authority in St. Petersburg, Florida partnered with TNCs for pilot program in select zones to support first/last mile trips to bus stops in 2016.
- Process:
  - Divided the County in 8 Direct Connect Zones
  - Provided rider subsidy of up to $5/ride. Average user expense $1.
  - $100K budget for first 6 months and included service for riders with disability
- Results:
  - 1st year reported 3K + riders with average $11.48 cost/ride to PSTA
  - Program expanded in 2017 - 7 days a week, 6am to 11pm
  - Annual Savings - $100K
MOBILITY SUITE – MICROTRANSIT

DEFINITION
IT-enabled private multi-passenger service that serve passengers using dynamically generated routes. May expect passengers to make their way to and from common pick-up or drop off points. Vehicles range from large SUVs to vans to shuttle buses.

CASE STUDY: CHARIOT
- Currently in NYC, Austin, Seattle, Bay Area
- Operates on fixed-routes but makes limited stops
- Smart-phone based app to reserve a seat and for real time arrival information
- Pricing varies by city (NYC $4/ride) and monthly passes are available.
MOBILITY SUITE – VANPOOLING

DEFINITION
Vanpooling involves the driver adding passengers to a private trip in which both share a destination. Such an arrangement provides additional transportation options for riders while allowing drivers to fill otherwise empty seats in their vehicles.

CASE STUDY: PACE VANPOOL (SUBURBAN CHICAGO)
- Operated by suburban bus division of Chicago Transit Authority
- Pace provides vehicles and covers cost of fuel, insurance, maintenance and guaranteed ride home.
- 8/12/15 person capacity vans
- Benefits for those who volunteer to drive
- Monthly fare is per passenger based on distance and # of participants.
- 718 active vanpools in Pace Vanpool system (2016)
MOBILITY SUITE – BIKESHARE

DEFINITION
Short-term bike rental, usually for individual periods of an hour or less over the course of a membership. Information technology-enabled bikesharing provides real-time information about the location and demand for bikes at docking stations.

ZAGSTER (LONGMONT, CO)
- 10 Stations and 50 bikes operated by Zagster in 7-square mile area connecting downtown and key retail/recreational destinations
- Bikeshare sponsors include local hospitals and brewery
- Annual or monthly membership
- Accessed via mobile application
## MOBILITY SUITE - MODE EVALUATION

### STAGE 1: MODE’S STAND-ALONE PERFORMANCE

<table>
<thead>
<tr>
<th>Summary Table - Average Rankings (Stage 1)</th>
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<tbody>
<tr>
<td><strong>Average Scores</strong> (criteria ranking)</td>
</tr>
<tr>
<td>Planning and Policy Impacts</td>
</tr>
<tr>
<td>Transportation Performance</td>
</tr>
<tr>
<td>Environmental + Sustainability Performance</td>
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<td>Economic Feasibility</td>
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## MOBILITY SUITE - MODE EVALUATION

### STAGE 2: MODE’S PERFORMANCE IN PREDEFINED MARKETS

<table>
<thead>
<tr>
<th>Trips (Medium - High Activity Density)</th>
<th>Summary Table - Average Rankings (Stage 2)</th>
<th>Existing Conditions</th>
<th>Optimized Transit</th>
<th>Van Pooling</th>
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<th>Micro-transit</th>
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<tr>
<td>Work</td>
<td></td>
<td>Fair</td>
<td>Good</td>
<td>Fair</td>
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<td>Poor</td>
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Markets are defined based on Activity Density - Population & Number of Jobs
### MOBILITY SUITE - MODE EVALUATION

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<tr>
<td><strong>Trips (Low / Special Activity Density)</strong></td>
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Markets are defined based on Activity Density - Population & Number of Jobs
Optimized Transit scored high across all trips in high-medium activity density areas.

Micro-transit also scored moderate to high across all trips and can be employed in a variety of ways.
STRATEGIES AND RECOMMENDATIONS

- Continue to invest in What’s Working
- Pivot from being a transit provider to provider of “Mobility Services”
- Utilize Data and Technology for Transit Planning
- Develop a County-wide Mobility Brand
- Community Outreach through Technology and Strategic Partnerships
STRATEGIES AND RECOMMENDATIONS

Continue to invest in What’s Working

- Reinvest in high performing fixed-routes
- Continue coordination and integrated planning of transportation investments
STRATEGIES AND RECOMMENDATIONS

Pivot from being a transit provider to provider of “Mobility Services”

- **Implement** demand-responsive Mobility Solutions through **Pilot Programs**

- **Use Mobility Suite and Suitability Matrix** to inform discussions on Implementation Plan

- **Develop & Implement Design Guidelines**

- **Institute Processes and Policies** to support a modern mobility system
Utilize Data and Technology for Transit Planning

- Identify rider patterns to inform service planning
- Measure system performance to prioritize investments
- Conduct ridership surveys and analysis
- Have clear contractual agreements on data ownership
STRATEGIES AND RECOMMENDATIONS

- Develop “Umbrella Brand” for multiple mobility services
- Developing a single website as Mobility Information clearinghouse
- Package Rebranding with Transit investment

Develop a County-wide Mobility Brand
STRATEGIES AND RECOMMENDATIONS

- Engage riders through Technology
- Capitalize on strategic County partnerships.

Community Outreach through Technology and Strategic Partnerships
NEXT STEPS

Utilize Data and Technology to Inform Transit Planning

- Use data available via Automated Passenger Counters, Fast Farebox, and TransLoc to evaluate ridership patterns.

- Use Automatic Vehicle Locator (AVL) data to evaluate the system’s operational efficiency, transit planning and real-time passenger updates.

- Explore Open Data program to identify partnerships for managing and analyzing the data.
NEXT STEPS

Utilize Data and Technology to Inform Transit Planning

Pilot Programs for Demand Responsive Mobility Services

- Bikeshare Pilot Programs
- Microtransit Pilot Program
NEXT STEPS

Utilize Data and Technology to Inform Transit Planning

Pilot Programs for Demand Responsive Mobility Services

Suffolk Countywide Mobility Implementation Plan

- Route restructuring & incorporation of demand responsive mobility services
- New Transit Maps and Rollout Plan
- Marketing and Branding Plan
- Community Outreach
ANY QUESTIONS?

631-853-4800  ecodev@suffolkcountyny.gov  SuffolkCountyEconomicDevelopmentPlanning