Montgomery County & MWCOG

Montgomery County Flex Microtransit Expansion Study

Study Overview for TPB Regional Public Transportation Subcommittee

March 25, 2025

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in association with

MCDOT

Metropolitan Washington Council of Governments

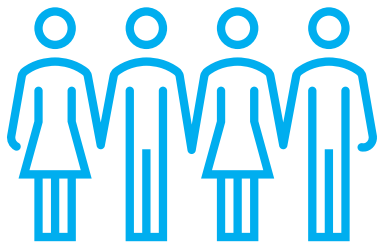
Chapter 1:
Review of Previous Studies

Purpose

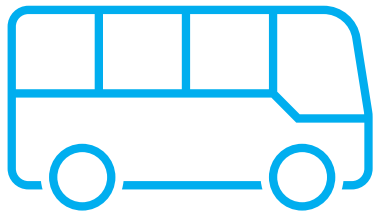
- Review best practices for microtransit service models and use cases to consider which might be appropriate for the County's goals with Flex service
- Review data and findings from:
  - 2020 Ride On Flex Microtransit Performance Assessment
  - Ride On Reimagined

2020 Ride On Flex Microtransit Performance Assessment

Provided a detailed analysis of Ride On Flex service six months after its launch in summer 2019 including:

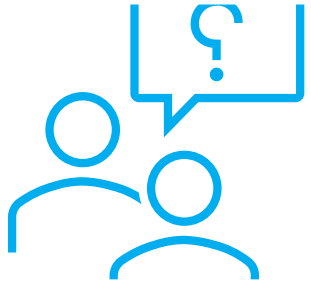


Demographic Data



Ridership and Trip Request Data

Customer Survey Results



Stakeholder Interview Results

Ride On Reimagined

- The Ride On Reimagined study is a comprehensive assessment of the Ride On bus network.
- The study provides recommends changes to transit in Montgomery County based on current and future needs.
- The study proposes the development of **17 new zones and updates to two existing zones (19 total)** to be implemented across the county.

Operating Characteristics & Best Practices

Microtransit services can be designed for a variety of use cases. Use cases can also provide a framework for the performance analysis of zones.

Use cases include:

Underperforming Fixed-Route Replacement

First-/Last-Mile Connections

New Service Area

Use Cases

ZONE	SERVICE AREA	PRIMARY USE CASE	SECONDARY USE CASE	ROUTES REPLACED
901	South Germantown	Replacing underperforming routes	Expanded service area	75, 98
902	Germantown	Replacing underperforming routes	Expanded service area	83, 97
903	Montgomery Village	Replacing underperforming routes	Expanded service area	64, 65
904	Rockville	First/Last mile connection	Replacing underperforming route	44
905	Montgomery Mall-North Bethesda-Garrett Park	First/Last mile connection	Replacing underperforming routes	6, 10, 47, 96
906	Wheaton-Glenmont	First/Last mile connection	Replacing underperforming routes	31, 51
907	Olney	Replacing underperforming routes	Expanded service area	52, 53
909	Friendship Heights	First/Last mile connection	Expanded service area	N/A
910	Kenwood-Glen Echo	First/Last mile connection	Replacing underperforming routes	36, T2
911	Aspen Hill (Includes Leisure World)	Expanded service area	N/A	N/A
912	Silver Spring	First/Last mile connection	Replacing underperforming routes	1, 2, 4, 18, 28
913	Wheaton	First/Last mile connection	Replacing underperforming routes	7, 19, 37
914	White Oak	Expanded service area	N/A	N/A
915	Takoma-Langley Park	Replacing underperforming routes	First/Last mile connection	14
916	Chevy Chase-Kensington	First/Last mile connection	Expanded service area	N/A
917	Universities at Shady Grove	First/last mile connection	Expanded service area	N/A
918	South Olney	Expanded service area	N/A	N/A
976	Germantown-Poolesville	Expanded service area	First/Last mile connection	N/A
990	Damascus-Clarksburg-Milestone-Germantown TC	Replacing underperforming route	Expanded service area	90

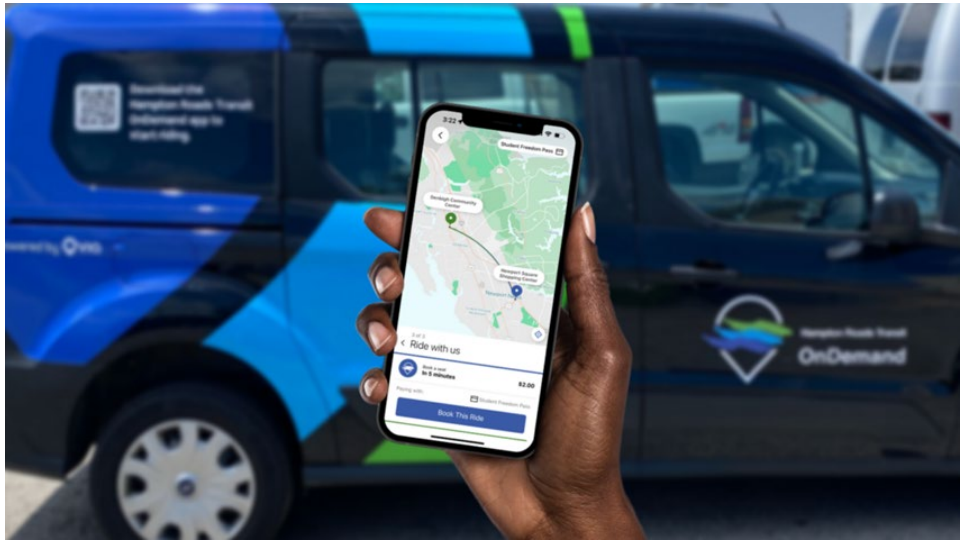
Operating Characteristics & Best Practices

Service delivery models describe the division of responsibility in providing microtransit service between public agencies and vendors, also called mobility technology companies.

There are three major categories:

Case Studies

- DART Connect (DE)
- RTA Connect On-Demand (OH)
- HRT OnDemand Pilot (VA)



Chapter 2: Re-examination of Expansion Opportunities

Purpose

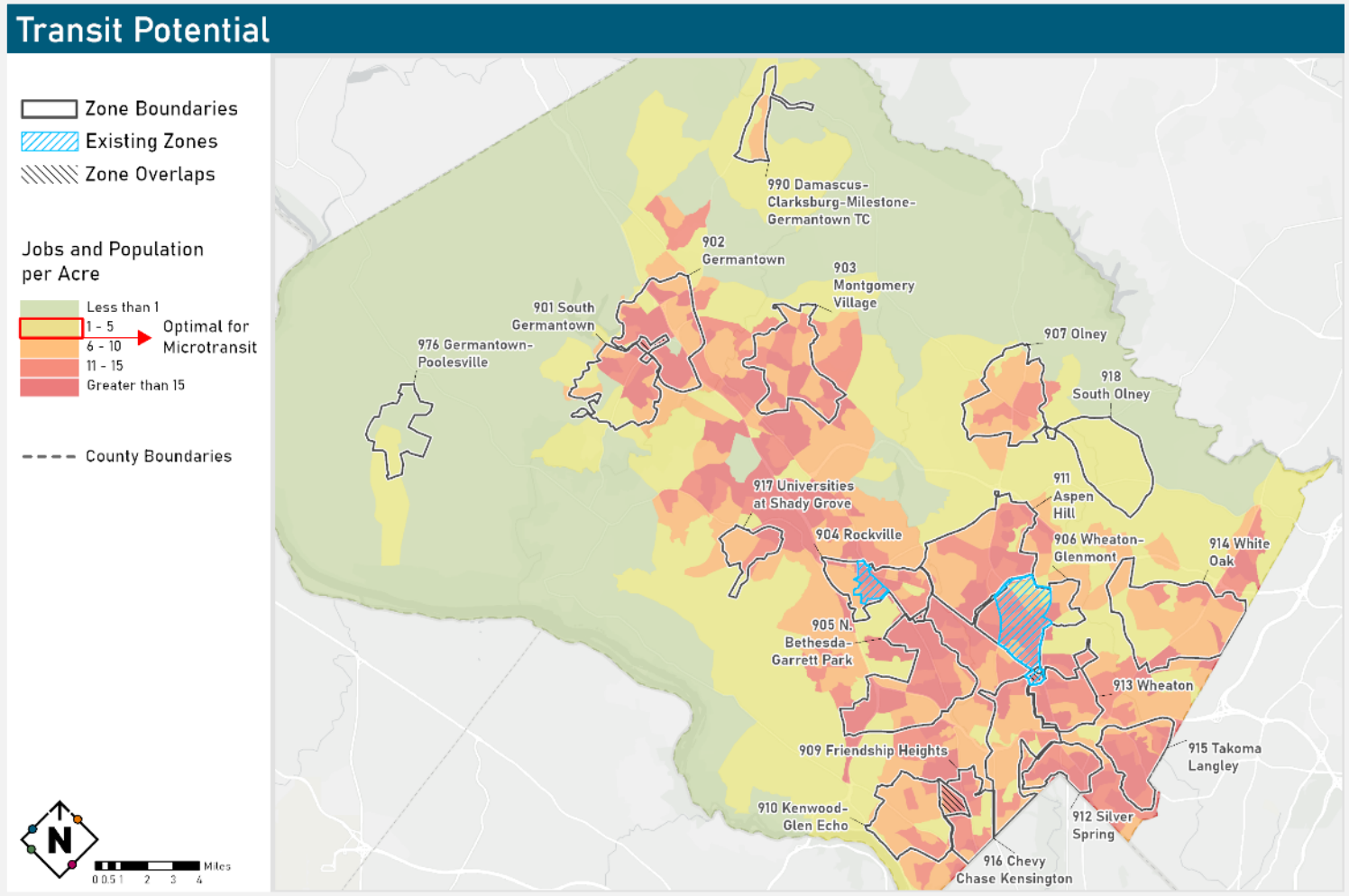
- Provide a comprehensive analysis of previously identified candidate areas
- Evaluate and prioritize zones based on various metrics to enhance the public transportation system
- Goals
  - Improve accessibility
  - Foster a more equitable transportation system
  - Deploy microtransit services strategically

Zone Evaluation

- Zone evaluation metrics
  - Equity
    - Equity Emphasis Areas (MWCOG) and Equity Focus Areas (M-NCPPC)
    - Identification of zones serving high concentrations of low-income and minority populations
  - Access to Regional Transit
    - Importance of connecting neighborhoods to major transit stations
  - Intersection Density
    - Impact of intersection densities to microtransit service suitability
  - Access to Regional Activity Generators
    - Assessment of activity generators, including community centers, schools, hospitals, and shopping centers

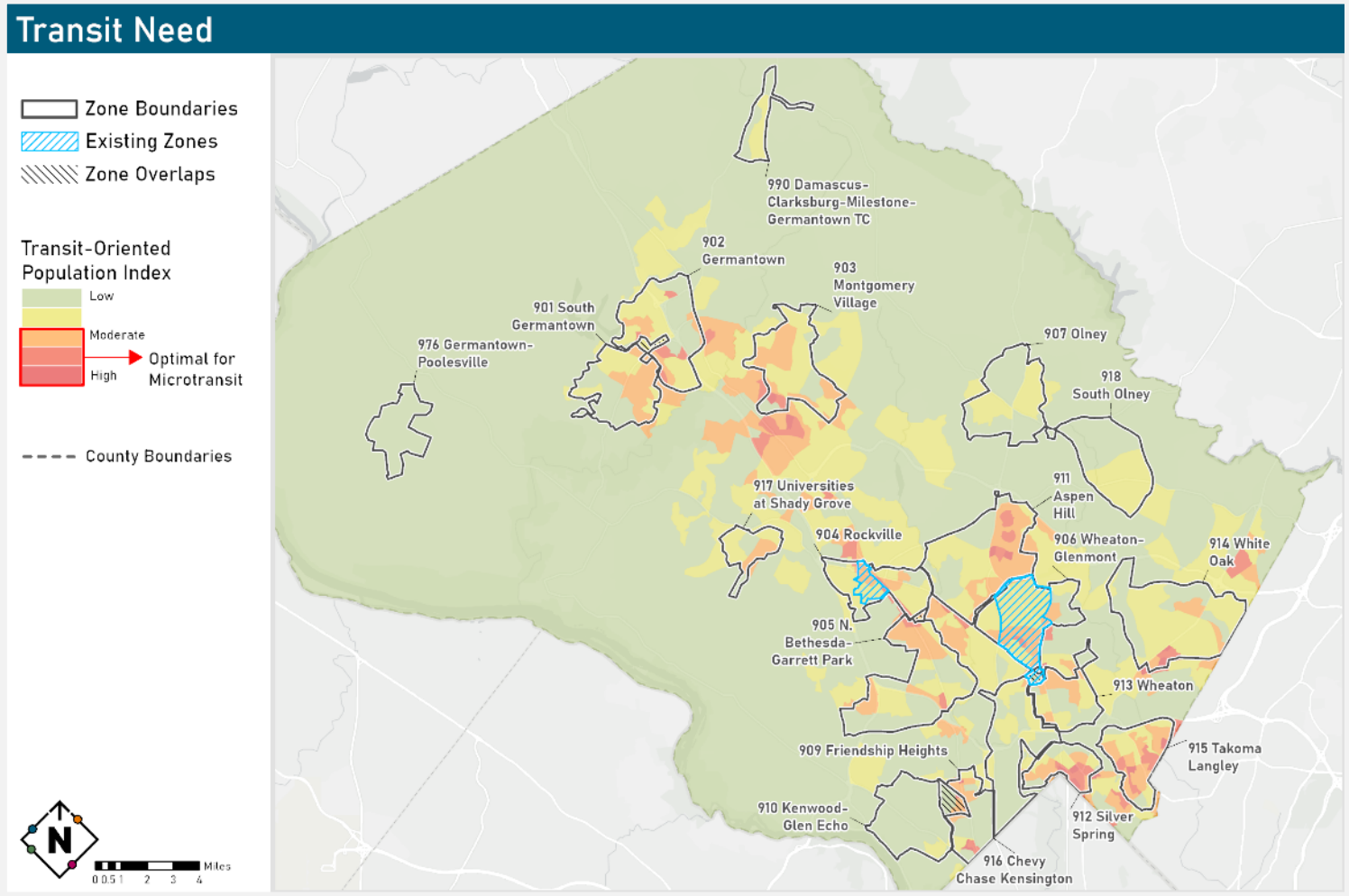
Microtransit Suitability

- Transit Potential
  - Evaluate areas based on population and employment density



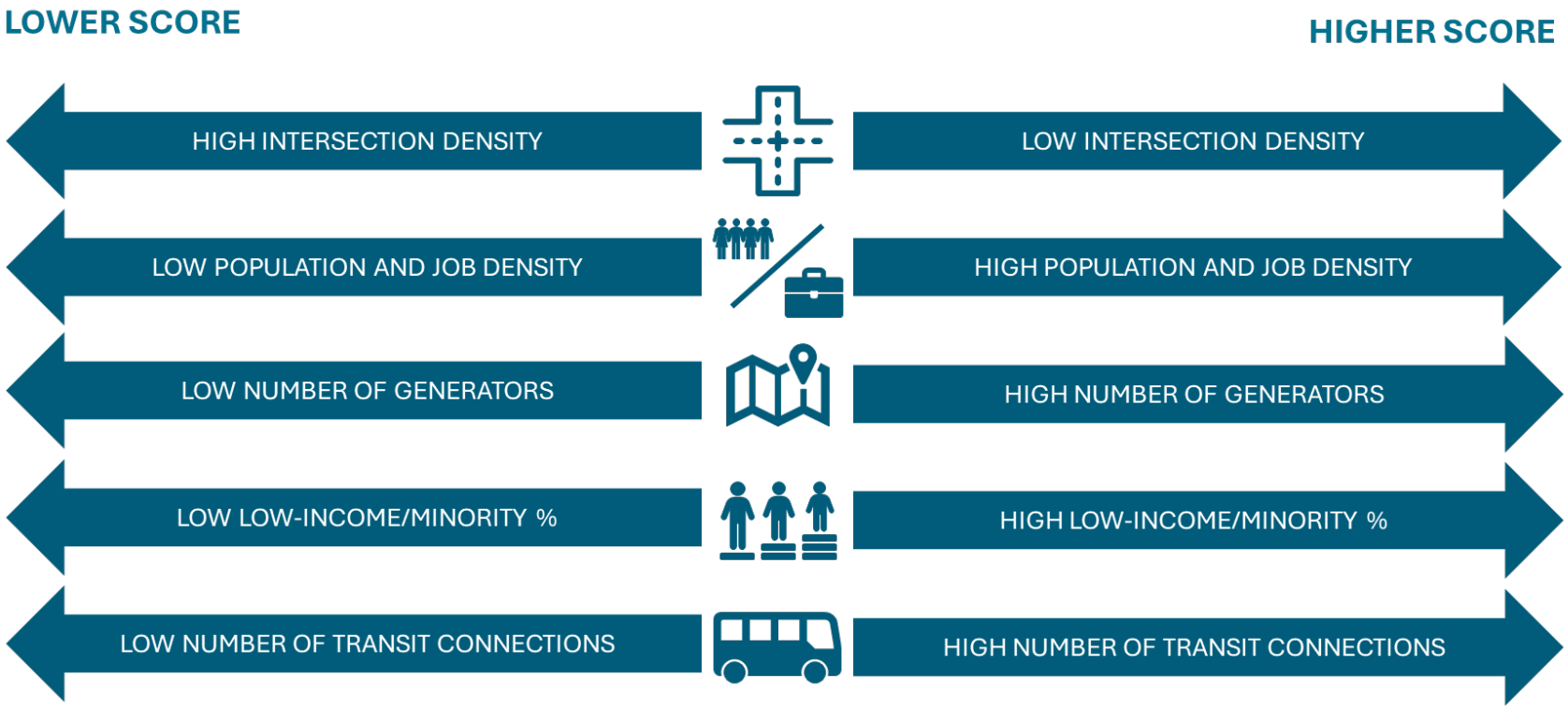
Microtransit Suitability

- Transit Need
  - Show the transit-oriented population index, which is a composite index that consists of persons that are likely to be more reliant on transit



Zone Prioritization

- Metrics for zone prioritization



Zone Prioritization

- Weighting Scenario

SCENARIO SCORING	INTERSECTION DENSITY	LAND USE	ACTIVITY GENERATORS	EQUITY	TRANSIT CONNECTIONS
Internal Circulation	10%	30%	30%	10%	20%
First Mile/Last Mile	10%	10%	30%	20%	30%
Equity	10%	10%	10%	50%	20%
Hard to Reach	30%	10%	30%*	20%	10%

* In this scenario, the zones with lower number of activity generators will get a higher score

Zone Prioritization

ZONES	INTERNAL CIRCULATION	FIRST MILE/ LAST MILE	EQUITY	HARD TO REACH	COMPOSITE
912 Silver Spring	9	9	9	4	**31**
915 Takoma Langley	7	8	9	5	**29**
906 Wheaton-Glenmont	7	8	8	5	**28**
904 Rockville	9	7	6	4	**26**
905 N. Bethesda-Garrett Park	8	7	6	5	**26**
Existing Wheaton	7	7	8	4	**26**
902 Germantown	6	5	6	7	**24**
913 Wheaton	6	6	7	4	**23**
914 White Oak	5	6	6	6	**23**
903 Montgomery Village	5	5	6	6	**22**
909 Friendship Heights	7	7	5	3	**22**
911 Aspen Hill	4	5	5	8	**22**
Existing Rockville	7	5	5	2	**19**
901 South Germantown	2	4	3	5	**14**
910 Kenwood-Glen Echo	3	3	2	4	**12**
916 Chevy Chase Kensington	4	4	2	2	**12**
907 Olney	1	1	2	5	**9**
918 South Olney	1	1	1	6	**9**
976 Germantown-Poolesville	1	1	1	6	**9**
917 Universities at Shady Grove	1	1	1	5	**8**
990 Damascus-Clarksburg-Milestone-Germantown TC	1	1	1	5	**8**

Chapter 3: Outreach and Engagement

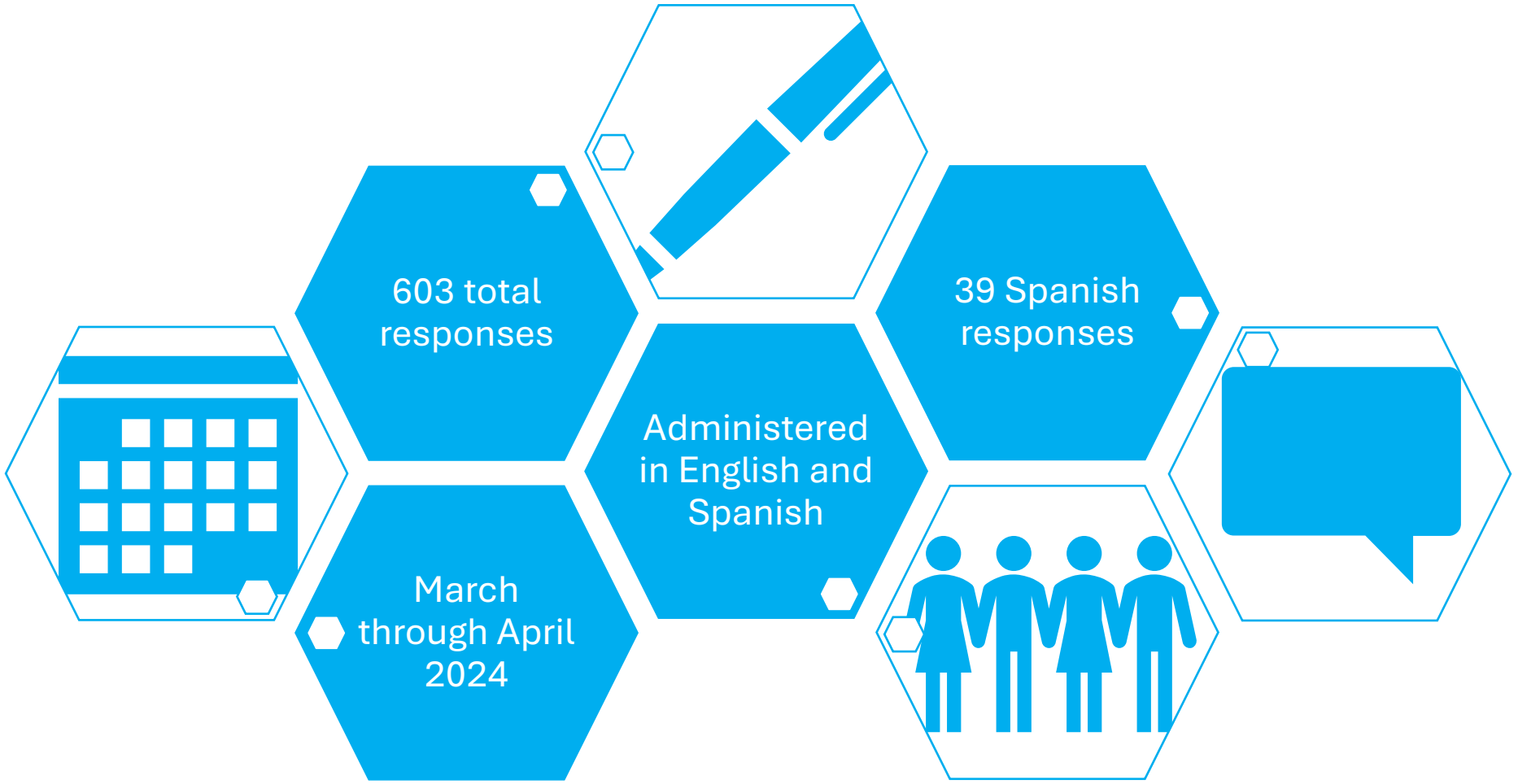
Purpose

- What strengths could the County leverage in Flex expansion?
- What weaknesses of current service might be addressed in the next phases of Flex service?
- Two methods
  - Focus Groups – Internal and External
    - Conversations gathered in-depth qualitative feedback from operators and the public
  - Survey
    - To include qualitative and quantitative feedback from the general public

Focus Groups

- Internal Focus Group
  - March 11, 2024 on Teams
  - Two current Flex operators
- External Focus Group
  - March 11, 2024 on Teams
  - Seven participants

Survey


603 total responses
Administered in English and Spanish
39 Spanish responses
March through April 2024

Chapter 4: Implementation

Purpose

- Outline the proposed implementation plan for expanding Flex
- Estimate associated costs for different service models
- Offer strategic recommendations for effective development, launch, and management of microtransit services

Overview

- Expansion opportunities
- Service models
- Cost evaluation
- Additional considerations
- Implementation steps and schedule

Proposed Zone Operating Parameters

- Vehicle Needs Calculations
  - Metrics such as target wait time, zone size, average vehicle speed and average trip distance
  - Service period is customized for each zone based on demand
- Electric Vehicle Utilization
  - Cost impacts
  - Vehicle need impact

Service Models Overview

- TaaS Model Cost Estimates
- SaaS Model Cost Estimates
- Additional Cost Considerations

Additional Cost Considerations

- Marketing Efforts
- Software and Hardware Integration
- Vehicle Procurement, Charging, and Storage
- Equity Considerations
- Electric Vehicle Integration

Implementation Steps and Schedule

- Procurement
- Training
- Zone Implementation
- Service Monitoring

Operational Model Recommendation

- Based on multiple factors
- Conclusion: Flex should continue using the SaaS model