



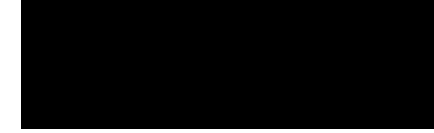
# Comprehensive Transit Study

Public Transit Advisory Commission

March 19, 2024



# ***Project Overview & Process***



## Why are we here?

- Go COMO, Tiger Line, and ADA paratransit services
- Are current services meeting local and regional needs?
- Review shifting needs (e.g. post-COVID)
- Evaluate new markets
- Community engagement
- Actionable plan
  - Staffing needs
  - System integration
  - Implementation steps

**Route combining begins Tuesday, Aug. 1**

**Pick up your combined route schedules on any City bus or at City Hall starting Monday, July 3.**

**What is route combining?**

- No bus stops are being eliminated
- Buses will stop at 90-minute intervals instead of 45 minutes

*Go COMO apologizes for the difficulties this will cause to our riders.*

**You can also find the new bus schedules online July 3 at [GoCOMOTransit.com](https://www.gocomotransit.com), on Go COMO social media, and in the announcements section of the DoubleMap app.**

**Go COMO** Columbia's Public Transit

**City of Columbia**

**Download the DoubleMap app**  
Track your bus in real time

Download on the App Store | GET IT ON Google Play



# Strategies to Increase Transit Share

- Market Analysis
  - Demographics
    - Zero and One-Car Households
    - Low-Income Households
    - Minority population (Title VI)
    - Limited English Proficiency
    - Disabled population
    - Seniors
    - College-age population
    - Youth population
  - Transit Propensity
  - Travel Patterns
- Where are the gaps?
  - Matching service to demand
  - Cost

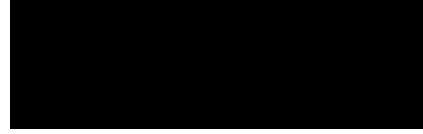
## Vehicles in Household

Jurisdiction	Total Households	No vehicles	Percent	One vehicle	Percent
<b>City of Columbia</b>	<b>63,414</b>	<b>1,204</b>	<b>1.9%</b>	<b>15,552</b>	<b>24.5%</b>
Boone County	93,359	1,762	1.9%	19,794	21.2%
Missouri	2,935,789	86,723	3.0%	587,557	20.0%
United States	158,971,826	6,985,802	4.4%	33,406,659	21.0%

## Poverty Status

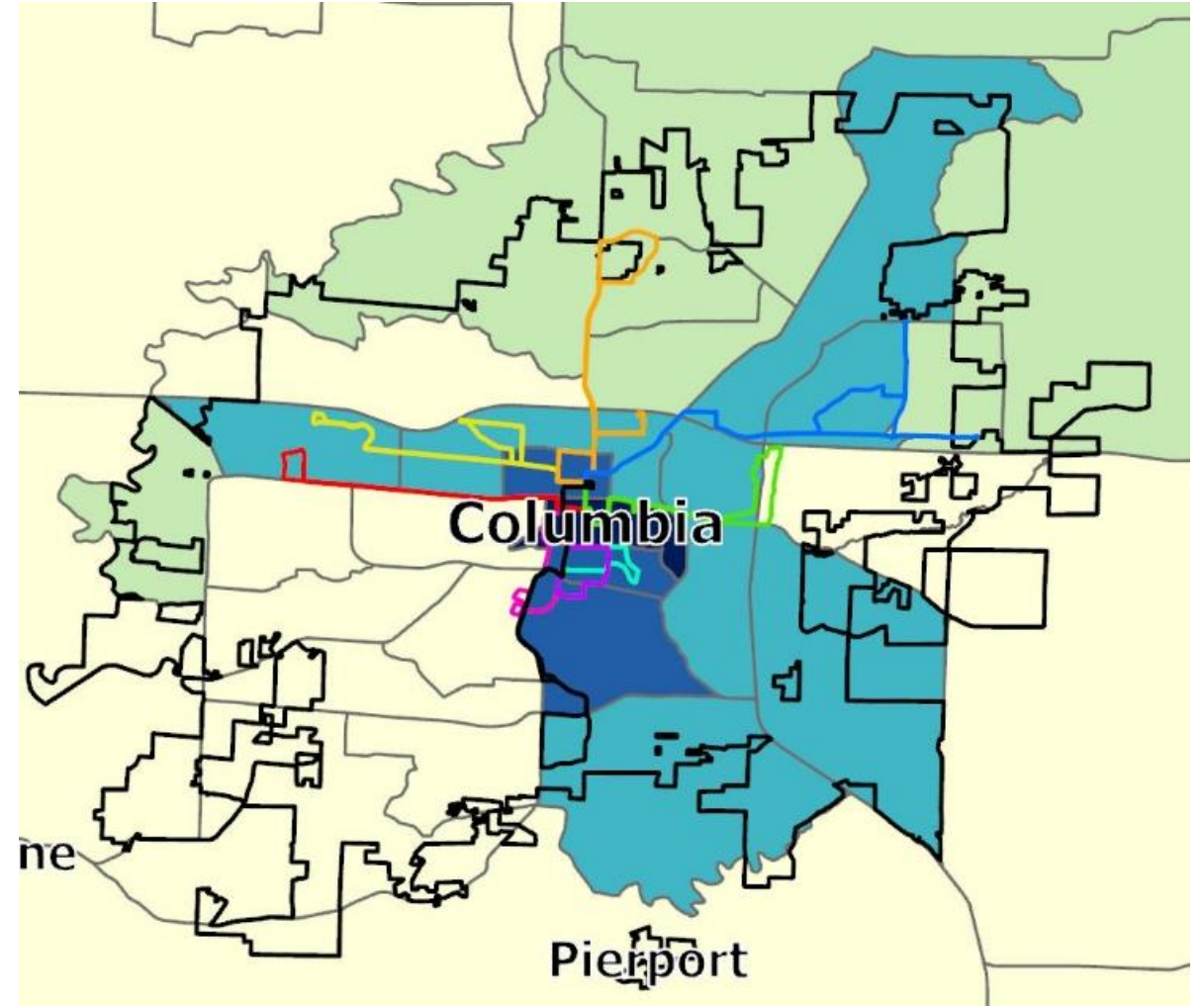
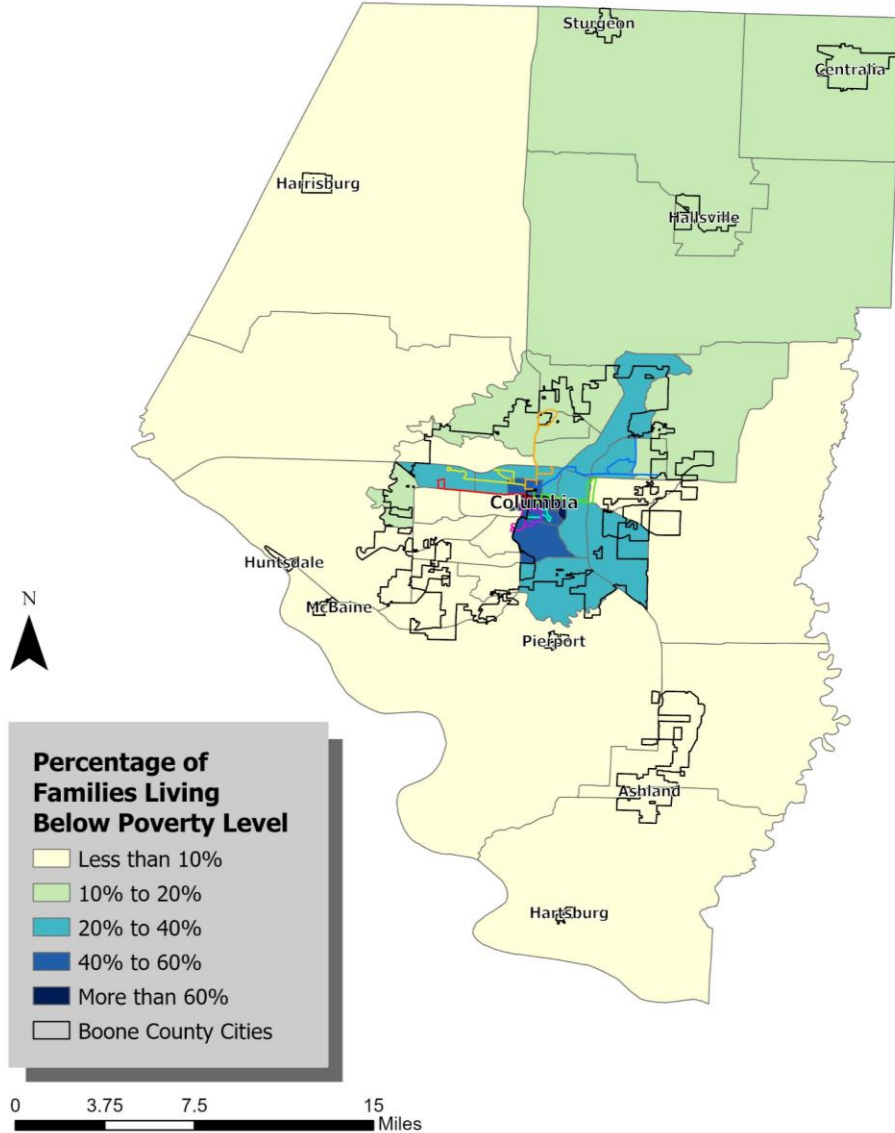
Jurisdiction	Population	Below Poverty Level	Percent	Below 200% Poverty Level	Percent
<b>City of Columbia</b>	<b>119,315</b>	<b>26,845</b>	<b>22.5%</b>	<b>41,732</b>	<b>35.0%</b>
Boone County	178,029	31,181	17.5%	52,547	29.5%
Missouri	6,005,542	791,030	13.2%	1,798,198	29.9%
United States	325,521,470	40,951,625	12.6%	92,319,944	28.4%

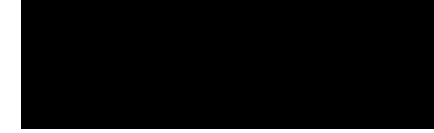
\* Population for whom poverty status is determined



**Boone County**

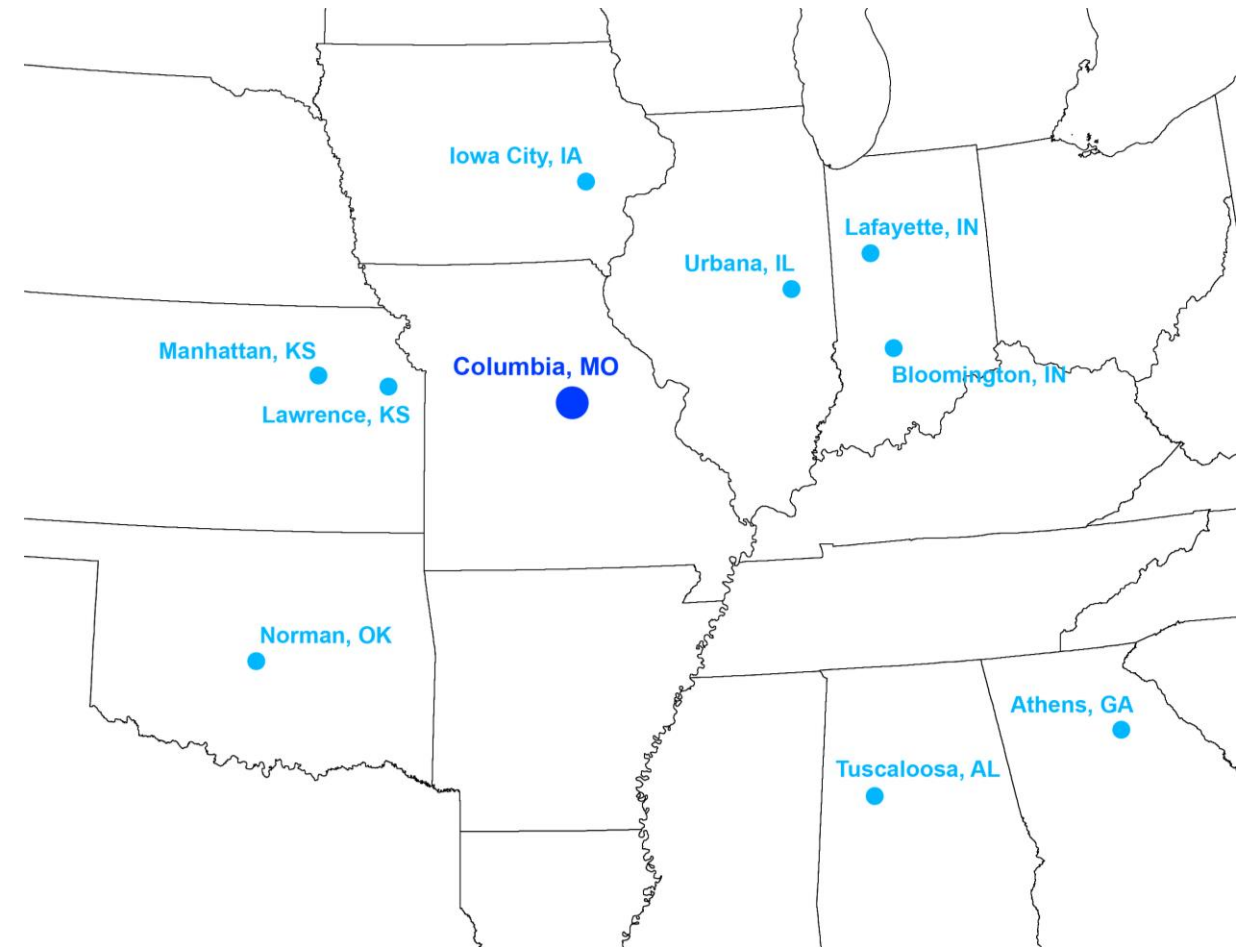
**City of Columbia**





# Initial Peer Review

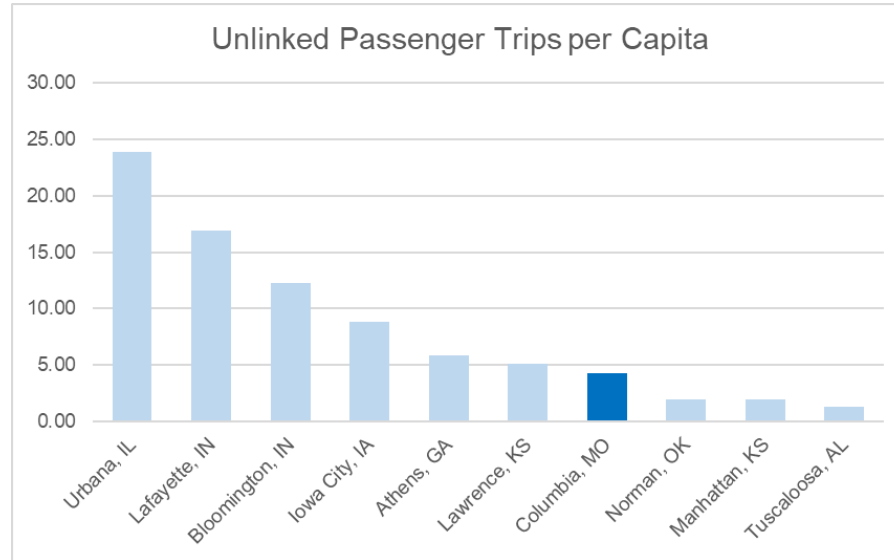
Agency	City	UZA Pop.	Enrollment <sup>^</sup>	% of UZA
Athens-Clarke County Transit Department***	Athens, GA	257,508	38,927	15.1%
City of Iowa City, dba: Iowa City Transit***	Iowa City, IA	213,242	31,630	14.8%
City of Lawrence***	Lawrence, KS	176,106	22,625	12.8%
Greater Lafayette Public Transportation Corporation	Lafayette, IN	147,725	42,809	29.0%
Champaign-Urbana Mass Transit District	Urbana, IL	145,361	40,477	27.8%
Tuscaloosa County Parking and Transit Authority	Tuscaloosa, AL	139,114	38,506	27.7%
<b>City of Columbia, dba: Go COMO</b>	<b>Columbia, MO</b>	<b>124,748</b>	<b>33,622</b>	<b>27.0%</b>
Bloomington Public Transportation Corporation	Bloomington, IN	108,657	36,708	33.8%
City of Norman	Norman, OK	103,898	24,910	24.0%
Flint Hills Area Transportation Agency, Inc, dba: ATABUS	Manhattan, KS	54,622	21,472	39.3%



<sup>^</sup> Population enrolled in college or graduate school, US Census  
Note: Enrollment is based on metropolitan statistical area (except Norman)

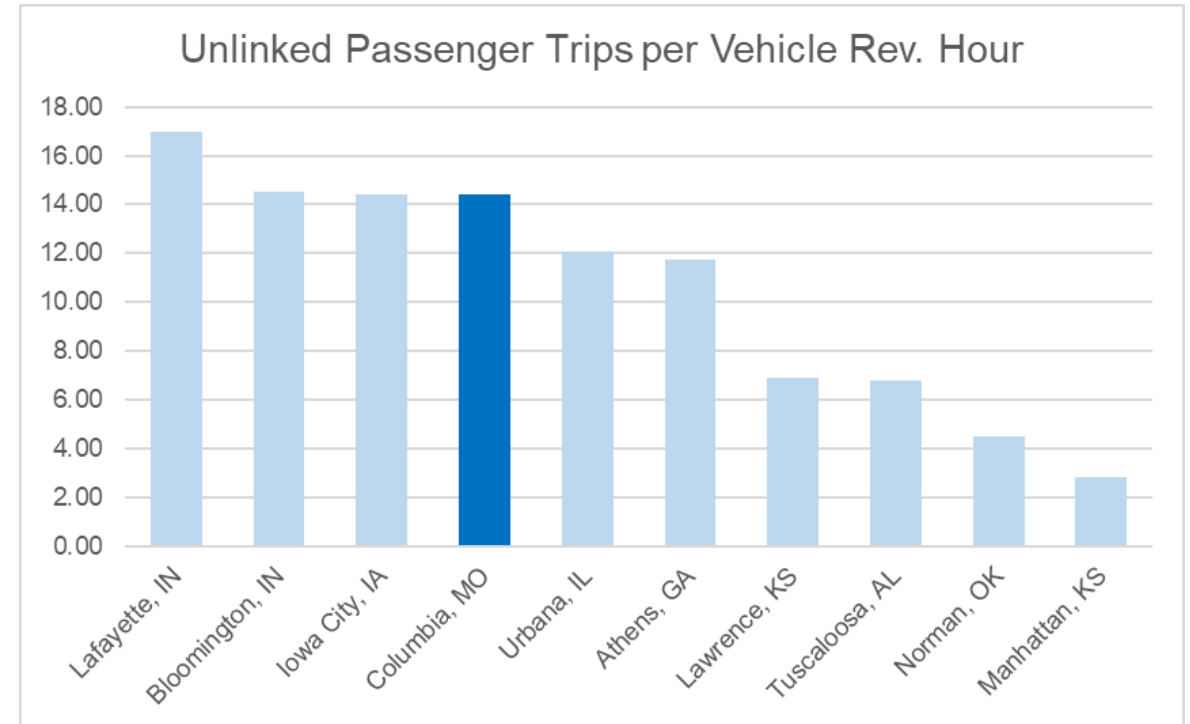
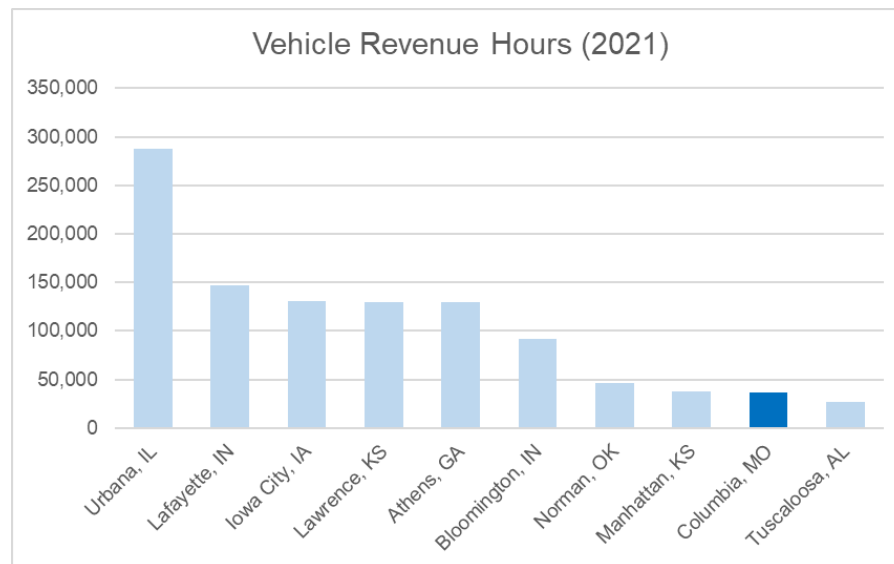


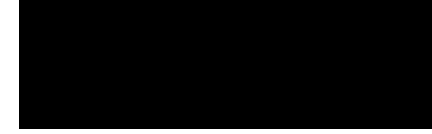
Ridership (total & per capita) is lower than most peers reviewed...



However, the service that is provided has high ridership compared to most peers.

...due to operating less service than most peers.



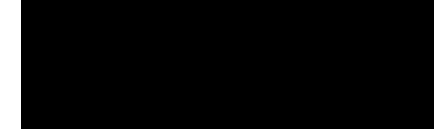


# Comprehensive Operations Analysis

- Service Effectiveness
  - Benefit to riders and the community
  - Ridership and destinations served
- Service Efficiency
  - Riders per service hour
  - System-wide and industry metrics
- Service Reliability
  - On-time performance
  - Can customers rely on service?

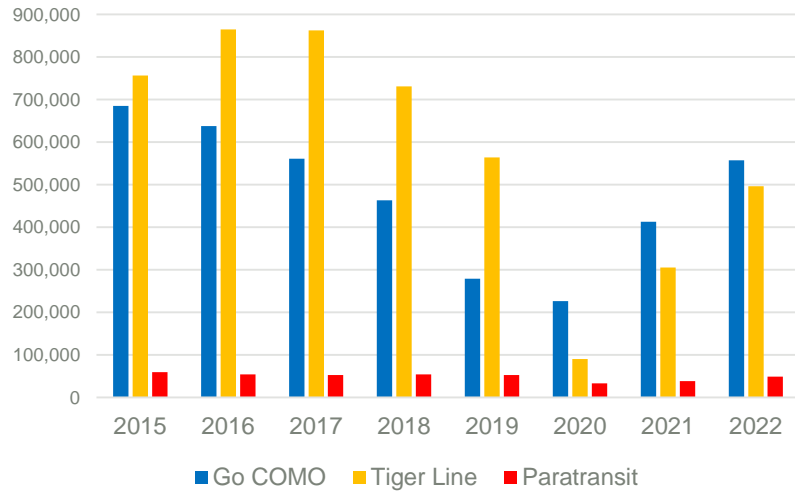




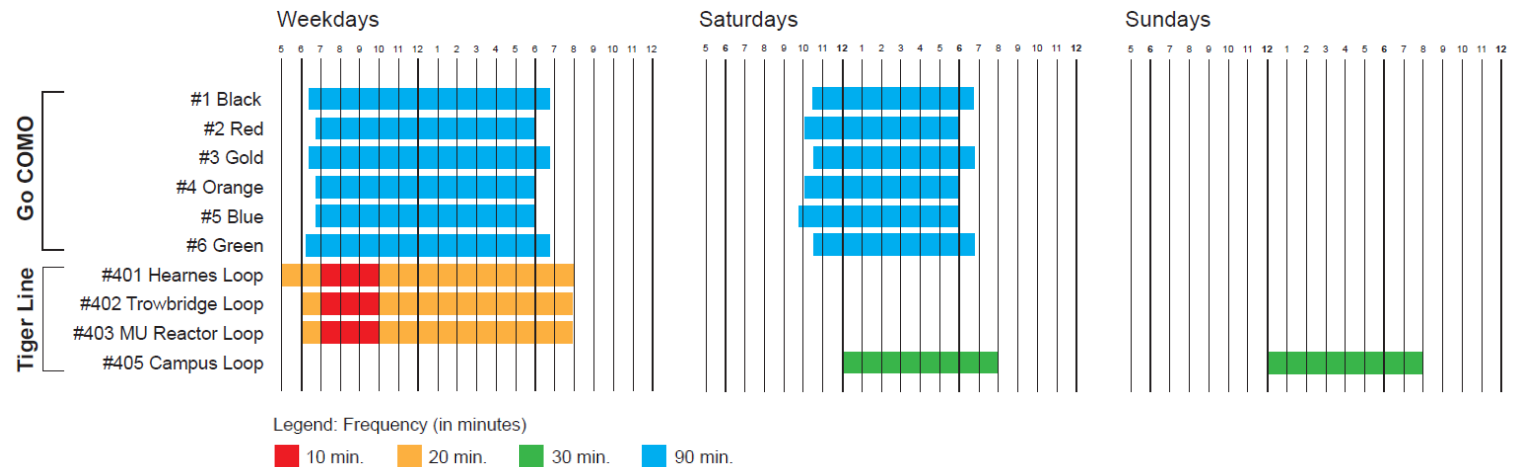


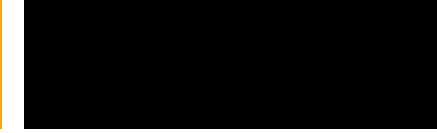
# Comprehensive Operations Analysis

## Annual Ridership by Service



## Span & Frequency: After Route Combining (Aug. 2023)



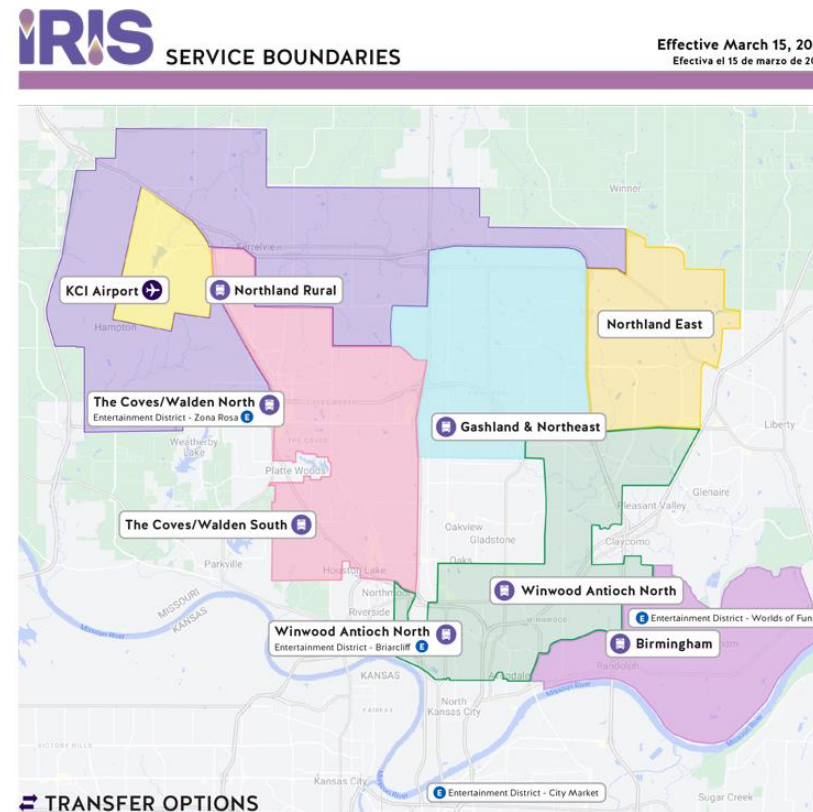


# Micro-Transit

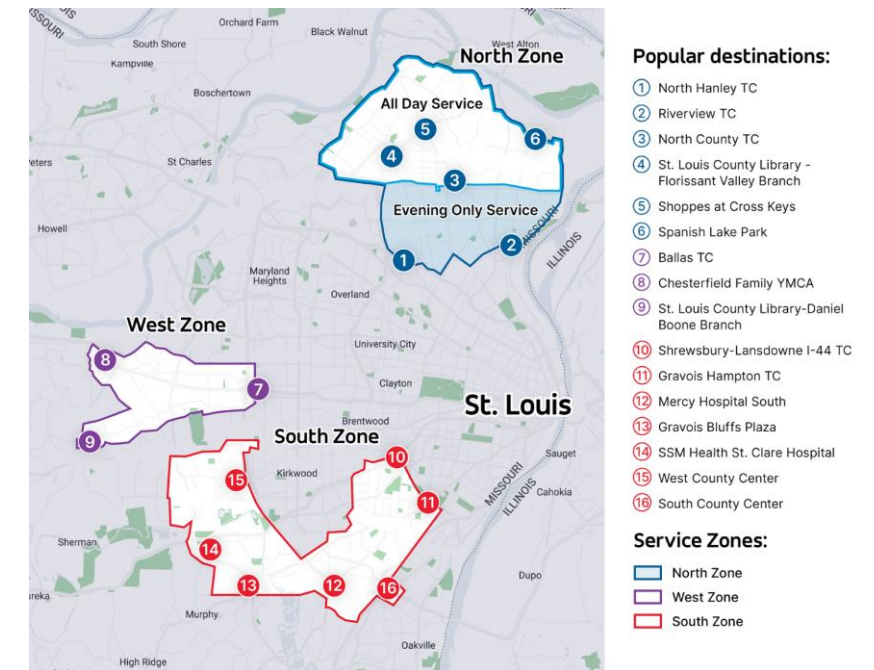
- Flexible service option
- Technology to allow for real-time booking
- Opportunity for expansion of coverage
- Compare efficiency to fixed route

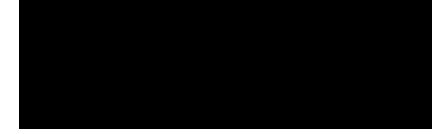
## Micro Transit Examples in Missouri

Kansas City (IRIS)

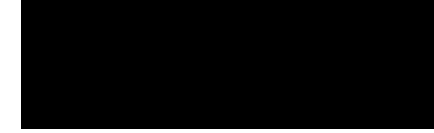


St. Louis (Via Metro STL)





# ***Plan Goals / Review of Feedback***



## Goal Setting

- Informed through public and stakeholder process
- Part of peer review

### What are the goals?

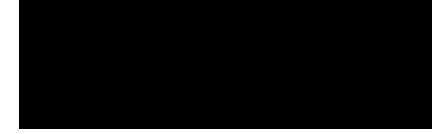
- Ridership?
- Efficiency? (e.g. cost per rider)
- Geographic coverage?
- Overall service levels?
- High-capacity service?
- Economic Development?





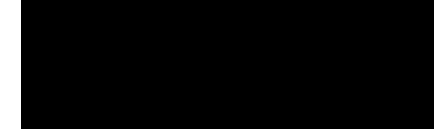
## PTAC & Public Input: Strengths

- Doing well with existing resources
- Free fares
- Central transfer location
- Paratransit services meet needs as well as possible
- Efforts to reach people that need it the most
- ADA accessibility (wheelchairs, walkers, canes)
- Moving to electric buses
- Accommodation of bikes
- Layout of routes, given limited resources
- Mobile app (but some mixed reviews)
- Communication: call center, social media, and email



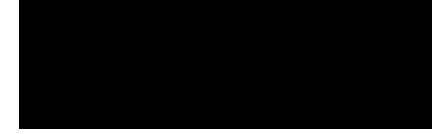
## PTAC & Public Input: Challenges

- Layout of city is challenging for transit
- Bus system can't grow with city
- First/last-mile connections are difficult
- Safety walking/biking (infrastructure)
- Frequency of service / Staffing
- Student shuttles: how to work with or integrate
- Hours of service, need evening options
- Doesn't connect to major employment centers



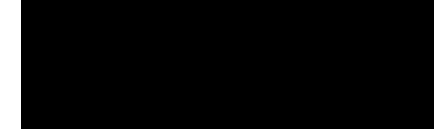
## PTAC & Public Input: Plan Goals & Implementation

- Citizens and visitors should have mobility options and not need a vehicle to get around.
- If you could fix two things immediately, what would they be?
  - Frequency
  - Funding
  - Marketing of service
  - Wheelchair space on bus
  - Arrival/departure signs at major bus stops
  - Accessibility of bus stops and signage
  - Need more shelters
  - App could be improved (Saturday schedules)
  - Google Maps integration



# *Planning Priorities*





# Planning Priorities: Public Input



## Strong Preference

**1** **A: Run buses more frequently on existing routes.**

or

**B: Add or extend routes to new destinations, but with less frequency.**

For a similar cost:

Short route with 30-minute frequency.



Long route with 60-minute frequency.

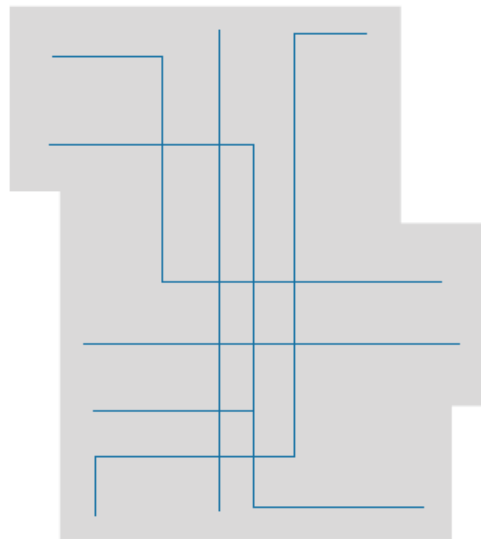




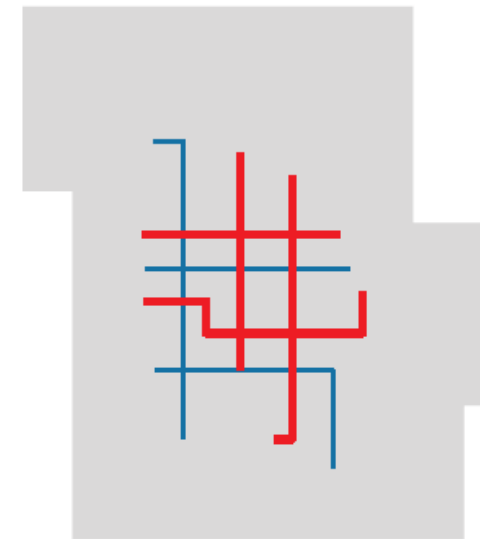
# Planning Priorities: Public Input

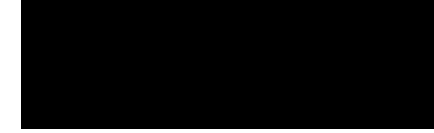
## *Roughly Equal Preference*

**2** **A: Serve as much of Columbia as possible.** or **B: Concentrate service in high ridership areas.**

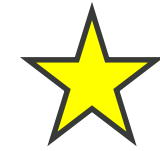


— Frequent route  
— Infrequent route  
■ City boundary (conceptual)





# Planning Priorities: Public Input

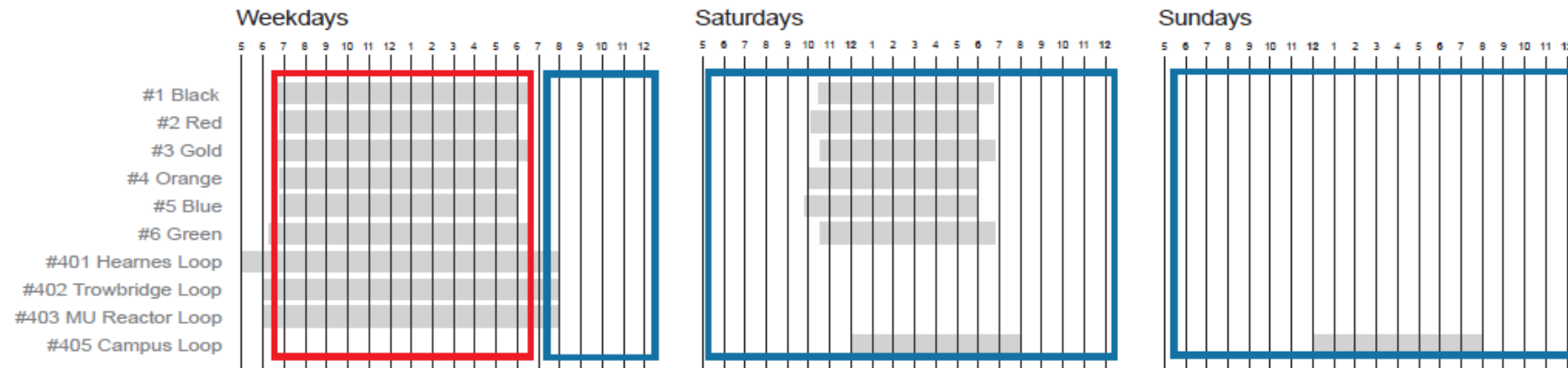


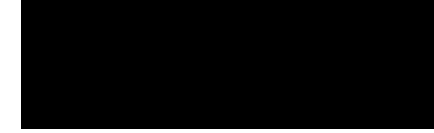
**Slight Preference**

**3** **A: Add more service during peak periods (weekdays, rush hours, etc.)**

or

**B: Add more service during off-peak periods (nights, weekends, etc.)**



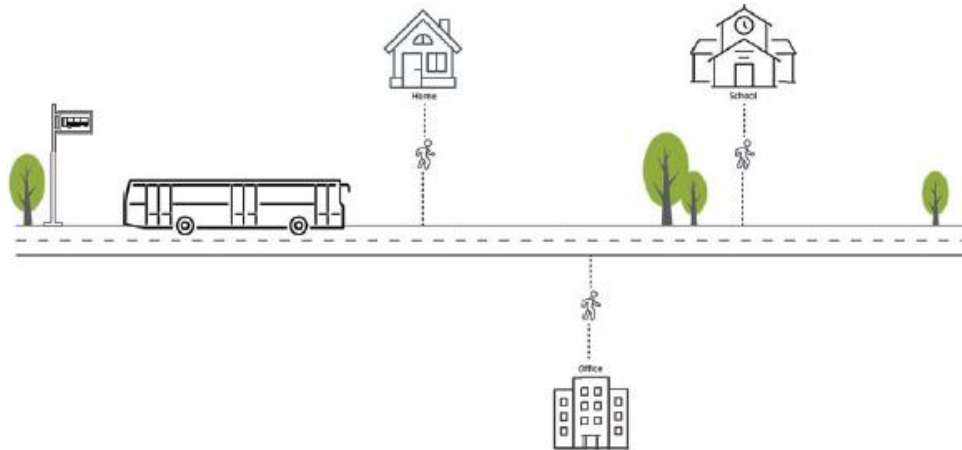


# Planning Priorities: Public Input



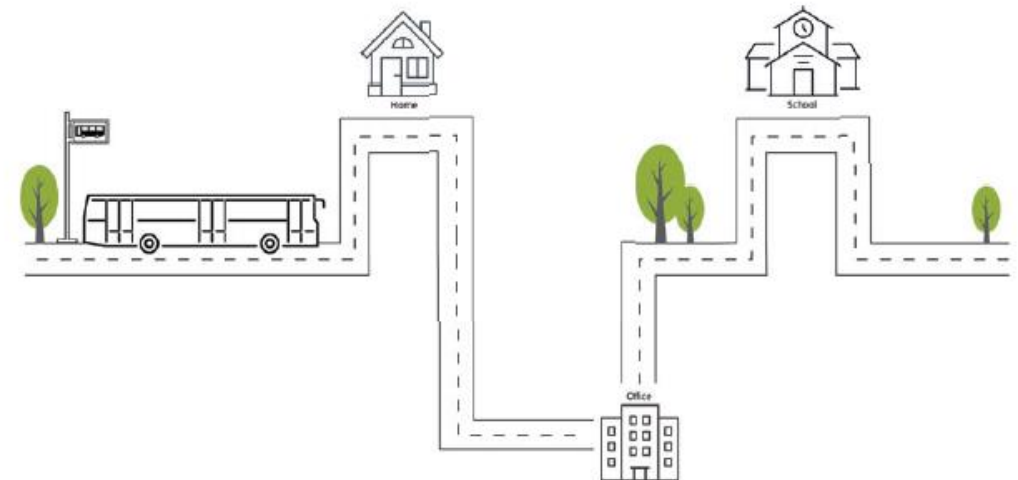
## Strong Preference

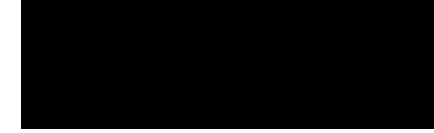
**4** **A:** Routes that travel quickly, but with fewer deviations and stops, often requiring longer walks.



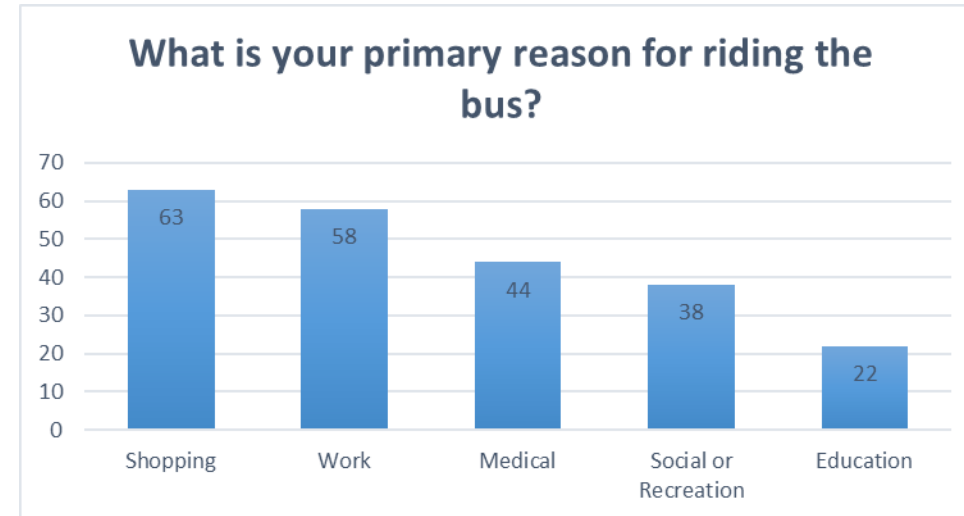
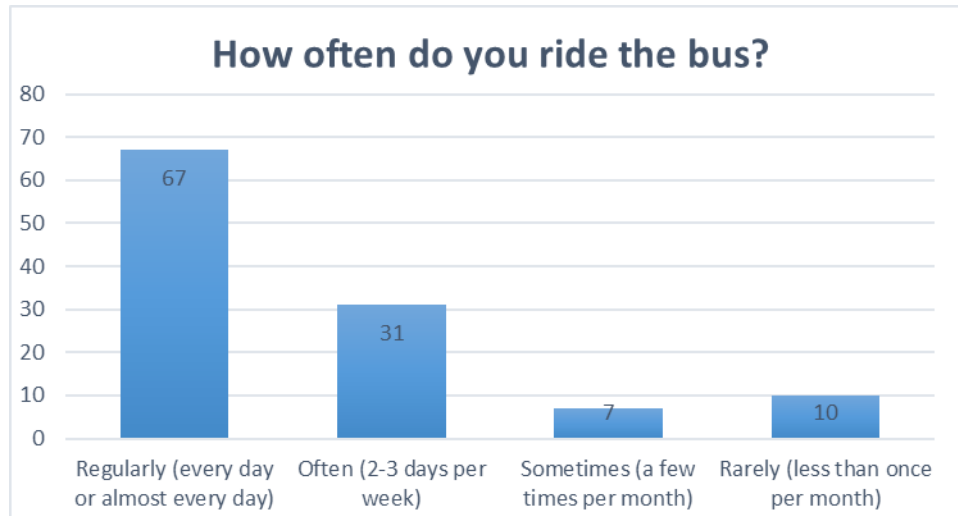
or

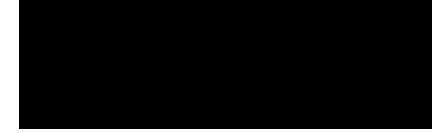
**B:** Routes that serve many destinations directly, but cause the route to be slow.



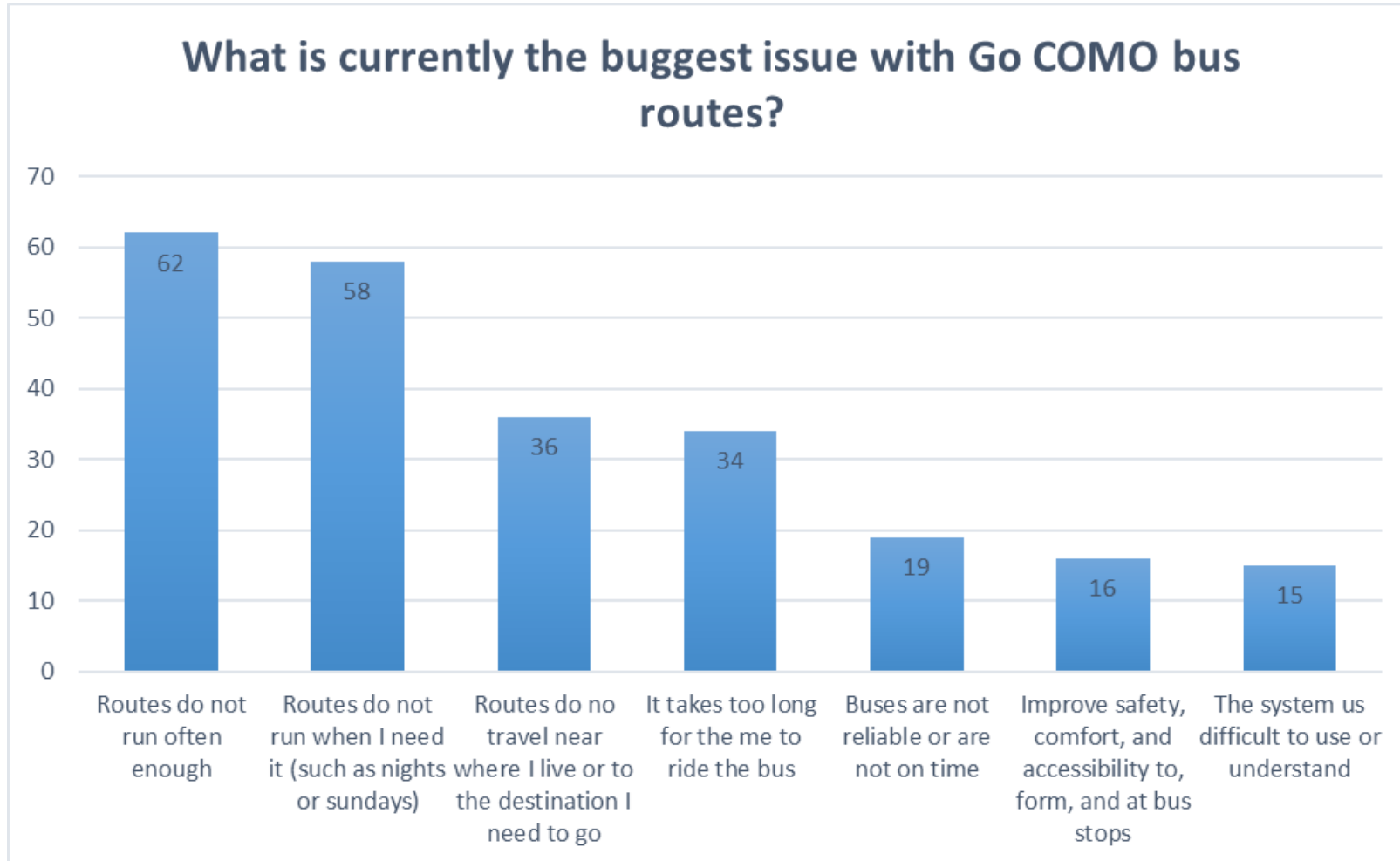


# On-Board Rider Survey (November 2023)





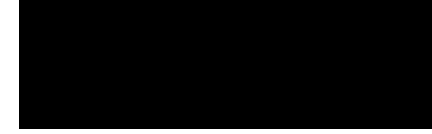
# On-Board Rider Survey (November 2023)





## PTAC & Public Input: Takeaways

- Agreement that service is more limited than it should be.
- But current route alignments generally make sense, given resources.
- Recruitment and retention of staff is high priority (current 90-minute service not meeting needs).
- Planning Priorities:
  - Upgrading frequency and expanding hours on existing system are the most critical near-term needs.
  - Increased coverage, and expanding service more broadly is desired, but secondary to improving existing services.
  - Identify opportunities for more direct service & travel time savings.
  - Need a longer-term vision for growth, after initial improvements are made
  - Specific need for employment access on Paris Rd./Route B corridor



# *Service Concepts – Near Term*





# Service Concepts Overview

What are these service concepts?

- They are not recommendations
- Meant to communicate ideas and challenges
- “What would it look like if...”
- Initial reactions and observations

Process: Concepts → Alternatives → Recommendations

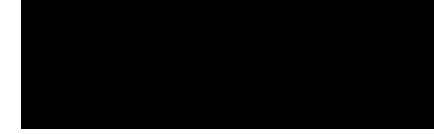
- Input will help refine concepts into more specific alternatives
- Alternatives go through evaluation process
- Evaluation leads to recommendations for multiple phases of implementation

**Near-Term Concepts:** budget-neutral scenarios

**Long-Term Concepts:** alignment with peer service levels (10-year horizon)

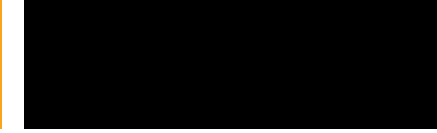
Note:

For these concepts, “Existing Service” = 45-minute frequency at full staffing



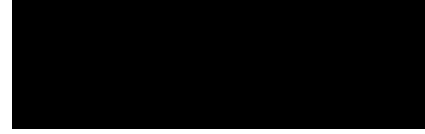
# Near-Term Concepts Overview – Budget Neutral

Concept	Description	Pros	Cons
Near Term - Concept 1	More Frequent Service	30 minute service on weekday and 75 Saturday	Eliminates lower productive route segments
Near Term - Concept 2	More Coverage	Provides bus service to new areas	Less frequent headways at 60 minute for weekdays
Near Term - Concept 3	Evening & Sunday	Provides evening and limited Sunday Service	Reduces Weekday mid-day service. Reduces Saturday to 4 hour service
Near Term - Concept 4	Microtransit	Provides high level of service for bus riders	Combines Red & Gold into 1 route and reduces coverage of Black route

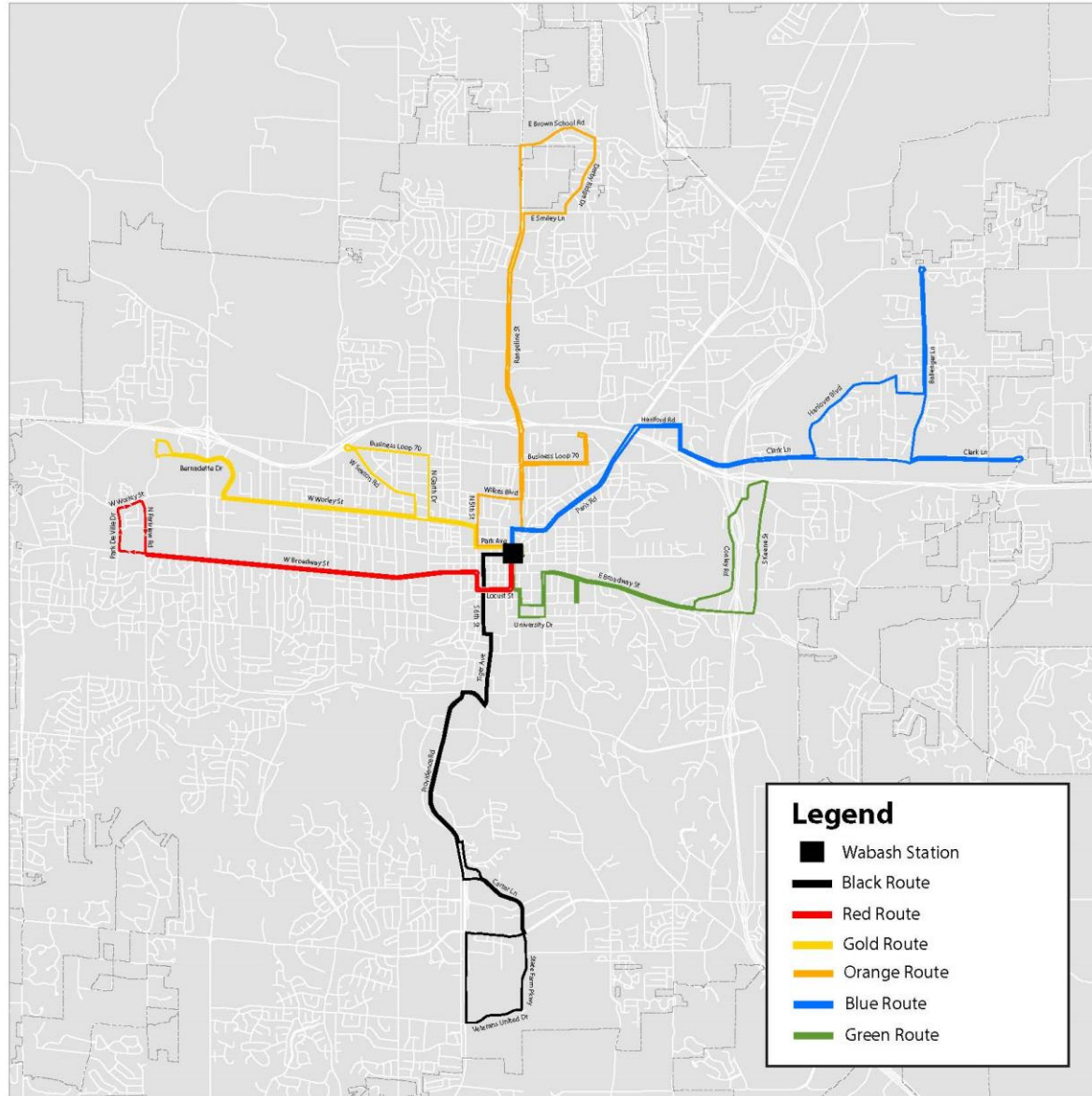


# Near-Term Concept #1: More Frequent Service

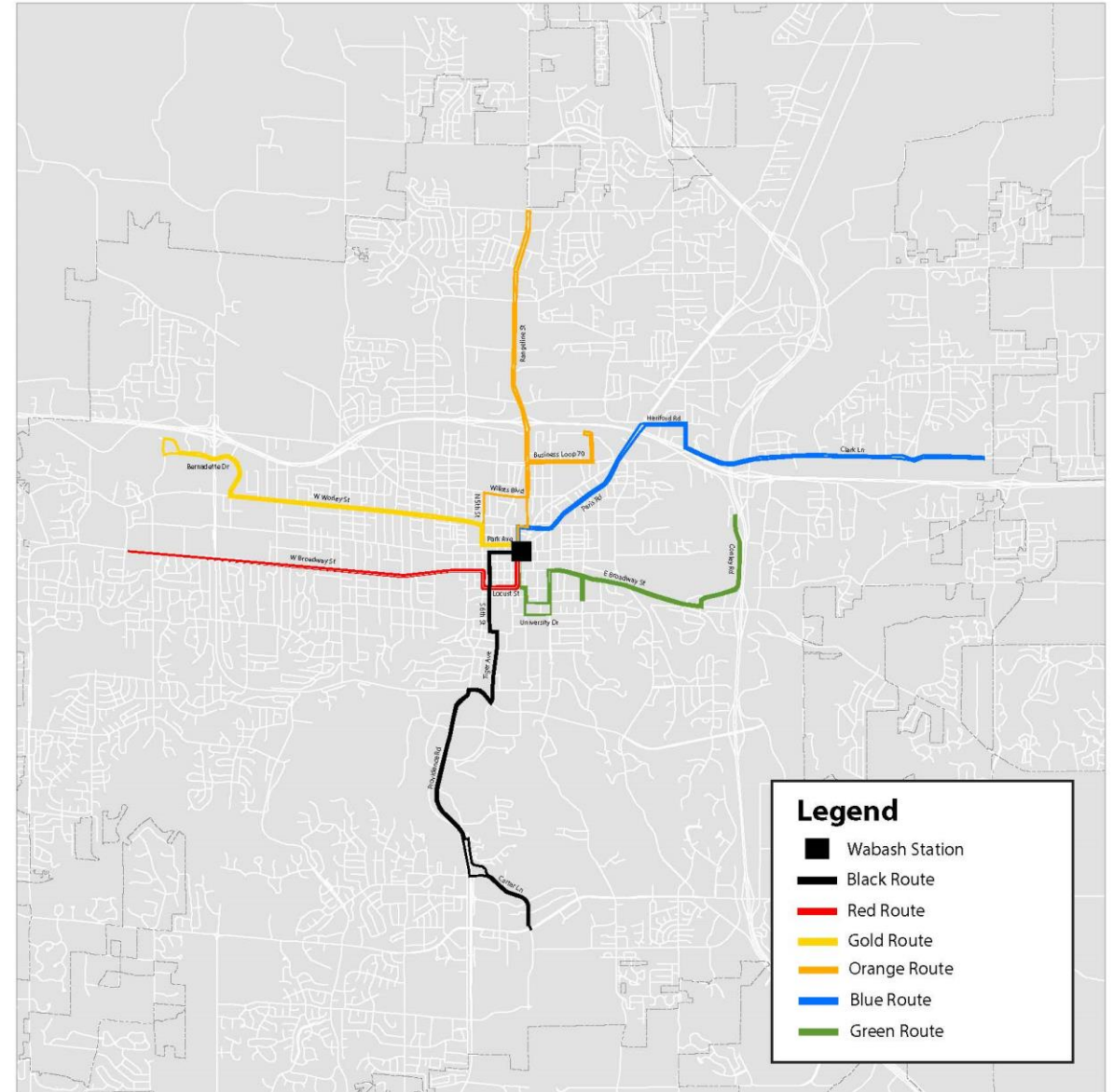
Route	Headways		Pros	Cons
	Weekday	Saturday		
Black	30		Improved Frequency	Loss of shopping and medical services Loss of shopping such as Walmart and Hy-Vee. Increase walking distance for riders Impacts an area of low-income households Loss of service to large neighborhood. Loss of service to low-income households. Increases walk for riders Loss of access to medical & shopping areas
Black/Orange		75		
Red	30			
Red/Green		75		
Gold	30			
Gold/Blue		75		
Orange	30			
Blue	30			
Green	30			

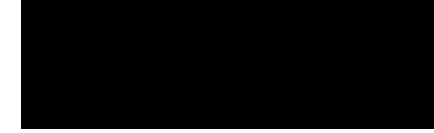


### Existing Service



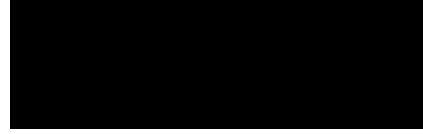
### Near-Term Concept #1: More Frequent Service



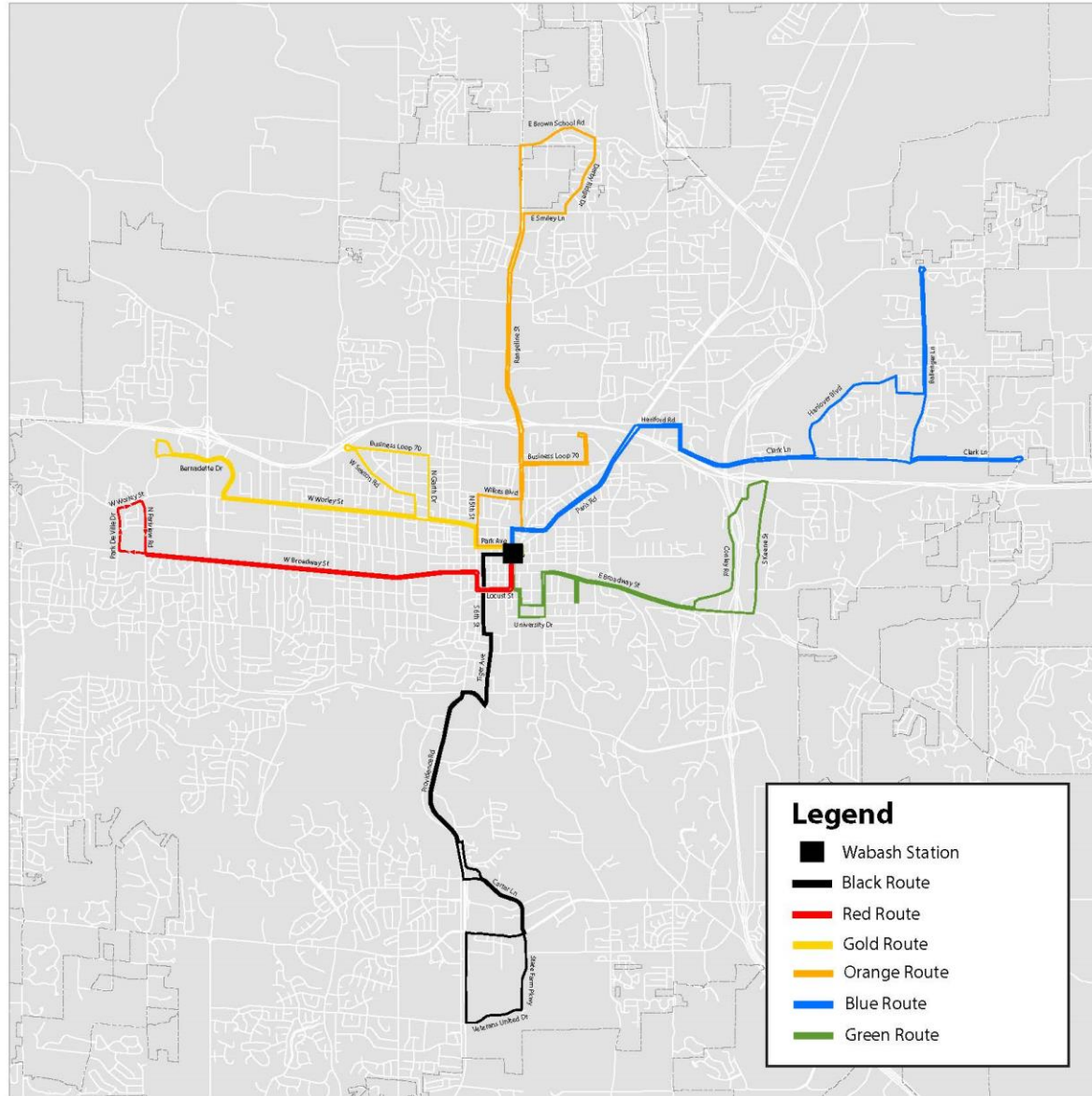


## Near-Term Concept #2: More Coverage

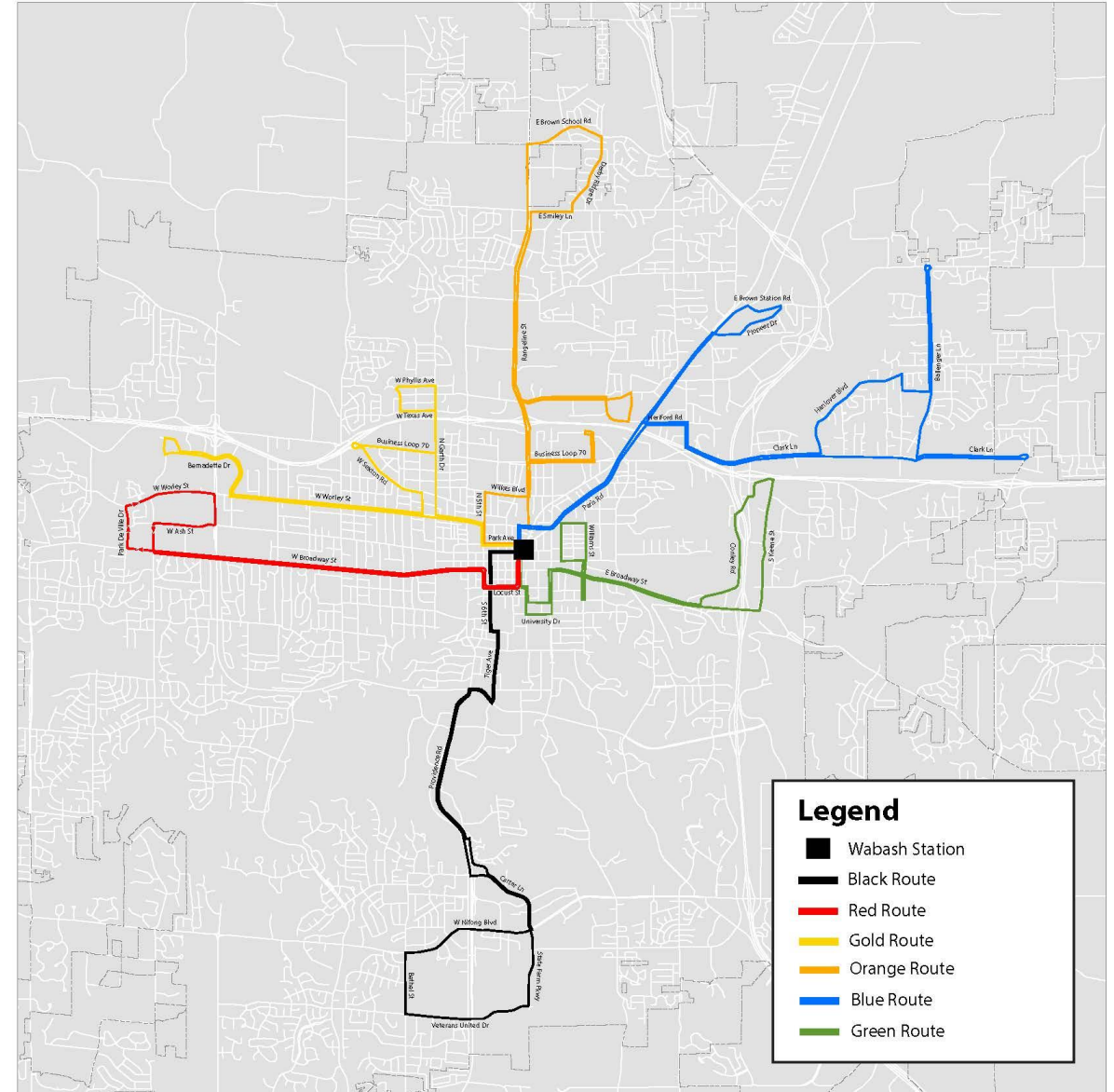
Route	Headways		Pros	Cons
	Weekday	Saturday		
Black	60		New service to shopping and Middle School	Longer frequency of buses
Black/Orange		105		
Red	60		Allows transfer opportunity w/ Gold Route at Columbia Mall. Serves more	
Red/Green		105		
Gold	60		New service to neighborhood areas	
Gold/Blue		105		
Orange	60		Serves low income housing, food pantry and commercial area	
Blue	60		Serves an area with 0-1 car households, lower income area and	
Green	60		Serves portion of Univ of Mizzou and resid	

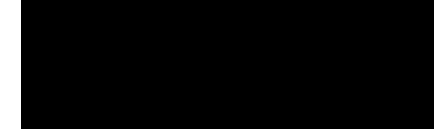


**Existing Service**



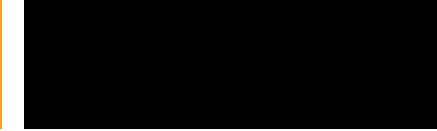
**Near-Term Concept #2: More Coverage**



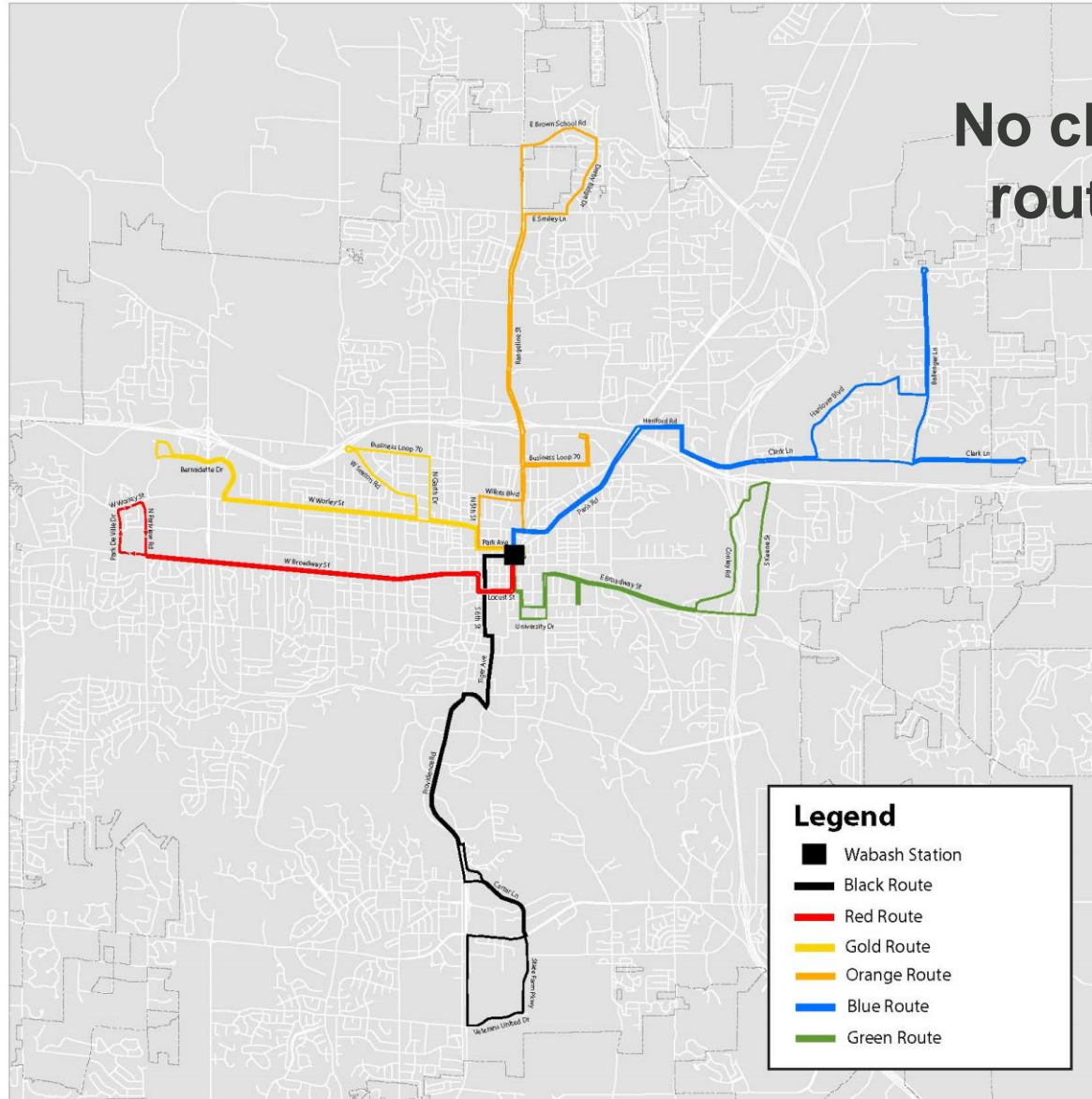


## Near-Term Concept #3: Evening & Sunday Service

Route	Weekday Headways	Saturday Headways	Sunday Headways	Pros	Cons
Black	45			Provides later service for riders and limited Sunday service	No transportation service for 2 hours during Weekdays, mid-day. Reduces Saturday service to 4 hours
Black/Orange		90	90		
Red	45				
Red/Green		90	90		
Gold	45				
Gold/Blue		90	90		
Orange	45				
Blue	45				
Green	45				

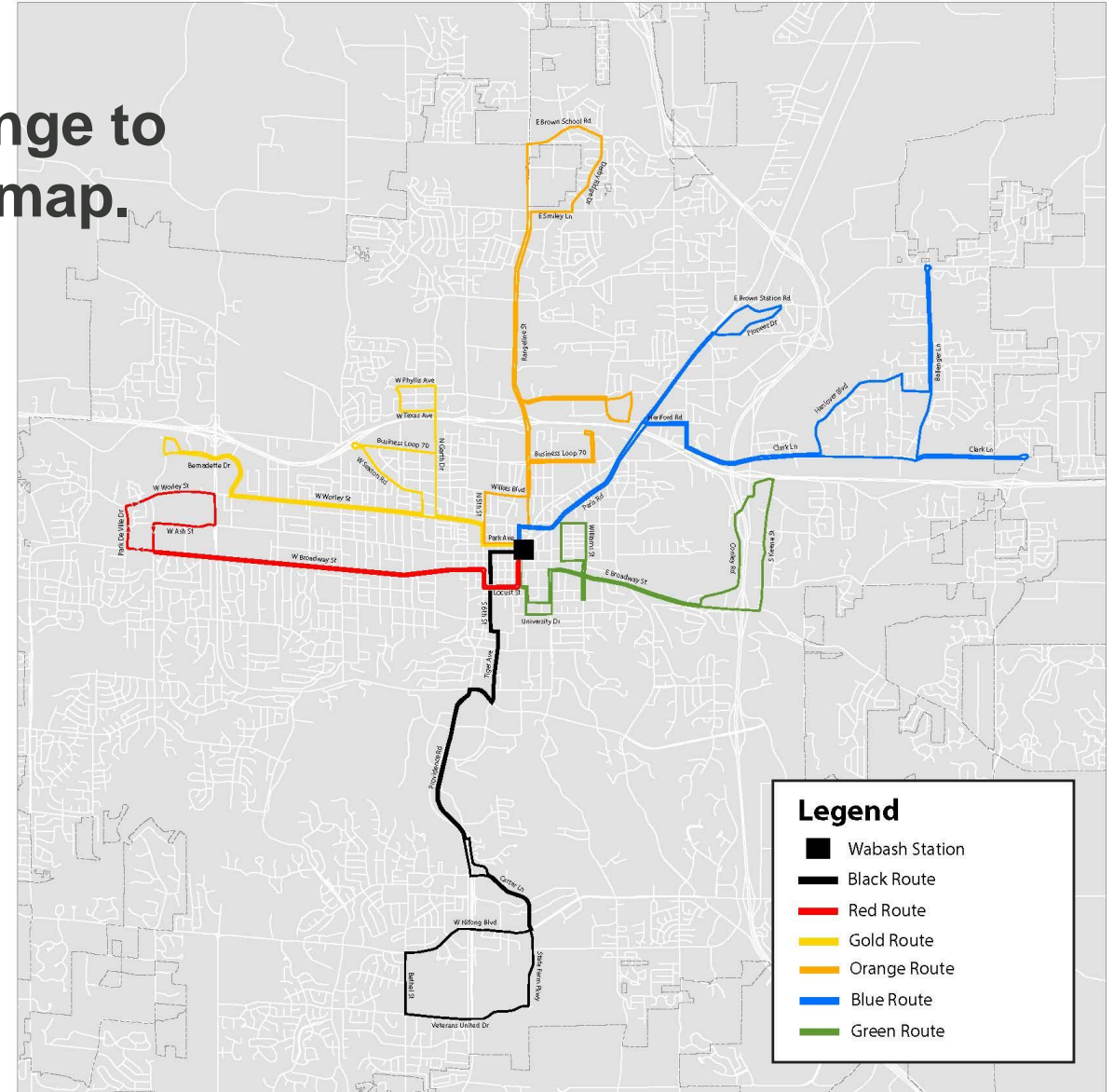


**Existing Service**

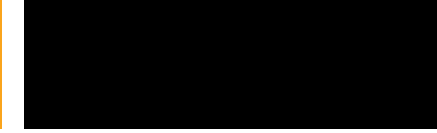


**No change to  
route map.**

**Near-Term Concept #3: Evening & Sunday Service**

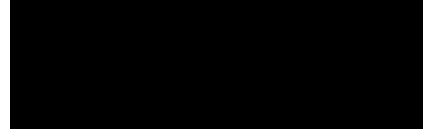




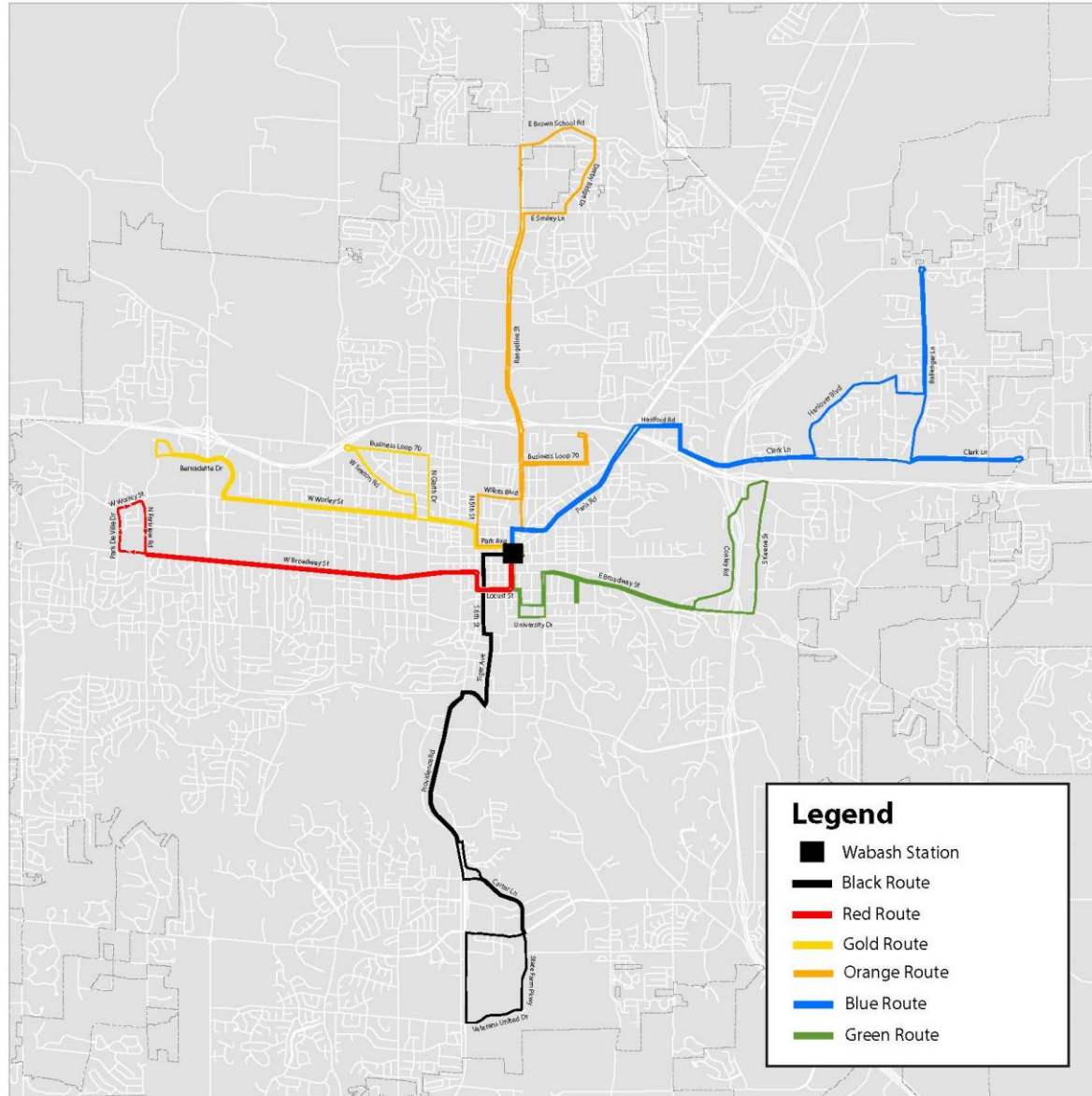


# Near-Term Concept #4: Microtransit

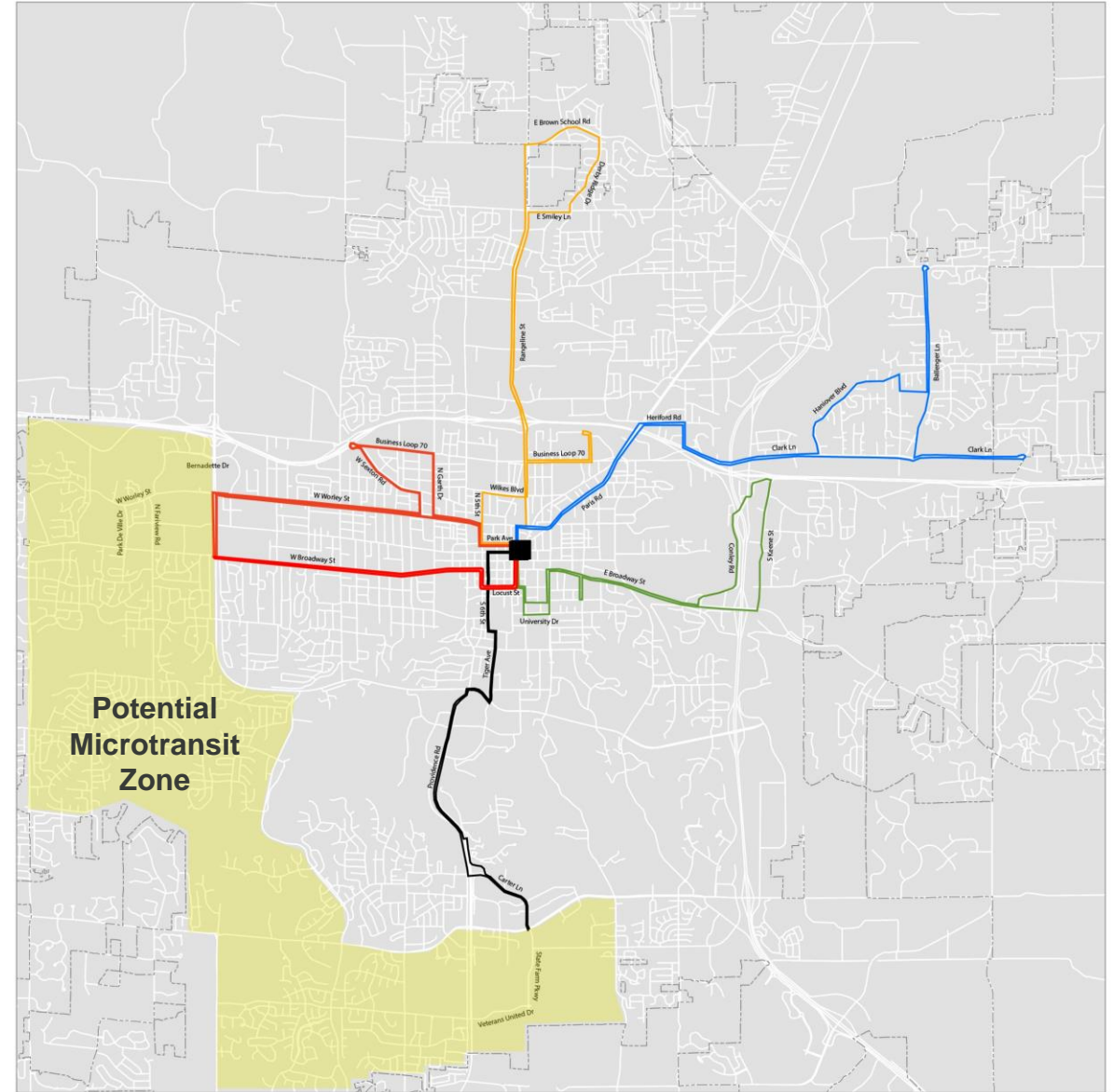
Route	Weekday Frequency	Saturday Frequency	Pros	Cons
Black	45	90	Maintains most weekdays headways at 45	Eliminates route segments of Black, Red & Gold. No service to Columbia via Gold route
Red/Gold	90			
Orange	45			
Blue	45			
Green	45			
Microtransit				

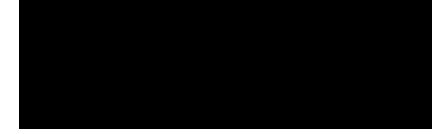


### Existing Service

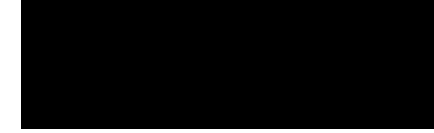


### Near-Term Concept #4: Microtransit





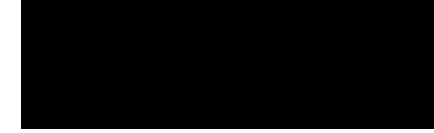
# *Service Concepts – Long Term*



# Long-Term Concepts Overview – Growth Scenario

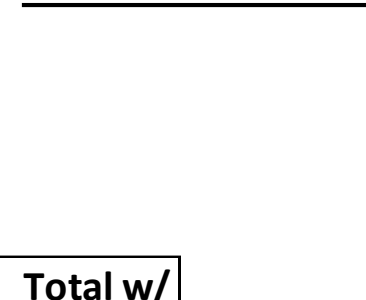
- Four concepts, each with increasing service level

Concept	Description	Pros	Cons
Long Term - Concept 1	More frequent service. Longer span of service for Saturday.	Addresses priority of bus riders for more frequent service	Higher operating costs
Long Term - Concept 2	New route to serve NE area, Downtown trolley and Sunday service	New route serves an area with ridership potential	Higher operating costs
Long Term - Concept 3	Increase frequency on Green & Blue Weekday routes, later service for Weekday and Saturday. Downtown Trolley	Further addresses need for frequency and later service.	Higher operating costs
Long Term - Concept 4	Implement Bus Rapid Transit to replace portions of Red & Green routes. Increase frequency for Weekday and Saturday routes.	BRT provides a high level of service for transit riders.	Higher operating costs



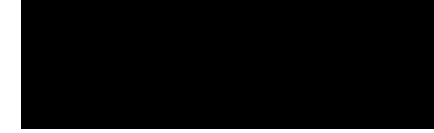
# Long-Term Concepts Overview – Growth Scenario

- Comparison with peer agencies (annual service hours)



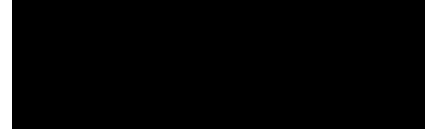
	Daily			Annual			GoCOMO Total	Total w/ TigerLine	Peer Comparison
	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday			
Existing	70.44	24.67		17,680	1,234		<b>18,914</b>	36,615	approx. 33% of peer avg.
Concept 1	162.96	57.57		40,903	2,879		<b>43,781</b>	61,483	approx. 50% of peer avg.
Concept 2	216.10	80.91	77.91	54,241	4,046	3,896	<b>62,182</b>	79,883	approx. 75% of peer avg.
Concept 3	296.80	97.91	76.91	74,497	4,896	3,846	<b>83,238</b>	100,939	approx. 100% of peer avg.
Concept 4	420.50	221.01	116.25	105,546	11,051	5,813	<b>122,409</b>	140,110	approx. 125% of peer avg.

Note: assumes no change to Tiger Line service (all above Concepts only affect Go COMO service)

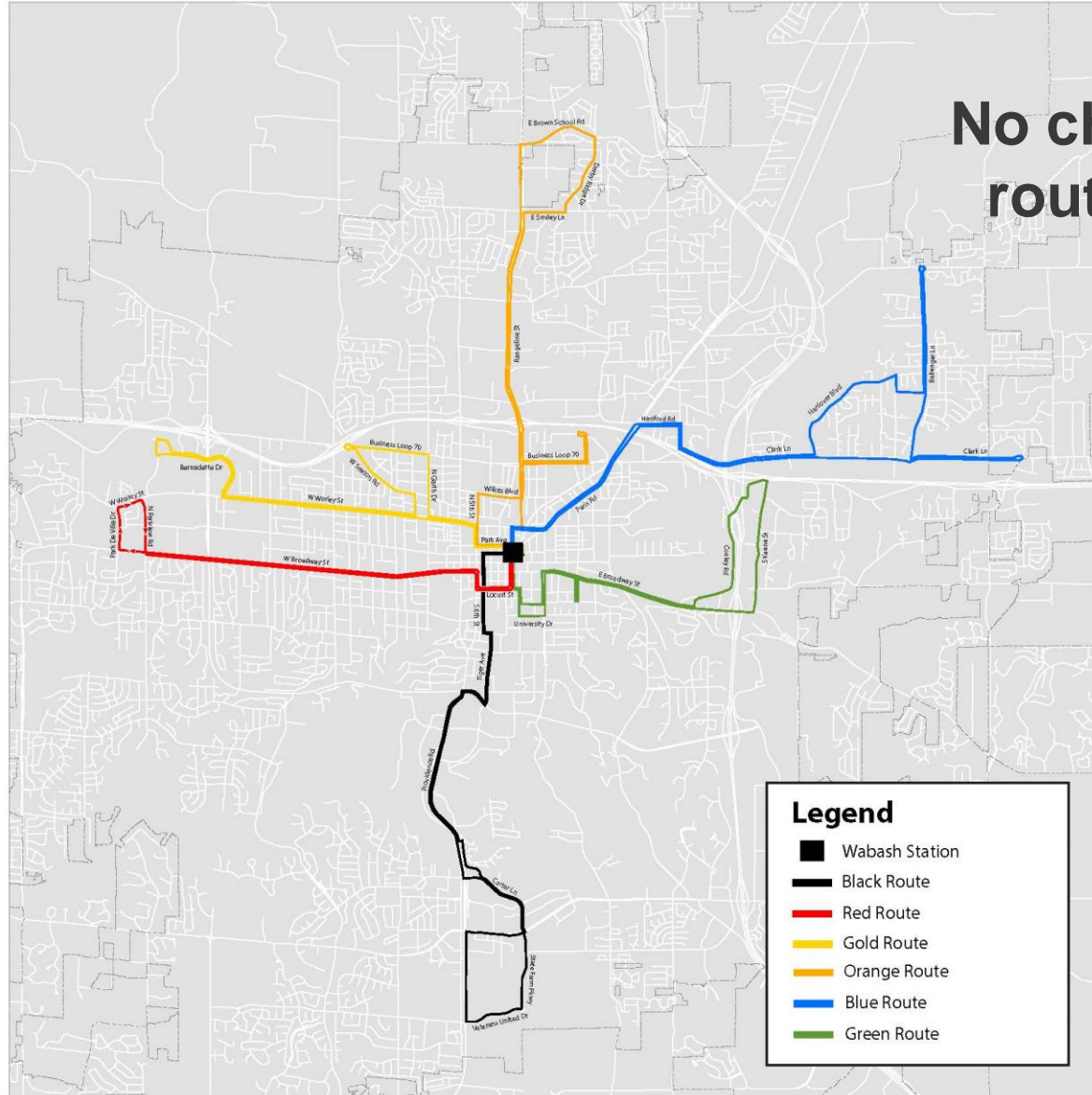


# Long-Term Concept #1: More Frequent Service

Route	Headways		Pros	Cons
	Weekday	Saturday		
Black	30	45	Provides 30 minute weekday service and later evening service. Starts Saturday service 2 hours earlier	Increased operating cost of X%
Red	30	45		
Gold	30	45		
Orange	30	45		
Blue	30	45		
Green	30	45		

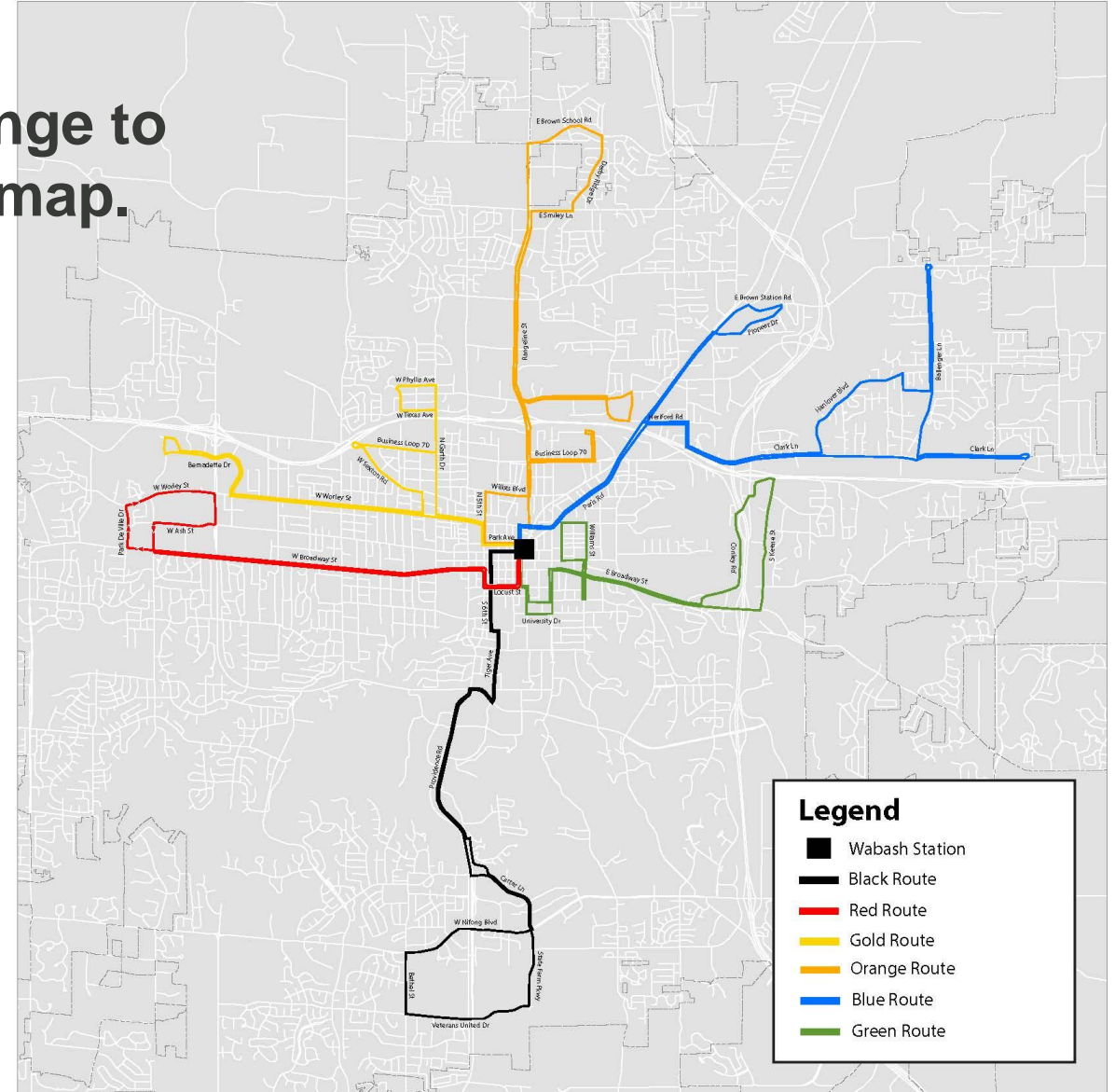


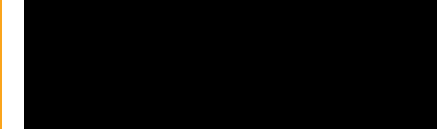
**Existing Service**



**No change to  
route map.**

**Long-Term Concept #1: More Frequent + Evening Service**





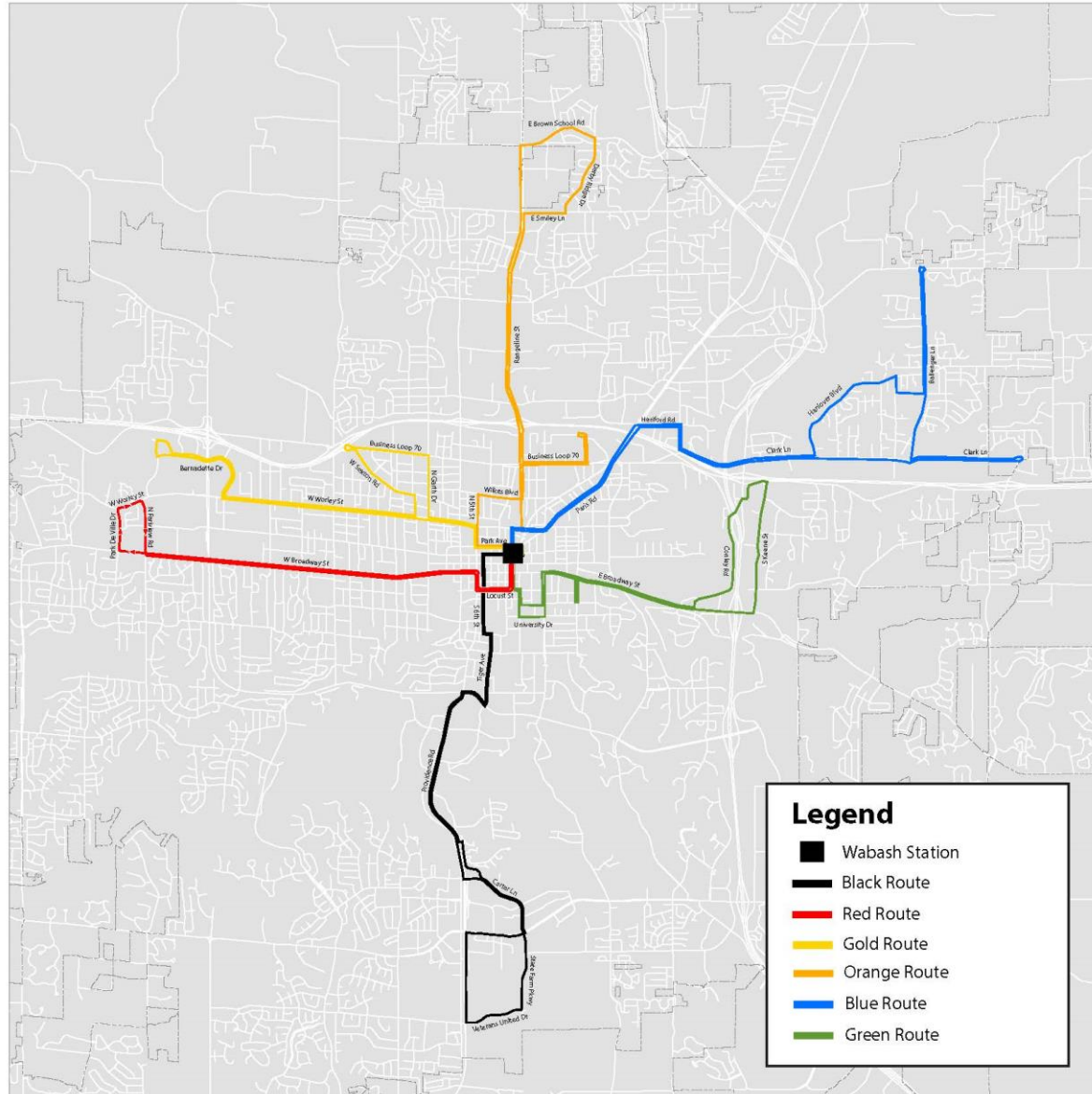
## Long-Term Concept #2: New NE Route, Downtown Trolley, & Sunday

Route	Weekday Headway	Saturday Headways	Sunday Headways	Pros	Cons
Black	30	45	45	Purple route provides service to area with ridership potential. Downtown trolley provides convenient option for downtown commuters	Increased operating cost of X %
Red	30	45	45		
Gold	30	45	45		
Orange	30	45	45		
Blue	30	45	45		
Green	30	45	45		
Purple	30	45	45		
Downtown Trolley	10	20	20		

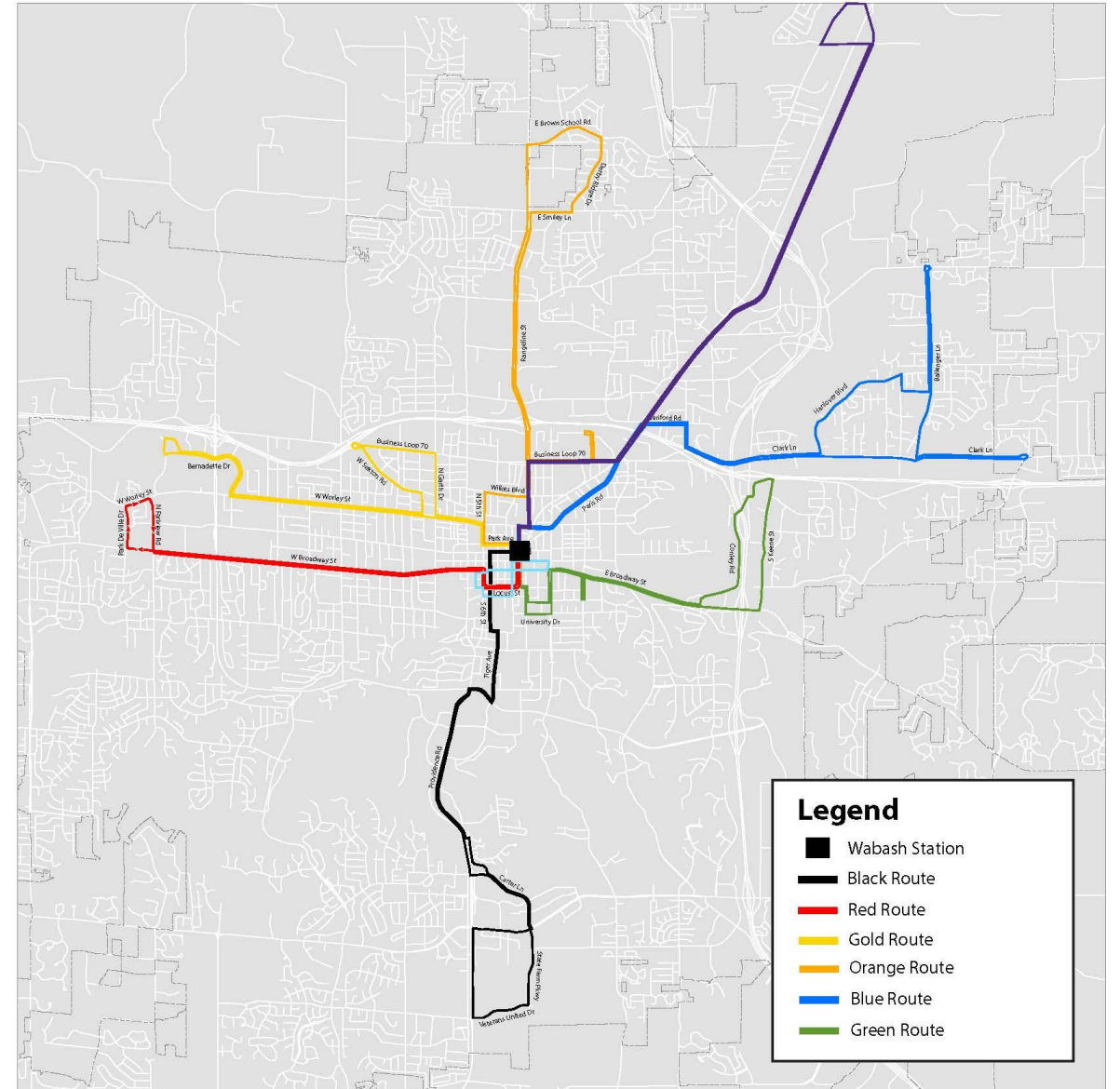




**Existing Service**



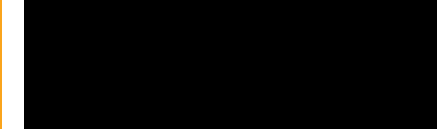
**Long-Term Concept #2: New NE Route, Downtown Trolley, & Sunday**



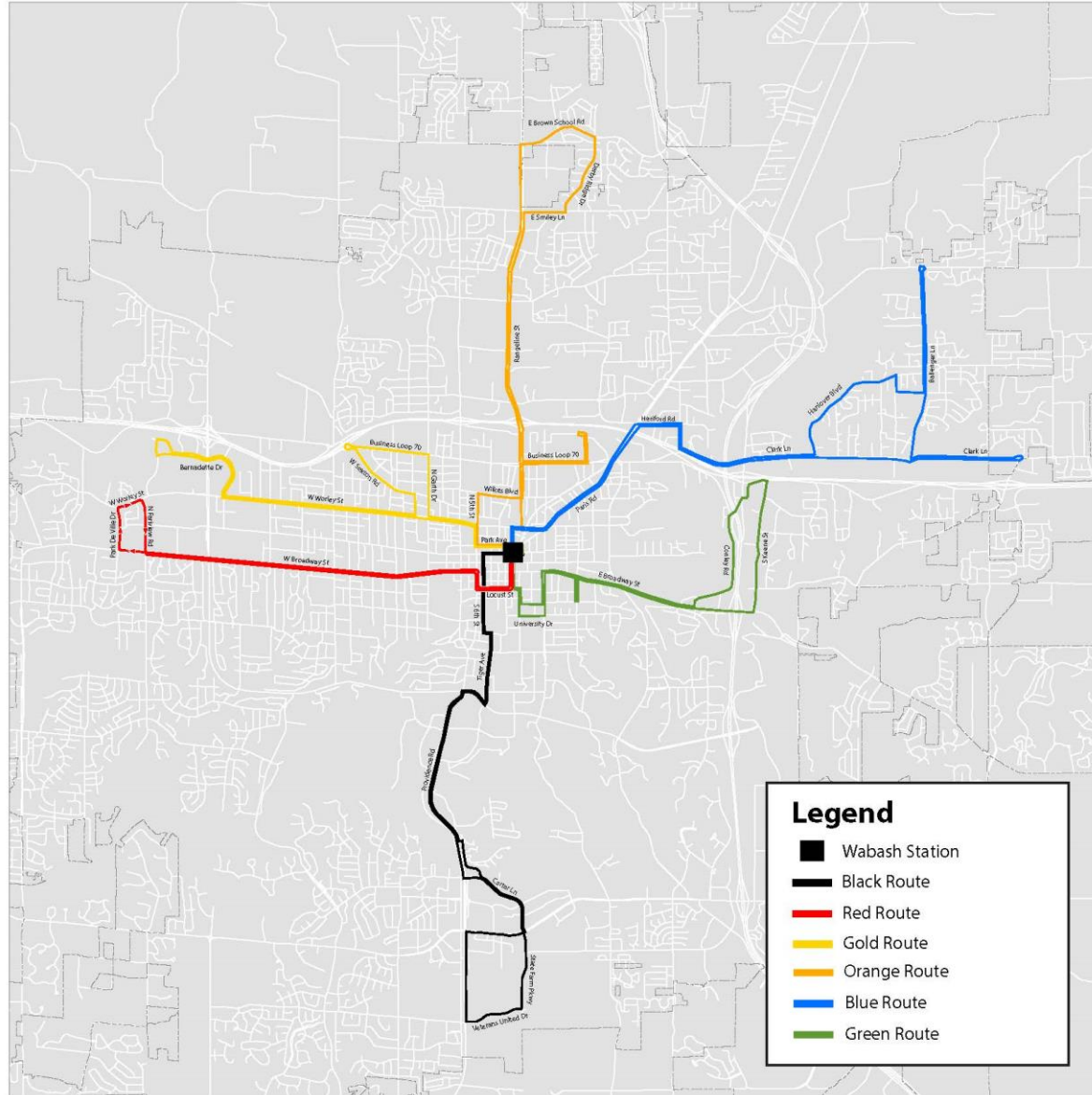


## Concept #3: Increase Frequency & Add Evening Service

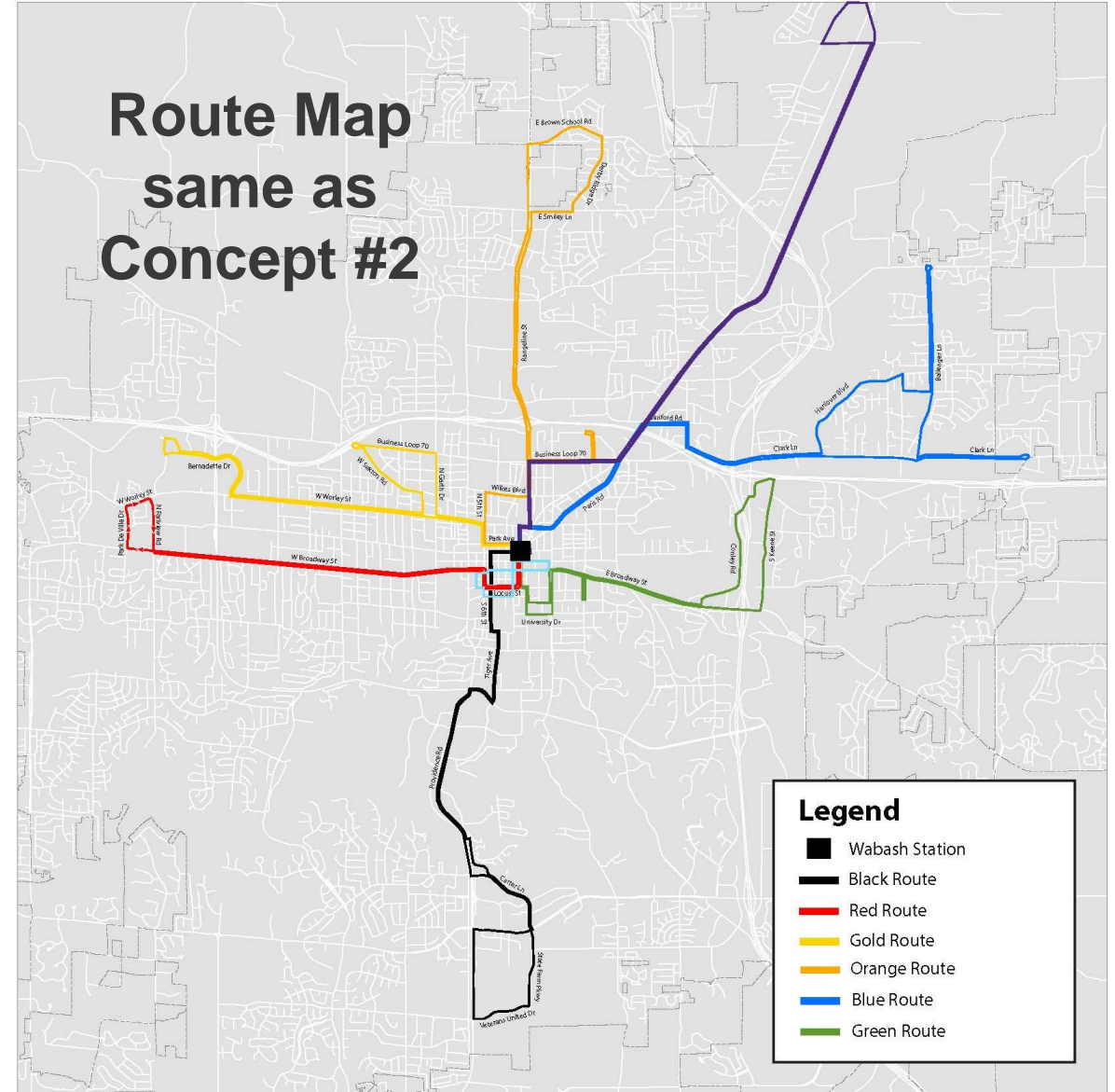
Route	Weekday Headway	Saturday Headway	Sunday Headway	Pros	Cons
Black	30	45	45	Increases frequency of high riderhip routes, Green and Blue, later evening service	Increased operating cost of X %
Red	30	45	45		
Gold	30	45	45		
Orange	30	45	45		
Blue	20	45	45		
Green	20	45	45		
Purple	30	45	45		
Downtown Trolley	10	20	20		

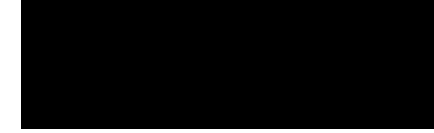


**Existing Service**



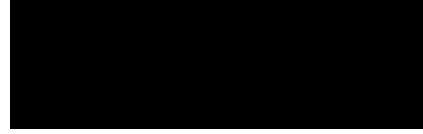
**Long-Term Concept #3: Increase Frequency & Add Evening Service**



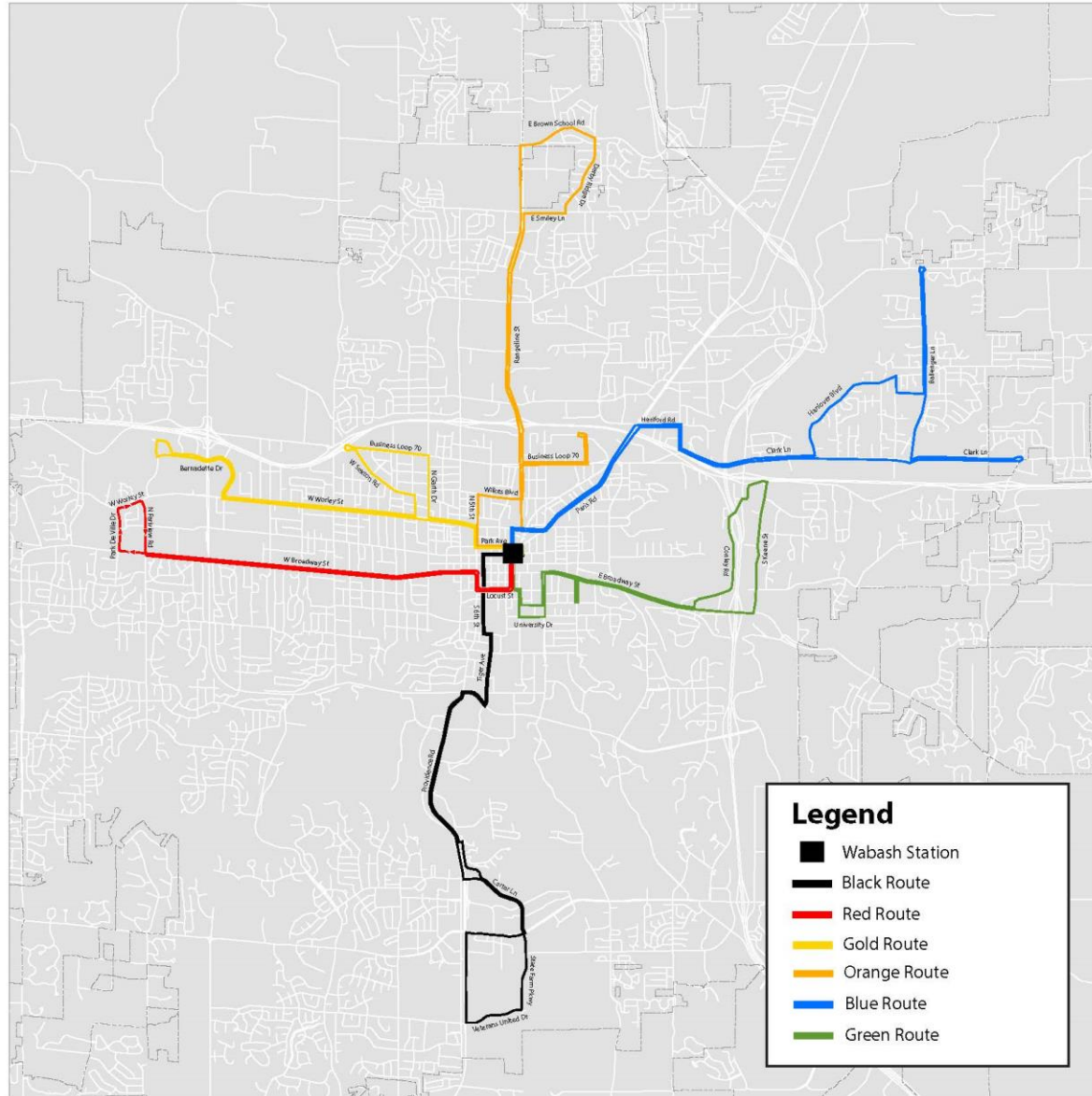


## Concept #4: Bus Rapid Transit & Increase Frequency

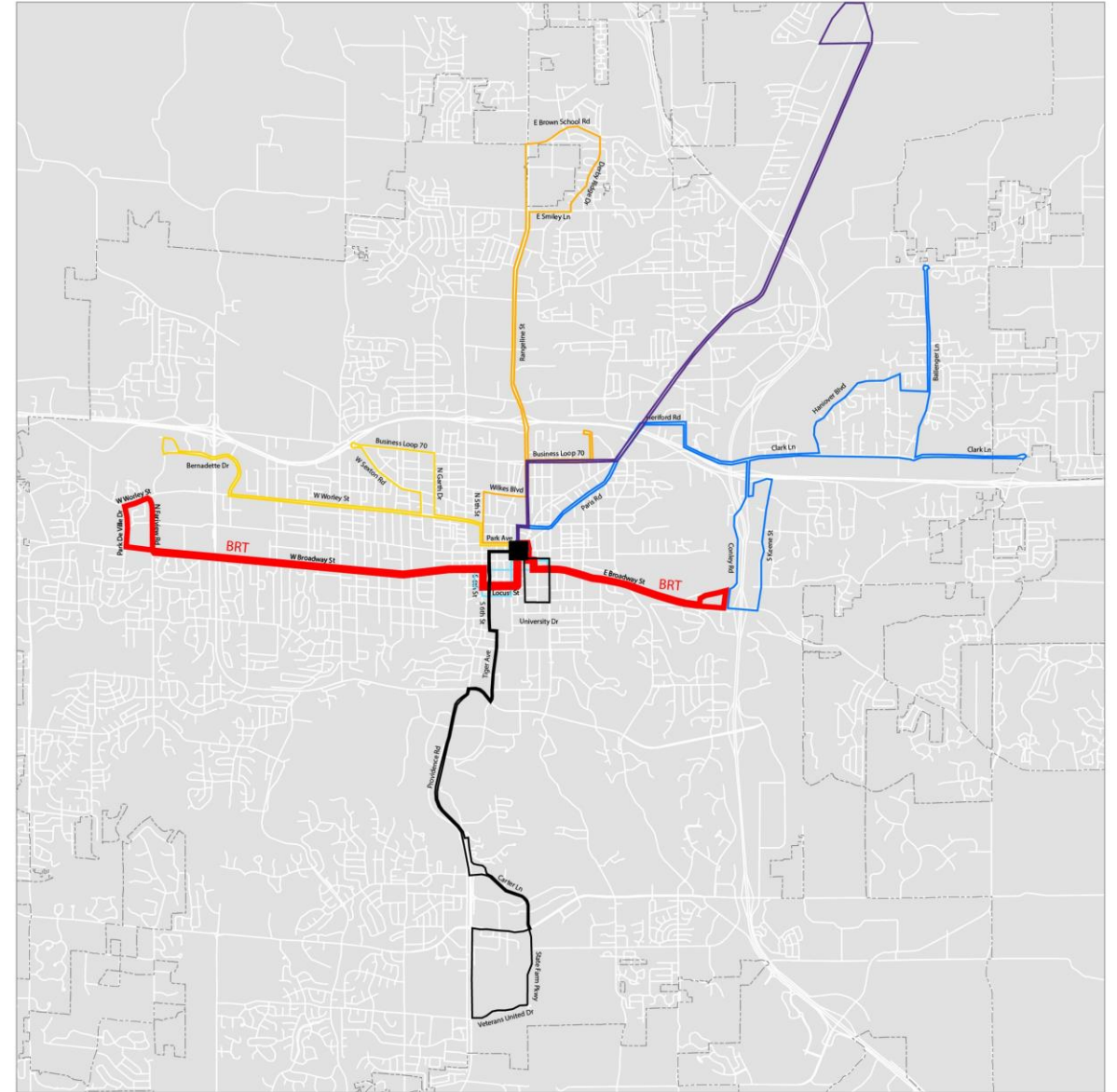
Route	Weekday Headway	Saturday Headway	Sunday Headway	Pros	Cons
Black	20	30	45	BRT provides a high level of service for transit riders.	Portions of Green route would be served by Blue route. Increased operating cost by X%
Red /Gold	20	30	45		
Orange	20	30	45		
Blue /Green	20	30	45		
Purple	20	30	45		
Downtown Trolley	10	20	20		
BRT	20	20	30		

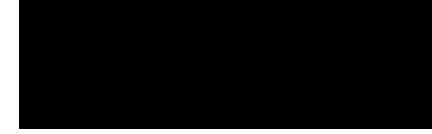


### Existing Service

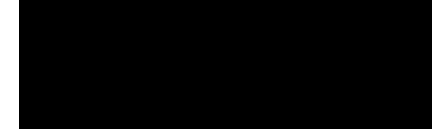


### Long-Term Concept #4: Bus Rapid Transit & Increase Frequency





# ***Stakeholder Activity: Review of Concepts***



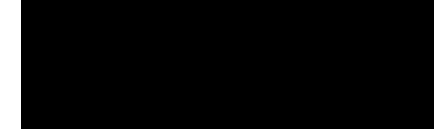
# ***Evaluation Criteria***



# Evaluation Criteria & Suggested Metrics

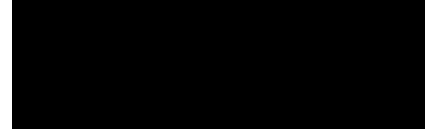
- Cost-effective solutions
  - *Metric: Operating and capital cost estimates.*
- Transit service quality (reliability, customer satisfaction)
  - *Metric: anticipated frequency or wait time.*
- Transit service effectiveness (level of service)
  - *Metric: ridership projections*
- Accessibility and ADA paratransit implications
  - *Metric: Expansion of paratransit coverage area*
- Support land-use planning
  - *Qualitative review, level of integration with transit-supportive development*



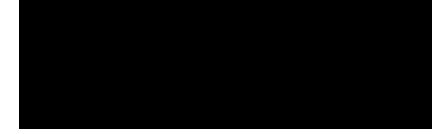


## Evaluation Criteria & Suggested Metrics (Continued)

- Equity (access for all populations, compliance with Title VI)
  - *Metric: Percent of high-propensity areas served (minority & low-income Census tracts).*
- Connectivity (improving the network, multimodal connections)
  - *Metric: Number of key destinations served, as collected through public input*
- Support economic development (leverage private investment)
  - *Metric: Qualitative review of economic impact, with private sector engagement.*
- Environment (integrate sustainable solutions, reduce carbon footprint)
  - *Metric: Ridership projections (Effectiveness), seeking guidance on other metrics.*



# *Stakeholder Activity: Evaluation Criteria Development*



## Next Steps

- Concept Refinement
  - Short-Term (Budget-Neutral)
  - Long-Term (Growth Priorities)
  - Review of Regional Services
- Public Open House Meetings
  - Earth Day Event?
  - April Open House at Wabash
- Continued Technical Analysis
  - Comprehensive Operations Analysis
  - Strategies to Increase Transit Share
  - Financing & Investment



Project Manager:  
**Shawn Strate, AICP**  
816.442.6084  
sstrate@olsson.com