

# Charlottesville Area Transit - Transit Development Plan

City Council Work Session  
March 3, 2011



# Agenda

- TDP Background Information
- Current CAT Service
- Analysis of Trunk-Feeder System
- Analysis of Free Trolley Alternatives
- Transit Service Planning Fundamentals
- Existing CAT Service Issues
- Near-Term Service Plan (FYs 2012-2014)
- Short-Range Service Plan (FYs 2015-2017)
- Discussion



# TDP Purpose

- Commonwealth (DRPT) requires a TDP as a condition for state funding
- TDP to be used by DRPT for state-level programming and planning
- Provides Commonwealth with a basis to include agency programs in the Statewide Transportation Improvement Program
- Commonwealth is providing technical assistance to smaller agencies



# TDP Requirements

- TDPs are to have a minimum 6-year timeframe and be updated every 6 years
- DRPT has identified specific TDP content requirements
- Annual “status” letter will be required in subsequent years

# TDP Inputs

- Staff Input
  - CAT and TJPDC
- Public Involvement
  - Stakeholder Outreach
  - Public Meetings
  - Project Advisory Committee
- Peer Agency Review
- Data Collection
  - Ridecheck Survey
  - On-Board Survey
  - Field Observations
- Service Analysis
  - System-Level
  - Route-Level
- Latent Demand Analysis

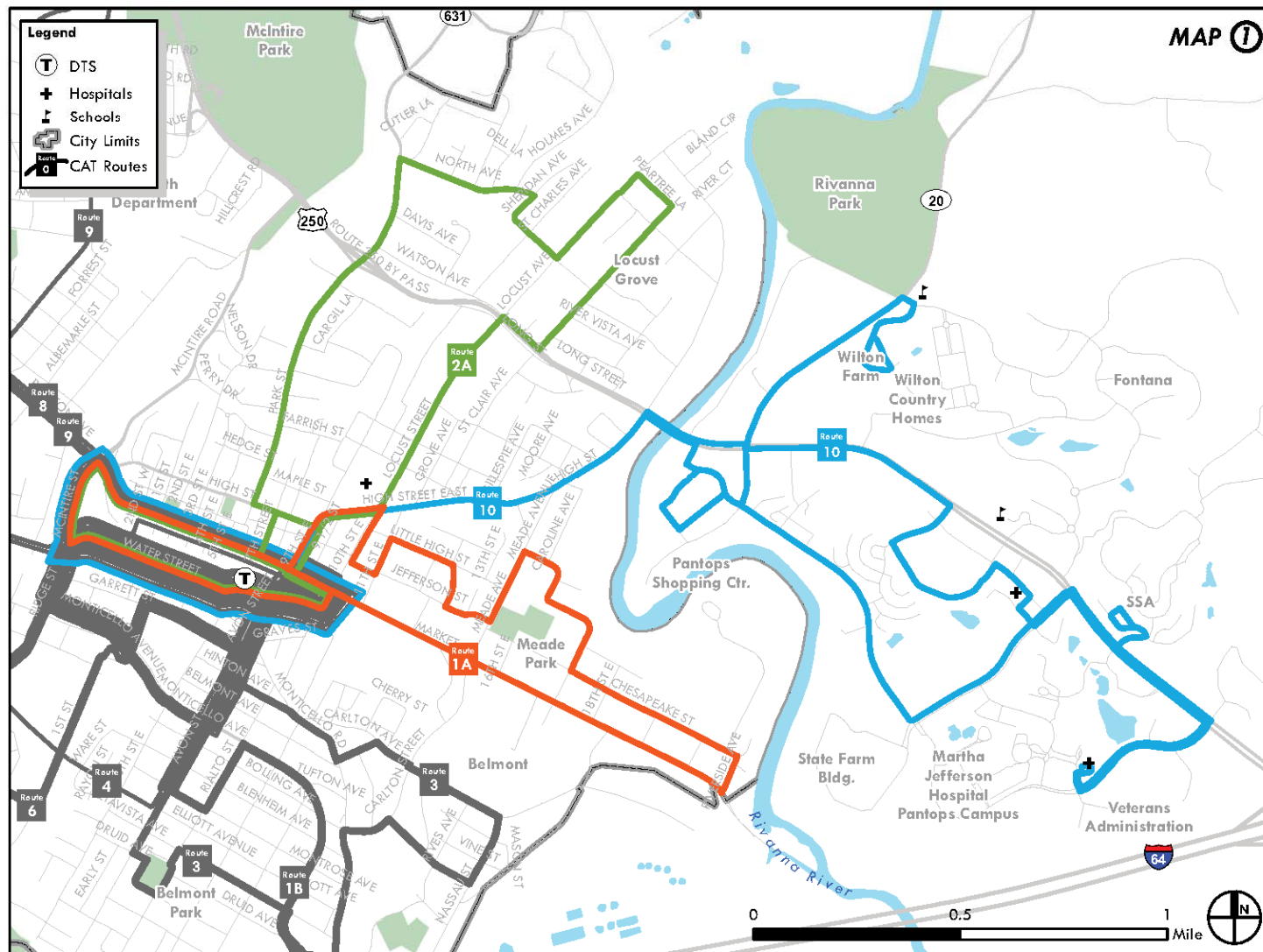
# Current CAT Service

- 25 Peak Buses in Operation
- 89,114 Annual Revenue Hours
- 939,854 Annual Revenue Miles
- Weekdays & Saturdays
  - 13 Daytime Routes
  - 7 Evening Routes
  - 15-60 Minute Frequency
- Sundays
  - 2 Daytime Routes
  - 30-45 Minute Frequency

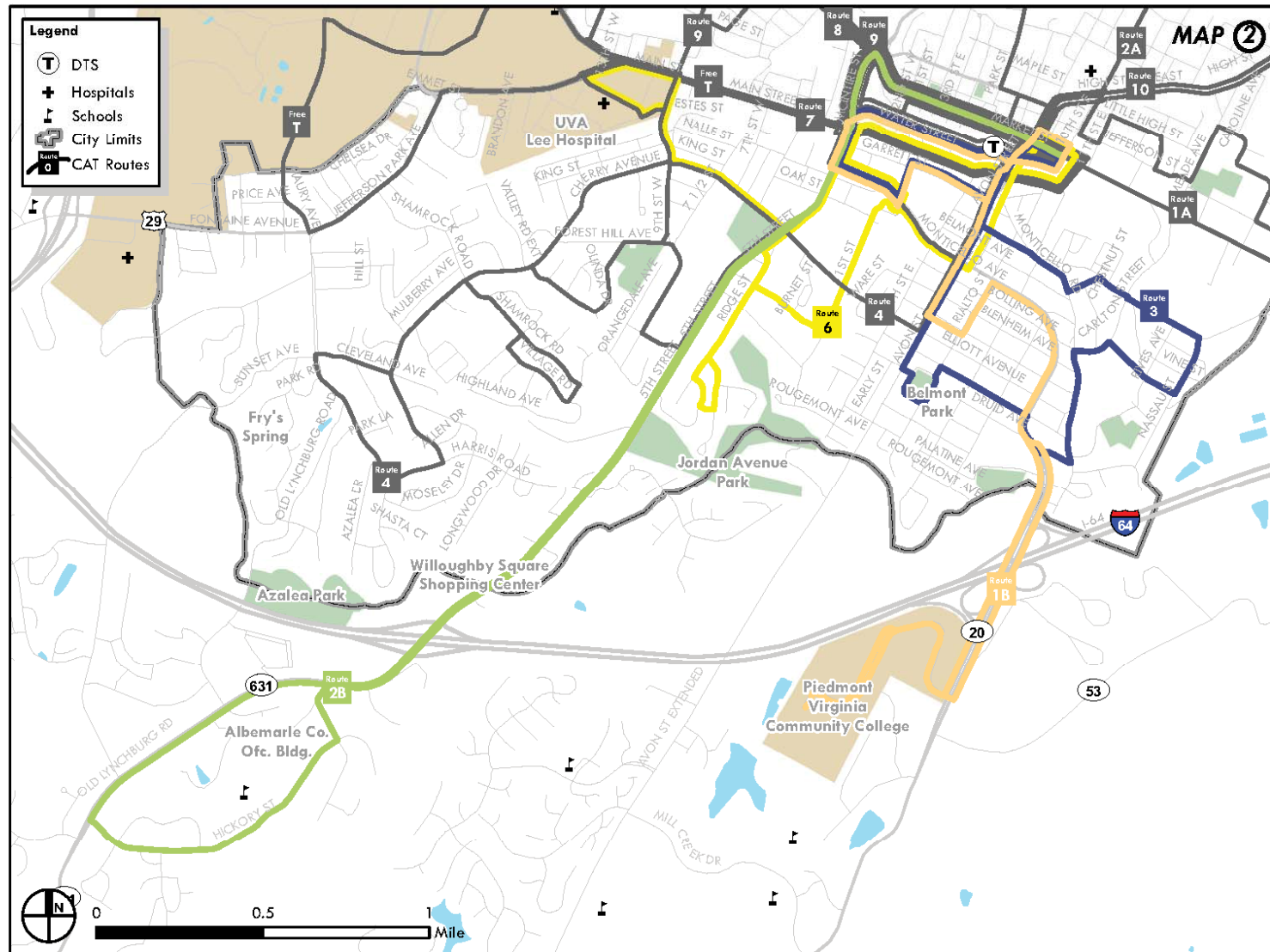


This map illustrates the Charlottesville, Virginia, area, highlighting the City of Charlottesville and Albemarle County. The map features various transportation routes, including DTS (Dorset Transit System) routes, hospitals, schools, and city limits. Key locations and landmarks are labeled, such as the Charlottesville-Albemarle Airport, Hollymead Town Center, Forest Lakes, and the University of Virginia. The map also shows major roads like I-64 and I-29, and the James River. A legend in the top left corner defines the symbols used: DTS (Dorset Transit System), Hospitals, Schools, City Limits, and CAT Routes. A scale bar at the bottom indicates distances in miles (0, 0.5, 1, 2).

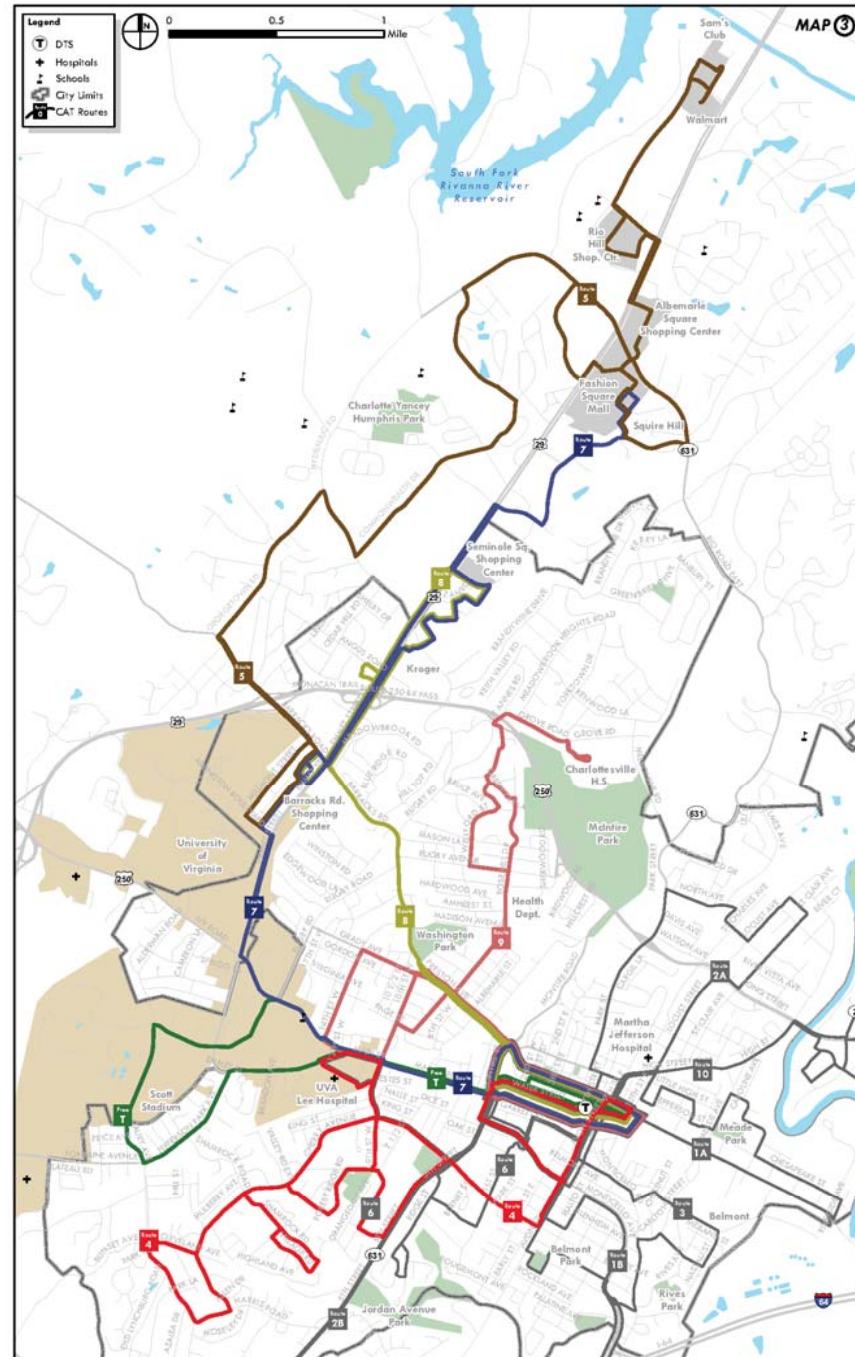
# Current CAT Service



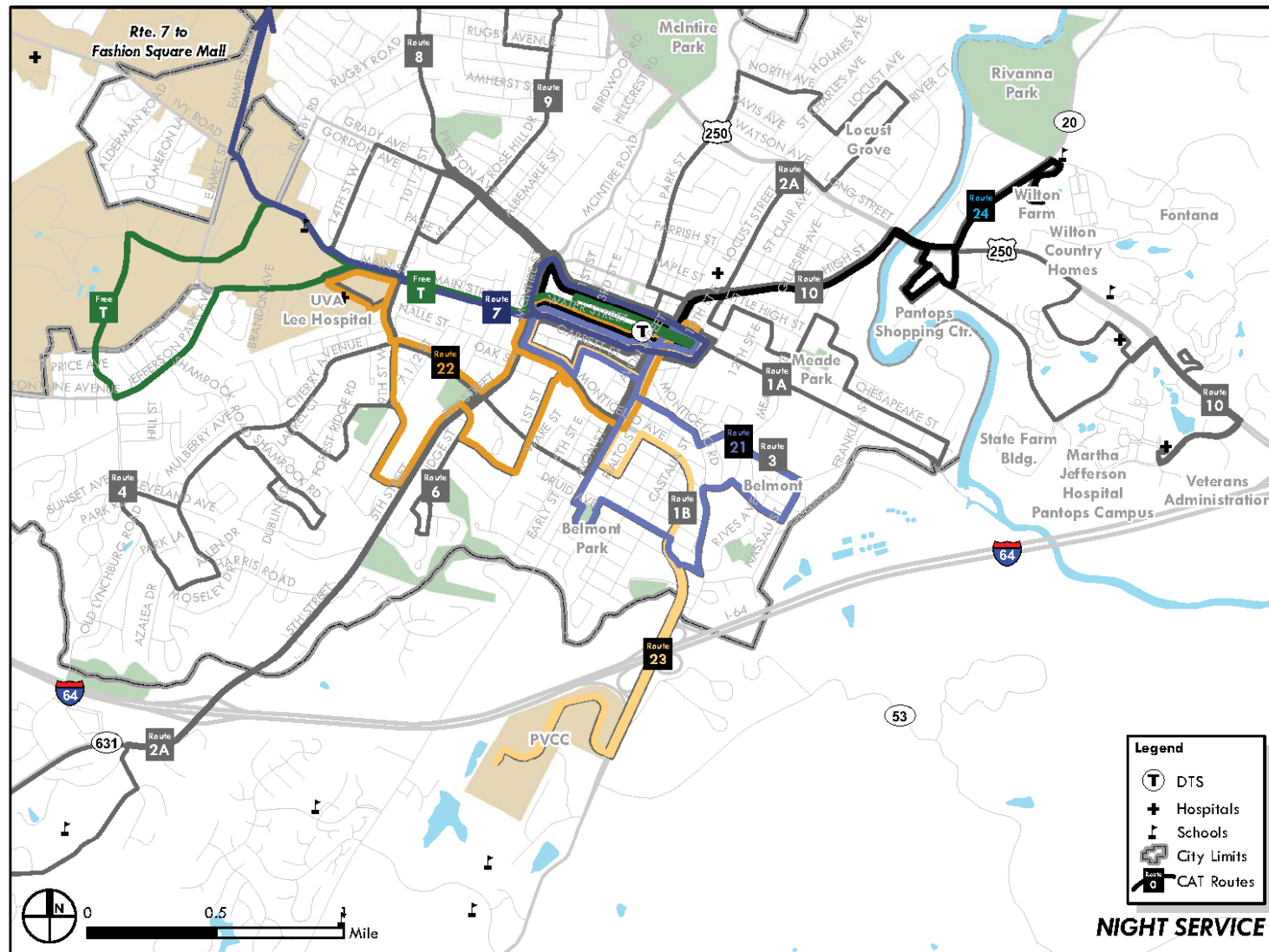
# Current CAT Service



# Current CAT Service



# Current CAT Service (Evenings)

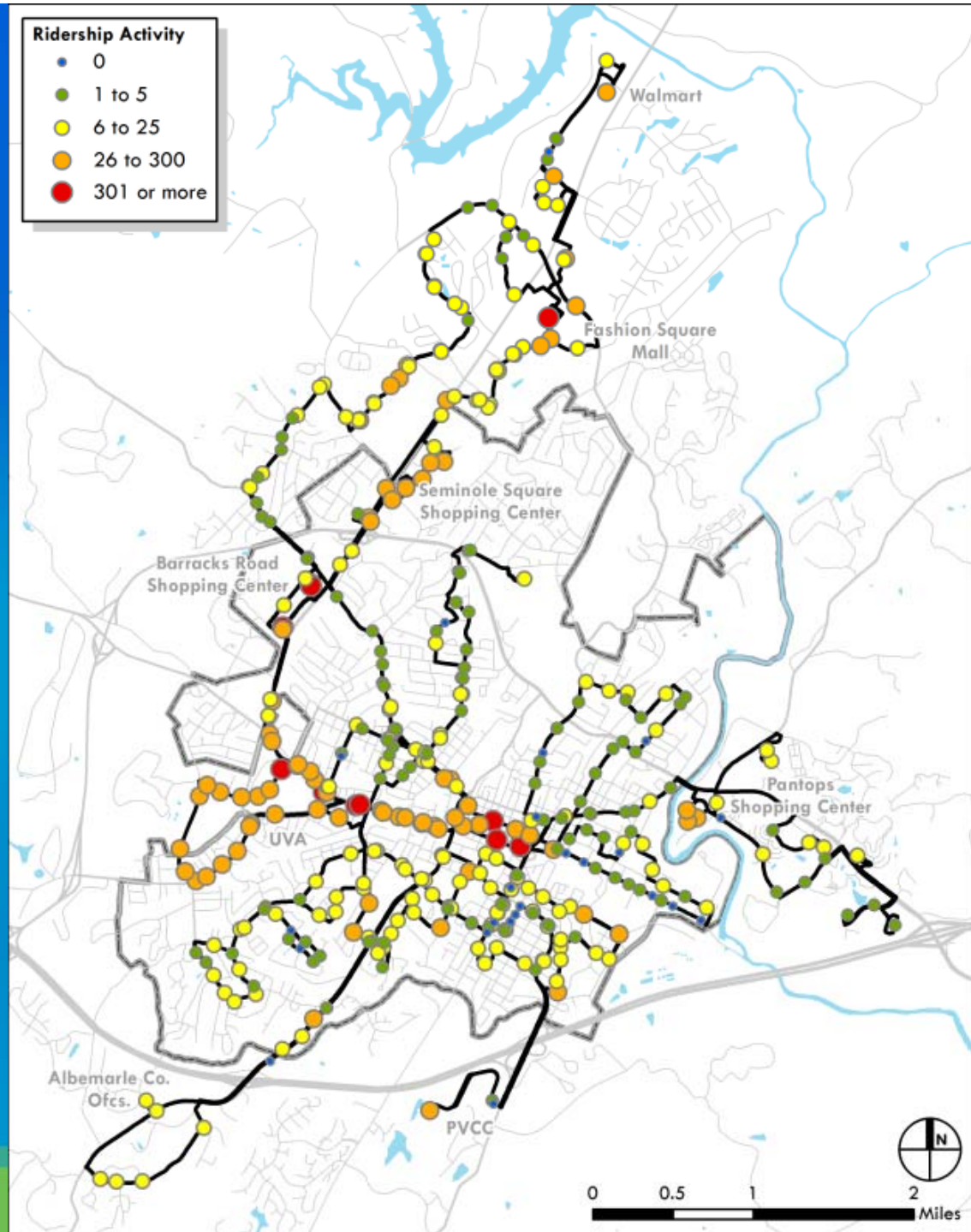


# Weekday Ridership By Route

Route	Boardings	Alightings	Average	Percent of Total
1A	87	81	84	1.1%
1B	154	160	157	2.0%
2A	68	67	68	0.9%
2B	169	170	170	2.2%
3	243	235	239	3.1%
4	359	359	359	4.6%
5	705	705	705	9.1%
6	207	215	211	2.7%
7	2,444	2,445	2,445	31.5%
8	274	274	274	3.5%
9	156	156	156	2.0%
10	267	267	267	3.4%
21	42	42	42	0.5%
22	83	83	83	1.1%
23	23	23	23	0.3%
24	12	12	12	0.2%
Trolley	2,468	2,471	2,470	31.8%
<b>Total</b>	<b>7,761</b>	<b>7,765</b>	<b>7,763</b>	<b>100%</b>

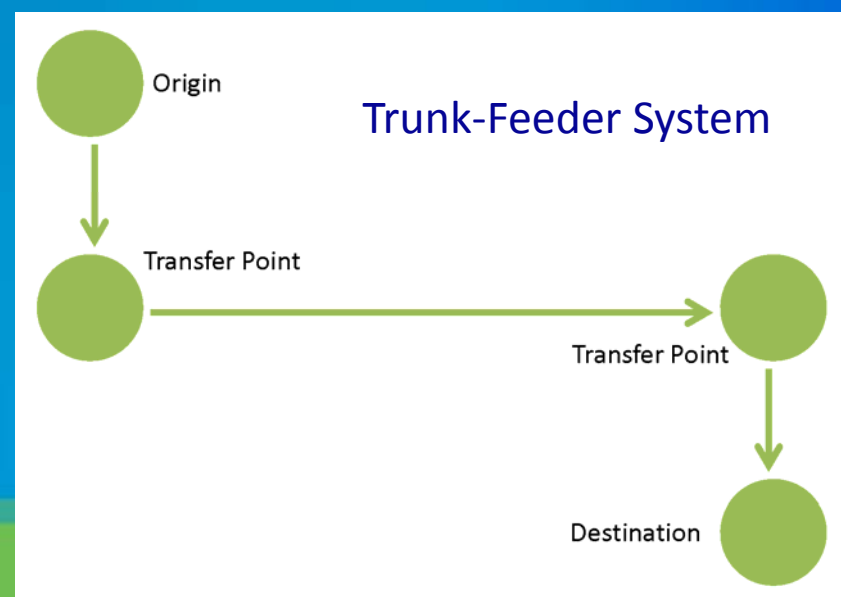
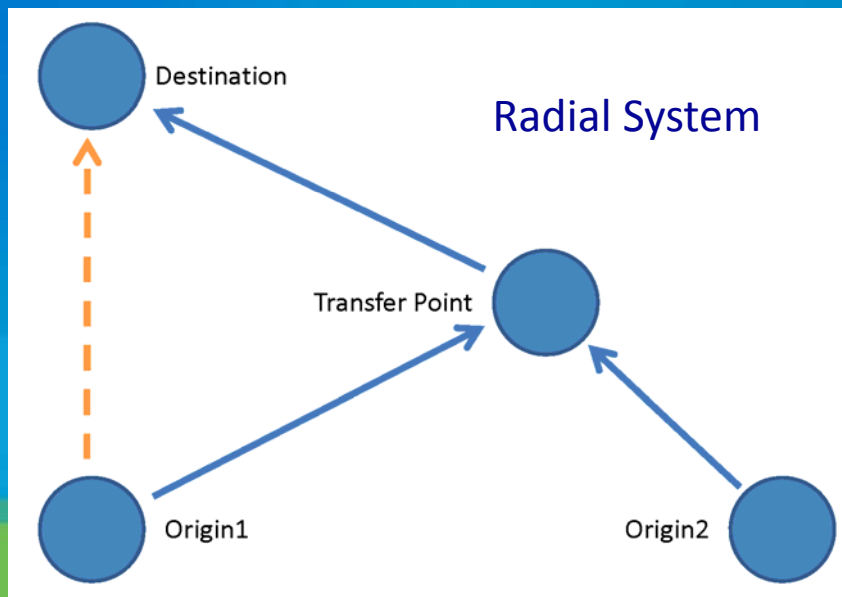


# Weekday Bus Stop Utilization

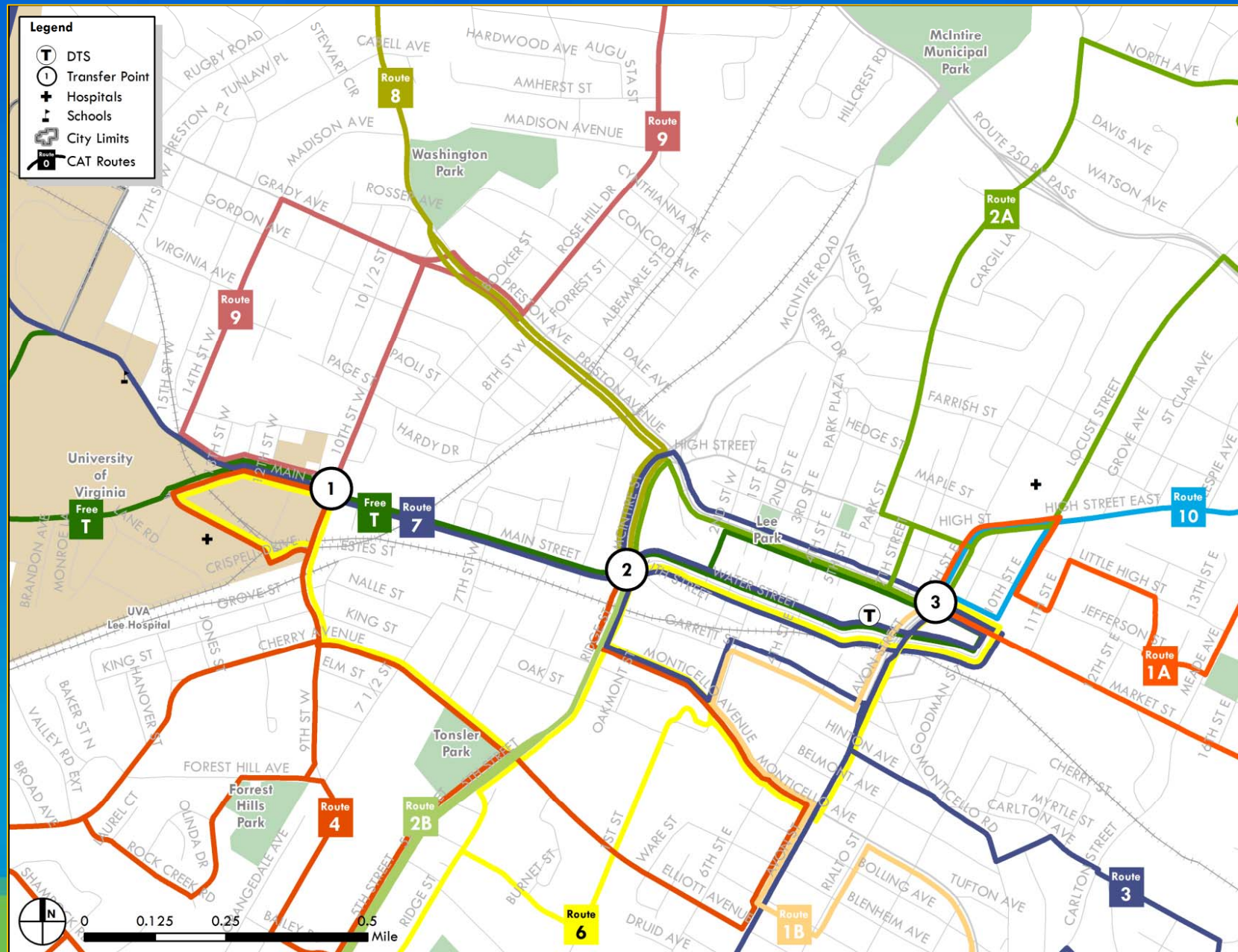


# Analysis of Trunk-Feeder System

- Reviewed Existing Route Network and Assumed Transfers along West Main and Market Streets
- Route 7 and Free Trolley Currently Provide 7.5 Minute Headway (8 Trips per Hour) along the “Trunk”



# Analysis of Trunk-Feeder System



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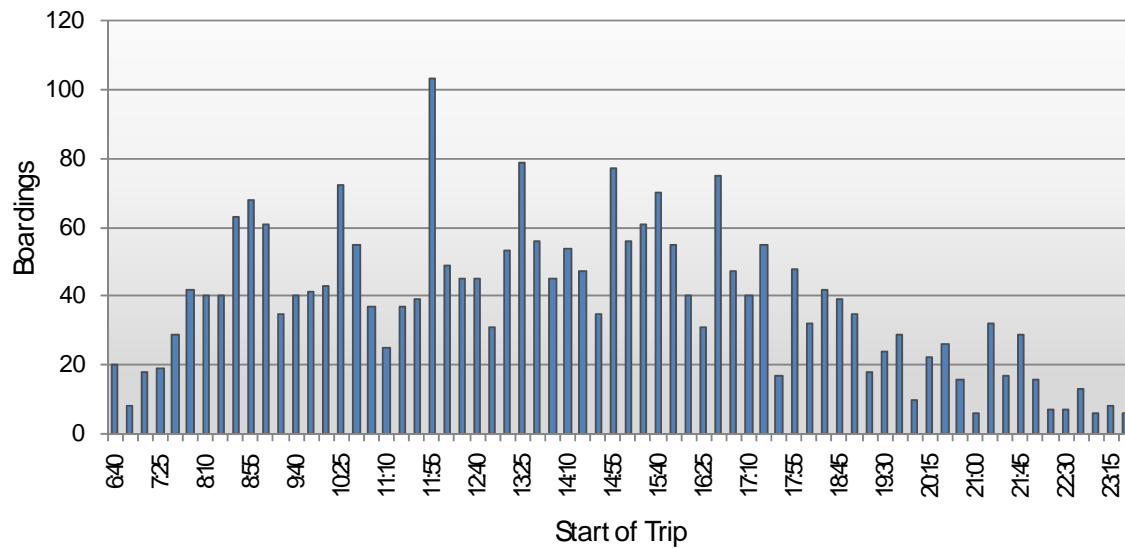
- Potential for Increased Transfers and Wait Times
- Minimal Improvement in Route Frequency Resulting in Irregular Headways
- Increased Need for On-Street Amenities and Pedestrian Considerations
- Recommend Maintaining Radial Route Structure

# Current Free Trolley Service

- 3 Trolleys in Operation During Peak Service
- 14,253 Annual Revenue Hours
- 123,644 Annual Revenue Miles
- Approximately \$1 Million Annual Operating Cost
- Weekdays & Saturdays
  - 2-3 Trolleys in Operation
  - 15 Minute Frequency
- Sundays
  - 1 Trolley in Operation
  - 30-45 Minute Frequency

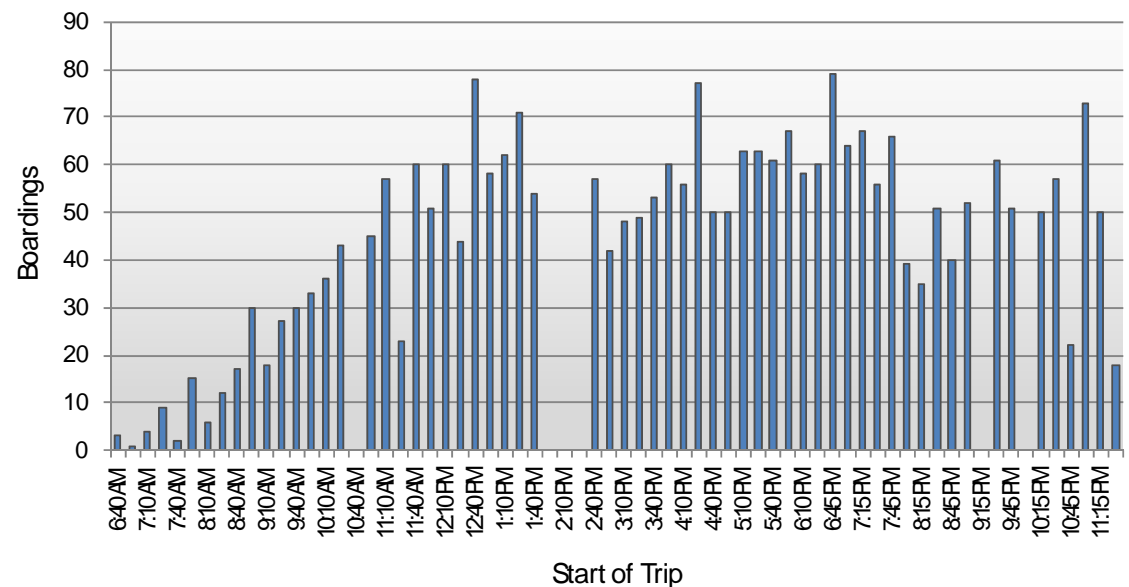


# Free Trolley Ridership by Hour



<- Weekdays

Saturdays ->



# Analysis of Free Trolley Alternatives

- Three Options Explored
  1. Current Alignment
  2. Northern Extension to Barracks Road Shopping Center (+2 Trolleys)
  3. Northern Extension PLUS Eastern Extension to Pantops Shopping Center (+1 Trolley above Option 2)
- Strong Support to Maintain Current Alignment
- Recommend Maintenance of Current Alignment plus Frequency Reduction to 30 Minutes during Evenings and Saturday Mornings based on Ridership Demand



# Transit Service Planning Fundamentals

- Service Area Characteristics
  - Population Density
  - Employment Density
  - Activity Centers (shopping, education, etc.)
  - Demographics
    - Youth and Senior Populations
    - Low-Income Households
    - Zero Automobile Ownership



# Transit Service Planning Fundamentals

- Route Layout and Design
  - Direct Routing
  - Bi-Directional Travel
  - Bus Stop Placement
  - Consistent Route Alignment

# Transit Service Planning Fundamentals

- Scheduling Practices
  - Clock Headways (15, 30, 60-minute frequencies)
  - Market-Appropriate Service Spans
  - Connectivity
  - Layover/Recovery
  - Consistent Scheduling

# Existing CAT Service Issues

- Circuitous Service Design and One-Way Routing
- Location of the Downtown Transit Station
- On-Time Performance Challenges
- Relocation of Martha Jefferson Hospital
- Different Evening Service Structure and Nomenclature
- Perceptions of Service Disparity
- Service Needs in Albemarle County

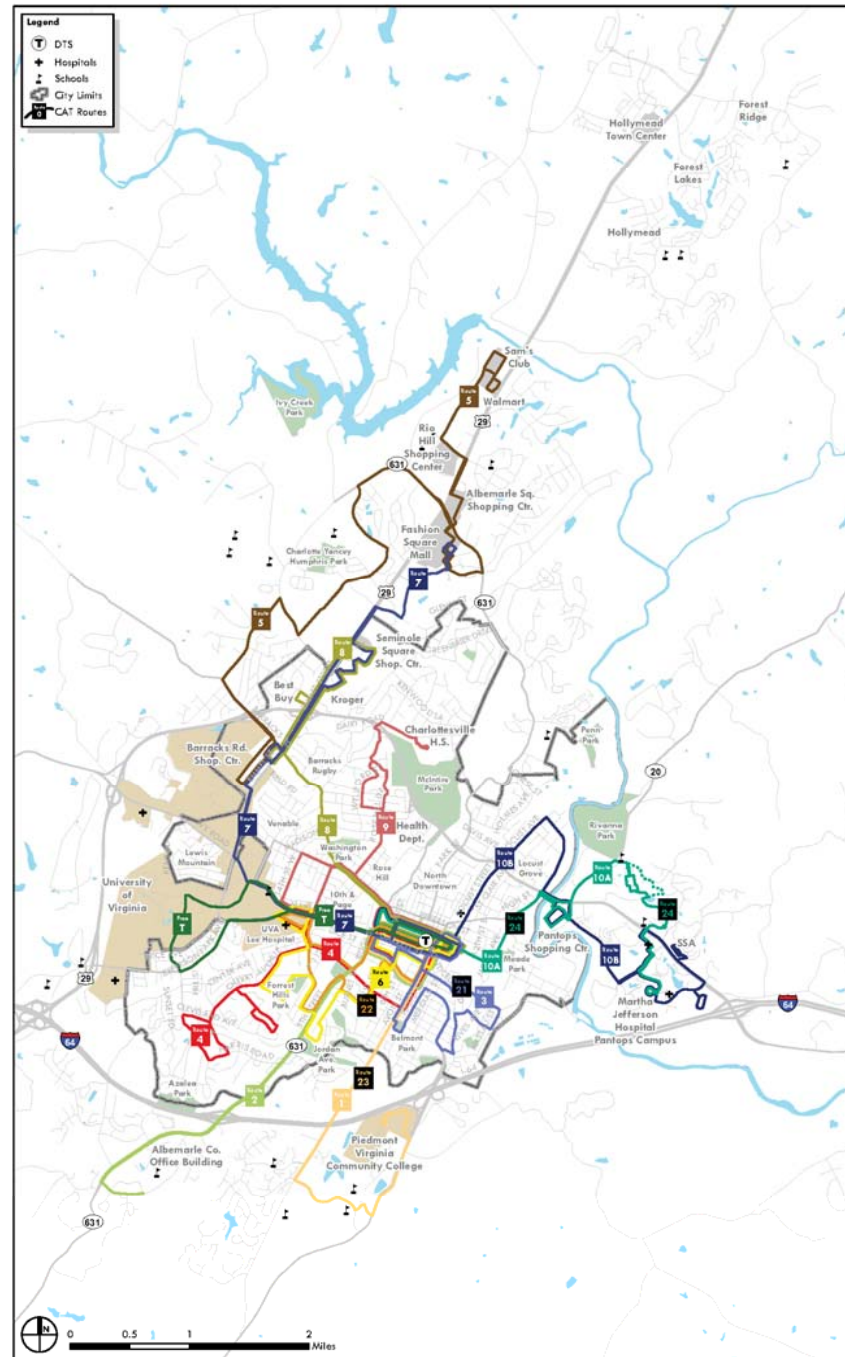


# Near Term Service Plan

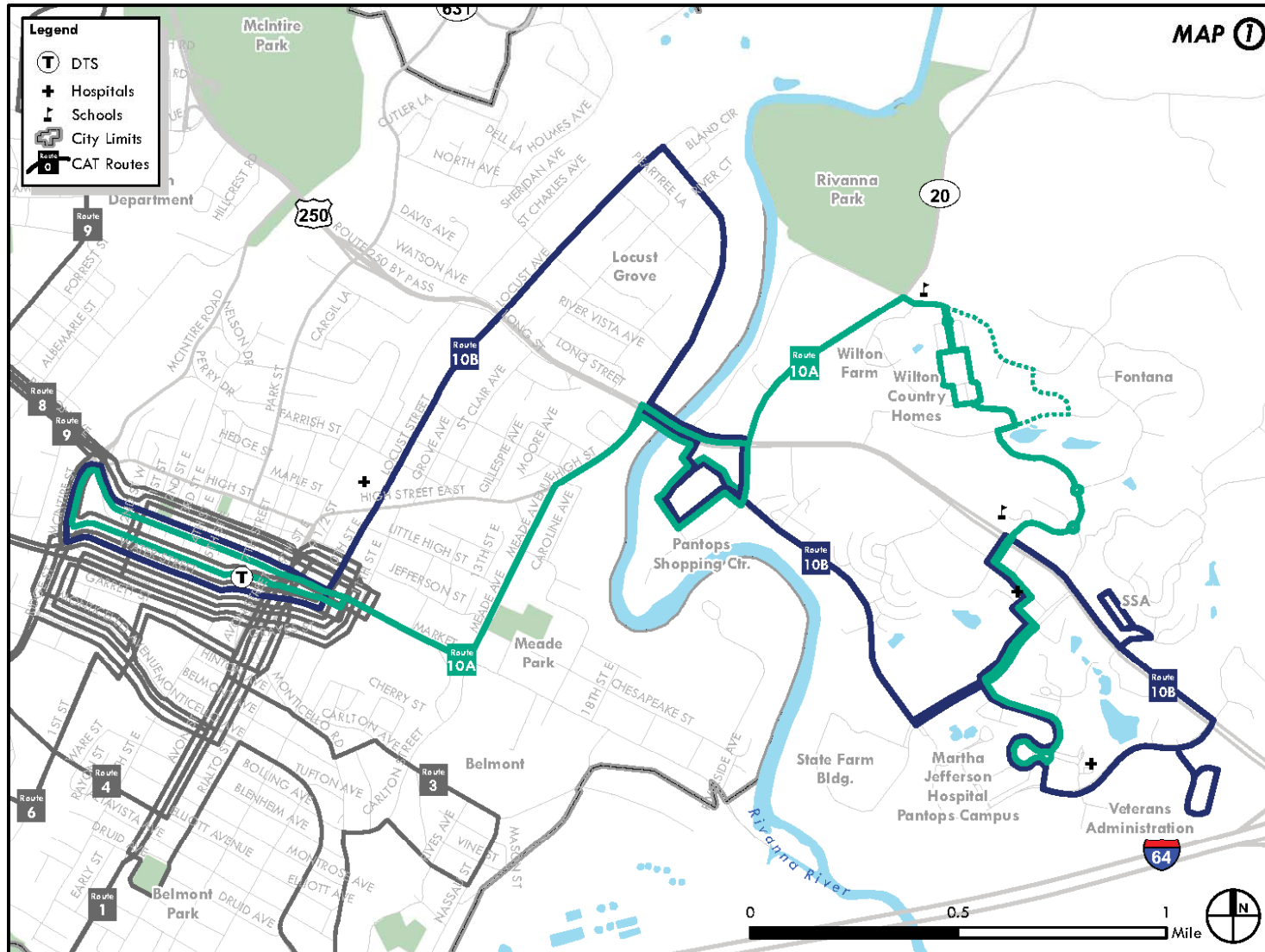
- Reallocates Underutilized Resources to Repair Failing On-Time Performance
- Addresses Relocation of Martha Jefferson Hospital
- Provides Service to Avon Street Extended and Mill Creek Area
- Streamlines South Charlottesville Service along Cherry Avenue
- Improves Bi-Directional Travel



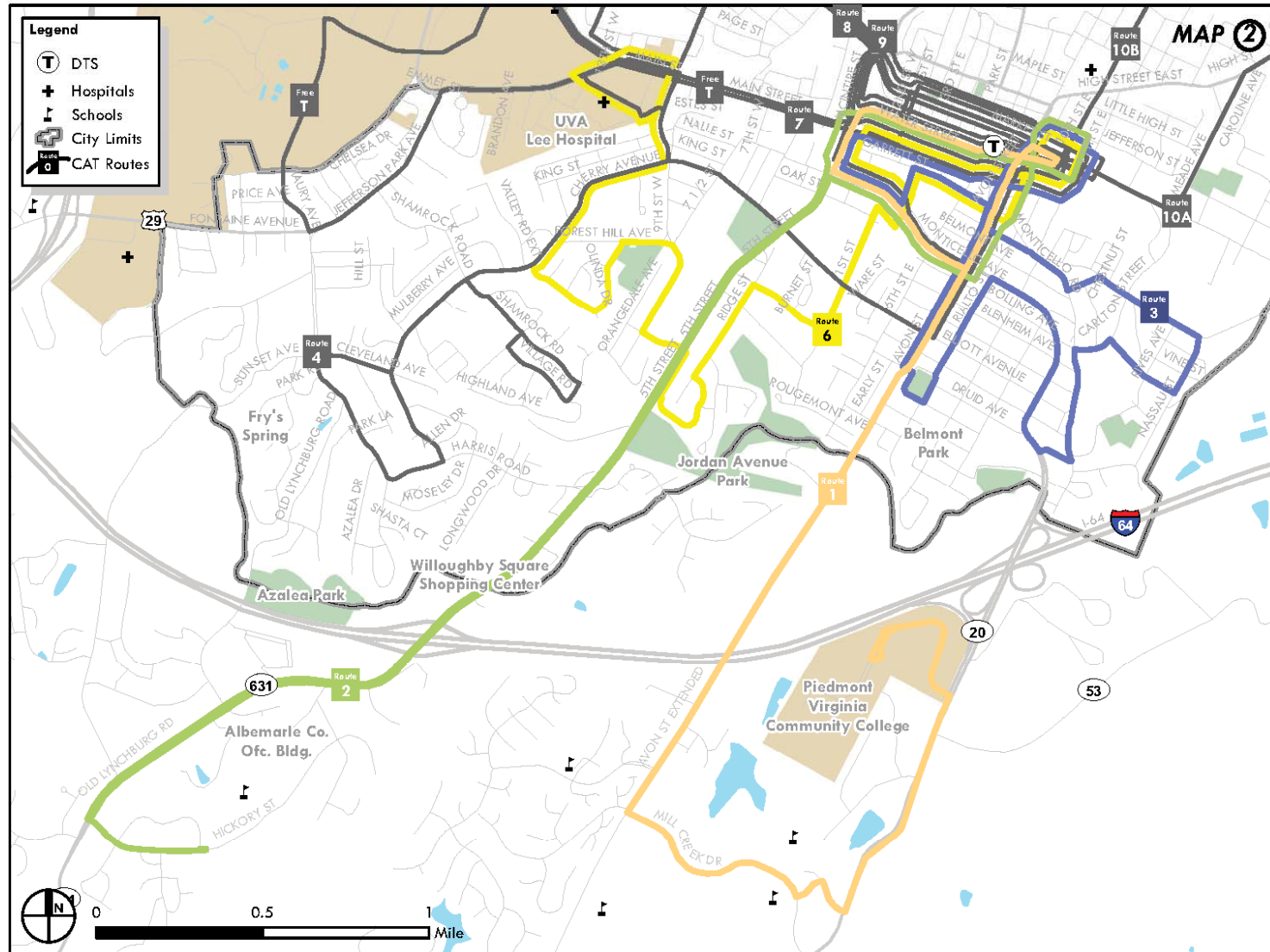
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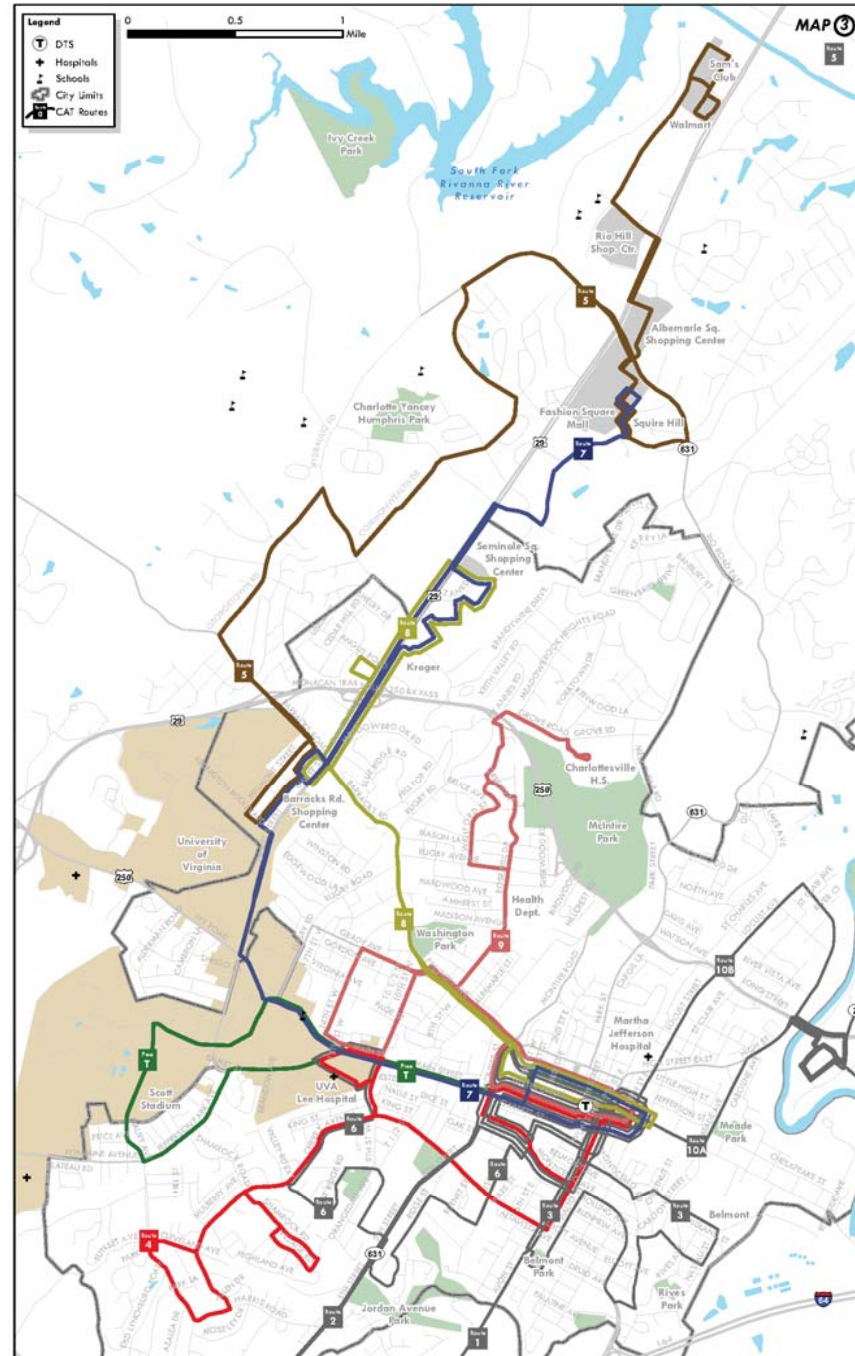
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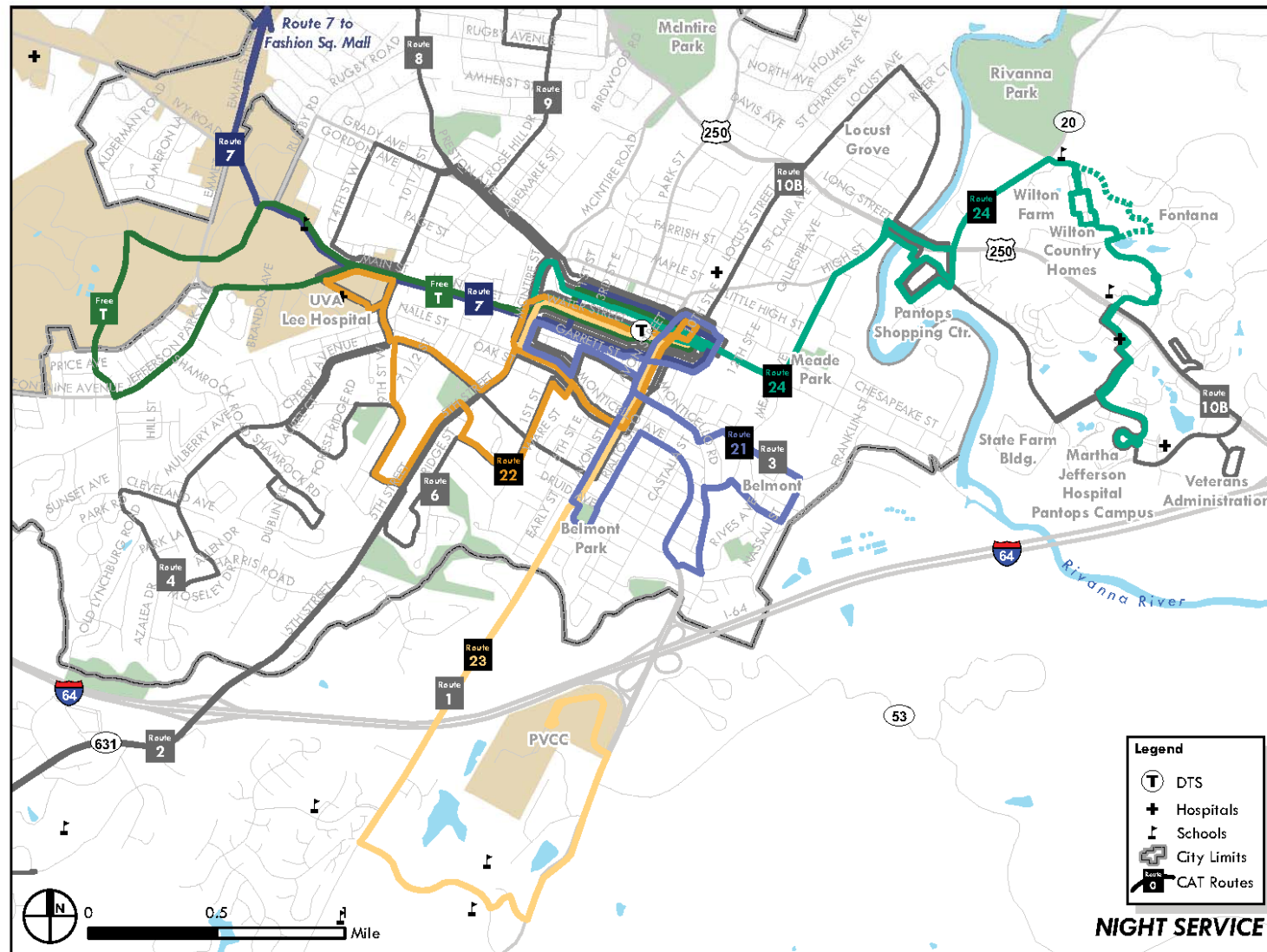
# Near Term Service Plan



# Near Term Service Plan



# Near Term Service Plan (Evenings)



# Near Term Service Plan

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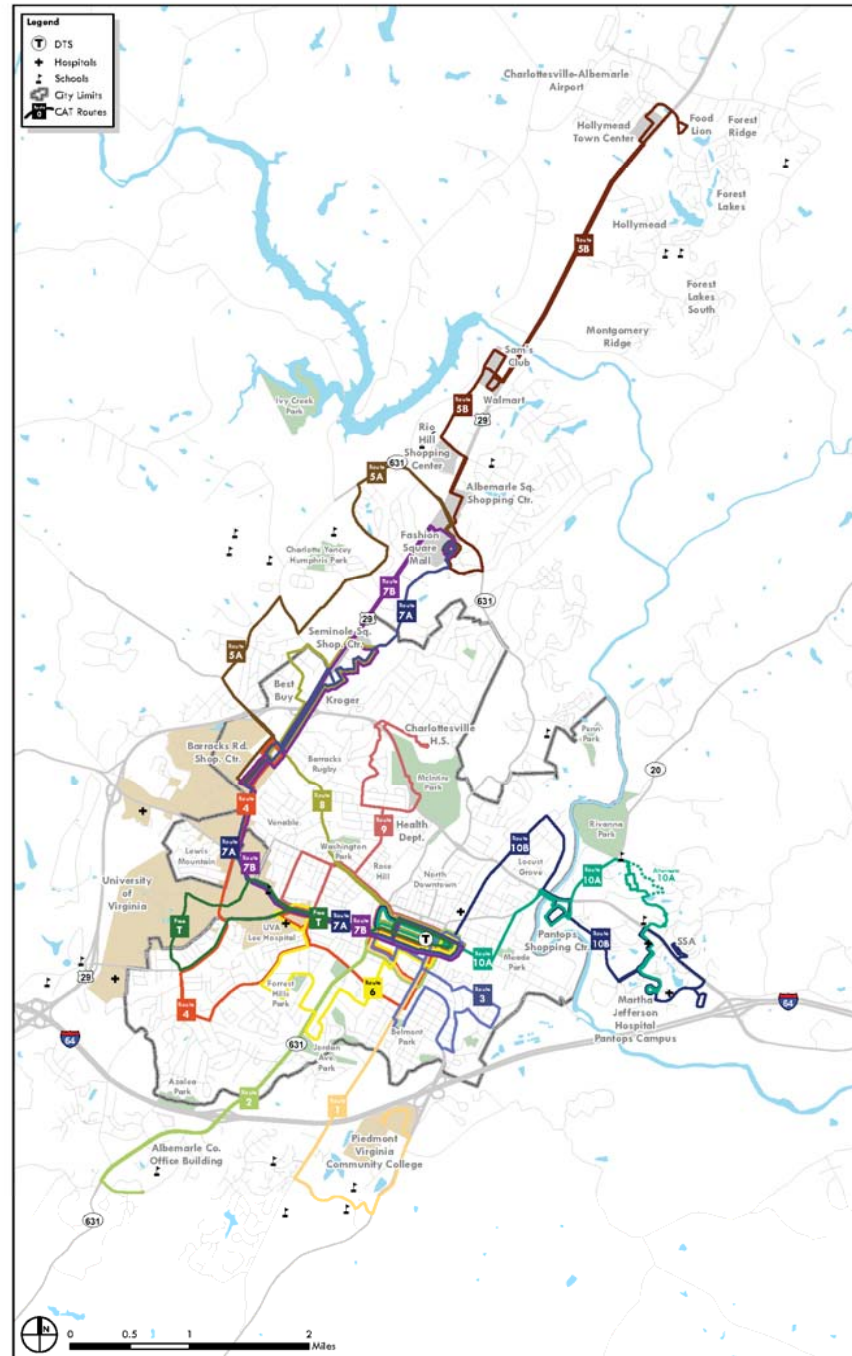
- No Change in Peak Bus Requirements
- Slight Decrease in Revenue Hours (-0.2%)
- Slight Increase in Revenue Miles (+0.9%)
- No change in Annual Operating Cost
- Opportunities to Increase Ridership and Fare Revenue
- Recommend Two-Phase Implementation

# Short Range Service Plan

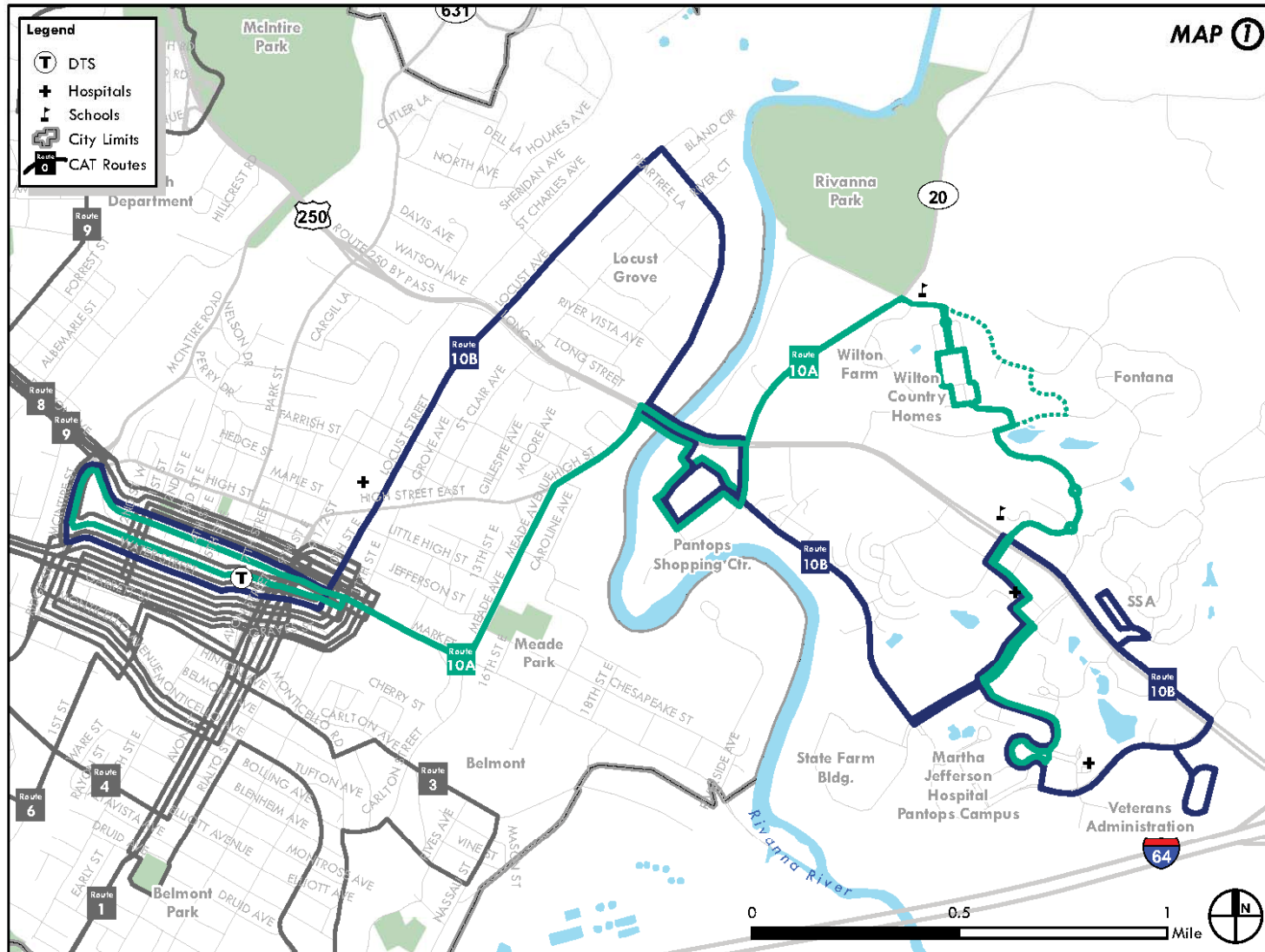
- Maintains Near Term Service Improvements
- Improves Belmont Frequency to 30 Minutes during Daytime Hours, Monday-Saturday
- Extends Fry's Spring Service to Barracks Road Shopping Center via UVA
- Introduces New Service to Hollymead
- Simplifies Night Service



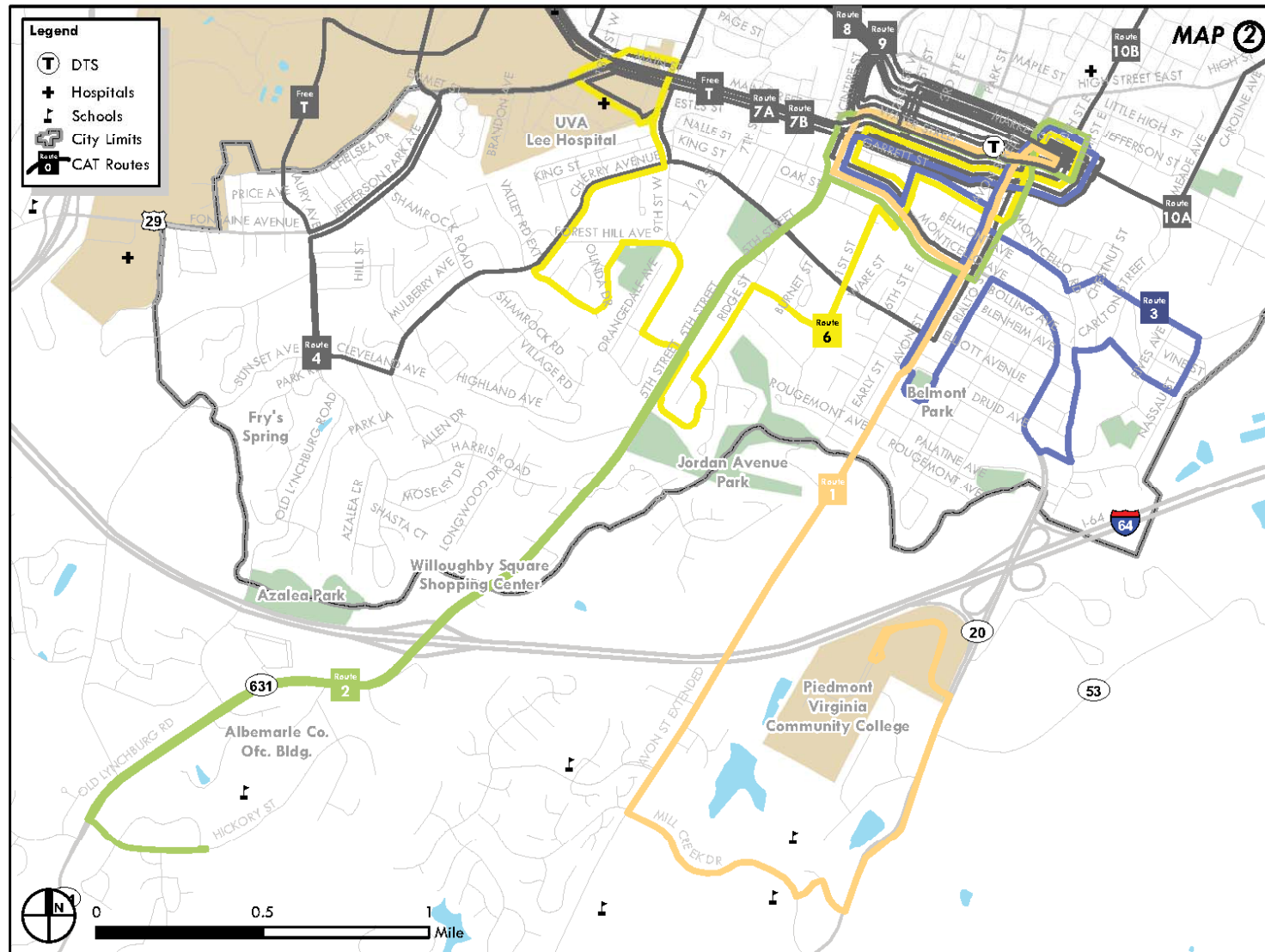
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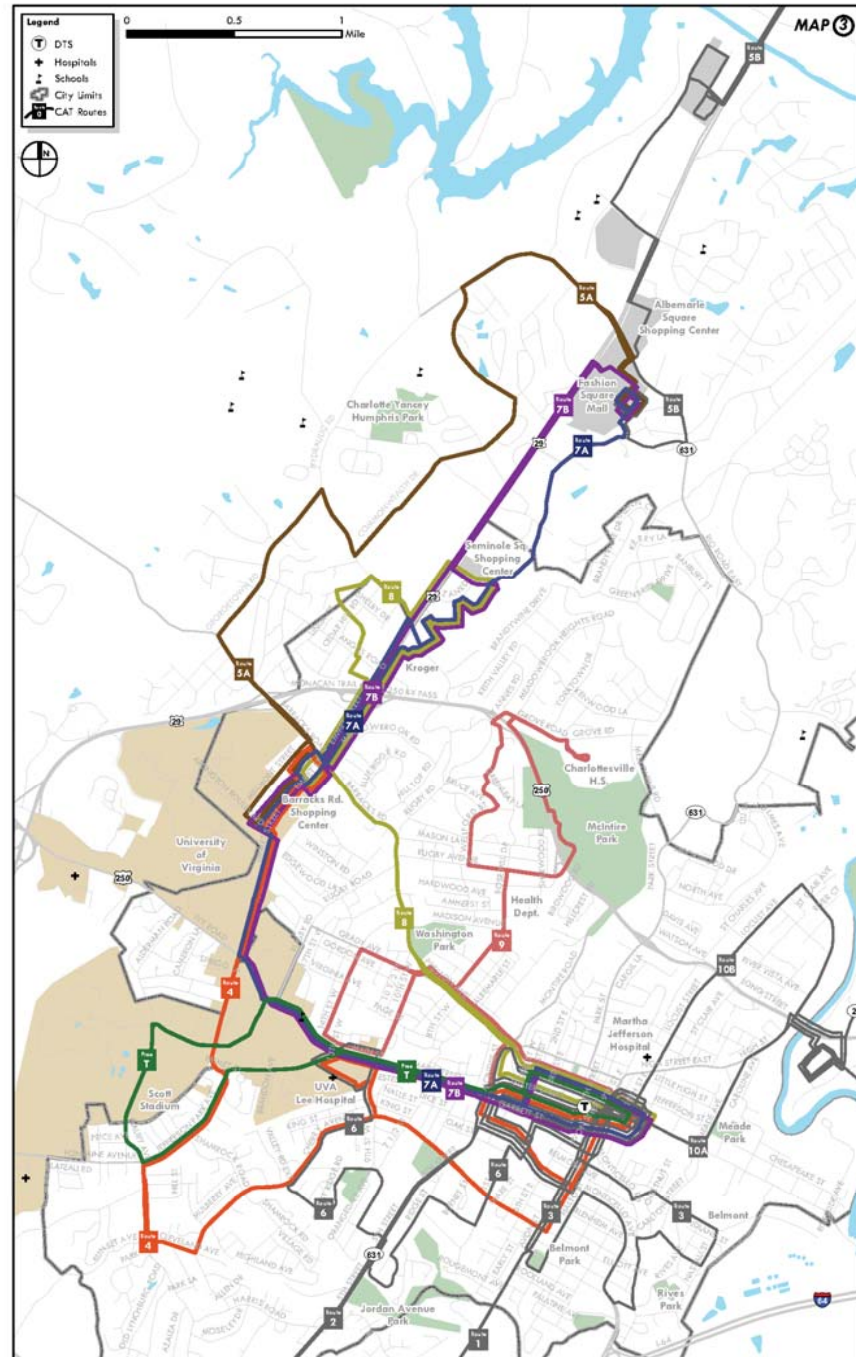
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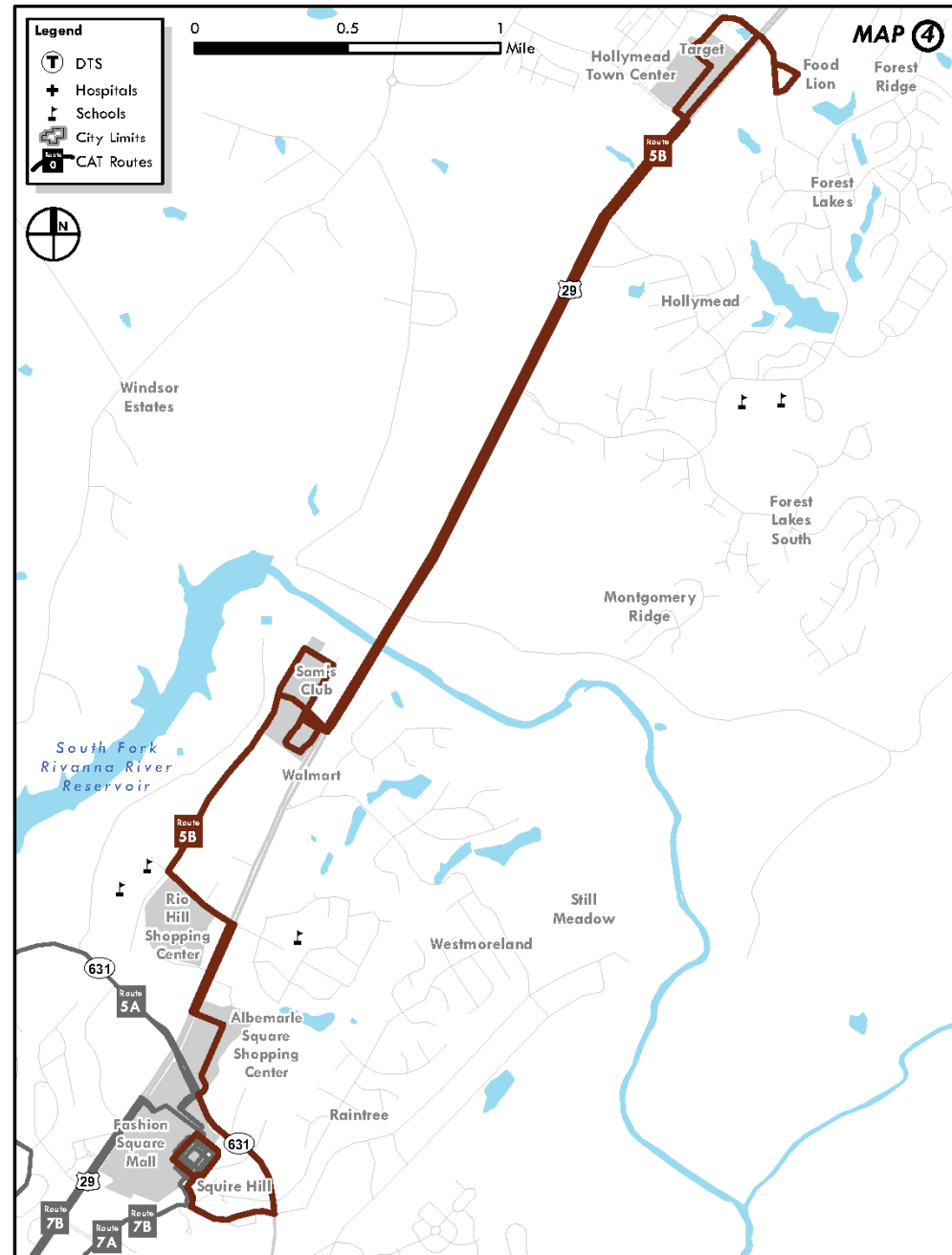
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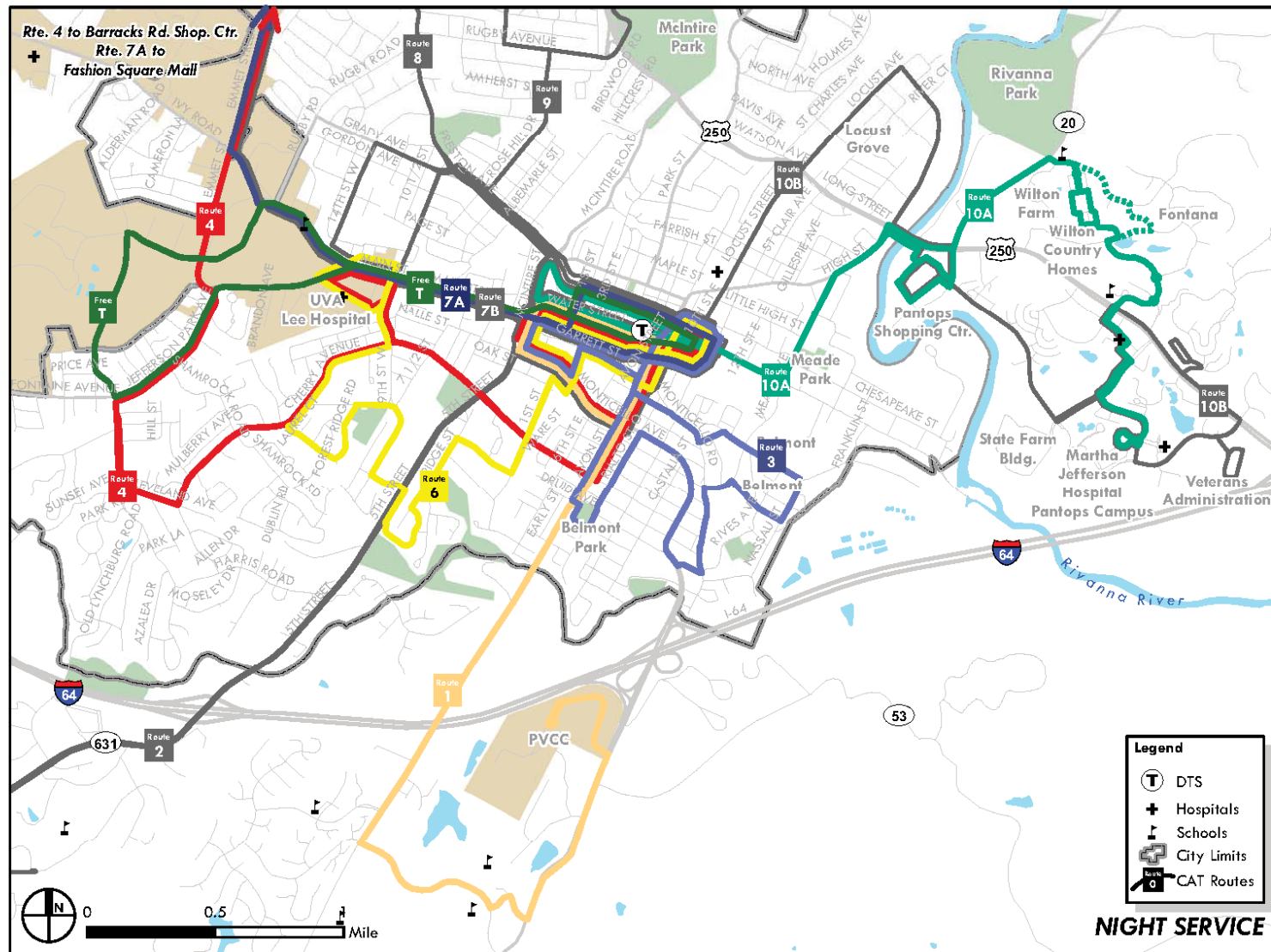
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# Short Range Service Plan (Evenings)



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# Short Range Service Plan

- +2 Increase in Peak Bus Requirements
- 14% Increase in Revenue Hours over Near Term
- 10% Increase in Revenue Miles over Near Term
- Approximately \$800,000 Increase in Annual Operating Cost
- Most Adjustments can be Implemented Independently as Funding Becomes Available



# Discussion