



County of Fairfax, Virginia

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# Silver Line Phase II Reston-Herndon Area Bus Service Review

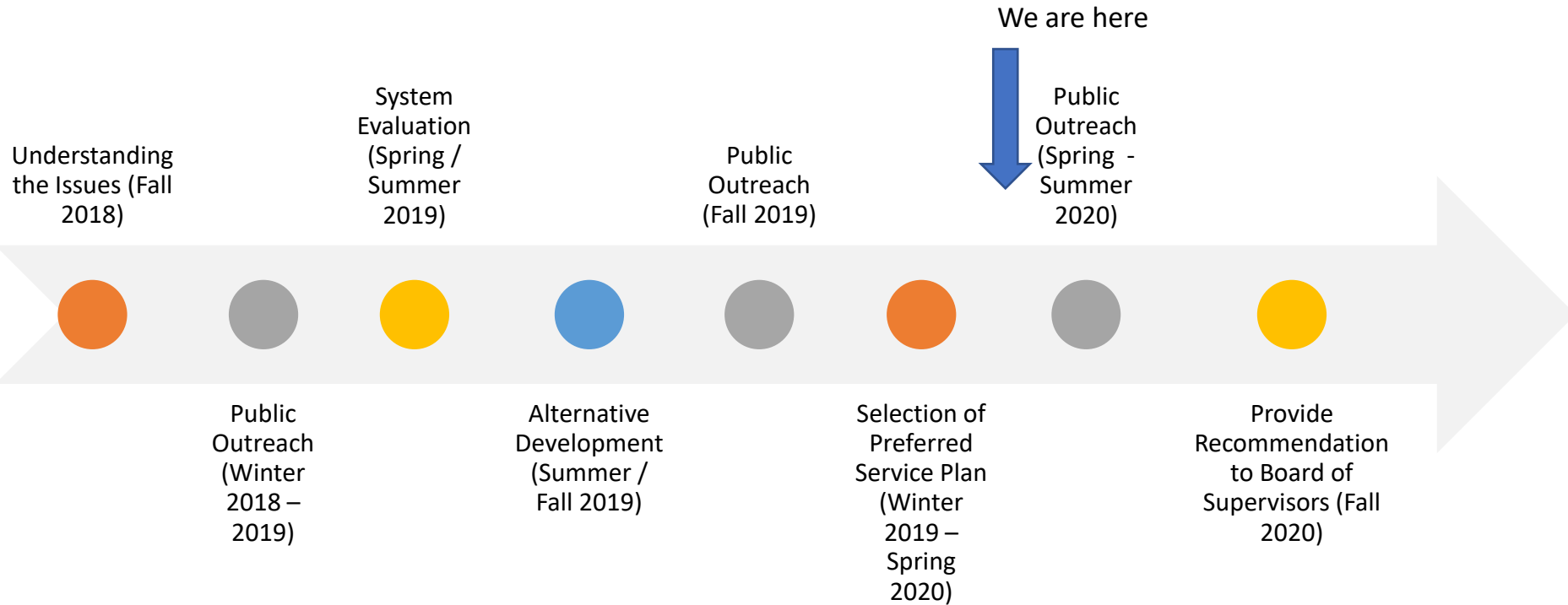


Fairfax County Department of Transportation

Community Outreach  
June 2020

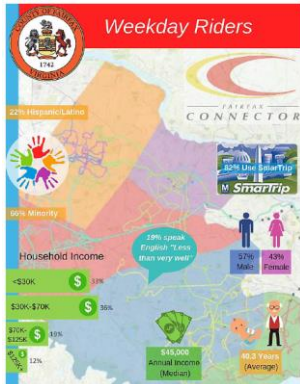


# Planning Process





# Outreach

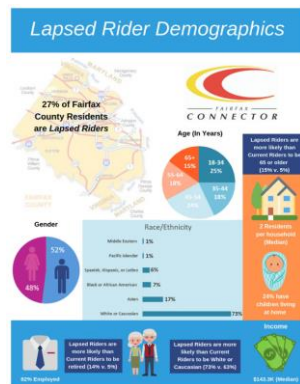


## Market Survey

- Fall 2018: 2,600 responses
- Gathered data on why residents do not ride buses
- Used to determine what measures could be used to attract non-riders and reconnect with lapsed riders

## Onboard Survey

- Spring - Summer 2019: 2,550 responses
- Collected information on passengers' origins, destinations, preferences, and demographic characteristics
- Used for planning to increase ridership and improve the customer experience



## Online Survey and Public Meetings

- Conducted two rounds of online surveys: 1,400 responses
- Conducted three rounds of public meetings and outreach



# What We Heard: Service Improvements

## Connectivity

Adjust routes:

- Key community locations
- Realign routes with travel patterns

## Faster Travel

Adjust routes:

- Realign routes to be more direct
- Reduce unneeded travel patterns

## Greater Span of Service

Adjust hours of service:

- Increase service hours on key routes to improve access and mobility

## Increased Frequency

Adjust service:

- Add additional buses to key routes to increase mobility



## Service Alternatives



**Three service alternatives are being studied:**

Alternative 1 – Existing Service Plus  
Alternative 2 – Streamlined Service  
Alternative 3 – Area Wide Transformation



**All alternatives would be initially developed as budget neutral, with no increase (+/-2%) in total revenue hours.**






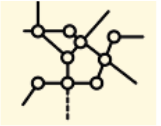











**Develop Preferred Service Plan**

Includes elements of all alternatives  
Micro-transit options (Alternative Transit Study)  
Develop optional additional service recommendations



# Alternative Comparison

	Existing Service	Alternative 1: Existing Service Plus	Alternative 2: Streamlined Service	Alternative 3: Transformation
<b>Key Locations</b> 	 Rank: 4 of 4	 Rank: 3 of 4	 Rank: 2 of 4	 Rank: 1 of 4
<b>Travel Time</b> 	 Rank: 4 of 4	 Rank: 3 of 4	 Rank: 2 of 4	 Rank: 1 of 4
<b>Transit Propensity</b> 	 Rank: 4 of 4	 Rank: 2 of 4	 Rank: 3 of 4	 Rank: 1 of 4



# Alternatives Evaluation



## Transit Propensity

- Ability to serve:
  - Low-income households
  - Houses with one or zero vehicles
  - Minority households
  - Seniors
  - Disabled



## Frequency Factor

- Assess service frequency by route in each alternative
- Higher score for greater frequency
- Used as a weight



## Span of Service

- Assess hours of service by route in each alternative
- Higher score for greater hours of operations
- Used as a weight

## Average Travel Time

- Travel time to major destinations
- Used ten origin and destination pairs to create an average travel time per alternative

## Key Locations

- Employment centers
- Schools / colleges
- Hospitals
- Park-and Ride Lots
- Metrorail Stations
- Recreation Centers



## Alternative Comparison

Criteria	Existing	Alternative 1	Alternative 2	Alternative 3	Preferred Plan
Transit Propensity Population (higher is better)	72,800	93,200	87,500	88,400	89,700
Frequency Factor (2.5 max; higher is better)	0.99	1.03	0.86	1.36	1.43
Span of Service Factor (2.5 max; higher is better)	1.87	1.71	2.00	1.78	1.93
Average Travel Time (in minutes; lower is better)	57	56	54	46	49
Key Locations (higher is better)	57	65	64	63	68

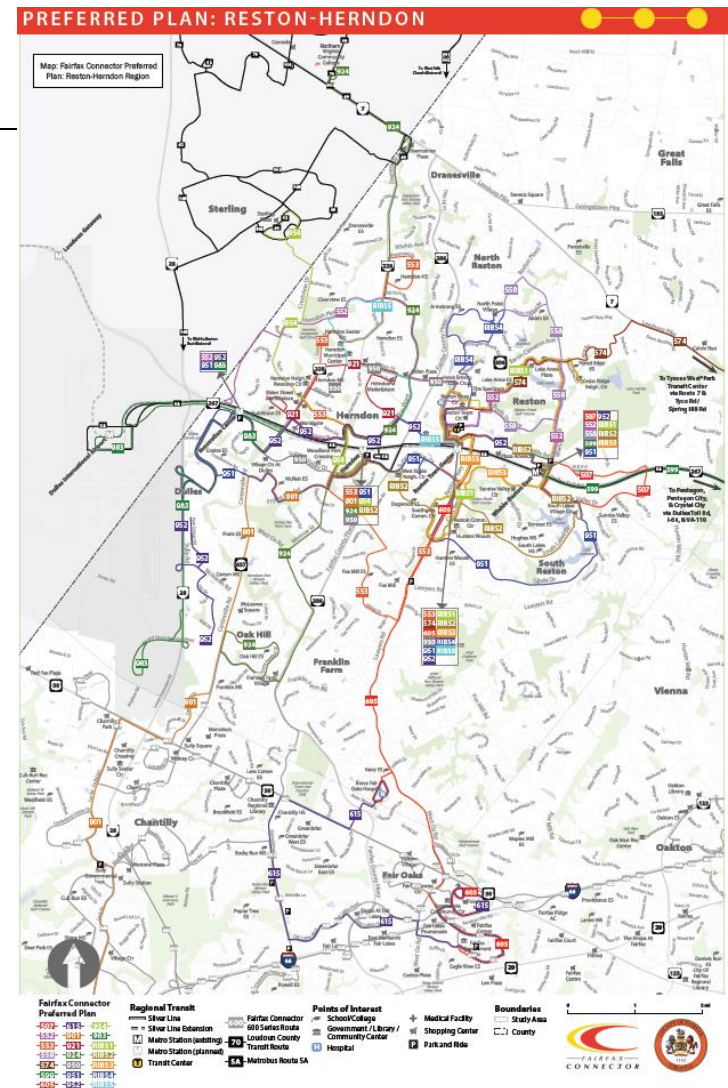




## County of Fairfax, Virginia

# Silver Line Phase Two Preferred Plan: Summary

- New connections and routes
  - Chantilly / Centreville to Dulles Corridor
  - Northern Virginia Community College (Loudoun Campus)
  - Sterling to Herndon
- Uses elements from all three alternatives
- Improves average frequency from 30 to 20 minutes
- Improves span of service
- Creates more direct connections
- Shortens travel time
- Increases access to transit dependent population and employment
- Maintains bus stop coverage at most locations
- Provides access to middle and high schools
- Budget neutral



This map can be found on the following Fairfax Connector web site:

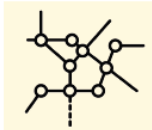
<https://www.fairfaxcounty.gov/connector/sites/connector/files/assets/documents/pdf/reston-herndon-review/preferred-plan-peak.pdf>



# County of Fairfax, Virginia

## FAST FACTS: EXISTING SERVICE VS. PREFERRED PLAN

### TRAVEL TIME BETWEEN KEY ORIGINS AND DESTINATIONS



	EXISTING SERVICE	PREFERRED PLAN	PERCENT CHANGE
Average Travel Time	57.3 Minutes	49.4 Minutes	-14%

### POPULATION AND HOUSEHOLDS SERVED WITHIN A QUARTER-MILE OF SYSTEM



	EXISTING SERVICE	PREFERRED PLAN	PERCENT CHANGE
Population	157,400	189,600	+20%
Minority Population	79,000	98,200	+24%
Households	59,300	70,100	+18%
Low-Income Households (At or Below \$50,000)	9,100	11,200	+23%

### POPULATION AND JOBS SERVED WITHIN A QUARTER-MILE OF PEAK SERVICE



FREQUENCY	EXISTING SERVICE		PREFERRED PLAN		PERCENT CHANGE	
	Population	Jobs	Population	Jobs	Population	Jobs
0-20 Minutes	71,900	65,600	114,100	96,700	+59%	+47%
21-30 Minutes	71,600	79,900	113,800	124,300	+59%	+56%
31+ Minutes	126,000	139,000	54,300	74,800	-57%	-46%





# Transit Parameters

## Weekdays

- Morning peak hours: 5:00 to 9:00 A.M.
- Afternoon peak hours: 3:00 to 7:00 P.M.
- Peak frequency is 15 to 30 minutes
- Off-peak frequency is 20 to 60 minutes

## Weekends

- Hours of service 6:00 A.M. to 9:00 P.M.
- Frequency is 20 to 60 minutes



# Sample Route Sheets





# Route Profiles Summary

Route profiles provide detailed information on each route:

- Map
- Days of service
- Hours of service
- Frequency
- Key locations served
- Schools and hospitals served
- Transfer opportunities at Metrorail and transit stations

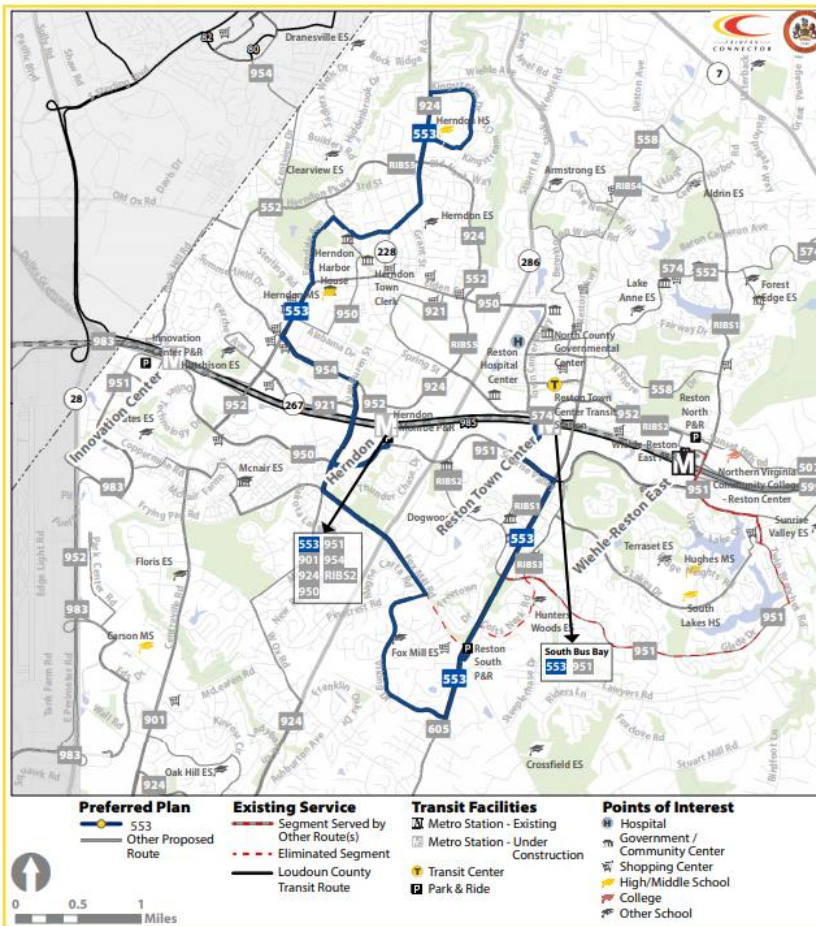
Detailed information on the recommended routes is provided at the following link:

<https://www.fairfaxcounty.gov/connector/reston-herndon-bus-service-review-survey-preferred>





## ROUTE 553: RESTON TOWN CENTER METRO TO HERNDON HIGH SCHOOL



OVERVIEW	CLASS	Feeder
	DIRECTIONS	Northbound/Southbound
	VIA	Reston South Park & Ride, Viking Dr, Herndon Metro (South), Herndon Senior Center, Herndon Harbor House, Kingstream Dr
	TRANSFERS AVAILABLE	Silver Line, 552, 574, 605, 901, 921, 924, 950, 951, 952, 954, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5
	IMPROVEMENT(S)	Provide New Connections

LEVEL OF SERVICE	PROPOSED ROUTE 553	SERVICE HOURS	WEEKDAY		SATURDAY	SUNDAY
			6:00AM - 9:00AM   4:00PM - 7:00PM		No Service	No Service
		FREQUENCY	PEAK	20 mins	No Service	No Service
			OFF-PEAK	No Service		

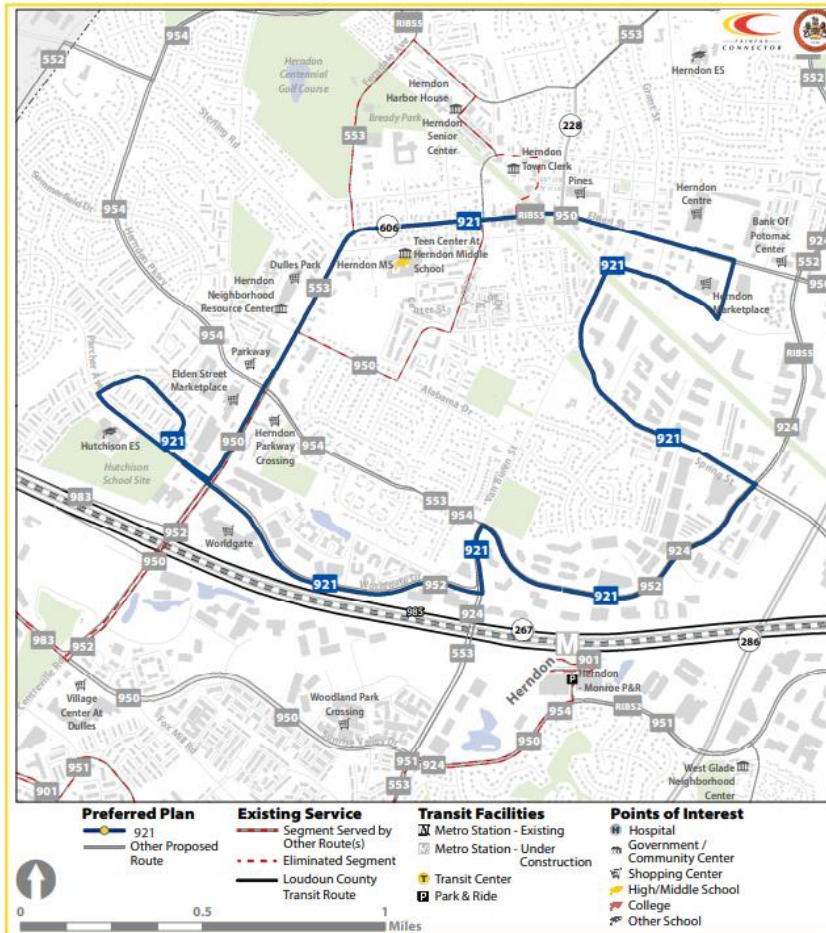
### FACILITIES SERVED WITHIN A QUARTER MILE

2 HIGH/MIDDLE SCHOOLS	0 TRANSIT CENTERS	0 COLLEGES	2 PARK & RIDE LOTS
2 METRORAIL STATIONS	3 ACTIVITY CENTERS	0 HOSPITALS	5 COMMUNITY / HUMAN SERVICES CENTERS



# County of Fairfax, Virginia

## ROUTE 921: HERNDON CIRCULATOR



OVERVIEW	CLASS	Local
	DIRECTIONS	Loop
	VIA	Spring St, Elden St, Parcher Ave, Worldgate
	TRANSFERS AVAILABLE	Silver Line, 553, 901, 924, 950, 951, 952, 954, RIBS2, RIBS5
	IMPROVEMENT(S)	New Route, Provide New Connections

		WEEKDAY		SATURDAY	SUNDAY
LEVEL OF SERVICE	PROPOSED ROUTE 921	SERVICE HOURS		7:00AM - 7:00PM	7:00AM - 7:00PM
		FREQUENCY		40 mins	40 mins
		PEAK	40 mins	40 mins	40 mins
		OFF-PEAK	40 mins		

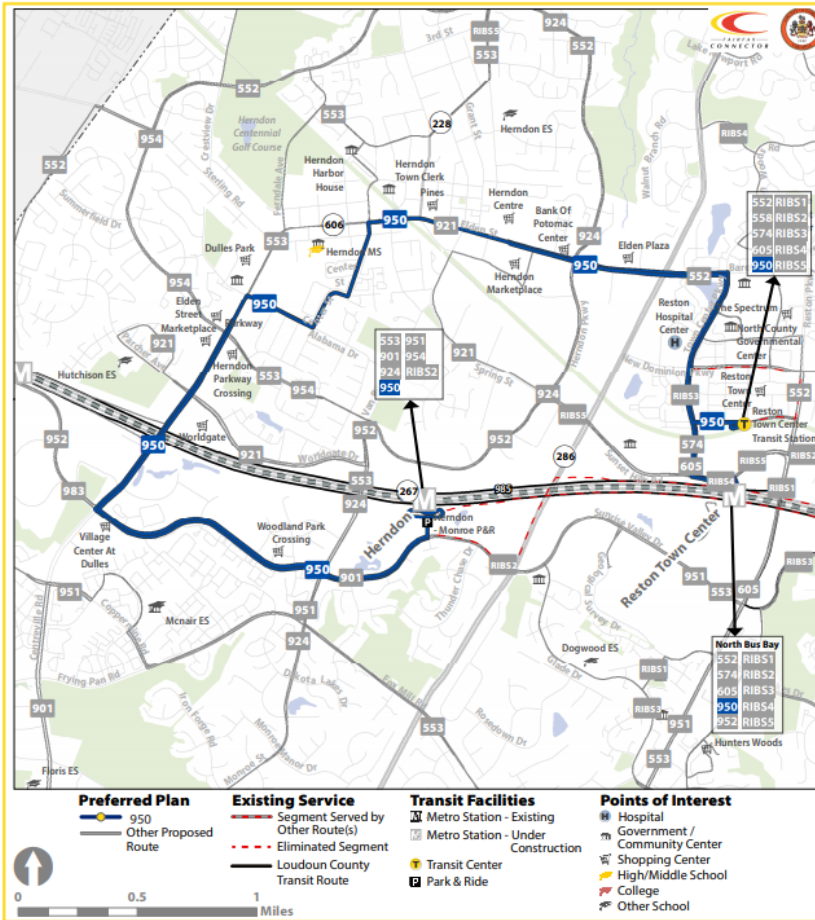
### FACILITIES SERVED WITHIN A QUARTER MILE

1 HIGH/MIDDLE SCHOOLS	0 TRANSIT CENTERS	0 COLLEGES	1 PARK & RIDE LOTS
1 METRO RAIL STATIONS	3 ACTIVITY CENTERS	0 HOSPITALS	2 COMMUNITY / HUMAN SERVICES CENTERS



# County of Fairfax, Virginia

## ROUTE 950: RESTON TOWN CENTER METRO TO HERNDON METRO



OVERVIEW	CLASS	Local
	DIRECTIONS	Westbound/Eastbound
	VIA	Worldgate, Elden St, Reston Hospital Center
	TRANSFERS AVAILABLE	Silver Line, 552, 553, 558, 574, 605, 901, 921, 924, 951, 952, 954, 983, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5
	IMPROVEMENT(S)	Increase Frequency

LEVEL OF SERVICE	PROPOSED ROUTE 950	WEEKDAY		SATURDAY	SUNDAY
		SERVICE HOURS		5:00AM - 1:00AM	6:00AM - 1:00AM
		FREQUENCY		15 mins	20 mins
		PEAK	15 mins	20 mins	30 mins
		OFF-PEAK	20 mins		

### FACILITIES SERVED WITHIN A QUARTER MILE

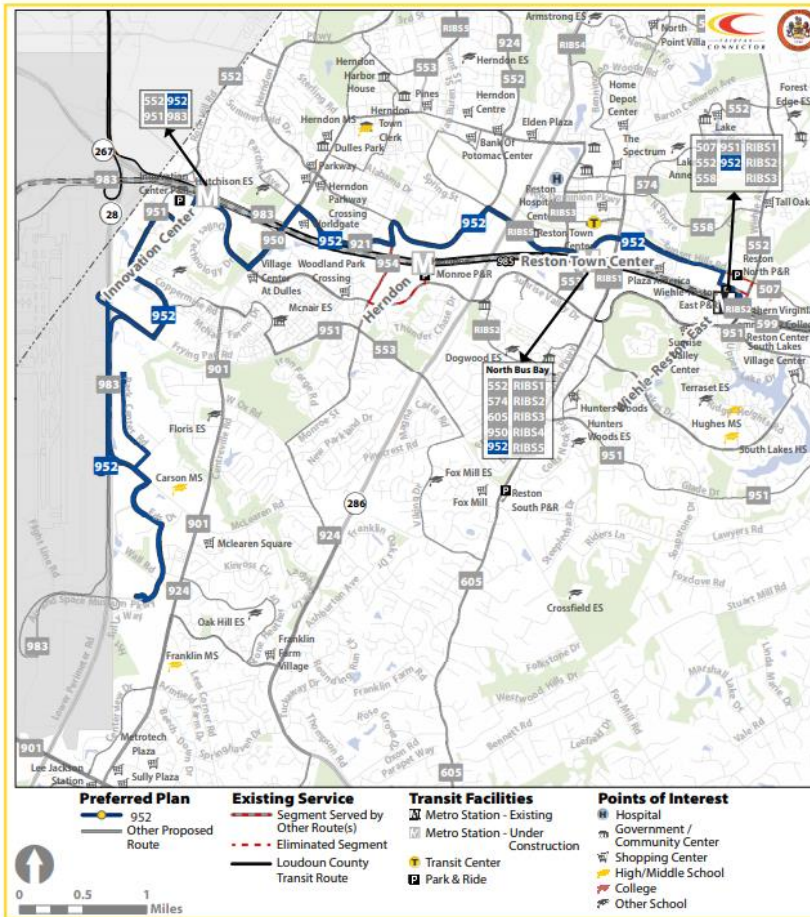
1 HIGH/MIDDLE SCHOOLS	1 TRANSIT CENTERS	0 COLLEGES	1 PARK & RIDE LOTS
2 METRORAIL STATIONS	4 ACTIVITY CENTERS	1 HOSPITALS	3 COMMUNITY / HUMAN SERVICES CENTERS





# County of Fairfax, Virginia

## ROUTE 952: WIEHLE-RESTON EAST METRO TO PARK CENTER RD



OVERVIEW	CLASS	Feeder
	DIRECTIONS	Westbound/Eastbound
	VIA	Reston Town Center Metro (North), Herndon Metro (North), Worldgate, Innovation Center Metro (South), Dulles Discovery
	TRANSFERS AVAILABLE	Silver Line, 507, 552, 553, 558, 574, 605, 901, 921, 924, 950, 951, 954, 983, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5
	IMPROVEMENT(S)	Increase Frequency, Provide New Connections

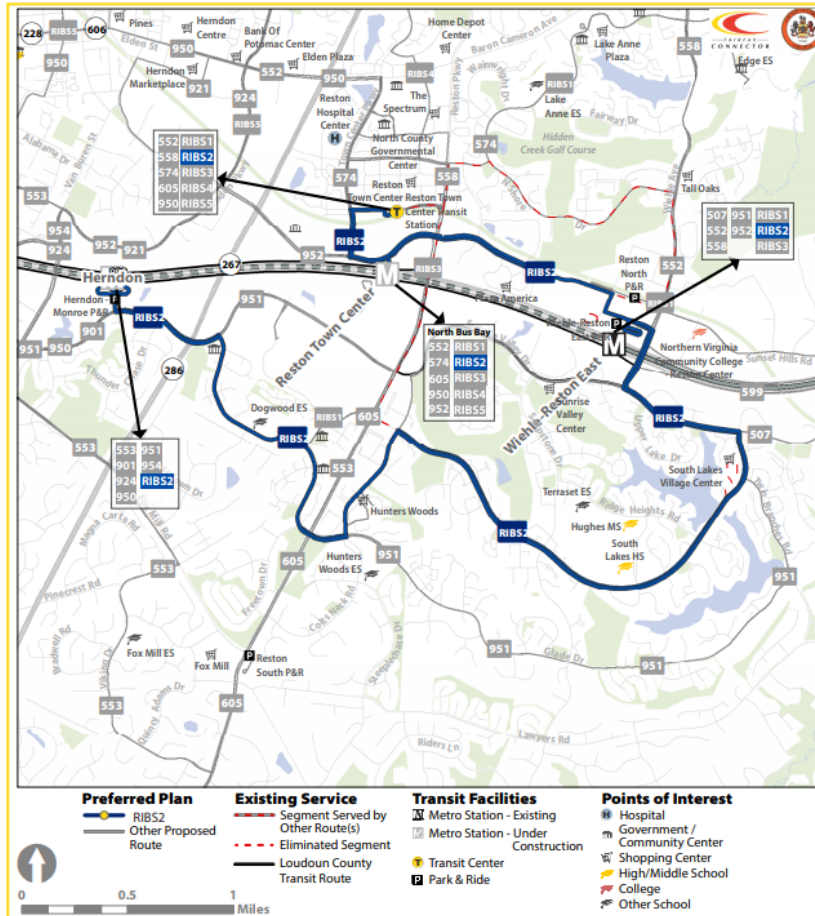
LEVEL OF SERVICE	PROPOSED ROUTE 952		WEEKDAY		SATURDAY	SUNDAY
		SERVICE HOURS	6:00AM - 9:00AM   4:00PM - 7:00PM		No Service	No Service
		FREQUENCY	PEAK	20 mins	No Service	No Service
			OFF-PEAK	No Service		

### FACILITIES SERVED WITHIN A QUARTER MILE

1 HIGH/MIDDLE SCHOOLS	1 TRANSIT CENTERS	0 COLLEGES	3 PARK & RIDE LOTS
4 METRORAIL STATIONS	6 ACTIVITY CENTERS	0 HOSPITALS	1 COMMUNITY / HUMAN SERVICES CENTERS



## RIBS2: RESTON TOWN CENTER TRANSIT STATION TO HERNDON METRO



OVERVIEW	CLASS	RIBS
	DIRECTIONS	Westbound/Eastbound
	VIA	Wiehle-Reston East Metro (North), South Lakes Village Center, South Lakes HS, Hunters Woods
	TRANSFERS AVAILABLE	Silver Line, 507, 552, 553, 558, 574, 605, 901, 921, 924, 950, 951, 952, 954, RIBS1, RIBS3, RIBS4, RIBS5
	IMPROVEMENT(S)	Increase Frequency, Provide New Connections

LEVEL OF SERVICE	PROPOSED ROUTE RIBS2	WEEKDAY		SATURDAY	SUNDAY
		SERVICE HOURS		5:00AM - 12:00AM	6:00AM - 12:00AM
		FREQUENCY		6:00AM - 12:00AM	6:00AM - 12:00AM
		PEAK	20 mins	30 mins	30 mins
		OFF-PEAK	30 mins		

### FACILITIES SERVED WITHIN A QUARTER MILE

2 HIGH/MIDDLE SCHOOLS	1 TRANSIT CENTERS	0 COLLEGES	3 PARK & RIDE LOTS
2 METRO RAIL STATIONS	3 ACTIVITY CENTERS	0 HOSPITALS	3 COMMUNITY / HUMAN SERVICES CENTERS



## Preferred Plan Route Details

Route	Peak Frequency (minutes)	Off-Peak Frequency (minutes)	Weekend Service	Weekday Hours of Service	Improvement
507	25	25	No	5:00 A.M. to 7:00 P.M.	No major change
552	20	-	No	Peak hours	Increase connectivity
553	20	-	No	Peak hours	Increase connectivity
558	20	60	Yes	5:00 A.M. to 9:00 P.M.	Increase connectivity
574	30	45	Yes	5:00 A.M. to 9:00 P.M.	Shorten travel time
599	25	-	No	Peak hours	No major change
605	30	45	Yes	5:00 A.M. to 9:00 P.M.	Increase frequency and shorten travel time
615	30	45	Yes	7:00 A.M. to 9:30 P.M.	Replace portion of 605



## Preferred Plan Route Details

Route	Peak Frequency (minutes)	Off-Peak Frequency (minutes)	Weekend Service	Weekday Span of Service	Improvement
901	30	60	Yes	5:00 A.M. to 9:00 P.M.	New route, increase connectivity
921	40	40	Yes	7:00 A.M. to 7:00 P.M.	New route, improve linkage
924	20	60	Yes	5:00 A.M. to 10:00 P.M.	Extension
950	15	20	Yes	5:00 A.M. to 1:00 A.M.	Increase frequency
951	20	-	No	Peak hours	Extension, increase frequency
952	20	-	No	Peak hours	Increase connectivity and frequency
954	30	60	Yes	5:00 A.M. to 9:00 P.M.	New route, increase connectivity
983	30	45	Yes	7:00 A.M. to 7:00 P.M.	Increase connectivity



## Preferred Plan Route Details

Route	Peak Frequency (minutes)	Off-Peak Frequency (minutes)	Weekend Service	Weekday Span of Service	Improvement
RIBS 1 (501)	25	25	Yes	5:00 A.M. to 12:00 A.M.	Increase frequency
RIBS 2 (502)	20	30	Yes	5:00 A.M. to 12:00 A.M.	Increase connectivity and frequency
RIBS 3 (503)	25	25	Yes	5:00 A.M. to 12:00 A.M.	Increase frequency
RIBS 4 (504)	20	40	Yes	5:00 A.M. to 11:00 P.M.	Increase connectivity and frequency
RIBS 5 (505)	45	45	Yes	5:00 A.M. to 11:00 P.M.	Increase connectivity

Based on the comments received online, the following routes are under further evaluation:

557	40	-	No	Peak hours	Increase connectivity
981	-	60	Yes	6:00 P.M. to 11:00 P.M.	Increase connectivity



## Next Steps

1

Board input

Conduct public  
outreach

2

Refine preferred  
plan

3

Board approval

Service  
implementation



## Providing Feedback

- Public comments due by 5 P.M. on Friday, July 17, 2020
- Ways to provide comments:
  - Take the on-line survey at:
    - <https://www.fairfaxcounty.gov/connector/reston-herndon-bus-service-review-survey-preferred>
  - E-mail [fairfaxconnector@fairfaxcounty.gov](mailto:fairfaxconnector@fairfaxcounty.gov)
  - Call 703-339-7200, TTY 703-339-1608