

I-81/I-64 Inter-Regional Public Transportation Study

Presentation to
SHRP2 I-64 Corridor Working Group
March 30, 2017



Study Scope

- **Assess potential need and demand for regional transit service connecting Harrisonburg, Staunton, Waynesboro and Charlottesville**
- **Develop service alternatives appropriate to the need and demand**
- **Estimate ridership, revenue, and costs**
- **Develop organizational options for implementation of the regional service**



Challenges, Needs and Opportunities

- Bi-directional demand, with Charlottesville serving as the primary destination
- Afton Mountain is a significant travel barrier
- Significant Charlottesville area medical destinations, specifically the UVA Medical Center and Sentara Martha Jefferson Hospital
- Parking concerns on both the JMU campus and the UVA campus



Challenges, Needs and Opportunities - continued



- JMU students need access to an airport – either Dulles or Charlottesville – Dulles will soon have limited service via a new route, to be implemented in FY18
- First mile/last mile concerns
- Connections to Greyhound, Amtrak, and local bus services are needed
- Park and ride lots are needed in Harrisonburg and Staunton, and a need for improvements to the lot in Waynesboro
- Service needs to be accessible for people with disabilities, with relatively low fares





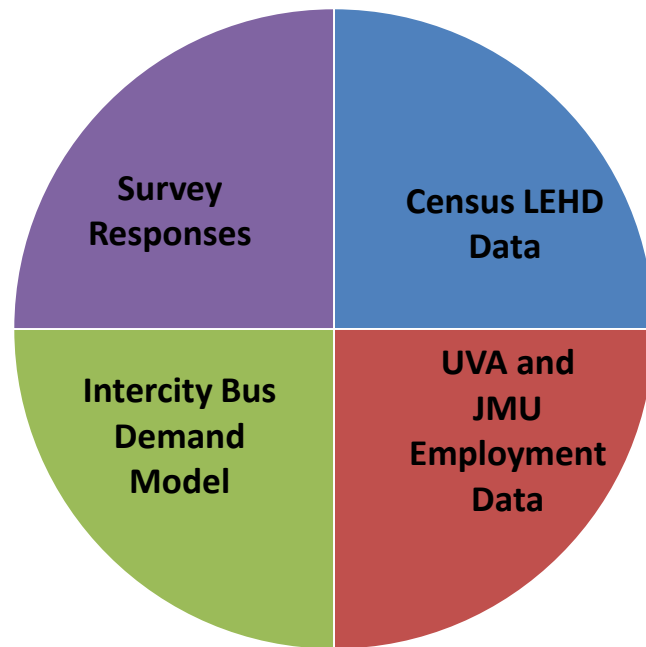
Previous Plans and Studies



- **Albemarle County Comprehensive Plan (rail)**
- **CSPDC TDP**
- **SAW MPO 2040 LRTP**
- **HDPT TDP- intercity bus service along I-81**
- **JMU Transportation Department Surveys**
- **JAUNT TDP**
- **Virginia Intercity Bus Plan**



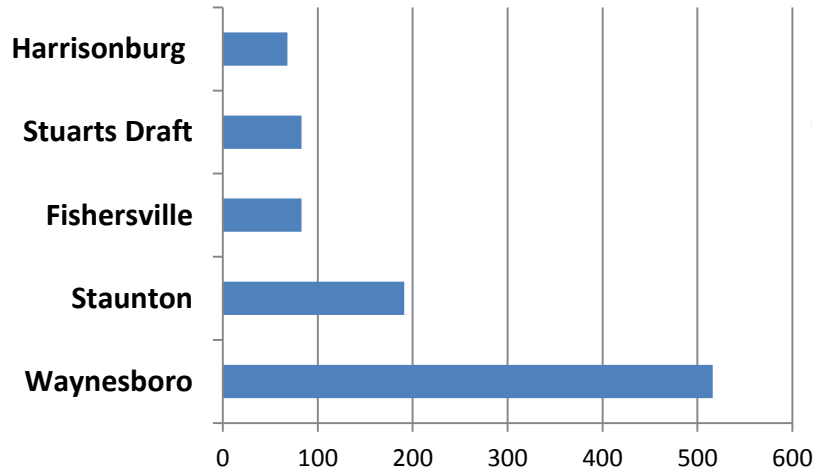
Demand Methodology



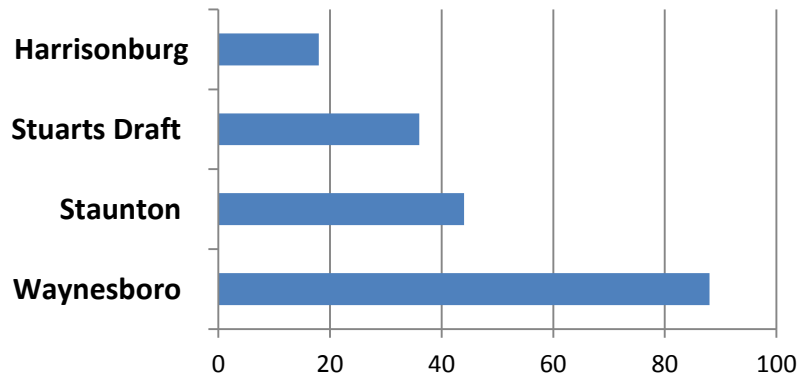
Commuting Patterns



1,257 Commuters to Downtown and UVA Medical from the Shenandoah Valley

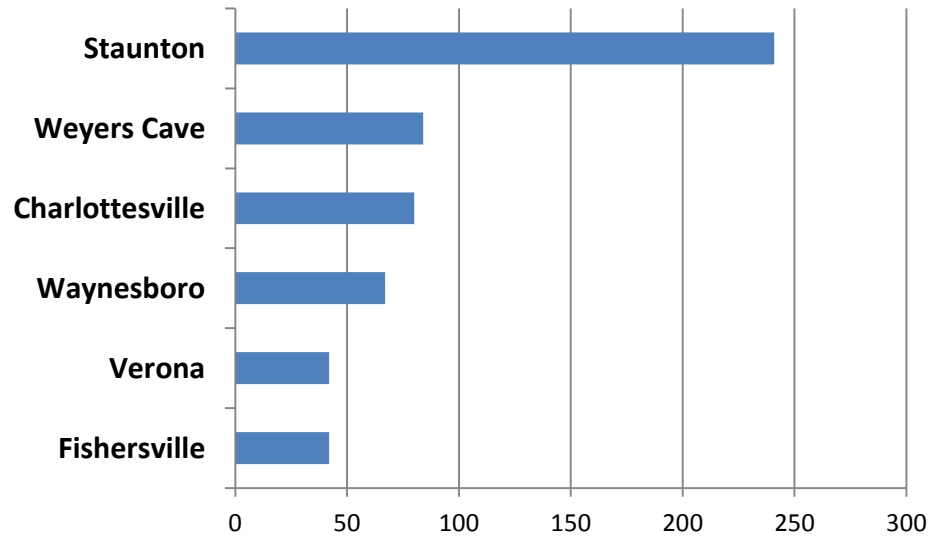


237 Commuters to Martha Jefferson Hospital area from the Shenandoah Valley



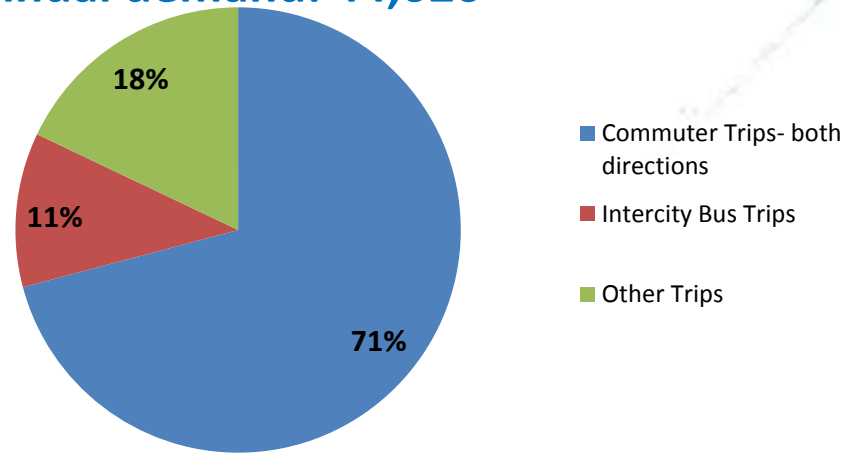
Commuting Patterns

556 commuters through the corridor to Harrisonburg

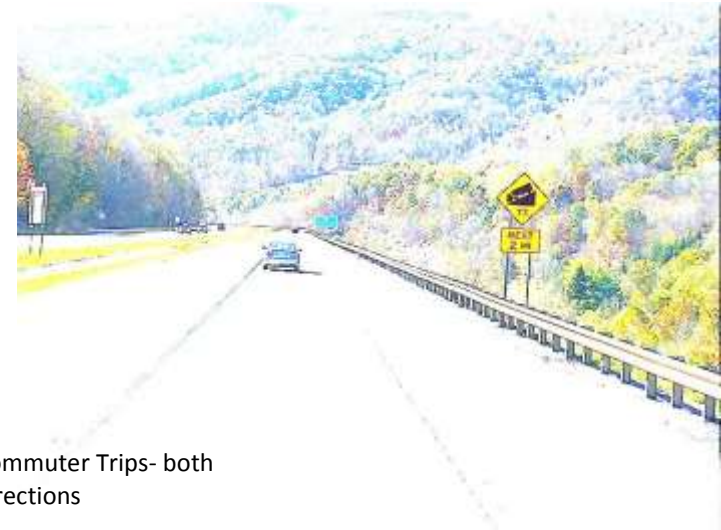


Projected Demand

- Total projected annual demand: 44,620



- Based on 255 annual service days, average daily ridership would be 175 passenger trips, including both directions
- Would require (at least) three round-trips (six one-way vehicle trips if demand is bi-directional over the corridor)
- Peak demand would require more capacity
- Demand would likely start smaller and build to this level



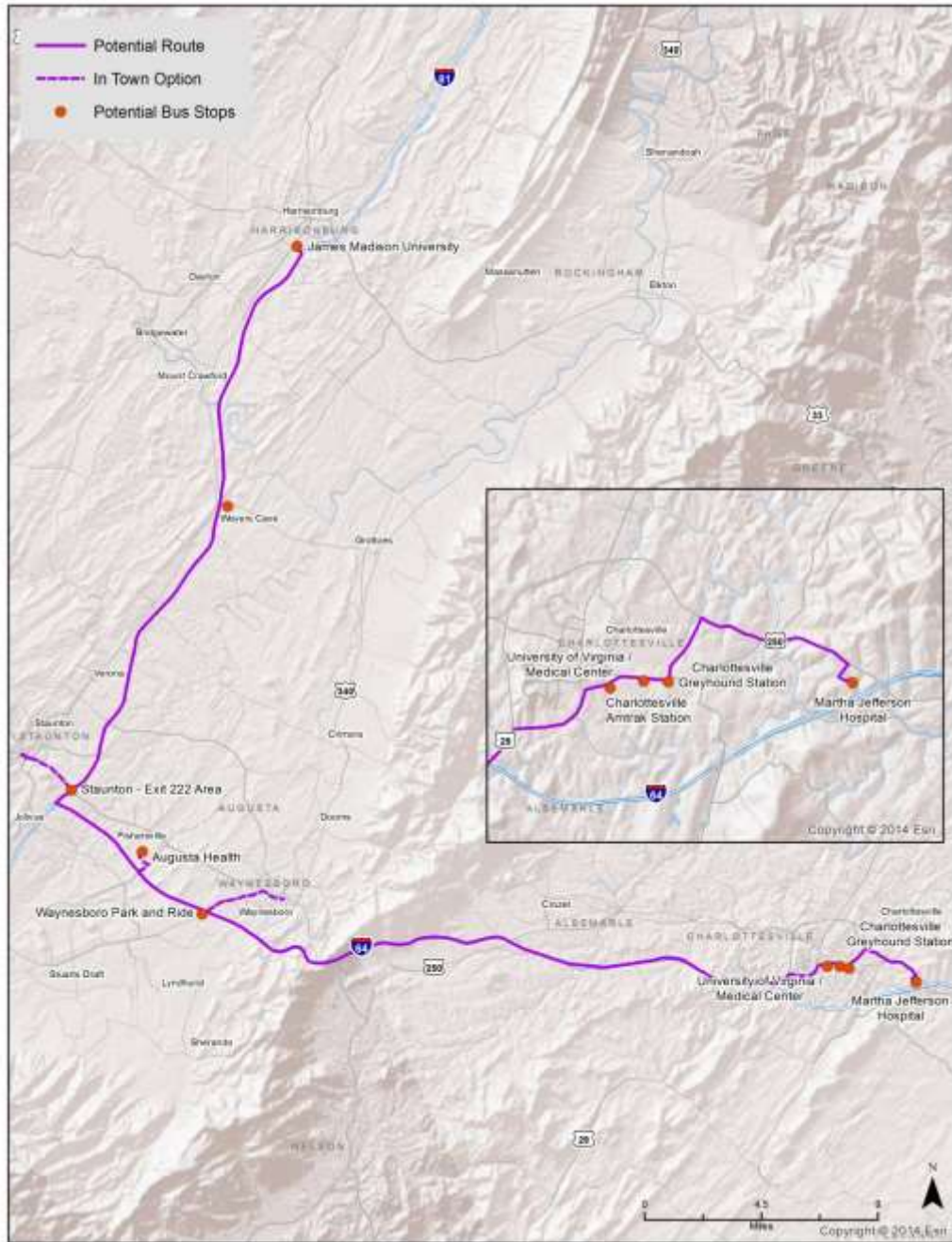
Service Alternatives Considered



- **Option 1: Full Corridor, Bi-Directional service**
- **Option 2: Full Corridor, Bi-Directional service, No Martha Jefferson**
- **Option 3: Full Corridor, Peak direction only**
- **Option 4: Originate service in Weyers Cave**



Proposed Route



Preferred Alternative: Full Corridor, Bi-Directional Service

- 23 revenue hours per weekday
- 5,865 annual revenue hours
- 193,300 annual revenue miles
- Projected demand: 44,620 annual passenger trips
- Three vehicles required (plus 1 spare/backup)



Purposes of the Service

As designed, the inter-regional service will provide:

- A public transportation connection between two major state universities – James Madison University and the University of Virginia.
- Commuter bus service for residents of the Shenandoah Valley who work in Charlottesville, including those who work hospital shifts at UVA Hospital (7:00 a.m. to 3:00 p.m. and 7:00 a.m. to 7:00 p.m.) and those who work a more traditional office schedule.
- Commuter bus service between Staunton and JMU.
- A connection between Augusta Health, UVA Hospital, Martha Jefferson Hospital.
- A public transportation option for area residents who do not drive to access medical appointments in Charlottesville.
- A meaningful connection to both Greyhound and Amtrak. These connections would allow Shenandoah Valley residents to connect to Richmond and the Northeast corridor. A meaningful connection to Greyhound is important, as it could allow for 100% federal funding for the trips that provide this connection.

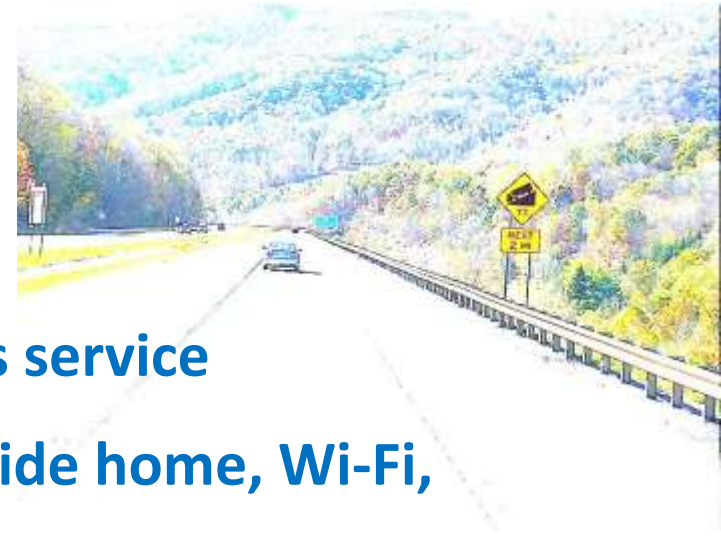


Sample Schedule – For Planning Purposes

Eastbound Stops	a.m. service						p.m. service	
	Bus 1	Bus 2	Bus 3	Bus 1	Bus 2	Bus 3	Bus 1	
James Madison University- Godwin			6:30	8:30	9:15	10:45	5:15	
Harrisonburg - Park and Ride, TBD			6:35	8:35	9:20	10:50	5:20	
Weyers Cave - Park and Ride, TBD			6:48	8:48	9:34	11:03	n.s.	
Staunton - transit hub		n.s.	n.s.	9:10	n.s.	11:25	5:45	
Staunton - Park and Ride, TBD		5:50	7:06	9:18	9:52	11:33	5:53	
Augusta Health - Fishersville		n.s.	n.s.	9:28	n.s.	n.s.	n.s.	
Waynesboro Park and Ride		6:05	7:20	9:36	10:06	11:47	6:07	
Waynesboro transit hub		n.s.	n.s.	9:44	n.s.	11:55	6:15	
University of Virginia - University Drive, Charlottesville		6:45	8:00	10:24	10:46	12:35	6:55	
University of Virginia Medical Center, Charlottesville		6:47	8:02	10:26	10:48	12:37	6:57	
Downtown Charlottesville - Amtrak		6:49	8:04	10:28	10:50	12:39	6:59	
Downtown Charlottesville - Greyhound		6:51	8:06	10:30	10:52	12:41	7:01	
Martha Jefferson		n.s.	8:20	10:44	n.s.	n.s.	n.s.	
Charlottesville		Short Break	Short Break	Service Break	Service Break	Service Break	Short Break	
		a.m. service			p.m. service			
Westbound Stops	Bus 1	Bus 2	Bus 3	Bus 3	Bus 1	Bus 2	Bus 1	
Martha Jefferson	n.s.	n.s.	n.s.	n.s.	3:00	5:30	n.s.	
Downtown Charlottesville - Greyhound	n.s.	n.s.	n.s.	2:15	3:15	5:45	eb	
Downtown Charlottesville - Amtrak	n.s.	n.s.	n.s.	2:17	3:17	5:47	eb	
University of Virginia Medical Center, Charlottesville	n.s.		n.s.	2:19	3:19	5:49	7:15	
University of Virginia - University Drive, Charlottesville	n.s.	7:00	8:45	2:21	3:21	5:51	7:17	
Waynesboro transit hub	n.s.	7:40	9:25	3:01	n.s.	6:31	n.s.	
Waynesboro Park and Ride	n.s.	n.s.	n.s.	n.s.	4:01	6:41	7:57	
Augusta Health - Fishersville	n.s.	7:55	n.s.	n.s.	n.s.	n.s.	n.s.	
Staunton Park and Ride	7:30	n.s.	n.s.	3:15	4:13	6:53	8:09	
Staunton Transit Center	7:40	8:15	9:50	n.s.	n.s.	n.s.	n.s.	
Weyers Cave Park and Ride	n.s.	n.s.	n.s.	3:33	4:31	7:11	8:27	
Harrisonburg Park and Ride	n.s.	n.s.	n.s.	3:47	4:55	7:25	8:41	
JMU- Godwin	8:15	9:00	10:35	3:52	5:00	7:30	8:45	
Harrisonburg	Short Break	Short Break	Short Break	Service End	Short Break	Service End	Service End	

Bold Yellow shading denotes connection with Greyhound and **Bold Green** denotes connection with Amtrak service within 2 hours.

Service Considerations



- **Need to limit stops to provide express service**
- **Riders desire amenities- guaranteed ride home, Wi-Fi, comfortable seats, lighting, power**
- **Need for stop(s) in non-urbanized area to permit access to Section 5311 funding (Weyers Cave)**
- **Need for schedules connecting to Greyhound within two-hour window for Greyhound in-kind match**
- **Schedules will need to consider needs of three markets – commuters, intercity travelers, and day-trippers**
- **Potential to break at Capital Area Transit**
- **Need for new park and ride lots**



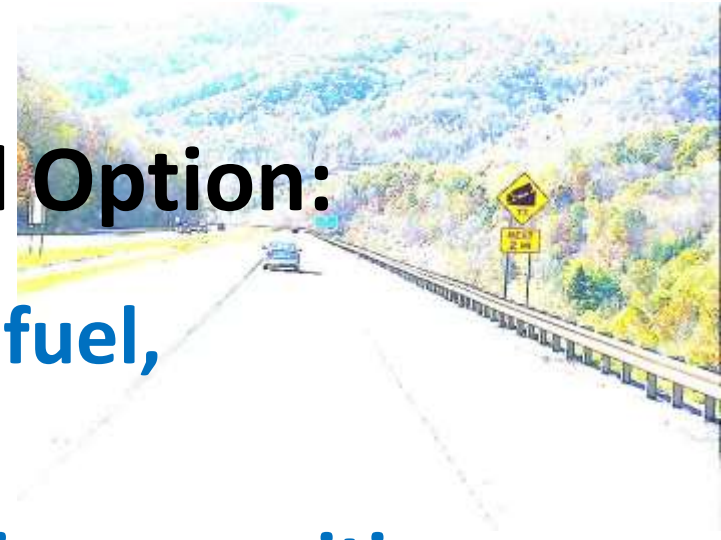
Fares

- **Comparable services in Virginia**
 - Smartway fare Blacksburg-Roanoke is \$4.00 each way,
 - JAUNT service Nelson-Wintergreen is \$4.00 each way
- **Proposal is \$5.00 Harrisonburg/Weyers Cave-Charlottesville, \$4.00 Staunton/Waynesboro-Charlottesville. Lower fare for trips within the Shenandoah Valley**
- **Multi-trip discounts for commuters**



Operating Costs—Preferred Option:

- **Operating Expenses – Labor, fuel, insurance, etc.**
- **Leased or contractor capital in recognition of guidance from DRPT with regard to the near-term availability of capital funds**
- **Estimate of \$444,590 annually, using a smaller vehicle**



Vehicles

—Preferred Option

Leased or contractor-owned

- Smaller 25-30 seat truck-bus: approximately \$185,000 (seven to ten-year vehicle)— startup
- Over-the-road coach (55 seat): \$600,000 (12 year vehicle)—future years
- Each option would include passenger amenities



Potential Funding



Operating Costs, Including the Cost of Vehicles	Estimated Annual Operating Parameters			Estimated Funding Splits				Estimated Annual Ridership	Cost Per Trip
	Service Hours	Revenue Miles	Operating Costs	Farebox Revenue	Federal S.5311	State Assistance	Local Assistance		
Full Corridor, Bi-Directional Service	5,865	193,300	\$444,590	\$133,860	\$155,365	\$49,717	\$105,648	44,620	\$9.96

Notes:

Cost estimates assume smaller vehicles, leased or owned by the service provider.

Per unit cost is \$2.30 a mile, referenced from the low end of costs from the Virginia Intercity Bus Plan.

The low end was used to reflect the smaller, less expensive vehicles.

A fare of \$3.00 each way was used to estimate farebox revenue.

This is lower than the proposed fare and was used to account for multi-trip discounts that may potentially be offered.

In-kind match for S.5311 may be an option for trips that connect with Greyhound, if this project is part of the Intercity Bus Program.



Park and Ride Needs

Harrisonburg

- JMU Lots R11 and R10 adjacent to I-81 Exit 245
- Future use of state park and ride when intersection is reconfigured



Weyers Cave

- Augusta County Weyers Cave Road widening Smart Scale grant application includes construction of a 50-60 space lot – Exit 235
- Short-term options include lease of space or BRCC



Staunton

- Staunton Crossing Area – Smart Scale application submitted
- Short-term options include leasing space from retailers on Route 250

Waynesboro

- Improvements to current lot- Smart Scale application submitted



Organizational Options



- **CSPDC as grant applicant/contracting entity**
 - Operation by contracted operator
 - Vehicles leased or owned by operator
- **Regional provider as grant applicant/administrator and service operator**
 - Leased vehicles

For both options: A regional stakeholder advisory committee would be formed



Next Steps

- Development of final service and organizational plan
- Development of implementation plan

