

Burlington Amtrak Train Storage and Servicing Study

2nd Public Meeting

June 6, 2018









Agenda

- Project Background
- Project Updates since Last Public Meeting
- Decision on Preferred Site
- Review of Project Scope and Schedule
- Potential Siding Locations
- Site Evaluation Criteria
- Next Steps



Project Background

- VTrans and Amtrak working to expand regional passenger rail in Vermont
- Amtrak anticipated to come to Burlington in 2021/2022 as an extension of the Ethan Allen Express train line
 - New York City \rightarrow Albany \rightarrow Castleton \rightarrow Rutland \rightarrow Middlebury \rightarrow Vergennes \rightarrow Burlington
- Anticipated Train Schedule: 7 AM departure, 8 PM arrival
- Train will be stored and serviced overnight in Burlington
 - Crew will be lodged overnight in Burlington
- City of Burlington solicited assistance from CCRPC to engage public; conduct objective study to evaluate potential train storage and servicing locations in Burlington



Project Updates

Since our last public meeting:

- A new 5th site has been identified for evaluation in the Northern Urban Reserve
- The Amtrak locomotive idling time will be limited:
 - 480v electrical connection needed
 - "Hot start" and "start/stop" equipment
 - Will idle intermittently during very cold evenings and one hour before departure

Note: Current VRS Dinner Train and construction of VRS siding extension in Northern Urban Reserve *not* related to future Amtrak service



Decision on Preferred Site

VTrans will be making the final selection on the preferred storage site for the Amtrak train taking into consideration:

- Results from the evaluation of the five Burlington sites included in this current study
- Public comments



Project Scope

Develop a decision making tool to assist VTrans to identify an overnight storage and servicing location for the future Amtrak passenger train in Burlington.

Schedule

- Public Meeting......Completed November 2017

- Final Technical Report to CCRPC and VTrans.....July

Train Storage Alternative Locations

- 1. Northern Urban Reserve (New)
- 2. Urban Reserve
- 3. Union Station
- 4. Vermont Rail System Railyard
- 5. Flynn Avenue (City Market)



Northern Urban Reserve

Location #1

- Recent construction by VRS to extend their current siding is not affiliated with Amtrak storage
- Amtrak train would be stored on a new adjacent siding
- Vehicle access provided along the former Burlington Bike Path alignment
- Located downslope from adjacent residences
- Overnight crew accommodations within short drive
- Requires coordination with New England Central Railroad (Genesee & Wyoming)



Northern Urban Reserve



Urban Reserve

Location #2

- Current VRS siding located north of skate park
- Amtrak train would be stored on a new adjacent siding
- Located down slope from adjacent residences
- Overnight crew accommodations within short drive
- Requires coordination with New England Central Railroad (Genesee & Wyoming)



Urban Reserve

Union Station

Location #3

- New siding will be constructed adjacent to Union Station to service Amtrak passengers
- Overnight crew accommodations within walking distance or short drive
- Bike path to be relocated in coordination with Amtrak Platform Project

Vermont Rail System Railyard Location #4

- Railyard is currently at capacity
- Open track space is used for freight storage and train operations
- Amtrak train storage will disrupt freight rail operations

Flynn Avenue / Briggs Street

Location #5

- Use existing VRS siding and construct additional siding to replace storage capacity for VRS.
- Adjacent to residential neighborhood and new City Market
- Over 1 mile from Union Station

Flynn Avenue

Site Evaluation Criteria

- Design, Construction, & Property Acquisition Costs
- Property Impacts

- Proximity to Residential Neighborhoods
- Noise and Visual Impacts

- Natural Resource Impacts
 - Lighting Availability
 - Three-Phase Electrical Power Access
 - Amtrak Crew Impacts
 - Impact to VRS Operations

Each site was scored 0 – 3 on each evaluation criteria with 0 being the worst and 3 being the best.

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Evaluation Matrix – Natural Resource Impacts

A desktop evaluation of all sites revealed no anticipated natural resource constraints at any of the locations.

Location	Score	Comments			
Northern Urban Reserve	3	No anticipated impacts			
Urban Reserve	3 No anticipated impacts				
Union Station	3	No anticipated impacts			
VRS Railyard	3	No anticipated impacts			
Flynn Avenue	3	No anticipated impacts			

Evaluation Matrix – Lighting Impacts

Service lights are required by Amtrak for security & visibility. The lights are expected to operate at 5 footcandles when not being serviced and 20 footcandles when being serviced.

Location	Score Comments						
Northern Urban Reserve	1	Lighting will be added in an area where there are currently no lights					
Urban Reserve	Lighting will be added in an area whe are currently no lights						
Union Station	2	Brighter lighting will be required overnight					
VRS Railyard	2	Brighter lighting will be required outside of current Railyard opreational hours.					
Flynn Avenue	2	Brighter lighting will be required overnight					

Evaluation Matrix – Electrical Power Availability

480 volt, 3-phase power is required so that the train can be plugged in overnight and limit idling time.

Location	Score Comments					
Northern Urban Reserve	2	New electrical lines and connection required				
Urban Reserve	2 New electrical lines and connection requ					
Union Station	3	New connection to existing electrical line required				
VRS Railyard	3 New connection to existing electrication required					
Flynn Avenue	2	New electrical lines and connection required				

Evaluation Matrix – Design, Construction & Acquisition Costs

Estimated costs include engineering, permitting, construction, and property acquisition costs.

Location	Score Comments					
Northern Urban Reserve	2	\$2,000,000 (new track and switch, electrical power, utilities)				
Urban Reserve	2 \$2,500,000 (new track and switch, earthw electrical power, utilities)					
Union Station	3	\$300,000 (electrical power)				
VRS Railyard	0	\$50,000,000 (relocation of Railyard to alleviate operational conflicts)				
Flynn Avenue	2	\$1,500,000 (relocation of VRS storage currently on this siding)				

Evaluation Matrix – Additional Crew Hours Per Day

The maximum shift length for Amtrak crew members is 12 hours. Amtrak also requires crew members have a 12-hour break before the next shift.

Location	Score Additional Crew Hours					
Northern Urban Reserve	2	44 minutes per day				
Urban Reserve	2 40 minutes per day					
Union Station	3 0 minutes oper day					
VRS Railyard	2 30 minutes per day					
Flynn Avenue	1	60 minutes per day				

Evaluation Matrix – Property Acquisition

The siding must be located within a Right-of-Way owned by the State of Vermont.

Location	Score Comments					
Northern Urban Reserve	1	Acquisition required from the City of Burlington				
Urban Reserve	1 Acquisition required from the City o Burlington					
Union Station	3	This is located within an existing railroad corridor owned by the State				
VRS Railyard	2	Lease agreements will need to be made with VRS				
Flynn Avenue	2	Lease agreements will need to be made with VRS				

Evaluation Matrix – Train Visibility

Modeling software was used to depict the expected impacts to existing viewsheds in Burlington.

Location	Score Comments				
Northern Urban Reserve	3	The train will be located down slope from most homes and will not be easily visible from the east			
Urban Reserve	2	The train will be located down slope from most homes and will be slightly visible from the east			
Union Station	1	The train will be located between Union Station and ECHO			
VRS Railyard	3	The train will be located within an existing railyard and will not significantly change the current views			
Flynn Avenue	2	The train will be stored in an area which often has trains currently but it located close to many residences			

Train Visibility Northern Urban Reserve

Train Visibility Urban Reserve

Train Visibility Union Station

Train Visibility VRS Railyard

Train Visibility Flynn Avenue

Evaluation Matrix – Noise Impacts

- The train will only idle for limited periods during extremely cold nights.
- The locomotive will go through a brief power up and power down sequence.
- The locomotive will idle for one hour prior to leaving in the AM.
- The threshold use for noise evaluation is 40 dBA.
- Horn blowing is required at street crossings north of Sears Lane.

Evaluation Matrix – Noise Impacts

A noise assessment evaluated the number of homes within 40 dBA noise contour from locomotive idling and power up/down cycle. Trains will also blow horn at each crossing north of Sears Lane Pedestrian Crossing.

Location	Score	Number of Residence Impacted	Number of Train Horn Blows	
Northern Urban Reserve	1	60 residences	10	
Urban Reserve	2	37 residences	10	
Union Station	1	26 residences	4	
VRS Railyard	3	7 residences	8	
Flynn Avenue	0	162 residences	8	

0 = worst 3 = best

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orage Facility Study	Burlington, Vermont			Storage Facility Study	Burlington, Vermont				Storage Facility Study	Burlington, Vermont			
ound Level Contours		Sound Levels	60-70 dBA — 40 dBA —	70 dE Sound Level Contours		Sound Levels	60-70 dBA	— 40 dBA ——— 70 dBA	Sound Level Contours		Sound Levels	60-70 dBA	40 dBA 🗕
orthern Urban Reserve		40-50 dBA	70-80 dBA — 50 dBA —	80 dE SouthernUrban Reserve		40-50 dBA	70-80 dBA	— 50 dBA —— 80 dBA	Waterfront Station		40-50 dBA	70-80 dBA	50 dBA 🛥
		50-60 dBA	>80 dBA 60 dBA	90 dE		50-60 dBA	>80 dBA	— 60 dBA —— 90 dBA			50-60 dBA	>80 dBA	• 60 dBA 🖛

Noise Impacts: Siding Alternatives 1 – 3

Burlington Amtrak Servicing & Storage Facility Study	Burlington, Vermont				
ound Level Contours		Sound Levels		60-70 dBA 📥	
/RS Railyard		40-50 d	IBA	70-80 dBA	
		50-60 d	BA	S80 dBA	60 dB/

Burlington Amtrak Servicing & storage Facility Study Burlington, Vermont **Sound Level Contours** Sound Levels 60-70 dBA 40 dBA = 70 dB/ Iynn Avenue 40-50 dBA 70-80 dBA 80 dB/ 50 dBA 50-60 dBA >80 dBA 60 dBA 90 dB/

Noise Impacts: Siding Alternatives 4 – 5

- 70 dBA

80 dB/

90 dBA

Evaluation Matrix – Proximity to Residential Areas

In addition to the noise and visual assessment, a straight line measurement was taken from the siding to the nearest residence to determine the proximity to these areas.

Location	Score Comments					
Northern Urban Reserve	3	The train is less than 0.1 mile from residences but is significantly down slope				
Urban Reserve	3 The train is less than 0.1 mile from res but is significantly down slope					
Union Station	0	The train is less than 50 feet from residences				
VRS Railyard	1	The train is less than 500 feet from residences				
Flynn Avenue	2	The train is less than 0.1 mile from residences				

0 = worst 3 = best

Evaluation Matrix – Impacts to VRS Operations

VRS currently operates along the railroad which Amtrak will use and performs daily operations at the Railyard.

Location	Score	Comments		
Northern Urban Reserve	2	This location has minor impacts to VRS operations. The train would be stored on a new siding off of a VRS siding north of the railyard		
Urban Reserve	2	This location has minor impacts to VRS operations. The train would be stored on a new siding off of the VRS main line north of the railyard limits		
Union Station	3	This location has no impacts to VRS operations. The train would be stored on a new siding off of the VRS track		
VRS Railyard	0	This location has very significant impacts to VRS operations. The train would be in direct conflict with current VRS operations		
Flynn Avenue	1	This location has significant impacts to VRS operations. The train would be stored on a siding currently used by VRS or along a siding which would disrupt Railyard operations		

Evaluation Matrix – Final Scoring

	Desi	on Construction Property Acquir Property Acquir	n. a costs Sition Costs Sition Power A	additional Crew	Property Acqui	sition ural Resource	onstraints Lighting Int	acts TrainVisibi	Noise Impart	Inity to Resider	tial Areas pact to VRS Operations
Location	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	
Northern Urban Reserve	2	2	2	1	3	1	3	1	3	2	28
Urban Reserve	2	2	2	1	3	1	2	2	3	2	28
Union Station	3	3	3	3	3	2	1	1	0	3	30
VRS Railyard	0	3	2	2	3	2	3	3	1	0	25
Flynn Avenue	2	2	1	2	3	2	2	0	2	1	22
Weighting	2	1	1	1	1	1	2	2	1	2	

Questions?

Next Steps

- **Construction** 2020

Future Comments

Following the completion of this study, future comments should be directed to VTrans as they are the responsible party for this project.

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