At-Grade Field Conditions Survey

The purpose of this memo is to document the at-grade field conditions survey. The bridge & structure section is covered in another document. The following characteristics summarize the overall field findings:

- 1. Most of the alignment is approximately 9-10' wide where tracks are present with 6:1 side slope.
- 2. The section between Front Royal and Strasburg is relatively at-grade with natural ground, has little to no overgrowth, and primary interactions with residential and agriculture land-uses.
- 3. The section between where the railroad crosses under I-81 and intersects with Battlefield Road in Strasburg is heavily overgrown with trees, bushes, and high grass. Land uses are primarily agriculture and residential based with segments in towns that are heavy residential and commercial.
- 4. The section between Broadway and I-81 is varying between alignments above grade and sections where one-side has slopes greater than 6:1. There is little to no overgrowth, and primary interactions with residential and agriculture land-uses, but frequent industrial land-uses especially at roadway crossings.

Figure 1 is an overview map of the proposed trail alignment with the Norfolk-Southern Mileposts.

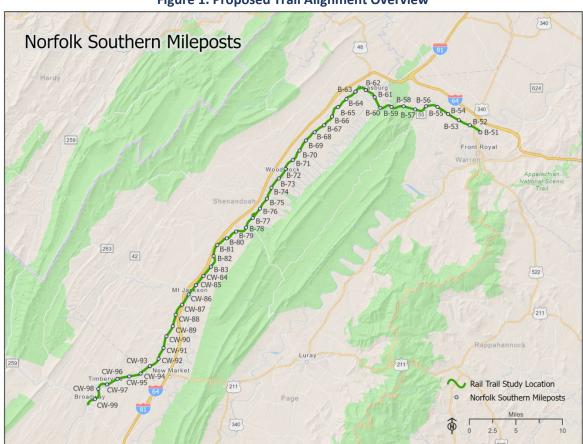


Figure 1. Proposed Trail Alignment Overview

Summary of Field Survey:

The following sections are field notes based on the Norfolk-Southern Milepost. The notes start at the southern end of the trail alignment in Town of Broadway. Field photos can be found at following link: ArcGIS - Shenandoah Valley Rail Trail - Field Visit Photos

CW99.90 (Turner Ave) to CW99.15 (Rte 259/42 - E Lee St)

- Overgrowth: None present
- Alignment relative to natural grade/Side Slopes: Section runs parallel to North Fork Shenandoah
 River. This side (west) has "retaining wall" like structures with minimal to no buffer to the edge
 of railroad tie. East side is abutted against positive slopes and rock formations. However, there
 is about 4 plus feet of buffer from edge of tie
- Nearby Land-Uses: Open Space
- Other Notes: "Retaining wall" like structures are made from railroad tracks and aggregate.
 Qualitative assessment will need to be made to assess if feature will need to be replaced and/or improved

CW99.50 (Turner Ave) to CW98.15

- Overgrowth: None present
- Alignment relative to natural grade/Side Slopes: Short section near Turner Ave that has Creek
 present on west side/Ditch present on east side. Remaining alignment 1-2 ft above grade with
 ditch on either side.
- Nearby Land-Uses: Commercial/Residential
- Other Notes: Nearby attractions and quick access to areas such as the community park and downtown area on Main St

CW98.15 to CW97.75

- Overgrowth: Little to non-present grass
- Alignment relative to natural grade/Side Slopes: Close to grade
- Nearby Land-Uses: Industrial
- Other Notes: Area is industrial with notable equipment and heavy vehicle activity. Timberville park is located at the north end immediately abutting the alignment.

CW97.75 to CW96.00 (Rte 617 - Evergreen Valley Road and Neighbors Lane)

- Overgrowth: Little to non-present grass
- Alignment relative to natural grade/Side Slopes: About 1-2 ft above grade. 10-15% alignment has eastside with slopes down to about 10-15 ft
- Nearby Land-Uses: Residential/Agriculture
- Other Notes: Section is relatively close to grade with 50% of alignment abutting residential houses. Section approaching the Evergreen Valley Road curve has agriculture presence that appears to have crops that may obscure trail and roadway users view at roadway crossing.

CW96.00 (Rte 617 - Evergreen Valley Road and Neighbors Lane) to CW93.15 (Rte 728- New Market Depot Road)

- Overgrowth: None
- Alignment relative to natural grade/Side Slopes: About 60-65% runs along Evergreen Valley
 Road where the alignment is approximately 4-6 ft above grade on both sides from edge of tie.
 At Ridge Road alignment is still above grade at about 2-4 ft from edge of tie.
- Nearby Land-Uses: Agriculture / some Residential structures abutting alignment/Airport on northern end of alignment
- Other Notes: 60-65% of section runs along Evergreen Valley Road is offset by about 25-30 ft to the north. Maintenance of Traffic will need to be considered here since equipment will more than likely encroach into shoulder. Non-Scalable Fencing is needed along Airport Boundary

CW93.15 (Rte 728- New Market Depot Road) to CW90.25 (Town of Quicksburg)

- Overgrowth: None
- Alignment relative to natural grade/Side Slopes: CW93.15 to CW93.65 the alignment is a few feet above grade with ditch abutting both sides. At around CW93.64 to CW92.1 (Rte 617-River Rd) there is cattle crossing structure where the slopes on the south side near the crop fields drop down more than 6'. The north side drops down about a similar distance but has less step slopes. Between CW92.1 and CW90.25 (Rte 767- Quicksbrug Rd) about 25% is more than 6' above grade with steep slopes. The alignment gets closer to grade as it approaches Quicksburg Rd.
- Nearby Land-Uses: Agriculture / Industrial near New Market Depot Road/ Residential in the Town of Quicksburg
- Other Notes: Heavy vehicle presence near New Market Depot Road. Residential structures are near the alignment in Town of Quicksburg. Some Maintenance of Traffic considerations will need to be made within the Town, but these are mainly residential roadways.

CW90.25 (Town of Quicksburg) to CW88.20 (Rte 720 – Wissler Road)

- Overgrowth: None
- Alignment relative to natural grade/Side Slopes: Most of alignment is 3-4 feet above grade with not as steep slopes on both sides
- Nearby Land-Uses: Agriculture/Commercial
- Other Notes: Multiple points of interest are located at Caverns Road. An education complex is located near the alignment at Stonewall Lane. Commercial activity picks up north of Caverns Road.

CW88.20 (Rte 720 - Wissler Road) to CW84.00

Overgrowth: Severe Overgrowth (Impassable) to Orkney Drive. Some overgrowth (grass/brush) from Orkney Drive to CW85.00. CW85.00 to CW84.80 has severe overgrowth (Impassable).
 CW84.80 to CW84.00 is little to some overgrowth with brush and grass.

- Alignment relative to natural grade/Side Slopes: Alignment between Wissler Road and Orkeny is 3-4 feet above grade. Alignment from Orkeny Drive to Conicville Road is relatively close to grade (<2')
- Nearby Land-Uses: Commercial/Industrial/Residential
- Other Notes: Heavy residential and commercial with Town of Mount Jackson. North of Mount
 Jackson to Conicville Road there is presence of industrial use with heavy vehicle traffic near the
 Conicville Road crossing. Most of Mount Jackson alignment is accessible and had little
 overgrowth. However severe overgrowth areas may impact aggregate base. Maintenance of
 Traffic may need to be considered along Gospel Street in Town of Mount Jackson.

CW84.00 to B80.00

- Overgrowth: Section was impassable from many access points. There is severe growth with trees and bush along most alignment.
- Alignment relative to natural grade/Side Slopes: Based on access points and previous sections the alignment is about 3-4 foot above grade abutting ditch on both sides.
- Nearby Land-Uses: Commercial/Agriculture/Residential
- Other Notes: Section is severely overgrown. Trees and bushes probably mean that root structure is deep and will disturb aggregate base during construction.

B80.00 to B79.00 (Rte 675 - Stoney Creek Blvd)

- Overgrowth: Moderate Overgrowth (50% heavy vegetation/50% grass/brush)
- Alignment relative to natural grade/Side Slopes: Most of alignment to Stone Creek Blvd is more than 6 feet above grade especially as it approaches the bridge.
- Other Notes: Immediate access to this section from the Visitor Center would be very costly.
 Recommend access at Stone Creek Blvd area or designating route on US 11 to trail head from Visitor Center.

B79.00 (Rte 675 - Stoney Creek Blvd) to B75.00

- Overgrowth: Section was impassable from many access points. There is severe growth with trees and bush along most alignment.
- Alignment relative to natural grade/Side Slopes: Based on access points and previous sections the alignment is about 3-4 foot above grade abutting ditch on both sides.
- Nearby Land-Uses: Commercial /Residential. Industrial between Landfill Road and Johns Manville Drive
- Other Notes: Section is severely overgrown. Trees and bushes probably mean that root structure is deep and will disturb aggregate base during construction. The section within Town of Edinburg is more than 6' above grade and direct access outside of Stoney Creek Blvd will be expensive. Section between Landfill Road and Johns Manville Drive has frequent vehicle usage (both light and heavy vehicles). The landfill is very active, and the residential dump site is within 300 ft of alignment.

B75.00 to B73.00 (Town of Woodstock)

- Overgrowth: Section from B75.00 to Rte 42 Reservoir Road was impassable with severe growth with trees and bush along most alignment. Section from Rte 42 – Reservoir Road to CW73.00 North Street has little to moderate overgrowth (grass/bush and some trees)
- Alignment relative to natural grade/Side Slopes: Most of the alignment is at grade except for B75.00 to Rte 42 Reservoir Road with alignment about 4-6' above grade.
- Nearby Land-Uses: Commercial /Residential.
- Other Notes: B75.00 to Rte 42 section is severely overgrown. Trees and bushes probably mean
 that root structure is deep and will disturb aggregate base during construction. The section
 within Town of Woodstock has some overgrowth that may affect the base. There are some
 sections that are just grass. The alignment has many potential access points as it is mostly at
 grade

B73.00 (Town of Woodstock) to B63.00

- Overgrowth: This section was difficult to access due to the amount of overgrowth in the area. The sections that are not along US 11 were found with trees and heavy bushes. The sections along US 11 still was overgrown.
- Alignment relative to natural grade/Side Slopes: Most of the alignment is approximately 2-4 feet above grade with some sections at-grade.
- Nearby Land-Uses: Agriculture/Residential
- Other Notes: The segment between B73 and B67 runs parallel to US 11. There may be some areas that require Maintenance of Traffic. From B67 to B63, the segment traverse through a fair amount of open land, agriculture, and low-density residential. Access to this part may be more difficult. Rock formations were also observed abutting either side of the alignment between B67 and B63.

B63.00 (Rte 639 – Green Acre Drive) to 60.00 (East of Town of Strasburg)

- Overgrowth: Section from B63.00 to Rte 637 Ash Street has some overgrowth (grass/bush). From Rte 637 to 60.00 there is little to no overgrown (grass)
- Alignment relative to natural grade/Side Slopes: 85% to 90% of the alignment is at grade.
 Within the Town of Strasburg around Beacon Street to Capon Street there are rock formations to the north side but offset enough that should not impact trail. After Capon Street to E
 Washington Street there are steep slopes along the south side of the alignment (about 10 foot plus drop off). The north side is about at grade of abutted by positive slopes.
- Nearby Land-Uses: Commercial / Residential / Industrial.
- Other Notes: This section has many potential access points to the trail as most of it runs at
 grade. There sections between Beacon Street and Washington Street that may be difficult to
 access not from an intersecting roadway. Between Route 638 and Beacon Street fencing should
 be considered along abutting residential properties. Between S Funk Street and Park Road
 industrial/commercial activity was observed and fencing should be placed. Immediate and
 convenient access from Route 55 King Street with the alignment is available.

B60.00 (East of Town of Strasburg) to B55.50 (Route 610)

• Overgrowth: None (patches of grass)

- Alignment relative to natural grade/Side Slopes: Side slopes drop off significantly approaching the bridge over North Fork Shenandoah River. From Bridge to about B58.4 Howard Lane the alignment is about 4-6' above grade. From B58.4 to B55.50 the alignment is about 2-4' above grade with ditch abutting (exception is when the alignment crosses the bridge at Passage Creek)
- Nearby Land-Uses: Agriculture/Residential
- Other Notes: This section is runs along relatively quiet land uses such as low-density residential and agriculture. Any potential access may want to be considered along Richardson Road, however, not much space is available for spaces. Area near Passage Creek may be another area to consider for access.

B55.50 (Route 610) to B53.00

- Overgrowth: None (patches of grass)
- Alignment relative to natural grade/Side Slopes: The alignment between B55.50 and B53.75 has about 25% of its section greater than 6' above, typically on the river side of the alignment. The remaining 75% is typically at grade with ditch abutting on both sides. The alignment from B53.75 to B53.00 (through campground) is also relatively at grade with ditch abutting one or both sides.
- Nearby Land-Uses: Agriculture/Residential/Commercial (Campground)
- Other Notes: This section is mostly at grade with spot areas that do drop off more than 6' on one or both sides. Between B54.00 and B53.00 the alignment runs through a private campground access will need to coordinate for construction.

B53.00 to B51.00 (Front Royal)

- Overgrowth: None (patches of grass)
- Alignment relative to natural grade/Side Slopes: The alignment between B53.00 to 52.00 has south side along the alignment is relatively at grade with a ditch abutting, the north side along the river has about drops about 6' (6:1 slopes). The alignment from 52.00 to the South Fork Shenandoah River bridge crossing goes back to natural grade
- Nearby Land-Uses: Residential/Some commercial
- Other Notes: Most the section abuts residential developments. Immediate access points may
 be easy accommodate to residential areas however trailheads may be hard to provide west of
 the South Fork Shenandoah River Crossing. Main Trailhead probably should be located along
 Depot Ave/Junction Yard.