Environmental Monitor Construction Site Inspection Report MassDOT Project #608164 Construction Contract # 119678 EM Report #42								
Permit Description(s): Order of Conditic	Project Description: Bruce Freeman Rail Trail Right-of-Way Permit Description(s): Order of Conditions (MGL Chapter 131, Section 40 and 310 CMR 10.00, Mass DEP File No. 301-1362); 2022 EPA NPDES General Permit for Discharges from Construction Areas; U.S. Army Corps of Engineers Permit No NAE-2021- 01975.							
		I. Ger	neral Project Information					
Project Name:	Bruce Freeman Rail Trail - Phase 2d - S	Sudbury						
Date of Inspections:	1/2/2025							
Bi Weekly/ Monthly Period Covered:	January Weekly Inspection #1							
Inspector's Name(s):	Jonathan Niro							
Inspectors' Contact Information:	jniro@beta-inc.com							
			Weather Information					
	Inspection #1	Inspection #2	Inspection #3	Inspection #4	Inspection #5	Inspection #6		
WeatherUnderground	Inspector: Jonathan Niro 1/2/2025	Inspector:	Inspector:	Inspector:	Inspector:	Inspector:		
Type of Inspection (i.e. non-storm event, pre- storm event, during-storm event or post- storm event):	Post-storm							
Number of days since last rain event greater than .25"	1							
Has there been a storm event since the last inspection?	Yes							
If yes, please provide storm start date, storm duration, and approx amount of								
Storm 1:	January 1st (7 hours 1.5")							
Storm 2:								
Storm 3:								
Storm 4:								
Weather at the time of inspection (i.e. clear, overcast, cloudy, rain, sleet, fog, snow,	Clear							
Temperature: Unusual Conditions (drought, severe storm):	36							
Have any discharges occurred since the last inspection report?	No							
If yes, please describe:								
Note: Inspections should only be conducted o	n days during work hours while RE or A	RE is onsite. The EM should conta	ct the RE to address any immediate	corrective actions.				

1/2/2025 - At the time of the Site visit, no work was occurring.

IV. Status of Existing BMPs Control Measure (These are examples; list Cleaning or Repair Needed (yes Comments/Recommendations from the EM measures specific to the project) no n/a) Perimeter erosion and sedimentation control measures were installed at the commencement of the Project and are in varying conditions across the Site; however, they were generally observed to be degraded. Perimeter controls were generally in degraded condition along culverts, streams, and cattle crossings. New perimeter controls were added Perimeter Controls Yes on 6/27/2024 at Stations 310+00 through 311+00 as requested. New erosion controls have been installed between the path and the crushed stone shoulders at Station 216+00 to 217+50. Areas that still require stabilization do not appear to be at risk for erosion due to surrounding vegetation upgradient of Resource Areas. Inlet Protection Measures No Stabilized Construction Entrances No Stockpile Protections No Dust Control No Street Sweeping Yes Crushed stone was observed on the path throughout the Project in varying volumes. Dewatering Controls No Construction Equipment and Material Storage No Construction and Domestic Waste Storage No and Collection Location of Sanitary Waste Facilities No Washout Areas No Fertilizers, Herbicides, and Landscape N/A Varying degrees of stabilization are present within areas that were constructed/graded as part of the Project. Seed has been applied to multiple locations of exposed soil throughout the path. Erosion control blankets have been installed on the slope near Station 165+00 to 167+00 and Station 217+45. Loam that was applied to the streambank at Stabilization of Exposed Soil Yes Station 215+00 to 217+00 requires further stabilization. and erosion has been actively occurring. Due to the time of year, non-vegetative stabilization (i.e. erosion control netting) is recommended. As noted in Action Items 41 and 42, it appears that work has been conducted beyond the limits of work approved under the Order of Conditions. These areas will require **Overall Adherence to Environmental Permits** coordination amongst the Project Team to confirm if any restoration is required. A Site walk was conducted with BETA staff, MassDOT staff and the Conservation Agent on Yes

Note: Use station numbers, wetland ID or other means to determine locations of BMP's that need repairs.

11/19/2024 to discuss potential resolutions for compliance issues.

III. General Description of Construction Status

V. Compliance Table - Compliance Action Items

V. 1. Compliance Action Items Observed During the One Month Reporting Period Ending [January 31, 2025].

Current Open and Closed Compliance Action Items Observed During the Reporting Period Ending [June 30, 2024]. For those items within the most current two week period, color the Item in blue, as shown on lines 48-50 as an example. RED text indicates that the item is outstanding. Once item is resolved, place resolution date in 'Recommended Resolution/Resolution Date' column, convert to BLACK text, and move to the bottom of the Action Item list. Place resolution date on TOP of resolution action. Each Compliance Action Item is assigned a unique number only to be used to reference that item for the duration of the project. Separate but related Action Items will be labeled in an "Item Number-1 and Item Number-2" manner or similar. Completed action items can be removed once they have appeared in the Bi-Weekly Report to MassDEP

"<u>Urgent</u>" - Needs to be completed immediately, "<u>High</u>" - Needs to be completed in < 7 days due to site conditions, proximity to resource areas, anticipated weather, etc., "<u>Medium</u>" - Needs to be completed within 7 days and has short-term potential to impact resource areas, "<u>Low</u>" - Needs to be completed within 7 days with minimal potential to impact resource areas

Item	Location/ Description	Observation Date	Resolution Due Date	Recommended Resolution / Resolution Date	Comments/Updates
62	Loam and seed was applied to the streambank at Station 216+00 to 217+00 and requires further stabilization Priority: High	11/25/2024	12/2/2024	An erosion control blanket should be installed along this slope.	12/2/2024 - Loam and seed have been applied to the streambank at Station 215+00. Stabilization is required at Stations 215+00 to 217+00. 12/6/2024 - Observation remains. See previous update. 12/12/2024 - Observation remains. Rill erosion was observed within the loam applied to this area from Station 215+00 to 216+00. 12/20/2024 - Observation remains. Loam has begun to erode, resulting in a discharge to the stream at Station 216+50. 12/26/2024 - Observation remains. No further discharge was observed in this location. 12/31/2024 - Observation remains. Additional loam has eroded resulting in a discharge to the stream at Station 216+50. 12/26/2024 - Observation remains. No further discharge was observed in this location.
53	Stone was observed requiring removal from the swale on the east side of the trail at Station 172+00 to 173+00 Priority: High	7/29/2024	8/6/2024	Remove stone from the swale.	 8/5/2024 - Observation remains. 8/7/2024 - Observation remains. Material was observed to have migrated within the swale to Station 173+50. 8/12/2024 - Observation remains. Crushed stone has migrated further down the swale to Station 171+50. 8/27/2024 - Observation remains. Stone is still present within the swale. 9/2/2024 - Observation remains. 9/10/2024 - Observation remains. Stone is still present within the swale. 9/16/2024 - Observation remains. 9/10/2024 - Observation remains. The contractor indicated that the stone within the swale would be hand removed. 9/27/2024 - Observation remains. The contractor indicated that the stone within the swale would be hand removed. 9/27/2024 - Observation remains. Stone is still present within the swale. 10/4/2024 - Observation remains. Stone is still present within the swale. 10/4/2024 - Observation remains. Stone is still present within the swale. 10/15/2024 - Observation remains. Stone is covered with vegetation in some areas. 10/2/2024 - Observation remains. 10/15/2024 - Observation remains. 10/15/2024 - Observation remains. 11/12/2024 - Observation remains. Stone is still present within the swale and requires removal. Leaf litter is currently covering a majority of the stone. 11/25/2024 - Observation remains. Stone is present within the swale under the leaf litter. 12/2/2024 - Observation remains. Stone is present within the swale under the leaf litter. 12/2/2024 - Observation remains. Stone is present within the swale under the leaf litter. 12

47	Slope stabilization required due to condition of compost filter tubes at Station 265+50 and 273+00 Priority: High	6/7/2024	6/14/2024	Stabilize the slope with the approved seed mixture and provide interim stabilization such as straw mulch.	6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 7/8/2024 - Observation remains. 7/15/2024 - This area could not be assessed due to paving operations ongoing during the inspection. 7/22/2024 - Observation remains. 8/5/2024 - Observation remains. 8/5/2024 - Observation remains. 8/5/2024 - Observation remains. 8/16/2024 - Observation remains. 8/20/2024 - Application of the approved seed mixture is required at this location. 8/27/2024 - Observation remains. 9/3/2024 - Observation remains. 9/3/2024 - Observation remains. 9/3/2024 - Observation remains. 9/10/2024 - Observation remains. 9/27/2024 - Observation remains. Mpdicated hydroseed will be applied here soon. 10/4/2024 - Observation remains. No germination has been observed. 10/5/2024 - Observation remains. No germination has been observed. 10/2/2024 - Observation remains. No germination has been observed. 11/5/2024 - Observation remains. See previous update. 11/2/2024 - Observation remains. 12/2/2024 - Observation re
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1/2/2025 - Observation remains. See update from 12/12/2024.	Sediment is eroding downhill from the cemented stone masonry wall 217+45 Priority: Low		6/4/2024	Apply seed and temporarily stabilize the soils along the slope with straw, jute netting, etc.	9/10/2024 - Observation remains. See update from 9/3/2024. 9/25/2024 - Observation remains. See update from 9/3/2024. 9/27/2024 - Observation remains. See update from 9/3/2024. 10/4/2024 - Observation remains. See update from 9/3/2024. 10/4/2024 - Observation remains. See update from 9/3/2024. 10/15/2024 - Observation remains. See update from 9/3/2024. 10/25/2024 - Observation remains. No additional seed has been applied to this location and the slope is generally vegetated by non-native species. See update from 9/3/2024. 11/15/2024 - Observation remains. Rogermination has been abserved in this location. 11/19/2024 - Observation remains. No germination has been observed in this location. 11/12/2024 - Observation remains. No germination has been observed in this location. 11/25/2024 - Observation remains. No germination has been observed in this location. 11/25/2024 - Observation remains. No germination has been observed in this location. 12/2/2024 - Observation remains. No germination has been observed in this location. 12/2/2024 - Observation remains. No germination has been observed in this location. 12/2/2024 - Observation remains. No germination has been observed in this location. 12/2/2024 - Observation remains. No germination has been observed in this location. 12/2/2024 - Observation remains. Some germination has been observed in this location. 12/2/2024 - Observation remains. Some germination has been observed in this location. 12/2/2024 - Observation remains. See update from 12/12/2024. 12/2024 - Observation remains. See update from 12/12/2024. 12/26/2024 - Observation remains. See update from 12/12/2024.
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within the wetlan	ebris has been placed d between wetland flagging VF#23-118 at Station 5/21/2024	5/28/2024	Remove all material and provide stabilization of the area with the approved wetland seed mixture. Straw should also be placed for interim stabilization.	 5/28/2024 - Observation remains. 5/31/2024 - Observation remains. 6/34/2024 - Observation remains. 6/34/2024 - Observation remains. 6/34/2024 - Observation remains. The area was hydroseeded again. 7/8/2024 - Observation remains. The area was hydroseeded again. 7/8/2024 - Observation remains. The area was hydroseeded again. 7/2/2024 - Observation remains. 8/7/2024 - Observation remains. 8/2/2024 - Observation remains. 9/2/2024 - Observation remains. The contractor indicated hydroseed will be applied to this area. 10/8/2024 - Observation remains. Hydroseed has not been applied to this area. 10/8/2024 - Observation remains. Hydroseed has not been applied to this area. 10/2/2024 - Observation remains. Hydroseed has not been applied to this area. 10/2/2024 - Observation remains. Hydroseed has not been applied to this area. 10/2/2024 - Observation remains. Hydroseed has not been applied to this area. 10/2/2024 - Observation remains. Hydroseed
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43	Overtopped compost filter tubes and exposed soils beyond the limits of work at Station 105+00 Priority: High	6/7/2024	6/14/2024	Stabilize the area with the approved seed mixture and provide interim stabilization such as straw mulch.	6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 7/15/2024 - Observation remains. 7/22/2024 - Observation remains. 7/22/2024 - Observation remains. 8/15/2024 - Observation remains. 8/12/2024 - Observation remains. 9/10/2024 - Observation remains. 9/20/2024 - Observation remains. 9/10/2024 - Observation remains. 9/12/2024 - Observation remains. 9/23/2024 - Observation remains. Germination has not been observed. 10/24/2024 - Observation remains. Germination has not been observed. 10/24/2024 - Observation remains. Germination has not been observed but the area is not considered stabilized. 10/25/2024 - Observation remains. Some germination has been observed but the area is not considered stabilized. 11/25/2024 - Observation remains. Some germination has been observed but the area is not considered stabilized. 11/27/2024 - Observation remains. Some germination has been observed but the area is not considered stabilized. 11/27/2024 - Observation remains. Some germination has been observed but the area is not considered stabilized. 11/27/2024 - Observation remains. See update from 11/19/2024. 11/27/2024 - Observation remains. See update from
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	6	Exposed sediment slope at Station 172+00 to 175+00 Priority: High	5/8/2024	5/15/2024 Resolved: 1/2/2025	Install temporary sediment controls along the slope such as jute netting and/or straw following the application of seed.	 S/16/2024 - Observation remains. S/28/2024 - Partial germination was observed. S/28/2024 - Further earthwork has occurred and soils require stabilization. 6/1/2024 - Observation remains. 6/24/2024 - Observation remains. 7/2/2024 - Observation remains. 7/2/2024 - Observation remains. 7/2/2024 - Observation remains. 8/7/2024 - Subservation remains. 8/7/2024 - Observation remains. 8/7/2024 - Observation remains. 8/7/2024 - Observation remains. 8/7/2024 - Observation remains. 8/16/2024 - Observation remains. 8/12/2024 - Observation remains. 8/12/2024 - Observation remains. 8/12/2024 - Observation remains. 8/2/2024 - Observation remains. 8/2/2024 - Observation remains. 9/3/2024 - Vegetation that is present in this location generally consists of lady's thumb smartweed, a non-native species. Removal of non-native species and application of the approved seed mixture is required at this location. 9/3/2024 - Observation remains. See 9/3/2024 update. 9/2/2024 - Observation remains. See 9/3/2024 update.

	V.2. On Going (Longer-Term) Compliance Items							
	Typically, these items require coordination with MassDEP. If so, remove once approval is obtained from MassDEP							
Item	Location/ Description	Observation Date	Resolution Due Date	Recommended/Discussed Resolution	Comments/Updates			
61	Invasive vegetation including Japanese knotweed (Reynoutria japonica), bittersweet (Celastrus orbiculatus), bush honeysuckle (Lonicera spp.), burning bush (Euonymus alatus), purple loosestrife (Lythrum salicaria), glossy buckthorn (Frangula alnus) and gafic mustard (Alliaria petiolata) have been observed throughout the path. Priority: High	10/22/2024	10/29/2024	Invasive Species should be removed by manual and/or chemical removal methods	10/29/2024 - Invasive species are present throughout the trail both within upland and Resource Areas. Populations of glossy buckthorn and purple loosestrife are present within the wetland replication area. 11/5/2024 - Observation remains. See update from 10/29/2024. 11/12/2024 - Observation remains. Invasive species are still present throughout the trail. Some invasives have been observed with no leaves due to winter die back. 11/19/2024 - Observation remains. Further invasive species management will be required during the next growing season. 11/22/2024 - Observation remains. 11/25/2024 - Observation remains. 12/2/2024 - Observation remains. 12/2/2025 - Observation remains.			
57-1	Japanese hops (<i>Humulus japonicus</i>) has been observed throughout the Project and requires removal Priority: High	10/22/2024	10/29/2024	The Contractor should manage remaining Japanese hops by hand pulling and the application of herbicide.	10/22/2024 - This Action Item has been reopened due to observations of both dead and living Japanese hops in select locations along the Project. BETA and MassDOT will coordinate further with the Sudbury Conservation Agent to clarify the extents of remaining living vegetation as removal efforts progress. 10/29/2024 - Plants that were observed as alive along Route 117 during the last inspection were observed to be wilting due to winter die back. 11/5/2024 - Observation remains. See update from 10/29/2024. 11/12/2024 - See update from 10/29/2024. 11/12/2024 - Observation remains. See update from 10/29/2024. Management of Japanese hops should occur during the next growing season. 11/22/2024 - Observation remains. 11/22/2024 - Observation remains. 12/2/2024 - Observation remains. 12/12/2024 - Observation remains. 12/2024 - Observation remains. 12/2024 - Observation remains. 12/21/2024 - Observation remains. 12/21/2024 - Observation remains. 12/2024 - Observation remains. 12/2024 - Observation remains. 12/2024 - Observation remains. 12/21/2024 - Observation remains. 12/21/2024 - Observation remains. 12/22/2024 - Observation remains.			

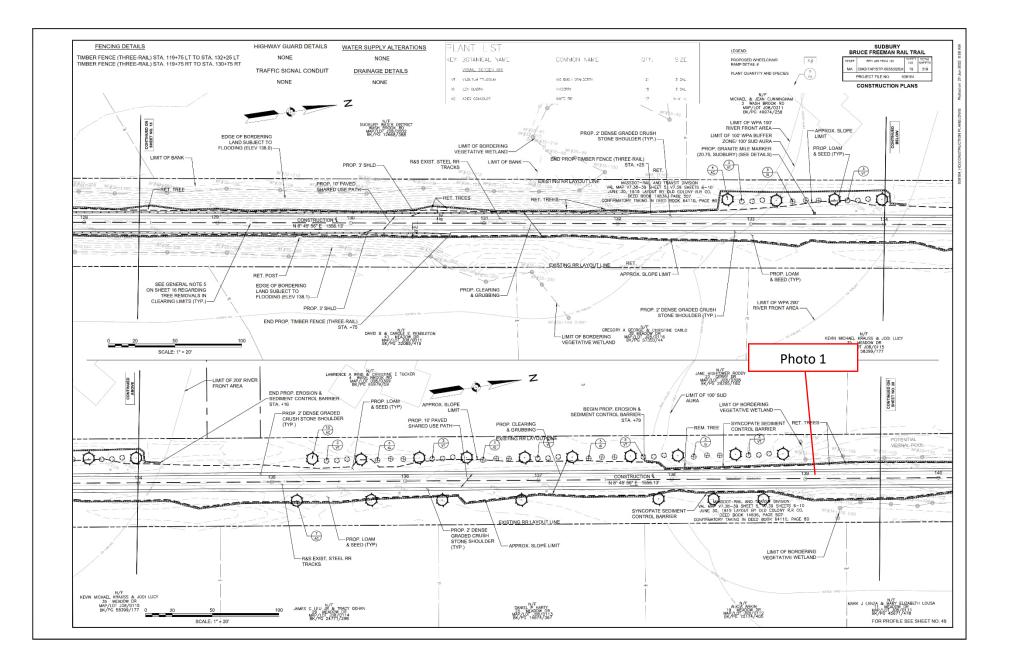
59	Multiple locations of exposed soils along the Project corridor require stabilization Priority: High	9/3/2024	9/10/2024	The contactor should apply the approved seed mixture to areas of exposed soils and place straw.	9/3/2024 - Herbicide application caused multiple areas along the path to be no longer stabilized. If that this present in these locations the that hould be removed before seeding occurs. A location near Station 320-50 has been cleared outside of the limit of work and requires stabilization. Other areas along the path where seed did not germinate should be remeded with the approved seed mix and straw should be placed on the areas of exposed soil. 9/10/2024 - Observation remains, see previous update. A few locations along the trail have been hydroseeded. 9/12/2024 - Observation remains. It constant or reached and application of seed for stabilization. 9/27/2024 - Observation remains. It does not appear as though any hydroseeding has been done since the last inspection. Areas throughout the rail require reveal of thatch and application of seed for stabilization. 9/27/2024 - Observation remains. The contractor reached out and indicated all areas of exposed soils south of Hudson Road were hydroseed did after the linpection occurred. 10/4/2024 A line areas south of Hudson Road were hydroseed was applied. The contractor should privide the tag from the seed mix that was used to the Conservation Commission to ensure that the required native seed mix was used per the design plans. Conce vegetation has been observed in areas where hydroseed has been applied since the last inspection. Near set set of 10/4/2024 - No additional hydroseed has been applied since the last inspection. Near set set on 10/4/2024. No additional hydroseed has been applied since the last inspection. Thas been observed in areas where hydroseed was applied. 10/2/2024 - Observation remains. See update from 10/4/2024. No additional hydroseed has been applied in the stope at Station 2174-5 and seed has been applied to part of the slope at Station 2174-5 and seed has been applied to part of the slope at Station 2174-5 and seed has been applied to part of the slope at Station 2174-5 and seed has been applied to part of the slope at Station 2174-5 and seed h
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 Image: Source of the dense graded cruch table specific to have been placed to her cost system of the failer to cost act of of the grant of the grant	 crush stone shoulders has been observed a migrating both onto the path, off the sides the path, and into the adjacent Resource Areas throughout the Project 	of	8/14/2024	Resource Areas and develop a plan to	 8/27/2024 - Crushed stone has been observed as migrating from the shoulders throughout the path. 9/3/2024 - Crushed stone was observed as migrating both onto the path and off the side of the path in multiple locations. Stone was observed to have discharged to the cattle crossing at Station 190+50 and within the streambed at Station 215+00 to 216+00. Crushed stone was observed to have been placed on the root system of a fallen tree a Station 310+00 near Bank flag #BF4-108. 9/10/2024 - Observation remains. Trushed stone is still present within the cattle crossing, the streambed, and on the root system of the fallen tree. Crushed stone will be swept off the path prior to the opening of the trail. 9/23/2024 - Observation remains. The contractor indicated the locations where crushed stone has migrated ont or off of the path will be hand removed and crushed stone will be swept off the path prior to the opening of the trail. 9/27/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path. 9/27/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path in varying amounts. 10/8/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path 10/15/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path 10/2/2/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path 10/2/2/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path 10/2/2/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path 10/2/2/2024 - Observation remains. Crushed stone is still present in multiple locations on and off the sides of the path 10/2/2/2024 - Observation remains. Crushed stone is still present on
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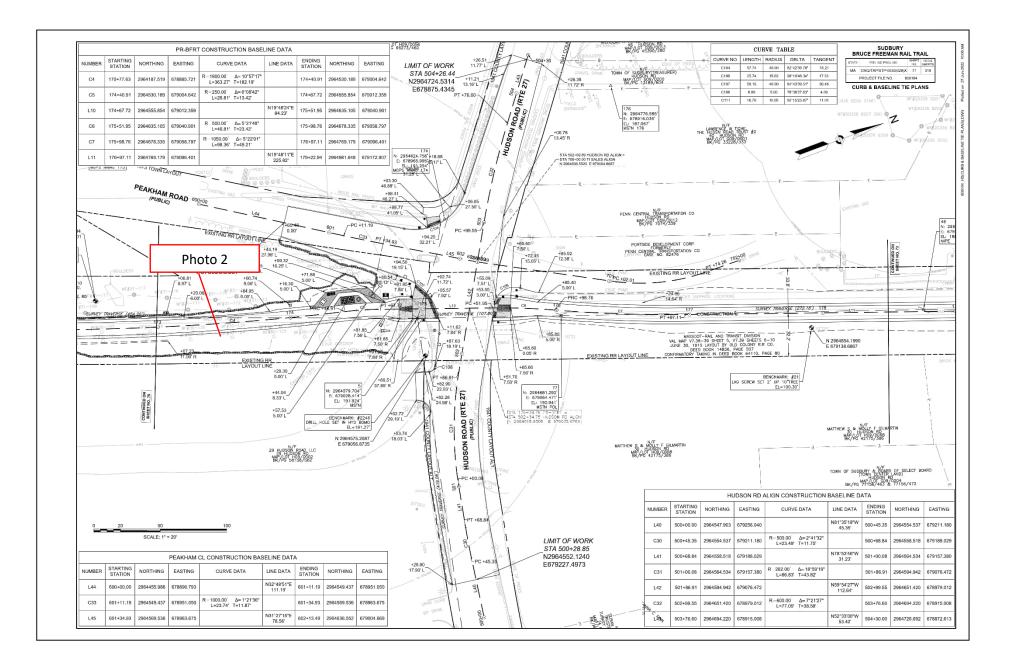
 Image: Stand Stan	rork in support of the repair/potential replacement of an underlying he contractor confirm that they have coordinated with the vide a restoration plan for the area once work is complete. formed that the existing cast iron pipe was replaced with a new pears that riprap was replaced along the side slopes to mirror s observed to have been rolled and prepared for paving. Hydroseed area will be monitored for stabilization. See previous updates regarding e to paving operations ongoing during the inspection. servation Commission coordination. vegetation has been observed in this area and will continue to be fence has been installed upgradient of this area. d with the Conservation Agent in the field, an as-built should be l impacts that may be addressed through a permit amendment. supdate. from 11/19/2024. from 11/19/2024. mas previously observed at the bottom of the slope has blown away
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					5/31/2024 - Observation remains.	
41	Stream Bank has been regraded beyond the limit of work at Station 216+00 Priority: High	5/28/2024	6/4/2024	The Contractor should confirm if this work was permitted by the Conservation Commission, as it does not appear to be a part of the approved plans/impacts. MassDOT should be consulted on next steps regarding notification and potential restoration.	6/7/2024 - Observation remains. 6/1/2024 - Observation remains. 6/14/2024 - Observation remains. 6/2/2024 - Observation remains. 7/8/2024 - Observation remains. 8/7/2024 - Observation remains. 8/20/2024 - Observation remains. 8/20/2024 - Observation remains. 8/20/2024 - Observation remains. 8/20/2024 - Observation remains. 9/3/2024 - Observation remains. 10/4/2024 - Observation remains. 10/2/2024 - Observation remains. 10/3/2024 - Observation remains. Stone is still present within the streambed at this location. 10/3/2024 - Observation remains. Stone is still present within the streambed at this location. 10/3/2024 - Observation remains. Ther VP (pip that was installed at this location. 10/3/2024 - Observation remains. There VP (pip that was installed at this location. 10/3/2024 - Observation remains. There PV (pip that was installed at this location.	
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			VII. Attachments (#3 only attached with monthly rep	port)	
1 Fiel	ld Sketch				· · · · · · · · · · · · · · · · · · ·	
2. Pho	otographic Documentation					
3. 3 W	/eek Look ahead schedule					
	2. 2. ALECY FORV BILEGY PUBLIC					

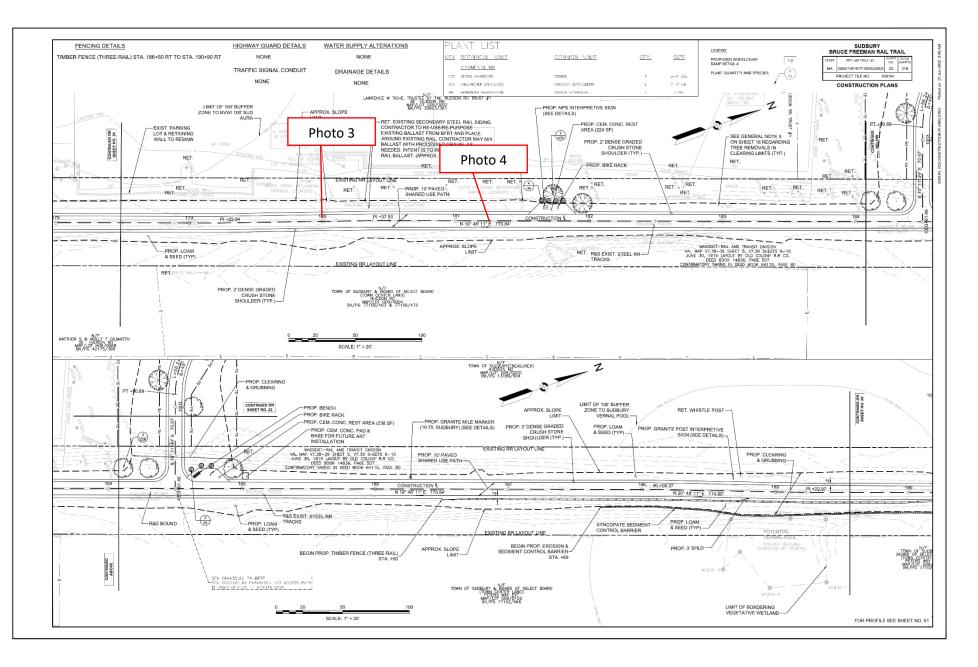




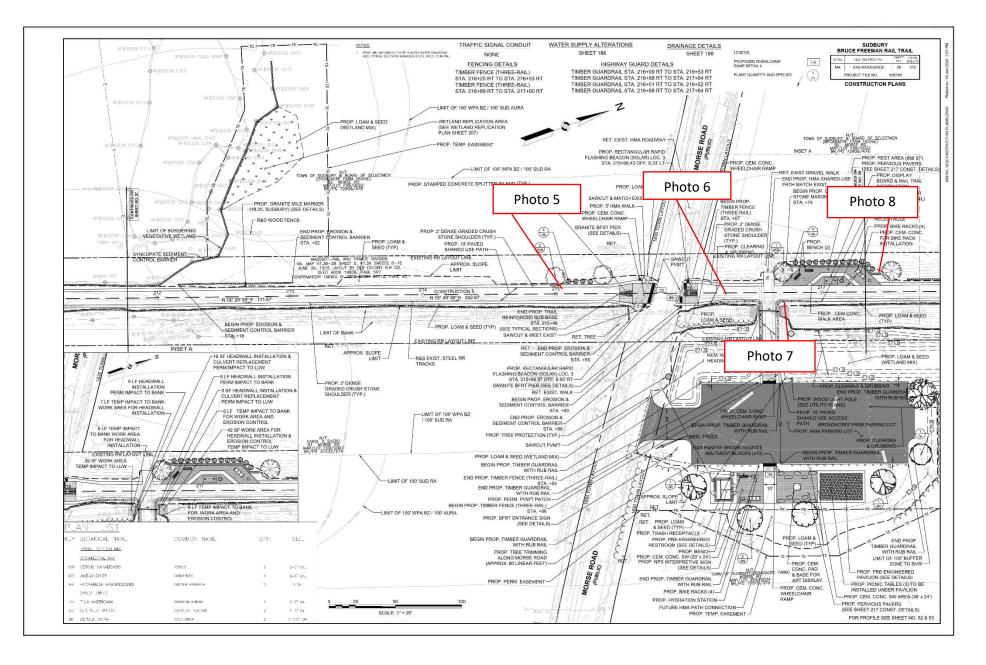




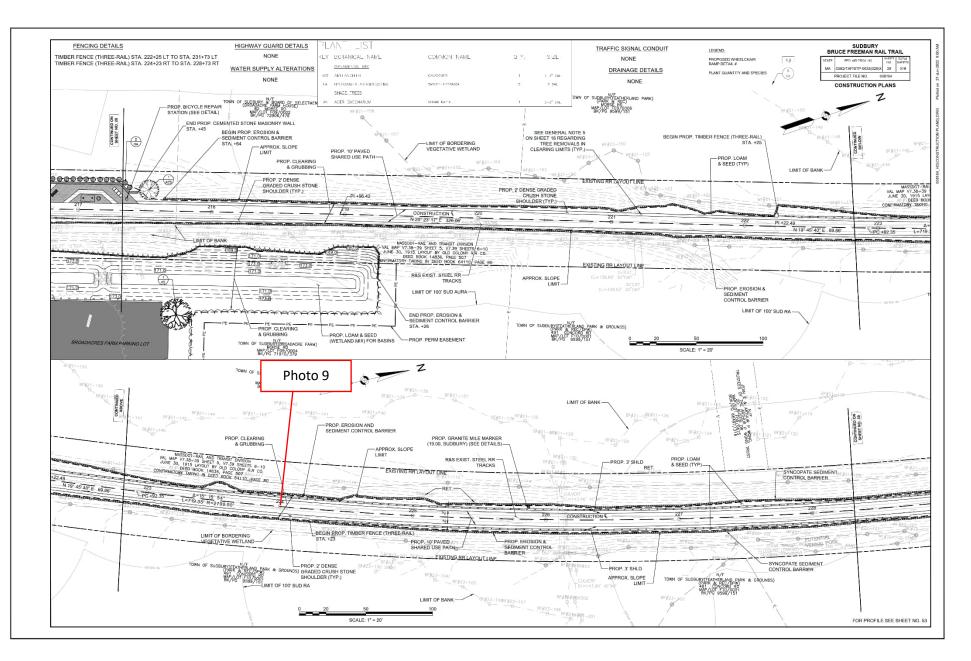




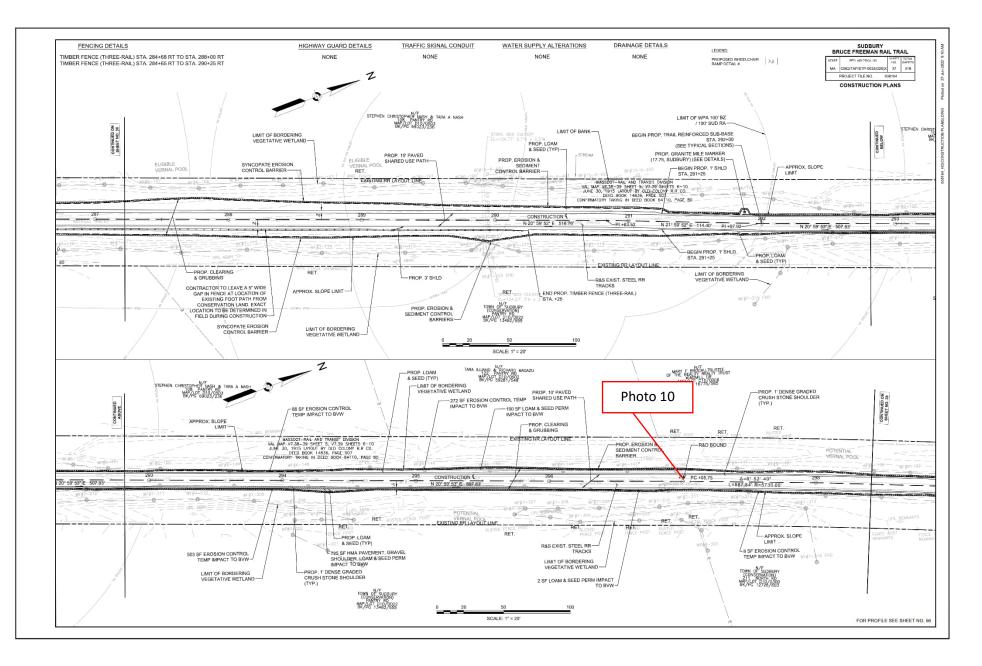




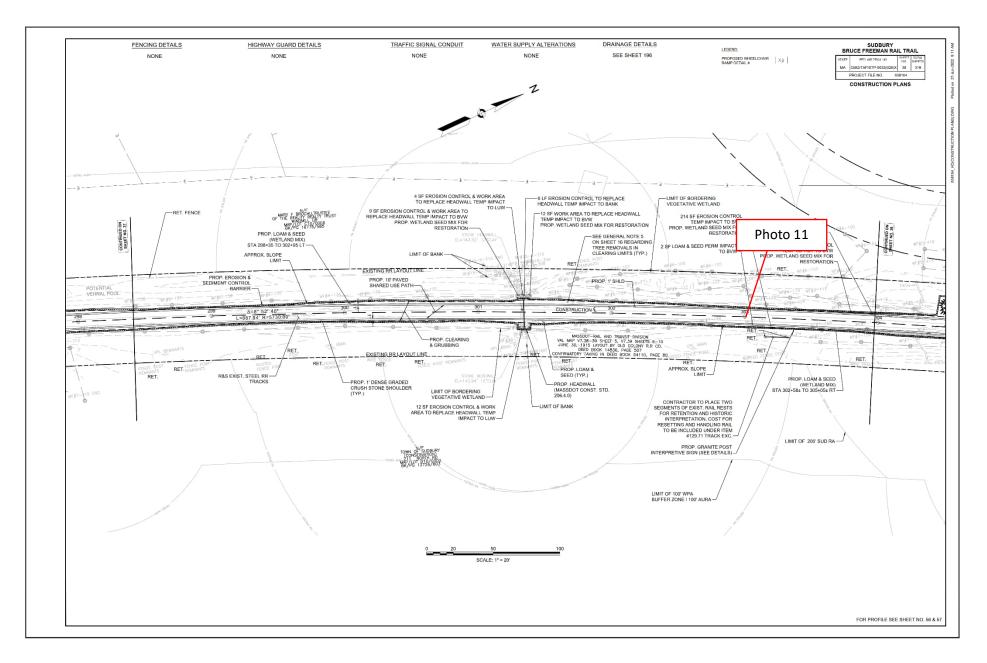




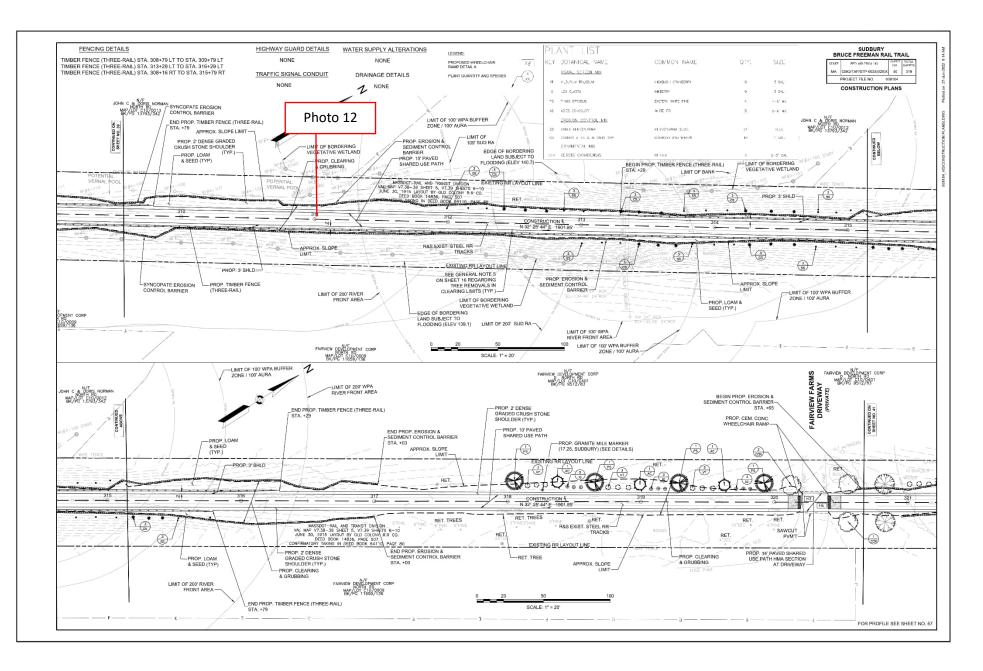




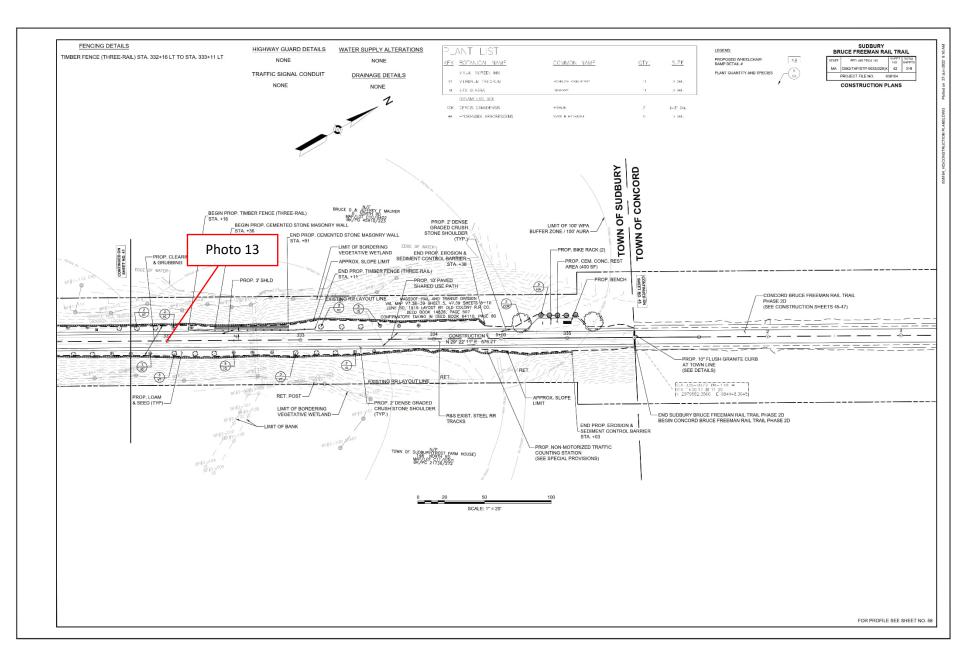




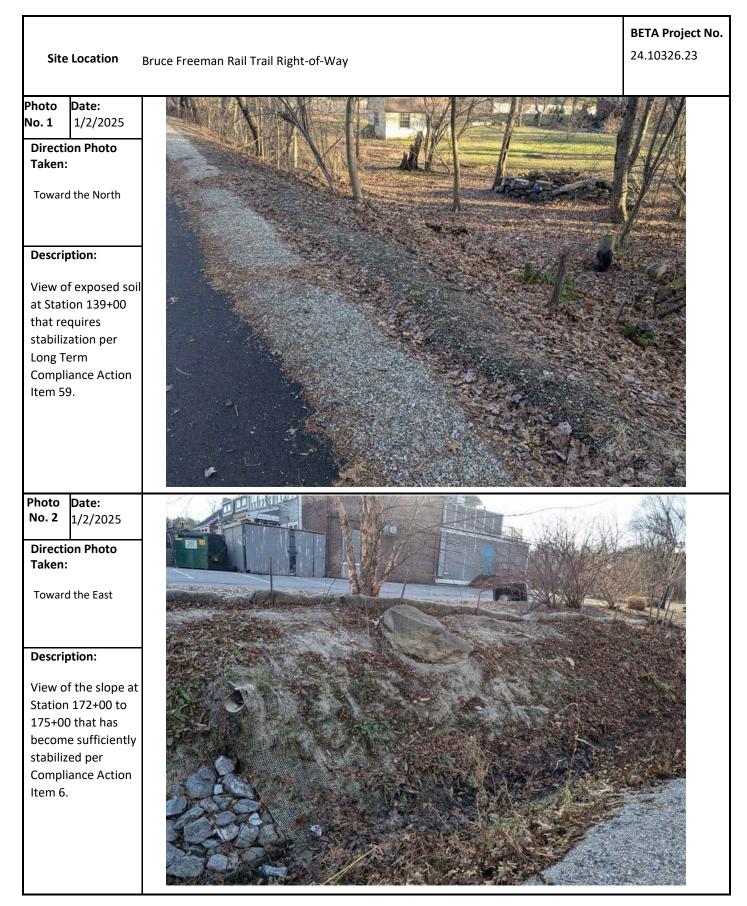
BETA IMPROVING COMMUNITIES TOGETHER



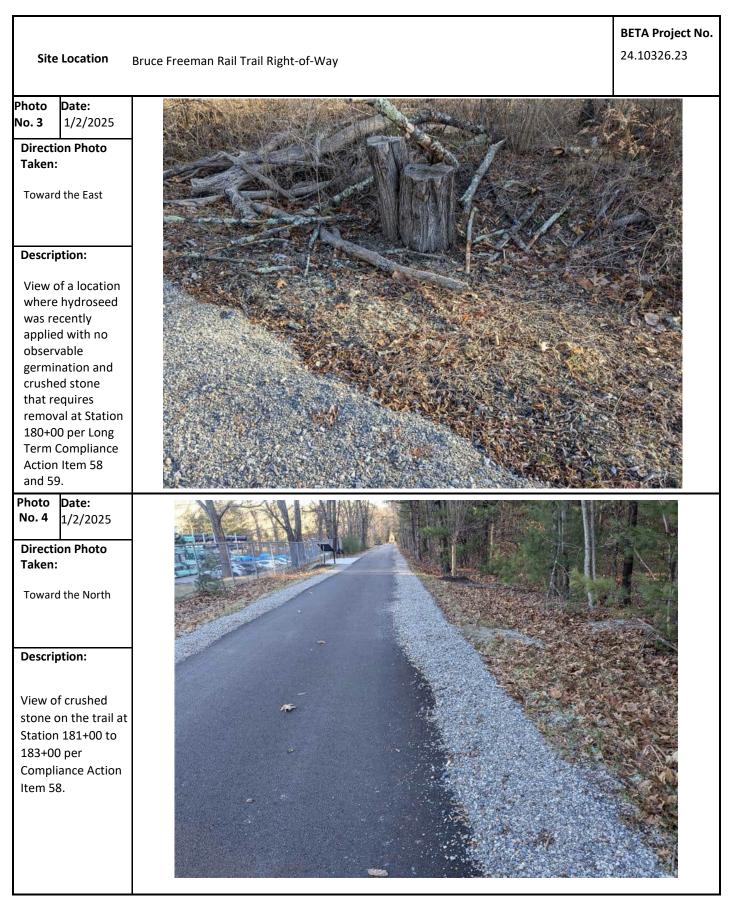








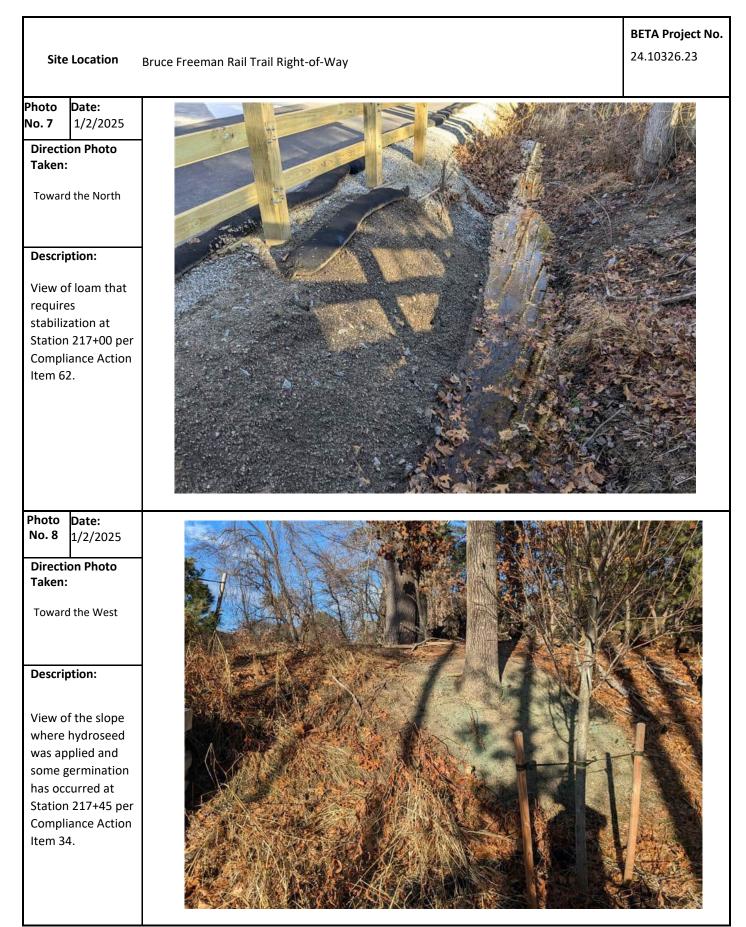




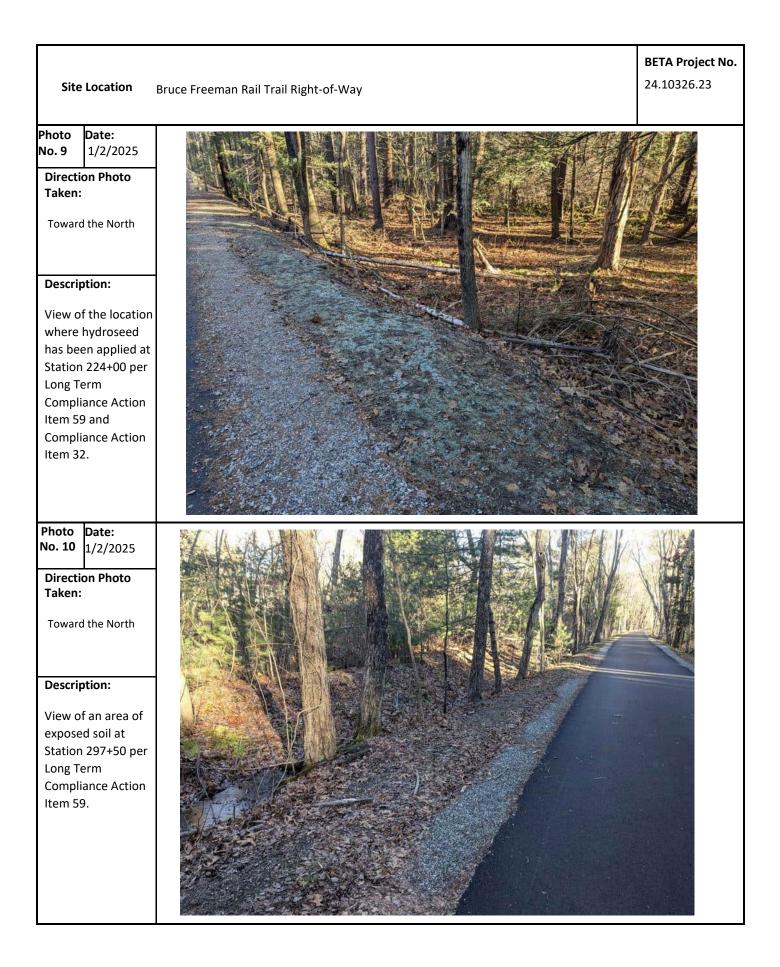


Site Location		Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
Photo No. 5	Date: 1/2/2025		
Direction Photo Taken: Toward the North			
Description: View of loam that requires stabilization at Station 215+00 per Compliance Action Item 62. Note rill erosion is occurring in this area.			
Taken	Date: 1/2/2025 ion Photo : d the North		
where bank f regrac limits stabili is requ 216+0 Term o Action 62. No	ption: of the location the stream has been led beyond the of work and zation of loam uired at Station 0 per Long Compliance tem 41 and ote rill erosion urring in this		

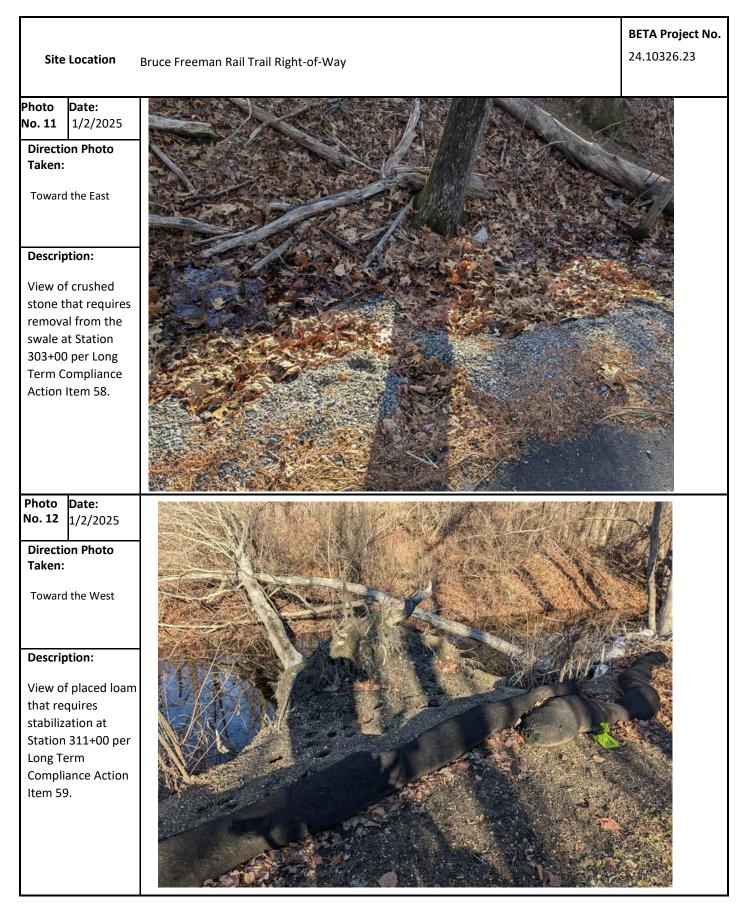














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Site Location Bruce Freeman Rail Trail Right-of-Way		Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
Photo No. 13	Date: 1/2/2025		
Taken:	on Photo I the North		
slope t beyond work a Series v Station Long Te	f the riprap nat extends I the limit of ong the WF1 wetland at 332+00 per erm ance Action		