Environmental Monitor Construction Site Inspection Report MassDOT Project #608164 Construction Contract # 119678 EM Report #53						
Permit Description(s): Order of Condition	ns (MGL Chapter 131, Section 40 and 3	• •	n: Bruce Freeman Rail Trail Right-ol 301-1362); 2022 EPA NPDES Genera 01975.	•	ruction Areas; U.S. Army Corps of Er	ngineers Permit No NAE-2021-
		I. Ger	neral Project Information			
Project Name:	Bruce Freeman Rail Trail - Phase 2d -	Sudbury				
Date of Inspections:	4/28/2025					
Bi Weekly/ Monthly Period Covered:	April Weekly Inspection #5					
Inspector's Name(s):	Jonathan Niro					
Inspectors' Contact Information:	jniro@beta-inc.com					
		Ш.	Weather Information			
	Inspection #1	Inspection #2	Inspection #3	Inspection #4	Inspection #5	Inspection #6
	Inspector: Anna Haznar	Inspector: Anna Haznar	Inspector: Anna Haznar	Inspector: Anna Haznar	Inspector: Jonathan Niro	
WeatherUnderground	4/2/2025	4/7/2025	4/14/2025	4/21/2025	4/28/2025	Inspector:
Type of Inspection (i.e. non-storm event, pre- storm event, during-storm event or post- storm event):	Post-storm	Post-storm	Post-storm	Non-storm	Non-storm	
Number of days since last rain event greater than .25"	1	1	2	9	2	
Has there been a storm event since the last inspection?	Yes	Yes	Yes	No	Yes	
If yes, please provide storm start date, storm duration, and approx amount of precipitation: Storm 1: Storm 2:	April 1st (5 hours 0.81")	April 6 (7 hours 0.9")	April 12 (3 hours 0.46")		April 26 (7 hours 0.17")	
Storm 3: Storm 4:						
5101114.						
Weather at the time of inspection (i.e. clear, overcast, cloudy, rain, sleet, fog, snow, windy):	Clear	Light Rain/Overcast	Clear	Clear	Clear	
Temperature:	39	44	54	55	60	
Unusual Conditions (drought, severe storm):						
Have any discharges occurred since the last inspection report?	Yes	No	No	No	No	
If yes, please describe: Note: Inspections should only be conducted or	Loam was observed to have discharged into the stream at Stations 215+75 and 216+15. n days during work hours while RE or A	ARE is onsite. The EM should conta	ct the RE to address any immediate	corrective actions.		

		III. General Description of Construction Status					
4/2/2025 - At the time of the Site visit, no work	was occurring.						
4/7/2025 - At the time of the Site visit, no work	was occurring.						
4/14/2025 - At the time of the Site visit, no wo	rk was occurring.						
4/21/2025 - At the time of the Site visit, no wo	rk was occurring.						
4/28/2025 - At the time of the Site visit, no wo	rk was occurring						
4/26/2025 - At the time of the site visit, no wo	ik was occurring.						
		IV. Status of Existing BMPs					
Control Measure (These are examples; list measures specific to the project)	Cleaning or Repair Needed (yes no n/a)	Comments/Recommendations from the EM					
Perimeter Controls	Yes	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 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, with the exception of the slopes along the stream at Station 215+00 to 217+00.					
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 and Collection	No						
Location of Sanitary Waste Facilities	No						
Washout Areas	No						
Fertilizers, Herbicides, and Landscape	N/A						
Stabilization of Exposed Soil	Yes	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; however, predominately non-native vegetation has become established. 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 Station 215+00 to 217+00 requires further stabilization and erosion has occurred in this location.					
Overall Adherence to Environmental Permits	Yes	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 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 11/19/2024 to discuss potential resolutions for compliance issues. In addition, invasive species requiring management still persist throughout the entirety of the corridor.					
	A1-+-	Use station numbers, wetland ID or other means to determine locations of BMP's that need repairs.					

V. Compliance Table - Compliance Action Items

V. 1. Compliance Action Items Observed During the One Month Reporting Period Ending [April 30, 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 215+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. 12/2/2024 - Observation remains. No further discharge was observed in this location. 12/2/2025 - Observation remains. No further discharge was observed in this location. 1/2/2025 - Observation remains. No further discharge was observed in this location. 1/2/2025 - Observation remains. No further discharge was observed in this location. 1/2/2025 - Observation remains. Traw was observed to have been placed along portions of the streambank; however, this area should be stabilized using an erosion control blanket. 1/1/2/2025 - Observation remains. Strosion causing a discharge of loam and straw into the streambank. No further discharge was observed during this inspection. 1/30/2025 - Observation remains. Snow coverage is present within the stream and on the streambank. No further discharge was observed during this inspection. 2/4/2025 - Observation remains. Snow coverage is present over a majority of the stream and on the streambank. No further discharge was observed, however, stabilization is still required. 2/11/2025 - Observation remains. Some woerage is gresent over the stream and on the streambank. No further discharge was observed in this location vas observed to have eroded and discharged into the stream at Station 215+75. Rill erosion was also observed to the streambank at Station 216+25. 4/7/2025 - Observation remains. Some weegetative growth was observe

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. 8/1/2024 - Observation remains. Material was observed to have migrated within the swale to Station 173+50. 8/1/2024 - 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. 9/1/2024 - Observation remains. The contractor indicated that the sone within the swale would be hand removed. 9/1/2024 - Observation remains. The contractor indicated that the sone within the swale would be hand removed. 9/1/2024 - Observation remains. The contractor indicated that the sone within the swale would be hand removed. 9/1/2024 - Observation remains. It appears as though some stone has migrated further south down the swale. 10/8/2024 - Observation remains. It appears as though some stone has migrated further south down the swale. 10/8/2024 - Observation remains. Stone is covered with vegetation in some areas. 10/2/2024 - Observation remains. 11/2/2024 - Observation remains. 11/2/2024 - Observation remains. 11/2/2024 - Observation remains. 11/2/2024 - Observation remains. Stone is still present within the swale and requires removal. Leaf litter is currently covering a majority of the stone. 11/2/2024 - Observation remains. Stone is present within the swale under leaf litter. 11/2/2024 - Observation remains. Stone is present within the swale under the leaf litter. 11/2/2024 - Observation remains. Stone is present within the swale under the leaf litter. 11/2/2024 - Observation remains. Stone is present within the swale under the leaf litter. 11/2/2024 - Observation remains. Stone is present within the swale under the leaf litter. 11/2/2024 - Observation remains. Stone is present within the swale under the leaf litter. 11/2/2024 - Observation remains. Stone is present within the swale under the leaf l
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47 Slope stabilization required due to condition of compost filter tubes at Stations 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. 6/27/2024 - Observation remains. 7/15/2024 - Observation remains. 7/15/2024 - Observation remains. 7/29/2024 - Observation remains. 8/7/2024 - Observation remains. 9/10/2024 - Observation remains. 9/20/2024 - Observation remains. 9/20/2024 - Observation remains. Application of the approved seed mixture if required at this location. 9/12/2024 - Observation remains. Net contractor indicated hydroseed will be applied here soon. 10/4/2024 - Observation remains. Hydroseed has not been applied to this area. 10/8/2024 - Observation remains. No germination has been observed. 10/2/2024 - Observation remains. See previous update. 11/2/2024 - Observation remains. 12/2/2024 - Observation remains. 12/2/2025 - Observation
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32	Soil and organic debris has been placed within the wetland between wetland flagging WF#23-119 and WF#23-118 at Station 224+00 Priority: High	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.	 S/28/2024 - Observation remains. S/73/2024 - Observation remains. G/7/2024 - Observation remains. G/7/2024 - Observation remains. G/7/2024 - 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. 7/8/2024 - Observation remains. G/2/2024 - Observation remains. Not require stabilization. G/2/2024 - Observation remains. Not contractor indicated hydrosed will be applied to this area. G/2/2024 - Observation remains. Hydroseed has not been applied to this area. G/2/2024 - Observation remains. Hydroseed has not been applied to this area. G/2/2024 - Observation remains. Hydroseed has not been applied to this area. G/2/2024 - Observation remains. Hydroseed has not been applied to this area. G/2/2024 - Observation remains. Hydroseed has not been applied to this area. G/2/2024 - Observation remains. Hydroseed has not been applied to this area. G/2/2024 - Observation remains. Hydroseed has not been applie
					2/4/2025 - Observation remains. 2/11/2025 - Observation remains. 4/2/2025 - Observation remains. Hydroseed was applied to this location in November of 2024; however, exposed soil is still present. This area will be monitored to determine if additional seed will be required to stabilize the area. 4/7/2025 - Observation remains. No further vegetation was observed in this location, see previous update.

43 Overtopped compost filter tubes and exposed soils beyond the limits of work at Station 105+00 Priority: High	6/14/2024 Stabilize the area with the appr seed mixture and provide interi stabilization such as straw mult	im 10/29/2024 - Observation remains. No further germination has been observed since the last inspection.
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34	Sediment is eroding downhill from behind the cemented stone masonry wall at Station 217-45 Priority: Low	5/28/2024	6/4/2024 Resolved: 4/2/2025	 5/31/2024 - Observation remains. 6/7/2024 - Observation remains. 6/14/2024 - Observation remains. 6/2/2024 - Observation remains. 6/2/2024 - Observation remains. 6/2/2024 - Rils were raked, loam was added, and hydroseed was applied. 7/8/2024 - Observation remains. Grass was observed to be germinating at this location. Comment will remain open until stabilization is complete. 7/8/2024 - Observation remains. 7/2/2024 - Additional hydroseed is required due to washouts. 7/2/2024 - Observation remains. 7/2/2024 - Observation remains. 8/5/2024 - Observation remains. 8/5/2024 - Observation remains. 8/7/2024 - Observation remains. 8/7/2024 - Observation remains. 8/7/2024 - Observation remains. 8/1/2024 - Observation remains. 8/1/2024 - Observation remains. 8/1/2024 - Observation remains. 8/2/2024 - Observation remains. 9/3/2024 - Observation remains. 9/3/2024 - Observation remains. 9/3/2024 - Observation remains. 9/10/2024 - Observation remains. 9/10/2024 - Observation remains. See update from 9/3/2024. 9/2/2024 - Observation remains. See update from 9/3/2024. 9/2/2024 - Observation remains. See update from 9/3/2024. 9/2/2024 - Observation remains. See update from 9/3/2024. 10/2/2024 - Observation remains. See update from 9/3/2024. 10/2/2024 - Observation remains. See update from 9/3/2024. 10/2/2024 - Observation remains. Ne additional seed has been applied to this location. 11/2/2024 - Observation remains. No germination has been observed in this location. 11/2/2024 - Observation remai
				been observed. 11/12/2024 - Observation remains. No germination has been observed in this location. 11/12/2024 - Observation remains. 11/22/2024 - 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. 12/6/2024 - Observation remains. No germination has been observed in this location. 12/6/2024 - Observation remains. No germination has been observed in this location. 12/12/2024 - Observation remains. Some germination has been observed within this location. 12/12/2024 - Observation remains. See previous update. 12/20/2024 - Observation remains. See update from 12/12/2024.

	V.2. On Going (Longer-Term) Compliance Items									
	Typically, these items require coordination with MassDEP. If so, remove once approval is obtained from MassDEP									
It	Em Location/ Description	Observation Date	Resolution Due Date	Recommended/Discussed Resolution	Comments/Updates					
	Invasive/ non-native vegetation including Japanese knotweed (<i>Reynoutria japonica</i>), bittersweet (<i>Celastrus orbiculatus</i>), bush honeysuckle (<i>Lonicera spp</i> .), burning bush (<i>Euonymus alatus</i>), purple loosestrife 1 (<i>Lythrum salicaria</i>), glossy buckthorn (<i>Frangula alnus</i>) multiflora rose (<i>Rose</i> <i>multiflora</i>), and garlic mustard (<i>Alliaria</i> <i>petiolata</i>) 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. 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. 11/12/2024 - Observation remains. 11/22/2024 - Observation remains. 11/2/2024 - Observation remains. 12/2/2024 - Observation remains. 12/2/2024 - Observation remains. 12/2/2024 - Observation remains. 12/12/2024 - Observation remains. 12/12/2024 - Observation remains. 12/12/2024 - Observation remains. 12/20204 - Observation remains. 12/202024 - Observation remains. 12/20205 - Observation remains. 12/20205 - Observation remains. 12/20205 - Observation remains. 12/20205 - Observation remains. 1/2/2025 - Observation remains. Invasive species including, bush honeysuckle, multiflora rose, garlic mustard and buckthorn were observed to be developing buds and leaves throughout the site. In addition, non-invasives but non- native species have been observed along the corridor within areas where the establishment of native species is required. 4//2/					

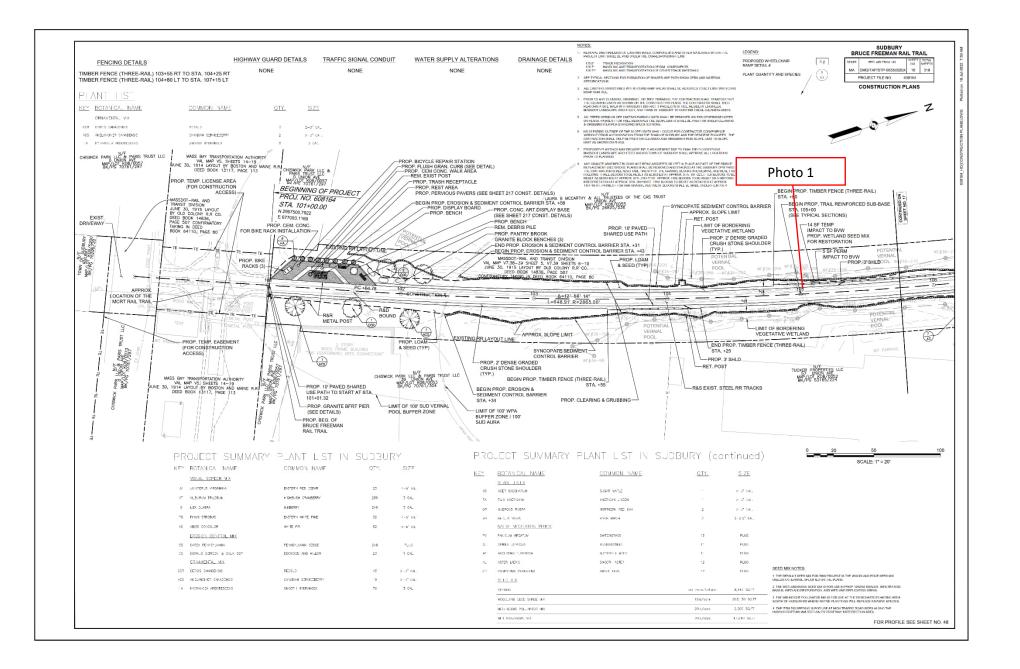
57-1	Japanese hops (<i>Humulus japonicus</i>) has been observed throughout the Project and requires removal Priority: High	10/22/2024	10/29/2024	The Contractor should manage remaining Japanese hops by hand pulling and the application of herbicide.	locations along the Project. BETA and MassDOT will coordinate 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 - Observation remains. See update from 10/29/2024. Management of Japanese hops should occur during the next growing season. 11/22/2024 - Observation remains. 12/2/2024 - Observation remains. 12/202024 - Observation remains. 12/202025 - Observation remains. 12/202025 - Observation remains. 1/2/2025 - Observation remains. 1/2/2025 - Observation remains. 1/3/2025 - Observation remains. 1/2/2025 - Observation remains. 1/2/2025 - Observation remains. 2/11/2025 - Observation remains. 2/11/2025 - Observation remains. 2/12/2025 - Japanese hops were not observed during this inspection but will be monitored for regrowth. 4/2/2025 - Japanese hops were not observed during this inspection but will be monitored for regrowth. 4/2/2025 - Japanese hops were observed within Parkinsons Field and require removal. Japanese hops have not beserved in other locations throughout the trail. 4/28/2025 - Observation remains. See previous update.
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.	4/21/2025 - For readability all previous observations have been removed from the report. Please reference the report from 4/14/2025 to see past observations. Observation remains. Vegetation has begun sprouting in some areas that were hydroseeded; however, most areas are not considered fully stabilized. Multiple areas of exposed soil along the trail still require the application of hydroseed. The seed mix used for stabilization should be submitted to the Conservation Commission. 4/28/2025 - Observation remains. See previous update.
58	Crushed stone used for the dense graded crush stone shoulders has been observed as migrating both onto the path, off the sides of the path, and into the adjacent Resource Areas throughout the Project Priority: High	8/7/2024	8/14/2024	Remove all crushed stone from Resource Areas and develop a plan to cease discharges of stone.	4/21/2025 - For readability all previous observations have been removed from the report. Please reference the report from 4/14/2025 to see past observations. Observation remains. Crushed stone was observed both on and off the trail in multiple locations. 4/28/2025 - Observation remains. See previous update.

42 Riprap slope extends beyond limits of work along the WF1 Series wetland near flags 103 to 107 Priority: High	ac 102	6/4/2024		 S/31/2024 - Observation remains. S/71/2024 - Observation remains. S/71/2024 - Digrap stope has been altered and active construction is repair/potential replacement of an underlying pipe has was ongoing. It is recommended that the contractor confirm that they have coordinated with the Conservation Commission for this work and provide a retoration pipe infor the area ance work is complete. G/27/2024 - During this inspection, BETA was informed that the existing cast from pipe was replaced with a new concrete 12-inch reinforced concrete pipe. It appears that rippe was replaced along the side slopes to mirror conditions observed prior to this inspection. G/27/2024 - During this inspection, the area was observed to have been rolled and prepared for paving. Hydrosed was applied and plantings were installed. M/2024 - Gemmission ordination. M/2024 - Seprevious updates regarding Conservation Commission coordination. M/20204 - Observation remains. B/20204 - Observation remains. See update from 11/19/2024. B/20204 - Observation rema
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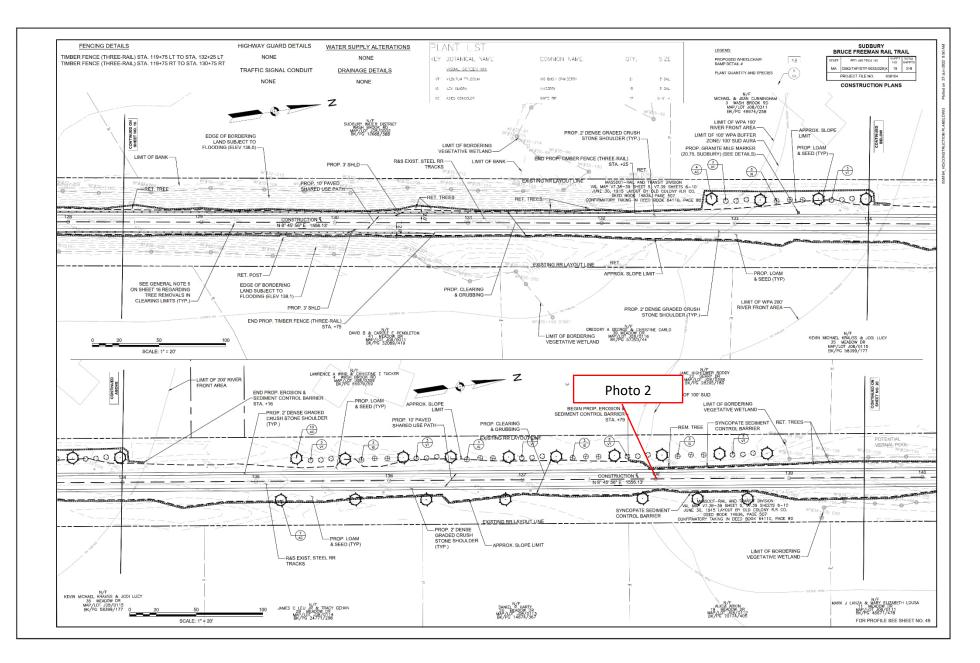
 In the state of the state of the state of the state state of the state of the state state of the state o	41 limit of work at Station 216+00	5/28/2024	6/4/2024	work was permitted by the Conservation Commission, as it does not appear to be a part of the approved plans/impacts. MassDOT should be consulted on next steps regarding	 G/17/2024 - Observation remains. G/24/2024 - Observation remains. G/24/2024 - Observation remains. T/8/2024 - Observation remains. T/8/2024 - Observation remains. T/2/2024 - Crushed store and sediment continue to be discharged to the stream between Stations 215+00 and 217+00 due to overtopped and undermined compost filter tubes. T/28/2024 - Observation remains. S/7/2024 - Observation remains. S/7/2024 - Observation remains. S/7/2024 - Observation remains. S/2/2024 -
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VI. Agency Submittals (Note: only filled out for monthly report)						
Submittal	Date Submitted	Description	Status			
VII. Attachments (#3 only attached with monthly report)						
1. Field Sketch						
2. Photographic Documentation						
3. 3 Week Look ahead schedule						

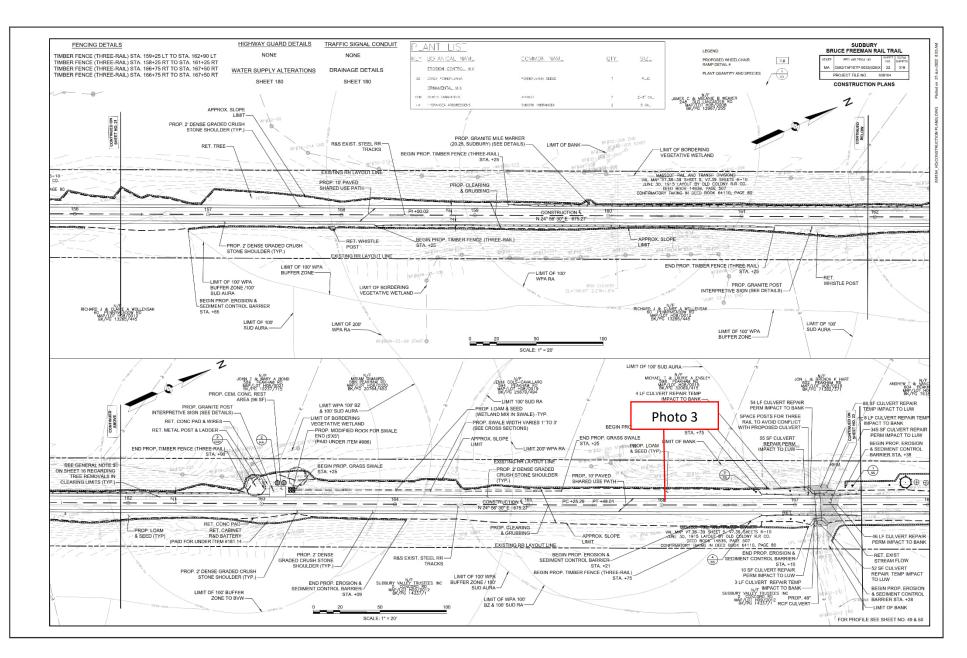




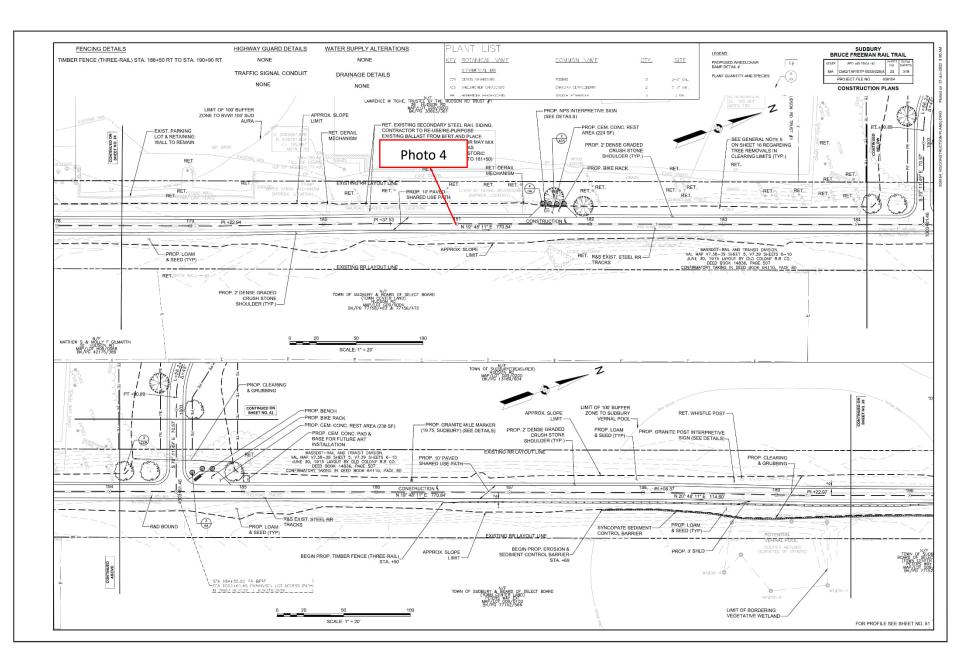




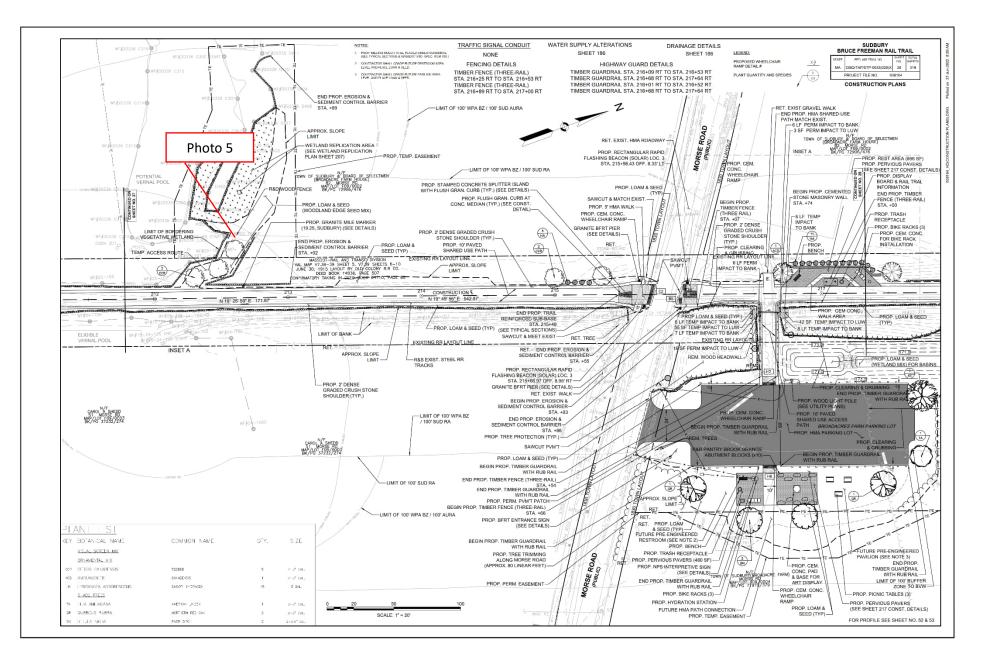




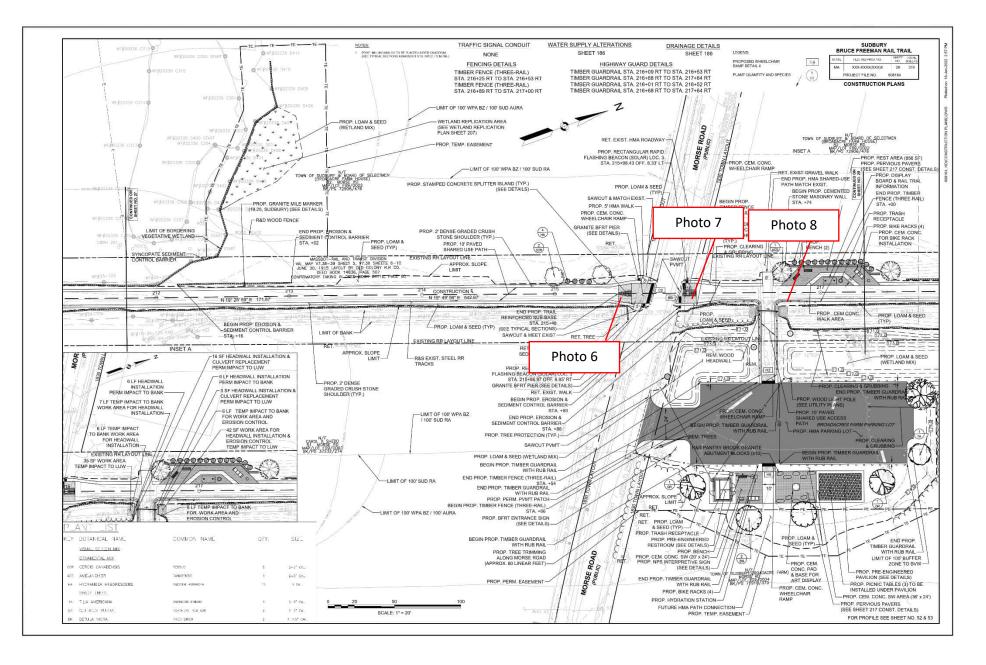
BETA IMPROVING COMMUNITIES TOGETHER



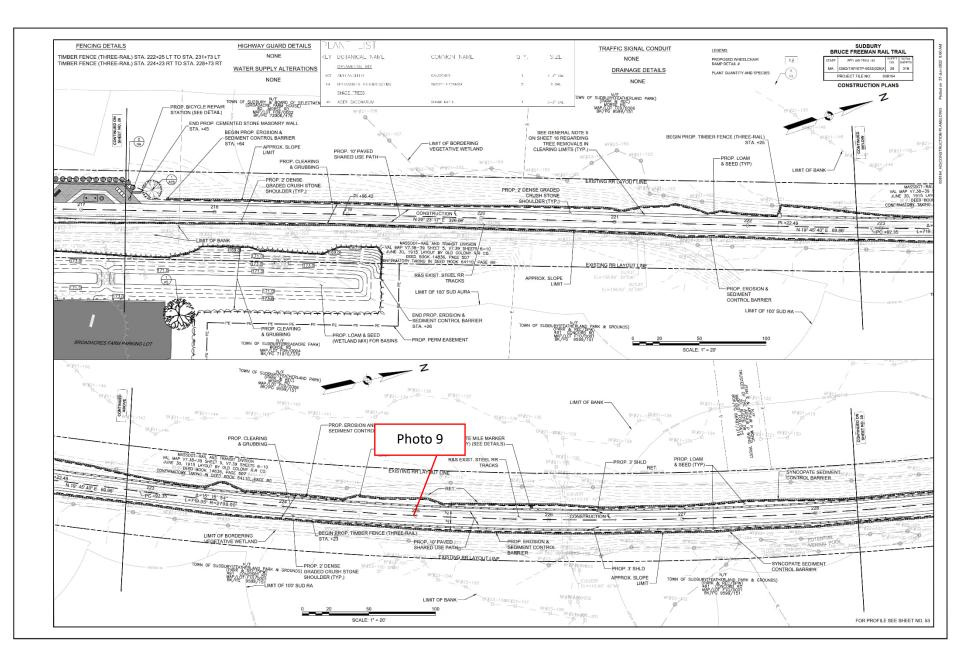




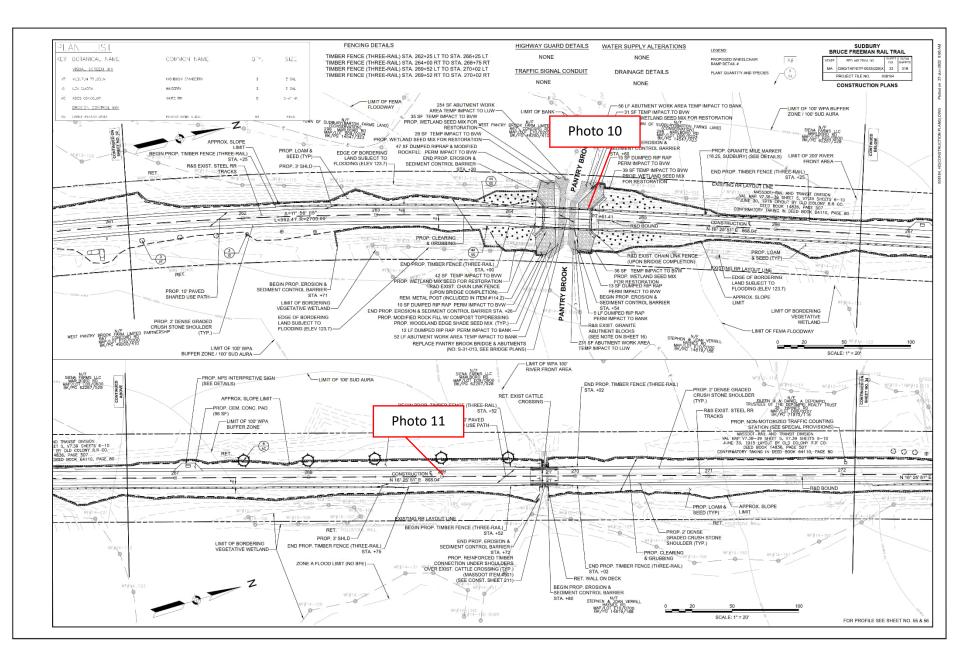




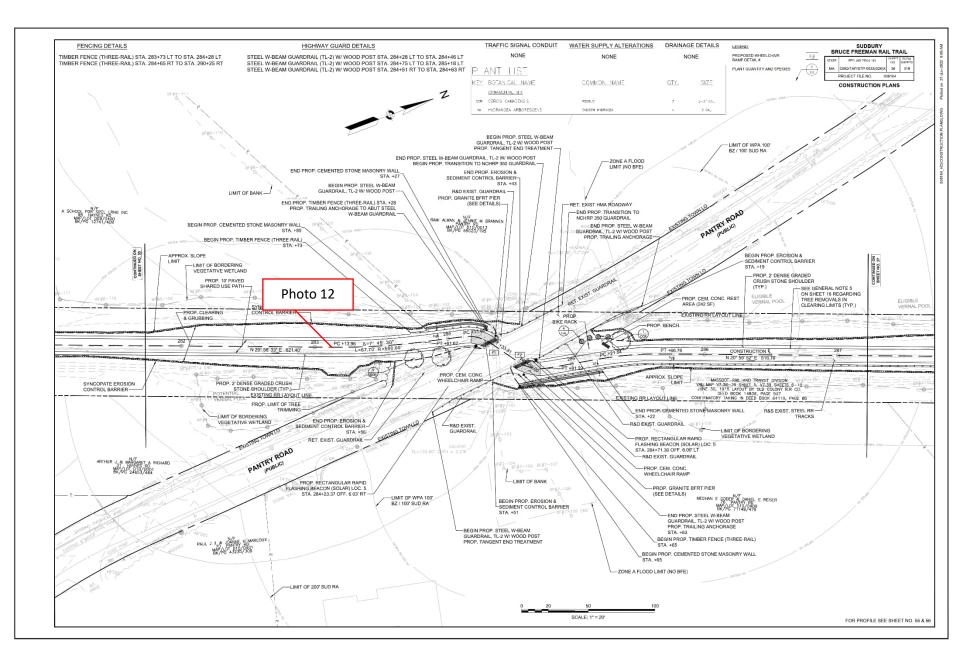




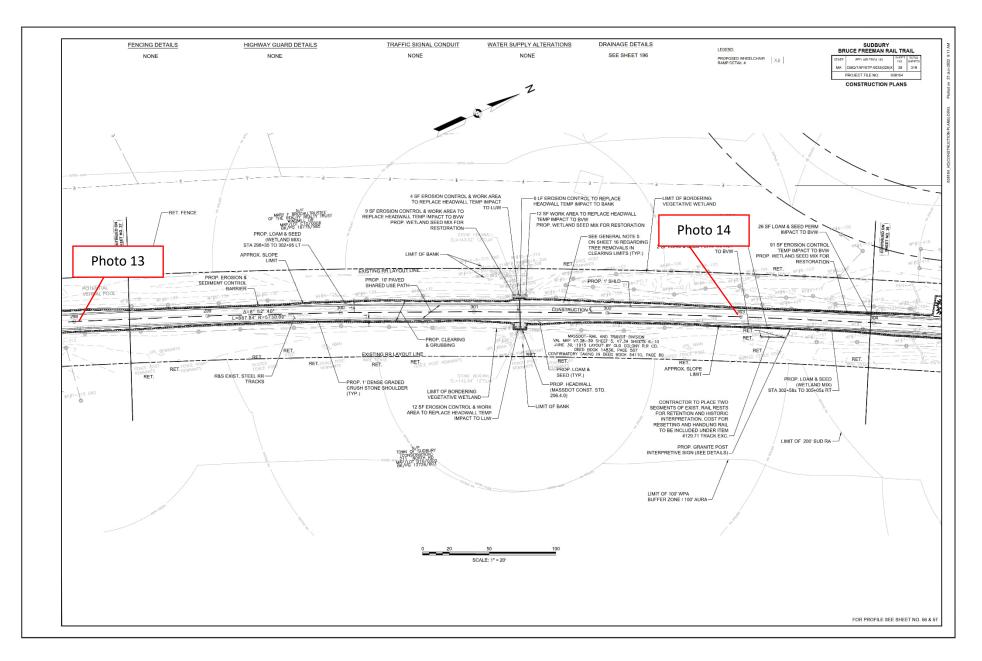




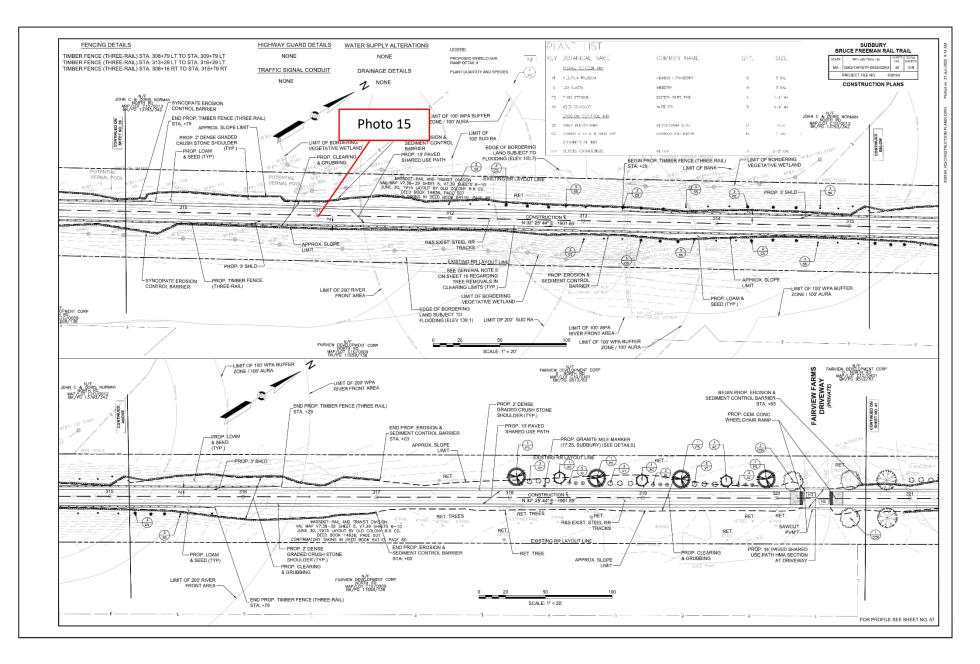




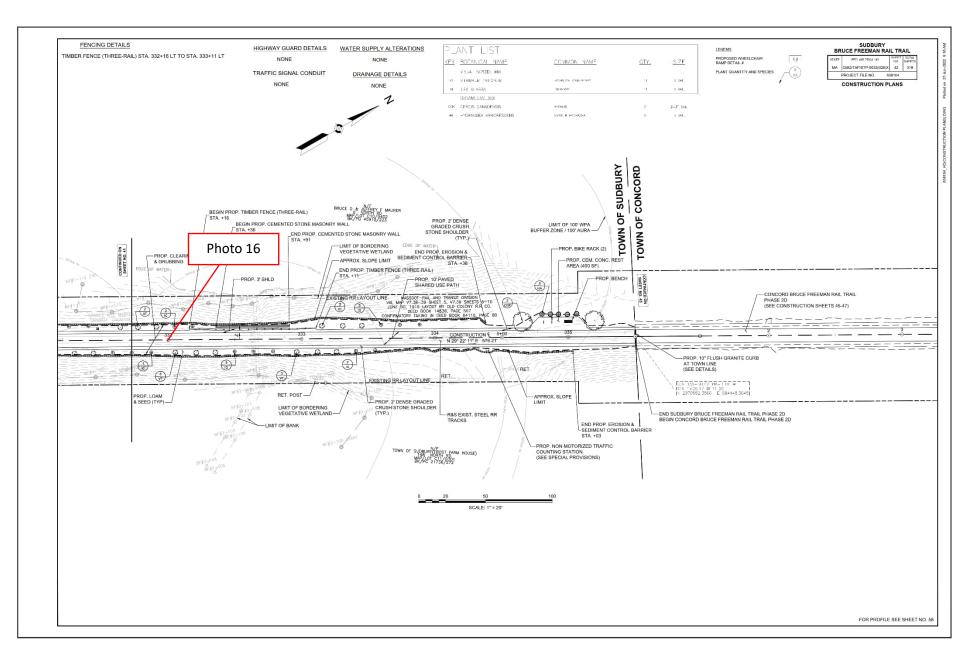








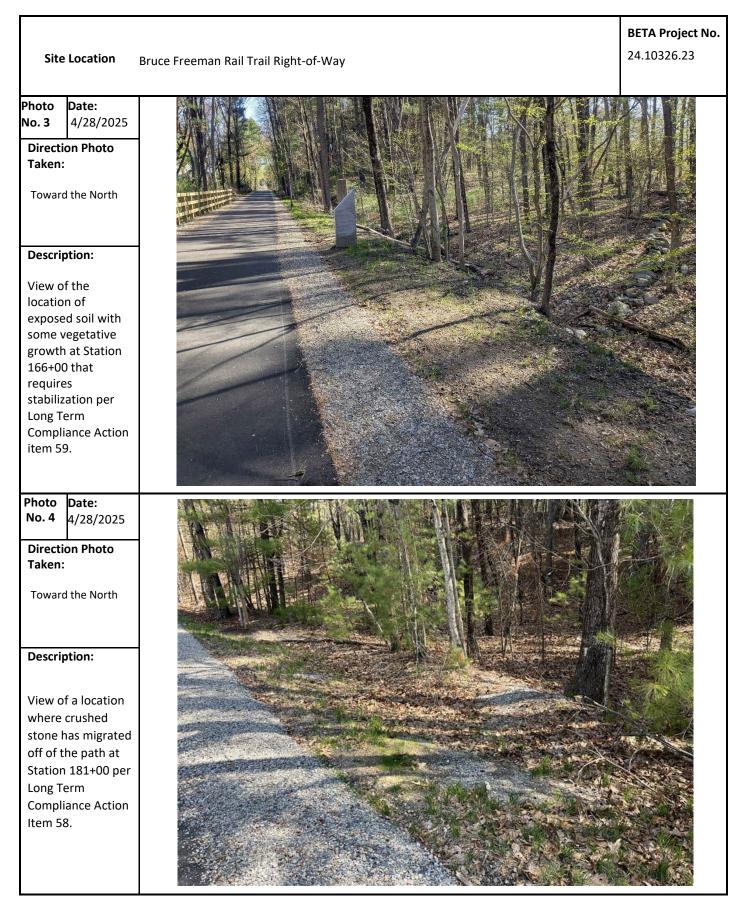






Site	e Location	Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
Photo No. 1	Date: 4/28/2025		
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Comp	liance Action		
Item 4	.3.		C C
Photo No. 2	Date: 4/28/2025		Vale
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Descri	ption:		
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Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
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