Environmental Monitor Construction Site Inspection Report MassDOT Project #608164 Construction Contract # 119678 EM Report #11						
Permit Description(s): Order of Conditions (MGI	. Chapter 131, Section 40 and 310 CMR 1	Project Description: Bruce Fre 0.00, Mass DEP File No. 301-13 NAE-2021-0	62); 2022 EPA NPDES General Perm	it for Discharges from Construction Areas	; U.S. Army Corps of Engineers Permit No	
		I. General Project	Information			
Project Name: Bruce Freeman Rail Trail - Phase 2d - Sudbury Date of Inspections: 7/8/2024 Bi Weekly/ Monthly Period Covered: July Weekly Inspection #1 Inspector's Name(s): Anna Haznar Inspectors' Contact Information: ahaznar@beta-inc.com						
		II. Weather Inf			-	
WeatherUnderground	Inspection #1 Inspector: Anna Haznar	Inspection #2 Inspector:	Inspection #3 Inspector:	Inspection #4 Inspector:	Inspection #5 Inspector:	
Type of Inspection (i.e. non-storm event, pre-storm event, during-storm event or post-storm event):	Post-storm event	inspector.	inspector.	inspector.	inspector.	
Number of days since last rain event greater than .25"	3					
Has there been a storm event since the last inspection?	Yes					
If yes, please provide storm start date, storm duration, and approx amount of precipitation:						
Storm 1:	June 27th (8 hours 2.06")					
Storm 2:	July 5th (2 hours 0.36")					
Storm 3:						
Storm 4:						
Weather at the time of inspection (i.e. clear, overcast, cloudy, rain, sleet, fog, snow, windy):	Clear					
Temperature:	88					
Unusual Conditions (drought, severe storm):						
Have any discharges occurred since the last inspection report?	No					
If yes, please describe:						
Note: Inspections should only be conducted on days	during work hours while RE or ARE is on:	l site. The EM should contact the	RE to address any immediate corre	ctive actions.	1	

		III. General Description of Construction Status					
7/8/2024 - At the time of the Site visit, construction crews were continuing with utility work and landscaping efforts.							
		IV. Status of Existing BMPs					
Control Measure (These are examples; list measures	Cleaning or Repair Needed (yes	Comments/Recommendations from the EM					
specific to the project)	no n/a)						
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. While areas upgradient of degraded controls are temporarily stabilized at some locations, several discharges of sediment beyond the limits of work were observed including at Station 105+00 to 106+00, Station 216+50, Station 221+50, Station 222+00 to 241+00, Station 292+00 to 294+50, and Station 313+00 to 316+00. It is recommended that the contractor repair erosion and sedimentation control measures where breaches are occurring and where stabilization has not been achieved; however, areas where stabilization has commenced should be monitored for germination, as replacement of erosion controls may not be required if stabilization is achieved. 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.					
Inlet Protection Measures	No						
Stabilized Construction Entrances	No						
Stockpile Protections	No						
Dust Control	No						
Street Sweeping	No						
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 Material	N/A						
Stabilization of Exposed Soil	Yes	Varying degrees of stabilization are present within areas that were constructed/graded as part of the Project. Stabilization efforts are required at Station 201+50 to 204+00, Station 221+50, Station 225+50, Station 222+00 to 241+00, Station 247+00, Station 265+50 to 273+00, Station 310+00, and Stations 313+00 to 316+00. Stabilization has commenced via application of hydroseed at the majority of these locations and should be monitored for successful establishment.					
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.					
Note: Use station numbers, wetland ID or other mean	ns 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 [June 30, 2024].

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 and has shortterm potential to impact resource areas, "Low" - 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
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	6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Observation remains. 7/8/2024 - Observation remains.
44	Slopes require stabilization/ additional seed due to lack of compost filter tubes at 105+00 and 106+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. 6/27/2024 - Observation remains. 7/8/2024 - Observation remains.
45	Erosion observed along east side of trail at Station 225+50 Priority: Medium	6/7/2024	6/14/2024	Stabilize the slope with the approved seed mixture and provide interim	6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Vegetation has become established; however, migrated material requires removal. 7/8/2024 - Observation remains.
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	6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Observation remains. 7/8/2024 - Observation remains.

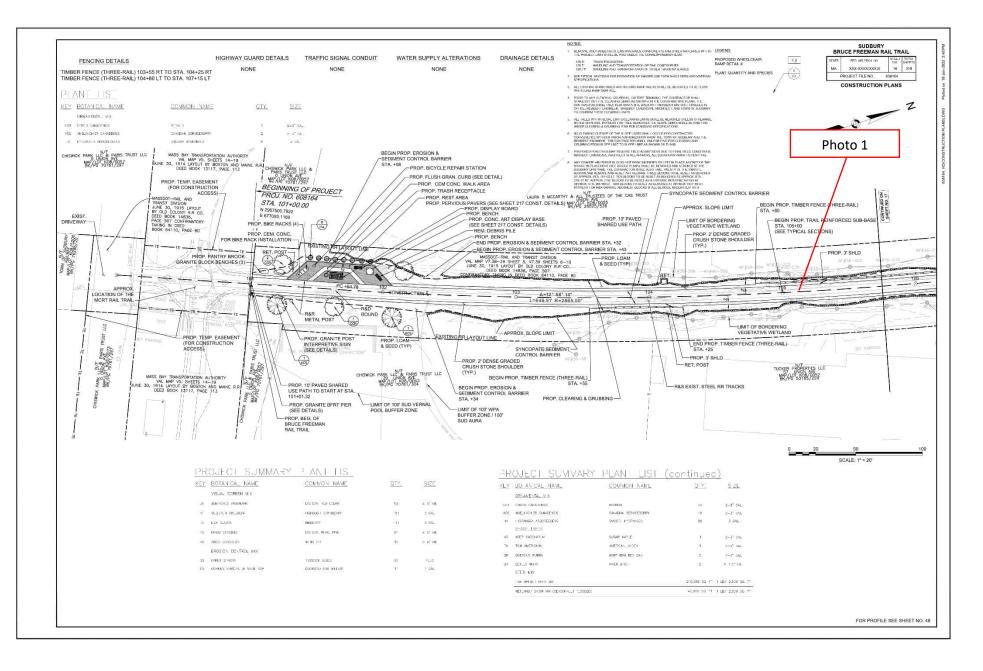
36	Concrete pile improperly disposed of at Station 243+00 Priority: Low	5/28/2024	6/4/2024	Remove concrete pile from the area.	5/31/2024 - Observation remains. 6/7/2024 - Concrete has been removed. 6/14/2024 - Concrete needs to be removed from site once again. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Observation remains. 7/8/2024 - Observation remains.
34	Sediment is eroding downhill from behind the cemented stone masonry wall at Station 217+45 Priority: Low	5/28/2024	6/4/2024	Apply seed and temporarily stabilize the soils along the slope with straw, jute netting, etc.	5/31/2024 - Observation remains. 6/7/2024 - Observation remains. 6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Rills 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 - See previous update.
33	Sediment is eroding downhill and offsite at Station 222+00 through Station 236+00 Priority: High	5/21/2024	5/28/2024	Remove rill erosion and remove over washed material from outside limit of work.	5/28/2024 - Hydroseed has been applied and germination was observed. No new erosion was observed. 5/31/2024 - Observation remains. 6/7/2024 - Observation remains. In addition, seed is required on the west side of the trail. 6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Oservation remains. 6/27/2024 - Germination of hydroseed was observed and the area will continue to be monitored for stabilization. 7/8/2024 - See previous update.
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.	5/28/2024 - Observation remains. 5/31/2024 - Observation remains. 6/7/2024 - Observation remains. 6/14/2024 - Observation remains. 6/17/2024 - This area has been hydroseeded multiple times, but the debris should also be removed from the downgradient wetland. 6/24/2024 - Observation remains. 6/27/2024 - Observation remains. The area was hydroseeded again. 7/8/2024 - Germination was observed and the area will be monitored for stabilization.
5	Turbid water in swale at Stations 167+00 through 172+00 Priority: High	5/8/2024	5/15/2024	Stabilize all contributing areas to the swale and implement stabilization measures over exposed soils within the swale itself once water recedes. It is recommended that the contractor coordinate with MassDOT on stabilization within the swale, which may require jute netting and seed.	5/16/2024 - Observation remains. 5/21/2024 - Observation remains. 5/28/2024 - Good water quality was observed; however, no stabilization measures have been implemented. 5/31/2024 - Good water quality was present; however, no additional stabilization measures have been installed. 6/7/2024 - Observation remains. 6/14/2024 - Observation remains. 6/14/2024 - Observation remains. 6/24/2024 - Construction and regrading of the swale is underway. 6/27/2024 - The area has been regraded and loamed. New trees have been planted upland of the swale. Stabilization still required. 7/8/2024 - Observation remains.

e	6	Exposed sediment slope at Station 172+00 to 175+00 Priority: High	5/8/2024	5/15/2024	Install temporary sediment controls along the slope such as jute netting and/or straw following the application of seed.	5/16/2024 - Observation remains. 5/21/2024 - Observation remains. 5/28/2024 - Partial germination was observed. 5/31/2024 - See previous update. 6/7/2024 - Further earthwork has occurred and soils require stabilization. 6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - The area has been regraded and loam has been spread. New trees have been planted upgradient of the swale. Stabilization is still required. 7/8/2024 - Jute netting has been installed over the applied seed, and the area will be monitored for germination.
1	4	Sediment-laden runoff is being discharged into a stream from the new parking lot at Station 216+50 Priority: High	5/8/2024	5/15/2024	stream and develop a method of	5/16/2024 - New compost filter tubes have been installed but were observed to be undermined. In addition, a new earthen slope was observed to be constructed in this area and requires stabilization. 5/21/2024 - No turbidity was observed due to no rain preceding this inspection. However, additional erosion controls should be explored at this location to prevent future discharges. 5/28/2024 - Untreated runoff being discharged from the parking area has not been addressed, and work is occurring along the stream beyond the compost filter tubes. 5/31/2024 - Observation remains. 6/12/2024 - Observation remains. 6/12/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Observation remains. 7/8/2024 - Observation remains.
1	.5	Sediment migration off of the trail and into wetlands at Station 221+50 Priority: High	5/8/2024	5/15/2024	Replace damaged compost filter tubes and remove accumulated sediment from areas beyond the limits of work. Once any grading work is completed, apply seed to the slope and stabilize it with jute netting, straw, etc.	5/16/2024 - Observation remains. 5/21/2024 - Observation remains. 5/28/2024 - The area has been hydroseeded. 5/31/2024 - No additional sediment migration was observed. See previous update. 6/7/2024 - Hydroseed is present but sediment beyond the compost filter tubes requires removal. 6/14/2024 - Observation remains. 6/24/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - This area has been hydroseeded again. 7/8/2024 - Germination was observed and the area will be monitored for stabilization.
1	.6	Sediment migration beyond the limits of work at Stations 231+00 to 232+00 Priority: Medium	5/8/2024	5/15/2024	Remove accumulated sediment from areas beyond the limits of work and replace compost filter tubes. Once any grading work is completed, apply seed to the slope and stabilize it with jute netting, straw, etc.	5/16/2024 - Observation remains. 5/21/2024 - Observation remains. 5/28/2024 - The area has been hydroseeded and additional sediment has not migrated since the last observation. 5/31/2024 - Observation remains. 6/7/2024 - Hydroseed is present but sediment beyond the compost filter tubes requires removal. 6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/24/2024 - This area was hydroseeded and germination was observed. 7/8/2024 - Germination continues and the area will be monitored for stabilization. The contractor should confirm that all soils over the compost filter tubes are confined to the limits of work.

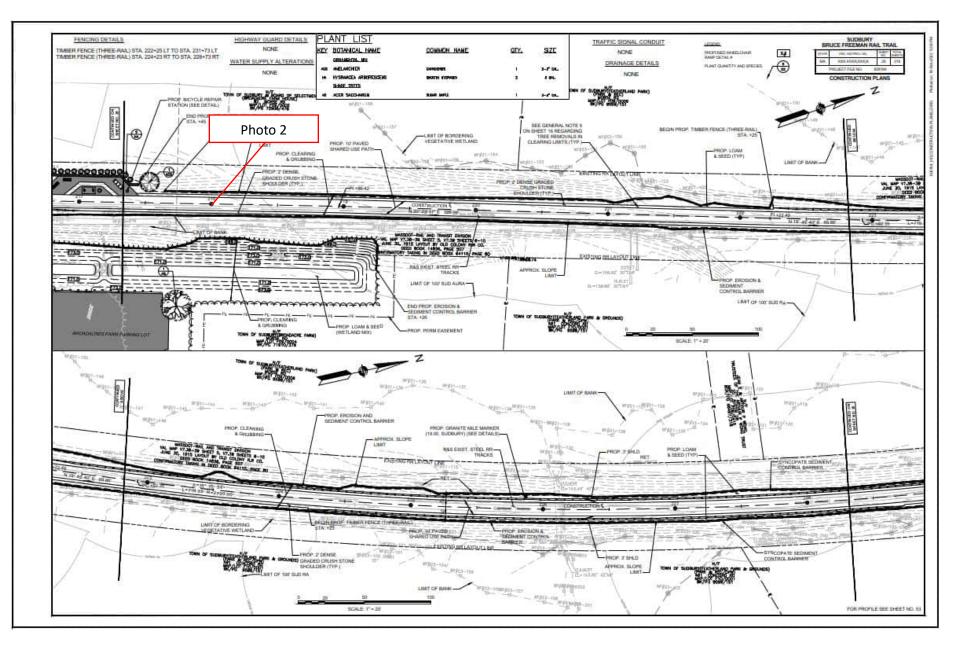
17	Sediment migration beyond the limits of work at Stations 236+00 to 238+00 Priority: High	5/8/2024	5/15/2024	Remove accumulated sediment from areas beyond the limits of work and replace compost filter tubes. Once any grading work is completed, apply seed to the slope and stabilize it with jute netting, straw, etc.	5/16/2024 - Observation remains. 5/21/2024 - Observation remains. 5/28/2024 - Hydroseed has been applied; however, accumulated sediment beyond the limits of work requires removal. 5/31/2024 - Observation remains. 6/1/2024 - Observation remains. 6/14/2024 - Observation remains. 6/24/2024 - Observation remains. 6/24/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - This area has been hydroseeded and germination was observed. 7/8/2024 - Germination was observed and the area will be monitored for stabilization.
18	Sediment migration beyond the limits of work at Stations 238+00 to 241+00 Priority: Medium	5/8/2024	5/15/2024	Stabilize steep slopes with jute netting or compost filter tubes to prevent additional land movement and erosion.	5/16/2024 - Observation remains. 5/21/2024 - Observation remains. 5/28/2024 - Hydroseed has been applied; however, accumulated sediment beyond the limits of work requires removal. 5/31/2024 - Observation remains. 6/7/2024 - Application of seed is required for stabilization. 6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - This area has been hydroseeded and germination was observed. 7/8/2024 - Germination was observed and the area will be monitored for stabilization.
23	Sediment has accumulated within the cattle crossing at Station 258+00 and is migrating towards adjacent wetlands Priority: High	5/8/2024	5/15/2024	Remove all accumulated sediment and address the sediment release at the source through additional erosion controls and stabilization measures.	5/16/2024 - Observation remains. 5/21/2024 - Partial sediment removal has been completed. It appears that this accumulation of sediment may be occurring due to offsite inputs and may require coordination with MassDOT. 5/28/2024 - Observation remains. 6/31/2024 - Observation remains. 6/14/2024 - Observation remains. 6/14/2024 - Observation remains. 6/24/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Observation remains. 7/8/2024 - Observation remains.
26	Erosion and migration of gravel into a stream observed along the east side of the trail at Stations 292+00 to 294+50 Priority: High	5/8/2024	5/15/2024	Add or replace erosion controls and remove the gravel eroding into wetlands and streams. Replace gravel and/or supplement with larger stone.	5/16/2024 - Observation remains. 5/21/2024 - Observation remains. Recently placed loam should be stabilized to prevent sediment-laden runoff from discharging to the stream. 5/28/2024 - Observation remains. 5/31/2024 - Observation remains. 6/7/2024 - Observation remains. 6/1/2024 - Observation remains. 6/1/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Observation remains. 7/8/2024 - Observation remains.
27	Material washout was observed along the west side of the trail from Stations 313+00 to 316+00 Priority: High	5/8/2024	5/15/2024	Provide supplemental erosion controls and stabilize the slope.	5/16/2024 - Observation remains. 5/21/2024 - Observation remains. 5/28/2024 - Observation remains. 5/31/2024 - No further sediment migration was observed. Additional stabilization measures have not been installed. 6/7/2024 - Observation remains. 6/14/2024 - Observation remains. 6/24/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - This area has been hydroseeded. 7/8/2024 - Observation remains.

48	Multiple concrete piles left around parking lot rest stop near Station 216+00 Priority: Medium	6/14/2024	6/21/2024	Remove concrete piles from site and	6/17/2024 - Observation remains. 6/24/2024 - Some of the concrete piles have been removed. One pile of the three in this area remain. 6/27/2024 - Concrete pile still remains. 7/8/2024 - Concrete piles have been removed.					
	V.2. On Going (Longer-Term) Compliance Items									
		Typically, these items req	uire coordination with MassDEP.	If so, remove once approval is obtai	ined from MassDEP					
Item	Location/ Description	Observation Date	Resolution Due Date	Recommended/Discussed Resolution	Comments/Updates					
42	Riprap slope extends beyond limits of work along the WF1 Series wetland near flags 103 to 107 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.	5/31/2024 - Observation remains. 6/7/2024 - Observation remains. 6/14/2024 - Riprap slope 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 restoration plan for the area once work is complete. 6/24/2024 - During this inspection, BETA was informed that the existing cast iron pipe was replaced with a new concrete 12-inch reinforced concrete pipe. It appears that riprap was replaced along the side slopes to mirror conditions observed prior to this inspection. 6/27/2024 - During this inspection, the area was observed to have been rolled and prepared for paving. Hydroseed was applied and plantings were installed. 7/8/2024 - Germination was observed and the area will be monitored for stabilization. See previous updates regarding Conservation Commission coordination.					
41	Stream Bank has been regraded beyond the limit of work at Station 216+00 Priority: High	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.	5/31/2024 - Observation remains. 6/7/2024 - Observation remains. 6/14/2024 - Observation remains. 6/17/2024 - Observation remains. 6/24/2024 - Observation remains. 6/27/2024 - Observation remains. 7/8/2024 - Observation remains.					
			/I. Agency Submittals (Note: onl	y filled out for monthly report)	<u>.</u>					
	Submittal	Date Submitted	Description		Status					
	VII. Attachments (#3 only attached with monthly report)									
1. Fie	1. Field Sketch									
	otographic Documentation									
3.3 \	Veek Look ahead schedule									

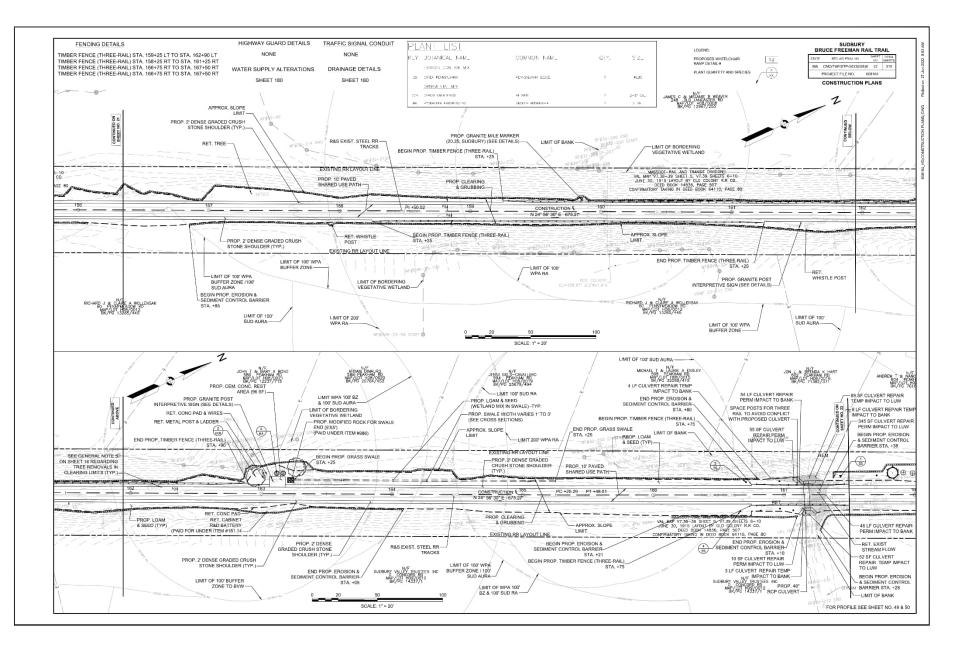




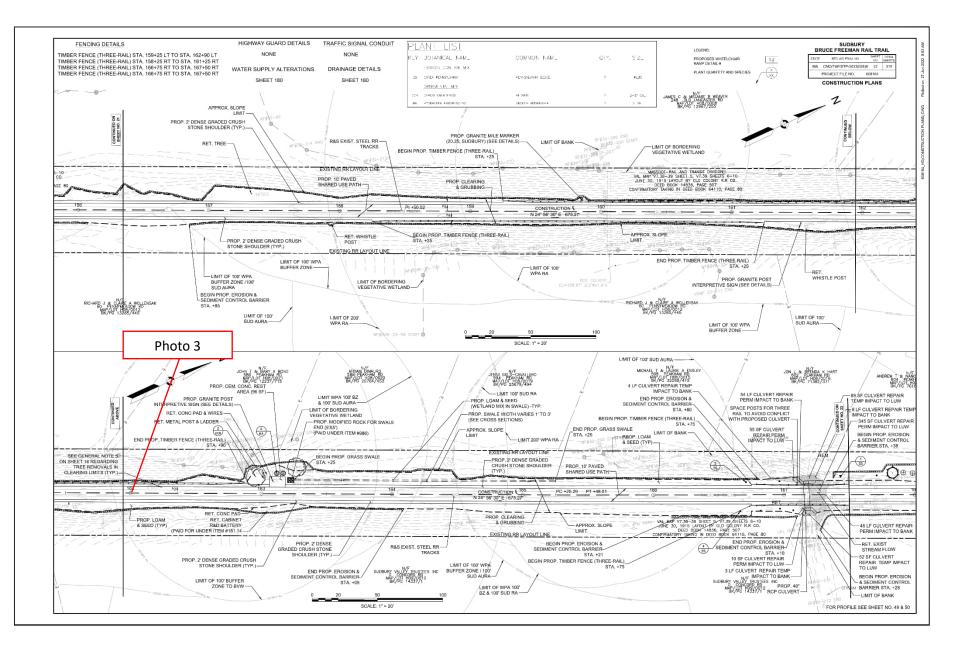




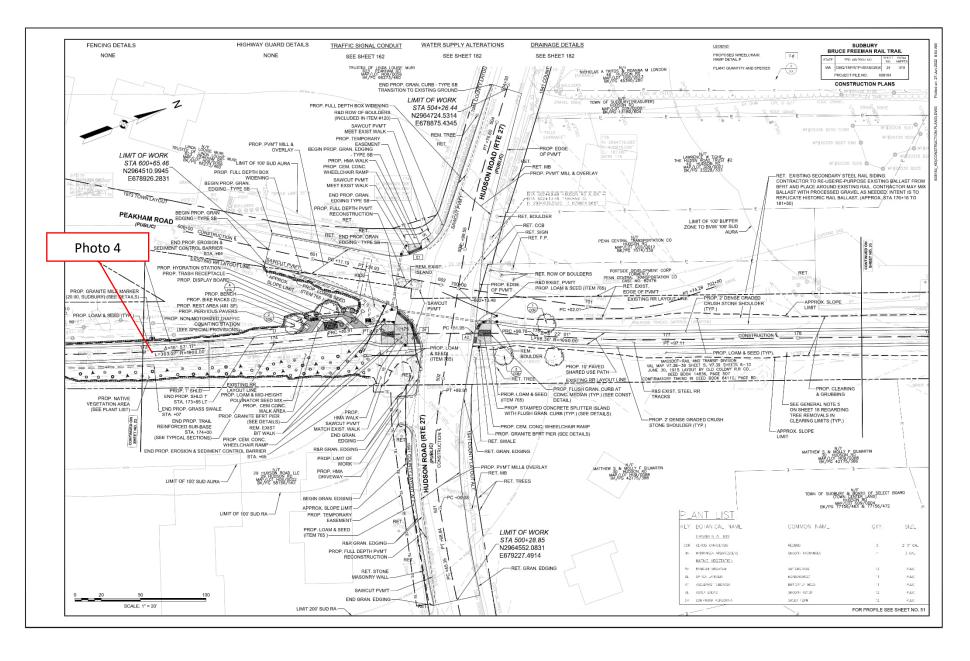




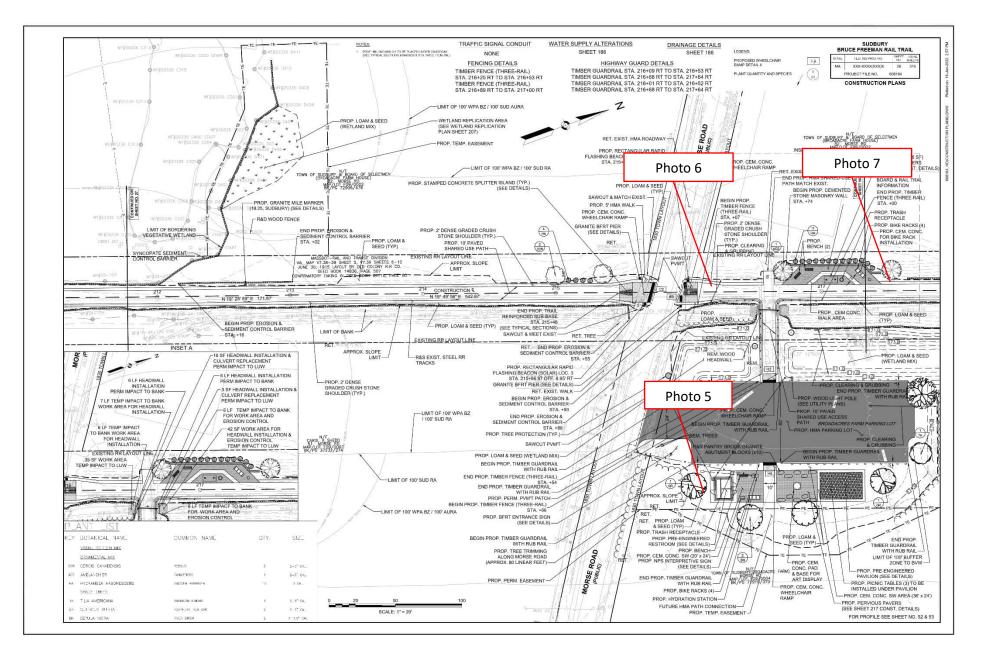




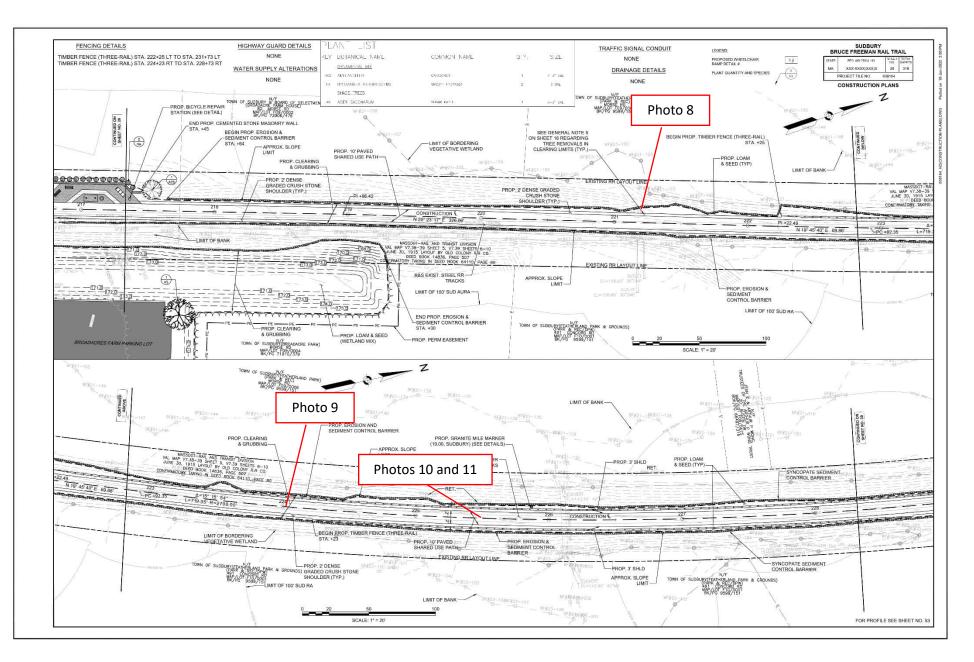




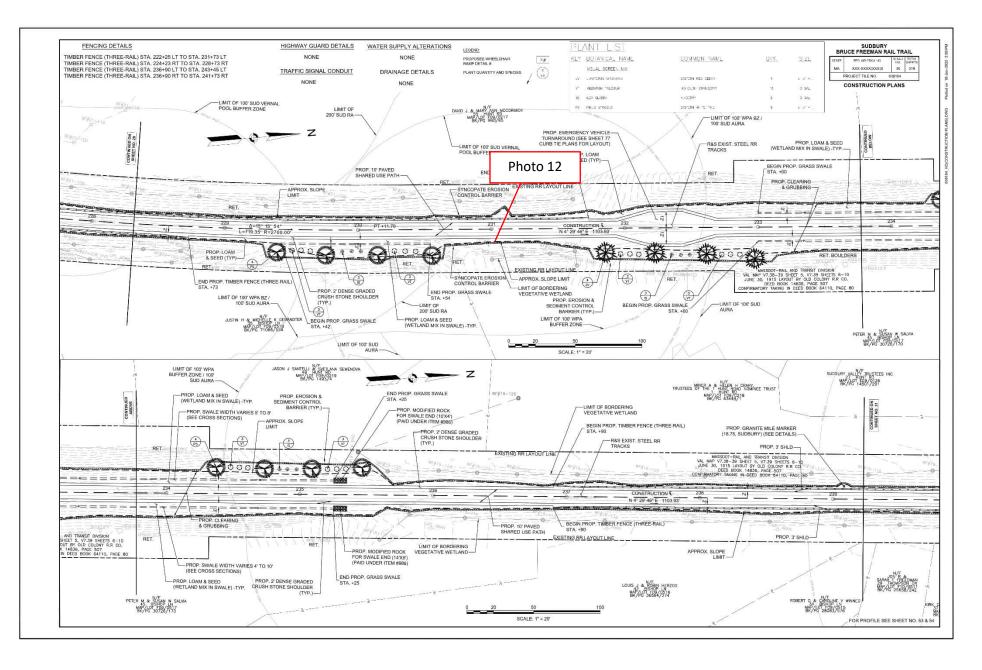




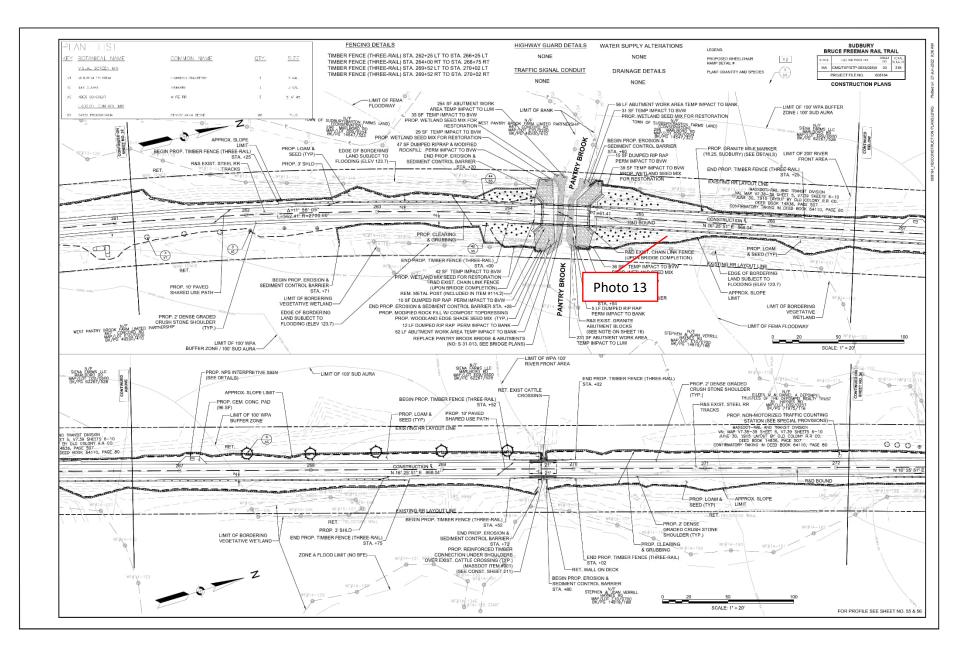




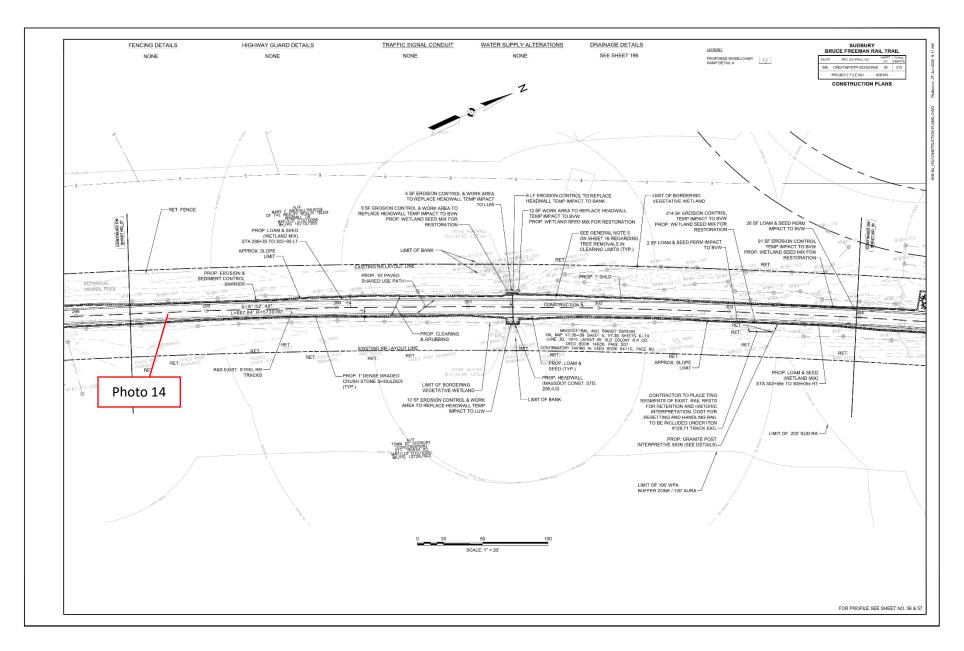




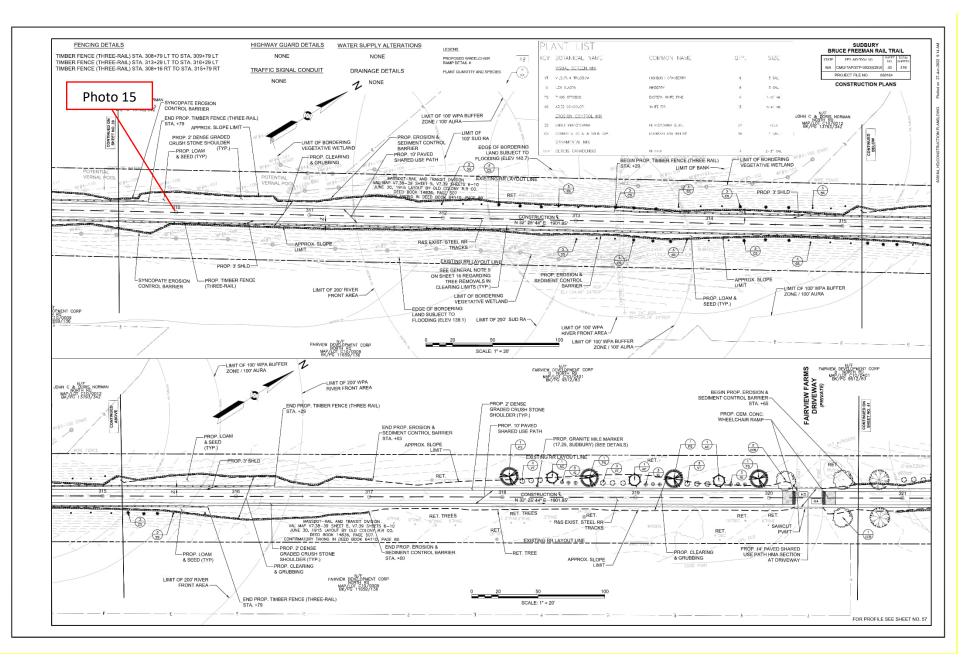




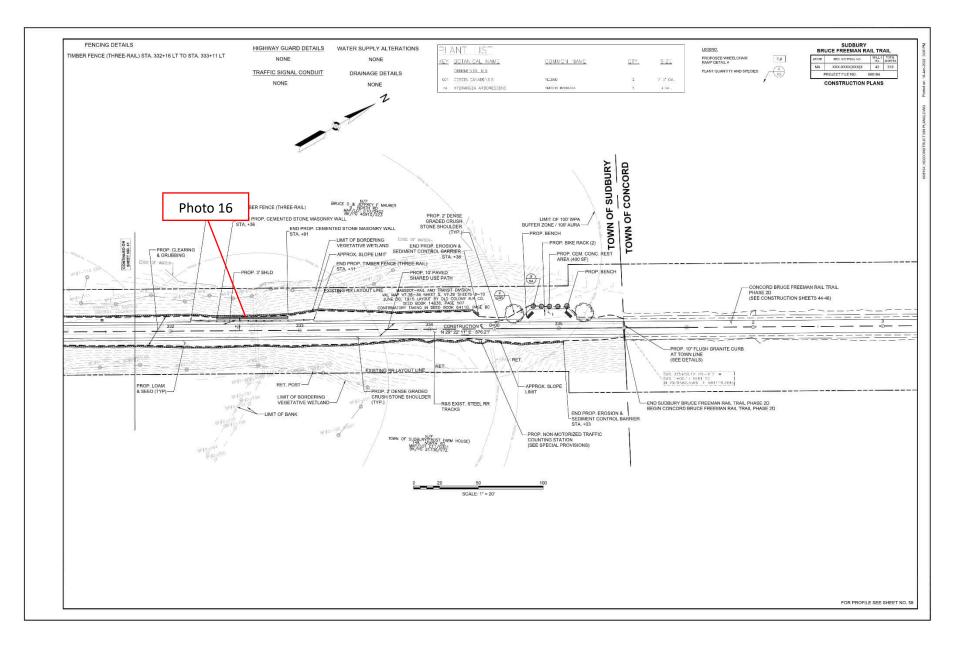




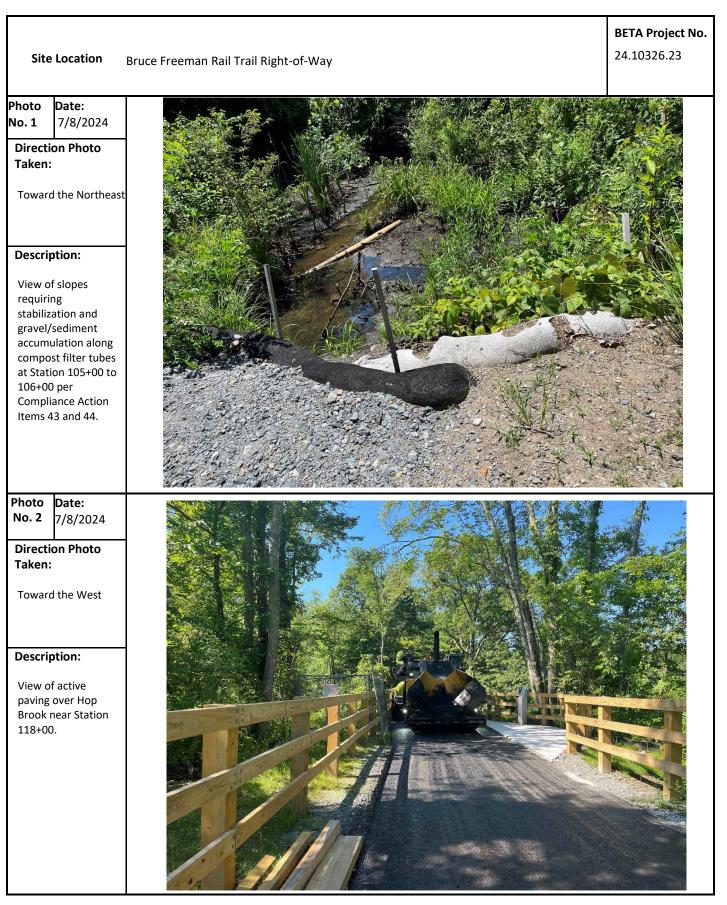














Site	e Location	Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
Photo No. 3	Date: 7/8/2024		PIE
Taken			
Towar	d the North		
vegeta	ption: if established tion near 162+00.		
Taken	Date: 7/8/2024 ion Photo : d the North		
stabiliz near S per Co	ption: er view of the red slopes tation 173+00 mpliance Item 6.		

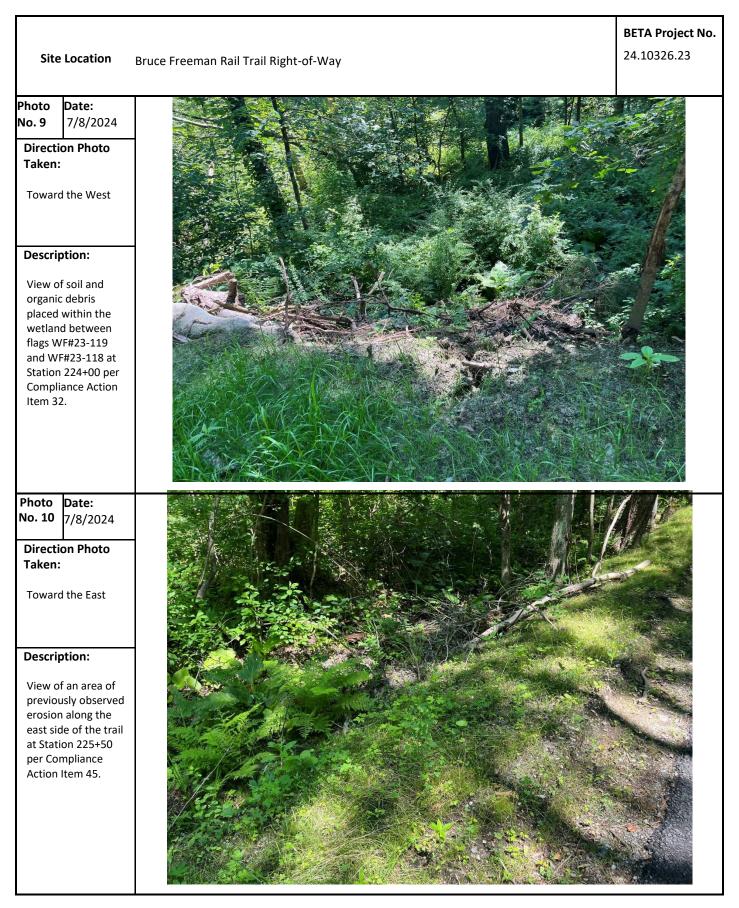


Site Lo	ocation	Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
	he		
Descripti View of th where a c pile near 216+00 w disposed Complian Item 48.	ne location concrete Station vas of per		
No. 6 7, Direction Taken: Toward th	he West		
work at S 216+00 p	rading of m Bank ne limits of tation		

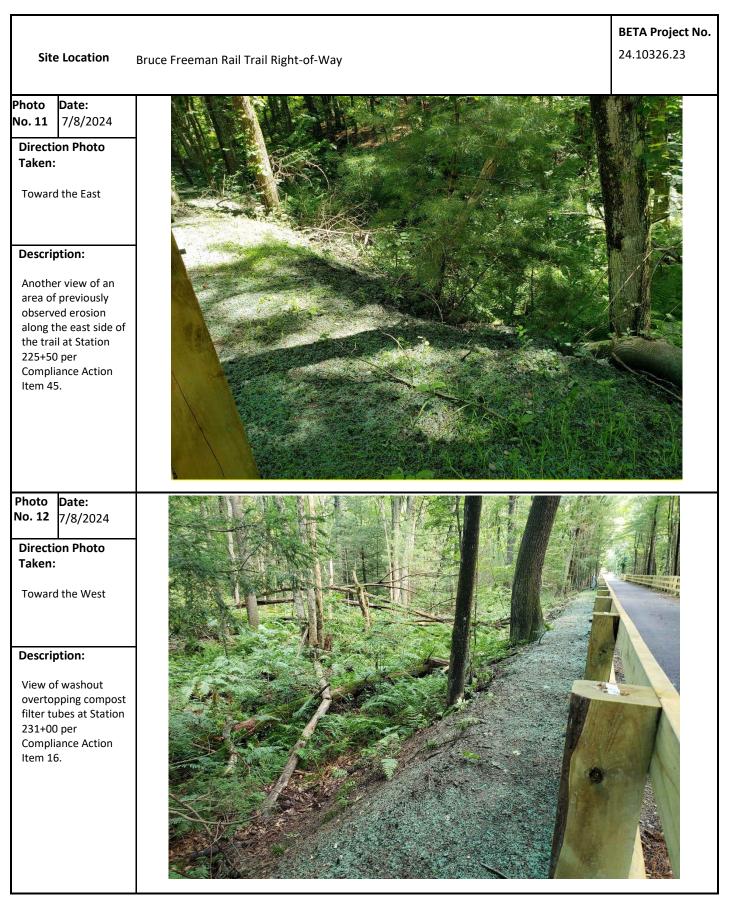


Site	e Location	Bruce Freeman R	ail Trail Right-of-Wa	у		BETA Project No. 24.10326.23
Photo No. 7	Date: 7/8/2024					
	ion Photo					
Towar	d the Northeas					1
along t adjace constr mason Statior	of germination the slope ent to the ructed nry wall at n 217+45 per liance Action					
Taken	Date: 7/8/2024 ion Photo : rd the West					
overtopp filter tub	washout ping compost pes at Station per Compliance					











Site	Location	Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
Photo No. 13	Date:		
	7/8/2024 on Photo		
Toward	the North		
Descrip	tion:		
near Sta	slopes g stabilization tion 265+50 pliance Action		
Item 47.			
Photo	Date:		NKRS .
No. 14	7/8/2024		· · ··································
Taken:	on Photo		
Toward	the East		
Descrip	tion:		
Station 2 gravel sh			
wetland	nce Action		



Site	Location	Bruce Freeman Rail Trail Right-of-Way	BETA Project No. 24.10326.23
Photo No. 15	Date: 7/8/2024		and the second se
	on Photo		
Toward	l the West		
Descrip	otion:		2
	replaced controls near 310+00.		
Photo No. 16	Date: 7/8/2024		the second second
Direction Taken:	on Photo		
Toward Northw			
Descrip	otion:		
that ap extend limits o betwee 332+00 per Cor	f rip rap slope pears to beyond the f work en Stations and 333+00 npliance Item 42.		