



File No.: 04-1000-20-2024-013

April 24, 2024

s.22(1)

Dear s.22(1)

Re: Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")

I am writing regarding your request dated February 8, 2024 under the *Freedom of Information* and *Protection of Privacy Act* for:

Record of correspondence between the Vancouver Board of Parks and Recreation and Technical Safety B.C. regarding the Stanley Park Train. Date range: November 21, 2023 to January 3, 2024.

All responsive records are attached. Some information in the records has been severed (blacked out) under s.15(1)(l) and s.22(1) of the Act. You can read or download these sections here: <a href="http://www.bclaws.ca/EPLibraries/bclaws\_new/document/ID/freeside/96165\_00">http://www.bclaws.ca/EPLibraries/bclaws\_new/document/ID/freeside/96165\_00</a>.

Under section 52 of the Act, and within 30 business days of receipt of this letter, you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your FOI request by writing to: Office of the Information & Privacy Commissioner, info@oipc.bc.ca or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number (#04-1000-20-2024-013); 2) a copy of this letter; 3) a copy of your original request; and 4) detailed reasons why you are seeking the review.

Yours truly,

Kevin Tuerlings, FOI Case Manager, for

[Signed by Kevin Tuerlings]

Cobi Falconer, MAS, MLIS, CIPP/C Director, Access to Information & Privacy cobi.falconer@vancouver.ca

453 W. 12th Avenue Vancouver BC V5Y 1V4

If you have any questions, please email us at <a href="mailto:foi@vancouver.ca">foi@vancouver.ca</a> and we will respond to you as soon as possible. Alternatively, you can call the FOI Case Manager at 604-871-6584.

Encl. (Response Package)

:aa

From:	"Dave Lywak" <dave.lywak@technicalsafetybc.ca></dave.lywak@technicalsafetybc.ca>
To:	"AP Invoice" <apinvoice@vancouver.ca></apinvoice@vancouver.ca>
	"Yip, Rosemary" <rosemary.yip@vancouver.ca></rosemary.yip@vancouver.ca>
Date:	11/28/2023 11:26:34 AM
Subject:	Certificate of Inspection: AMOP-3802011-2023
Attachments:	Certificate_of_Inspection_Permit_html_AM -0000998966-2020_Insp_AMOP-3802011-2023.pdf

#### City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe. Report Suspicious



Permit Number: AM -0000998966-2020 Unit Number:22744

Inspection Number: AMOP-

3802011-2023

When inquiring always refer to these numbers.

Hi City of Vancouver,

Further to the assessment performed on 27 November, 2023, please find attached a copy of the Certificate of Inspection.

Site Address	2099 BEACH Avenue VANCOUVER British Columbia V6G 1Z4
Permit Number	AM -0000998966-2020
Inspection Number	AMOP-3802011-2023

Inspection Type	ASSESS: AM OP: Periodic
Unit Name / Unit Number	TRAIN / 22744

Please be advised for any non-compliances identified, they must be resolved by the date(s) indicated on the attached Certificate of Inspection.

Should you have any questions regarding this Certificate of Inspection, please contact Technical Safety BC at 1-866-566-7233.

For information on the Safety Standards Act, Regulations, and the Review/Appeal process, please visit www.technicalsafetybc.ca.

Dave Lywak | Safety Officer, Elevating Devices, Passenger Ropeways & Amusement Devices

**TECHNICAL SAFETY BC** | Safe technical systems. Everywhere.

Mobile: 778 828 9518 | Toll-free: 1 866 566 7233

Suite 600 - 2889 East 12th Avenue, Vancouver, BC V5M 4T5

technicalsafetybc.ca [technicalsafetybc.ca]

BC Safety Authority is now **Technical Safety BC**. While we have changed our name, we remain committed to our vision of *Safe technical systems*. *Everywhere*. Learn more about our evolving services and how we share safety knowledge atwww.technicalsafetybc.ca [technicalsafetybc.ca].

This email and any files transmitted with it is intended for the individual to whom it is addressed. Unauthorized use, reproduction or dissemination of this email is strictly prohibited. If you have received this email in error, please contact me immediately.



Unit Number: 22744

Inspection Number: AMOP-3802011-2023

# **CERTIFICATE OF INSPECTION**

# Operating Periodic

### **Contact Information**

City of Vancouver 955 Evans Avenue Vancouver BC V6A 2K9

Activity Date: 27 November, 2023

#### Site Address

TRAIN 2099 BEACH Avenue VANCOUVER British Columbia V6G 1Z4

Inspection Result: Conditional Passed

Assessment Type: ASSESS: AM OP: Periodic

### **Unit Information**

Name	Unit Number	Status	Manufacturer	Mobility
TRAIN	22744	Active	Chance Rides	Fixed

# Non-Compliances

All Non-Compliances must be resolved by the due date unless specified otherwise in Safety Officer Notes.

Line	Code Violation and Comments	Followup Date
1	<b>Code:</b> 805 Z267 7.1/7.5 TRAINS - Engine	Nov 27, 2023
	Safety Officer Note: Green Locomotive unit A7739 has been repaired and Re inspected and approved for public operations.	



Unit Number: 22744

Inspection Number: AMOP-3802011-2023

The requirements below are still outstanding for the Following locomotives listed.

A7740 Black, had excessive oil leaking on brake lining which could poss fire hazard during operation.

A7738 Blue, not operational at time of assessment not aware of what the issues are.

A7737, overheating and radiator issues unit not operational at time of assessment.

Ensure all Locomotives meet manufacture minimum operating safety requirements.

Full condition assessment to be performed by qualified third part inspector.

Full report to be provide to technical safety bc safety officer for Review prior to onsite Re inspection.

All repairs to units that are required to bring them up to minimum manufacture safe operational status to be completed prior to re inspection..

2 Code: 808 Z267 5.3

TRAINS - Passenger Cars

#### Safety Officer Note:

Reviewed all documentation in regards to the following carriages that have had all required repairs completed

A7907,A7904,A7906,A7910,A7901 are now approved for public operations.

The requirements below are still outstanding for the remaining carriages.

Provide full condition report from third party contractor that is certified to inspect chance trains and passengers car.

Which is to include what is required to bring passenger cars up to minimum manufacture operating requirements.

Observed multiple under carriage with excessive wear, multiple under carriage Seized with no articulation.

Nov 27, 2023





Unit Number: 22744

Inspection Number: AMOP-3802011-2023

	Axle with horizontal and vertical play, multiple brake lining out manufacture specifications, multiple brake pot not functioning at all.	
	All remaining carriages still require condition reports and repairs and re inspection to be completed prior to public operations.	
3	Code: 801 Z267 7.1/7.5 TRAINS - Track/Tie Condition and Hardware Condition	Nov 27, 2023
	Safety Officer Note: Ensure entry track ballasts meet manufacturers minimum operating requirements.	
	Observed area to have had low ballast at time of assessment, From fuel station to large trestle to have ballast inspected and repaired.	
	Non compliance to be completed and declared prior public operation.	
4	<b>Code:</b> 802 Z267 7.1/7.5 TRAINS - Track Gauge	Dec 11, 2023
	Safety Officer Note: Ensure that manufacturers track gauge tool is repaired and is operational as per manufacturer requirements for weekly, and monthly checks.	
	Observed track gauge tool in need of repairs at time of assessment.	
5	Code: 807 Z267 5.8 TRAINS - Brakes	Dec 4, 2023
	Safety Officer Note: Ensure that there are spare air line coupling hoses on site in case of snagging of premature failure.	
	No spare air line onsite at time of assessment.	
6	Code: 808 Z267 5.3 TRAINS - Passenger Cars	Nov 27, 2023
	Safety Officer Note: Ensure all carriages are free of all sharp and snagging issues.	
	Observed old chain fasteners that were no longer required to have	

contact@technicalsafetybc.ca | toll-free 1 866 566 7233



Unit Number: 22744

Inspection Number: AMOP-3802011-2023

	sharp edges or potential snagging hazard,	
	Non compliance to be completed and declared prior to public operation.	
7	Code: 809 Z267 7.1.6 TRAINS - Couplings	Nov 27, 2023
	Safety Officer Note: Ensure all carriage couplers have been installed and setup as per manufacturer requirement.	
	Observed some fasteners to be longer than other contacting carriage components during on site inspection. Remove and install correct fasteners on unit A7904 Beaver Lake.	
	Non compliance to be completed and declared prior to public operations.	
8	Code: 801 Z267 7.1/7.5 TRAINS - Track/Tie Condition and Hardware Condition	Dec 11, 2023
	Safety Officer Note: Ensure entry track ballasts meet manufacturers Minimum operating requirements.	
	Observed multiple areas that require small amount of ballast repair, Large trestle to small trestle bridge. As well from the bend at the top of the hill to loading / staging area.	
	Ballast repair to be carried out and complete in stated time frame.	

# **Safety Officer Notes**

Performed an onsite re-inspection visual, tactical, physical.

Visual of green locomotive after repairs, Unit A7739, and reviewed engineer condition report.

Visual of carriage A7907 Ferguson Point, A7904 Beaver Lake, A7906 Brockton Point, A7910 Siwash Rock, and A7901 Hallelujah point.

As well reviewed engineer's condition reports.

Walked entire track, visual of all ties, rails, securing fasteners, and ballast. reviewed





Unit Number: 22744

Inspection Number: AMOP-3802011-2023

contractor scope of work report.

Following Units have been inspected and approved for public operation. A7739 Green Locomotive, A7907 Ferguson Point, A7904 Beaver Lake, A7906 Brockton Point, A7910 Siwash Rock, And Halleujah point.

All remaining locomotives and carriages require inspection and approval prior to public operations.

# **General Requirements and Information**

- 1. All non-compliances must be resolved by the date indicated on the Certificate Of Inspection.
- 2. Techical Safety BC is to be notified of any incident that results in an injury to any person or damage to the regulated equipment. To report an incident, go to www.technicalsafetybc.ca (search for report an incident)
- 3. When an Operating Permit is required, the installation owner has 60 days to obtain a valid Operating Permit following a Passed Final Assessment
- 4. In accordance with s.20(3) of the Safety Standards General Regulation and Directive: Correction of Non-Compliances for Amusement Devices D-AM 2020-01, non-compliances identified on this certificate of inspection must be corrected within the date specified. To declare that non-compliances have been corrected, submit a declaration via Online Services or submission of the Amusement ride / passenger ropeway information system confirmation of correction of non-compliances form.

Safety Officer Name: Dave Lywak Safety Officer Phone: 778-828-9518

Safety Officer Email: Dave.Lywak@technicalsafetybc.ca

If you disagree with a safety officer decision noted on this Certificate of Inspection, you may request, in writing, a Safety Manager review within 30 days from the date of issue. A Review Request Form can be obtained from any Technical Safety BC office or online at: www.technicalsafetybc.ca (search: "manager review")

For information on the Safety Standards Act, Regulations, and the Review/Appeal process, please visit www.technicalsafetybc.ca





Unit Number: 22744

Inspection Number: AMOP-3802011-2023



From: "Technical Safety BC" <contact@technicalsafetybc.ca>

To: "Yip, Rosemary" <rosemary.vip@vancouver.ca>

Date: 11/27/2023 3:05:38 PM

Subject: Payment Receipt

Attachments: BCSA Receipt 663690710016436600.pdf

#### City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe. Report Suspicious

#### Amber Stewart (She/Her) Client Services Representative

TECHNICAL SAFETY BC | Safe technical systems. Everywhere.

Toll-free: 1 866 566 7233

Suite 600 - 2889 East 12th Avenue, Vancouver, BC V5M 4T5

Traditional Territory of the x<sup>w</sup>məθk<sup>w</sup>əyəm, Skwxwú7mesh, and Səlĭlwəta?/Selilwitulh Nations technicalsafetybc.ca [technicalsafetybc.ca]

Our online services are mobile friendly and easier to use.

Login [portal.technicalsafetybc.ca] or register [technicalsafetybc.ca] for an account today!

This email and any files transmitted with it is intended for the individual to whom it is addressed. Unauthorized use, reproduction or dissemination of this email is strictly prohibited. If you have received this email in error, please contact me immediately.



# Payment Receipt

PAYMENT DETAILS		
TYPE	PURCHASE	
DATE	2023-11-27 15:04:28	
ORDER ID	02098012-150427587	
AMOUNT (CAD)	\$1,359.00	
CARD NUMBER	s.15(1)(I)	
CARD TYPE	s.15(1)(I)	
REF NUMBER	663690710016436600	
AUTH CODE	011575	

ITEM DETAILS			
Description	Invoice Number	Quantity	Amount
Type: AM - Operating; Site: 2099 BEACH Avenue VANCOUVER BC; Work Class: Train Rides	02098012	1	\$1,359.00
		TOTAL (CAD)	\$1,359.00

From: "Dave Lywak" < Dave.Lywak@technicalsafetybc.ca>

To: "Yip, Rosemary" < rosemary.yip@vancouver.ca>

CC: "Trevor Gauthier" <trevor.gauthier@hedgehogtech.com>

"Derek Puzzuoli" <derek.puzzuoli@hedgehogtech.com>

"Moyls, Krista" < Krista. Moyls@vancouver.ca>

Date: 11/21/2023 4:09:05 PM

Subject: Re: #EXTERNAL# question re: fifth carriage/second locomotie

#### City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe.

#### Hi Rosemary,

Thank you for providing an update, in regards to completing a follow up inspection. When then fifth carriage is ready, I should be able fit something in just let me when FMS has confirmed completion and delivery date and we can arrange a time.

#### Regards.

Dave Lywak | Safety Officer, Elevating Devices, Passenger Ropeways & Amusement Devices

TECHNICAL SAFETY BC | Safe technical systems. Everywhere.

Mobile: 778 828 9518 | Toll-free: 1 866 566 7233

Suite 600 - 2889 East 12th Avenue, Vancouver, BC V5M 4T5

technicalsafetybc.ca [technicalsafetybc.ca]

BC Safety Authority is now **Technical Safety BC** While we have changed our name, we remain committed to our vision of *Safe technical systems*. Everywhere.

Learn more about our evolving services and how we share safety knowledge atwww.technicalsafetybc.ca [technicalsafetybc.ca].

This email and any files transmitted with it is intended for the individual to whom it is addressed. Unauthorized use, reproduction or dissemination

of this email is strictly prohibited. If you have received this email in error, please contact me immediately.

On Nov 21, 2023, at 11:11, Yip, Rosemary <rosemary.yip@vancouver.ca> wrote:

\u-257 ? Hi Dave,

Checking before next week...

FMS will be returning a fourth carriage to us this week so we'll have a total of one loco and four carriages on hand for the inspec® non Monday. A fill carriage should be back by the end of next week, and I'm told we may have a second locomo® e returned by the end of the following week as well and we'd like to have that unit (or poten® lly 374) approved to function as a back-up in case the green loco goes down.

As you know, we would like to be able to put #5 carriage into service ASAP as we are facing high demand for additional tickets. Are you able to schedule a follow-up visit to the train to inspect that unit potentially towards the end of next

week? I have a quick check-in with FMS tomorrow morning and I should have a better sense of when it will be ready. Thank you.

Rosemary Yip Train Operations Team Lead Vancouver Park Board City of Vancouver rosemary.yip@vancouver.ca

Tel: 604-257-8465 Cel: s.15(1)(I) Pronouns: she/her

"Melissa Mennell" < Melissa. Mennell@technicalsafetybc.ca>

To: "Yip, Rosemary" < rosemary.vip@vancouver.ca>

Date: 11/30/2023 1:45:50 PM

RE: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public Subject:

operations

#### City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe. Report Suspicious

Hi Rosemary,

Sorry for the delay, to have changes made to who has access to the account please email the request to contact@technicalsafetybc.ca

Let me know if I can help with anything else.

Regards,

Melissa Mennell | Operations Leader, Transportation (Acting)

Mobile: 604 813 1624 | Toll-free: 1 866 566 7233

Traditional Territory of the Syilx (Okanagan) Peoples technicalsafetybc.ca [technicalsafetybc.ca]

Please note that Technical Safety BC supports flexible work hours which may result in emails being sent outside traditional work hours. I appreciate your understanding, and do not expect a reply from you if this does not align with your business hours

From: Yip, Rosemary <rosemary.yip@vancouver.ca>

Sent: Tuesday, November 28, 2023 7:28 PM

To: Melissa Mennell < Melissa. Mennell @technicalsafetybc.ca>; Dave Lywak < Dave. Lywak @technicalsafetybc.ca>

Cc: Moyls, Krista < Krista. Moyls@vancouver.ca>

Subject: RE: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public operations

#### This Message Is From an External Sender

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks very much, Melissa!

From: Melissa Mennell < Melissa. Mennell @technicalsafetybc.ca>

Sent: Tuesday, November 28, 2023 7:19 PM

To: Yip, Rosemary < rosemary.yip@vancouver.ca>; Dave Lywak < Dave.Lywak@technicalsafetybc.ca>

Cc: Moyls, Krista < Krista. Moyls@vancouver.ca>

Subject: RE: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public operations

No problem.

In the morning I'll find out how we get you added to the list of people with access. City of Vancouver - FOI 2024-013 - Page 13 of 82

Melissa Mennell | Operations Leader, Transportation (Acting)

Mobile: 604 813 1624 | Toll-free: 1 866 566 7233

Traditional Territory of the Syilx (Okanagan) Peoples

technicalsafetybc.ca [technicalsafetybc.ca]

Please note that Technical Safety BC supports flexible work hours which may result in emails being sent outside traditional work hours. I appreciate your understanding, and do not expect a reply from you if this does not align with your business hours

From: Yip, Rosemary < rosemary.yip@vancouver.ca>

Sent: Tuesday, November 28, 2023 7:18 PM

To: Melissa Mennell < Melissa. Mennell@technicalsafetybc.ca>; Dave Lywak < Dave. Lywak@technicalsafetybc.ca>

Cc: Moyls, Krista < Krista. Moyls@vancouver.ca>

Subject: RE: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public operations

Hi Melissa,

I did not know that, and I don't have access to that one. Can I apply for access or is that an internal thing. It looks like most of those folks are REFM staff.

Of those individuals, I think Krista might be our sub-foreperson. If she can log in, then we're good.

Failing that, I will reach out to Chad Lum as he was just reminding me last week that I needed to renew the permit. Thanks for your help!

Rosemary Yip Train Operations Team Lead Vancouver Park Board City of Vancouver rosemary.yip@vancouver.ca

Tel: 604-257-8465 Cel: s.15(1)(l) Pronouns: she/her

I acknowledge that we are on the unceded territories of the Coast Salish Na on, the x m k y m (Musqueam), s wxwú7mesh (Squamish) and s lilw ta (Tsleil-Waututh)

From: Melissa Mennell < Melissa. Mennell@technicalsafetybc.ca>

Sent: Tuesday, November 28, 2023 7:07 PM

To: Yip, Rosemary <rosemary.yip@vancouver.ca>; Dave Lywak <Dave.Lywak@technicalsafetybc.ca> Subject: RE: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public operations

Rosemary,

I can see your non-compliances in Account: s.15(1)(I)

This is the account where all non-compliances from inspec onsign declared. I'm thinking the account you were in is for the licence.

Here is a list of people that have access to the above account, can one of them help you get access?

s.15(1)(l)



Melissa Mennell | Operations Leader, Transportation (Acting)

Mobile: 604 813 1624 | Toll-free: 1 866 566 7233

Traditional Territory of the Syilx (Okanagan) Peoples technicalsafetybc.ca [technicalsafetybc.ca]

Please note that Technical Safety BC supports flexible work hours which may result in emails being sent outside traditional work hours. I appreciate your understanding, and do not expect a reply from you if this does not align with your business hours

From: Melissa Mennell

Sent: Tuesday, November 28, 2023 6:58 PM

To: Yip, Rosemary <<u>rosemary.yip@vancouver.ca</u>>; Dave Lywak <<u>Dave.Lywak@technicalsafetybc.ca</u>> Subject: RE: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public operations

Rosemary,

I'm logging in now to try and sort this out.

Can you send me the account number you are in? It's confusing, but I think you may be in the wrong one.

Melissa Mennell | Operations Leader, Transportation (Acting)

Mobile: 604 813 1624 | Toll-free: 1 866 566 7233

Traditional Territory of the Syilx (Okanagan) Peoples technicalsafetybc.ca [technicalsafetybc.ca]

----- Original Message ------

From: "Yip, Rosemary" < <a href="mailto:rosemary.yip@vancouver.ca">rosemary.yip@vancouver.ca</a>>

Date: Tue, November 28, 2023 6:51 p.m. -0800

To: Melissa Mennell < Melissa. Mennell@technicalsafetybc.ca >, Dave Lywak < Dave. Lywak@technicalsafetybc.ca >

Subject: RE: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public operations

Hi Melissa,

I can't see any non-compliances or code viola ons, though I can see our permits and the contractor license and the invoices that have been paid.

It says we have no urgent non-compliances or code violations. When I look at the operating permit, I can see the COI issued today and within that, it says there are no non-compliances...

Thanks very much for your support!

Rosemary Yip
Train Operations Team Lead
Vancouver Park Board City of Vancouver
rosemary.yip@vancouver.ca
Tel: 604-257-8465

Cel <mark>s.15(1)(l)</mark> Pronouns: she/her

I acknowledge that we are on the unceded territories of the Coast Salish Na on, the x m k y m (Musqueam), s wxwú7mesh (Squamish) and s lilw ta (Tsleil-Waututh)

From: Melissa Mennell < Melissa. Mennell@technicalsafetybc.ca>

Sent: Tuesday, November 28, 2023 6:41 PM

To: Dave Lywak < <u>Dave.Lywak@technicalsafetybc.ca</u>>; Yip, Rosemary < <u>rosemary.yip@vancouver.ca</u>> Subject: Re: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public operations

Hi Rosemary,

Our system typically updates overnight. Let's connect once you've accessed your portal in the morning.

When you log in, can you see the non-compliances from the previous inspection?

Given that Dave has confirmed below that all required non-compliances required prior to public operation have been corrected, reviewed and approved by him, I will ensure our internal processes do not interfere with you opening the train.

Regards,

Melissa Mennell | Operations Leader, Transportation (Acting)

Mobile: 604 813 1624 | Toll-free: 1 866 566 7233

Traditional Territory of the Syilx (Okanagan) Peoples [technicalsafetybc.ca]technicalsafetybc.ca [technicalsafetybc.ca]

----- Original Message ------

From: Dave Lywak < <u>Dave.Lywak@technicalsafetybc.ca</u>>

Date: Tue, November 28, 2023 6:23 p.m. -0800
To: "Yip, Rosemary" <a href="mailto:rosemary.yip@vancouver.ca">rosemary.yip@vancouver.ca</a>

CC: Melissa Mennell < Melissa. Mennell@technicalsafetybc.ca>

Subject: Re: #EXTERNAL# RE: SP Train Non-compliances to be completed prior to public operations

Hi Rosemary,

Thank you for providing all the photo evidence of the required 3 Non compliance that need to be completed by the complete to be completed by the complete that the photo evidence of the required 3 Non compliance, that need to be completed by the complete that the photo evidence of the required 3 Non compliance, that need to be completed by the complete that the photo evidence of the required 3 Non compliance, that need to be completed by the complete that the photo evidence of the required 3 Non compliance.

operations.

We now accept that the outstanding non compliance's have been completed and are approved.

Please feel to reach out if you have any questions or concerns.

Best,

Regards,

Dave Lywak | Safety Officer, Elevating Devices, Passenger Ropeways & Amusments Devices

TECHNICAL SAFETY BC | Safe technical systems. Everywhere.

Mobile: 778 828 9518 | Toll-free: 1 866 566 7233

Suite 600 - 2889 East 12th Avenue, Vancouver, BC V5M 4T5

technicalsafetybc.ca [technicalsafetybc.ca]

BC Safety Authority is now Technical Safety BC. While we have changed our name, we remain committed to our vision of *Safe technical systems. Everywhere.* 

Learn more about our evolving services and how we share safety knowledge atwww.technicalsafetybc.ca [technicalsafetybc.ca].

This email and any files transmitted with it is intended for the individual to whom it is addressed. Unauthorized use, reproduction or dissemination

of this email is strictly prohibited. If you have received this email in error, please contact me immediately.

On Nov 28, 2023, at 17:53, Yip, Rosemary <<u>rosemary.yip@vancouver.ca</u>> wrote:

\u-257?

Hi Melissa,

My director was speaking to Lisa Prescott and has advised me to reach out directly to you re: the non-compliances and their completion/declaration prior to public operation. I tried the portal again just now and it hasn't yet updated.

There is some concern that this doesn't fall through the cracks, and so I wanted to provide an update on the work that was performed today to remediate the non-compliances.

**Item 3 code:** 801 Z267 7.1/7.5

Safety Officer Note:

Ensure entry track ballasts meet manufacturers minimum

operating requirements.

Observed area to have had low ballast at time of assessment, From fuel station to large trestle to have ballast inspected and repaired.

Non compliance to be completed and declared prior public operation.

I've attached photos of the ballast work that was completed today in this area. See Outlook Item above.

Item 5 Code: 807 Z267 5.8

TRAINS - Brakes
Safety Officer Note:

Ensure that there are spare air line coupling hoses on site in case of snagging of premature failure.

No spare air line onsite at time of assessment.

#### Three spare air lines were delivered to the train barn today.

Item 6 Code: 808 Z267 5.3 TRAINS - Passenger Cars Safety Officer Note:

Ensure all carriages are free of all sharp and snagging issues. Observed old chain fasteners that were no longer required to have sharp edges or potential snagging hazard,

Non compliance to be completed and declared prior to public

operation.

#### Exposed sharp blot ends covered with acorns on carriages. Photos to follow...

Item 7 Code: 809 Z267 7.1.6

TRAINS - Couplings Safety Officer Note:

Ensure all carriage couplers have been installed and setup as per manufacturer requirement.

Observed some fasteners to be longer than other contacting carriage components during on site inspection. Remove and install correct fasteners on unit A7904 Beaver Lake.

Non compliance to be completed and declared prior to public operations.

#### Hitch bar and fasteners replaced on unit A7904 today. See photo attached.

Please advise on any additional follow-up ASAP. Thank you.

Rosemary Yip
Train Operations Team Lead
Vancouver Park Board City of Vancouver
rosemary.yip@vancouver.ca
Tel: 604-257-8465
Col. 8.15(1)(1)

Cel: s.15(1)(I)
Pronouns: she/her

I acknowledge that we are on the unceded territories of the Coast Salish Na on, the x m k y m (Musqueam), s wx\u817 \_wu7mesh (Squamish) and s lilw ta (Tsleil-Waututh)

<Certificate\_of\_Inspection\_Permit\_html\_AM -0000998966-2020\_Insp\_AMOP-3802011-2023.pdf> <mime-attachment>

<hitch bar Beaver Lake.jpeg>

From: <u>"Yip, Rosemary" < rosemary.yip@vancouver.ca</u>>

To: Melissa.Mennell@technicalsafetybc.ca

CC: "Dave Lywak" < Dave.Lywak@technicalsafetybc.ca>

Date: 11/28/2023 5:52:00 PM

Subject: RE: SP Train Non-compliances to be completed prior to public operations

Attachments: from fuel silo to tunnel.msg

hitch bar Beaver Lake.jpeg

Certificate\_of\_Inspection\_Permit\_html\_AM -0000998966-2020\_Insp\_AMOP-

3802011-2023.pdf

#### Hi Melissa,

My director was speaking to Lisa Prescott and has advised me to reach out directly to you re: the non-compliances and their completion/declaration prior to public operation.

I tried the portal again just now and it hasn't yet updated.

There is some concern that this decen't fall through the greaks, and so I wanted to

There is some concern that this doesn't fall through the cracks, and so I wanted to provide an update on the work that was performed today to remediate the non-compliances.

Item 3 code: 801 Z267 7.1/7.5

Safety Officer Note:

Ensure entry track ballasts meet manufacturers minimum

operating requirements.

Observed area to have had low ballast at time of assessment, From fuel

station to large trestle to have ballast inspected and repaired.

Non compliance to be completed and declared prior public operation.

I've attached photos of the ballast work that was completed today in this area. See Outlook Item above.

Item 5 Code: 807 Z267 5.8

TRAINS - Brakes
Safety Officer Note:

Ensure that there are spare air line coupling hoses on site in case of

snagging of premature failure.

No spare air line onsite at time of assessment.

Three spare air lines were delivered to the train barn today.

Item 6 Code: 808 Z267 5.3 TRAINS - Passenger Cars

Safety Officer Note:

Ensure all carriages are free of all sharp and snagging issues. Observed old chain fasteners that were no longer required to have sharp edges or potential snagging hazard,

Non compliance to be completed and declared prior to public operation.

Exposed sharp blot ends covered with acorns on carriagescit hotosuto follow4-013 - Page 19 of 82

Item 7 Code: 809 Z267 7.1.6

TRAINS - Couplings Safety Officer Note:

Ensure all carriage couplers have been installed and setup as per manufacturer requirement.

Observed some fasteners to be longer than other contacting carriage components during on site inspection. Remove and install correct fasteners on unit A7904 Beaver Lake.

Non compliance to be completed and declared prior to public operations.

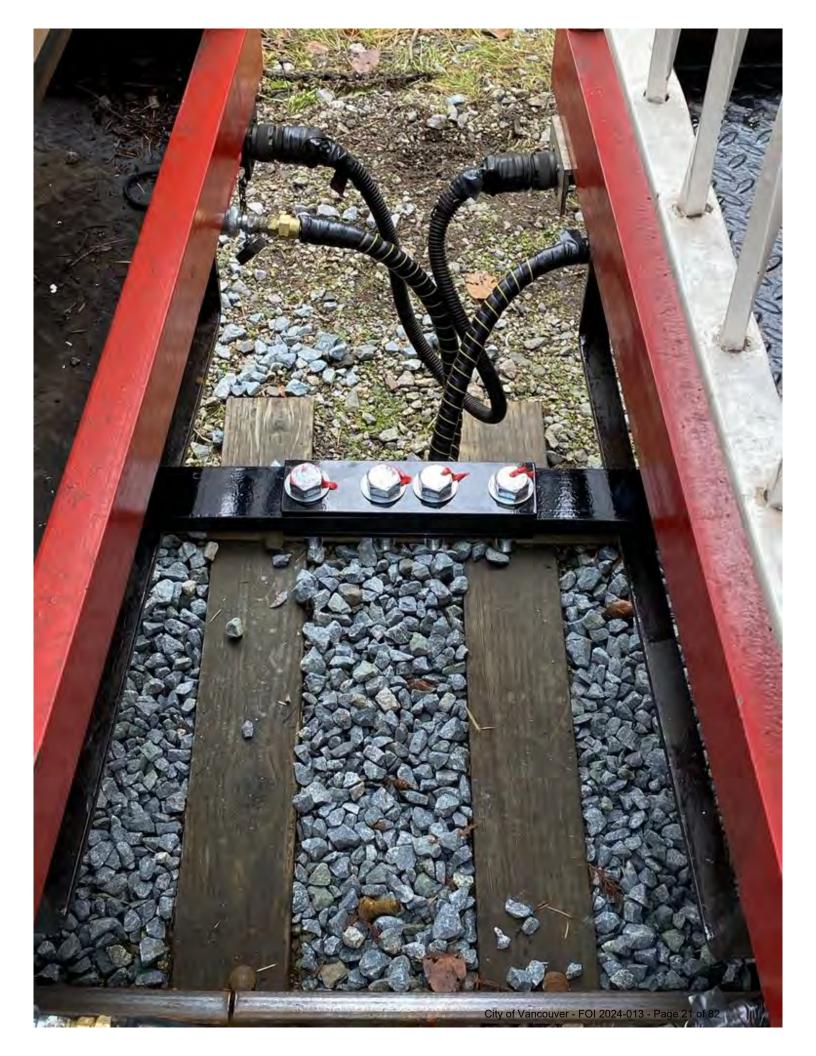
#### Hitch bar and fasteners replaced on unit A7904 today. See photo attached.

Please advise on any additional follow-up ASAP. Thank you.

Rosemary Yip
Train Operations Team Lead
Vancouver Park Board City of Vancouver
rosemary.yip@vancouver.ca
Tel: 604-257-8465

Cel: s.15(1)(I)
Pronouns: she/her

I acknowledge that we are on the unceded territories of the Coast Salish Na on, the x m k y m (Musqueam), s wxwú7mesh (Squamish) and **s lilw ta** (Tsleil-Waututh)





Unit Number: 22744

Inspection Number: AMOP-3802011-2023

# **CERTIFICATE OF INSPECTION**

# Operating Periodic

# **Contact Information**

City of Vancouver 955 Evans Avenue Vancouver BC V6A 2K9

Activity Date: 27 November, 2023

#### Site Address

TRAIN 2099 BEACH Avenue VANCOUVER British Columbia V6G 1Z4

Inspection Result: Conditional Passed

Assessment Type: ASSESS: AM OP: Periodic

### **Unit Information**

Name	Unit Number	Status	Manufacturer	Mobility
TRAIN	22744	Active	Chance Rides	Fixed

# Non-Compliances

All Non-Compliances must be resolved by the due date unless specified otherwise in Safety Officer Notes.

Line	Code Violation and Comments	Followup Date
1	<b>Code:</b> 805 Z267 7.1/7.5 TRAINS - Engine	Nov 27, 2023
	Safety Officer Note: Green Locomotive unit A7739 has been repaired and Re inspected and approved for public operations.	



Unit Number: 22744

Inspection Number: AMOP-3802011-2023

The requirements below are still outstanding for the Following locomotives listed.

A7740 Black, had excessive oil leaking on brake lining which could poss fire hazard during operation.

A7738 Blue, not operational at time of assessment not aware of what the issues are.

A7737, overheating and radiator issues unit not operational at time of assessment.

Ensure all Locomotives meet manufacture minimum operating safety requirements.

Full condition assessment to be performed by qualified third part inspector.

Full report to be provide to technical safety bc safety officer for Review prior to onsite Re inspection.

All repairs to units that are required to bring them up to minimum manufacture safe operational status to be completed prior to re inspection..

2 Code: 808 Z267 5.3

TRAINS - Passenger Cars

#### Safety Officer Note:

Reviewed all documentation in regards to the following carriages that have had all required repairs completed

A7907,A7904,A7906,A7910,A7901 are now approved for public operations.

The requirements below are still outstanding for the remaining carriages.

Provide full condition report from third party contractor that is certified to inspect chance trains and passengers car.

Which is to include what is required to bring passenger cars up to minimum manufacture operating requirements.

Observed multiple under carriage with excessive wear, multiple under carriage Seized with no articulation.

Nov 27, 2023





Unit Number: 22744

Inspection Number: AMOP-3802011-2023

	Axle with horizontal and vertical play, multiple brake lining out manufacture specifications, multiple brake pot not functioning at all.  All remaining carriages still require condition reports and repairs and	
	re inspection to be completed prior to public operations.	
3	Code: 801 Z267 7.1/7.5 TRAINS - Track/Tie Condition and Hardware Condition	Nov 27, 2023
	Safety Officer Note: Ensure entry track ballasts meet manufacturers minimum operating requirements.	
	Observed area to have had low ballast at time of assessment, From fuel station to large trestle to have ballast inspected and repaired.	
	Non compliance to be completed and declared prior public operation.	
4	Code: 802 Z267 7.1/7.5 TRAINS - Track Gauge	Dec 11, 2023
	Safety Officer Note: Ensure that manufacturers track gauge tool is repaired and is operational as per manufacturer requirements for weekly, and monthly checks.	
	Observed track gauge tool in need of repairs at time of assessment.	
5	<b>Code:</b> 807 Z267 5.8 TRAINS - Brakes	Dec 4, 2023
	Safety Officer Note: Ensure that there are spare air line coupling hoses on site in case of snagging of premature failure.	
	No spare air line onsite at time of assessment.	
6	No spare air line onsite at time of assessment.  Code: 808 Z267 5.3  TRAINS - Passenger Cars	Nov 27, 2023
6	Code: 808 Z267 5.3	Nov 27, 2023



Unit Number: 22744

Inspection Number: AMOP-3802011-2023

	sharp edges or potential snagging hazard,	
	Non compliance to be completed and declared prior to public operation.	
7	Code: 809 Z267 7.1.6 TRAINS - Couplings	Nov 27, 2023
	Safety Officer Note: Ensure all carriage couplers have been installed and setup as per manufacturer requirement.	
	Observed some fasteners to be longer than other contacting carriage components during on site inspection. Remove and install correct fasteners on unit A7904 Beaver Lake.	
	Non compliance to be completed and declared prior to public operations.	
8	Code: 801 Z267 7.1/7.5 TRAINS - Track/Tie Condition and Hardware Condition	Dec 11, 2023
	Safety Officer Note: Ensure entry track ballasts meet manufacturers Minimum operating requirements.	
	Observed multiple areas that require small amount of ballast repair, Large trestle to small trestle bridge. As well from the bend at the top of the hill to loading / staging area.	
	Ballast repair to be carried out and complete in stated time frame.	

# **Safety Officer Notes**

Performed an onsite re-inspection visual, tactical, physical.

Visual of green locomotive after repairs, Unit A7739, and reviewed engineer condition report.

Visual of carriage A7907 Ferguson Point, A7904 Beaver Lake, A7906 Brockton Point, A7910 Siwash Rock, and A7901 Hallelujah point.

As well reviewed engineer's condition reports.

Walked entire track, visual of all ties, rails, securing fasteners, and ballast. reviewed





Unit Number: 22744

Inspection Number: AMOP-3802011-2023

contractor scope of work report.

Following Units have been inspected and approved for public operation. A7739 Green Locomotive, A7907 Ferguson Point, A7904 Beaver Lake, A7906 Brockton Point, A7910 Siwash Rock, And Halleujah point.

All remaining locomotives and carriages require inspection and approval prior to public operations.

# **General Requirements and Information**

- 1. All non-compliances must be resolved by the date indicated on the Certificate Of Inspection.
- 2. Techical Safety BC is to be notified of any incident that results in an injury to any person or damage to the regulated equipment. To report an incident, go to www.technicalsafetybc.ca (search for report an incident)
- 3. When an Operating Permit is required, the installation owner has 60 days to obtain a valid Operating Permit following a Passed Final Assessment
- 4. In accordance with s.20(3) of the Safety Standards General Regulation and Directive: Correction of Non-Compliances for Amusement Devices D-AM 2020-01, non-compliances identified on this certificate of inspection must be corrected within the date specified. To declare that non-compliances have been corrected, submit a declaration via Online Services or submission of the Amusement ride / passenger ropeway information system confirmation of correction of non-compliances form.

Safety Officer Name: Dave Lywak Safety Officer Phone: 778-828-9518

Safety Officer Email: Dave.Lywak@technicalsafetybc.ca

If you disagree with a safety officer decision noted on this Certificate of Inspection, you may request, in writing, a Safety Manager review within 30 days from the date of issue. A Review Request Form can be obtained from any Technical Safety BC office or online at: www.technicalsafetybc.ca (search: "manager review")

For information on the Safety Standards Act, Regulations, and the Review/Appeal process, please visit www.technicalsafetybc.ca





Unit Number: 22744

Inspection Number: AMOP-3802011-2023



From: <u>"Yip, Rosemary" <rosemary.yip@vancouver.ca></u>

To: "Dave Lywak" < Dave.Lywak@technicalsafetybc.ca>

Date: 11/28/2023 12:50:00 PM

Subject: from fuel silo to tunnel

Attachments: IMG\_0534.JPG

IMG\_0535.JPG

IMG 0547.JPG

IMG\_0546.JPG

IMG\_0545.JPG

....

IMG\_0544.JPG IMG\_0543.JPG

IMG\_0542.JPG

\_ IMG\_0541.JPG

\_\_\_\_

IMG\_0540.JPG

IMG\_0539.JPG

IMG\_0538.JPG

IMG\_0537.JPG

IMG\_0536.JPG

Hi Dave,

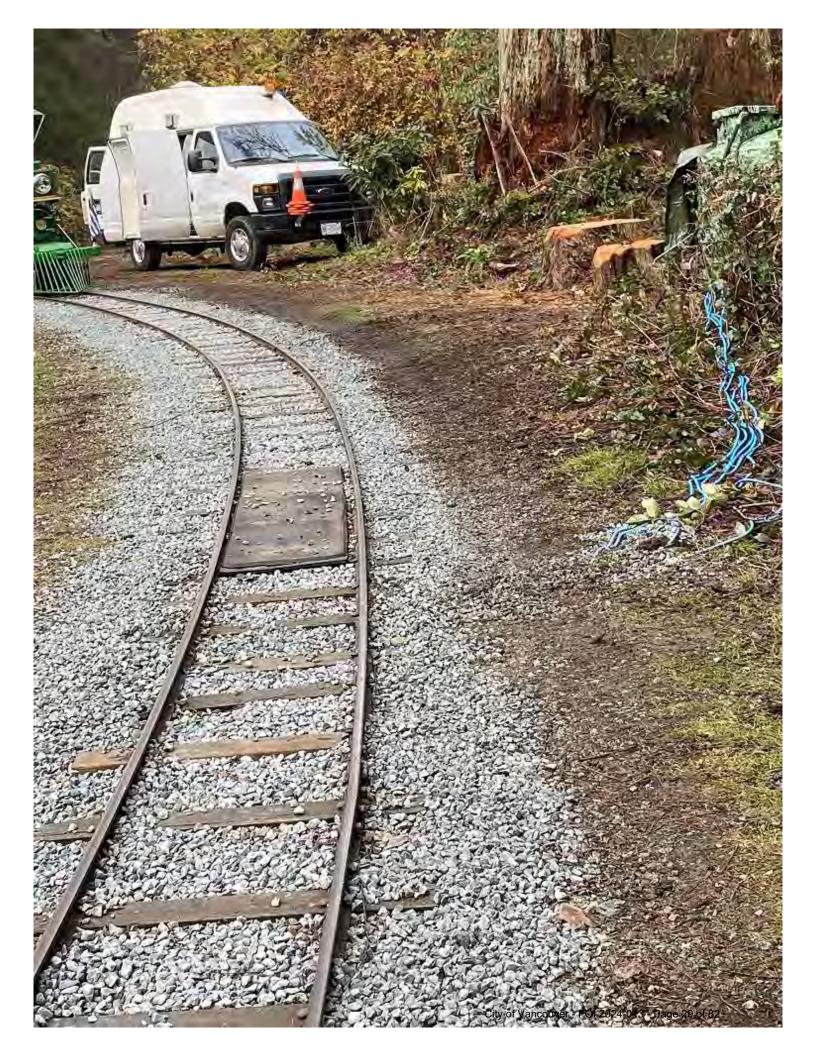
Ballast laid along that stretch.

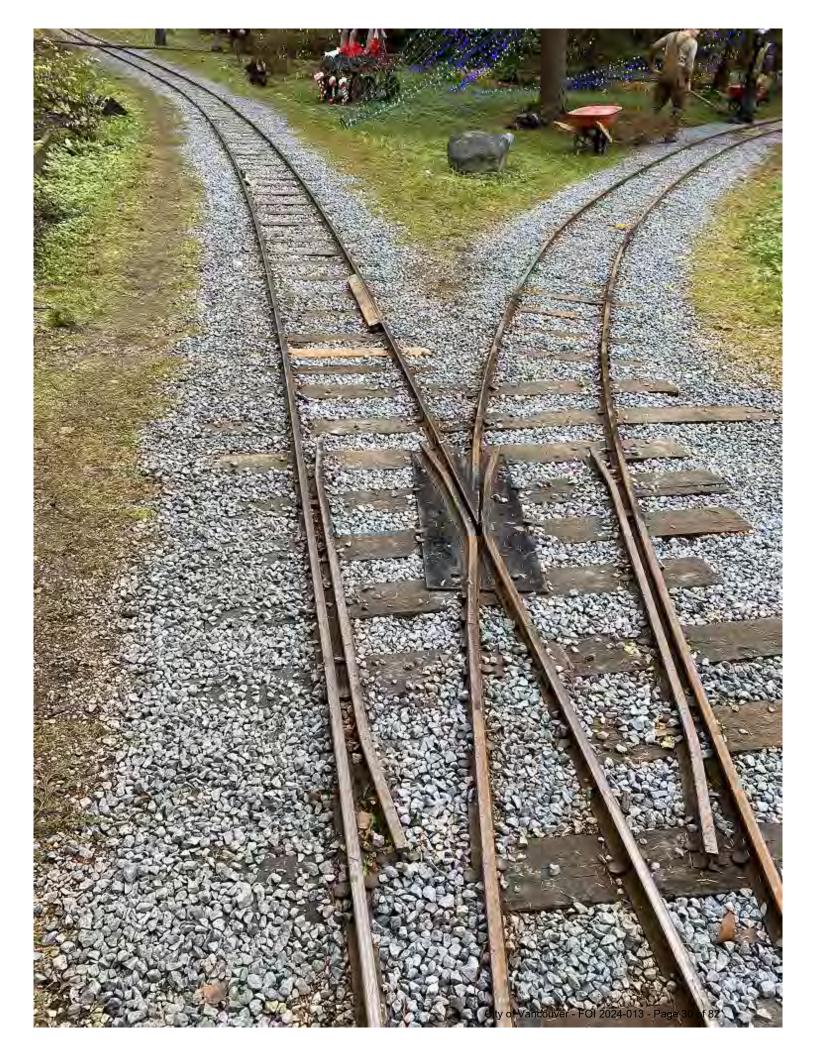
Thanks,

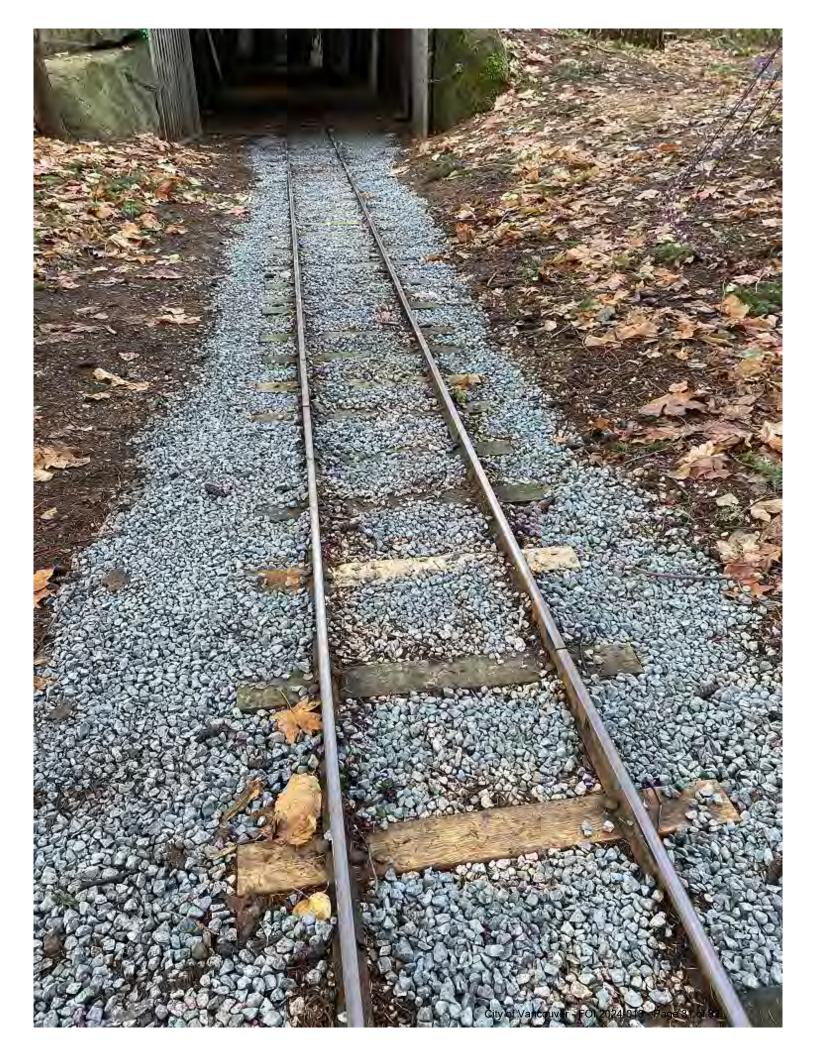
#### Rosemary Yip

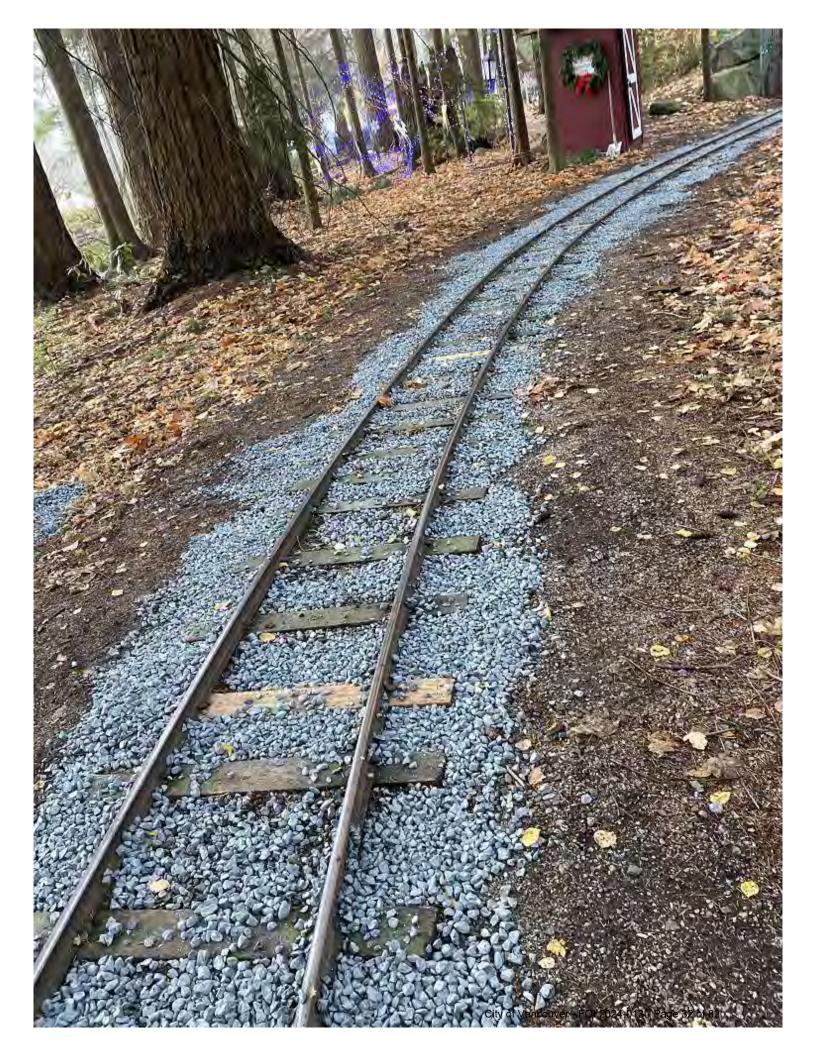
Train Operations Team Lead Vancouver Park Board? City of Vancouver rosemary.yip@vancouver.ca

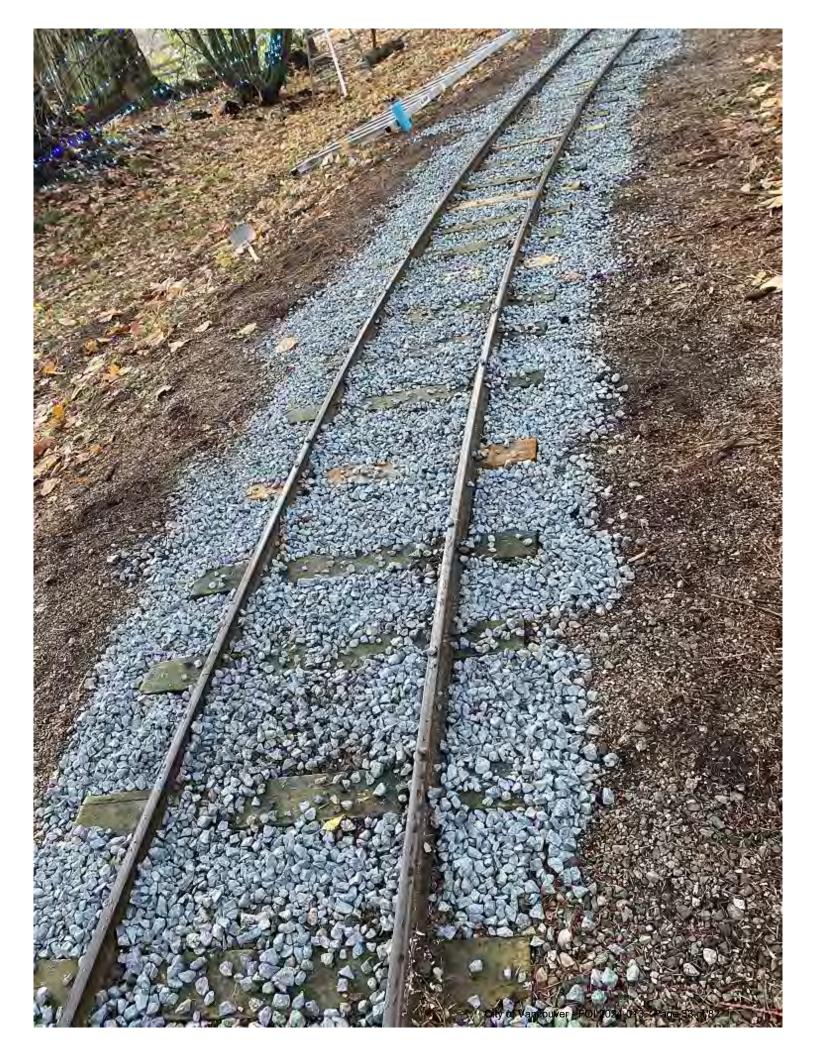
Tel: 604-257-8465 Cel s.15(1)(l) Pronouns: she/her

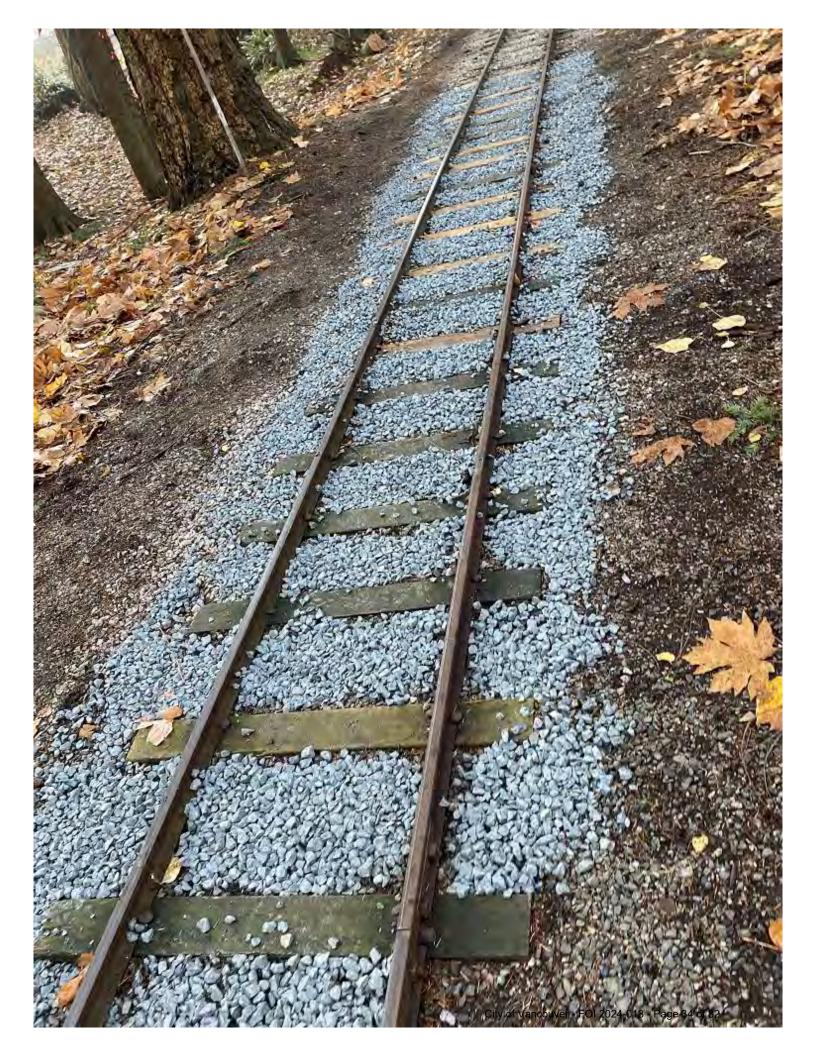




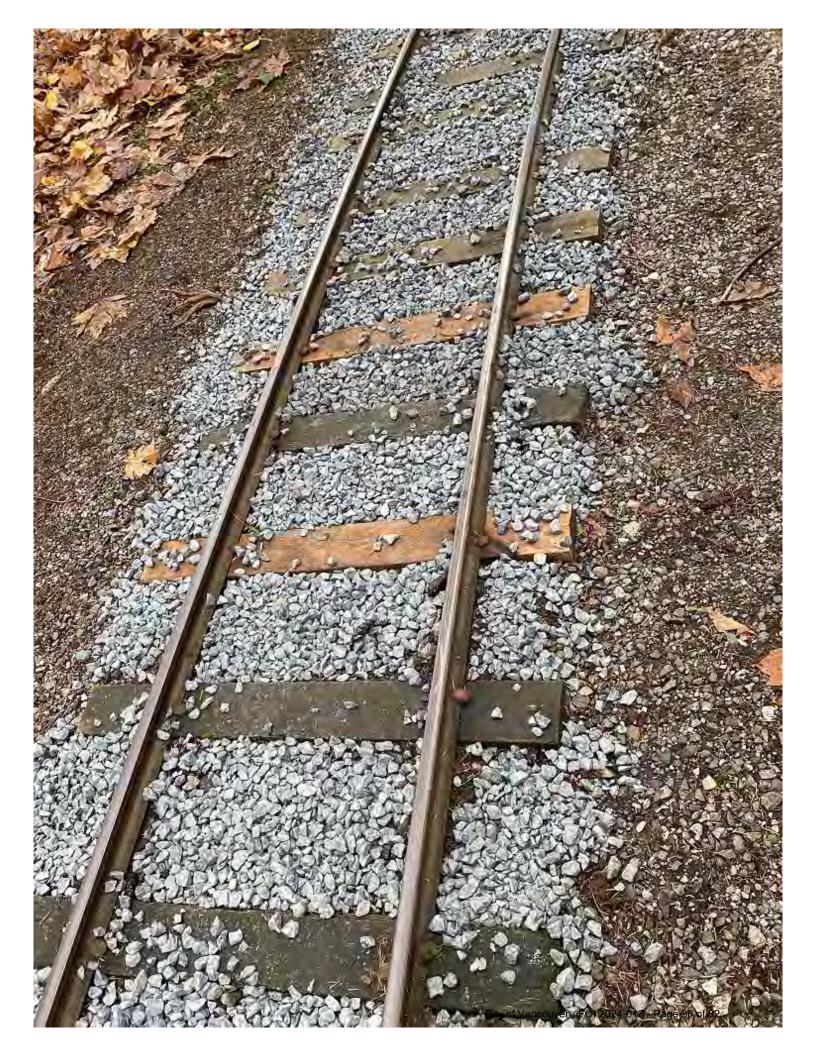


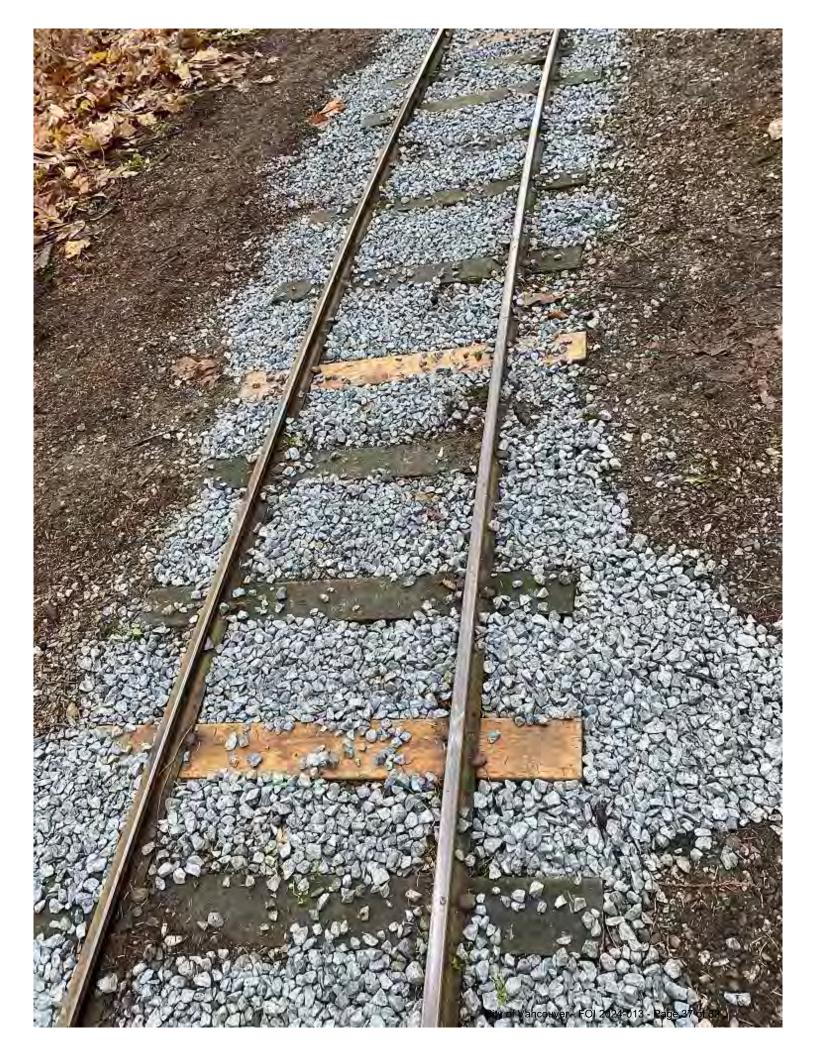


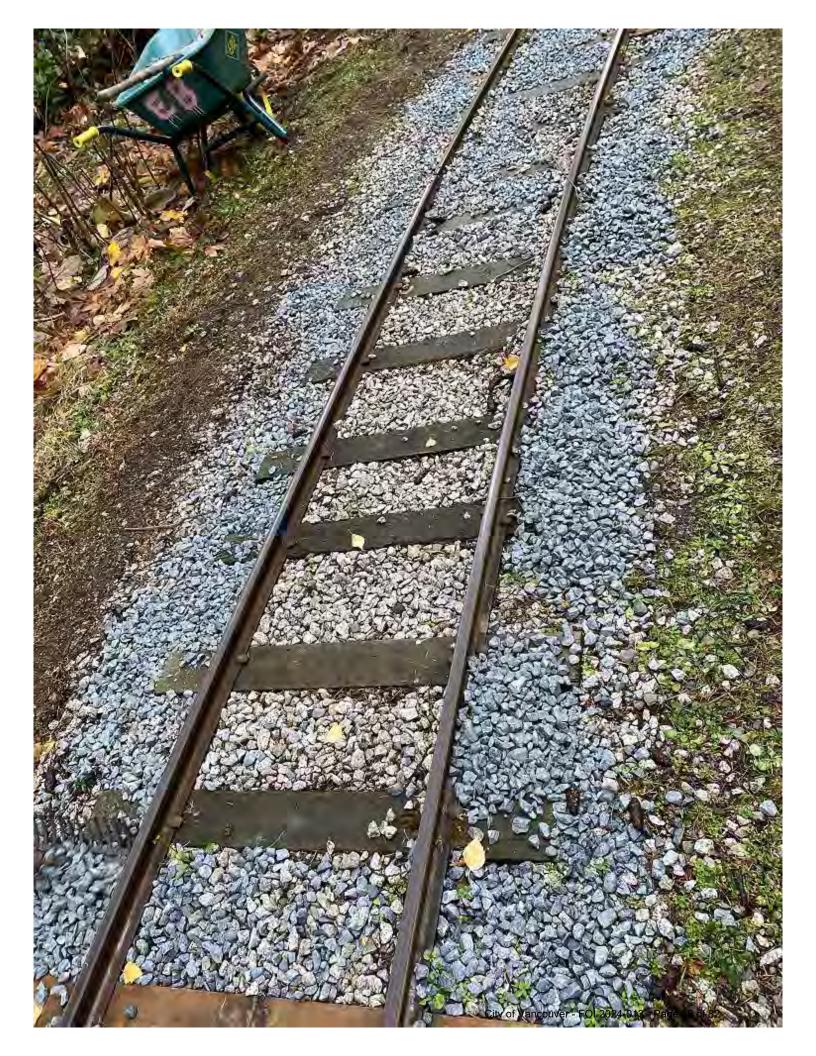


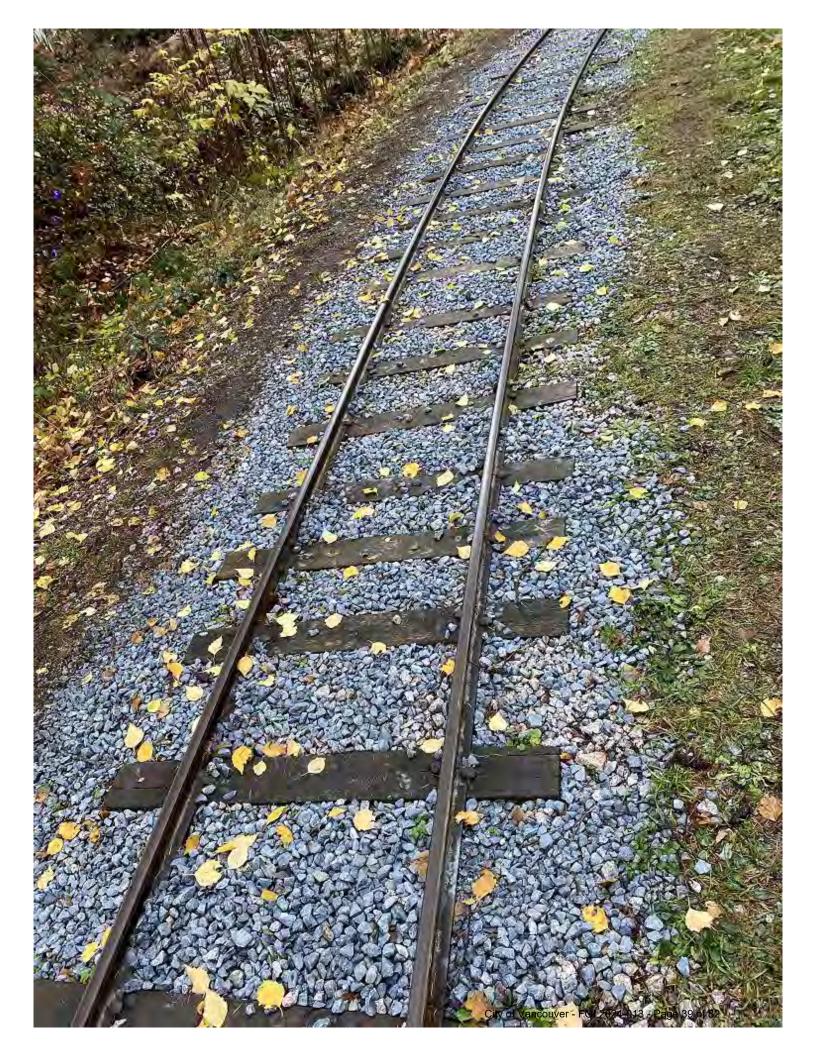






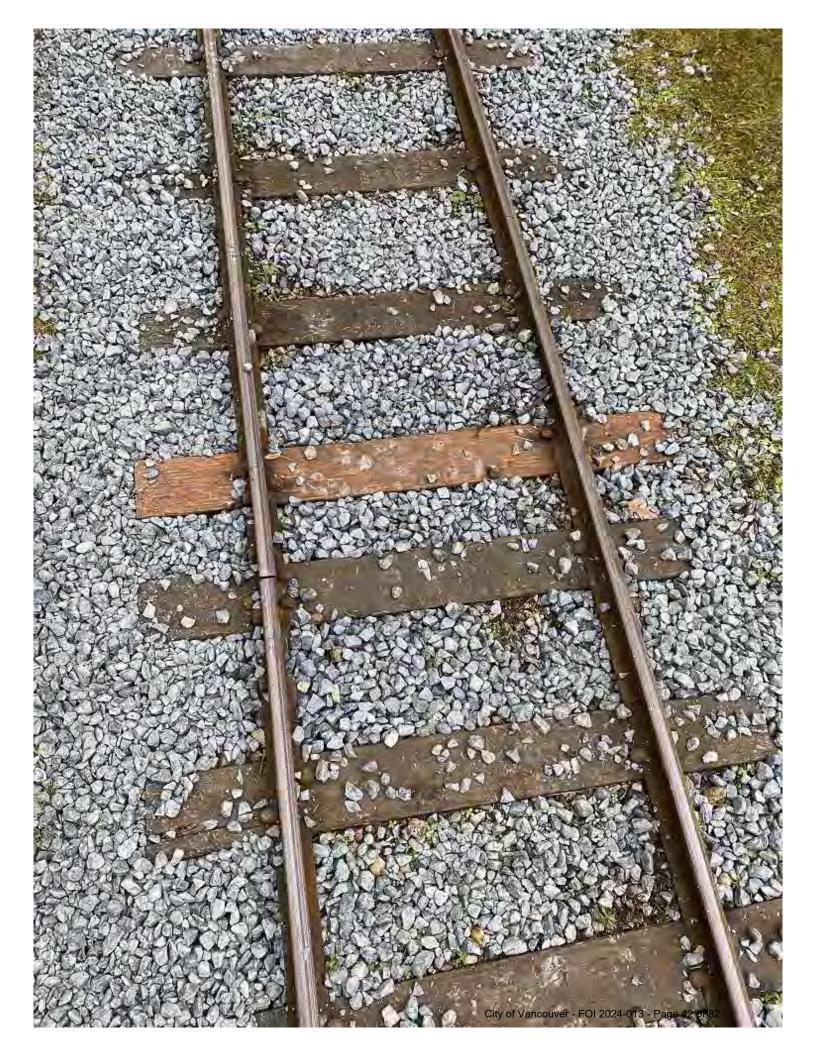












From: "Dave Lywak" < Dave. Lywak@technicalsafetybc.ca>

To: "Yip, Rosemary" < rosemary.yip@vancouver.ca>

"Derek Puzzuoli" <derek.puzzuoli@hedgehogtech.com>

CC: "Trevor Gauthier" <trevor.gauthier@hedgehogtech.com>

"Gerhard Wilcke" <gerhard.wilcke@hedgehogtech.com>

"Erin Martin-Serrano" <erin.martin.serrano@hedgehogtech.com>

Date: 11/28/2023 9:06:04 AM

Subject: RE: Transmittal - Train 1 Condition Reports

# City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe. Report Suspicious

Yes, thank you for providing me with all the information. In the process of review now.

Will let you know if I have any questions.

Best.

Regards.

Dave Lywak | Safety Officer, Elevating Devices, Passenger Ropeways & Amusement Devices

TECHNICAL SAFETY BC | Safe technical systems. Everywhere.

Mobile: 778 828 9518 | Toll-free: 1 866 566 7233

Suite 600 - 2889 East 12th Avenue, Vancouver, BC V5M 4T5

Traditional Territory of the x?m??k??y??m, Skwxwú7mesh, and S?l?ílw?ta?/Selilwitulh Nations

technicalsafetybc.ca

As a province-wide organization, Technical Safety BC respectfully recognizes that its employees live and work on the traditional and unceded territories of the many Indigenous Nations that have thrived throughout British Columbia since time immemorial.

Our latest State of Safety is now live. Find out how we're improving safety across the province.

This email and any files transmitted with it is intended for the individual to whom it is addressed. Unauthorized use, reproduction or dissemination

of this email is strictly prohibited. If you have received this email in error, please contact me immediately.

From: Yip, Rosemary <rosemary.yip@vancouver.ca>

Sent: Tuesday, November 28, 2023 8:18 AM

To: Derek Puzzuoli <derek.puzzuoli@hedgehogtech.com>; Dave Lywak <Dave.Lywak@technicalsafetybc.ca>

Cc: Trevor Gauthier <trevor.gauthier@hedgehogtech.com>; Gerhard Wilcke <gerhard.wilcke@hedgehogtech.com>; Erin

Martin-Serrano <erin.martin.serrano@hedgehogtech.com>

Subject: #EXTERNAL# Re: Transmittal - Train 1 Condition Reports

## This Message Is From an External Sender

**CAUTION**: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks Derek!

Rosemary Yip Train Operations Team Lead

Cel: s.15(1)(I)

From: Derek Puzzuoli <derek.puzzuoli@hedgehogtech.com>

Sent: Tuesday, November 28, 2023 8:08:12 AM

To: Yip, Rosemary <rosemary.yip@vancouver.ca>; Dave Lywak <Dave.Lywak@technicalsafetybc.ca>

Cc: Trevor Gauthier <trevor.gauthier@hedgehogtech.com>; Gerhard Wilcke <gerhard.wilcke@hedgehogtech.com>; Erin

Martin-Serrano <erin.martin.serrano@hedgehogtech.com>

Subject: Transmittal - Train 1 Condition Reports

Hi Rosemary and Dave,

As discussed, attached are the condition reports for the units that have been refurbished to date and inspected yesterday. Note that the previous version of 23-003-R103 (rev 1.0) is now superseded by rev 1.1 included in this transmittal. Please obsolete the previous revision in your records.

Regards,

# Derek Puzzuoli

Lead Mechanical Engineer, P.Eng. Hedgehog Technologies Inc.

P: +8.22(1) | E: derek.puzzuoli@hedgehogtech.com | 206-2250 Boundary Road, Burnaby, BC, V5M 3Z3, Canada www.hedgehogtech.com [hedgehogtech.com]

[csgl004.na1.hs-sales-engage.com] [csgl004.na1.hs-sales-engage.com] [facebook.com]

We make complex visions a practical reality.

The information in this email is confidential and may be legally privileged. Access to this email by anyone other than the intended addressee is unauthorized. If you are not the intended recipient of this message, any review, disclosure, copying, distribution, retention, or any action taken or omitted to be taken in reliance on it is prohibited and may be unlawful. If you are not the intended recipient, please reply to or forward a copy of this message to the sender and delete the message, any attachments, and any copies thereof from your system.

Derek Puzzuoli From:

To: Yip, Rosemary; Dave Lywak

Cc: Trevor Gauthier; Gerhard Wilcke; Erin Martin-Serrano

Transmittal - Train 1 Condition Reports Subject: Date: Tuesday, November 28, 2023 8:09:25 AM

Attachments: 23-003-R111 - A7907 Condition Report rev1.0.pdf

23-003-R110 - A7906 Condition Report rev1.0.pdf 23-003-R108 - A7904 Condition Report rev1.0.pdf 23-003-R114 - A7910 Condition Report rev1.0.pdf 23-003-R103 - A7739 Condition Report rev1.1.pdf 23-003-R105 - A7901 Condition Report rev1.0.pdf

# City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe.

Report Suspicious

# Hi Rosemary and Dave,

As discussed, attached are the condition reports for the units that have been refurbished to date and inspected yesterday. Note that the previous version of 23-003-R103 (rev 1.0) is now superseded by rev 1.1 included in this transmittal. Please obsolete the previous revision in your records.

# Regards,

### Derek Puzzuoli

Lead Mechanical Engineer, P.Eng.

Hednahon Technologies Inc.
P: s.22(1) E: derek.puzzuoli@hedgehogtech.com | 206-2250 Boundary Road, Burnaby, BC, V5M 3Z3, Canada

www.hedgehogtech.com [hedgehogtech.com]







We make complex visions a practical reality.

The information in this email is confidential and may be legally privileged. Access to this email by anyone other than the intended addressee is unauthorized. If you are not the intended recipient of this message, any review, disclosure, copying, distribution, retention, or any action taken or omitted to be taken in reliance on it is prohibited and may be unlawful. If you are not the intended recipient, please reply to or forward a copy of this message to the sender and delete the message, any attachments, and any copies thereof from your system.



A7907 "Ferguson Point" Condition Report **Reference Number: Document Name:** 23-003-R111

23-003 Stanley Park Train Project:

1.0 Release: 2023-11-27

Revision:



**Prepared For:** Vancouver Board of Parks & Recreation Company:

- Stanley Park Miniature Railway

Name: Rosemary Yip

Email: rosemary.yip@vancouver.ca Phone: w: 604-257-8465 • c: s.15(1)(I)

Address: Off Pipeline Road, Stanley Park **Prepared By:** 

Hedgehog Technologies Inc. Company:

Name: Derek Puzzuoli

Email: derek.puzzuoli@hedgehogtech.com

Phone: 604-210-0204

Address: 2250 Boundary Rd #206, Burnaby, BC,

V5M 3Z3





RR SIGNATURE & DATE:

36530

RR EGBC LICENSE #:

PERMIT NUMBER: 1000168

The Association of Professional Engineers and Geoscientists BC



## Unit / Bogie Identification:

Original bogies on this unit were 121 and 122. These bogies remain on this carriage moving forward.

# Original Issues Highlighted:

Refer to 23-003-R002 for both general and unit-specific concerns identified.

### Additional Issues Found:

Refer to City of Vancouver Fleet and Manufacturing Services WO-226135 for any additional work performed.

### Work Performed:

Work performed in accordance with refurbishing checklists 23-003-WI011\_rev2.0 and 23-003-WI018\_rev1.1, and documented under City of Vancouver Fleet and Manufacturing Services WO-226135.

### Notes:

no additional notes

## Recommended ctions:

- 1. All periodic checklists and maintenance must be performed and recorded.
- 2. NDT to be performed at least once per year.
- 3. Inspect unit and perform necessary overhaul work every 5 years or less.



Document: 23-003-WI011 - Refurbishing Checklist -

Revision: A7907 2.0 Release Date: 2023-10-26

- Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.
- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 for thread sizes 1/4" to 3/4" on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references
- 8. Mandatory replacements can be considered optional replacements if the unit is in good working order. However, these items still require an in-situ inspection for any damage, wear or corrosion. Additionally, as per the Maintenance Manual pg 15 (ChanceTrainManualPt1 PDF pg 47), any permanently installed capscrews and locknuts that have been in service for over 5 years must be replaced any time they are disassembled and any capscrews and locknuts which are regularly disassembled during operation (for portability, regular maintenance / checks, etc.) must be replaced each operating season.

	Step	Description	Details / References	Replacen	nent Parts	Comp	oleted	Notes / Comments
	Str	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	1	Disconnect bogie air lines		n/a	n/a			
l	2	Remove frame hooks	2 per bogie = 4 total	n/a	n/a			
ŀ	3	Lift frame off bogies		n/a	n/a			
Kepair	5	Perform HHT 23-003-WI018 Bogie Refurbishing Checklist on both bogies		Refer to Bog	gie procedure			
	6	Once bogies have undergone refurbishing procedure, place frame on bogies, install and torque frame hooks and reconnect all bogie air lines	torque specs listed on page 13 of the maintenance manual (revised April 2012)	16-18, 16-19a, 16-19b	n/a			
	7	Grease all zerk fittings and lubricate any other required areas as necessary	as per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
	8	Replace hitch bars and splice bars		18-2a, 18-2b, 18-2c, 18-3, 18-4a, 18-4b, 18-4c	n/a			
	9	Install Safety decals	See Bulletin B102R1106-0	22197505 (Bulletin B102R1106-0)	n/a			
1	10	Replace Safety chains		n/a	n/a			



Bogie ID / SN:	

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

da	Name and the second	BALL TARREST	Replace	nent Parts	Com	pleted	Market Miller Company
Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
1	Disconnect brake link straps from inside brake levers		n/a	n/a			
2	Remove journal box support bars	Take caution of any force in the compression springs.	n/a	n/a			
3	Lift/add support under bolster support channel and secure wheels / axles from rolling		n/a	n/a			
4	Unpin hangers		n/a	n/a			
	Unbolt safety hangers		n/a	n/a			
6	Lift bogie frame off of bolster assembly and axle assemblies	Take caution of any force in the compression and leaf springs.	n/a	n/a			
7	Remove all remaining subsystems from bogie structure	Structural castings should be completely bare and ready for cleaning and reconditioning.	n/a	n/a			
8	Clean and inspect all major cast parts	Notify HHT engineering of any damage or repairs not noted in HHT condition assessment report 23-003-R002.	n/a	n/a			
9	Re-coat all reusable cast parts	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
10	Clean and inspect all hangers and linkages for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
11	Clean and inspect brake shoes for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
12	Clean and inspect all wheels and axles for excessive wear, deformation, cracks, and any other damage	Thoroughly clean and inspect visually for surface cracks. Salvage all useable components, these will be re-used on these units. Do not re-assemble to bogie. Wheels should be replaced when the flange has worn to a sharp or the diameter of the rolling surface or flange has decreased by more than 1/2". Refer to Bulletin P102CRM113-0 for the dimensions of a new wheel and for further details on when to replace wheels.		n/a			
13	Recoat all reusable axles	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
14	Open journal boxes, clean and inspect parts for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			



Bogie ID / SN:	

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

ge	da		Details / References	Replacen	nent Parts	Com	pleted	Notes / Comments
Stage	Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	15	Reassemble wheel-axle-journal box subassembly using new wheels and journal box components	Re-use axle shafts from disassembled bogies.	16-31 to 16-44	n/a			
Re-Assemble	16	Reassemble brake system using all new components from kit bin. Bend and install new copper air lines. Install new air fittings. Torque all fasteners.	- Ensure braking surfaces are free from oil, grease or other contaminants Torque specs listed on page 13 of the maintenance manual (revised April 2012) Use 1/4" OD copper tube, wall thickness between 0.030" and 0.50", and minimum pressure rating of 150psi	16-50 to 16-86, 16-88 to 16-91	n/a			
	17	Replace all hardware, pins, springs, hangers, wear components, etc and reassemble bogie; torque all fasteners and re-assemble bogie by reversing steps 1-7	Torque specs listed on page 13 of the maintenance manual (revised April 2012).	16-4 to 16-24, 16-46 to 16-49	n/a			
	18	Adjust journal box wear plate spacing	Dimensional limits to be determined from empirical data, HHT Engineer to be present for adjustment and data collection.	n/a	n/a			
	19	Grease all zerk fittings and lubricate any other required areas	Per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
Ħ	20	Adjust braking system	Manual specifies "as close as possible without dragging". Record brake shoe gap tolerances for future inspections.	n/a	n/a			
Adjust	21	Test braking system	Air test procedure:  1) Pressurise airlines to 40 psi and verify brake system function. Ensure all brake cylinders fully extend when pressurized and fully retract when depressurized. Repair and readjust as necessary.  2) Pressurize airlines to 90psi and hold for 5 minutes while observing and recording any leaks. Repair and readjust as necessary.	n/a	n/a			



**Document Name**: A7906 "Brockton Point" Condition Report Reference Number: 23-003-R110

Project: 23-003 Stanley Park Train Revision: 1.0

> Release: 2023-11-27



Prepared Fo	or:	Prepared By	<b>/</b> :
Company:	Vancouver Board of Parks & Recreation - Stanley Park Miniature Railway	Company:	Hedgehog Technologies Inc.
Name:	Rosemary Yip	Name:	Derek Puzzuoli
Email:	rosemary.yip@vancouver.ca	Email:	derek.puzzuoli@hedgehogtech.com
Phone:	w: 604-257-8465 • c: s.15(1)(l)	Phone:	604-210-0204
Address:	Off Pipeline Road, Stanley Park	Address:	2250 Boundary Rd #206, Burnaby, BC,
			V5M 3Z3





PERMIT NUMBER: 1000168

The Association of Professional Engineers and Geoscientists BC



## Unit / Bogie Identification:

Original bogies on this unit were 119 and 120. These have been changed to 117 and 118 (both from A7905) moving forward.

# Original Issues Highlighted:

Refer to 23-003-R002 for both general and unit-specific concerns identified.

## Additional Issues Found:

Refer to City of Vancouver Fleet and Manufacturing Services WO-226134 for any additional work performed.

### Work Performed:

Work performed in accordance with refurbishing checklists 23-003-WI010\_rev2.0 and 23-003-WI018\_rev1.1, and documented under City of Vancouver Fleet and Manufacturing Services WO-226134.

### Notes:

no additional notes

### Recommended Actions:

- 1. All periodic checklists and maintenance must be performed and recorded.
- 2. NDT to be performed at least once per year.
- 3. Inspect unit and perform necessary overhaul work every 5 years or less.



Document: 23-003-WI010 - Refurbishing Checklist - A7906

Revision: 2.0

Release Date: 2023-10-26

- Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.
- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 for thread sizes 1/4" to 3/4" on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references
- 8. Mandatory replacements can be considered optional replacements if the unit is in good working order. However, these items still require an in-situ inspection for any damage, wear or corrosion. Additionally, as per the Maintenance Manual pg 15 (ChanceTrainManualPt1 PDF pg 47), any permanently installed capscrews and locknuts that have been in service for over 5 years must be replaced any time they are disassembled and any capscrews and locknuts which are regularly disassembled during operation (for portability, regular maintenance / checks, etc.) must be replaced each operating season.

Be Be	Description	4	Details / References	Replacen	nent Parts	Comp	leted	Notes / Comments
Stage	Description Description	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
semble	1 Disconnect bogie air lines			n/a	n/a			
N3	2 Remove frame hooks		2 per bogie = 4 total	n/a	n/a			
Disa	3 Lift frame off bogies			n/a	n/a			
Replace / Repair	5 Perform HHT 23-003-WI01 Refurbishing Checklist on	8 Bogie both bogies		Refer to Bog	ie procedure			
Re-Assemble	Once bogies have undergo procedure, place frame or and torque frame hooks a bogie air lines	one refurbishing bogies, install nd reconnect all	torque specs listed on page 13 of the maintenance manual (revised April 2012)	16-18, 16-19a, 16-19b	n/a			
Adjust	7 Grease all zerk fittings and other required areas as ne	l lubricate any ecessary	as per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
	8 Replace hitch bars and spl	ice bars		18-2a, 18-2b, 18-2c, 18-3, 18-4a, 18-4b, 18-4c	n/a			
Anytime	9 Install Safety decals		See Bulletin B102R1106-0	22197505 (Bulletin B102R1106-0)	n/a			
	10 Replace Safety chains			n/a	n/a			



Bogie ID / SN:	

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

da	Manager	BALL TARREST	Replace	nent Parts	Con	pleted	Secretary School Con-
Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
1	Disconnect brake link straps from inside brake levers		n/a	n/a			
2	Remove journal box support bars	Take caution of any force in the compression springs.	n/a	n/a			
3	Lift/add support under bolster support channel and secure wheels / axles from rolling		n/a	n/a			
4	Unpin hangers		n/a	n/a			
	Unbolt safety hangers		n/a	n/a			
6	Lift bogie frame off of bolster assembly and axle assemblies	Take caution of any force in the compression and leaf springs.	n/a	n/a			
7	, Remove all remaining subsystems from bogie structure	Structural castings should be completely bare and ready for cleaning and reconditioning.	n/a	n/a			
8	Clean and inspect all major cast parts	Notify HHT engineering of any damage or repairs not noted in HHT condition assessment report 23-003-R002.	n/a	n/a			
9	Re-coat all reusable cast parts	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
10	Clean and inspect all hangers and linkages for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
11	Clean and inspect brake shoes for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
12	Clean and inspect all wheels and axles for excessive wear, deformation, cracks, and any other damage	Thoroughly clean and inspect visually for surface cracks. Salvage all useable components, these will be re-used on these units. Do not re-assemble to bogie. Wheels should be replaced when the flange has worn to a sharp or the diameter of the rolling surface or flange has decreased by more than 1/2". Refer to Bulletin P102CRM113-0 for the dimensions of a new wheel and for further details on when to replace wheels.		n/a			
13	Recoat all reusable axles	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
14	Open journal boxes, clean and inspect parts for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			



Bogie ID / SN:	

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

ge	da		Details / References	Replacen	nent Parts	Com	pleted	Notes / Comments
Stage	Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	15	Reassemble wheel-axle-journal box subassembly using new wheels and journal box components	Re-use axle shafts from disassembled bogies.	16-31 to 16-44	n/a			
Re-Assemble	16	Reassemble brake system using all new components from kit bin. Bend and install new copper air lines. Install new air fittings. Torque all fasteners.	- Ensure braking surfaces are free from oil, grease or other contaminants Torque specs listed on page 13 of the maintenance manual (revised April 2012) Use 1/4" OD copper tube, wall thickness between 0.030" and 0.50", and minimum pressure rating of 150psi	16-50 to 16-86, 16-88 to 16-91	n/a			
	17	Replace all hardware, pins, springs, hangers, wear components, etc and reassemble bogie; torque all fasteners and re-assemble bogie by reversing steps 1-7	Torque specs listed on page 13 of the maintenance manual (revised April 2012).	16-4 to 16-24, 16-46 to 16-49	n/a			
	18	Adjust journal box wear plate spacing	Dimensional limits to be determined from empirical data, HHT Engineer to be present for adjustment and data collection.	n/a	n/a			
	19	Grease all zerk fittings and lubricate any other required areas	Per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
Ħ	20	Adjust braking system	Manual specifies "as close as possible without dragging". Record brake shoe gap tolerances for future inspections.	n/a	n/a			
Adjust	21	Test braking system	Air test procedure:  1) Pressurise airlines to 40 psi and verify brake system function. Ensure all brake cylinders fully extend when pressurized and fully retract when depressurized. Repair and readjust as necessary.  2) Pressurize airlines to 90psi and hold for 5 minutes while observing and recording any leaks. Repair and readjust as necessary.	n/a	n/a			



**Document Name**: A7904 "Beaver Lake" Condition Report Reference Number: 23-003-R108

**Project**: 23-003 Stanley Park Train

**Revision**: 1.0 **Release**: 2023-11-27



**Prepared By: Prepared For:** Vancouver Board of Parks & Recreation Hedgehog Technologies Inc. Company: Company: - Stanley Park Miniature Railway Name: Rosemary Yip Name: Derek Puzzuoli Email: rosemary.yip@vancouver.ca Email: derek.puzzuoli@hedgehogtech.com Phone: w: 604-257-8465 • c: s.15(1)(l) Phone: 604-210-0204 Off Pipeline Road, Stanley Park Address: 2250 Boundary Rd #206, Burnaby, BC, Address:





PERMIT NUMBER: 1000168

V5M 3Z3

The Association of Professional Engineers and Geoscientists BC



## Unit / Bogie Identification:

Original bogies on this unit were 115 and 116. These bogies remain on this carriage moving forward.

# Original Issues Highlighted:

Refer to 23-003-R002 for both general and unit-specific concerns identified.

### Additional Issues Found:

Refer to City of Vancouver Fleet and Manufacturing Services WO-234624 for any additional work performed.

### Work Performed:

Work performed in accordance with refurbishing checklists 23-003-WI008\_rev2.0 and 23-003-WI018\_rev1.1, and documented under City of Vancouver Fleet and Manufacturing Services WO-234624.

### Notes:

no additional notes

## Recommended Actions:

- 1. All periodic checklists and maintenance must be performed and recorded.
- 2. NDT to be performed at least once per year.
- 3. Inspect unit and perform necessary overhaul work every 5 years or less.



Document: 23-003-WI008 - Refurbishing Checklist - A7904

Revision: 2.0

Release Date: 2023-10-26

- Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.
- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 for thread sizes 1/4" to 3/4" on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references
- 8. Mandatory replacements can be considered optional replacements if the unit is in good working order. However, these items still require an in-situ inspection for any damage, wear or corrosion. Additionally, as per the Maintenance Manual pg 15 (ChanceTrainManualPt1 PDF pg 47), any permanently installed capscrews and locknuts that have been in service for over 5 years must be replaced any time they are disassembled and any capscrews and locknuts which are regularly disassembled during operation (for portability, regular maintenance / checks, etc.) must be replaced each operating season.

1	Description	Details / References	Replacen	nent Parts	Comp	oleted	Notes / Comments
ů	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	1 Disconnect bogie air lines		n/a	n/a			
	2 Remove frame hooks	2 per bogie = 4 total	n/a	n/a			
	3 Lift frame off bogies		n/a	n/a			
	5 Perform HHT 23-003-WI018 Bogie Refurbishing Checklist on both bogies		Refer to Bog	gie procedure			
	Once bogies have undergone refurbishing procedure, place frame on bogies, install and torque frame hooks and reconnect all bogie air lines	torque specs listed on page 13 of the maintenance manual (revised April 2012)	16-18, 16-19a, 16-19b	n/a			
	7 Grease all zerk fittings and lubricate any other required areas as necessary	as per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
	8 Replace hitch bars and splice bars		18-2a, 18-2b, 18-2c, 18-3, 18-4a, 18-4b, 18-4c	n/a			
	9 Install Safety decals	See Bulletin B102R1106-0	22197505 (Bulletin B102R1106-0)	n/a			
1	10 Replace Safety chains		n/a	n/a			



Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

9	Description	Details / References	Replacement Parts		Con	pleted	W-14-14-1-1-1-1
Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
1	Disconnect brake link straps from inside brake levers		n/a	n/a			
2	Remove journal box support bars	Take caution of any force in the compression springs.	n/a	n/a			
3	Lift/add support under bolster support channel and secure wheels / axles from rolling		n/a	n/a			
4	Unpin hangers		n/a	n/a			
	Unbolt safety hangers		n/a	n/a			
6	Lift bogie frame off of bolster assembly and axle assemblies	Take caution of any force in the compression and leaf springs.	n/a	n/a			
7	Remove all remaining subsystems from bogie structure	Structural castings should be completely bare and ready for cleaning and reconditioning.	n/a	n/a			
8	Clean and inspect all major cast parts	Notify HHT engineering of any damage or repairs not noted in HHT condition assessment report 23-003-R002.	n/a	n/a			
9	Re-coat all reusable cast parts	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
10	Clean and inspect all hangers and linkages for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
11	Clean and inspect brake shoes for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
12	Clean and inspect all wheels and axles for excessive wear, deformation, cracks, and any other damage	Thoroughly clean and inspect visually for surface cracks. Salvage all useable components, these will be re-used on these units. Do not re-assemble to bogie. Wheels should be replaced when the flange has worn to a sharp or the diameter of the rolling surface or flange has decreased by more than 1/2". Refer to Bulletin P102CRM113-0 for the dimensions of a new wheel and for further details on when to replace wheels.		n/a			
13	Recoat all reusable axles	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
14	Open journal boxes, clean and inspect parts for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			



Bogie ID / SN:	
Bogie ID / Six.	_

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

Be	9	None American	Details / References	Replacement Parts		Completed		Secret Mandage
stage	Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	15	Reassemble wheel-axle-journal box subassembly using new wheels and journal box components	Re-use axle shafts from disassembled bogies.	16-31 to 16-44	n/a			
		Reassemble brake system using all new components from kit bin. Bend and install new copper air lines. Install new air fittings. Torque all fasteners.	- Ensure braking surfaces are free from oil, grease or other contaminants Torque specs listed on page 13 of the maintenance manual (revised April 2012) Use 1/4" OD copper tube, wall thickness between 0.030" and .050", and minimum pressure rating of 150psi	16-50 to 16-86, 16-88 to 16-91	n/a			
	17	Replace all hardware, pins, springs, hangers, wear components, etc and reassemble bogie; torque all fasteners and re-assemble bogie by reversing steps 1-7	Torque specs listed on page 13 of the maintenance manual (revised April 2012).	16-4 to 16-24, 16-46 to 16-49	n/a			
	18	Adjust journal box wear plate spacing	Dimensional limits to be determined from empirical data, HHT Engineer to be present for adjustment and data collection.	n/a	n/a			
l	19	Grease all zerk fittings and lubricate any other required areas	Per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
	20	Adjust braking system	Manual specifies "as close as possible without dragging". Record brake shoe gap tolerances for future inspections.	n/a	n/a			
	21	Test braking system	Air test procedure:  1) Pressurise airlines to 40 psi and verify brake system function. Ensure all brake cylinders fully extend when pressurized and fully retract when depressurized. Repair and readjust as necessary.  2) Pressurize airlines to 90psi and hold for 5 minutes while observing and recording any leaks. Repair and readjust as necessary.	n/a	n/a			



**Document Name**: A7910 "Unnamed" (Siwash Rock) Condition

Report

**Project**: 23-003 Stanley Park Train

Reference Number: 23-003-R114

Revision: 1.0

**Release**: 2023-11-27



Prepared For:

**Company:** Vancouver Board of Parks & Recreation

- Stanley Park Miniature Railway

Name: Rosemary Yip

**Email**: rosemary.yip@vancouver.ca

Phone: w: 604-257-8465 • c s.15(1)(l)

Address: Off Pipeline Road, Stanley Park

**Prepared By:** 

**Company:** Hedgehog Technologies Inc.

Name: Derek Puzzuoli

Email: derek.puzzuoli@hedgehogtech.com

**Phone**: 604-210-0204

Address: 2250 Boundary Rd #206, Burnaby, BC,

V5M 3Z3





RR SIGNATURE & DATE:

RR EGBC LICENSE #: 36530

PERMIT NUMBER: 1000168

The Association of Professional Engineers and Geoscientists BC



# Unit / Bogie Identification:

Original bogies on this unit were 127 and 128. These have been changed to 111 (from A7902) and 128 (no change) moving forward.

## Original Issues Highlighted:

Refer to 23-003-R002 for both general and unit-specific concerns identified.

## Additional Issues Found:

Refer to City of Vancouver Fleet and Manufacturing Services WO-226136 for any additional work performed. One axle, wheel and key had excessive wear.

## Work Performed:

Work performed in accordance with refurbishing checklists 23-003-WI014\_rev2.0 and 23-003-WI018\_rev1.1, and documented under City of Vancouver Fleet and Manufacturing Services WO-226136.

### Notes:

no additional notes

## Recommended Actions:

- 1. All periodic checklists and maintenance must be performed and recorded.
- 2. NDT to be performed at least once per year.
- 3. Inspect unit and perform necessary overhaul work every 5 years or less.



Document: 23-003-WI014 - Refurbishing Checklist - A7910

Revision: 2.0

Release Date: 2023-10-26

- Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.
- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 for thread sizes 1/4" to 3/4" on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references
- 8. Mandatory replacements can be considered optional replacements if the unit is in good working order. However, these items still require an in-situ inspection for any damage, wear or corrosion. Additionally, as per the Maintenance Manual pg 15 (ChanceTrainManualPt1 PDF pg 47), any permanently installed capscrews and locknuts that have been in service for over 5 years must be replaced any time they are disassembled and any capscrews and locknuts which are regularly disassembled during operation (for portability, regular maintenance / checks, etc.) must be replaced each operating season.

	d	Windshide Co.	winds with the con-	Replacen	nent Parts	Comp	leted	Andrew Milliamore
	Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	1	Disconnect bogie air lines		n/a	n/a			
ı	2	Remove frame hooks	2 per bogie = 4 total	n/a	n/a			
	3	Lift frame off bogies		n/a	n/a			
Repair	4	Swap out front bogie (with weld repair on brake linkage mounting ears) with alternate bogie	Recommend swapping for best condition bogie from A7905. Existing bogie to be inspected by qualified Engineer and next steps determined	n/a	n/a			
×	5	Perform HHT 23-003-WI018 Bogie Refurbishing Checklist on both bogies		Refer to Bog	gie procedure			
	6	Once bogies have undergone refurbishing procedure, place frame on bogies, install and torque frame hooks and reconnect all bogie air lines	torque specs listed on page 13 of the maintenance manual (revised April 2012)	16-18, 16-19a, 16-19b	n/a			
	7	, Grease all zerk fittings and lubricate any other required areas as necessary	as per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
	8	Replace hitch bars and splice bars		18-2a, 18-2b, 18-2c, 18-3, 18-4a, 18-4b, 18-4c	n/a			
	9	Install Safety decals	See Bulletin B102R1106-0	22197505 (Bulletin B102R1106-0)	n/a			
	10	Replace Safety chains		n/a	n/a			



Bogie ID / SN:	
Marie Company of the	

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

da	Distribution	Details / References	Replace	ment Parts	Com	ipleted	Marine I Commission
Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
1	Disconnect brake link straps from inside brake levers		n/a	n/a			
2	Remove journal box support bars	Take caution of any force in the compression springs.	n/a	n/a			
3	Lift/add support under bolster support channel and secure wheels / axles from rolling		n/a	n/a			
4	Unpin hangers		n/a	n/a			
5	Unbolt safety hangers		n/a	n/a			
6	Lift bogie frame off of bolster assembly and axle assemblies	Take caution of any force in the compression and leaf springs.	n/a	n/a			
7	Remove all remaining subsystems from bogie structure	Structural castings should be completely bare and ready for cleaning and reconditioning.	n/a	n/a			
8	Clean and inspect all major cast parts	Notify HHT engineering of any damage or repairs not noted in HHT condition assessment report 23-003-R002.	n/a	n/a			
9	Re-coat all reusable cast parts	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
10	Clean and inspect all hangers and linkages for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
11	Clean and inspect brake shoes for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
12	Clean and inspect all wheels and axles for excessive wear, deformation, cracks, and any other damage	Thoroughly clean and inspect visually for surface cracks. Salvage all useable components, these will be re-used on these units. Do not re-assemble to bogie. Wheels should be replaced when the flange has worn to a sharp or the diameter of the rolling surface or flange has decreased by more than 1/2". Refer to Bulletin P102CRM113-0 for the dimensions of a new wheel and for further details on when to replace wheels.		n/a			
13	Recoat all reusable axles	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
14	Open journal boxes, clean and inspect parts for excessive wear, deformation, cracks, and any other damage	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			



Bogie ID / SN:	

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

### General Notes:

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

Stage	da	Paradata	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Replacement Parts		Completed		Samuel Windows
Sta	Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	15	Reassemble wheel-axle-journal box subassembly using new wheels and journal box components	Re-use axle shafts from disassembled bogies.	16-31 to 16-44	n/a			
Re-Assemble	16	Reassemble brake system using all new components from kit bin. Bend and install new copper air lines. Install new air fittings. Torque all fasteners.	- Ensure braking surfaces are free from oil, grease or other contaminants Torque specs listed on page 13 of the maintenance manual (revised April 2012) Use 1/4" OD copper tube, wall thickness between 0.030" and 0.50", and minimum pressure rating of 150psi	16-50 to 16-86, 16-88 to 16-91	n/a			
	17	Replace all hardware, pins, springs, hangers, wear components, etc and reassemble bogie; torque all fasteners and re-assemble bogie by reversing steps 1-7	Torque specs listed on page 13 of the maintenance manual (revised April 2012).	16-4 to 16-24, 16-46 to 16-49	n/a			
ĺ	18	Adjust journal box wear plate spacing	Dimensional limits to be determined from empirical data, HHT Engineer to be present for adjustment and data collection.	n/a	n/a			
	19	Grease all zerk fittings and lubricate any other required areas	Per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
	20	Adjust braking system	Manual specifies "as close as possible without dragging". Record brake shoe gap tolerances for future inspections.	n/a	n/a			
asing A	21	Test braking system	Air test procedure:  1) Pressurise airlines to 40 psi and verify brake system function. Ensure all brake cylinders fully extend when pressurized and fully retract when depressurized. Repair and readjust as necessary.  2) Pressurize airlines to 90psi and hold for 5 minutes while observing and recording any leaks. Repair and readjust as necessary.	n/a	n/a			



**Document Name**: A7739 "Green" Condition Report Reference Number: 23-003-R103

**Project**: 23-003 Stanley Park Train

**Revision**: 1.1 **Release**: 2023-11-27



**Prepared For:** 

**Company:** Vancouver Board of Parks & Recreation

- Stanley Park Miniature Railway

Name: Rosemary Yip

Email: rosemary.yip@vancouver.ca w:  $604-257-8465 \cdot c$ : s.15(1)(I)

Address: Off Pipeline Road, Stanley Park

**Prepared By:** 

**Company:** Hedgehog Technologies Inc.

Name: Derek Puzzuoli

Email: derek.puzzuoli@hedgehogtech.com

**Phone**: 604-210-0204

Address: 2250 Boundary Rd #206, Burnaby, BC,

V5M 3Z3





HEDGEHOG TECHNOLOGIES

RR SIGNATURE & DATE:

36530

RR EGBC LICENSE #;

\_\_\_\_\_

PERMIT NUMBER: 1000168

The Association of Professional Engineers and Geoscientists BC



## Unit / Bogie Identification:

Original bogies on this unit were 105 and 106. These have been changed to 101 and 102 moving forward.

# Original Issues Highlighted:

Refer to 23-003-R002 for both general and unit-specific concerns identified.

### Additional Issues Found:

Refer to City of Vancouver Fleet and Manufacturing Services WO-226131 for any additional work performed.

### Work Performed:

Work performed in accordance with refurbishing checklists 23-003-WI003\_rev2.0\_DRAFT, and documented under City of Vancouver Fleet and Manufacturing Services WO-226131.

#### Notes:

no additional notes

## Recommended Actions:

- 1. All periodic checklists and maintenance must be performed and recorded.
- 2. NDT to be performed at least once per year.
- 3. Inspect unit and perform necessary overhaul work every 5 years or less.
- 4. The bogies on this locomotive (SN 101 and SN 102) were not torn down and fully rebuilt during this service. Perform a teardown and rebuild (with new hardware) before 2026.



Document: 23-003-WI003 Refurbishing Checklist - A7739

Revision: 2.0 DRAFT Release Date: 2023-09-19

- Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.
- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references
- 8. Mandatory replacements can be considered optional replacements if the unit is in good working order. However, these items still require an in-situ inspection for any damage, wear or corrosion. Additionally, as per the Maintenance Manual pg 15 (ChanceTrainManualPt1 PDF pg 47), any permanently installed capscrews and locknuts that have been in service for over 5 years must be replaced any time they are disassembled and any capscrews and locknuts which are regularly disassembled during operation (for portability, regular maintenance / checks, etc.) must be replaced each operating season.

Description	Bookle Bookle	Replacer	ment Parts	Completed		Marie Marie Communication
Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
1 Disconnect bogie air lines		n/a	n/a			
2 Disconnect drive shaft from bogie gearbox and main gearbox; remove drive shaft	perform 2x (front and rear bogies)	n/a	n/a			
3 Lift/support yoke axle		n/a	n/a			
4 Disconnect and remove false drive wheels		n/a	n/a			
Strap false wheel drive arm to frame or remove		n/a	n/a			
6 Unbolt yoke axle from radius rods and remove		n/a	n/a			
7 Unbolt and remove radius rods		n/a	n/a			
8 Remove frame hooks	2 per bogie = 4 total	n/a	n/a			
9 Lift frame off bogies		n/a	n/a			
10 Disconnect brake link straps from inside brake levers	perform all steps from here onwards on both front and rear bogies	n/a	n/a			
9 Lift frame off bogies  10 Disconnect brake link straps from inside brake levers  11 Disconnect drive shaft running through bogie frame from both gearboxes		n/a	n/a			
12 Remove journal box support bars		n/a	n/a			
13 Lift bogie off of Wheel-Axle-Gearbox assemblies		n/a	n/a			
14 Remove drive shaft running through bogie frame		n/a	n/a			
15 Lift/add support under bolster support channel		n/a	n/a			
16 Unpin hangers		n/a	n/a			
17 Unbolt safety hangers		n/a	n/a			
18 Lift bogie frame off of bolster assembly		n/a	n/a			



Document: 23-003-WI003 Refurbishing Checklist - A7739

Revision: 2.0 DRAFT Release Date: 2023-09-19

- Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.
- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references
- 8. Mandatory replacements can be considered optional replacements if the unit is in good working order. However, these items still require an in-situ inspection for any damage, wear or corrosion. Additionally, as per the Maintenance Manual pg 15 (ChanceTrainManualPt1 PDF pg 47), any permanently installed capscrews and locknuts that have been in service for over 5 years must be replaced any time they are disassembled and any capscrews and locknuts which are regularly disassembled during operation (for portability, regular maintenance / checks, etc.) must be replaced each operating season.

2900	d d	Description	Details / References	Replacen	nent Parts	Com	pleted	Notes / Comments
	Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	19	Replace rod ends and nuts on radius rods		5-7, 5-8	n/a			
1	20	Inspect air lines and replace as necessary		n/a	n/a			
		Clean and inspect brake shoes and replace as necessary		16-73, 16-74, 16-78, 16-79	16-77			
		Clean and inspect wheels for wear/damage and replace as necessary		n/a				
	23	Clean and inspect axles for wear / damage / deformation and notify HHT of any findings before proceeding	Thoroughly clean and inspect visually for surface cracks	n/a	n/a			
	24	Open journal boxes, clean and inspect parts, inspect journal box components for damage and replace as necessary		16-40, 16-43	16-31 to 16-39, 16-41, 16-42, 16-44			
	25	Replace all capscrews, locknuts, pins, etc on braking system; clean and inspect parts for damage and replace as necessary. Ensure brake surfaces are free from oil, grease or other contaminants. Torque all fasteners.	torque specs listed on page 13 of the maintenance manual (revised April 2012)	16-51 to 16-53, 16-58, 16-59, 16-62 to 16-65, 16-67, 16-70, 16-71 to 16-74, 16-81, 16-86	16-60, 16-61, 16-66, 16-68, 16-69, 16-75,			
		Replace all hardware and bearings on false drive wheels as required	Spacers 5-13/5-14/5-15 are used as required	5-9, 5-10, 5-11, 5-12, 5-13, 5-14, 5-15, 5-16, 5-17, 5-19, 5-20, 5-28				
	27	Replace all capscrews, locknuts, pins, wear components, etc as needed and reassemble bogie; torque all fasteners and re-assemble bogie and train by reversing steps 1-18		16-8, 16-11, 16-12, 16-14, 16-16, 16-19, 16-22, 16-24, 16-47, 16-49	16-4 to 16-7, 16-9, 16-13, 16-15, 16-17, 16-18, 16-20, 16-21, 16-23, 16-45, 16-46, 16-48			



Document: 23-003-WI003 Refurbishing Checklist - A7739

Revision: 2.0 DRAFT Release Date: 2023-09-19

- Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.
- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references
- 8. Mandatory replacements can be considered optional replacements if the unit is in good working order. However, these items still require an in-situ inspection for any damage, wear or corrosion. Additionally, as per the Maintenance Manual pg 15 (ChanceTrainManualPt1 PDF pg 47), any permanently installed capscrews and locknuts that have been in service for over 5 years must be replaced any time they are disassembled and any capscrews and locknuts which are regularly disassembled during operation (for portability, regular maintenance / checks, etc.) must be replaced each operating season.

ge	da	Distribution	Details / References	Replacer	ment Parts	Completed		Notes / Comments
Stage	Step	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	28	Adjust journal box wear plate spacing	Dimensional limits to be determined from empirical data. HHT Engineer to be present for adjustment and data collection.	n/a	n/a			
	29	Grease all zerk fittings and lubricate any other required areas	Per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
st	30	Adjust braking system	Manual specifies "as close as possible without dragging". Record brake shoe gap tolerances for future inspections.	n/a	n/a			
Adjust	31	Test braking system	Air test procedure:  1) Pressurise airlines to 40 psi and verify brake system function. Ensure all brake cylinders fully extend when pressurized and fully retract when depressurized. Repair and readjust as necessary.  2) Pressurize airlines to 90psi and hold for 5 minutes while observing and recording any leaks. Repair and readjust as necessary.	n/a	n/a			
me	32	Replace hitch bars and splice bars						
yti	33	Safety decals						
A	34	Safety chains						

# **CONDITION REPORT**



A7901 "Hallelujah Point" Condition Report Reference Number: **Document Name:** 23-003-R105

23-003 Stanley Park Train Project:

1.0 Release: 2023-11-27

Revision:



Vancouver Board of Parks & Recreation Hedgehog Technologies Inc. Company: Company: - Stanley Park Miniature Railway Name: Rosemary Yip Name: Derek Puzzuoli Email: rosemary.yip@vancouver.ca Email: derek.puzzuoli@hedgehogtech.com Phone: w: 604-257-8465 • c: s.15(1)(I) Phone: 604-210-0204

Address:

V5M 3Z3





2250 Boundary Rd #206, Burnaby, BC,

Address:

Off Pipeline Road, Stanley Park

# CONDITION REPORT



## Unit / Bogie Identification:

Original bogies on this unit were 109 and 110. These have been changed to 119 and 120 (both from A7906) moving forward.

# Original Issues Highlighted:

Refer to 23-003-R002 for both general and unit-specific concerns identified.

#### Additional Issues Found:

Refer to City of Vancouver Fleet and Manufacturing Services WO-226132 for any additional work performed.

#### Work Performed:

Work performed in accordance with refurbishing checklists 23-003-WI005\_rev2.0 and 23-003-WI018\_rev1.1, and documented under City of Vancouver Fleet and Manufacturing Services WO-226132.

#### Notes:

no additional notes

#### Recommended Actions:

- 1. All periodic checklists and maintenance must be performed and recorded.
- 2. NDT to be performed at least once per year.
- 3. Inspect unit and perform necessary overhaul work every 5 years or less.



Project: 23-003 Stanley Park Train

Document: 23-003-WI005 - Refurbishing Checklist - A7901

Revision: 2.0

Release Date: 2023-10-26

#### General Notes:

- Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.
- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 for thread sizes 1/4" to 3/4" on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references
- 8. Mandatory replacements can be considered optional replacements if the unit is in good working order. However, these items still require an in-situ inspection for any damage, wear or corrosion. Additionally, as per the Maintenance Manual pg 15 (ChanceTrainManualPt1 PDF pg 47), any permanently installed capscrews and locknuts that have been in service for over 5 years must be replaced any time they are disassembled and any capscrews and locknuts which are regularly disassembled during operation (for portability, regular maintenance / checks, etc.) must be replaced each operating season.

	Description	Details / References	Replacer	nent Parts	Comp	oleted	Andrew Commence
	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
ı	1 Disconnect bogie air lines		n/a	n/a			
ľ	2 Remove frame hooks	2 per bogie = 4 total	n/a	n/a			
	3 Lift frame off bogies		n/a	n/a			
han	Clean and inspect welds specified in the 4 condition assessment and repair if necessary		n/a	n/a			
Repair	Perform HHT 23-003-WI018 Bogie Refurbishing Checklist on both bogies		Refer to Bog	gie procedure			
	Once bogies have undergone refurbishing procedure, place frame on bogies, install and torque frame hooks and reconnect all bogie air lines	torque specs listed on page 13 of the maintenance manual (revised April 2012)	n/a	n/a			
	7 Grease all zerk fittings and lubricate any other required areas as necessary	as per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
	8 Replace hitch bars and splice bars		18-2a, 18-2b, 18-2c, 18-3, 18-4a, 18-4b, 18-4c	n/a			
	9 Install Safety decals	See Bulletin B102R1106-0	22197505 (Bulletin B102R1106-0)	n/a			
	10 Replace Safety chains		n/a	n/a			



Bogie ID / SN:	

Project: 23-003 Stanley Park Train

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

1. Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

again	Description	Details / References	Replacer	nent Parts	Completed		Notes / Comments
	Description	Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
	Disconnect brake link straps from inside brake levers		n/a	n/a			
emble		Take caution of any force in the compression springs.	n/a	n/a			
	Lift/add support under bolster support 3 channel and secure wheels / axles from rolling		n/a	n/a			
	4 Unpin hangers		n/a	n/a			
ı	5 Unbolt safety hangers		n/a	n/a			
		Take caution of any force in the compression and leaf springs.	n/a	n/a			
	7 hogie structure	Structural castings should be completely bare and ready for cleaning and reconditioning.	n/a	n/a			
8	8 Clean and inspect all major cast parts	Notify HHT engineering of any damage or repairs not noted in HHT condition assessment report 23-003-R002.	n/a	n/a			
	9 Re-coat all reusable cast parts	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
	10 for excessive wear, deformation, cracks,	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
	11 excessive wear, deformation, cracks, and	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			
Inspect / Salvage / Recondition	Clean and inspect all wheels and axles for excessive wear, deformation, cracks, and any other damage	Thoroughly clean and inspect visually for surface cracks. Salvage all useable components, these will be re-used on these units. Do not re-assemble to bogie. Wheels should be replaced when the flange has worn to a sharp or the diameter of the rolling surface or flange has decreased by more than 1/2". Refer to Bulletin P102CRM113-0 for the dimensions of a new wheel and for further details on when to replace wheels.	n/a	n/a			
	13 Recoat all reusable axles	Black corrosion-inhibiting paint (Unless otherwise specified by Chance Rides or approved in writing by HHT).	n/a	n/a			
	14 parts for excessive wear, deformation,	Salvage all useable components and set aside for potential use in future rebuilds. Do not re-assemble to bogie.	n/a	n/a			



Bogie ID / SN:	
Bogie ID / Siv.	

Project: 23-003 Stanley Park Train

Document: 23-003-WI018 - Refurbishing Checklist -Carriage Bogies (Train 1)

Revision: 1.1 Release Date: 2023-09-19

#### General Notes:

1. Inspect all parts through the disassembly for corrosion. Remove any corrosion build up and treat cleaned bare metal surfaces with a corrosion inhibitor such as Fluid Film, CRC SP-350 or equivalent. Recoat previously painted surfaces as necessary.

- 2. Inspect all holes for signs of wear or elongation. Replace any damaged parts.
- 3. Use Loctite 243 on all blind holes and on all regular nuts that do not have a retention feature (such as a castle nut with pin or a nylon-insert lock nut).
- 4. Torque all fasteners with a calibrated torque wrench to the value specified on page 13 of the maintenance manual (revised April 2012).
- 5. Apply torque striping to all fully torqued fasteners to allow for visual in-service inspection. Consult HHT for torque striping process if necessary.
- 6. Ensure fasteners are the grade specified in manufacturer documentation.
- 7. See ride manufacturer's manual for part callout references

ge	Step	Description	A 10 10 10 10 10 10 10 10 10 10 10 10 10	Replacen	nent Parts	Comp	pleted	Section 1980 Continues
Stage	S		Details / References	Mandatory	As Required	Date	Ву	Notes / Comments
Re-Assemble	15	Reassemble wheel-axle-journal box subassembly using new wheels and journal box components	Re-use axle shafts from disassembled bogies.	16-31 to 16-44	n/a			
	16	Reassemble brake system using all new components from kit bin. Bend and install new copper air lines. Install new air fittings. Torque all fasteners,	- Ensure braking surfaces are free from oil, grease or other contaminants Torque specs listed on page 13 of the maintenance manual (revised April 2012) Use 1/4" OD copper tube, wall thickness between 0.030" and .050", and minimum pressure rating of 150psi	16-50 to 16-86, 16-88 to 16-91	n/a			
	17	Replace all hardware, pins, springs, hangers, wear components, etc and reassemble bogie; torque all fasteners and re-assemble bogie by reversing steps 1-7	Torque specs listed on page 13 of the maintenance manual (revised April 2012).	16-4 to 16-24, 16-46 to 16-49	n/a			
	18	Adjust journal box wear plate spacing	Dimensional limits to be determined from empirical data, HHT Engineer to be present for adjustment and data collection.	n/a	n/a			
	19	Grease all zerk fittings and lubricate any other required areas	Per Lubrication Chart on page 25 of 1965 manual.	n/a	n/a			
25	20	Adjust braking system	Manual specifies "as close as possible without dragging". Record brake shoe gap tolerances for future inspections.	n/a	n/a			
Adjust	21	Test braking system	Air test procedure:  1) Pressurise airlines to 40 psi and verify brake system function. Ensure all brake cylinders fully extend when pressurized and fully retract when depressurized. Repair and readjust as necessary.  2) Pressurize airlines to 90psi and hold for 5 minutes while observing and recording any leaks. Repair and readjust as necessary.	n/a	n/a			

clientportal@technicalsafetybc.ca

"Yip, Rosemary" <rosemary.vip@vancouver.ca>

Date: 12/11/2023 12:04:59 PM Subject: Registration Notification

# City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe. Report Suspicious



# Hi Rosemary Yip,

Your request to use Technical Safety BC's Online Services has been received.

We have emailed the account holder and are pending their permission for you to access this account.

If you have any questions about your approval status, please email us

Thank you,

Technical Safety BC

Was this email filtered or quarantined to your junk mailbox? If so, please mark us as a "safe" sender to ensure that you receive the upcoming account activation email.

For more information, please contact us at <a href="mailto:clientportal@technicalsafetybc.ca">clientportal@technicalsafetybc.ca</a>.

© 2023 Technical Safety BC

From: "Technical Safety BC" <contact@technicalsafetybc.ca>

To: "Yip, Rosemary" < rosemary.yip@vancouver.ca>

Date: 11/27/2023 1:45:55 PM

Subject: Renewal invoice

Attachments: OperatingPermitRenewalInvoice\_4-8-2023\_01-46-36.pdf

# City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe.

Report Suspicious

## Hi Rosemary

Please find alached the requested invoice. I found it under the City of Vancouver's account, though the address and the permit number match up to the Stanley Park Miniature Railway account (s.15(1)(I) When your person calls in to pay, please have them quote the invoice number.

Thank you,

Skye | Client Care Representative, Client Experience

### TECHNICAL SAFETY BC | Safe technical systems. Everywhere.

Toll-free: 1-866-566-7233

Suite 600 - 2889 East 12th Avenue, Vancouver, BC V5M 4T5

Traditional Territory of the xwməθkwəyəm, Skwxwú7mesh, and Səlĭlwəta?/Selilwitulh Nations

# technicalsafetybc.ca [technicalsafetybc.ca]

As a province-wide organization, Technical Safety BC respectfully recognizes that its employees live and work on the traditional and unceded territories of the many Indigenous Nations that have thrived throughout British Columbia since time immemorial.

Find out how we're improving safety across the province by reading our State of Safety [technicalsafetybc.ca].



Invoice Number: Invoice Date: Account Number: 02098012 August 3, 2023 s.15(1)(I)

# **OPERATING PERMIT RENEWAL INVOICE**

City of Vancouver ATTN Taj Dhughal, Maintenance Planner FO#4700004194 453 12TH AVENUE W VANCOUVER BC V5Y 1V4

The following Operating Permit(s) expire(s) on **September 30**, **2023**. To renew your operating permit(s), please ensure the total amount due is paid in full.

Invoice	Due Date	PO/ Reference	Invoice	Payments/Adjustment	Total Amount
Number		(If applicable)	Total	Credits	Due
02098012	09/30/2023		\$1,359.00	\$0.00	\$1,359.00

# **OPERATING PERMIT INFORMATION**

#### **AMUSEMENT DEVICES**

Site / Buil	lding Name:		Site Address:         Site Subtotal:           2099 BEACH VANCOUVER, BC, V6G1Z4         \$1,359.00			
Do not Renew	Permit Number	Unit No.	Class /	Туре	Unit Name	Fee
()	AM -0000998966-2020	22744	Train Rides		TRAIN	\$1,359.00

Invoice Subtotal	\$1,359.00
Total HST/GST	\$0.00
Payments/Adjustment Credits	\$0.00
Total Amount Due	\$1,359.00

GST Registration # 87391 2802 RT0001

BC Safety Authority is now **Technical Safety BC**. While we have changed our name, we remain committed to our vision of *Safe Technical Systems*. *Everywhere*. Learn more about our evolving services and how we share safety knowledge at **www.technicalsafetybc.ca**.



Invoice Number: Invoice Date: Account Number: 02098012 August 3, 2023 s.15(1)

#### Payment terms and conditions

We accept credit cards (Visa, Mastercard, and Amex), cheques (made payable to Technical Safety BC) and money orders. Payment can be made online at www.technicalsafetybc.ca or by calling 1-866-566-7233.

The person/entity named on this notice is wholly responsible for remitting the total amount due prior to expiry date. Failure to forward payment by the expiry date may result in collection action.

In British Columbia, the Safety Standards General Regulations (SSGR)s. 18 requires a valid operating permit to maintain or operate a regulated product. For more information visit our website <a href="www.technicalsafetybc.ca">www.technicalsafetybc.ca</a>.

To pay your invoice online, visit <a href="https://www.technicalsafetybc.ca/contact/contact-us/invoices">https://www.technicalsafetybc.ca/contact/contact-us/invoices</a>.

BC Safety Authority is now **Technical Safety BC**. While we have changed our name, we remain committed to our vision of *Safe Technical Systems*. *Everywhere*. Learn more about our evolving services and how we share safety knowledge at **www.technicalsafetybc.ca**.



Invoice Number:
Invoice Date:
Account Number:

02098012 August 3, 2023 s.15(1)(I)

#### **OWNERSHIP CHANGES OR DECOMMISSIONING**

If you have transferred ownership, sold, or decommissioned your regulated product, please contact Technical Safety BC to avoid continued billing. If this is the case, indicate the affected permit with an (X), in the "Do Not Renew" section, complete the **Reason Box** below and return to Technical Safety BC. Changes can also be submitted online at <a href="https://portal.technicalsafetybc.ca/forms/FRM1539">https://portal.technicalsafetybc.ca/forms/FRM1539</a>. If there have been no changes, no further action is required if you pay this invoice.

Indicate below any changes required: (PRINT clearly	y)	
Reason for change:		Effective Date of Change:
If ownership change, new owner/agent Name:	Contact Name:	
For address correction, new address:		
Primary Phone:	Mobile Phone:	Email:
Signature:		Date:

To ensure proper credit to your account, detach and return this portion with your payment or indicate invoice number with payment.

	Invoice Renewal Number Period		Invoice Date	Total Amount Due	Account Number
020	098012	10/01/2023 to 09/30/2024	08/03/2023	\$1,359.00	1012226

BC Safety Authority is now **Technical Safety BC**. While we have changed our name, we remain committed to our vision of *Safe Technical Systems*. *Everywhere*. Learn more about our evolving services and how we share safety knowledge at **www.technicalsafetybc.ca**.

From: contact@technicalsafetybc.ca

To: "Yip, Rosemary" <rosemary.yip@vancouver.ca>

Date: 12/1/2023 12:06:34 PM

Subject: Support ID 338447: #EXTERNAL# access to TSBC #Account \$.15(1)(1)

# City of Vancouver Warning - This message is from an external sender

Do not click on links or open attachments unless you were expecting the email and know the content is safe.

Report Suspicious

Hi,

Thank you for contacting Technical Safety BC.

Your request is in our queue. Due to the high volume of emails we are receiving, we aim to get back to you within 10 business days. Thank you for your patience.

Our offices remain closed to protect our clients and employees during the spread of COVID-19.

#### Other Resources

- Use <u>vour online account [portal.technicalsafetybc.ca]</u> to pay an invoice, make a declaration, apply for certificate renewal, view transactions, and more
- Call our Contact Centre at 1 866 566 7233 and quote your support ID s.15(1)(I) when inquiring about your issue
- If you've witnessed or experienced a safety incident or hazard, fill out this incident report form [technicalsafetybc.ca]

\* \* \* If you reply to this message, please do not change the subject line. \* \* \*

Best regards,

## **Contact Centre**

TECHNICAL SAFETY BC | Safe technical systems. Everywhere.

Toll-free: 1 866 566 7233

Suite 600 - 2889 East 12th Avenue, Vancouver, BC V5M 4T5

technicalsafetybc.ca [technicalsafetybc.ca]

Our online services are mobile friendly and easier to use.

Login [portal.technicalsafetybc.ca] or register [technicalsafetybc.ca] for an account today!

As a province-wide organization, Technical Safety BC respectfully recognizes that its employees live and work on the traditional and unceded territories of the many Indigenous Nations that have thrived throughout British Columbia since time immemorial.

This email and any files transmitted with it is intended for the individual to whom it is addressed. Unauthorized use, reproduction or dissemination of this email is strictly prohibited. If you have received this email in error, please contact me immediately.

## This Message Is From an External Sender

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless

City of Vancouver - FOI 2024-013 - Page 81 of 82

you recognize the sender and know the content is safe.

Hello,

I was told by Melissa Mennell to apply for access to this account where I can declare work for noncompliances for a City of Vancouver asset (Stanley Park Train).

I currently have access to account s.15(1)(I) for the Stanley Park Train operating permits/contractor licenses, etc.

Can you please let me know what I would need to provide to facilitate this request?

Thank you.

# Rosemary Yip

**Train Operations Team Lead** 

Vancouver Park Board | City of Vancouver

rosemary.yip@vancouver.ca

Tel: 604-257-8465

Cel: s.15(1)(I)

Pronouns: she/her

I acknowledge that we are on the unceded territories of the Coast Salish Nation, the x¿m¿¿k¿¿y¿¿m (Musqueam), s¿wx\_wú7mesh (Squamish) and s¿lilw¿ta¿ (Tsleil-Waututh)