

WELCOME

YELLOW CREEK NEAR HEATH STREET EAST EROSION CONTROL AND SLOPE STABILIZATION PROJECT

DECEMBER 12, 2019



Overview of Public Information Centre :

Purpose

This evening we will seek your feedback on:

- Preliminary preferred alternative
- Evaluation criteria
- Next steps in the process

Format

- Open house panels available all evening
- Expert panel available to address your questions

Feedback

- Speak directly with the Project Team
- Submit your comments at the meeting, or send them to the Project Team after the meeting

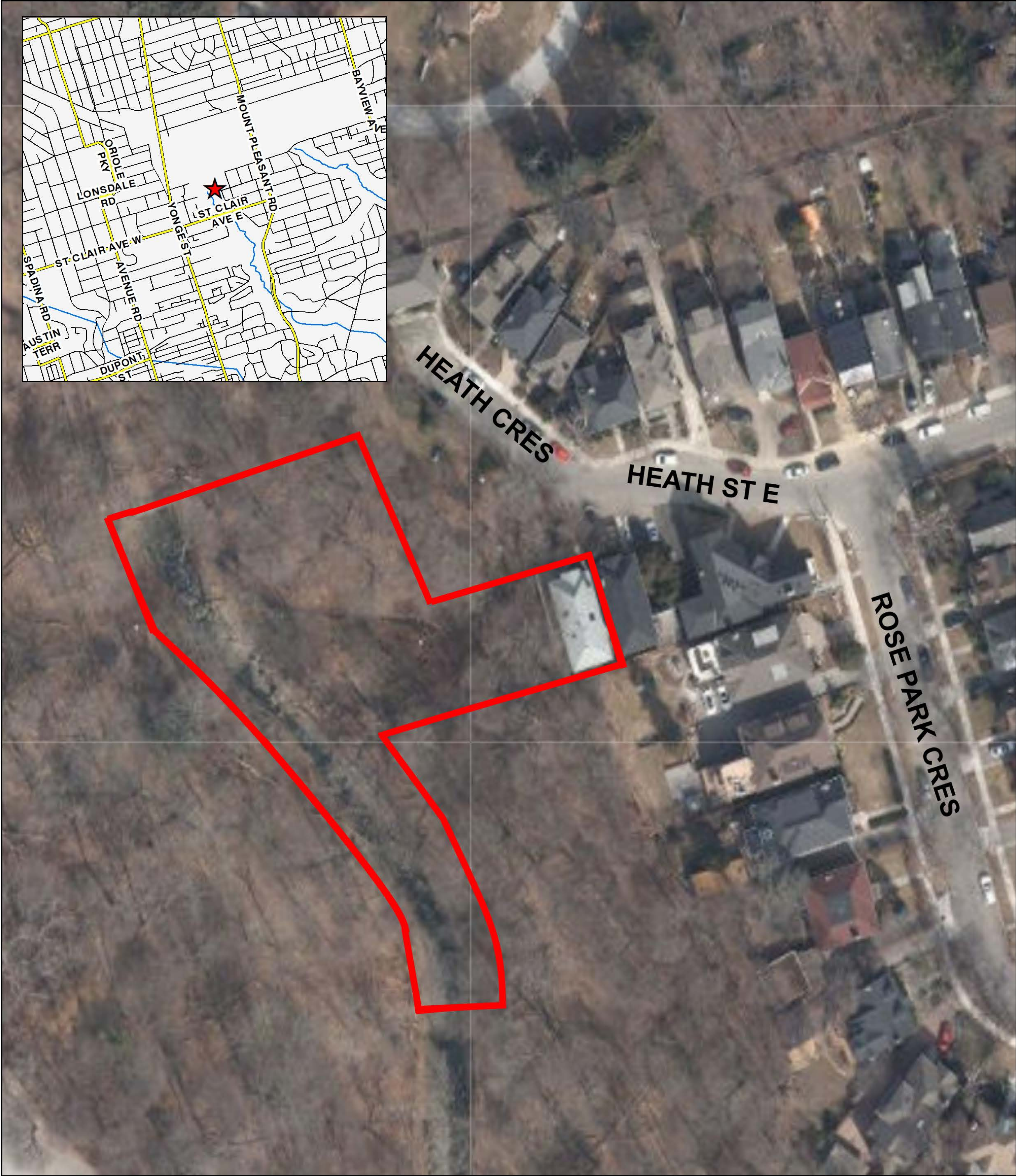
Please submit your comments at the meeting or to the Project Manager via one of the methods below by

January 17, 2020:

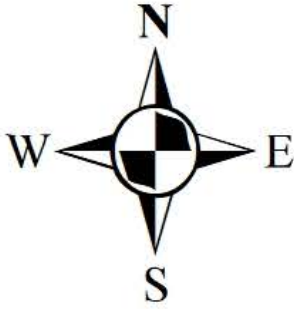
Jaya Soora, Project Manager

Engineering Projects, Restoration & Infrastructure
Toronto and Region Conservation Authority
9755 Canada Company Avenue, Vaughan, ON L4H 0A3
jaya.soora@trca.ca

PROJECT STUDY AREA



 Project Area



PROJECT OBJECTIVES

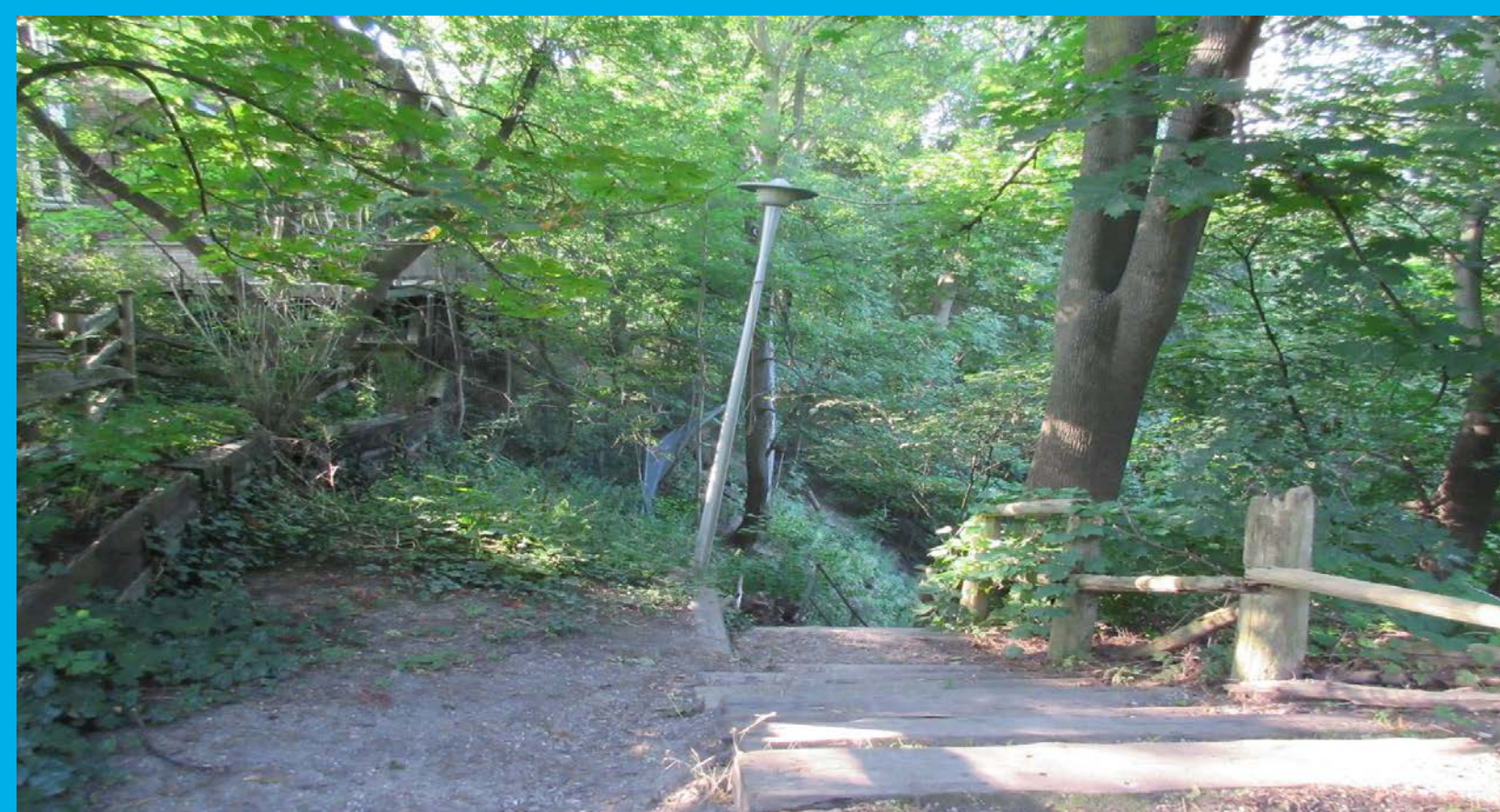
Protect life and property from the hazards of erosion and slope instability, mimic nature by incorporating a natural channel design sourced from sustainable materials, and provide a safe and enjoyable greenspace.



Manage public safety and risk to property



Protect and enhance terrestrial and aquatic natural features



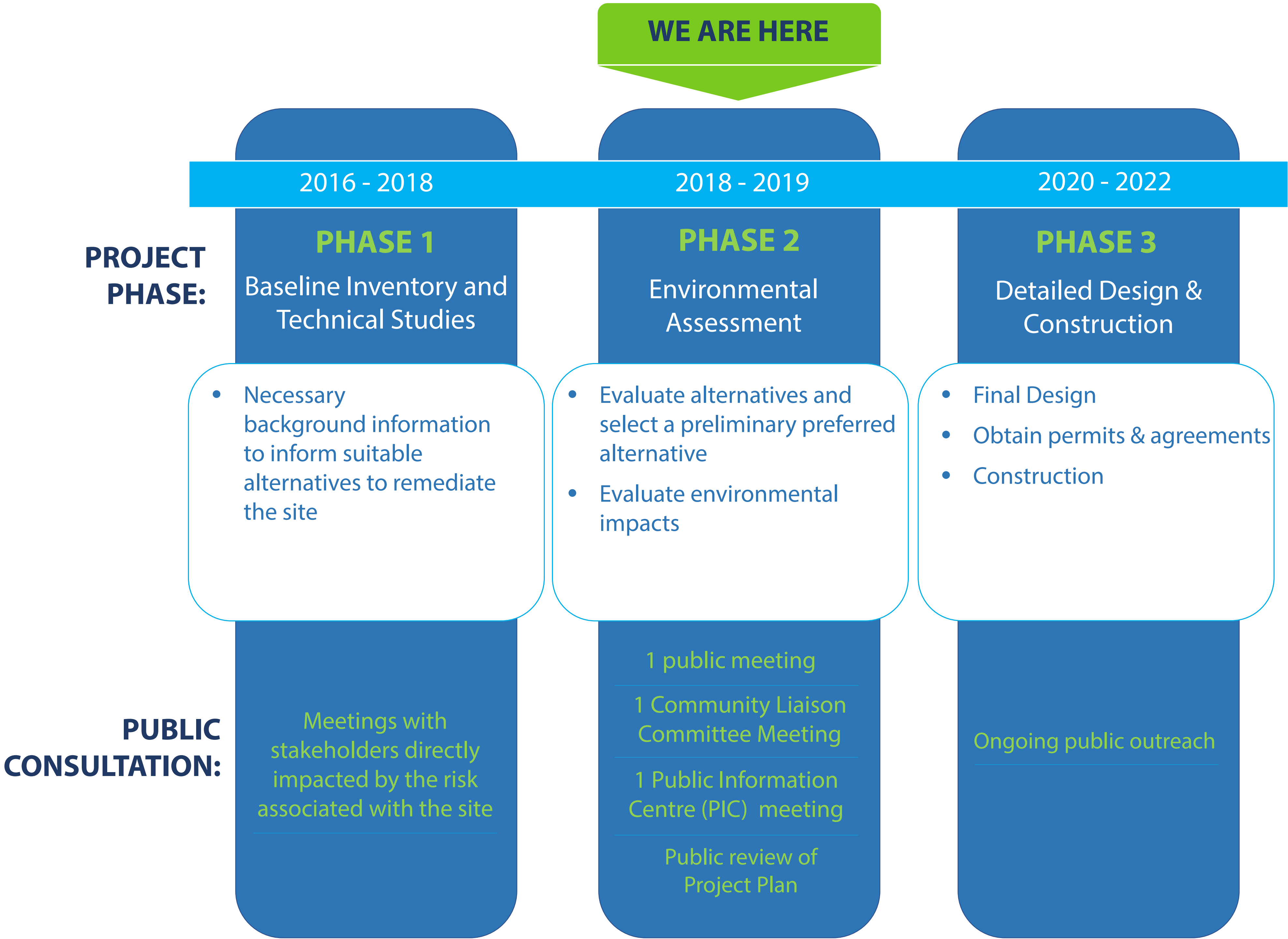
Consistency and coordination with other initiatives



Invest in sustainable and resilient infrastructure

PROJECT PROCESS AND CONSULTATION

This project is being carried out in 3 phases:



PUBLIC CONSULTATION:

Consultation is an important part of the process. It provides an opportunity for individuals and groups to contribute to decision making in a meaningful way.

Overall, feedback received from these events and meetings demonstrated strong support for the Project. High-level feedback included:

- A desire to work with the City of Toronto to incorporate future works to reinstate pedestrian access into the Vale of Avoca ravine
- Concern about erosion in Yellow Creek, especially during high flow events
- Desire for the Project to be completed as soon as possible

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

EA PROCESS:

Step 1: **Initiate Class EA and Publish Notice of Intent**

Step 2: **Establish Community Liaison Committee**

Step 3: **Prepare Baseline Environmental Inventory**

Step 4: **Evaluate Alternative Remedial Measures & Select Preliminary Preferred Alternative**

Step 5: **Conduct Detailed Analysis of Environmental Impact**

**WE ARE
HERE**

Step 6: **Prepare Project Plan**

Step 7: **Provide Notice of Filing to Interested Parties**

Step 8:

- **Project Approved under EA Act**
- **Provide Notice of Project Approval and Proceed to Construction**

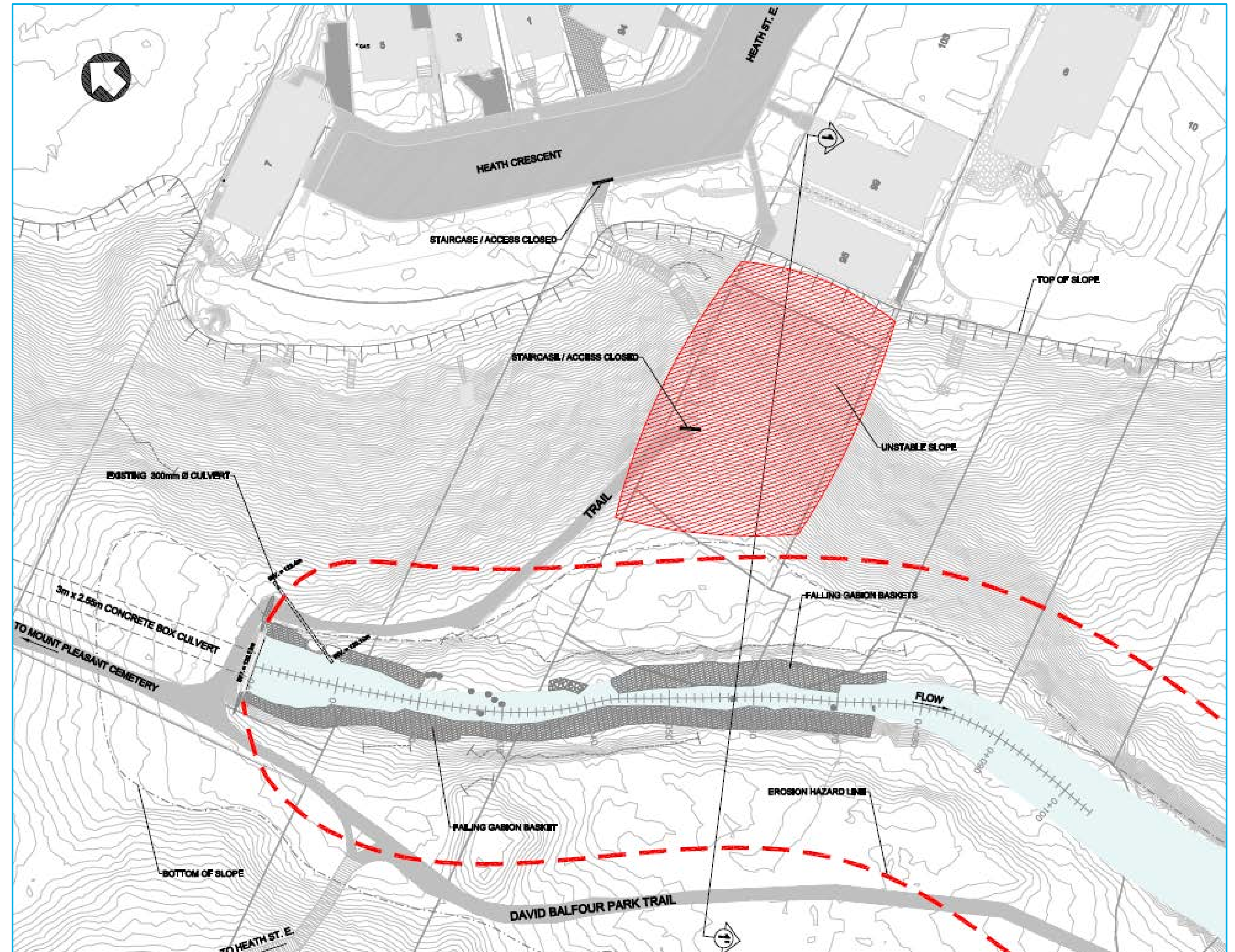
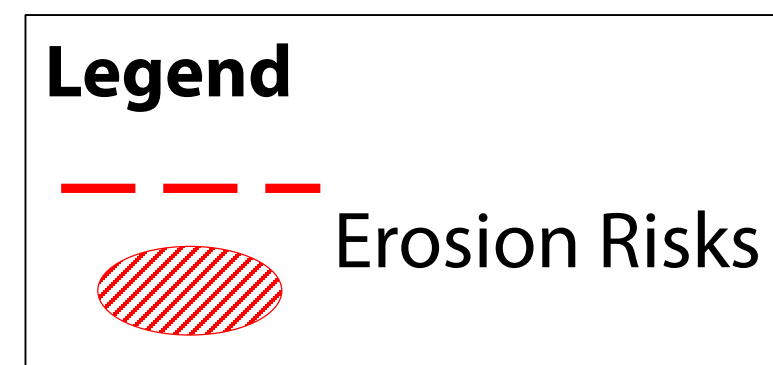
EA PROJECT PLAN:

DETAILED ANALYSIS OF ENVIRONMENTAL IMPACT:

The provincial EA process requires the proponent (TRCA) to identify and detail the Preliminary Preferred Alternative that minimizes negative impacts to the environment and best meets the identified need for the project. The definition of environment is broad and includes natural, social, economic and cultural components. The identified need refers to the problem to be solved or the opportunity addressed.

EROSION RISKS IN THE PROJECT AREA

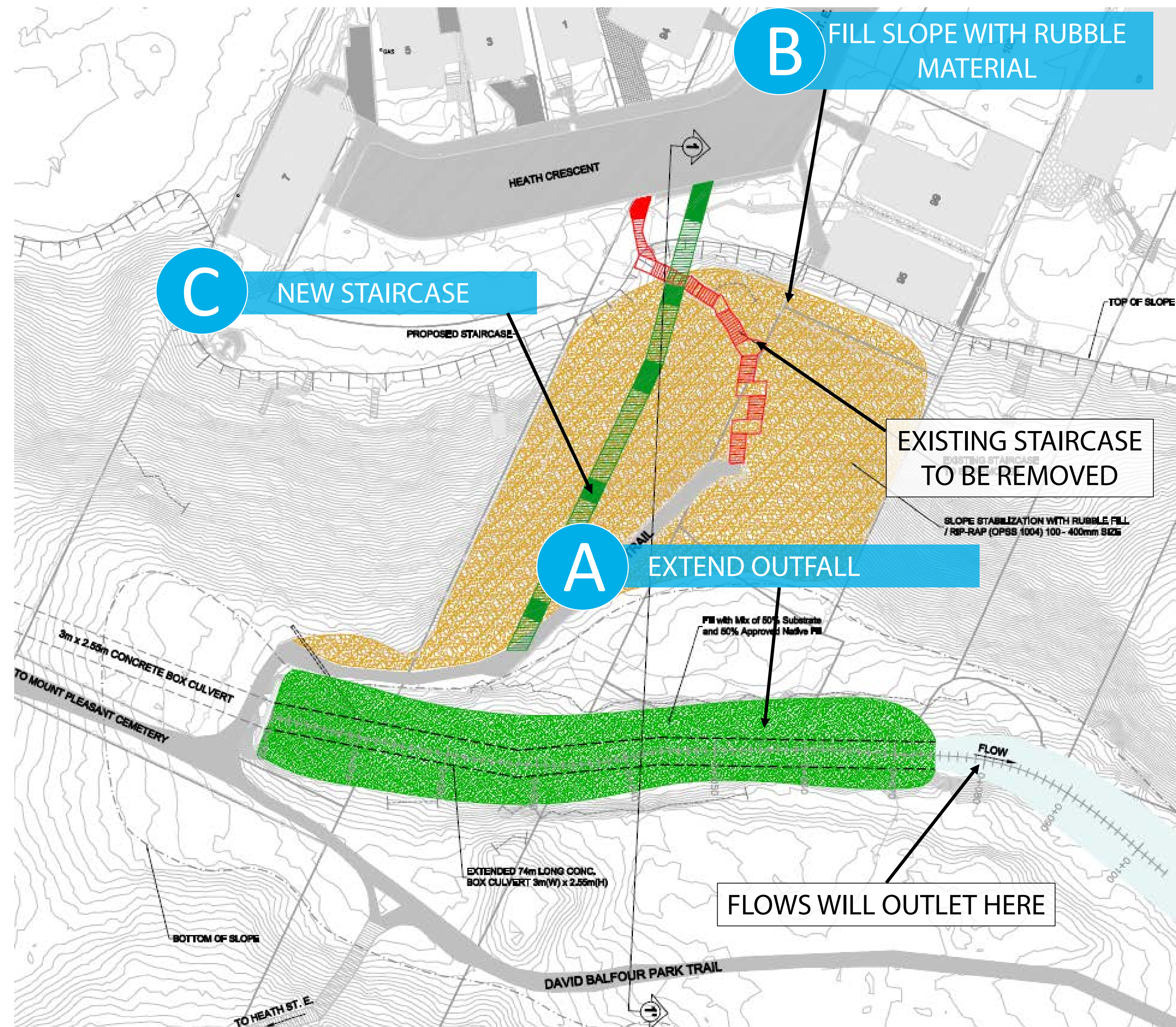
- Streambank erosion along the unprotected areas of Yellow Creek leaves them susceptible to the risk of failure
- Fluvial geomorphic studies look at how rivers can change the landscape
- Geotechnical engineering determines the hazard area and informs where remedial work is required



Erosion risks in the project area

ALTERNATIVE 1

- Extend outfall approximately 67 metres
- Stabilize slope by filling with rubble material
- Reinstate pedestrian access by way of constructing a new staircase on public lands



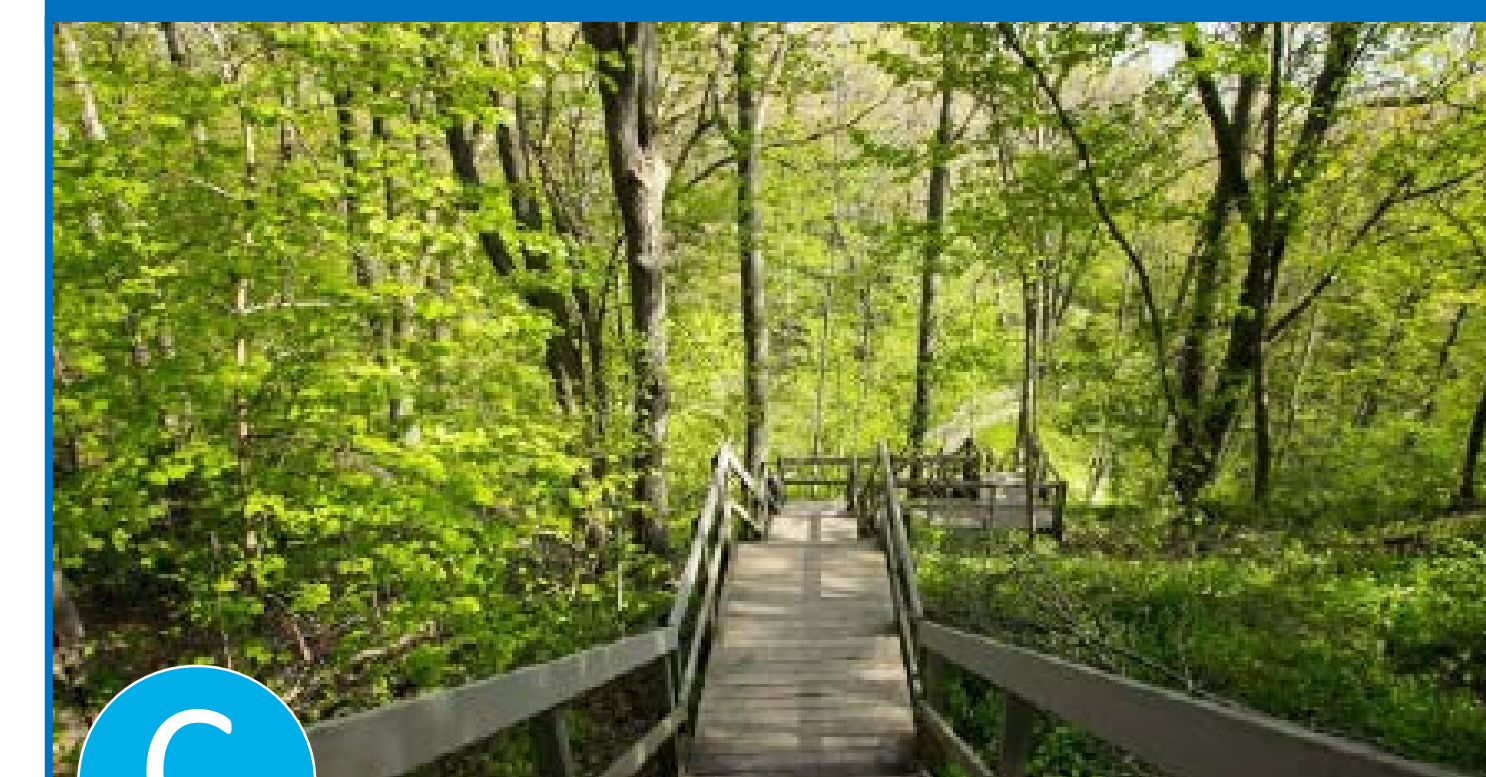
A

EXAMPLE OF CHANNEL OUTLETING IN A NEW LOCATION



B

EXAMPLE OF SLOPE FILLED WITH RUBBLE / STONE MATERIAL

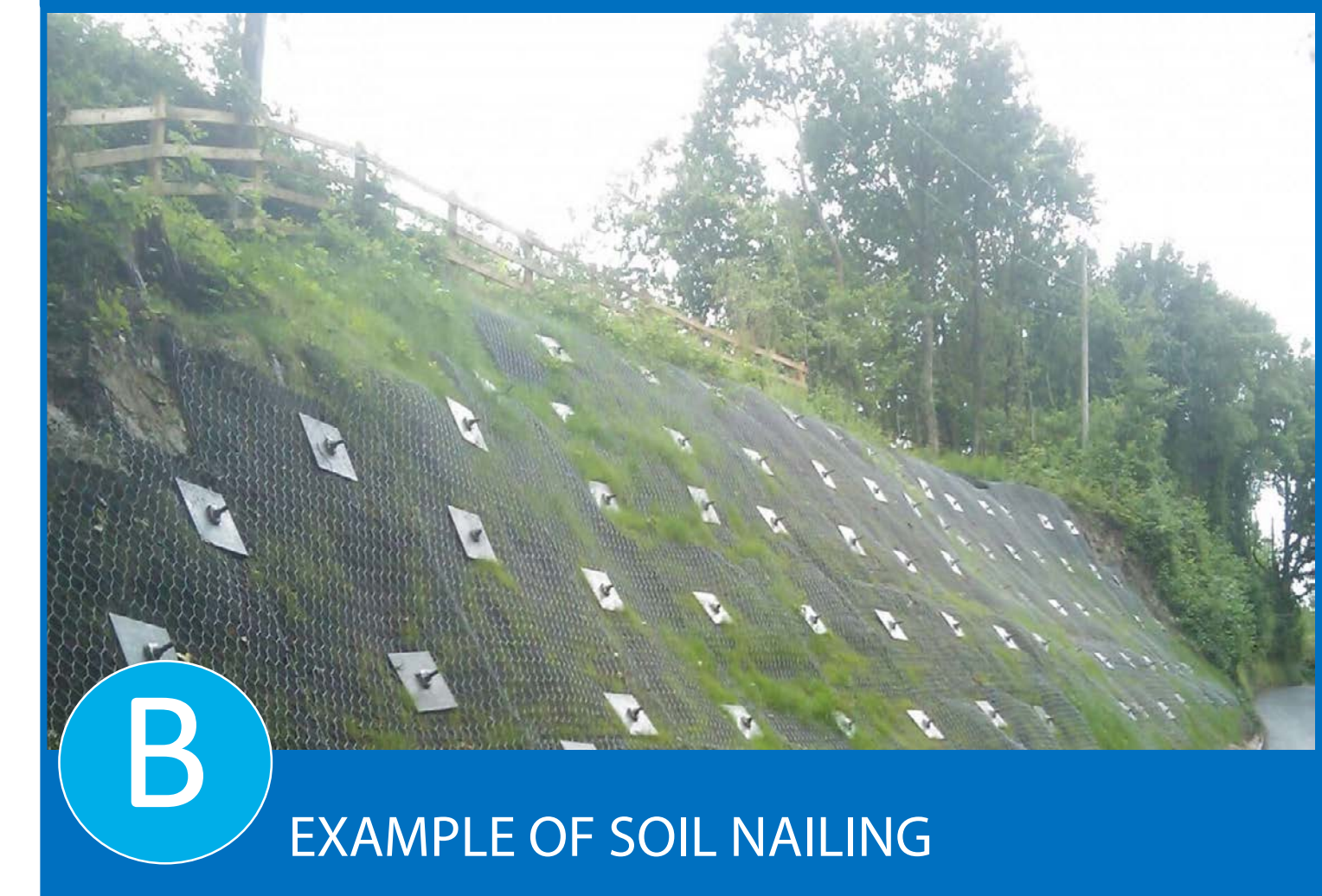
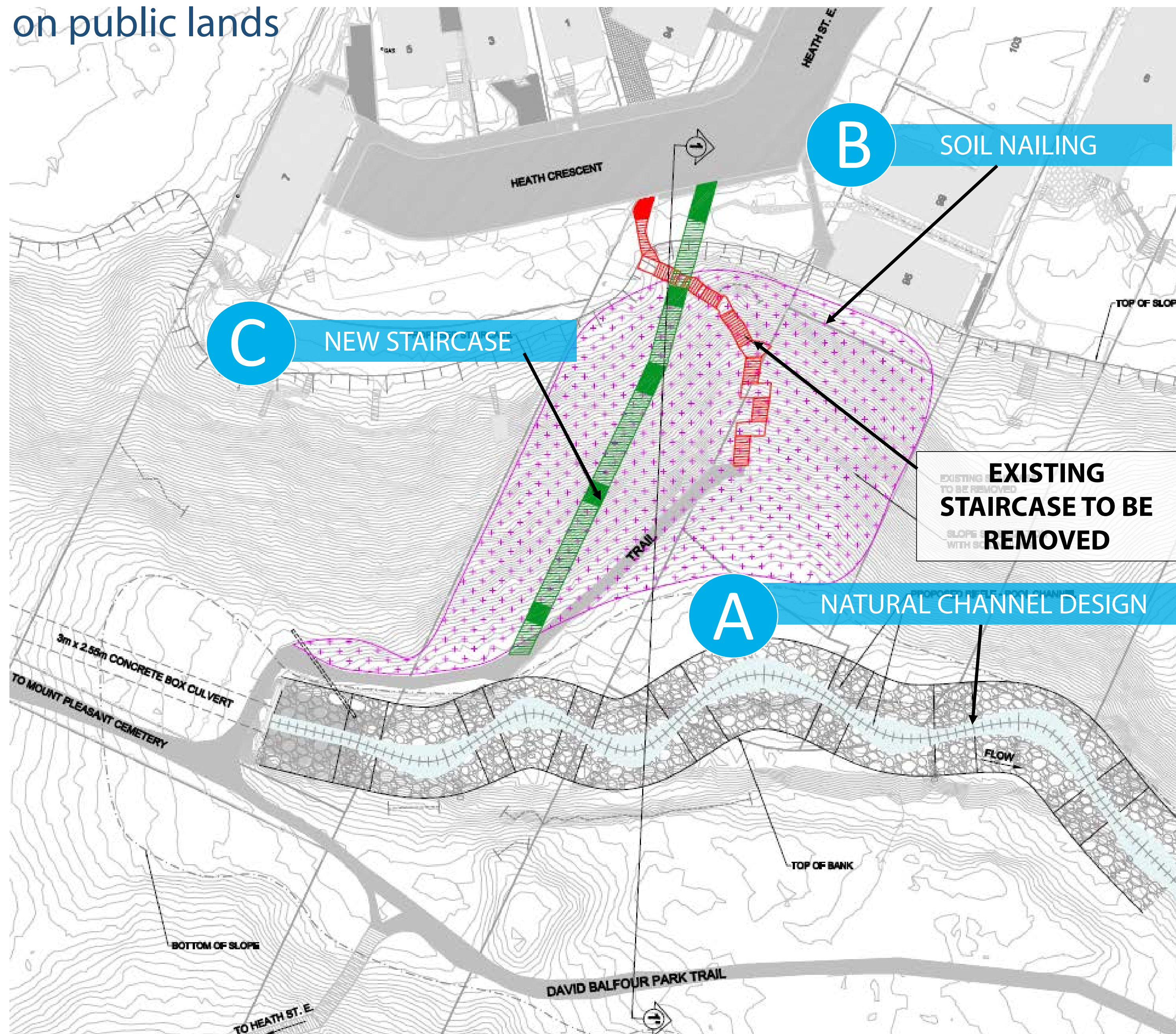


C

EXAMPLE OF A NEW STAIRCASE

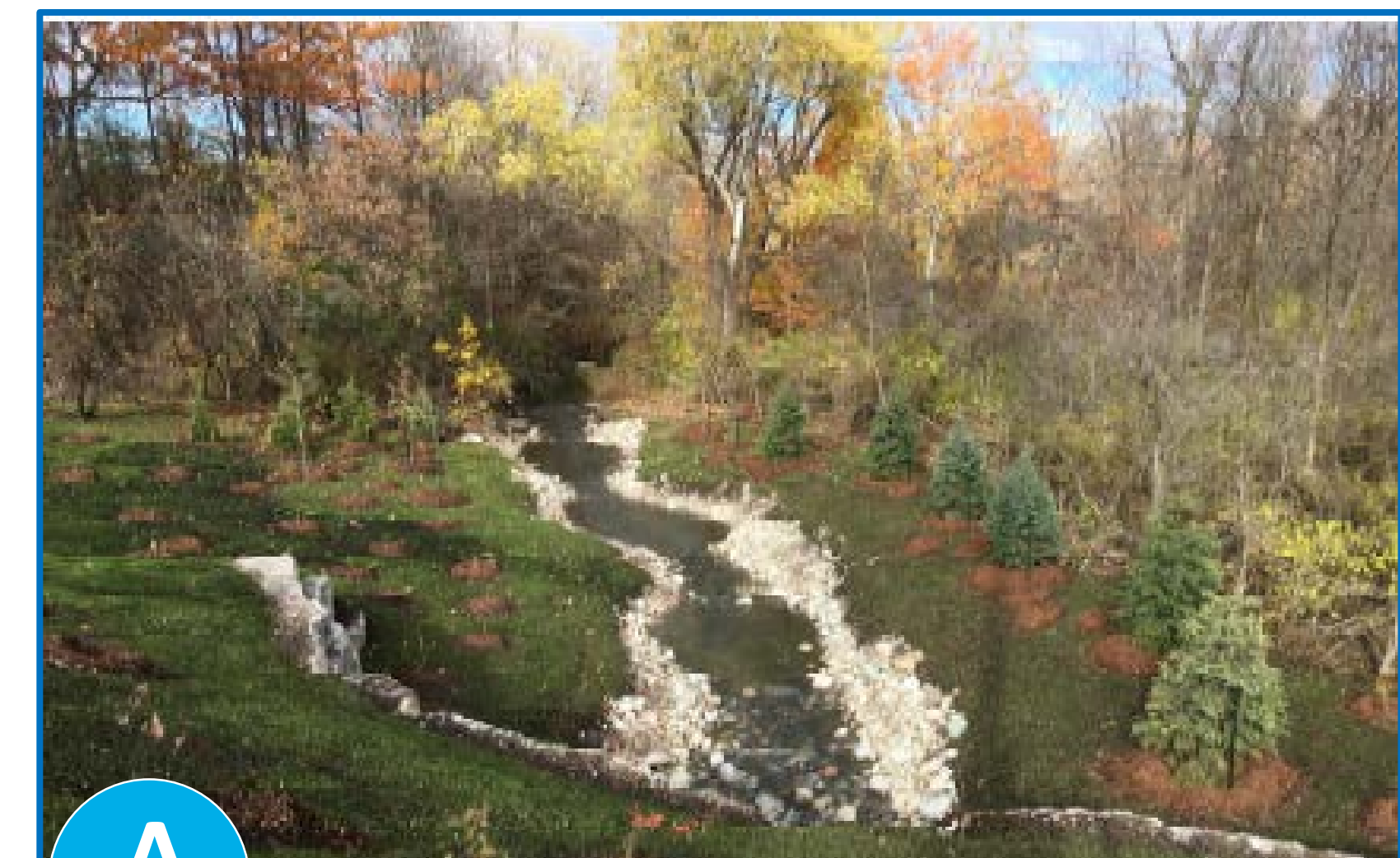
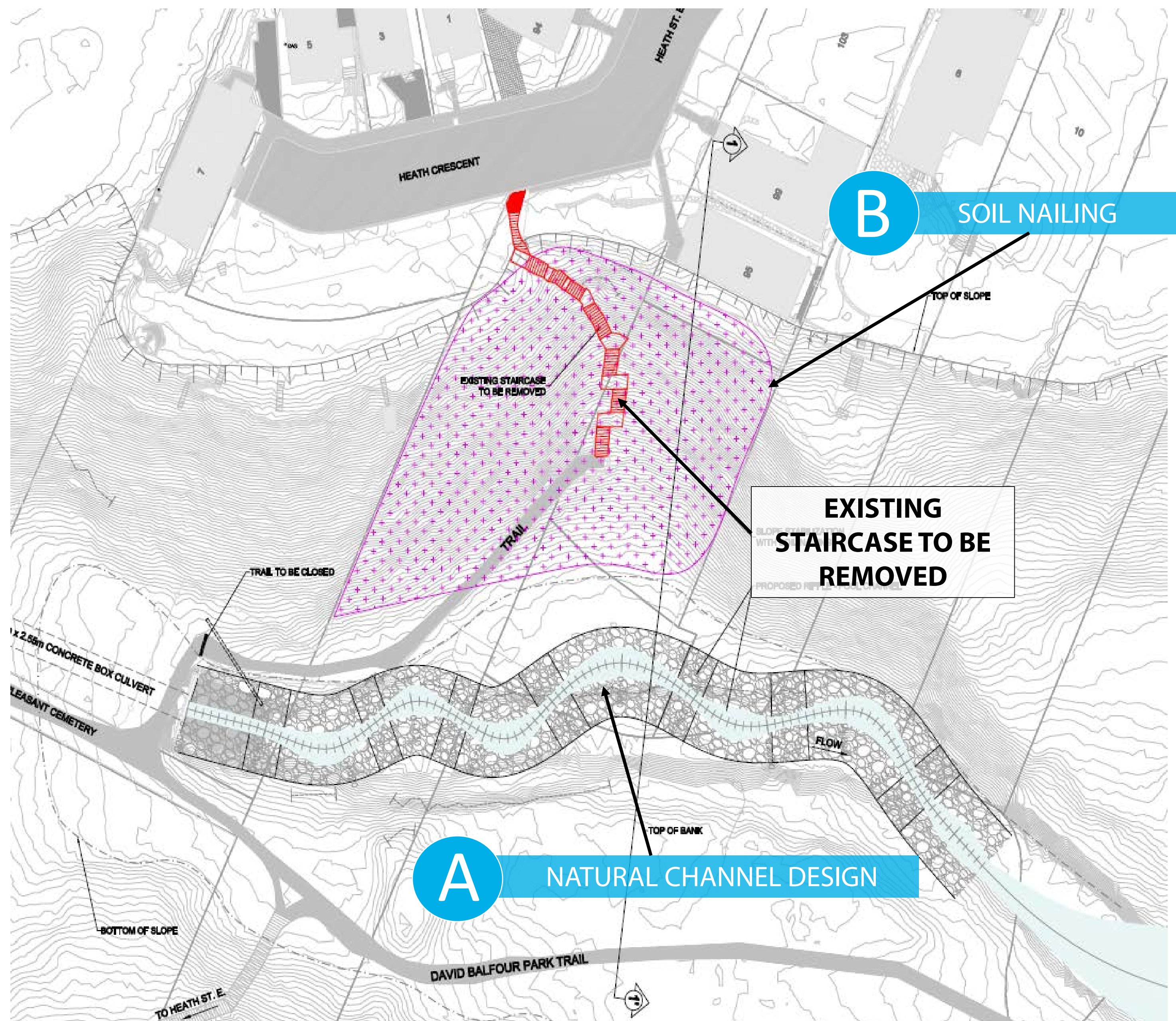
ALTERNATIVE 2 (PRELIMINARY PREFERRED ALTERNATIVE)

- Reconstruct bank protection structures reusing existing material on site (where possible)
- Stabilize the slope using a soil nailing system
- Reinstate pedestrian access by way of constructing a new staircase on public lands

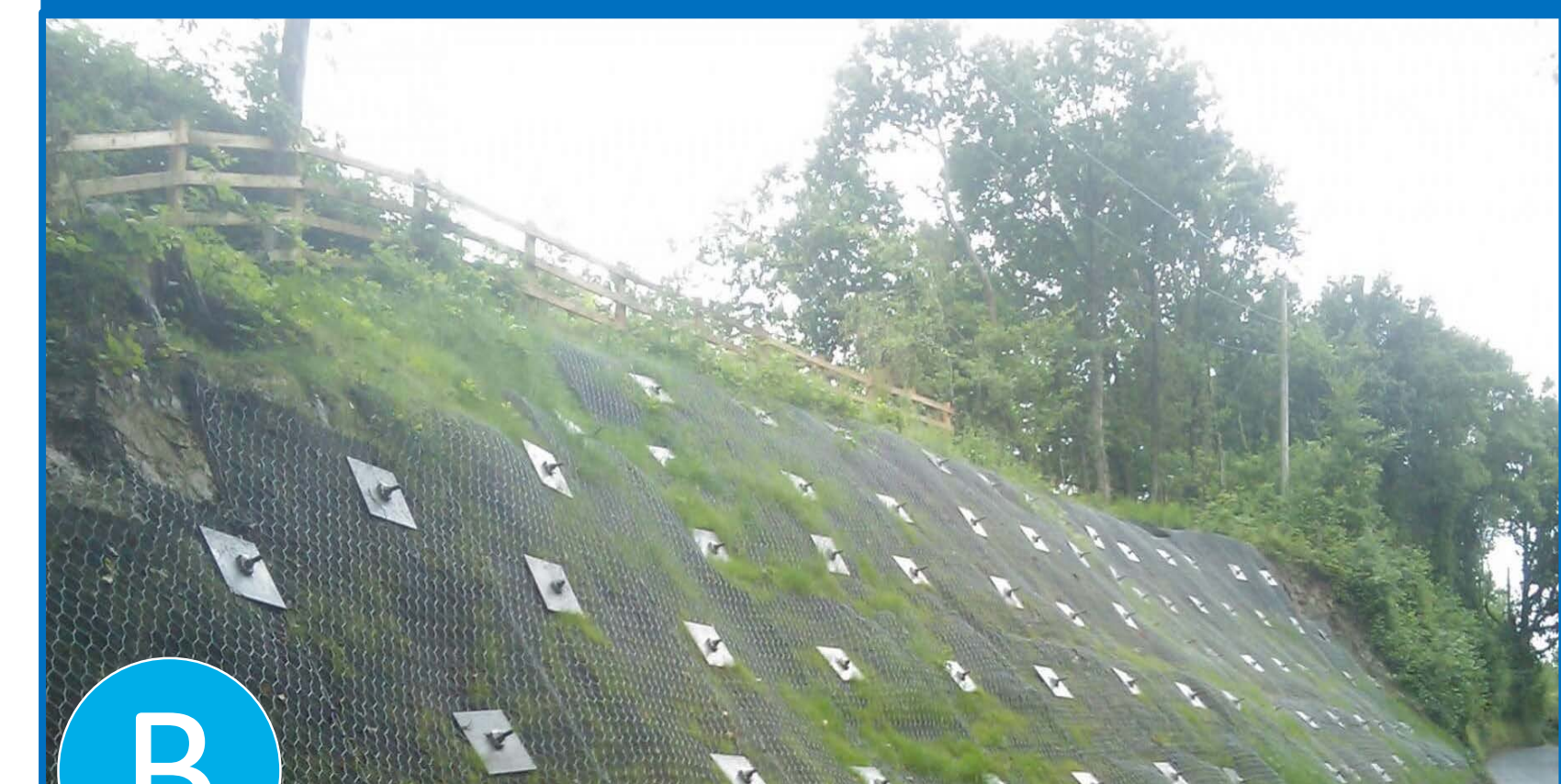


ALTERNATIVE 3

- Reconstruct bank protection structures reusing existing material on site (where possible)
- Stabilize the slope using a soil nailing system



A EXAMPLE OF NATURAL CHANNEL DESIGN



B EXAMPLE OF SOIL NAILING

EVALUATION OF ALTERNATIVE REMEDIAL MEASURES

An evaluation of impacts was carried out for each alternative which considered both temporary impacts during construction of the undertaking, and permanent impacts due to operation and maintenance of the undertaking after construction.

The table below summarizes the evaluation for the Project site.

Rank		Relation to the associated criteria
Increasing Positive Rank ↑	+H	Most positive, or least negative impact; easiest to implement; lowest cost
	+M	Moderate positive impact; moderate implementation; moderate cost
	+L	Minor positive impact; lesser ease of implementation; high cost
	NIL	Neutral or no impact; no implementation; no associated costs
	-N	Overall negative impact / effect

Objective	Criteria	Comment	Alternative 1	Alternative 2	Alternative 3
Physical and Natural Environment	Flooding	Impact on surface drainage, flooding; meet legislated criteria for flooding and water	+ L	+ M	+ M
	Erosion	Impacts on soils, geology, rate of erosion	+ M	+ M	+ M
	Terrestrial Habitat	Impact on connectivity, diversity and sustainability	- N	+ M	+ M
	Aquatic Habitat	Impact on connectivity, spawning and sustainability	- N	+ M	+ M
Social/Cultural Environment	Aesthetic Value	Impact on existing and proposed development aesthetic value	+ L	+ M	+ L
	Benefit to Community	Access to trails, enjoyment of valley	+ H	+ H	NIL
	Archaeological Features	Impacts on existing archaeological features	NIL	NIL	NIL
Technical Criteria	Regulatory Agency Acceptance	Satisfy core TRCA, DFO and MNRF mandates	+ L	+ H	+ H
	Impact on Existing Infrastructure	Protection or potential exposure of infrastructure (sanitary sewer, maintenance hole)	+ L	+ L	+ L
	Maintenance Requirements	Requirement for regular, irregular or no maintenance activities, such as structural maintenance or vegetation maintenance	+ M	+ H	+ M
Financial Criteria	Capital Costs	Rough Order Magnitude (ROM) capital costs for the Detailed Design, permitting and installing proposed concept	+ M	+ L	+ M
	Maintenance Costs	Rough Order of Magnitude costs to maintain the proposed structure	+ L	+ L	+ L
Constructability	Complexity of Treatment	Requirement for specialized services to design or install unique or proprietary specifications that must be completed by a certified contractor/consultant	+ L	+ M	+ M
Public Safety	Potential Risks to Trail and Park Users	Impact on public safety and requirement for safety features (e.g. safety fences)	+ M	+ M	+ L
Combined Rank			+ L	+ H	+ M

NEXT STEPS

ACTION	TIMELINE
Review public feedback on the preliminary preferred alternative	Winter 2020
File EA project plan	Winter 2020
Develop detailed design	Spring-Summer 2020
Construction	Fall 2020

Note: Timelines are tentative and subject to change based on receipt of necessary permits and approvals

Please submit your comments at the meeting or to the Project Manager via one of the methods below by **January 17, 2020**:

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THANK YOU FOR YOUR TIME. WE APPRECIATE YOUR INPUT!

