

City of Richmond - February 1, 2024

Fall 2022 ETF Bike Trail Survey Report:



Executive Summary

This 30 kilometer section of the ETF trail starts at the Canada Line Bridge, transits Richmond to the Middle Arm Dyke trail along the Fraser to Steveston, and ends at the Massey Tunnel bike shuttle. Seventy percent of the route is a trail separated from the road and there are numerous bike lanes along the route. Most of the potential projects involve bike lane enhancements along shared roads but there are also a number of great sites for kiosks and interpretive information. A note that, travelling towards the Ferries is depicted as WEST in all the maps. EAST is travelling towards Hope regardless of actual direction.

Trail Quality Assessment Methodology

- Trail quality is both objective and subjective. Attributes such as trail width and surface type are easily measured, but rider comfort or scenic quality are harder to measure. Primarily the trail was developed to be beside or in view of the Fraser River and allow for a contiguous route from the mouth of the Fraser River to Hope.
- The trail route was developed from a number of sources including; GIS data from the Regional District's 2010 planning projects, Community meetings over 2021, Published Community Cycling Maps, Open Street Map, Google Maps, and the Fall Bike Route Survey (1238 Data Locations and 2000+ Photos captured).
- Trail Quality Classification Methodology

Ideal Trail: scenic, paved, wide, separate from walkers and cars (includes bike lanes separated from road traffic by a barrier)	10	Ideal Road: scenic, well-marked bike lanes, room to bike, minor road	5
Poor Scenic Characteristics	-1	Poor Scenic Characteristics	-1
Gravel	-1	No Bike Lane Lines/markers	-1
Narrow, not enough for two bikes	-1	No Shoulder	-1
Speed limitations, pedestrian area	-1	Major Road/Heavy Traffic	-1



Trail Survey: General Recommendations and Conclusions

- As a general rule place trail signs before intersections or viewable from a far enough distance for a bike rider to see before turning.
- In most cases use of a larger pole mounted 22x34 cm sign with a directional arrow is recommended. Smaller wood post mounted signs 12.7x19.7 cm and signs without directional arrows should only be used for confidence markers where the route is obvious

Summary of Current Trail: City of Richmond

- Section Length **30 km**
- 76** Signs Locations: 122 signs recommended
- 13** Potential Enhancement Projects Identified, 6 Map Site recommended
- Length of Trail (km) by Class**

TRAIL	km	ROAD	km
Ideal Trail 10	3.7	Ideal Road 5	0
Class 9	14.6	Class 4	.9
Class 8	1.1	Class 3	4.9
Class 7	1.7	Class 2	3.0
Class 6	0	Class 1	.03



Map Linked Signage Details

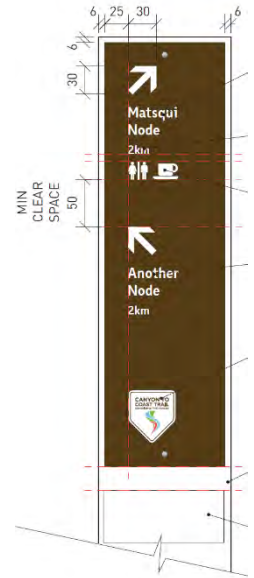
- Sign types recommended at each location are shown on the map and labelled numerically. Some sign locations require detailed explanations. Those sign details are listed here.
- **Sign Location 14:** Westbound riders will want to continue straight here but eastbound riders will need to cross the street to get in the bike lane. This intersection is confusing and could use detailed rider directions on how to navigate the intersection. More than route signs may be needed.
- **Sign Location 21:** This route West uses an excellent bike lane but a good sign location needs to be identified.
- **Sign Location 22:** A Map Route sign is recommended here because there are two options in either direction. Sign placement and Route map will need some more consideration.
- **Sign Location 23:** Locations of these signs not identified, requires review. If multiple routes are desirable then a Route Map site would be needed at the dyke junction.
- **Sign Location 25, 26, 27:** This bridge structure has an upper and lower route. Could split traffic here with Eastbound on the lower. Ignore picture if Westbound is upper path. Sign potential could be placed on Bridge structure.
- **Sign Location 28:** Signs could be placed on wall of Discharge Structure. Cyclists will be tempted to turn here but the route is on the dyke.
- **Sign Location 30,31,33,35,36:** These signs may seem redundant but these are access point for the trail so help users entering at these locations.
- **Sign Location 32:** Trail is narrow here behind the parking lot... could also be improved but easy to miss this section when heading East.
- **Sign Location 41, 42:** There are lots of trails in Gary Point Park and it is easy to get lost. A route map would be well placed here for users entering the trail here and to help with navigation. Also a note that the trail heading east (past water fountain) to the West Dyke trail is narrow and could be improved.
- **Sign Location 48:** This area is a slow are for pedestrians might need to have a cyclist dismount sign here.
- **Sign Location 51:** This is a critical location for a sign to direct people onto the Imperial Landing Trail. This area is also a slow cycling area need to have some kind of sign or speed sign here.
- **Sign Location 60:** A spot is needed for these signs. One was not identified.
- **Sign Location 71:** It isn't clear where to put the signs here but a proper crossing is needed.
- **Sign Location 76:** Currently this is the route by shuttle under the Fraser. It will need to be changed as the tunnel project develops.



Map Linked Potential Project Details

- Potential projects were identified while riding on the trail and are mainly focused on improvements to the route but also include some areas for interpretive/history type projects.
- **Potential Project A:** This 200m road connection on Charles Street could be improved with shoulders or bike lanes. Updated road paint markings would also be a minor improvement.
- **Potential Project B:** This 300m section along Beckwith and No. 3 Road could use updated road paint markings but also would benefit from dedicated bike lanes.
- **Potential Project C:** The trail leaves the dyke onto River Road which can be busy. The section on River Road is about 500m with almost no bike protection. Also, there is a 100m section along Capstan way when heading in the western direction that is missing at construction site. Both of these sections would benefit from further bike lane development

- **Potential Project D:** Exiting or entering Middle Arm Trail on the dyke from River Road is difficult and could be improved with a proper crossing here for both pedestrians and cyclists.
- **Potential Project E:** Beautiful location for some kind of interpretive Kiosk or sign. This is where this Arm of the Fraser meets the Pacific Ocean.
- **Potential Project F:** Along Moncton Street these 200m of shared road could be improved bike lanes painted on the road. There are also lots of painted murals in this section. It could be a good spot for a painted mural celebrating the ETF Trail.
- **Potential Project G:** This is a great spot for the start of the trail going east. There is unrestricted parking. It is also a good location for interpretive signs. A map of the route is also indicated here.
- **Potential Project H:** Gravel trail is not well used. People seem to walk/bike on the road. Could be improved by paving it. New asphalt on Dyke Road seems too good to use the pathing path.
- **Potential Project I:** No. 2 Road Pier is a beautiful spot that could have interpretive signs or kiosks with details about the ETF and the Fraser River.
- **Potential Project J:** Along this 1.3 km section of the Dyke Road by Finn Slough a bike lane would greatly improve the safety quality of the trail.
- **Potential Project K:** This gravel parking lot along Dyke Road is difficult to navigate. Riders must go on the road but there are no shoulders. Bike lane development would improve this section.
- **Potential Project L:** There are two crossing here that are not marked in any way and the corner crossing at No 5 road is somewhat hidden and therefore dangerous. Proper crossings and signs here would improve the safety of these two crossing.
- **Potential Project M:** These 900m along Rice Mill road is difficult for bikes because there is no shoulder. Bike lane work would improve this section of the trail.

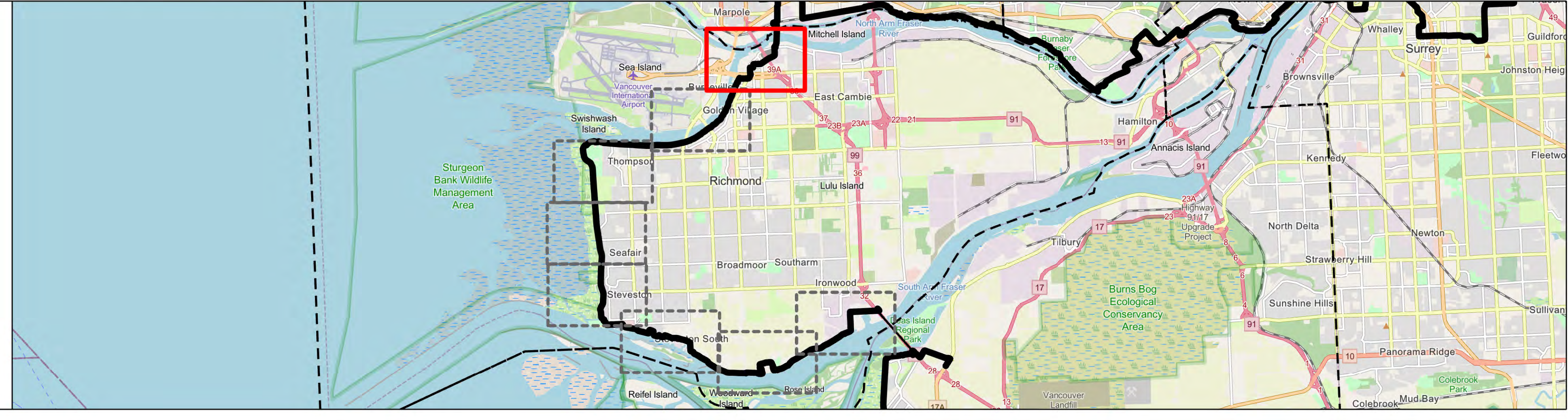
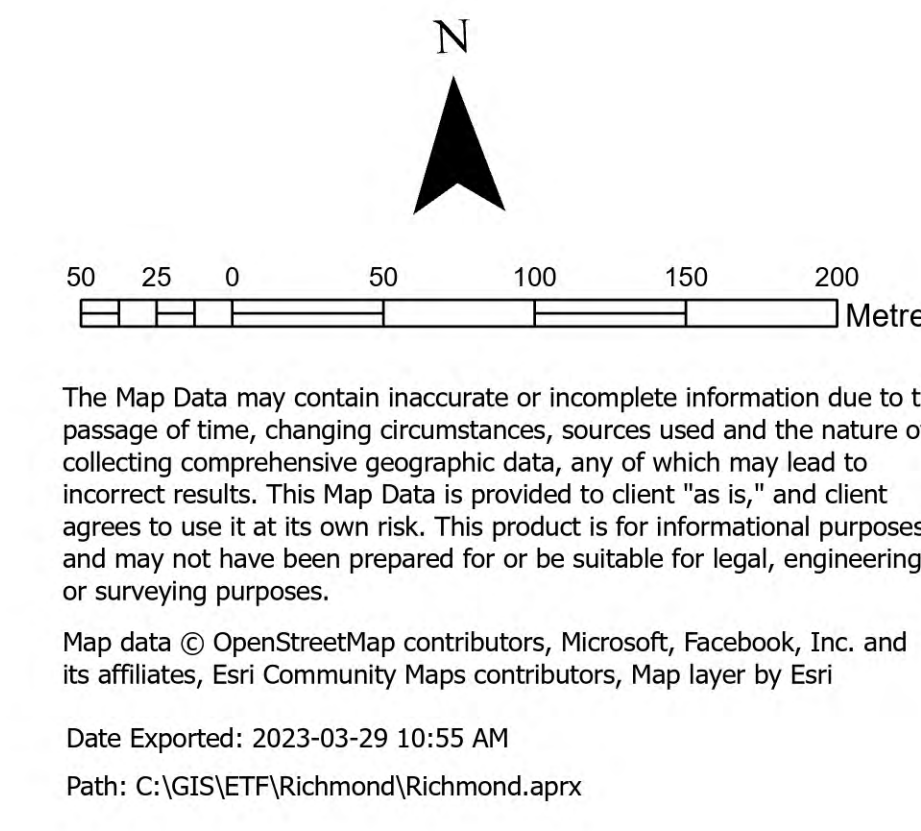


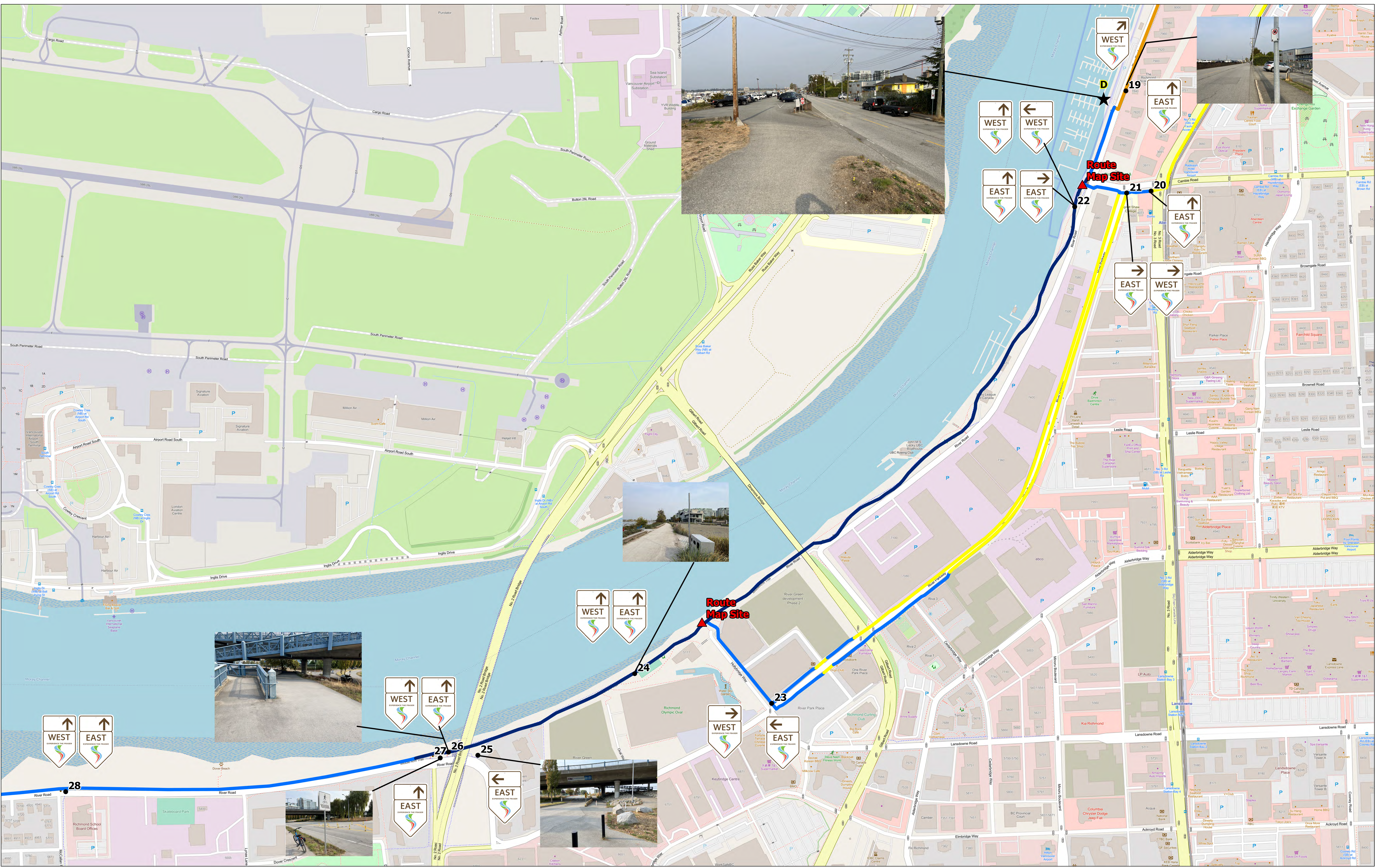


Experience The Fraser Fall 2022 Bike Trail Survey Map
Signs and Potential Projects
City of Richmond: Map 1 of 8

- ★ Potential Project Site
 - ▲ Potential Site for Detailed Map
 - Sign Needed
- | Route Class | Color |
|-------------|------------|
| 10 Trail | Dark Blue |
| 9 Trail | Blue |
| 8 Trail | Light Blue |
| 7 Trail | Purple |
| 4 Road | Green |
| 3 Road | Yellow |
| 2 Road | Orange |
| 1 Road | Red |

East and West on Signs indicate general direction of travel





Experience The Fraser Fall 2022 Bike Trail Survey Map

Signs and Potential Projects

City of Richmond: Map 2 of 8

★ Potential Project Site

▲ Potential Site for Detailed Map

Sign Type

● Sign Needed

Route Class

10 Trail

9 Trail

8 Trail

7 Trail

4 Road

3 Road

2 Road

1 Road

East and West on Signs indicate general direction of travel

← EAST

→ WEST

0 25 50 100 150 200

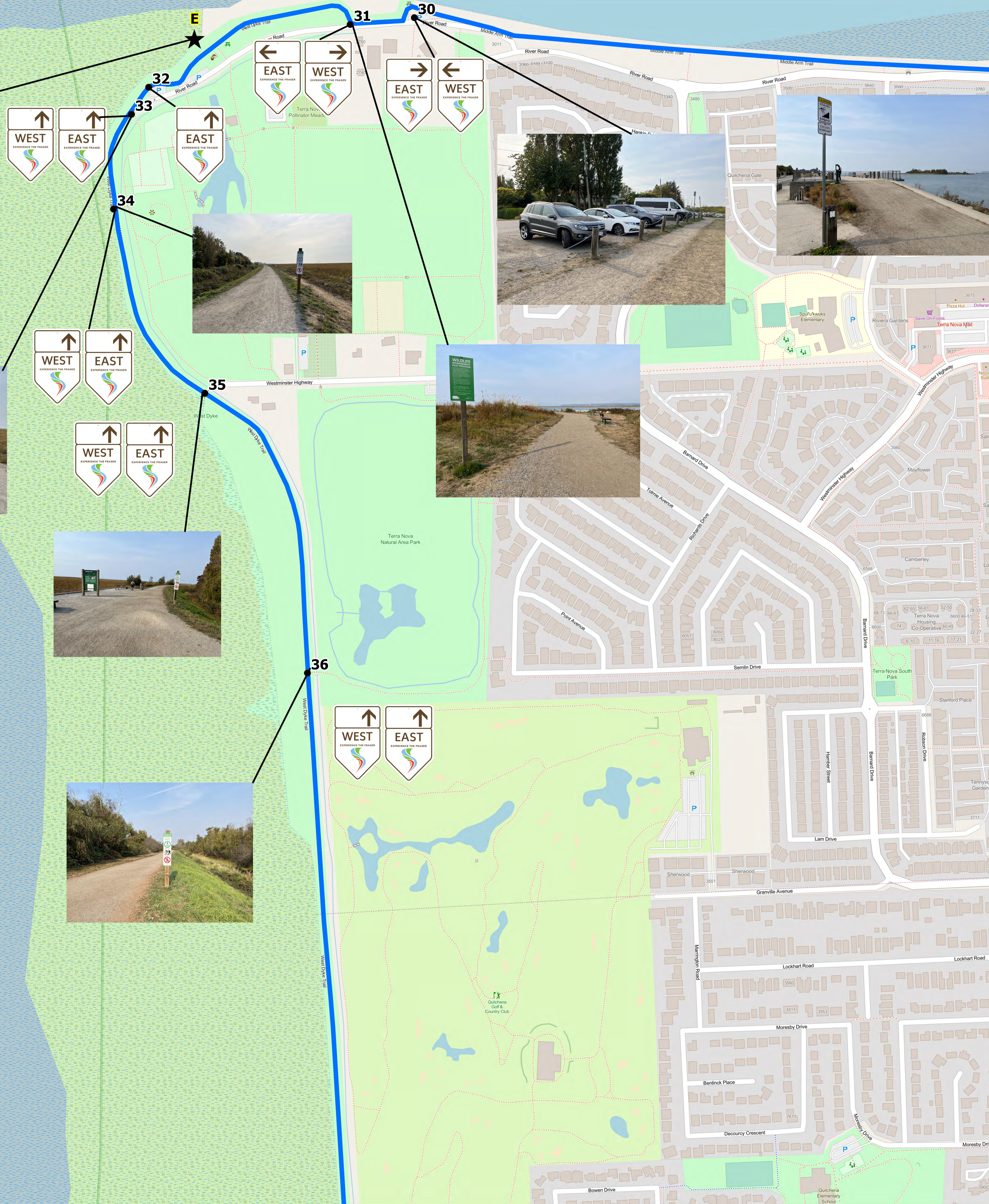
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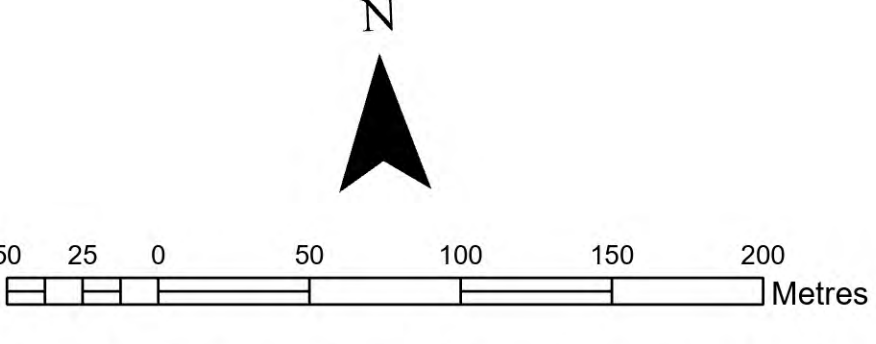
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Experience The Fraser Fall 2022 Bike Trail Survey Map Signs and Potential Projects City of Richmond: Map 3 of 8

- ★ Potential Project Site
 - ▲ Potential Site for Detailed Map
 - Sign Needed
- | Route Class | Trail | Road |
|-------------|----------|--------|
| Blue | 10 Trail | 4 Road |
| Light Blue | 9 Trail | 3 Road |
| Dark Blue | 8 Trail | 2 Road |
| Purple | 7 Trail | 1 Road |

East and West on Signs indicate general direction of travel

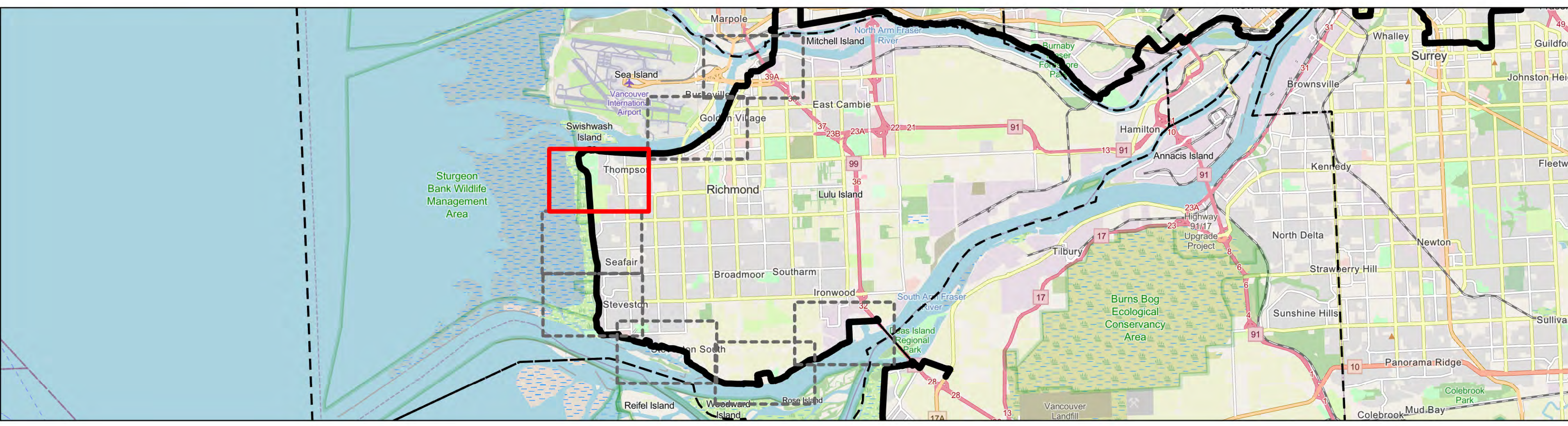


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Experience The Fraser Fall 2022 Bike Trail Survey Map

Signs and Potential Projects

City of Richmond: Map 4 of 8

★ Potential Project Site

▲ Potential Site for Detailed Map

● Sign Needed

Route Class

10 Trail

9 Trail

8 Trail

7 Trail

4 Road

3 Road

2 Road

1 Road

← EAST

→ WEST

East and West on Signs indicate general direction of travel

0 25 50 100 150 200

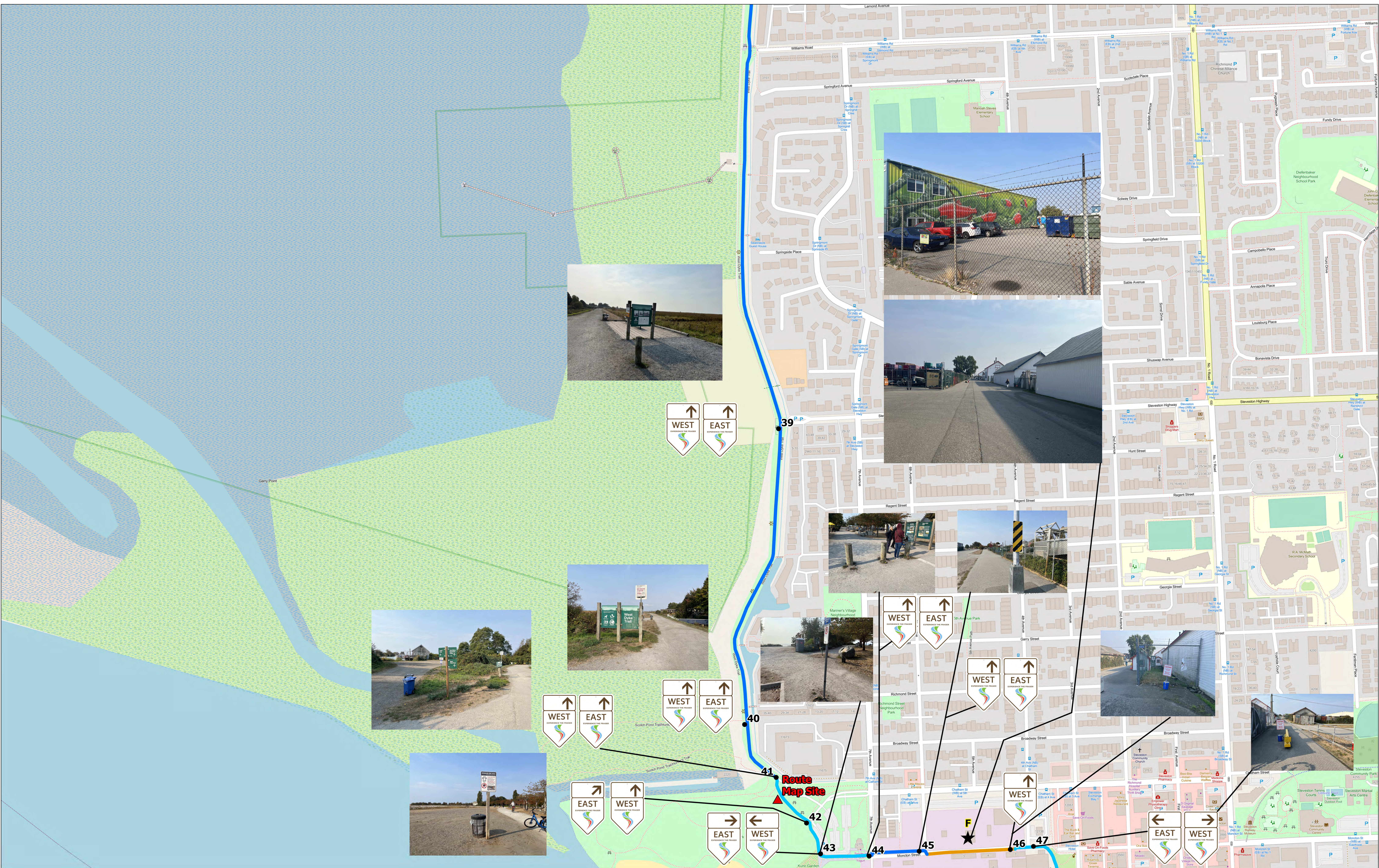
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Experience The Fraser Fall 2022 Bike Trail Survey Map

Signs and Potential Projects

City of Richmond: Map 5 of 8

★ Potential Project Site

▲ Potential Site for Detailed Map

Sign Type

● Sign Needed

Route Class

10 Trail

9 Trail

8 Trail

7 Trail

4 Road

3 Road

2 Road

1 Road

← EAST

→ WEST

East and West on Signs indicate general direction of travel

0 25 50 100 150 200

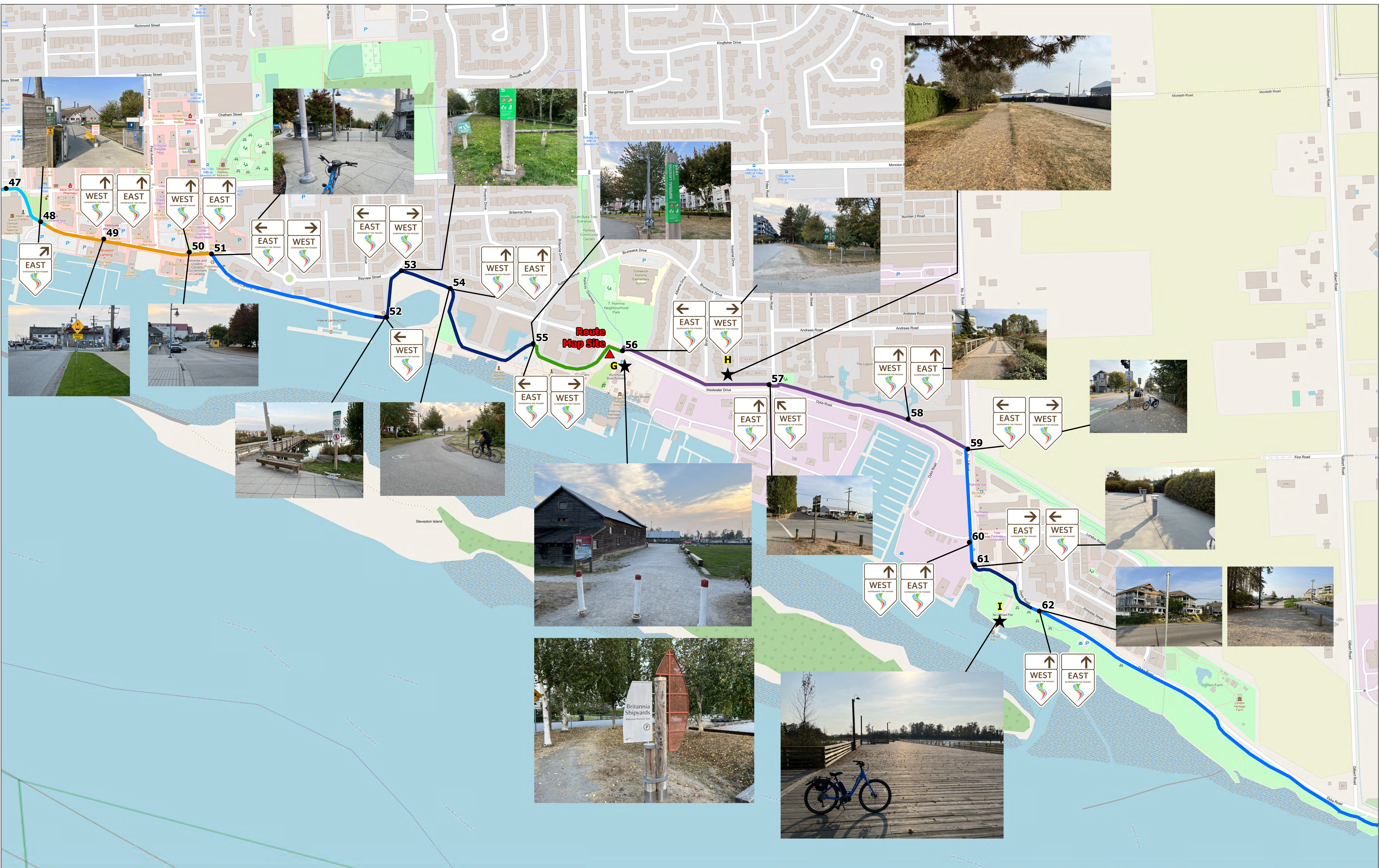
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Experience The Fraser Fall 2022 Bike Trail Survey Map
Signs and Potential Projects
City of Richmond: Map 6 of 8

★ Potential Project Site

▲ Potential Site for Detailed Map

● Sign Needed

Route Class

10 Trail

9 Trail

8 Trail

7 Trail

4 Road

3 Road

2 Road

1 Road

East and West on Signs indicate general direction of travel. East is travelling to Hope and West is heading to BC Ferries in Tsawwassen regardless of cardinal direction

← EAST

→ WEST

N

0 50 100 150 200

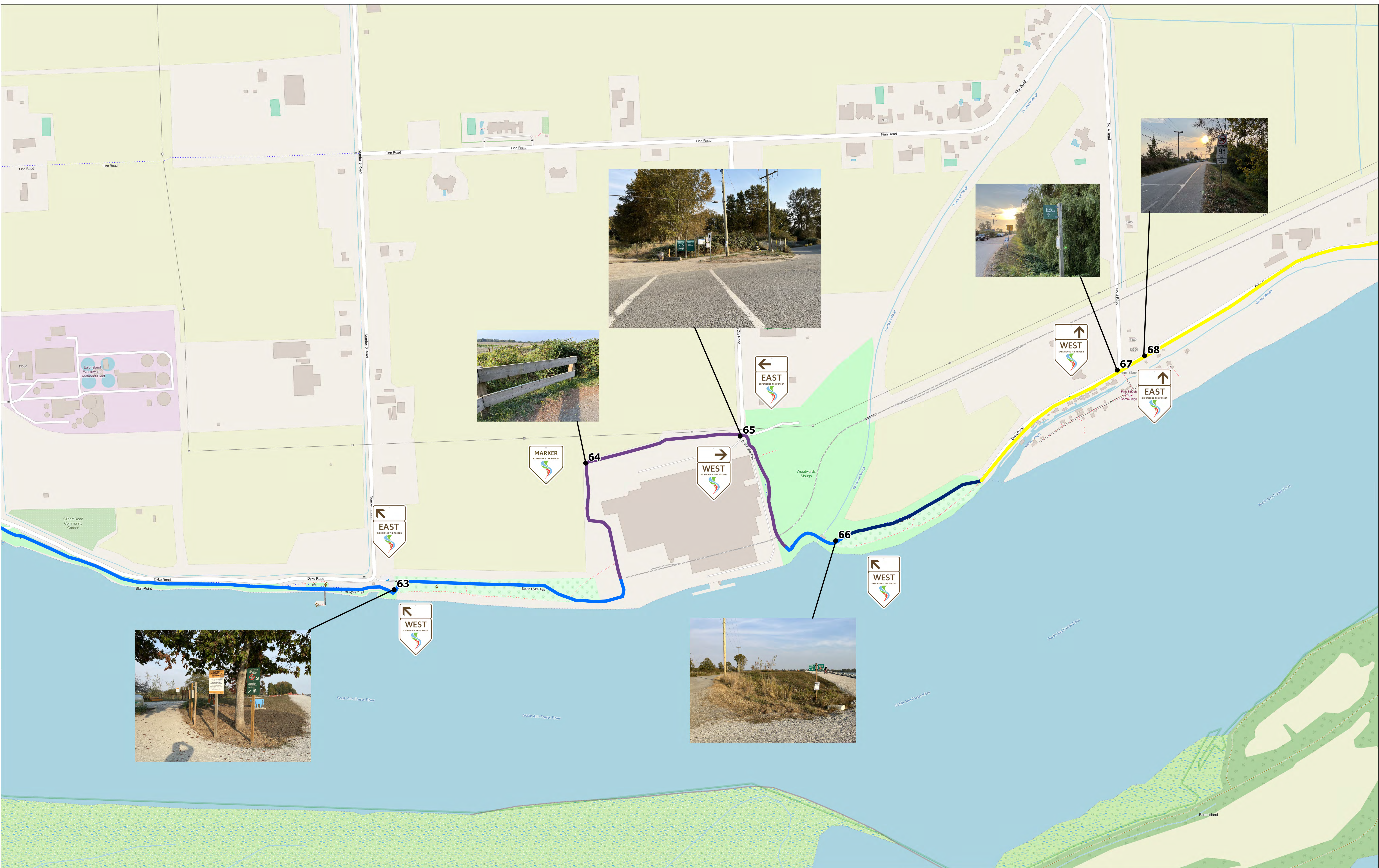
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Experience The Fraser Fall 2022 Bike Trail Survey Map

Signs and Potential Projects

City of Richmond: Map 7 of 8

★ Potential Project Site

▲ Potential Site for Detailed Map

Sign Type

● SignNeeded

Route Class

10 Trail

9 Trail

8 Trail

7 Trail

4 Road

3 Road

2 Road

1 Road

East and West on Signs indicate general direction of travel. East is travelling to Hope and West is heading to BC Ferries in Tsawwassen regardless of cardinal direction

← EAST

→ WEST

50 25 0 50 100 150 200

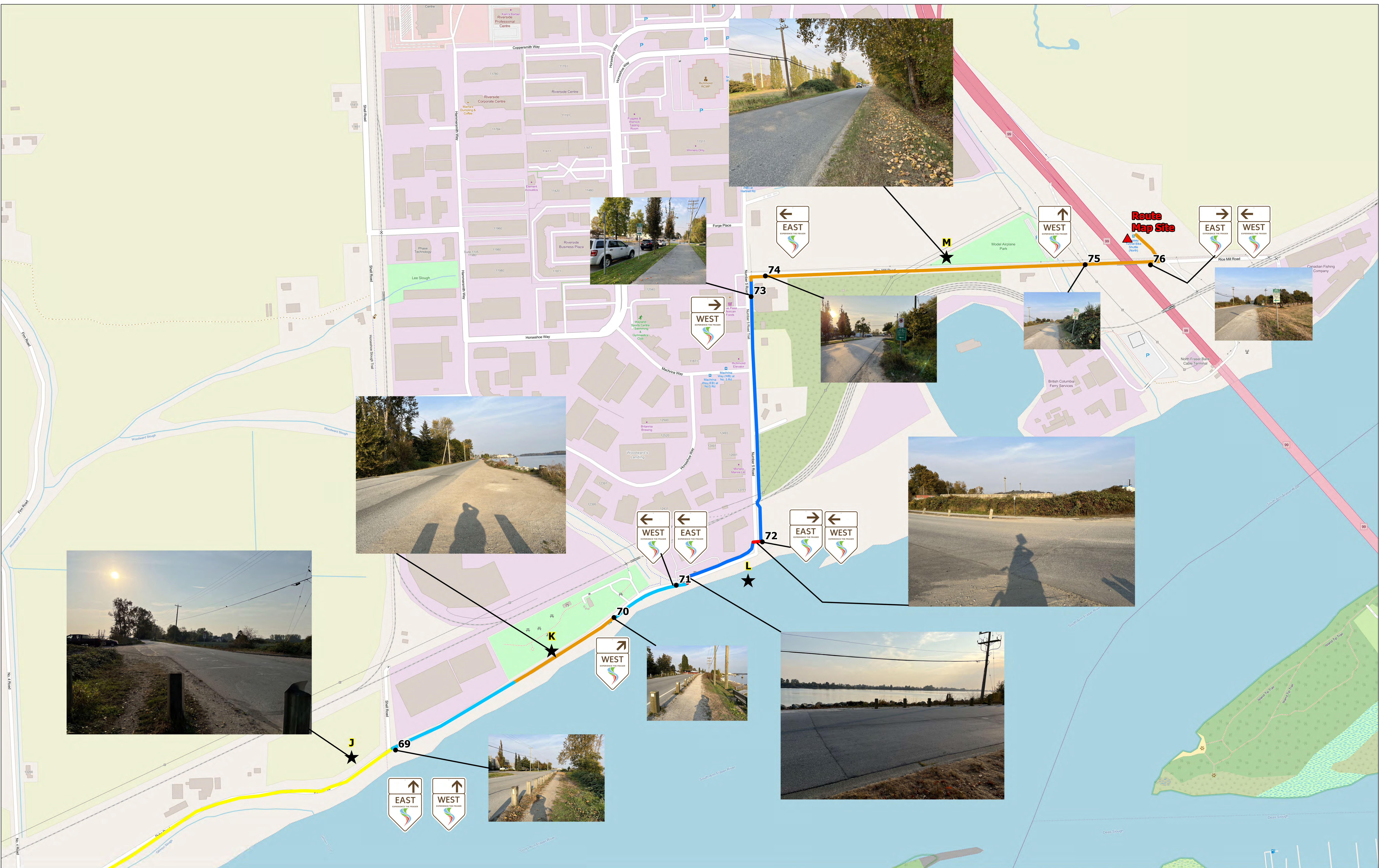
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Experience The Fraser Fall 2022 Bike Trail Survey Map

Signs and Potential Projects

City of Richmond: Map 8 of 8

★ Potential Project Site

▲ Potential Site for Detailed Map

● Sign Needed

Route Class

10 Trail

9 Trail

8 Trail

7 Trail

4 Road

3 Road

2 Road

1 Road

East and West on Signs indicate general direction of travel

← EAST

→ WEST

0 25 50 100 150 200 Metres

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