

Fraser River Tunnel Project

Marine Users Group (MUG)

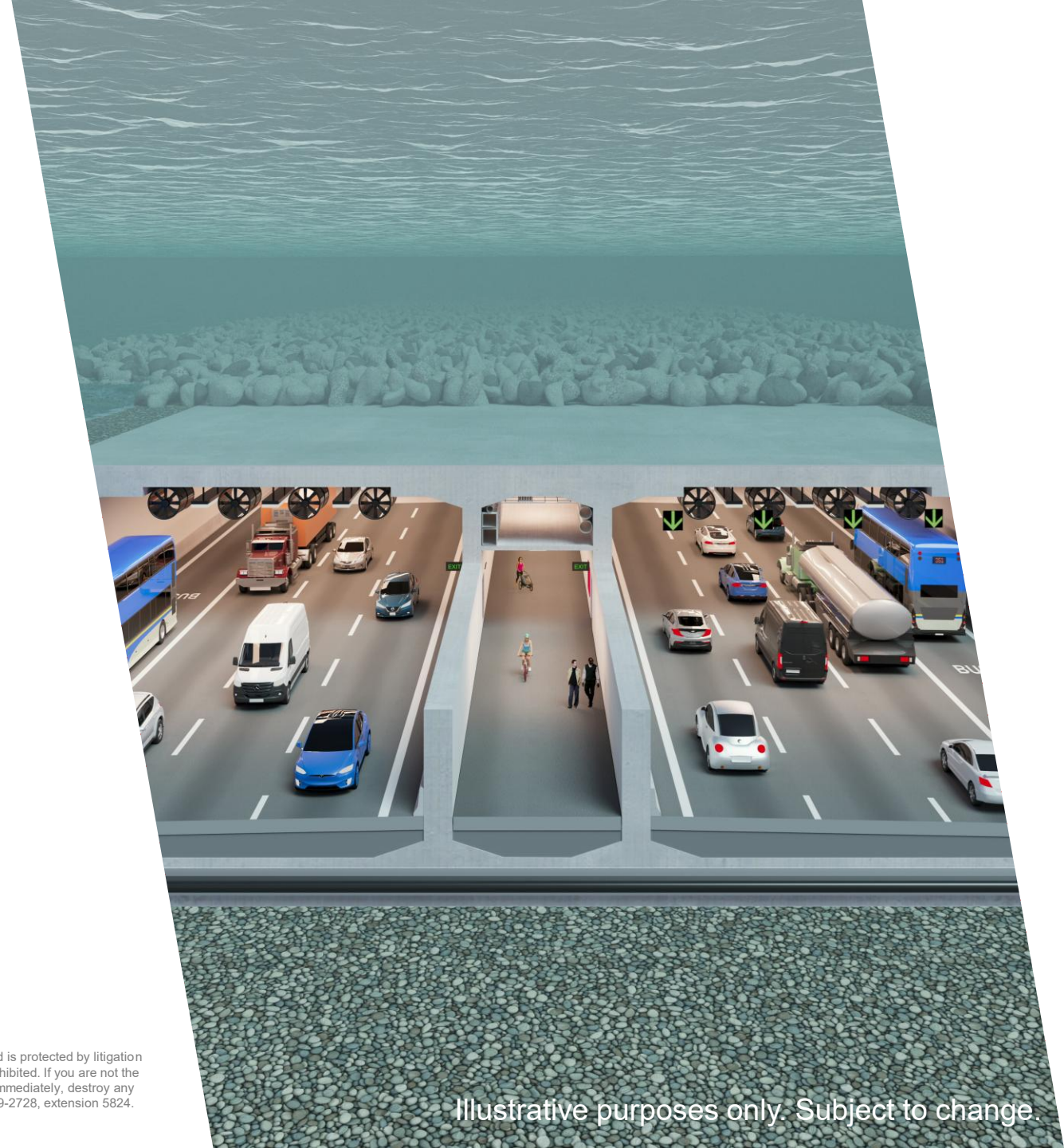
Early Works:

Marine Construction Staging Plan
and Marine Communication Plans

June 4, 2026

Agenda

1. Summary of April 2 Meeting
2. Project Update
3. Vessel Simulations
4. Early Works and Marine Construction Staging Plans



Terms of Reference

Marine Users Group (MUG)

A forum for the Project to provide updates to marine users regarding ongoing construction activities, review 4-week lookaheads describing upcoming works, and to hear interests and concerns from the marine community. The MUG will also ensure the implementation of the Marine Construction Staging Plans (MCSP) and Marine Communications Plans (MCP) to enable safe construction and navigation through the Project area.

Marine Operations Technical Group (MOTG)

A forum for the Project to engage in collaborative Project planning with marine stakeholders and consult stakeholders on marine issues to ensure feedback is integrated early in the process. The MOTG will inform detour design, navigation simulations, and the overall development of the Marine Supply Chain Logistics Management Plan (MSCLMP).

A copy of the TORs will be provided to each group/representative for information.

Summary of April 2 meeting



Summary of April 2 meeting

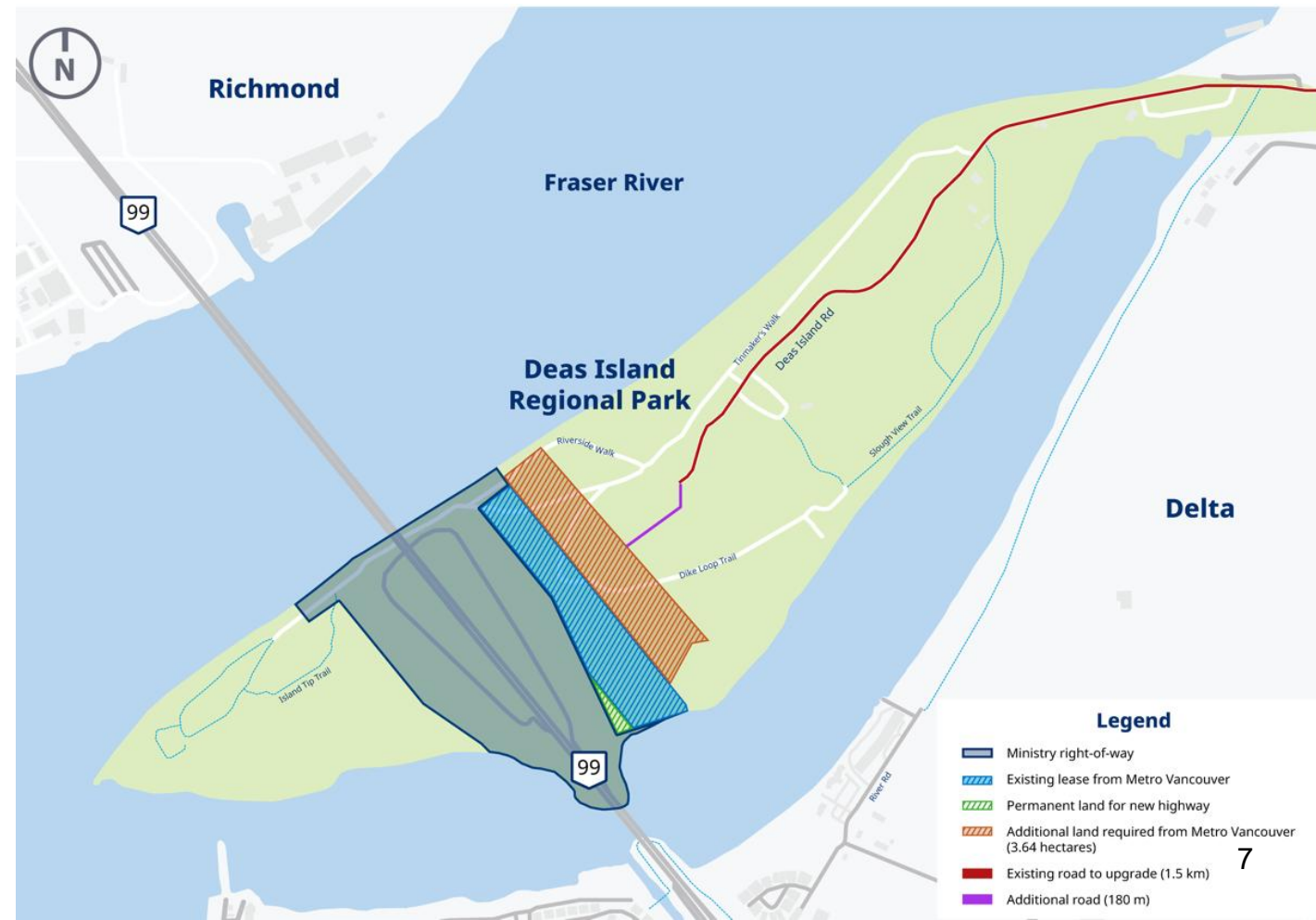
- Defined roles and responsibilities MUG and MOTG (Terms of Reference) to guide communications
- Provided overview of design build process, early works, seasons 1 & 2 and future works – north and south navigation detours and proposed mitigation will be in effect to facilitate navigation
- Noted constructability, sequencing, and schedule for immersion operations continue to be assessed to reduce potential interferences to navigation
- Noted and confirmed ongoing simulations with **FRP, Seaspun Ferries, and the Tug and Tow Community (CMC)** required to address centre-line works activities potentially interfering with navigation
- Provided overview of design vessel identification, Ship Grounding Study, and vessel simulations
- Provided overview of upcoming early works: logistics jetties, temporary trestle bridge, closures of Can Fisco Bay, and transition walls

Project Update



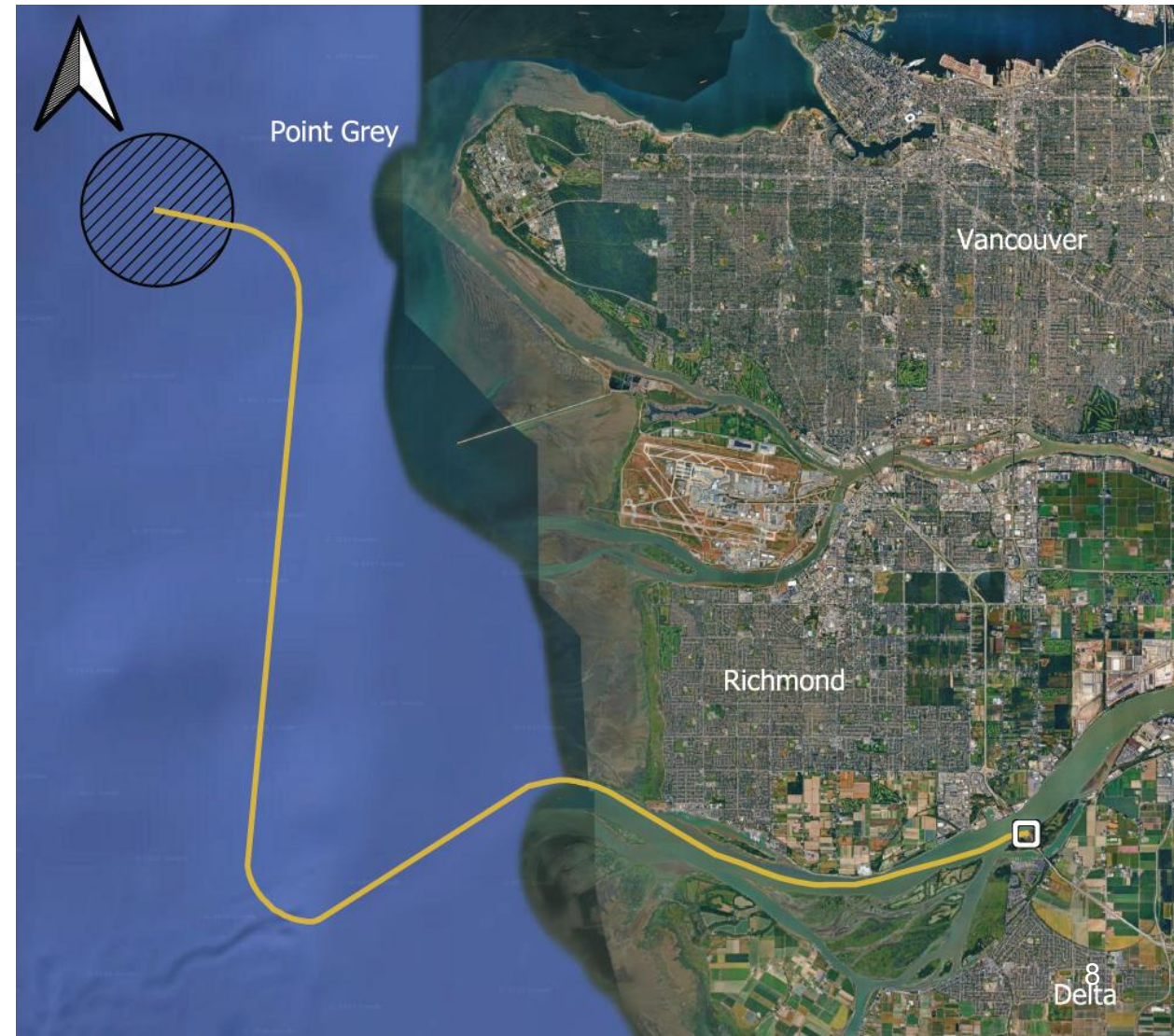
Efficiencies Continue to Evolve: Proposal for an Expanded Casting Basin

- Proposal submitted to Metro Vancouver for an additional 3.6ha of Deas Island to expand the Casting Basin
 - Increases construction efficiency
 - Time savings for the overall Project schedule
 - Eliminates the need for a temporary moorage area
 - Reduced impact to fish and fish habitat
 - Fewer in-river closures will be needed



Disposal at Sea

- Application submitted to Environment and Climate Change Canada in late April
- Loading and disposal activities from Oct 1, 2026 to Sept 30, 2027
- CFP will load 800,000m³ of inert inorganic geological matter from load sites in Richmond and Deas Island
- Material will be disposed at Point Grey by bottom-opening barge or towed scow



Vessel Simulations

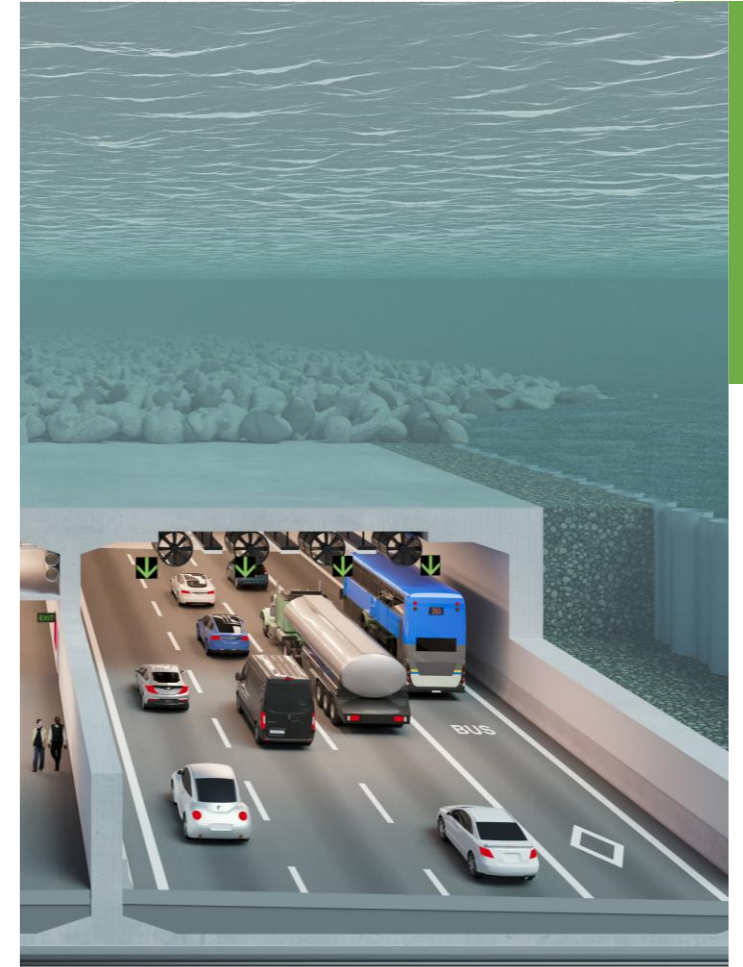


Vessel Simulations

- Two sets of additional simulations being undertaken with FRP, Seaspan Ferries, and tug and tow community (CMC) to better understand complexities of transits
- Focus is on potential interactions during centerline transitions or construction activities
- **Objective:** Determine minimum channel width mariners can navigate with/without tug assist and whether 5knots STW can be achieved to eliminate potential wake interactions with dredging equipment
- CFP objective is 100% compliant from a simulation perspective



Early Construction Works / Marine Construction Staging



Early Works and Navigation

Early Works
(2026-2027)

PROPOSED EARLY WORKS

Logistics jetties, trestle bridge, Can Fisco demo & bay closure, transition walls

NAVIGATION CHANNEL

Main Navigation Channel / potential limited use of North and South Detours

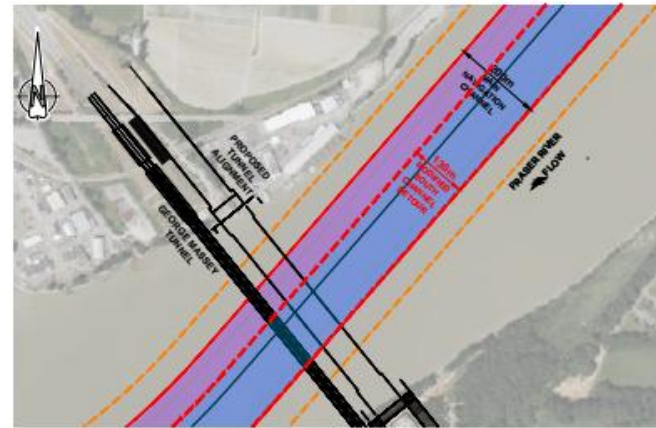


North and South Navigation Detours – If Required

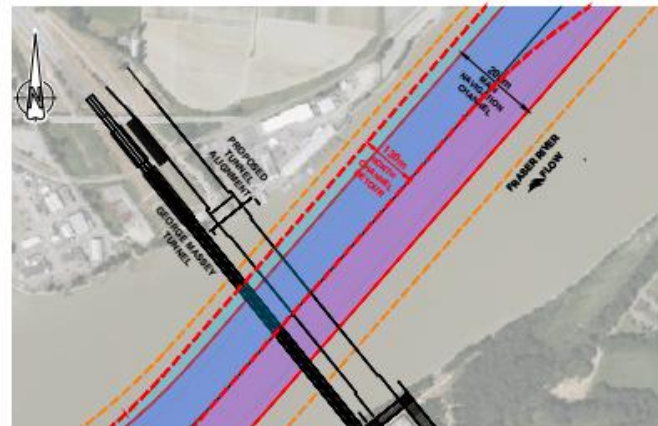
If required, CFP will communicate which of the north and south navigation channel detours are in effect



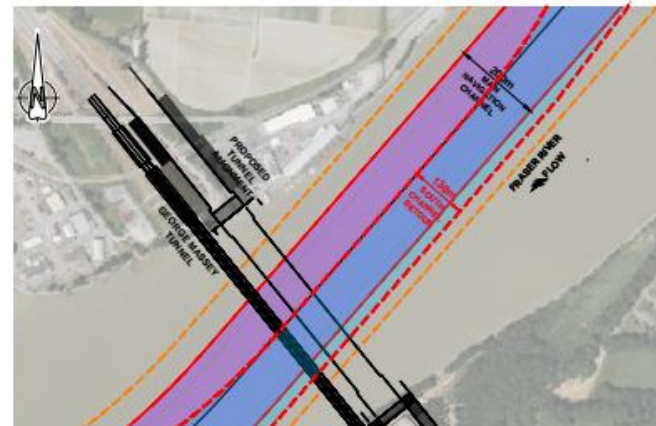
MODIFIED NORTH CHANNEL DETOUR
1:5000



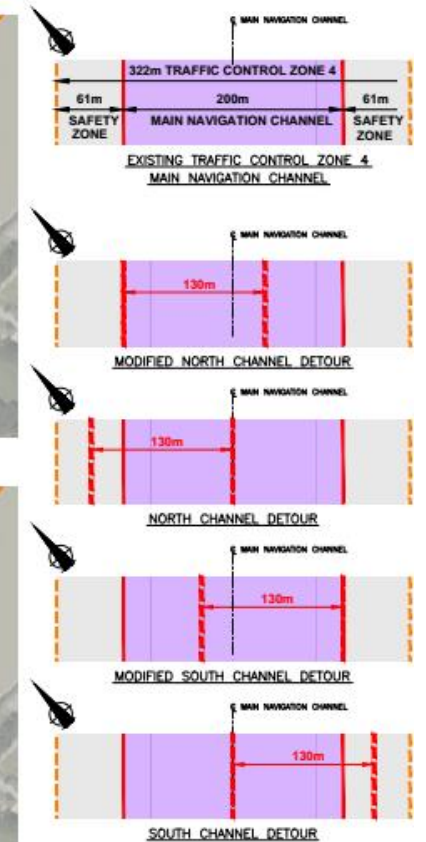
MODIFIED SOUTH CHANNEL DETOUR
1:5000



NORTH CHANNEL DETOUR
1:5000



SOUTH CHANNEL DETOUR
1:5000



Navigation Protection Plan

- Application submitted to Transport Canada in May
- Marine Construction Staging Plan (MCSP) and Marine Communication Plan (MCP) to be provided to MUG for review in July

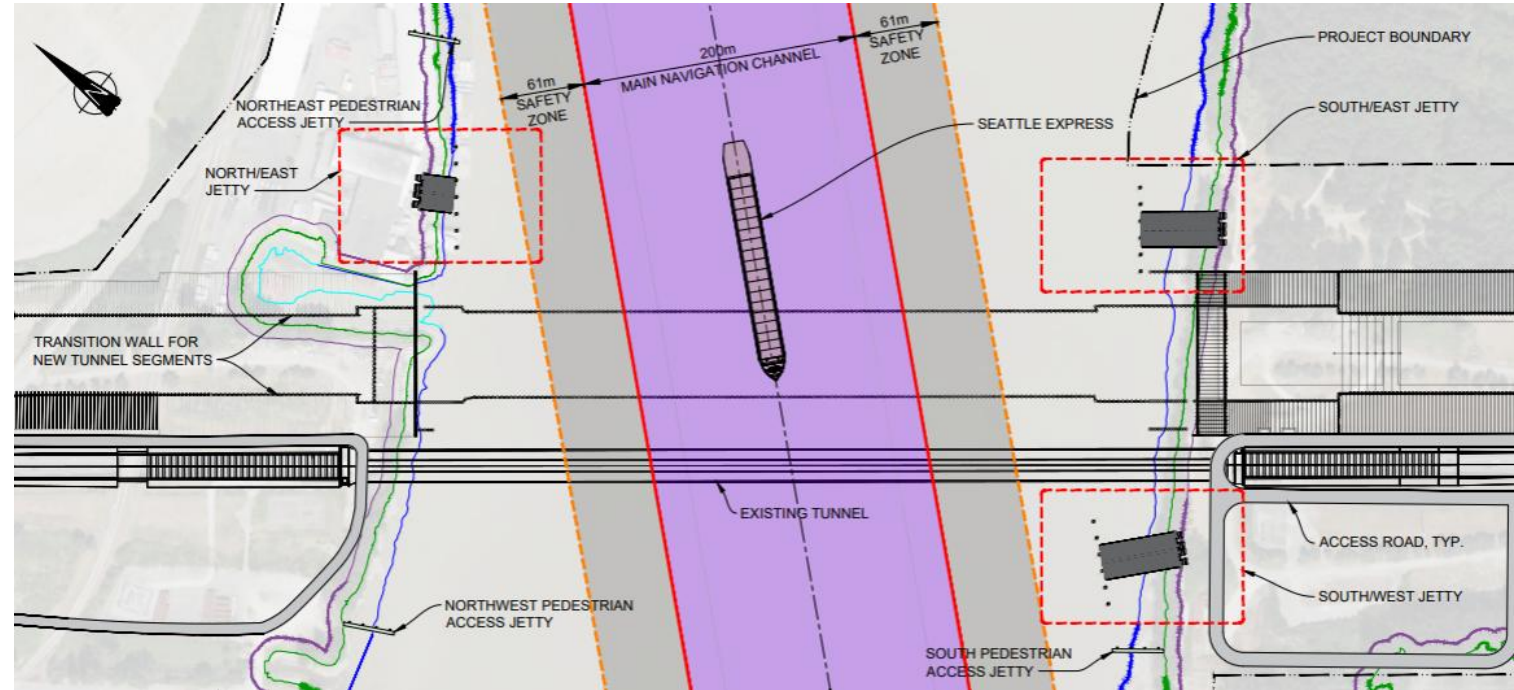


Temporary Logistics Jetties



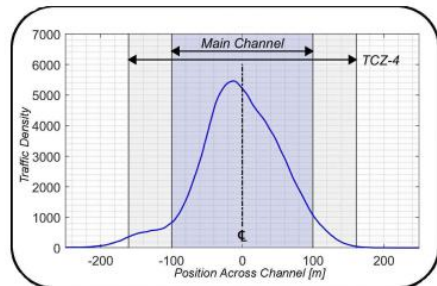
Logistics Jetties

- Three temporary logistics jetties and two temporary pedestrian jetties required for the movement of material
- Design optimized to provide more space from navigation channels
- No interferences to navigation (*limited in-river works – will be restricted to the Administrative Safety Channel*)
- Barge and tug movement to support construction

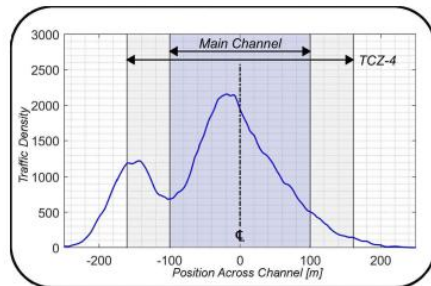


- Main Navigation Channel will be utilized to support deep sea transits
- Local users will be informed of any activities within the Administrative Safety Zone to address Seaspan and CMC transit patterns

Northeast Logistics Jetty



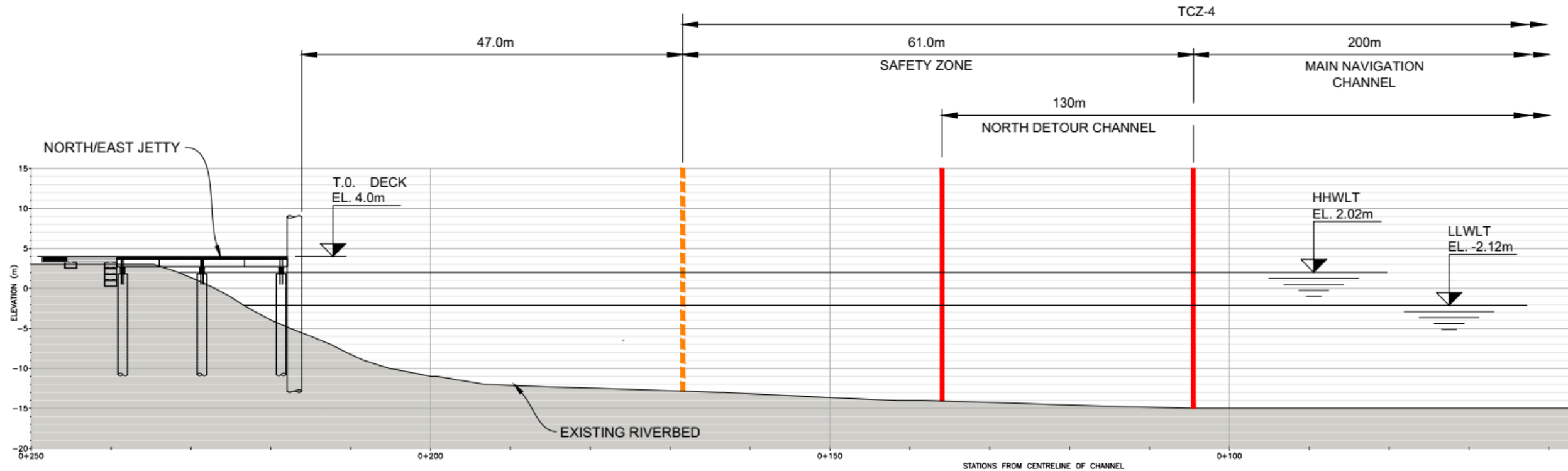
SEASPAM FERRY TRAFFIC DISTRIBUTION CURVE
AT GEORGE MASSEY TUNNEL



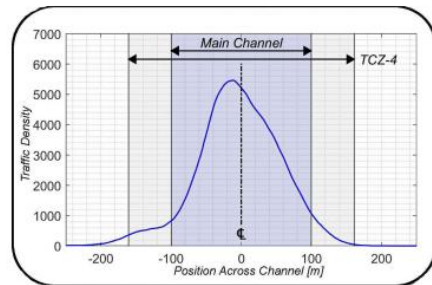
LOCAL TUG AND TOW TRAFFIC DISTRIBUTION CURVE
AT GEORGE MASSEY TUNNEL

PLAN — NORTH/EAST LOGISTICS JETTY
1:250

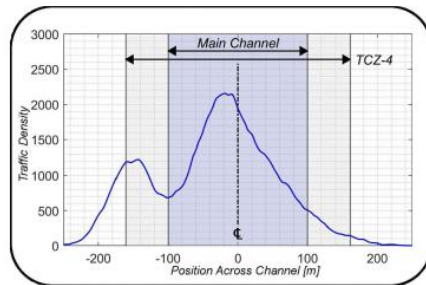
Northeast Logistics Jetty



Southeast Logistics Jetty



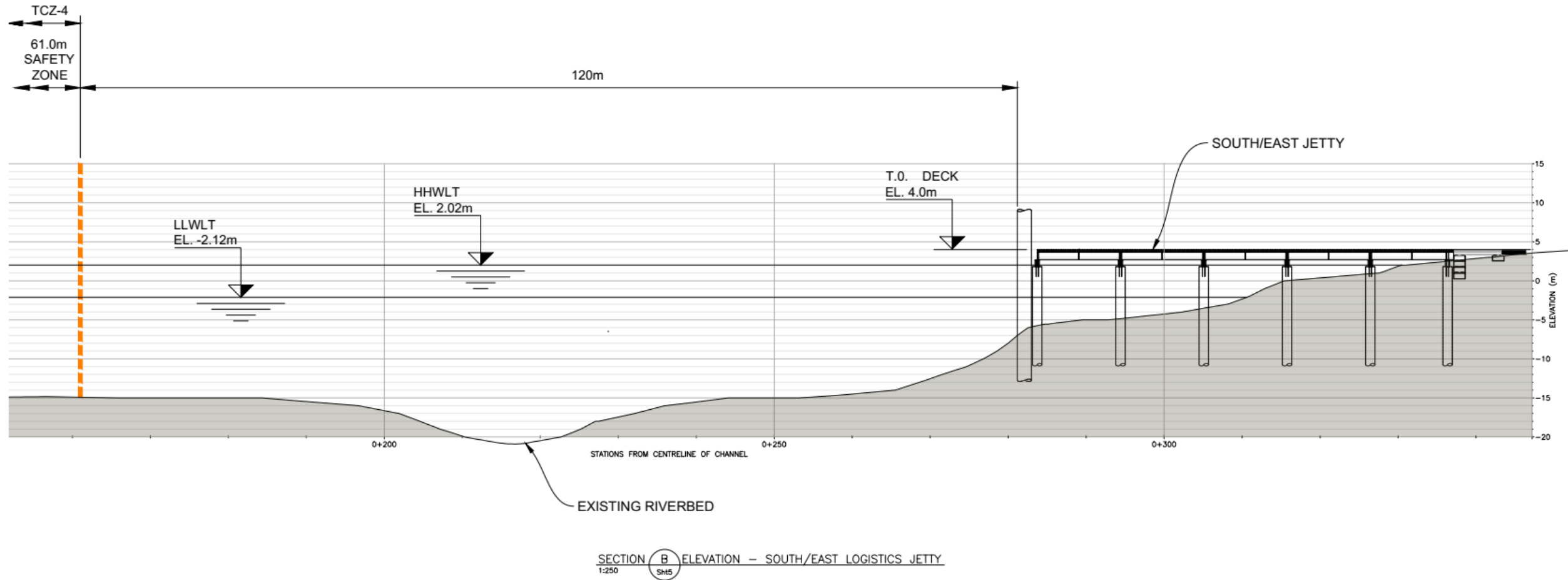
SEASPAN FERRY TRAFFIC DISTRIBUTION CURVE
AT GEORGE MASSEY TUNNEL



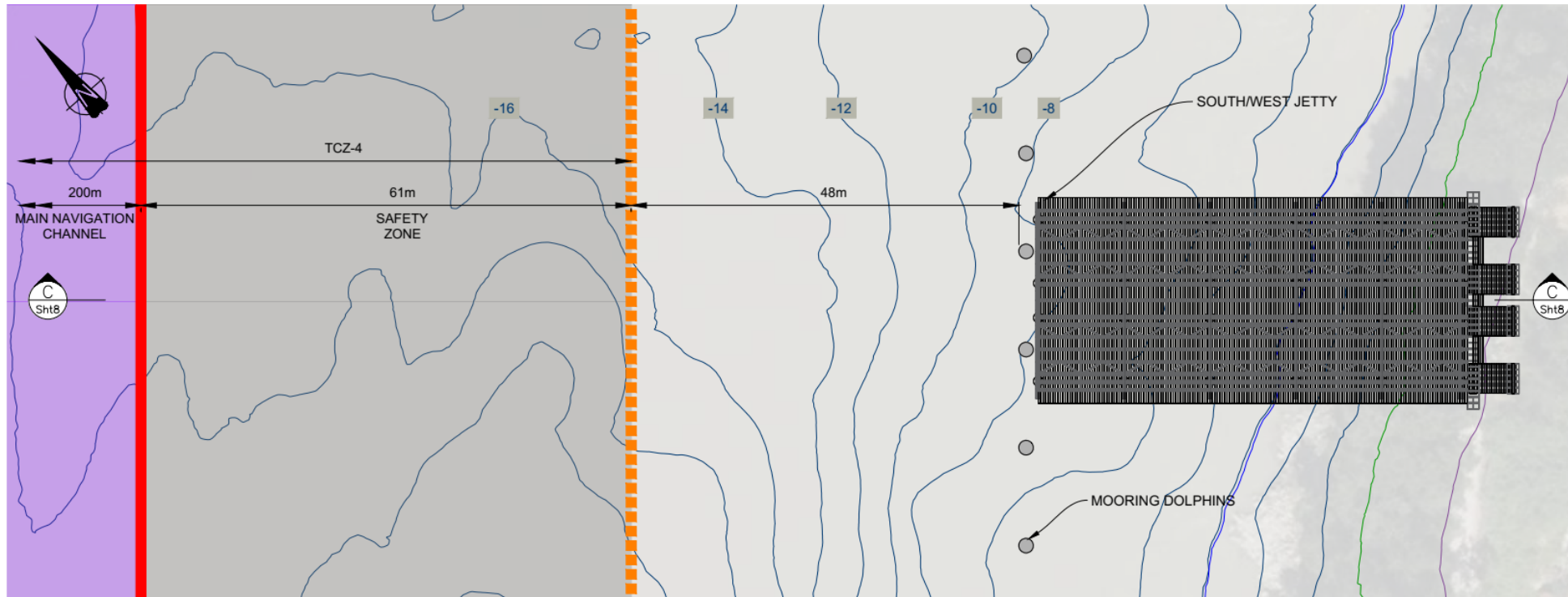
LOCAL TUG AND TOW TRAFFIC DISTRIBUTION CURVE
AT GEORGE MASSEY TUNNEL

PLAN — SOUTH/EAST LOGISTICS JETTY
1:250

Southeast Logistics Jetty

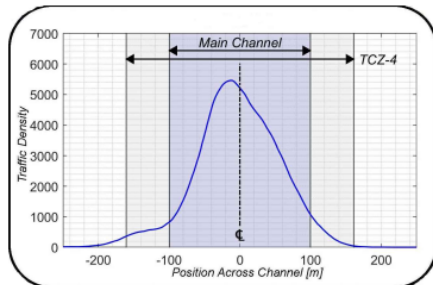


Southwest Logistics Jetty

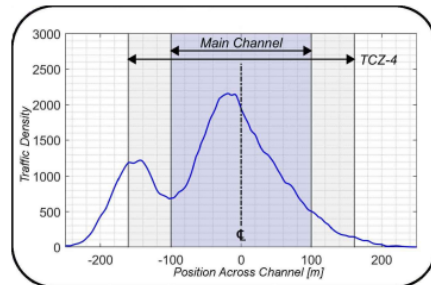


LEGEND:

- MAIN NAVIGATION CHANNEL
- - - CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HHML BUFFER
- HHMLT
- LLWL



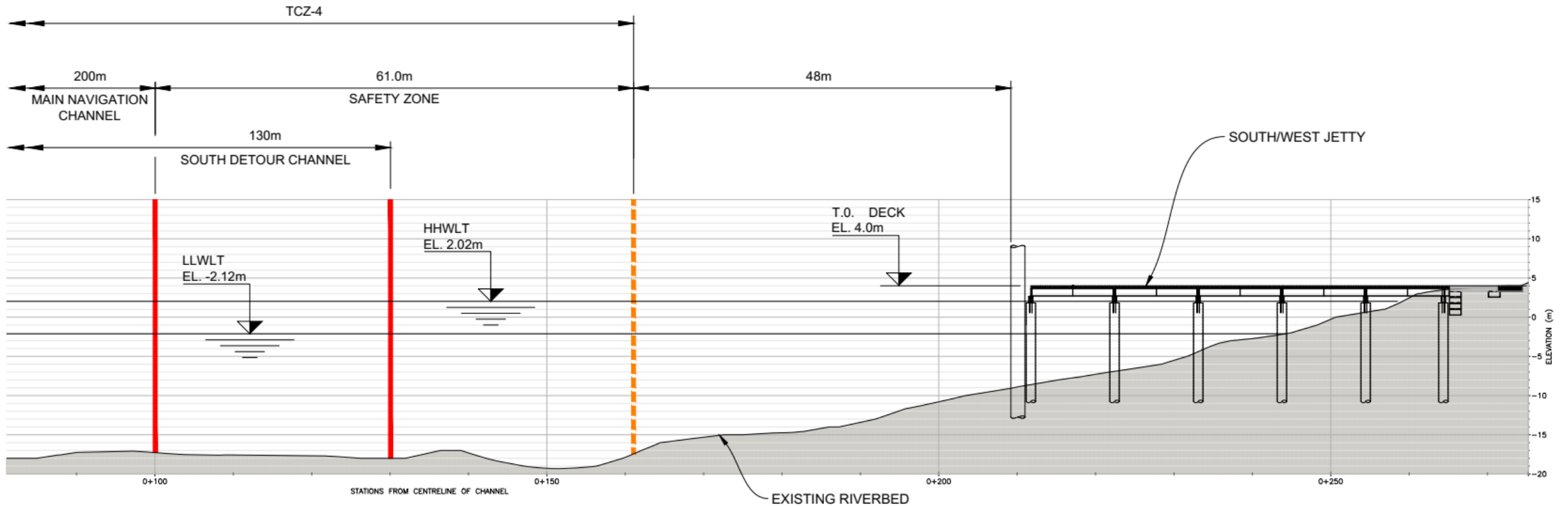
SEASPAN FERRY TRAFFIC DISTRIBUTION CURVE
AT GEORGE MASSEY TUNNEL



LOCAL TUG AND TOW TRAFFIC DISTRIBUTION CURVE
AT GEORGE MASSEY TUNNEL

PLAN — SOUTH/WEST LOGISTICS JETTY
1:250

Southwest Logistics Jetty



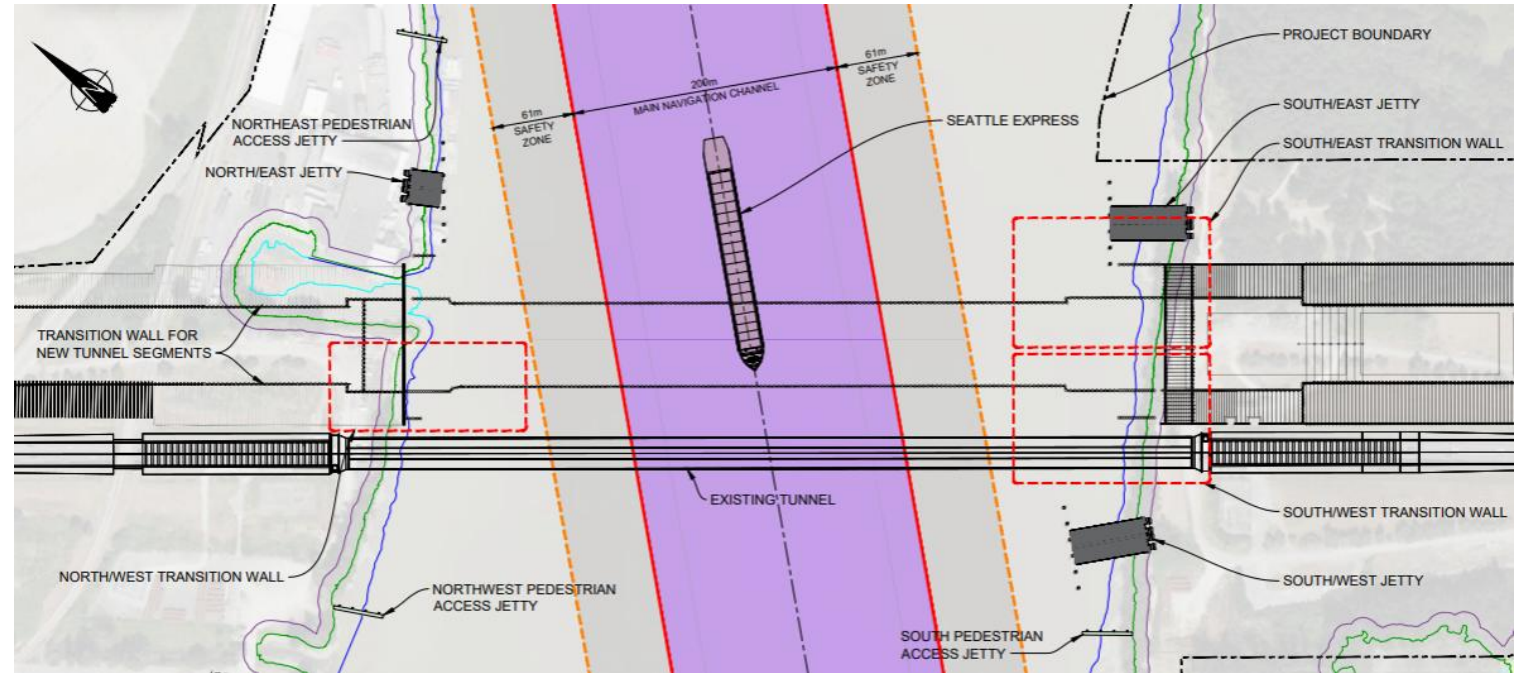
SECTION C ELEVATION - SOUTH/WEST LOGISTICS JETTY
1:250

Transition Walls



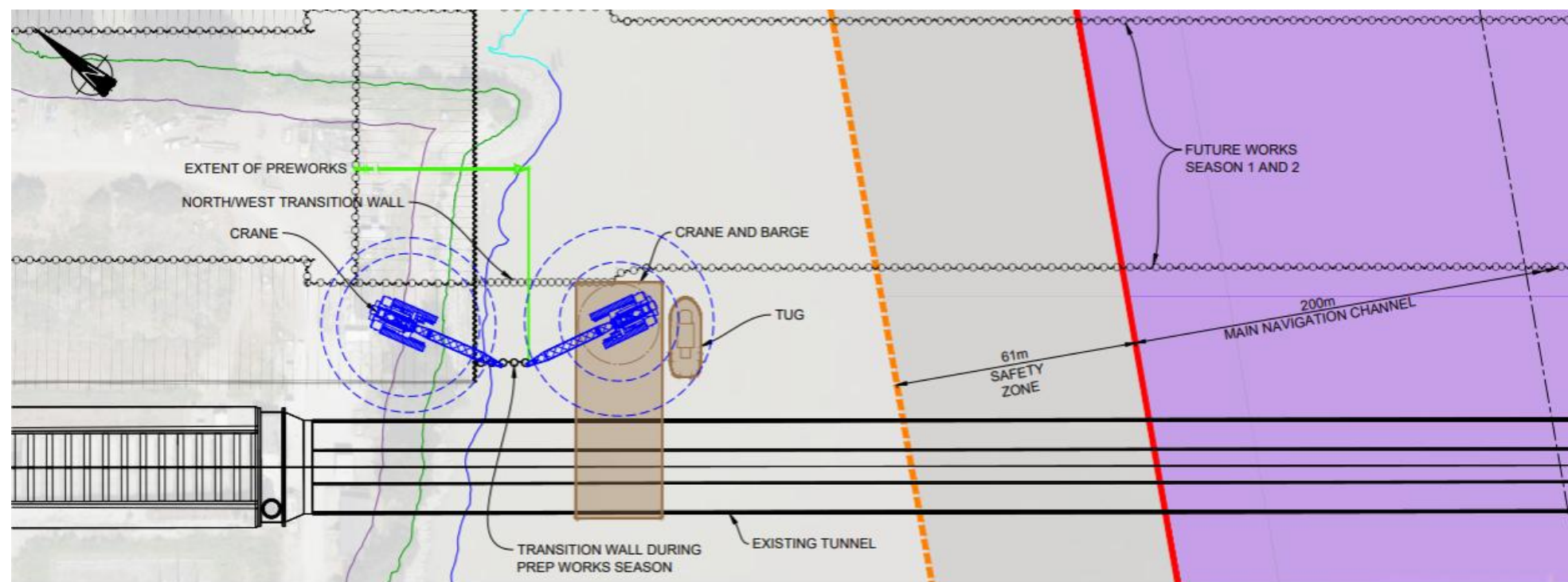
Transition Walls

- Three in-water areas
- Work to be completed by both on-land and in-river methods
- No interferences to navigation (*all works outside of the Administrative Safety Channel*)
- Barge and tug movement to support construction



- Main Navigation Channel will be utilized to support deep sea transits
- In-river works will affect transits between shoreline and Administrative Safety Zone

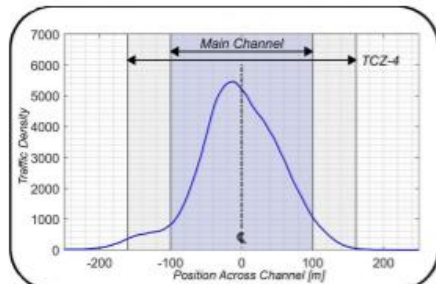
Northwest Transition Wall



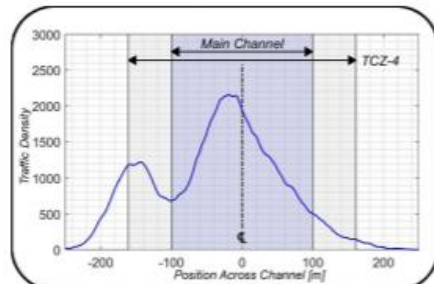
LEGEND:

- | | | | |
|---|----------------------------|---------------------------------------|------------|
| — | MAIN NAVIGATION CHANNEL | — | HMM BUFFER |
| --- | CHANNEL SAFETY ZONE | — | HMMLT |
| | MAIN NAVIGATION CHANNEL | — | LLWLT |
| | ADMINISTRATIVE SAFETY ZONE | | |

PLAN - NORTH/WEST TRANSITION WALL
1:500



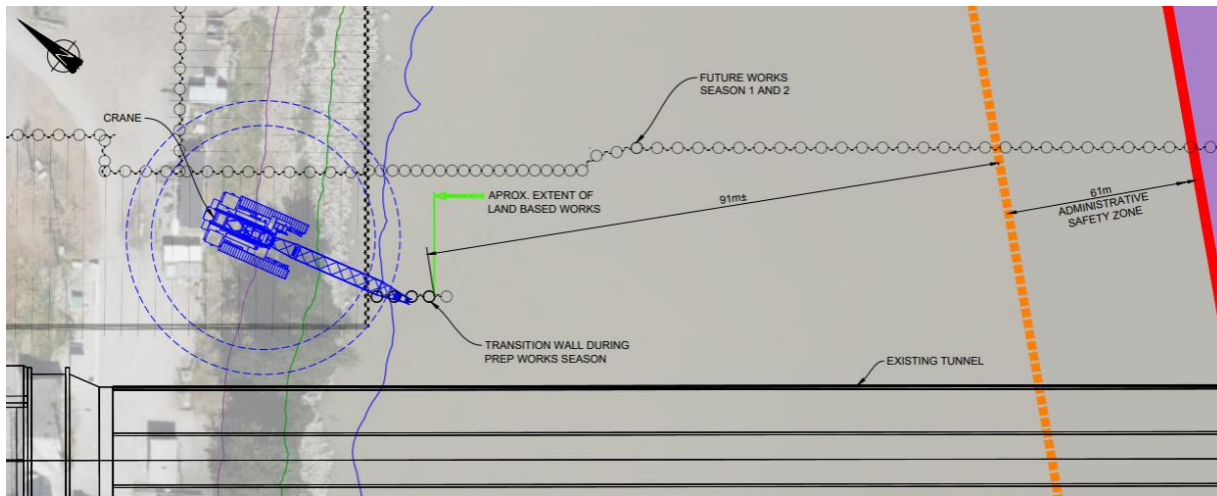
SEASPAN FERRY TRAFFIC DISTRIBUTION CURVE



LOCAL TUG AND TOW TRAFFIC DISTRIBUTION CURVE

Northwest Transition Wall – Construction Sequencing

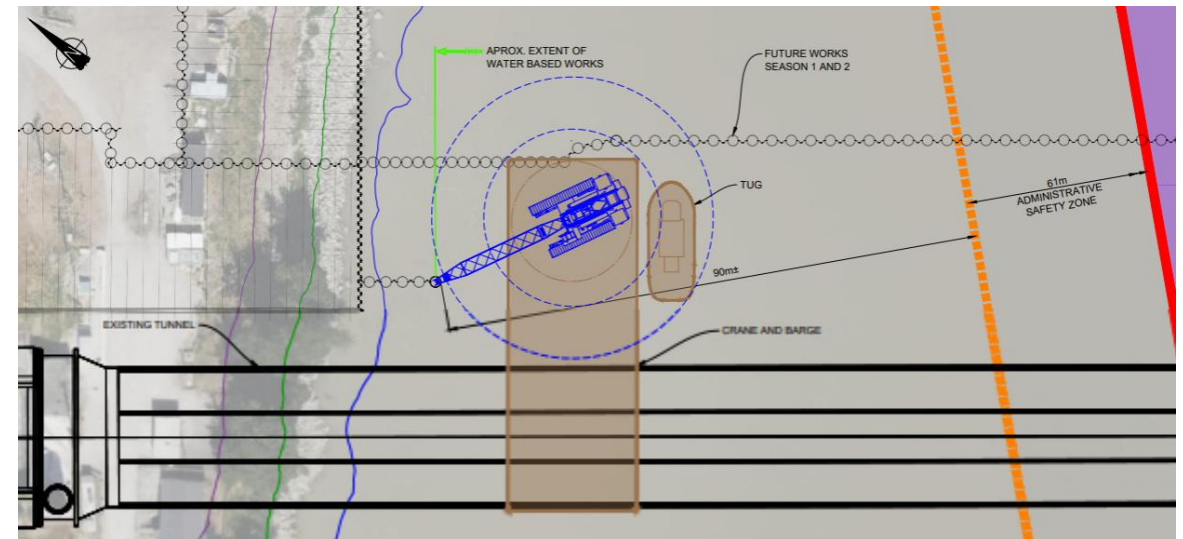
- Upland construction utilized as much as possible
- In-river works required that will affect transits between shoreline and Administrative Safety Zone



PLAN – NORTH/WEST TRANSITION WALL
1:200

LEGEND:

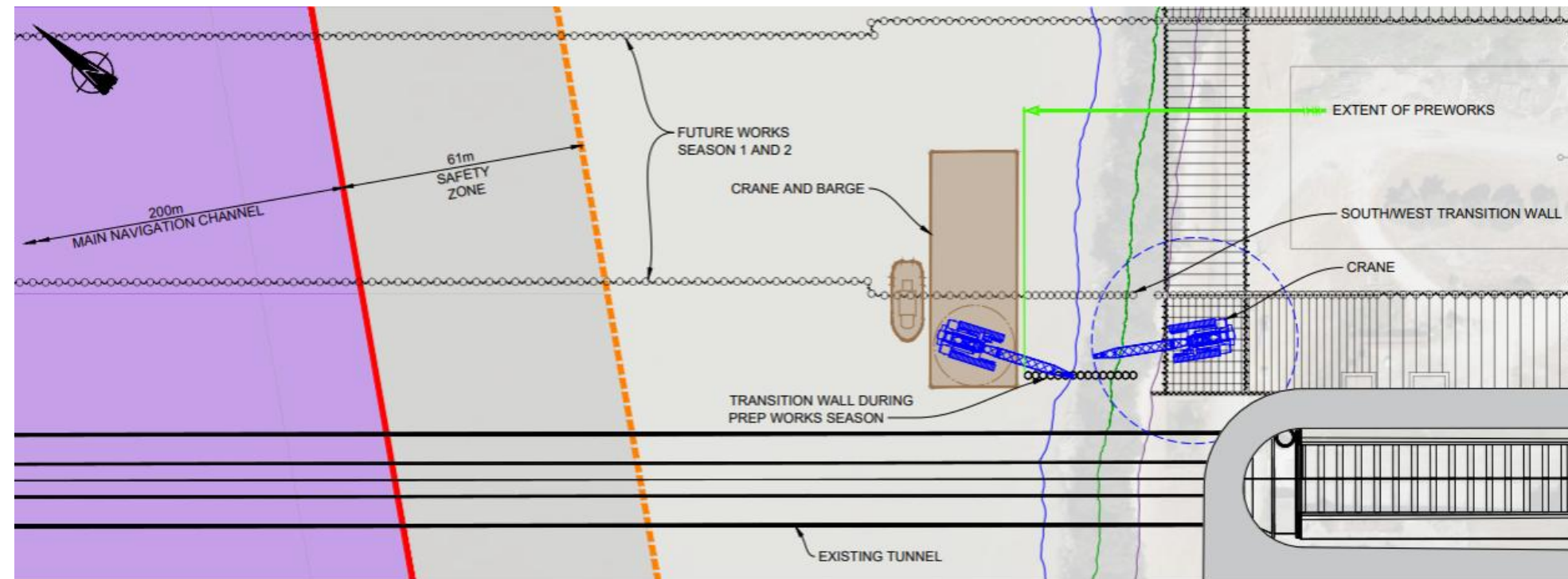
- MAIN NAVIGATION CHANNEL
- CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HWM, BUFFER
- HWM/L
- LWL/L



PLAN – NORTH/WEST TRANSITION WALL
1:200

- LEGEND:
- MAIN NAVIGATION CHANNEL
 - CHANNEL SAFETY ZONE
 - MAIN NAVIGATION CHANNEL
 - ADMINISTRATIVE SAFETY ZONE
 - HWM, BUFFER
 - HWM/L
 - LWL/L

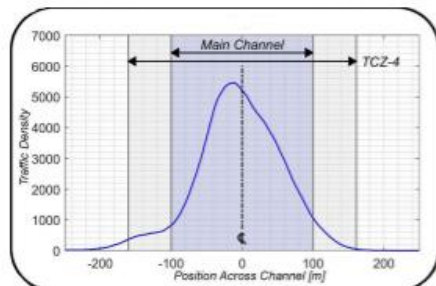
Southwest Transition Wall



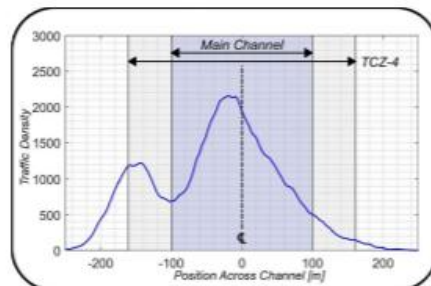
LEGEND:

- | | | | |
|--|----------------------------|---------------------------------------|------------|
| — | MAIN NAVIGATION CHANNEL | — | HMM BUFFER |
| - - - | CHANNEL SAFETY ZONE | — | HMMLT |
| | MAIN NAVIGATION CHANNEL | — | LLWLT |
| | ADMINISTRATIVE SAFETY ZONE | | |

PLAN - SOUTH/WEST TRANSITION WALL
1:500



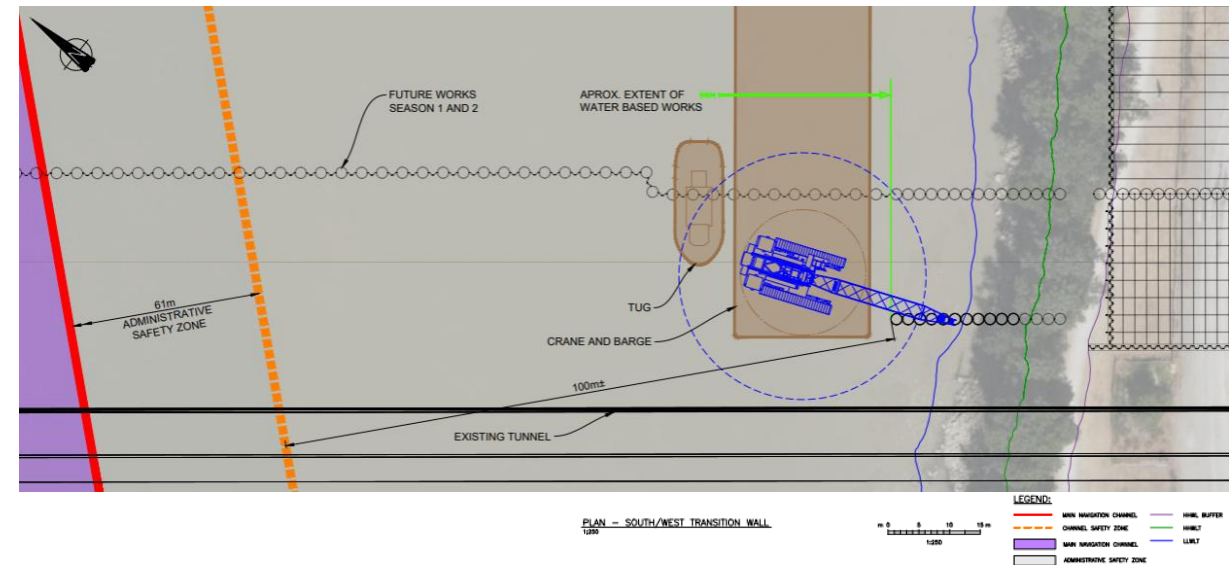
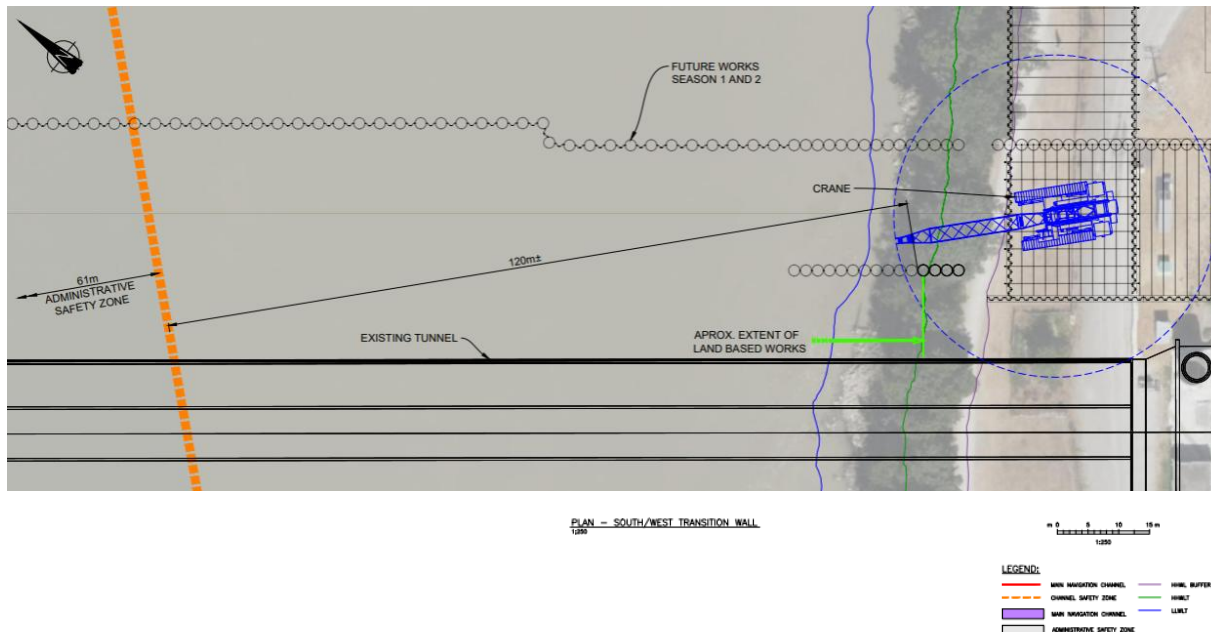
SEASPAN FERRY TRAFFIC DISTRIBUTION CURVE



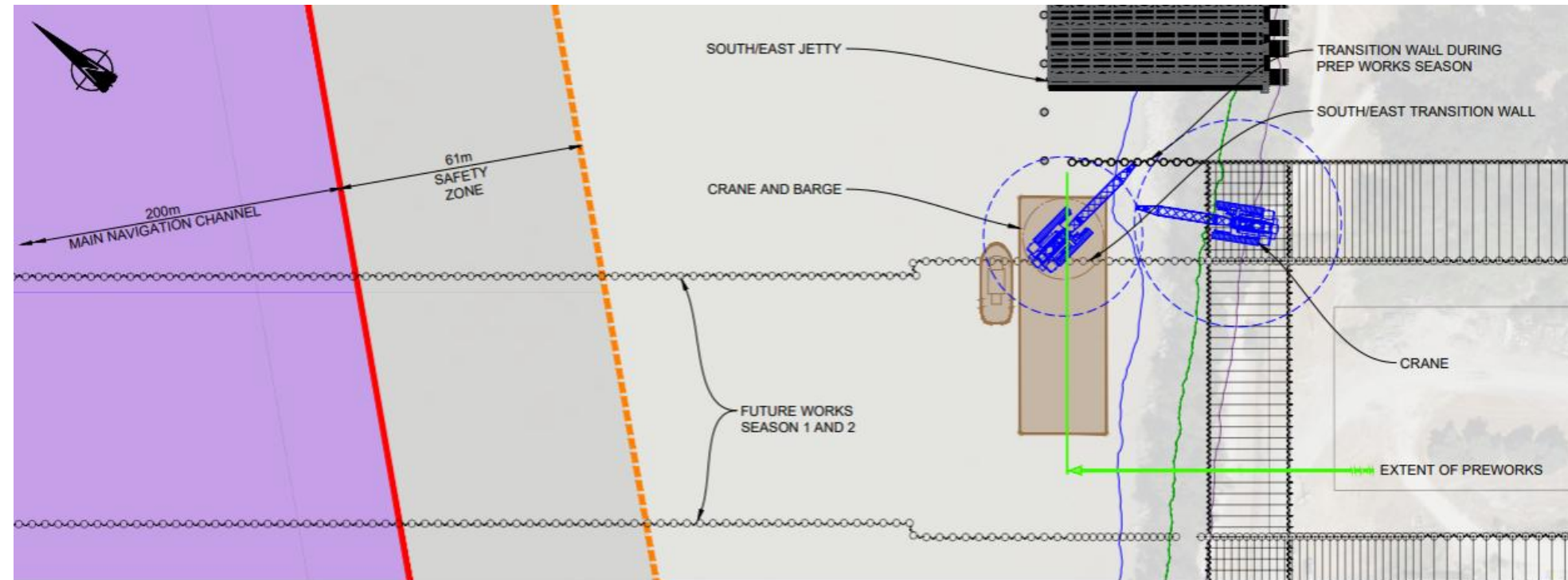
LOCAL TUG AND TOW TRAFFIC DISTRIBUTION CURVE

Southwest Transition Wall – Construction Sequencing

- Upland construction utilized as much as possible
- In-river works required that will affect transits between shoreline and Administrative Safety Zone

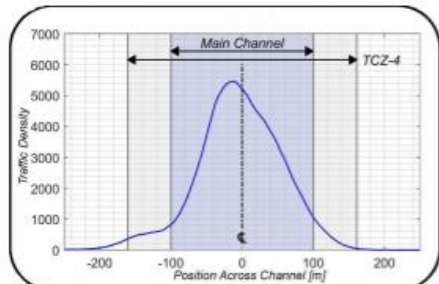


Southeast Transition Wall

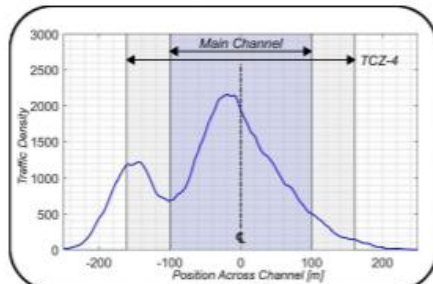


LEGEND:

- MAIN NAVIGATION CHANNEL
- - - CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HML BUFFER
- HMLT
- LLWL



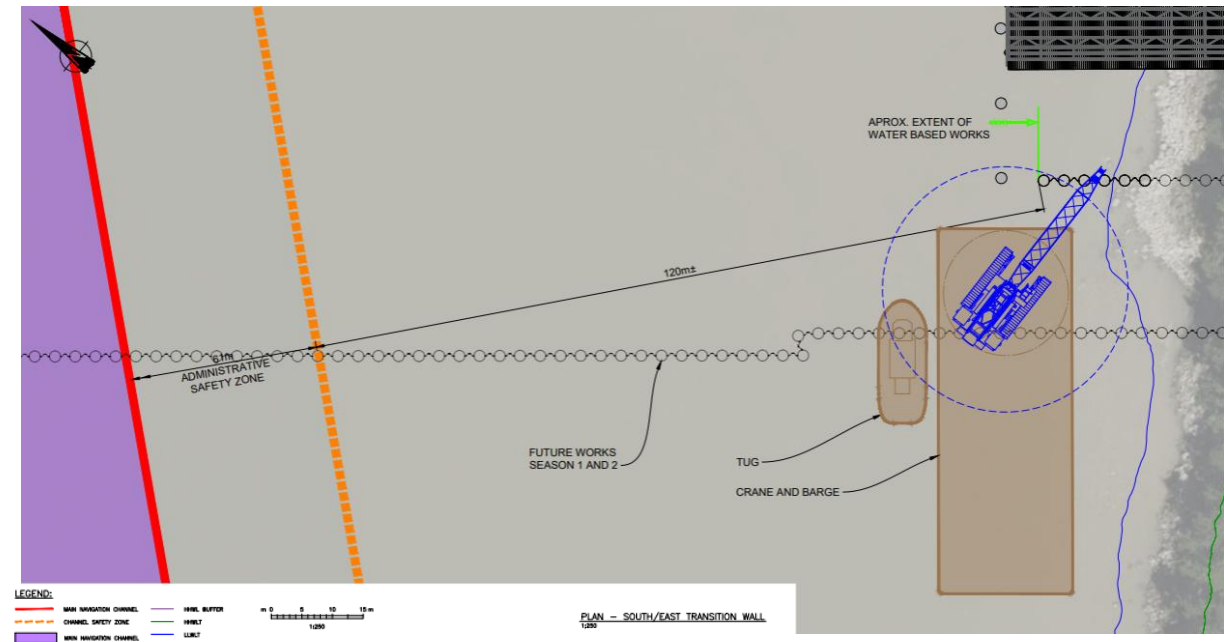
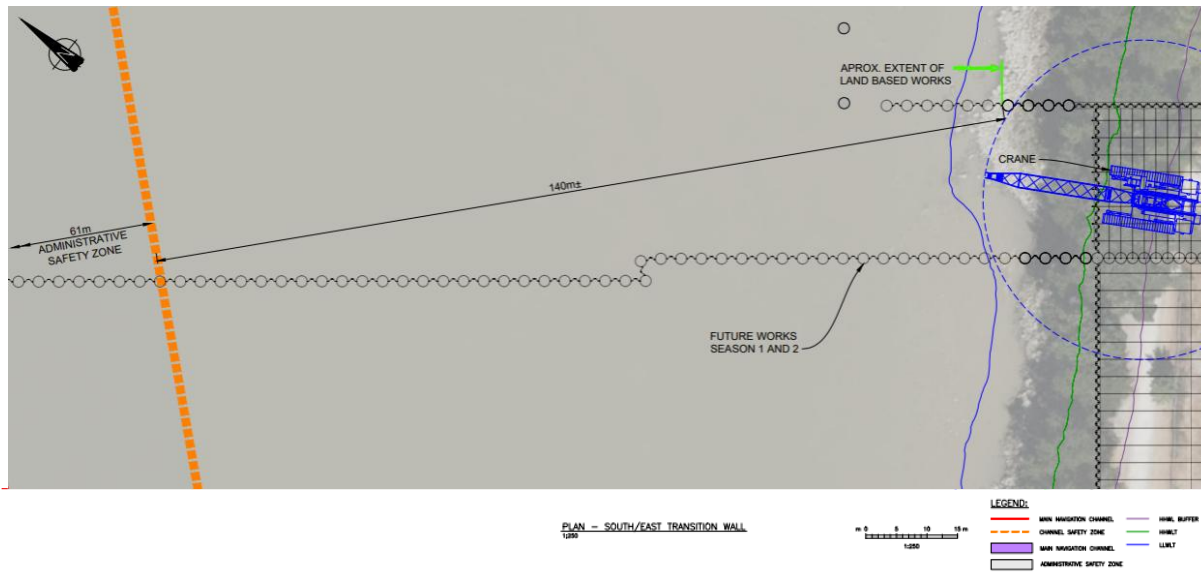
SEASPAN FERRY TRAFFIC DISTRIBUTION CURVE



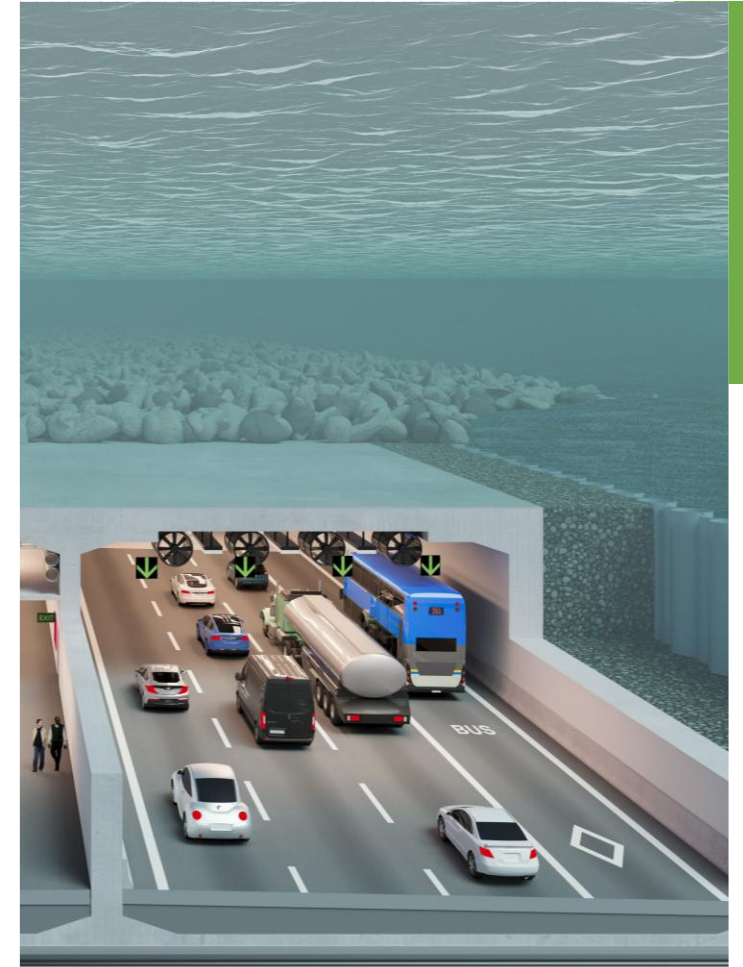
LOCAL TUG AND TOW TRAFFIC DISTRIBUTION CURVE

Southeast Transition Wall – Construction Sequencing

- Upland construction utilized as much as possible
- In-river works required that will affect transits between shoreline and Administrative Safety Zone

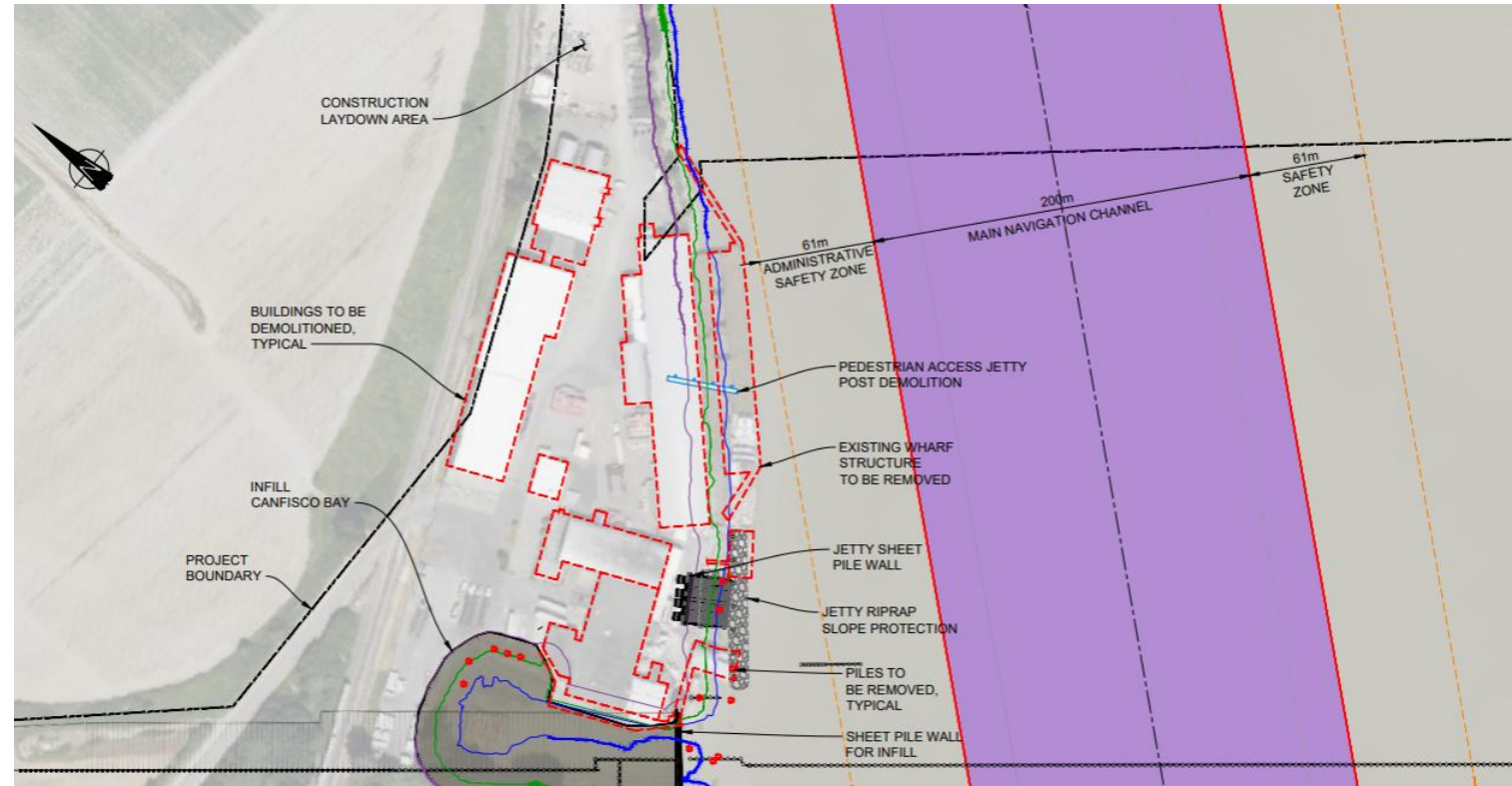


CanFisco Demolition and Bay Closure



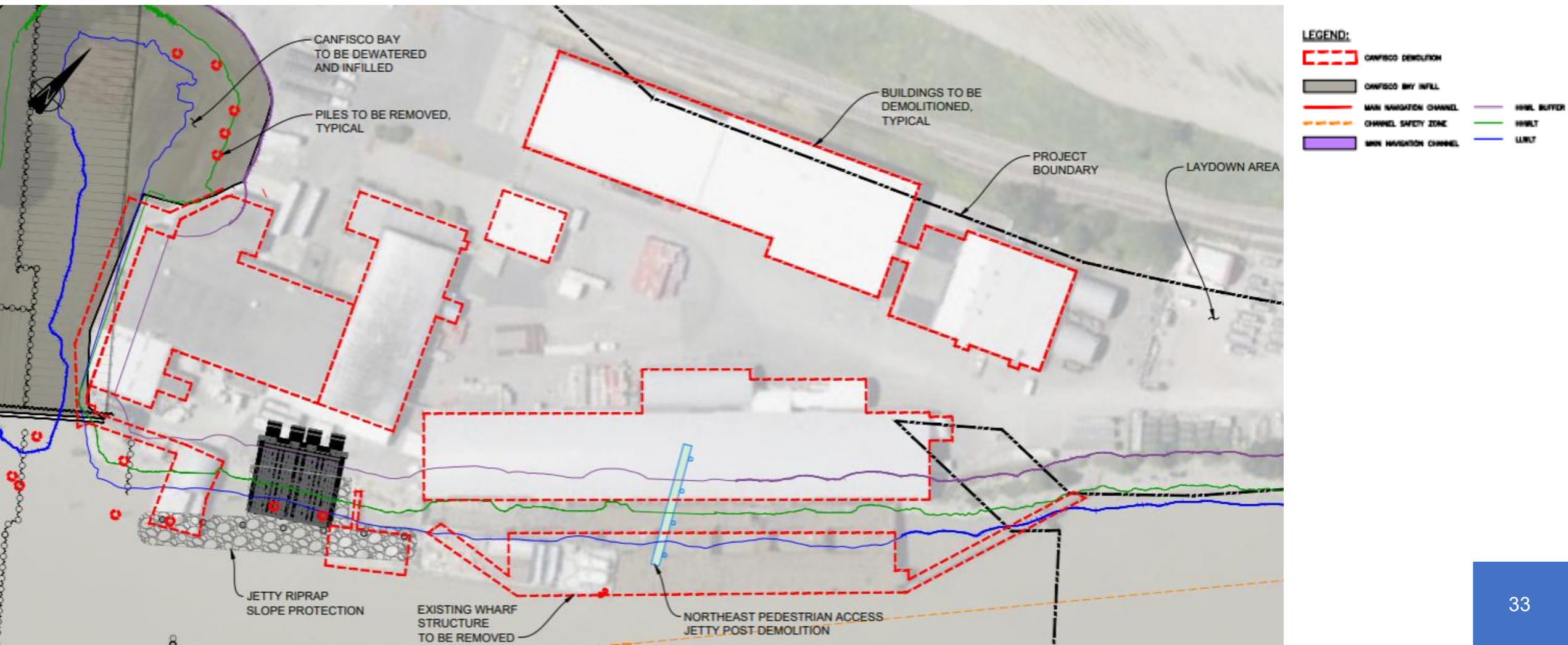
Canfisco Demolition and Bay Closure

- Work to be completed by both on-land and in-river methods
- No interferences to navigation (*all works outside of the Administrative Safety Channel*)
- Barge and tug movement to support construction



- Main Navigation Channel will be utilized to support deep sea transits
- In-river works will affect transits between shoreline and Administrative Safety Zone

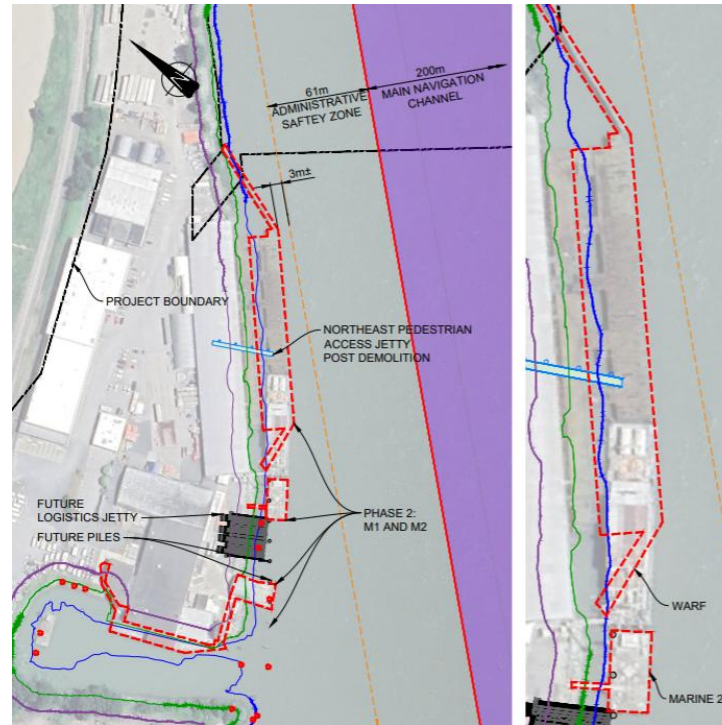
Canfisco Demolition and Bay Closure



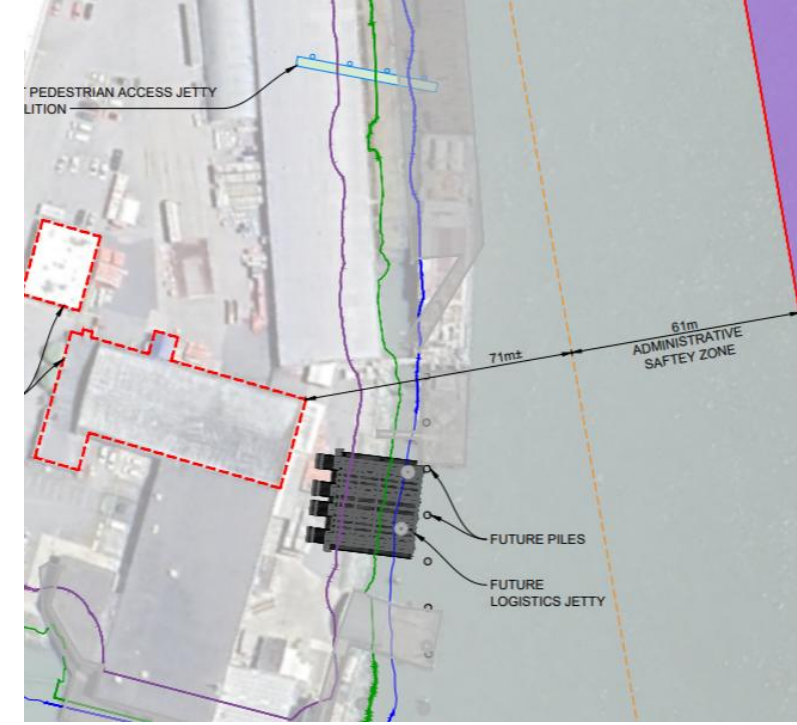
Canfisco Building(s) Demolition – Construction Sequencing



Phase 1: B1

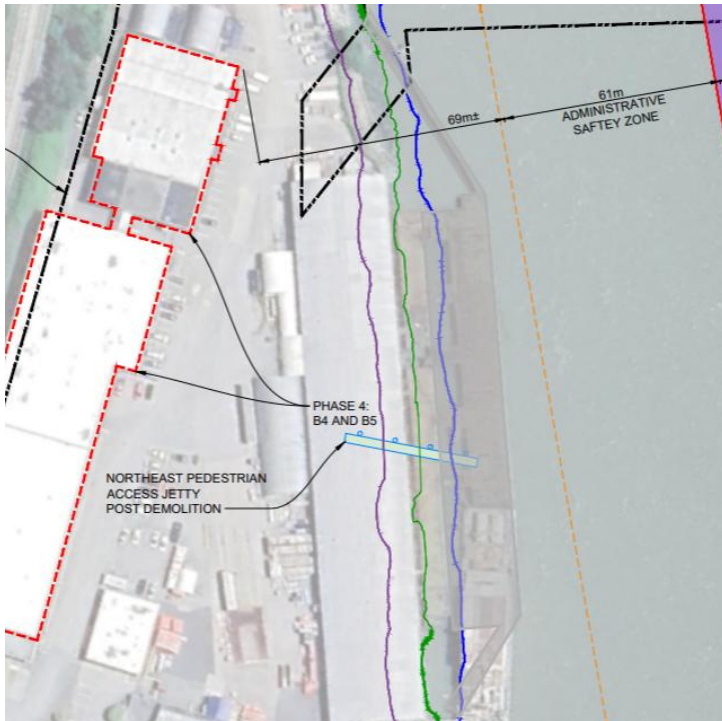


Phase 2: Marine Structures
M1 and M2

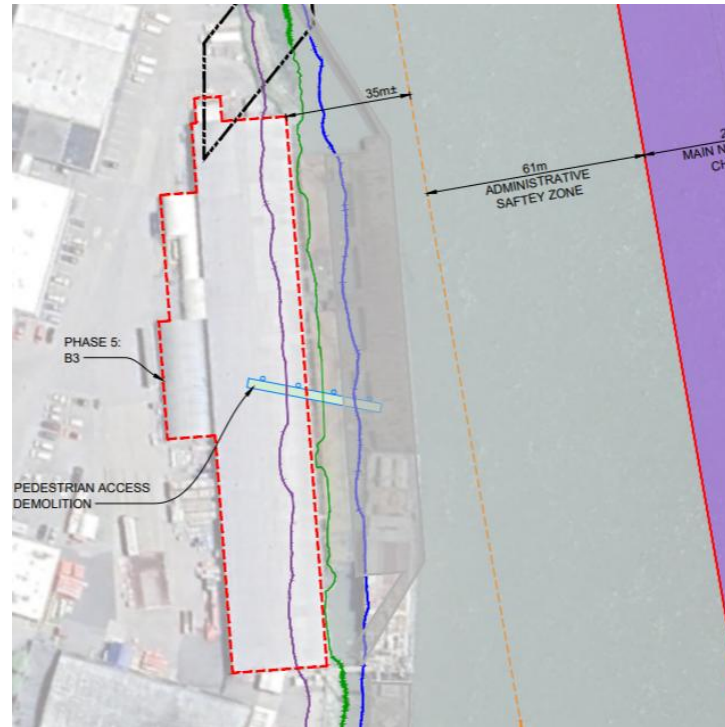


Phase 3: B2, 2B and B6

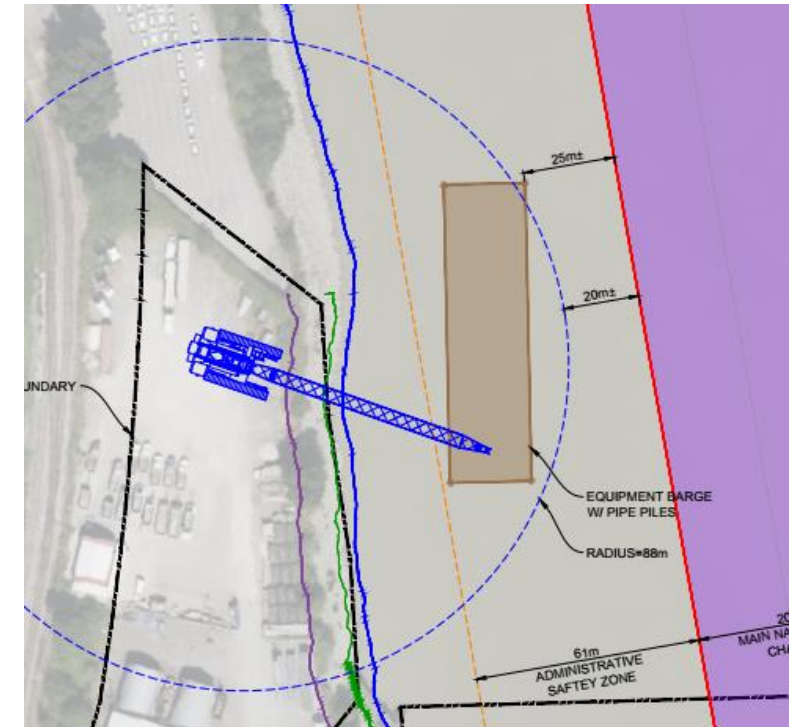
Canfisco Upland Demolition – Construction Sequencing



Phase 4: B4 and B5

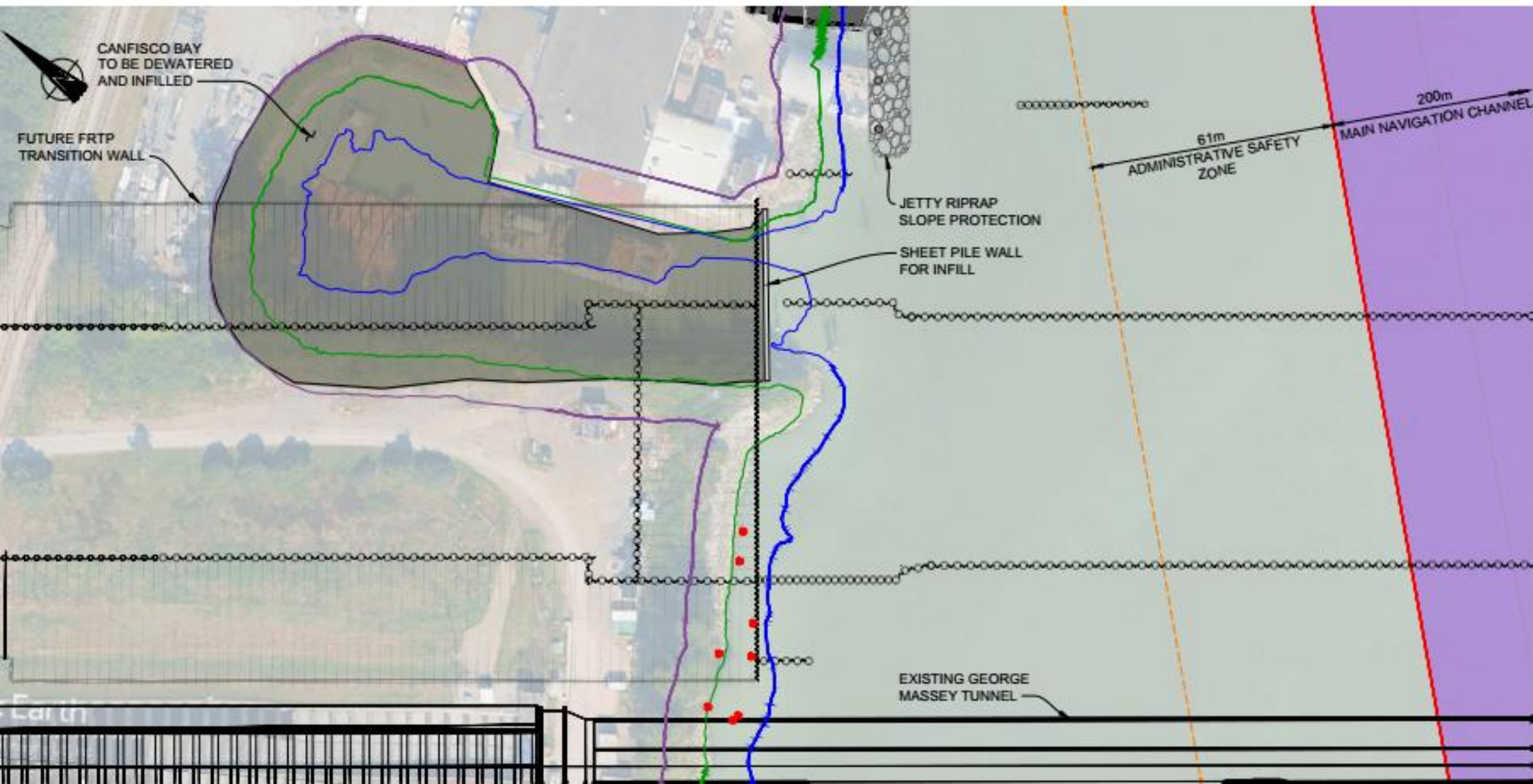


Phase 5: B3

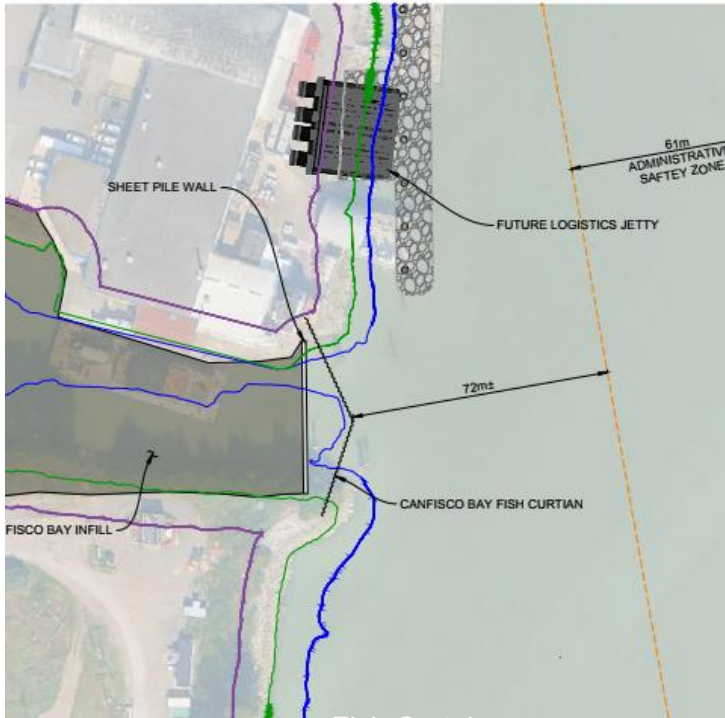


Phase 6: Barge Offloading Site
Project Infrastructure Needs

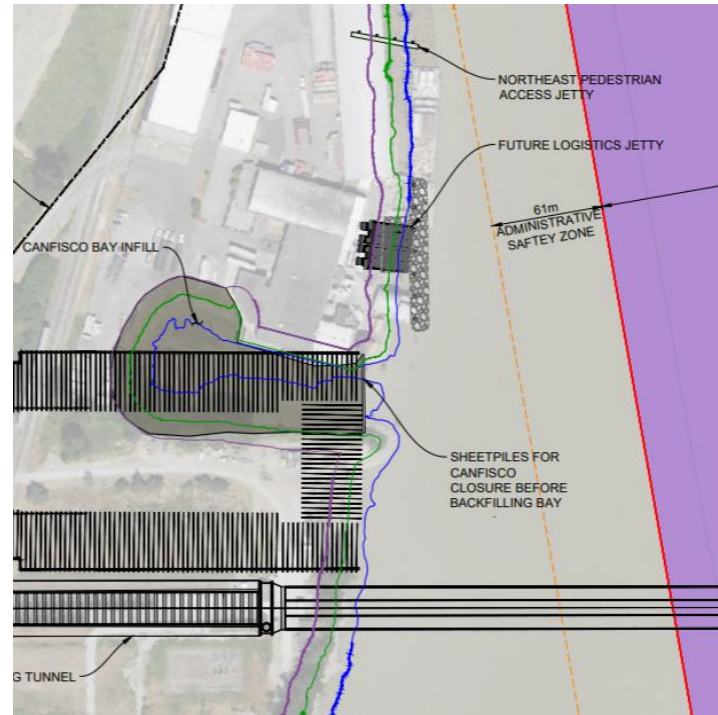
Canfisco Bay Closure



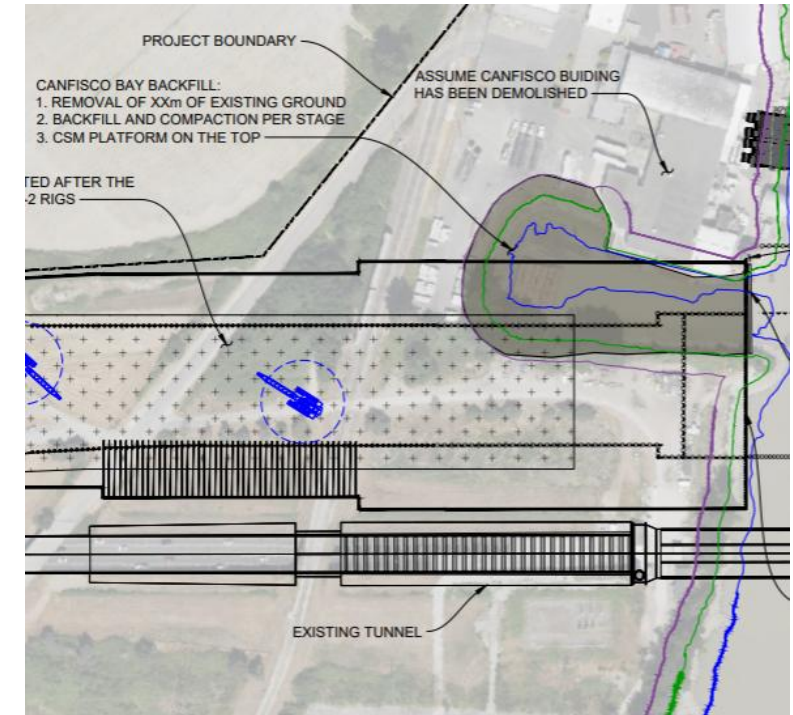
Canfisco Bay Closure and Fill



Canfisco Bay Fish Curtain



Canfisco Bay and Infrastructure Sheet Piles



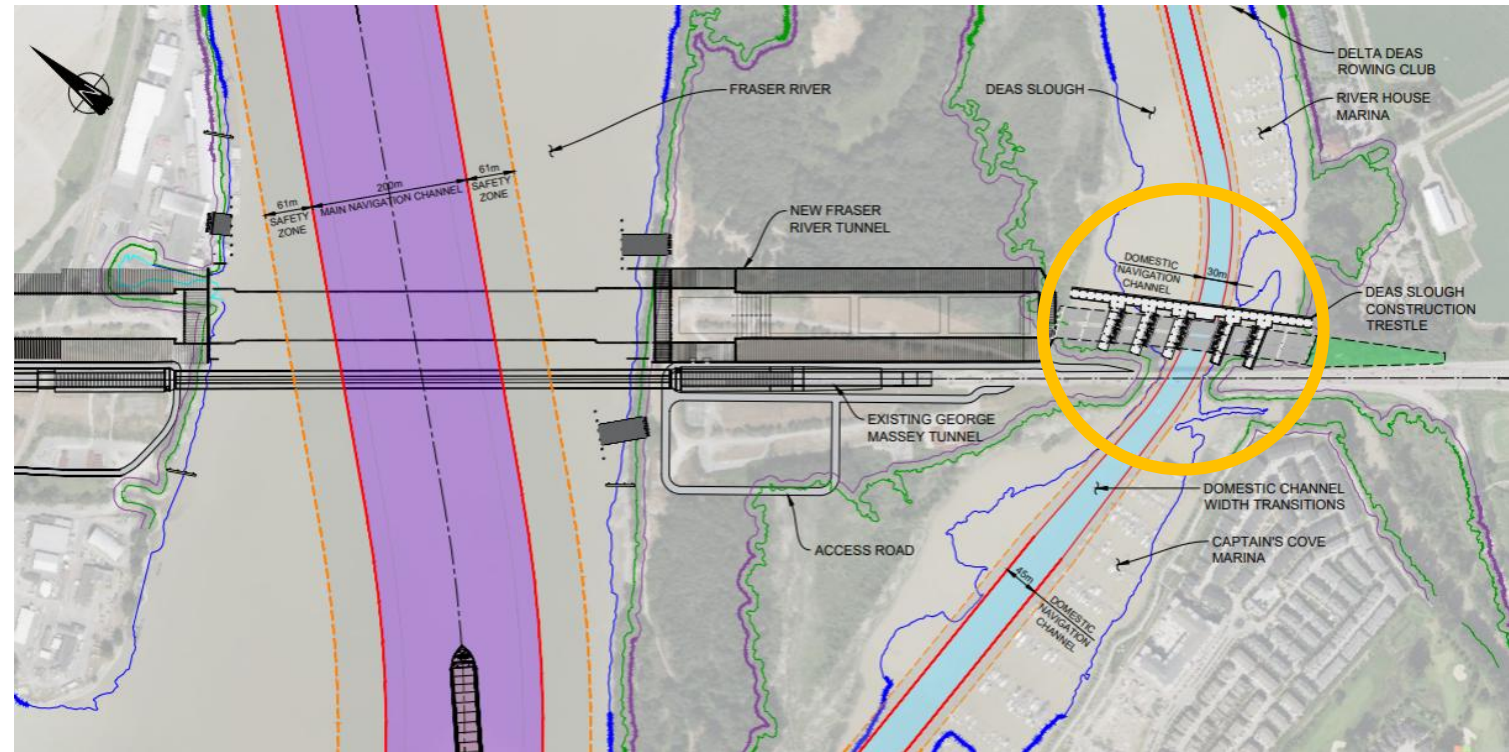
Canfisco Bay Backfill

Deas Slough Temporary Trestle



Deas Slough Temporary Trestle

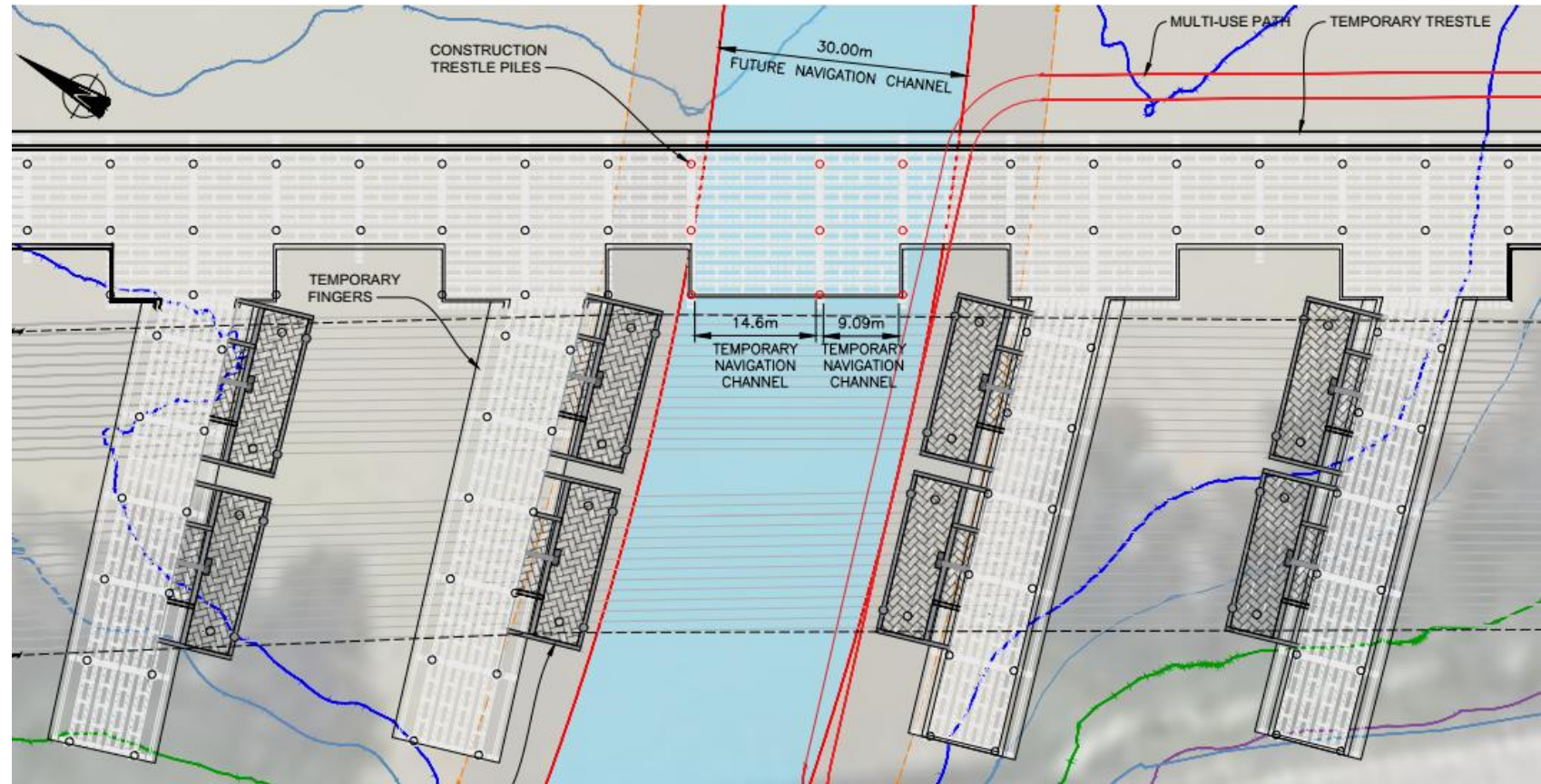
- Work to be completed by on-land and in-river methods
- No interferences to deep sea navigation
- Occasional interferences to the Domestic Channel within Deas Slough
- Barge movement to support construction



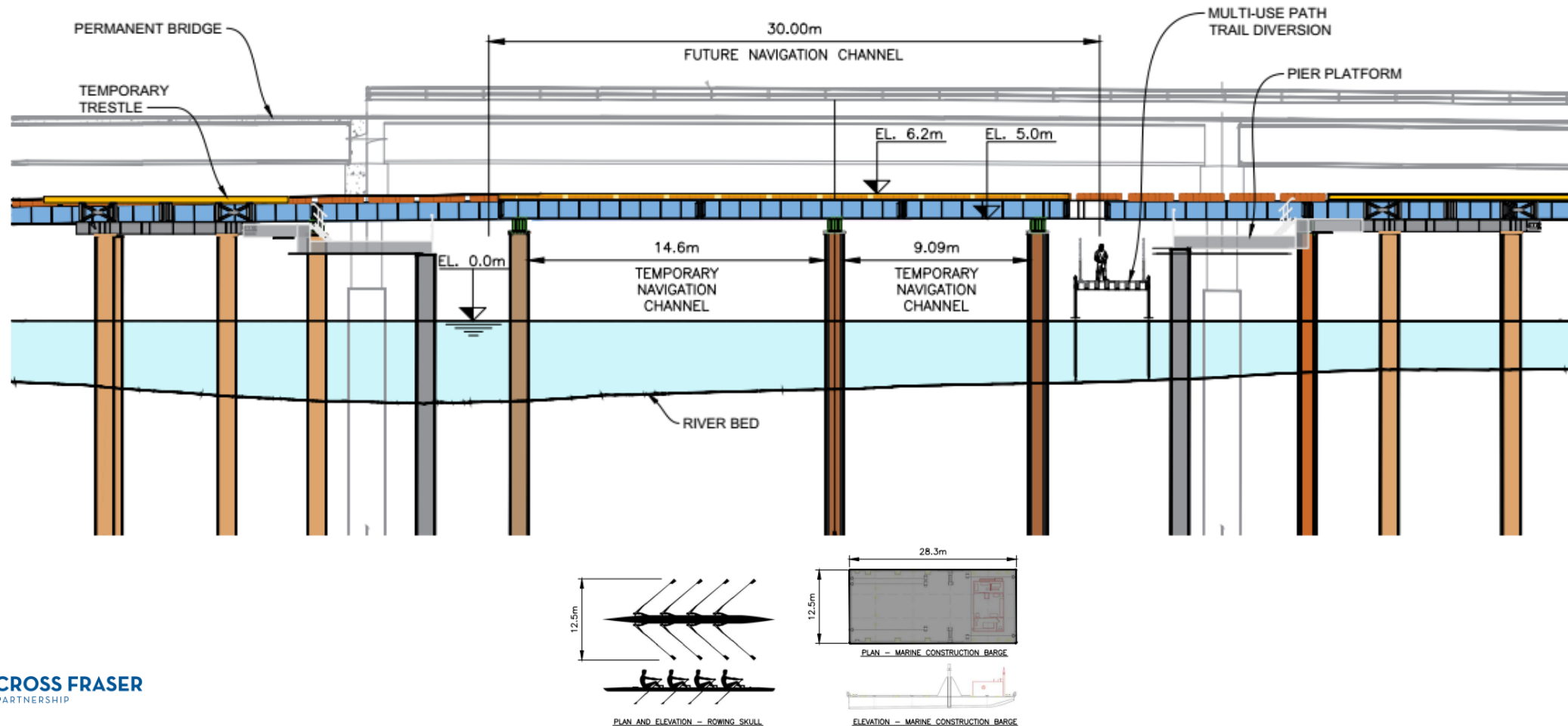
- Main Navigation Channel will be utilized to support deep sea transits
- Local users of Deas Slough will be informed of any activities within the Domestic Navigation Channel

Deas Slough Temporary Trestle – Temporary Navigation Channels

- Two temporary Domestic Navigation Channels will be in effect once the trestle is complete
- Main navigation channel: 14.5m
- Secondary navigation channel: 9m

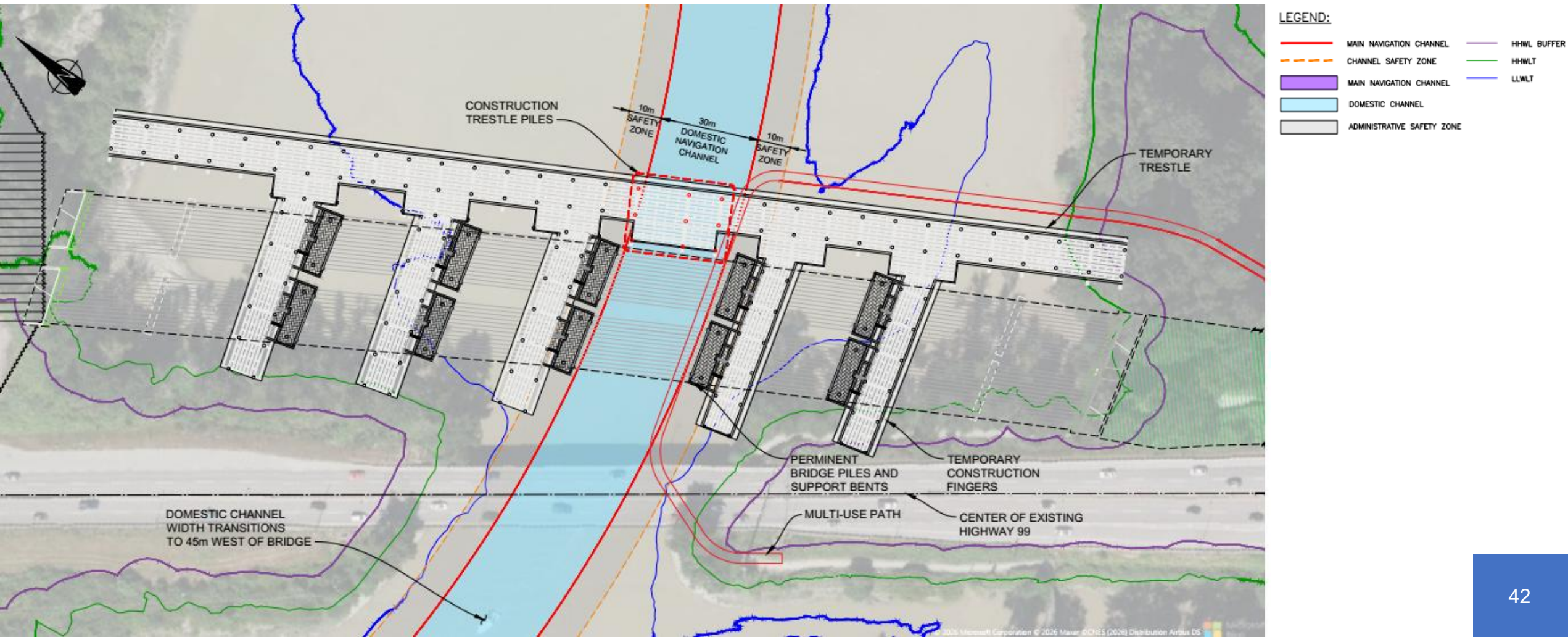


Deas Slough Temporary Trestle – Temporary Navigation Channels

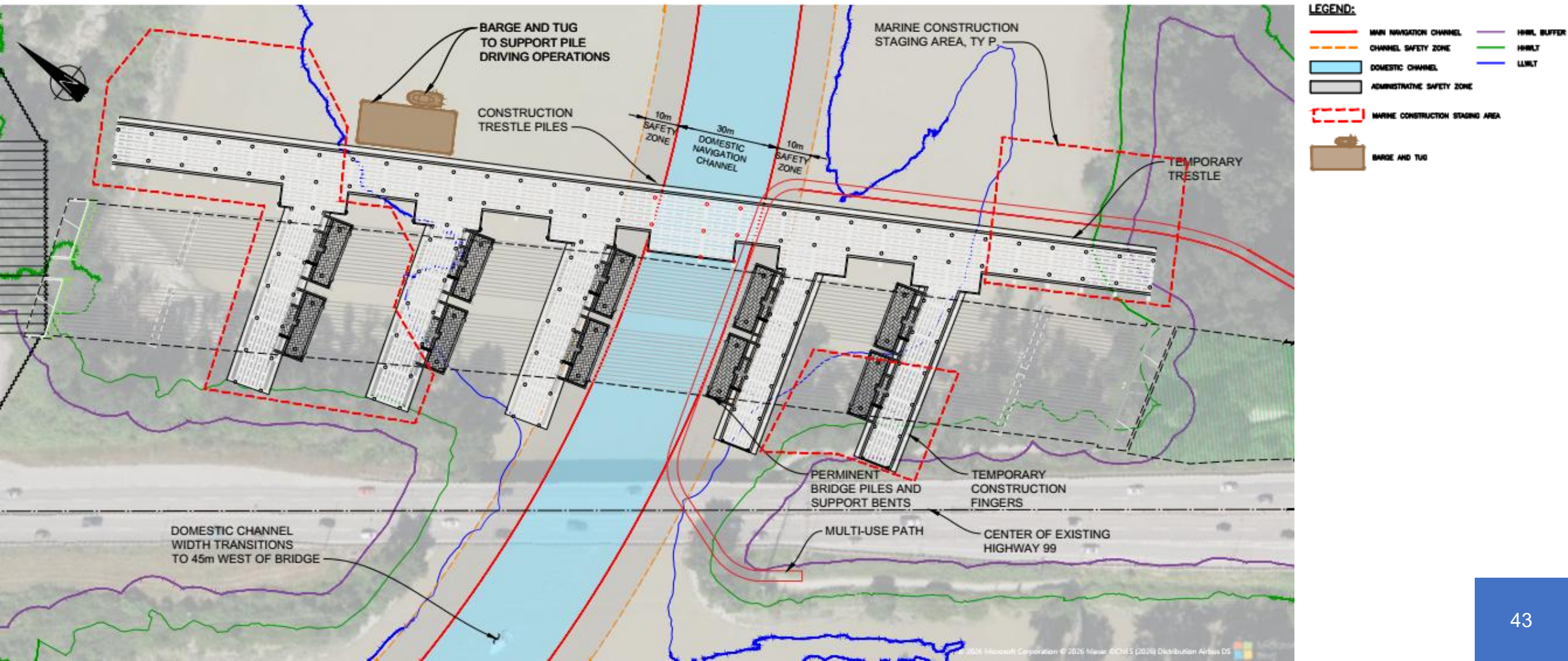


Layout and Pile Plan

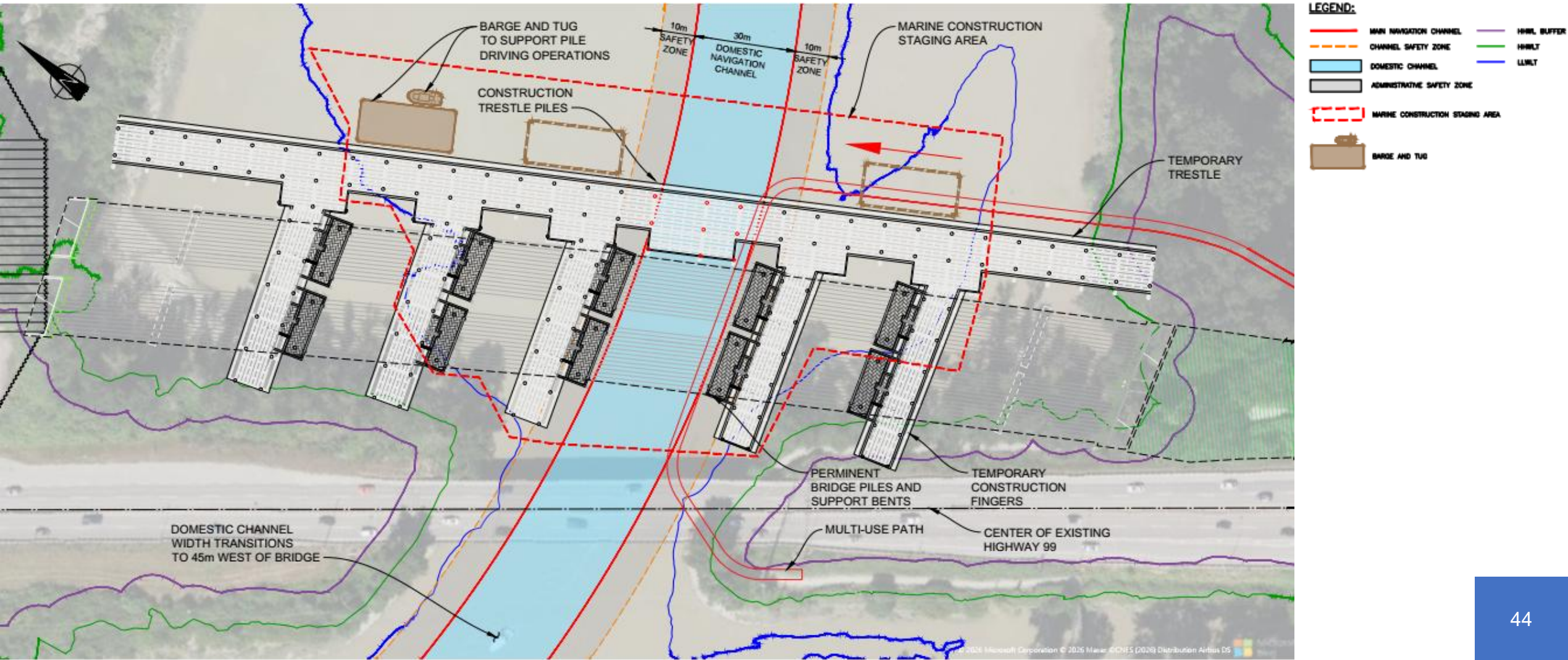
- Limited piles in domestic navigation channel will interfere with navigation.



Construction Sequencing: LLWL – HHWL



Construction Sequencing: In-Water Works



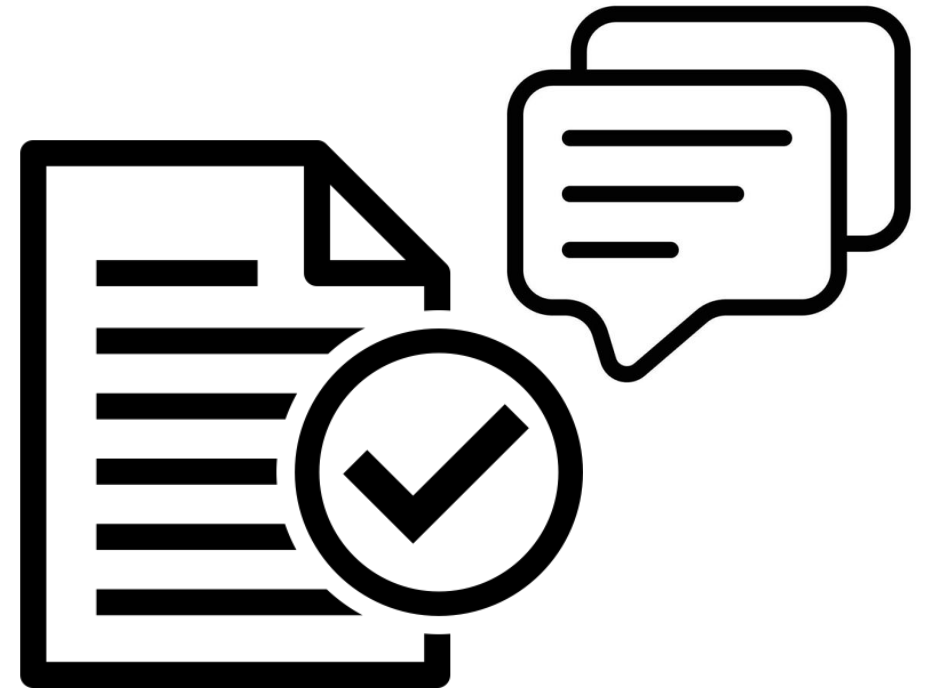
Summary of Upcoming Marine Works and Impacts

Scope	Impact on Navigation Channel	Impact on Safety Zone	Requires Navigation Channel Detours	Notes
Logistic Jetties	No	Yes	No – <i>potential limited use of the north/south detours</i>	Local users will be informed of any activities within the Administrative Safety Zone to address Seaspan and CMC transit patterns
Transition Walls	No	No	No – <i>potential limited use of the north/south detours</i>	In-river works will affect transits between shoreline and Administrative Safety Zone
Canfisco Demolition and Bay Closure	No	No	No	In-river works will affect transits between shoreline and Administrative Safety Zone
Deas Slough Temporary Trestle	Yes, Domestic Navigation Channel	Yes, Domestic Navigation Channel	Yes, two temporary channels proposed	Proposed temporary Domestic Navigation Channels to minimize impacts on transits

Marine Construction Staging Plan

Developed in consultation with MUG with draft to be provided in July:

- Based on overview provided today on upcoming in-river early works
- Includes detailed construction staging plans
- Incorporates comments from MUG



Marine Communication Plan

Developed in consultation with MUG, with draft to be provided in July:

- Based on MCP from in-river investigation from previous years
- Includes detailed procedures for communication
- Aligns with content shared today
- Incorporates comments from MUG

All in-river activities will be coordinated by CFP and communicated with the marine community via:

- Monthly MUG meetings
- Weekly NAVWARNS
- Daily Construction Notices

Next Steps



Next Steps

- MCSP and MCP to be provided to MUG in July, and will be presented to MOTG as part of 100% design
- MOTG meetings will support the development of the MSCCLMP
- Monthly MUG meetings will provide updates regarding Early Works, including 4-week lookaheads
- CFP to provide weekly NAVWARNs and Daily Navigation Notices once in-river activities recommence
- **Next meeting:** July (CFP to provide meeting materials and June 4 minutes in advance)

Thank You!

