



Marine Users Working Group

Presented By: Fraser Crossing Partners and
Transportation Investment Corporation

September 25, 2025

Welcome

- Review of July 31 Meeting Minutes
- Navigation Log
- Project Update
- River Monitoring Update
- Main Bridge Construction – Underslung Platforms
- Demolition Planning Update
- 4 Week Look-Ahead Schedule
- Next Steps

Review of Meeting Minutes

July 31, 2025

Meeting Minutes – July 31, 2025

- Navigation log
 - On July 21, a crane barge experienced a 10-foot sway caused by the wake of a passing tugboat. While no incident occurred, mariners are asked to reduce speed near construction areas, in line with the Port Information Guide, to help prevent similar occurrences.
- FCP provided a Project update:
 - Progress of cantilever construction continues, with activities focused on SM-18.
 - Finishing works, cable stays erection, and steel installation over the Fraser River ongoing - Can now walk over from South Approach to bridge deck.
 - Precast panel installation and concrete deck pours ongoing.
 - Centre barriers and finishing on the bridge deck ongoing.
- FCP provided a River Monitoring Update:
 - July 7, river monitoring were presented and compared with previous months. Established thresholds continue to be monitored.
 - Post-construction surveys will be conducted to compare changes in the river after the project is completed.
- FCP provided a Demolition Planning Update:
 - Demolition will proceed in stages: deck removal, steel trusses, and in-river piers above and below water.
 - For below-water piers, three methods were evaluated; controlled blasting is recommended for most piers due to safety and efficiency. Blasting will require a 450 m marine exclusion zone and short closures for safety and environmental checks, with debris cleanup within two weeks.
- FCP provided a 4-week look-ahead:
 - SM 17 is currently being worked on within the administrative safety channel, with no interference to navigation, and the duration for each segment placement is about two to three weeks.
 - Future segment placements, including SM 18, 19, and 20, are scheduled, with no restrictions or interferences to navigation.
- Round Table:
 - Kathleen Johnnie asked when a decision will be made on pier removal. Sue Clark noted that the technical evaluation has been shared and further discussion will take place in September, subject to consultation and ongoing comments. Kathleen requested that the next presentation outline how the decision will be reached, highlighting the importance of fish windows and avoiding impacts to salmon runs. Sue confirmed that fisheries considerations are included in scheduling.

Navigation Log

Marine Occurrences as a Result of the Project

**No updates to report*

Project Update

Works in Progress

Project Update

S1 Tower and Cantilever Construction



Photo 1: Bridge deck asphalt, cable stay and finishes in progress



Photo 2: Concrete overlay on bridge deck and connection to North Approach ongoing

Project Update

South Approach Girder/Deck Panels Installation



Photo 3: South Approach-end span- main span cable stay installation and finishing works ongoing



Photo 4: South Approach-end span and main span concrete overlay, finishings and paving ongoing

Project Update

S1 Tower and Cantilever Construction



Photo 5: Main span bridge deck looking south with Rolling Skyline platform

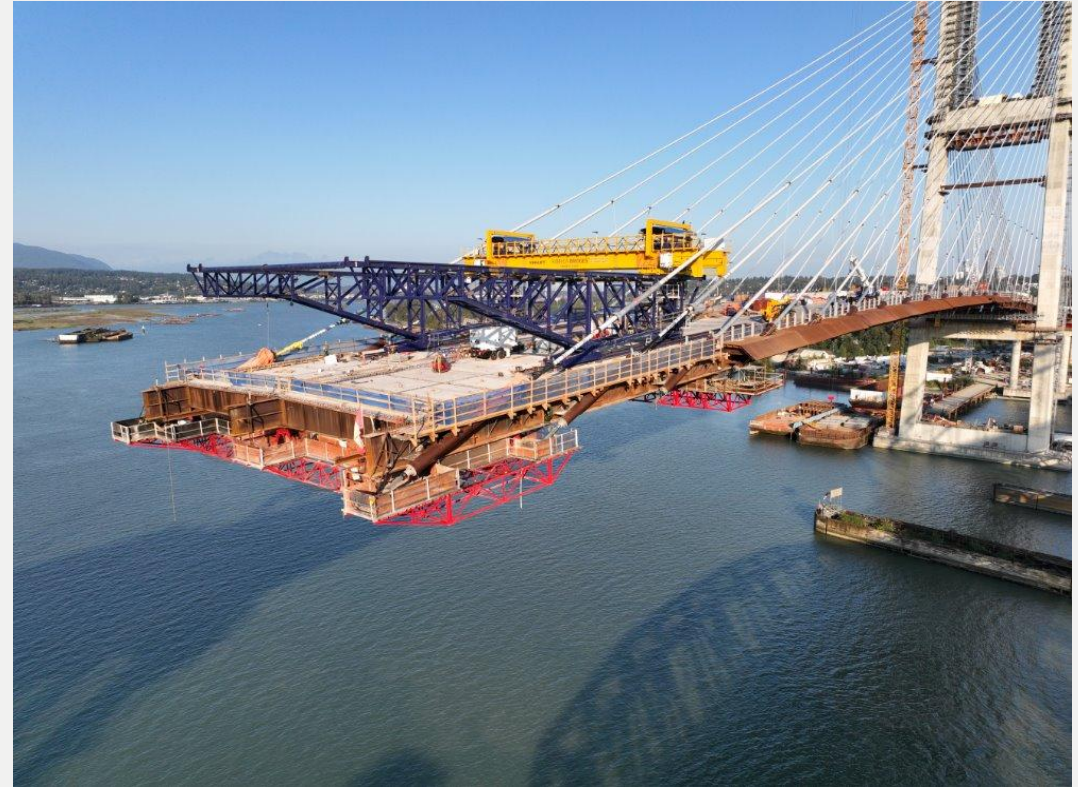


Photo 6: Construction of main span SM 19 ongoing

Project Update

N1 Tower and North Approach



Photo 7: North Approach deck panels installation and deck pours ongoing

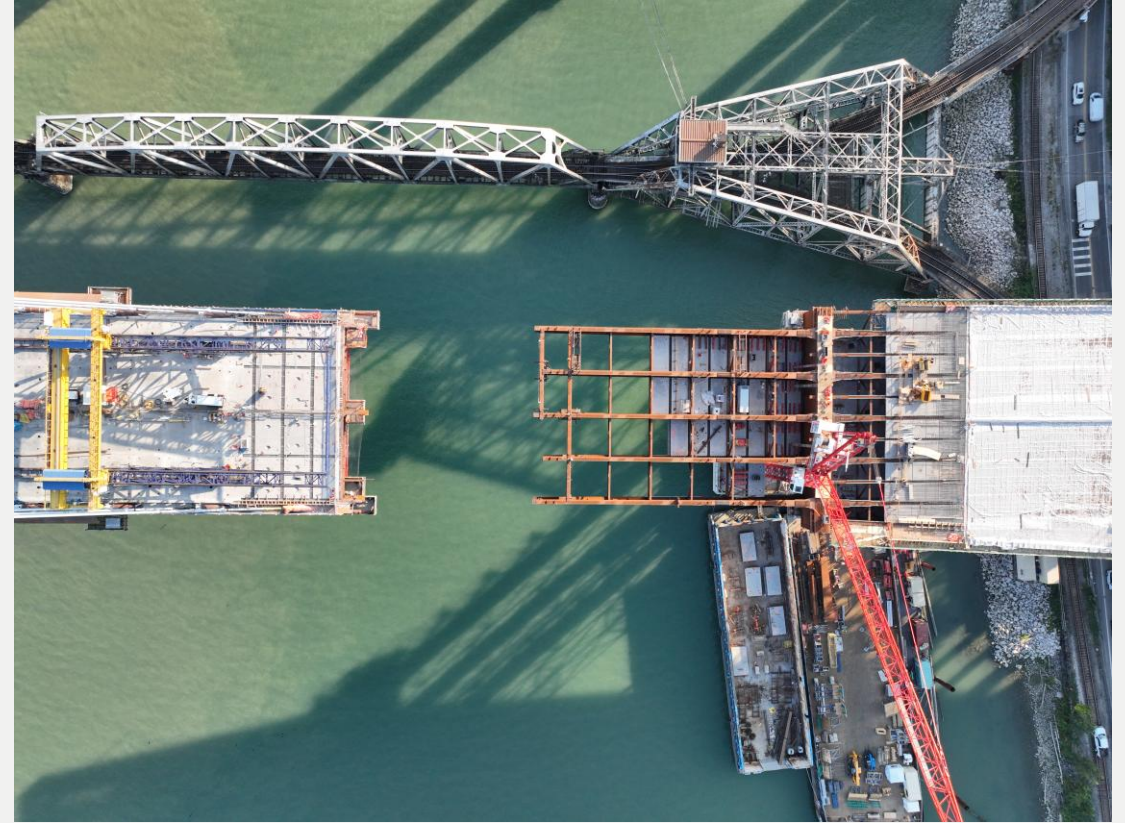
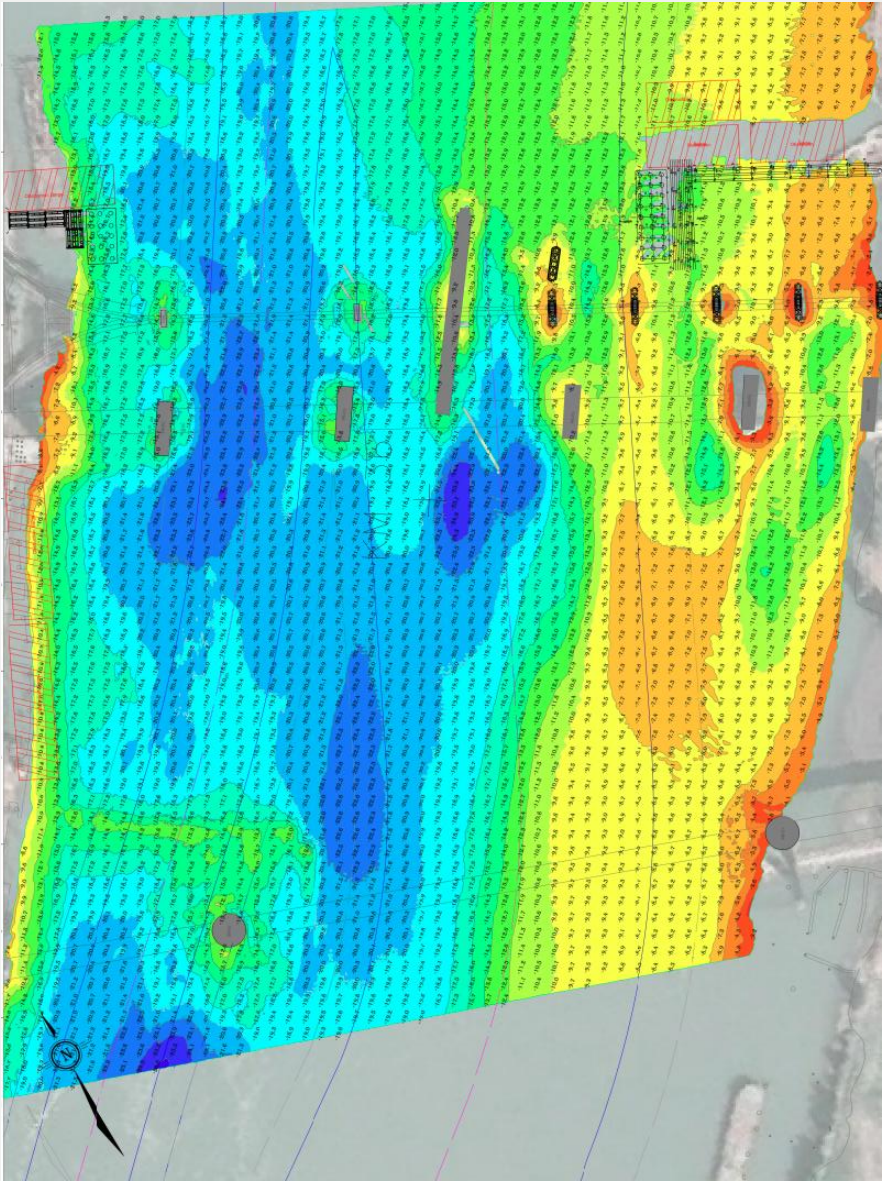


Photo 8: Main span almost connected to the North Approach

River Monitoring Update

Monitoring Results

Bathymetry Monitoring Survey Results – September 3, 2025

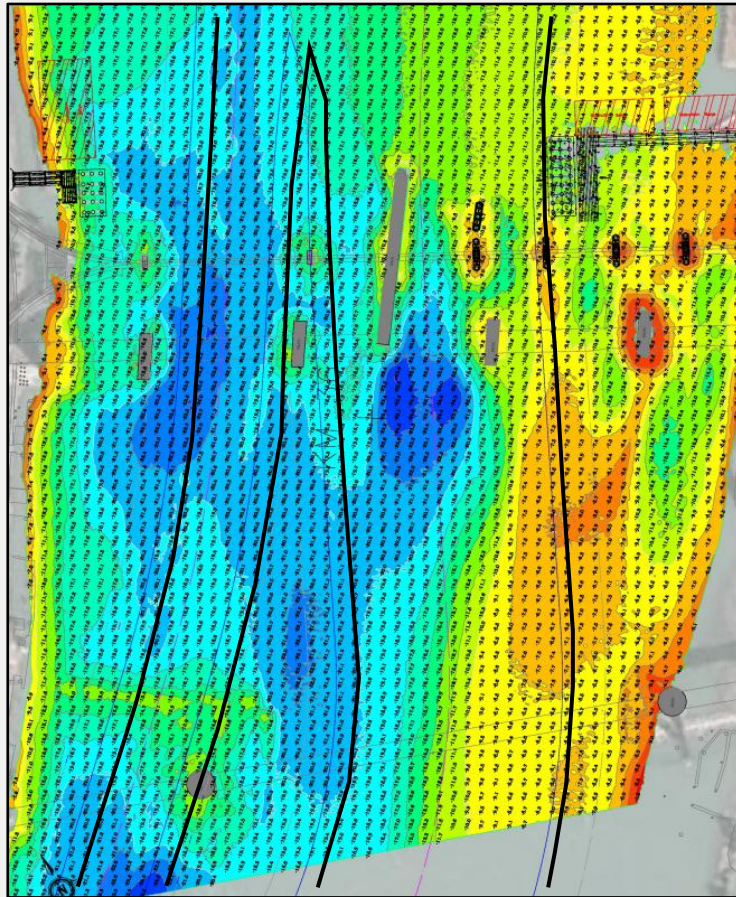


Elevations Table			
Number	Maximum Elevation	Minimum Elevation	Color
14	0.00	-2.00	Red
13	-2.00	-4.00	Orange
12	-4.00	-6.00	Yellow
11	-6.00	-8.00	Light Green
10	-8.00	-10.00	Green
9	-10.00	-12.00	Light Blue
8	-12.00	-14.00	Blue
7	-14.00	-16.00	Dark Blue
6	-16.00	-18.00	Very Dark Blue
5	-18.00	-20.00	Black
4	-20.00	-22.00	Dark Grey
3	-22.00	-24.00	Medium Grey
2	-24.00	-26.00	Light Grey
1	-26.00	-28.00	White

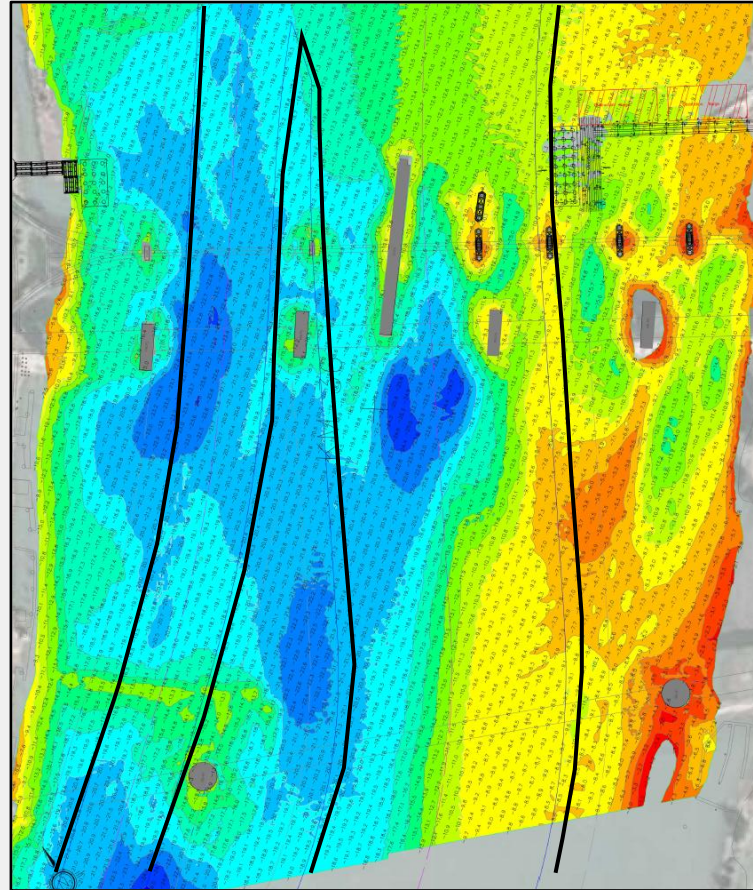
Bathymetry Results:

Comparison of Survey Results - Sep 2024 to Sep 2025

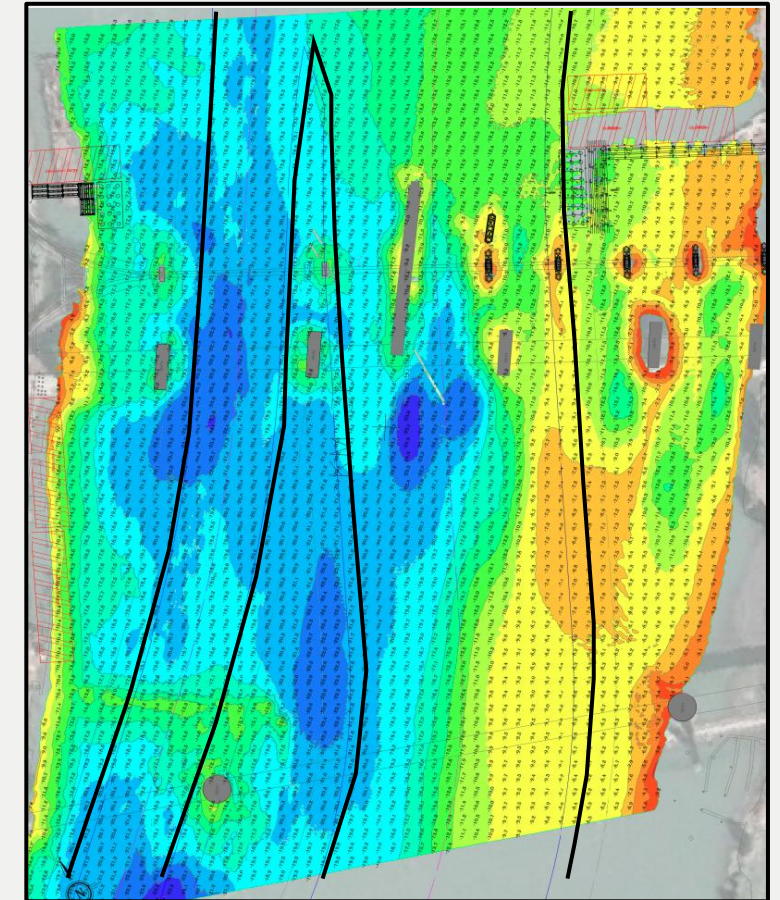
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6	-16.00	-18.00	Very Dark Blue
5	-18.00	-20.00	Black
4	-20.00	-22.00	Dark Grey
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September 23, 2024



February 10, 2025



September 3, 2025

Main Bridge Construction

Underslung Platforms

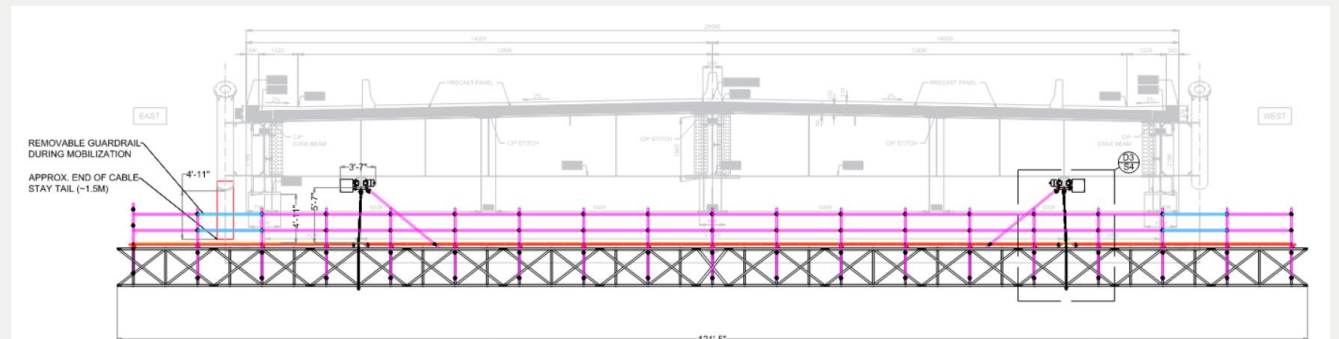
Main Bridge Construction

Underslung Platforms

- Two underslung platforms (skyline gantries) are being utilized on the underside of the main bridge to support installation of bridge finishing works and utilities.
- The gantries transit along a rolling track that is affixed to the trusses:
 - One located at the northern tip of the main span for ongoing construction of the main span
 - Second used for ongoing finishing works including below deck utilities



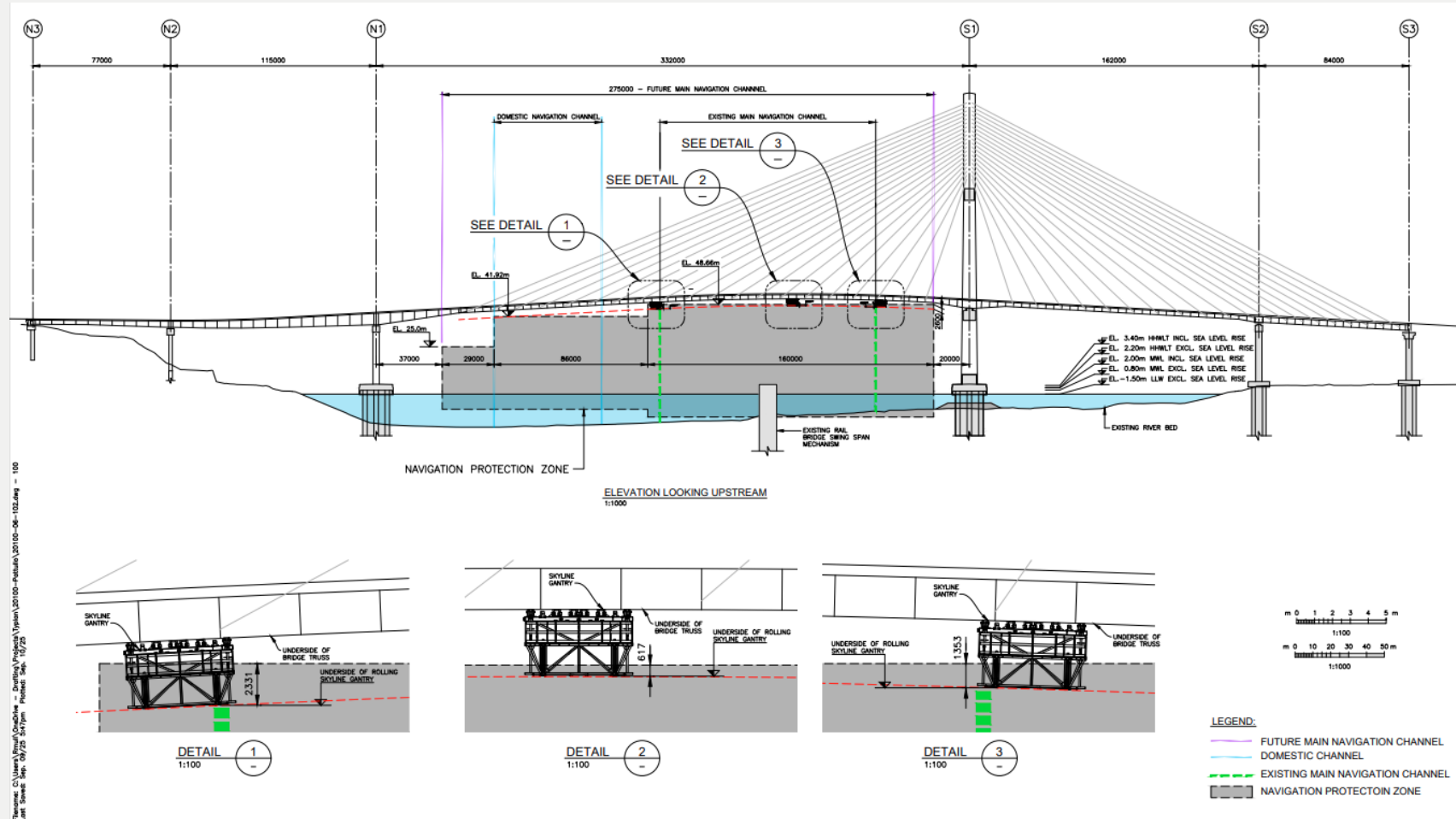
Photo 6 above: Underslung platform located at the northern tip of the main span. Photo 7 below: Illustration of the rolling track used by the skyline gantries



Main Bridge Construction

Underslung Platforms

- Works associated with the underslung platforms will proceed from the south side of the main bridge to Pier N1; and will occur to end of 2025.
- The gantries partially intrude (vertically) into the navigation protection zone, reducing the available clearance to mariners by 3.65 m.
- Regular NAVWARNs will be issued indicating their transitions over the main navigation channel.



Demolition Planning Update

Controlled Blasting – Sequencing (Pier P2)

Step 1: Drilling Operations

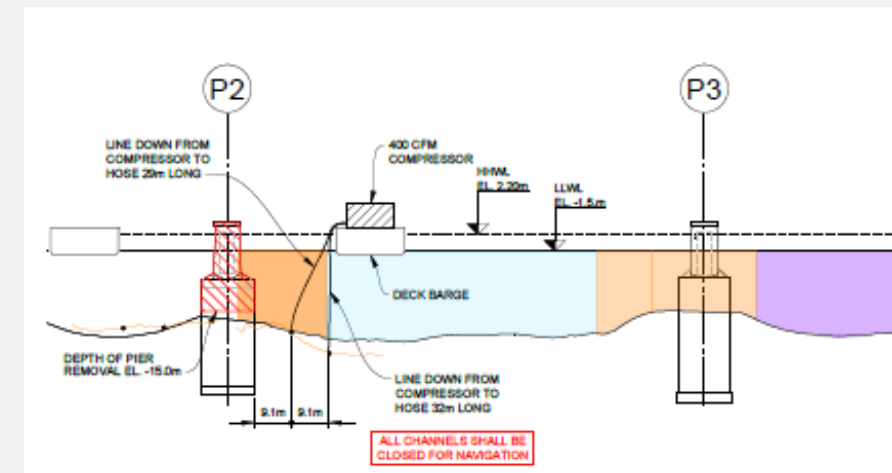
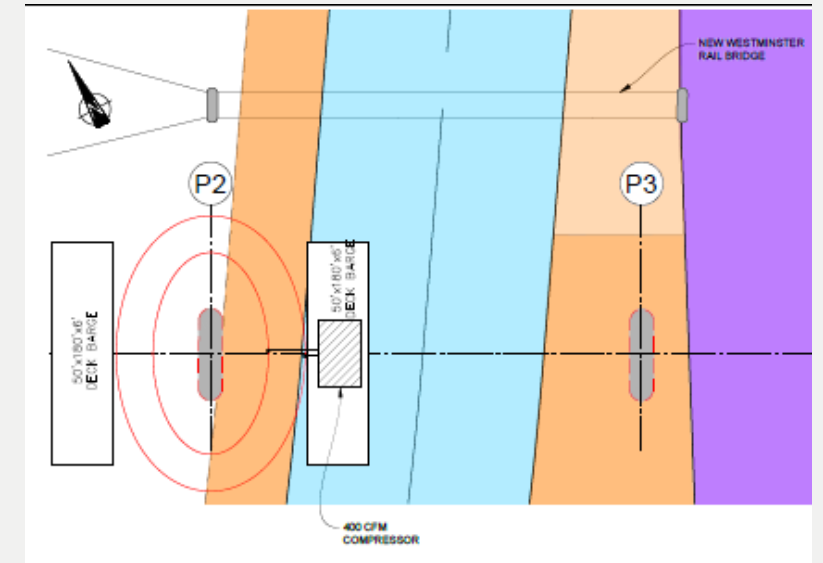
- A drill rig with self-contained dust-controlled system bores into the caisson walls and voids to precise depths.
- Equipment positioned on the pier pedestal
- No interference to navigation; 1-2 weeks



Typical arrangement of drilling holes for placing explosives

Step 2: Setup BAS; Place Explosives

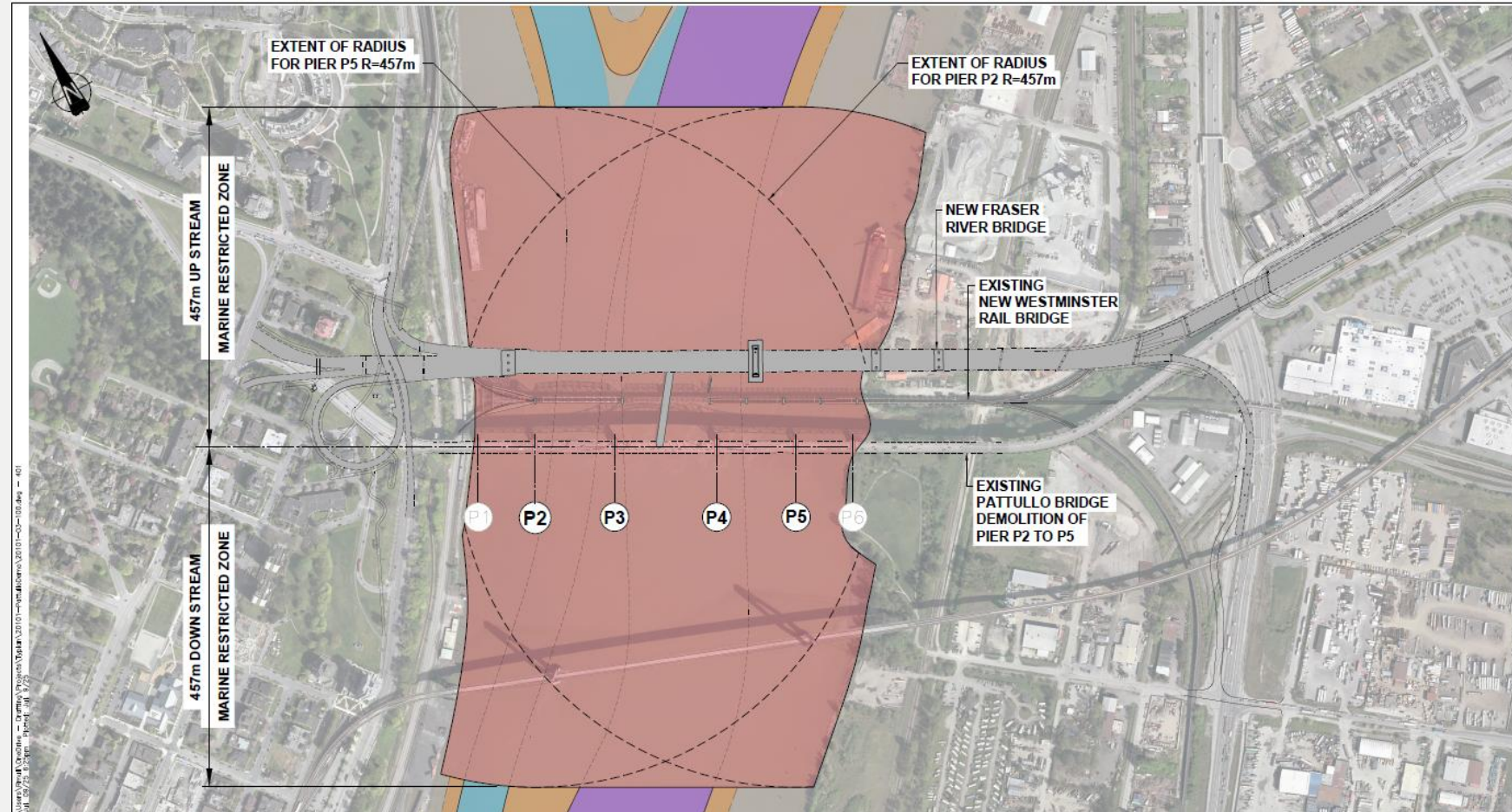
- BAS (blast attenuation system; bubble curtain) deployed around the pier to reduce underwater pressure resulting from the blast.
- Placement of explosives
- Restriction in domestic channel; 2-3 days



Controlled Blasting

Marine Safety Exclusion Zone

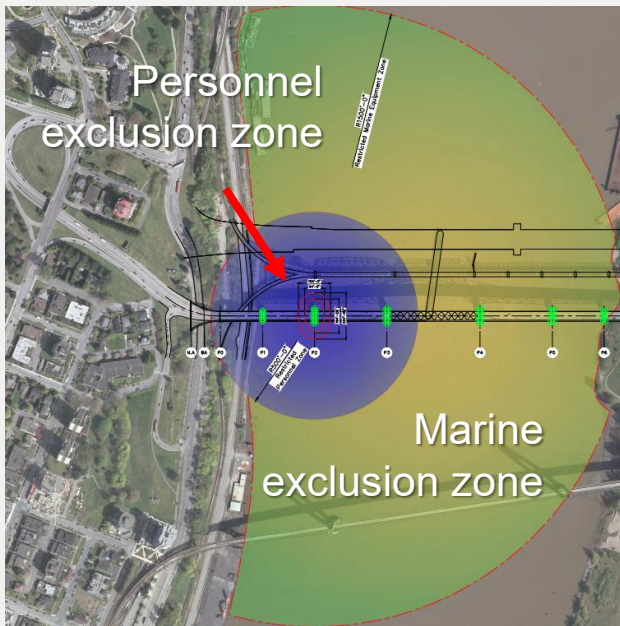
- Controlled blasting requires the following safety exclusion zones during the blast event:
 - 450 m (1500 ft) marine traffic safety zone enforced by safety boats
 - 75 m (250 ft) radius cleared of all personnel and secured by guards



Controlled Blasting – Sequencing (Pier P2)

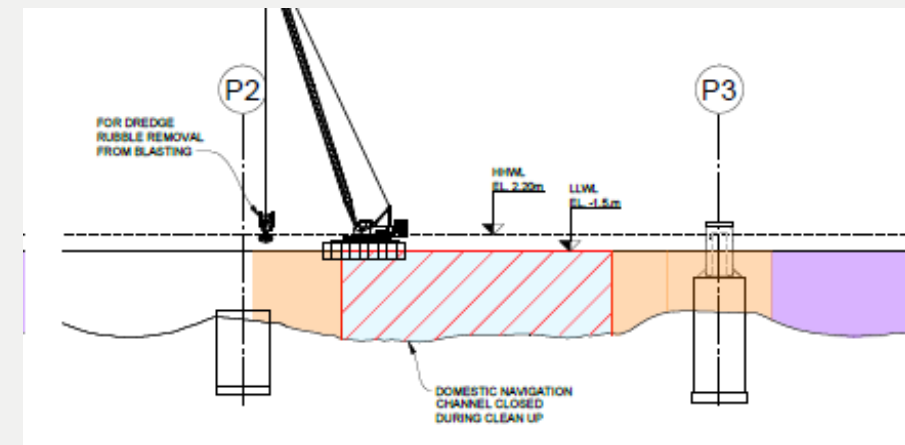
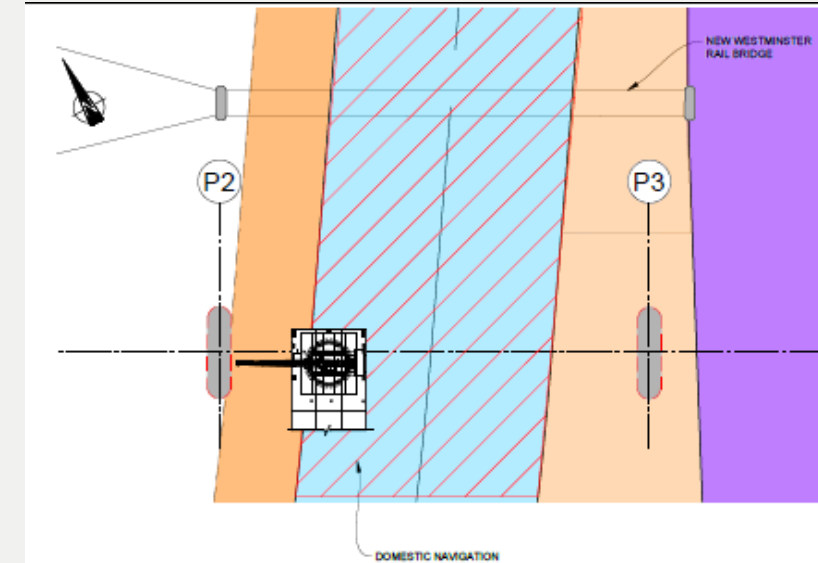
Step 3: Blast Event

- Blasting windows based on tidal analysis (i.e., slack tide)
- Controlled blast occurs in < 3 seconds, pending environmental, marine, public and safety prechecks
- Closure of navigation channel (up to 3hrs)

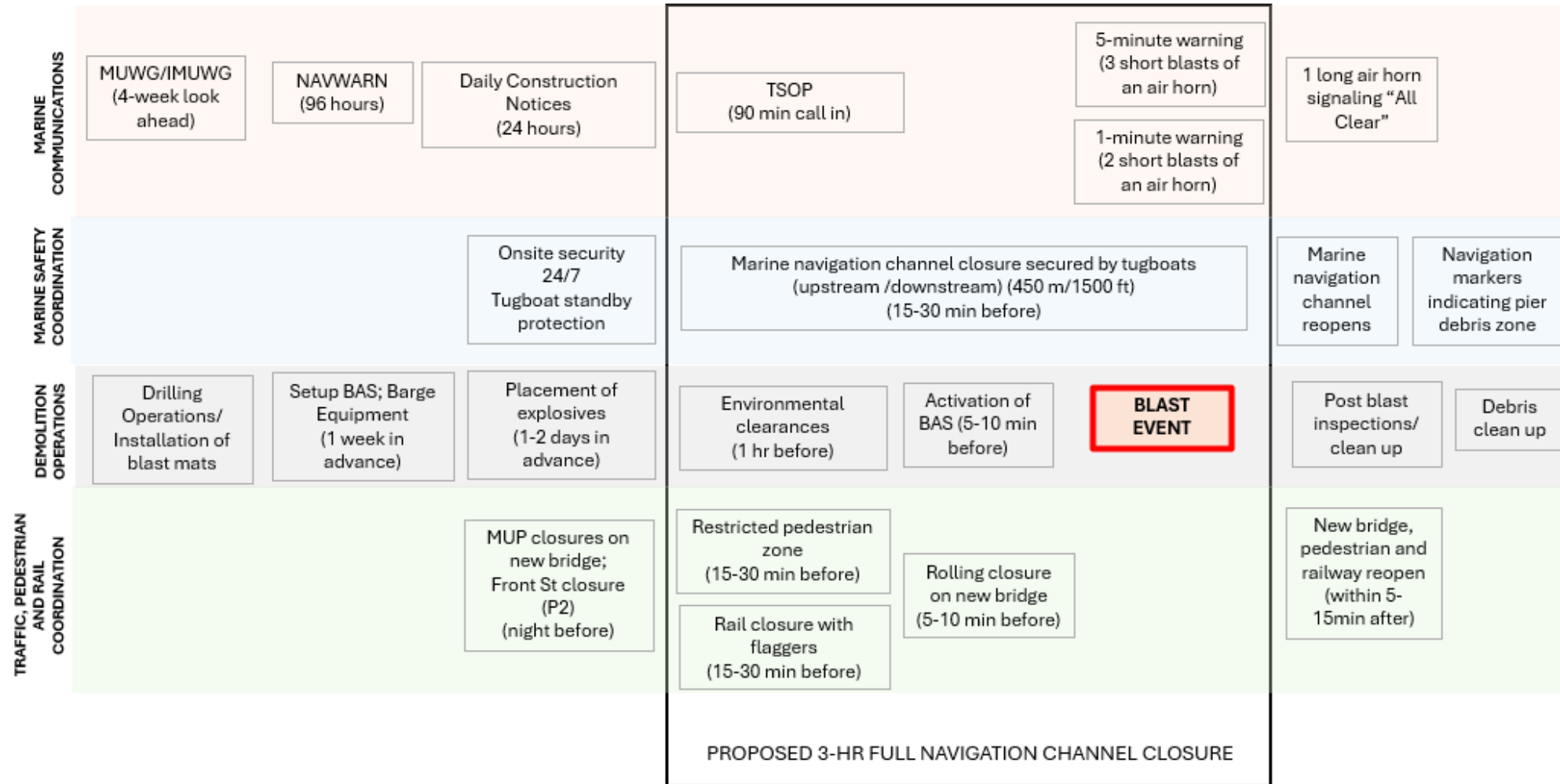


Step 4: Post Blast Clean-Up

- Post blast clean-up using crane-mounted clamshell buckets
- Concrete, rebar, and timber are lifted to meet the required cut-off level.
- Equipment moved offsite at end of shift (~10 hr shifts).
- Bathymetric surveys to be conducted pre- and post-blast clean-up to confirm material removed to required elevation.
- Restriction in domestic channel; 2 weeks

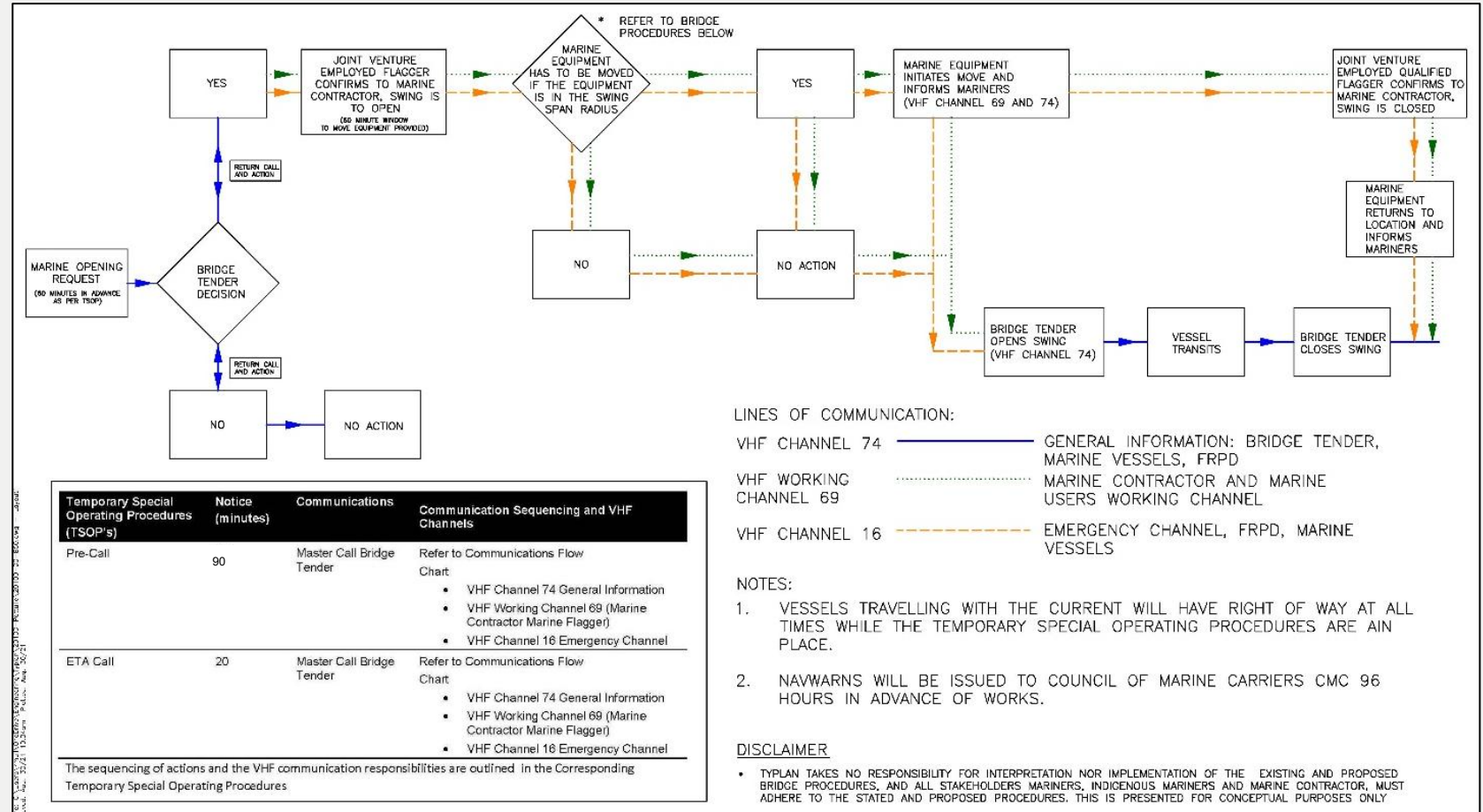


In-River Blasting – Activities Schedule



Temporary Special Operating Procedures (TSOP)

- Proposing the use of TSOP on the day of the blast event(s)



Controlled Blasting

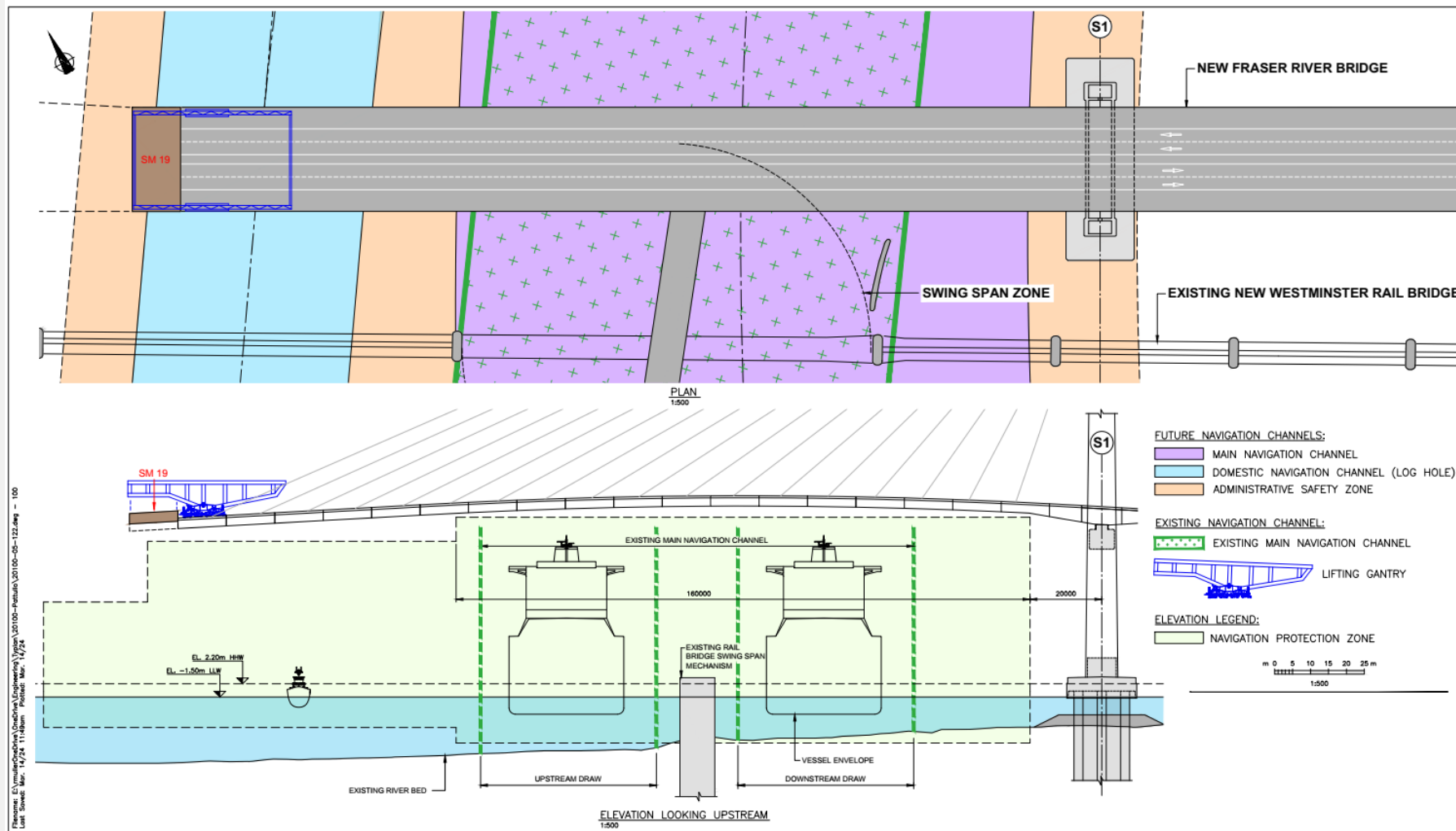
Proposed Marine Communications

Step 1: Drilling Operations	Step 2: Setup BAS; Place Explosives	Step 3: Blast Event	Step 4: Post Clean-Up
Week 1	Week 2	Week 2	Weeks 3-4
<ul style="list-style-type: none"> • IMUWG/MUWG meeting (4-week look ahead schedule) • Coordination with CN Rail (blast windows) • Public communications with municipalities 	<ul style="list-style-type: none"> • NAVWARN of navigation restrictions (96 hrs) • 24 hr security and tugboats on standby 	<ul style="list-style-type: none"> • Daily construction notice (24hrs) • TSOP (90 min) • Municipal closures (Front St for P2; new bridge rolling closure, 5-12hrs before) • CN Rail bridge closure (flaggers; 15-30 mins before) • Tug/safety boats securing marine exclusion zone • 5 min warning (3 short blasts of air horn) • 1 min warning (2 short blasts of air horn) 	<ul style="list-style-type: none"> • 1 long air horn (signaling “All Clear”) • Buoys deployed (“markers”) indicating the post blast clean-up zone • Daily construction notice post blast indicating blast clean-up zone and markers, and any safety zone(s) required for divers (24hrs) • NAVWARNs of navigation restrictions (96 hrs)

4-Week Look-Ahead / Construction Staging

Construction Staging – Cantilever Construction

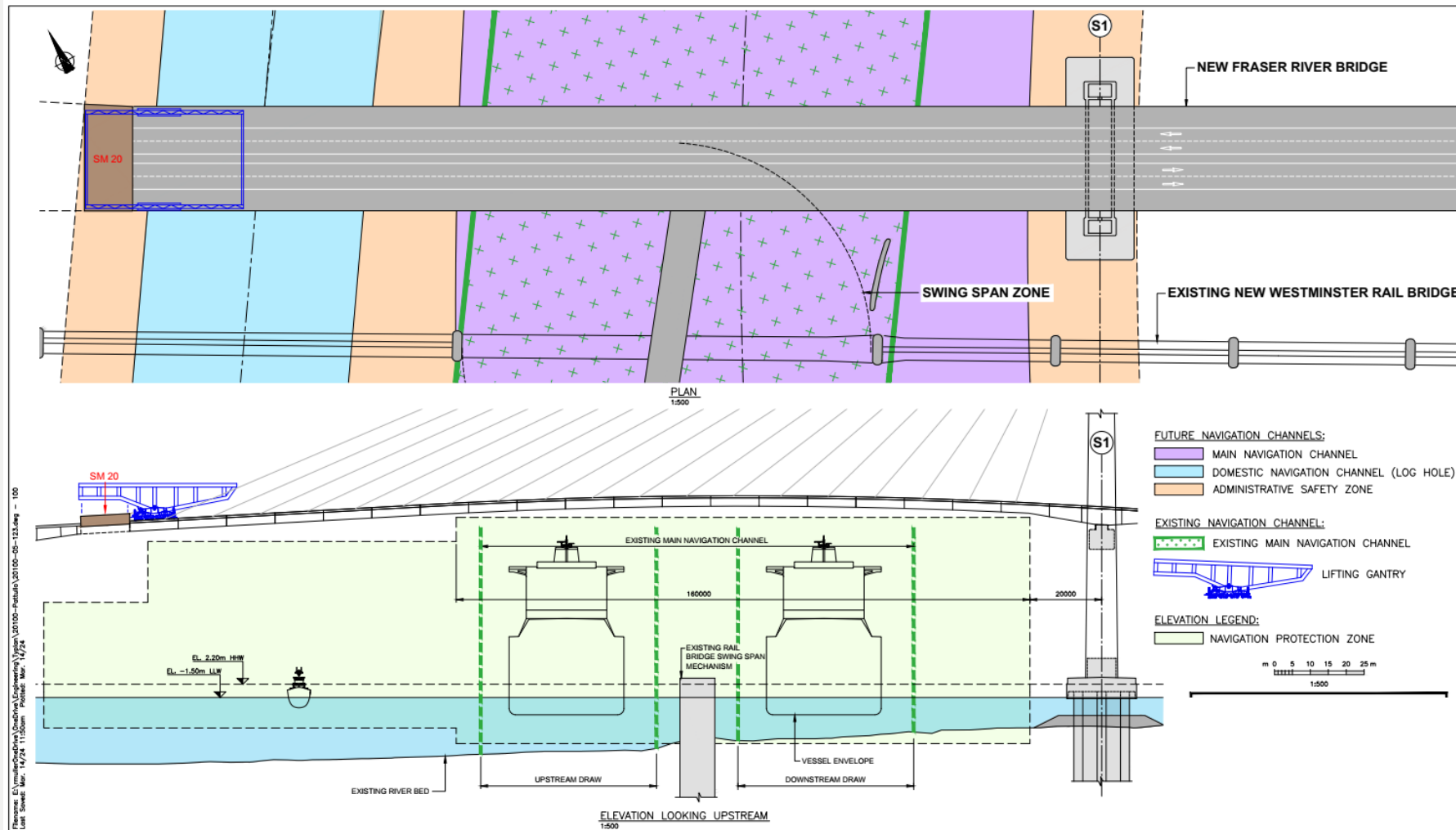
Segment SM-019



- Started Sep 12
- 2-3 week duration
- No interference to navigation

Construction Staging – Cantilever Construction

Segment SM-020



- Starting Sep 29
- 2-3 week duration
- No interference to navigation

Next Steps

Ongoing NAVWARNs to be provided

Next Marine Users Working Group:

- October 30, 2025 (TBD)