FRASER CROSSING
PROJECT CORP

Marine Users Working Group

Presented By: Fraser Crossing Partners and Transportation Investment Corporation

May 29, 2025

Welcome

- Review of April 24 Meeting Minutes
- Navigation Log
- Project Update
- River Monitoring Update
- Demolition Planning Updates
- 4 Week Look-Ahead Schedule
- Roundtable Discussion
- Next Steps

Review of Meeting Minutes

April 24, 2025

Meeting Minutes – March 27, 2025

- FCP provided a Project update:
  - Back span with end span connection complete! South Approach and main bridge deck are connected.
  - Precast panel installation and girder erection in both New Westminster and Surrey ongoing - About 80 metres of steel remains to be installed in the North Approach
  - Cable stays erection and steel installation over the Fraser River ongoing
  - South approach is scheduled to be tied in the next month to allow vehicles to be driven up on the main bridge deck
- FCP provided a River Monitoring Update:
  - Deeper spots noted in and around pier N5 of the rail bridge, which has changed over time and is being monitored
- FCP provided a 4-week look-ahead:
  - Segment SM-011 to start April 27 (2-3 weeks duration) - the Council of Marine Carriers supported the marine communication protocols time change from 60 to 90 minutes and the need of in-river restrictions when undertaking cantilever construction have been mitigated
  - Segment SM-012 scheduled to start May 8 – Segment SM-013 scheduled to start May 22 – Segment SM-014 scheduled to start June 5. All 2-3 weeks duration, with no interferences to navigation in these periods
- Round Table:
  - Snowpack is currently sitting at 80%, with the next report due May 8 or 9. VFPA is currently ramping up for flood protection works but is not anticipating a significant freshet this year. FCP to monitor and provide updates on freshet conditions.

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: Main span end span connection complete

Photo 2: Concrete overlay main span to South and North Approach

Project Update

South Approach Girder/Deck Panels Installation

Photo 3: South Approach-end span- main span connection and cable stay installation

Photo 4: South Approach-end span deck panel installation and concrete overlay

Project Update

N1 Tower and North Approach Girder Installation

Photo 5: North Approach connection to main span (SM-011) ongoing

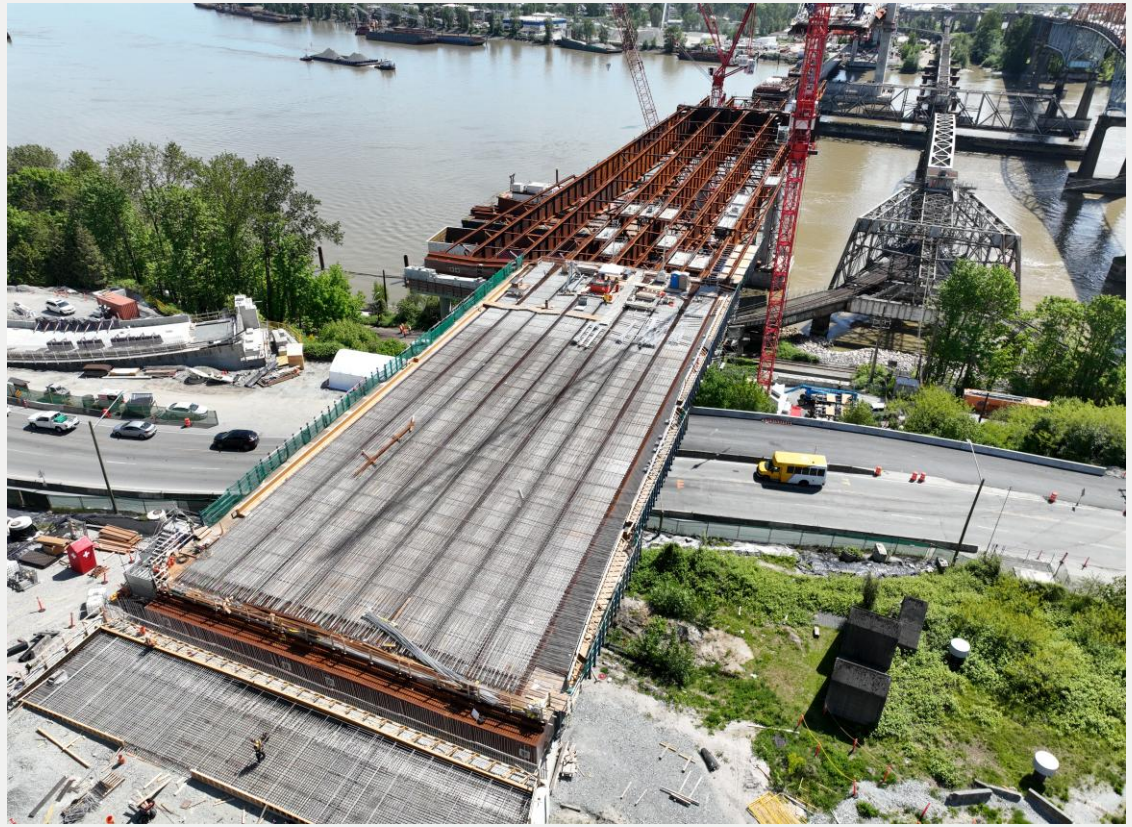


Photo 6: Ongoing girder and panel installation for the North Approach

River Monitoring Update

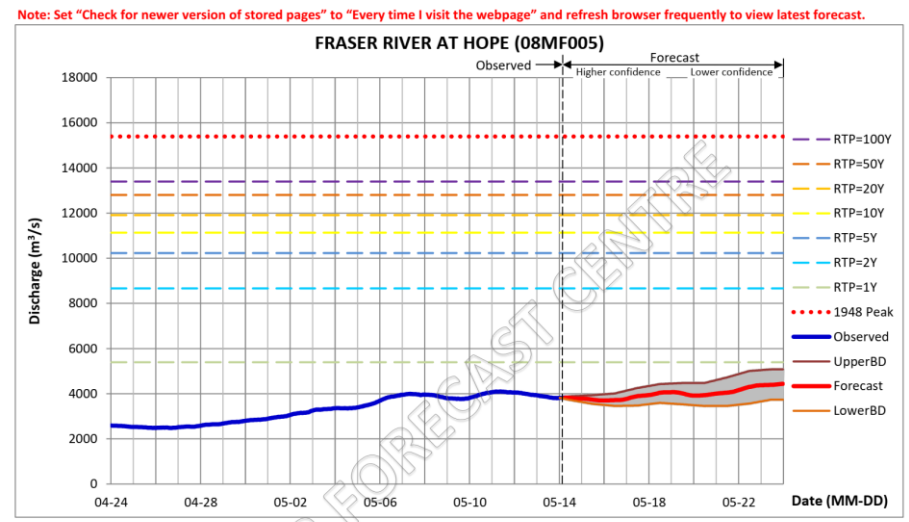
Monitoring Results

Freshet and River Monitoring

Freshet Impacts Scour and Sedimentation

- Annually freshet has a significant impact scour and sedimentation
- River monitoring notes localized changes
- Varies throughout freshet

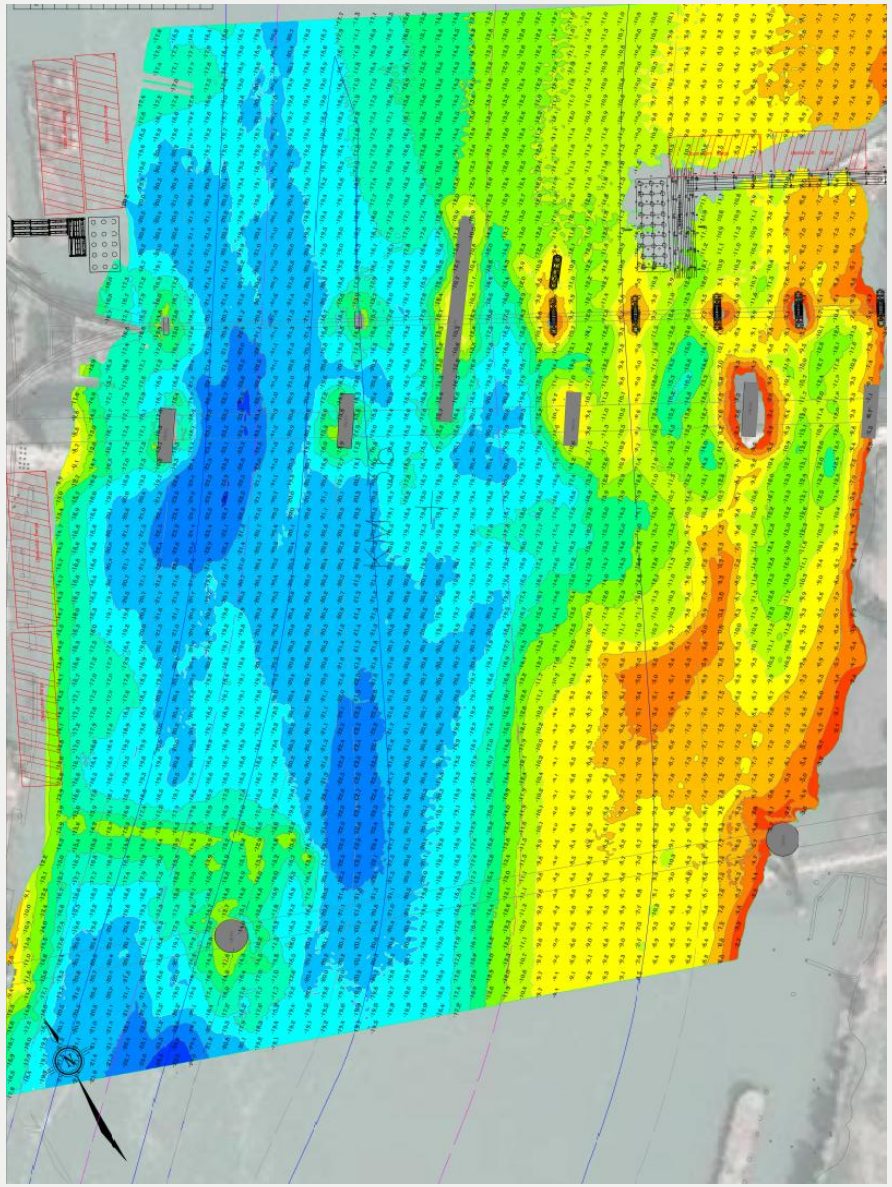
River Volumes at Hope are Monitored



Reading at 07 AM (m^3/s)	UPPER BOUND / Forecast Daily Discharge (m^3/s): AVERAGE / LOWER BOUND									
Wed	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri
2025-05-14	2025-05-14	2025-05-15	2025-05-16	2025-05-17	2025-05-18	2025-05-19	2025-05-20	2025-05-21	2025-05-22	2025-05-23
	3884.0	3933.8	4009.7	4248.9	4423.6	4470.6	4472.7	4719.1	5005.8	5080.2
3826.7	**3800.1**	**3739.4**	**3720.9**	**3877.6**	**4023.5**	**4004.3**	**3947.3**	**4060.4**	**4292.0**	**4400.5**
	3725.4	3552.5	3460.3	3477.8	3596.6	3532.6	3457.5	3460.8	3566.3	3742.9

Color Scheme for Return Periods:	RTP=1Y	RTP=2Y	RTP=5Y	RTP=10Y	RTP=20Y	RTP=50Y	RTP=100Y	1948 Peak
	5393.2	8665.0	10230.0	11132.7	11910.4	12803.2	13397.0	15392.9 (m^3/s)

Bathymetry Monitoring Survey Results –
April 28, 2025



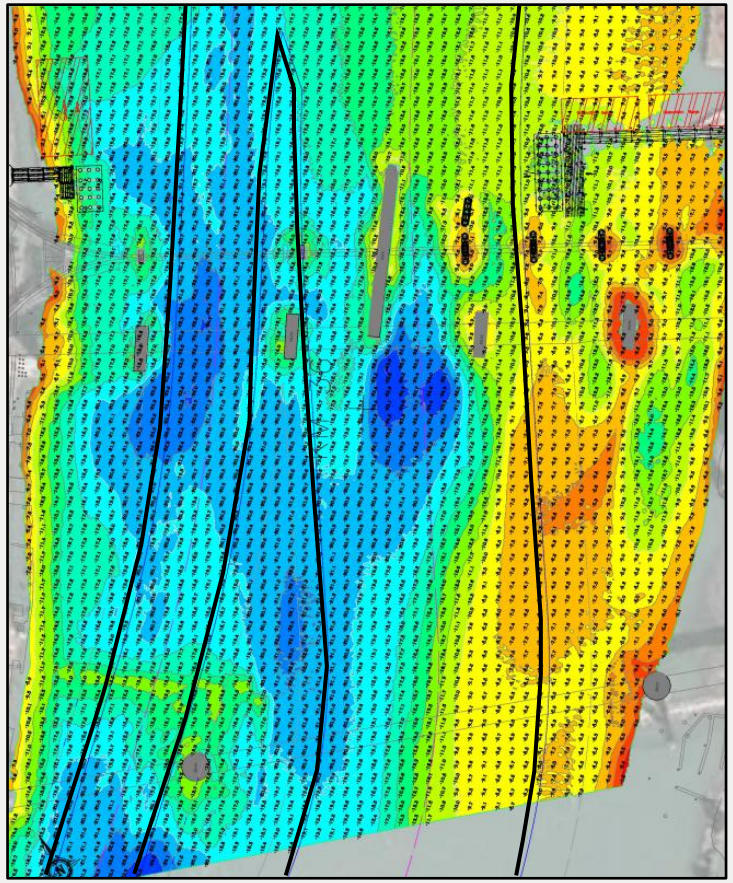
Elevations Table			
Number	Maximum Elevation	Minimum Elevation	Color
14	0.00	−2.00	
13	−2.00	−4.00	
12	−4.00	−6.00	
11	−6.00	−8.00	
10	−8.00	−10.00	
9	−10.00	−12.00	
8	−12.00	−14.00	
7	−14.00	−16.00	
6	−16.00	−18.00	
5	−18.00	−20.00	
4	−20.00	−22.00	
3	−22.00	−24.00	
2	−24.00	−26.00	
1	−26.00	−28.00	

Bathymetry Results:

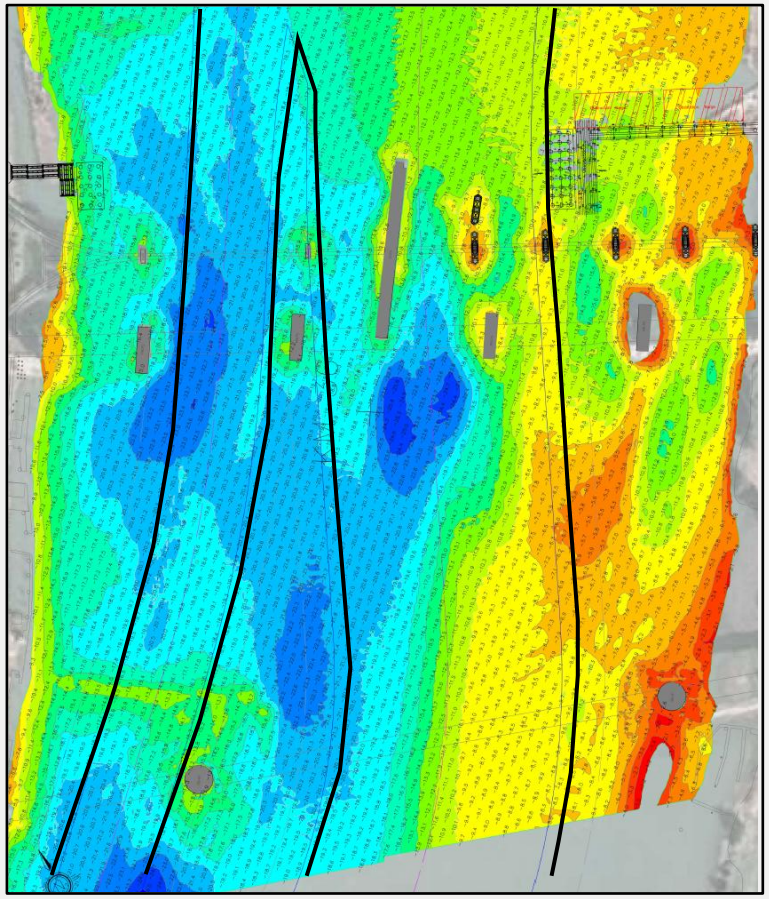
Comparison of Survey Results - Sep 2024 to Apr 2025

Elevations Table

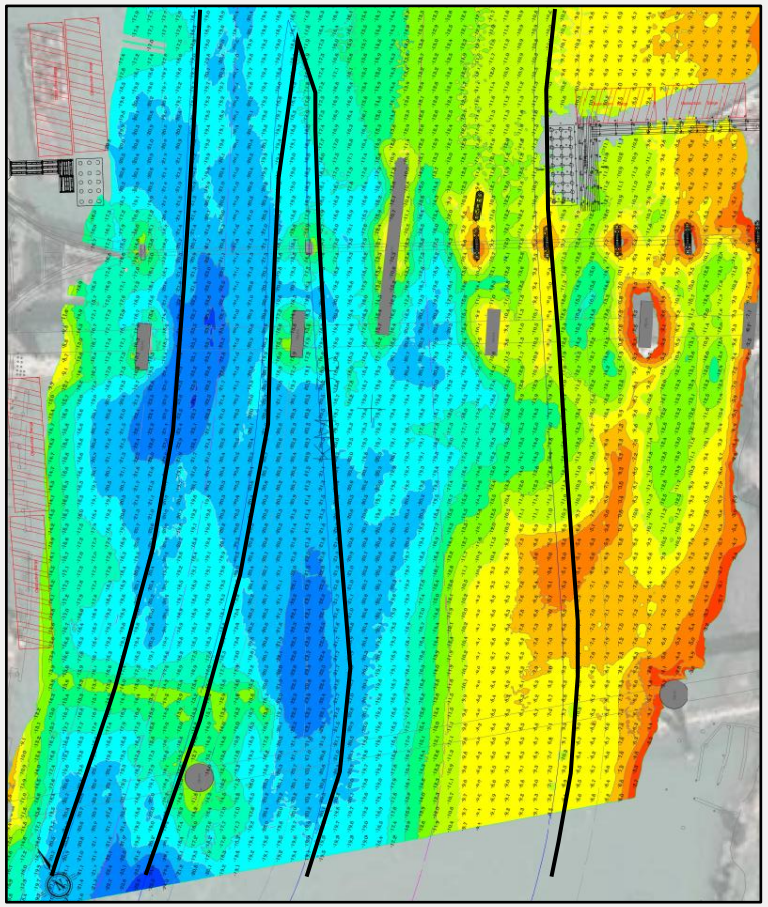
Number	Maximum Elevation	Minimum Elevation	Color
14	0.00	−2.00	
13	−2.00	−4.00	
12	−4.00	−6.00	
11	−6.00	−8.00	
10	−8.00	−10.00	
9	−10.00	−12.00	
8	−12.00	−14.00	
7	−14.00	−16.00	
6	−16.00	−18.00	
5	−18.00	−20.00	
4	−20.00	−22.00	
3	−22.00	−24.00	
2	−24.00	−26.00	
1	−26.00	−28.00	



September 23, 2024



February 10, 2025



Apr 28, 2025

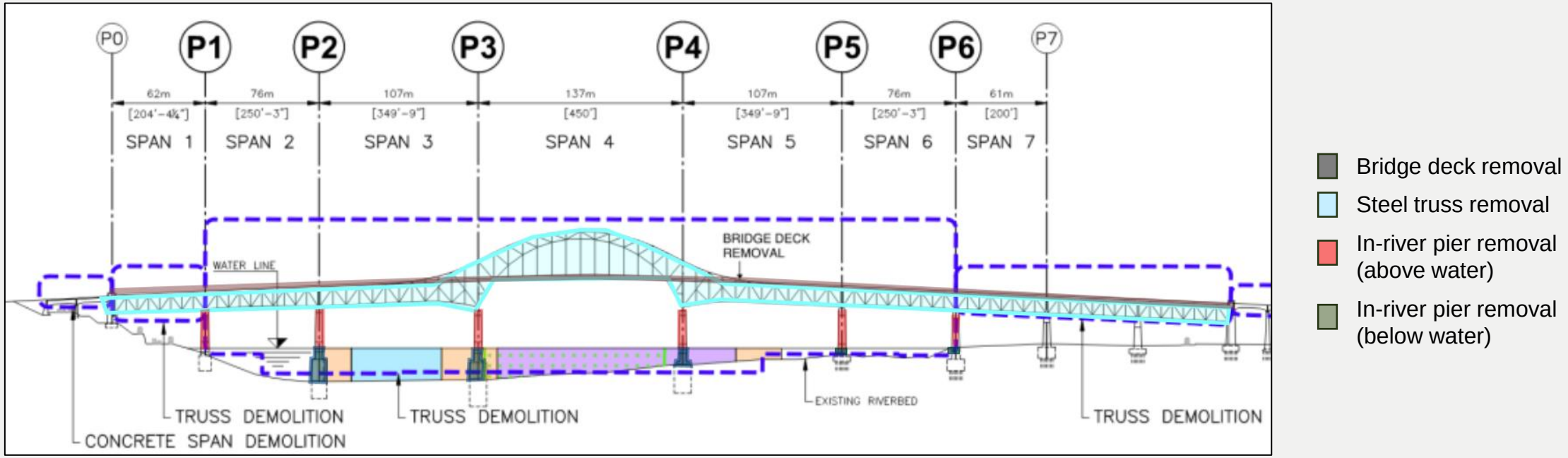
Demolition Planning

Updates

Demolition Works

- Consists of three main scopes of work, each having their own form of potential interference to navigation:
  1) Bridge deck removal
  2) Steel truss removal
  3) In-river pier removal (above/below water)

With progression of detailed design, FCCGP has been exploring methods to further limit interferences to navigation



- Bridge deck removal
- Steel truss removal
- In-river pier removal (above water)
- In-river pier removal (below water)

Demolition Planning

Proposed updates include refinements in methods to reduce interferences to navigation

Bridge deck removal	Steel truss removal	In-river pier removal (above water)	In-river pier removal (below water)
• Methods remain the same (overhead removal)	• Steel truss (Span 4) removal via strand jacks and lowering span onto barge(s) (Jan 30/25 IMUWG/MUWG) • Similar lowering approach on remaining in-river spans (May 29/25 IMUWG/MUWG) • Updated methods limits the number of cuts and reduces interferences to navigation	• In-river pier removal via conventional demolition (Mar 27/25 IMUWG/MUWG) • Equipment positioned on flexi-float modular barge which surrounds the pier and contains the materials • Updated methods reduces duration of works	• *Challenges identified with wire saw cutting; exploring alternative methods*

Protecting Navigation During Demolition

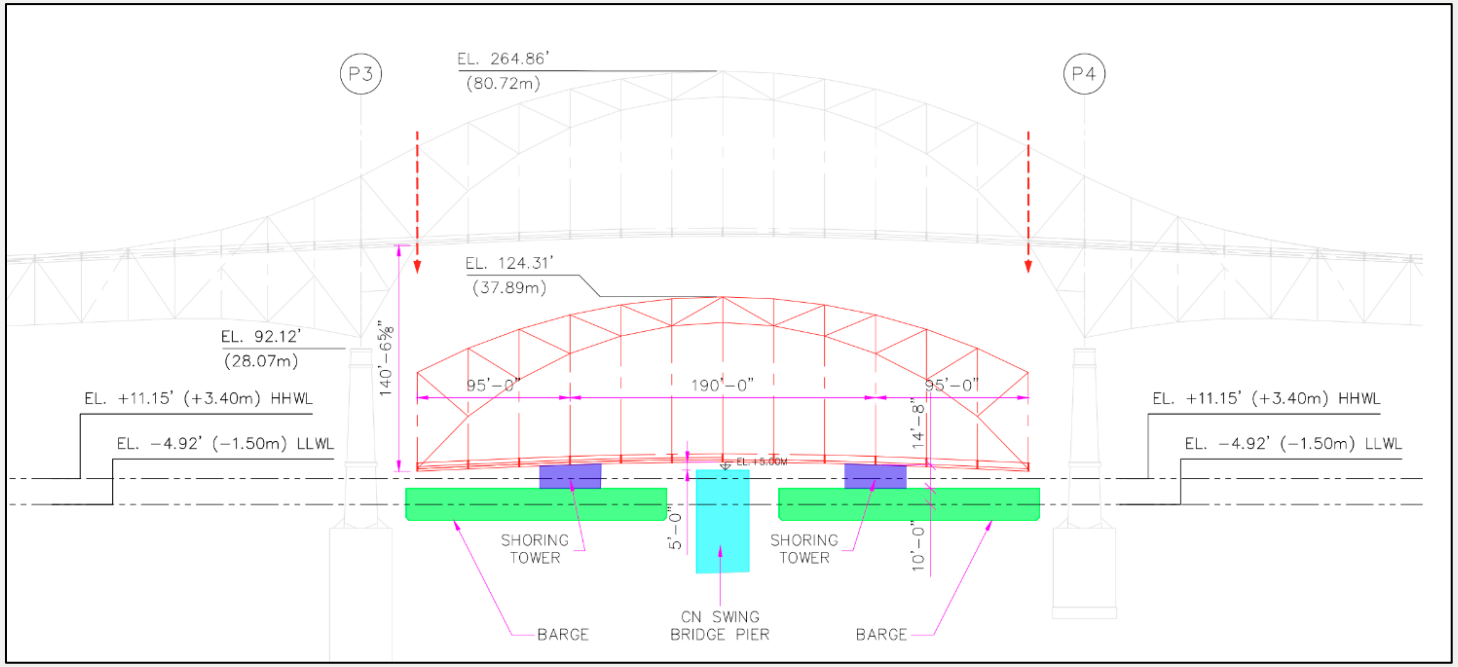
- To protect the mariner's right to navigation, and First Nation rights for fisheries access and use of the river for traditional use purposes, works will be staged and sequenced to maintain two of the three navigation channels unobstructed and available for navigation
- *Exceptions proposed would be for short term closures (e.g., Span 4 steel truss removal)*
- Navigational restrictions and scheduling information will continue to be communicated through the Indigenous Marine Users Working Group and Marine Users Working Group meetings, and weekly NAVWARNs

Demolition Staging Area	Main Channel Downstream Passage	Main Channel Upstream Passage	Secondary Channel
Main Channel Downstream Passage	Restrictions to Navigation	Open	Open
Main Channel Upstream Passage	Open	Restrictions to Navigation	Open
Secondary Channel	Open	Open	Restrictions to Navigation

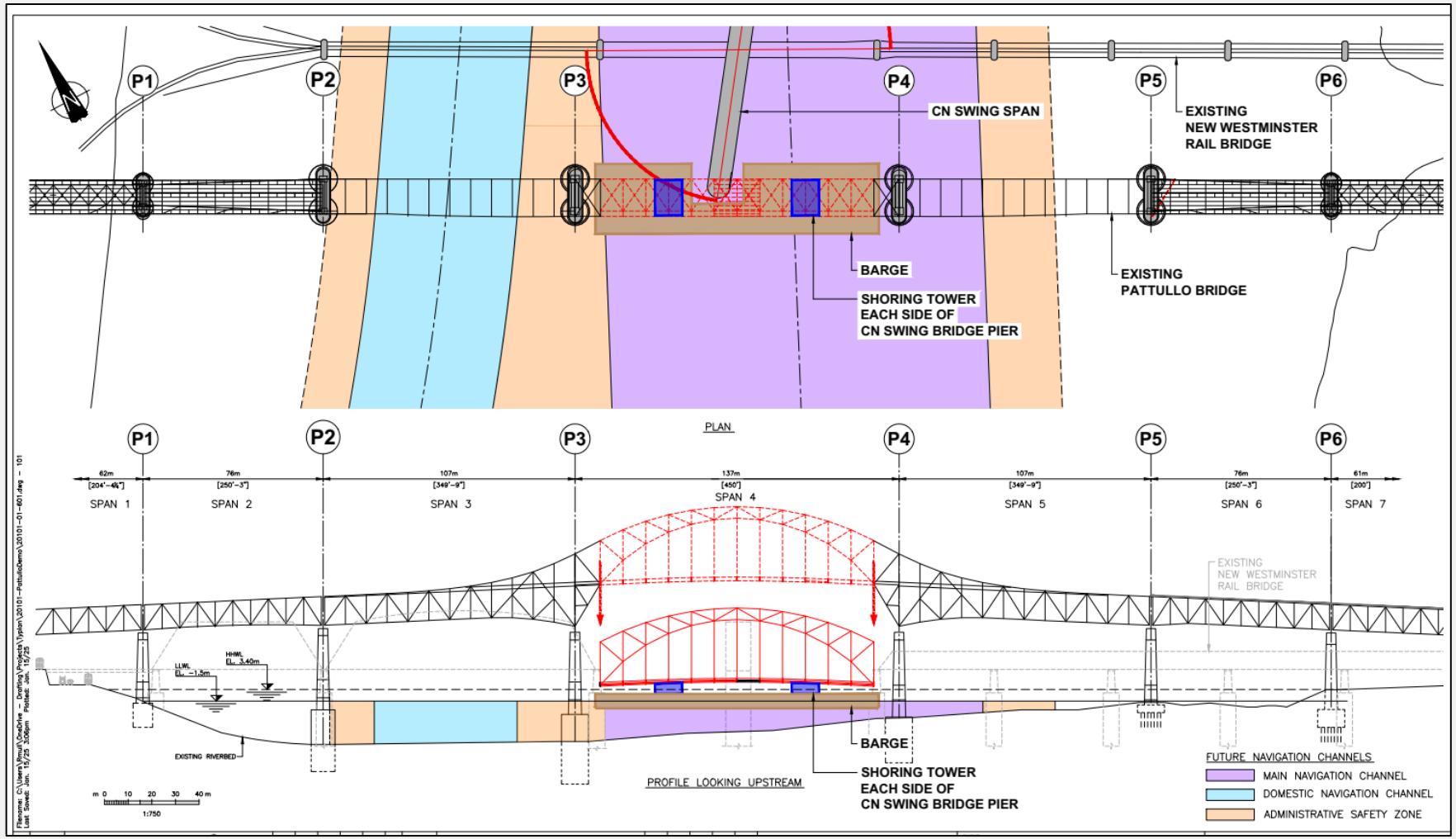
Steel Truss – Span 4 Removal

Proposed Removal Methods:

1. Set up barge next to piers with shoring towers positioned on either side of a vertical member
2. Use strand jacks to lift up the span off the pier(s) bearings
3. Move barges with steel span away from piers
4. Lower steel span down onto barges
5. Send directly to recycling facility



Steel Truss – Span 4 Removal

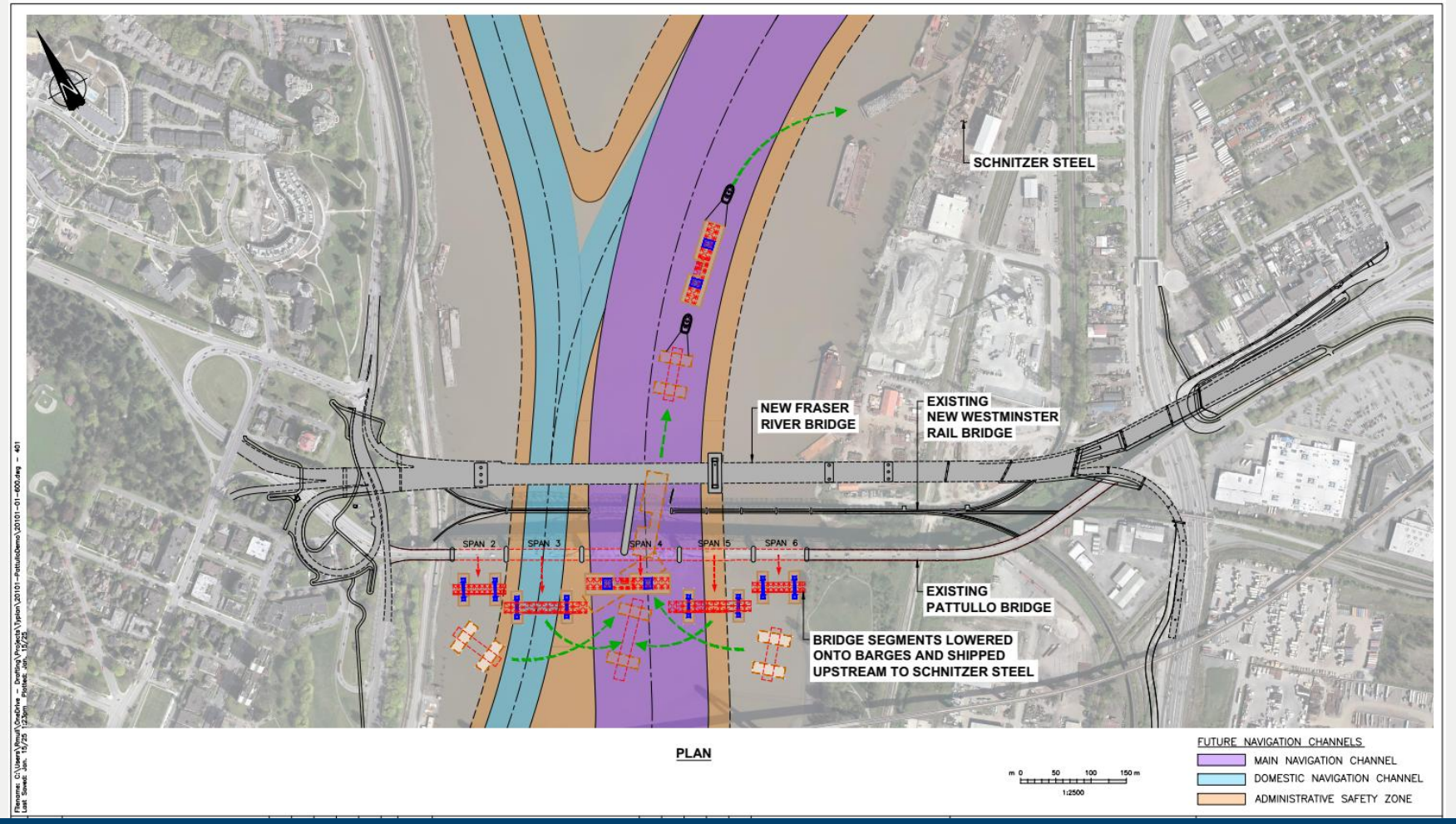


Implications to Navigation:

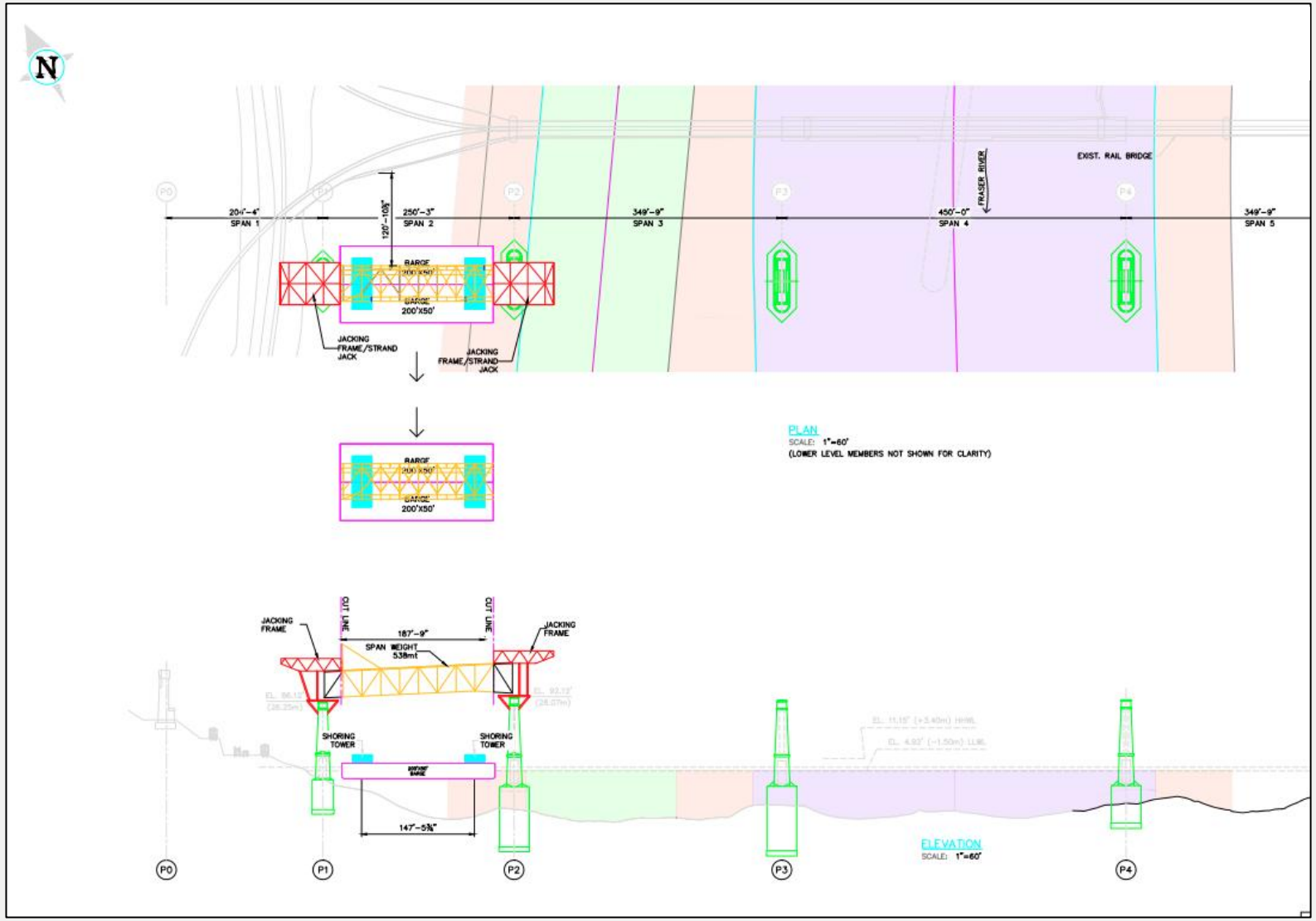
- Requires short term closure of main navigation channel (12-36 hrs)
- Works could be scheduled over weekend (anticipated Jan/Feb 2026)
- Potential to schedule works to support supply chain management needs (i.e., CMC)
- Reduces interferences to navigation (weekend closure vs restrictions to navigation over 4 wks)

Steel Truss Removal

Barge Transits



Steel Truss – Span 2 Removal



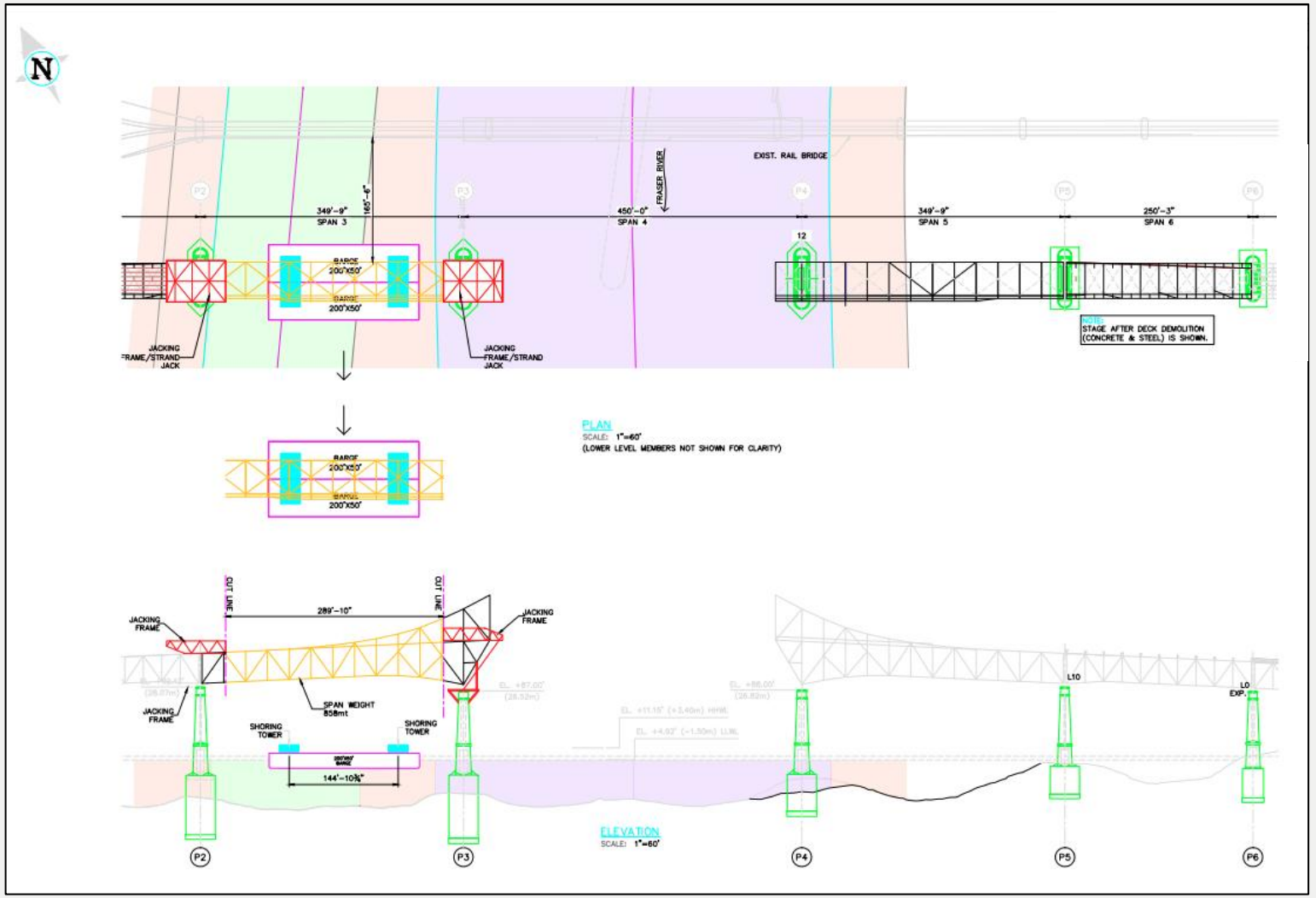
Proposed Removal Methods:

1. Install temporary struts and jacking frames, engage the strand jacks and cut the span
2. Set up barge next to piers with shoring towers positioned on either side of a vertical member
3. Using strand jacks, lower the span and place on barge
4. Move barge with span away from pier

Implications to Navigation:

- Equipment sited outside of the domestic navigation channel; no restrictions to navigation
- Estimated duration of works: 4 weeks

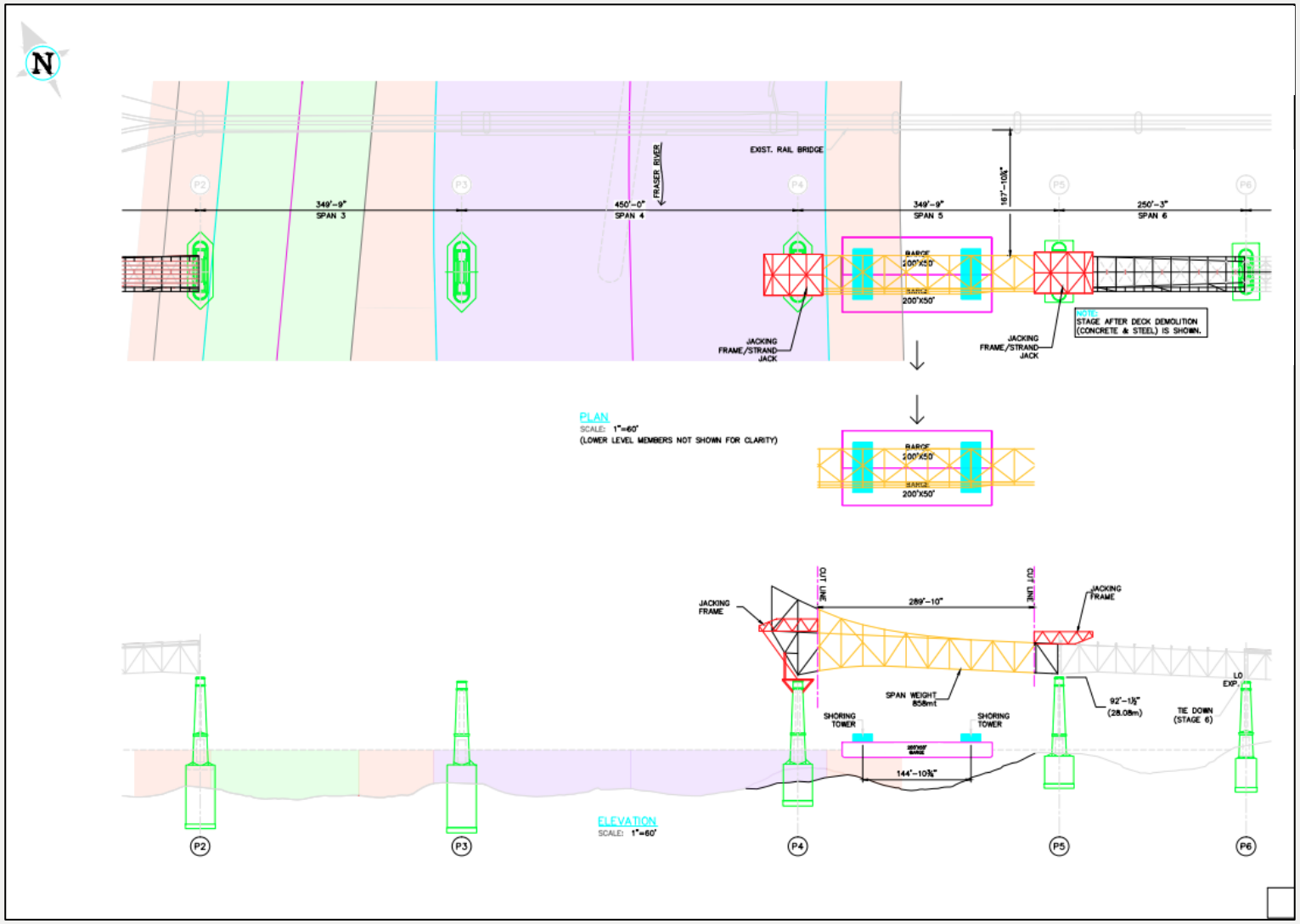
Steel Truss – Span 3 Removal



Implications to Navigation:

- Equipment sited within the domestic navigation channel; restrictions to navigation
- Estimated duration of works: 4 weeks

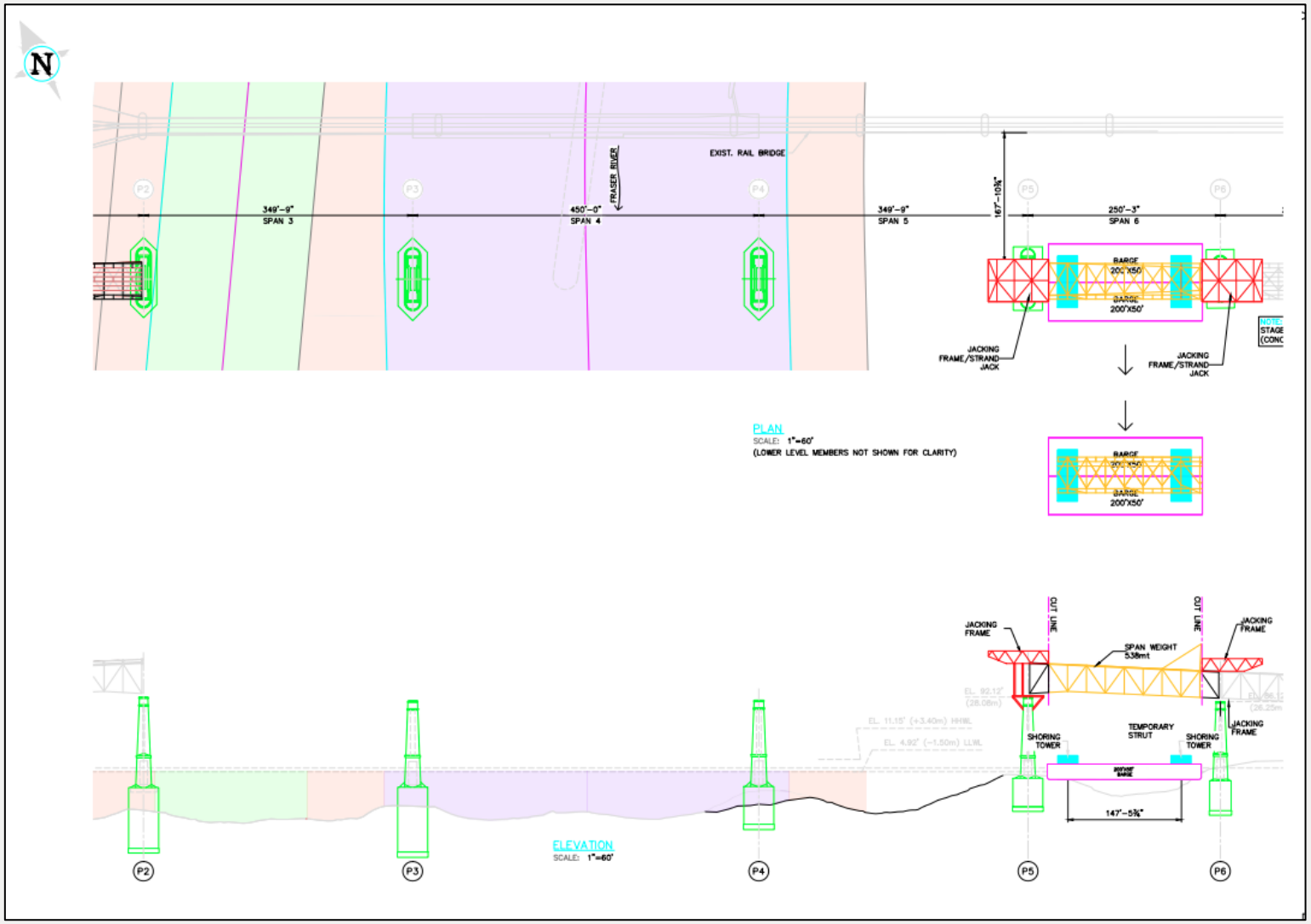
Steel Truss – Span 5 Removal



Implications to Navigation:

- Equipment sited outside of the main navigation channel; no restrictions to navigation
- Estimated duration of works: 4 weeks

Steel Truss – Span 6 Removal

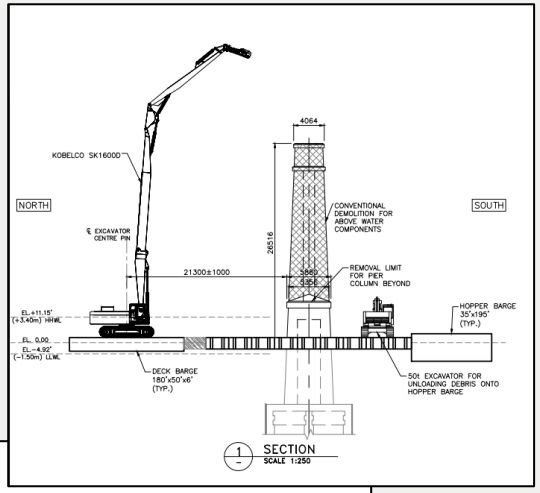


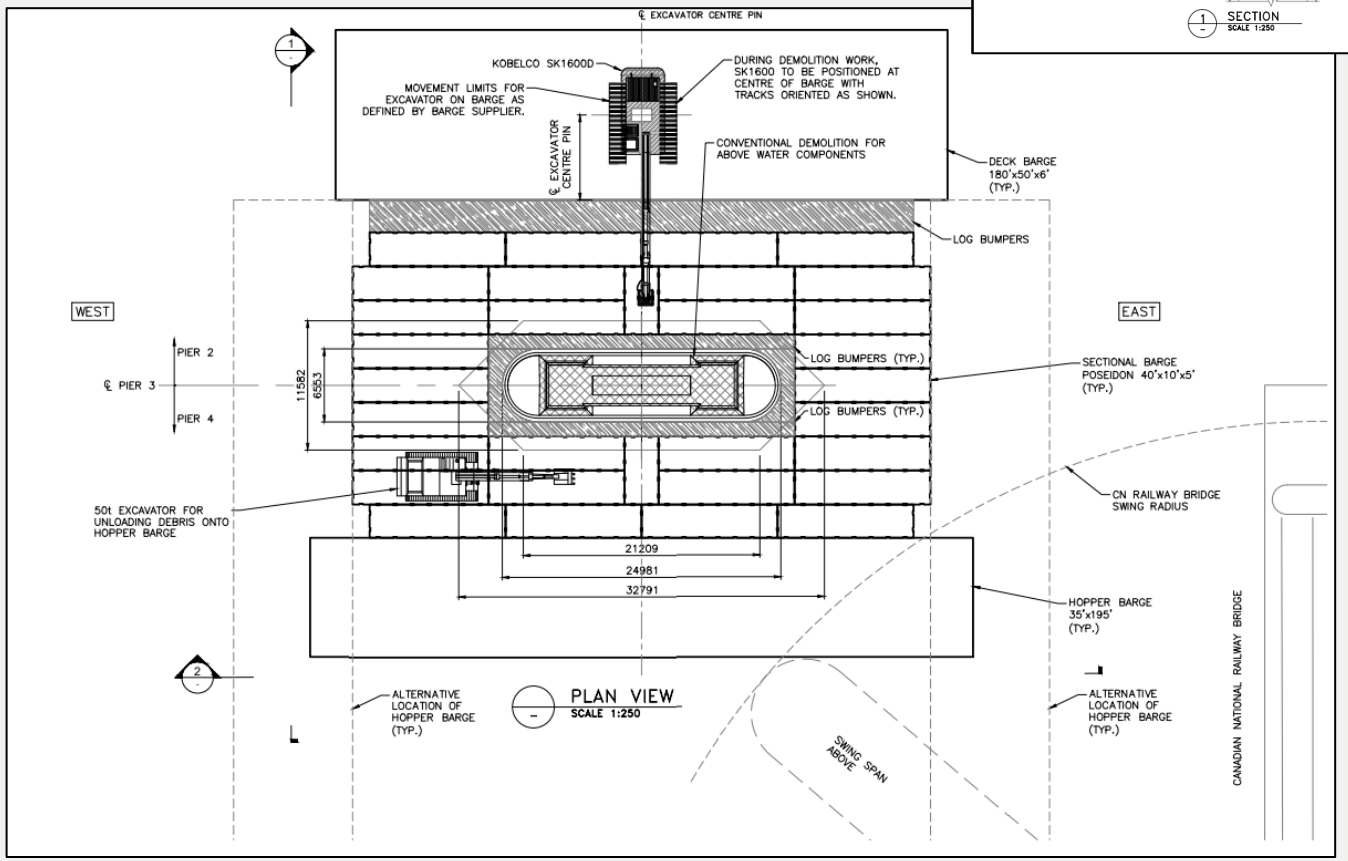
Implications to Navigation:

- Equipment sited outside of the main navigation channel; no restrictions to navigation
- Estimated duration of works: 4 weeks

In-River Pier Removal
Above Water

- Conventional demolition of the pier column involves use of boom-mounted hydraulically powered impact hammers, shears, and pulverizers to break apart the existing pier materials
- Equipment is positioned on flexi-float modular barge that surround the pier and contains the broken materials and debris
- Material barge is positioned alongside with excavator(s) for offloading material
- Estimated duration of works: 1-2 wks/pier

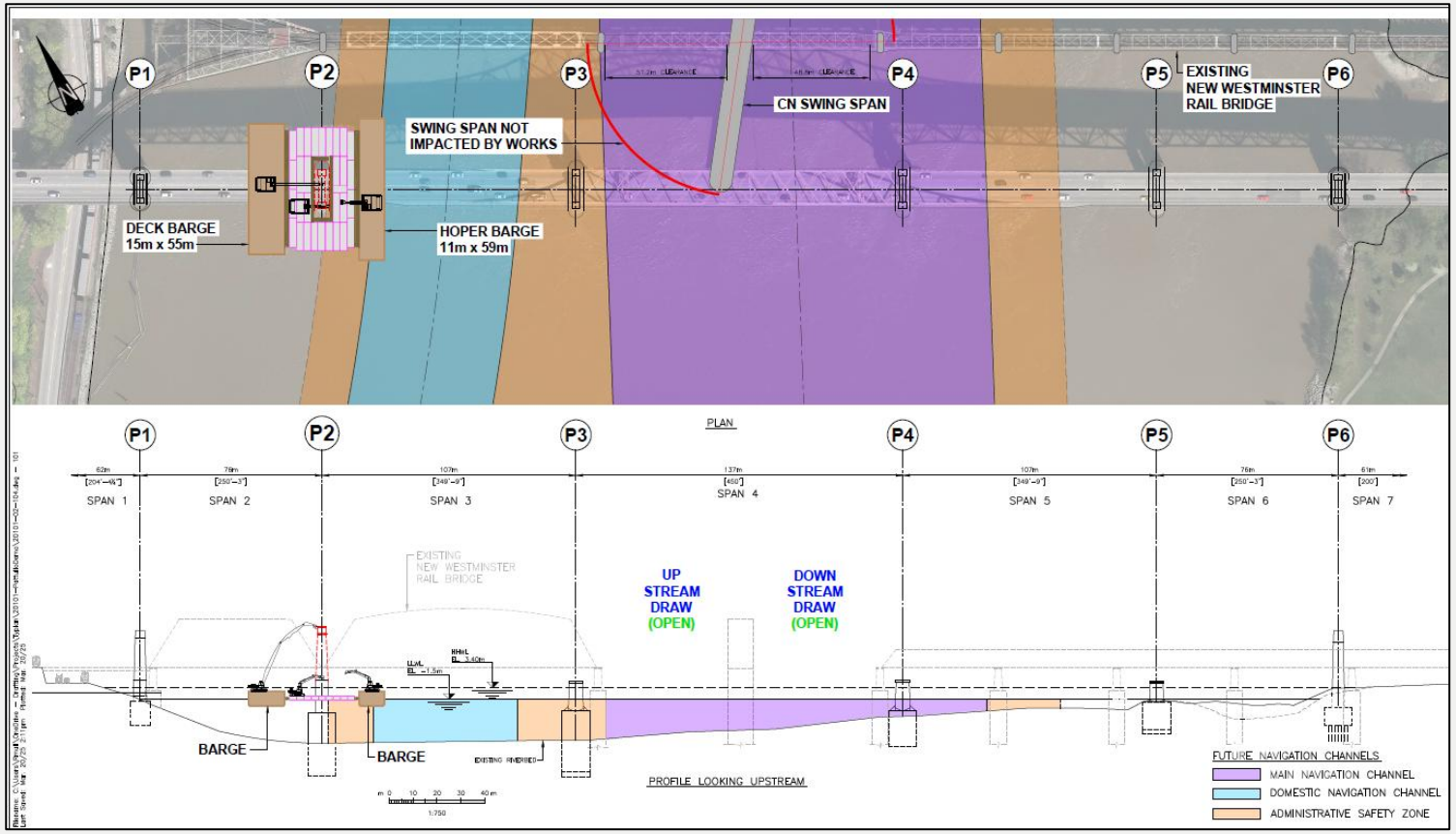


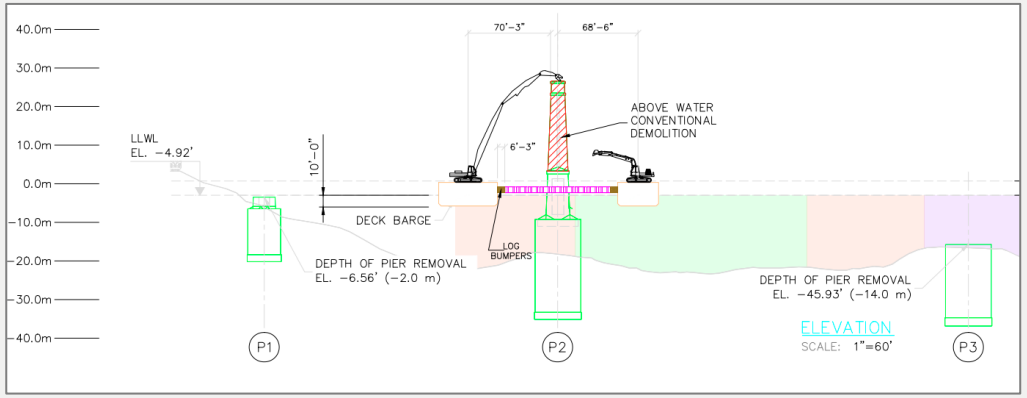


In-River Pier Removal (above water)

Pier P2:

- Equipment sited partially within the domestic channel
- Estimated duration of works: 2 weeks

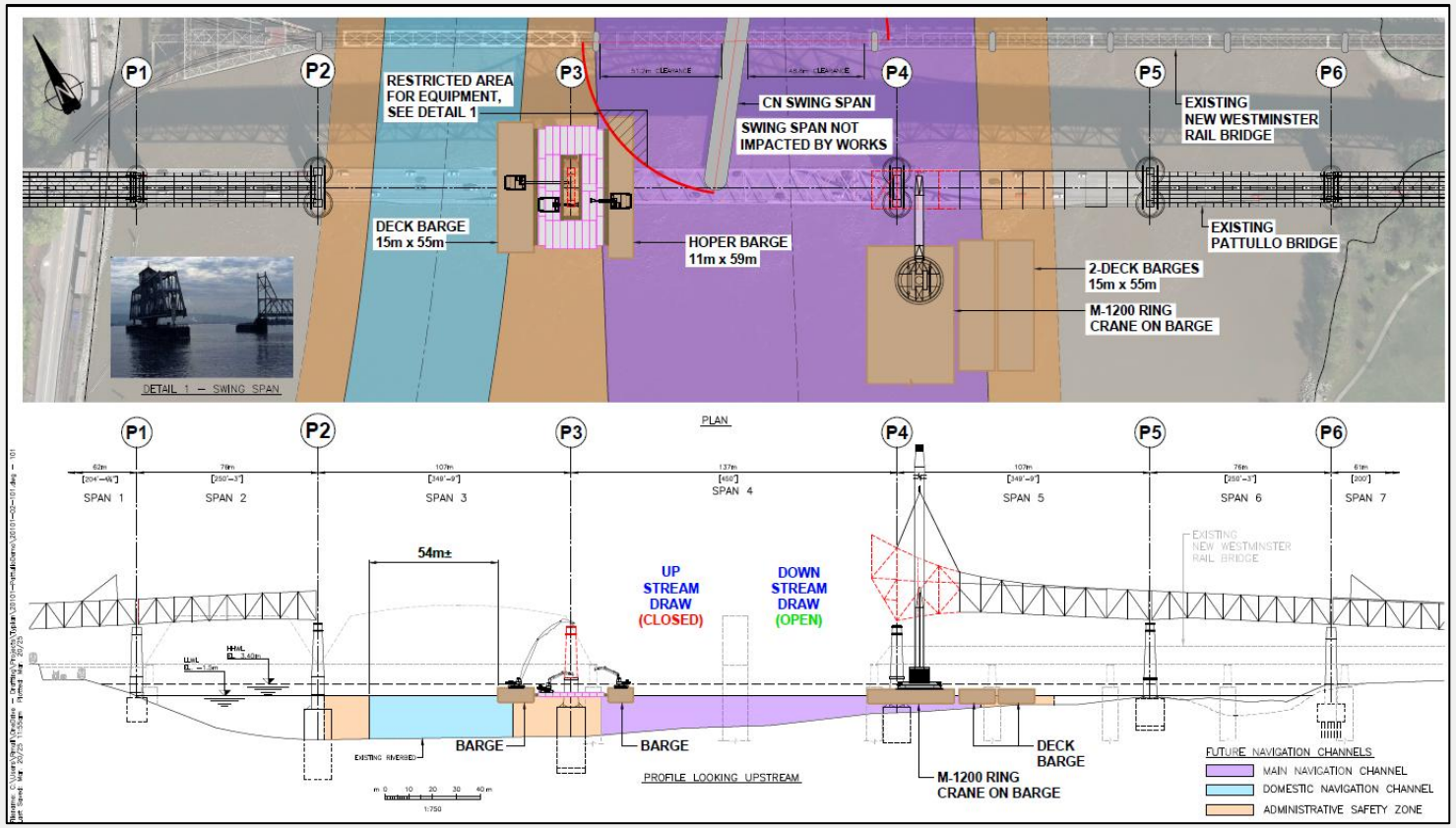


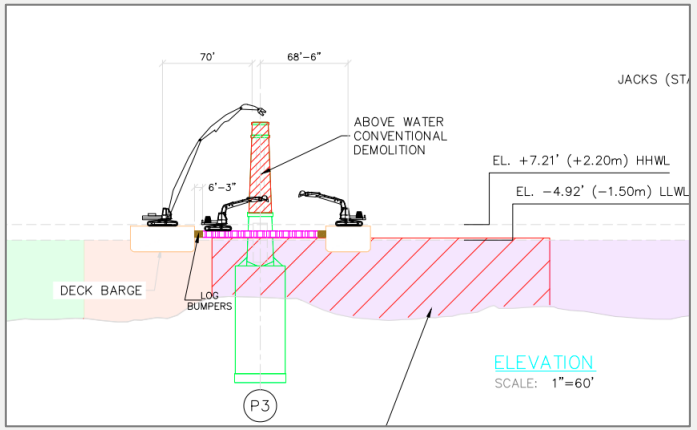


In-River Pier Removal (above water)

Pier P3:

- Equipment sited within the downstream draw of the main navigation channel
- Estimated duration of works: 2 weeks

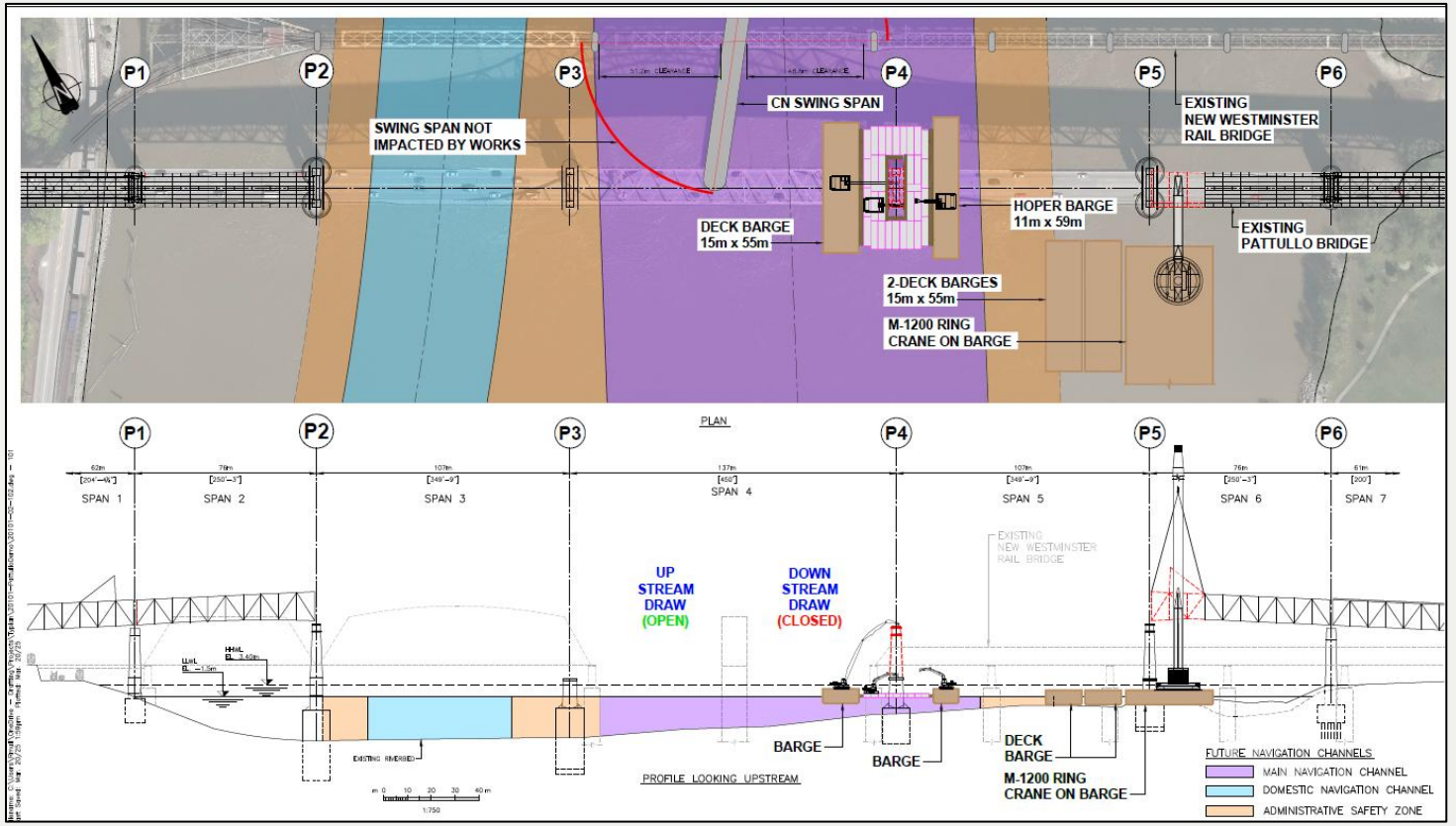


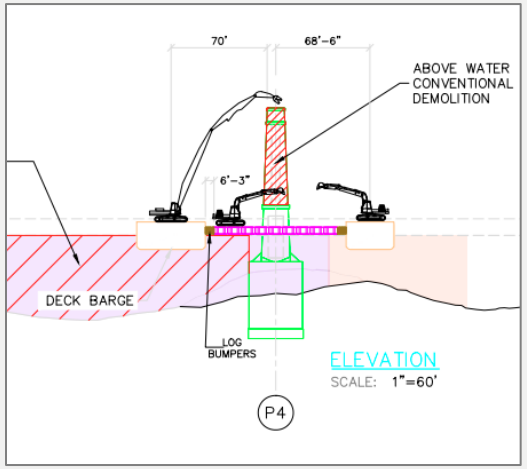


In-River Pier Removal (above water)

Pier P4:

- Equipment sited outside of the main navigation channel; partially within the future channel
- Estimated duration of works: 2 weeks

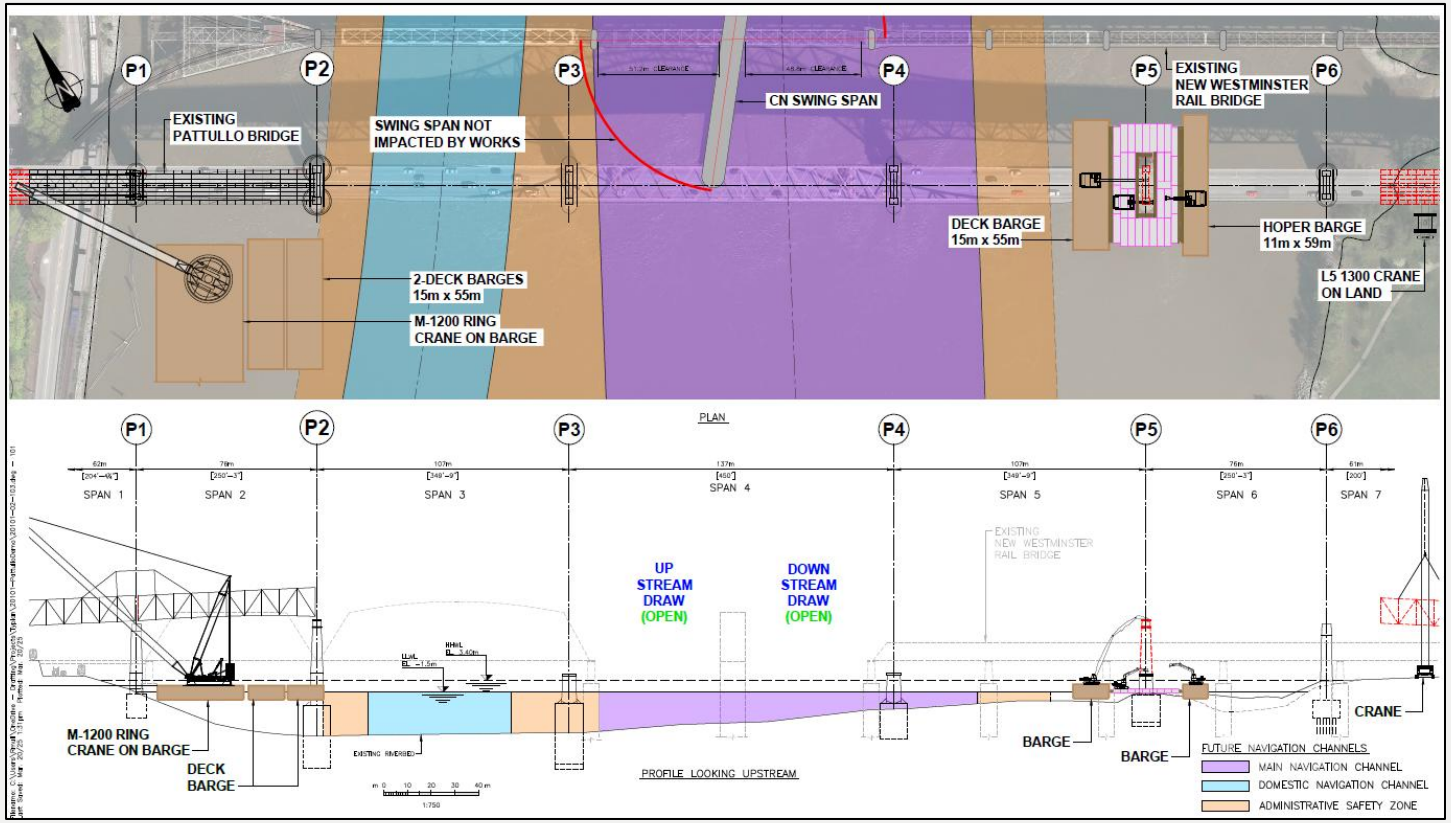


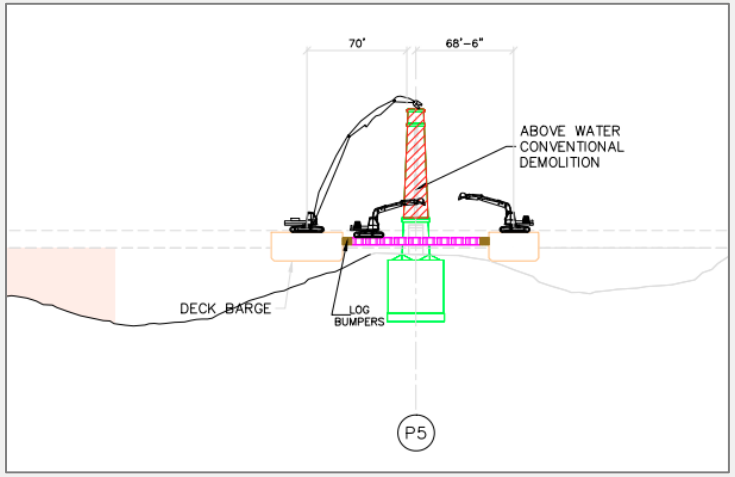


In-River Pier Removal (above water)

Pier P5:

- Equipment sited outside of the main navigation channel; no restrictions to navigation
- Estimated duration of works: 1 week

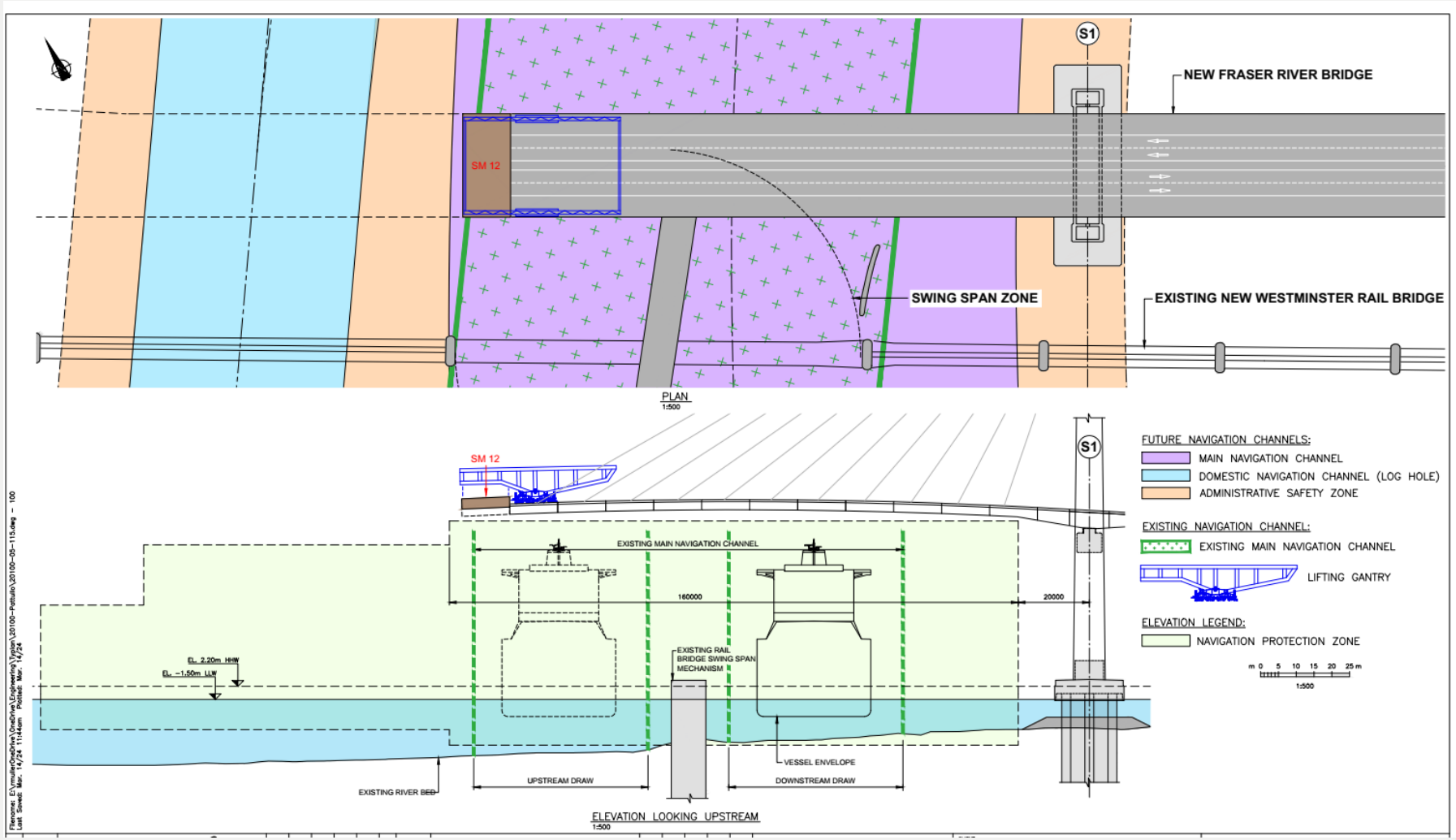




4-Week Look-Ahead / Construction Staging

Construction Staging – Cantilever Construction

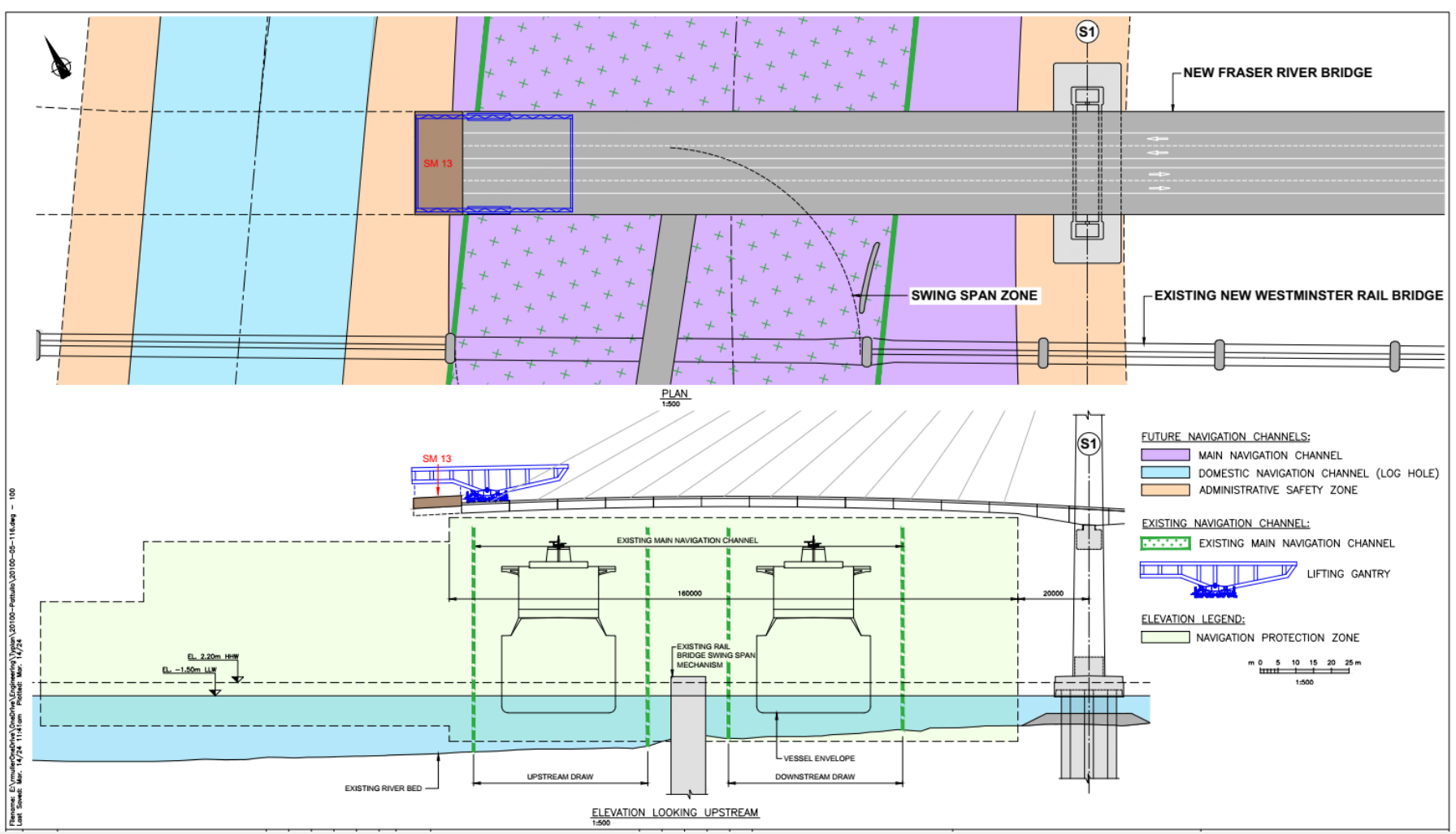
Segment SM-012



- Started May 13
- 2-3 week duration
- Restrictions in the upstream draw (approx. 11 hours, cumulative)

Construction Staging – Cantilever Construction

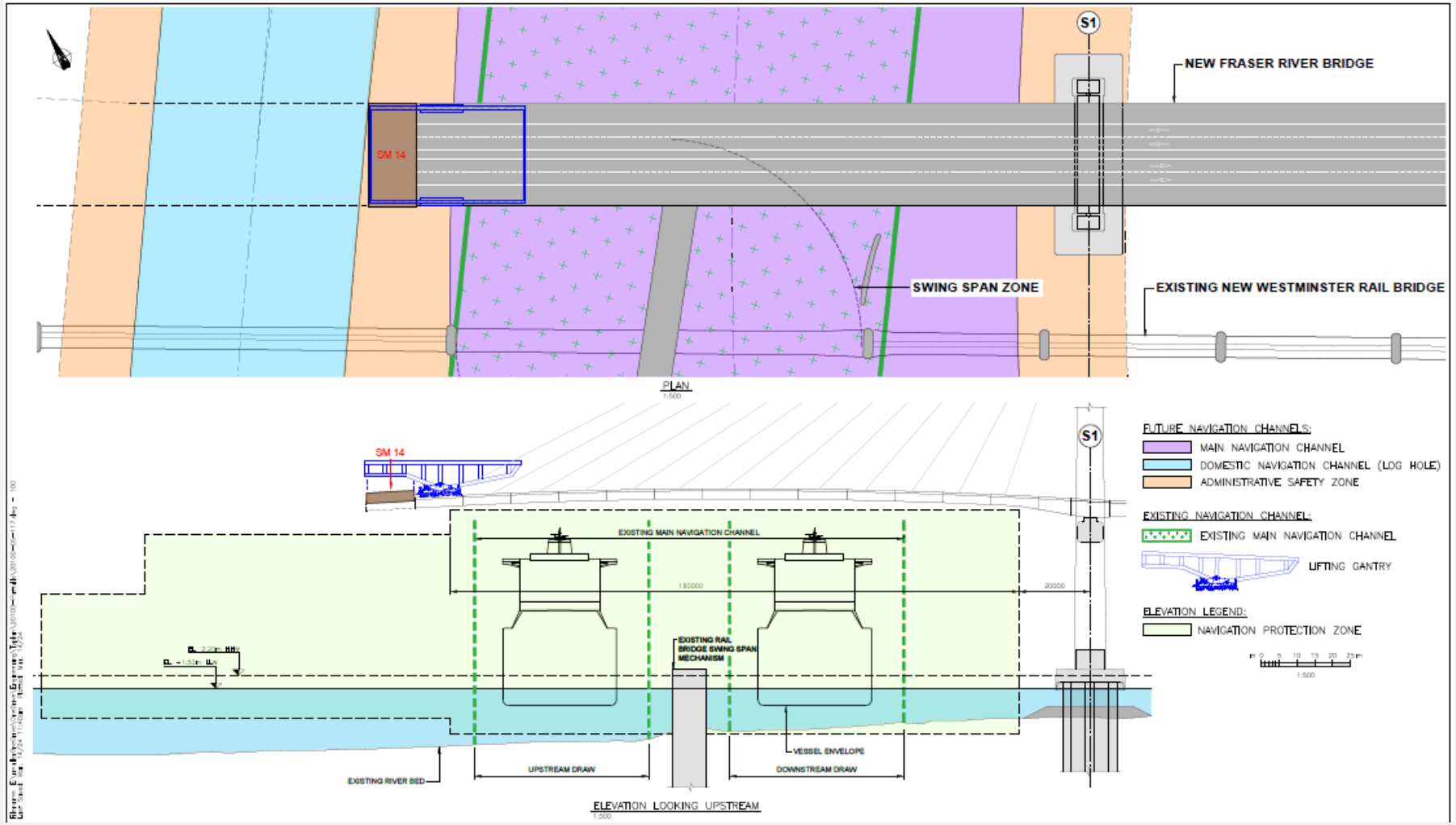
Segment SM-013



- Starting Jun 6
- 2-3 week duration
- No interference to navigation

Construction Staging – Cantilever Construction

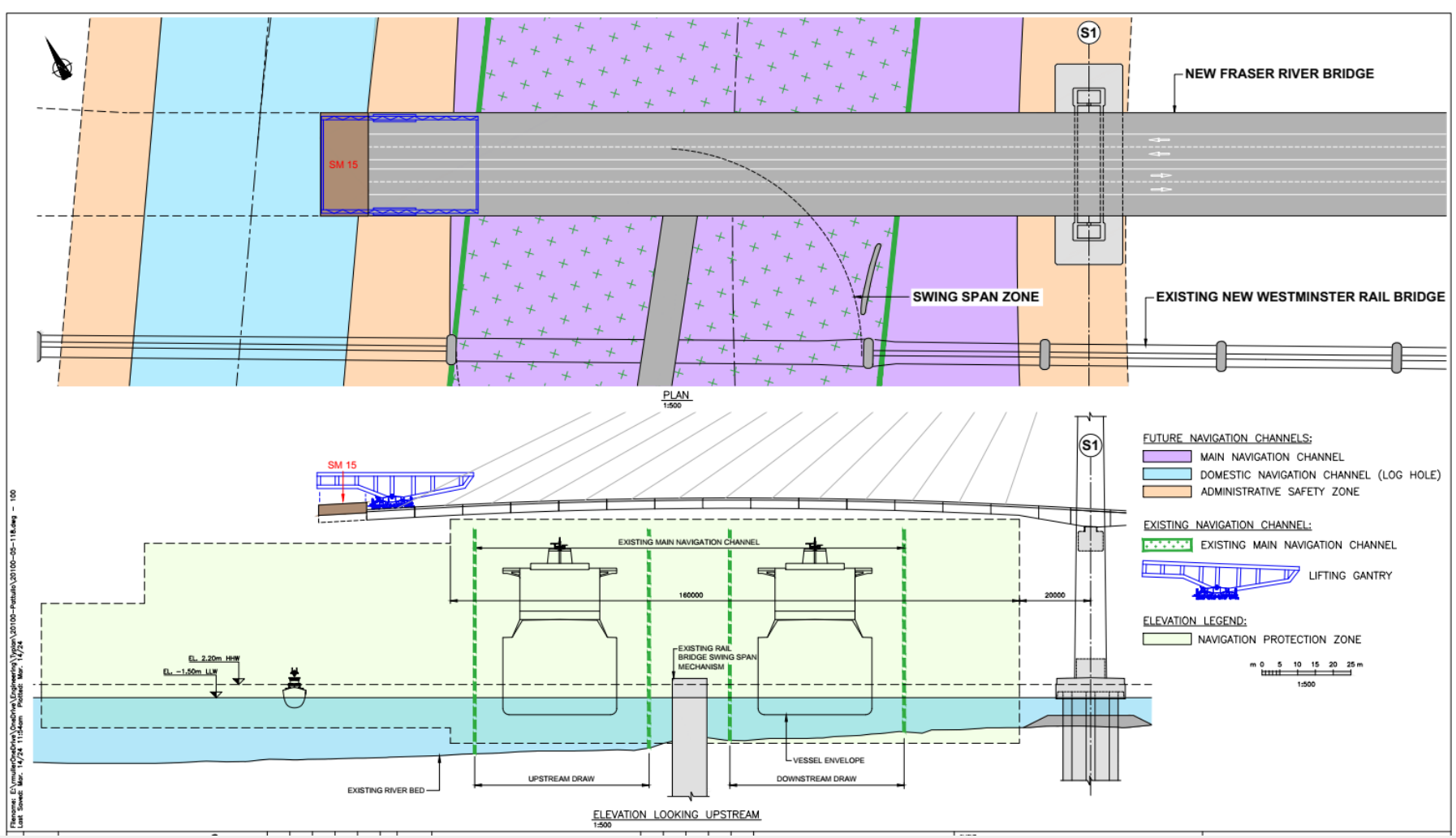
Segment SM-014



- Starting Jun 22
- 2-3 week duration
- No interference to navigation

Construction Staging – Cantilever Construction

Segment SM-015



- Starting Jul 11
- 2-3 week duration
- Restrictions in the domestic navigation channel (approx. 11 hours, cumulative)

Next Steps

Ongoing NAVWARNs to be provided

Next Marine Users Working Group:

- June 26, 2025