

Williams Cr (Shoup Bridge) Replacement Project



Public Meeting

August 19, 2015



**PARSONS
BRINCKERHOFF**

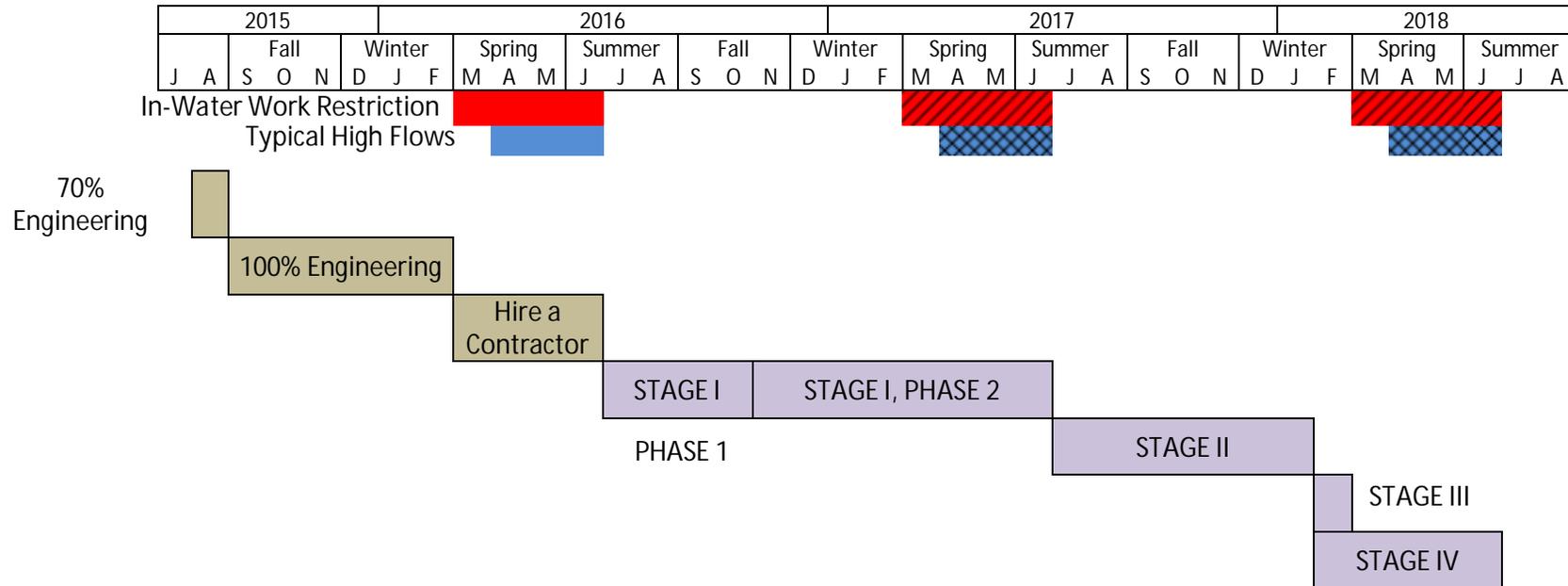
Shoup Bridge Replacement Project Team

- WFLHD: Greg Gifford -Project Manager
Scott Smithline- Environmental Specialist
Benn Oltmann- Structures Manager
- Consultant Team:
Mark Hirota -Project Manager
Stacy Thomas - Public Information Specialist
Matt Miller -Bridge Lead
Chivanna Pot – Roadway Lead
Evan Garich – Geotechnical Lead
Pete Geiger – Environmental Lead

Agenda

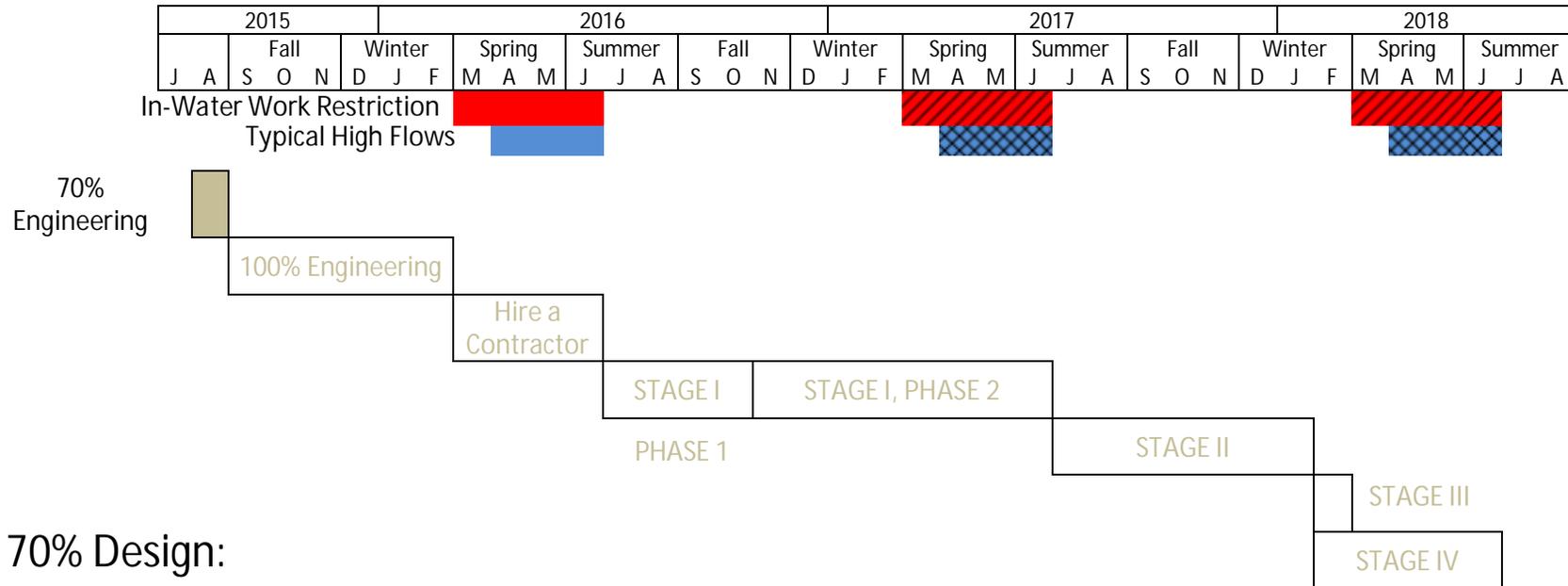
- Project Schedule
- Typical Arch Construction
- Slide in Illustrations
- Next Steps
- How to Stay Involved
- Questions and Comments

Project Schedule



Construction will start Summer 2016 and last about 2 years

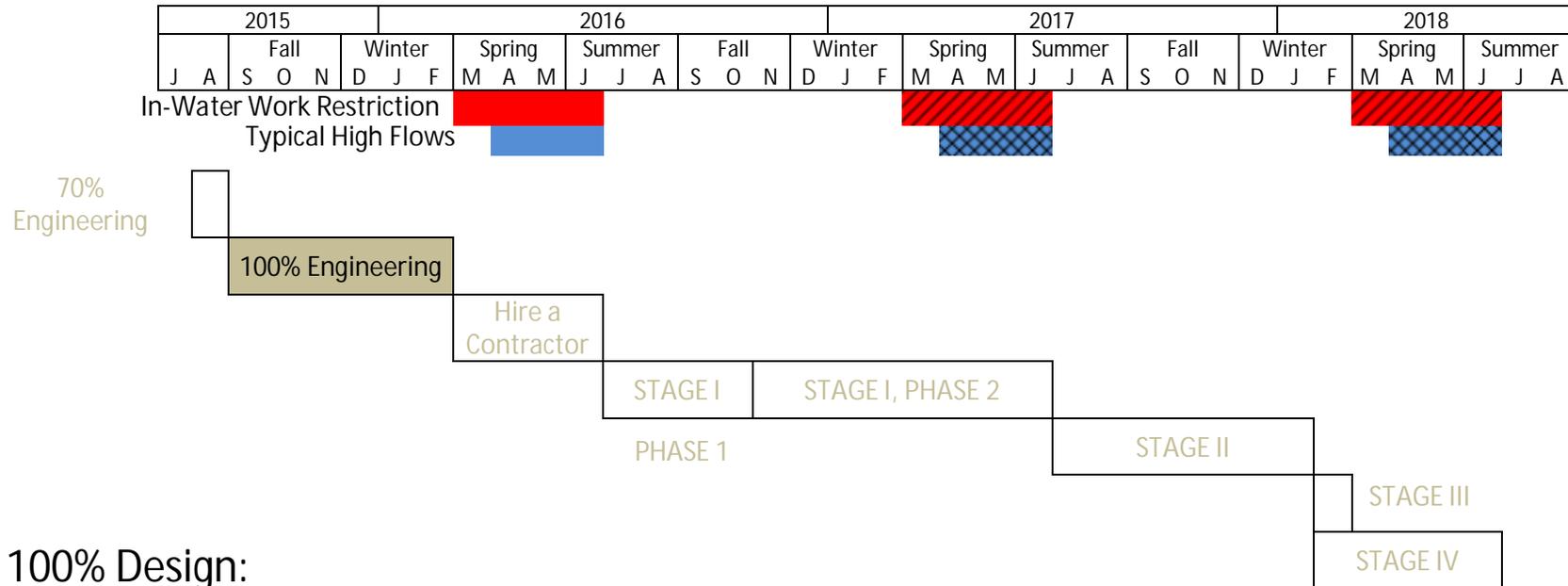
Project Schedule – 70%



70% Design:

- The Project Design is Currently at 70% complete.

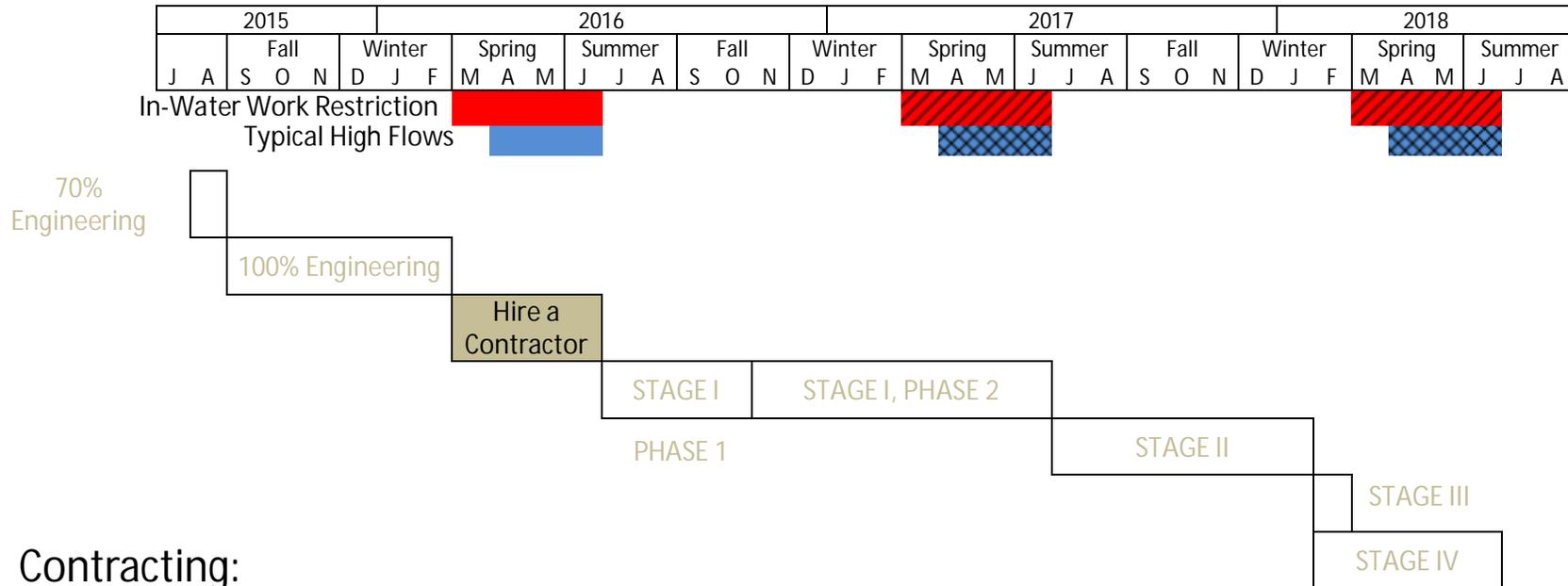
Project Schedule – 100%



100% Design:

- The Design should be completed in Spring 2016.

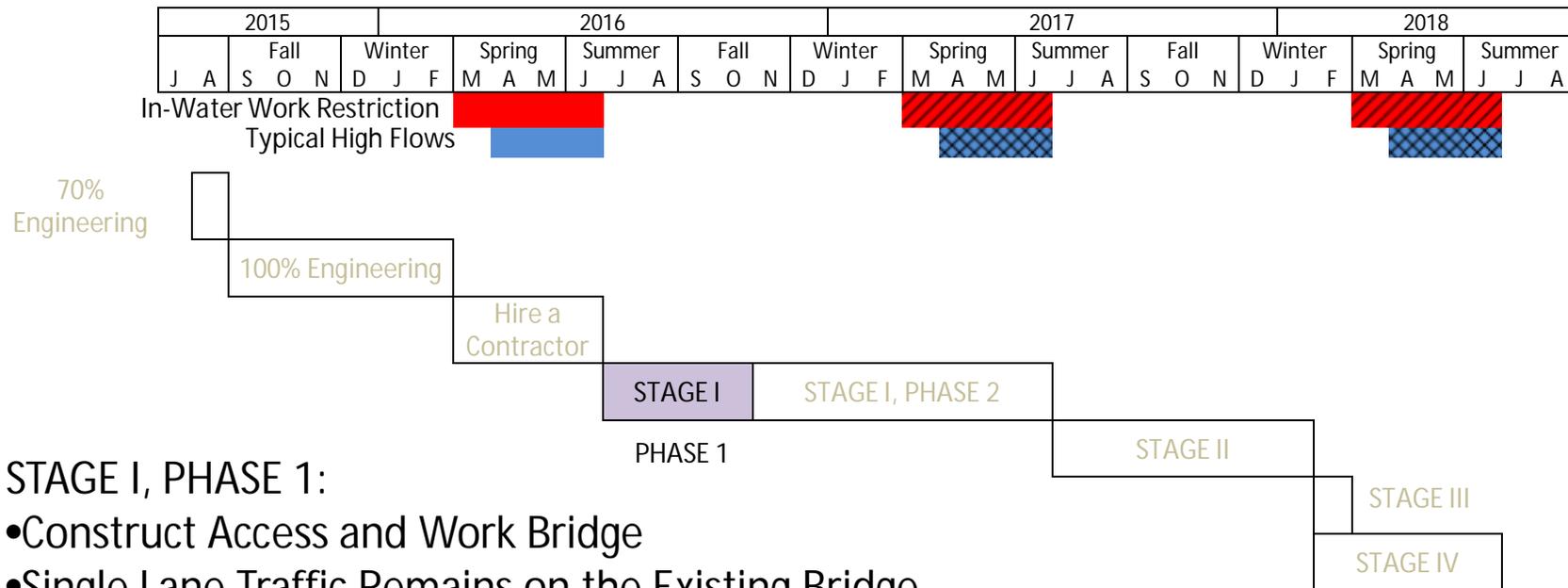
Project Schedule – Hire Contractor



Contracting:

- The process of contracting with a construction contractor should be completed by Early Summer 2016.
- In-Water Work Restriction Ends June 15th.

Project Schedule – STAGE I, PHASE 1

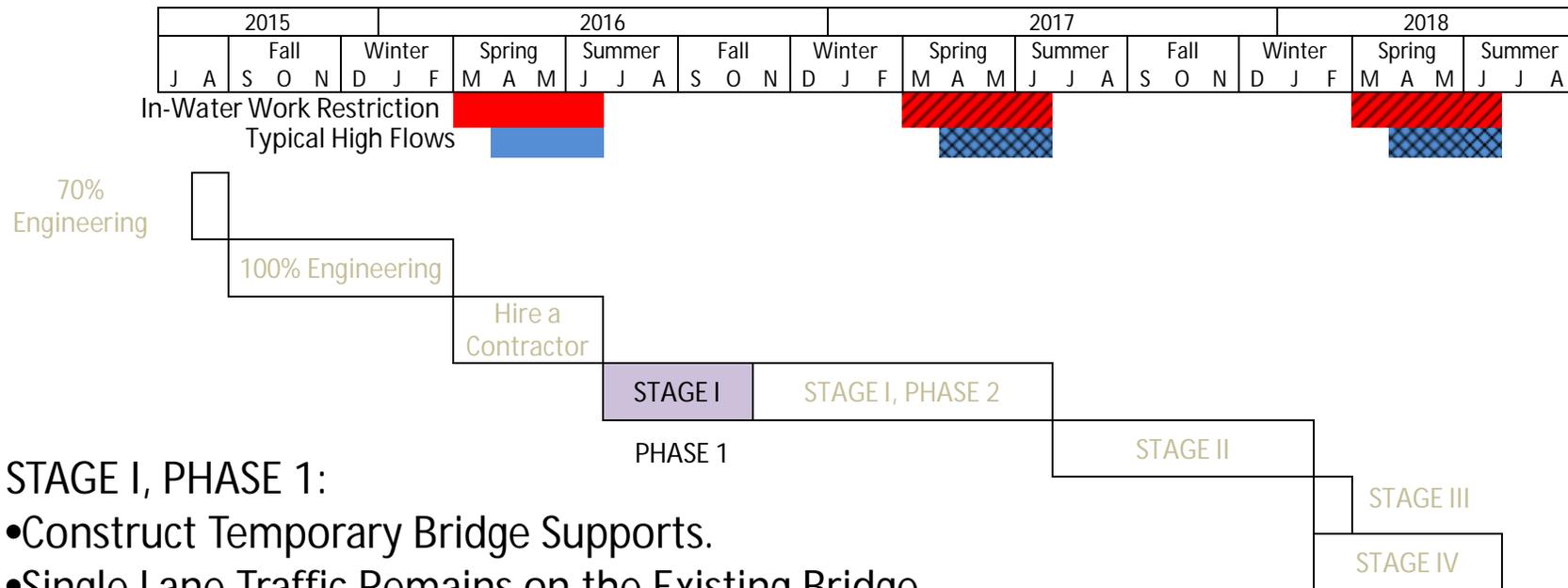


STAGE I, PHASE 1:

- Construct Access and Work Bridge
- Single Lane Traffic Remains on the Existing Bridge
- Work Bridge shifts River Traffic to Shallow side.

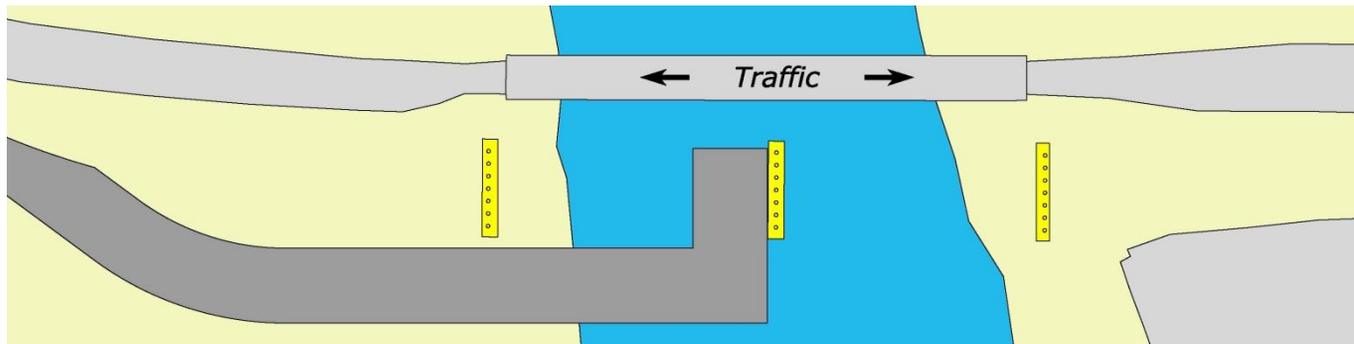


Project Schedule – STAGE I, PHASE 1

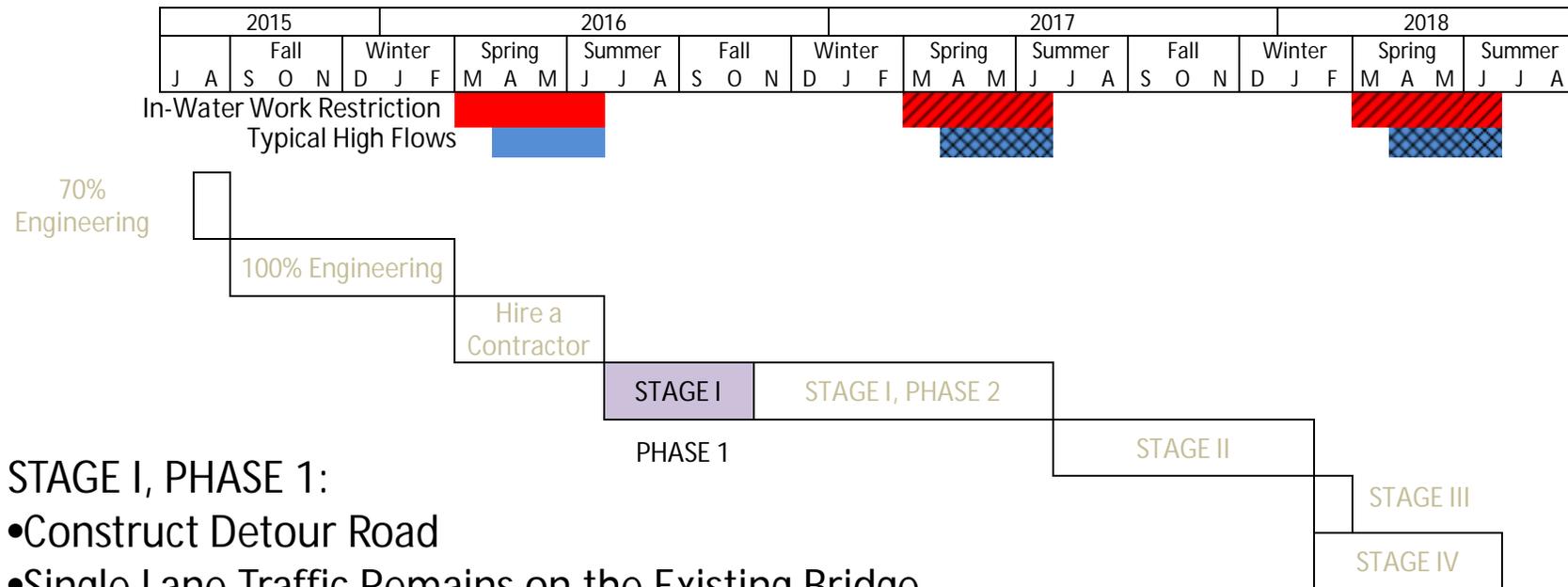


STAGE I, PHASE 1:

- Construct Temporary Bridge Supports.
- Single Lane Traffic Remains on the Existing Bridge

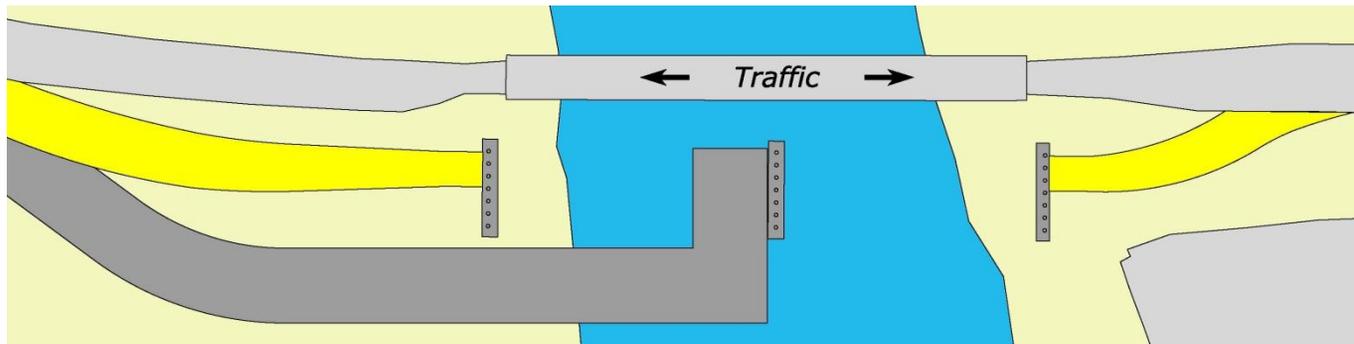


Project Schedule – STAGE I, PHASE 1

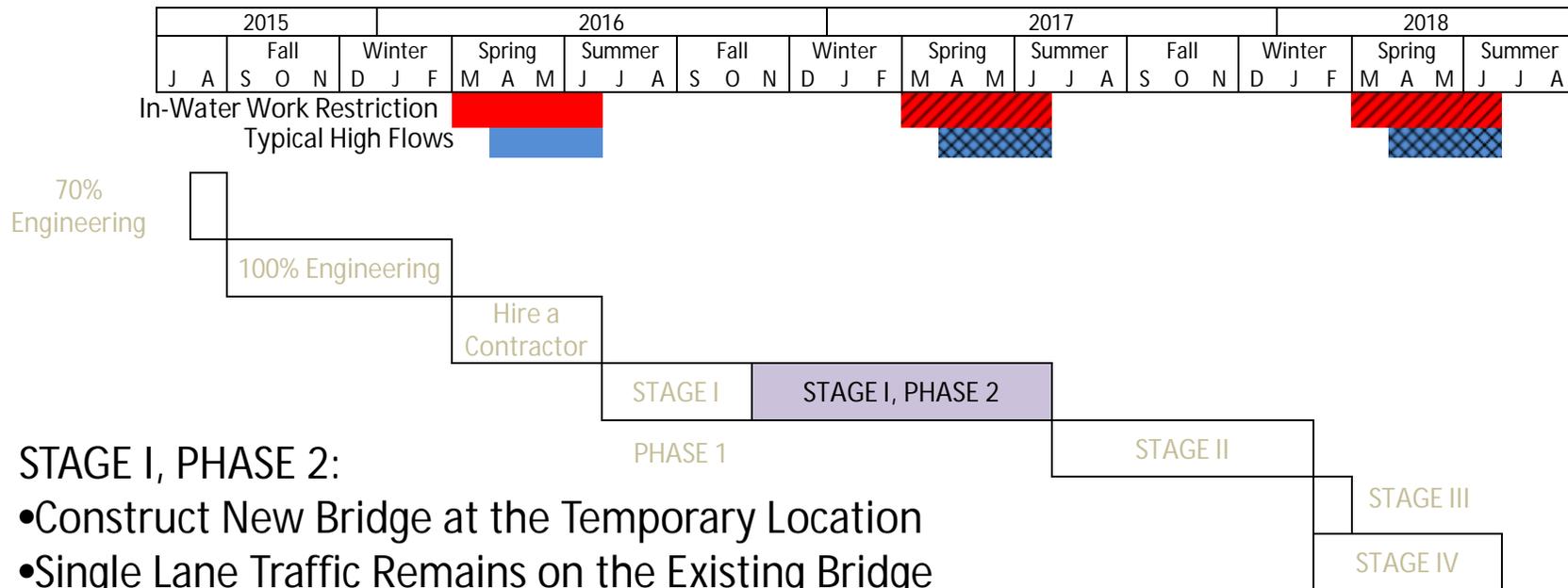


STAGE I, PHASE 1:

- Construct Detour Road
- Single Lane Traffic Remains on the Existing Bridge

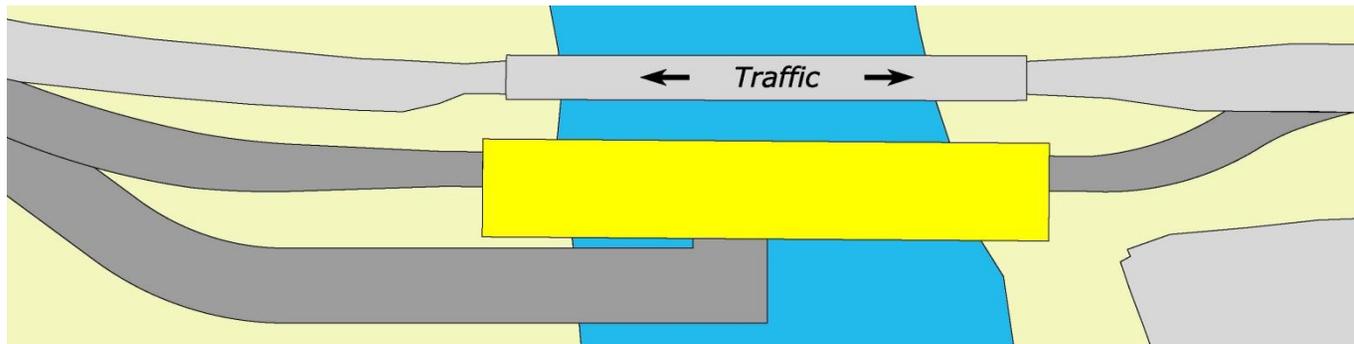


Project Schedule – STAGE I, PHASE 2

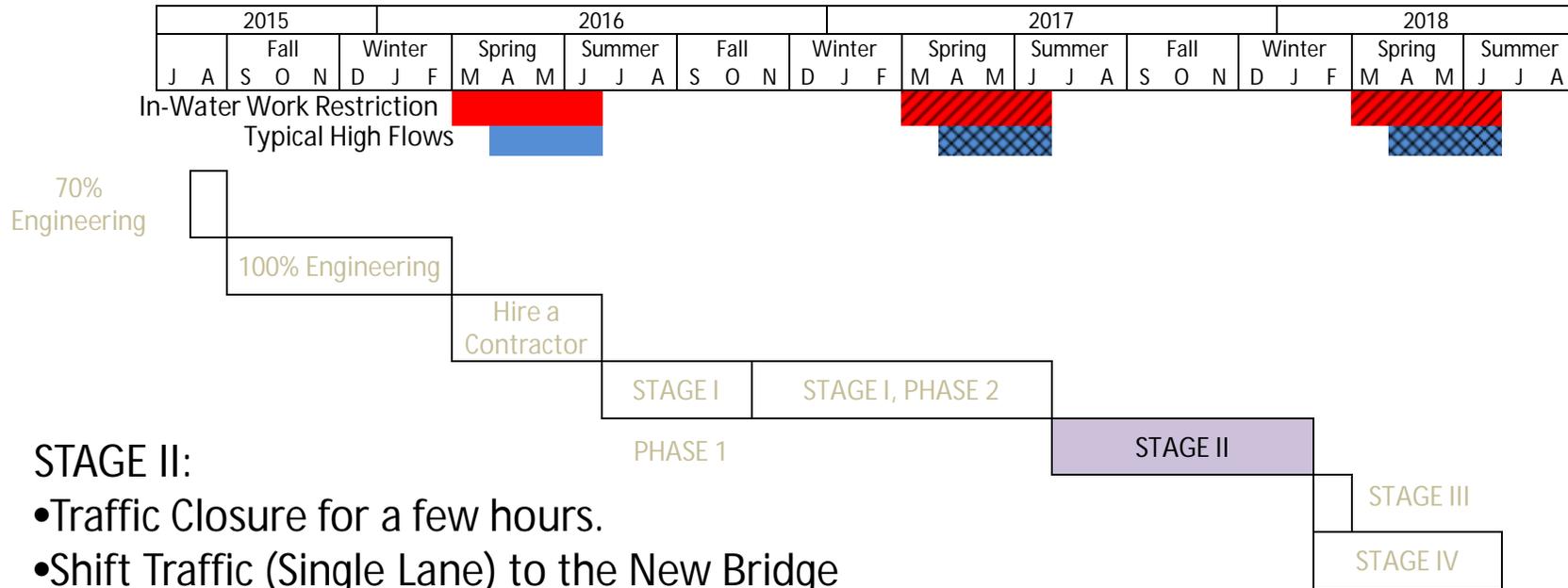


STAGE I, PHASE 2:

- Construct New Bridge at the Temporary Location
- Single Lane Traffic Remains on the Existing Bridge
- Occasional River Traffic Disruption

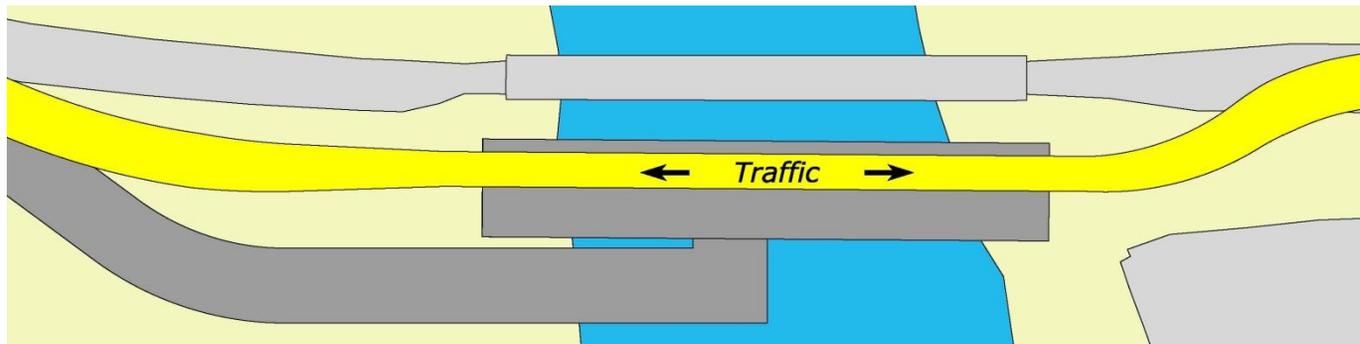


Project Schedule – STAGE II

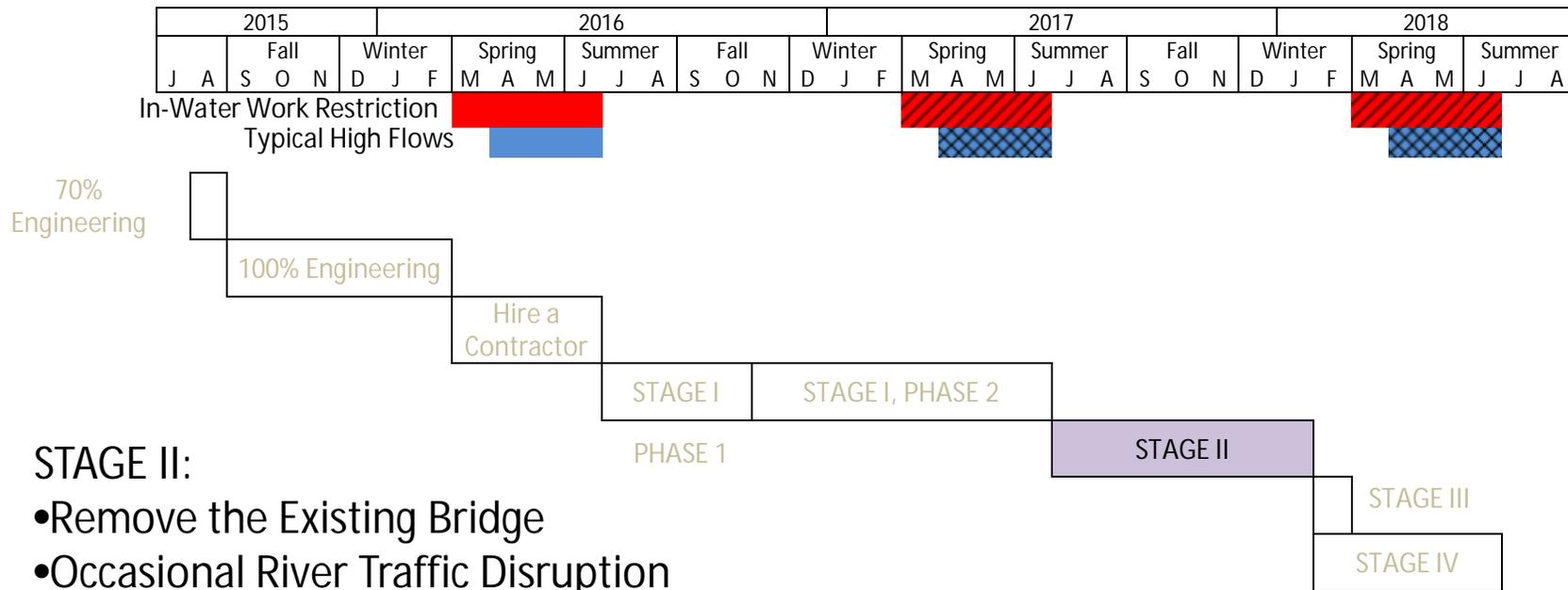


STAGE II:

- Traffic Closure for a few hours.
- Shift Traffic (Single Lane) to the New Bridge

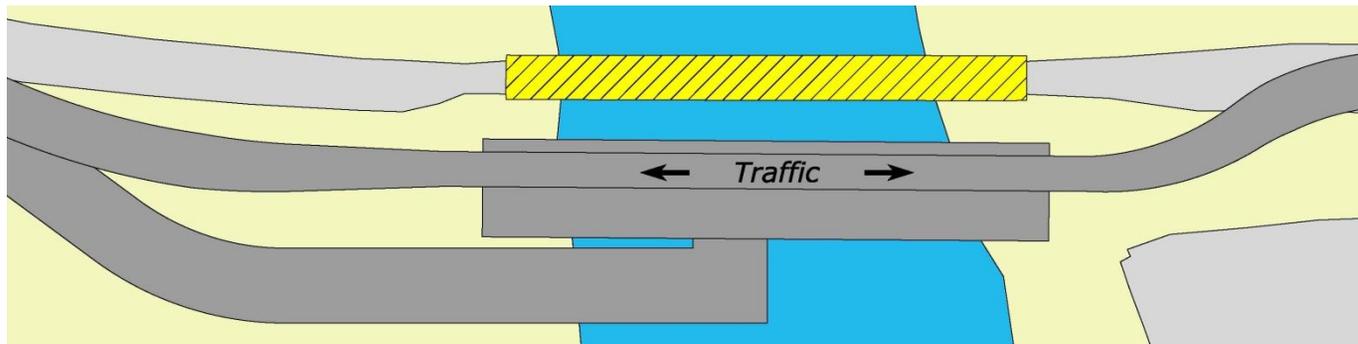


Project Schedule – STAGE II

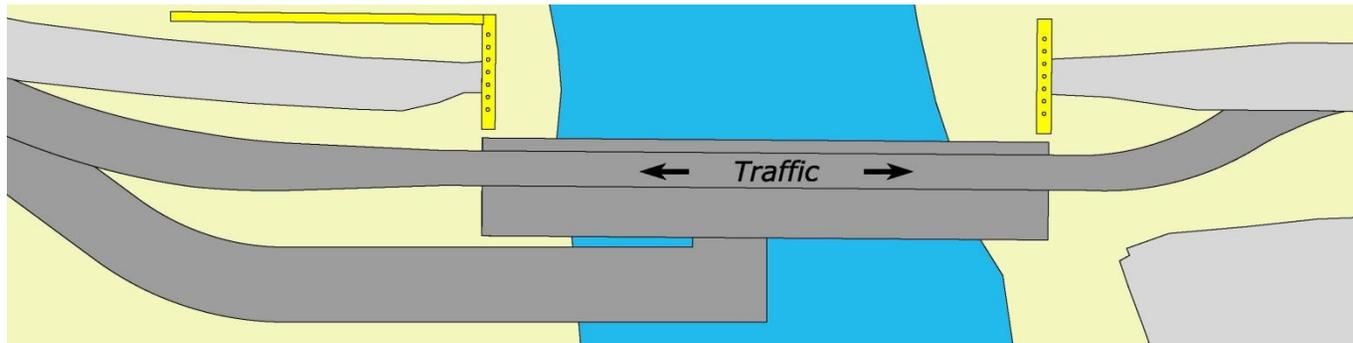
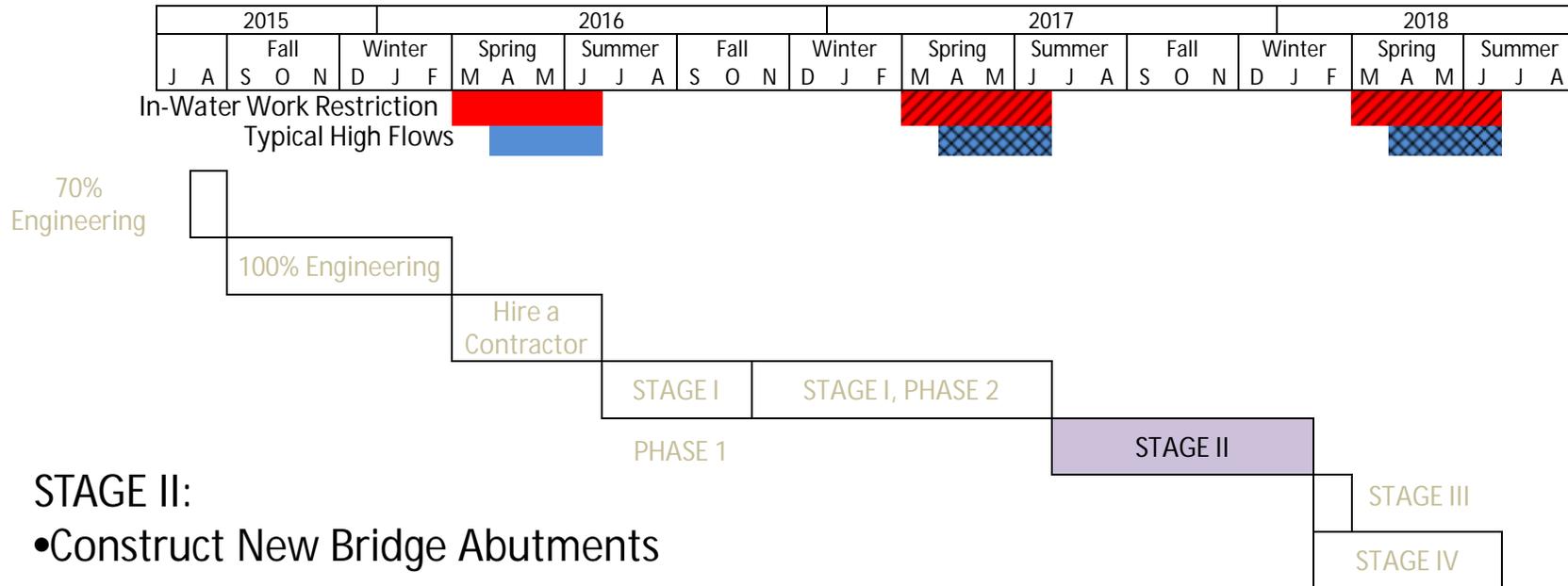


STAGE II:

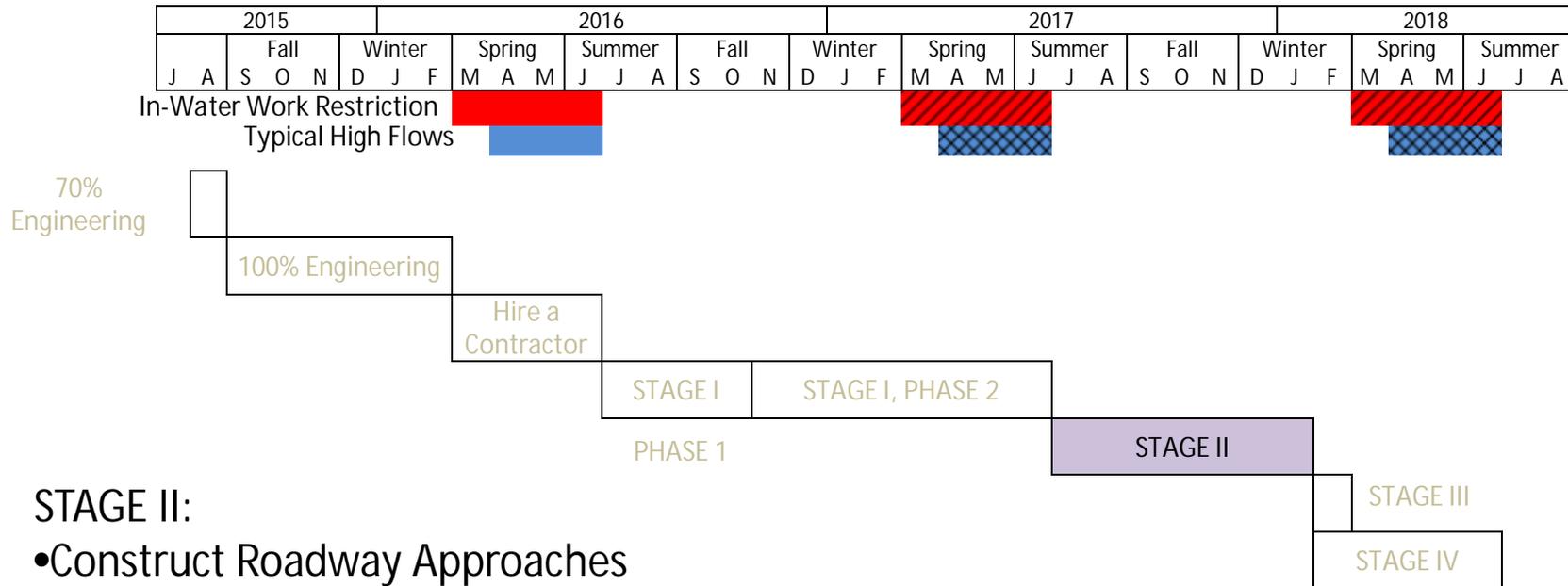
- Remove the Existing Bridge
- Occasional River Traffic Disruption



Project Schedule – STAGE II

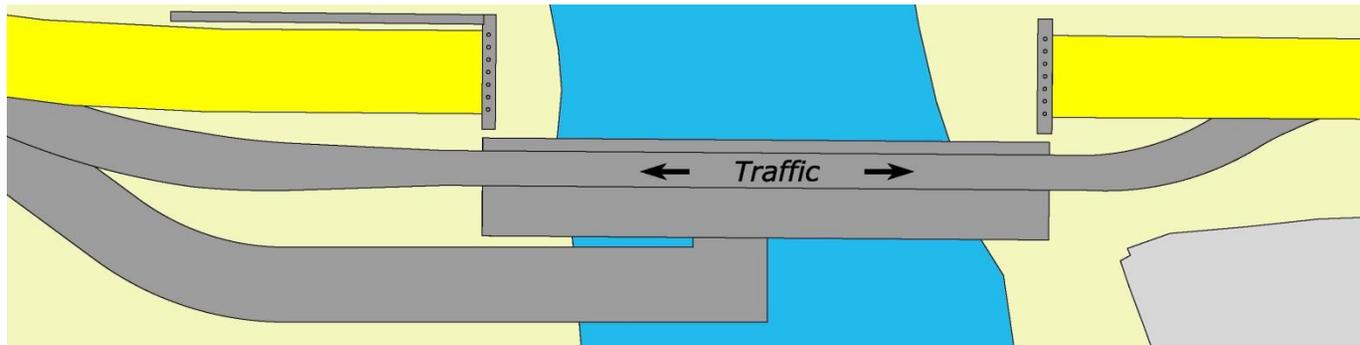


Project Schedule – STAGE II

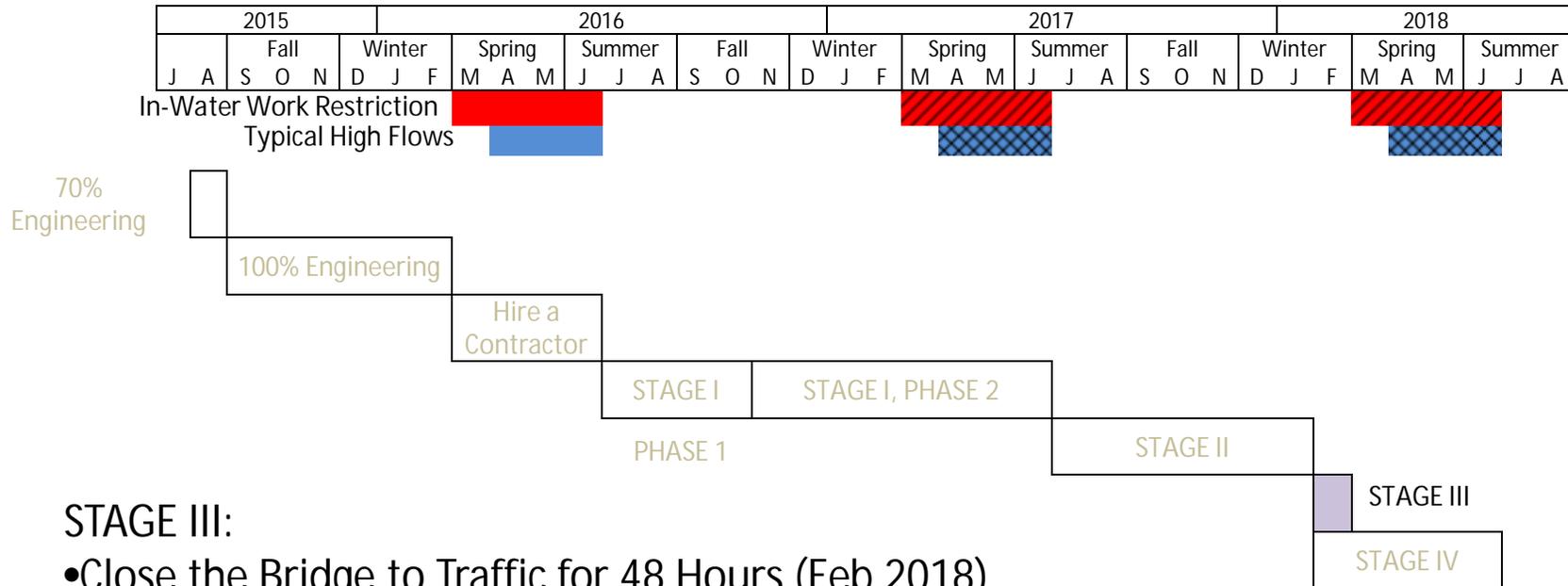


STAGE II:

- Construct Roadway Approaches

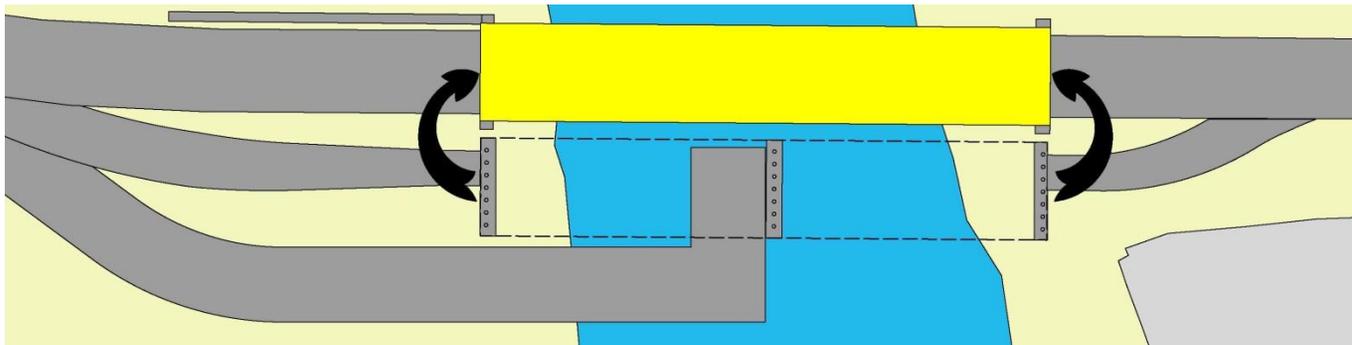


Project Schedule – STAGE III

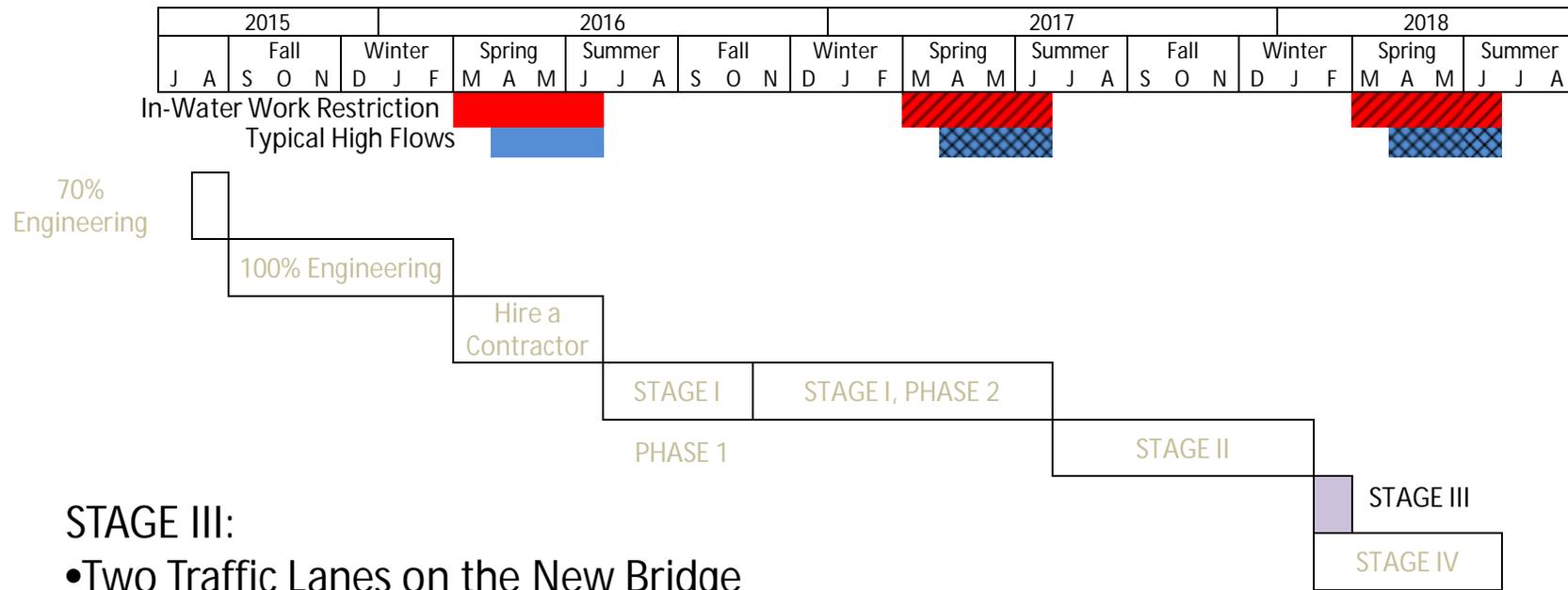


STAGE III:

- Close the Bridge to Traffic for 48 Hours (Feb 2018)
- Slide New Bridge from Temporary Location to New Location

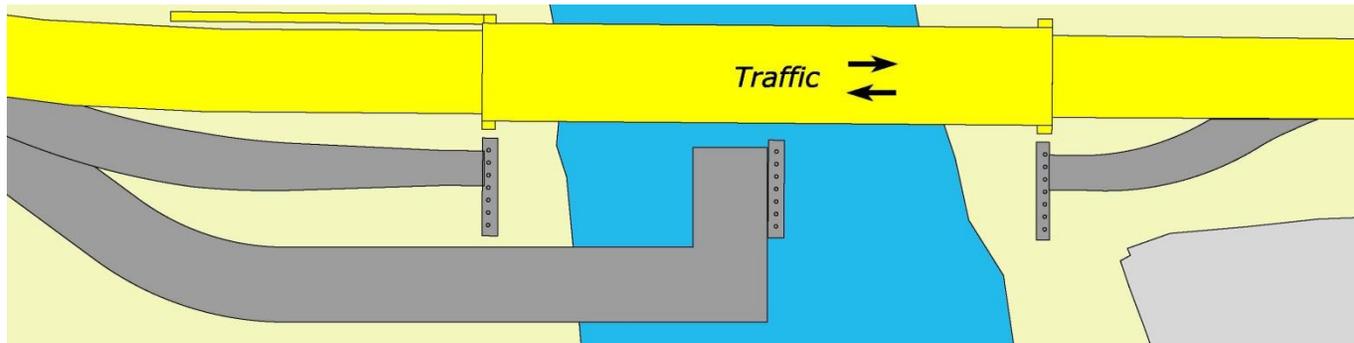


Project Schedule – STAGE III

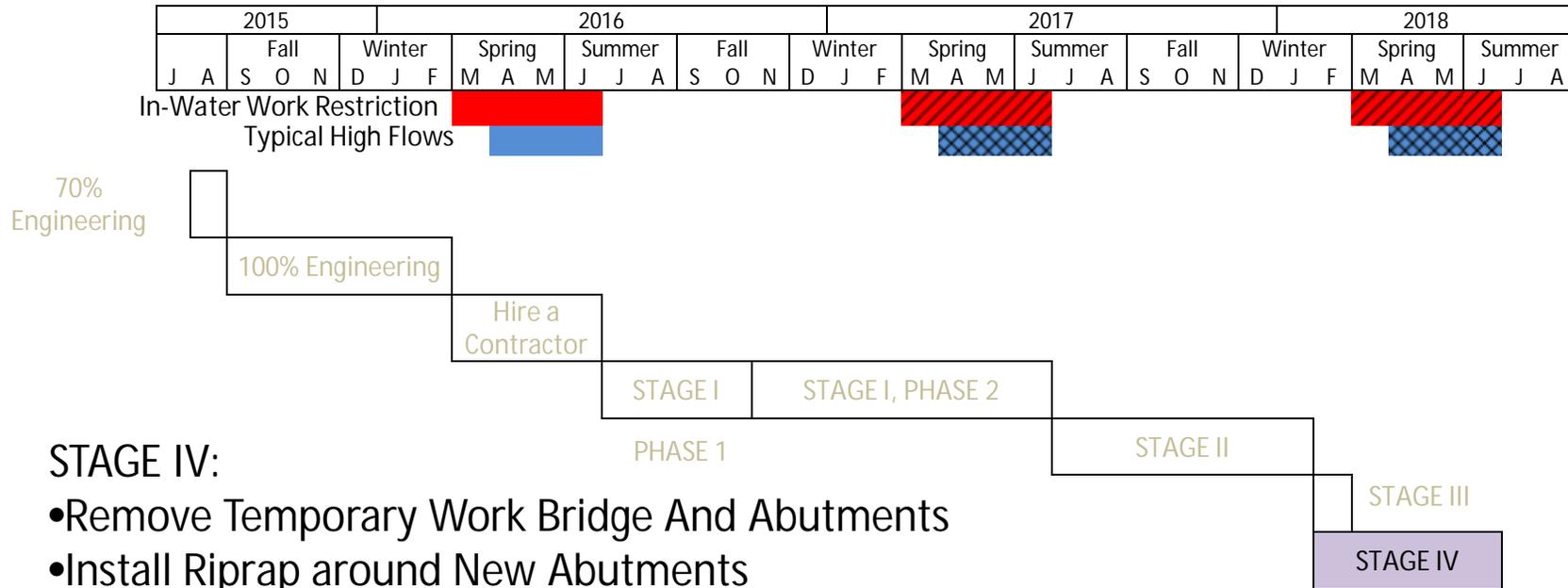


STAGE III:

- Two Traffic Lanes on the New Bridge



Project Schedule – STAGE IV



STAGE IV:

- Remove Temporary Work Bridge And Abutments
- Install Riprap around New Abutments
- Re-vegetate and Restore site.



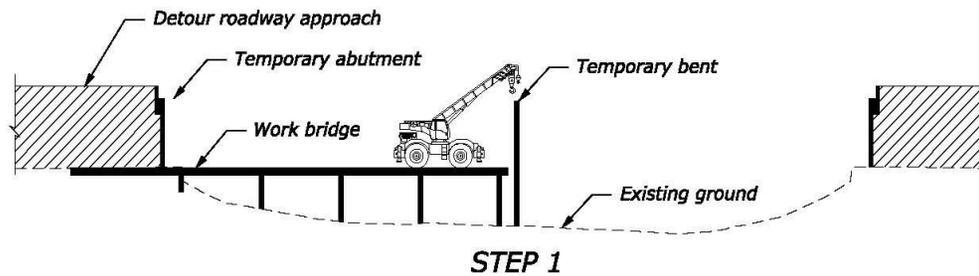
Williams Cr (Shoup Bridge) Replacement Project



TYPICAL THROUGH ARCH
CONSTRUCTION SEQUENCE

Arch Construction

Stage I, Phase 1
(Summer- Fall 2016)

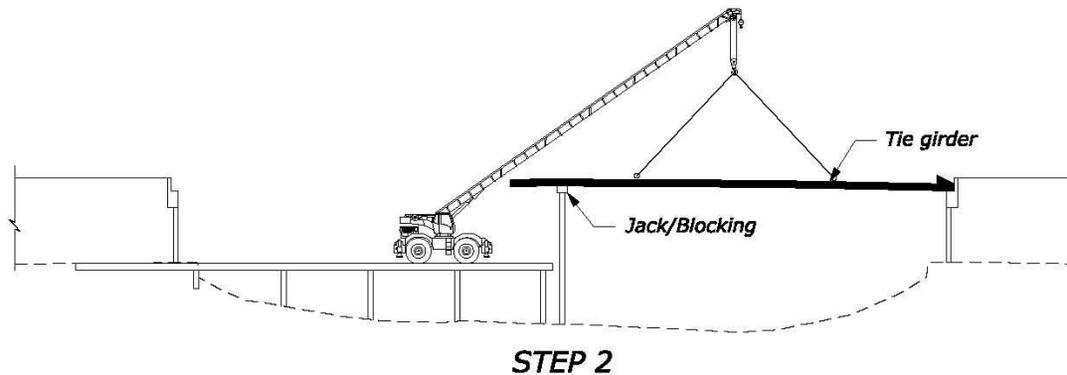


STEP 1:

1. Install temporary abutments.
2. Construct detour roadway approaches and work access ramp.
3. Construct work bridge.
4. Install temporary bent.

Arch Construction

Stage I, Phase 2
(Fall 2016-Summer 2017)

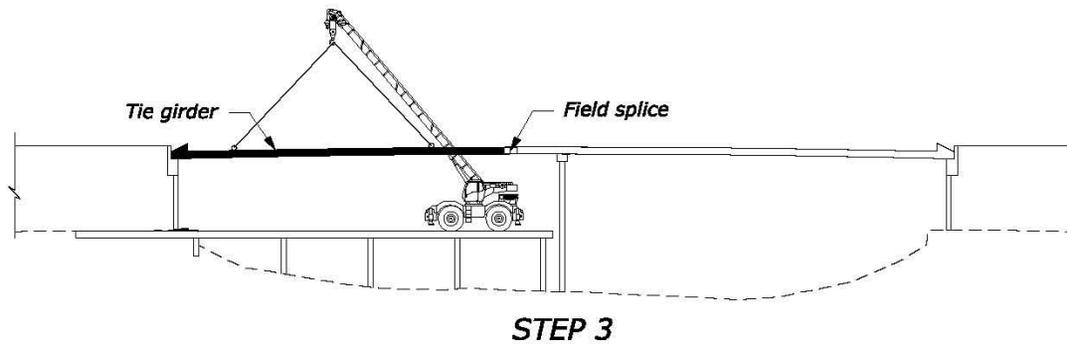


STEP 2:

- 1. Erect segment of tie girders supported by one temporary abutment and the temporary bent.*
- 2. Erect floorbeams within segments of erected tie girders.*
- 3. Erect temporary lateral bracing between floorbeams.*

Arch Construction

Stage I, Phase 2
(Fall 2016-Summer 2017)

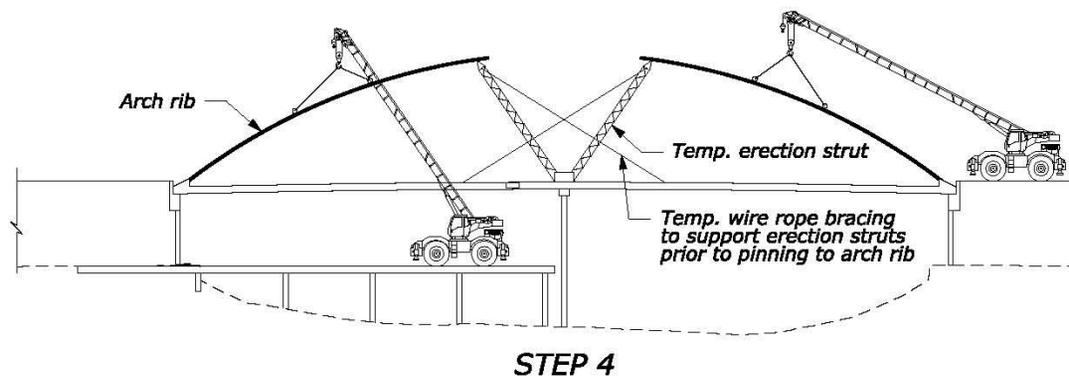


STEP 3:

- 1. Erect remaining portion of tie girders and floorbeams.
Field splice tie girders.*
- 2. Erect temporary lateral bracing between floorbeams.*

Arch Construction

Stage I, Phase 2
(Fall 2016-Summer 2017)

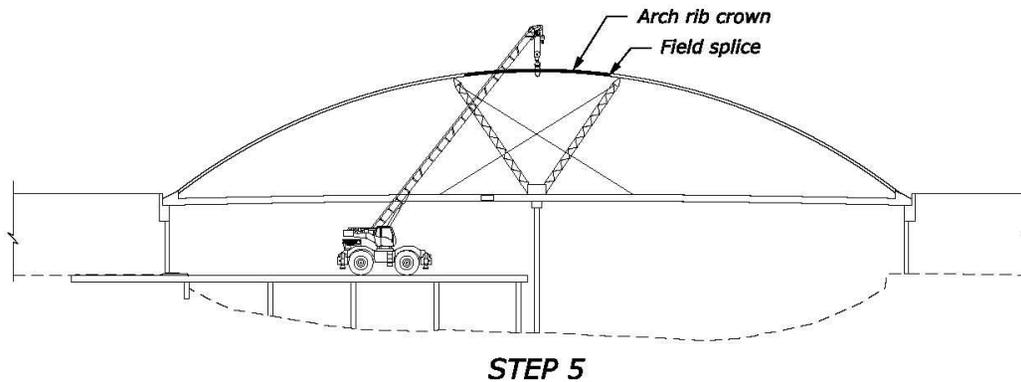


STEP 4:

1. Install temporary erection struts.
2. Erect segments of arch ribs.

Arch Construction

Stage I, Phase 2
(Fall 2016-Summer 2017)

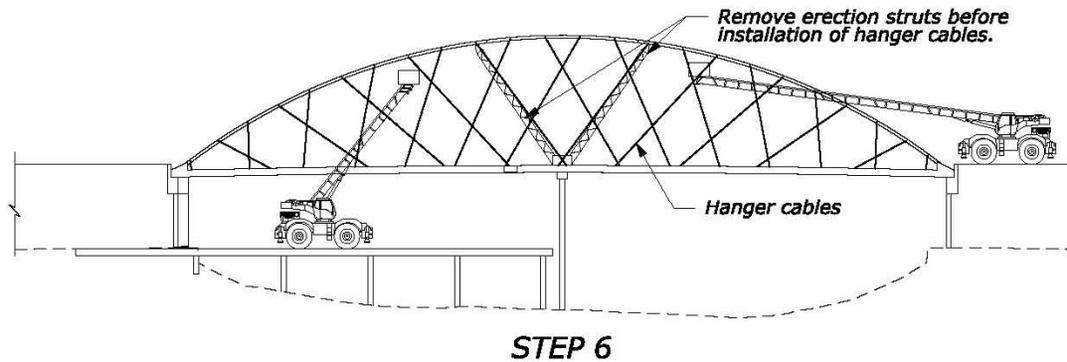


STEP 5:

- 1. Erect arch rib crown segments. Field splice to previously erected segments.*
- 2. Erect upper lateral bracing.*

Arch Construction

Stage I, Phase 2
(Fall 2016-Summer 2017)

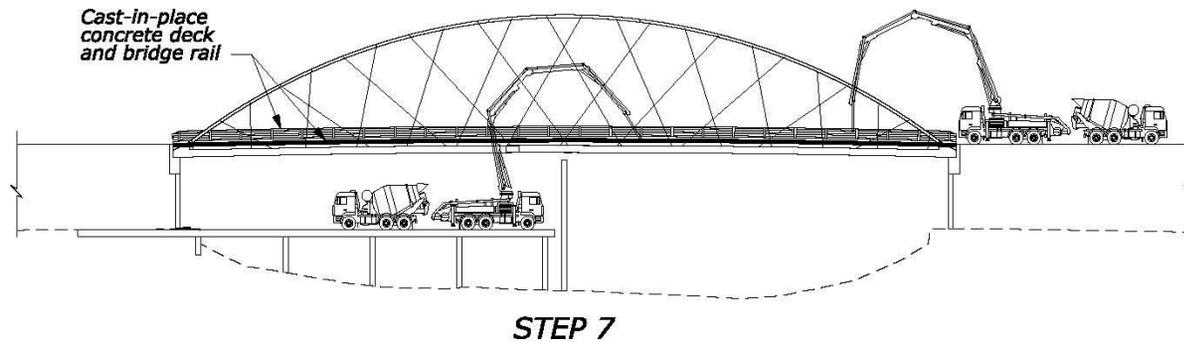


STEP 6:

- 1. Remove erection struts so arch is self supported.**
- 2. Install hanger cables.**
- 3. Remove support at the temporary bent to transfer load to hangers.**
- 4. Adjust hanger cables.**

Arch Construction

Stage I, Phase 2
(Fall 2016-Summer 2017)



STEP 7:

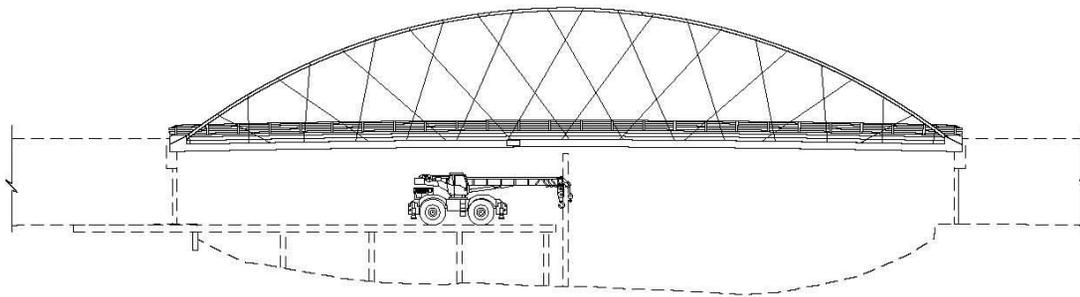
- 1. Place cast-in-place concrete deck.**
- 2. Adjust hanger cables.**
- 3. Install bridge rail.**
- 4. Adjust hanger cables.**

Arch Construction

Stage III & Stage IV
(Winter 2018-Summer 2018)

STEP 8:

1. Jack bridge, install slide hardware, and perform slide-in.
2. Remove temporary structure support.



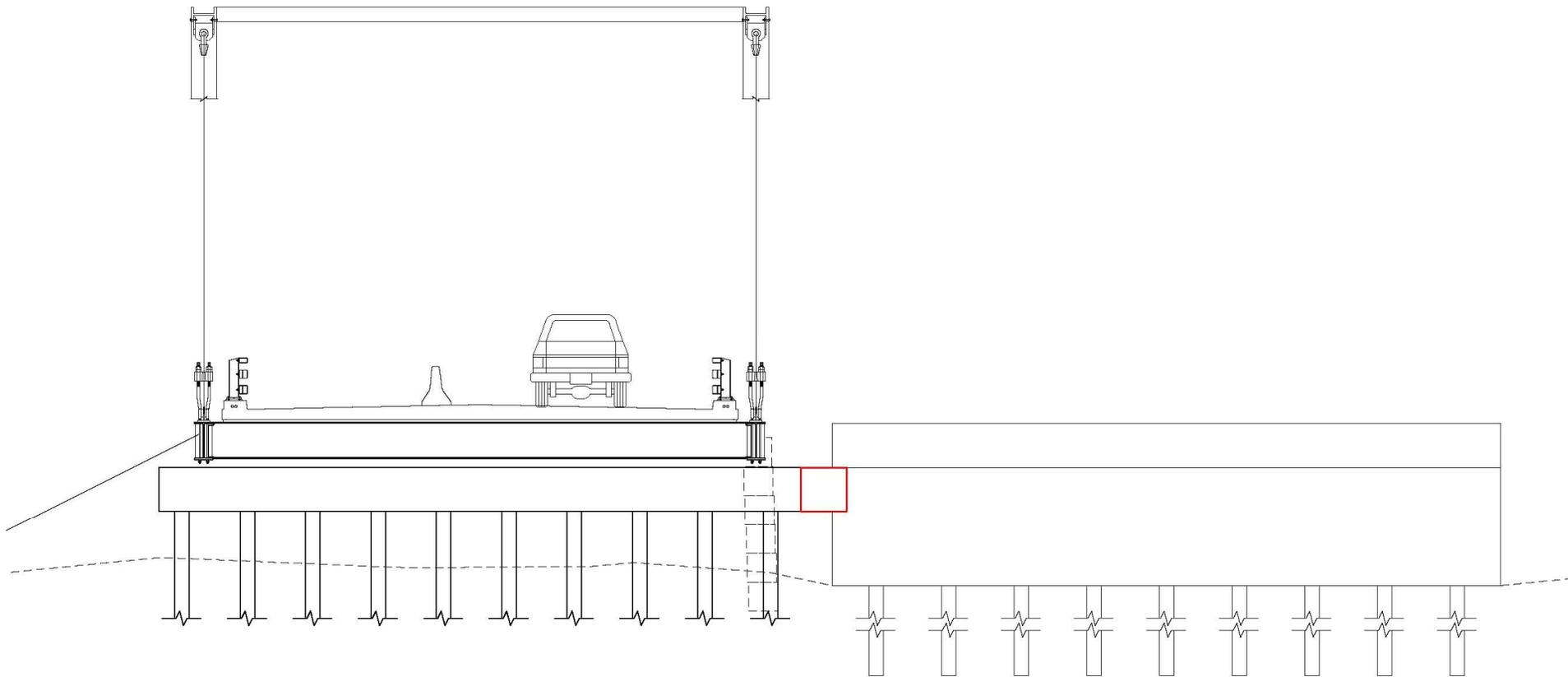
STEP 8

Williams Cr (Shoup Bridge) Replacement Project



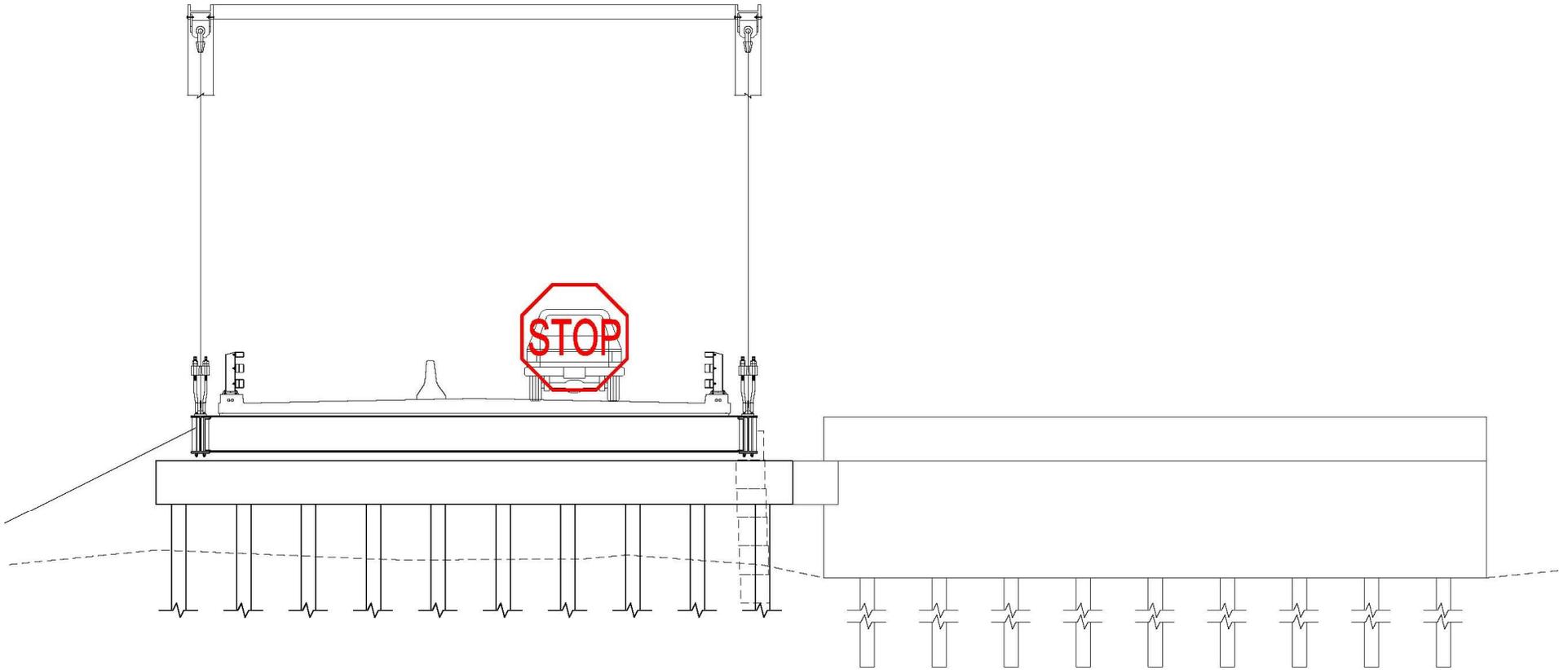
**SLIDE-IN BRIDGE
ILLUSTRATION**

Slide-In Illustration



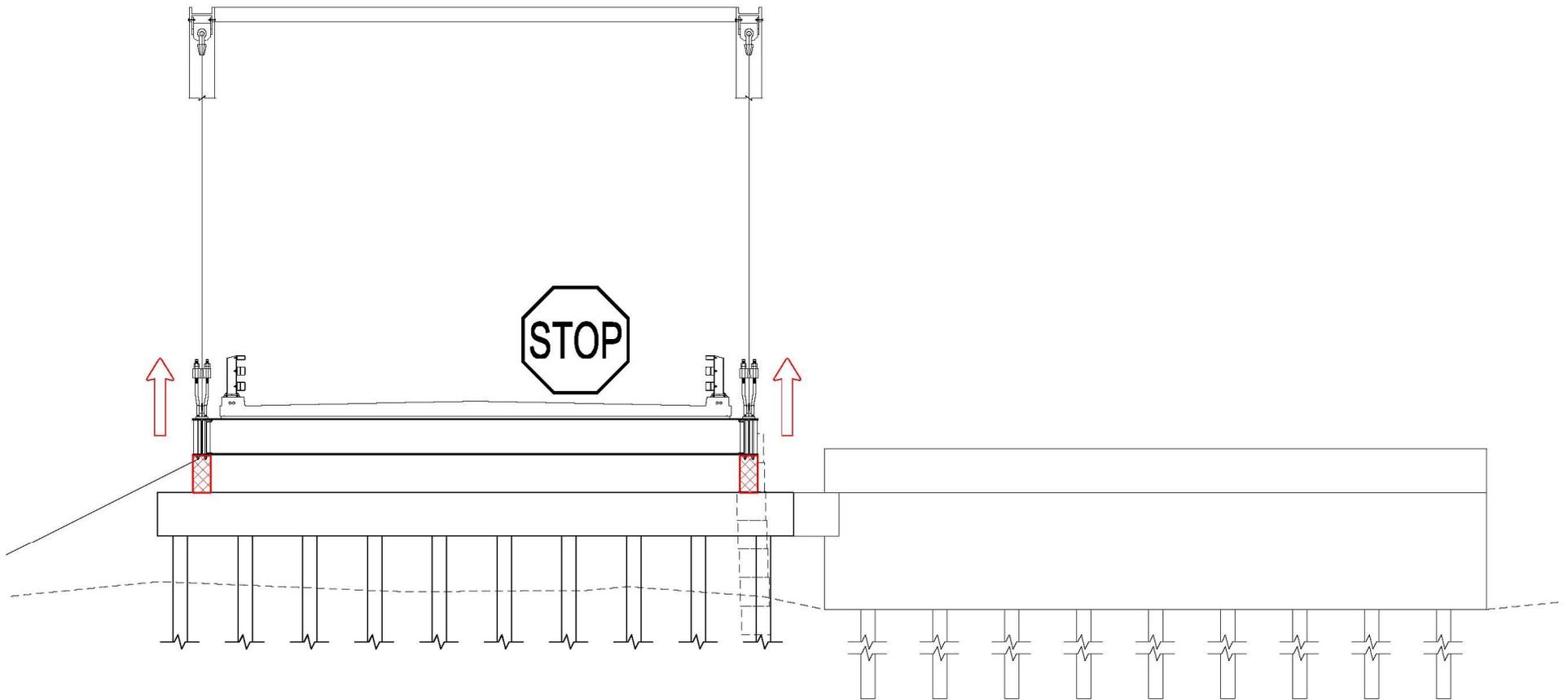
Stage 3- Looking West

Slide-In Illustration



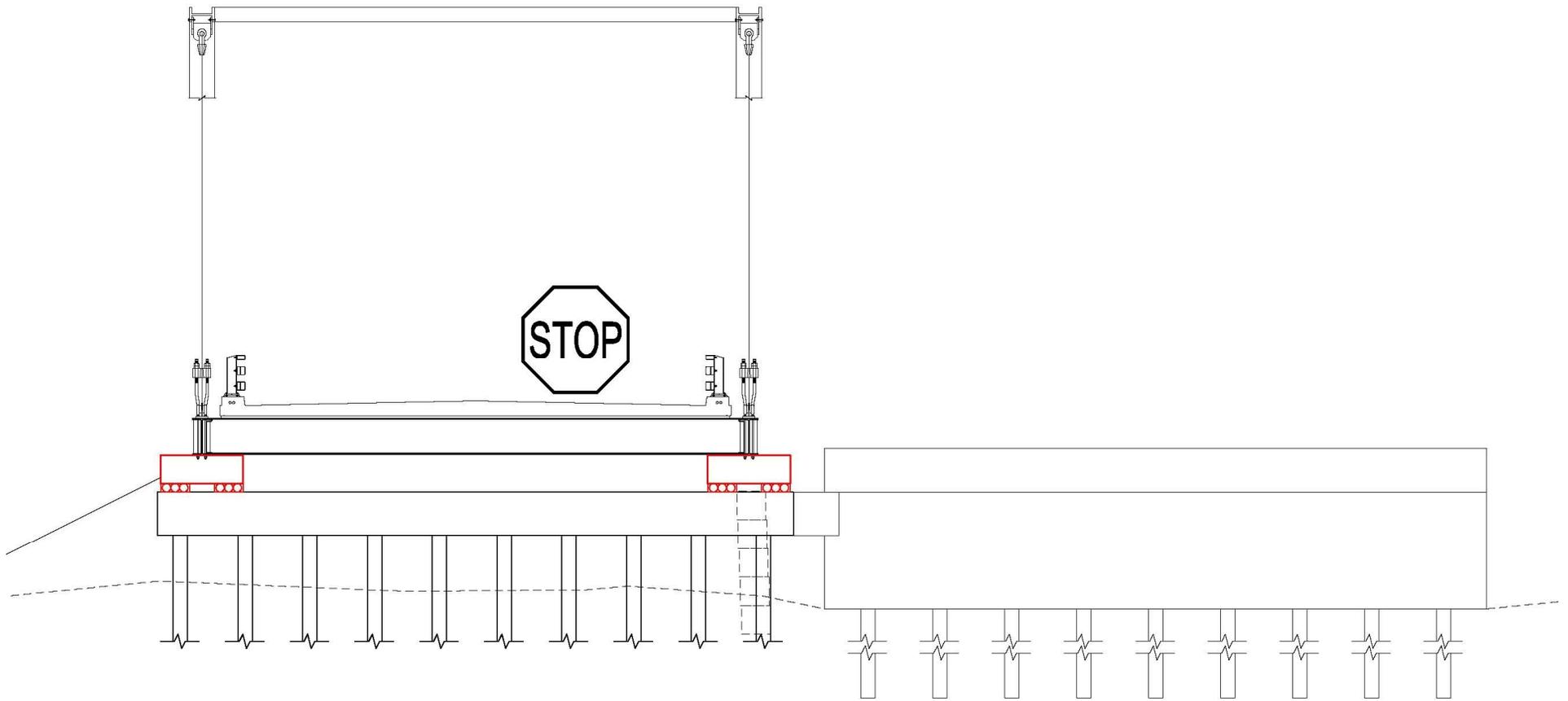
Stage 3- Looking West

Slide-In Illustration



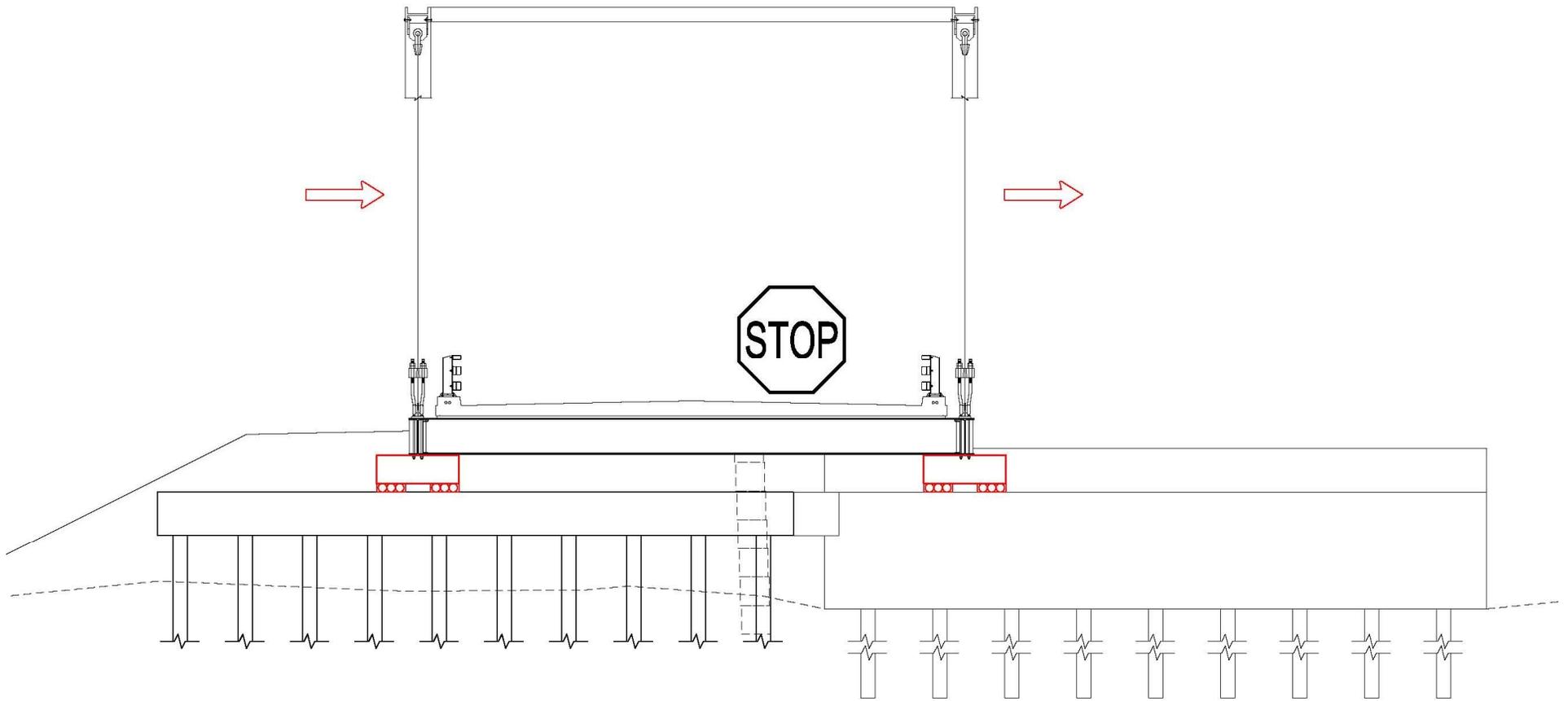
Stage 3- Looking West

Slide-In Illustration



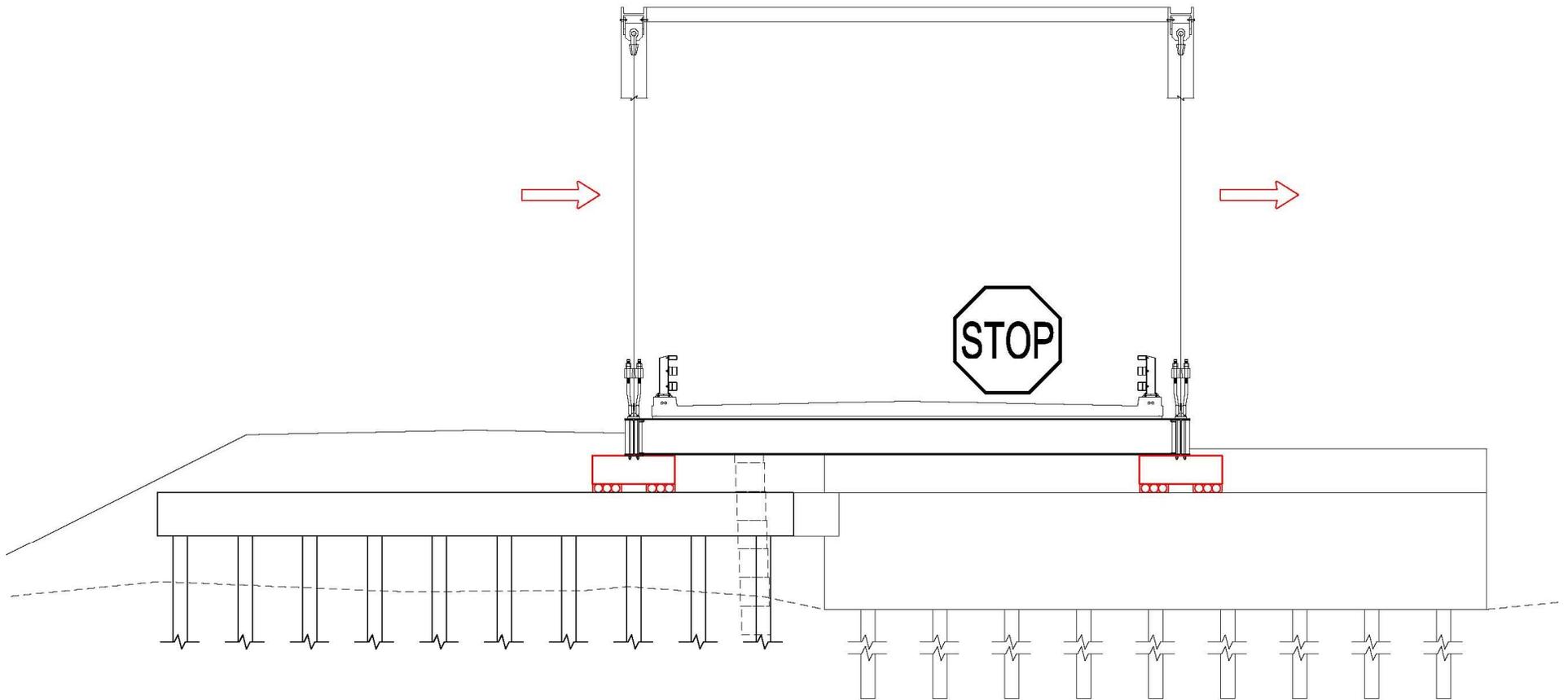
Stage 3- Looking West

Slide-In Illustration



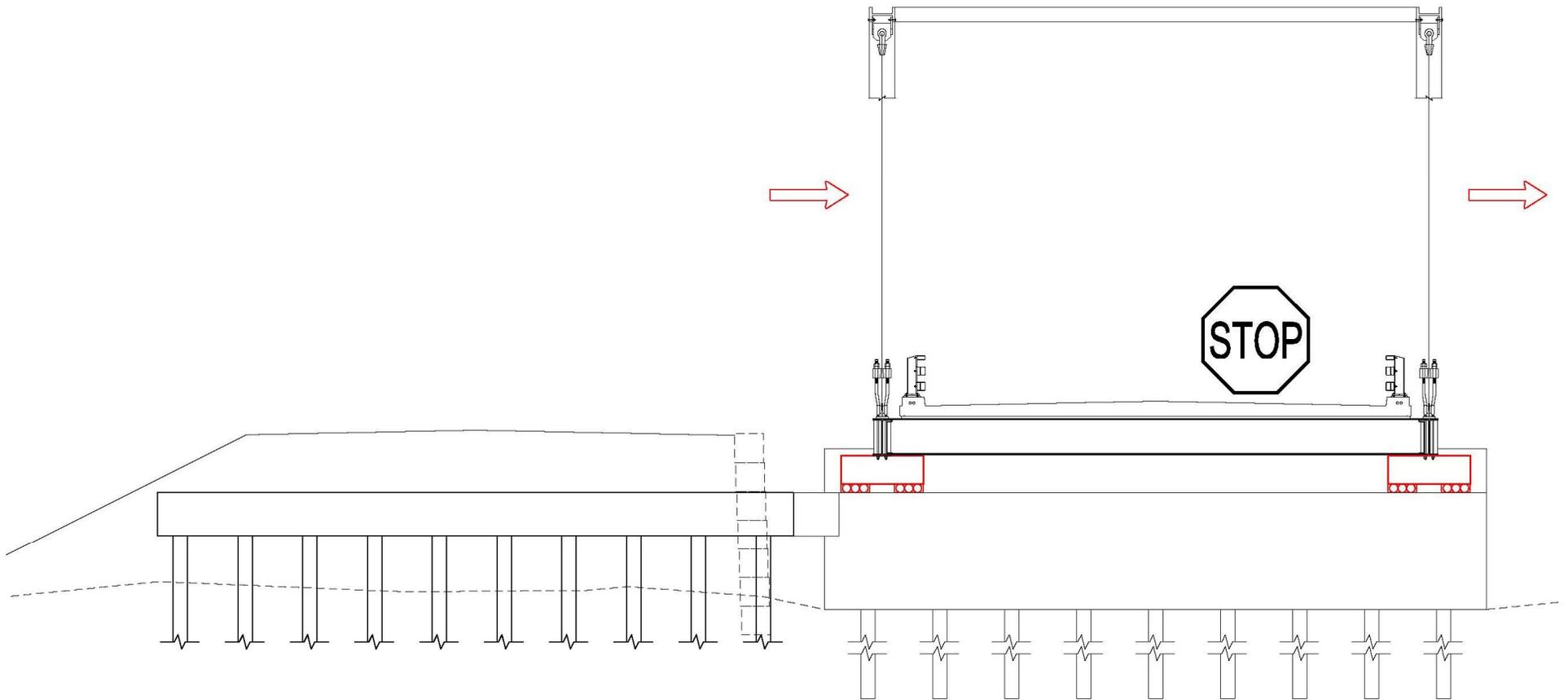
Stage 3- Looking West

Slide-In Illustration



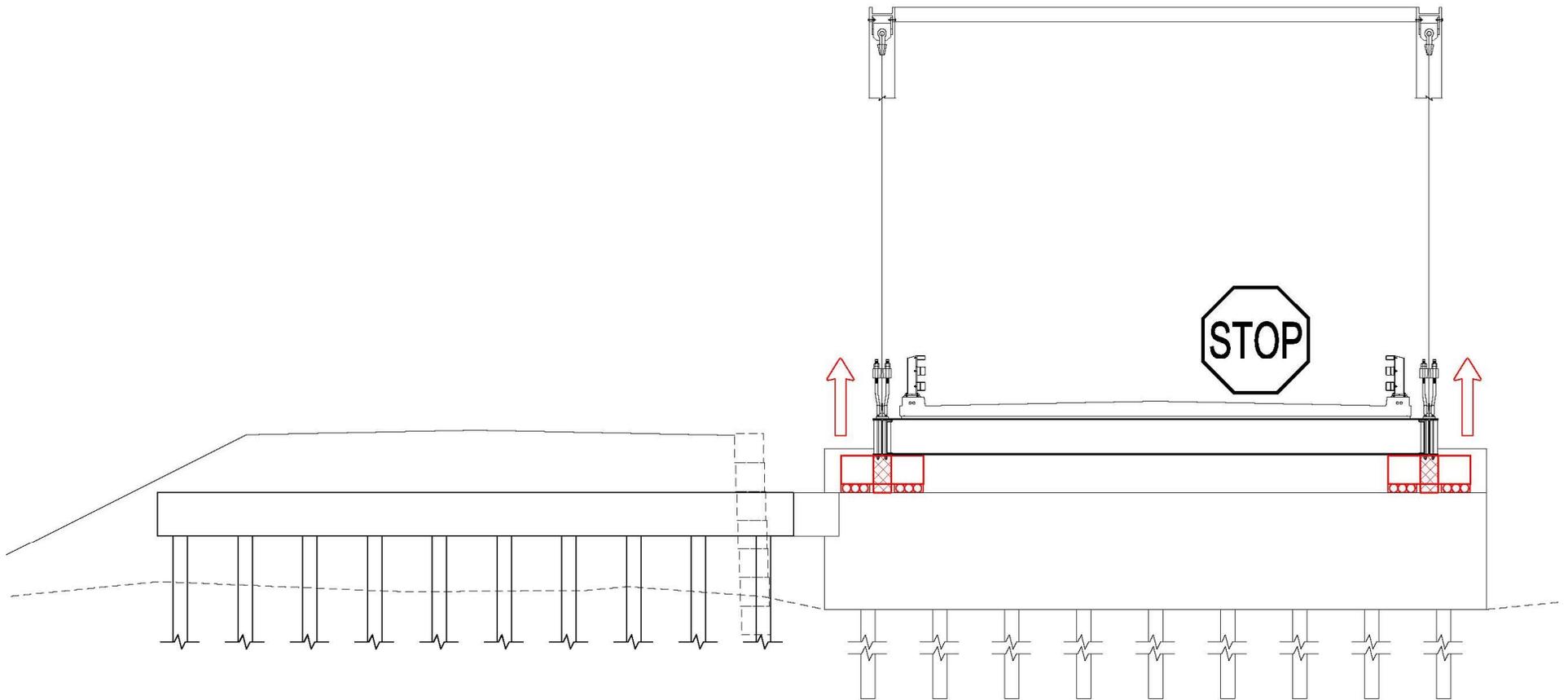
Stage 3- Looking West

Slide-In Illustration



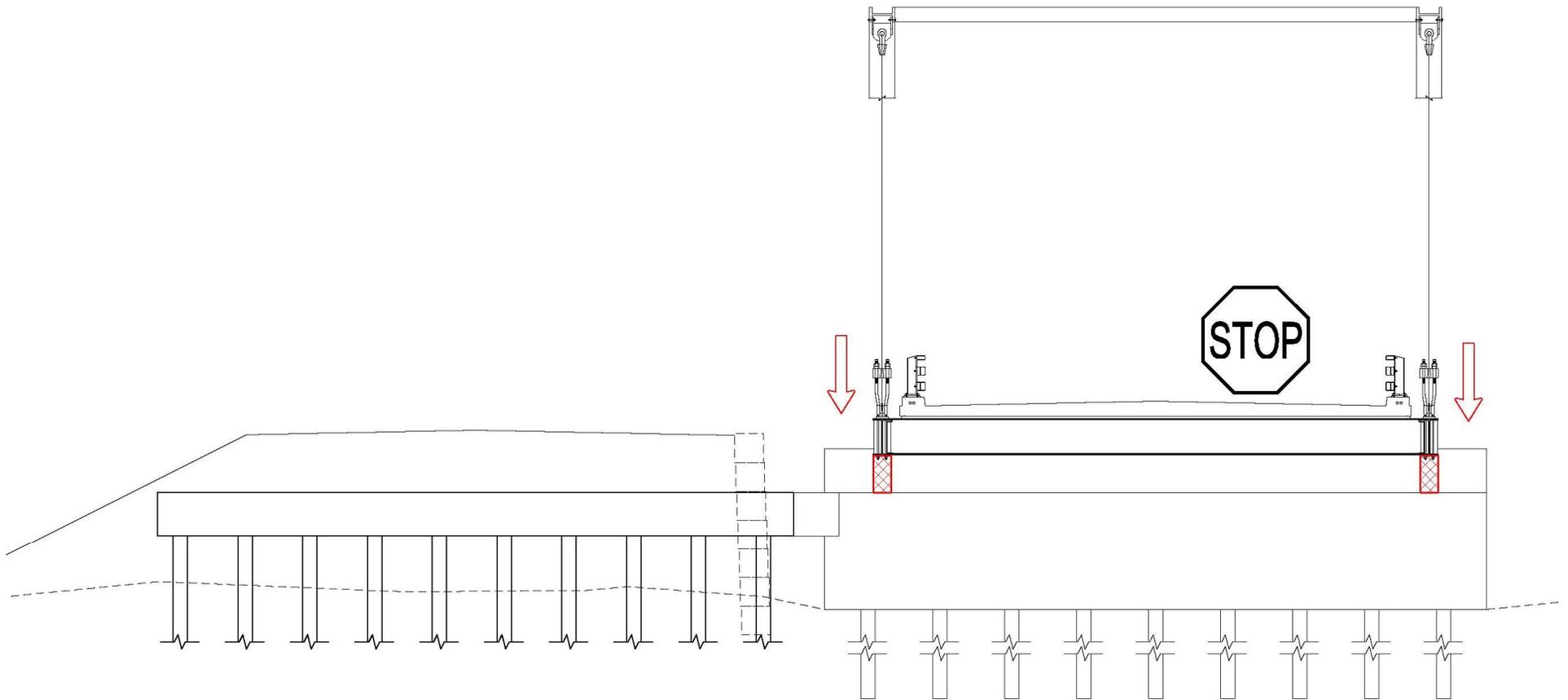
Stage 3- Looking West

Slide-In Illustration



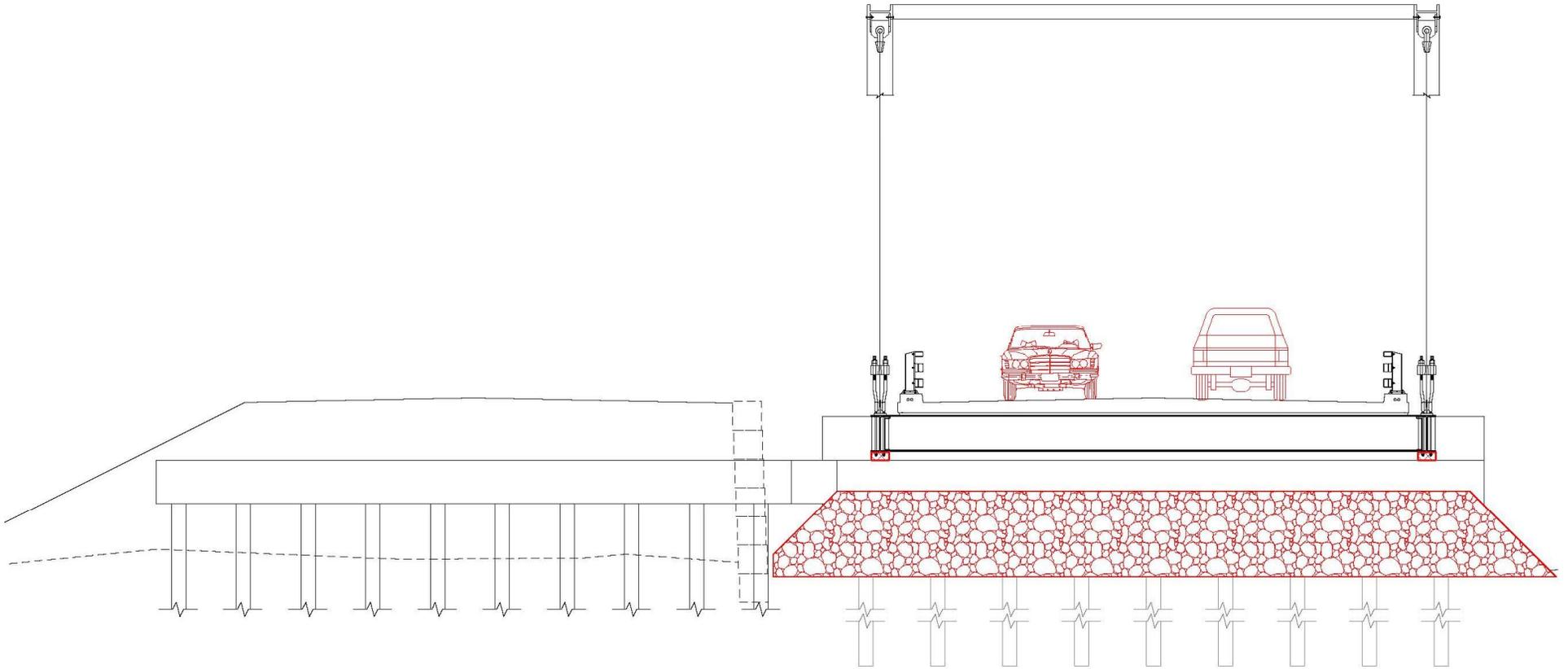
Stage 3- Looking West

Slide-In Illustration



Stage 3- Looking West

Slide-In Illustration



Stage 3- Looking West

Next Steps

- Winter 2016: Complete the Engineering
- Spring 2016: Hire a Contractor
- Summer 2016: Meet-The-Contractor
- During Constr.: Periodic Public Meetings
- Summer 2018: Project Complete

How to Stay Involved

Website:

• www.wfl.fhwa.dot.gov/projects/id/shoup

Email:

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Mail:

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Portland, OR 97214

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Questions & Comments ?



**PARSONS
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