Chief Joseph Dam Bridge Replacement Project

JASON PANG|KPFF CONSULTING ENGINEERS

2017 WESTERN BRIDGE ENGINEERS' SEMINAR

kpff

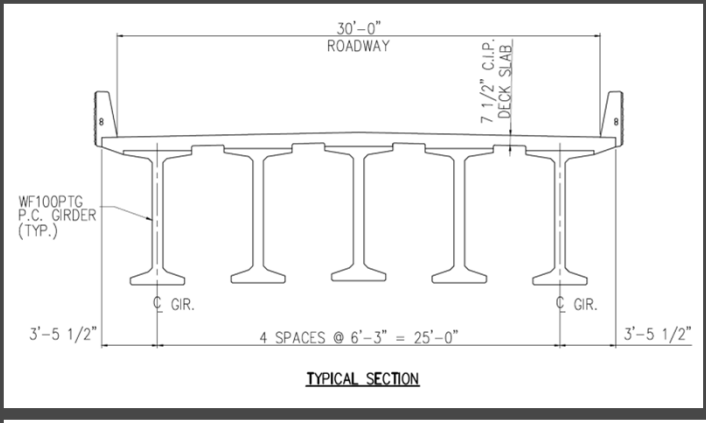
Existing Bridge

Existing Bridge

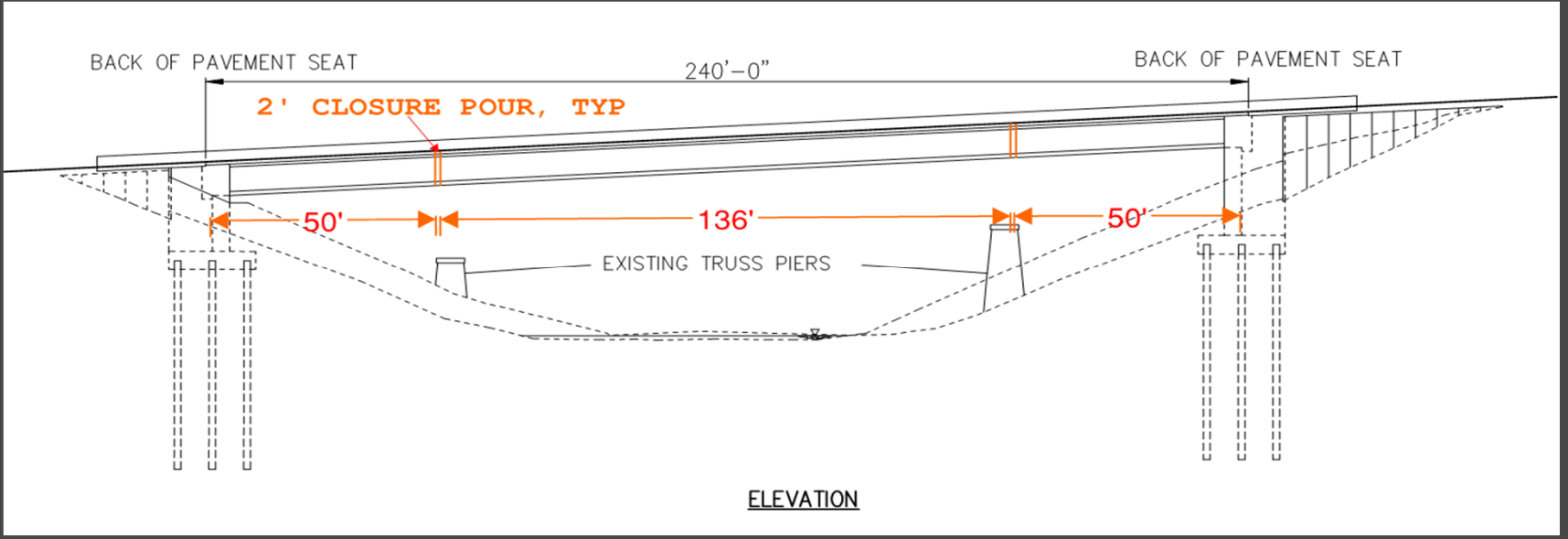
Construction Challenges

Spliced PT Girder

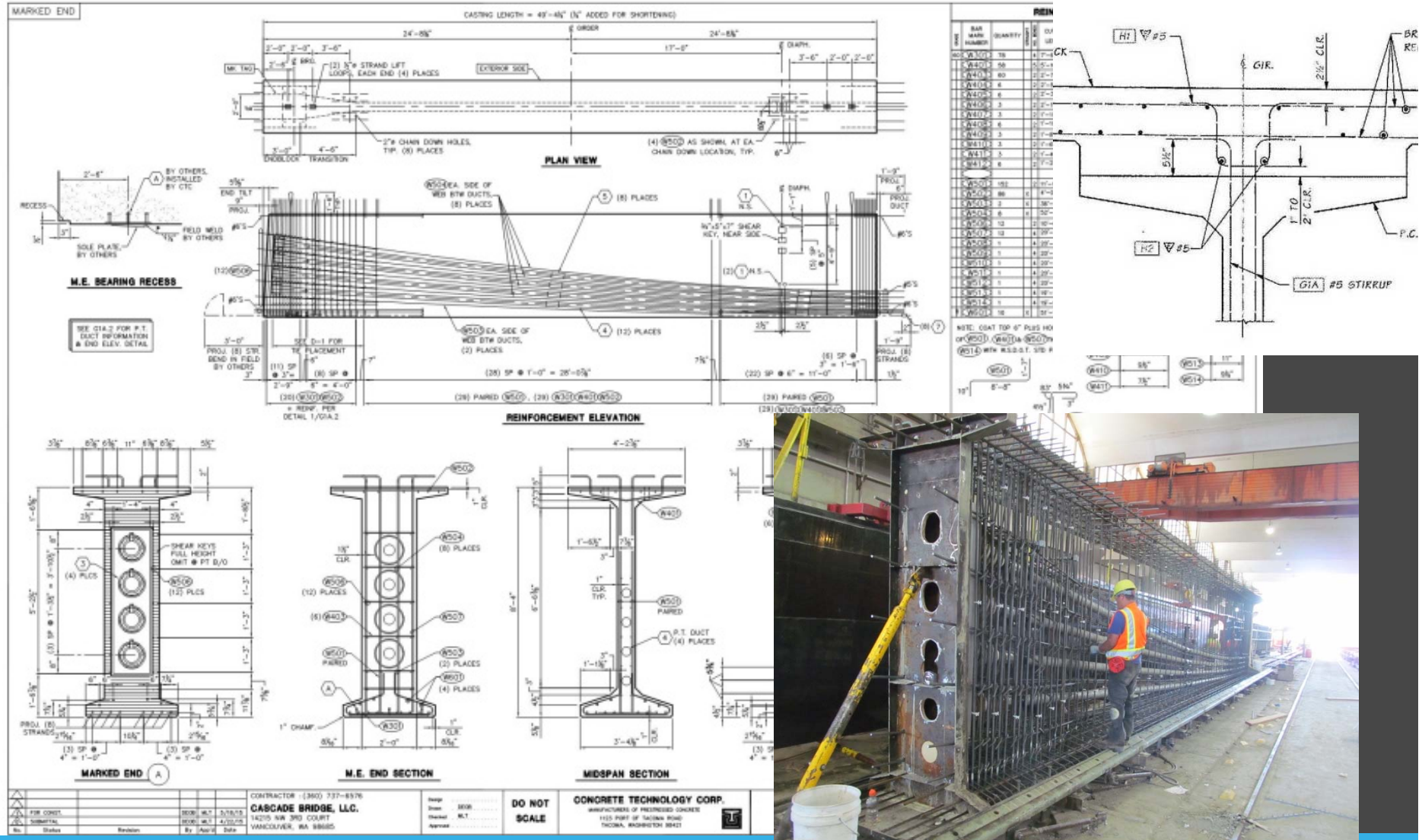
Elevation & Section



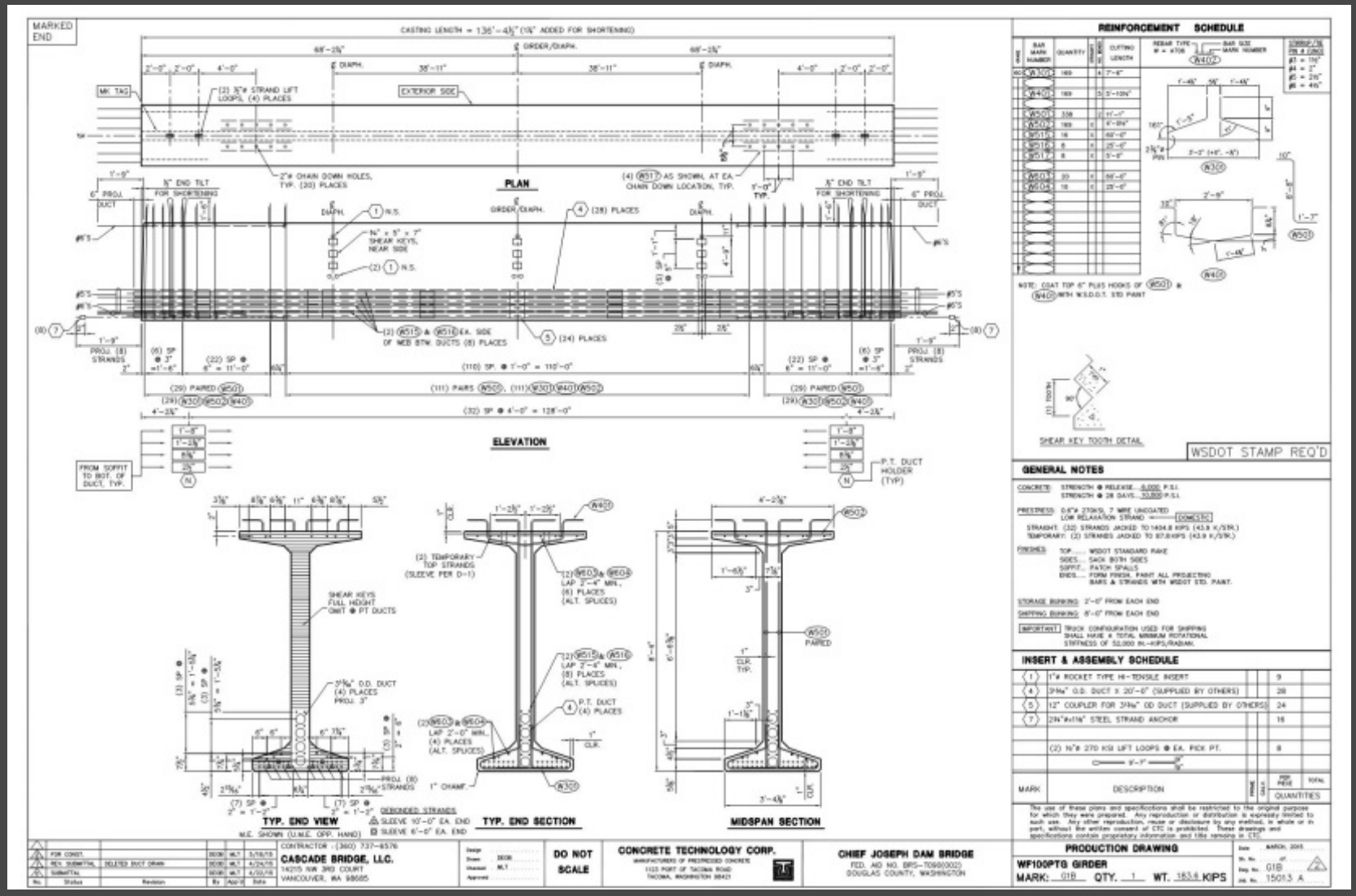
f'c = 10.8 ksi (girders)
f'ci = 6.0 ksi, f'c = 7.5 ksi (closure pour)
19 X 4 Low Relaxation Gr. 270 Strands



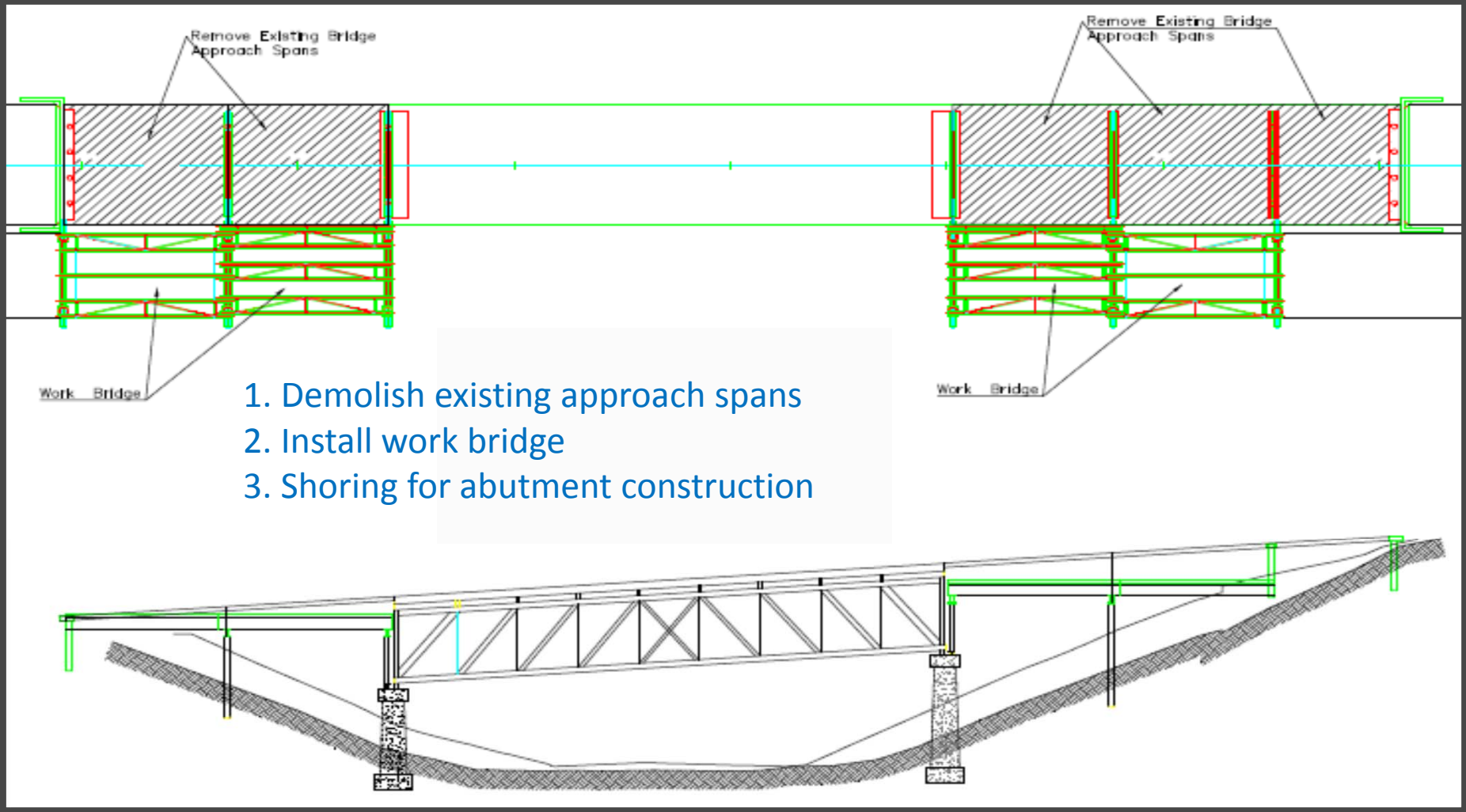
WSDOT WF100PTG Girder Details



WSDOT WF100PTG Girder Details

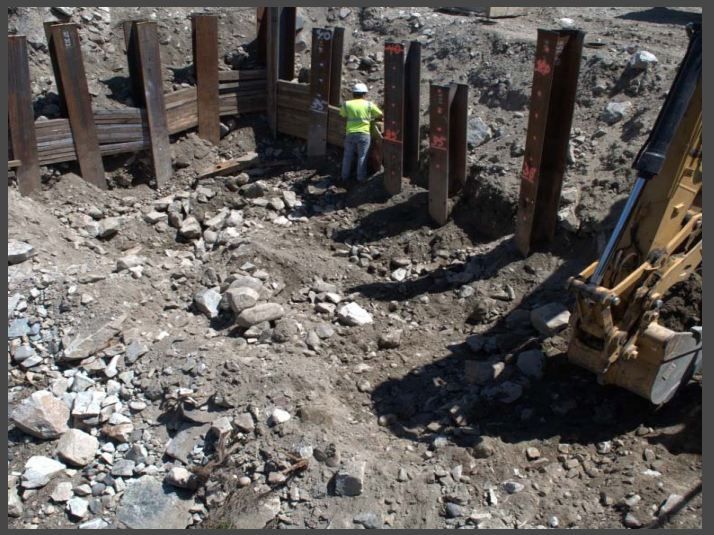


Construction Sequence: Stage 1

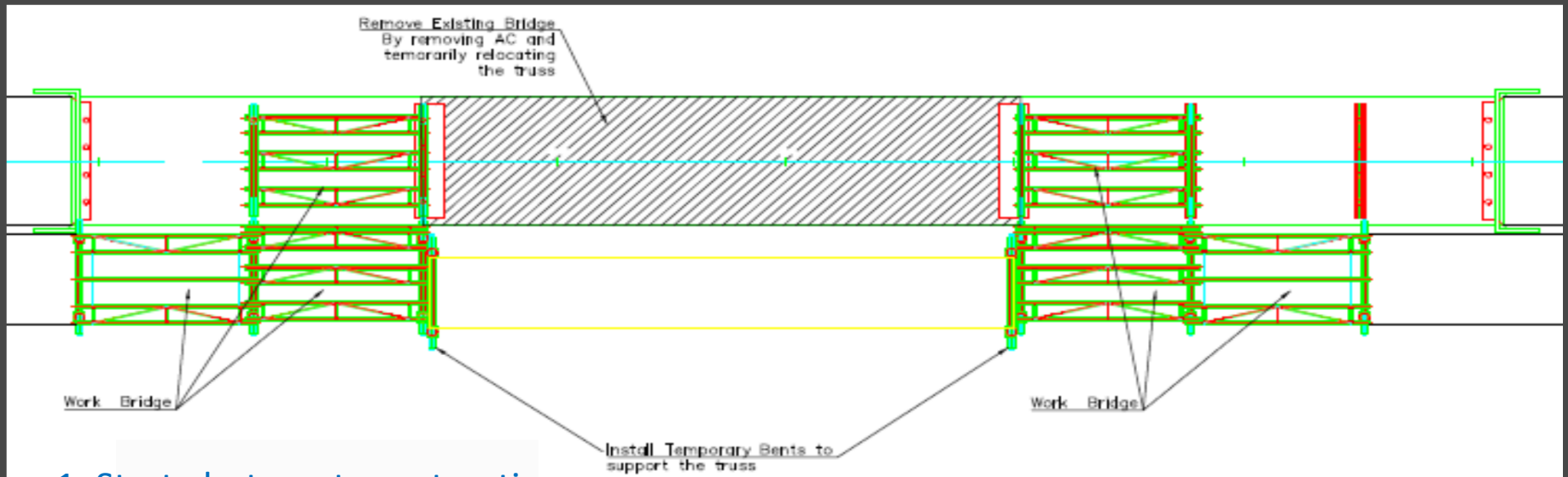


1. Demolish existing approach spans
2. Install work bridge
3. Shoring for abutment construction

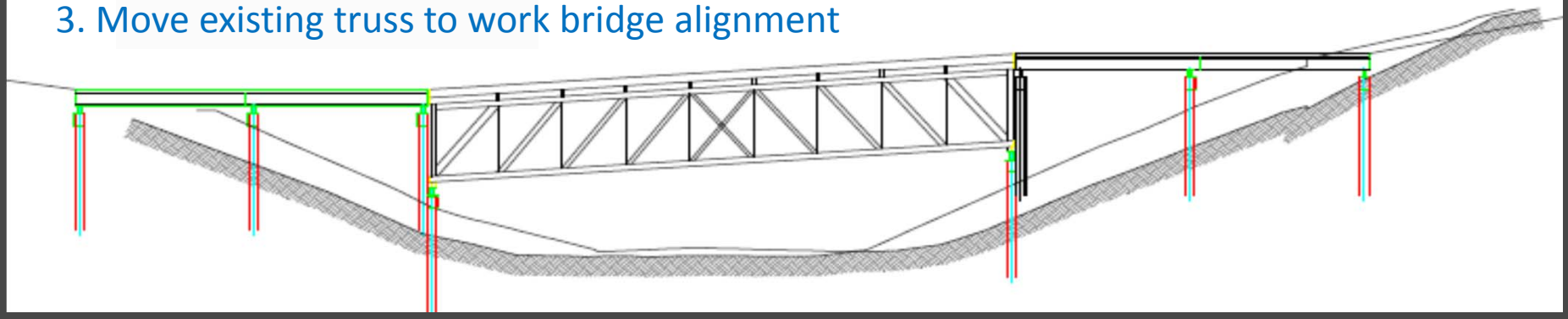
Stage 1: Shoring and Work Bridge



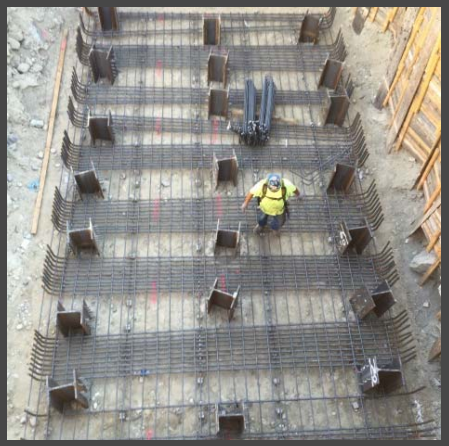
Construction Sequence: Stage 2

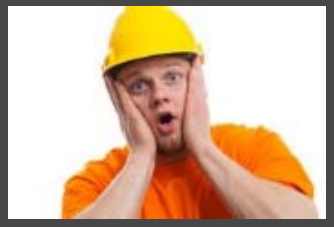


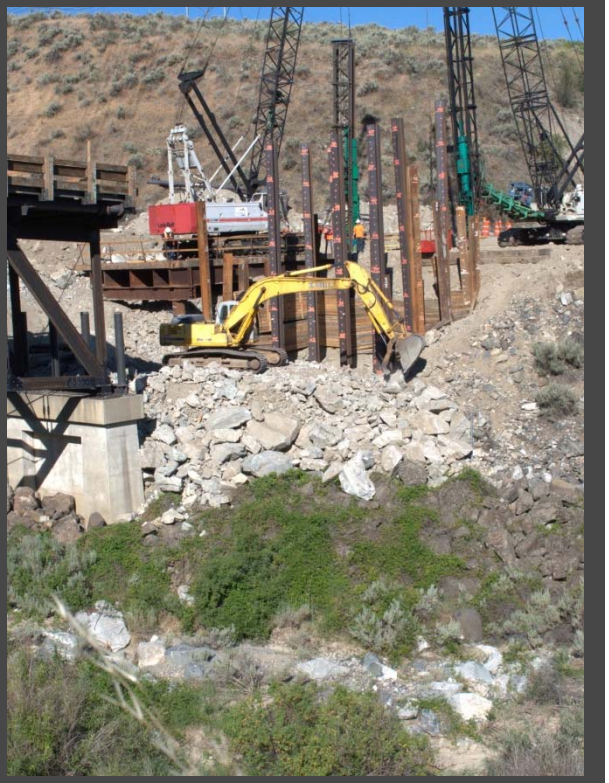
1. Start abutment construction
2. Build finger work bridge
3. Move existing truss to work bridge alignment



Stage 2: Pile Driving







Stage 2: Move Truss

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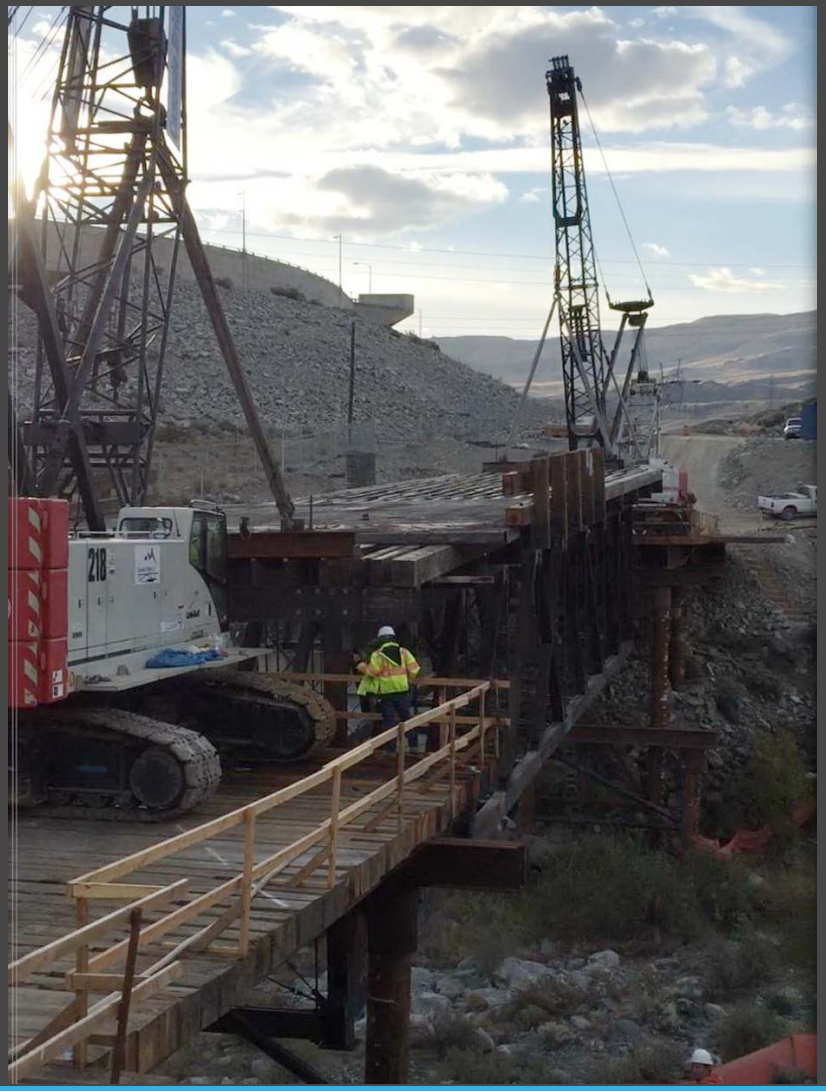
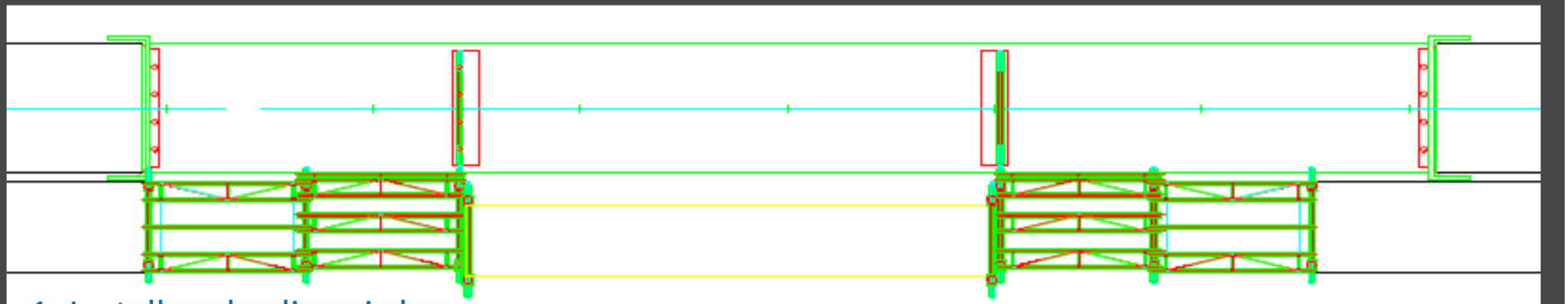
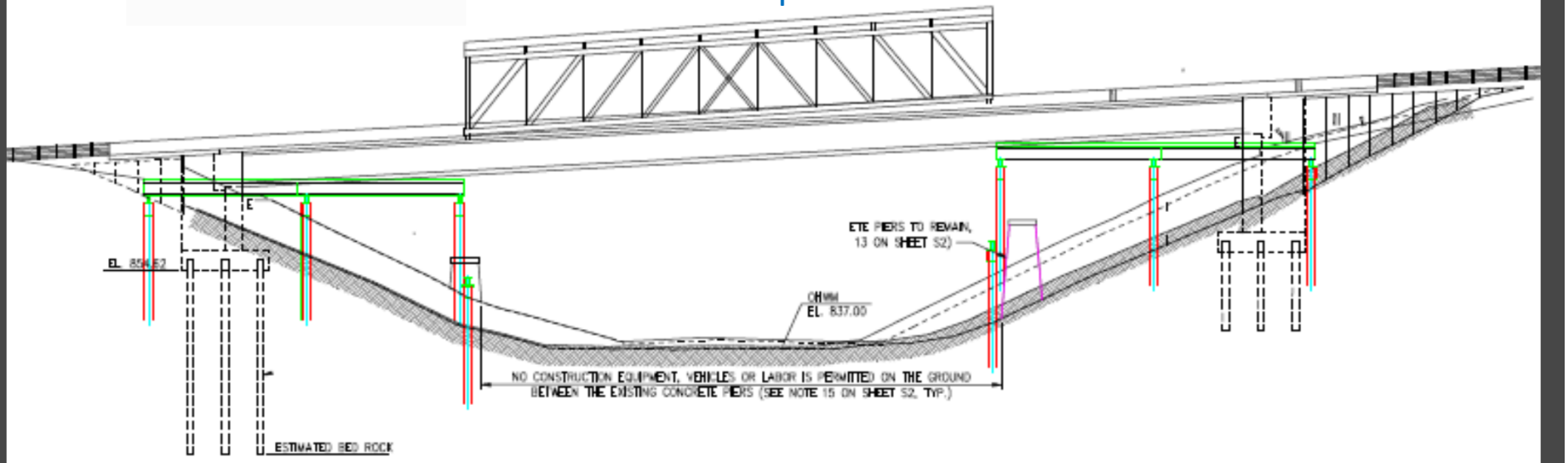


Stage 2: Tall Abutment

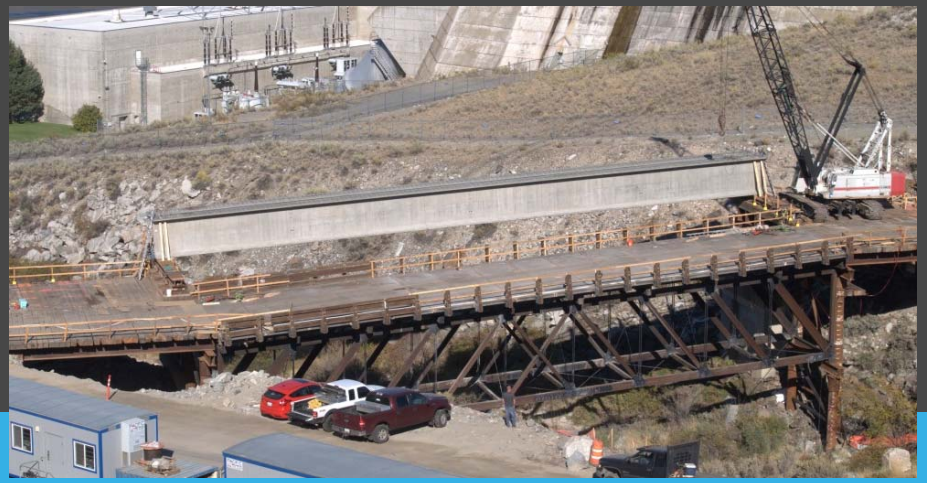
Construction Sequence: Stage 3



1. Install and splice girders
2. Place deck slab. Lift existing truss to top of new bridge deck for removal
3. Install traffic barriers and other elements. Open to traffic

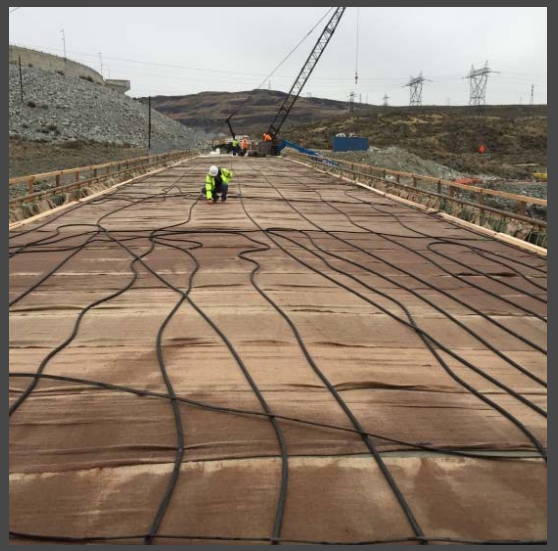


Stage 3: Girder Erection



Stage 3: Post Tensioning & Grouting

Stage 3: Deck Installation



Open To Traffic!

Questions ?

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DOUGLAS COUNTY

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CONCRETE TECHNOLOGY CORPORATION

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Thank you.