



ECI STF and WTF Basis of Design Report (30%) Update

East Chicago Waterway Management District
Public Meeting
February 19, 2020

woodplc.com

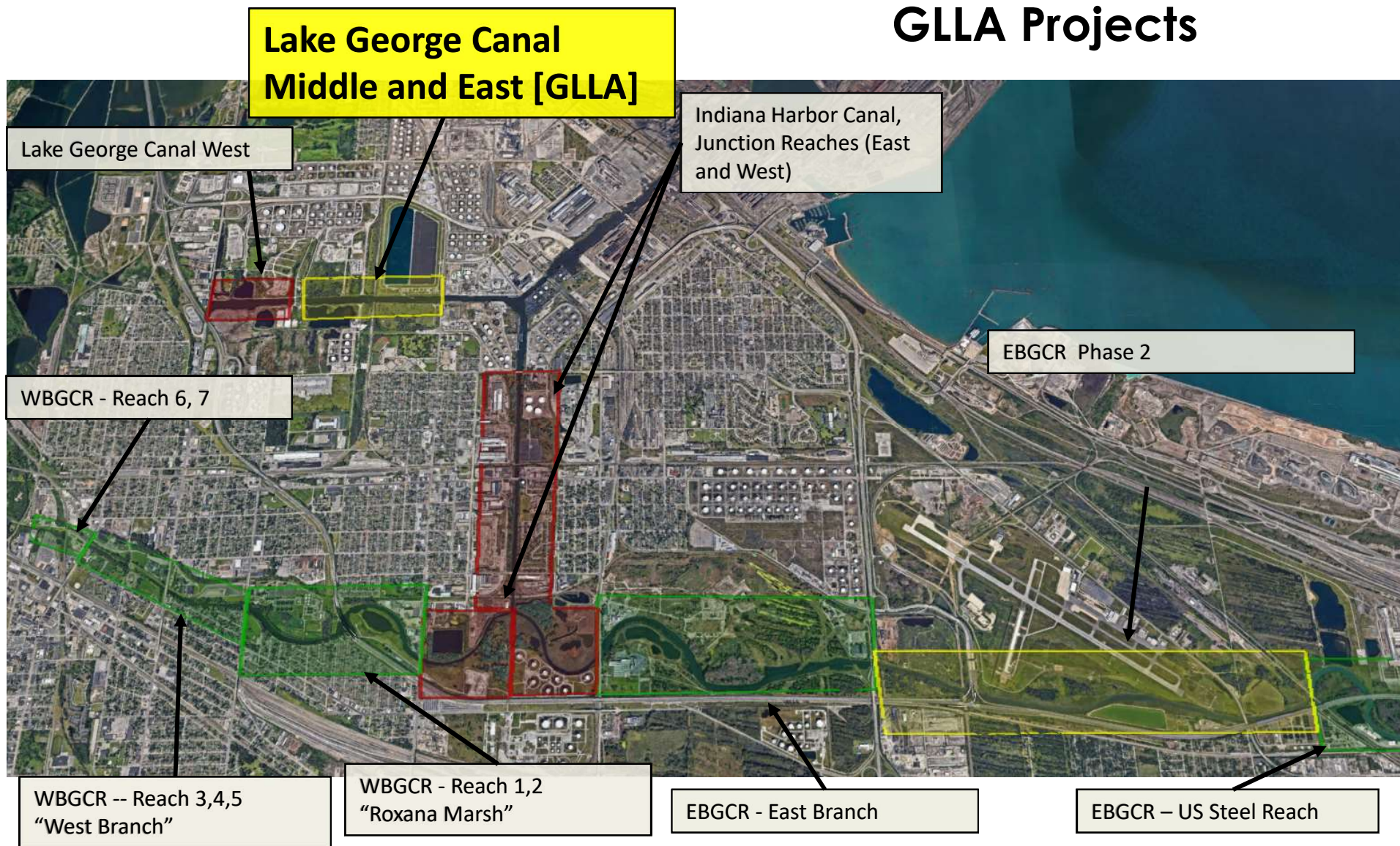


Grand Calumet River AOC Background

- Canal constructed 1888
- Grand Calumet River Area of Concern (AOC) identified in 1987
 - AOC includes the River, Indiana Harbor Canal, and Lake George Canal
 - Project location: Lake George Canal Middle and East sections and adjacent Former ECI Refinery Site
- Great Lakes Legacy Act (GLLA) uses public-private partnerships to accelerate clean ups
- USEPA Great Lakes National Program Office (GLNPO) administers GLLA
- Atlantic Richfield Company (ARC), BP Products North America Inc. and East Chicago Waterway Management District (ECWMD) are non-Federal Sponsors
- United States Army Corps of Engineers (USACE) providing design and construction projects on behalf of USEPA GLNPO



Grand Calumet River AOC – GLLA Projects



ECI Parcel Layout



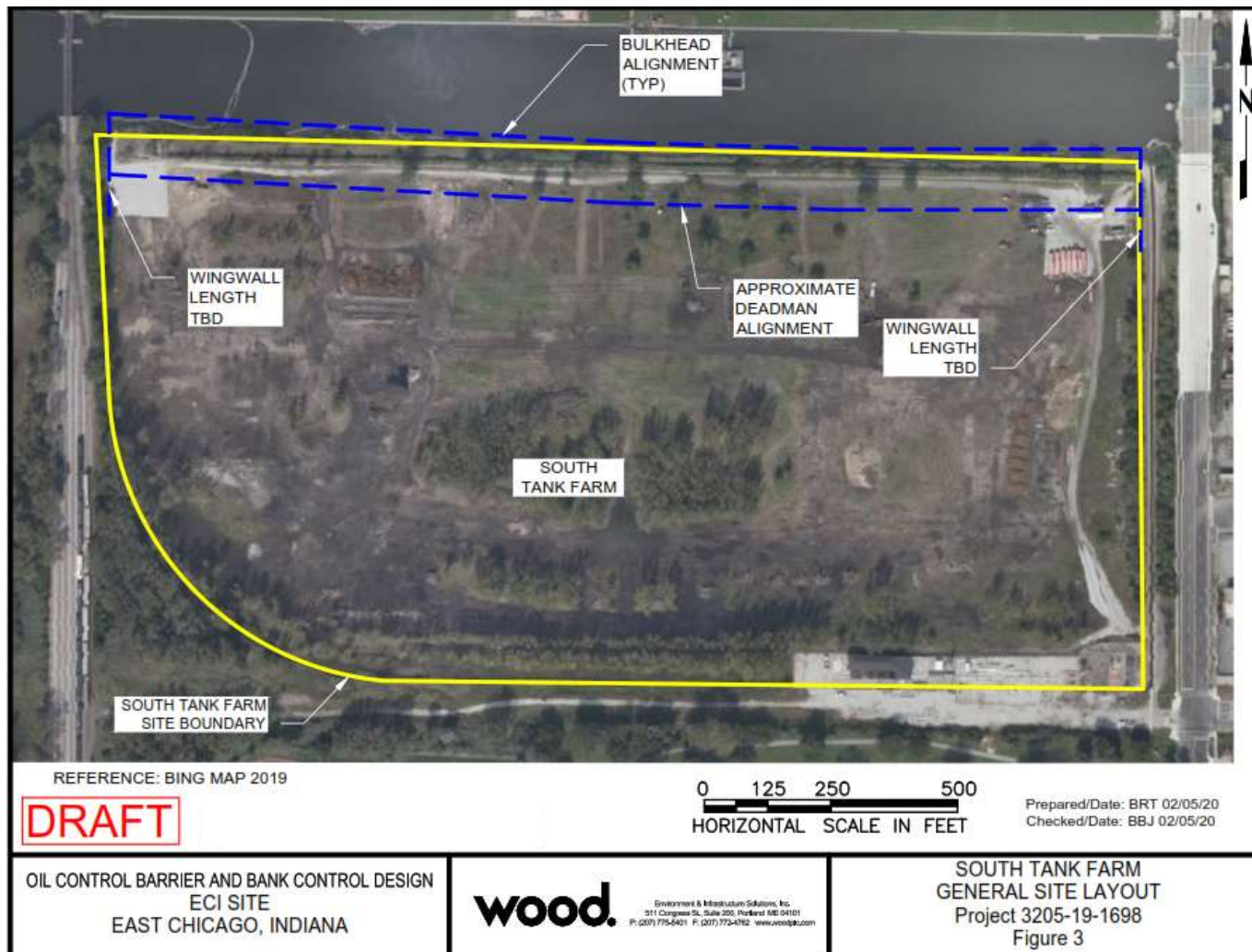
Project Background

Basis of Design Covers

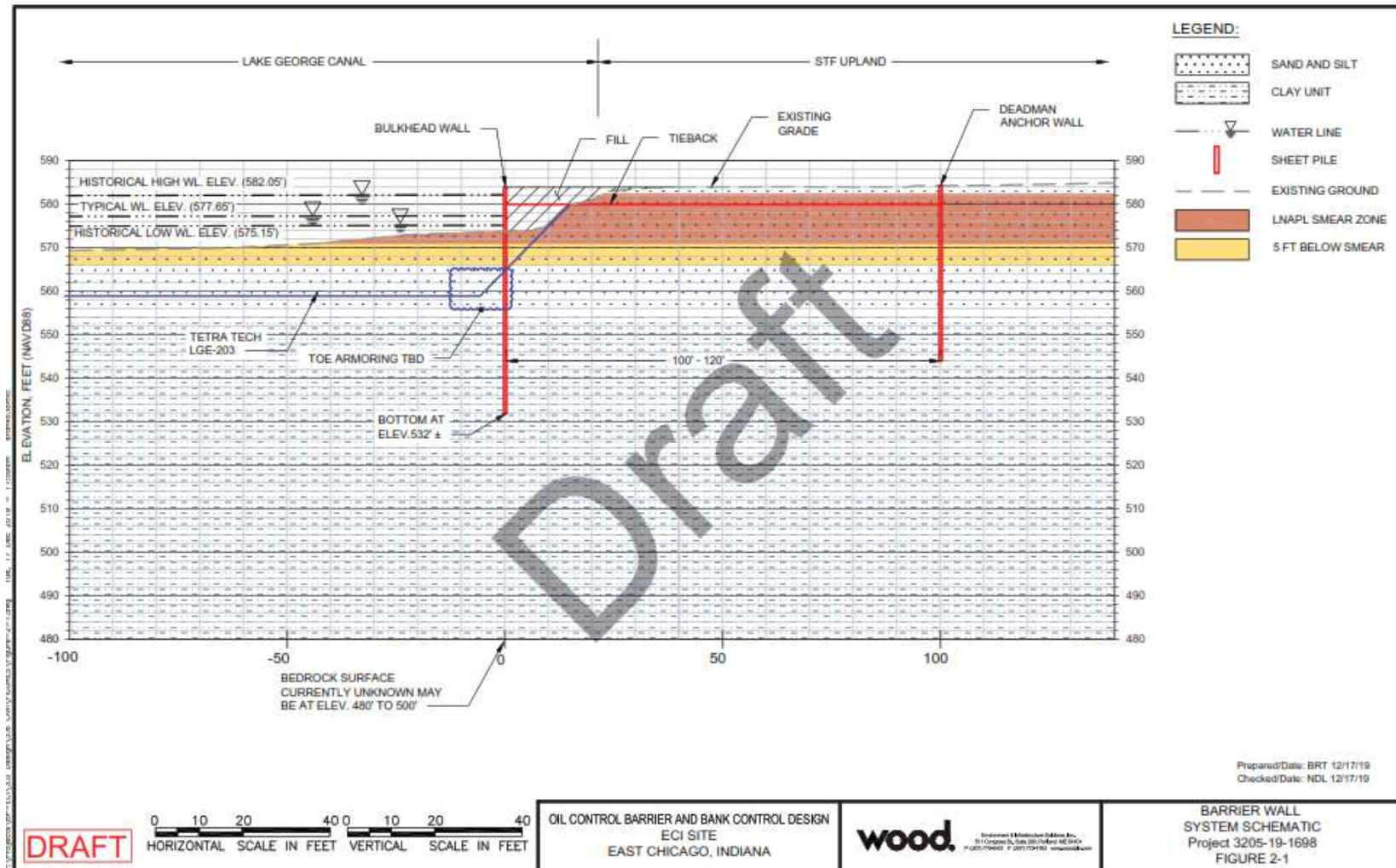
- South Tank Farm (STF)
 - Barrier wall system being designed to:
 - Minimize potential for legacy ECI STF Site contamination to reach Canal
 - Stabilize STF bank to help facilitate upcoming USACE dredging activities
 - Provide for redevelopment of parcel by City of East Chicago
- West Tank Farm (WTF)
 - Bank stabilization system designed to:
 - Minimize potential for legacy ECI WTF Site contamination to reach Canal
 - Tie into planned USACE sediment capping



Preliminary STF Barrier and Deadman Wall Alignments

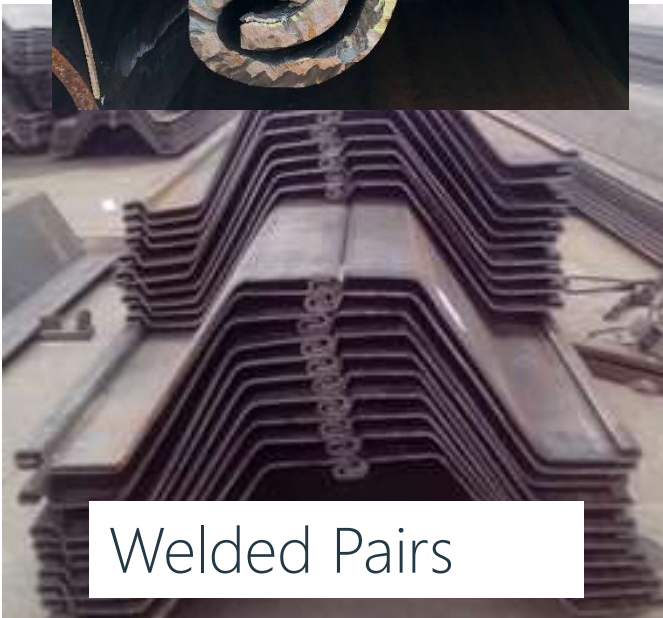


Preliminary Schematic of Barrier Wall System

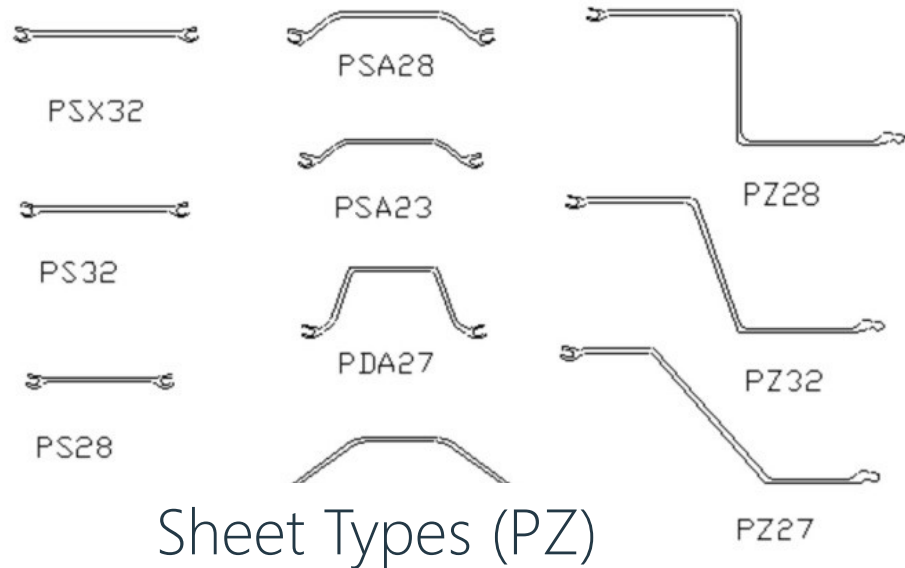


Sheetpile Examples

Sealed Sheets



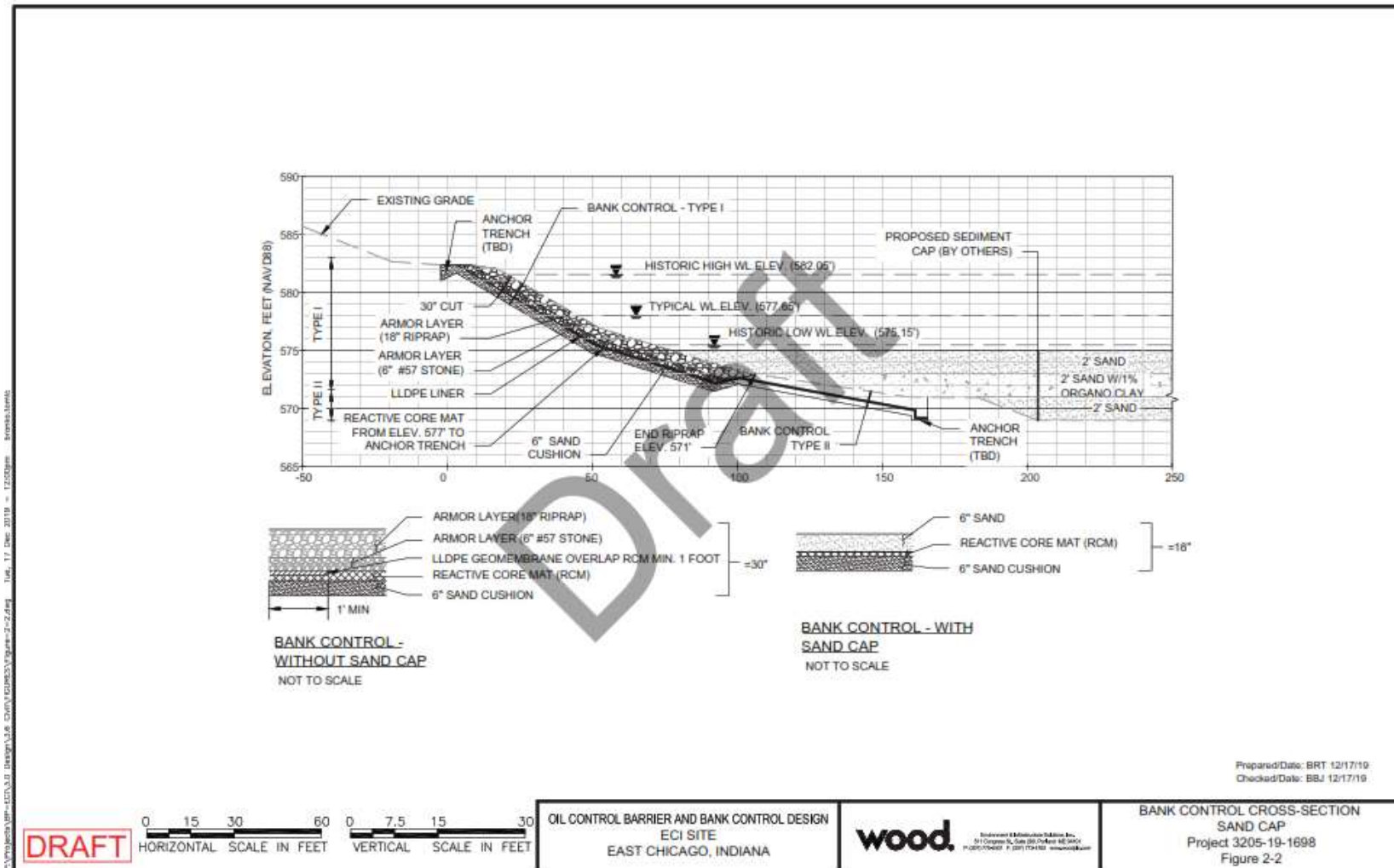
Welded Pairs



Preliminary WTF Bank Stabilization Alignment



Preliminary Schematic of Bank Stabilization.

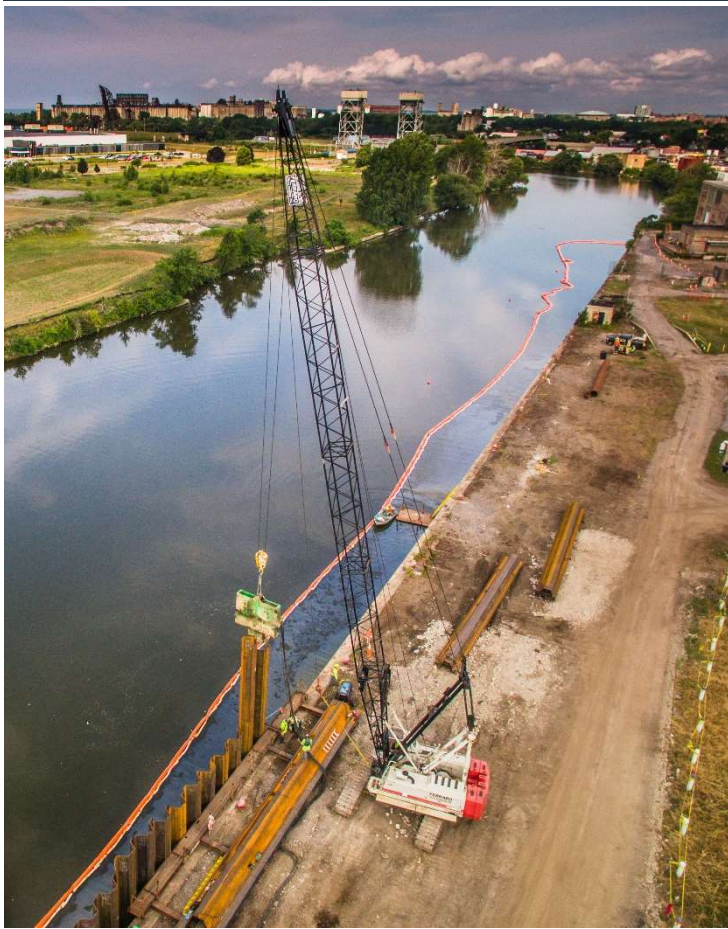


Anticipated Construction Procedures

- STF Sheet Installation
- STF Welding/sealing
- STF Tie back installation
- WTF Limited Shoreline Excavation
- WTF Reactive core material
- STF/WTF Transportation of waste/backfill
- STF/WTF Sheen & turbidity control (booms/curtains)
- STF/WTF Perimeter air monitoring



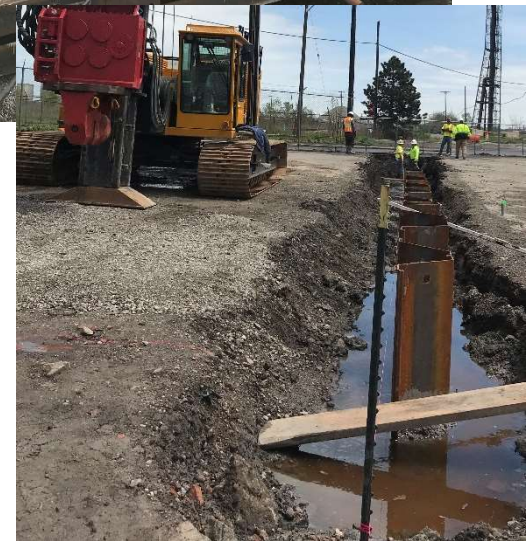
Wall System Installation Examples



Bulkhead Wall



Tiebacks



Deadman Wall

Potential Construction Impacts

All Impacts will be mitigated through planning and engineering controls

- Project Impacts
 - Typical construction related noise, vibration and dust
 - Additional construction traffic through the McShane/Indianapolis Blvd interchange
 - Oversize loads (length) associated with steel
 - Restricted use of work areas
 - Potential for additional turbidity and/or sheen during construction



Costs

- October 2018 Project Agreement Cost Estimates:
 - To be updated as part of the 90% Design

Project Component	Responsibility	Cost(\$)
ECI Betterment	ARC/BP	\$ 3,542,810.00
BP Projects (2013-2018)	ARC/BP	\$ 3,175,000.00
WTF Bank Stabilization	ARC/BP	\$ 150,000.00
Pipeline Removal	ARC/BP	\$ 2,768,850.00
Sheet Pile Cofferdam	GLNPO	\$ 300,000.00
Cap	GLNPO	\$ 3,160,000.00
Dredge	GLNPO	\$ 12,828,494.00
Cap Warranty Period	GLNPO	\$187,200.00
Total Cost		\$ \$26,112,354.00



Schedule

Estimated Schedule Presented in the Draft BODR	
30% Basis of Design Report (BODR) Completion	May 2020
Additional Field Data	January 2020 thru June 2020
90% Design Completion	September 2020
Issue FINAL IFC to USEPA	February 2021
Obtain Permits	September 2020 thru March 2021
<u>STF Barrier Wall</u>	
Procurement	February 2021 thru August 2021
STF Construction	February 2022 thru May 2022
<u>WTF Bank Stabilization</u>	
Procurement	September 2020 thru May 2021
Construction	October 2021 thru May 2022



The background is a solid teal color. It features three large, overlapping semi-circles. One semi-circle is on the left side, another is in the center-right, and a third is at the bottom right. The semi-circles are in different shades of teal, creating a layered effect.

Questions?