Item #: 6d_Supp
Date: August 7, 2012

# Terminal 18 Pilot Pile Cap Repairs

August 7, 2012


Port of Seattle
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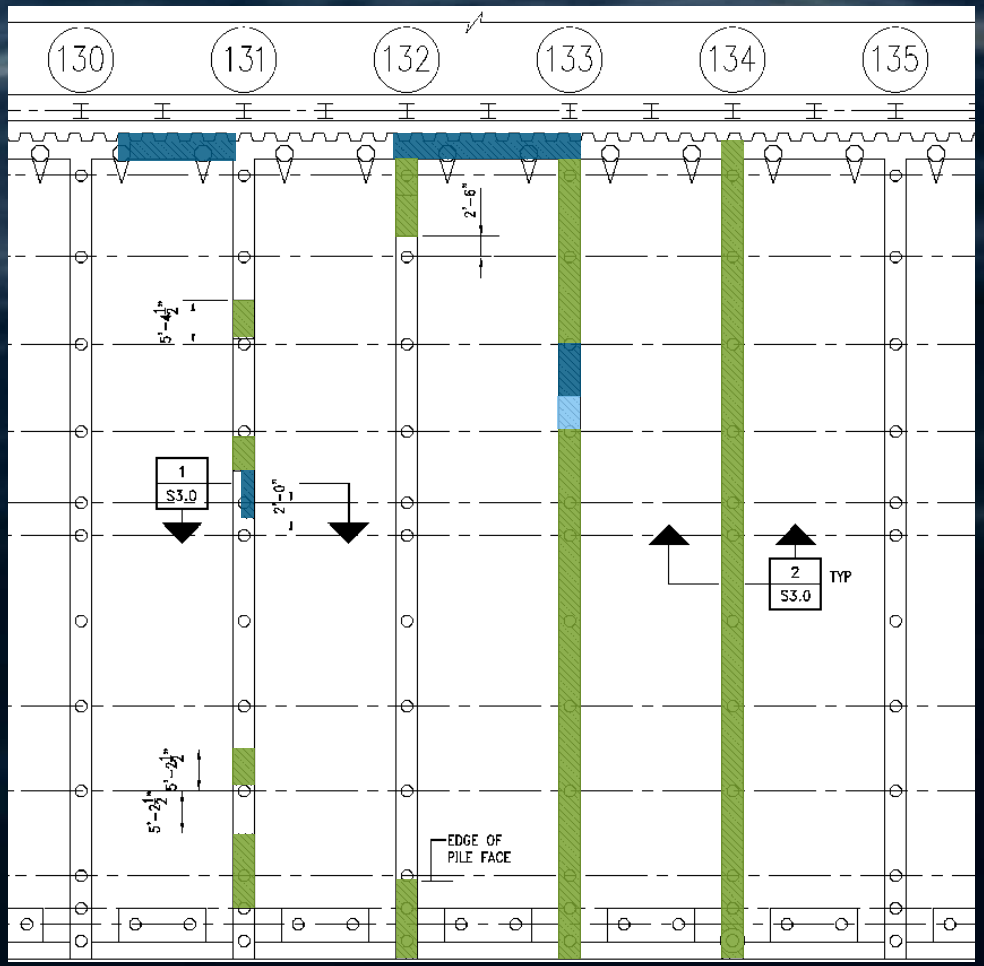
# Progress Update

| MONTHS | ACTIVITY |
|---|---|
| May-December 2011 | Design & Permitting |
| March-July 2012 | 50% Construction |
| August-November 2012 | 100% Construction |
| November-December 2012 | Report & Closeout |

# Knowledge Gained

| What has been learned so far from the pilot project? |
| --- |
| Concrete demolition – initially took longer than originally expected. The Pilot is helping us develop means & methods to reduce the amount of material to remove, and to speed up demolition where it is called for. |
| Re-bar sandblasting - initially slower than expected. The Pilot allows experimenting with different equipment to improve and speed it up. |
| Splicing in of new re-bar - initially the number of locations was unknown until demolition and sandblasting were completed. The Pilot is helping estimate future need for splices, and to improve efficiency of splicing. |
| Grout placement into forms - has been challenging. The Pilot is enabling us to refine the specs for grout, and to match the grout to pumping equipment. |
| The Pilot has demonstrated that areas with greatest distress correlate to percussion testing. The Pilot is also identifying other ways to predict problem areas – such as location of “dobies”, which supported re-bar in forms during original construction. |

# T18 Pilot Pile Cap Repair Breakdown




Longitudinal cracking only

Delamination only

Longitudinal cracking and delamination


SSA TERMINALS

# Benefits to Completing 4 Bents

| What additional knowledge can be gained from the pilot project? |
| --- |
| The first two bents under the Pilot provided production rates for initial set up, mobilization and repairs. Including the second two bents under the Pilot will demonstrate how much production rates accelerate once set up and running. |
| Application of knowledge and skills gained repairing the first two pile caps will be applied on the next two caps to further improvements and efficiencies. |
| Repairing all four pile caps will enable us to more accurately correlate exterior conditions from percussion testing and other means with actual conditions inside the caps. This stands to reduce repair costs by foregoing repairs where they are not needed. Likewise, it ensures repairs are performed where needed. |

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