

Pile Redrives

- Performing a 10 blow count set check after the pile has been allowed to sit for a period of time.
- Take advantage of soil set up, or increased bearing capacity, realized over time.
- Reduce over run of pile lengths.
- Some judgment is involved when deciding whether to stop driving a perform a redrive rather than continuing to drive deeper.

Section 450 - Piles

- 450-3 (D) (4) – Restriking and Redriving Piles
- “After reaching the required pile penetration...” Typically this refers to the estimated length of pile for that bent.
- “Contractor may choose to or the Engineer may require the Contractor to stop driving, wait and restrike or redrive piles to attain the required driving resistance.”
- “When the Engineer requires restrikes or redrives, the Engineer will determine the number of restrikes or redrives and the time to wait after stopping driving and between restrikes and redrives. The time to wait will range from 4 to 24 hours.”
- “In general, warm up hammers by applying at least 20 blows to a previously driven pile or timber mats on the ground.” Measure the first good 10 blows on a restruck pile.

Measurement and Payment

- *Pile Redrives* will be measured and paid in units of each. *Pile Redrives* will be measured as the number of restrikes or redrives required by the Engineer. No payment will be made for restrikes or redrives when the Contractor chooses to restrike or redrive piles.
- Typically cost \$100 to \$200 each.
- Quantity of *Pile Redrives* is typically under run.

- I thought the Inspector said stop and do a restrike...

Important Keys

Clear communication when approaching the estimated length or pile cut off elevation.

Documentation of the decisions made.

Verify the required driving resistance on every pile unless otherwise noted or approved.



Steel Piles

Easy to splice. Easy to over run. May start with more pile than needed.

If you don't meet the required bearing capacity on the first pile driven to the estimated length. Ask for a redrive of that pile.

If the first pile redrive does not achieve the required set for 10 blows, no need to redrive the others unless the first one was close – say within 1/2 inch or so.

If you do splice on to drive deeper, how much should you let them drive before asking for another redrive? It depends on the soil profile and how far from bearing you are. Typically in the 20-30' range.



Concrete Piles

Contractor will typically want to stop driving about 1-2' above cut off to allow for restrikes.

Build up of a concrete pile is time consuming if the pile is driven below cut off.



Half-Galvanized

Can't stop until he gets galvanized portion down to the required elevation.

Over run of galvanized section can create significant delays waiting for more pile.



Geotech Questions?

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Pileco D225-22 for driving 36" Concrete Piles for Bonner Bridge