

Assigned to pile driving project... What do I do?

1. Get a copy of the GRLWEAP analysis from the Contractor. Make sure that the brand/model pile hammer that the Contractor will be using matches the one listed in the WEAP analysis. You need an analysis for each hammer being used and hammer settings for each structure being driven. Use the same hammer to drive the test piles to drive the foundation piles. Review with Bridge Office if any questions. Mark Mueske mark.mueske@state.mn.us or at (651) 366-4464.
2. Review soil borings vs. test pile depth...where do you think the pile will reach final design bearing? Are there some higher blow count readings in the soil boring info that will require driving through?
3. Has the Contractor furnished certification on the piles? Check and document type, length, size, heat numbers, condition and Mill Test Reports. Verify that the material was "Melted and Manufactured in the USA" (for Federally Funded projects).
4. Review Plans/Proposal for pile layout, design bearing, pile size and thickness required, and estimated pile lengths.
5. Are there pile points required on the piling (approved H-pile points are listed on the APL)?
6. Has the Contractor staked the pile location and inspector checked the location? Tied to W.P.
7. Download the "Inspector Chart" program from Bridge Office web site if you feel it will assist you.
8. Certified welders are required for welding splices, driving shoes or pile points. AWS D1.1 and 6 month continuity records. All welds must be watertight.
9. Are commercial drive fit splices to be used? Watch for the six restrictions on their use in the Spec Book (2452.3.H), and any notes regarding their use in the Special Provisions.
10. Piles exposed to view ...painted section or galvanized top to be spliced on (see special provisions)?
11. Battered pile indicated in the plans?
12. Driving ...get accurate drop of ram by timing and use conversion chart to compute energy. Utilize current pile driving E-reports or print copy of report from MnDOT Bridge website. Or use application available online for either Apple or Droid cell phones.
13. Calculate "S" and other info needed for formula.
14. Count blows per foot on test pile, record on the test pile report while driving to required penetration and bearing (LRFD 0.05"/blow-240 blows per foot or a minimum of 115% of the nominal resistance formula indicated in the plan after test pile has been driven full length.)
15. Calculate bearing for each foot below cut-off and record. If possible, email completed report to Mark M. at the Bridge Office prior to calling for authorization of foundation pile lengths.
16. After driving, inspect each pile for depth to driving shoe, and for condition of the shell. Notify the Bridge Office if any damage is observed while using a light to inspect the full length of the shell. Check placement and alignment (Batter and plumbness within ½"/foot and having a final position within 6" of the plan location within the footing area. Requirements for Pile Bents are tighter, being within ¼"/foot for both batter and plumbness, and within 3" of plan location within the Bent.)
17. Contact the Bridge Office with any concerns or if a pile fails.
18. Cut-off steel piles within 1" of cut-off elevation.
19. Review 2452.3.D.6 for pile fill requirements.

