



Maintain Piling Records: Depths, Spoil, Tremie & Timestamps

Maintain piling records with an interactive checklist—commentable and export as PDF/Excel. Log depths, spoil, refusals, tremie data, volumes, and timestamps for bored piles.

Project:

Date:

Filled by:

Pre-Start Details

1	Confirm pile ID, grid, and design cut-off from approved drawings; cross-check with survey marks; acceptance: data matches drawings; evidence: photo of stake and drawing snippet.
2	Record pile center coordinates using total station; capture Easting/Northing; acceptance: within ± 25 mm of set-out; evidence: instrument readout photo and coordinates saved.
3	Log rig model, tool diameter, and casing diameter; measure with tape; acceptance: tool diameter \geq design diameter; evidence: measurements and rig ID photo.
4	Verify permits and HSE readiness; capture permit number and validity; acceptance: permit active for shift; evidence: permit photo and timestamp.

Drilling Records

5	Log drilling start timestamp in ISO 8601 (UTC offset included); acceptance: minute-level precision; evidence: automatic device time capture.
6	Record depth every 1.0 m using depth counter or marked rods; acceptance: entries continuous to final depth; evidence: depth table and gauge photo.
7	Record temporary casing length installed; measure by joint tally; acceptance: toe below unstable stratum per method; evidence: tally sheet and joint photos.
8	Document refusal or hard-layer events: penetration rate and torque from rig display; acceptance: penetration <10 mm/min flagged; evidence: display screenshot/photo and depth noted.
9	Confirm final drilled depth and base level with weighted tape; acceptance: reaches design toe ± 50 mm; evidence: tape reading photo and recorded value.
10	Log interruptions and delays with reasons; capture start/stop times; acceptance: gap durations recorded; evidence: timestamped comments and supervisor note.

Spoil and Ground Conditions

11	Describe spoil each 1.0 m band: material, grading, Munsell color, moisture; acceptance: no missing bands; evidence: labeled spoil tray photos.
12	Measure spoil volume removed: skip count \times measured skip volume; acceptance: calculation attached; evidence: dimensions, counts, and photo of skips.
13	Record groundwater level rise in bore during drilling; measure with staff gauge; acceptance: water head noted in metres; evidence: gauge photo.
14	Log obstructions encountered (boulders/debris): depth and fragments; acceptance: obstruction depth and action noted; evidence: fragment photos and depth entry.

Casing and Base Cleanliness

15	Record base cleaning method (cleanout bucket/air-lift); acceptance: silt thickness \leq project limit; evidence: measured silt thickness in mm and photo.
16	Verify reinforcement cage placement depth using tag line marks; acceptance: top within ± 20 mm of design; evidence: mark photo and measured level.
17	Confirm casing extraction sequence before pour; note planned stages; acceptance: tremie embedment maintained during extraction; evidence: approved plan note.

Tremie Concrete Placement

18	Capture truck IDs and batch ticket numbers; scan or photograph; acceptance: ticket attached for each load; evidence: clear images/files per load.
19	Record tremie diameter, toe level, and initial embedment; acceptance: initial embedment ≥ 2.0 m; evidence: depth record and section tally.
20	Log pour start and end timestamps; maintain continuous flow; acceptance: no cold joint noted; evidence: time history and supervisor confirmation.
21	Record tremie lifts/reinsertions with depth after each move; acceptance: embedment ≥ 1.5 m at all times; evidence: depth vs time chart.

Volumes, Timestamps, and Sign-Off

22	Record concrete volume per load and cumulative total; acceptance: totals tally with tickets; evidence: volume table and attachments.
23	Calculate theoretical volume: $\pi/4 \times \text{diameter}^2 \times \text{depth}$; acceptance: worksheet attached; evidence: calculation screenshot or in-app sheet.
24	Compare actual vs theoretical volume; note variance cause (overbreak/groundwater); acceptance: variance justified; evidence: comment with photos.
25	Record casing extraction completion time and final cut-off level; acceptance: cut-off within ± 10 mm; evidence: staff gauge photo and timestamp.
26	Obtain digital signatures (contractor, client) per approved project specifications and authority requirements; acceptance: both signatures captured; evidence: signed PDF.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
<p>Maintain piling records is the backbone of reliable bored pile documentation. This checklist focuses on bored cast-in-place pile recordkeeping, including piling logs, drilling records, tremie concrete log entries, and concrete volume reconciliation—while explicitly excluding testing activities like slump or integrity tests. You will capture drilled depths, spoil characteristics, refusal or hard-layer events, casing details, base cleanliness, tremie embedment, pour sequence, and the exact timestamps that prove continuity. Accurate, consistent records prevent rework, reduce claims, and improve traceability for audits and handover. They also clarify overbreak, groundwater effects, and production rates, helping planners and engineers adjust methods before issues escalate. The outcome is a clean, searchable history that ties location, actions, and quantities to photos, batch tickets, and signatures, per approved project specifications and authority requirements. Start in interactive mode to tick items, add comments, attach photos, and export as PDF/Excel with a QR link for verification.</p>	<p>1. Preparation: gather approved drawings, method statement, total station or level staff, marked rods, weighted tape, measuring tape, camera-enabled device, and PPE. Confirm rig identification, tool diameters, casing availability, and permit validity. 2. Start a new pile record: enter pile ID, grid coordinates, design toe and cut-off, and select bored pile method. Enable ISO 8601 timestamps and set the project time zone. 3. Enter pre-start details: rig model, tool/casing diameters, and permit references. Photograph the set-out stake and drawing snippet for immediate location evidence. 4. Record drilling progress: depth at 1.0 m intervals, casing lengths, interruptions, and any refusal events with rig display photos. Add spoil descriptions and groundwater observations as you advance. 5. Switch to concreting mode: log tremie diameter, toe level, embedment, pour start/end times, lifts, and reinsertions. Scan batch tickets and capture volumes per load. 6. Reconcile volumes: compute theoretical volume, compare with actual, and document justifications for variances. Attach calculation screenshots and field photos. 7. Review completeness: run the in-app validation to ensure all mandatory fields, photos, and timestamps are present. Resolve any flagged gaps with comments. 8. Sign-Off: capture contractor and client digital signatures, then export the record as PDF/Excel. Share via link, with QR authentication embedded for verification and archiving.</p>