



Pile Cap Formwork/Rebar Inspection (Horizontal) Checklist

Pile Cap Formwork/Rebar Inspection (Horizontal) interactive checklist: commentable, evidence-driven, and ready to export as PDF/Excel. Verify formwork, rebar, cover, chamfers, sleeves, and embeds.

Project:

Date:

Filled by:

Pre-Inspection & Documents

1	Verify latest approved drawings, bar bending schedule (BBS), and method statements are current; cross-check revision numbers against document register. Evidence: photos of title blocks, revision dates, and inspector signature.
2	Confirm inspection and test plan (ITP) hold/witness points are scheduled; notify stakeholders ≥ 24 h in advance. Evidence: notification email/screenshot and attendance sign-in.
3	Verify materials traceability: rebar mill certificates, coupler batches, spacer/chair type approvals per project specifications. Evidence: certificates and batch labels photographed and logged.

Survey & Setout

4	Confirm pile cap grid setout/origin with total station; corner control points within ± 5 mm of design. Evidence: survey report and marked reference points photos.
5	Check soffit/formwork support elevation using auto level; level within ± 5 mm and uniform across cap. Evidence: benchmark, back-sight/fore-sight readings, and level book photo.
6	Verify rebar starter positions from piles to grid with tape/total station; offsets within ± 10 mm. Evidence: layout photos with steel tape visible.
7	Mark pour limits, cold joint lines, and embed centerlines on formwork for reference. Evidence: annotated photos showing paint marks and dimensions.

Formwork Geometry & Stability

8	Measure internal plan dimensions of side forms with steel tape; acceptance ± 10 mm unless specified otherwise. Evidence: dimension photos and checklist record.
9	Check side-form verticality/perpendicularity using spirit level or laser; deviation ≤ 3 mm per 1 m. Evidence: level bubble/laser photo and reading noted.
10	Inspect joints, gaps, and liners; no visible gaps > 3 mm; sealant/foam fitted where required. Evidence: close-up photos along seams.
11	Confirm bracing, walers, and ties are installed, tight, and anchored to stable ground/supports. Evidence: photos of bracing nodes and supervisor sign-off.
12	Verify formwork release agent applied uniformly without pooling; no contamination of rebar areas. Evidence: photo sweep and material data reference.

Rebar Layout & Cover

13	Check bar marks, diameters, grades, and spacing against BBS; spacing within ± 5 mm. Tools: rebar gauge, tape. Evidence: tagged bars and BBS markup.
14	Verify bottom and top concrete cover using approved non-absorbent spacers/chairs; nominal cover per drawings (e.g., 50 mm ± 10 mm). Tools: cover meter/tape. Evidence: photos with scale.
15	Confirm lap splice lengths and staggering per schedule; laps tied with double wire; laps clean and straight. Evidence: photos showing tape measurement and tag.
16	Check rebar supports/stools for height and spacing; deflection under foot traffic ≤ 5 mm. Evidence: photos and measured stool heights.
17	Inspect couplers for thread engagement and torque per manufacturer; record batch/lot. Tools: calibrated torque wrench. Evidence: torque log and coupler label photos.
18	Ensure rebar is clean, free of mud, oil, loose rust, and paint where bond is required. Evidence: surface close-ups and wipe test photo.

Chamfers, Sleeves & Embeds

19	Verify chamfer strips size and continuity at exposed edges; typical 20–25 mm unless specified. Secure against movement. Evidence: photos with ruler.
20	Check sleeves/ducts diameter, location, and angle; centerline within ± 10 mm and $\pm 2^\circ$ of design; ends capped. Evidence: measurement photos and tag IDs.
21	Confirm blockouts and void formers dimensions and fixity; internal dimensions within ± 10 mm; edges sealed. Evidence: annotated photos and sketch overlay.
22	Verify anchor bolts/plates/embedded items position, projection, and plumb using templates/jigs; position ± 3 mm, plumb $\pm 1^\circ$ or per spec. Evidence: survey shots and template photos.

Access, Protection & Sign-off

23	Provide safe access, edge protection, and housekeeping; remove debris, tie-wire tails, and standing water. Evidence: area-wide photos after cleaning.
24	Conduct joint walkthrough with contractor and QC; list punch items/NCRs and close before release. Evidence: signed checklist, punch list status, and time-stamped photos.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
<p>Pile Cap Formwork/Rebar Inspection (Horizontal) ensures a controlled, pre-pour verification of the pile cap's formwork geometry and reinforcement. This horizontal inspection focuses on formwork dimensional checks, rebar cover verification, and rigorous confirmation of chamfers, sleeves, blockouts, and embedded items. It excludes concrete works, curing, and pour operations. By concentrating on reinforcement layout, laps, couplers, and supports, plus formwork stability and tightness, you prevent misalignment, honeycombing risk from gaps, insufficient cover, and clashes caused by poorly coordinated embeds. The outcome is a compliant, build-ready pile cap that meets approved project specifications and authority requirements, reduces rework, and protects downstream schedule. Use this checklist to record measurements, photos, batch numbers, and sign-offs, so findings are traceable and auditable. Begin in interactive mode to tick items, add comments, attach evidence, and export your record as PDF/Excel with a QR link for fast retrieval.</p>	<p>1. Preparation: gather total station or tape and auto level, rebar gauge, cover meter, spirit level/laser, torque wrench, calibrated camera, marking paint, approved drawings/BBS, and required PPE. Confirm area is accessible and safe. 2. Start interactive mode, select project, structure, and pile cap ID. Review scope notes and tolerances per approved project specifications and authority requirements. 3. Walk the workface systematically by group (survey, formwork, rebar, embeds). Measure, mark, and photograph each check. Enter readings and tag locations. 4. Use comments to flag nonconformances, assign owners and due dates, and attach sketches or annotated photos for clarity. 5. Re-verify after corrections. Update statuses from open to closed with new measurements and photos as evidence. 6. Export the completed, commentable record as PDF/Excel. Share links with stakeholders and store source files in the project repository. 7. Sign-off: capture digital signatures from contractor, QC, and client representative. Archive with QR authentication for rapid retrieval before releasing to concrete operations.</p>