Generated file by QChecklists
https://quollnet.com

Verify substructure as-built survey: acceptance checklist

Verify substructure as-built survey using an interactive checklist, commentable, and export as PDF/Excel, confirming dimensions/elevations, records and acceptance.

Project:
Date:
Filled by:

Pre-Survey Controls	
1	Confirm latest IFC drawings and survey control references in the CDE; acceptance: current revisions only; evidence: screenshot showing revision, date, and approver.
2	Verify primary control points and benchmark elevation against project datum using automatic level; acceptance: loop closure within project tolerance (e.g., ≤6 mm); evidence: signed level-loop calculations.
3	Check calibration status of total station/RTK GNSS/laser scanner; acceptance: valid certificate within stated period; evidence: instrument serial, certificate number, and photo.
4	Confirm safe access to excavations/pits and permit conditions; acceptance: active permits and barriers in place; evidence: permit ID and site photos.
5	Document coordinate system, units (m, mm), and vertical datum in survey metadata; acceptance: consistent across files; evidence: metadata header in report/CSV.

Measurement and Evidence Collection	
6	Set up total station with forced-centering; orient to grid via backsight; acceptance: orientation residuals within instrument spec; evidence: setup photo and orientation screenshot.
7	Run a closed traverse around the substructure footprint; acceptance: linear/angle misclosure within project limits; evidence: traverse report uploaded to CDE.
8	Complete a closed level loop to pile caps/footings; acceptance: vertical closure within tolerance (e.g., ≤6 mm); evidence: level notes and closure sheet signed.
9	Observe as-built corners/edges of footings and pile caps (≥2 independent sets); acceptance: repeatability ≤5 mm; evidence: raw observation files (.job/.jxl) uploaded.
10	Measure top-of-concrete elevations at grid intersections and bearing seats using prism/rod; acceptance: stable readings within ±2 mm; evidence: annotated photos with point IDs.
11	Capture 3D positions of embedded items (anchor bolts, sleeves, base plates); acceptance: minimum three points per group; evidence: point list cross-referenced to element tags.
12	Scan complex geometries with laser scanner; acceptance: registered point cloud density ≥50 pts/m²; evidence: registration QA report and file name.

Dimensional and Elevation Verification	
13	Compare measured coordinates to design; compute X/Y/Z deltas per element; acceptance: within specified tolerances per approved project specifications and authority requirements; evidence: deviation table attached.
14	Check horizontal dimensions of footings/pile caps using least-squares fit; acceptance: side lengths within ±10 mm unless specified otherwise; evidence: calculation sheet.
15	Verify positional offsets to gridlines; acceptance: offsets ≤10 mm or project-specific; evidence: redlined plan showing grid and measured offsets.
16	Assess verticality of substructure walls/columns with scanner or digital level; acceptance: deviation ≤10 mm over 3 m height (or per spec); evidence: verticality plot and photos.
17	Confirm founding levels against geotechnical design using staff readings at corners; acceptance: not higher than design founding level; evidence: readings and geotechnical acknowledgment.
18	Log nonconformances exceeding tolerance; raise NCR with magnitude, location, and photo; acceptance: NCR registered in CDE; evidence: NCR ID and link.

Records Update and As-Built Deliverables	
19	Update redline drawings with measured dimensions/elevations and deviations; acceptance: clouded changes with revision/date/initials; evidence: updated DWG/PDF.
20	Export as-built point list (CSV) including ID, Easting, Northing, Elevation, description, and units; acceptance: datum and coordinate system stated; evidence: CSV file attached.
21	Produce georeferenced as-built plan (DWG/DXF) and update the 3D model if required; acceptance: overlay aligns with control; evidence: overlay screenshot and file versions.
22	Compile survey report detailing instruments, closures, methods, tolerances, and deviations; acceptance: peer-reviewed and signed by responsible surveyor; evidence: signed PDF.
23	Upload deliverables to the CDE with correct metadata (discipline, area, status As-Built—For Acceptance); acceptance: version-controlled and accessible; evidence: CDE link.
24	Generate a QR code linking to the approved as-built record set; acceptance: scannable on printed exports; evidence: QR test screenshot.

Review and Acceptance	
25	Hold review meeting with construction manager and designer to agree dispositions; acceptance: minutes capture acceptance/actions; evidence: signed minutes.
26	Issue corrective instructions for out-of-tolerance items, including set-out coordinates; acceptance: approval recorded before rework; evidence: instruction reference.
27	Re-survey corrected areas to verify closure of NCRs; acceptance: deviations now within tolerance; evidence: updated deviation table and NCR closure record.
28	Obtain formal acceptance of the substructure as-built from the responsible engineer/client; acceptance: digital signatures and date; evidence: signed acceptance form.
29	Archive raw observations, control files, reports, CAD/BIM, CSVs in project archive; acceptance: checksum verified; evidence: archive index and verification log.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
Verify substructure as-built survey is a focused quality-assurance process to confirm constructed dimensions and elevations match the issued design. This checklist guides surveyors and site engineers through as-built verification, including control checks, foundation survey procedures, substructure geometry validation, and elevation checks. It sets practical tolerances, clarifies evidence requirements, and details how to update records and secure acceptance without drifting into closeout documentation. By following a consistent method—control, measure, compare, report—you reduce rework, avoid clashes with superstructure elements, and prevent costly schedule impacts. Outcomes include defensible survey records, redlined drawings, updated CAD/BIM models, and traceable approvals aligned to the project's coordinate system and vertical datum. Use this interactive page to tick tasks, add comments where deviations occur, attach photos and files, and export as PDF/Excel with a secure QR that links stakeholders to the approved record set.	1. Preparation: Confirm latest drawings and control files, gather calibrated instruments (total station, automatic level, RTK GNSS, scanner), PPE for excavation access, and upload prior control and benchmark data. Set datum/units in the app and preload project areas and point ID conventions. 2. Using the Interactive Checklist: Start interactive mode, tick completed tasks, attach photos, raw files, and deviation tables, and add comments when tolerances are exceeded. Generate a live summary and export to PDF/Excel for reviewers directly from the page. 3. Sign-Off: Capture digital signatures from the responsible surveyor and reviewer, distribute the exported set, store in the CDE, and embed the generated QR so anyone can authenticate the approved as-built record later.