

UNDERPINNING

ACTIVITY RAMS — ADAPT TO SITE BEFORE USE

Mass concrete pins beneath existing foundations · sequence is the control

KD-RAMS-PS-003 Rev A0

Statutory basis: HSWA 1974 s.2(2)(a) and MHSWR 1999 regs 3 and 5; CDM 2015 reg 22(4) — no work in a supported or battered excavation without a competent-person inspection, reported under reg 24; reg 25(4) with HSE HSG47 (3rd edition, 2014) for underground services; PUWER 1998 and LOLER 1998 regs 8 and 9 for the rig and its lifting operations; Work at Height Regulations 2005; Manual Handling Operations Regulations 1992; COSHH 2002 with EH40/2005 (4th edition, 2020) for silica and wet cement; CDM 2015 regs 13 and 15. The working platform is temporary works: it is designed, certified and re-inspected under BS 5975-1:2024 management procedures, and no rig tracks onto it without a current certificate.

1 DOCUMENT AND PROJECT IDENTIFICATION

RAMS REFERENCE	PROJECT / SITE REF	SITE NAME AND ADDRESS	DATE PREPARED	NEXT REVIEW DATE
CLIENT / PRINCIPAL CONTRACTOR	PLANNED START	DURATION	OPERATIVES	SUPERVISING THE WORK

2 SCOPE OF WORKS

Traditional mass-concrete underpinning to existing foundations: excavation in the designed pin sequence, preparation, concreting and dry-packing, in occupied and unoccupied property.

This document does not cover: the underpinning design and pin sequence, temporary propping design, and any work where movement monitoring shows the structure is moving outside the designed tolerance.

SITE-SPECIFIC SCOPE, LOCATIONS AND LIMITATIONS

3 RISK ASSESSMENT — SCORE EACH RISK FOR THIS SITE, THEN ADD WHAT IS MISSING

The hazards and controls below are the starting point for this activity, written by a working main contractor. They are not complete for your site until a competent person has scored each risk, added the site-specific hazards, and struck out anything that does not apply. Rate risks High / Medium / Low before and after controls.

1. Falls into an open bore, pile cap excavation or shaft

At risk: Everyone on site

Controls: Every open bore is covered or barriered the moment the auger clears it — no bore is left open and unattended, ever, including at breaks. Covers are secured and marked. Pile cap excavations are battered, supported or barriered to the temporary works design, and inspected at the start of every shift under CDM 2015 reg 22(4) with the report made under reg 24.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

2. Striking underground services or a live cable while boring or driving

At risk: Rig crew, the public

Controls: The HSG47 (3rd edition, 2014) sequence without exception: plans obtained and on site, CAT-and-genny survey by a trained operative, marking up, and trial holes to prove every service near a pile position. Positions within the agreed proximity of a known service are hand-dug or vacuum-excavated to depth before the rig is set up. No plans, or a survey that does not match the plans, stops the work.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

3. Manual handling of boards, materials and components

At risk: Operatives

Controls: Mechanical aids first — trolleys, board lifters, hoists. Two-person lifts for boards and long components; order materials in manageable sizes; plan storage close to the workforce; keep carrying routes clear and lit.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

4. Concrete supply, pumping and wet cement contact

At risk: Operatives, delivery drivers

Controls: Delivery route and standing agreed and banksman-controlled; nobody between a reversing mixer and a fixed object. Pump lines coupled with safety pins and whip checks, pressure released before any coupling is broken, and nobody in line with a blockage. Wet cement is corrosive and a potent sensitiser: gauntlets, eye protection, and washing facilities at the workforce.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

5. Skin contact with cements, plasters, adhesives and sealants

At risk: Operatives

Controls: COSHH assessments for every substance; gloves matched to the substance; barrier and after-work creams available; washing facilities close to the work; report skin problems early — dermatitis is a reportable trend, not a private nuisance.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

6. Interface with occupants, other trades and the public

At risk: Occupants, other trades, the public

Controls: Segregate the work area — barriers, signage, sheeting; agree access routes and working hours with the occupier; never obstruct escape routes; deliveries and waste runs outside peak movement times where agreed.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

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7. Slips, trips and housekeeping

At risk: Everyone in the work area

Controls: Keep the workface clear, remove waste and offcuts as they are created, route leads at high level or under mats, and maintain task lighting.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

8. Collapse of the structure or the excavation during a pin

At risk: Operatives, occupants, neighbours

Controls: The designed pin sequence is followed exactly — no two adjacent pins open at once, and the maximum open length in the design is never exceeded to save a shift. Every excavation is supported or battered to the temporary works design and inspected at the start of each shift under CDM 2015 reg 22(4), reported under reg 24. Movement monitoring is read and recorded before each new pin; any reading outside tolerance stops the work and is referred to the engineer.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

Site-specific hazards not listed above — every site has at least one:

HAZARD	WHO IS AT RISK	CONTROLS	INITIAL H/...	RESIDUAL...	ACTION OWNER	BY WHEN

4 METHOD — SEQUENCE OF WORK

- 01 Confirm the design, the pin sequence and the movement monitoring regime are on site and understood.
- 02 Prove services and drains along the whole run before the first pin is opened.
- 03 Excavate the first pin in the sequence only, supporting as you go to the temporary works design.
- 04 Inspect and record the excavation before anyone enters it, at the start of every shift.
- 05 Prepare, concrete and allow the designed cure before dry-packing tight to the underside of the existing footing.
- 06 Read and record movement monitoring, then open the next pin in sequence — never out of sequence.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE

5 PLANT, EQUIPMENT AND MATERIALS

- Hand excavation tools and small breakers
- Proprietary trench support

- Movement monitoring targets
- Concrete skips or barrows

INSPECTION / THOROUGH EXAMINATION REFS

COSHH ASSESSMENT REFS

6 PPE — THE LAST LINE OF CONTROL, NOT THE FIRST

- Head protection
- Safety footwear
- High visibility
- Gloves — task-rated
- Eye protection
- Hearing protection
- Gauntlets for wet concrete
- Anti-vibration gloves for breaker work

RPE TYPE, FACE-FIT STATUS, AND ANY OTHER PPE REQUIRED

7 PERMITS REQUIRED BEFORE THIS WORK STARTS

A permit authorises this work in that place, on that day. It extends the safe system of work in this document — it does not replace it (HSE HSG250). The site issues the permit; record its number before work starts.

KD-PTW-EX-005 — Excavation and Permit to Dig

For every pin.

PERMIT NUMBER

KD-PTW-PE-009 — Permit to Enter

For occupied property.

PERMIT NUMBER

8 EMERGENCY ARRANGEMENTS — COMPLETE FOR THIS SITE

FIRST AIDER AND LOCATION	NEAREST A&E	ASSEMBLY POINT

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HOW THE ALARM IS RAISED

EMERGENCY ACCESS FOR THIS WORK AREA

SPILL / ENVIRONMENTAL RESPONSE

9 BRIEFING RECORD — EVERYONE WORKING UNDER THIS RAMS SIGNS BEFORE STARTING

By signing you confirm the contents of this RAMS have been explained to you, you understand the hazards and controls, and you will work to the sequence stated. Tell the supervisor if the work or the site does not match this document — work stops until it does.

NAME	COMPANY	SIGNATURE	DATE

10 PREPARED AND ACCEPTED

Prepared / adapted for this site by — I confirm I have adapted this document to the site, scored the risks, and that it describes how the work will actually be done.

PRINTED NAME	ROLE / COMPETENCE	COMPANY	SIGNATURE	DATE	TIME

Accepted for the site by — principal contractor or site manager review.

PRINTED NAME	ROLE	COMPANY	SIGNATURE	DATE	TIME

Review this RAMS if the work, the site or the law changes, and at least before each new phase of the works. Flatten the completed PDF before filing so the record cannot be silently edited.

R REVISION HISTORY

Every revision of this document, and every review that found nothing to change. The revision on the front of this sheet is the one you are holding — check kubitdocs.com for the current one before use.

Rev	Date	Class	What changed	Authorised by
D0	2026-08-11	first-issue	First issue.	— not yet approved —
A0	2026-08-27	review	Approved for issue by the author. Content unchanged from D0; the draft status strip is removed. No independent third-party review has been carried out.	Author — director, UK principal contractor, SMSTS. Not an independent review.

Class: first-issue · material (the law, a control, a field or the scope changed — past buyers are notified) · editorial (wording or layout only) · review (checked, nothing changed) · withdrawal. Revision prefix D = draft, not approved and not for sale; A = approved for issue by the person named, on the date shown.