

Retaining Wall Inspection

A retaining wall inspection checklist: wall, construction, height and what it holds back, line and level, cracks, missing stones, voids, base, water and drainage, each defect with risk and photos, highway notes and actions.

1. Wall

Project

Client

Site *

Site address

Inspection date *

Time

Inspector *

Wall reference or location *

Wall position (GPS)

Optional. Mark the wall at its worst point or its west end, so it can be found again on a long road or estate. Tap Mark current location on site. It saves the coordinates, a grid reference and the accuracy.

Wall construction (choose one)

- ☐ Stone, dry laid
- ☐ Stone, mortared
- ☐ Brick
- ☐ Concrete
- ☐ Gabion
- ☐ Timber sleepers
- ☐ Block
- ☐ Other

What it holds back (choose one)

- ☐ Garden or ground ☐ Road or footway ☐ Building ☐ Car park ☐ Other

Highest retained height (m)

Measure with a staff or tape, or from a square-on photo with a door, a person or a marked staff against the wall as the reference. Measuring from a photo gives an estimate.

Length inspected (m)

Photos of the wall (photos: attach, or note the file names)

The whole length, and any photo you measured the height from.

Owner, if known

Is any part within 4 yards (about 3.6 m) of a street?

☐ Yes ☐ No

Height above the ground at the street boundary (m) (if applicable)

Section 167 of the Highways Act 1980 applies where the wall is more than 4 feet 6 inches (about 1.37 m) high above the ground at the street boundary. Measure it there, with a tape or from a square-on photo. Measuring from a photo gives an estimate.

Against section 167 (4 feet 6 inches, about 1.37 m) (if applicable; worked out automatically in the app)

If applicable: Section 167 of the Highways Act 1980 (England and Wales) covers a retaining wall within 4 yards of a street that is more than 4 feet 6 inches high above the ground at the street boundary. If it is liable to endanger people using the street, the local authority can serve notice on the owner or occupier to do the works needed. Bradford Council, for example, says the owner must maintain the wall and major works need the council's technical approval.

Weather capture

Digital form: use Record current conditions. On paper, record date/time, temperature (°C), wind (mph and direction), conditions and source. Keep observed conditions separate from forecast estimates.

2. Condition

Line and level: no bulging or leaning (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

No cracks or open joints (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

No missing or displaced stones, bricks or blocks (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

No voids in the face (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Base: no undermining or erosion (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

No water seeping through the face (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Drain holes and outlets clear, where fitted (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Top of the wall: no new loads, ponding or tree growth (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

No roots or plants damaging the wall (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Checks OK (worked out automatically in the app)

Checks with a defect (worked out automatically in the app)

Not applicable (worked out automatically in the app)

Defects (copy this block for each one)

Defect * (choose one)

- ☐ Bulging
- ☐ Leaning
- ☐ Vertical crack
- ☐ Other crack
- ☐ Open joints
- ☐ Missing or displaced stones
- ☐ Voids
- ☐ Undermining
- ☐ Water seepage
- ☐ Partial collapse
- ☐ Other

Location (distance along the wall, height)

Size, in words

Optional, for anything the numbers below do not cover.

Length along the wall (m)

Measure with a tape, or from a square-on photo with a door, a person or a staff in the same plane. Measuring from a photo gives an estimate.

How far out of line (mm) (if applicable)

For a bulge or lean: the largest offset from a string line or straightedge, measured with a rule.

Offset at the last inspection (mm) (if applicable)

Optional. From the last record, measured at the same point.

Change since the last inspection (mm) (if applicable; worked out automatically in the app)

If applicable: The bulge or lean has grown since the last inspection. Refer it to a structural engineer if it has not been already.

Risk (choose one)

☐ Danger: make safe now ☐ Refer to an engineer ☐ Monitor

Made safe or cordoned off? (if applicable)

☐ Yes ☐ No

If applicable: This defect needs making safe now and has not been made safe or cordoned off. Keep people away from the wall and the ground below it, and tell the owner today.

Photos (photos: attach, or note the file names)

d_f_danger (worked out automatically in the app)

d_f_engineer (worked out automatically in the app)

d_f_monitor (worked out automatically in the app)

d_f_unsafe (worked out automatically in the app)

d_f_growing (worked out automatically in the app)

Defects recorded (worked out automatically in the app)

Make safe now (worked out automatically in the app)

Refer to an engineer (worked out automatically in the app)

Monitor (worked out automatically in the app)

Bulges or leans grown (worked out automatically in the app)

Total length of defects measured (m) (worked out automatically in the app)

If applicable: At least one dangerous defect has not been made safe or cordoned off.

Derbyshire County Council's examples of retaining wall failure include bulging and voids in the face, stone displacement, full height vertical cracks with water seepage, and undermining of the foundations after heavy rainfall.

Walk Cam: retaining wall inspection

Walk Cam video walk-through: available in the SiteSurvey app only.

3. Actions and sign-off

Result * (choose one)

- ☐ No significant defects
- ☐ Monitor
- ☐ Refer to a structural engineer
- ☐ Danger: make safe now

If applicable: A dangerous defect has not been made safe, but the result is not danger: make safe now. Check the result.

If applicable: The result is no significant defects, but defects or failed checks are recorded. Check the result.

Next inspection (if applicable)

Days to the next inspection (if applicable; worked out automatically in the app)

If applicable: The next inspection date is before this inspection. Check both dates.

Are further actions needed?

- ☐ Yes ☐ No

Further actions (copy this block for each one; if applicable)

What needs doing? *

Who will do it?

Due date

Status (choose one)

☐ Open ☐ In progress ☐ Completed

Inspector name *

Position or company

Inspector signature

Signing records what was found on the day. It does not make unsafe equipment safe or replace a thorough examination, design check or service by a competent person.