

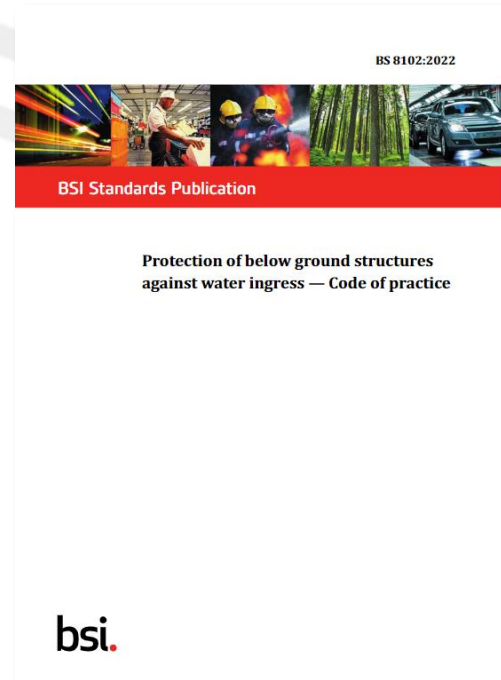


An overview of changes to BS 8102

Start with the obvious.....



Then



Now

1. Scope

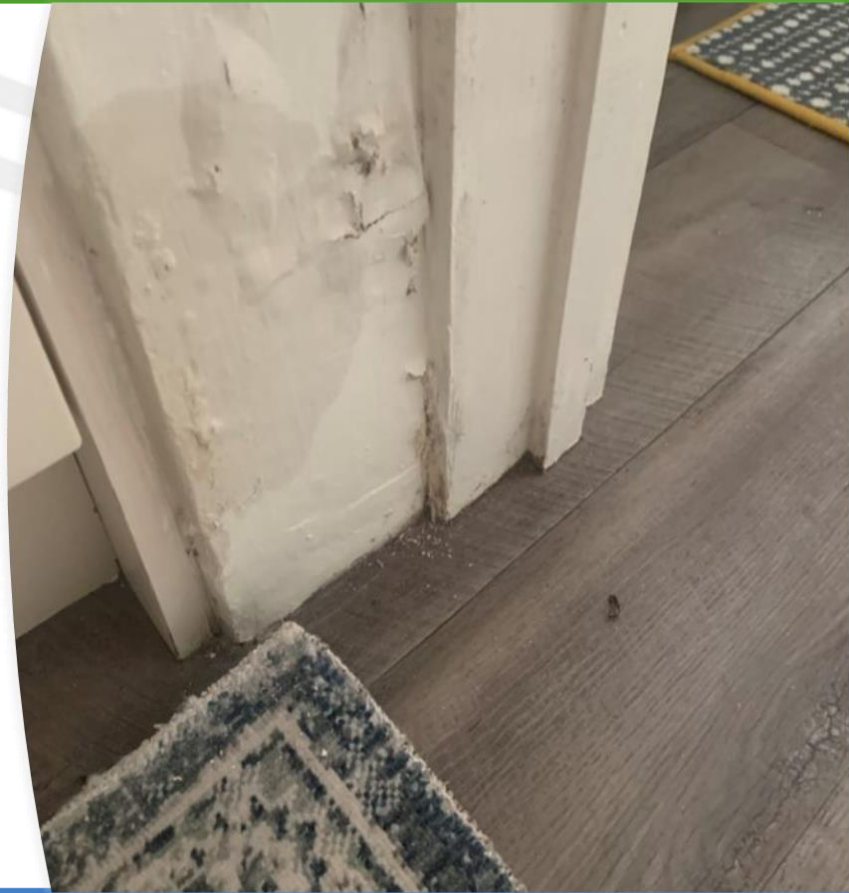
- Signals that the revision will include a broader consideration for all the possible sources.
- Also, clear that we must now consider water ingress that enters through penetrations



3. Terms & Definitions

Was – area which when touched, might leave a light film of moisture on the hand but no droplets

Now – area which is slightly wet but no seepage



3. Terms & Definitions

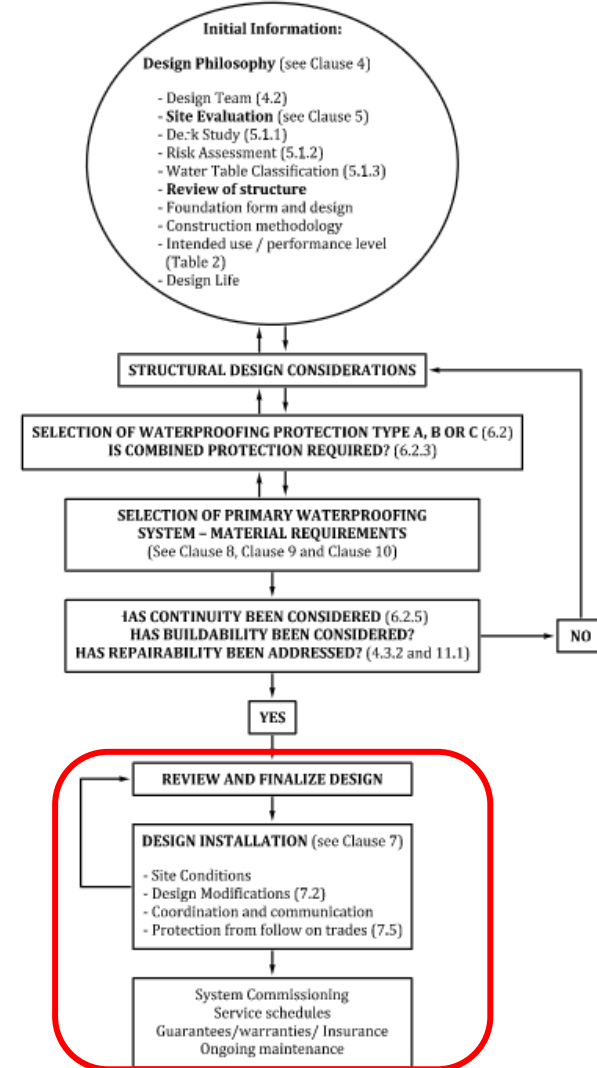
What is **Seepage**?

“Slow transmission of water through discrete pathways of a structure.”



4. Design Philosophy

- Flow chart – now gives consideration for alterations that may have to occur during the installation phase
- Now encourages that final decisions should be approved by those taking responsibility i.e. waterproofing designer



4.3.2 Defects & Remedial Measures

Defects that might occur due to;

1. Poor workmanship or inappropriate use of materials
2. The specific properties materials being used
3. Due to design
4. Follow on trades



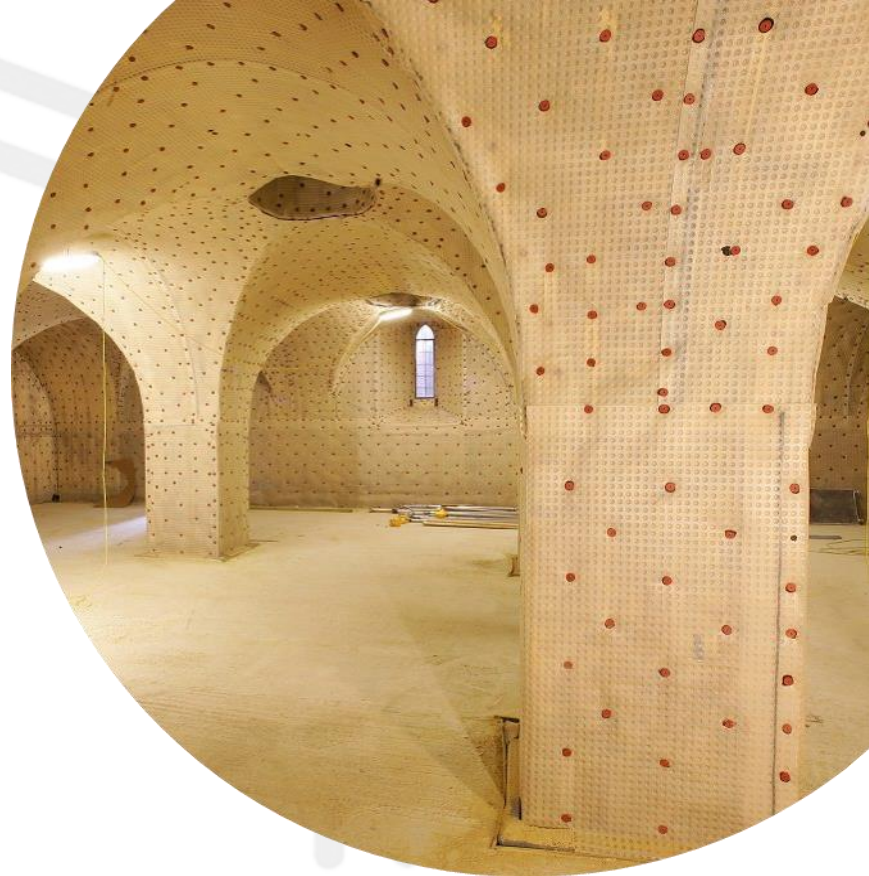
5.2 Existing Structures

- A section which has seen significant revision since the 2009 version and provides details some of the considerations when inspect an existing basement.
- Much of the information is already covered in the PCA code of practice for Waterproofing of Existing Below Ground Structures



5.2.3 Historic

- A new section for the 2022 revision
- Highlights the difficulty of providing a fully waterproofed structure whilst retaining exposed features
- Acknowledges the challenges and balance that sometimes needs to be struck



6. Water Resisting Design

- The emphasis is now firmly on taking the waterproofing up to the dpc / 150 mm above ground height.
- This is highlighted throughout the document
- Easy to design from new but what about existing buildings?

Image: Twitter/Stuart Rock



Table 2 — *Waterproofing protection – Grades of performance for below ground spaces*

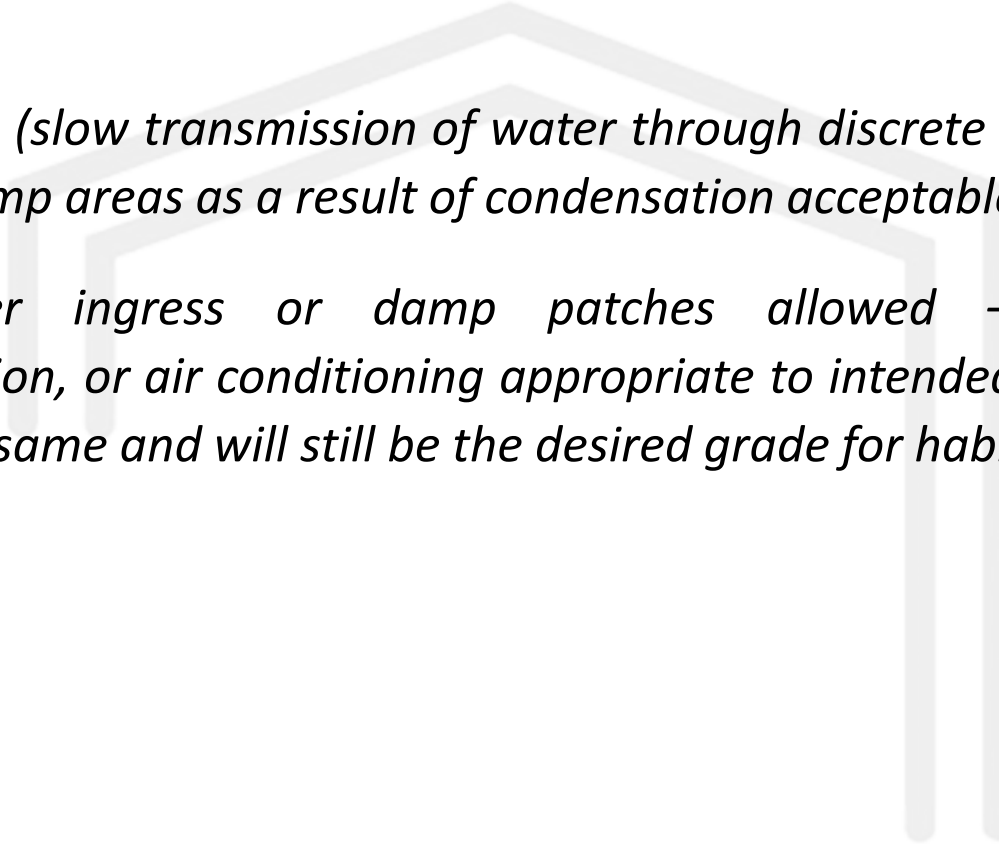
Grade^{A)}	Performance definition
1a	Seepage ^{B)} and damp areas ^{C)} from internal and external sources are tolerable, where this does not impact on the proposed use of below ground structure. Internal drainage might be necessary to deal with seepage.
1b	No seepage ^{B)} . Damp areas ^{C)} from internal and external sources are tolerable.
2	No seepage ^{B)} is acceptable. Damp areas ^{C)} as a result of internal air moisture/condensation are tolerable; measures might be required to manage water vapour/condensation ^{D)} .
3	No water ingress or damp areas ^{C)} is acceptable. Ventilation, dehumidification or air conditioning necessary; appropriate to the intended use ^{D), E)} .

Table 2 – Grade 1 a & b

1a. Seepage (slow transmission of water through discrete pathways of a structure), and damp areas (area which is slightly wet but no seepage) from both internal and external sources are allowed, if this does not impact the use of the space.

1b. No seepage (slow transmission of water through discrete pathways of a structure), damp areas allowed (area which is slightly wet but no seepage)

Table 2 – Grade 1 a & b

- 
- 2. No seepage (slow transmission of water through discrete pathways of a structure), damp areas as a result of condensation acceptable.*
 - 3. No water ingress or damp patches allowed – ventilation, dehumidification, or air conditioning appropriate to intended use. This has remained the same and will still be the desired grade for habitable spaces.*

6.5 Buried Decks

Provides guidance on this notoriously difficult structure type, including;

- Ideally formed of in situ reinforced concrete
- Should incorporate falls
- Inclusion of a drainage layer above waterproofing

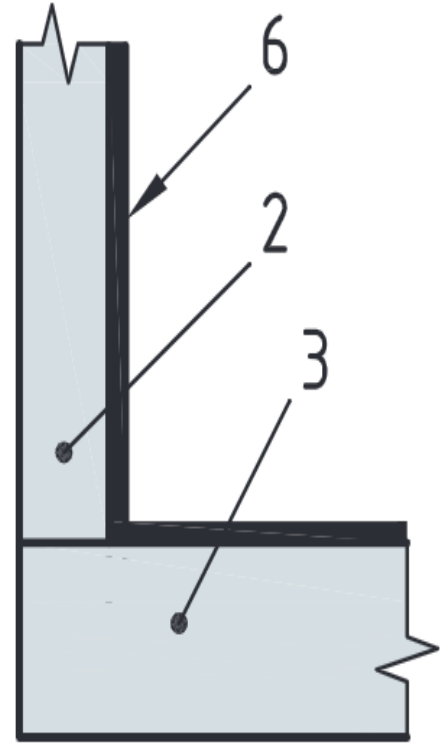
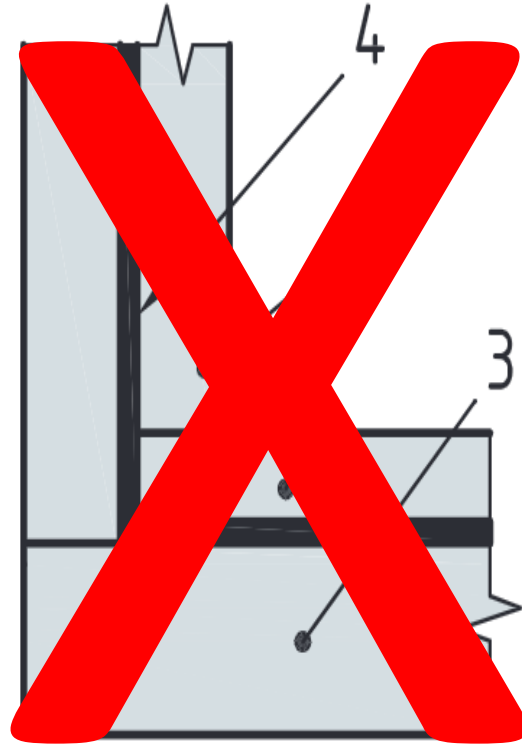
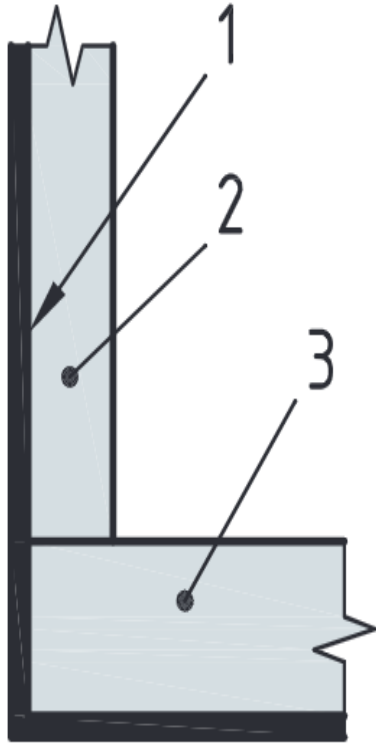


7. General construction issues

- Unexpected hazards – things go wrong on site
- As a result even robust designs can fail
- Effort should be made to prevent damage during and after construction phase

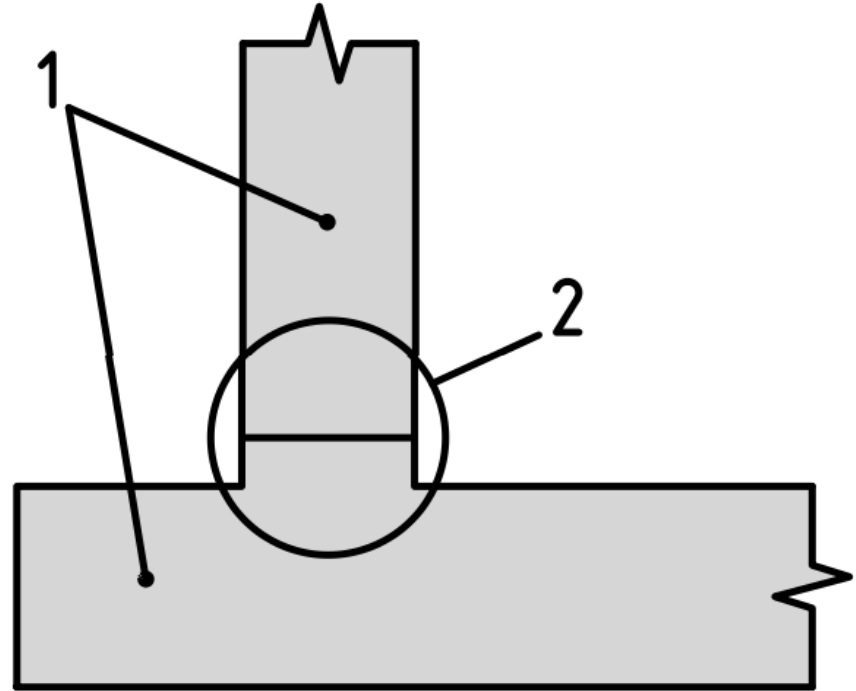


8. Type A (Barrier) Protection



9. Type B (structurally Integral) Protection

- Promotes the use of monolithic kickers
- Important factors to consider now includes pour size and implementation of an on-site QA programme



10. Type C (drained) Protection

- Floor channel should be set directly below the level of the floor membrane
- Drainage channels should be at the wall floor junction
- Guidance on Inverted cavity drain systems – i.e. vaulted ceilings, flat soffits now included



10. Type C – Discharge Systems & Pumps

- A risk assessment to assess most appropriate solution i.e. pumped or gravity drained
- Flood loops in areas prone to flooding
- Battery back up **SHOULD** be included



Overall Thoughts

- Evolution not revolution!
- Most of the changes will already be adopted as part of the PCA best practice guidance
- Some areas perhaps too open to industry to interpret.





A **BIG THANKS** For Listening

For more help, information, technical docs or general updates,
check out the links below

 www.property-care.org

 [Linkedin.com/company/property-care-association](https://www.linkedin.com/company/property-care-association)

 [Facebook.com/PropertyCareAssociation](https://www.facebook.com/PropertyCareAssociation)

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