

# ALLCO VOLCLAY BACKFILL AND PROTECTION

## Backfill requirements for Volclay ® tanking membranes

There must be no voids in the backfill, this is regardless of the type of backfill material being used to confine the membrane. How this is achieved is the contractor's responsibility. If building above, then the top 500mm must be compacted with a walk-behind vibratory compactor or mechanical soil compaction device to the extent that foot traffic on the lift does not leave indentations greater than 12mm. Engineering backfill requirements take precedence for floor substrate. Care should be taken to ensure that the compactor does not touch the waterproofing membrane. External walls will vary as to final topping.

### Acceptable Backfill

25/7 Scoria	MUST have protection
GAP25 river run gravel poorly graded with fines	MUST have protection
GAP40 Scoria with fines	MUST have protection
GAP40/45 River run gravel with fines	MUST have protection
GAP60/65 with fines (mix as used for roads)	MUST have protection
Pit Sand (Bay of Plenty/Waikato Region)	MUST have protection
Pea Metal (Must talk to Allco for more information)	NOT SUITABLE AS BACKFILL FOR ALL SITUATIONS
Sand (from experience) is not suitable as backfill	NOT SUITABLE AS BACKFILL

### Backfill to Drain Coil + Drain Coil location

The backfill / drainage material around the drain coil and wall / floor joint are must be of a finer grade to prevent voids from occurring. E.g GAP 7 or similar.

Where possible, confirm with the contractor the location of the drain coil:

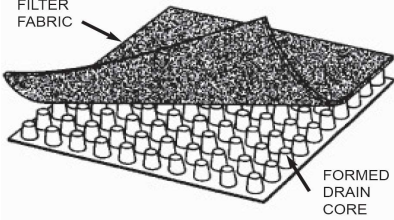
Important:

- 300mm below the finished Floor Level (FFL) is recommended
- 100mm from membrane face, to allow backfill material between coil and membrane.

### Hydrostatic Conditions – Contact Allco if unsure

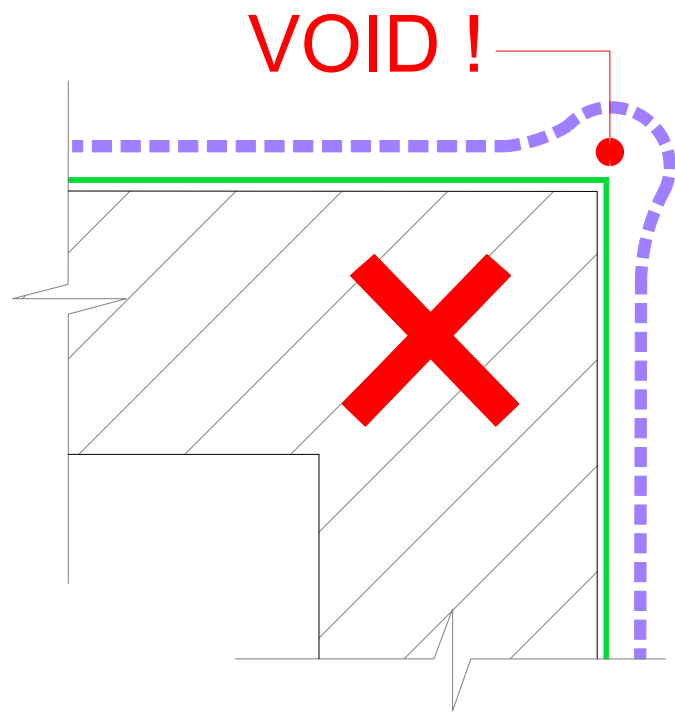
Under hydrostatic conditions a good compactable product is to be used to achieve good confinement of the membrane such as GAP40 with fines. Backfill is to be compacted at 300mm lifts, protection is required with either ALLCO ALLGUARD Coreflute or 6mm fibre cement board.

**Acceptable Protection – Contact Allco if unsure**

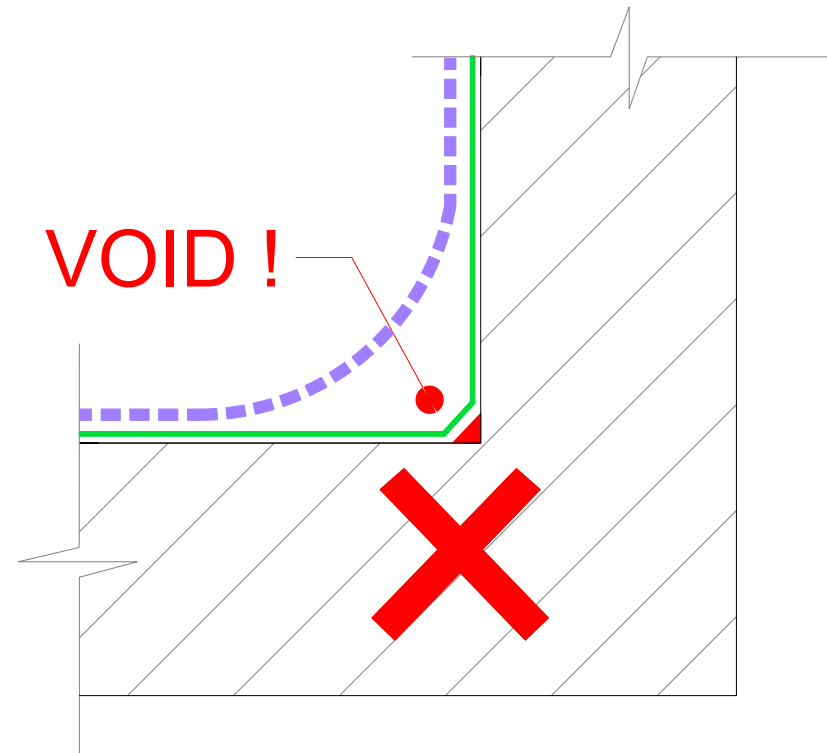
Product	Description
ALLCO Allguard 2300 x 1150 x 4mm sheet size	Polypropylene plastic sheet. Minimum requirement for light commercial and residential membrane protection.
ALLCO Aquadrain 15X® 1.22m x 15.85m roll size.  	A cost effective drainage sheet designed to replace aggregate drainage. Drainage material. Not to be used in Hydrostatic conditions. When applying, cut the edges and corners where necessary. DO NOT BEND around corners or changes from vertical to horizontal installations. Adjust the fit to prevent voids. Also see details below for installation guides
Polystyrene - High Density 20mm min	MUST be high density / HD. NOT expanded polystyrene (EPS). To prevent voids, joints must be well butted together with no damaged edges or corners.
Fibre cement board 6mm min.	Joints butted together.

**Acceptable Substrates – Contact Allco if unsure or alternate requirements.**

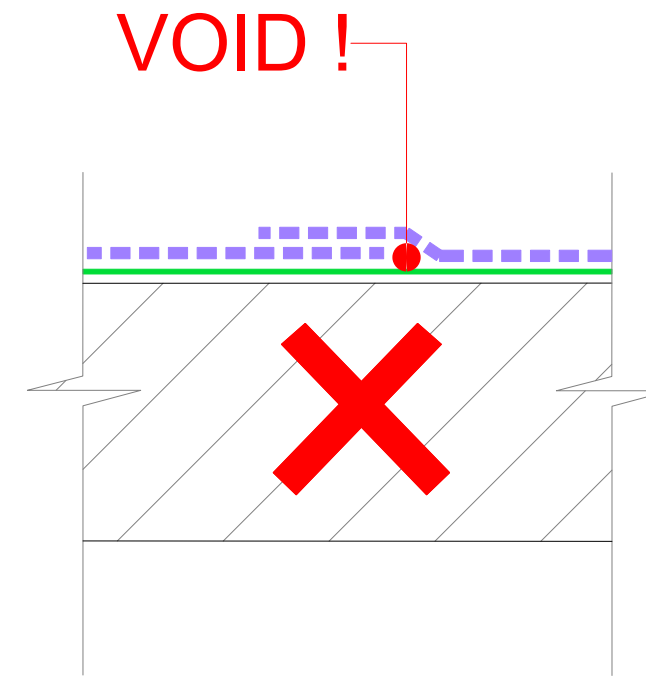
Site Concrete (50mm minimum) with no boney areas.
Clean Cut Clay (if unsure seek further advice from Allco).
GAP7 mixed with 10% cement (firms up substrate)
GAP60 / 65 compacted with fines (cannot be any boney areas)



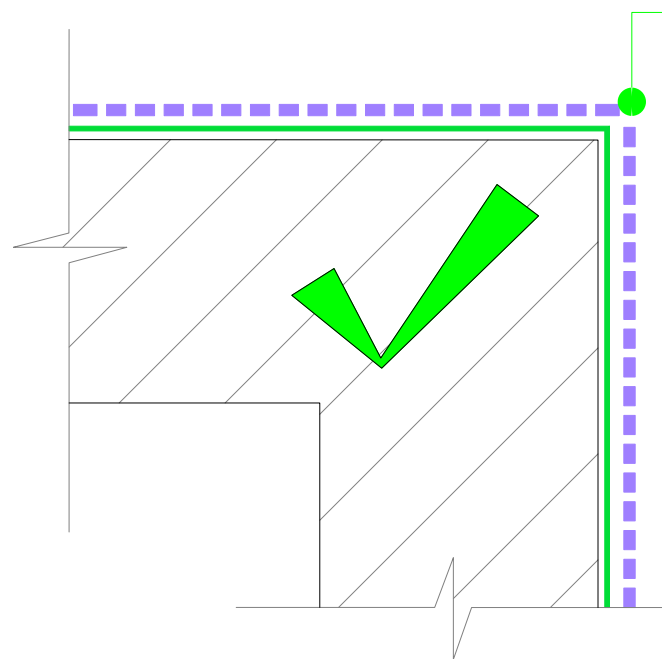
EXTERNAL CORNERS



FOOTINGS / INTERNAL CORNERS

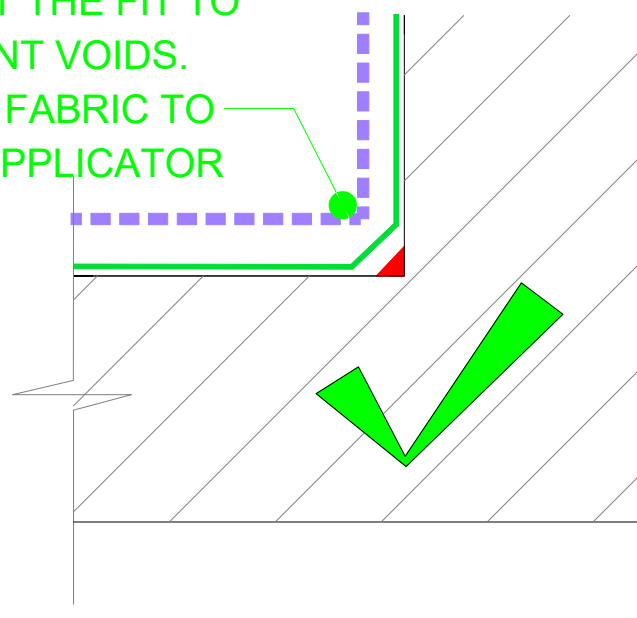


SHEET JOINTS

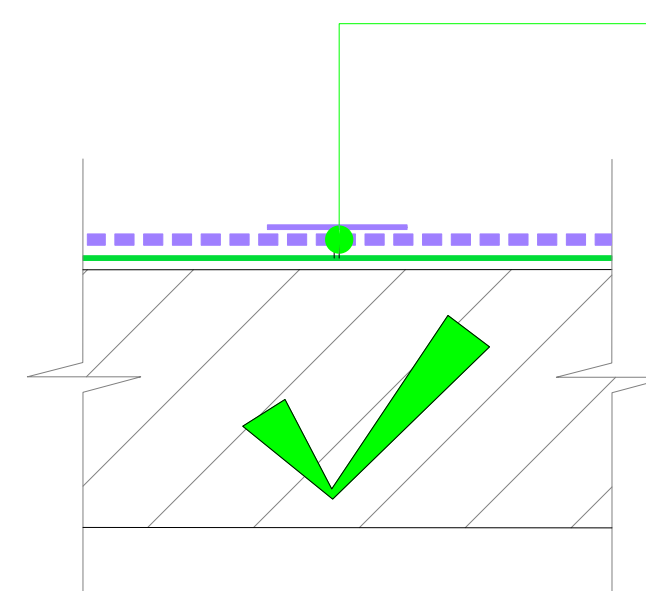


EXTERNAL CORNERS

CUT EDGES  
DO NOT BEND  
AROUND CORNERS  
ADJUST THE FIT TO  
PREVENT VOIDS.  
FILTER FABRIC TO  
FACE APPLICATOR



FOOTINGS / INTERNAL CORNERS



SHEET JOINTS

BUT JOINT WITH  
TAPE JUNCTION.  
OR.  
CUT BACK CORE  
AND OVERLAP  
FILTER FABRIC

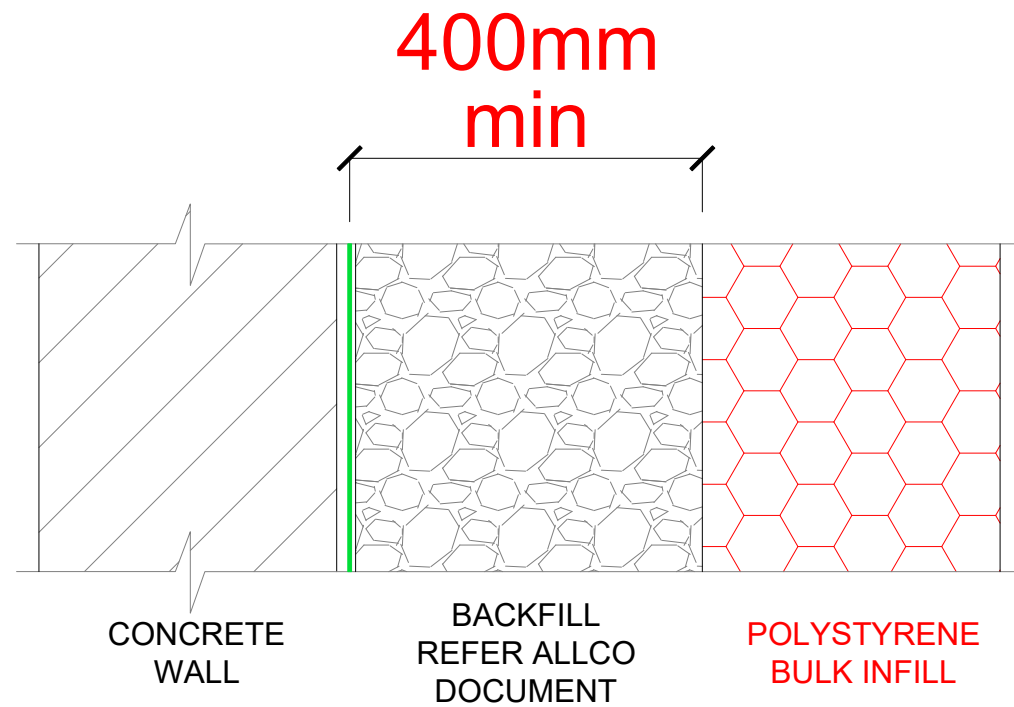


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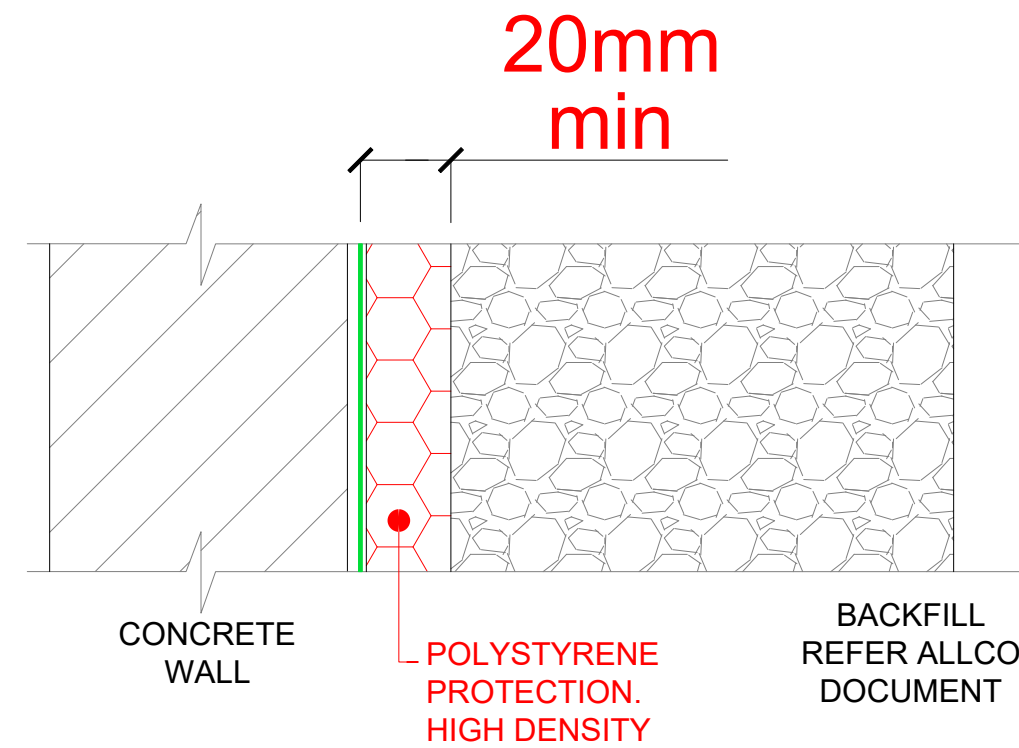
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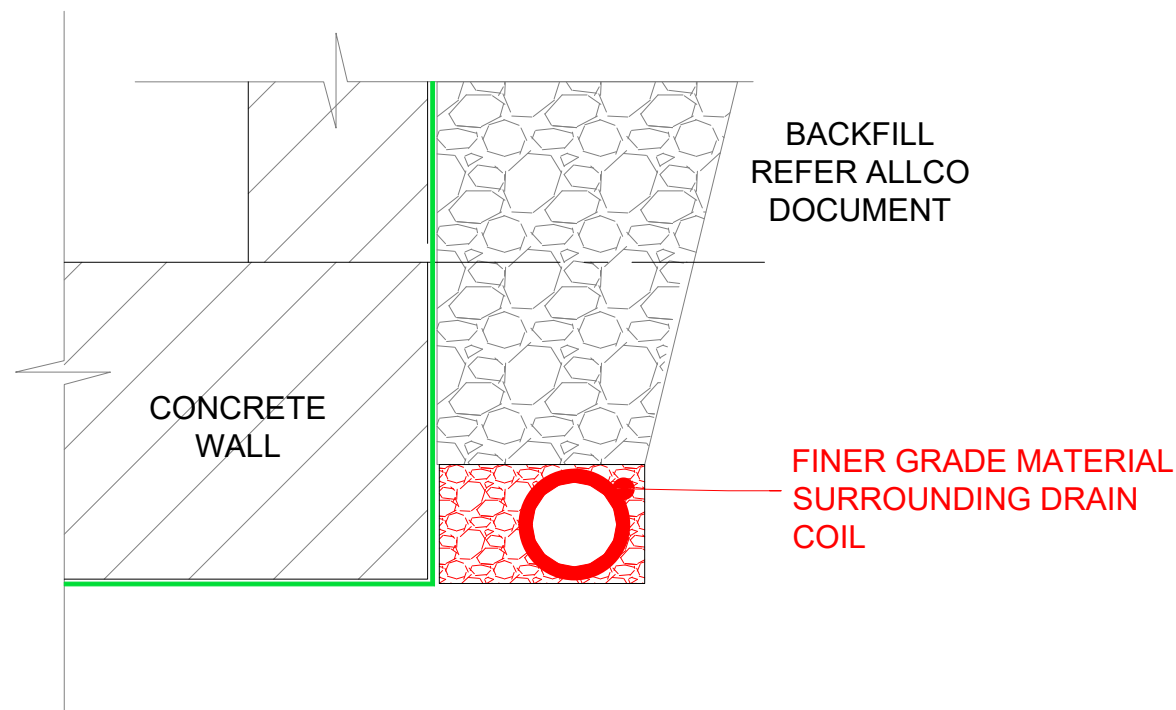
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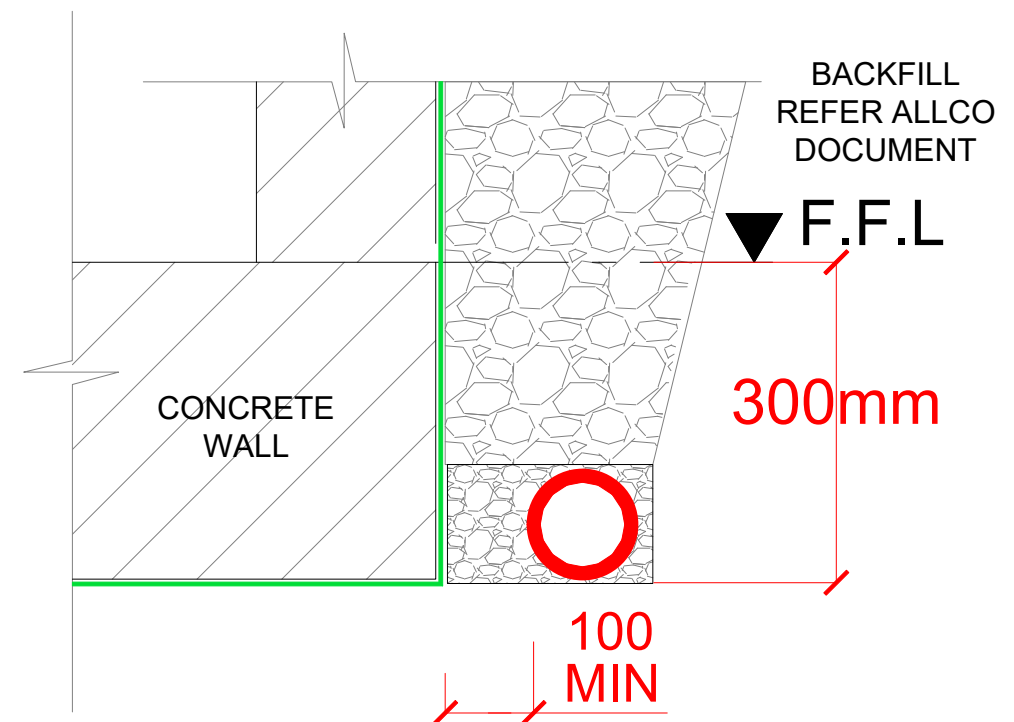
**POLYSTYRENE BULK INFILL**



**POLYSTYRENE AS PROTECTION**



**BACKFILL AROUND DRAINCOIL**



**DRAINCOIL LOCATION**



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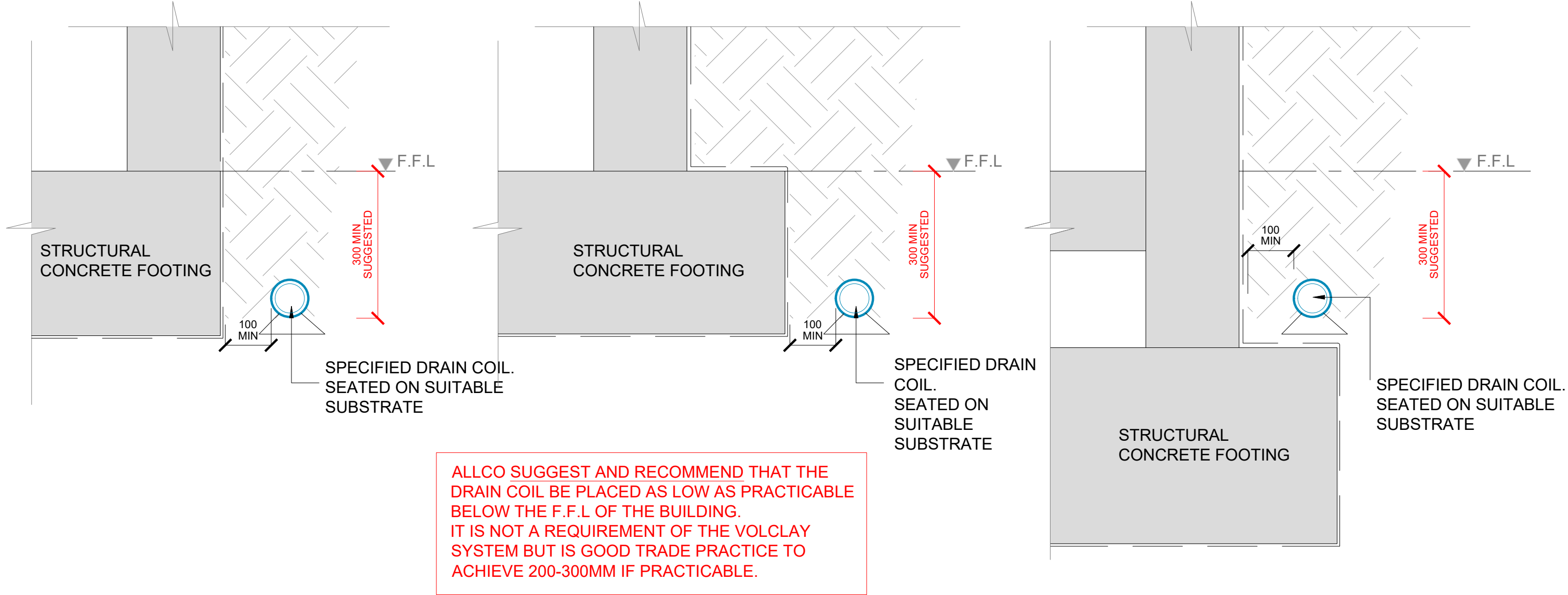


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REV: 1

REFER ALLCO BACKFILL AND PROTECTION DOCUMENTS FOR BACKFILL REQUIREMENTS

REFER BALANCE OF ALLCO DRAWINGS FOR MEMBRANE SYSTEM DETAILS



ALLCO SUGGEST AND RECOMMEND THAT THE DRAIN COIL BE PLACED AS LOW AS PRACTICABLE BELOW THE F.F.L OF THE BUILDING. IT IS NOT A REQUIREMENT OF THE VOLCLAY SYSTEM BUT IS GOOD TRADE PRACTICE TO ACHIEVE 200-300MM IF PRACTICABLE.

**1** DRAIN COIL - ACCEPTABLE LOCATIONS  
SCALE: NTS



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