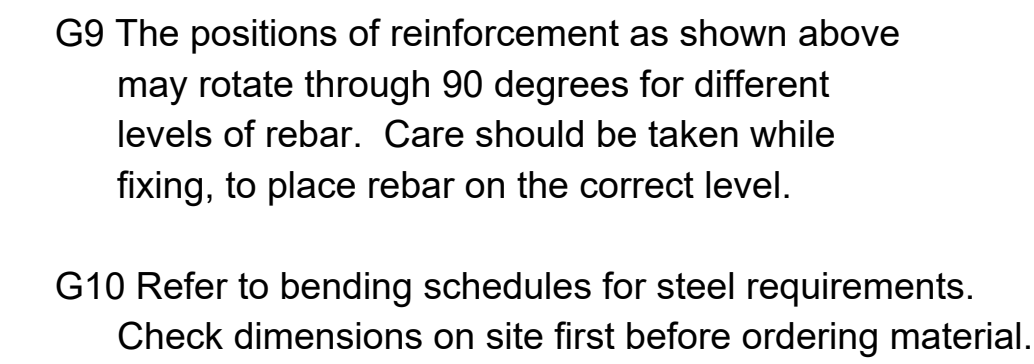


- G1 All levels on drawings refer to top of concrete unless otherwise indicated
- G2 No bases are to be placed on backfill. Use mass concrete unless otherwise indicated.
- G3 The contractor must ensure that all embedded sleeves for services have been provided for and positioned according to the latest drawings of all disciplines before casting concrete.
- G4 The contractor must ensure that beams and/or slabs have sufficient strength and/or are adequately propped to carry construction loads from above. Discuss with Engineer.
- G5 Engineer to confirm excavation levels on site. Extra excavation down to acceptable material shall be backfilled with mass concrete, unless otherwise specified.
- G6 Unless otherwise indicated all smooth surface concrete corners are to be provided with 20x20 chamfers
- G7 Cement shall not be stored for periods longer than 6 weeks, without written permission of the engineer.
- G8 Symbols denoting layers of reinforcement in slabs :



G11 Some elements may be omitted in details, elevations, or sections for the sake of clarity. This item should be read in conjunction with all other relevant plans, details, sections and elevations. If any discrepancy is noted, or there is any confusion, the engineer should be contacted immediately.

G12 All dimensions must be checked on site prior to construction
any discrepancy to be reported to the engineer immediately.

G13 Drawings may not be re-used or re-produced without the written permission from the engineer.

G14 All construction tolerances to be constructed accordance to SANS 2001 degree of accuracy level 1 unless otherwise shown.

1. Founding conditions to be inspected by a structural engineer prior to construction.
2. See the applicable geotechnical report by engineering geologist relating to founding requirements of the structure.
3. Minimum founding bearing pressure to be 150 kPa.

1. Reinforcement to be securely wired at all intersections.
2. Bending dimensions in accordance with SANS 282.
3. All reinforcement to be inspected by structural engineer on site prior to casting of concrete.
4. Y12's to overlap minimum 600mm. Y16's to overlap minimum 800mm. Y25's to overlap minimum 1200mm.

- SB1 Sawn joints to be provided within 4-48hrs after casting of concrete and reamed to final width not earlier than 7 days after casting.
- SB2 Sawn joints to be cut at right angles to construction joints in all cases.
- SB3 For details on damp proof course see surface bed drawing for each specific building.
- SB4 Unless otherwise shown specified, all fill under surface beds shall be approved choice material, compacted in layers of not more than 150mm to 93% mod ashto.
- SB5 Min.lap length of mesh reinforcement is 300mm.

M1 All masonry to be constructed to SANS 10145, 10249, SANS 2001-CM 1 & CM 2

M2 All building regulations to be followed according to SANS 10400, SANS 10401 and the National Home Builders Registration Council's Home Building Manual.

M3 All wall ties and brick force to be placed according to SANS 28.

M4 All masonry blocks to be minimum 14 mPa unless otherwise specified.

M5 All bricks to be thoroughly wetted just prior to being built in.

M6 Minimum ratio for mortar mix to be 1:6 cement / sand.

C1 The grades for concrete, unless otherwise indicated shall be as follows

Stormwater Control	Class 30/19	30 MPa	at 28 Days
Columns	Class 30/19	30 MPa	at 28 Days
Bases	Class 30/19	30 MPa	at 28 Days
Ground Beams	Class 30/19	30 MPa	at 28 Days
Retaining Walls	Class 30/19	30 MPa	at 28 Days
Shafts	Class 30/19	30 MPa	at 28 Days
Structural Slabs	Class 30/19	30 MPa	at 28 Days
Surface Bed Slabs	Class 30/19	30 MPa	at 28 Days
Mass Concrete	Class 15/19	15 MPa	at 28 Days
Binding Layers	Class 10/19	10 MPa	at 28 Days
Stairs	Class 30/19	30 MPa	at 28 Days
Water Retaining	Class 30/19	30 MPa	at 28 Days

C2 When ready mixed concrete is to be used, test cubes are to be taken on site whilst casting.

C3 Minimum Concrete cover over reinforcement unless shown otherwise shall be :

Stormwater Control	: 40 mm
Slabs and Beams	: 40 mm or DIA of the bar, whichever is greater.
Columns	: 40 mm to stirrups
	: 40 mm to main bars
Foundations	: Bottom : 75 mm
	: Top & Sides : 40 mm
Walls	: 40 mm

C4 Casting of concrete in excess of 3.0 m high is not permitted without prior written permission from the engineer.

C5 Reinforcement shall only be inspected by the engineer or his representative only after it has been completely fixed in position, formwork is clean, spacers are placed in position, and after the contractor has inspected it himself.

C6 Welding of reinforcement is not allowed unless it has been approved in writing.

C7 50 mm blinding is to be provided under all bases unless otherwise indicated.

C8 CONSTRUCTION JOINTS :

- No horizontal joints in bases or other deep elements
- All pipes, sleeves and conduits through joints shall be provided with flexible couplings
- No vertical joints are to be made in elements directly exposed to the elements unless otherwise indicated.

C9 CONCRETE FORMED FINISHES:

- Foundations sides: Rough
- Plinths (concealed): Rough
- Plinths (exposed): Smooth
- Columns : Smooth
- Upstands, kerbs: Smooth
- Slabs (concealed): Rough
- Slabs (exposed): Smooth
- Walls (concealed): Rough
- Walls (exposed): Rough
- Beams: Smooth
- Water retaining: Smooth

C10 CONCRETE

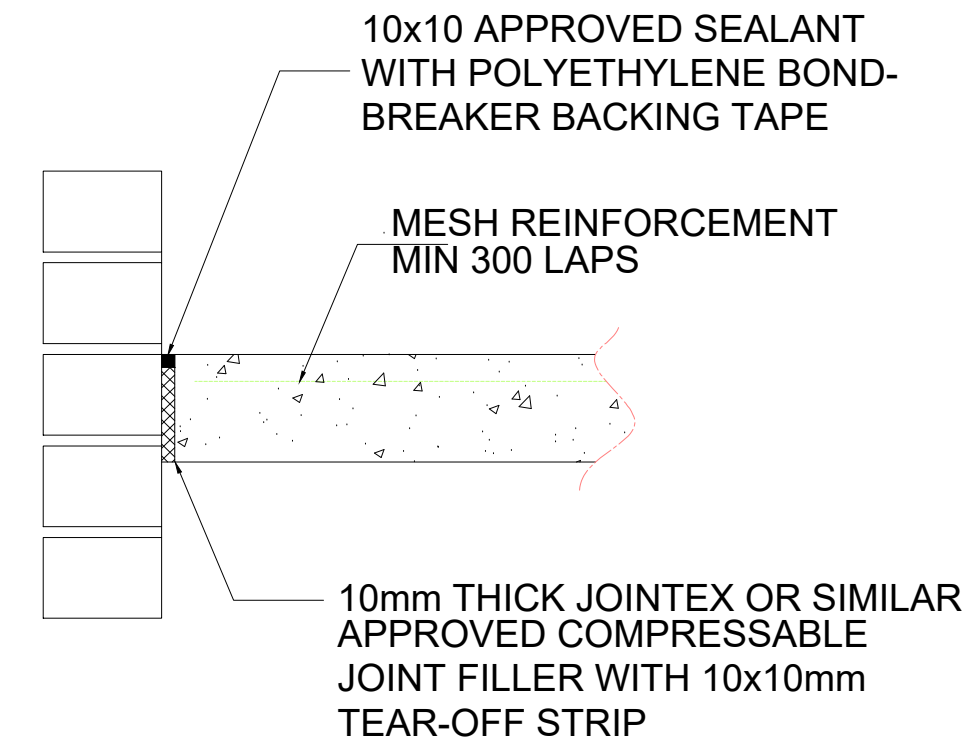
1. All concrete to have a specified cube crushing strength after 28 days. Concrete mixture to consist of 100% OPC CEM1. Minimum 325kg/m³ concrete. Water/cement ratio <= 0.55.
2. The Contractor shall thoroughly compact all concrete immediately after it has been placed in position to engineers approval and this shall be accomplished with the aid of either approved immersion vibrations, vibrating shutters for thin sections or vibrating tables for small precast members, together with rods, spatulas, shovels etc. if necessary.
3. Grout (if required) to be "Masterflow bedding grout" or similar approved.
4. Blinding under bases (if required) to be 10MPa.
5. Concrete to be cured for a minimum of five days.
6. Mass concrete 10MPa
7. Soilcrete 5% CEMENT STABILIZED
8. Immediately before placing concrete, all surfaces of foundations upon or against which concrete is to be placed, shall be free from standing water, mud, loose rock and other debris.
9. Cement used in water retaining structures shall be normal or rapid hardening Portland cement conforming to the requirements of SANS 471, latest edition. No additives whether they be of a waterproofing character or not, will be permitted without the written approval of the Engineer.

C11 Stripping time of shuttering to be approved by engineer

C12 Design requirements for reinforced concrete structures
complimented by SANS 2001 CC1, SANS 10400, SANS 10160 and SANS 10100.

APPROVED JOINT SEALANTS :

- ✓ SIKAFLEX 35SL
- ✓ DURAKOL 25
- ✓ PROSTRUCT 642 OR 644
- ✓ SIMILAR APPROVED

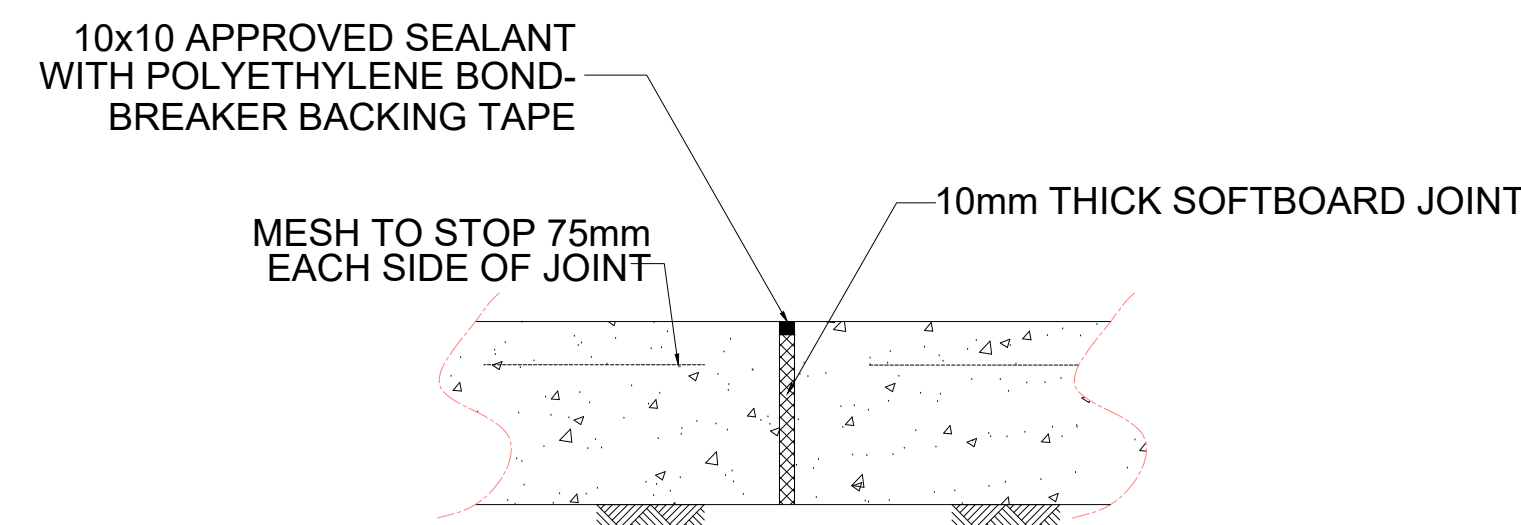


ISOLATION JOINT DETAILS

SCALE 1:10

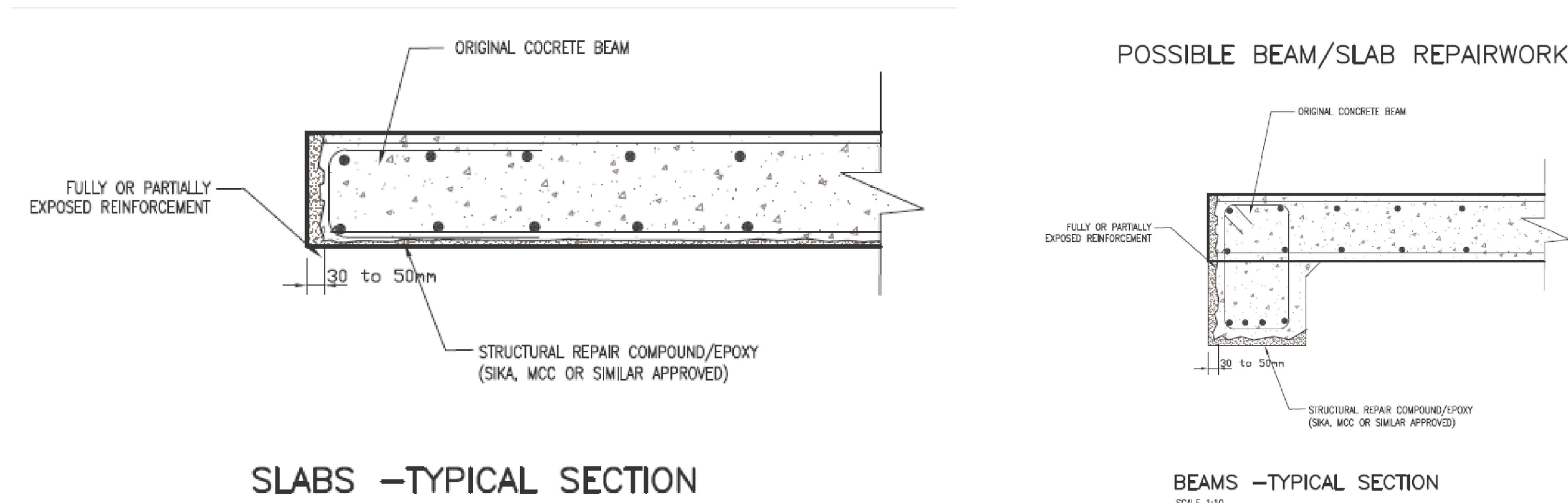
APPROVED JOINT SEALANTS :

- ✦ SIKAFLEX 35SL
- ✦ DURAKOL 25
- ✦ PROSTRUCT 642 OR 644



TYPICAL EXPANSION JOINT

SCALE 1:10



SLABS -TYPICAL SECTION

SCALE 1:10

POSSIBLE COLUMN REPAIRWORK

