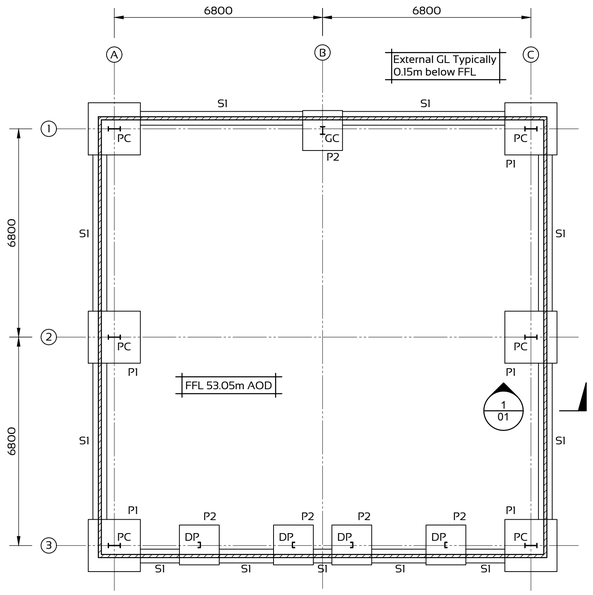
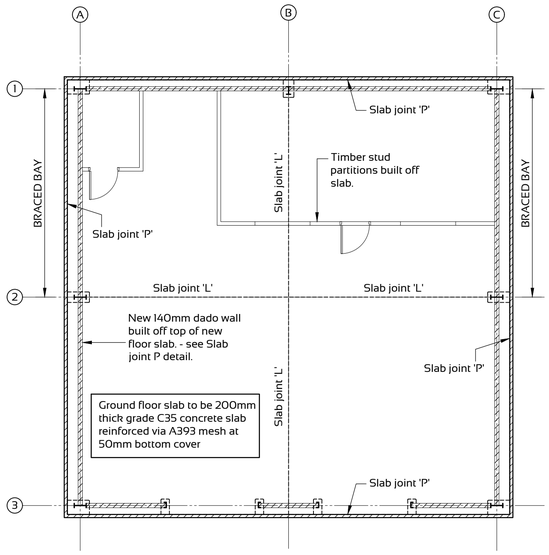
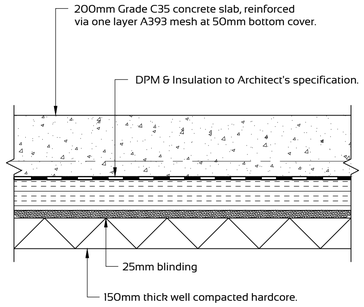
FIGURED DIMENSIONS ONLY TO BE USED



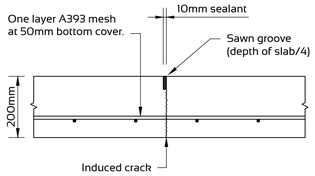
Foundation Layout
Scale 1:100



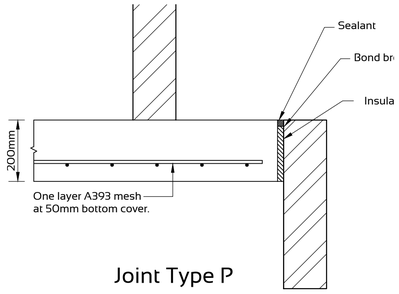
Ground Floor Slab Layout
Scale 1:100



Typical Slab Construction Detail
Scale 1:10



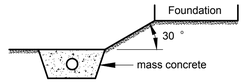
Joint Type L
Scale 1:10



Joint Type P
Scale 1:10

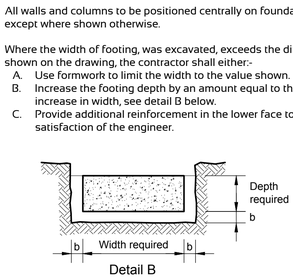
FOUNDATIONS:-

1. All foundation concrete to pad foundations to be grade C20 and to strip foundations to be C20.
2. 50mm mass blinding concrete grade C8/10 to be laid under all foundations, unless foundation concrete is placed immediately after excavations.
3. Due allowance is to be made for the thickness of blinding where applicable.
4. Mass concrete backfill : it is essential to check that all ground within a 30° line extending down and away from all foundations is undisturbed or when disturbed is removed entirely and backfilled with mass concrete. Detail A shows a typical method of complying with this requirement which should be checked for all future works in addition to existing works. Alternatively, a lower formation level to the foundation may be achieved by upfilling with mass concrete grade C7.5. In either case the lower formation should be excavated and backfilled before the higher.



Detail A

5. Foundations have been designed to impose a maximum bearing pressure of 150kN/m² on the bearing strata of firm sandy clay as identified in the site investigation.
6. It should further be ensured that the levels to the underside of the foundations are formed at a minimum depth of 450mm below proposed finished ground level to ensure adequate frost cover is achieved. Additional care should be taken where it is intended to reduce the original ground level to ensure this depth is achieved.
7. The SER Design Certificate is issued on the basis that the foundations are formed on the strata described above. Where ground conditions encountered vary from these described above the certifying engineer is to be contacted for further instructions.
8. Due cognisance should be taken of the proximity of tree's adjacent to foundations and foundations depths deepened where required in accordance with NHBC Standards, Chapter 4.2 Appendix A.
9. All walls and columns to be positioned centrally on foundation, except where shown otherwise.
10. Where the width of footing, was excavated, exceeds the dimension shown on the drawing, the contractor shall either:-
    - A. Use formwork to limit the width to the value shown.
    - B. Increase the footing depth by an amount equal to the increase in width, see detail B below.
    - C. Provide additional reinforcement in the lower face to the satisfaction of the engineer.



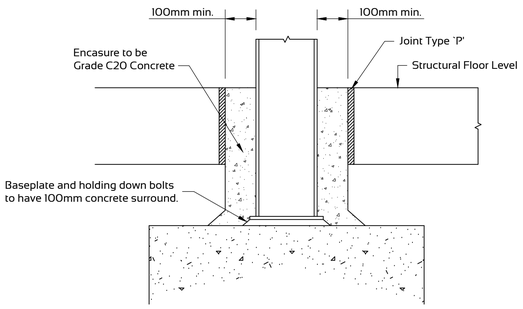
Detail B

UNDER BUILDING:-

1. Under building to be 7N blockwork with a minimum density of 1500kg/m³ and built in 1-3 to 4 (M6) cement-sand mortar all in accordance with C+R's masonry specification.
2. All walls and columns to be positioned centrally on foundation, except where shown otherwise.

GROUND FLOOR SLAB:-

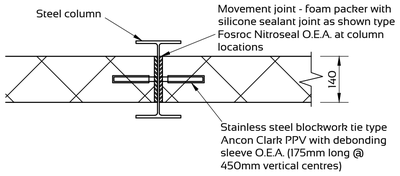
1. Joint filler to be Korkpak by Servicised Division of W.R. Grace Limited.
2. Sealant to be two-component elastometric sealant adhesive such as Expoflex 800 by Fosroc or equal approved.
3. The depth of the sealant shall conform to the Manufacturer's recommendations. Where necessary a polyethylene backing strip shall be used.
4. The bond breaker shall comprise polyethylene tape or similar material recommended by the sealant manufacturer.
5. Debonding compound for dowel bars shall comply with Clause 1011 of the "Specification for Highway Works" published by H.M.S.O. such as Bondbreak Dowel Bar Debonder by Square Grip Limited.
6. All dowel and tie bars to be round mild steel unless noted otherwise.
7. Sawn grooves shall be formed by sawing between 8 hours and 48 hours after casting the slab.
8. Joints to be formed neatly with undamaged arrises and masking tape or similar to be used during placing of sealant.
9. Where applied finishes are to be incorporated, the joint shall be continued through the depth of the screed or finish and sealed at finished floor level in accordance with the Architect's details.
10. All joint materials to be used in strict accordance with the Manufacturer's Instructions.



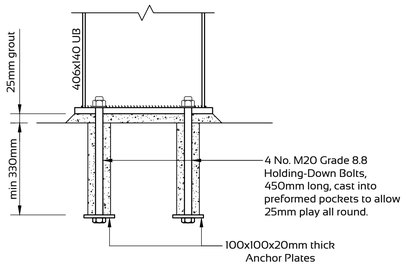
Steel Column Encasement Detail at Junction with Non-suspended Ground Floor Slab
Scale 1:10

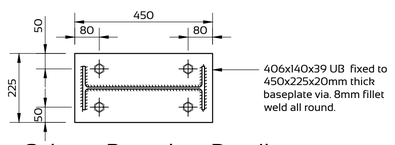
Note - detail to be similar for blockwork wall fixing to main portal frame columns.

Note - head of blockwork wall to be fixed to PFC restraint via Ancon Clark IHR-H Internal head restraint channels at 450mm c/c, O.E.A.

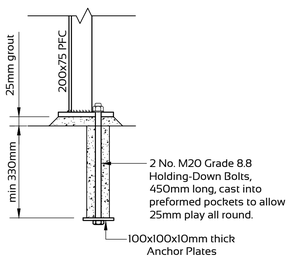


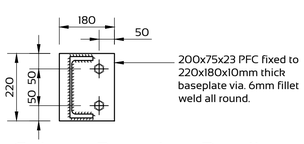
Internal Blockwork Wall Fixing to Steel Column



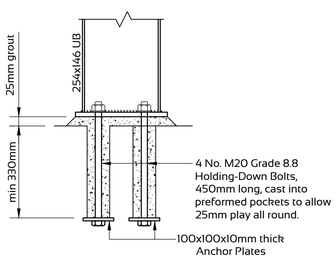


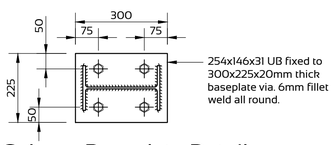
Column Baseplate Detail
406x140x39 UB
Scale 1:10





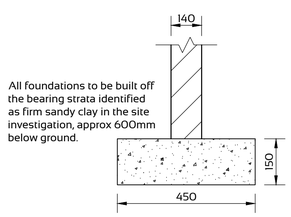
Column Baseplate Detail
200x75x23 PFC
Scale 1:10





Column Baseplate Detail
254x146x31 UB
Scale 1:10

All foundations to be built off the bearing strata identified as firm sandy clay in the site investigation, approx 600mm below ground.



Section 1-1

TOP OF FOUNDATIONS TO BE 450mm BELOW FFL

PAD AND STRIP FOUNDATIONS TO BEAR ON THE FIRM SANDY CLAY MATERIAL VARYING BETWEEN 200mm TO 800mm DEPTH AS IDENTIFIED IN THE SOIL INVESTIGATION REPORT, WITH A SAFE BEARING CAPACITY OF 150kN/m2.

PAD FOUNDATION SCHEDULE				
REF	SIZE (mm)	CONCRETE GRADE	TOP STEEL	BOTTOM STEEL
P1	1600 x 1600 x 700	C20	-	-
P2	1400 x 1400 x 600	C20	-	-
			-	-

STRIP FOUNDATION SCHEDULE				
REF	SIZE (mm)	CONCRETE GRADE	TOP STEEL	BOTTOM STEEL
S1	450x150dp	C20	-	-

All un-reinforced foundation concrete to be grade GEN 3 (C16/20).

All trench fill concrete to be grade GEN 1 (C8/10).

Schedule 1: The following items, while forming part of the structural design covered by this certificate, are subject to detailed design by a specialist contractor which has yet to be completed. All relevant drawings and calculations to be provided to Cameron + Ross and the local authority, for approval, prior to manufacture of these items.

	ITEM DESCRIPTION
	Piling
	Vibro stone columns
	Precast foundation systems
	Precast concrete floor units
	Precast concrete stair
	Timber roof trusses
x	Steelwork connections

This drawing has been overmarked with engineering information in relation to relevant warrant application.

Body number - SERI - DB - 0198
SER certification - 320007
SER issue date - 16/03/2020

Issue	Revision	Initial	Date

Cameron+Ross
CIVIL + STRUCTURAL ENGINEERING
Forbes House | 15 Victoria Street | Aberdeen | AB10 1XB
t 01224 642 400 | w cameronross.co.uk
Mulberry House | 39-41 Harbour Road | Inverness | IV1 1UF
t 01463 570 100 | w cameronross.co.uk

Client:
MCGA

Project:
Plot 2
Macduff Industrial Estate
Macduff

Drawing Title:
Foundation & Ground Floor Plans

Status:
Warrant

Scale: 1:100, 1:10 @ A1	Date: 27/01/2020
By: CNB	Checked: SAF	Approved: --

Dwg. No.	Rev.
190282 - 01	-