GENERAL

- These notes shall be read in conjunction with all relevant drawings of the Engineer and all applicable codes and specifications mentioned below. In the event of any discrepancy between these notes and the codes and specifications, these notes shall take precedence.
- All codes, standards and specifications mentioned below refer to the latest editions thereof.
- The Engineers drawings shall be read in conjunction with all relevant architect's, consultant's and specialist's drawings. Any discrepancies shall immediately be referred to the Engineer in writing prior to commencing with construction.
- The relevant sections of the SANS 2001 shall apply.
- No scaling off of drawings is allowed.
- The superimposed design loads for the suspended slabs are indicated on the engineer's drawings. These design loads may not be exceeded at any stage during construction, unless adequate additional support is provided for the slab. The contractor must obtain the engineers consent regarding any proposed additional support methodology.
- For retaining walls laterally supported by concrete slabs, backfilling to be carried out no sooner than 7 days after casting of slab.
- All work is to be executed in accordance with the latest occupational Health and Safety Act.
- It is the contractors responsibility to ensure that all sub-contractors and relevant site personnel are in possession of these notes and have familiarised themselves with the content.

FOUNDATIONS

- Foundations have been designed for the following allowable bearing pressure: 100 kPa
- All founding depths and foundation excavations shall be approved by the Engineer on site.
- Design bearing pressure as specified is to BE verified by the Engineer on site.
- Foundation levels shown of the Structural Engineer's drawings are preliminary, and may vary depending on the Engineers findings on site.
- As built levels of all foundations must be forwarded to the Engineer for his records.
- All foundations are located centrally under columns or walls unless shown otherwise.
- Cast 15 MPa blinding under all reinforced foundations and pile caps unless shown otherwise. Minimum thickness of blinding to be 50 mm.
- No excavations shall undermine any existing foundations.
- DCP Ground test results @ 10m c/c along Strip footing excavations to be submitted for approval.

CONCRETE

- All concrete shall conform to the requirements of the latest edition of SANS 2001 CC1.
- Concrete specifications:

ELEMENT	28 DAY - fcu(Mpa)	Aggregate (mm)
Massconcrete/Blinding	15	19
Foundations	30	19
Columns	40	19
Slabs	30	19
Surface beds	30	19
Beams	30	19
Walls & Retaining walls	30	19

- The contractor shall submit a mix design and report by a recognised concrete laboratory, to indicate that suitable materials and mix proportions will be used. the mix design is to be submitted to the engineer for his records prior to commencing with construction.
- Max slump for all concrete to be 75mm unless otherwise approved by the Engineer.
- No pumping of concrete shall be allowed without prior approval from the Engineer.
- All concrete shall be continuously cured for 7 days by an approved method. This method to be submitted to the Engineer for his records.
- The position and method of forming all construction joints shall be submitted to the Engineer for approval prior to construction.
- Refer to Architect, Electrical and Mechanical Engineers drawings to verify positions of downpipes, duct penetrations, recesses ect. as required by them prior to casting. Any discrepancies shall immediately be referred to the Engineer.
- Depth of RC beams (downstand and inverted) is the second dimension and includes the slab thickness.
- No kickers to be cast for columns and walls.
- Concrete Cover:

ELEMENT	Min Cover (mm)
Foundations	75
Columns	40
Beams	25
Walls	40
Slabs	25

- The contractor is responsible for checking and ensuring that the reinforcement is fixed and maintained in the correct position before and during the casting of concrete.
- Reinforcement allowances for concrete work are as follow for Tender purposes:

Foundations / Slab Edge	65 Kg/m^3
Concrete Columns	150 Kg/m^3
Concrete Beams	120 Kg/m^3
Concrete Slabs	100 Kg/m^3
RC Surface Bed Ground Level	100 Kg/m^3
Concrete Walls	120 Kg/m^3

- All reinforcement must be inspected by the Engineer before concrete is cast. The Engineer shall be given 24 hours advance notice of an inspection. Inspections will only be carried out once all the relevant reinforcement has been properly fixed, the spacer blocks have been positioned, the shuttering has been cleaned out and the contractor has checked and approved the reinforcement.
- No alterations may be made to the structure or the reinforcement without prior approval from the Engineer.
- Bending dimensions and scheduling of steel reinforcement for concrete is to SANS 282. (r) - denotes mild steel bars (fy - 250 Mpa) ; (Y) - denotes high-yield bars (fy - 450 Mpa)
- Mill certificates for reinforcement bars to be submitted to the engineer for his records.
- Welding of high-yield (Y) reinforcement is not allowed. Mild steel (R) reinforcement may be welded only if instructed in writing by the Engineer.
- Concentrations of a large number of sleeves or services to be cast into a concrete element will not be allowed. position and spacing to be agreed with the engineer prior to casting.
- No chasing of services into the concrete structure will be allowed.
- No core drilling will be allowed without prior approval from the Engineer.
- Any penetrations not shown on the drawings must be brought to the attention of the engineer prior to casting.
- The standard of concrete finish shall be to the Architect's specification.
- All exposed corners of concrete elements to have 20x20 chamfer or as per Architect's specification.
- Removal of formwork in normal to hot conditions (Refer to SANS 2001:CC1-Table 2)

TYPE OF STRUCTURAL MEMBER OR FORM WORK	TIME TO REMOVAL
Beam sides, walls & unloaded columns.	1 day
Slabs with props left underneath.	4 days
Beam soffits & coffer slab soffits with props left underneath.	7 days
Slab props.	10 days
Beam props, slab cantilever props and beam cantilever props.	14 days

- Extent of back propping and sequence to be discussed with the Engineer before commencement of works.
- The contractor shall be responsible for the design and maintenance of all temporary structures, including formwork and support work.
- One set of concrete test cubes shall be prepared per 50m^3 of concrete cast, or any part thereof daily of every type cast.
  1. Generally one concrete cube shall be tested at 7 days and three cubes at 28 days.
  2. The 3 cubes tested at 3 days, are to be left on the cast slab to simulate actual curing conditions on site, the sides of these cubes are to be protected to prevent excessive drying out.
- The cube results are to be forwarded to the Engineer immediately after testing. the cube results should be clearly labeled and referenced, indicating the cast date, which element type and specific elements were cast with the relevant concrete.
- All suspended slabs are to be adequately surveyed at intervals as agreed with the Engineer before and after removal of support work. Results to be forwarded to the engineer for his records.
- Sawn joints in surface beds shall be cut within 48 hours after casting concrete.

MASONRY

- All brickwork or blockwork to be laid to the requirements and tolerances of SANS 10164 Appendix B.
- Class II mortar shall be used throughout as per SANS 10164.
- All structural brickwork or blocks shall have a nominal compressive strength of 14 MPa.
- Water absorption of clay bricks not to exceed 12%.
- Clay bricks shall comply with SANS 227 and shall be well saturated 2 hours before being used.
- No clay bricks shall be laid within 6 weeks from removal from kiln.
- Calcium silicate bricks shall comply with SANS 285; bricks shall be laid slightly wetted but not saturated.
- Concrete blocks shall comply with SANS 1215 and shall be laid dry.
- For cavities smaller than 75mm galvanized butterfly ties complying with SANS 28 or approved polypropylene ties shall be built into cavity walls at a rate of 5 ties per m2 minimum.
- For cavities bigger than 75mm galvanised vertical twist type ties shall be used at a rate of 5 ties per m2.
- Adjacent to columns, wall ties to be built into every second layer of brickwork.
- In concrete blockwork brickforce shall be installed continuous throughout in every second course as well as in two courses below and above all windows and above all doors, extending 600mm past such openings.
- In clay brickwork brickforce shall be installed continuously throughout in every third course as well as in two courses below and above all windows and above all doors, extending at least 600mm past such openings.
- Galvanized hoop iron anchors (min 60 mm2 section) shall be installed every 4th course between RC columns and brickwalls and extend min 600mm into masonry. Use 6mm nail plugs, no shot fixing will be allowed.
- All brickforce shall be galvanized and comprise of hard drawn steel wire comprising two main diameter wires of diameter not less than 2.8mm spaced a constant distance apart and 2.5mm diameter cross wires spaced at longitudinal intervals of 300mm in ladder type brickforce.
- A slip joint of 2 layers 3-ply malthoid must be provide between all loadbearing brickwork and concrete structure.
- A 10mm soft joint (jointex) must be provided between all non-loadbearing brickwork and concrete structure.
- Joints to be sealed in accordance with Architect's specification.
- All brick walls to be set out according to Architect's drawing.
- All brick walls to be built on centrally strip footings unless noted otherwise.
- Brick- or blockwork built on suspended slabs to be built only once the concrete slab has reach its required design strength and all the props have been removed.
- Brick- or blockwork built on suspended slabs to have no brick- or blockwork above internal door openings.
- Precast lintols to be propped during brickwork over, and to remain propped for a minimum period of 7 days.

STRUCTURAL STEEL

- All Structural steelwork shall comply with SANS 2001-CS1: 2005
- All structural steelwork shall be fabricated and erected in accordance with the latest edition of SANS 1200 H excluding clause 8.
- The steel structure shall be manufactured and erected according to SANS 1200 H degree of accuracy II.
- The contractor shall at the commencement of the project acquaint himself with the availability and delivery time of the products and steel profiles specified on the drawings so that such material can be ordered ahead of time.
- All hot roll sections to be grade S355 JR.
- All cold-formed steel sections - Min yield stress of 200 MPa
- All bolts to be Grade 8.8
- All cold-formed steel sections and bolts to be hot-dipped galvanized unless noted otherwise.
- Steelwork shall comply with the requirements of SANS 1431 for weldable structural steel.
- A certificate from the steel manufacturer verifying the grade of the structural steel shall be submitted to the engineer for his records.
- The sequence of the erection of the structure is the responsibility of the contractor. The contractor shall ensure the stability of the structure during erection. Where temporary bracing or propping is necessary, the contractor shall be responsible for the design, erection, maintenance and removal (where necessary) of such supports.
- The contractor to submit in writing his proposed erection method statement for the comment of the engineer. it remains the contractors responsibility to produce the final product in accordance with the engineers design drawings.
- All drawings are design drawings. Workshop drawings are to be prepared by the contractor and submitted to the engineer for approval prior to commencing with fabrication. The contractor must also prepare drawings showing all positions, levels and orientation of cast in plates and bolts.
- Contractor to allow a minimum of 2 weeks for checking and approval of the workshop drawings by the Engineer, the contractor should also allow for possible changes to workshop drawings.
- All dimensions and levels to be checked on site by the contractor before commencing with workshop drawings and manufacture. Any discrepancies shall be brought to the attention of the engineer in writing.
- For structural steel fixed to concrete allow 20mm tolerance for lining up.
- Approved non-shrink structural grout shall be provided under all steel supported on concrete.
- All design shall be accordance with SANS 10160 and SANS 10162.
- All connections to be adequate to develop the full tensile capacity of the members.
- All truss and girder members to be welded all round both sides. Allow for gusset plates if necessary to ensure adequate welding length to develop full tensile capacity of the members.
- Centroids of all members to intersect, no eccentricities except for those shown on the Engineers design drawings shall be allowed.
- All connection details to be approved by the engineer in writing prior to fabrication.
- Use Class E70XX electrodes for all welding.
- All welding shall be done in accordance with AWS D1.1 Structural Welding Code-Steel.
- Minimum weld size to be 6mm continuous fillet welds. Throat thickness not to be less than 0.7 x the thinner material thickness welded to.
- All butt welds to be full penetration butt welds of full strength.
- All welders shall be coded welders.
- The contractor shall produce evidence acceptable to the engineer that welding procedures and welders have been tested in accordance with the requirements of SANS 044, parts III and IV
- Post-fixing using mechanical or chemical anchors to be approved by the Engineer prior to commencing with installation. All fixings to be strictly in accordance with the manufacturer's specifications.
- Penetrations and holes required in galvanized steel shall be pre-drilled before the steel is galvanized. No drilling is allowed on site in any galvanised steel members.
- No holes may be made in any structural members without the prior consent of the Engineer.
- No site cutting or welding will be allowed unless approved or specified by the Engineer.
- Allow 10% of light and medium steelwork (excluding purlins and girts) for connections, splices, column cap and base plates, plus 1% for Grade 8.8 bolts and 0,5% for Grade 4.8 bolts.

CORROSION PROTECTION SPECIFICATION

Pre-fabrication preparation:
Commercial blast steel to remove rust and mill scale
Duplex system:
Post-fabrication & trial assembly: hot dipped galvanized to SANS 121:2000 (heavy duty) - un-passivated. Micro-blast with garnet slag to achieve a water break free
Surface & rough profile:
Apply one coat of epoxy primer to a dft of 60 microns.
Apply one coat of re-coatable polyurethane finishing to a dft of 30 microns (colour to architect's specification).

- Cladding to be done in accordance with SANS 1200 HB
- All roof and side cladding to be as per architect's specification.
- Cladding to only commence once all bracing is installed, inspected and approved by the Engineer.
- Cladding contractor to ensure purlins and girts remain straight during installation of cladding and insulation material.
- Fixing of services to the roof structure - fixing to purlins to be done by screwing or bolting through the vertical leg (web) of the purlin. purlin clamps shall not be allowed anywhere. No hanging off the purlins until the roof sheeting has been installed.
- No fixing of services to longitudinal ties at truss bottom chords will be allowed.
- Main pipe runs and other heavy items are to be suspended from trusses and girders only and never further than 100mm from a node point. approved flange clamps may be used.
- Feeder pipes and other lightweight elements:
  Running perpendicular to the purlins are to be suspended from every purlin it crosses.
  Running parallel to the purlins have to be suspended from two adjacent purlins and at 1250mm c/c max.

CONFIRMATION OF DIMENSIONS

WORK TO FIGURED DIMENSIONS ONLY. ALL DIMENSIONS , LEVELS AND CO-ORDINATES TO BE CHECKED AND CONFIRMED ON SITE WITH THE ENGINEER BEFORE CONSTRUCTION COMMENCES. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT's AND **NWE** DRAWINGS AND SPECIFICATIONS.

SPECIAL NOTES

REV	DESCRIPTION	BY	DATE
A	FOR INFORMATION	CN	2020.10.16

ISSUED FOR: FOR INFORMATION

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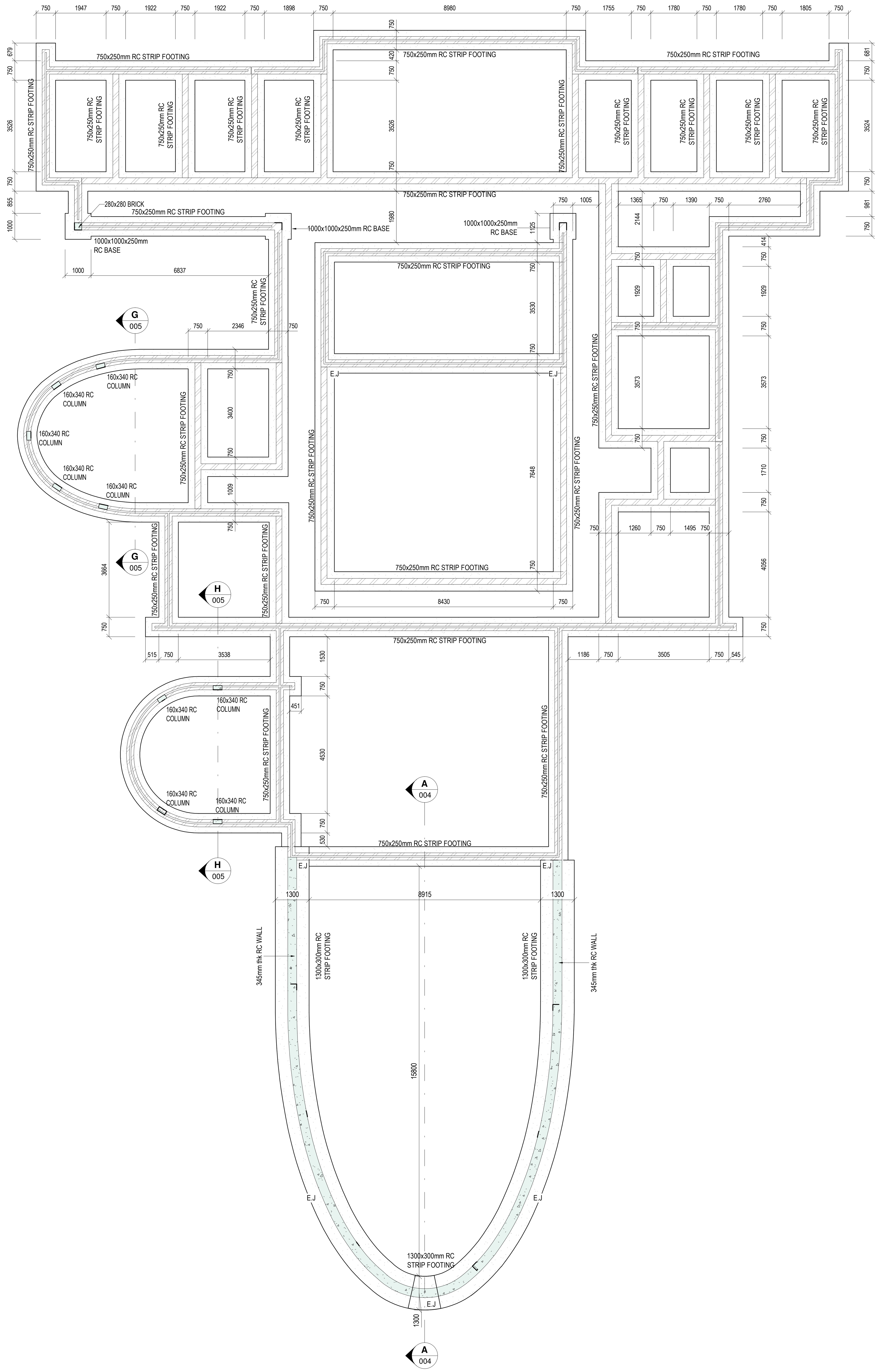
PROJECT NAME:
SANSA SPACE WEATHER CENTRE

DRAWING TITLE:
GENERAL SPECIFICATIONS

RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN	20107012 5	2020.10.16

NWE RESPONSIBLE PERSON		DATE:	
DESIGN	M.STEYN	2020.10.16	SHEET SIZE: A1
DRAWN	C.NORTJE	2020.10.16	SCALE: 1 : 1
APPROVED	C.DE JAGER	2020.10.16	

DRAWING NO: **20005-SANSA-S- 000** REVISION: **A**



FOUNDATION LAYOUT

SCALE : 1 : 100

CONFIRMATION OF DIMENSIONS

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SPECIAL NOTES

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A	FOR INFORMATION	CN	2020.10.16

ISSUED FOR:

FOR INFORMATION

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CLIENT:

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PROJECT NAME:

SANSA SPACE WEATHER CENTRE

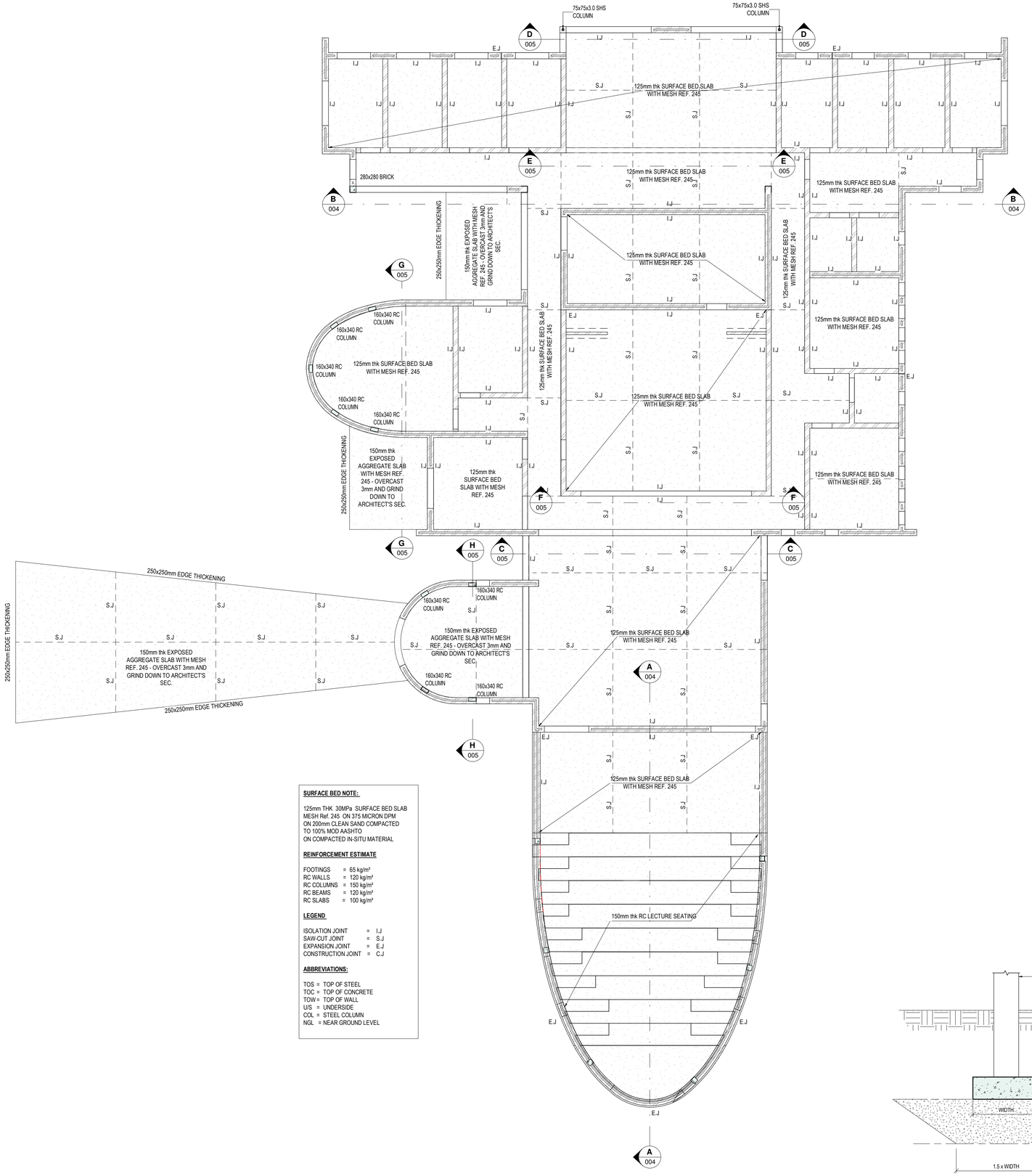
DRAWING TITLE:

SPACE WEATHER CENTRE FOUNDATION LAYOUT

RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN		2020.10.16

NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	M.STEYN	2020.10.16	A1
DRAWN	C.NORTJE	2020.10.16	SCALE:
APPROVED	C.DE JAGER	2020.10.16	1 : 100

DRAWING NO:	REVISION:
20005-SANSA-S- 001	A



SURFACE BED LAYOUT

SCALE: 1 : 100

SURFACE BED NOTE:

125mm THK 30MPa SURFACE BED SLAB MESH Ref. 245 ON 375 MICRON DPM ON 200mm CLEAN SAND COMPACTED TO 100% MOD AASHTO ON COMPACTED IN-SITU MATERIAL

REINFORCEMENT ESTIMATE

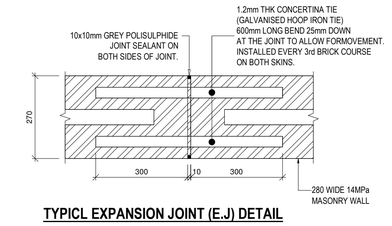
FOOTINGS	=	65 kg/m³
RC WALLS	=	120 kg/m³
RC COLUMNS	=	150 kg/m³
RC BEAMS	=	120 kg/m³
RC SLABS	=	100 kg/m³

LEGEND

ISOLATION JOINT	=	I.J
SAW-CUT JOINT	=	S.J
EXPANSION JOINT	=	E.J
CONSTRUCTION JOINT	=	C.J

ABBREVIATIONS:

TOS = TOP OF STEEL
TOC = TOP OF CONCRETE
TOW = TOP OF WALL
U/S = UNDERSIDE
COL = STEEL COLUMN
NGL = NEAR GROUND LEVEL



TYPICL EXPANSION JOINT (E.J) DETAIL

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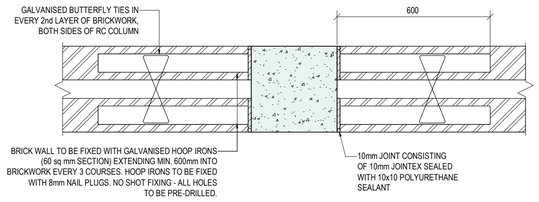
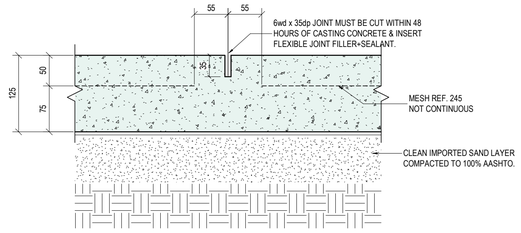


MOVEMENT JOINT BETWEEN RC COLUMN AND MASONRY WALL

SCALE: 1 : 10



TYPICAL SAW-CUT JOINT (S.C.J.)

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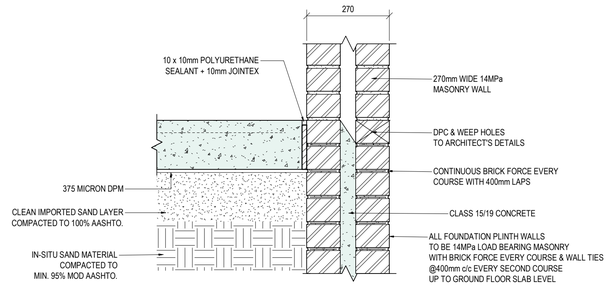

TYPICAL FLOOR ISOLATION JOINT DETAIL (I.J)

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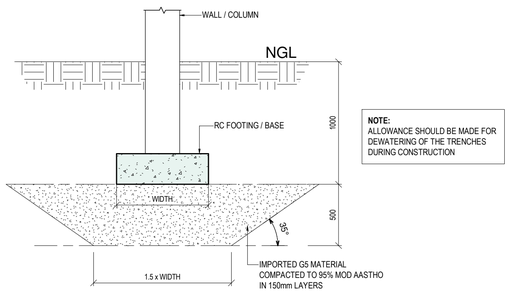
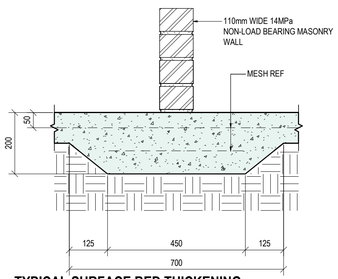


NOTE:
ALLOWANCE SHOULD BE MADE FOR DEWATERING OF THE TRENCHES DURING CONSTRUCTION

TYPICAL GROUND WORKS BELOW ALL FOOTINGS

SCALE: 1 : 25



TYPICAL SURFACE BED THICKENING

SCALE: 1 : 10

CONFIRMATION OF DIMENSIONS

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SPECIAL NOTES

REV	DESCRIPTION	BY	DATE
A	FOR INFORMATION	CN	2020.10.16

ISSUED FOR:

FOR INFORMATION

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PROJECT NAME:

SANSA
SPACE WEATHER CENTRE

DRAWING TITLE:

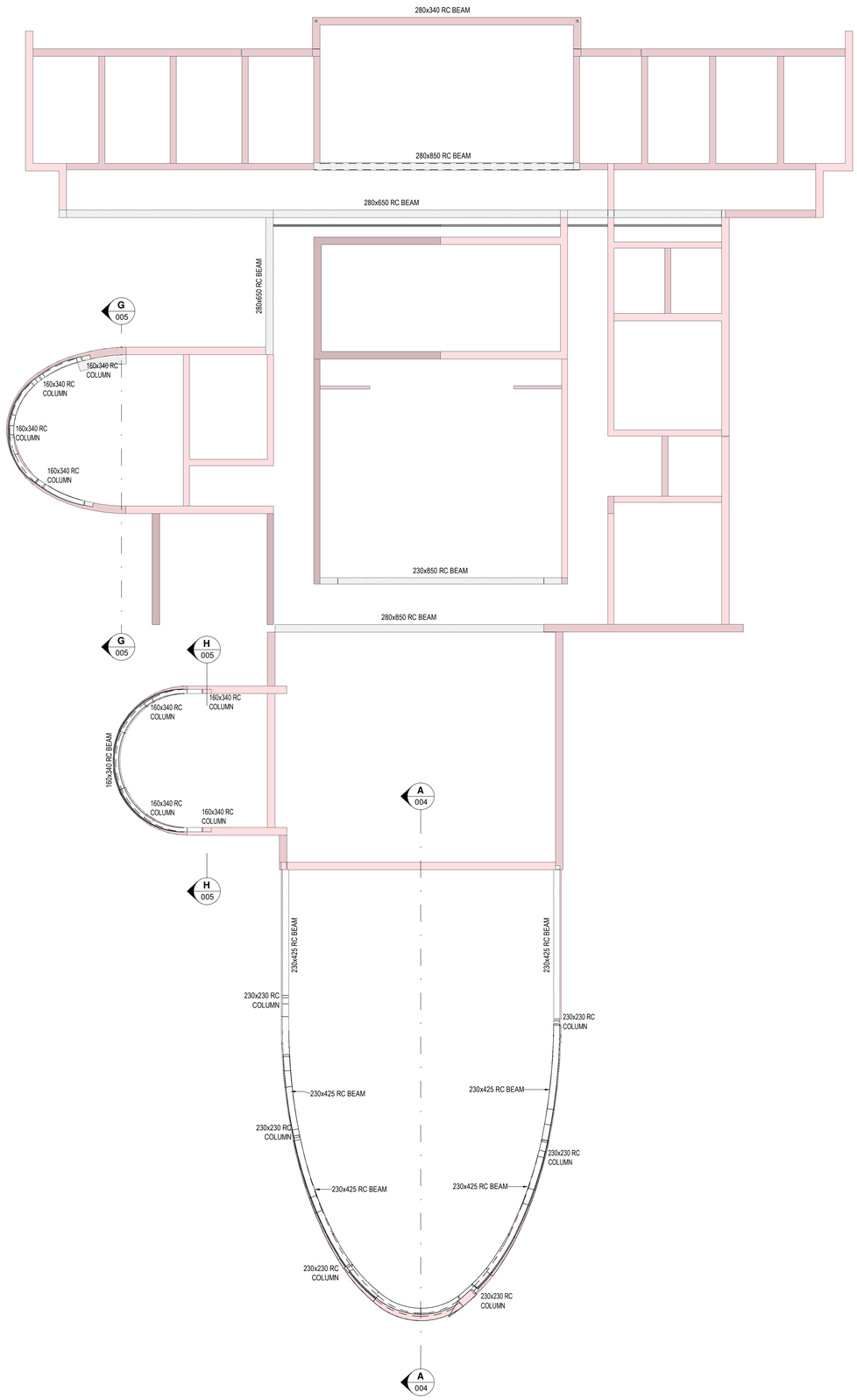
SPACE WEATHER CENTRE
SURFACE BED LAYOUT + SECTIONS & DETAILS

RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN		2020.10.16

NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	M.STEYN	2020.10.16	A1
DRAWN	C.NORTJE	2020.10.16	SCALE:
APPROVED	C.DE JAGER	2020.10.16	As indicated

DRAWING NO: **20005-SANSA-S- 002**

REVISION: **A**



RING BEAMS

SCALE: 1 : 100

CONFIRMATION OF DIMENSIONS

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SPECIAL NOTES

REV	DESCRIPTION	BY	DATE

ISSUED FOR:

FOR INFORMATION

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PROJECT NAME:

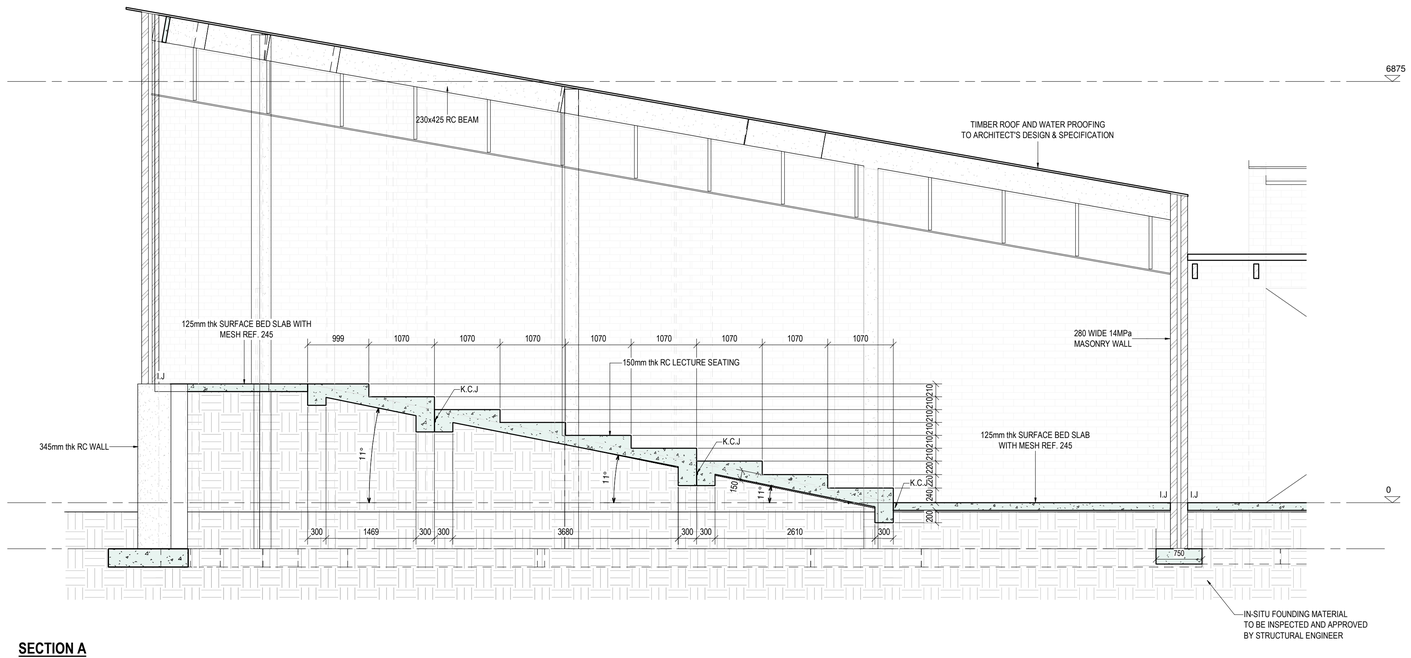
SANSA
SPACE WEATHER CENTRE

DRAWING TITLE:

RING BEAM LAYOUT

RESPONSIBLE PERSON		SIGNATURE + ECSA DETAILS	DATE
M.STEYN			10/15/20
NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	Designer	2020.10.16	A1
DRAWN	Author	2020.10.16	SCALE:
APPROVED	Approver	10/15/20	**1 : 100**
DRAWING NO:			REVISION:

20005-SANSA-S- 003



SECTION A

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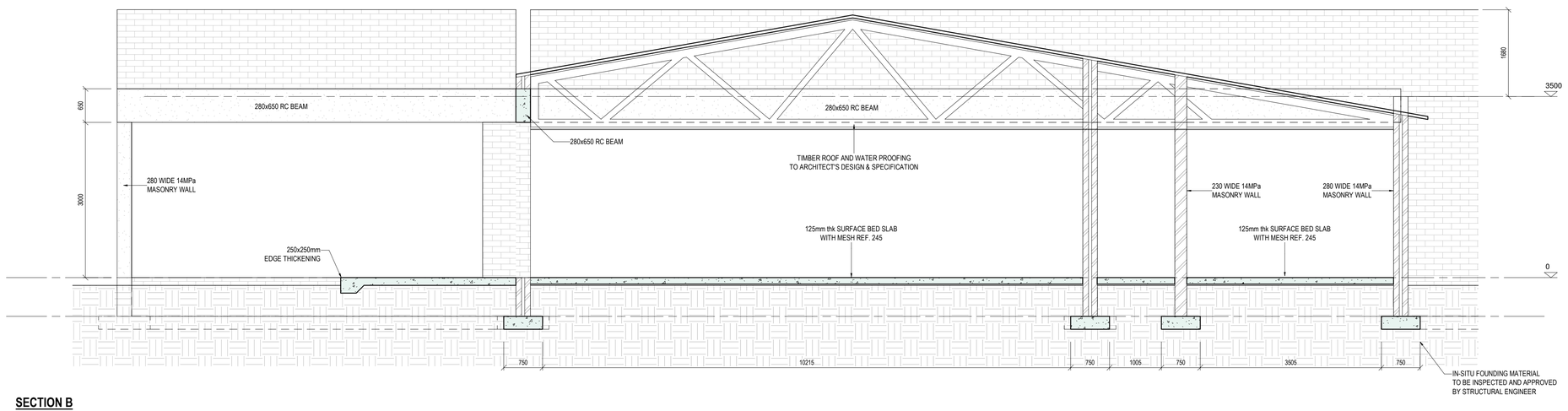

SECTION B

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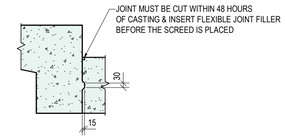

KEYED CONSTRUCTION JOINT

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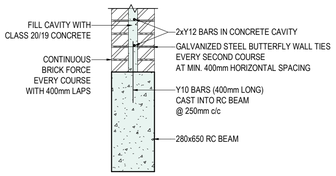

PARAPATE WALL STABILISING DETAIL

SCALE: 1 : 20

CONFIRMATION OF DIMENSIONS

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SPECIAL NOTES

REV	DESCRIPTION	BY	DATE
A	FOR INFORMATION	CN	2020.10.16

ISSUED FOR:

FOR INFORMATION

NWE
CONSULTING ENGINEERS
1st FLOOR PLATTEKLOOF HOUSE I TYGERBERG OFFICE PARK
163 UYS KRIGE DRIVE I PLATTEKLOOF I SOUTH AFRICA
P.O. BOX 5263 I TYGER VALLEY I 7536
TEL: (+27) 21 914 2264
E-MAIL: admin@nweng.co.za I WEB: www.nweng.co.za

CLIENT:

sansa SOUTH AFRICAN NATIONAL SPACE AGENCY
Postal: PO Box 32, Hermanus 7200
Address: Hospital Street, Hermanus, 7200, Western Cape
E-mail: info@sansa.org.za
Tel: +27 (0) 28 312 1156
Fax: +27 (0) 28 312 2039

PROJECT NAME:

SANSA
SPACE WEATHER CENTRE

DRAWING TITLE:

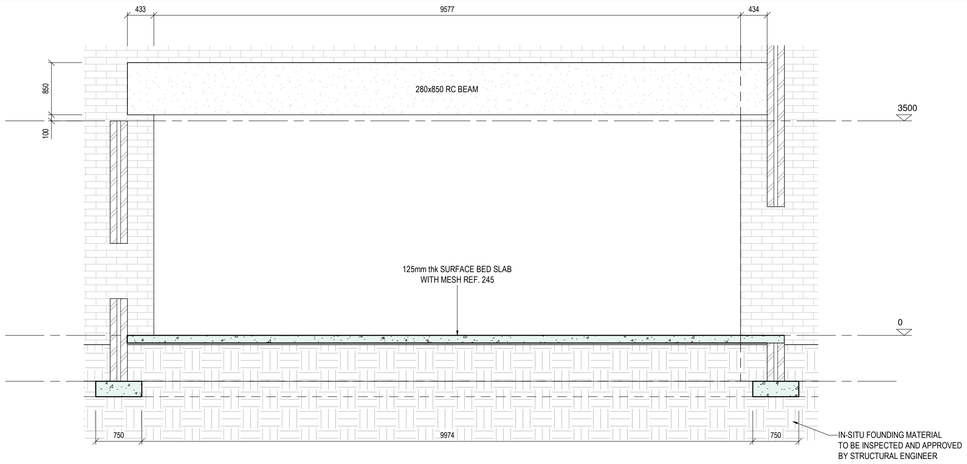
SECTIONS & DETAILS

RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN	20190125	2020.10.16

NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	M.STEYN	2020.10.16	A1
DRAWN	C.NORTJE	2020.10.16	SCALE:
APPROVED	C.DE JAGER	2020.10.16	As indicated

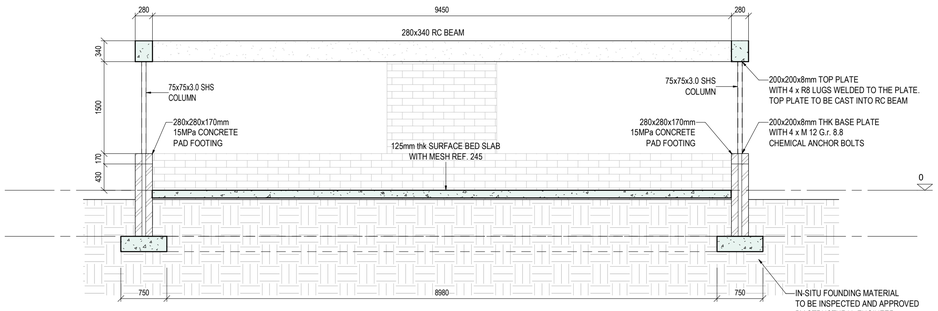
DRAWING NO: **20005-SANSA-S- 004**

REVISION: **A**



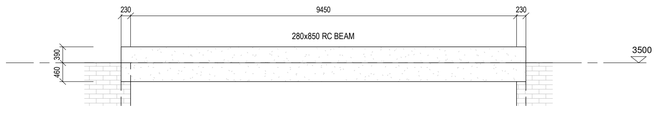
SECTION C

SCALE: 1 : 50



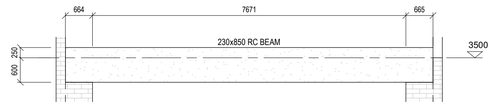
SECTION D

SCALE: 1 : 50



SECTION E

SCALE: 1 : 75



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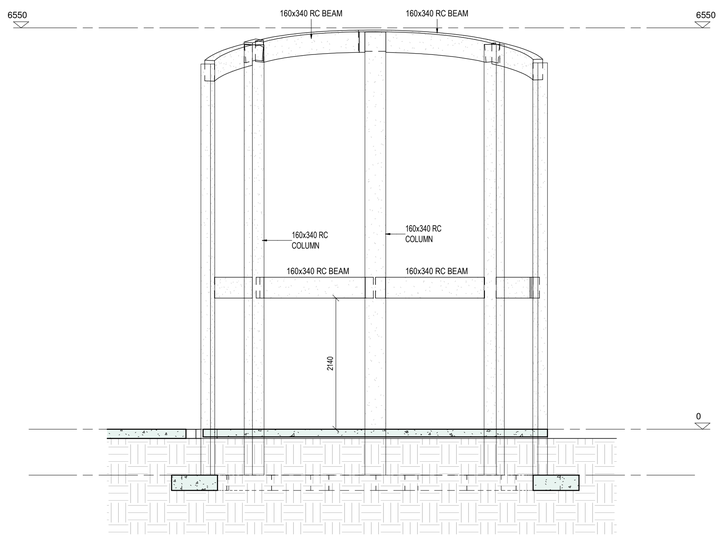
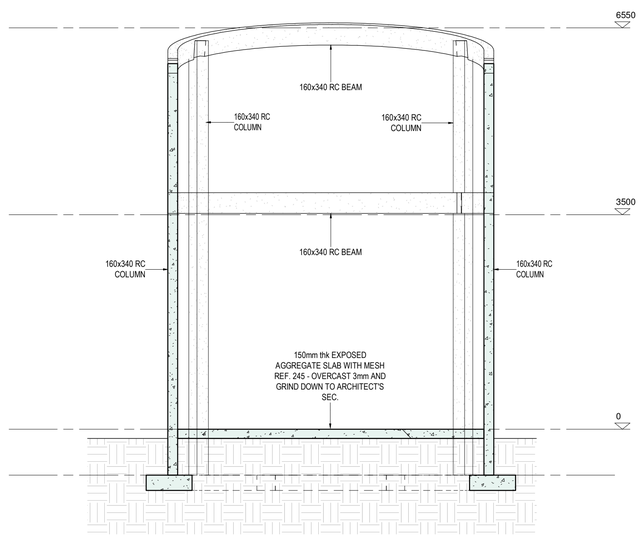
SCALE: 1 : 75



SECTION G

SCALE: 1 : 50



SECTION H

SCALE: 1 : 50

CONFIRMATION OF DIMENSIONS

WORK TO FIGURED DIMENSIONS ONLY. ALL DIMENSIONS , LEVELS AND CO-ORDINATES TO BE CHECKED AND CONFIRMED ON SITE WITH THE ENGINEER BEFORE CONSTRUCTION COMMENCES. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT's AND **NWE** DRAWINGS AND SPECIFICATIONS.

SPECIAL NOTES

REV	DESCRIPTION	BY	DATE
A	FOR INFORMATION	CN	2020.10.16

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PROJECT NAME:

SANSA
SPACE WEATHER CENTRE

DRAWING TITLE:

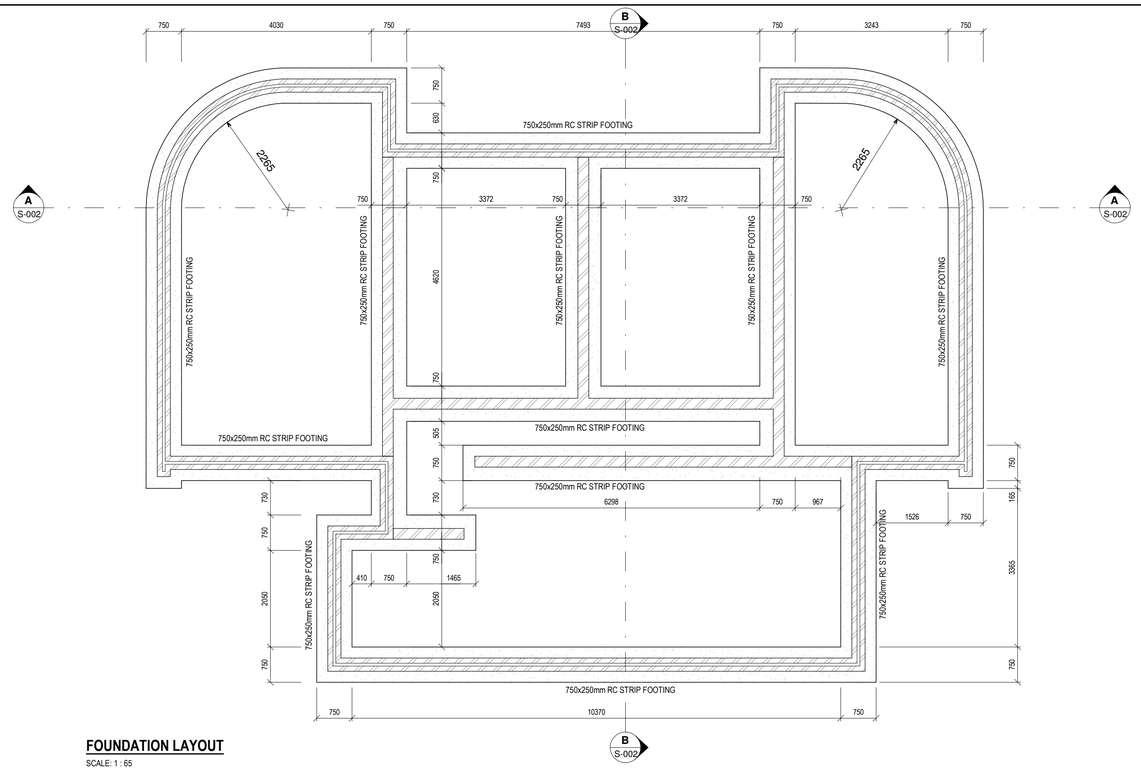
SECTIONS & DETAILS

RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN	20/07/015	2020.10.16

NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	M.STEYN	2020.10.16	A1
DRAWN	C.NORTJE	2020.10.16	SCALE:
APPROVED	C.DE JAGER	2020.10.16	**As indicated**

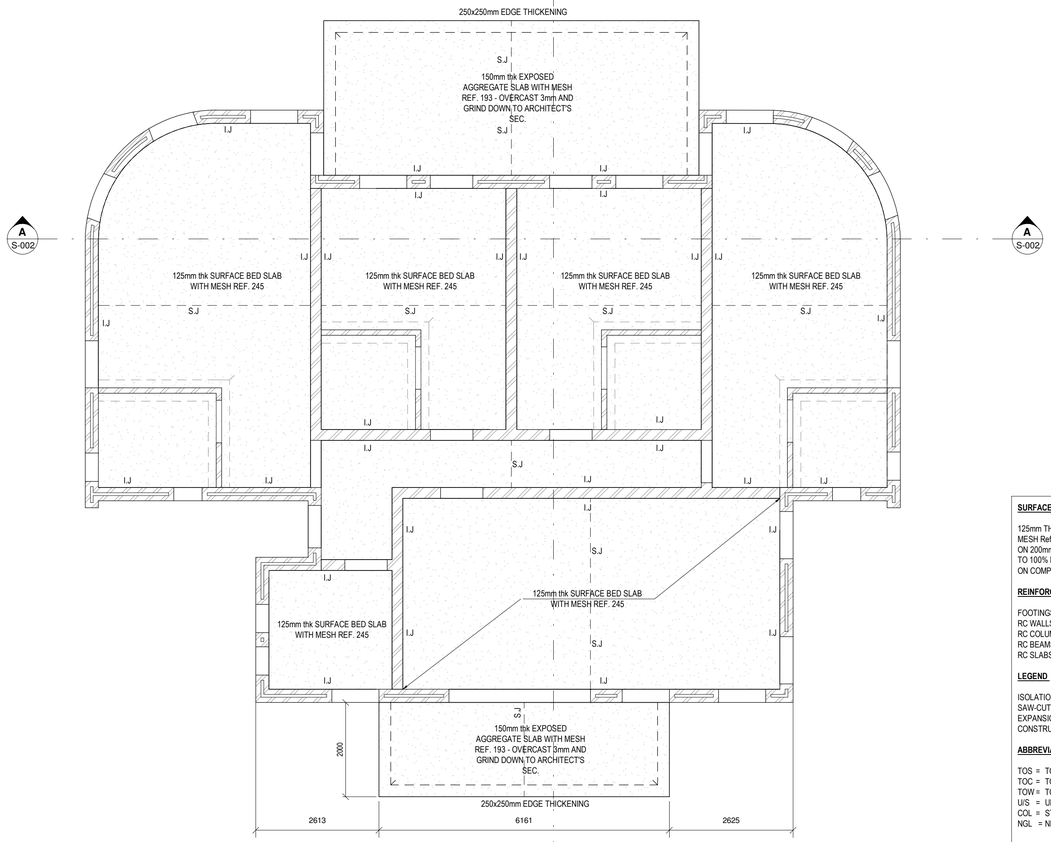
DRAWING NO: **20005-SANSA-S- 005**

REVISION: **A**



FOUNDATION LAYOUT

SCALE: 1 : 65



SURFACE BED LAYOUT

SCALE: 1 : 65

SURFACE BED NOTE:

125mm THK 30MPa SURFACE BED SLAB
MESH Ref. 245 ON 375 MICRON DPM
ON 200mm CLEAN SAND COMPACTED
TO 100% MOD AASHTO
ON COMPACTED IN-SITU MATERIAL

REINFORCEMENT ESTIMATE

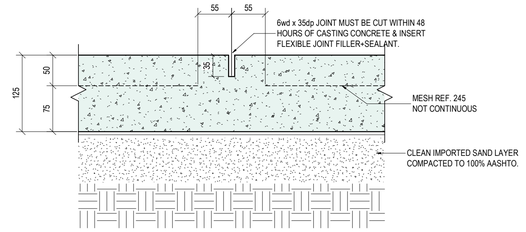
FOOTINGS	=	65 kg/m³
RC WALLS	=	120 kg/m³
RC COLUMNS	=	150 kg/m³
RC BEAMS	=	120 kg/m³
RC SLABS	=	100 kg/m³

LEGEND

ISOLATION JOINT	=	I.J
SAW-CUT JOINT	=	S.J
EXPANSION JOINT	=	E.J
CONSTRUCTION JOINT	=	C.J

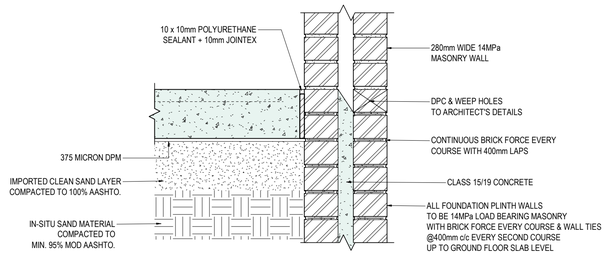
ABBREVIATIONS:

TOS = TOP OF STEEL
TOC = TOP OF CONCRETE
TOW = TOP OF WALL
U/S = UNDERSIDE
COL = STEEL COLUMN
NGL = NEAR GROUND LEVEL



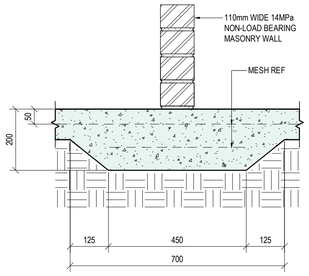
TYPICAL SAW-CUT JOINT (S.C.J.)

SCALE: 1 : 5



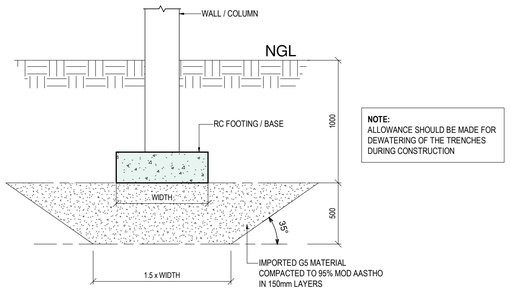
TYPICAL FLOOR ISOLATION JOINT DETAIL (I.J)

SCALE: 1 : 10



TYPICAL SURFACE BED THICKENING

SCALE: 1 : 10



NOTE:
ALLOWANCE SHOULD BE MADE FOR DEWATERING OF THE TRENCHES DURING CONSTRUCTION

TYPICAL GROUND WORKS BELOW ALL FOOTINGS

SCALE: 1 : 25

CONFIRMATION OF DIMENSIONS

WORK TO FIGURED DIMENSIONS ONLY. ALL DIMENSIONS , LEVELS AND CO-ORDINATES TO BE CHECKED AND CONFIRMED ON SITE WITH THE ENGINEER BEFORE CONSTRUCTION COMMENCES. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT's AND **NWE** DRAWINGS AND SPECIFICATIONS.

SPECIAL NOTES

REV	DESCRIPTION	BY	DATE
A	ISSUED FOR INFORMATION	CN	2020.10.16

ISSUED FOR:

INFORMATION

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1st FLOOR PLATTEKLOOF HOUSE I TYGERBERG OFFICE PARK
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CLIENT:

SANSA SOUTH AFRICAN NATIONAL SPACE AGENCY
Postal: PO Box 32, Hermanus 7200
Address: Hospital Street, Hermanus, 7200, Western Cape
E-mail: spaceso-info@sansa.org.za
Tel: +27 (0) 28 312 1196
Fax: +27 (0) 28 312 2039

PROJECT NAME:

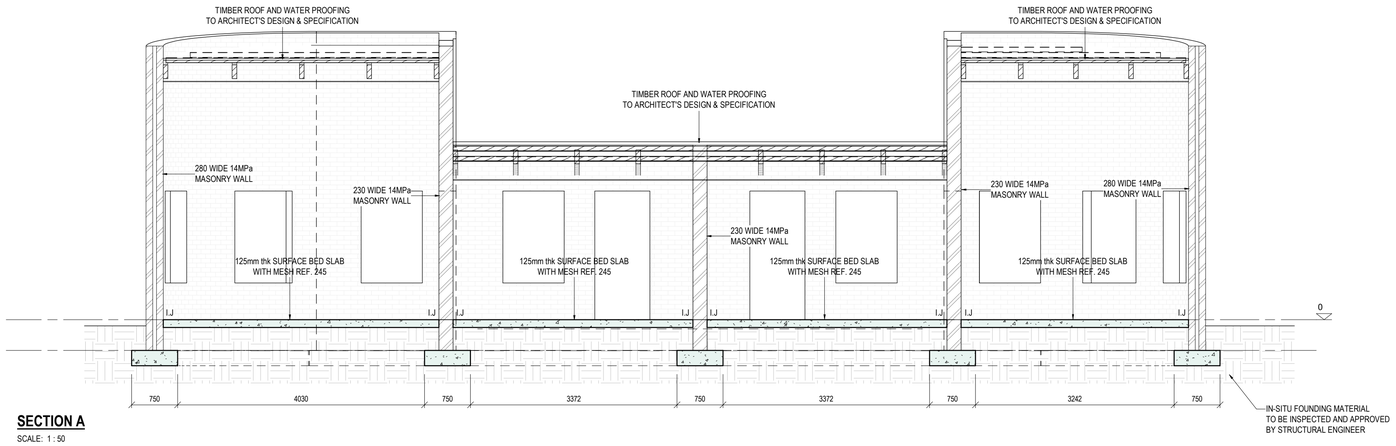
SANSA
SPACE WEATHER CENTRE

DRAWING TITLE:

GUEST ACCOMMODATION
FOUNDATION & SURFACE BED LAYOUT

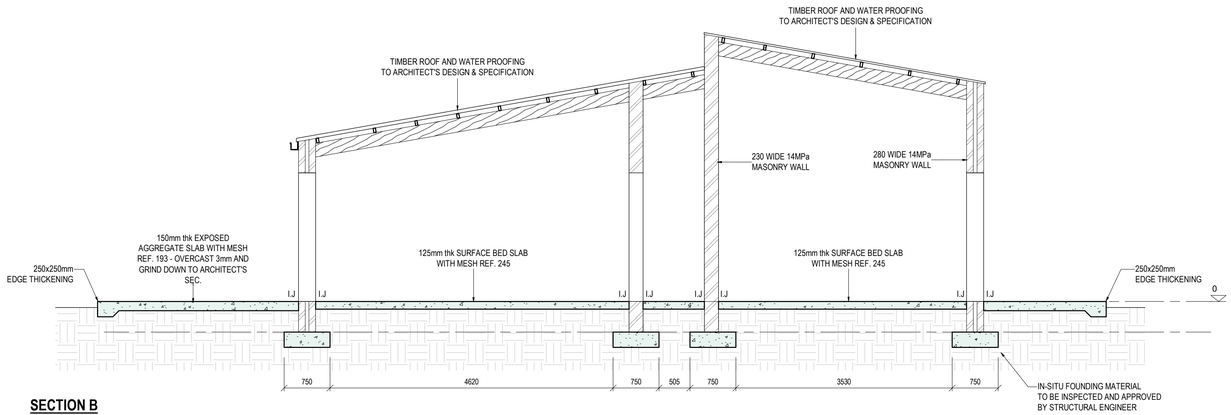
RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN		2020.10.16

NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	M.STEYN	2020.10.16	A1
DRAWN	C. NORTJE	2020.10.16	SCALE:
APPROVED	C. DE JAGER	2020.10.16	**As indicated**
DRAWING NO:	**20005-SANSA- S-001**		REVISION: **A**



SECTION A

SCALE: 1 : 50



SECTION B

SCALE: 1 : 50

CONFIRMATION OF DIMENSIONS

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SPECIAL NOTES

REV	DESCRIPTION	BY	DATE

ISSUED FOR:

INFORMATION

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PROJECT NAME:

SANSA
SPACE WEATHER CENTRE

DRAWING TITLE:

GUEST ACCOMMODATION
SECTIONS & DETAILS

RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN	20030015	2020.10.16

NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	M.STEYN	2020.10.16	A1
DRAWN	C. NORTJE	2020.10.16	SCALE:
APPROVED	C. DE JAGER	2020.10.16	1 : 50

DRAWING NO: **20005-SANSA- S-002**

REVISION:

CONFIRMATION OF DIMENSIONS

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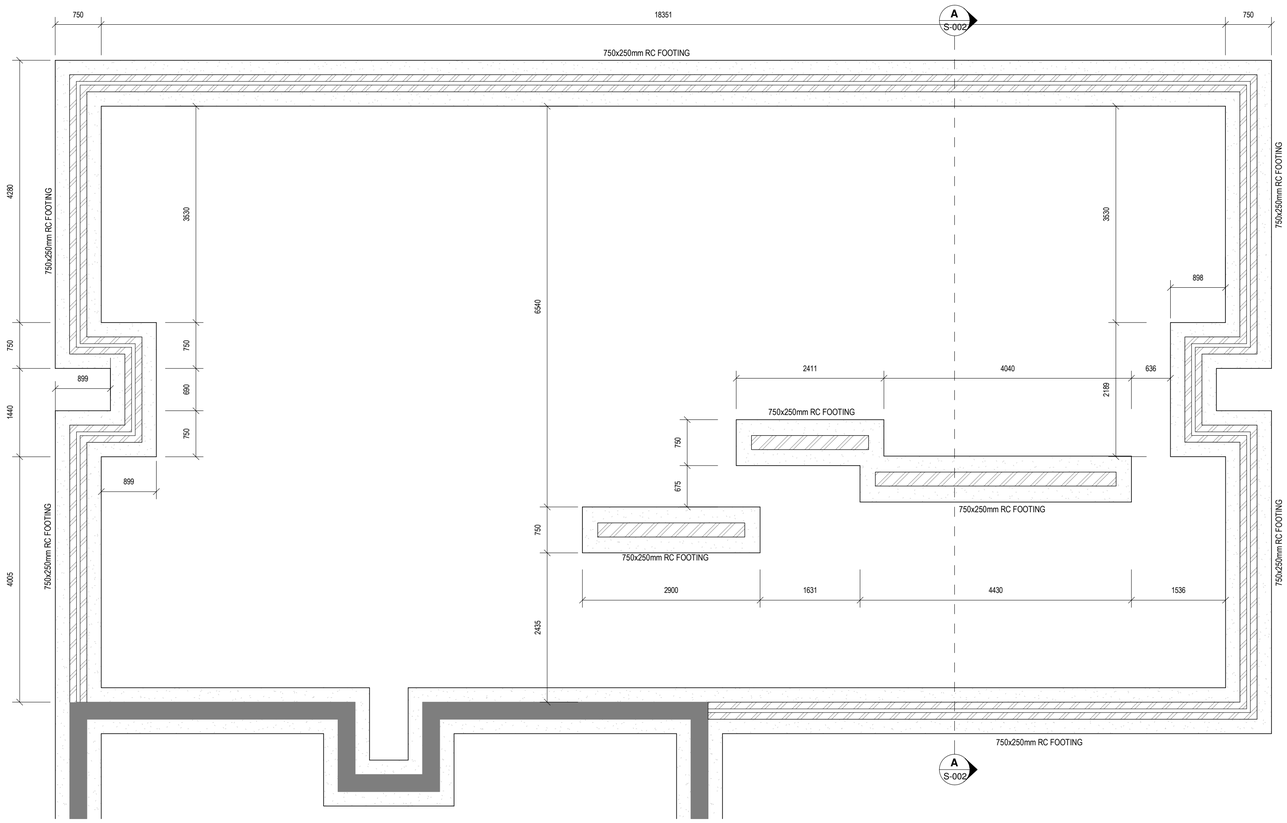
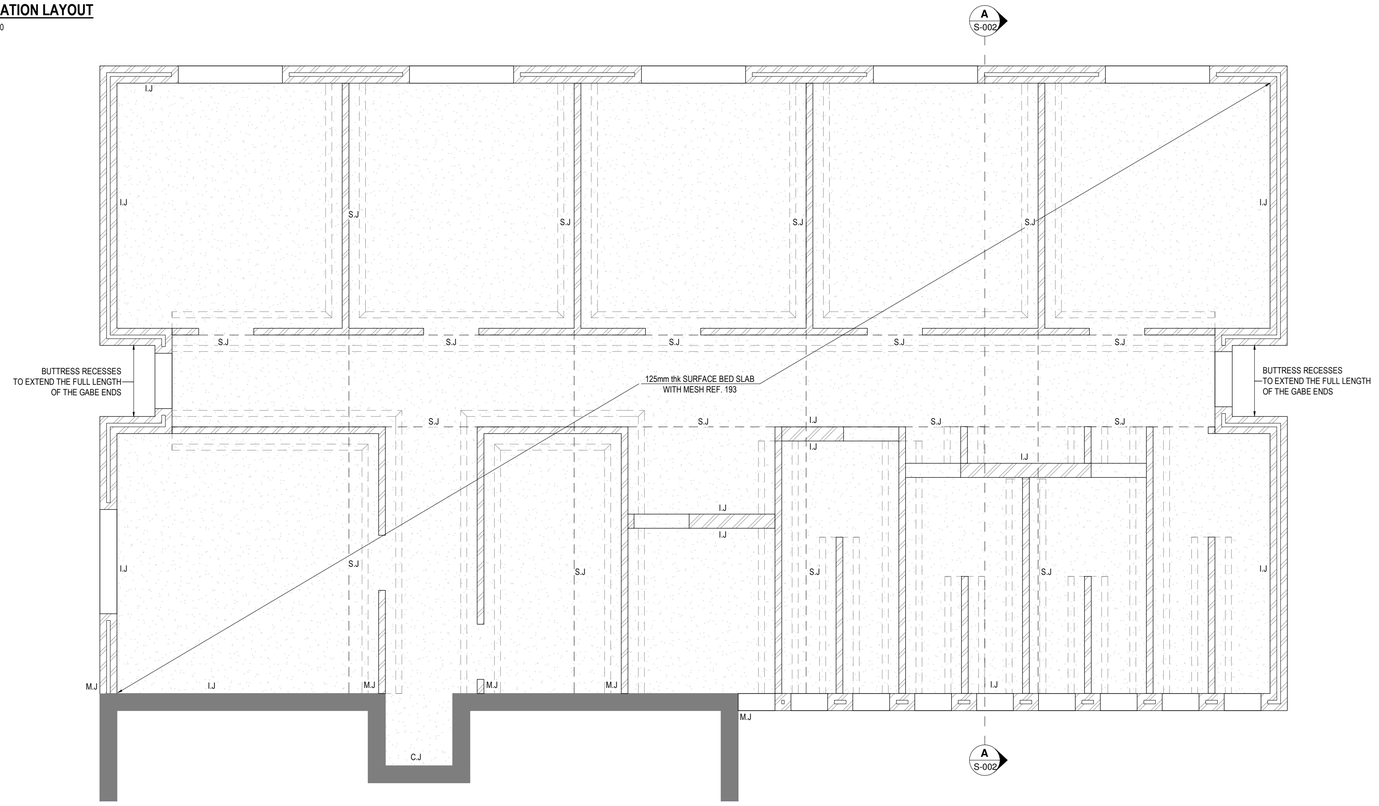
SPECIAL NOTES



FOUNDATION LAYOUT

SCALE: 1 : 50



SURFACE BED LAYOUT

SCALE: 1 : 50

SURFACE BED NOTE:

125mm THK 30MPa SURFACE BED SLAB
MESH Ref. 245 ON 375 MICRON DPM
ON 200mm CLEAN SAND COMPACTED
TO 100% MOD AASHTO
ON COMPACTED IN-SITU MATERIAL

REINFORCEMENT ESTIMATE

FOOTINGS	=	65 kg/m³
RC WALLS	=	120 kg/m³
RC COLUMNS	=	150 kg/m³
RC BEAMS	=	120 kg/m³
RC SLABS	=	100 kg/m³

LEGEND

ISOLATION JOINT	=	I.J
SAW-CUT JOINT	=	S.J
EXPANSION JOINT	=	E.J
CONSTRUCTION JOINT	=	C.J

ABBREVIATIONS:

TOS = TOP OF STEEL
TOC = TOP OF CONCRETE
TOW = TOP OF WALL
U/S = UNDERSIDE
COL = STEEL COLUMN
NGL = NEAR GROUND LEVEL

REV	DESCRIPTION	BY	DATE
A	ISSUED FOR INFORMATION	CN	2020.10.16

ISSUED FOR:

INFORMATION

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163 UYS KRIGE DRIVE I PLATTEKLOOF I SOUTH AFRICA
P.O. BOX 5263 I TYGER VALLEY I 7536
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CLIENT:

SANSA
SOUTH AFRICAN NATIONAL SPACE AGENCY

Postal: PO Box 32, Hermanus 7200
Address: Hospital Street, Hermanus, 7200, Western Cape
E-mail: hermanus@sansa.org.za
Tel: +27 (0) 28 312 1199
Fax: +27 (0) 28 312 2039

PROJECT NAME:

SANSA
SPACE WEATHER CENTRE

DRAWING TITLE:

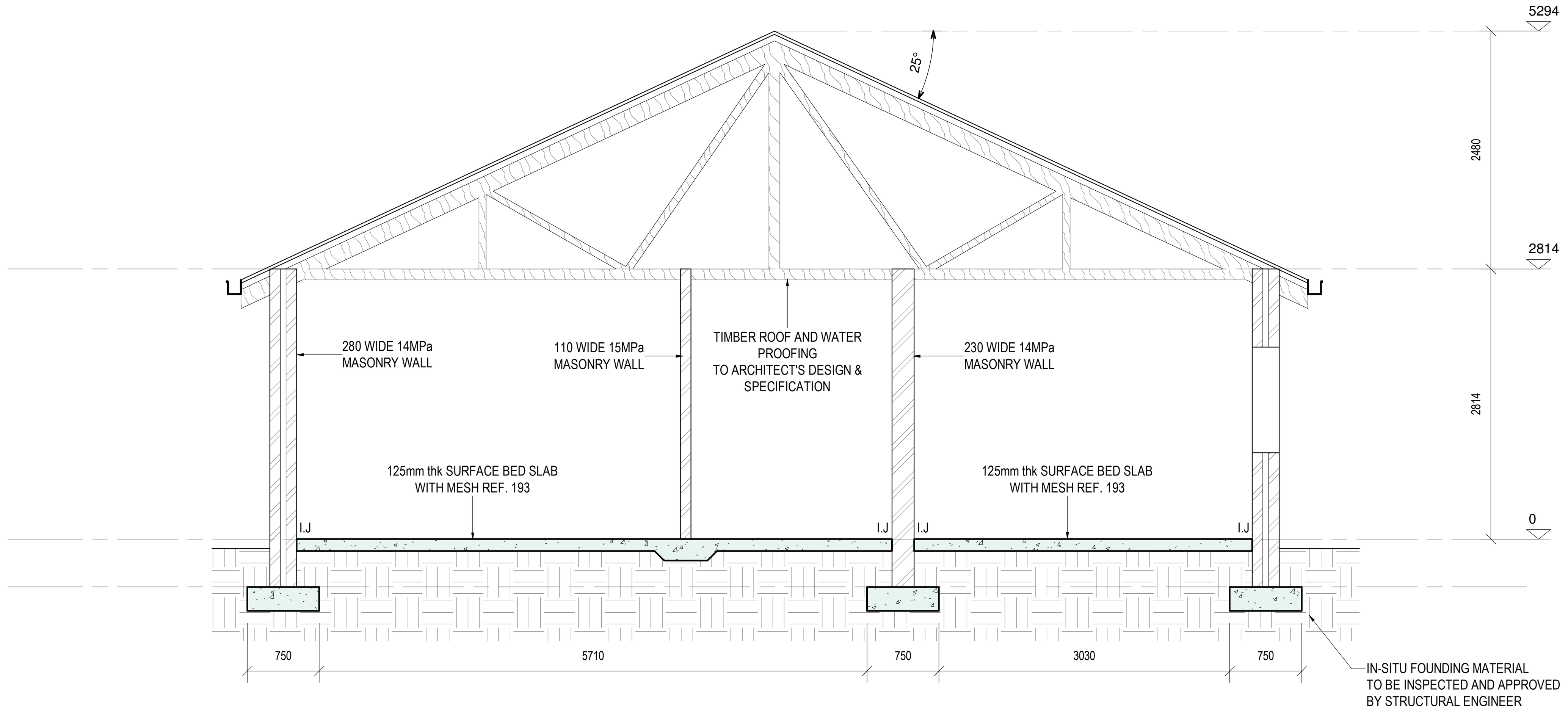
STUDENT ACCOMMODATION
FOUNDATION & SURFACE BED LAYOUT

RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN		2020.10.16

NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	M.STEYN	2020.10.16	A1
DRAWN	C.NORTJE	2020.10.16	SCALE:
APPROVED	C.DE JAGER	2020.10.16	**As indicated**

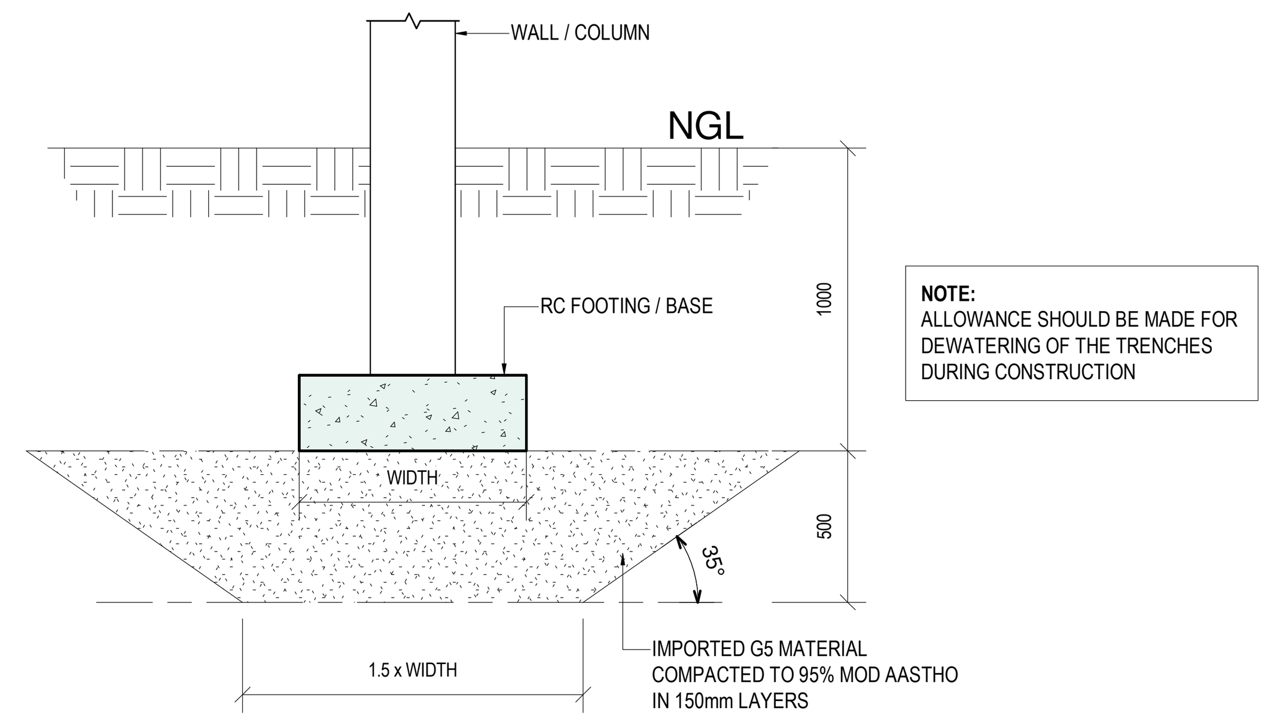
DRAWING NO: **20005-SANSA- S-001**

REVISION: **A**



SECTION A

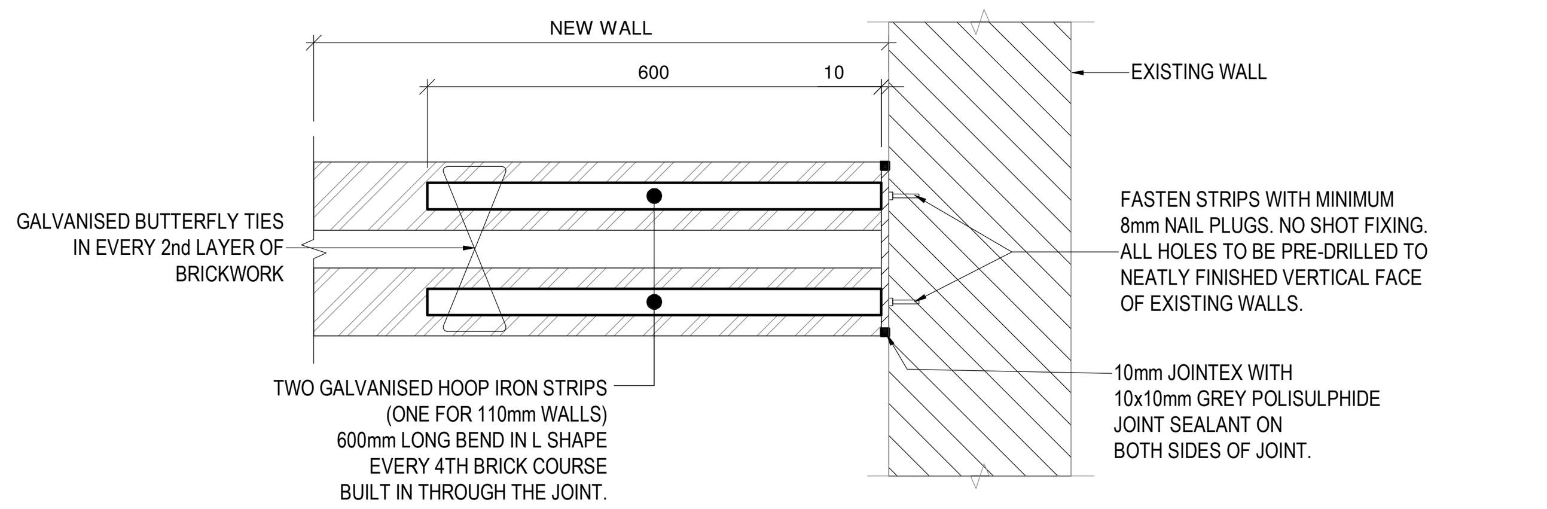
SCALE: 1 : 50



NOTE:
ALLOWANCE SHOULD BE MADE FOR DEWATERING OF THE TRENCHES DURING CONSTRUCTION

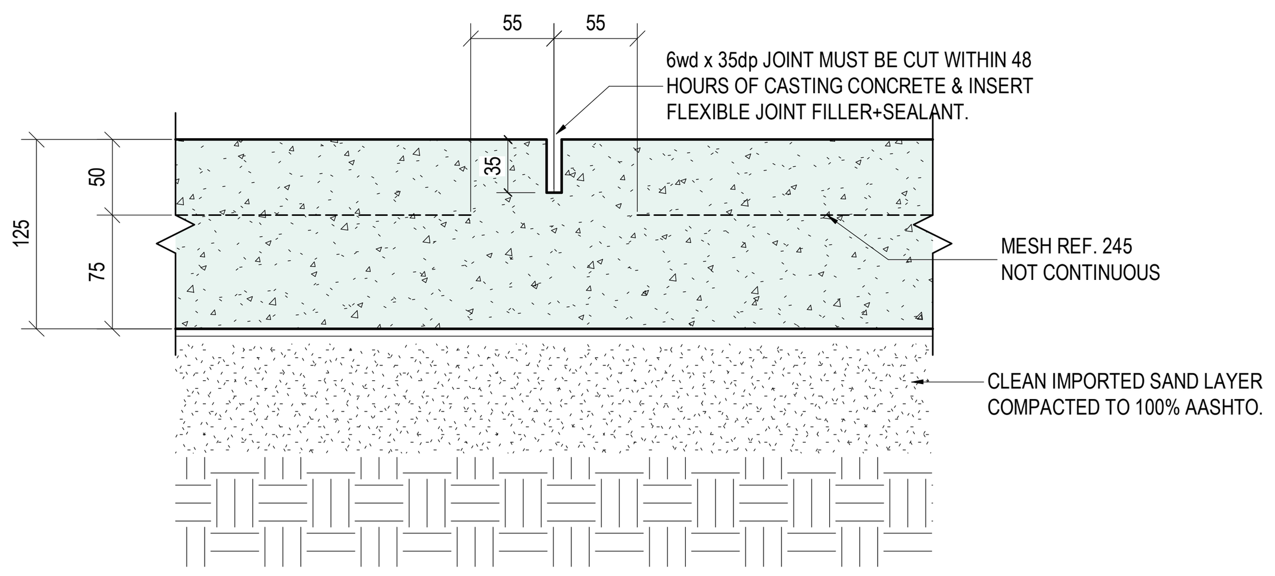
TYPICAL GROUND WORKS BELOW ALL FOOTINGS

SCALE: 1 : 25



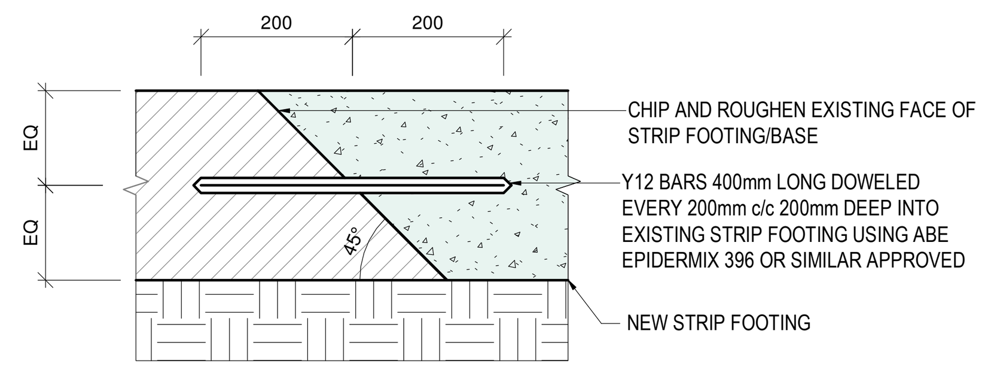
MOVEMENT JOINT (M.J) BETWEEN NEW AND EXISTING WALL

SCALE: 1 : 10



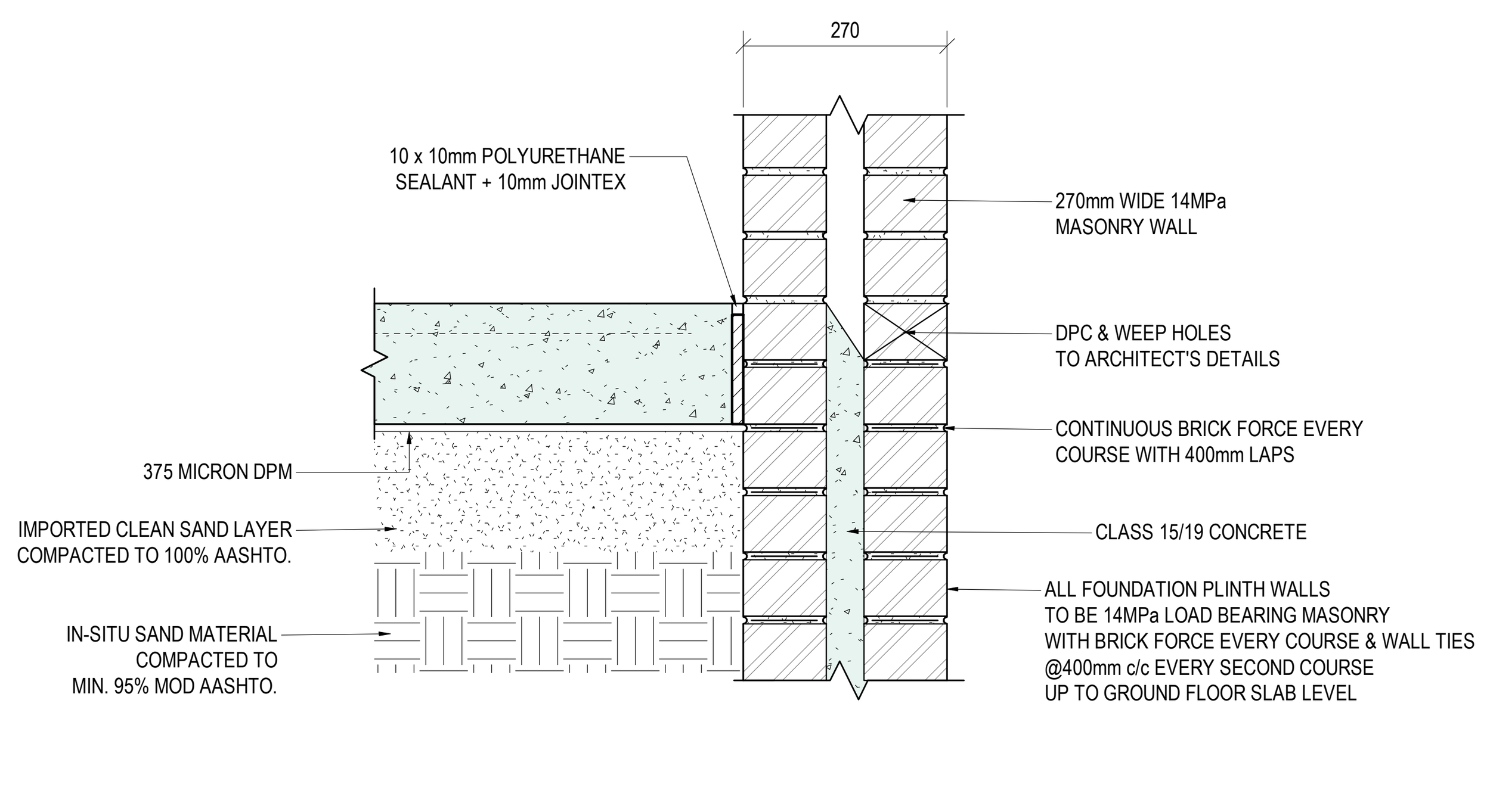
TYPICAL SAW-CUT JOINT (S.C.J.)

SCALE: 1 : 5



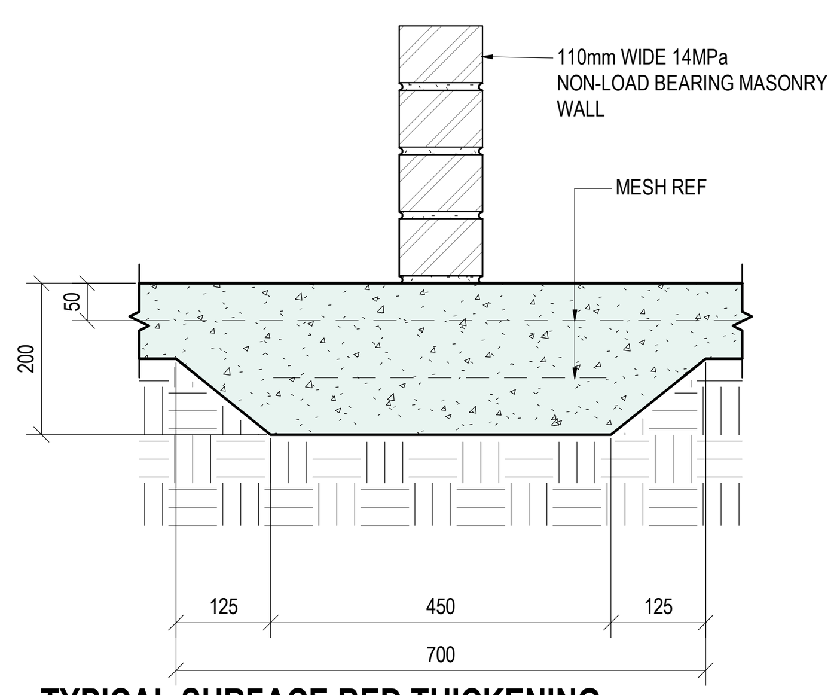
CONNECTION DETAIL BETWEEN NEW & EXISTING STRIP FOOTINGS

SCALE: 1 : 10



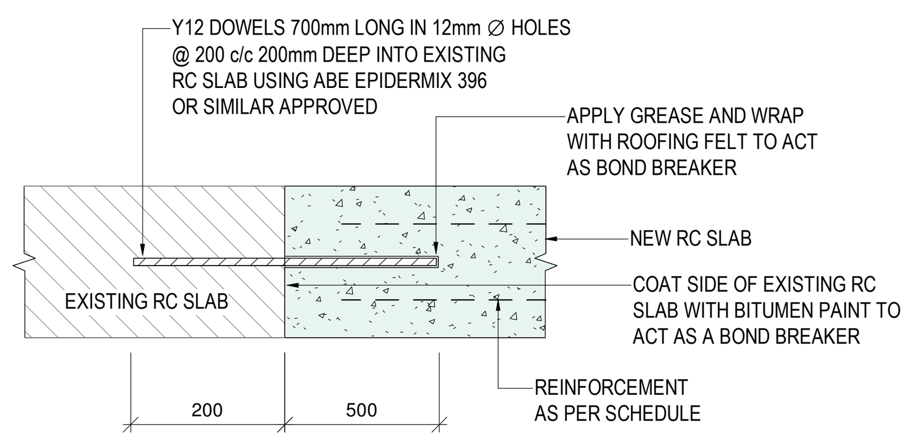
TYPICAL FLOOR ISOLATION JOINT DETAIL (I.J)

SCALE: 1 : 10



TYPICAL SURFACE BED THICKENING

SCALE: 1 : 10



TYPICAL CONSTRUCTION JOINT (C.J)

SCALE: 1 : 10

CONFIRMATION OF DIMENSIONS

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SPECIAL NOTES

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CLIENT:

sansa SOUTH AFRICAN NATIONAL SPACE AGENCY

PROJECT NAME:

SANSA
SPACE WEATHER CENTRE

DRAWING TITLE:

STUDENT ACCOMMODATION
SECTIONS AND DETAILS

RESPONSIBLE PERSON	SIGNATURE + ECSA DETAILS	DATE
M.STEYN		2020.10.16

NWE RESPONSIBLE PERSON		DATE:	SHEET SIZE:
DESIGN	M.STEYN	2020.10.16	A1
DRAWN	C.NORTJE	2020.10.16	SCALE:
APPROVED	C.DE JAGER	2020.10.16	As indicated

DRAWING NO: 20005-SANSA- S-002

REVISION: A