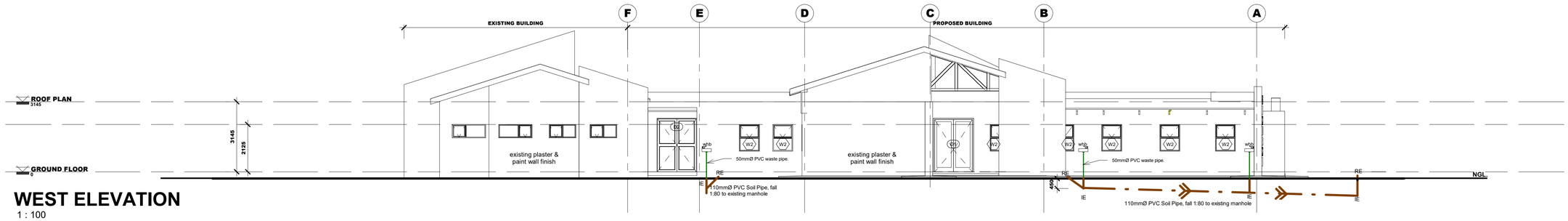
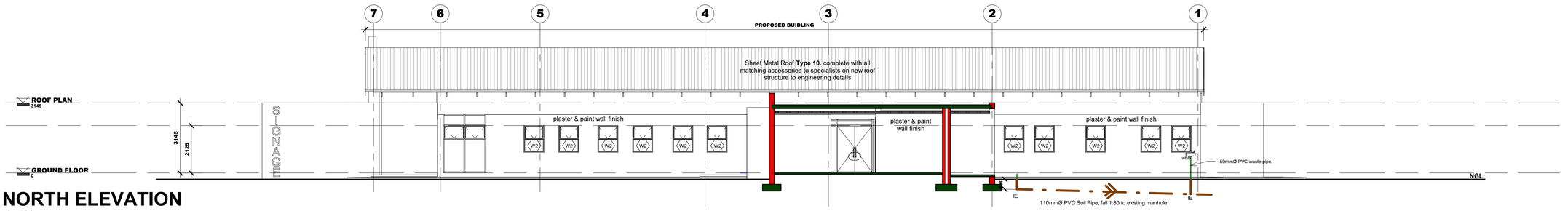


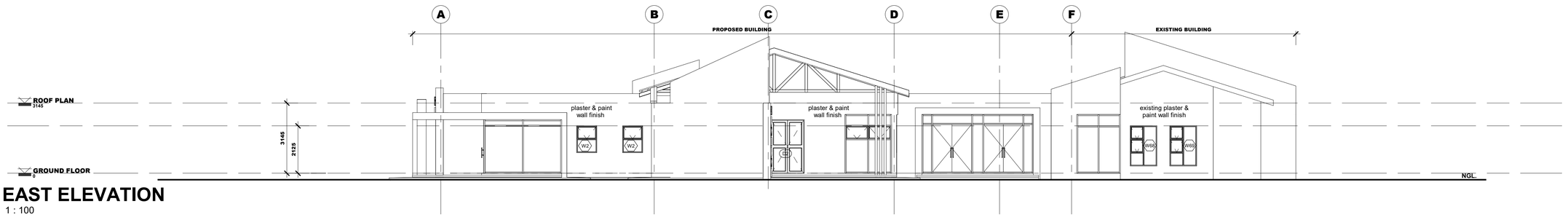
WEST ELEVATION

1 : 100



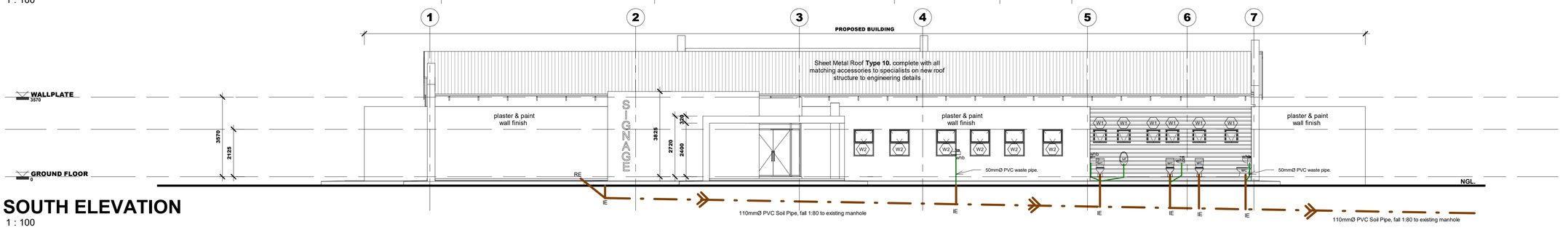
NORTH ELEVATION

1 : 100



EAST ELEVATION

1 : 100



SOUTH ELEVATION

1 : 100

Construction Notes:

The following descriptions / specifications are to be read in conjunction with, and work executed in accordance with OW371 SPECIFICATION OF MATERIALS AND METHODS TO BE USED (as published by the Dept of Public Works October 1993 Edition)

1. External Site works:

1.1 Earthworks and levels:
All siteworks and levels according to civil engineers details.
1.2 Paving 1:
Approved 65mm interlocking pavers laid as per engineers details and specs

2. Foundations:

2.1 Column Footings
Column footing as per engineer's design and specs provide for the casting and testing of concrete test cubes as per engineer's requirements
2.2 Concrete strip foundation footings:
Strip footings as per engineer's design and specs
Provide for the casting and testing of concrete test cubes as per engineer's requirements
2.3 Foundation walls:
Extra hard-baked clay bricks laid in strecher bond with brickforce every second course and bedded in 6:1 cement mortar

3. Back Filling:

3.1 Filling:
Filling compacted in layers to engineer's specifications provide for the testing of compaction
3.2 Insect poison:
Applied to foundation trenches and filling in accordance with sabs 1164 / 1165 by specialist. a certificate of guarantee (covering 10 years) to be issued by applicator.

4. Floor Construction:

4.1 DPM:
250um polyethylene waterproofing membrane sheeting laid in accordance with manufacturer's specification
4.2 Surface Bed:
125mm 15mpa Reinforced concrete surface bed cast in sections and cut through and casted around columns all in accordance with engineers details and specifications.
4.3 Screed:
3:1 Cement screed laid on clean surface: overall thickness of screed and floor finish: 25mm (see finishes: floor) where no finish, screed to be finished off smooth with a steel trowel.
4.4 Concrete Apron
Concrete apron as per engineers details and specifications.

5. Floor Finish:

5.1 Grano:
40mm thick untinted Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part 5mm exposed granite particles, laid by specialist in panels not exceeding 10m2. including approved brass dividing strips, Floated with a steel trowel to perfectly smooth surface, free from bumps and scratches, and sealed with approved durable surface coat.
5.2 Porcelain Tiles:
600x600x8mm Full body matt porcelain floor tiles with 2mm joints on full tile cement bedding, in accordance with PW371-A and SANS 13006 group B1a water absorption equal or grater than 0.5%. Grout joints as per BS EN 13006 (PW371) 12.1 (p).

5. Floor Finish Cont.:

6mm wide movement joints to be observed with patent stainless steel expansion joint strips consisting of synthetic fibre inserts installed to manufacturer's instruction and as marked in the construction drawings.
5.3 Porcelain Tiles:
600x600x8mm Non-slip Full body exterior porcelain floor tiles with 2mm joints on full tile cement bedding, in accordance with PW371-A and SANS 13006 group B1a water absorption equal or grater than 0.5%. Grout joints as per BS EN 13006 (PW371) 12.1 (p). 6mm wide movement joints to be observed with patent stainless steel expansion joint strips consisting of synthetic fibre inserts installed to manufacturer's instruction and as marked in the construction drawings.

6. Wall Construction:

6.1 DPC:
375um polyethylene DPC sheeting in appropriate strips laid in strict accordance with the manufacturer's specification under all walls at surface, slab level, and under window sills.
6.2 Stock brick:
Baked clay bricks in stretcher bond with brickforce every fourth course and bedded in 6:1 cement mortar.
6.3 Facebrick
Approved FBX clay facebrick laid in common bond to comply with SABS 227 and forming part of structure.
6.5 Internal Plaster
Wood float plaster to a minimum 12mm 4:1 mixture cement plaster applied to wall. maintain full length structural joints through the plaster and score plaster surfaces to be tiled

6. Wall Construction Cont.:

6.7 Exterior Plaster
Wood float plaster to a minimum 12mm 4:1 mixture
cement plaster applied to wall. maintain full length
structural joints through the plaster and score plaster surfaces to be tiled
6.8 Pre-cast lintels
Standard pre-stressed concrete lintel bedded in mortar and extending not less than 225mm on either side of opening. where openings exceed 3000mm in width, 2x12mm reinforcing rods per course (for 230mm wall) and 3x12mm reinforcing rods per course (for 345mm wall) to be laid in 3:1 mortar every course for 4 courses above lintels.
6.9 Interior window sills:
15mm thick cement window sill firmly bedded in 4:1 cement mortar, slightly projecting 10mm from wall edge and to be tucked below the window frame.
10.0 Exterior window sills:
Brick-on-edge with wood float plaster to a minimum
12mm 4:1 mixture cement plaster with DPC laid under as per 6.1

7. Wall Finishes:

7.1 Existing Facebrick
Clean and seal the facebrick.Use bucket and brush face brick cleaning method. Clean face brick wall, remove all smudges, seal all holes with the mortar which matches the existing mortar on the wall. Care must be exercised in selecting the proper cleaning solution for the job by getting brick manufacturers' recommendation.

7. Wall Finishes Cont.:

7.2 Exterior Paint:
emulsion paint on universal undercoats to exterior new cement plaster (NW 140). Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equal), of BD 2 scale - 8% or less. apply one coat ofalkali-resistant primer SANS 1416, one coat universal undercoat SANS 681 with an over-coating time of 16 hours and finish with two coats matt, high-opacity finish "contract" emulsion paint SANS 1586 grade 4 with 2 hours drying time between coats, for a maintenance cycle of 7 years - inland environment. restrict paint to one manufacturer. complete paint systems - primer, undercoat and finishing coat to be recommended by same supplier. exterior quality to be used for exterior work
7.3 Interior Paint (PVA Acrylic):
emulsion paint on universal undercoats to exterior new cement plaster. Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equal), of BD 2 scale - 8% or less. apply one coat ofalkali-resistant primer SANS 1416, one coat universal undercoat SANS 681 with an over-coating time of 16 hours and finish with two coats matt, high-opacity finish "contract" emulsion paint SANS 1586 grade 4 with 2 hours drying time between coats, for a maintenance cycle of 7 years - inland environment. restrict paint to one manufacturer. complete paint systems - primer, undercoat and finishing coat to be recommended by same supplier. interior quality to be used for interior work

7. Wall Finishes Cont.:

7.4 Textured plaster:
12mm cement plaster to recieve MARMORAN strictly in accordance with manufacturer's specifications.
7.5 Halfbody Porcelain Tiles:
Half body 600x300mm porcelain tiles laid in true straight, vertical and horizontal 2mm joints, including patent stainless steel corner strips; in approved tile bedding adhesive in accordance with PW 371-A 12.1 (n and o). Finish off joints with grout in accordance with PW 371-A 12.1 (p and q) and SANS 10107. Colour to architects' approval.
7.6 Marble tiles:
600x600x20mm marble tiles laid in true straight, vertical and horizontal butt jointed, including patent stainless steel corner stirps.; in approved tile bedding adhesive in accordance with PW 371-A 12.1 (n and o). Colour to architects' approval
7.7 Skirting:
600mm wide x 100mm high x 8mm thick matt porcelain tile to comply with SABS 1449 laid on approved adhesives and grout in strict compliance to manufacturers instructions and SABS specification. Complete with corner and top stainless steel trims. Colour to architects' approval.

8. Concrete/Steel Structure:

8.1 Columns
Concrete columns as per engineer details and specifications.
8.2 Concrete Gutter
600x340mm Concrete gutter as per engineers details and specifications.
8.3 Concrete Beam
Concrete beam as per engineers details and specifications
8.4 Steel Beam
Steel beam as per engineers details and specifications
8.5 Steel Column
Steel column as per engineers details and specifications

9. Ceiling:

9.1 Ceiling type A (plasterboard)
1200x2400x9.5mm gypsum tapered edged ceiling boards secured to 38x38mm pine brandering with Sharp Point Screws 35mm at maximum 150mm centres. Boards tightly butted together and installed with the longer side running perpendicular to the direction of brandering. The boards shall be installed with the shorter side joints staggered by at least 300mm and centered on ceiling framework. Boards shall be installed with printed side up and all joints to be taped and skimmed with 3mm patent lightweight plaster on the same day as boards have been erected and plaster shall be finished to smooth polished surface to ensure a smooth unblemished ceiling surface ceiling edged with coved cornice. Seal with a full coat of plaster primer and apply 2x coats of emulsion paint, in accordance with PW 371-A 9.1.2 (a-r) Joint strips to be installed in areas where ceiling is not plastered.

9. Ceiling cont.:

9.2 Ceiling type B (600x600 Vinyl)
Biologically absorbable mineral wool ceiling tiles, size 600x600x15mm thick with square edge and white vinyl finish, laid on fire rated exposed demountable suspension system, comprising powder coated main tees and cross tees at with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm with ceiling perimeter finished with Perimeter L-trim, plugged and screwed at 200mm centres, and all installed to manufacturer's instructions.
9.3 Ceiling type C (600x600 acoustic)
Biologically absorbable mineral wool ceiling tiles, size 600x 600x15mm thick with square edge and white painted finish, laid on fire rated exposed demountable suspension system, comprising powder coated main tees and cross tees at with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm with ceiling perimeter finished with Perimeter L-trim, plugged and screwed at 200mm centres, and all installed to manufacturer's instructions.
9.4 Ceiling type D (600x1200 acoustic)
Biologically absorbable mineral wool ceiling tiles, size 600x1200x15mm thick with square edge and white painted finish, laid on fire rated exposed demountable suspension system, comprising powder coated main tees and cross tees at with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm with ceiling perimeter finished with Perimeter L-trim, plugged and screwed at 200mm centres, and all installed to manufacturer's instructions.

9. Ceiling cont.:

9.5 Ceiling type E (Concrete soffit)
Underside of concrete slab to receive ripple paint Colour as per architect.
9.6 Ceiling type F (Isoboard)
12x7900x50mm isoboard high density thermal insulation boards with beveled and shiplap edges fixed to purling on the underside of the steel trusses
9.7 Ceiling type G (Trap door)
Trap door: Fibre cement 600x600x2mm with 38x38mm SA Pine surround and cross bracing to inside fit into 600x600mm frame constructed of 114x38 SA Pine fixed between trusses.

10. Sheet Metal Roof:

10.1 Trusses:
Steel trusses per engineers design and specifications .
10.2 Sheeting:
Kliplok with chromadek finish roof sheets fixed to steel purlins per engineers design and specifications
10.3 Flashings:
Flashing as per manufacturer's details and specifications.
10.4 Fascia:
steel fascia in areas marked on the drawings as per manufacturer's details and specifications.
10.5 Sheet Metal Gutters:
Chromadek sheet metal gutter fixed to steel trusses in areas marked on drawings and according to manufacturers' details and specification.
10.6 Downpipe 1:
Ø100mm Sheet metal downpipe with chromadek finish, downpipe to be fixed to wall with brackets matching the down pipes. Colour to match sheeting.

10. Sheet Metal Roof cont.:

10.7 Downpipe 2:
Ø160mm Sheet metal downpipe with chromadek finish, downpipe to be fixed to wall with brackets matching the down pipes. Colour to match sheeting.
10.8 Certificates
A certificate from the fixing contractor as well as a seperate certificate from the sheeting supplier must be submitted before final completion certificate will

11. Concrete Roof:

11.1 Concrete slab
Concrete slab as per structural engineers details and specifications.
11.2 Screed:
3:1 Cement Screed laid on clean surface with falls to fullbore outlets.
11.3 Waterproofing:
One layer of bitumen waterproofing membrane, with 75mm side laps and 100mm end laps and sealed to primed surface to falls and crossfalls by "torchfusion" . bitumen waterproofing to be applied on concrete which already has waterproof cement additives. Waterproofing to be installed by an approved manufacturer's contractor under a ten year guarantee.

No.	Date	Revisions

cad file name
REVIT 2020

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Client
University of Venda
Creating future leaders

service
PROPOSED NEW ADDITION TO EXISTING SIMULATION LABORATORY BUILDING AT THE UNIVERSITY OF VENDA

site
UNIVERSITY OF VENDA,123 OF FARM CHIBASE 213 - MT, THOHOYANDOU C

drawing title
ELEVATION

ref. no 20/KMS/108	designed PK/RM
scale As indicated	drawn TM
date 2021/08/26 10:17:43 AM	checked PK

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