

STG4 Stage 4 Drawing Register		
Layout ID	Layout Name	Layout size
04-LOUT-0	DRAWING REGISTER	ZAS A4 Portrait
04-LOUT-1(01-A1)	HERBARIUM ROOF REFURBISHMENTS	ZAS A0 Landscape
04-LOUT-2(01-A4)	HERBARIUM CONCRETE LEDGES	ZAS A0 Landscape
04-LOUT-3(01-A6.1)	HERBARIUM NEW SKYLIGHTS	ZAS A0 Landscape
04-LOUT-4(01-B5.1)	HERBARIUM MEETING ROOM SHOPFRONT	ZAS A0 Landscape
04-LOUT-5(01-B5.2)	HERBARIUM ENTRANCE WEST WING	ZAS A0 Landscape
04-LOUT-6(01-B7.1)	HERBARIUM DUCT PANELS	ZAS A0 Landscape
04-LOUT-8(01-H2.1)	HERBARIUM NEW BASEMENT FIRE ESCAPE	ZAS A0 Landscape
04-LOUT-9(01-C)	HERBARIUM LAB FLOOR COVERINGS	ZAS A0 Landscape
04-LOUT-10(01-D3)	HERBARIUM WINDOW GLAZING	ZAS A0 Landscape
04-LOUT-11A(01-D3)	HERBARIUM SAFETY GLAZING SCHEDULE - SANS ...	ZAS A0 Landscape
04-LOUT-11B(01-D3)	HERBARIUM SAFETY GLAZING SCHEDULE - SANS ...	ZAS A0 Landscape
06A-FINSC	SPECIFICATION-FINISHING SCHEDULE	ZAS A4 Portrait

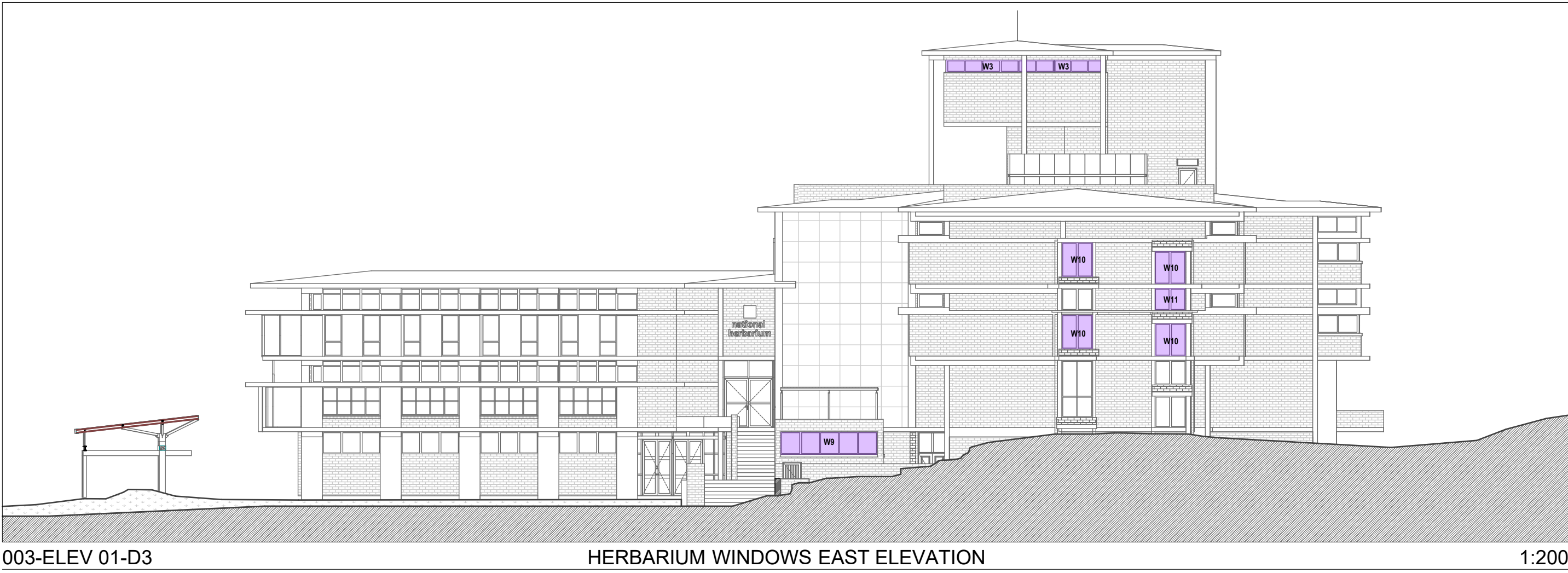
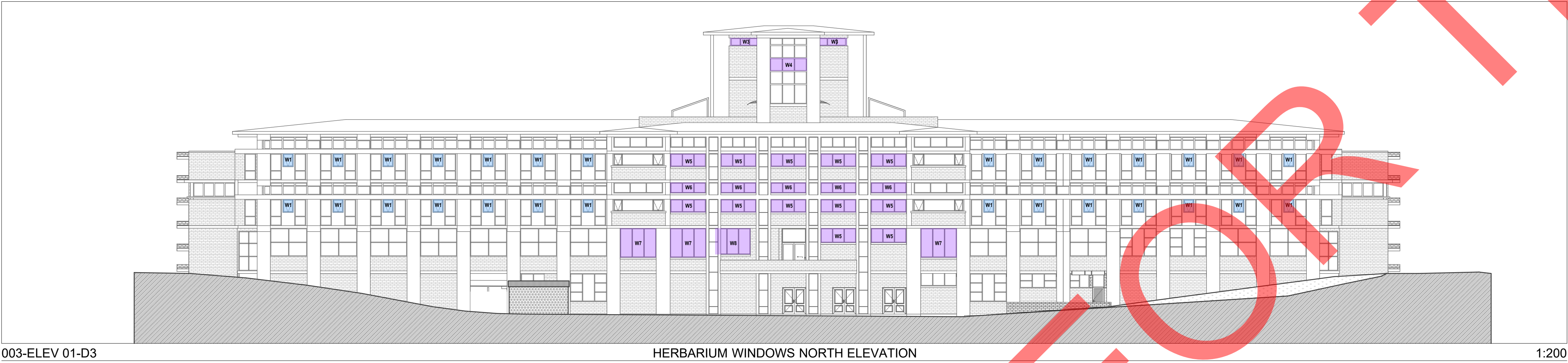
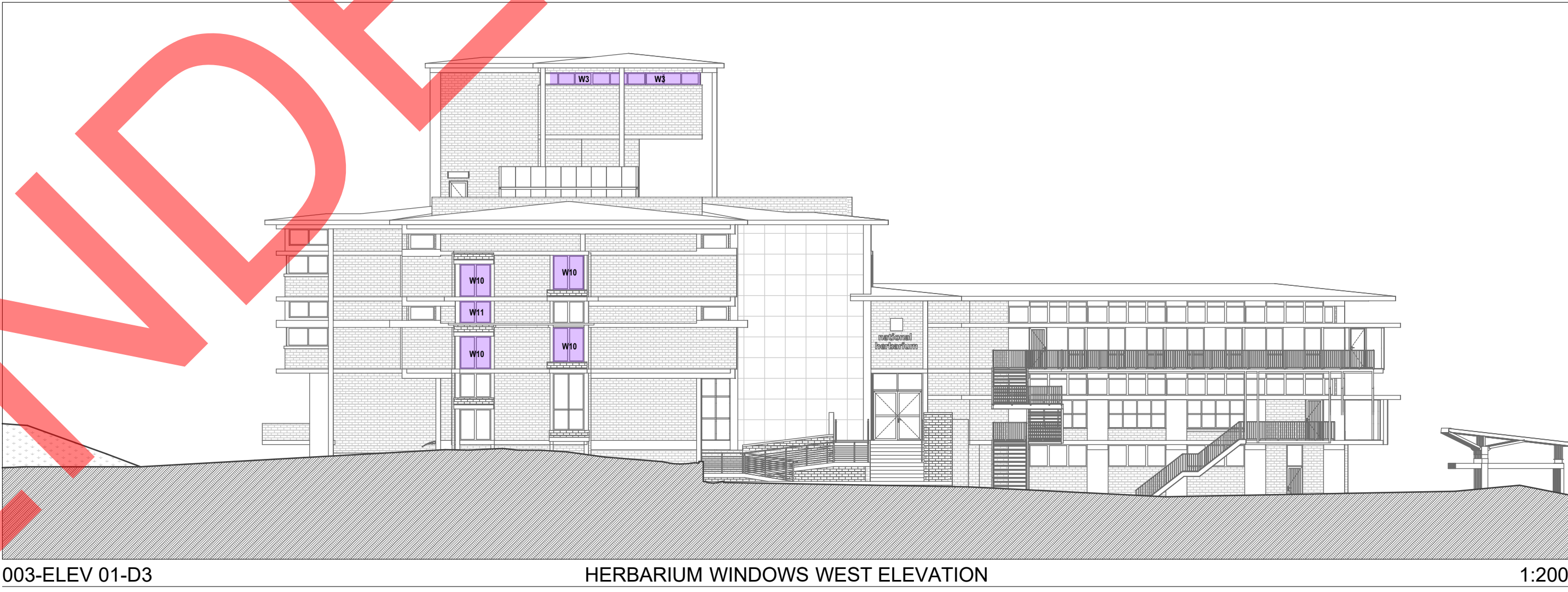
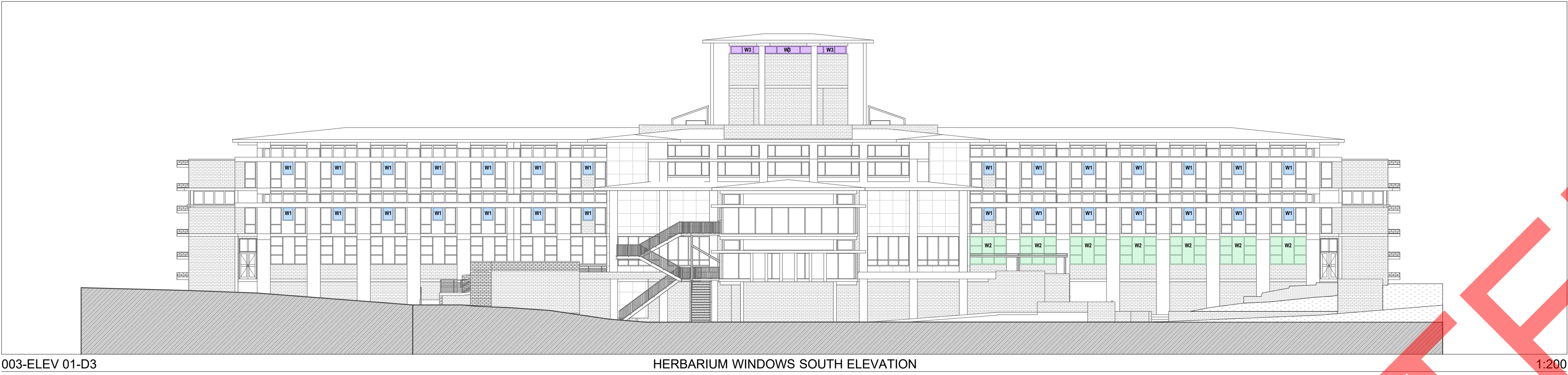
FOR TENDER

ITEM	DETAIL SCOPE OF WORKS
 W1 Total panels: 42	Provide new open section windows with fix top pane within existing frame. Mosquito net opening shall to be maintained. Existing frame to be retained. New open section windows with fix top pane within existing frame. New section Slap as per open section window size as per manufacture specification installation.
 W2 Total: 7	Remove existing Louvre panels. New open section to existing window frames. Existing window frame to be retained. Provide new open section window to existing louvre window frames.
 W3 (Various existing louvre window sections to be identified on site)	Various existing louvre window sections to be identified on site. To be replaced with new open section to existing window frames.
NOTE: All dimensions to be coordinated on-site, general arrangement – shop drawings to be submitted to Architect for general arrangement approval prior to removal of existing or any manufacturing.	

ITEM	DETAIL SCOPE OF WORKS
 W4 Total panels: 34	Replace existing louvre window sections with top hung open sections to existing window frames. Replace existing louvre window sections with fixed window panels to existing window frames. Total fixed panels: 20 Total open sections: 14
 W5 Total panels: 3	Replace existing louvre window sections with fixed window panels to existing window frames.
 W6 Total panels: 10	Replace existing louvre window sections with top hung open sections to existing window frames. Replace existing louvre window sections with fixed window panels to existing window frames.
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ITEM	DETAIL SCOPE OF WORKS
 W7 Total panels: 24	Replace existing louvre window sections with top hung open sections to existing window frames. Replace existing louvre window sections with fixed window panels to existing window frames.
 W8 Total panels: 6	Replace existing louvre window sections with top hung open sections to existing window frames. Replace existing louvre window sections with fixed window panels to existing window frames.
 W9 Total panels: 2	Replace existing louvre window sections with top hung open sections to existing window frames. Replace existing louvre window sections with fixed window panels to existing window frames.
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ITEM	DETAIL SCOPE OF WORKS
 W10 Total panels: 4	Replace existing louvre window sections with top hung open sections to existing window frames. Replace existing louvre window sections with fixed window panels to existing window frames.
 W11 Total panels: 16	Replace existing louvre window sections with top hung open sections to existing window frames. Replace existing louvre window sections with fixed window panels to existing window frames.
NOTE: All dimensions to be coordinated on-site, general arrangement – shop drawings to be submitted to Architect for general arrangement approval prior to removal of existing or any manufacturing.	



EXISTING CONTEXT: W1 INTERIOR AND MOSQUITO NET

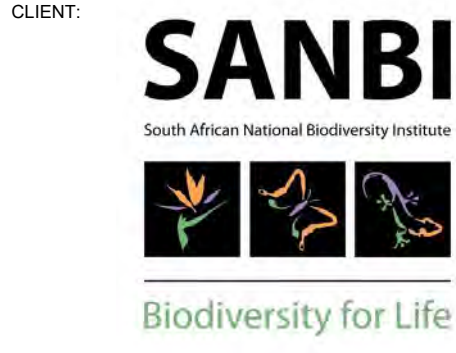


EXISTING CONTEXT: W2 SOUTH FACADE



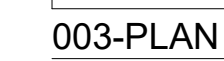
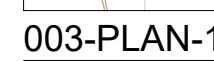
EXISTING CONTEXT: NORTH FACADE

NOTES:



REVISIONS
WORK DESCRIPTION FOR INFORMATION

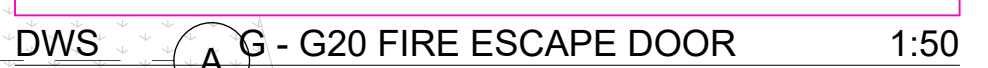
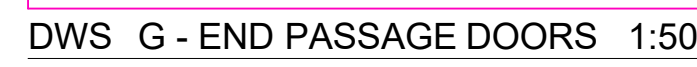
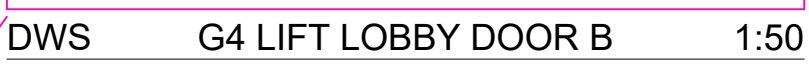
INSTITUTION	DESIGN	SCALE	DATE	NAME	ORGANIZATION	DISCIPLINE	CONTRIBUTOR	REVISIONS
SOUTH AFRICAN NATIONAL BOTANICAL INSTITUTE, PRETORIA CAMPUS	AS SHOWN	AS SHOWN	25	25	25	25	25	25
SANBI COMBINED WORKS								
CONTRACT: SANBI-CW								
DRAWING DESCRIPTION: HERBARIUM WINDOW GLAZING								
FORMA: A0								



NOTE: SAFETY GLASS SPECIFICATION
6.38mm Laminated Safety Glass
 All dimensions to be coordinated on-site,
 general arrangement – shop drawings to be submitted
 to Architect for general arrangement approval prior to
 removal of existing or any manufacturing.

NOTES:

NOTE: SAFETY GLASS SPECIFICATION
6.38mm Laminated Safety Glass
 All dimensions to be coordinated on-site,
 general arrangement – shop drawings to be submitted
 to Architect for general arrangement approval prior to
 removal of existing or any manufacturing.



CLIENT:

SANBI
South African National Biodiversity Institute



Biodiversity for Life

REVISIONS

INSTITUTION		DESIGN	ZS	KM.TN & WE	DRAWN
SOUTH AFRICAN NATIONAL INSTITUTE, PRETORIA CAMPUS		SCALE	AS SHOWN	ZS	CHECKED
SERVICE		RESPONSIBLE PROFESSIONAL'S IDENTITY			
SANSI COMBINED WORKS		NAME	DATE	SIGNATURE	PR. NO.
		23/10/2010			
CONTRACT DISCIPLINE		DRAWING DESCRIPTION			
SANSI-CW ARCHITECTURAL		HERBARIUM SPECIES GLAZING SCHEDULE - SANS 10400-N:2010			
DRAWING DESCRIPTION		CONTRACTOR	T.B.C		
FORMAT	DRAWING NUMBER	REV			
A0	STG00104-L0UT-118(01-D3)	0			

PRO-FORMA: SPECIFICATION/ FINISHING SCHEDULE DWG No.: SANBI-PTA-CB-STG4-06A -FINSC- REV.0			SPECIFICATION
	REF	ITEM	
FLOOR	1	SITE CLEARANCE	As per SANS 2001-BS1: Site clearance & SANS 201-BE1: Earthworks (general) . Areas shall be cleared or grubbed (or both) [not the entire site] to 150mm depth as follows: a) the borrow areas, b) the designated areas on which excavations are to be carried out and embankments and structures are to be constructed, and c) the areas on which material is to be stockpiled.
	2	SLAB- CONCRETE SURFACE BED	To Engineers specification [30 MPa/19mm or 20 MPa/19mm or 15 MPa/19mm or 7 MPa/37,5mm], all in situ concrete work (plain and reinforced) shall comply with SANS 1200G, cast on 250 micron green polyethylene damp proof membrane (DPM) sealed at joints with approved contact adhesive. (DPM to bottom and sides of raft foundation beams and slabs).
	3	SCREED- BONDED/ MONOLITHIC	1:4 (cement:building sand) mix. Common portland cement and good quality building sand mix. There are two types of screed 1) either a bonded screed applied to hardened concrete or 2) a monolithic screed laid just after cast the concrete slab, before it cures and hardens. Monolithic screed being monolithic: becomes part of the concrete, even though the screed is applied after the concrete has been placed and compacted. To ensure that the screed will bond to the slab mix slush or slurry (sand-cement grout) of equal quantities of common cement and clean building sand together with water. It is important to use the slurry within 30 minutes of mixing it so that it doesn't dry out. Mix the mortar and spread it over the surface of the concrete so that it is nominal 25 mm to 30 mm thick.
	4	SOIL INSECTICIDES	Approved soil insecticides shall be carried out in accordance with "The application of soil insecticides for the protection of buildings" - SANS 10124.
	5	FOUNDATIONS- STRIP FOOTING	SANS 2001-CM2 Strip footings, pad footings and slab-on-the-ground foundations for masonry walling (includes the construction of lightly loaded concrete surface beds): • site class designation: R / H / C / S / P / H1 / C1 / S1 / H2 / C2 / S2 / H3 • foundations: see drawings / in accordance with the requirements of SANS 10400-H for strip footings, slab-on-the-ground foundations or modified normal construction for category of expected damage 1 or 2 / rational design. Additional requirements: • protection against termites: required / not required • fabric reinforcement: welded steel fabric SANS 1024 ref. no.: 100.
	6	PAVING- CLAY PAVERS [PEDESTRIAN] - TYPE A1	Clay Paver Type: Corobrik® Springs Factory 52MPa Cederberg Paver PA clay paving bricks; Traffic Type: Light Traffic/ Medium to Heavy Traffic; Size/ Thickness: 200 x 98,5 x 65mm thick; Pattern: laid in Basket Weave Bond pattern, with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I. Paving to be inspected and re-sanded after three
	7	PAVING- CLAY PAVERS [PEDESTRIAN]- TYPE A2	Clay Paver Type: Corobrik® Springs Factory 83.7MPa Onyx Paver PA clay paving bricks; Traffic Type: Light Traffic/ Medium to Heavy Traffic; Size/ Thickness: 200 x 98,5 x 65mm thick; Pattern: laid in Basket Weave Bond pattern, with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I. Paving to be inspected and re-sanded after three
	8	FLOORING- CONCRETE WOOD FLOATED	Concrete with wood floated finish with exposed edges rounded and smoothed with a steel corner trowel.
	9	FLOORING- UNTINTED GRANOLITH [GRANO]	Grano composed of 1 part fine sand, two part course sand, one part granite and one part cement.
	10	FLOORING- TERRAZZO TILES [CEMENT BASED]- TYPE A1 (MAIN TILES)	Terrazzo Tiles- Cement Based: Union Tiles Terra-Stone - Slim Line Terrazzo o.e.a. Finish: highly polished cement based tiles Code: (Code: 1G24HPSL), size: 600 x 600 x12.8mm thick, with Joints: 2-5mm joints, Pattern: continuous in both directions grouted with suitable grout (elsewhere specified), excess grout on the surface to be cleaned with water as the work proceeds, bedded in a cement slurry on 25-30mm thick semi-dry mortar screed and tamped using a rubber mallet on a concrete surface bed, conforming to SANS 1200D MJ degree of Accuracy I.
	11	FLOORING- TERRAZZO TILES [CEMENT BASED]- TYPE B1 (BOARDER TILES)	Terrazzo Tiles- Cement Based: Union Tiles Terra-Stone - Slim Line Terrazzo o.e.a. Finish: highly polished cement based tiles Code: (Code: 1G24HPSL), size: 300 x 300 x12.8mm thick, with Joints: 2-5mm joints, Pattern: continuous in both directions grouted with suitable grout (elsewhere specified), excess grout on the surface to be cleaned with water as the work proceeds, bedded in a cement slurry on 25-30mm thick semi-dry mortar screed and tamped using a rubber mallet on a concrete surface bed, conforming to SANS 1200D MJ degree of Accuracy I.

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	12	FLOORING- VINYL PUR TILE	FloorworX Elite PUR Classic fully flexible vinyl floor tiles colour Light Grey (Colour code: 21030127), size 2.0mm thick, manufactured in accordance with EN 649, laid in FloorworX No. 62 acrylic adhesive spread with a trowel fitted with an A2 notched blade at a rate of between 5.5m ² and 6.5m ² per litre on suitably prepared subfloor (elsewhere specified) in accordance with SANS 10070, using FloorworX Self Leveller when required and rolled with 68kg three section metal roller on completion.
	13	FLOORING- SEALANTS	Application type: high movement construction and expansion joints Application: concrete contraction and expansion joints Surfaces should be clean, sound and dry prior to application. Apply Dow Corning 888, all in accordance with manufacturer's recommendations.
	14	FLOORING- PRESSURE CLEAN [CONCRETE]	Power washer with a pressure rating of at least 3000 psi (206 bar) and a flow rate of at least 18 litres per minute (lpm) / 1080 litre/hr (l/h)
	15	FLOORING- MAT	COBA Africa Premier Star Gripper Plus entrance mat colour Charcoal (Code: PSG010002), overall size: "as per floor covering plan" x 15mm gauge, consisting of flexible PVC with woven brush inserts, loose laid with PVC edging, installed in accordance with the manufacturer's recommendations.
WALLS	1	WALL- MORTAR [CLASS 1- 10MPa]	Mortar (cement and building sand ratio- comply with SANS 2001 - CMI: 2007) Class and Minimum compressive strength MPa: I/10MPa; II/5MPa; III/1,5MPa. Cement to comply with SANS 50197. Mortar shall be Class II unless otherwise specified
	2	WALL- MORTAR [CLASS 2- 5MPa]	Mortar (cement and building sand ratio- comply with SANS 2001 - CMI: 2007) Class and Minimum compressive strength MPa: I/10MPa; II/5MPa; III/1,5MPa. Cement to comply with SANS 50197. Mortar shall be Class II unless otherwise specified Mortar plasticizers may only be used with the approval of the Principal Agent
	3	WALL- BRICK JOINTING- TYPICAL	a) To be Half-Round Tooled (Hollow Key Joint) / Square Recessed Joint/ Flush as per drawing. b) Half-Round Tooled (Hollow Key Joint): a 10-12mm joint is recommended. c) Square Recessed Joint: a 12- 15mm joint is recommended.
	4	WALL- BRICK BONDING- TYPICAL	
	5	WALL- DPC	DPC membrane as per SANS 952-1 type B, thicknesses of 375 microns, laid with minimum 150mm overlaps. DPC: a 375 mic. embossed polyolefin damp proof course in walls to SABS mark SANS 952-1 type B laid with minimum 150mm overlaps.
	6	WALL- CLAY MASONRY	Burnt clay masonry units to SANS 227
	7	WALL- EXTERNAL CEMENT PLASTER & PAINT	SANS 2001-EM1 Cement plaster: • finish: smooth / textured / roughcast / bagged / skimmed • thickness: 12mm
	8	WALL- EXTERNAL FACE BRICK- TYPE A1	Compressive strength of facebrick to be greater than 17.0MPa. Face Brick type: To architects approval, Corobrik® Midrand 27-36MPa Roan Imperial FBX clay face brick, size 222 x 106 x 73mm, manufactured in accordance with SANS 227:2007, bedded and jointed in Class II mortar and pointed with flush vertical and flush horizontal joints, suitable for exposure zones 1-4.
	9	WALL- CLADDING- ALU PANELS	Hunter Douglas SA Alupanel XT aluminium composite panel cladding comprising of composite aluminium panels, consisting of a 0,5mm thick aluminium alloy AA3004 facing sheet bonded to a polyethylene core, colour Silver (Code: 9006) PVDF Kynar 500 paint coating, fixed to aluminium sub-structure with fixing bracket on 50mm returns, hooked into aluminium channel and finger bracket system fixed to sub-structure with minium fixing zone of 85mm. The whole to be designed and installed by an approved specialist, all in accordance with the manufacturer's instructions.
	10	WALL- 230- CONCRETE COPING TYPE 1	Modcon Concrete Solutions precast concrete coping (Type: 012), overall size 300 x 70mm high, bedded and jointed in Class II mortar and pointed on all exposed faces.
	11	WALL- 230- CONCRETE COPING TYPE 2	Modcon Concrete Solutions precast concrete coping (Type: 095), overall size 300 x 80mm high, bedded and jointed in Class II mortar and pointed on all exposed faces.
	12	WALL- 345- CONCRETE COPING TYPE 1	Modcon Concrete Solutions precast concrete coping (Type: 123), overall size 390 x 100mm high, bedded and jointed in Class II mortar and pointed on all exposed faces.

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	13	OFFSHUTTER CONCRETE- [SMOOTH]-Concrete Repair Mortar	a) SikaRep® Concrete Repair Mortar i) Apply SikaRep® 1-component, fibre reinforced, low shrinkage concrete repair mortar for repair of spalling and damaged concrete. Mixing Ratio: For normal application add 4.0 — 4.5 litres of water per 25kg of SikaRep® depending on the desired consistency. Layer Thickness: Minimum 5 mm per application layer; maximum 30 mm per application layer by hand. Pot Life: ~20 minutes at + 23 °C APPLICATION INSTRUCTIONS: SUBSTRATE QUALITY / PRE-TREATMENT Concrete: The concrete shall be thoroughly clean, free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials. De-laminated, weak, Surface to be clean, sound and damp. Apply duragrout general-purpose, non-shrink cementitious grout for precision grouting including curing with duracure SBS or duracure WBC, all in accordance with the manufacturer's instructions. The grout will have a minimum 1 day compressive strength of 13 MPa.
	14	OFFSHUTTER CONCRETE [SMOOTH]-Concrete Repair Mortar	Surface to be clean, sound and dry. Apply epidermix 395 two-component structural liquid epoxy grouting compound for fixing starter bars vertical down, holding down bolts etc, with a cured compressive strength of 34,1 MPa, all in accordance with the manufacturer's instructions.
	15	OFFSHUTTER CONCRETE- [SMOOTH]-Chemical Mortar	Prepare the surface to be clean and sound. Prepare concrete and exposed steel and apply durarep ZR single-component epoxy zinc primer to exposed steel with an overcoating time of 30 minutes and prime concrete substrate with durarep FR mortar slurry. Apply durarep FR Polymer modified, fibre-reinforced structural repair mortar and cure with durabond acrylic emulsion, bonding and curing agent. Apply durarep FC thin skin polymer-modified, fairing coat, all in accordance with the manufacturer's instructions.
	16	OFFSHUTTER CONCRETE [SMOOTH]-Concrete Repair & Fair Coating	Power washer with a pressure rating of at least 3000 psi (206 bar) and a flow rate of at least 18 litres per minute (lpm) /1080 litre/hr (l/h)
	17	PRESSURE CLEAN [CONCRETE]	
PAINT	1	PAINT- [WATER BASED- INTERNAL] CEMENT PLASTER WALL	Plascon Double Velvet to interior new/ existing cement plaster. [walls not tiled; ducts] Surface to be assessed and the appropriate surface preparation clauses selected for remedial procedure. Prime with one coat Professional Plaster Primer (PP700) with an overcoating time of 16 hours and finish with two coats Double Velvet (VEL 1) with 2 hours drying time between coats, for a maintenance cycle of 10 years in a C1 - inland environment. • Environment : C1 - inland • Topcoat : Double Velvet • Number of coats of topcoat : two coats • Overcoating time for topcoat : 2,00 hour • Primer/Base coat : Professional Plaster Primer • Overcoating time for primer/base coat : 16,00 hour • Specification document : RD104t.
	2	PAINT- [WATER BASED- EXTERNAL] CEMENT PLASTER WALL	Plascon Professional Super Matt to exterior new cement plaster (NW 106). 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 equivalent), of BD 2 scale - 8% or less. Prime with one coat Professional Plaster Primer (PP 700) with an over coating time of 16 hours and finish with two coats Professional Super Matt (PEM 900) with 1 hour drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.
	3	PAINT- EXTERNAL TORCH FUSION [MEMBRANE]	Two coats Roofcote bituminous aluminium paint
CEILINGS	1	CEILING- LINEAR - ALUMINIUM	Hunter Douglas Luxalon® 84C aluminium ceiling system comprising 5000 x 84 x 12,5mm deep with Luxacote® finish colour (to Architects approval) standard panels with flush join profiles colour (to Architects approval), fixed on 3No. carriers at not exceeding 1600mm centres, suspended by rod hangers at not exceeding 1300mm centres. Ceiling perimeter finished with 45 x 21 x 21 x 18,5mm W-profile colour (to Architects approval). The whole to be designed and installed by approved specialist, all in accordance with the manufacturer's recommendations.
ROOFS	1	ROOF- POLYCARBONATE TRANSLUCENT SHEETING [KLIPLOCK]	"MODEK" o.e.a polycarbonate sheeting thickness 1.2mm, Klip-Lok 700 [M-LOCK 700] profile, Colour: Opal 50 [50%] all fixed in accordance with the manufacturer's specifications fixed @ max 1500mm centres.
	2	ROOF- SHEETING [KLIP-LOK]	Global Roofing Solutions 0,58mm thick 700mm cover Klip-Lok 700™ profile Z275 spelter Colour: As per Roof Plan finish top coat and backing coat ISQ550 galvanised steel roof sheeting, fixed to steel intermediate purlins at max. 2500mm centres and eaves and ridge purlins at max. 2100mm centres using KL700 clips fixed with 10No.16 x 16mm long self drilling wafer head PH2 screws, No. 3 drill point fasteners, all in accordance with the manufacturer's specifications. Eaves and ridge purlins at 2100mm centres using KL700 clips fixed with 10No.11 x 45mm long self drilling wafer head PH2 screws, type 17 drill point fasteners, all in accordance with the manufacturer's specifications.
	3	ROOF- SLABS- TORCH ON WATERPROOFING	One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torchfusion' finished with two coats Roofcote bituminous aluminium paint. Waterproofing to be installed by an Approved Derbigum Contractor under a ten year guarantee.

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	4	ROOF- SLABS-TURNUPS- TORCH ON WATERPROOFING	a. Derbigum turnups and edges are to be counterflashed with 100mm wide glass fibre membrane set into two coats of bitumen flashing compound. Waterproofing to be installed by an Approved Derbigum Contractor. b. Derbigum turnups and edges are to be counterflashed with 150mm wide Geoflex acrylic coating, including white polypropylene reinforcement. Waterproofing to be installed by an Approved Derbigum Contractor. c. Derbigum turnups and edges are to be counterflashed with 100mm wide Uniflash self-adhesive membrane sealed to primed surface and finished with two coats of Geoflex topcoat. Waterproofing to be installed by an Approved Derbigum Contractor. d. Derbigum turnups and edges are to be counterflashed with 150mm wide Hydroflex cementitious coating including polypropylene reinforcement. Waterproofing to be installed by an Approved Derbigum Contractor.
	5	ROOF- SLABS-PLANTERS- TORCH ON WATERPROOFING	One layer Derbigum CG3 and one layer Derbigum CG4H (horticultural) waterproofing membrane, with 100mm side laps and 150mm end laps, sealed to primed surfaces by 'torch-fusion' followed by 150 micron polythene sheeting loose laid with 50mm laps sealed with pressure sensitive tape, to receive drainage layer of Delta MS8 to vertical and Delta MS20 to horizontal surfaces , to receive soil and plants (elsewhere specified). Waterproofing to be installed by an Approved Derbigum Contractor.
	6	ROOF- FASCIA BOARDS- HIGH DENSITY	Everite high density plain ungrooved/ grooved Nutec fascia boards , size 150 x 15mm/ 225 x 15mm/ 300 x 15mm, fixed to 38 x 38/52mm tilter batten and 38 x 38/52mm support battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with PVC H-profile fascia joiner between boards/aluminium H-profile fascia joiners/ chromaprep H-profile fascia joiner/ aluminium fascia jointing plate/chromaprep jointing plate and fascia corner joiners at board ends.
	7	ROOF- SEALING MATERIAL	Sondor Performance Foams cross-linked, closed cell, expanded Polyethylene polyclosures fixed between flashing (elsewhere specified) and profile sheeting (elsewhere specified).
	8	ROOF- GUTTER & DOWNPIPE- FACTORY PREPAINTED	Ogee profile Colorbond pre-coated Zincalume seamless gutter, size 150 x 100 x 0,5mm thick in colour Silver White including matching rivet-fixed mitres and end caps internally sealed using Silicon Mastic, hung by nail fixed internal aluminium hangers at 800mm centres with rectangular fluted downpipes. Rectangular fluted downpipes, size 100 x 75 x 0,5mm thick in colour Silver White fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings.
	9	ROOF- CANOPY	Polycarbonate Awning with 3 mm thick solid Acrylic (Perspex) boards aluminium brackets 1m spaced to fit opening as per plan.