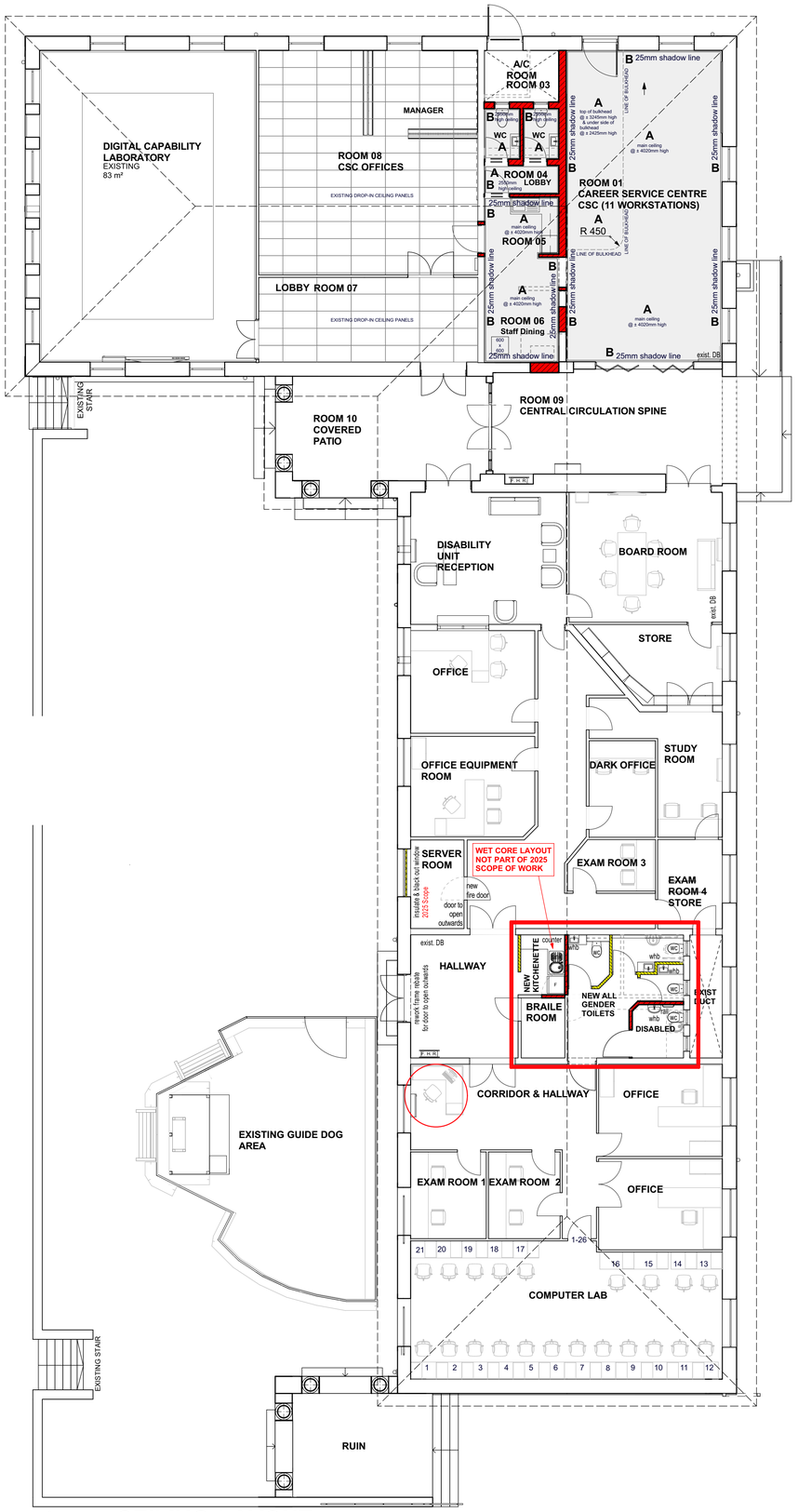


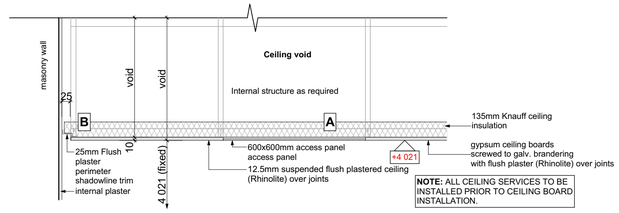
CEILING LAYOUT
GROUND FLOOR PLAN scale 1 : 100

CEILING KEY:

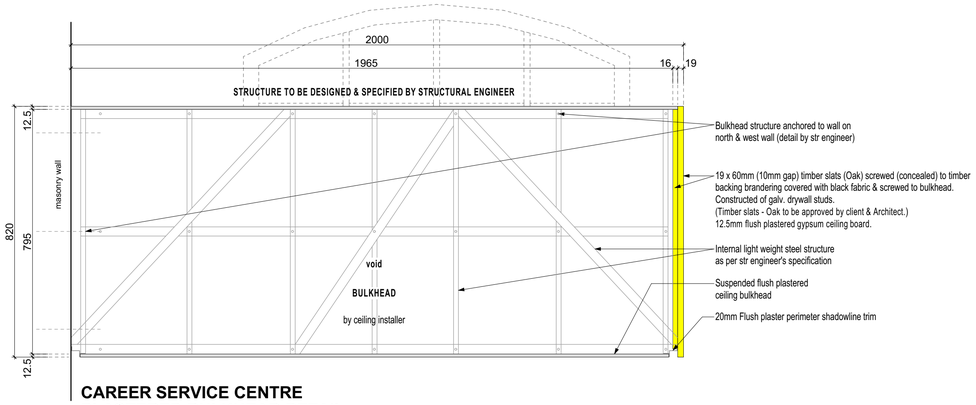
Type	Finish
A	12.5mm Gyproc Concealed Ceiling System: Taped joints and finished with gypsum plaster troweled to a smooth surface over joints; ceiling boards screwed to galv. steel brandering & install to manufacturer's specifications (centres). Substructure: Gypframe® D37/32 K for concealed grid application. Provide 600x600mm access panel for ceiling access.
B	Pelican Systems ceiling trims PS2 shadowline for flush plastered ceiling or similar approved.

CEILING KEY:

12.5mm Flush plaster skimmed ceiling

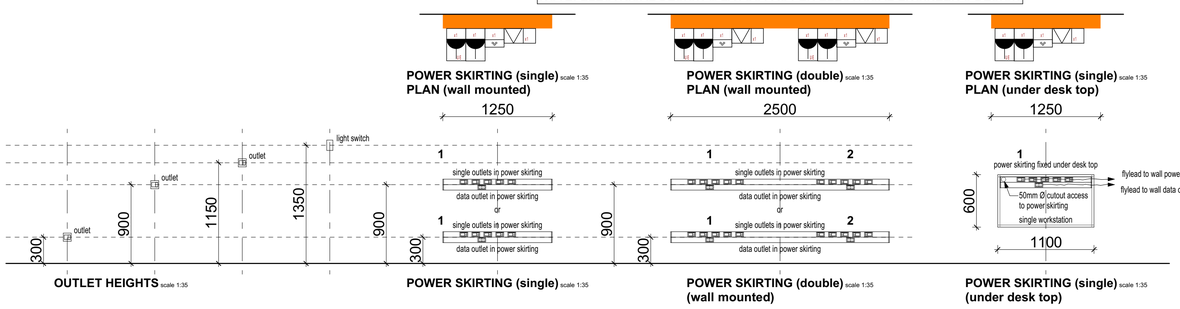


CAREER SERVICE CENTRE PLASTERED CEILING DETAIL scale 1 : 10



CAREER SERVICE CENTRE PLASTERED BULKHEAD DETAIL scale 1 : 10

NOTE: ELECTRICAL DESIGN & LAYOUT AS PER ELECTRICAL ENGINEER'S DESIGN



POWER OUTLET HEIGHTS scale 1:35

ISSUE FOR TENDER - JANUARY 2025

general:

SANS 2001
Applicable standards:
- the contractor (including sub-contractors) shall be familiar with the contents of SANS 10400 and related SANS 2001 standards.
- provide on site: one hard/digital copy of SANS 10400 and related SANS 2001 parts when requested
- copies are available from www.sabs.co.za Standard-Sales/
- the specification data as described below make this specification project specific and shall have precedence in the interpretation of any ambiguity or inconsistency between this specification and these standards
- accuracy in building work: SANS 10155: grs except where stated otherwise

site clearance:
SANS 2001-BS1 Site clearance:
- materials from grubbing and demolition of structures to be disposed of to a designated site
- trees, turf, plants, bushes, shrubs, flora to be retained or replanted to instruction by landscape architect

earthworks:
SANS 2001-BE Earthworks (General):
- topsoil to be conserved and reused after completion of construction work
- surplus and unsuitable material to be dumped at location as agreed with contractor

concrete works:
structural works: SANS 2001-CC1 Construction works to eng specifications.
minor works: SANS 2001-CC2 Concrete works (minor works)
- horizontal surfaces that need to be non-skid: all pedestrian walkways, ramps

foundations:
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: according to eng
- foundations: to eng specifications and/or 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
- protection against termites: SANS 10124: within new building perimeter and under new paving when required
- apply weed killer under new paving

Concrete floors and paving on the ground:
- concrete floors: power-floated to smooth finish ready to receive floor finish - no screeds allowed
- concrete paving on the ground: grade 20 concrete, delay wood-trowelled finish to provide non-slip surface.

masonry construction:
SANS 2001-CM1 Masonry walling:
- type of masonry unit: burnt clay: SANS 227
- class and colour of face units: FBS / FBX to arch approval
- class of common units: NFP for plastered walls, NFX for masonry exposed to damp or in contact with the ground
- work size: 222 x 103 x 76 mm
- nature of FBS / FBX units: hollow

SANS 2001-C72 Structural timberwork (roofs):
- monoplanar prefabricated rational design SANS 1900/SANS10243 prepared by a Competent Person and inspected and certified by such a person during erection.

steelwork:
Structural steelwork: to eng specifications
Sundry steelwork:
- commercial quality steel allowed if yield stress equals 250Mpa
- structural steel tubes: SANS 657 part 1
- welding: all visible welds to be continuous, ground smooth; remove dross, burrs, irregularities

insulation, sealants:
- to conform to SANS 204 energy requirements
- reflective foil under roof tiles: SANS 1381-4, class B, one surface reflective, facing down; leave >25mm air space between foil and solid surface
- flexible fibre mats: SANS 1381-1, manufactured from recycled materials, e.g. polyethylene terephthalate (PET).
- pipe insulation: bonded preformed mineral fibre pipe sections SANS 1445-3, marked with expected maximum service temperature and exposure conditions.
- joint fillers: compatible with surfaces to be sealed; life expectancy >30yrs; apply to manufacturer's instructions

roof coverings:
SANS 10062 fixing of interlocking roof tiles
- roof fasteners: SANS 1273.
- tile roofing: Marley Double Roman Plus (colour to architect)
- profiled roof sheeting: IBR with chromadek finish (colour to architect) in long lengths
- fixing: strictly to manufacturer's instructions
- flashings and counter-flashings: steel sheet of same material and colour as roofing sheet, >75mm high against side-walls and >200mm wide over at least two tiles/corrugations and purpose-made head-wall flashings, including serrated closers and polycrimpers, tapered flashings to pipes.

roofs: SANS 10400-R Gutters & downpipes.

waterproofing:
- reinforced liquid membranes: acrylic emeulsion paint reinforced with non-woven needle-punched polyester or popypropylene fibre fabric, to tops of parapet walls.
- no reinforced liquid membranes are allowed to waterproof sheet or tile roof coverings.

ceilings:
- gypsum plasterboard: SANS 266, with H-profile cover strips: Nail boards to timber brandering with 38 mm hot dip galvanized cloul nails or 32 x 2,5 mm diameter hot dip galvanized serrated ceiling nails, at 150 mm centres.
- 75 mm wide coved gypsum cornice: SANS 662, nailed to brandering and glued to wall. Mitre corners, splay heading joints
- Install 650 x 650 mm clear opening steel hatch as per ceiling plan.

windows & doors:
Steel windows SANS 727 Windows and doors made from hot rolled mild steel sections, factory primed. Painted as per finishing schedule.
SANS 1129 pressed steel door frames:
- type 1A - single leaf, no fanlight
- hinges: steel, welded on
- size: 813 x 2032 mm or as specified
- profile: as specified
- lock type: mortice
- finish: factory primed.

Timber doors: SANS 545 Wooden doors:
- type: internal: flush; external: batten door
- performance class: heavy duty
- size: 813 x 2032 x 40 mm
- finish flush door: fibre board

cement plaster:
SANS 2001-EM1 Cement plaster:
- internal finish: 1 coat cement plaster, steel trowelled
- external finish: 1 coat cement plaster, wood-trowelled

ceramic floor and wall tiling:
- ceramic tiles: SANS 1449 group B2: porcelain tiles SANS 13006 group B1a of size, shape, pattern and colour to arch approval
- installation: SANS 10107 The design and installation of ceramic tiling.
- fix tiles to power floated concrete surface with tile adhesive as recommended by the tile manufacturer.
- joints: firmwvide, straight, continuous and flush pointed with coloured cement grout (colour to architect). Prepare sample panel for approval by arch.
- movement joints - start floor tiles 10mm away from all walls.
- ensure structural joint width is the same as structural joint widths in substrate and aligned

floor coverings: see schedules install strictly to manufacturer's specifications.

painting:
SANS 10005 Painting of Buildings part 4, 5, 6.
Materials:
- suitable for intended purpose and for surface to which it is applied;
- exterior quality for external work; grade 2 (high hiding, washable) for interior work

Preparation:
- remove hardware, light fittings and other removable fittings that can be contaminated; mark, store and refix after completion; mask fittings that cannot be removed
- clean all surfaces of loose paint, rust, dirt, grease, acid, mould and mark - spare no effort to eradicate mould stratching glass in wood-framed windows
- When using blow-torch methods, ensure fire extinguishers are readily available
- Remove mold and algae by brushing and application of a fungicidal wash; allow to dry

Application:
- Follow manufacturer's instructions strictly

structural roof timberwork:

hardware, signs: see schedules
- fix hardware with matching screws
- protect hardware during construction
- hand over keys labelled with coloured plastic tags

glazing:
SANS 10400-N 4.1.1: Safety glass shall be permanently marked.
SANS 2001-CG1 Installation of glazing

drainage & water supply:
SANS 10400-P Drainage
SANS 2001-DP1 Earthworks for buried pipelines
SANS 2001-DP2 Below ground medium pressure pipelines
- pipes: polyethylene SANS 4427, size as specified

SANS 2001-DP4 Sewers
SANS 2001-DP6 below ground water installations for buildings
SANS 2001-DP7 Sewers for buildings
- pipes: unplasticised polyvinyl chloride SANS 796 and SANS 791, size and gradient as specified

SANS 1808: Water supply and distribution system components
SANS 10252 Water supply and drainage for buildings.
- Installation: surface piping, whether visible or not, e.g. in ducts, shall be neatly done in horizontal and vertical lines, where visible >20mm away from finished surfaces

solar installation:
Type: To comply with 10400-XA and with SANS 10106.
- all exposed hot water service pipes shall be clad with insulation with a minimum R-value in accordance with SANS XA.

environmental sustainability & energy usage in buildings:
Type: To comply with 10400-X:2021 and 10400-XA:2021.

general:

revisions:

FIRE NOTE: SANS 10400-T

4.9.2 In any building classified as H3 or H4.

a) Any separating element (wall and floor) between any
garage that is not large enough to be classified as J4 and any habitable room shall have a fire
resistance of not less than 30 min and
the wall shall extend to the underside of the roof.
b) Any door between such garage and any such room shall
have a fire resistance of not less than
30 min and such doorway shall require a threshold of not less
than 10 mm; and.
c) No combustible roof components shall penetrate the separating
element dividing the space between the garage and the
habitable room.

GLASS NOTES:

3mm Thick glass to areas not exceeding 0.75sqm.
4mm Thick to areas not exceeding 1.5sqm & 6mm thick
glass to all areas bigger than 1.5sqm.
Safety glass to all doors and windows lower than
500mm from unfinished floor level.
All glass must comply to SANS 10400 N & SANS XA fenestration.
(see window & door schedule for glass specifications)

WOOD NOTES:

All wood to comply with SANS 10163.

client's signature

engineer's signature

architect's signature

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

project description:
PRIVATE UNIVERSITY OF PRETORIA
REFURBISHMENT OF OLD CHEMISTRY BUILDING (J051)

drawing description:
TENDER: Power Outlet Heights & Ceiling Layout Ground Floor Plan

scale: 1 : 100 date: November 2024

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DRAWN	DESIGN
CB	HP