

ARCHITECTURAL SPECIFICATIONS

for

29 De Beer Street, Braamfontein

**Planned Upgrade of Existing Legal Aid Building Ground Floor Reception & 6th Floor CEO
Offices**

For

LEGAL AID SA

Table of Contents

1. Aim	3
2. PROJECT SPECIFICATIONS	3
2.1 Architectural Specifications	3
2.1.1 General:	3
2.1.2 Tiling (general):	4
2.1.3 Materials (General)	5

1. Aim

The purpose of this document is to provide a comprehensive overview of the project and outline the detailed specifications for the works to be undertaken by Imbeu Development & Project Management in relation to the refurbishment and interior fit-out of the Chief Executive Officer's Office and Reception Area at Legal Aid South Africa. It sets out the design objectives, functional requirements, and the scope of services to be delivered, including architectural detailing, interior design, and overall project coordination. The specifications cover aspects such as spatial planning, material selections, finishes, furniture layouts, and compliance with Legal Aid SA's corporate standards. This document also defines the expected quality benchmarks and performance criteria to ensure the final outcome reflects a professional, modern, and functional workspace appropriate for executive use and client-facing operations

2. PROJECT SPECIFICATIONS

2.1 Architectural Specifications

2.1.1 General:

- This document is to be read in conjunction with the architectural drawings and schedules, which form an integral part of the Works Information.
- The drawings are the basis on which the Bill of Quantities has been prepared together with the specification in the Works Information.
- The Architectural Works Information is to be read in conjunction with the Works Information on the Electrical, Mechanical, Structural Civil and Fire Prevention design aspects of the project
- Reference to Employer includes the Principal Agent and other client representatives.
- Himself is to be assumed as reference to both male and/or female gender.
- Contractor is to refer to layout plan drawings and details for reference purposes.
- All works are to be carried out in accordance with approved quality Control Program and the relevant SABS Specifications, codes of practice and relevant local by-laws.
- All specifications are to be read in conjunction with the relevant Model Preambles for Trades.

- The Employer provides layout drawings, performance criteria and specification required for the design.
- The Contractor designs the panels and installation system. Prior to manufacture, the design, sizes, finishes, curing, fixing, reinforcement, methods of forming and grouting joints, and all other aspects of this work is prepared by the Contractor and presented to the Employer for approval.
- The Contractor's design makes allowance for the access available to and from the building and provides any special crange, if required.
- The Contractor must maintain all completed works in a clean and good state for Completion.
- The Contractor is to ensure that all exposed surfaces including the bricks will be of even colour texture and free from blemishes, cracks and other imperfections that fall outside the specifications of the manufactures.
- External Steel members and surfaces to be painted to engineer's detail
- For all painted surfaces, the Contractor is to ensure surfaces are sound, clean and thoroughly dry - moisture content should not exceed 12%. Contractor to brush down and remove all loose contaminants with a stiff brush.
- To remove grease, salts and contamination from plastered surfaces, bristle-scrub the entire surface with an approved cleaner.

2.1.2 Tiling (general):

- The Contractor is to survey levels and check that the substrate is straight and level prior to installation.
- The Contractor is to survey levels for the finished floor levels as set out in drawings and screeds coincided with levels of thresholds, stairways, lifts, escalators etc.
- The Contractor ensures that tiles are not laid over expansion joints.
- Contractor to ensure that all new concrete work has cured for at least 28 days and that this has a moisture content of not more than 5% before tiling begins.
- Contractor to ensure that all new wall rendering has cured for at least 14 days. The rendering must be firmly attached to the substrate, must be integrally sound (no crumbling, cracking, etc) and must be of a quality and consistency suitable for tiling.
- The Contractor ensures that the backs of all tiles must be clean and free from dust, and friable or powdery products
- Contractor to ensure that surfaces are clean and free of all traces of curing agents, laitance and any other surface contaminants, preferably by scarifying.

- Contractor to ensure that defective areas in the plastered substrate must be removed and made good before proceeding and that plaster is left with a wood float finish.
- All cutting to be with straight edge.
- The background must be clean, dry, firm and sound and free from dust, loose particles and surface contaminants before proceeding. Renders should be left with a wood float finish and should not be skim coated with gypsum plaster.
- Contractor to ensure that screeds are firmly attached to underlying concrete, are integrally sound and of a quality and consistency suitable for tiling. Defective areas must be removed and the floor made good before proceeding.
- In the event of damage, tiles are to be replaced by the Contractor.
- No damaged or chipped tiles will be accepted in the finished installation.
- All required testing is to be done to see that materials are compatible and that there will be no staining or marking to tiles.
- General: The Contractor is to ensure that tile batches have even and consistent colour. Discrepancy in color across the laid floor will not be accepted.

2.1.3 Materials (General)

- All timber used for structural purposes shall be of merchantable grade and shall comply with the requirements of SANS 563 and SANS 1245. Structural timber shall be carefully selected and of the best quality, free from large or dead knots, shakes, waney edges or other defects.
- Purlins and brandering shall comply with the requirements of SANS 653. Finger-jointed structural timber shall comply with the requirements of SANS 096 and laminated timber with the requirements of SANS 1089.
- Hardwoods and softwoods for joinery shall comply with SANS 1099 and SANS 1359 respectively and suitable species shall be used for the various purposes.
- Unless otherwise specified, all materials shall conform to the appropriate SANS or BS specification where such standards exist for nails, screws, bolts, adhesives, etc.
- All structural timber shall be given a preservative treatment suitable for the duty for which the timber is intended in accordance with SANS 05, and no untreated timber shall be used. The preservative treatment shall not impair the final finish. The timber shall be impregnated throughout. When surface coating is specified, the compounds applied on the surfaces of the timber shall form an unbroken film.

Priming

- The jointing surfaces of all joints exposed to the weather and built-in portions of frames shall be thickly primed except where adhesives are specified.
- Carpentry and joinery items which are prepared for painting by the manufacturer, shall be knotted and primed before being dispatched to the site.
- Primed surfaces shall be touched up where necessary during the progress of the work or where site adjustments have been made.

Mock Ups

- Samples are to be prepared and, maintained during the building program. At Completion these are to be removed, complete with foundations if necessary.
- The sample panels are to be minimum 6m² each.
- Mock-ups and samples of materials, workmanship samples and shop drawings shall be dealt with in accordance with Clause 5.0 of Preliminaries of JBCC Series 2000, May 2018.
- The Contractor provides samples of all materials and finishes for approval.
- Where the Contractor is to provide a full-sized mock-up, the position shall be determined by the Employer, whereby the mock-up will clearly demonstrate and test the fixing methods, and installation of the mock-up. E.g. Typical façade panel designs, etc.
- The Contractor prepares shop drawings through specialists of each panel type from outline drawings prepared by the Employer.
- The Contractor's shop drawings are to indicate in detail the reinforcing steel, details of supports, anchorages, connections, expansion and typical joints, gaskets, sealants, junctions with concrete and/or walls and all other pertinent details to be submitted to the Employer for approval prior to manufacture of any units.
- A period of 14 days is required for approval of shop drawings. The Contractor, through appointed specialists, shall prepare reinforcement details and schedules for each element of the works following the receipt and approval of shop drawings.
- The Contractor provides a 10 sqm mock-up of the ceiling installation (for later demolition) of the different ceiling types complete with cornices and the fitting of luminaires i.e. 600x600mm acoustic ceiling tiles, vinyl covered tiles and flush plastered ceilings with connections.

Carpentry and Joinery (General) Carpentry work

- Carpentry work shall be carried out in a manner consistent with good workmanship and in compliance with the drawings.
- The carpenter shall perform all cutting away and making good in attendance upon all other trades and he shall provide and maintain temporary coverings required for the protection of any finished work that might be damaged if left unprotected during the progress of the work.
- Unwrought timber shall be as sawn and shall be to the dimensions and within the tolerances specified in the relevant SANS Standard Specifications.
- Unless otherwise specified, all joints shall be secured by means of a suitable type and a sufficient number of approved connectors. All joints shall be carefully made in such a way that they will not impair the strength and stiffness of the beams or members.

Joinery work Scope of work

- Joinery work shall consist of the manufacture, delivery to the site, and fixing in the buildings, of all joinery shown on the drawings.
- Except where a special finish is specified, the contractor shall have all stairs, landings, doors, shelves and other joinery work cleaned and scrubbed down and shall leave all his work in a good order to the satisfaction of the engineer.

Dimensions

- All wrought timber shall be sawn, planed, drilled or otherwise machined or worked to the correct sizes and shapes shown on the drawings.
- Reasonable tolerance shall be provided at all connections between joinery works and the building structure to compensate adequately for any irregularities, settlements or any other movements.

Fabrication

- The joiner shall perform all the necessary mortising, tenoning, grooving, matching, tonguing, housing, rebating and all the other works necessary for correct jointing. He shall also provide all metal plates, screws, nails and other fixings that may be necessary for doing the specified joinery work properly.
- Where joints are not specifically indicated, they shall be the recognized forms of joints for each position. The joints shall be so made as to comply with part 2 of BS 1186.
- Door frames, linings, panel doors, framed, ledged and braced doors, flush doors, sliding doors, etc, shall be supplied or made by the joiner and shall be installed, fitted or hung as detailed on the drawings.

- All timber shall be wrought and prepared for oiling, staining, varnishing or painting.
- Skirtings, cornices, etc shall not be installed until after the wall coverings have been applied, the flooring laid and ceilings installed, unless otherwise specified.
- In-situ joinery work shall not be executed until after all floor, wall and ceiling surfaces have been formed or constructed, unless otherwise instructed.

Ceilings shall consist of plaster board as shown on the drawings and shall be nailed to the bracing or suspended from the roof structure. The panels shall be separated by exposed tees and insulated with a 50 mm thick fibre-glass wool blanket where shown on the drawings.

Storage

- Material to be kept safe and stored in accordance with suppliers' instructions.
- The Contractor provides all necessary lifting devices and additional reinforcement required for his adopted method of handling
- All material is to be delivered to site in the manufacturer's original packaging.
- All components are to be stacked on a level surface in a dry space protected from damp and inclement weather on a raised platform or damp proofed membrane.
- Drywall boards should not be carried horizontally.
- When a drywall board is placed or removed from a stack, the long edge is to be placed down before it is placed horizontal.
- Drywall boards are not to be slid over each other as this scuff the surface.
- Construction joints in aluminium members shall be formed so that joints are practically invisible.
- All connections such as screws, bolts, pop rivets, brackets, spigots, etc. are to be stainless steel.
- Where aluminium comes in contact with other building materials, the Contractor to provide suitable insulation layers between aluminium and the other materials.
- Protection of completed glazed units (especially the powder coated aluminium elements) is to be provided and maintained by the Contractor for the full duration of the works. Such protection shall comprise adhesive tape to aluminium surfaces, application of protective oil/grease in cases where this is possible, etc. to prevent the aluminium from being damaged by building operations, especially wet trades.

The following design standards for Architectural works will apply, inclusive of engineering standards listed in the document:

- SANS 10400: 2011: Application of the National Building Regulations.
- SABS 266-1982 and ISO 6308-1980.
- SABS 952-1985
- Agrément Certificate no. 2001/284
- SABS 952-1985
- SABS 227 - 1986
- SABS 227 – 1986
- SABS 1090
- SABS 0164 Part I 1987 Class II
- SABS 1200 GB Code of Practice for Standardized specification for civil engineering construction: Concrete (ordinary buildings).
- SABS 1200 GE Code of Practice for the Structural use of Concrete.
- SABS 0160 - 1989 (as amended 1990): The General Procedures and Loadings to be applied in the Design of Buildings.
- SABS 266-1982 and ISO 6308-1980.
- SABS 0107-1996, Code of Practice for the Design and Installation of Ceramic Tiling
- SABS 1549 – 1992 _ Accuracy in Buildings
- SABS 0155 Fire Testing of Materials, Components and Elements used in Buildings - Part 5 Non- combustibility at 750oC of Building Materials
- SABS Code of Practice ISO 9000 for Quality Management
- SABS 0177 Part V
- National Building Regulations and Building Standard Act of 1977 (as amended) of 1984
- SABS 227 and 1575 and the Masonry Technical guide prepared by the Clay Brick association.

Brickwork

- Generally, brickwork is to be clay stock brick in stretcher bond with staggered flush perpend for plaster work- all shallow chasing for conduits are to be covered with expanded metal.
- Brickwork is to Employers design.

- Mortar is to Contractors design.
- Internal brickwork is to be clay stock brick laid in stretcher bond with staggered flush perpends and ruled joints, generally prepared to accept plaster, or to be bagged and finished for painting.
- Reference is to be made to the Clay Masonry Technical guide from the Clay Brick Association.
- Size, colour and texture of bricks are to be constant.
- The Contractor sets out brickwork to a vertical gauge of 85mm and horizontal gauge of 230mm avoiding cut bricks, restricted to a queen closure.
- All horizontal jointing and perpends to be ± 12 mm and to be flush with the brick after being thoroughly filled and compacted.
- Bonding generally to be stretcher bond with special bonding only where piers are bonded into a 115mm wall
- All damp-proof coursing in positions indicated on the drawings to brickwork is to consist of embossed blue/black DPC 250 tri extruded to Agrément Certificate no. 2001/284. Well lapped joints and bedded and joined in cement mortar.
- DPC below surface beds to be Waterproof sheeting bearing the SABS 952-1985 Type C sheeting, laid in widest practical widths, turned up, dressed to load bearing walls and lapped with an approved SABS DPC. All joints to be sealed with a Pressure Sensitive tape applied over the leading edge of the joint all to engineer's approval.

Expansion joints

- The expansion joints are to be clearly formed over the full depth of the brick skin.
- The joint is to be sealed with an approved sealant to engineer's approval, including backing cord, bond breaker and primer all according to manufacturers' instructions.
- Hot dipped galvanized wire ties are to be used to tie the two skins of brickwork together across the expansion joints in every fifth course to engineer's approval.
- All brickwork built up to the underside of the slab/beams must be kept 20mm clear of the slab to allow for settlement. This joint to be kept clear of all material/debris and filled with a compressible material to be approved by the engineer.
- In areas which are fire rated the joint is to be filled with a fire rated filler material to engineer's approval. In the areas immediately around the fire escapes no settlement of the slabs is anticipated, the brickwork must be taken hard up against the slab.
- Where the junction between the walls and the slabs are exposed, a clearly through cut plaster joint is to be formed without any "bridging" whatsoever.

- As parapet walls are especially sensitive to movement, the Contractor is to ensure that there are vertical expansion joints taken through the parapet at maximum centers of 5,4m to engineer's approval. There

must also be joints within 1,8m of each corner of the building in the parapets. All joints to be sealed as elsewhere.

Quality of brickwork Fair face

- These are to be used in the applicable areas where they will receive a 6:1 sand cement bagged finish for painting. The bricks to be hard and evenly burnt of a quality equal to selected NFP all in accordance with standards contained in SABS 227 - 1986.

Stock bricks

- To be used internally where a plastered surface is required and in limited external areas which will be plastered and given a durable finish. All stock bricks to be in accordance with SABS standards contained in SABS 227 - 1986. Minimum compressive strength is to be 14 MPA
- All bricks to conform to the "Imperial Brick" size of 227x106x73mm. Efflorescence to conform to SABS 227. Brick edges are to be square and sound.
- Corobrik® Midrand 27-36MPa Roan Imperial FBX clay face brick, size 222 x 106 x 73mm, manufactured in accordance with 227:2007, bedded and jointed in Class I mortar and pointed with recessed vertical and recessed horizontal joints, suitable for exposure zones 1-4.

Mortar

- All mortar mixes are to conform to SABS 0164 and are to be 1:5 cement/sand. Sands are to be well graded with a maximum of 5% clay content. The grading requirements are to satisfy SABS 1090. Mortar to comply with SABS 0164 Part I 1987 Class II. No lime will be allowed in mortar mixes.
- All skins are to be tied together across normal and wide cavities with galvanized bow wire ties. All cavities are to be kept scrupulously clean.
- Exposed off-shutter concrete, brickwork and marmoran (or similar approved) finish panels
- In general, the facades consist of off-shutter cast-in-situ concrete that surrounds the building. The concrete frame surrounds the curtain wall system located on the north façade, together with the top hung aluminium windows located on the south. The large panels of the off-shutter concrete surround protect the building on the east and west façade, particularly from the harsh west sunlight. The dimensions are shown on the drawings. Roan Satin face-brick in-fill panels are located on the external façade of the first floor of the building and terminate

on the underside of the concrete surround. The multi-colored marmoran application is located on the south elevation of the building.

- The Contractor's design is to ensure that the off-shutter concrete work is completely water tight and that all required sealants, drips, etc. are to be included in the design.
- The primary brick facing finish will be "Roan" satin brick.
- In general, the brick in-fill panels will be constructed on top of the concrete first floor slab in accordance with approved plans and design specifications.
- Areas that have window openings cutting into the Roan Satin Face-brick are to include a header course above the window opening, where a lintel would be positioned in accordance with standard practice and detailed drawings. This will be followed by a soldier course at the window cill.
- The extent of the works is for the design, supply, and installation of pre-cast brick in-fill panels and off- shutter cast-in-situ concrete, pre-cast lintels and sills. The structural design of the units and their fixings will be the responsibility of the Contractor.
- All pre-cast concrete works are to be designed in accordance with the recommendations of SABS 1200 GE Code of Practice for the Structural use of Concrete, except where modified by this specification.
- All ordinary concrete works, including cast-in-situ concrete works are to be designed in accordance with the recommendations of SABS 1200 GB Code of Practice for Standardized specification for civil engineering construction: Concrete (ordinary buildings), except where modified by this specification.
- The Contractor is responsible for the fabrication, erection and long-term performance of the pre-cast and cast-in-situ concrete works.
- The design of the any pre-cast concrete works is to be compatible with the tolerances of the in-situ off- shutter concrete works, specified in the general contract concrete specification.
- All wind and other applied loads to be obtained from SABS 0160 - 1989 (as amended 1990): The General Procedures and Loadings to be applied in the Design of Buildings.
- The surfaces will be finished clean from the moulds with all edges clean and sharp.
- All exposed unfaced surfaces will be finished smooth from the mould.
- All hidden surfaces to be roughened to provide a good key for mortar.

Drywall

- Specification for Fire rated partitions: Fire rated partition system in line with approved fire rationale design to fire engineer's work's information specifications. Installed in accordance with manufacturer's instructions.

- Specification for standard drywalls: drywall partitioning system with overall thickness of 89mm comprising internal framing formed of 63mm galvanized steel studs fixed at 600mm centers to galvanized steel top and bottom track with 63mm thick fiberglass insulation batts in cavity of partition, including any additional steel studding necessary at door openings, glazed or other apertures, abutments, ends, corners, etc. and covered with 12mm thick plasterboard in single lengths to suit height, butt jointed and secured to studding with 25mm drywall screws at maximum 300mm centers, the joints taped over and flushed over with jointing compound prepared for painting. All aluminium door frames, glazing sections, corners, transoms, cornices, skirtings, etc. shall be formed of powder coated aluminium sections in colour. (Intersections and abutments are measured separately and descriptions shall be deemed to include any additional studs, corner beads, jointing compound, tape, etc.)
- Drywall is to be carried out in accordance with approved quality Control Program and the relevant SABS Specifications, codes of practice ISO specifications and relevant local by-laws.
- The Contractor installs all drywall in accordance with the manufacturers' specifications and instructions. Particular reference is to be made to SABS 266-1982 and ISO 6308-1980.
- The Contractor is to ensure that the drywalls are level and plumb and that all openings are neatly finished and boarding, etc. is properly fixed.
- The Contractor is to ensure that all joints, angles and accessories are to have two separate coats of an approved jointing compound and are to be carefully sanded.
- All screw heads are to be spotted.
- All jointing compound is to be smooth, free of tool marks and ridges and should receive a layer of oil- based primer prior to finishing.
- The Contractor is to ensure that sufficient suitable lighting is available for the application of finishes and plaster to the drywall surfaces.
- Surfaces are to be lightly sanded prior to finishing.
- Below the floor and above the ceiling acoustic sound baffles are to be installed of drywalling to match the specification of the wall. These baffles must extend below and above entrance doors and sidelights and below and above the demising walls.

Control joints

These are to be fitted in the following areas:

- between brickwork or concrete and drywall where they are in the same line
- on a long continuous wall of more than 10m there should be a joint every 5m
- 10mm gap should be allowed between drywall boards and brickwork or concrete abutments.

Plaster

- Plaster shall be either:
 - One coat plaster with wood float finish or steel trowel finish
 - Two coat cement plaster with smooth steel trowel finish
 - Two coat plaster with a finishing coat of Gypsum skim plaster.
 - The finish to the basements will be mostly bagged plaster with specific plastered rooms and areas as indicated in one coat cement plaster with wood float finish. Refer to room data sheet.
 - All typical office floors will have one coat cement plaster with a wood float finish to areas behind paneling and closets; and to special plaster finishes.
 - All surfaces to receive a two-coat plaster with a Gypsum skim finish.
 - Generally, brickwork is to be clay stock brick (refer to structural engineer's specifications for brick strength) in stretcher bond with staggered flush perpends for plaster work- all shallow chasing for conduits are to be covered with expanded metal prior to plastering.
 - The plaster material to be applied thinly and evenly over the entire surface before being finished with a bag giving an even but textured finish to the entire surface.
 - The Contractor plasters all external and internal corners with a normal 1:5 cement/sand plaster before bagging commences to ensure that all corners and reveals are plumb, level and even. The plaster to be
- ☐ 10mm thick evened out onto the general surface. Walls are to be wet before bagging commences and properly cured after application.
- All concrete surfaces are to be slushed before commencing with the plaster with an approved mix with a course approved sand.
 - All plaster is to be thoroughly cured by keeping the surfaces moist with plastic sheeting, or applying a fine spray on a regular basis for three days after completing the plaster.
 - All salient corners are to be protected by supplying and building in expanded metal corners, which are fixed to the brickwork or concrete before plastering commences.
 - At all junctions between concrete and brickwork where plaster covers both materials the Contractor is to cover the junction with 300mm wide Expanded Metal Lath securely fixed on both sides with approved steel nails.
 - The plaster shall be thoroughly pressed into the lath on application and the Contractor is to form a clearly defined V-joint over the junction with a deep trowel cut completely through the plaster. The joint shall accurately follow the junction between the materials below. This applies to both horizontal and vertical junctions.

- Where plaster is required to be stopped at openings the Contractor shall provide an approved Plaster Stop to provide a neat, straight edged and protected finish.
- Once an area of 500m² of plaster has been completed the Contractor shall provide a painted 10m² sample for inspection. This applies to the walls to be painted only.
- Plaster panels are not to exceed 35m² in area without the provision of V joints as elsewhere described. These joints are also to be taken through the finish i.e. paint, Gamma Zenith, Marmoran, etc.
- Plaster on ceilings to be as for walls and elsewhere described. Concrete slabs to be slushed before plastering commences. Where plaster on walls and ceilings meet a neatly cut joint is to be formed with a steel trowel cut taken through to the concrete/brickwork below.

Demountable Glazed partitioning

- Demountable acoustic partitioning to schedule with a 35dB acoustic rating, comprising of clear glazed panels with demountable glazed modules incorporating toughened safety glass to specialist specification into powder coated charcoal grey or similar approved aluminium frames.

Paint Finishes

Paint on Plastered surfaces

- Hair Cracks (-0.2mm). Remove dust and debris. Brush approved poly-filler well into the cracks with an old small brush to fill and bridge the cracks.
- Plaster cracks (+0.2mm and -2mm) are to be raked out with a scraper blade. Remove dust and debris. Brush 2 coats approved poly-filler well into the cracks with an old brush to fill and bridge the cracks. Repeat, if necessary, to fill in the cracks completely.
- Walls with extensive "map-crazed" cracks. After all cracks have been cleaned and filled, coat the affected wall with 2 coats approved poly-filler.
- Large structural cracks (+2mm), and holes must be opened out with a carborundum disk in a V-shape to 3mm or larger. The cleaned cracks should be wetted, and then filled with a damp cement/sand mortar with a ratio of 1:4. The in-fill mortar should be properly compacted into the cracks and cured. Apply 2 coats of an approved poly-filler well into and around filled area to provide a flexible bridge.

Paint on Brickwork Surfaces

- New brick and stonework must be allowed to weather (dry out) for 1 - 2 months

- Any loose residue such as “builder’s plaster” must be removed with either Mortar-clean or weak spirit of salts. Hose surface thoroughly and allow drying for 24 - 48 hours
- If there is efflorescence on the surface, it should be brushed down and wiped with a dampened (not wet) sponge. The brushing/wiping must be repeated as often as the deposits appear. Painting must not commence until efflorescence has ceased.

Interior - plastered walls - paint surface specification

- The Contractor satisfies himself that every defect to the wall surface has been repaired in strict accordance with manufacturer’s instructions.
- The Contractor ensures surfaces are sound, clean and thoroughly dry - moisture content should not exceed 12%, all loose contaminants are to be removed.
- Paint application as follows: Apply with a brush or roller the following paint application:
- Apply first coat as a primer and allow overnight drying.
- Apply second and third coat to achieve a closed film and solid colour.

Interior - plastered walls in stores - paint surface specification

- Specification: Low sheen paint finish.
- Rooms: Basement UPS and Data rooms, Battery Rooms, etc.
- The Contractor is to ensure surfaces are sound, clean and thoroughly dry - moisture content should not exceed 12%. Brush down with a stiff brush to remove all loose contaminants.
- Paint application to be applied as follows:
- Apply with a brush or good quality short nap rollers.
- Apply First coat as a primer and allow overnight drying.
- Finish with second and third coat to achieve a closed film and solid colour.

Interior - timber doors - paint surface specification

- Specification: Timber doors to be painted with a water-based eggshell enamel.
- The Contractor is to ensure wood is dry (less than 12% moisture content).
- The Contractor is to treat all knots and resinous areas to prevent subsequent staining of paint coatings.
- The Contractor is to ensure that all nails, pins and screws are embedded well below the surface, primed with Primer for Steel, and filled with appropriate wood filler.
- Paint application to be applied as follows:
- Apply First coat as a primer and allow overnight drying.

- Backs of wood frames and joinery in contact with brickwork and plaster must be painted before building in, to prevent moisture seeping into the wood from the mortar bedding.
- Inaccessible parts of purpose-made joinery must be painted before the joinery is assembled.
- External structural timbers must be painted before the timbers are fixed in position. These include backs of timber fascia and barge boards, sprocket ends, purlins, etc.
- Light sanding between coats is essential to obtain a smooth finish.
- Apply the 2 finishing coats to achieve a closed film and solid colour.
- Apply with a brush or roller. For a smoother finish on large areas, use short-nap rollers.

Interior paint specification– Rhinolite walls in office areas

- Specification: Approved Rhinolite application to Principal Agent’s approval.
- Application of the finish with a brush or roller as follows:
- Apply first coat as a primer and allow overnight drying.
- Finish with second and third coat of luxurious silk paint to achieve a closed film and solid colour.

Interior paint specification – plastered walls in office, lobby and waiting areas

- Specification: Approved luxurious silk paint to Principal Agent’s approval.
- Application of the finish with good quality short nap rollers, in line with manufacturer’s instructions as follows:
- Apply first coat as a primer and allow overnight drying.
- Finish with second and third coat of luxurious silk paint to achieve a closed film and solid colour.

Interior – plastered walls in back of house areas

- Specification: Approved Low sheen paint to Principal Agent’s approval.
- Application of the finish with a brush or good quality short nap roller as follows:
- Apply first as a primer and allow overnight drying.
- Finish with second and third coat to achieve a closed film and solid colour.

Interior paint spec. – bulkheads

- Specification: Approved Matt PVA paint to Principal Agent’s approval.
- Application of the finish with a brush or good quality short nap roller as follows:

- Apply first as a primer and allow overnight drying.
- Finish with second and third coat to achieve a closed film and solid colour.

Internal and External Textured full-body Porcelain Tiling

- Specification: Full body Gray Polished porcelain tiles (size 300 x 600x12mm), fixed to internal wall plaster backing with TAL or similar approved tile adhesive mixed with TAL Bond or similar approved in lieu of water with joints continuous in both directions and grouted with TAL or similar approved tile grout, excess grout on the surface to be cleaned with water as work proceeds.
- Specification (where applicable) Full bodied Gray polished porcelain tiles (size 300 x 300x12mm), fixed to internal floor screed with TAL or similar approved tile adhesive mixed with TAL Bond or similar approved in lieu of water with joints continuous in both directions and grouted with TAL or similar approved tile grout, excess grout on the surface to be cleaned with water as work proceeds.
- Specification (where applicable): Full body Gray Non-slip matt porcelain tiles (size 300 x 600x12mm), fixed to internal wall plaster backing with TAL or similar approved tile adhesive mixed with TAL Bond or similar approved in lieu of water with joints continuous in both directions and grouted with TAL or similar approved tile grout, excess grout on the surface to be cleaned with water as work proceeds.
 - Specification (where applicable): Full bodied Gray non-slip matt porcelain tiles (size 600 x 600x12mm), fixed to internal floor screed with TAL or similar approved tile adhesive mixed with TAL Bond or similar approved in lieu of water with joints continuous in both directions and grouted with TAL or similar approved tile grout, excess grout on the surface to be cleaned with water as work proceeds.
- 600 x 600mm floor tiles
- SABS Specifications and Codes of Practice apply. For the key requirements common to all tiling situations, please refer to SABS 0107-1996, Code of Practice for the Design and Installation of Ceramic Tiling
- Installation is to be done in accordance with the manufacturer's specifications.
- Joints to be no less than 3 mm wide.
- Refer to Works Information for waterproofing specification prior to tiling showers. Thereafter, installations as per main field with exception to colour specification grouting to walls.
- Contractor to use super white to walls and floor grout mixed with an approved bonding agent replacing water in the mix to Manufacturers specification.
- The Contractor is to waterproof the external substrate with cementitious membrane free liquid waterproofing system.

- For external tiling, substrates to be waterproofed to be primed prior to waterproofing application to manufacturer's specification. The primer must be touch dry when the cementitious membrane is applied. All to specialist details.
- At Floor wastes and full-bore drains, the Contractor is to apply a coat of cementitious membrane up the pipes and immediately position the strip of approved waterproof membrane into the wet cementitious membrane. A second coat is to be applied to completely saturate the membrane. Where the waste is flush with the floor, the application must be taken down into and around the waste, all to Principal Agent's approval, to specialist detail.
- Contractor to use dark grey wall and floor grout on external surfaces mixed with an approved bonding agent replacing water in the mix to Manufacturers specification.

Screed Specification.

- All screeds must be laid true, even and level. The finish must be free of indentations, lumps and imperfections.
- The Contractor is to ensure that cognizance is taken of overall finished floor and threshold levels when the screeds are installed
- The tolerance must be within 3mm for every 3m.
- Before the final floor finish is laid, the Contractor ensures that the screeds are properly cleaned and brushed to ensure that no loose material is trapped below the final finish.
- Structural screed is to be laid dry and well compacted below ceramic/porcelain tiles which are to be laid in one process.
- Where expansion and construction joints occur in the concrete, the screeds are to be cast up to both sides of the joint so that a clean, clear joint can be formed. Elsewhere screeds are to be cast in panels not exceeding 12m². Each panel to be defined with a V-joint cut through with a steel trowel.
- Approved wire mesh is to be used in the application of structural screed

Raised Access Floors (in Data Rooms)

- Specification: 600x600mm module snap loc stringer gasket raised access flooring system with 1,3mm anti-static HPL flooring with black integral border factory bonded to surface of panel to computer rooms, data rooms and print rooms
- The Raised Access floor to be fabricated entirely of non-combustible components and consist of a flat steel top sheet resistance welded to a steel bottom section that is cleaned, phosphated and coated with conductive paint.

- The understructure consists of a galvanized and factory assembled pedestal base and head. Stringers to consist of galvanized steel channel section with snap on attachment to the pedestal head. A stringer gasket to be fitted to the top of the stringer surface.
- The Access Floor is to be based on a 600x600mm module and be set above the finished power floated concrete floor slab which must be dust proofed with a sealer. The snap loc system is generally to be set to enable a 350mm finish floor level above the finished slab.
- The floor generally to be covered with carpet tiles with positive positioned location bulbs.
- The Contractor ensures that the floor finish is protected during construction and the installation of services.
- Apart from specific codes of practice and specifications specified elsewhere in this document, the following by-laws, regulations and codes of practice shall apply to this installation: SABS 1549 – 1992 _ Accuracy in Buildings.
- SABS 0155 Fire Testing of Materials, Components and Elements used in Buildings - Part 5 Non- combustibility at 750oC of Building Materials.
- SABS Code of Practice ISO 9000 for Quality Management.
- In addition, the Contractor submits SABS, or equal and approved laboratory test certificates showing compliance with the required dynamic and static load requirements.
- For all data rooms the Contractor ensures that the required electrical resistivity and conductivity is achieved.
- All raised access floors to be electrically conductive to allow for earthing at a later date.
- All components of the access floor system are to be non-combustible when tested in accordance with SABS 0177 Part V and the completed installation shall comply with the National Building Regulations and Building Standard Act of 1977 (as amended) of 1984 where applicable.
- Substrates to be free of dust, grease, debris and other contaminants.
- The overall level of the sub floor to be checked to ensure that variations are within the adjustment range of the access floor support pedestals.
- In order to facilitate the moving of docking panels the “circles” of carpet removed by laser cutting shall be kept together with the relevant floor panel so that the “circle” of carpet may be replaced if necessary.

Porcelain tiling to Cellular Offices & Corridors Ground floor

Union Tiles porcelain tiles (Code: 1PRSRIVARE45X90), size 450mm x 900mm, fixed to internal floor screed with TAL tile adhesive (elsewhere specified) with joints continuous in both directions and grouted with TAL tile grout (elsewhere specified), excess grout on the surface to be cleaned with water as work proceeds.

- Location: Internal
- Surface: Floor
- Tile: Prs 1PRSRIVARE45X90
- Tile size: 450mm x 900mm. Carpet to be fixed with recommended tackifier.
- Until the area that is being tiled is completed and the perimeter tiles in position, there should be no traffic on the installation.
- All cutting to be with straight edge.

Porcelain tiling to Cellular Offices & Corridors Ground floor – Wall tiles

Union Tiles porcelain tiles (Code: 1PRSRIVARE45X90), size 450mm x 900mm, fixed to internal wall plaster backing with TAL tile adhesive (elsewhere specified) with joints continuous in both directions and grouted with TAL tile grout (elsewhere specified), excess grout on the surface to be cleaned with water as work proceeds.

- Location: Internal
- Surface: Wall
- Tile: Prs 1PRSRIVARE45X90
- Tile size: 450mm x 900mm.

Porcelain tiling to toilets

Union Tiles porcelain tiles (Code: 1GRYNPI200EA), size 600mm x 600mm, fixed to internal floor screed with TAL tile adhesive (elsewhere specified) mixed with TAL Bond® in lieu of water with joints continuous in both directions and grouted with TAL tile grout (elsewhere specified), excess grout on the surface to be cleaned with water as work proceeds.

- Location: Internal
- Surface: Floor
- Tile: Gry 1GRYNPI200EA

- Tile size: 600mm x 600mm.

Porcelain Tiling to 6th Floor

Union Tiles porcelain tiles (Code: 1PRIPOLPEA120), size 1200mm x 1200mm, fixed to internal floor screed with TAL tile adhesive (elsewhere specified) with joints continuous in both directions and grouted with TAL tile grout (elsewhere specified), excess grout on the surface to be cleaned with water as work proceeds.

- Location: Internal
- Surface: Floor
- Tile: Pri 1PRIPOLPEA120
- Tile size: 1200mm x 1200mm.

Lay In, Acoustic Ceiling Boards

- 600 x 600 x 15mm Acoustic drop in ceiling tiles (NRC Value 0.65) in pre-painted exposed suspended T system.
- The ceiling tiles are to be supplied, laid and protected as instructed by the supplier.
- The Contractor to install main tees and cross tees with capping of aluminum pre-painted low sheen satin complete with board fixing clips and hangers to ceiling manufacturer's specification.
- The Contractor co-ordinates services within the ceiling void and provides for all necessary extended hangers, cutting and fitting to accommodate sprinklers, fire detectors, luminaires, diffusers, return air grilles and other services etc.

Flush Plastered Ceilings and bulkheads to Public, staff ablution and Kitchen facilities

- OWAtecta® plain Flat Lay-in metal ceiling tiles with Black acoustic fleece, size 600 x 600 x 0,5mm thick bonded to tiles with four Sharp O3 edges and White RAL 9003 powder coated finish laid on OWAconstruct, S31 concealed swind-down demountable T15 - S45 suspension system including galvanized main tees, cross tees, hold-down clips and wedges, all suspended with galvanized hangers at centers not exceeding 1200mm. Ceiling perimeter to be finished with prepainted No. 56/20 - SM25 Shadowline wall trim. The Contractor to install main tees and cross tees with capping of aluminum pre-painted low sheen satin complete with board fixing clips and hangers to ceiling manufacturer's specification.
- Ceiling flush-plastered with a 3 – 6mm coat of Rhinolite gypsum plaster as per manufacturers' instructions.
- The specification to be read with the Model Preambles for Trades
- SABS Specifications and Codes of Practice apply

IMB-LEGAL AID SA BUILDING ARCHITECTURAL SPECIFICATION

- The Contractor provides a galvanized mild steel concealed grid, screw-up suspended T-system and installs this to manufacturer's instructions.
- The Contractor provides all necessary cut-outs for lighting, air-conditioning, and other services etc. as marked by others.
- The Contractor to install main tees and cross tees with capping of aluminium pre-painted low sheen satin complete with board fixing clips and hangers to ceiling manufacturer's specification.
- Gypsum board, 9,5mm flush-plastered ceiling with screw up Tees fixed at 400mm centers in one direction onto which 9,5mm Square edge ceiling board is fixed at right angles to the steel cross tees with printed side up using 25mm staker screws spaced at 150mm centers for steel. All joints to be taped and the ceiling flush-plastered with a 3 – 6mm coat of Rhinolute gypsum plaster as per manufacturers' instructions.
- The specification to be read with the Model Preambles for Trades
- SABS Specifications and Codes of Practice apply
- The Contractor provides a galvanized mild steel concealed grid, screw-up suspended T-system and installs this to manufacturer's instructions.

The Contractor provides all necessary cut-outs for lighting, air-conditioning, and other services etc. as marked by others.

Aluminium Frame Doors, Windows, Fixed Panels, curtain walls and shopfronts

The scope of the works generally comprises the design, manufacture, supply and fitting of glazed powder coated aluminium framed windows, double doors on floor springs fixed panels, side lights and fixed shopfronts fitted into structural openings framed by structural concrete and brickwork.

- Glazing Specification to specialist spec.
- All safety glass must comply with the requirements of SANS 1263: Part 1 and is manufactured according to an ISO 9001 Quality Management System.
- Aluminium components as well as aluminium junction to building structure shall all be sealed with silicone.
- Finish to aluminium components
- Testing requirements: the standard AAAMSA Laboratory Test at Wits University will be specified for off- site testing of a typical window unit.
- On-site random tests will be specified which will require of the Contractor to set up a water spray rig on scaffolding and to test installed and sealed windows in-situ.

- Thickness of powder coated finish on aluminium will have to be verified by the Contractor through an independent consulting corrosion engineer.
- All windows are to be designed and manufactured to comply with AAAMSA Commercial Grade A3 performance
- Glazing beads are to be of a suitable size, shape and fixing in order to comply with the requirements of the relevant AAAMSA selection guide and appropriate SABS Codes of Practice.
- Ironmongery to be supplied and fitted as specified.
- Locks to be master-keyed.
- All glazing methods require setting and location blocks as specified by the AAAMSA and South African Standard – SABS 0137-1994 Code of practice for the installation of glazing materials in buildings to ensure proper performance of all elements of the finished products.
- Glazing Specification to be :
 - External glazing to vision panels of offices (north, south, west and east). Smartglass double glazed units “X2 Solarvue” HL Neutral Low E 6.38mm NS Laminated Safety Glass (outer), 12mm Airgap/Armourplate Clear 4mm Toughened Safety Glass (Inner) with the following properties:
 - External colour - Neutral
 - Light Transmission - 39
 - Light Reflection -14
 - Total Solar Elimination - 61
 - Solar Reflection - 13
 - Solar Absorption - 60
 - Direct Solar Transmission - 27
 - S.H.G.C -0.39
 - Shading Coefficient Ratio - 0.44
 - U Value (W/m²).K - 1.90
 - Noise Control - 35dB
 - Glazing (single units) specification: Smartglass “Solarvue’ HL Neutral Low E 6.38mm NS Laminated Safety Glass with the following properties:
 - External colour - Neutral
 - Light Transmission - 43
 - Light Reflection -14
 - Total Solar Elimination - 57
 - Solar Reflection - 12
 - Solar Absorption - 56
 - Direct Solar Transmission - 32

- S.H.G.C -0.43
 - Shading Coefficient Ratio -0.49
 - U Value (W/m²).K - 3.70
 - Noise Control - 33dB
- External glazing to panels of offices: Smartglass “Solarvue’ single glazing units, 6.38mm (min) laminated Solarvue HL neutral.

Steel Doors

Pressed steel door frames

- Pressed steel door frames shall comply with SANS 1129 and shall be manufactured from 1,6 mm thick mild-steel sheeting, pressed to the required shapes, properly mitred, welded and reinforced, with all welding neatly cleaned off.
- Frames shall be of the widths required to suit the thickness of the walls into which they are built and shall be fitted with suitable tie bars and braces at the bottom. Three lugs to be built into the brickwork shall be provided on each jamb.
- Rebates in frames and transoms for doors shall be of the widths required to suit the thicknesses of the doors and shall be fitted with a pair of approved steel butt hinges set flush into recesses in the frames. 4,5 mm thick reinforcing plates shall be welded to the backs of the frames at hinge positions.
- Heads of frames over double doors shall be drilled where required to form keeps for bolts and shall be fitted with one rubber buffer for each leaf of the door.
- Frames for single doors shall be fitted with approved chromium striking plates and an adjustable striking-plate keeper boxed in at the back of the frame by a welded-on sheet-metal box. The frames shall be fitted with a minimum of two rubber buffers.
- Frames shall be protected against twisting and damage during transit and erection.

Pressed-steel doors

- Pressed-steel doors shall be manufactured from 1,6 mm thick steel plate. The doors shall be of standard design, pressed to shape with 40 mm reveals all round. The doors shall be strengthened with full-length vertical V-shaped or other approved sectional strengthening ribs projecting to the outer face. Two horizontal stiffening rails shall also be welded to the inner face of the doors.

- A door shall be hung on a pair of 100 mm long steel butt hinges with loose pins. The leaves of the hinges shall be welded to both the door and the door frame, and a 1,6 mm thick steel plate shall be welded to the inner face of the door to protect the lock.
- One leaf of double doors shall be fitted at the top and bottom with approved 150 mm cast brass barrel bolts in an approved manner and the other leaf shall be fitted with a lock, the striking plate of which shall be fixed to the first leaf.
- Where indicated on the drawings, doors shall be fitted with louvred ventilation grills of approved design, backed with insect and vermin-proof gauze screening.

Louvres

- Louvres will be manufactured from anodized aluminum or mild steel as described on the louvre schedule.
- Louvres will be provided with vermin proof screens on internal side.
- All fixings to allow for prevention of vibration of the louvres.
- Installation to include the provision and installation of silicone sealant around the perimeter.
- The Contractor ensures the prevention of contact between incompatible materials.
- The Employer provides the louvre schedules, layout drawings, performance criteria and specification required for the design.
- The Contractor will be responsible for the design and approval of the design by the Principal Agent, before proceeding with manufacturing.
- The design will make allowance for the access available from the building and the Contractor provides any special crantage, if required.
- The Contractor ensures that protection methods and material do not cause any damage to adjacent finishes and/or installations. In the event of louvres and finishes being damaged, such items will be replaced as no patching of materials and finishes will be allowed.

Ironmongery

- All ironmongery and related items will be described in the door, window, and ironmongery schedules on information provided.
- The Contractor provides, temporary locks required to secure any area containing valuable items and/or plant and material, or any item valuable to the Employer e.g. toilets, distribution boards, etc. during the full construction period.
- The Contractor coordinates, and makes provision for the, installation, removal and replacing of any temporary locks required due to failure to obtain the correctly master-keyed locks.

- The Contractor tests the functioning of all locks and ironmongery items.
- The Contractor protects the master-key system during construction in accordance with the manufacturer's instructions.