





SEDIBENG TVET COLLEGE
"GROW WITH THE FLOW"

SPECIFICATION DOCUMENT FOR THE CONSTRUCTION OF A NEW CORPORATE OFFICE FOR SEDIBENG TVET COLLEGE ON FARMS WALDRIFT 566-IQ (RISI SMALL FARMS)

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TENDER DOCUMENTATION – SPECIFICATIONS

Specifications describing work to be done and materials to be used in the construction of a new corporate office, auditorium and infrastructure on for the Sedibeng TVET Colleges on Farms Waldrift 566-IQ.

1. PREAMBLE

- 1.1. The works shall be erected in compliance with the requirements of the relevant Authorities, but this specification shall override these requirements should any conflict arise.
- 1.2. Should any discrepancy arise between the external and internal dimensions on the Plan, the external dimensions shall prevail.
- 1.3. All materials specified herein are subject to availability. If any materials are not readily available or undue delay is experienced in obtaining them, the Contractor shall have the right to use the nearest similar material available, on approval by the Architect (on behalf of the client).
- 1.4. After completion of the building operations, the contractor shall clear the site of all builders spoil and rubble and surplus material which the contractor may have left on the property.

2. SCOPE OF WORKS

- 2.1. The scope of the contract shall include all labour and materials necessary to complete the building and site works unless specifically noted herein to the contrary. Allow for labour, fixing and sundry materials on all the PC Items. Allow for attendance and making good on all Provisional Sum Items, all as per Bill of Quantities.

3. CONTRACT

- 3.1. The Contract drawings include all Architects drawings issued for tender as well as further Technical drawings, Detailed drawings, and Engineers drawings. The contractor is to ensure at all times that he is in possession of the current and most recently revised documents.

4. INSPECTION

- 4.1. All materials and workmanship shall be subject to inspection by the Architect and Engineering Consultants who shall have the right to reject defective materials and workmanship, or require the correction thereof. Rejected materials and workmanship shall be promptly, properly and satisfactorily replaced or redone without charge. Rejected materials to be removed from the site promptly.

- 4.2. The execution of samples of specific portions of the building works may be requested by the Architect, and once approved, any such works of that nature shall be expected to meet the approved quality of workmanship.
- 4.3. All drawings, schedules, details, documents and copies are to remain sole property of the Architect. The Architect reserves the right to request the return of all documentation.

5. SITE VISIT

- 5.1. The tenderer is to visit the site prior to tendering and to satisfy himself as to the conditions of working and to acquaint himself with the exact nature of the existing and required levels. The Contractor is to allow for all site works and the removal of any excess soil and site material, importation of any extra soil and fill or site material.
- 5.2. The Contractor is to allow for the removal or moving of any trees that may be required.
- 5.3. The Contractor is to allow for any hoarding permits required.

6. CLEANING UP AND MAKING GOOD

- 6.1. The Contractor is to cart away any superfluous earth (not topsoil) and rubble from time to time, and is not to bury any rubbish on site or adjacent properties.
- 6.2. At completion the contractor is to clean all windows, sweep floors, oil moving parts and leave the whole premises and site clean and fit for occupation.
- 6.3. The Contractor will be required at his own expense, to make good all defects which may appear in the works or materials as noted in the works completion list issued at Practical Completion of the contract. This does not in any way invalidate any clause in the contract.

7. ADDITIONS AND OMISSIONS

- 7.1. Additions and omissions as may be ordered from time to time during the progress of the works shall not in any way invalidate the contract and shall be priced by the Contractor and the Quantity Surveyor.
- 7.2. The foreseen costs of any "extra work" arising from variations to the drawings or documentation after tender and contract price have been approved, must be put in writing by the Contractor to the Principal Agent, stating the works and estimated costs. The Contractor must then receive a written Site Instruction from the Principal Agent before any such work is commenced, otherwise no claim will be recognized.

8. GENERAL

- 8.1. The full extent of the works must be carried out neatly and efficiently.
- 8.2. All structural work shall conform to the National Building regulations and SABS 1200 Standardised Specification for Civil Engineering Construction.
- 8.3. Any water pipes and other services that may be met with and found necessary to disconnect or divert or cut are to be efficiently stopped off and any new connections that may be

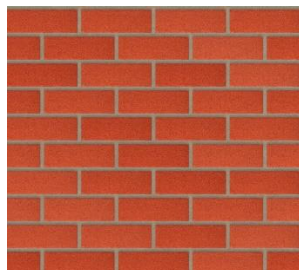
required are to be made with proper fittings to the full satisfaction of the Architect and Engineers.


- 8.4. The Contractor shall be responsible for damage to any persons authorized to be on site or on the property which is caused as a result of the Contractor's negligence and/or as a result of the works.
- 8.5. Site safety is of the utmost importance and all OHS standards and regulations are to be adhered to at all times. The Client has the right to request for the Contractor to stop work at any time that the Client and Principal Agent deem the site to be unsafe. Costs incurred as a result of site being closed will be for Contractor's own expense.
- 8.6. The Contractor will be responsible for the safety of the new structures and will make good at his own expense any damage that is caused to the aforesaid structures as a result of negligence of the Contractor.
- 8.7. The Contractor is to supply and erect any temporary tarpaulins, dust or weatherproof screens and barriers that may be required during the progress of works.

9. INSURANCE

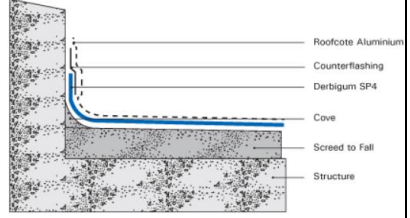
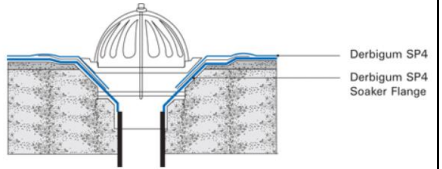
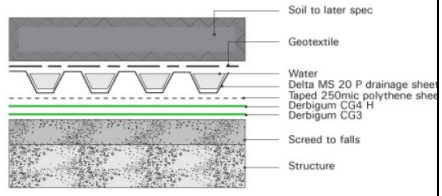
- 9.1. The Contractor must maintain adequate insurance for the site, works, existing and new construction in terms of the contract.

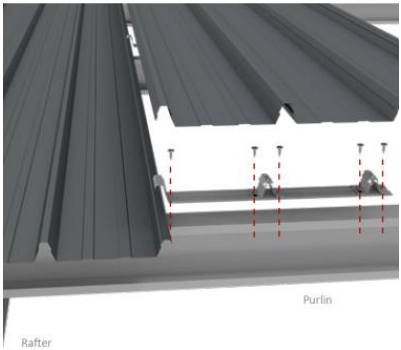
A01: PRELIMINARIES PRE-CONTRACT	REFER TO QS BOQ TENDER DOCUMENT	
A02: PRELIMINARIES POST-CONTRACT	REFER TO QS BOQ TENDER DOCUMENT	
B - SITEWORKS, DEMOLITIONS & EXCAVATIONS		
	<u>DEMOLITION NOTE:</u> <ul style="list-style-type: none"> Where existing buildings are occupied during the construction operations; due allowance shall be made for the work being carried out in such a manner that will least interfere with the general routine of the occupants and as may be directed by the Principal Agent. Notice to be given to Principal Agent when any disconnections or removal of wires, pipes, etc., are necessary and Contractor to afford the relevant personnel overseeing said works every facility required. 	
B01: BENCHMARK	As per surveyors drawings and indicated by the Architect on site.	
B02: SITE CLEARANCE	The site clearance shall strictly be restricted to the confines of the construction site and not the entire erf	
B03: DEMOLITION	All demolition work to be as shown on drawings or as instructed by Architect. Demolition work to be to SABS 1200 standards or whichever standard superseded it under the continuous supervision of a competent foreman. All debris and old materials to be collected and carted away periodically and the site left clean and unencumbered before commencing operations of new work; all to the entire satisfaction of the Principal Agent. Rates for demolitions shall include for grubbing up concrete or stone foundations, concrete surface beds and brick foundation walling and carting away. Material from the demolitions shall not be used as filling of any kind. Rates shall include disconnection and/or sealing off electricity, water and sewerage to and from existing connections.	
C - CONCRETE, FORMWORK & REINFORCEMENT		
C01: STRUCTURAL CONCRETE	<ul style="list-style-type: none"> All structural concrete columns, beams and slabs (where applicable) shall be designed in accordance with SABS 0100-1: 1992 Structural Use of Concrete. 	

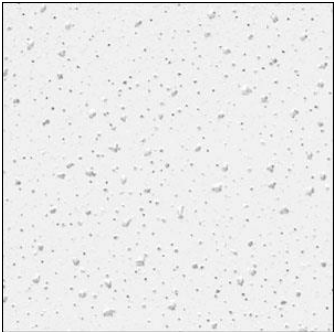
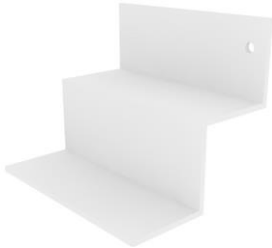
	<ul style="list-style-type: none"> All concrete work, reinforced concrete, prefabricated structural elements, load bearing brickwork and roof construction to Engineers design and detail (where applicable). 	
C02: CONCRETE LINTELS	<ul style="list-style-type: none"> Pre-stressed, pre-cast reinforced concrete lintels minimum 85mm deep and 110mm wide complying with SABS 1504 to all skins as shown. Build monolithically with brickwork over all windows, doors or other openings. Lintel / brick beams spanning opening greater than 2400mm, or brick & lintels beams of depth less than 425mm, must be referred to the Engineer before construction. Plaster under lintels to be formed to provide ruled drip line. 	
D - MASONRY		
D01: BRICKWORK	<ul style="list-style-type: none"> All new brickwork where applicable to be to structural engineer's specification and detail. All new internal brickwork will be subject to close scrutiny by the Architect and any sub-standard workmanship will not be accepted. All jointing to be even and consistent in dimension, plumb level with all vertical jointing aligning neatly. 	
D02: WALLS	<ul style="list-style-type: none"> All internal walls to be laid stretcher bond and to be either 115mm or 230mm as shown in drawings. Mortar joints to be nominal 10mm on wall faces for plastering and tiling (where applicable) and to be raked to form a plaster-key. No chasing of load-bearing brickwork shall be done without the approval of the Engineer. 	
D03: BRICK FORCE	<ul style="list-style-type: none"> Use straight lengths of brickforce and not rolls. Use brickforce in width to match wall being built i.e. 75 for 115mm walls and 150 for 230mm walls. 	
D04: FACEBRICK SPECIFICATIONS	<ul style="list-style-type: none"> EXTERNAL & INTERNAL APPLICATION: Firelight Satin FBX facebrick with smooth non grainy/ or slightly grainy face finish. Sizing to 222 x 106 x 73mm constructed in stretcher bond with evenly toned mortar colour as per SANS 227:2007. 	

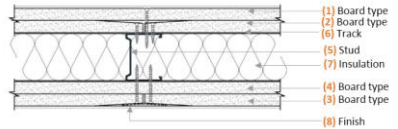
	<ul style="list-style-type: none"> EXTERNAL & INTERNAL APPLICATION: Black Brick Satin FBX facebrick with smooth non grainy/ or slightly grainy face finish. Sizing to 222 x 106 x 73mm constructed in stretcher bond with evenly toned mortar colour as per SANS 227:2007. 	
E - WATERPROOFING		
E01: DPM	Heavy duty damp proof membrane between all surface beds and blinding conforming to SANS 952-1:2011 with minimum 500mm overlap (where applicable) and sealed with pressure sensitive tape.	

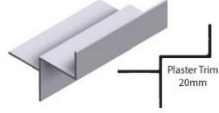

E02: DPC	Heavy duty damp proof course in matching width to brickwork conforming to SANS 952-1:2011 laid with minimum 150mm above yard, paving or ground level. In addition, DPC to all new window and door sills, heads and jambs.	
E03: SANITARY SEALANT	<p><u>Application type:</u> General sealing.</p> <p><u>Application:</u> Sanitary, kitchen fittings, semi-porcelain/porcelain tile joints, exterior waster pipes, painted surfaces. Surfaces must be clean, dry and free from laitance, shutter release oil, dust, loose particles and any other foreign matter including fungal growth. Mix using a mechanical mixer until homogeneous and free of lumps. Apply two coats with the second coat applied as soon as the first coat can no longer be disturbed by brushing using a brush, all in accordance with manufacturer's recommendations. Screed to receive non-slip tiles.</p>	
E04: WALKWAYS AND COVERED EXTERNAL AREAS	<p><u>Application type:</u> liquid application</p> <p><u>Application:</u> concrete, plaster & brick surfaces, dams, ponds, basements, sewage plants, supporting walls. All surfaces must be clean and sound, free of laitance, shutter release oil, dust, loose particles and any other foreign matter including fungal growth. Mix using a mechanical mixer until homogeneous and free of lumps. Apply two coats with the second coat applied as soon as the first coat can no longer be disturbed by brushing using a brush, all in accordance with manufacturer's recommendations. Screed to receive non-slip tiles.</p>	



E05: WATERPROOFING FLAT ROOFS	Heavy Duty waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torchfusion' including protection of 50mm thick layer clean 19-25mm crushed stone. Waterproofing to be installed by an Approved Contractor under a ten year guarantee.	
F - ROOF COVERINGS, ETC.		
F01: ROOF COVERING	<p>Reinforced concrete as per engineer's details. Floated concrete surfaces are to be finished smooth without voids and/or protrusions. It is recommended that horizontal concrete decks cure a minimum of 28 days.</p> <p>Foamed or expanded cement, polystyrene bead screeds etc. used to create falls and crossfalls are to receive a sand/cement topping and are to be properly cured and thoroughly dry prior to installation of the waterproofing membrane. It should be smooth, free of voids and protrusions, contaminants and undulations.</p>	
F02: RAINWATER OUTLETS	The waterproofing is to be fully dressed into the drainage outlets so as to ensure a watertight seal. Outlets are to be positioned so that they are easily accessible both for the Waterproofing Contractor at the time of installation and maintenance purposes at some future date. Ensure that the level of the flange is kept below the screed level to prevent ponding around the outlet.	
F03: ROOF GARDENS	Dual layer waterproofing membrane, laid staggered with side laps of 100mm and end laps of 150mm, sealed to bitumen primed surfaces by "torch-fusion" followed by 250 micron polyethylene sheeting loose laid with 100mm laps sealed with pressure sensitive tape, to receive high density polyethylene dimpled drainage layer to horizontal surfaces and followed by one layer of Geofabric and landscaping (elsewhere specified). Vertical waterproofing to be protected with drainage/protection sheet. Waterproofing to be installed by an Approved Contractor.	




F03: ROOF SHEETING	Interlocking roof sheeting fixed to steel internal purlins at 1700mm centres, and ridge/eaves purlins at 1500mm centres using clips that must be fastened to steel purlins with approved wafer head self-tapping screws, all in accordance with manufacturer's recommendations. The sheeting will be a double interlocking concealed fix, roll-formed in continuous lengths from Aluminium or Aluminium-Zinc coated steel.	
G - CARPENTRY & JOINERY		
G01: JOINERY	All joinery fittings and accessories to be designed and installed by Specialist. Design drawings to be prepared by Specialist and submitted to Architects for approval before any work commences.	
G02: KITCHEN CUPBOARDS	All boards to be mellamine gloss finish boards (Color-approved by Architect). Interior Carcases shall be of (Color approved by Architect).	
G03: KITCHEN WORKTOPS		
H - CEILINGS, PARTITIONS & ACCESS FLOORING		
H.SUSPENDED CEILINGS NOTE:	Suspended ceilings to installed to underside of concrete slab - to Engineer's detail.	
H01: FLUSH PLASTERED CEILINGS / BULKHEADS	<p>Pelican Systems JUMBO skimmed ceiling system with 12mm thick JUMBO plasterboard fixed at right angles using 25mm Jumbo drywall screws at 150mm centres to JUMBO grid system comprising JUMBO screw up ceiling grid including galvanised main tees at 1200mm centres and cross tees at 600mm centres, all suspended with 25x25mm galvanised angles not exceeding 1200mm centres. Main tees suspended at 1200mm centres by means of 25 x 25 x 0,6mm galvanised steel angle. All joints to be covered with JUMBO fiba tape and the entire surface plastered with 3mm to 6mm thick JUMBO skimming plaster.</p> <ul style="list-style-type: none"> • Thermal conductivity: 0,16W/m²/K • Cut neat junction between plaster of wall plaster and ceiling plaster. 	




<p>H02: SUSPENDED 600 x 1200mm GRID CEILING</p>	<p>Lay ceiling tiles into framework. Install Main tees locally manufactured to ISO9001 & 14001 certification. Suspend Main tees using hanger straps/ suspension wire fixed to main tee web with appropriate screws. Hangers must be at 400mm max from perimeter wall. Install cross tees at 600mm centres to create 1200mm x600mm grid. Install Cross Tees within 1200mm long tees to create 600x600mm ceiling grid. Install Hold Down Clips per tile in areas susceptible to draught.</p> <p>Ceiling Perimeter: Install wall angles at 300mm centers with anchors. Fix main tees to the wall using angle cleats to ensure stability and straight grid.</p>	 
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H03: SUSPENDED 600 x 1200mm ACOUSTIC GRID CEILING	Exclusive fleece-coated graphic print 50mm thick ceiling baffle suspended from ceiling using cable hangers, all in accordance with manufacturer's recommendations.	
H04: PAINTED SOFFIT (INTERNAL ROOF SLABS)	Prime surface with one coat Professional Plaster Primer with an overcoating time of 18 hours and finish with two coats Professional Matt with an overcoating time of 4 hours. All in strict accordance with manufacturers' specifications as per data sheets which may be provided on request.	
H05: SKIMMING	applied to cement plaster surface. Wet the walls with copious amount of water to reduce excessive suction of plaster or apply adhesive. Apply first coat of plaster bonding liquid using a paint roller. Allow first coat to dry. Apply a second coat of plaster bonding liquid using a paint roller. While the second coat of plaster bonding liquid is still tacky/wet apply Apply RhinoLite CreteStone to a minimum thickness of 3mm to 6mm thick and finish off with steel trowel.	
H06: WALL PARTITIONING	<p>Side 1 consisting of outer layer fireproof Plasterboard dB 15mm (1), inner fireproof Plasterboard dB 15mm. Side 2 consisting of outer layer fireproof Plasterboard dB 15mm (3), inner layer fireproof Plasterboard dB 15mm (4), (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, level B listing, non-combustible to SANS 10177-5) fixed to both sides of the frameworks using Sharp-point Screws 25mm (base layer) and Sharp-point Screws 42mm (face layer) at maximum 220mm centres. 102mm Steel Frame Studs (5) (locally manufactured, recycled content, ISO 9001 & 14001 certification) friction fitted into top and bottom 102mm steel Tracks (6) at 600mm centres. Floor and head track fixed with two lines of proprietary fixings staggered at 300mm centres. Steel Deep track shall be used for both floor and head track. Apply Gyproc Tape to all joints and internal corners. Install Corner Bead to all external corners. Install 102mm Insulation into frameworks with joints tightly butted, leaving no gaps (7). Cover with 1 layer of tape (locally manufactured). Apply sealant between the building structure and the drywall framework. Bulk fill the gaps at the base of the drywall and any gaps exceeding 5mm No skimmed finish and jointed</p>	 <p> (1) Board type (2) Board type (6) Track (5) Stud (7) Insulation (4) Board type (3) Board type (8) Finish </p>

	<p>finish required when tiling. Reduce stud spacing's to 400mm centres when tiling.</p> <p>All aluminium door frames, glazing sections, corners, transoms, cornices, skirtings, etc. shall be formed of natural anodised aluminium sections. (Intersections and abutments are measured separately and descriptions shall be deemed to include any additional studs, corner beads, jointing compound, tape, etc.)</p>	
H06: SHADOWLINE CORNICES	<p>satin white epoxy coated aluminium plaster trim measuring 20 x 20mm shadow reveal with 5/6/36 wall anchors at 450mm centres. As per Schedule of Finishes.</p>	 <p>Plaster Trim 20mm</p>
H07: PROFILED POLYSTYRENE CORNICE	<p>Decorative Mouldings B1 interior extruded polystyrene cornice, size 65 x 80mm high fixed with adhesive.</p>	
J - TIMBER DOORS		
J01: TIMBER DOORS	<ul style="list-style-type: none"> Refer to Timber Door Schedules for all opening sizes, types and specifications. Openings to be square and plumb. No damaged timber work will be accepted. Doors are not to be removed once hung. All hinges and fixings to be subject to Architect's approval. Doors to close on latch firmly without rattles. 	
J01b: TIMBER DOORS	<p>medium duty flush panel single leaf semi-solid timber door, size: 40mm thick, opening size as per</p>	

	<p>schedules with hardboard suitable for painting or polishing. Or similar approved</p>	  
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K - IRONMONGERY		
GENERAL:	Final drawings to be sent through to ironmongery specifier for Ironmongery schedule – Ironmongery subject to change.	
K01: DOOR HANDLES (OFFICE ALUMINIUM FRAMED DOORS)	<p>HANDLES: handle on 150 x 45mm pressed backplate with Anodised Silver including Euro Profile cylinder upright lock case (and 66mm Euro Profile double cylinder</p> <p>HINGES: two ball bearing butt hinge with Stainless Steel finish.</p>	
K02: DOOR CLOSERS (TIMBER DOORS – STORE ROOMS, BATHROOMS, SERVER ROOMS)	medium duty cam action overhead door closer with slide channel and hold open and necessary mounting brackets, etc.	
K03: DOOR STOPS	aluminium doorstop with Anodised Silver finish.	

<p>K04: BATHROOM SIGNAGE</p>	<p>"Female/Male" engraved grade Stainless Steel sign size 150 x 150 x 1,2mm with counter-sunk fixing holes plugged and screwed with aluminium screws.</p>	<p>K</p>	
<p>K05: DOOR HANDLES (BATHROOMS)</p>	<p>handle on 152 x 76mm backplate with Anodised Silver finish including mortice latch.</p> <p>HINGES: two ball bearing butt hinge with Stainless Steel finish.</p>	<p>K</p>	
<p>K06: HOOK (BEHIND DOOR IN TOILET CUBICLE)</p>	<p>aluminium hat, coat, and robe hook with Anodised Silver finish.</p>	<p>K</p>	


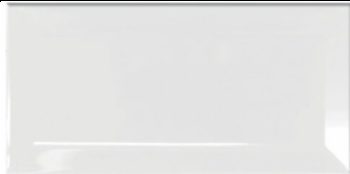



K07: INDICATOR BOLTS (TOILET CUBICLES)	aluminium indicator bolts with Anodised Silver finish.	
K08: INDICATOR BOLTS (DISABLED WC)	aluminium helping hand disabled facility indicator bolt with Anodised Silver finish.	
K09: PUSH PLATE (DISABLED WC)	Anodised Silver push plate, size as per door schedule specification.	
K10: DOOR STOPS (OFFICES)	Stainless Steel floor mounted door stop (, size 24 x 45mm fixed in accordance with the manufacturer's recommendations.	

L - METALWORK		
L01: ALUMINIUM FRAMES FINISH	Aluminium - Charcoal, SATIN finish series powder coated aluminium frames through manufacturer Shop drawings for Architect's approval.	
L02: ALUMINIUM FRAMES (SHOPFRONTS, DOORS & WINDOWS)	<ul style="list-style-type: none"> Refer to Aluminium Door, Windows and Shopfront Schedule for all opening sizes, types and specifications. All new aluminium doors & windows to be powdercoated colour: Charcoal Only acrylic silicone sealant to be used around frames. Frames to be protected at all times and continuously kept well oiled. Protect frames from contact earth wet cement mixtures. No damaged frames or scratched glass will be accepted. All frames to be supplied by Specialist to Architect's approval into prepared plastered openings which are level and plumb and built to maximum 5mm tolerance. 	<ul style="list-style-type: none">
L03.1: STEEL DOOR FRAME - FIRE DOOR: 230mm WALL	Double rebated 1.6mm (class B) mild steel pressed metal door frame complying to SABS 1129:2008 to suit 230mm thick wall. Manufacturer to supply frame with heavy duty flanged brass hinges with nylon washers, fitted with 1.5 pair of hinges. Manufacturer to provide reinforced / strengthened in frame for fixing of door closers, magnetic locks, etc. Frame to be supplied with a minimum of 2 shop coats SANS certified red oxide primer touched up on site prior to painting.	
L03.6: STEEL DOOR FRAME -230mm WALL	Double rebated 1.2mm mild steel pressed metal door frame complying to SABS 1129:2008 to suit 230mm thick wall, with heavy duty flanged brass hinges with nylon washers, fitted with 1.5 pair of hinges per door leaf. Manufacturer to provide reinforced / strengthened in frame for fixing of door closers, magnetic locks, etc. Frame to be supplied with a minimum of 2 shop coats	


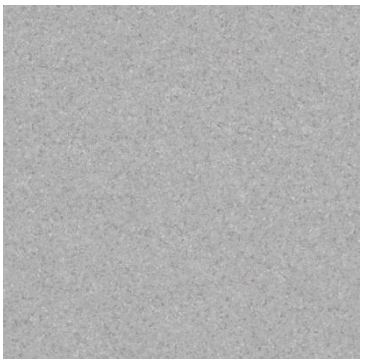

	SANS certified red oxide primer touched up on site prior to painting.	
L03.7: STEEL DOOR FRAME -115mm WALL	Double rebated 1.2mm mild steel pressed metal door frame complying to SABS 1129:2008 to suit 230mm thick wall, with heavy duty flanged brass hinges with nylon washers, fitted with 1.5 pair of hinges per door leaf. Manufacturer to provide reinforced / strengthened in frame for fixing of door closers, magnetic locks, etc. Frame to be supplied with a minimum of 2 shop coats SANS certified red oxide primer touched up on site prior to painting.	
M - PLASTERING AND SCREEDS		
M01: SILLS	Fibre cement window external sloping sill, size manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.	
M02: SCREED	Where applicable - to level out floor levels at different levels: 12mm thick 1:4 cement plaster finished off applied in accordance with the manufacturer's specification. Apply a sealer coat of bonding liquid before painting. New screed over existing surface bed to be minimum 30mm for tiling.	

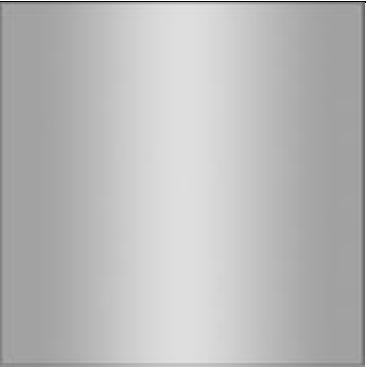

M03: INTERNAL PLASTER	<p>Interior plaster to be 2 coats plaster. skim over cement plaster and to be kept damp for two days to avoid wind and shrinkage cracks. Minimum 12mm with mix to cement plaster applied to wall and finished off with a steel trowel.</p> <p>Ensure that all plaster sand is suitable and has low or no clay content.</p> <p>Test plaster sand for clay content.</p> <p>Full depth V-joints shall be made in plaster where brickwork joins primary structure, unless otherwise noted.</p>	
M04: SKIMMING	<p>applied to cement plaster surface and to underside of ceilings: Wet the walls with copious amount of water to reduce excessive suction of plaster or apply Grippon. Apply first coat of Grippon plaster bonding liquid using a paint roller. Allow first coat to dry. Apply a second coat of Grippon plaster bonding liquid using a paint roller. While the second coat of Grippon plaster bonding liquid is still tacky/wet apply Apply Gyproc RhinoLite CreteStone to a minimum thickness of 2,5mm and finish off with steel trowel.</p> <p>Skimmin applied to plasterboards / partition walls: Surface preparation involves joint reinforcement and, if tapered edge board is used, flushing-out the tapers. Apply to 2,5mm thickness to 6mm thick and finish off with steel trowel.</p>	
M02: GRANOLITHIC SCREED (DUCT)	<p>Where applicable - to level out floor levels at different levels: 12mm thick 1:4 cement plaster finished off applied in accordance with the manufacturers specification. Apply a sealer coat of bonding liquid before painting.</p> <p>granolithic screed laid existing surface bed. Screed to be 10 - 20mm thick with wood float or steel trowel for smooth finish. Colour: Grey</p>	
N - TILING		
TILE PREP NOTE:	<ul style="list-style-type: none"> Porcelain tiles to interior powerfloated concrete or steel-trowelled concrete or screed. 	

	<ul style="list-style-type: none"> • Allow all new concrete work to cure for at least 28 days before proceeding. All new concrete work and screeds must have a moisture content of 5% or less before tiling can be commenced. When tiling directly onto concrete, ensure that the surfaces are clean and free of all traces of shutter release and curing agents, laitance and any other surface contaminants, preferably by scarifying or sandblasting. • Any screeding must be firmly attached to the underlying concrete, must be integrally sound (no crumbling, cracking etc.) and must be of a quality and consistency suitable for tiling. All defective areas must be removed and the floor made good before proceeding. • Powerfloated or steel-trowelled surfaces must be primed with a slurry consisting of 1 part Tal keycoat to 2 parts cement (by volume). The adhesive must be applied while the slurry coat is still tacky. • Apply Tal Gold Star 6 rapid setting adhesive mixed 20kg with 5 litres of Tal Bond (replacing the water in the mix) using a notched Tal floor trowel. Grout with light grey Tal Wall and floor grout mixed 20kg with 6 litres of Tal Bond (replacing the water in the mix). 	
N01: EXTERNAL FLOOR TILE SPEC. – ENTRANCE AREA		



N05: INTERNAL WALL TILE SPEC. – KITCHENS	Tiles Subway Concrete Grey Ceramic Gloss Wall & Décor, size: 100 x 200mm Or similar approved.+	
N05: INTERNAL WALL TILE SPEC. – KITCHENS	Tiles Subway White Ceramic Wall & Décor, size: 100 x 200mm Or similar approved.+	
N05: INTERNAL FLOOR & WALL TILE SPEC. – CAFETERIA, PASSAGES & BATHROOMS	Tiles– Glazed porcelain tile, colour: Armani Grey, size: 600 x 1200mm x 10mm thick Or similar approved.	
N05: INTERNAL FLOOR & WALL TILE SPEC. – CAFETERIA, PASSAGES & BATHROOMS	Tiles– Glazed porcelain tile, colour: Onyx Bianco, size: 600 x 1200mm x 10mm thick T07308. Or similar approved.	
N05: INTERIOR CARPET TILE SPEC. – AUDITORIUM	turfed loop pile carpet tiles colour with backing, overall size 500 x 500 x 9mm thick, laid in pressure sensitive adhesive, all installed by an approved installer according to EN 1307 and SANS 10186:2010, the code of practice for textile floor coverings.	



N06: VINYL TILES	Eternal Material heterogeneous vinyl sheeting colour Light Cement with surface treatment, size 2m wide x 2mm thick, manufactured in accordance with EN 649, laid in 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 Self Leveller when required, rolled with 68kg three section metal roller with joints welded with a fully flexible coloured Welding Rod to provide a smooth, hygienic sealed finish on completion.	
N07: ANTI-STATIC FLOOR SHEETING	Sheeting: Supply and fix 2,0mm thick x 2,0m wide non-directional static dissipative vinyl sheeting, manufactured in accordance with EN649 and laid over an earthed grid of aluminium or copper tape in No. 27 acrylic conductive adhesive which has been spread using a trowel fitted with an A2 notched blade at a rate of between 5,5m2 and 6,5m2 per litre on a previously prepared Class 1 sub-floor in accordance with SANS10070, using reliable self-leveller when required, including all cutting and waste. The sheeting must be rolled in both directions with and articulated 68kg three-sectional roller immediately after it has been laid into the adhesive. Joins must be butted, grooved and heat welded using the manufacturer's welding rod, ensuring that the welding rod bonds to more than 70% of the sheet thickness. After completing the installation the floor must be electrically tested for resistivity in accordance with the requirements of SANS 6160. Colour: Medium Dark Pure Grey FSD562	
N08: ALUMINIUM SKIRTING (CARPET TILE FINISH)	interior aluminium standard skirting in Matt Silver, size 11 x 80mm x 2,7m long on short carpet surfaces, plugged and screwed to walls.	

		
N09: TILE SKIRTING	<p>100mm Cut Tile skirting to match floor tile</p> <p>Trim: 12mm Aluminium tile trim fixed to substrate with an approved adhesive.</p>	

P - PLUMBING & DRAINAGE (PROVISIONAL)			
	<ul style="list-style-type: none"> • All work to comply with SANS 509 and SANS 62 • Work is to be concealed as far as possible and to be neatly executed. • Concealed work is to be accessible for cleaning and maintenance. • Position of vents, overflows and any visible pipes to be confirmed with the architect prior to execution. • Waste, soil and water pipes to be placed and cast into surface bed and not into screed. • The whole of the drainage works to be executed by licensed drain layers. • All water reticulation to be 3/4" copper tubing. • All waste water pipes to be 55mm diameter uPVC and all soil piping to be 110mm diameter uPVC. • Supply and install 110mm uPVC vent at heads of drain, to go right to roof height. • Pressure test all plumbing prior to tiling and plastering; and keep records of positions of all pipes - mark. • Inform all subcontractors of the contractor and Employer as to the position of these pipes if it in any way may affect their work and to prevent anyone damaging pipes. • Provide for pre-cast gulleys, inspection eye and rodding eye covers etc. 		
P01: DRAINAGE			
P01.1: SEWERAGE & DRAIN LAYING	All soil pipes and waste pipes to fall at minimum 1:40 slope.	P	
P01.2: GULLEYS	Solutions precast concrete gully, overall size 430mm x 440mm high, bedded and jointed in Class II mortar and painted on all exposed faces.	P	



P01.3: VENT PIPES	Soil and waste pipes and fittings to be uPVC (SANS 967) of 110mm diameter (SP) and 55mm diameter (WP) to connect to existing reticulation. All exposed fittings to be access fittings.	
P01.4: SUPPLY PIPES	Aa per mechanical engineer's designs	
P02.1: KITCHEN SINK	<p>stainless steel double bowl inset sink overall size 1160 x 460mm with two 340 x 370 x 149mm deep bowls, fitted onto cupboard (elsewhere specified). Sink to include:</p> <ul style="list-style-type: none"> • 90mm waste fitting • One tube of Inox cream 	
P02.2: WASH HAND BASIN	Ceramic washbowl colour White-overall size 475 x 475 x120mm, fixed to countertop and sealed with silicone sealant where basin rim meets countertop, installation kit included.	





<p>P02.3: URINAL</p>	<p>50cm urinal colour White, with back or top inlet and waste outlet including wall mounting brackets and connected to water supply, sealed with silicone sealant where urinal meets wall.</p>	
<p>P02.4: URINAL DIVIDERS</p>	<p>12mm compact high pressure laminate urinal screen colour Pastel Grey (overall size 450 x 750mm fixed to wall with 304 grade stainless steel brackets</p>	
<p>P02.5: TOILET - MALE & FEMALE</p>	<p>CONCEALED CISTERN Construction height 112 cm supplied complete with front actuation and odour extraction as per specialist details. Cisterns to be concealed using provided ducts.</p>	  <p>Sigma60</p> 

**P02.6: PARAPLEGIC
TOILET**



Raised Paraplegic CC & 2-piece Grab Rails Combo
[Dog-Leg Grab Rail and Cistern Grab Rail].. To
include toilet seat Or similar approved.



P02.7: DISABLED WASH HAND BASIN	<p>50cm Medical basin with brackets colour White fixed with stainless steel screws and washers to plugs in wall with optional concealed wall brackets sealed with acetoxysilicone sealant where basin meets wall.</p>	<p>P</p>	
P02.8: COUNTERTOPS	<p>20mm thick natural quartz stone slab colour Bianco Perla, overall size 3200 x 1600mm, thick supporting edge strips laminated under all exposed edges of top glued with pre-coloured polyester resin and all exposed edges full bullnose edged, with 201mm thick supporting laminated edge strip to all unexposed edges 20mm full bullnose fixed to supports (elsewhere specified) using dabs of 100% clear silicone adhesive at 200 to 300mm centres along all supports with all joints filled with Light Grey Quartz adhesive, all in accordance with the manufacturers recommendations.</p>	<p>P</p>	

P03: TAPS, MIXERS, VALVES, ETC.			
P03.1: BASIN MIXER - BATHROOMS	deck mounted basin mixer, overall size 136.93 x 43.38 x 123.74mm, installed in accordance with the manufacturer's recommendations.	P	
P03.2: DISABLED BASIN MIXER	Chrome finish Medical Pillar Tap with Blue/Red indices deck mounted basin mixer (Code: 500-21R), overall size 63mm (h) x 41mm (d) x 79mm (l), installed in accordance with the manufacturer's recommendations.	P	
P03.3: SINK MIXER	Single Lever Sink Mixer 12L/Min, chrome. Or similar approved. Confirmation from Client necessary prior to procurement; to confirm SLA (Service Level Agreement) for specific products to be used.	P	
P03.4: BOTTLE TRAPS (BASINS)	Plumbing Bottle Trap 40 x 40mm Chrome; Bottle trap 40 x 40mm (includes rubber bung), code: GIO-A181-40. Or similar approved.	P	





P03.5: ANGLE VALVES	Plumbers Angle regulating valve chrome plate ½" - ¾" BK. Code: GIO-5195. Or similar approved.	
P04.1a: EXISTING ELECTRIC GEYSER	Where possible existing electric geysers if functional are to be re-used- removed and replaced elsewhere. Hot water to only Kitchens and Café Kitchen.	
P04.1b: HEAT ON DEMAND UNDERCOUNTER WATER HEATER	Point of Use Electric Water Heater 10lt Under Basin The unit may only be fitted with a counter surface Push through mixer	
Q01: EXTERNAL GLAZING	<p>Double GLAZING FENESTRATION SPECIFICATION (GLAZING & ALUMINIUM FRAME UNIT) as per glazing schedule.</p> <p>6mm Cool-Lite SKN 146 II – 12mm air gap – 6mm Clear Light Transmission: 40% SHGC: 0.25 Heat Elimination: 75% U Value: 1.7</p> <p>6mm Cool-Lite SKN 154 II – 12mm air gap – 6mm Clear Light Transmission: 51% SHGC: 0.27 Heat Elimination: 73% U Value: 1.6</p>	

	No paint or primer shall be applied to damp or dusty surfaces. Surface to be dry, sound and free of dirt and loose particles. Wipe down with a damp cloth and allow to dry completely.	
R01: PAINT TO INTERIOR FLUSH PLASTER CEILING	Super Matt White to interior new ceilings. Prime with one coat Water Based Gypsum Sealer Colour: to be as per architect's specification	
R02: PAINT TO KITCHEN AND BATHROOMS FLUSH PLASTER CEILING	Super Matt White to interior new ceilings. Prime with one coat Water Based Gypsum Sealer Colour: to be as per architect's specification	
R03: PAINT TO INTERNAL WALLS – OFFICES, BOARDROOMS	Super Matt to interior new. Surface to be dry, sound and free of dirt and loose particles. Wipe down with a damp cloth and allow to dry completely. Prime with one coat Water Based Gypsum Sealer with an overcoating time of 1 hour and finish with two coats Super Matt with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment. <ul style="list-style-type: none"> • Topcoat: Super Matt • Number of coats of topcoat: two coats • Overcoating time for topcoat: 1hour • Primer/Base coat: Professional Water Based Gypsum Sealer • Overcoating time for primer/base coat: 1hour. Colour: to be as per architect's specification	
R05: PAINT TO MILD STEEL INTERNAL DOOR FRAMES	Plascothane Polyurethane Enamel to interior new mild steel. Surface to be clean and dry. Remove surface contaminants using Degreaser (GR 1) with bristle brush or pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3 of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat 75 Zinc Phosphate Epoxy Primer (PEX75/PEH75) with an overcoating time of 4 hours and finish with two coats Polyurethane Enamel (UP 1) with 30 minutes drying time between coats, for a maintenance cycle of 8 years in a C1 - inland environment. Colour: to be as per architect's specification	
R06: PAINT TO TIMBER SKIRTINGS & DOORS	Paint Finish - Gloss Enamel Smooth Finish - Smooth Finish - Solvent based good quality gloss Colour: to be as per architect's specification	

V01: TOILET ROLL HOLDERS	High-grade stainless-steel satin finish lockable toilet roll holder with permanent plastic trim. Dimensions: 355 (H) x 125 (W) x 130 (D).	
V02: PAPER TOWEL DISPENSER	Superior grade 304 stainless steel available in satin or bright annealed finish paper towel dispenser. Lockable unit fitted with tumbler locking system. Dimensions: 369(H) x 280(W) x 120(D).	
V03: PAPER TOWEL BIN	Standard High grade 304 stainless steel wall mounted waste bin with brush finish. Dimensions: 385(H) x 340(W) x 250(D)	
V04: SOAP DISPENSER	800ml High-grade stainless-steel satin finish lockable wall mounted soap dispenser. Dimensions: 290 (H) x 100(W) x 100(D)	

		
V05: TOILET SEAT SANITISER	Stainless steel 400ml Spray Soap dispenser, size 130 x 110 x 215mm high, plugged and screwed to wall with stainless steel screws. Or similar approved.	
V06: AIR-CARE DISPENSER	Battery powered stainless steel Air Care dispenser, size 101 x 70 x 225mm high, plugged and screwed to wall with stainless steel screws. Or similar approved.	
V07: SANITARY BINS	Cubicle Solutions Stainless Steel sanitary bin plugged and screw to wall with stainless steel screws.	

V08: MIRRORS	450mm x 650mm Bevelled edge mirror fixed to walls with mirror dome screws.	
V09: HAND DRYER (DISABLED WCs ONLY)	Electric hand dryer. High-grade stainless-steel satin finish. Dimensions: 220 (H) x 248 (W) x 145(D)	
V10: SOAP DISPENSER (DISABLED WC)	<p>Soap dispenser for wall mounting, stainless steel, surface satin finished, material thickness 0.8 mm, folded front cover, cylinder lock with standard key, suitable for liquid soaps and lotions, 1 litre soap tank, push button on the front, includes stainless steel screws and dowels.</p> <p>Width: 200mm Height: 140mm Depth: 132mm</p>	
V11: DISABLED WC GRAB RAILS	Refer to Item: P02.6 – PARAPLEGIC TOILET (Item includes grab rails)	
W – WET SERVICES AND SANITARY AND WATER RETICULATION		
W01-SEWER PIPES	110 mm dia (class 34) Pvc SABS791-heavy duty spigot and socket pipe. (400Kpa), 160 mm dia (class 34) Pvc SABS791-heavy duty spigot and socket pipe. (400Kpa), 200mm dia (class 34) Pvc SABS791 -heavy dutyspigot and socketed pipe. 400Kpa	
W02-FITTINGS AND SPECIALS(ACCESSORIES)	160 mm dia (class 34) Pvc SABS791-heavy duty spigot and socket pipe. (400Kpa), 200mm PVC dia square junction @87.5 bend, 200mmx160mm PVC dia reducing junction @45 bend, 160mm PVC dia Double socket straight joint pipe fitting, 160mmx110mm PVC dia reducing junction @45	

	<p>bend, 160mmx110mm PVC dia reducing junction @22.5 bend, 200 mm PVC dia Double socket straight joint pipe fitting, 200mm PVC dia square junction @87.5 bend.</p>
<p>WO-JUNCTIONS AND ACCESS CHAMBERS</p>	<p>1000 dia x250 Precast concrete circular inspection manhole including cover slab, insitu cast RC base slab with mesh ref # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing ABE tape or approved similar by engineer.</p> <p>1000 dia x 500 Precast concrete circular inspection manhole including cover slab, insitu cast RC base slab with mesh ref # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing abe tape or approved similar.</p> <p>1000 dia x 1000 Precast concrete circular inspection manhole including cover slab and concrete lid, insitu cast RC slab with mesh reff # 888. manholes to be sealed with bitumen strips and externaly sealed with self-adhesive waterpfooing abe</p> <p>1250 dia x250 Precast concrete circular inspection manhole including cover slab, insitu cast RC base slab with mesh reff # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing ABE tape or approved similar by engineer.</p> <p>1250 dia x 500 Precast concrete circular inspection manhole including cover slab, insitu cast RC base slab with mesh ref # 888. manholes to be sealed with</p>

	<p>bitumen strips and externally sealed with self-adhesive waterproofing Abe tape or approved similar.</p> <p>1250 dia x 1000 Precast concrete circular inspection manhole including cover slab and concrete lid, insitu cast RC base slab with mesh reff # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing Abe</p> <p>1500 dia x250 Precast concrete circular inspection manhole including cover slab and concrete lid, insitu cast RC base slab with mesh ref # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing ABE tape or approved similar by engineer.</p> <p>1500 dia x 500 Precast concrete circular inspection manhole including cover slab and lids, insitu cast RC base slab with mesh ref # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing Abe tape or approved similar.</p> <p>1500 dia x 1000 Precast concrete circular inspection manhole including cover slab and concrete lid, insitu cast RC slab with mesh ref # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing Abe</p> <p>2500 dia x250 Precast concrete circular inspection manhole including cover slab concrete lid, insitu cast RC base slab with mesh reff # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing ABE tape or approved similar by engineer.</p> <p>2500 dia x 500 Precast concrete circular inspection manhole including cover slab, insitu cast RC slab with mesh ref # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing Abe tape or approved similar.</p> <p>2500 dia x 1000 Precast concrete circular inspection manhole including cover slab, insitu cast RC slab with mesh ref # 888. manholes to be sealed with bitumen strips and externally sealed with self-adhesive waterproofing Abe</p>
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W04-STORMWATER DRAINAGE	<p>450mm dia precast concrete pipe class 75D interlocking joint to SANS 677, 600mm dia precast concrete class 75D interlocking joint to SANS 677</p> <p>450mm dia precast concrete pipe class 50D interlocking joint to SANS 677 600mm dia precast concrete class 50D interlocking joint to SANS 677</p> <p>all pipes shall be deemed to entail Non cellular rubberised jointing, bitumen sealant or 60x12 denso tape or approved similar water tight sealant. To SABS 974:1</p>
W05-CATCHEMENT PITS, MANHOLES AND ACCESS CHAMBERS TO SANS1200LE	<p>2000x1040x100 precast Type A catchement pit access cover slab with lids inclusive of 2x80x80x10 angle section with lugs treated to red oxide metal anti rust primer with intermediate and end precast support blocks(230x100x400).</p> <p>30x45mm galvanised steel grating inclusive of 30x30x4 angle iron with 0,4mm lugs inclusive of concrete supports.</p>

	<p>2000x1040x100 precast Type B catchment pit access cover slab inclusive of 2x80x80x10 angle section with lugs treated to red oxide metal anti rust primer with intermediate and end precast support blocks (230x100x400).</p> <p>25x4,5 galvanised steel grating inclusive of 25x25x3 angle iron with 0,4mm lugs inclusive of concrete supports.</p> <p>370x405x250 precast concrete U channel jointed with 1:4 sement:riversand mix on riversand bedding.</p> <p>30x45mm galvanised steel grating inclusive of 30x30x4 angle iron with 0,4mm lugs inclusive of concrete supports.</p> <p>25x4,5 galvanised steel grating inclusive of 25x25x3 angle iron with 0,4mm lugs inclusive of concrete supports.</p> <p>370x405x250 precast concrete U channel jointed with 1:4 sement:riversand mix on riversand bedding.</p> <p>500x300x320 D12 precast concrete channel jointed with 1:4 sement:riversand mix on riversand bedding.</p> <p>2000x1040x750 RC cast insitu manhole chamber inclusive of benching with concrete class 15Mpa/13. RC wall to be 150mm reinforced with mesh ref 888</p> <p>2000x1040x750 masonry chamber inclusive of benching with concrete class 15Mpa/13. masonry wall to be 230 width class 2 mortar. Bricks to shall be burnt clay comply to SABS285 or class S14 calcium silicate to be approved by engineer.</p> <p>Type 2A 635mm dia cast iron manhole.</p> <p>50 x4,5 galvanised steel grating inclusive of 25x25x3 angle iron with 0,4mm lugs inclusive of concrete supports.</p> <p>joint sealing to expansion join Jayco flex M973 poly sulphide or approved similar by the engineer.</p>
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	2000x1040x100 precast Type B catchment pit access cover slab inclusive of 2x80x80x10 angle section with lugs treated to red oxide metal anti rust primer with intermediate and end precast support blocks (230x100x400).
W06-CAST INSITU CONCRETE (OPEN DRAINS, V CHANNE; S, STONE PITCHIN, CHUTES SIFT DRAINS ACCESSORIES AND SUNDRIES.	1000x1000x150 thick RC concrete v drain @1/3 side slopes or specified by engineer, stone pitching of drainage using existing stone boulders. 3000x150mm thick class 25/19 RC apron slab around buildings footprint - mesh ref 617,245,193,888,500