

# ARCHITECTS SPECIFICATION DOCUMENT

## PROJECT: REPLACEMENT OF STRUCTURES BUILT WITH INAPPROPRIATE MATERIALS ON CLUSTER 1 SCHOOLS RFP 019/2020

For:



**education**  
Department of  
Education  
FREE STATE PROVINCE

Implementing agent:

DBSA

By:



**SONGO  
DESIGN  
LAB**

ARCHITECTURE +  
PROJECT MANAGEMENT

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## **A) ROADS AND STORMWATER**

A.1. Refer to Civil Engineer's drawings for all roads, paved areas, foulwater and stormwater lay-outs. etc. Unless otherwise stated: all civil works levels and structural floor levels to be built according to the Engineers drawings.

A.2 All existing services to be protected and maintained during the construction period. Any damage which occurs is to be made good by the contractor.

A.3 Manholes, sewer inspection points and existing services etc. to be marked on the nearest kerb and to be captured by means of coordinates on an as-built drawing to be provided by the civil contractor.

A.4 Extent and finishes to aprons around the building perimeter to be as per Engineer's layout drawings.

A.5 Road surface finish to be bituminous premix – All to Engineer's specifications and layout.

A.6. Concrete walkways and retaining walls as per the Engineer's layout drawings.

A.7 80mm thick Inca Concrete Grey coloured paving blocks, size 200 x 100 x 80mm thick, laid in herringbone pattern in accordance with SANS 1200 MJ and CMA Concrete Block Paving Manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I. Paving to be inspected and re-sanded after three months.

A.8 50mm Concrete paving blocks, size 220 x 110 x 50mm thick, laid in herringbone pattern in accordance with SANS 1200 MJ and CMA Concrete Block Paving Manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I. Paving to be inspected and re-sanded after three months.

## **B) UNDERFLOOR FINISHES**

B.1 Reinforced concrete footings, ground beams and column bases as per Structural Engineer's foundation plan. Final founding levels of strip footings and bases to be determined on site by the Engineer.

B.2 Check ground conditions before commencing with final foundation excavation. Excavation to be checked and suitability verified by the Structural Engineer prior to casting foundations.

B.3 The contractor is liable to inform the Local Authority's building inspectors and the Structural Engineer of intended dates for inspecting the foundation excavations.

B.4 In-situ cast concrete surface bed on one layer of 250 micron waterproof DPM bearing SABS 952-1985 type C, laid on layer works as per Structural Engineer's specification. DPM to be laid in the widest practical widths to minimise joints and shall be turned up/dressed to brickwork, and lapped with BRIKGRIP SABS DPC. Sheets to have 150mm overlap joint with GUNPLAS Tape applied over the leading edge and pressed down firmly. All to manufacturer's specification and instruction. Finish top of concrete surfaces to be smooth, even and level by means of power float including small areas to be finished with steel trowel. Power floating finish NOT to be burnt – allowance to be made in thickness for the various floor finishes.

B.5 Foundation walls to be insulated with 50mm Lambdaboard® laminated Polyisocyanurate core board with Kraft paper on both sides, butt jointed as per manufacturer's instruction, Board width: 1220mm, Board thickness: 50mm, Board facing: Kraft paper, R-value: 2.08m<sup>2</sup>.K/W, Core density: 34kg/m<sup>3</sup>

B.6 Floor of service ducts to be 16mm gravel on well compacted in-situ material sloping towards the gully drain in the duct.

B.7 Well watered and compacted fill, free of all vegetable matter, in layers not exceeding 150mm in depth. Layer works to Engineer's specification.

B.8 Ground slabs to be 30Mpa in strength and be cast on selected clean cohesionless material, compacted to 98 % Modified AASHTO density. Unreinforced slabs to be cast in approximately square panels with maximum side length not exceeding 30 times the slab thickness u.o.n. All joints to be positioned and formed in accordance with detail drawings. All to Engineer's specification.

B.9 250 Micron DPM in maximum widths with 150mm overlap at all joints with `pressure sensitive tape over leading edge and turned up and lapped with stepped 375 micron black polyethylene embossed damp proof course complying with SABS specification 952 Type B at brickwork interface. B) UNDERFLOOR FINISHES

B.10 250 Micron (Green SABS) DPM in maximum widths with 150mm overlap at all joints with pressure sensitive tape applied over the leading edge. To underside of Ground floor slabs and Verandas

B.11 All movement joints on surface beds to be 12mm wide, formed by gluing an approved closed cell expanded polyethylene joint filler to the 1st cast concrete. All exposed joints to be sealed with Pro-Struct® 749 Gun Grade Quickseal Polysulphide Joint Sealant mixed and applied onto primed surfaces in strict accordance with manufacturer's specifications.

B.14 Sloping brick paving to be laid on 250 Micron DPM on 25mm Thick layer of clean builder's sand on layer works as specified by the Engineer.

## **C) FLOOR FINISHES**

C.1. Classrooms to receive: 2,0mm thick vinyl floor tiles, laid in acrylic adhesive spread with a notched trowel on suitably prepared cement screed floors with a hygrometer reading showing a moisture content of less than 70%, with joints welded with a fully flexible coloured Polyflor welding rod to provide a smooth, hygienic sealed finish and rolled with 68kg articulated floor roller, all in accordance with manufacturer's recommendations.(Or similar approved)

Self levelling screed below Vinyl. All surfaces to be clean, sound, laitance and dust free. Prime surface with Flowseal EPW primer. Apply one coat Grey matt Flowcem DPM to a minimum 4mm thickness. Applied in accordance with approved Flowcrete specifications by approved applicators. (Or similar approved)

C.2. Ablutions to receive: 600mm x 600mm 10mm Thick ceramic tiles, with PEI 5 rating, as indicated on Architects layout plans. Colour to be grey concrete tiles. Allow all new concrete work and screeds (where required) to cure for at least 4 weeks before proceeding. Ensure that all concrete surfaces to be tiled are clean and free of all traces of shutter release and curing agents, laitance and any other surface contaminants, preferably by scarifying or sandblasting. Ensure that the concrete surfaces are entirely free of dust and loose particles and are dry. Key the surface 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 GOLDFLEX to the background using a notched TAL Floor trowel. Grout with dove grey TAL WALL and FLOOR GROUT mixed 20kg with 6 litres of TAL BOND (replacing the water in the mix) for filling tile joints 3mm wide. Allow for 10mm x 10mm Polyurethane sealant between edge of perimeter tiles and wall brickwork. Allow movement joints, at least 1 joint in each direction every 9sqm. All in accordance with Manufacturer's detailed specification. Wet areas such as showers to receive non slip tile finish.

#### C.3. Kitchen floors Epoxy non slip

Prepare and apply a.b.e. Construction Chemicals Medium Sea Grey G24 abeflo self-leveling, solvent free epoxy flooring system and comprising a resin hardener system, pre-packed aggregates and pigment including all necessary primers (abecote WD 337), all in accordance with the manufacturer's instructions.

#### C.4. Veranda's

Sloped concrete verandas to thickness and cold joints as specified by the structural engineers. Sealed with a low sheen, water based polyurethane sealer.

Surface to be clean, sound and free of friable material. Contaminants to be removed by scrubbing with a heavy-duty industrial detergent Carboclean 252 Empty the entire contents of the Base and Activator components into a clean, dry mixing container. Mix thoroughly for 2 minutes with an impeller fitted to a variable speed drill. Transfer material into another mixing container, scraping the sides and bottom of the container and remix for another 2 minutes. This step is critical to ensure complete cross-linking of components is achieved. Do not aerate mix nor mix by hand., apply Stonseal 722 sealer coat in accordance with the manufacturer's recommendations.

## D) SKIRTING

D.1 69 x 19mm Meranti skirting with straight edge and slightly rounded back secured to wall with galvanised steel nails at 450mm max. 25mm quarter round fitted to the bottom edge centres properly stopped with tinted wood putty and sanded smooth. Skirting to be in long lengths with neatly mitred joints and corners. Plugged and countersunk screwed and pelleted to wall.

Varnish : Woodgard Interior/Exterior Timbavarnish (Water Based) alkyd varnish (clear) to new interior wood. Sand with abrasive paper, leaving surface clean and dust free. Apply two coats Woodgard Interior/Exterior Timbavarnish (Water Based) with an overcoating time of 4 hours.

## E) WALLS

E. 1. External Walls -270mm cavity walls to have staggered galvanized M/S butterfly cavity ties bedded in cement mortar - 5 ties per 1sqm brickwork. Spacing not to exceed 5x brick courses in height and more than 1m apart. Walls to be insulated with 30mm Lambdaboard® closed cell Polyisocyanurate insulation boarding with Kraft paper facing, 30mm thick x 1220mm wide with butt end joints fixed to inner skin of brick/block cavity wall with galvanised mild steel once bent support and holdback ties with fishtailed ends built into horizontal joints in wall at maximum 1200mm centres along top and bottom edges, including neatly notching board edges around wall ties, window and door frames. Board width: 1220mm, Board facing: Kraft paper, R-value: 1.25m².K/W, Core density: 34kg/m³.

E. 2. **Facebrick 01** to match existing school as close as possible between the red and cream specifications for the main walls

Corobrik® Midrand 26-40MPa Firelight 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 1-2.

**Or**

Corobrik® Driefontein 30-40MPa Silvergrey Imperial FBX clay face brick, size 222 x 106 x 73mm, manufactured in accordance with 227:2007, bedded and jointed in Class II mortar and pointed with recessed vertical and recessed horizontal joints, suitable for exposure zones 1-3.

E. 3. **Facebrick 02** used on feature walls: Corobrik® Midrand 21 -35MPa Titanium Imperial FBX clay face brick, size 222 x 106 x 73mm, bedded and jointed in Class I mortar and pointed with recessed vertical and recessed horizontal joints, suitable for exposure zones 1-4.

E.4 Moisture content of walls to be measured before the application of any paint finishes and are not to exceed 5%. The surfaces of all plastered walls and concrete as well as all other types of surfaces to be prepared in accordance with the specifications and requirements as per the paint manufacturers.

E.5 All 270mm cavity walls to have staggered galvanized M/S butterfly cavity ties bedded in cement mortar - 5 ties per 1sqm brickwork. Spacing not to exceed 5x brick courses in height and more than 1m apart.

E.6 All ducts to receive bagged plaster finish. Refer to Finishing Schedule for paint finish and specification.

E.7 Pre-stressed precast concrete lintel over masonry opening built into brickwork on either side with minimum bearing of 120mm each.

E.8 Dry mortar mix as beam filling between top of brickwork and underside of roof sheeting.

E.9 Unless otherwise indicated, all walls to get smooth wood trowel plaster finish as per the approved sample panel.

E.10 12mm Smooth plaster and paint finish to internal walls as per Finishing Schedule. Internal walls are to be well wetted before plastering to a smooth, even, plumb and true

finish with a steel trowel. Plaster shall be returned into reveals and soffits of openings and all angles shall be true and straight with salient angles slightly rounded. All cracks, blisters and other defects shall be cut out made good and the hole left perfect at completion. Paint finish as per Finishing Schedule.

E.11 12mm Smooth plaster and paint finish to external wall panels as indicated on elevations. Walls are to be well wetted before plastering to a smooth, even, plumb and true finish with a wood trowel. Plaster shall be returned into reveals and soffits of openings and all angles shall be true and straight with salient angles slightly rounded. All cracks, blisters and other defects shall be cut out made good and the hole left perfect at completion. Paint finish as per Finishing Schedule.

E.12 Interior wall paint: Plascon Double Velvet to interior new cement plaster. Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plascon Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Double Velvet (VEL 1) with 2 hours drying time between coats, for a maintenance cycle of 10 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Double Velvet
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 2.00 hour
- Primer/Base coat : Plascon Plaster Primer
- Overcoating time for primer/base coat : 16.00 hour
- Specification document : NW104r.

E.13 Exterior wall paint: Plascon Wall & All to exterior new cement plaster. Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plascon Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Wall & All (WAA 1) with 2 hours drying time between coats, for a maintenance cycle of 10 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Wall & All
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 2.00 hour
- Primer/Base coat : Plascon Plaster Primer
- Overcoating time for primer/base coat : 16.00 hour

E.14 Exterior and interior timber: Plascon Velvagro Water Based to exterior new wood. Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC2) with an overcoating time of 16 hours and finish with two coats

Velvagio Water Based (VLW) with 4 hours drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Velvagio Water Based
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 4.00 hour
- Primer/Base coat : Wood Primer
- Overcoating time for primer/base coat : 16.00 hour

E 15 Exterior paint to fibre cement Facia Boards Plascon Velvagio Water Based to exterior new hardboard. 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 Plascon Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Velvagio Water Based (VLW) with 4 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Velvagio Water Based
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 4.00 hour
- Primer/Base coat : Plascon Plaster Primer
- Overcoating time for primer/base coat : 16.00 hour

## **F) WINDOWS**

F.1 Refer to window schedule for windows.

confirm type of glass used, i.e. toughened glass. Obscure glass to be used in all bathrooms and toilets.

F.2 After installation the contractor is to take all necessary measures to protect the aluminium units from any on site damage including scratched glass and mortar stained aluminium frames. Any and all damaged units will be replaced at the contractor's cost.

## **G) SILLS**

G.1. Exterior Sills: Facebrick sills angled and embedded in cement mortar with 250 micron dpc tucked under window frame. As indicated on the Architects detail drawings.

G.2 Everite Nutec window internal sill, size 175mm x 15mm thick, 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. G) SILLS

G.3 Plascon Professional High Sheen Pure Acrylic to interior new fibre cement sills (NW 203). Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Professional Plaster Primer (PP 700) with an overcoating time of 16 hours and finish with two coats of Professional High Sheen Pure Acrylic (PEM 1100) with 2 hours drying time between coats, for a maintenance cycle of 7 years in a C5 - coastal/marine environment. Colour by Architect.

## **H) DOORS**

H.1 Refer to door schedules for all door, door frame and ironmongery specifications.

## **J) CORNICE**

J.1 Everite Nucornice Nu-Cornice Plain 75 polystyrene cove cornice (Code: 605-750), overall size 55 x 55mm high, fixed to wall and ceiling using Nucornice water-based adhesive, leaving 2mm vertical joints between sections. All vertical joints to be sealed with Nucornice adhesive prior to painting, all in accordance with the manufacturer's recommendations.

## **K) CEILINGS**

K.1 1 layer Gyproc RhinoBoard® 12.5mm is fixed to timber branderling installed at maximum 600mm centres. Fix Gyproc RhinoBoard® using Gyproc Sharp-point Screws 32mm at maximum 150mm centres. All joints shall be staggered. Apply Gyproc RhinoTape® to all joints and cover it with 2 layers of Gyproc RhinoGlide®. Spot the screw heads using Gyproc RhinoGlide®. Timber branderling shall be suitably fixed to the tie beam/joist.

- Ceiling System: Gyproc Jointed Ceiling System 12.5mm/SB
- Ceiling Grid: concealed ceiling grid.

K.2 Plascon Super Acrylic Polvin to interior new ceilings. 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 Plascon Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Super Acrylic Polvin (EPL 30) with 1 hour drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Super Acrylic Polvin
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 1.00 hour

- Primer/Base coat : Plascon Plaster Primer
- Overcoating time for primer/base coat : 16.00 hour

K.3 Concrete Ceiling soffits to receive 15mm plaster after thoroughly cleaned and washed before a keycoat is applied. Finish to plaster with Plascon Super Acrylic Polvin to interior new cement plaster. Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat Plascon Plaster Primer (UC56) with an overcoating time of 16 hours and finish with two coats Super Acrylic Polvin (EPL 30) with 1 hour drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.

- Environment : C1 - inland
- Topcoat : Super Acrylic Polvin
- Number of coats of topcoat : two coats
- Overcoating time for topcoat : 1.00 hour
- Primer/Base coat : Plascon Plaster Primer
- Overcoating time for primer/base coat : 16.00 hour

## **L) ROOF INSULATION**

L.2 Roof insulation to main roof areas to be Isover 135mm thick Aerolite non-combustible light weight fibreglass Glasswool thermal ceiling insulation (Code: 11316) 12kg/m<sup>3</sup> closely fitted with ends butted firmly between tie beams and laid loose on top of bracing between roof timbers, all in accordance with manufacturer's recommendations.

- Climatic zone: Zone 1
- R-value: 3.38m<sup>2</sup> K/W
- Thermal conductivity: 0.04 W/m<sup>2</sup>/K.

## **M) ROOFING**

M.1 Global Roofing Solutions 0.58mm thick 890mm cover IBR 890 profile Galvanised steel, Z200 spelter ISQ550 Chromadek® Dove Grey finish top coat and Pebble Grey backing coat roof sheeting, fixed to timber intermediate purlins at MAX 2600mm centres and eaves and ridge purlins at MAX 2300mm centres using Hex Flange Head + EPDM Seal self drilling Type 17 drill point, No. 12-11 x 85mm long fasteners. Purlin fixed to second, fourth and sixth crest of each sheet and at all crests at sheet ends, all in accordance with the manufacturer's specifications.

- Brand: ArcelorMittal
- Climatic Condition: inland - C1/C2 Low Corrosion Risk.

M.2 Facia: No facias

M.3 Barge board: Facia: Everite medium density plain ungrooved Nutec fascia boards (Code: 040-904), size 225 x 10mm, fixed to 38 x 38mm tilter batten and 38 x 38mm support battens between trusses twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with PVC H-profile fascia joiner between boards and at board ends.

Global Roofing Solutions 0.58mm thick Chromadek® Z200 spelter ISQ550 Dove Grey finish top coat and Pebble Grey backing coat barge flash, girth 462mm , fixed in accordance with manufacturer's specifications.

- Brand: ArcelorMittal
- Climatic Condition: from 5km to inland - C3 Medium Corrosion Risk.

M.4 Ridge Flashing: Global Roofing Solutions 0.58mm thick Chromadek® Z200 spelter ISQ550 Dove Grey finish top coat and Pebble Grey backing coat ridge cap, girth 462mm , fixed in accordance with manufacturer's specifications.

- Brand: ArcelorMittal
- Climatic Condition: from 5km to inland - C3 Medium Corrosion Risk.

M.5 Sidewall Flashing: Global Roofing Solutions 0.58mm thick Chromadek® Z200 spelter ISQ550 Dove Grey finish top coat and Pebble Grey backing coat sidewall flash, girth 308mm , fixed in accordance with manufacturer's specifications.

- Brand: ArcelorMittal
- Climatic Condition: from 5km to inland - C3 Medium Corrosion Risk.

## **N) RAINWATER DISPOSAL**

N.1 Mr. Gutter Ogee profile Colorbond pre-coated Zinalume seamless gutter, size 150 x 100 x 0,5mm thick in colour Armour Grey including matching rivet-fixed mitres and end caps internally sealed using Silicon Mastic, hung by nail fixed internal aluminium hangers at 800mm centres with rectangular fluted downpipes, size 100 x 75 x 0,5mm thick in colour Armour Grey fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings.

## **P) STRUCTURE**

P.1 All exterior timber to be grade S7 sized or PAR (Refer to details) CCA H3 treated S.A.Pine structural timber in lengths 0,9 - 6,6m (in 300mm increments).

P.2 All hidden interior timber to be grade S7 sized CCA H2 treated S.A.Pine structural timber in lengths 0,9 - 6,6m (in 300mm increments).

P.3 76mm x 50mm Purlins to be grade S7 sized CCA H3 treated S.A.Pine structural timber.

P.4 50mm x 38mm grade S7 sized CCA H3 treated S.A. Pine vertical fixing branders secured to galvanised mild steel transverse rails at 600mm crs.

P.5 Roof rafter and purlins configuration, size and spacing to Structural Engineer's design, details and specifications.

P.6 Reinforced concrete column as per Structural Engineer's drawings and specifications.

P.7 Brickforce in all brickwork to Engineer's specifications and drawings.

P.8 Structural steel components and connection details as per Engineer's drawings.

## **Q) MOVEMENT AND CONSTRUCTION JOINTS**

Q.1 All plaster junctions between concrete and brickwork to be through "V"-jointing.

Q.2 In load-bearing brick walls provide slip-joints between brickwork and concrete slabs by leveling up and trowelling smooth the bearing surfaces of brickwork with 3:1 cement mortar mix and covering the bearing surfaces before the concrete is cast with two layers of tempered Masonite with smooth side in contact. Structural Engineer to verify.

Q.3 Brickwork and concrete to be kept separate with 10mm Jointex (or equally approved) pinned/glue to column. Joints to be sealed with an approved paint-over sealant.

Q.4 M-Trim 12mm high aluminium movement joint fitted with 6mm wide Dark Grey polyurethane infill (Code : AMJ120.09), fixed to floors with an approved adhesive.

## **R) WATERPROOFING**

R.1 Every 4th perp on the outside to be left open. Stepped damp-proof course to consist of embossed Brikgrip Blue 375 micron DPC, bearing SABC 952-1985 Type B, well lapped at all joints and intersections, bedded and joined in cement mortar. Mortar joints to the interior of cavity walls to be finished flush. Perps max 5 bricks apart.

R.2 All aluminium windows and doors to be properly sealed internally and externally along all reveals with Pro-Struct 749 or equally approved. Vertical dpc's to be built into the side reveals of the windows, min 110mm.

R.3 Bitumen impregnated softboard filler.

R.4 Flashing and counter flashing by waterproofing specialist.

R.5 Built-in waterproofing under all brickwork sills to detail.

R.6 Stepped DPC of Prostruct Bituthene 3000 with every 4th perp left open. Mortar joints to the inside of the cavity wall to be finished flush. Apply 2 coats of abe brixéal to the outer face of the inner skin to height of at least 1m above all stepped DPC. Prepare and apply a.b.e. brixéal bituminous emulsion coatings, all in strict accordance with the manufacturer's instructions.

R.8 Every 4th perpend raked out as weep to cavity.

## **S) SERVICES**

S.1 All plumbing and drainage installations and fittings used to conform to the local by-laws, NBR and SABR standards. All work to be completed by a qualified person / registered plumber.

S.2 Municipal electrical supply and all services indicated on site development plans to be read in conjunction with the Electrical, Mechanical and Civil Drawings.

## **T) SANWARE AND TAPWARE**

T.1 Refer to the Sanware Schedule

## **U) BATHROOM ACCESSORIES**

U.1 Refer to the Sanware Schedule

## **V) LANDSCAPING**

V.1 The landscaping theme is indigenous and should therefore be consistent from the general open spaces into the various courtyards. The landscaping to be based on a layout and maintenance plan prepared by a qualified horticulturalist – All to be approved by the Department of Education prior to implementation.

## **W) ELECTRICAL**

W.1 All electrical fittings to be in accordance to the Electrical Engineer. Installation in accordance to SANS 10400 and all Municipal by laws. All existing and remaining electrical fittings and connections to be protected and be in good order at completion

## **X) JOINERY**

X.7 Refer to the Joinery schedules in the Prototype design drawings.

## **Y) PERMANENT FIXTURES**

Y.1 Parrot magnetic Whiteboard 1820mm wide and 1220mm High including 2 x side panels 920mm wide and 1220High. Including pen tray.

Y.2 Parrot 1800mm wide x 900mm high Aluminium framed bulletin Board with concealed mounting and additional bracket. Carpet colour to be Laurel Grey x.