

SPECIFICATION : CSC



**SOUTH AFRICAN POLICE SERVICE
PROJECT 5 STAR 2012
DRAWING REGISTRAR**

DRAWING NR.		DESCRIPTION	SAP NUMBER
1	5-ST-A.DRW	Ground Floor Plan Complete Cell Block	Annexure A
2	5-ST-B.DRW	Ground Floor Plan 2 x Cell blocks with shower on outside of cell	Annexure B
3	5-ST-C.DRW	Ground Floor Plan 2 x Cells with shower in exercise yard	Annexure C
4	Admission.drw	Type Cell Admission Counter	POL 2012/A
5	Bench.drw	Type Cell Bench	POL 2012/B1
6	Trellis1.drw	Type Cell Door Elevations - Door type T2 & T3	POL 2012/D1
7	Trellis1a.drw	Type Cell Door Elevations - Door type T1 & T3/1	POL 2012/D1a
8	Trellis4.drw	Type Cell Door Plans & Sections 1 : 10	POL 2012/D2
9	Trellis2.drw	Type Cell Door Section B - B	POL 2012/D3
10	Trellis3.drw	Type Cell Door Section A - A & Details	POL 2012/D4
11	Lockset1.drw	Type Cell Door Lock & Lock Box	POL 2012/D5
12	Off-Loading Gate.drw	Sliding and Swing Gate Details at Secure Off-Loading Area	POL 2012/D6
12	Shelving.drw	Type Cell Block Shelving Section	POL 2012/F1
13	Exercise Roof.drw	Type Cell Overhead Grills	POL 2012/G1
14	Toilet.drw	Type Cell WC Pan Detail, Section & Elevation	POL 2012/S1
15	Drinking Fountain.drw	Type Cell Hand Wash Basin	POL 2012/S2
16	Shower.drw	Type Cell Shower Detail Section	POL 2012/S3
17	Visitors1.drw	Type Cell Counter Section	POL 2012/V1
18	Visitors2.drw	Type Cell Counter For Visitors Plan	POL 2012/V2
19	Visitors3.drw	Type Cell Elevation Of Desk Window & Stool	POL 2012/V3
20	Cell Window1.drw	Type Cell Window Detail	POL 2012/W1
21	Cell Window2.drw	Type Cell Window Detail Plan Details	POL 2012/W2
22	Cell Window 3.drw	Type Cell Window Detail Section	POL 2012/W3
23	ID Parade Room	Ground Floor Plan; Section A; Section B	IPR/100

1018 (STANDARD DOORS) 1208 (TYPE T3/1)
894 (STANDARD DOORS) 1084 (TYPE T3/1)

CELL SIDE

40 X 8 mm flatsteel welded to angle iron to attach hinge as shown
Cut aperture into sheet metal and weld directly on to tubing

hinge to detail see drawing POL 2012/D4

40 x 8 mm flat steel welded directly on square tubing frame. Cut aperture into sheet metal and weld directly on to tubing. Close cutout with welding joint

50x50x4mm hollow steel section

50x50x6mm angle iron

16mmØ Bright mild steel rods EN8

2mm sheet metal door frame

50x50x4mm hollow steel tubing

2mm sheet metal door frame

200x25x2mm mild steel lugs welded on to frame to be build into every 4 brick courses

2 mm sheet metal fixed onto frame with 6x16mm monobolts at max. 120mm centres on both sides

mortar filling

17x60mm aperture in frame and 50x50x6mm angle iron at centre of lock box position for lock bolt with a 65x20x25mm long mortar box

200x25x2mm mild steel lugs welded on to frame to be build into every 4 brick courses

50x50x6mm angle iron

50x50x6mm angle iron

40 X 8 mm flatsteel welded to angle iron to attach hinge as shown
Cut aperture into sheet metal and weld directly on to tubing

40 x 8 mm flat steel welded to square tubing frame. Cut aperture into sheet metal and weld directly on to tubing

hinge to detail see drawing POL 2012/D4

EXERCISE YARD / PASSAGE SIDE

PLAN SECTION B-B

SCALE 1:2

NOTE:

All work according to Departmental Specification PW 371
All steel to be Galvanised
All steel work to be hot dipped galvanised, all in accordance with SANS Specification 121 (SABS ISO 1461).
- see PW 371 Section 12 Clause 12.1 to 12.3

NO.	DATE	AMENDMENT	BY

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and the name POL2012-D3-DRW DOOR SECTION B-B



Consulting/Supervising

description ARCHITECTURAL

service

SOUTH AFRICAN POLICE SERVICE



drawing title

TYPE CELL DOOR SECTION B - B

author

scale

date

type number

drawing number

designed

drawn

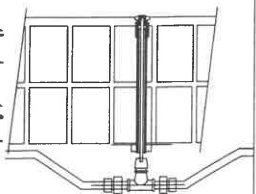
checked

approved

date

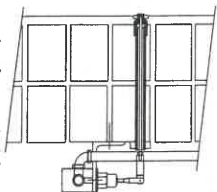
type number

drawing number



Alternative layout for low quality water supply to existing Showers

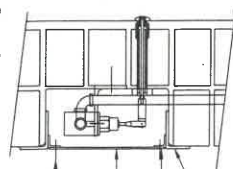
(outside of cell block only)
In-Line Demand non hold open type stopcock as Walcro type 111D with prison type push rod assembly or similar and approved, with unions both sides for servicing



Alternative for existing Showers with surface piping layout (outside of cell block only)

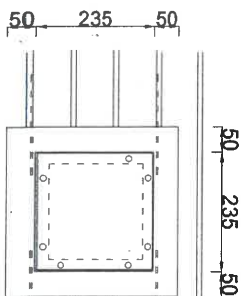
Push-button metering non hold open valve as Walcro 150 C with prison type push rod assembly or similar and approved. Secured to wall with 100x65x7mm MS angle 100mm long and shaped around valve

Push-button metering non hold open valve as Walcro 150 C with prison type push rod assembly or similar and approved. Secured to wall with 100x65x7mm MS angle 100mm long and shaped around valve



Section Alternative for existing Showers with concealed piping layout with Service Hatch (in secure passages only)

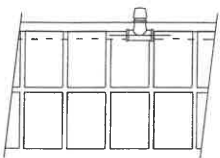
50x50x4mm angle frame
25x25x3mm angle frame
230x230x2mm steel cover plate
6x12mm long bolts with allen key head and threaded 1 iron



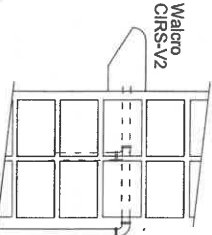
Elevation



Top View of Valve Box Built into Wall



Alternative for Shower concealed piping layout within Cells for low quality water supply
In-Line Demand non hold open type stopcock as Walcro type 111D or similar and approved.

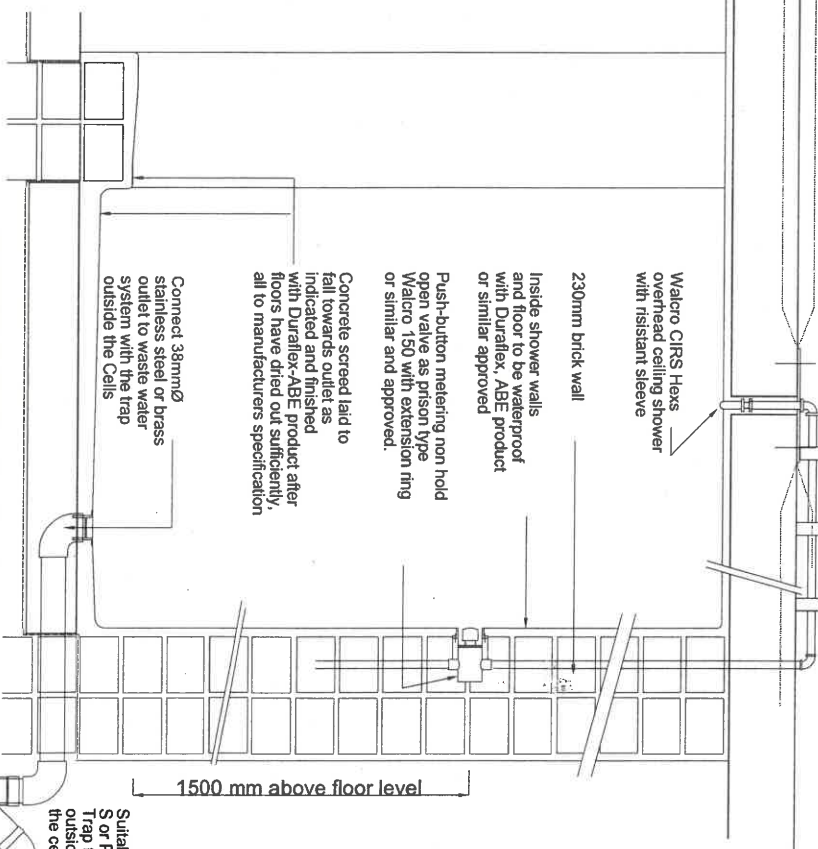


Alternative for Shower Rose in existing Cell Blocks
Walcro metering Shower rose CIR5-V2 with 150NHS shower valve or similar and approved min 2400mm above FFL

NOTE: WATER SUPPLY TO SHOWERS
Where the quality, pressure and sustained supply of the water at a given project is suspect, refer to Guidelines set out in the SPEC 2012

1. Use high pressure geysers throughout. (300 kpa)
2. Low quality water supply with low pressure: Supply only hot water to the showers with the thermostat of the geyser set to an appropriate temperature. Use push button in-line demand type stopcock as Walcro type 111D with prison type push rod assembly or similar and approved.
3. Good quality water supply and sufficient pressure: Use thermostatic mixing valves as Mastertherm II or similar and approved to set the water temperature. Use push button metering valve as Walcro 150 Prison type or similar and approved.

The type of suitable fittings and the capacities of the valve to be determined in conjunction with the Head of Department: Plumbing, SAPS Building Services (012) 841 7517.



SHOWER DETAIL - SECTION
SCALE 1 : 10

NO.	DATE	REVISION	D.P.W.

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NOTE

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and the name
POL 2012/53 PRW
CELL SHOWER DETAILS
& SECTION



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T.M. Soku

CONSULTANT/ENGINEER

ARCHITECTURAL
SERVICE

SOUTH AFRICAN
POLICE SERVICE



drawing title
**TYPE CELL SHOWER
DETAILS & SECTION**

author	drawn
scale	drawn
date	checked
type number	checked
drawing number	checked

NOTE:
5x sleeves up to height of 2275 mm from finished floor level shelves to be supported with 350x400 mm mild steel supports on 50x25 mm thick strips at 1000 mm max. centres with self tapping screws

22mm thick meranti/supawood top finished and varnished with 2x polyurethane varnish fixed to bracket with 30mmxNO.6 self-tapping countersunk woodscrews.

350x400mm mild steel shelf support fixed against 50x25mm thick hardwood wood beam with self tapping wood screws.

NOTE:
5x sleeves up to height of 2275 mm from finished floor level shelves to be supported with 250x250 mm mild steel supports on 50x25 mm thick strips at 1000 mm max. centres with self tapping screws

22mm thick meranti/supawood top finished and varnished with 2x polyurethane varnish fixed to bracket with 30mmxNO.6 self-tapping countersunk woodscrews.

250x250mm mild steel shelf support fixed against 50x25mm thick hardwood wood beam with self tapping wood screws.

+ 450mm SHELVES DETAIL IN STORE ROOM
(Blanket & General Stores)

SCALE 1:10

+ 350mm SHELVES DETAIL IN STORE ROOM
(Pantry & Prisoners Property Store)

SCALE 1:10

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End file name
12012/F1.DRW
CELL BLOCK
SHELVING SECTION

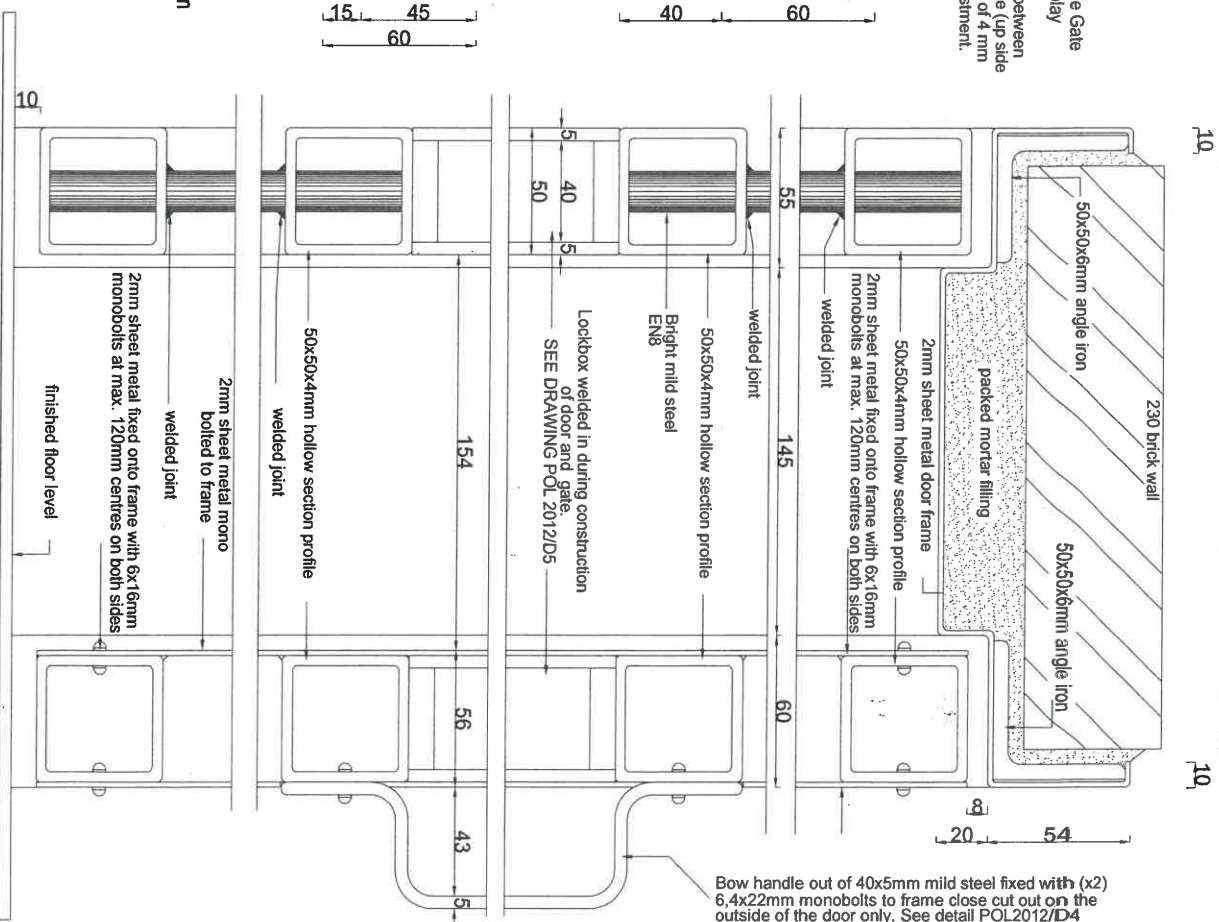
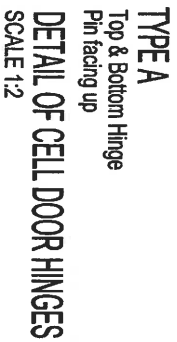
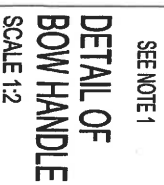
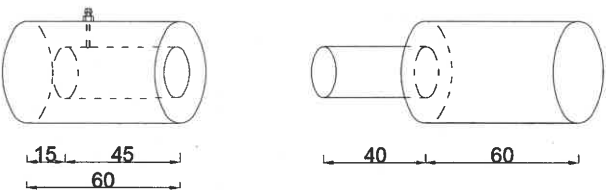
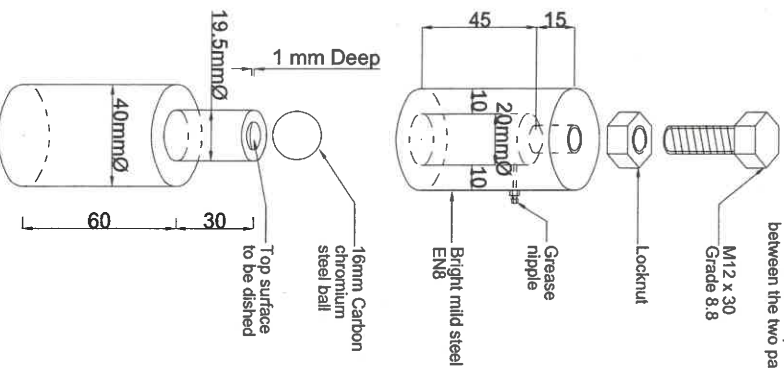
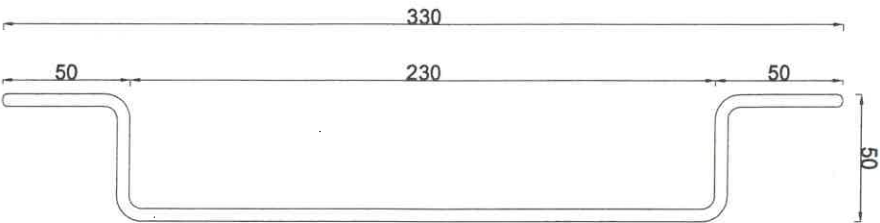


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T.M. Schutte

discipline ARCHITECTURAL	
service SOUTH AFRICAN POLICE SERVICE	
	
drawing title TYPE CELL BLOCK SHELVING SECTION	
WCS number	
drawing title	
author	designed
scale	drawn
date	checked
type number	
drawing number	

NOTE:
All work according to Departmental Specification PW 371
All steel to be Galvanised
All steel work to be hot dipped galvanised, all in accordance with SANS Specification 121 (SABS ISO 1461),
- see PW 371 Section 12
Clause 12.1 to 12.3

Fit Top & Bottom Hinges to Cell Door or Grille Gate
 Allow for sufficient play for at least 4 mm play either up or down.
 Adjust setting bolts to the specified top gap between leaf and frame. There after weld middle hinge (up side down as shown) into place allowing a space of 4 mm between the two parts for further future adjustment.



Bow handle out of 40x5mm mild steel fixed with (x2) 6,4x22mm monobolts to frame close cut out on the outside of the door only. See detail POL2012/D4

NO.	DATE	AMENDMENT	D.P.W.

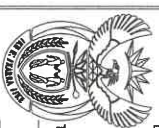
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and file name
POL2012-D4.DRW
CELL DOOR SECTION A-A
AND DETAILS



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ARCHITECTURAL
services

**SOUTH AFRICAN
POLICE SERVICE**



WCS number

drawing title

**TYPE CELL DOOR
SECTION A-A
AND DETAILS**

scale	AS SHOWN	diam	K 5
date	JULY 2012	checked	
type number	POL 2012/D4		
drawing number			

DETAINEE SIDE

Concrete Slab to Structural Engineers detail

VISITORS SIDE

Timber spacer as required

6.4mm thick laminated glass

16 mm Ø Bright mild steel bars
80 mm C/C

700x1000 mm frame 100x50 mm steel open channel as indicated on DRW 2012/V3

NOTE:
All hardwood to be prepared and varnished with 2 coats polyurethane varnish

Corbeled reinforced brickwork and top and sides plastered with 15mm thick Grano with 15mm filleted edges and steel trowel finish.

50x400mm dia hardwood seat on 100Ø x3mm steel pipe with 300Ø x6mm top flange and 300x300x6mm bottom flange bolted to floor with M12 expansion bolts. Seat screwed to base with 6x 40mm long wood screws. Seat top edges to be radlused 15mm

SECTION THROUGH VISITORS COUNTER

SCALE 1:10

NO.	DATE	AMENDMENT	O.P.W.

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consultant's department is

discipline
ARCHITECTURAL

**SOUTH AFRICAN
POLICE SERVICE**



WCS number

drawing title

TYPE CELL
VISITORS COUNTER
SECTION

our job

designed

As Shown

design)[®] K SWAR[®]

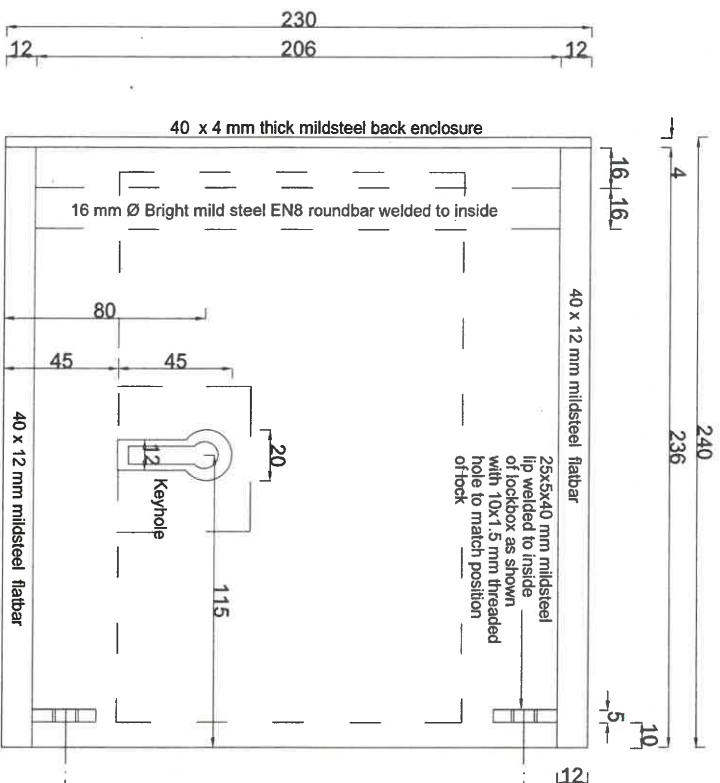
JULY 2012

Background

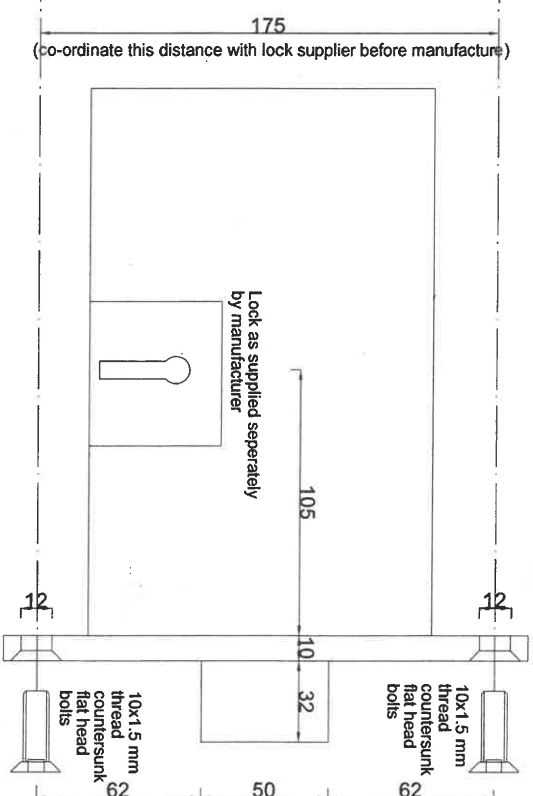
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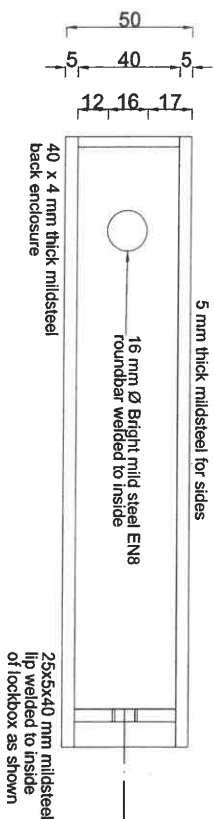
NOTE:
LOCKS AND LOCKBOXES (CAN BE SUPPLIED BY SAPS LOGISTICS PRETORIA) WELDED INTO DOOR AND GATE. ORDER AND SUPPLIES TO BE CO-ORDINATED AND ACQUIRED BY SCM (BUILDING SERVICES) PRETORIA
TEL: (012) 841 7368, BUT PROCURED FROM THEM AGAINST THE CONTRACT BUDGET.



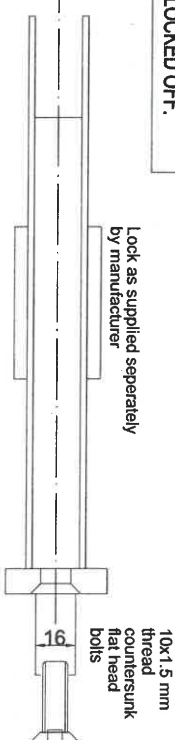
LOCK BOX - FRONT ELEVATION
SCALE 1 : 2



LOCK - SIDE ELEVATION
SCALE 1 : 2



LOCK BOX - TOP ELEVATION
SCALE 1 : 2



LOCK - TOP ELEVATION
SCALE 1 : 2

NO.	DATE	REVISION	D.P.W.

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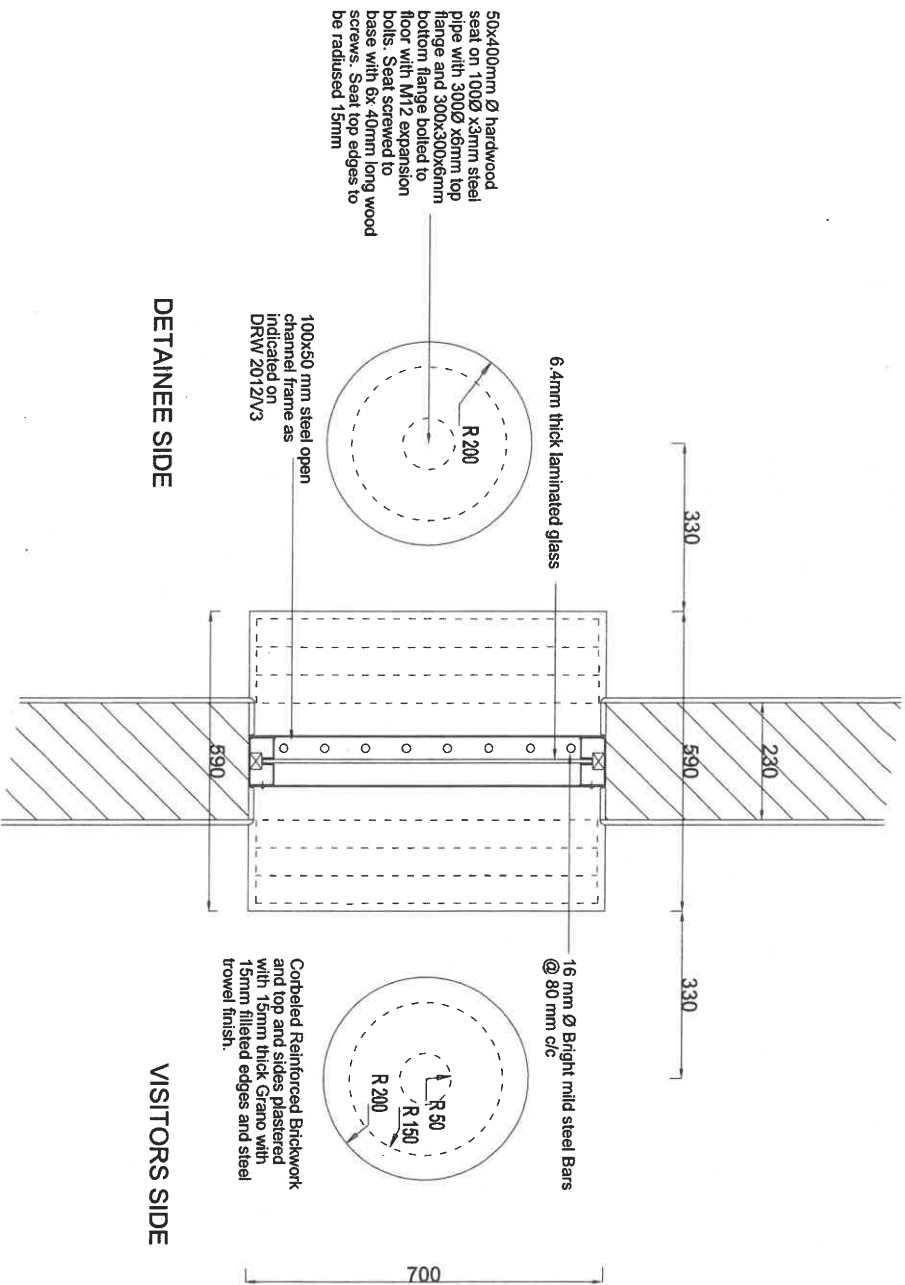
and file name
POL 2012/205.DRW
CELL DOOR LOCK
& LOCK BOX



consultant/supervisor
description
ARCHITECTURAL
service
SOUTH AFRICAN
POLICE SERVICE



drawing file	WCS number
TYPE CELL DOOR LOCK & LOCK BOX	
ref no	designed
scale	As Shown
date	JULY 2012
type number	POL 2012/205
drawing number	



PLAN OF VISITORS COUNTER SCALE 1:10

NOTE

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NO.	DATE	AMENDMENT	D.P.W.

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used file name
POL 2012V2.DRW
VISITORS COUNTER
PLAN

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**ARCHITECTURAL
SERVICE**

**SOUTH AFRICAN
POLICE SERVICE**



WCS number	
drawing title	TYPE CELL COUNTER FOR VISITORS - PLAN
author	As Shown
date	JULY 2012
type number	POL 2012V2
drawing number	

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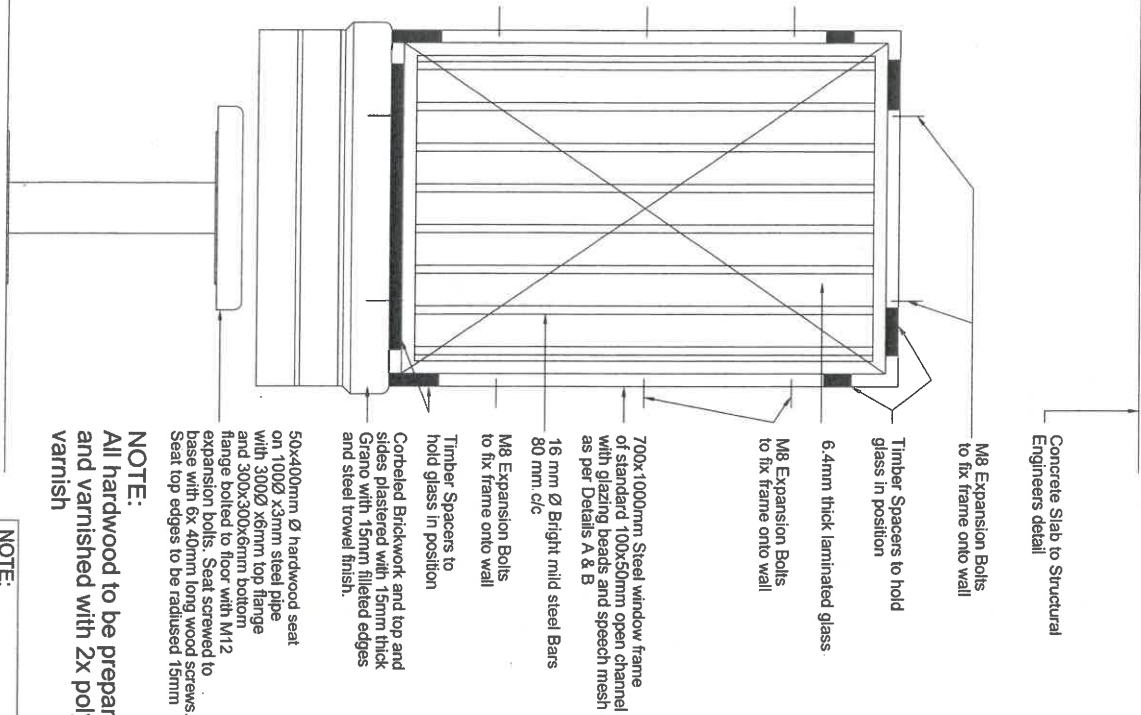
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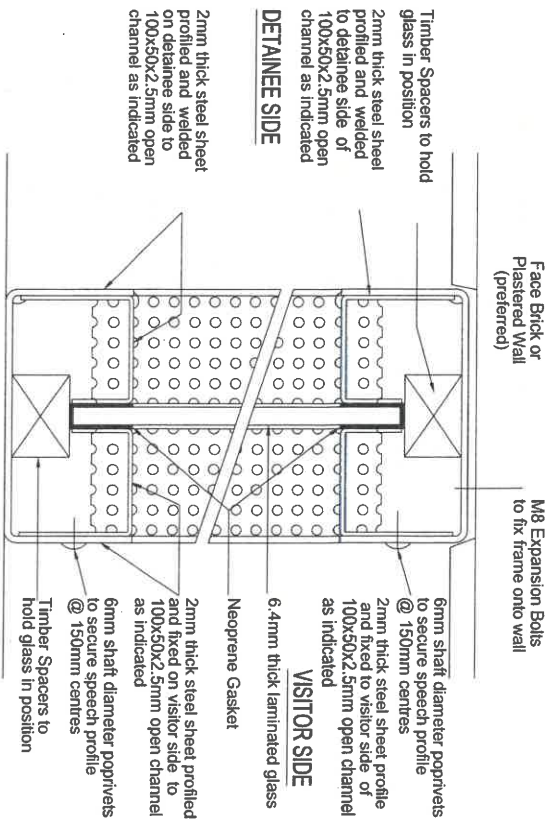


drawing title	TYPE CELL BENCH		
WCS number			
info	designed		
size	drawn		
As SHOWN	K. SMYART		
date	checked		
JULY 2012			
job number			
drawing number	POL 2012/B1		

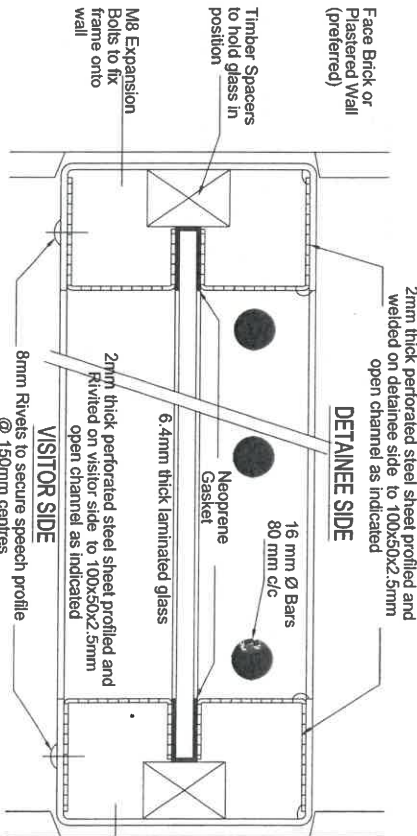
NOTE: Plastered wall option shown
Facebrick option see DRW POL 2012N/1



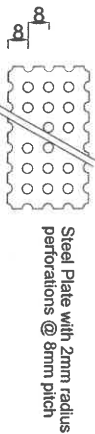
NOTE:
All hardwood to be prepared and varnished with 2x polyurethane varnish



Top & Bottom Detail A through Frame
SCALE 1:2



Side Detail A through Speech Frame
SCALE 1:2



Speech Screen Aperture Detail
SCALE 1:2

NOTE:
All work according to Departmental Specification PW 371
All steel to be Galvanised
All steel work to be hot dipped galvanised, all in accordance with SANS Specification 121 (SABS ISO 1461).
- see PW 371 Section 12
Clause 12.1 to 12.3

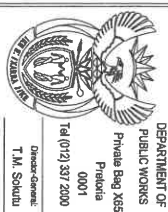
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and the above
POL2012/24/DRW
VISITORS COUNTER
ELEVATION & DETAILS



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consultant/submitter

Architectural
ARCHITECTURAL

Service

SOUTH AFRICAN
POLICE SERVICE



WC3 number

Drawing title

TYPE CELL VISITORS
ELEVATION & DETAILS
OF ALUMINIUM FRAME

ratio

As Shown

drawn by
K. SWART

date

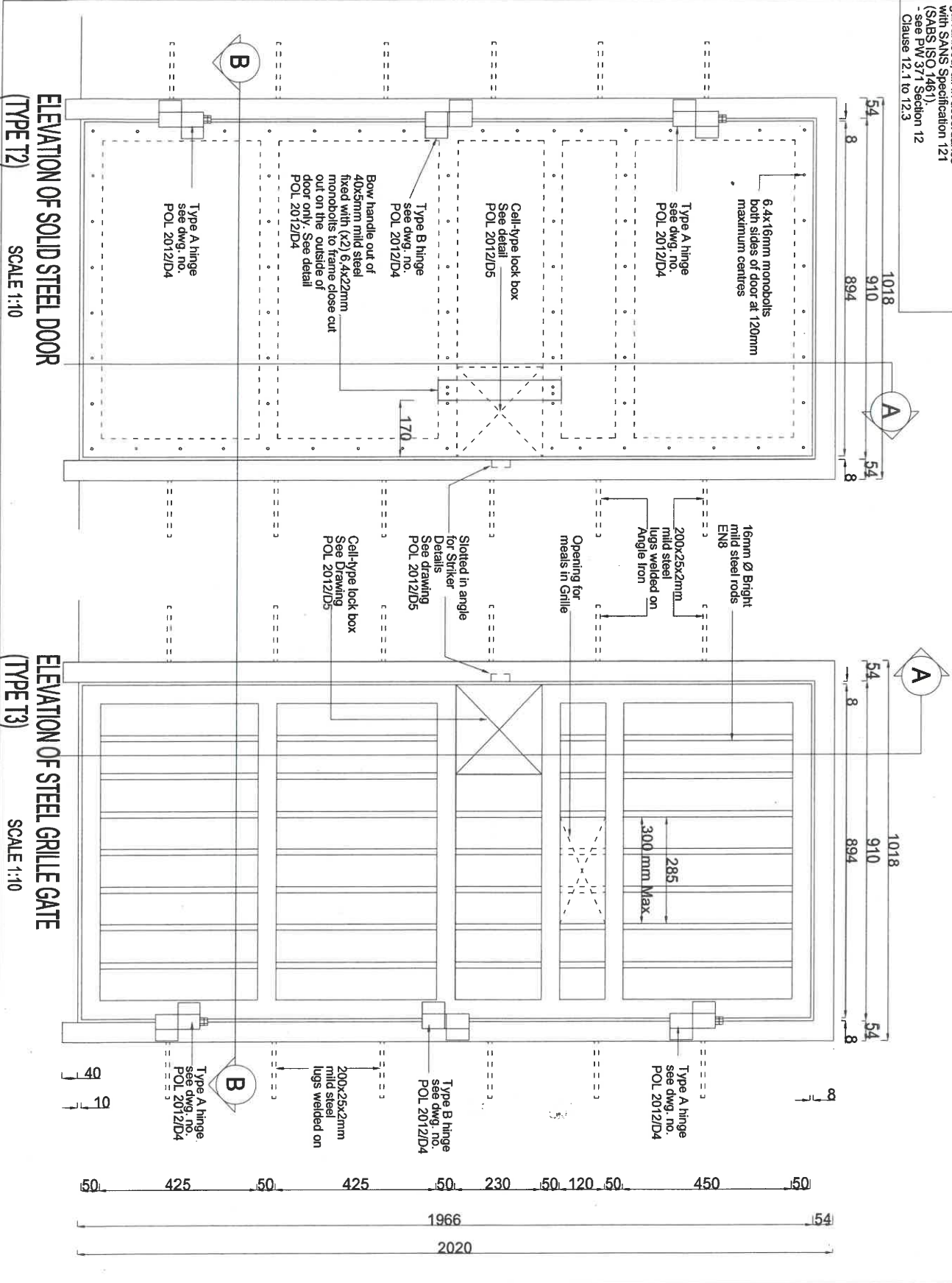
JULY 2012

checked
POL 2012N/3

type number

drawing number

NOTE:
All work according to Departmental Specification PW/371
All steel to be Galvanised
All steel work to be hot dipped galvanised, all in accordance with SANS Specification 121 (SABS ISO 1461)
- see PW 371 Section 12
- Clause 12.1 to 12.3



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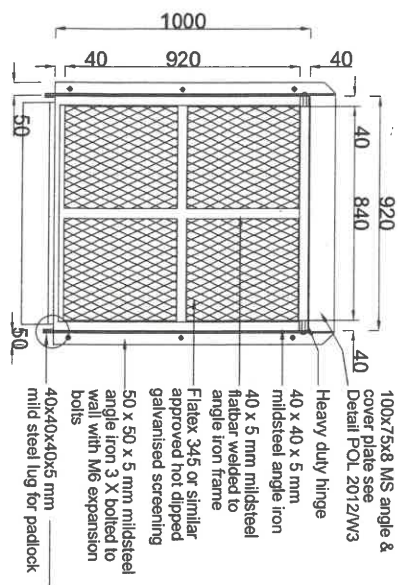
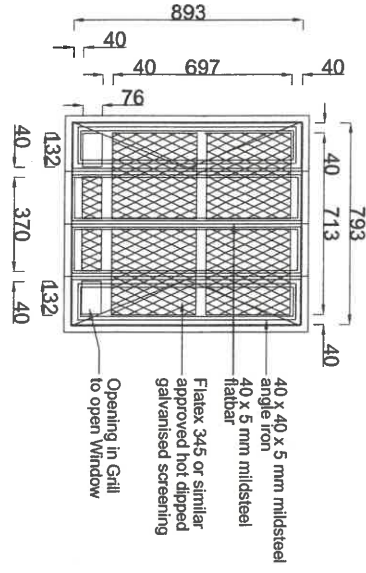
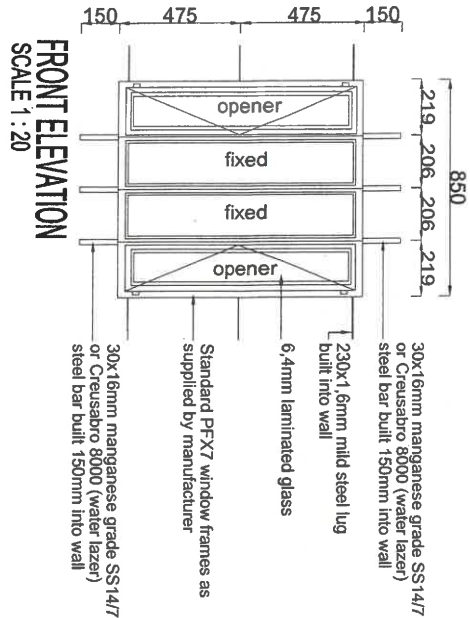
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T.M. Soudhu

COMPASS/COMPASS/COMPASS

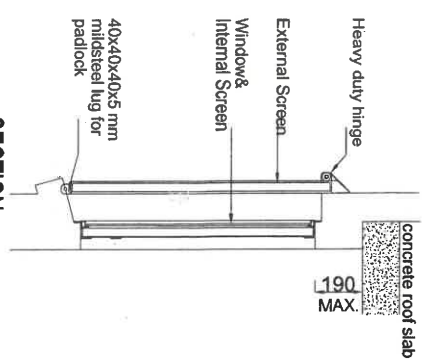
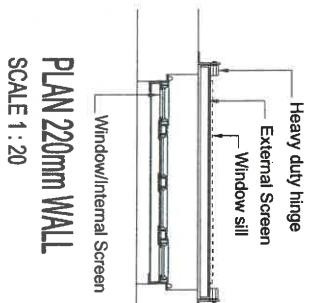
ARCHITECTURAL
SOUTH AFRICAN
POLICE SERVICE

TYPE CELL DOOR ELEVATIONS

WCS number: _____
drawing title: _____
ref no: _____
scale: As Shown
date: JULY 2012
drawing number: POL 2012/D1



NOTE
INTERNAL FIXED SCREEN TO BE WELDED TO INSIDE OF WINDOW



WINDOW FRAME

Purpose made Window to Specification, Size & Details as Standard Drawing POL 2012W2 & W3
GLASS
6.4 mm Laminated Safety Glass

FURNITURE

Purpose made Handle & Hinges to Specification, Size & Details as per Standard Drawing POL 2012W2

PUTTY

Putty to be primed and painted with Enamel paint Colour to match either galvanising or painted frames - see PW 371

INTERIOR SCREEN

Purpose made Fixed Screen to Specification, Size & Details as Standard Drawing POL 2012W2 and POL 2012W3

EXTERIOR SCREEN

Purpose made Screen to Specification, Size & Details as Standard Drawing POL 2012W2 and POL 2012W3

FURNITURE

2x Cylinder Padlocks (Solid 630 or similar & approved). One key to pass all padlocks per project (Tripartite keys)

NOTE
Cell Windows in External Walls to be maximum of 2 brick courses below Concrete Slab Top of Cell Window between Cell & Cell Yards to be at Door height.

NOTE:
All work according to Departmental Specification PW 371
All steel to be Galvanised
All steel work to be hot dipped galvanised, all in accordance with SABS Specification 763.
- see PW 371 Section 13
Clause 13.1 to 13.3

NO.	DATE	AMENDMENT	3/2/20
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Issued for the owner
 POL 2013-JM-DRW
 CELL WINDOW
 DETAIL PLAN & DETAILS

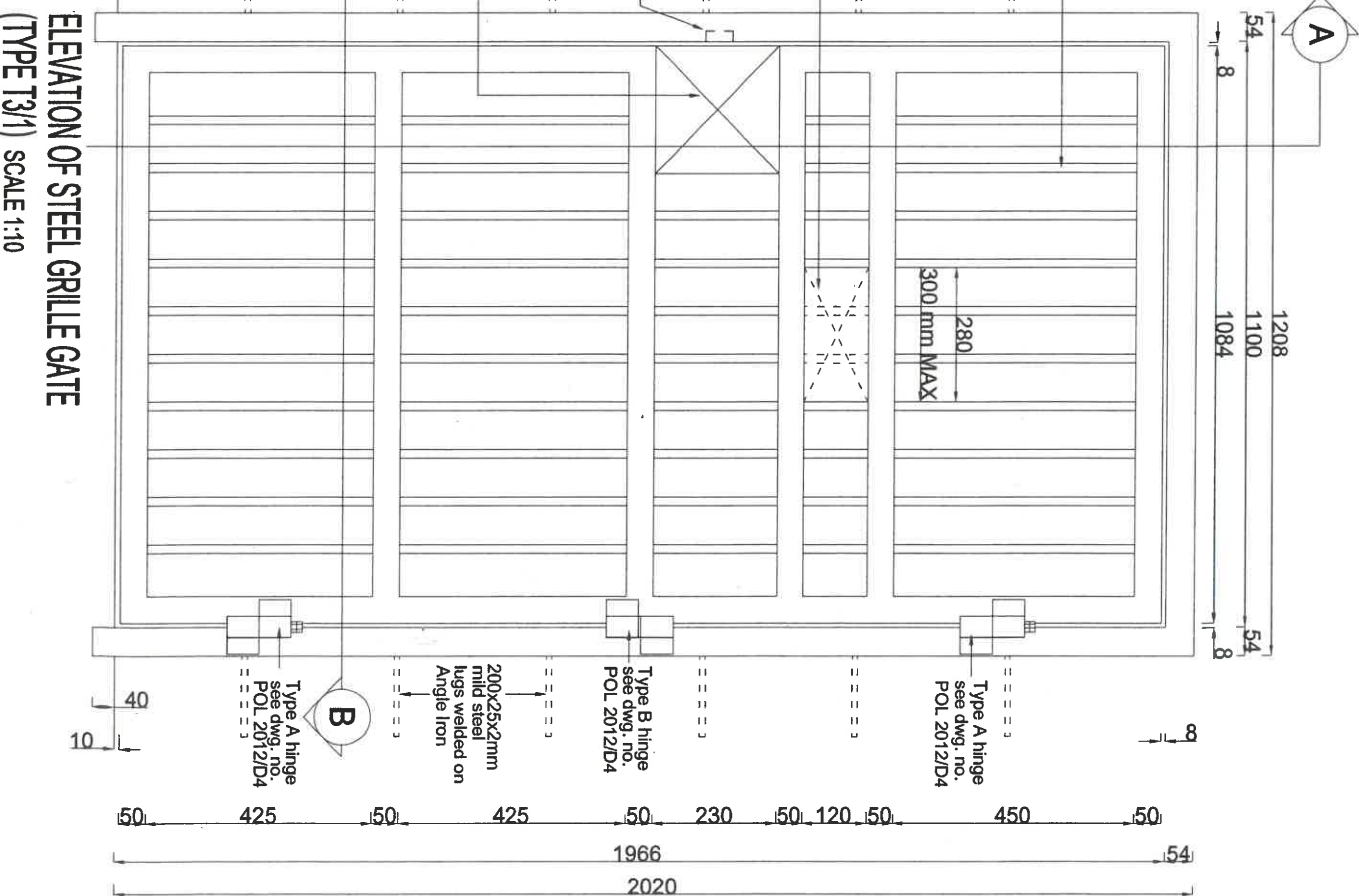
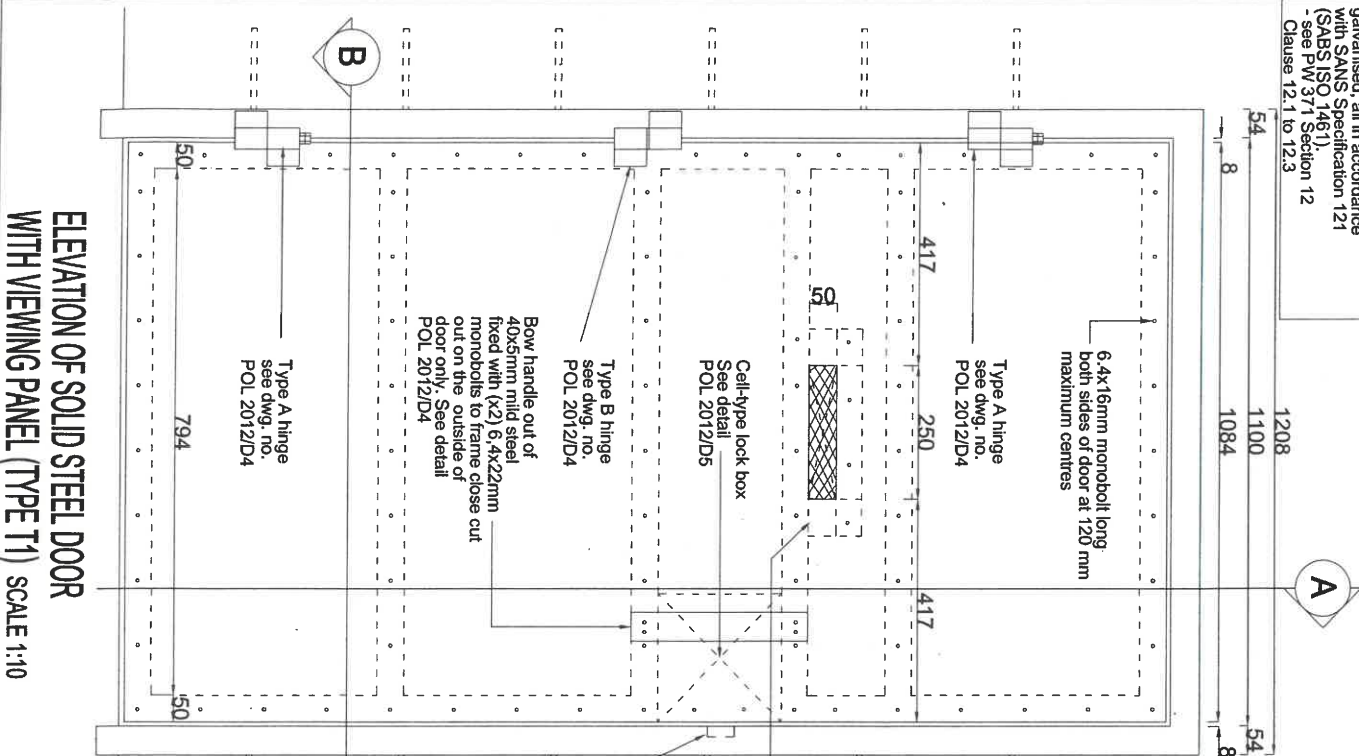
DEPARTMENT OF PUBLIC WORKS
 Private Bag X85
 Pretoria 0001
 Tel (012) 357 2000
 Director-General
 T.M. Shaiu

draughtsman
 ARCHITECTURAL
 service
 SOUTH AFRICAN
 POLICE SERVICE

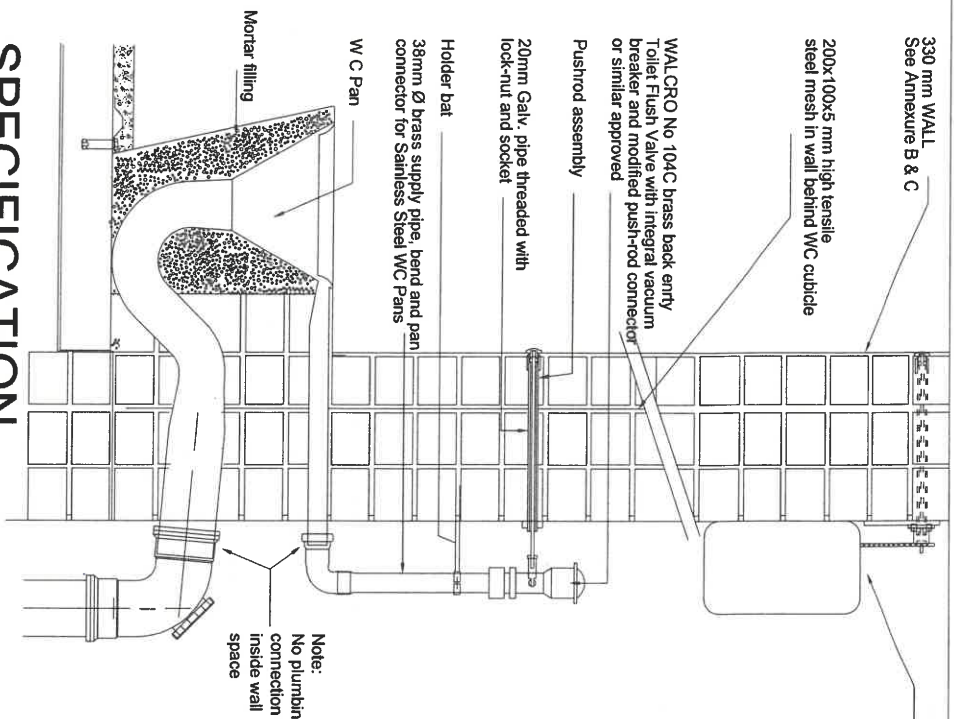


drawing title
 TYPE CELL WINDOW
 DETAIL PLAN
 & DETAILS
 scale
 As SHOWN
 date
 JULY 2012
 type number
 POL 2012W1
 drawing number

NOTE:
All work according to Departmental Specification PW 371
All steel to be Galvanised
All steel work to be hot dipped galvanised, all in accordance with SANS Specification 121 (SABS ISO 1461)
- see PW 371 Section 12
Clause 12.1 to 12.3



NO.	DATE	AMENDMENT	D.P.M.
<p>NOTE</p> <p>References to trade names are used only to simplify detailing. Various similar and approved products are available and can be substituted with prior approval from SPS SCM (Expert Services) Pretoria.</p> <p>Tel (012) 845 8726 Fax (012) 845 8782</p>			
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<p>DEPARTMENT OF PUBLIC WORKS Private Bag 365 Pretoria 0001 Tel (012) 337 2000 Director-General: T.M. Sekhula</p>			
<p>discipline ARCHITECTURAL service SOUTH AFRICAN POLICE SERVICE</p>			
<p>drawing title TYPE CELL DOOR ELEVATIONS</p>			
<p>WCS number drawing no. designed by</p>			
<p>author As Shown date JULY 2012 type number POL 2012/D1a</p>			



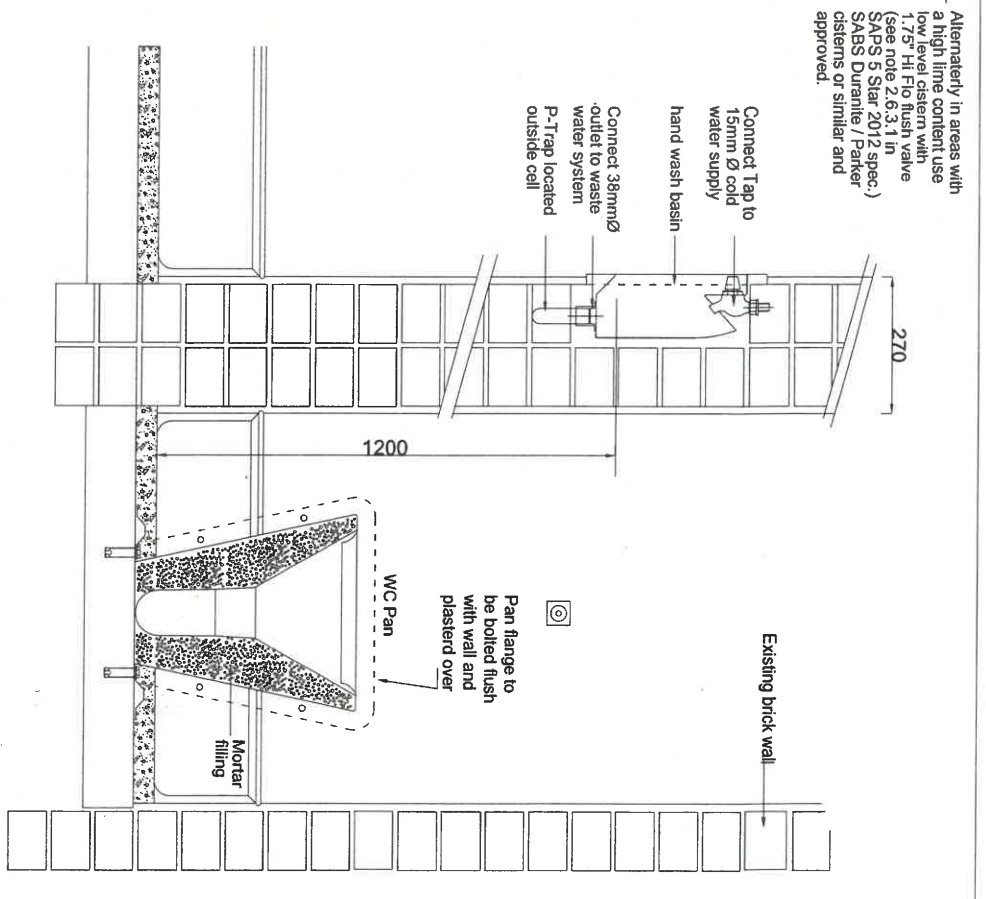
SPECIFICATION

OVE Model OSP A1 or FRANK Model 356185 or similar and approved
 Vandal proof WC pan manufactured from 1,2mm grade 304 (18/10)
 stainless steel, fully welded and polished to a no.4 satin finish,
 L=485mm, W=390mm, H=435mm with circular flushing rim & bowl,
 full flow P-trap, 38mmØ supply flush pipe, both with
 sufficient length to protrude through the wall
 (All connections to be outside). Integral 38mm wide
 fixing flange to bottom sides & top, 7 times bolted to wall
 & floor complete with expanded metal mesh for mechanical
 bond for plaster/screed to the pan flange. Required pipe lengths
 to be determined on site.

VALCRO No104C or similar and approved brass back entry
 non hold open Toilet Flush Valve with integral vacuum
 breaker & modified push-rod connector, complete with 38mm
 flushpipe, bend & pan connector.
 Prison type brass finished ECONOFUSH as type KF3.404 is
 an approved alternative including elbow, straight pipe and
 pan connector

WC PAN DETAIL SECTION

SCALE 1 : 10



SECTION THROUGH TOILET CUBICLE WITH WASH HAND BASIN DETAIL (Drinking Fountain)

SCALE 1 : 10

NOTE
 References to trade names are
 used only to simplify detailing.
 Various similar and approved
 products are available and can
 be substituted with prior
 approval from SPS SCM
 (Project Services) Pretoria.
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 Fax (012) 845 8782

and the name
 POL 2012-S1 DRW
 WC PAN DETAIL SECTION
 & ELEVATION

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 PUBLIC WORKS
 Private Bag X05
 Pretoria
 0001
 Tel (012) 397 2000
 Director-General:
 T.M. Sothuli

designer
 ARCHITECTURAL
 service
 SOUTH AFRICAN
 POLICE SERVICE



WCS number _____

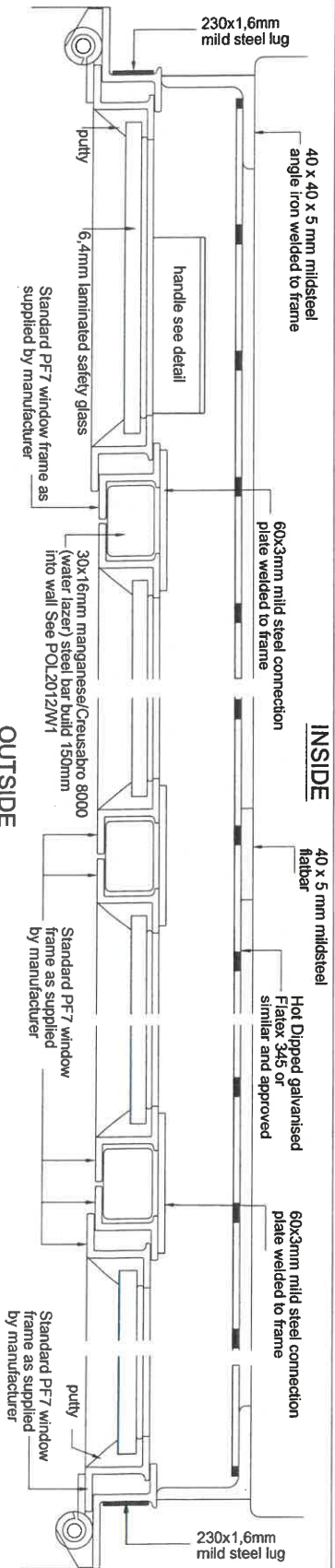
drawing title
**TYPE CELL WC PAN
 DETAIL SECTION
 & ELEVATION**

scale
 As SHOWN
 date
 JULY 2012
 type number
 POL 2012/S1

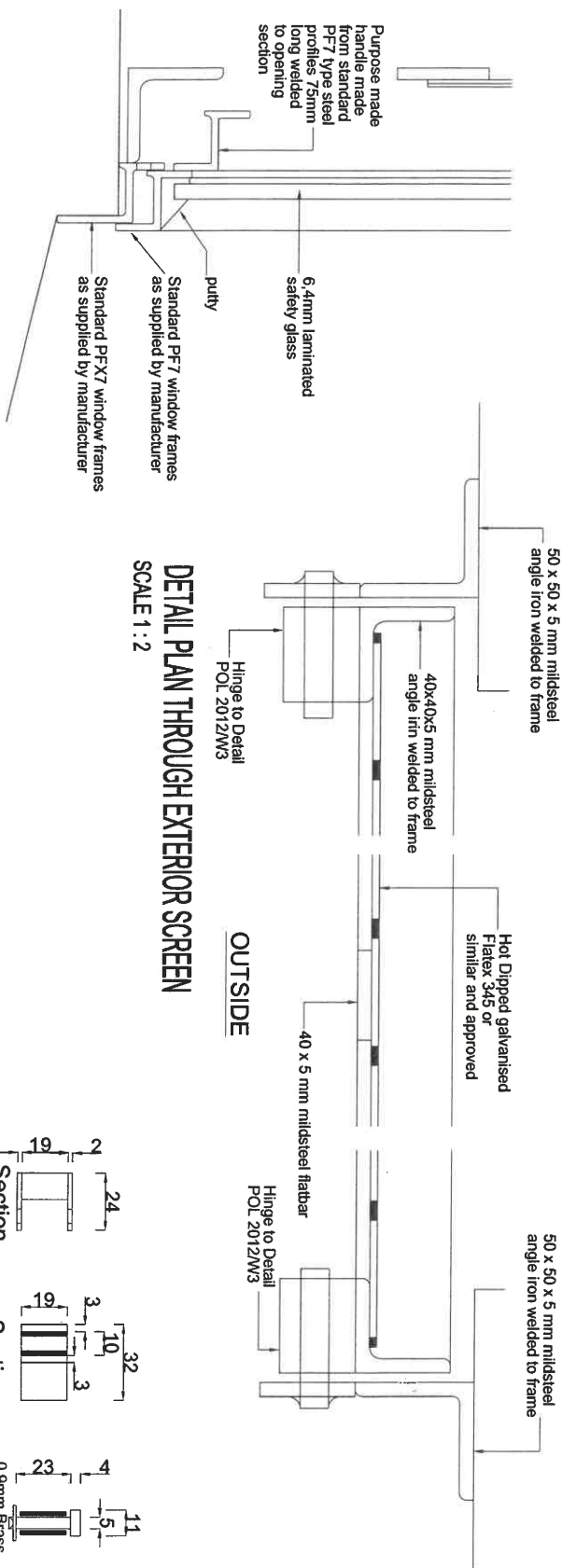
designed by
 drafter
 K. SMART

checked by
 approved by

drawing number

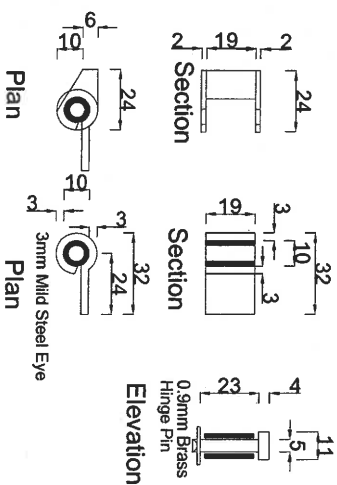


DETAIL PLAN THROUGH WINDOW & INTERNAL SCREEN
SCALE 1:2



DETAIL PLAN THROUGH EXTERIOR SCREEN
SCALE 1:2

DETAIL OF HANDLE
SCALE 1:2



DETAIL OF WINDOW HINGE
SCALE 1:2

NOTE:
All work according to Departmental Specification PW 371
All steel to be Galvanised
All steel work to be hot dipped galvanised, all in accordance with SABS Specification 763.
- see PW 371 Section 13
Clause 13.1 to 13.3

NO.	DATE	APPROVED	DATE

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and the name
POL2012W2 DRW
CELL WINDOW DETAIL
PLAN DETAILS



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PUBLIC WORKS
Private Bag 365
Pretoria
0001
Tel (012) 337 2000
District Engineer
T.M. Shodid

continued on next page

discipline
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**TYPE CELL WINDOW
DETAIL PLAN**

ref no	designed
scale	As Shown
date	JULY 2012
type number	POL 2012W2
drawing number	

**6.4x16mm long monobolt
both sides of door at 120 mm
maximum centres**

Bow handle out of 40x5mm mild steel fixed with 6,4x22mm long monobolts to frame close cut out on the outside of door only See Detail POL2012/D4

All steel to be Galvanised
All steel work to be hot dipped
galvanised, all in accordance
with SANS Specification 121
(SABS ISO 1461)
-see PW 371 Section 12
Clause 12.1 to 12.3

References to trade names are used only to simplify detailing. Various similar and approved products are available and can be substituted with prior approval from SAPS SCM (Expert Services) Pretoria.

Tel (0)12 845 8725
Fax (0)12 845 8762

DEPARTMENT OF



DEPARTMENT OF
PUBLIC WORKS

Private Bag X6
Pretoria
0001

Tel (012) 337 2000

Director-General
T.M. Sokuwu

discipline
ARCHITECTURAL
services

**SOUTH AFRICAN
POLICE SERVICE**



**TYPE CELL DOOR
PLANS & SECTIONS**

ref no	designed
scale	drawn
As SHOWN	K SWART
date	checked
JULY 2012	
type number	
POL 2012/D2	
drawing number	

SCALE 1:10

CELL DOOR &
GRILLE GATE

SCALE 1:10

GRILLE GATE
ONLY

Cell Door & Grille Gate

SCALE 1:10

50x50x6mm Angle iron full length of frame

Cell Grille Gate Only

SCALE 1:10

FRAMES

Frame manufactured from steel angles and 2mm thick steel sheet shaped into sizes as per Detail Drawings
Nos POL 2012/D1, /D3 & /D4

HINGES

3 hinges per leaf with middle hinge up side down as per
Hinge Detail Drawing No POL 2012/D5

DOORS

Door & Grille manufactured from steel tubing, bars and steel sheet metal shaped into sizes as per Detail Drawings Nos POL 2012/D1, /D3 & /D4

GRILLE GATES

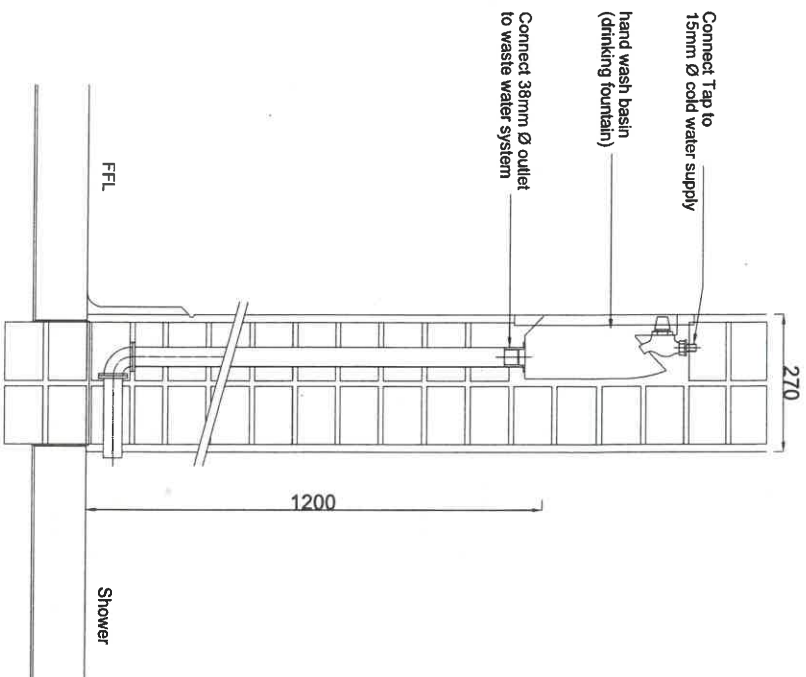
Gille manufactured from steel tubing, bars and shaped into sizes as per Detail Drawings
No POL 2012/D1, /D3 & /D4

LOCKS & LOCK BOXES

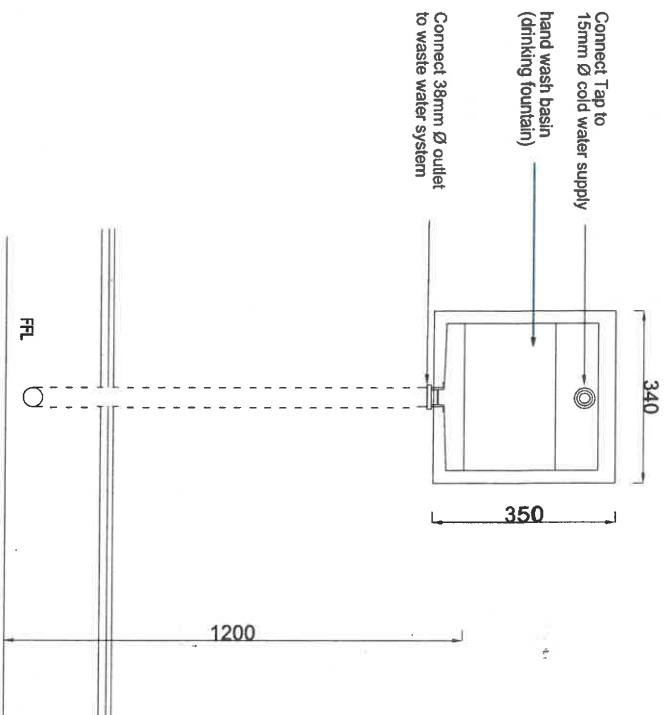
Lockbox can be ordered from SAPS Logistics and welded into Door & Gate. Supply of locks to be co-ordinated and acquired by Scm (Building Services) Pretoria against the contract budget. See also Drawing POL 2012/D5

HANDLES

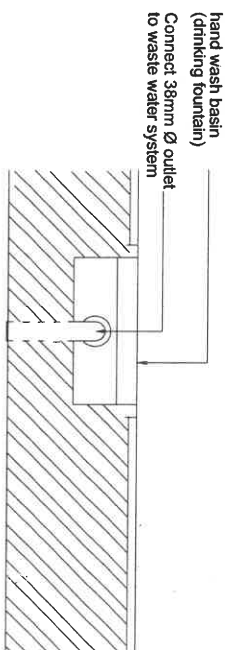
Handle as detailed on Drawing No POL 2012/D4 to be supplied only to the outside of solid door leaf



HAND WASH BASIN DETAIL
(Drinking Fountain)
SECTION
SCALE 1 : 10



HAND WASH BASIN DETAIL
(Drinking Fountain)
ELEVATION
SCALE 1 : 10



HAND WASH BASIN DETAIL
(Drinking Fountain)
PLAN
SCALE 1 : 10

SPECIFICATION
OVE Model OSB1A/125 or similar and approved
vandal proof hand wash basin manufactured from
102 mm Grade 304 AISI (18/10) stainless steel;
fully welded and polished to a no. 4 satin finish;
size 340x350x125 mm, including a fitted 15 mm
push-button tap mounted at top with 38 mm CP
brass waste outlet, built flush into brick wall
and secured with steel lugs.

NO.	DATE	AMENDMENT	D.F.W.

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NOTE

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Tel (012) 945 8726
Fax (012) 945 8702

used for the name
POL 2012/S2/DRW
HAND WASH BASIN
(Drinking Fountain)

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Pretoria
0001
Tel (012) 397 2000
Director-General
T.M. Sekutu

ARCHITECTURAL
SOUTH AFRICAN
POLICE SERVICE



TYPE CELL
HAND WASH BASIN
(Drinking Fountain)

drawing title
WCS number
scale
date
type number
drawing number

SPECIFICATION : LUMINAIRE

SAPS EXPERT SERVICES

TECHNICAL SPECIFICATION FOR LUMINAIRES FOR CELL BLOCK AND POLICE ID PARADE ROOMS ONLY

ADDENDUM D



VERSION:- 1.1
UPDATED:- DEC 2011

TECHNICAL SPECIFICATION MM01-11:- **ROUGHGUARD POLICE HOLDING CELL LUMINAIRE.**

ADDENDUM D

VANDAL-PROOF FLUORESCENT LUMINAIRE FOR USE IN HOSTILE AND VANDAL-PRONE ENVIRONMENTS.

The luminaire shall consist of a rigid high pressure die cast marine grade aluminium body with a robust, one-piece injection moulded clear polycarbonate, vandal proof diffuser. The diffuser shall have a smooth outer surface and be designed to provide sufficient upward light distribution to illuminate the ceiling, thus providing adequate light for searching of the holding cell. The luminaire shall be designed to operate 14/28/35/54W T5 linear fluorescent lamps. As an option the luminaire can be supplied with 3*1 Watt LED's to serve as a nightlight.

The luminaire shall bear the SANS 60598-2-1 safety mark.

The luminaire shall have a degree of protection that complies with SANS 60598-1:

Lamp compartment: IP65. The IP rating shall be certified by a SANS Test Report.

The luminaire shall have no dust collecting edges and it shall not be possible to manually grip the luminaire once mounted. A minimum of mounting studs shall be provided for mounting the luminaire. A cable entry of 20mm shall be provided in centre of the body. There shall be no sharp edges or corners along any accessible surfaces of the luminaire.

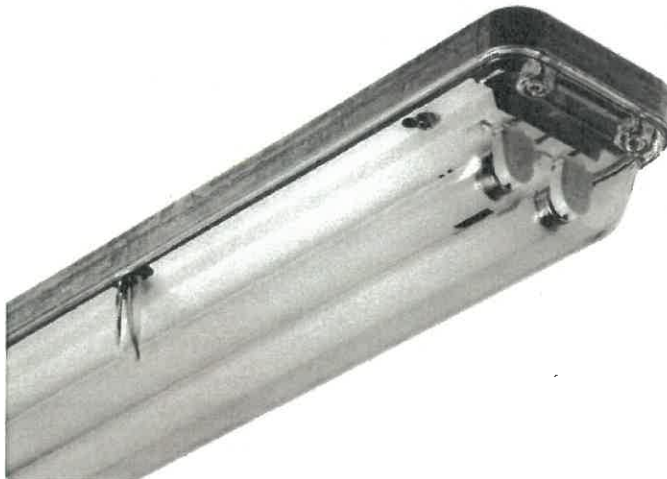
The vandal-proof diffuser shall be secured to the aluminium body by means of 6 (six) tamper-proof (TPS/MJM/M6) Stainless Steel Allen Cap Screws. A silicone sponge gasket shall ensure reliable IP65 rating, as certified.

The removable gear tray shall be manufactured from 0.7mm mild steel, powder coated white to optimise luminaire efficiency. All paint finishes shall be done in accordance with the SANS 1274 Standard. All holes and cut-outs on the gear tray shall be done prior to powder coating. All control gear components shall be mounted on the gear tray. The gear tray can be removed by loosening four Allen Cap screws in keyhole slots, which allow the gear tray to be relieved into a suspended position, ensuring ease of maintenance.

All electronic control gear components shall be removable and bear the relevant SABS mark. All screws, bolts and metal parts shall be stainless steel or non-corrosive material. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. All internal wiring to the lampholders or LED's shall be hidden behind the gear tray and not be visible through the diffuser. The luminaire shall be power factor corrected to a minimum of 0,9.

The luminaire must be able to withstand an ambient temperature of at least 45 deg C, without resulting in any electrical or mechanical components exceeding its maximum allowed operating temperature. Certified proof from an authorized testing facility shall be available on request.

TECHNICAL SPECIFICATION MM01-11:-
ROUGHGUARD POLICE HOLDING CELL LUMINAIRE.



Picture for Illustration Purposes ONLY

TECHNICAL SPECIFICATION MM05-11:- DECORATIVE RND LED BULKHEAD FOR GENERAL LIGHTING AROUND POLICE STATIONS.

ADDENDUM D

DESIGNED FOR DECORATIVE AND EFFICIENT BULKHEAD LIGHTING IN VANDAL-PRONE INDOOR OR OUTDOOR APPLICATIONS.

The luminaire shall consist of a high pressure die cast aluminium base and trim ring, and an opal high impact acrylic diffuser. It shall be designed to operate 6* High Power LEDs driven at 700mA.

The luminaire shall bear the SANS 60598-1 safety mark.

The luminaire shall have a degree of protection that complies with SANS 60598-2-1:

Lamp compartment: IP65

The IP rating shall be certified by a SABS test report.

All base castings shall be manufactured from high pressure die cast aluminium, finished both outside and inside in white epoxy powder coating for added protection and reflectivity. It shall be simple to install due to four mounting holes provided outside the lamp compartment through lugs that form part of the base casting. The trim ring casting shall be mounted onto the base casting by 4 stainless steel M5 Allen head screws, located outside the lamp compartment. These screws can be supplied in the Tamper-proof type (TPS/MM/M5) as well as the fixing holes can be supplied with stainless steel helicoil inserts on request.

An opal non-discolouring high impact acrylic injection moulded diffuser shall be used throughout the range. It shall offer excellent vandal resistance, be highly translucent and shall not discolour even when subjected to the harshest UV environments. A silicon sponge gasket shall be fitted into a special groove in the diffuser to prevent damage to the gasket during installation and to achieve the certified ingress protection rating of IP65. The lamp compartment shall be permanently sealed to the base casting

The trim ring casting shall be manufactured from high pressure die cast aluminium and shall be finished in a special multi-stage epoxy powder surface coating.

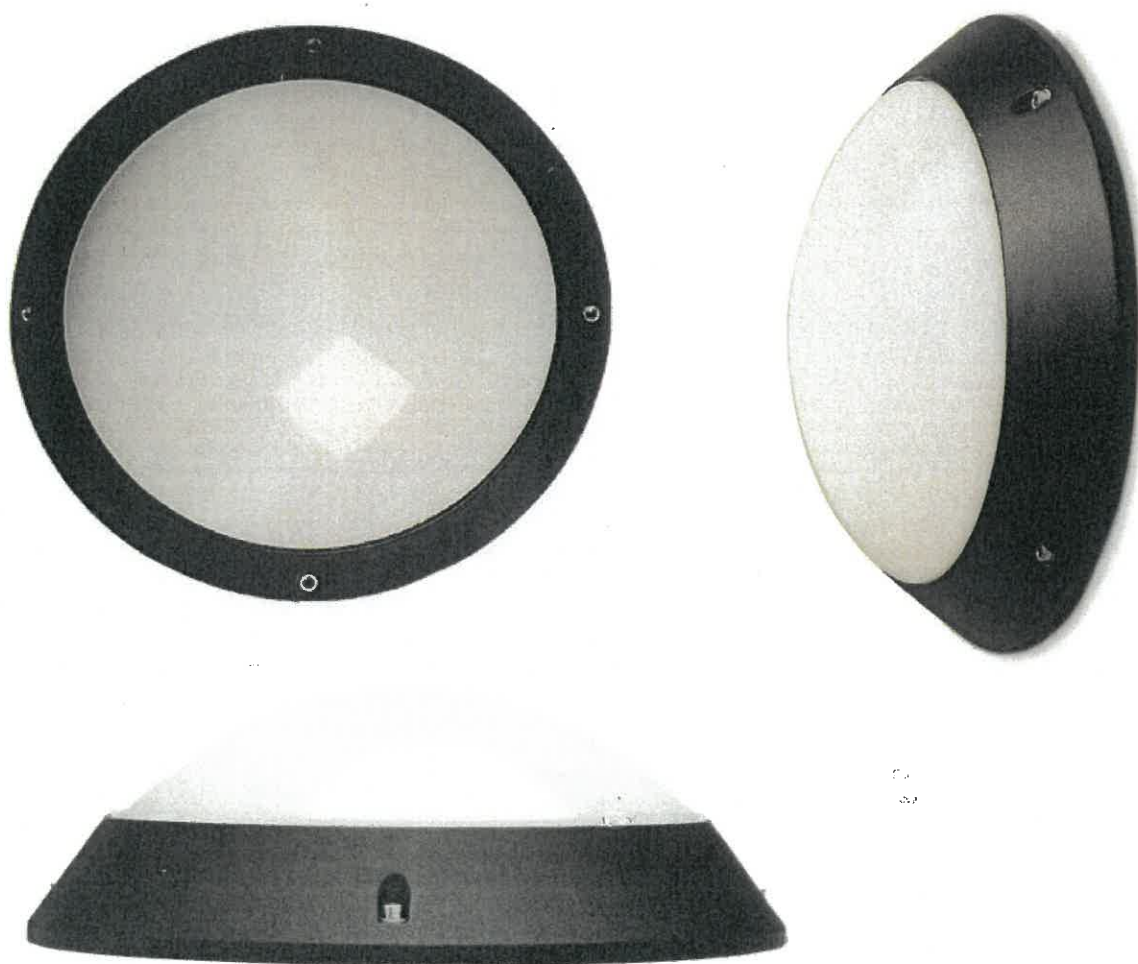
The control gear shall be mounted directly onto the base casting, ensuring cool operation. It shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system. All inter-connecting wiring shall be Teflon® insulated with protective sleeving to prevent damage by possible abrasion. All external screws, bolts and metals shall be stainless steel or non-corrosive material. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. The luminaire shall be power factor corrected to a minimum of 0.9. In the LED version, the diffuser shall be permanently sealed by means of silicon to the aluminium base and shall be supplied with a 300mm supply lead. The LED's and control gear are designed to ensure a maintenance-free operation of no less than 50 000 hrs. The control gear shall incorporate an automatic reversible over temperature protection. The unit shall be EMC compliant to the EN55015 and EN61347-1 standard. And conform to IEC 61347-2-13, IEC 62384, IEC 61000-3-2, IEC 61000-3-3, and IEC 61547.

TECHNICAL SPECIFICATION MM05-11:- DECORATIVE RND LED BULKHEAD FOR GENERAL LIGHTING AROUND POLICE STATIONS.

ADDENDUM D

In terms of a LED version, the LEDs have to provide a light of a neutral colour temperature (4,500K). A report from the LED vendor, for LED's used in the luminaire, shall be submitted, which shall include the following documentary evidence:

- Measured LED junction temperature for a given test condition and extrapolated for an ambient temperature of 35°C.
- LED drive current.
- LED manufacturer data that clearly correlates LED junction temperature and LED drive current to lumen maintenance.
- The LED datasheets, indicating the Byy, Lxx data, as provided by the LED manufacturer.



PICTURES FOR ILLUSTRATION PURPOSES ONLY

TECHNICAL SPECIFICATION MM07-11:- VANDAL RESISTANT RND LED BULKHEAD FOR EXERCISE YARDS IN CELL BLOCKS.

ADDENDUM D

DESIGNED FOR DECORATIVE AND EFFICIENT BULKHEAD LIGHTING IN VANDAL-PRONE INDOOR OR OUTDOOR APPLICATIONS.

The luminaire shall consist of a high pressure die cast aluminium base and trim ring, and an opal high impact acrylic diffuser. It shall be designed to operate 6* High Power LEDs driven at 700mA.

The luminaire shall bear the SANS 60598-1 safety mark.

The luminaire shall have a degree of protection that complies with SANS 60598-2-1:

Lamp compartment: IP65

The IP rating shall be certified by a SABS test report.

All base castings shall be manufactured from high pressure die cast aluminium, finished both outside and inside in white epoxy powder coating for added protection and reflectivity. It shall be simple to install due to four mounting holes provided outside the lamp compartment through lugs that form part of the base casting. The trim ring casting shall be mounted onto the base casting by 4 stainless steel M5 Allen head screws, located outside the lamp compartment. These screws can be supplied in the Tamper-proof type (TPS/MM/M5) as well as the fixing holes can be supplied with stainless steel helicoil inserts on request.

An opal non-discolouring high impact acrylic injection moulded diffuser shall be used throughout the range. It shall offer excellent vandal resistance, be highly translucent and shall not discolour even when subjected to the harshest UV environments. A silicon sponge gasket shall be fitted into a special groove in the diffuser to prevent damage to the gasket during installation and to achieve the certified ingress protection rating of IP65. The lamp compartment shall be permanently sealed to the base casting

The trim ring casting shall be manufactured from high pressure die cast aluminium and shall be finished in a special multi-stage epoxy powder surface coating.

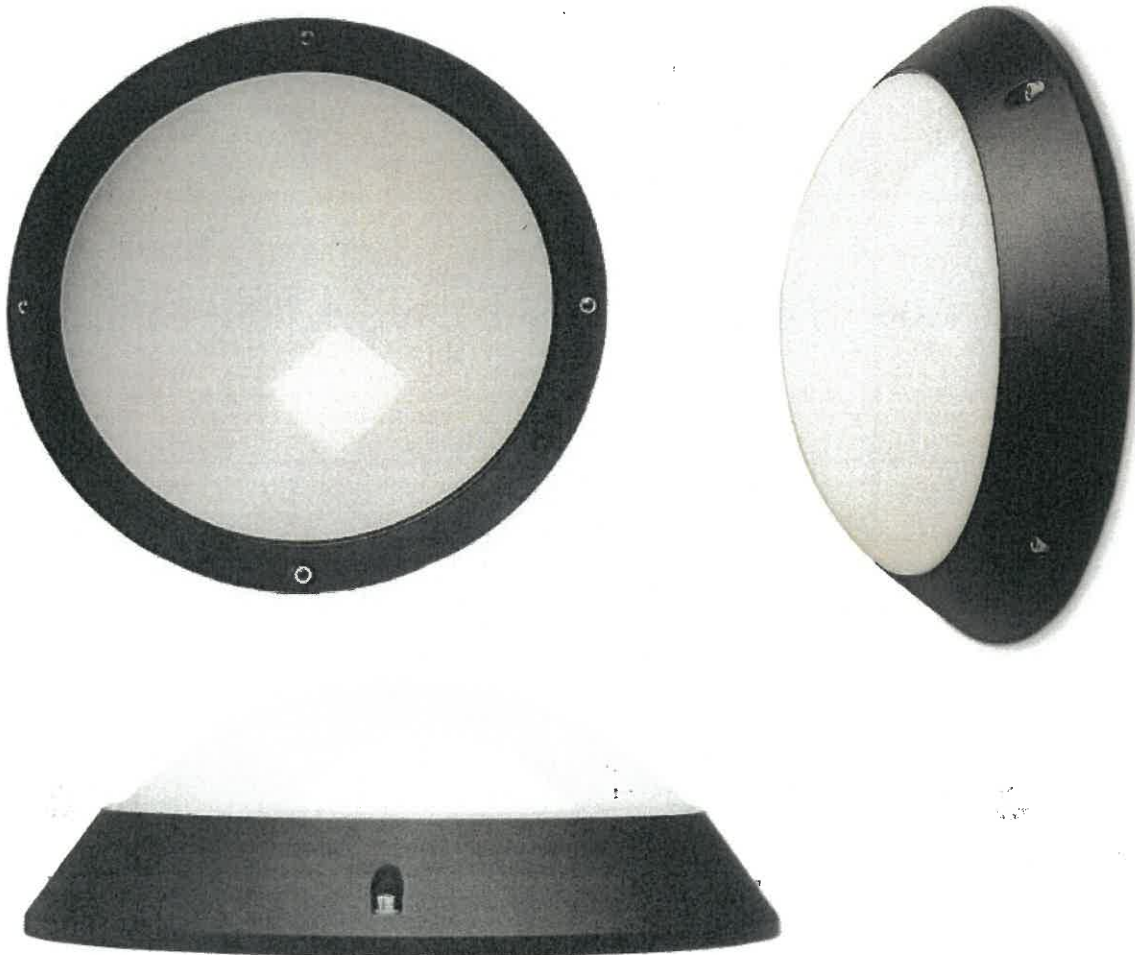
The control gear shall be mounted directly onto the base casting, ensuring cool operation. It shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system. All inter-connecting wiring shall be Teflon® insulated with protective sleeving to prevent damage by possible abrasion. All external screws, bolts and metals shall be stainless steel or non-corrosive material. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. The luminaire shall be power factor corrected to a minimum of 0.9. In the LED version, the diffuser shall be permanently sealed by means of silicon to the aluminium base and shall be supplied with a 300mm supply lead. The LED's and control gear are designed to ensure a maintenance-free operation of no less than 50 000 hrs. The control gear shall incorporate an automatic reversible over temperature protection. The unit shall be EMC compliant to the EN55015 and EN61347-1 standard. And conform to IEC 61347-2-13, IEC 62384, IEC 61000-3-2, IEC 61000-3-3, and IEC 61547.

TECHNICAL SPECIFICATION MM07-11:- VANDAL RESISTANT RND LED BULKHEAD FOR EXERCISE YARDS IN CELL BLOCKS.

ADDENDUM D

In terms of a LED version, the LEDs have to provide a light of a neutral colour temperature (4,500K). A report from the LED vendor, for LED's used in the luminaire, shall be submitted, which shall include the following documentary evidence:

- Measured LED junction temperature for a given test condition and extrapolated for an ambient temperature of 35°C.
- LED drive current.
- LED manufacturer data that clearly correlates LED junction temperature and LED drive current to lumen maintenance.
- The LED datasheets, indicating the Byy, Lxx data, as provided by the LED manufacturer.



PICTURES FOR ILLUSTRATION PURPOSES ONLY

TECHNICAL SPECIFICATION MM09.1-11:- LED WALL WASHER LUMINAIRE LED BEAM 1200 FOR POLICE ID PARADE ROOMS(OPTION 1)

ADDENDUM D

DESIGNED FOR DECORATIVE IDENTIFICATION AND FAÇADE LIGHTING APPLICATIONS IN INDOOR AND OUTDOOR ENVIRONMENTS

The luminaire shall consist of an aluminium extrusion body and die-cast aluminium end-caps creating the best thermal environment for LEDs. Cable entry shall be available in different positions.

SANS 60598-2-5 safety mark.

IP66 in compliance with SANS 60598-2-5.

The IP-rating is certified by an SABS test report.

*The LED Package Shall be 48w 24*2 – 3840 lumen*

Luminaire body shall be 1200mm in length.

The luminaire housing shall be robustly constructed, weather proof, hail proof, corrosion proof and vandal resistant. It shall be manufactured from corrosion-resistant aluminium. A silicon gasket, between the flush-mounted PMMA front cover and housing, shall ensure the sealing of the luminaire. The gasket sealing shall be made to match the extended lifetime of the LEDs (50 000 hours).

The LED's shall have a minimum 50 000hrs lifetime. Effective high-power OSRAM LED, 4500K at a colour rendering index >85.

The incorporated lens system shall be available in Narrow Beam, Middle Beam, Wide Beam and Elliptical Beam.

The LED drivers shall be incorporated in the luminaire housing and powered with 24V DC.

An optional external power supply for operation on a 230V $\pm 10\%$ 50 Hz single-phase system shall be located in an external compartment due to thermal and maintenance reasons. Optional DMX or DALI dimming (0%-100%) can be incorporated into the external control gear compartment. The luminaire shall be linearly dimmable to achieve the required 1:7 dimming ratio.

The luminaire shall be supplied with an adjustable mounting bracket to ensure that the correct distribution angle can be achieved on site.



PICTURES ARE FOR ILLUSTRATION PURPOSES ONLY

TECHNICAL SPECIFICATION MM09.2-11:-
ADJUSTABLE DSR FLOURESCENT WALL WASHER
LUMINAIRE FOR POLICE ID PARADE ROOMS
(OPTION 2)

ADDENDUM D

**DESIGNED FOR FLUORESCENT LIGHTING IN ID PARADE ROOMS WHERE
ADJUSTABLE LINEAR LIGHTING IS REQUIRED.**

The luminaire shall consist of an injection-moulded, flame-retardant GRP body and lid with clip in lamp holders for both single and double lamp versions. It shall be designed to operate fluorescent lamps up to 1*58W.

The luminaire shall bear the SANS 60598-2-1 safety mark.

The luminaire shall have a degree of protection that complies with SANS 60598-2-1:

Lamp compartment: IP65

Body: IP65

The body shall be manufactured from injection-moulded, flame-retardant glass fibre reinforced polyester and shall be provided with a knockout facility at each end, making it suitable for surface wiring. Four plastic bolts shall be clipped into the body onto which the lid screws tight. A silicon sponge gasket shall be fitted into a groove arrangement on the body. For mounting, two holes shall be provided in the base of the body.

The lid shall be manufactured from the same material as the body and shall be designed in such a way that it can accommodate the applicable control gear for the various lamp wattages. The lid shall be screwed down onto the body by four GRP wingnut shaped fasteners that screw into the stainless steel bolts provided in the body. External access to the starter shall be achieved by removing a screw cap cover. Two rectangular shaped holes shall be provided on the lid to accommodate the clip-in lamp holders, which shall be provided with gaskets to ensure the integrity of the IP rating.

The DIMMABLE ELECTRONIC ballast shall be mounted directly onto bosses provided on the lid, The Dimmable ECG shall ensure that the required 7:1 ratio between both rooms can be achieved. All control gear components shall be removable and shall bear the relevant SABS mark. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. The luminaire shall be power factor corrected to a minimum of 0,9

The luminaire shall be equipped with an adjustable enclosed DSR reflector system. This reflector shall be manufactured of polycarbonate and be vacuum metalised in the inside to provide even, clear illumination.

TECHNICAL SPECIFICATION MM09.2-11:-
ADJUSTABLE DSR FLOURESCENT WALL WASHER
LUMINAIRE FOR POLICE ID PARADE ROOMS
(OPTION 2)



TECHNICAL SPECIFICATION MM10-11:- **DECORATIVE RND LED BULKHEAD LUMINAIRE FOR** **STAFF AND PUBLIC TOILETS IN POLICE STATIONS.**

ADDENDUM D

DESIGNED FOR DECORATIVE AND EFFICIENT BULKHEAD LIGHTING IN VANDAL-PRONE INDOOR OR OUTDOOR APPLICATIONS.

The luminaire shall consist of a high pressure die cast aluminium base and trim ring, and an opal high impact acrylic diffuser. It shall be designed to operate 6* High Power LEDs driven at 700mA.

The luminaire shall bear the SANS 60598-1 safety mark.

The luminaire shall have a degree of protection that complies with SANS 60598-2-1:

Lamp compartment: IP65

The IP rating shall be certified by a SABS test report.

All base castings shall be manufactured from high pressure die cast aluminium, finished both outside and inside in white epoxy powder coating for added protection and reflectivity. It shall be simple to install due to four mounting holes provided outside the lamp compartment through lugs that form part of the base casting. The trim ring casting shall be mounted onto the base casting by 4 stainless steel M5 Allen head screws, located outside the lamp compartment. These screws can be supplied in the Tamper-proof type (TPS/MM/M5) as well as the fixing holes can be supplied with stainless steel helicoil inserts on request.

An opal non-discolouring high impact acrylic injection moulded diffuser shall be used throughout the range. It shall offer excellent vandal resistance, be highly translucent and shall not discolour even when subjected to the harshest UV environments. A silicon sponge gasket shall be fitted into a special groove in the diffuser to prevent damage to the gasket during installation and to achieve the certified ingress protection rating of IP65. The lamp compartment shall be permanently sealed to the base casting

The trim ring casting shall be manufactured from high pressure die cast aluminium and shall be finished in a special multi-stage epoxy powder surface coating.

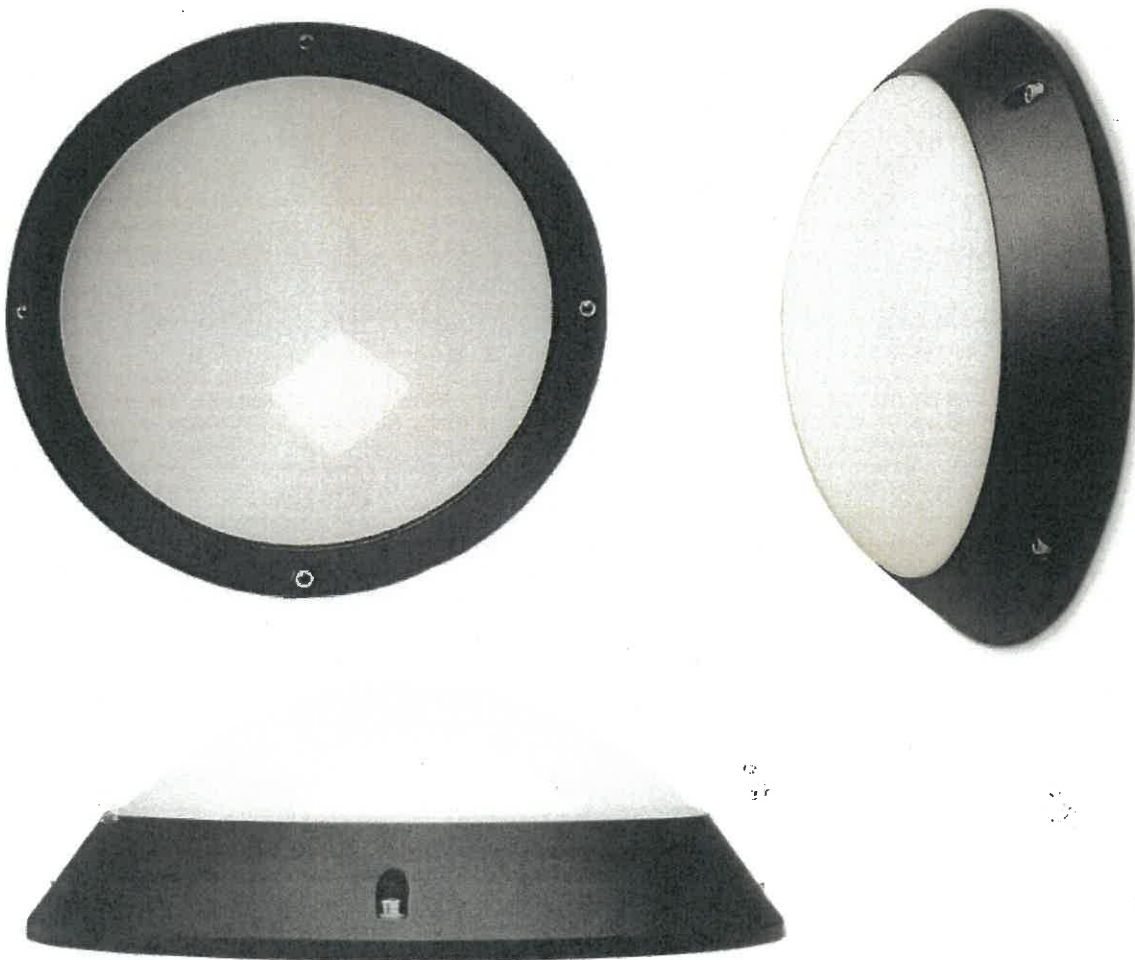
The control gear shall be mounted directly onto the base casting, ensuring cool operation. It shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system. All inter-connecting wiring shall be Teflon® insulated with protective sleeving to prevent damage by possible abrasion. All external screws, bolts and metals shall be stainless steel or non-corrosive material. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. The luminaire shall be power factor corrected to a minimum of 0.9. In the LED version, the diffuser shall be permanently sealed by means of silicon to the aluminium base and shall be supplied with a 300mm supply lead. The LED's and control gear are designed to ensure a maintenance-free operation of no less than 50 000 hrs. The control gear shall incorporate an automatic reversible over temperature protection. The unit shall be EMC compliant to the EN55015 and EN61347-1 standard. And conform to IEC 61347-2-13, IEC 62384, IEC 61000-3-2, IEC 61000-3-3, and IEC 61547.

TECHNICAL SPECIFICATION MM10-11:- DECORATIVE RND LED BULKHEAD LUMINAIRE FOR STAFF AND PUBLIC TOILETS IN POLICE STATIONS.

ADDENDUM D

In terms of a LED version, the LEDs have to provide a light of a neutral colour temperature (4,500K). A report from the LED vendor, for LED's used in the luminaire, shall be submitted, which shall include the following documentary evidence:

- Measured LED junction temperature for a given test condition and extrapolated for an ambient temperature of 35°C.
- LED drive current.
- LED manufacturer data that clearly correlates LED junction temperature and LED drive current to lumen maintenance.
- The LED datasheets, indicating the Byy, Lxx data, as provided by the LED manufacturer.



PICTURES FOR ILLUSTRATION PURPOSES ONLY

TECHNICAL SPECIFICATION MM11-11:- CIRCULAR RECESSED CFL DOWNLIGHTER FOR OFFICES AND PASSAGES IN POLICE STATIONS.(OPTION1)

ADDENDUM D

DESIGNED FOR DECORATIVE LIGHTING APPLICATIONS IN MODERN OR HI-TECH ENVIRONMENTS

The luminaire shall consist of a pressed metal ceiling trim, reflector, ceiling brackets and reinforced luminaire frame supporting the lamp holder and enclosed control gear. It shall be designed to operate incandescent lamps up to 100W and compact fluorescent lamps in the Dulux S range and Dulux D range up to 2x26W. The easy-fixing ceiling brackets shall be made of spring steel to ensure rigid and positive mounting in the ceiling, eliminating any sagging of the luminaire. The ceiling trim shall be manufactured from pressed metal for rigidity which shall be iron phosphated against rust before finally being coated with a pigmented UV blocking hybrid polyester powder and thereafter oven baked at 210°C.

The luminaire shall bear the SANS 60598-2-1 safety mark.

HORIZONTAL LAMP POSITION

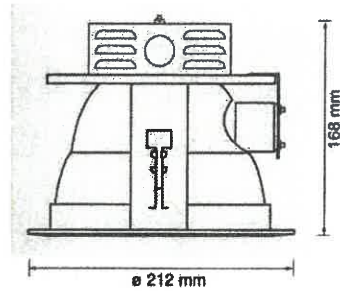
The RONDO-H shall be designed for lamps used in the horizontal position. The 99.9% pure aluminium reflector shall be made from pressed grade 1050 aluminium alloy. The surface finish of the reflector shall be achieved by a vacuumed metalised coating with a thickness of 30-40 microns. The reflector shall be finished in a diamond faceted and orange peel appearance to give a superior photometric distribution with high spacing to mounting height ratios and low glare ratings.

VERTICAL LAMP POSITION

The RONDO-V shall be designed for lamps used in the vertical position. The 99.9% pure aluminium reflector shall be made from pressed grade 1050 aluminium alloy. The surface finish of the reflector shall be achieved by a vacuumed metalised coating with a thickness of 30-40 microns. The reflector shall be finished in a striped and dot pattern with a sand blast appearance to give a superior photometric distribution with high spacing to mounting height ratios and low glare ratings.

The lamp holder shall comply with VC 8011 as well as VDE and IEC standards. The control gear shall be integral. The luminaire shall be available in either an electro-magnetic ballast or electronic control gear. It shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system. All internal wiring shall be Teflon® coated with protective sleeving to prevent damage by possible abrasion. All screws, bolts, nuts and metal parts shall be stainless steel or of non-corrosive material. Mains connections shall be by means of a suitable screw terminal block. The downlight shall be supplied with 6Amp plug-top on 3m cabtyre. The luminaire shall be power factor corrected to a minimum of 0,9.

**TECHNICAL SPECIFICATION MM11-11:- CIRCULAR
RECESSED CFL DOWNLIGHTER FOR OFFICES AND
PASSAGES IN POLICE STATIONS.(OPTION1)**
ADDENDUM D



TECHNICAL SPECIFICATION MM14-11:- **EMERGENCY LED EXIT SIGNAGE LUMINAIRES FOR** **POLICE STATIONS**

ADDENDUM D

DESIGNED FOR EMERGENCY LED SIGNAGE.

Synthetic housing shall be manufactured to EN 60598-1 and EN 60695-2-10 (850°C). Array of 20/40 high-brightness LEDs, shall provide excellent uniformity. Multiple circuits shall result in no single point of failure. The NiMH battery shall have no memory effect, and shall contain no Cadmium and shall have double the capacity of NiCad batteries.

The LISU range shall be built to EN 60598-2-22 standards and shall comply with EN 1838 standards:

EN 60598-1

EN 60695-2-10

- LISU

Single-sided wall mounted

(Integrated clip-on wall mount plate with plug-in terminal block.)

- LISU-B

Double-sided pennant mounting

(Integrated wall mount plate with plug-in terminal block.)

- LISU-AD

Double-sided ceiling mounted

(Integrated wall mount plate with plug-in terminal block.)

- LISU-S

Double-sided ceiling suspended

(Incorporated 30cm single suspension rod with ceiling cup and two terminal blocks.)

Emergency duration shall be 1 or 3 hours.

Emergency Lumen Output:

Single: 60 lm Double: 110Lm



TECHNICAL SPECIFICATION MM15-11:- **ROUGHGUARD POLICE VISITING AREA LUMINAIRE.**

ADDENDUM D

VANDAL-PROOF FLUORESCENT LUMINAIRE FOR USE IN HOSTILE AND VANDAL-PRONE ENVIRONMENTS.

The luminaire shall consist of a rigid high pressure die cast marine grade aluminium body with a robust, one-piece injection moulded clear polycarbonate, vandal proof diffuser. The diffuser shall have a smooth outer surface and be designed to provide sufficient upward light distribution to illuminate the ceiling, thus providing adequate light for searching of the holding cell. The luminaire shall be designed to operate 14 T5 linear fluorescent lamps. As an option the luminaire can be supplied with 3*1 Watt LED's to serve as a nightlight.

The luminaire shall bear the SANS 60598-2-1 safety mark.

The luminaire shall have a degree of protection that complies with SANS 60598-1:

Lamp compartment: IP65. The IP rating shall be certified by a SANS Test Report.

The luminaire shall have no dust collecting edges and it shall not be possible to manually grip the luminaire once mounted. A minimum of mounting studs shall be provided for mounting the luminaire. A cable entry of 20mm shall be provided in centre of the body. There shall be no sharp edges or corners along any accessible surfaces of the luminaire.

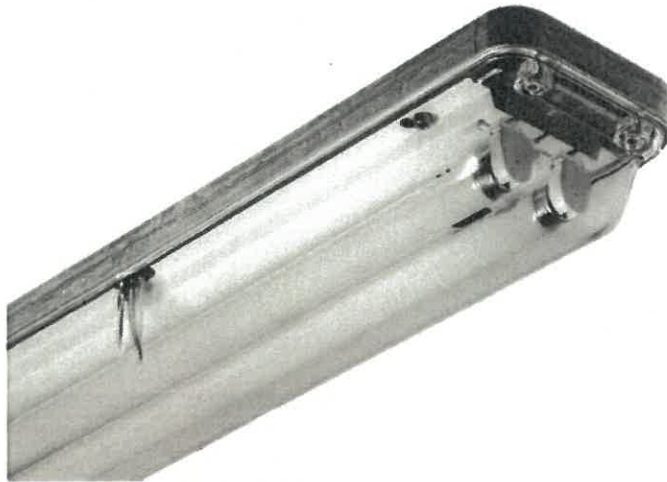
The vandal-proof diffuser shall be secured to the aluminium body by means of 6 (six) tamper-proof (TPS/MJM/M6) Stainless Steel Allen Cap Screws. A silicone sponge gasket shall ensure reliable IP65 rating, as certified.

The removable gear tray shall be manufactured from 0.7mm mild steel, powder coated white to optimise luminaire efficiency. All paint finishes shall be done in accordance with the SANS 1274 Standard. All holes and cut-outs on the gear tray shall be done prior to powder coating. All control gear components shall be mounted on the gear tray. The gear tray can be removed by loosening four Allen Cap screws in keyhole slots, which allow the gear tray to be relieved into a suspended position, ensuring ease of maintenance.

All electronic control gear components shall be removable and bear the relevant SABS mark. All screws, bolts and metal parts shall be stainless steel or non-corrosive material. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. All internal wiring to the lampholders or LED's shall be hidden behind the gear tray and not be visible through the diffuser. The luminaire shall be power factor corrected to a minimum of 0,9.

The luminaire must be able to withstand an ambient temperature of at least 45 deg C, without resulting in any electrical or mechanical components exceeding its maximum allowed operating temperature. Certified proof from an authorized testing facility shall be available on request.

TECHNICAL SPECIFICATION MM15-11:-
ROUGHGUARD POLICE VISITING AREA LUMINAIRE.



Picture for Illustration Purposes ONLY

TECHNICAL SPECIFICATION MM16-11:- VANDAL-RESISTANT LED BULKHEAD FOR POLICE SERVICE DUCTS AND STORE ROOMS.

ADDENDUM D

DESIGNED FOR INDUSTRIAL AND PUBLIC LIGHTING APPLICATIONS WHERE EFFICIENCY, VANDAL RESISTANCE AND MECHANICAL RELIABILITY ARE ESSENTIAL.

The luminaire shall consist of a high pressure die cast aluminium body and a structured clear high impact acrylic diffuser. It shall be rectangular in shape and shall be designed to operate 6* HIGH POWERED LED'S. The luminaire shall be equipped a hot dipped galvanized wire guard.

The luminaire shall bear the SANS 60598--2-1 safety mark.

The luminaire shall have a degree of protection that complies with SANS 60598-2-1:

Lamp compartment: IP65

The IP rating shall be certified by a SABS test report.

The body shall be manufactured from high pressure die cast aluminium, powder coated in the colour specified for added protection. It shall be suitable for surface mounting and shall allow for surface conduits to enter. A silicone sponge gasket shall be fitted into a groove in the body. Mounting holes, complete with nylon washers, can be provided on request. The LED version shall be supplied with the /ML accessory.

The diffuser shall be manufactured from injection-moulded, high-impact, non-discolouring acrylic. It shall be structured on the inside and smooth on the outside. The diffuser shall be held to the body by four captive stainless steel Allen head screws. A tongue arrangement provided on the diffuser shall ensure the integrity of the IP rating.

The geartray shall be manufactured from 1.6mm galvanised and passivated steel, powder coated white to prevent corrosion and improve reflectance. All electrical components and lamp holders shall be mounted on the geartray. It shall be suitable for operation with the specified rating of the lamp on a 230V +3%/-10% 50Hz single phase system. All control gear components shall be removable and bear the relevant SABS mark. All internal wiring shall be Teflon® coated with protective sleeving to prevent damage by possible abrasion. All screws, bolts and metal parts shall be stainless steel or non corrosive material. Mains connections shall be by means of a suitable screw terminal block with a wire clamping contact. The luminaire shall be power factor corrected to a minimum of 0,9. In the LED version, the diffuser shall be permanently sealed to the aluminium base and shall be supplied with a 0.5m long 1mm² silicone cabtyre. The control gear shall incorporate an automatic reversible over temperature protection. The LED's and control gear shall be designed to ensure a maintenance-free operation of no less than 50000 hrs. The unit shall be EMC compliant to the EN 55015 and EN 61347-1 Standard. It Shall also conform to IEC613-2-13, IEC62384, IEC61000-3-2, IEC61000-3-3 and IEC61547.

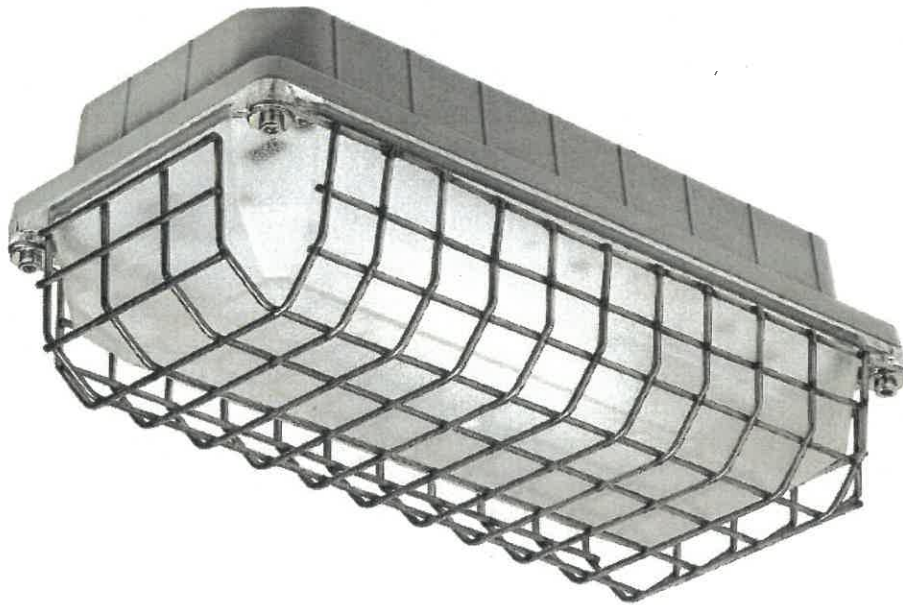
The LED's in the luminaire shall provide a light of a (4500K) Neutral colour temp.

TECHNICAL SPECIFICATION MM16-11:- VANDAL-RESISTANT LED BULKHEAD FOR POLICE SERVICE DUCTS AND STORE ROOMS.

ADDENDUM D

A report from the LED vendor shall be submitted. This report shall include the following documentary evidence:-

- 1) Measured LED junction temperature for a given test condition and extrapolated for an AMBIENT temperature of 35 Degrees C
- 2) LED Drive Current
- 3) LED Manufacturer data that clearly correlates LED junction temperature and LED drive current to lumen maintenance.
- 4) The LED datasheets indicating the Byy,Lxx data as provided by the LED manufacturer.



PICTURE FOR ILLUSTRATION PURPOSES ONLY

SPECIFICATION : CELLS

1. MINIMUM ACCOMMODATION REQUIREMENTS

The following rooms are essential for the effective functioning of any cell block. All of the rooms, have to be provided under the project (see Annexure "A"). The norms as applied by the Department of Public Works, are also provided. These norms are an indication of the ideal, but can be changed, due to limited space available on site. Any deviations from these norms are to be indicated on plan and motivated to SAPS : Supply Chain Management : Expert Services, for approval.

- | | | |
|--|---|---|
| 1.1. Cells (with ablution) | : | 37.81 m² (male) and 20.20 m² (female) |
| 1.2. Exercise Yards | : | 18.70 m² (male) and 12 m² (female) |
| 1.3. Security Passage to Cells | : | 1,5 m wide |
| 1.4. Cell Kitchen | : | 18.00 m² for 4 cells plus 2 m² for every additional 3 cells |
| 1.5. Pantry | : | 6 m² for 4 cells plus 2 m² for every additional 3 cells |
| 1.6. Kitchen Yard | : | 16 m² |
| 1.7. Kitchen Toilet | : | 2 m² |
| 1.8. Visitor's Room | : | 18 m² for (2 cubicles) plus 1 for every additional 3 cells |
| 1.9. Prisoner's Property Store | : | 6 m² for 4 cells plus 2 m² for every additional 3 cells |
| 1.10. Blanket Store | : | 12 m² for 4 cells plus 2 m² for every additional 3 cells |
| 1.11. Admittance Area | : | 25 m² for 4 cells plus 2 m² for every additional 3 cells. (Including cell guard office and fingerprint area).
(Toilet for cell guard to be provided in large cell blocks +6) |
| 1.12. Waiting Lobby | : | 6 m² |
| 1.13. Declaration of Statements | : | 8 m² |
| 1.14. Holding Cell | : | 10 m² for 4 cells plus 2 m² for every additional 3 cells |
| 1.15. Secure Off-loading Area | : | 50 m² |
| 1.16. Security Service Duct | : | 1,2 m wide behind cell block |
| 1.17. Surge Room (adjacent to Visitors room) | : | 2 m² |
| 1.19. ID Photo Room | : | 10 m² |

IDENTIFICATION PARADE ROOM

Waiting Room No 1	:	7 m ²
Waiting Cubicle No 1	:	1.8 m ²
Viewing Room	:	18 m ²
Line Up Area	:	29 m ²
Waiting Cubicle No 2	:	1.8m ²
Waiting Room No 2	:	10.5 m ²
Toilet Waiting Room 1	:	3.2 m ²
Toilet Waiting Room 2	:	3.2m ²

The cell block should consist of at least four (4) cells with yards.
SAPS: Expert Services (Lt.Col. Dirk Els / Capt. Kobus Swart)

ALL SKETCH PLANS AND WORKING DRAWINGS HAVE TO BE SUBMITTED TO SYPPY CHAIN MANAGEMENT : EXPERT SERVICES FOR APPROVAL PRIOR TO CALLING OF TENDERS. THE SKETCH PLANS SHOULD CONSIST OF AT LEAST A FLOOR PLAN, SITE PLAN AND TYPICAL SECTION.

Plans can be **posted** to:

S.A.P.S.
Supply Chain Management:
Expert Services
Private Bag X254
Pretoria
0001

Plans can be **couriered** to:

S.A.P.S.
Supply Chain Management:
Expert Services
18 De Havilland Crescent
Acacia Building
Persequor Technopark
Pretoria

2. CELLS

2.1 GENERAL REQUIREMENTS

- 2.1.1 All cells must have ablution facilities, namely, a toilet, shower and drinking fountain inside the cell. See Annexure A, B & C

2.2 GENERAL CONSTRUCTION

- 2.2.1 All brickwork to be 230mm brick walls. A high tensile steel mesh of 100mm x 200mm x 5mm thick, is to be built in cells, cell yards, kitchen, pantry or visitors area into the wall, between skins, in the perimeter walls of the cells (See Annexure "A"). The wall behind the toilet to be 330mm (built up to sill height), with steel mesh between skins. (POL2012/S1)
- 2.2.2 Walls have to be painted to specification in heavy-duty, light coloured oil base coating. Proposed colours: ivory, light grey, etc. Approved undercoat Alkali resistant primer. No Contractors PVA. "See Annexure E" Underside of concrete slab to be painted white

- 2.2.3 A concrete bench must be built against the wall dividing the cell and the cell yard.
- 2.2.4 All cells, kitchens, pantry and visitors areas must have concrete ceilings with a minimum height of **3000mm** and finished with a conventional roof over.
- 2.2.5 All screen walls to the toilets and showers are to be **230mm** walls, built up to concrete slab/ceiling. Screen walls are to be added beside and in front of the toilet in accordance with the relevant Annexure. Free space between the front of the drinking fountain and screen wall to be **700mm** to **900mm**.
- 2.2.6 All floors have to be finished in a steel/wooden trowel grano finish as specified with a **250mm high monolithic** upwards sloping concave skirting. See POL2012/B1
- 2.2.7 Insides of shower walls and floors to be waterproofed with Duraflex, "ABE" product or similar approved. Apply to manufactures specification and allow product to dry.
- 2.2.8 The floor to be finished with a **250mm high monolithic** upwards sloping concave grano skirting and sealed same as 2.2.7. The shower must be provided with a **170mm** threshold. See Annexure "A".

2.3 WINDOWS

- 2.3.1 Wire mesh- and expanded metal screens inside and outside windows, according to specifications, expanded metal, with a thickness of **3mm**, web width **10mm** and openings of **10mm x 40mm**, of the approved type Flatex/345 (Pigmesh). Openings in screens, for opening windows, to be finished so that **NO** sharp extrusions exists. Screen openings only on the inside screens of windows, **NO** openings on outside screens. (POL2012/W1 to W3)
- 2.3.2 Screen frames to be according to typical drawing POL2012/ W1, W2 and W3. The heavy-duty padlocks as specified on the drawings are to be included in the contract, on a master key system. The keys are to be handled in a similar fashion to the cell lock keys (see 2.4.7). Alternatively M10x30mm long bolt and nut can be used and tag welded instead of pad locks.
- 2.3.3 Glazing in cell windows to be **6,5mm** clear laminated glass. There must be a sufficient number of windows to ensure good ventilation of the cell.
- 2.3.4 Where windows and mesh are to be installed, all steel to be **hot dipped galvanised**. Galvanised steel work to be left unpainted and welding joints to be cold galvanised on site. The putty to galvanised windows to be painted with silver enamel paint.

- 2.3.5 The windows in the external wall to be built in as high as possible. Note that at least **2 brick** courses are to be left between underside of concrete ceiling and window soffit. The windows in the wall between the cell and the yard are to be built in at a standard soffit height of **2100mm** from finished floor level.
- 2.3.6 At least one window per cell is not to be installed until after the cell door and -gate have been built in and allowed to set (see 2.4.8).

2.4 DOORS AND GATES

- 2.4.1 All hinges in accordance with the specifications as per drawing no. POL2012/D4, and to be **greased monthly after installation**.
- 2.4.2 All frames, doors, gates and trellis work have to be in accordance with **drawings** POL2012/D1;D1a;D2;D3;D4 and D5. The cell door and gate lock box to have a keyhole only on the exercise yard side. Cell side to be blocked off.
- 2.4.3 Doors and gates have to be **hot dipped galvanised**.
NOTE: NO PAINT ON GALVANISED FINISHES
- 2.4.4 ALL doors and gates have to open against the wall. See Annexure "A" and "B".
- 2.4.5 ALL cell type locks have to be ordered from SAPS: Project and Building Management Services (Tel: 012 841 7351). The cost of the locks have to be budgeted for in the contract amount, as SAPS Project and Building Management Services is only responsible for the ordering and co-ordinating. **ALL CELLS LOCKS ARE TO BE ACCOUNTED FOR BY THE CONTRACTOR AT THE END OF THE CONTRACT. THE CONTRACTOR MAY NOT TAKE POSSESSION OF ANY CELL LOCKS. EXTRA CELL LOCKS TO BE RETURNED TO SAPS:PROJECT AND BUILDING MANAGEMENT SERVICES.**
- 2.4.6 A total of two suites for the cell door and trellis door locks, have to be used in the entire cell complex. The locks are to be 4 lever, see drawing POL2012/D5. One suite has to be used for trellis and solid doors, to all cells and exercise yards, as well as the trellis gate in the passage, between the kitchen yard and the first exercise yard. The other suite has to be used for the trellis gate to the kitchen yard, the main entrance to the security passage, as well as any other trellis gates or solid doors. The Project Manager of Department of Public Works must confirm the number of different locks with the Commander of SAPS Project and Building Management Services in writing. A floor plan of cell block to be included.

**THE LOCKS HAVE TO BE ORDERED WELL IN ADVANCE,
AS THE DELIVERY TIME CAN BE AS LONG AS TWO TO
THREE MONTHS.**

- 2.4.7 **UNDER NO CIRCUMSTANCES** may the contractor or any other party, except the Station Commissioner of the station or his nominated representative, take possession of the keys of the locks. The keys have to be provided to the Station Commissioner or representative, in a sealed envelope (signed for) and kept in the safe of the station, for safekeeping.
- 2.4.8 The door, gate and frame are delivered to site as a unit, welded closed. Under no circumstances may the doors be cut open until after it has been built in completely and **ten (10) days settlement**. For this reason, the doors have to be built in before the windows, or one window per cell is not to be built in, until after the door has been built in, to allow access to the cell. (See 2.3.6).

2.5 ELECTRICAL

- 2.5.1 Vandal proof wall and ceiling lights with metal bases for fixing to structure and polycarbonate screens to be used throughout. See Annexure "D".
- 2.5.2 Lights in cells to be fixed out of reach, against the ceiling and never near any element that can serve as a possible foothold. The lights to be used in the cells to be a vandal proof fluorescent light with a built in PL9 night-light (with a guaranteed working life of 4000 hours) See Annexure "D".
- 2.5.3 A shorter light fitting, but of the same type as for the cell, to be used in the wc cubicle. See Annexure "A" and "D" (without a night light).
- 2.5.4 All light fittings to be positioned similar to Annexure "A"

2.6 PLUMBING

- 2.6.1 Drinking fountains: To be installed in all cells in accordance with drawing POL2012/S2. Drinking fountains to be of the approved type, and equipped with push button faucets, serviceable from the front, built into drinking fountain. Fountains to be installed with the underside, at a min height of **1200mm** from finished floor level.
- 2.6.2 All toilets to be vandal proof stainless steel toilets, as specified in drawing POL2012/S1.
- 2.6.3 Toilets to be activated with push button type flush valves, only letting through measured amounts of water under high pressure and stopping automatically, concealed toilet flush valve with integral non-hold open, vacuum breaker and shut front-entry

hidden and closed flow control valve or similar approved valves, for pressures between **30 kPa** and **250 kPa** at a height of **1500mm** above floor level in the cell. See drawing POL2012/S1.

- 2.6.3.1 Alternately in areas with a high lime content use low level cistern with 1.75" High Flow Flush Valve only to SABS 1509-1990 or 1.75" Kingfisher Syphonic Valve. To be mounted in secure service duct.
- 2.6.4 Where any sanitary fittings, e.g. wc's are to be fitted against an external wall, Provide steel mesh between brick skins, in accordance with drawing POL2012/S1.
- 2.6.5 Warm water has to be laid and a proper water mixer provided. One **200 Litre** warm water cylinder and a heatpump has to be provided for every 2 cells, a **200 Litre** warm water cylinder and an heatpump to be added for every 2 cells thereafter. The engineer must determine if solar heating panels with geysers at the cell block can be utilised. Such solar panel systems must comply with the latest Standard Building Regulations. Refer to Annexure "F".
- 2.6.6 Showers to be activated with push button metre valve that allows only measured and pre-mixed amounts of water and automatically cuts off, e.g. a push button metering non hold open valve and with extension ring, fixed at a height of **1500mm** above shower floor level. See drawing POL2012/S3.
- 2.6.7 A **50mm** diameter sleeve has to be poured into the concrete, to house a stainless steel showerhead, as on drawing no. POL2012/S3.
- 2.6.8 Installations where push button flush and metre valves are used and the water pressure is less than **30 kPa**, see 2.6.3 and 15.1.
- 2.6.9 Where the provision of a pressure tank and -pump is not possible, externally mounted low level cisterns can be used, after consultation with SAPS: Expert Services. (See 2.6.3.1).
- 2.6.10 Where the water pressure exceeds **250 kPa**, a pressure reducing valve is to be installed on the water supply line.
- 2.6.11 A water filter/in line strainer, easily serviceable and cleanable, to be provided in ALL water supply networks to cells and exercise yards to intercept any impurities and ensuring the effective use of push button flush- and metre valves.
- 2.6.12 Where push button flush- and water valves are used, the total water supply network has to be **PROPERLY** rinsed before use, to remove any dirt and impurities, under the supervision of the responsible consultant.
- 2.6.13 The service of the water filter, pressure pump (if installed), all pipes, valves and faucets; must be possible from outside the cell and exercise yard except where practically impossible.

- 2.6.14 All water pipes to be chased into walls and serviceable from outside the exercise yards. Normal screw type taps to be replaced with push button faucets.
- 2.6.15 The consultant responsible must investigate the frequency of water shortages, and supply a buffer tank, with a **36 hour** reservoir capacity, under the contract if the need exists.
- 2.6.16 The quality of the water has to be tested, and if it is of poor quality, or **ANY** lime is present, SAPS: Expert Services, has to be contacted with the proposed solutions, for discussion and approval.

3. EXERCISE YARDS

3.1 GENERAL REQUIREMENTS

- 3.1.1 Each cell must have a separate exercise yard, the full width of the cell, and built out to a length of **3,5 m** in front of the cell. See Annexure "A" and "B".

3.2 GENERAL CONSTRUCTION

- 3.2.1 The height of the walls of the cell yards to be min **4500mm** high. Where the finish of the walls is face brick, the joints have to be filled in flush with the surface (**new cells**). The last eight (8) inner brick layers of the 230mm brick walls at the following areas: cell exercise yards; kitchen yard; cell passage; maintenance passage and off-loading area are to be of solid bricks. If hollow bricks are used, holes must be filled with cement to ensure that mesh screens can be properly installed.
- 3.2.2 If the existing finish of the walls is plaster and paint, the walls are to be prepared and painted with a heavy-duty oil base paint. (Annexure E) (**THIS ONLY APPLIES FOR UPGRADING OF EXISTING POLICE CELLS**).
- 3.2.3 The approved type of high tensile metal mesh screen to be installed at a min height of **4000mm** from finished floor level (see drawing POL 2012/G1). A **3mm** solid steel plate of at least **1,2m x 1,2m**, is to be welded to the mesh, over all door openings into the cell yard, according to POL 2012/G1. **All steel to be hot dipped galvanised and welding spots to be finished with cold galvanising on site.**

3.2.4 Approved Type Mesh:

- a) Galvanised Carbon Hardened Woven Steel Mesh (Screenex see "Annexure G")
- b) Mesh Aperture: 10.00mm x 10.00mm
- c) Wire Diameter: 4.80mm
- d) Coating : High Carbon (Spring Steel)
Hot Dipped Galvanised SABS 763
(Before weaving) ISO 1461
- e) Weave Type: SW
- f) Company: Screenex wire Weaving Manufacturers
- g) Assist. Sales Manager:
Basil Shelver
Tel number : (011) 864 2773
Fax number: (011) 864 6800

3.2.5 358 Betafence Doubleskin (Zincalu) Welded Mesh

(see "Annexure H")

- a) Mesh Aperture: 8.7mm x 8.7mm
- b) Wire Diameter: 3.96mm Zincalu
- c) Company: Betafence
- d) Sales Consultant:
Johan Goosen Tap Nortier
Cell: 082 560 5656 Cell: 082 889 0733
E-mail: Johan@betafence.co.za Tap@betafence.co.za

3.2.6 Floors of yards (only plastered walls) are to be finished in a wooden trowel grano finish with a **250mm high monolithic** upwards sloping concave skirting. The floor is to have a fall towards the door to the passage, to drain water under the door and into the passage.

3.2.7 The finished floor levels at the lowest point of the exercise yards, are to be at least **170mm** lower than the floor level of the cells, and **85mm** higher than the floor level of the passage.

3.2.8 Concrete capping to be provided on all external walls against weather with water drip.

3.3 WINDOWS

3.3.1 All screens to cell windows are to be in accordance with drawing no. POL 2012/W1 to W3. No protrusions are allowed, that may serve as a possible foothold. Screens and windows between yards and cells are to be installed at a soffit height of **2100mm** from finished floor level.

3.4. DOORS AND GATES

- 3.4.1 Hinges in accordance with the specifications as per drawing no. POL 2012/D4.
- 3.4.2 Frames, doors, gates or trellis work are to be in accordance with drawings POL2012/D1, D2, D3, D4 and D5.
- 3.4.3 The cell door and gate lock box to have a keyhole only on the exercise yard side. Cell side to be blocked off.
- 3.4.4 **ALL** doors and gates have to open against the wall, see Annexure "A" and "B".
- 3.4.5 The finishes and specifications of doors and gates, are the same as in 2.4.
- 3.4.6 **ALL** trellis gates are to be supplied with an opening to pass a plate through, see drawing no. POL 2012/D1.

3.5 ELECTRICAL

- 3.5.1 Lights in exercise yard to be fixed against the walls between the yard and passage, directly under steel mesh, preferably at a minimum of **3,7 metres** from the finished floor level. The type of light fitting to be installed is the same as for the cells. See Annexure "D".
- 3.5.2 All light fittings to be positioned similar to Annexure "A".

4. SECURITY PASSAGE

4.1 GENERAL REQUIREMENTS

- 4.1.1 A **1,5m** wide security passage has to be provided in front of all exercise yards, for the length of the cell block. See Annexure "A - C".
- 4.1.2 The passage to be divided into a high security area and a lower security lobby. The different zones to be divided by trellis gates. The two trellis gates have to be built in, one at the entrance to the passage, and the other in the passage, between the entrances to the kitchen yard and the first of the exercise yards. See Annexure "A".

4.2 GENERAL CONSTRUCTION

- 4.2.1 The height of the walls of the passage to be minimum **3000mm** high. The walls are to be flush jointed, smooth face brick.
- 4.2.2 The passage is to be covered with a conventional roof structure, e.g. tiles or corrugated iron. "Mentex 70" mesh screen to be installed as a ceiling, at a min height of **2700mm** from finished floor level (see drawing POL 2012/G1) Preferable directly below trusses. Before installation of "Mentex 70" mesh all trusses to be

treated with Carbolinium paint. **All steel to be hot dipped galvanised and welding spots to be finished with cold galvanising on site.**

- 4.2.3 The floor is to be finished with a wooden trowel grano finish with a **250mm high monolithic** upwards sloping concave skirting. The floor is to have a fall towards the seep holes in the external wall, or covered drains in the passage, with outlets to the exterior. Lid on drain to be bolted onto drain framework.
- 4.2.4 The finished floor level of the passage is to be at least **85mm** lower than the finished floor level of the exercise yards.

4.3 WINDOWS

- 4.3.1 Breezeblock openings can be built into the external wall, but **Not** directly opposite any doors to exercise yards, and **Not** in the wall between the yards and passage. Expanded metal screens (Annexure G and H) in angle iron frames, are to be bolted to the inside wall over the full area of the openings. Screens and breeze openings are to be installed as high as possible, and should not extend to below **1500mm** from finished floor level.

4.4. DOORS AND GATES

- 4.4.1 A solid cell door with viewing panel and grill gate combination (as on drawing no. POL2012/D1 to D4) has to be built in, as entrance to the admission area and secured passage. Door handles on both sides of solid doors.
- 4.4.2 Hinges in accordance with the specifications on drawing no. POL 2012/D4.
- 4.4.3 Frames, gates or trelliswork are damaged beyond repair, it has to be replaced in accordance with drawings POL2012/D1, D2, D3, D4 and D5.
- 4.4.4 Only trellis gates (no solid doors) are to be installed in the passage. The gates have to open against the wall, see Annexure "A".

4.5 ELECTRICAL

- 4.5.1 Lights in the passage are to be fixed directly under the mesh, against the external walls, opposite the doors to the yards. See Annexure "A". The lights are to be the same as used in the cells (see Annexure "D") but without a night light.

- 4.5.2 Two light switches (one for the cell lights and one for the yard lights) have to be positioned in the passage outside each door, out of reach of persons in custody inside the yards, 500 mm away from door frame. **Light switches to be watertight rotatable switchgear, of an industrial type. The switches for the cell lights to be two-way switches, to allow for the operation of the night-light.**

- 4.5.3 No power points allowed.

4.6 PLUMBING

- 4.6.1 A fire hose reel has to be provided in accordance to the National Building Regulations, but must not be accessible from the exercise yards. (All cells must be reached).

5. CELL KITCHEN AND PANTRY

5.1 GENERAL REQUIREMENTS

- 5.1.1 The cell kitchen must preferably be built next to the first cell, with the same depth as the cells. The pantry is to be accessed off the cell kitchen. The kitchen is to be accessed via the kitchen yard, via a secured lobby off the admissions area. See Annexure "A".

5.2 GENERAL CONSTRUCTION

- 5.2.1 The walls are to be **230mm** conventional brickwork, with a concrete ceiling over the kitchen and pantry. A conventional roof structure is to be installed over all concrete ceilings.
- 5.2.2 Walls to be painted in heavy duty, light coloured oil base coating. Proposed colours: ivory, light grey, etc. Approved undercoat Alkali resistant primer. No Contractors PVA. "See Annexure E"
- 5.2.3 All floors have to be finished in a steel trowel grano finish with a **250mm high monolithic** upwards sloping concave skirting.
- 5.2.4 Architect to ensure that all door frames between off loading and kitchen (see drw. POL2012/D1A/Annexure A) to be a minimum of 1100 mm to accommodate an oil jacketed boiling pot, if specified under contract.

5.3 GENERAL EQUIPMENT

- 5.3.1 A stainless steel work top with shelf below is to be provided (Length ± 1500 mm min).
- 5.3.2 A stainless steel (PS-L or PS-R) double combination pot sink is

to be built in with bib tap extension peaces and flange. All equipment to be stainless steel grade 304.

- 5.3.3 A handheld **4,5kg CO₂** and **DCP** fire extinguishers are to be fixed to a wall in an accessible position.
- 5.3 Meranti or Supawood shelves (**350mm**) have to be provided in the pantry, in accordance with drawing no. POL 2012/F1. The room has to be properly ventilated.
- 5.3.5 Coastal Manufacturing GT700 or similar approved Stainless Steel grade 304 grease trap with a flow rate of 1.8l/sec. to be installed in the kitchen.

5.4 WINDOWS

- 5.4.1 Cell windows have to be built into the wall between the kitchen and yard, at a soffit height of **2100mm**. The pantry is to be provided with ventilation bricks built into the external wall.

5.5. DOORS AND GATES

- 5.5.1 Both the kitchen and the pantry have to be provided with a solid meranti door, type T4 fitted with a cylinder lock and aluminium louver (**300mm x 300mm**) in bottom half.
- 5.5.2 When a oil jacketed boiling pot is specified for the kitchen, a wider door and frame to be installed. (See POL2012/D1A).

5.6 ELECTRICAL

- 5.6.1 At least two double plugs have to be provided in the kitchen.
- 5.6.2 A double plug has to be provided in the pantry, to make provision for a fridge or freezer. An alternative position for the fridge needs to be provided in the cell kitchen as well.
- 5.6.3 The approved type of cell light (without night light) has to be installed in the kitchen and pantry. See Annexure "D". Light switches to be watertight rotatable switchgear, of an industrial type, as used for the cells.

5.7 ELECTRICAL EQUIPMENT

- 5.7.1 The kitchen is to be fitted with a three phase industrial type stove, with solid plates without oven, type Vulcan RE-3, T **OR** Bakers Price equipment **OR** similar and approved product. Other types of stoves can be investigated and the proposals submitted to SAPS: Expert Services for final approval.
- 5.7.2 A Stainless steel extractor hood with isolator has to be provided over stove and boiler pan in kitchen.

5.8 PLUMBING

- 5.8.1 The double combination pot wash sink to be provided with heavy duty bib taps, extension pieces and flanges. (1 x hot and 1 x cold for **each bowl**)
- 5.8.2 One **100 litre** geyser to be installed for kitchen.

6. KITCHEN YARD

6.1 GENERAL REQUIREMENTS

- 6.1.1 A yard has to be built out to a length of **3,5m** in front of the kitchen.
- 6.1.2 The kitchen yard is of a similar construction to the exercise yards. The kitchen has to be accessed from the yard. The yard is accessed from a secured lobby off the admissions area. See Annexure "A".
- 6.1.3 A concrete double bowl washing trough to be installed with heavy duty 19mm bib taps. Only the cold-water tap to be a hose type tap and hot water a union tap. (See 6.6.1).

6.2 GENERAL CONSTRUCTION

- 6.2.1 The height of the walls of the kitchen yards to be min **4500mm** high. Where the finish of the walls is face brick, the joints have to be filled in flush with the surface (**new cells**).
- 6.2.2 Finishing of the walls is plaster and paint. Walls to be painted in heavy-duty, light coloured oil base coating. Proposed colours: ivory, light grey, etc. Approved undercoat Alkali resistant primer. No Contractors PVA. "See Annexure E" (**existing cells**).
- 6.2.3 The approved type of high tensile metal mesh screen to be installed at a min height of **4000mm** from finished floor level (see drawing POL 2012/G1) similar as exercise yards. **All steel to be hot dipped galvanised and welding spots to be finished with cold galvanising on site.**
- 6.2.4 The floors of the yard, are to be finished in a steel trowel grano finish with a **250mm high monolithic** upwards sloping concave skirting. The floor is to have a fall towards the door to the passage to drain water under the door and into the passage.
- 6.2.5 The finished floor levels of the kitchen yards, is to be at least **170mm** lower than the floor level of the kitchen.
- 6.2.6 A drying line, constructed of R10 reinforcing rods, or solid rods, welded to **50mm x 50mm** mild steel angle iron sections, bolted to the walls, has to be provided in a corner of the yard as indicated on Annexure "A".

6.3 WINDOWS

- 6.3.1 Cell windows have to be built into the wall between the kitchen and yard, at a soffit height of **2100mm**. The pantry is to be provided with ventilation bricks built into the external wall.

6.4. DOORS AND GATES

- 6.4.1 A cell trellis gate to be provided from the passage, with the door swing against the wall. No solid cell door to be provided.

6.5 ELECTRICAL

- 6.5.1 Lights in the kitchen yard to be fixed against the walls between the yard and passage, directly under steel mesh, preferably at a minimum of **3,7 metres** from the finished floor level. The type of light fitting to be installed is the same as for the cells. See Annexure "D".
- 6.5.2 All light fittings to be positioned similar to Annexure "A".

6.6 PLUMBING

- 6.6.1 A concrete double bowl wash trough with bib taps has to be built in as shown on Annexure "A". (**Cold water**, hose type, Bib-tap to be provided for hosing down of cell block).

7. VISITOR'S ROOM

7.1 GENERAL REQUIREMENTS

- 7.1.1 The visitor's room is to be accessed from two sides, one from the secured passage or -lobby by the detainee and the other from the outside by the public. No contact can take place between the two parties. See Annexure "A". Dividing walls between cubicles to be **230mm** brick walls built up to underside of concrete ceiling. Room to be accessible for disabled. **No electrical points at detainee's side.**

7.2 GENERAL CONSTRUCTION

- 7.2.1 The walls to be conventional **230mm** brick work walls, with a concrete ceiling, with conventional roof structure over the slab.
- 7.2.2 Walls to be painted in heavy duty, light coloured oil base coating. Proposed colours: ivory, light grey, etc. Approved undercoat Alkali resistant primer. No Contractors PVA. "See Annexure E"

- 7.2.3 The floor to be finished in a steel trowel grano finish with a **250mm high monolithic** upwards sloping concave skirting.
- 7.2.4 The finished floor level of the visitor's room is to be at least **85mm** higher than the floor level of the passage.
- 7.2.5 The entrance from the visitor's side is to be ramped, to allow for disabled access.
- 7.2.6 Seats and counters to be built in according to drawing no. POL2012/V1, V2, & V3.

7.3 WINDOWS

- 7.3.1 Cell windows and grilles have to be built into an external wall, on the detainee's side, as high as possible, in accordance with the standard drawings. The visitor's side is to be provided with a conventional window in an external wall. The security window between the two areas to be in accordance with POL2012/V1 to V3 with **16mm** diameter mild steel vertical bars at **80mm** centres over glass on detainees side.

7.4. DOORS AND GATES

- 7.4.1 A cell trellis gate to be provided from the passage, on the detainee's side. A solid meranti door type T4 with a cylinder lock to be provided on the visitor's / public's side.

7.5 ELECTRICAL

- 7.5.1 Cell type light to be fixed on the detainee's side, similar to cells, against concrete ceiling. See Annexure "D" Conventional bulkhead to be fixed on visitor's side, on ceiling. **No plugs are needed in detainees side.**

7.6 PLUMBING

- 7.6.1 Nothing to be noted.

8. PRISONER'S PROPERTY STORE (SAP22)

8.1 GENERAL REQUIREMENTS

- 8.1.1 The prisoner's property store is a secured store with built in shelves, and steel cabinets (min 4 x 300w x 450d x 1.8h) with 4 louver lockable doors preferably off the admissions area. See Annexure "A".

8.2 GENERAL CONSTRUCTION

- 8.2.1 The walls to be conventional **230mm** brick work walls, with a concrete ceiling, with conventional roof structure over the slab.

- 8.2.2 Walls to be painted in heavy duty, light coloured oil base coating. Proposed colours: ivory, light grey, etc. Approved undercoat Alkali resistant primer. No Contractors PVA. "See Annexure E"
- 8.2.3 The floor to be finish in a steel trowel grano finish with a **250mm high monolithic** upwards sloping concave skirting.
- 8.2.4 Shelving (**±350mm**) to be in accordance with drawing no. POL2012/F1.

8.3 WINDOWS

- 8.3.1 The room must be well ventilated, by means of vent bricks, or similar and approved methods, while still ensuring the security of the room.

8.4. DOORS AND GATES

- 8.4.1 A solid meranti door type T4 with a cylinder lock to be provided.

8.5 ELECTRICAL

- 8.5.1 Conventional bulkhead to be fixed to ceiling. No plugs are needed.

8.6 PLUMBING

- 8.6.1 Nothing to be noted.

9. BLANKET STORE

9.1 GENERAL REQUIREMENTS

- 9.1.1 The blanket store is for the storage of blankets and mattresses. It can be provided off the admissions area, or off the secured passage. See Annexure "

9.2 GENERAL CONSTRUCTION

- 9.2.1 The walls to be conventional **230mm** brick work walls, with a concrete ceiling, with conventional roof structure over the slab.
- 9.2.2 Walls to be painted in heavy duty, oil base coating. Proposed colours: ivory, light grey, etc. Approved undercoat Alkali resistant primer. No Contractors PVA. "See Annexure E"
- 9.2.3 The floor to be finished in a steel trowel grano finish with a **250mm high monolithic** upwards sloping concave skirting.
- 9.2.4 Shelving (**±450mm**) to be in accordance with drawing no POL2012/F1.

9.3 WINDOWS

- 9.3.1 The room must be well ventilated, by means of vent bricks, or similar and approved methods, while still ensuring the security of the room.

9.4. DOORS AND GATES

- 9.4.1 A solid meranti door type T4 with a cylinder lock to be provided.

9.5 ELECTRICAL

- 9.5.1 Conventional bulkhead to be fixed to ceiling. No plugs are needed.

9.6 PLUMBING

- 9.6.1 Nothing to be noted.

10. HOT WATER GEYSERS AND HEATPUMPS

10.1 GENERAL REQUIREMENTS

- 10.1.1 The Cell hot water system will consist of a 5Kw heatpump and a 200 Litre geyser for every two cells. (Refer to Annexure "F").
- 10.1.2 The water to be pre mixed to an acceptable temperature. (Max 25° – 30°). The engineer must determine if solar heating panels with geysers at the cell block can be utilised. Such solar panel systems must comply with the latest Standard Building Regulations.

10.2 GENERAL INSTALLATION

- 10.2.1 The 200 Litre geyser will be wall mounted with wall mounting brackets on the outside of the 230mm cell wall inside the secure service passage/duct. Refer to Annexure "F"
- 10.2.2 The heatpump will be wall mounted with wall mounting brackets on the outside of the 230mm cell wall inside the secure service passage/duct. Refer to Annexure "F"
- 10.2.3 The geyser to be fully wrapped with an appropriate geyser blanket for the purpose of hot water geyser isolation. Refer to Annexure "F".
- 10.2.4 The installation shall comprise a fully functional installation consisting of all items as required for the successful operation of the system. The exclusion of any material and/or the installation thereof shall render the system incomplete and be for the account of the installer. Refer to Annexure "F"

10.3 ELECTRICAL

- 10.3.1 The electrical supply of the heatpump will be the normal power section of the main distribution board of the cell block complex. Refer to Annexure "F"

10.4. PLUMBING

- 10.4.1 Refer to Annexure "F"

11. ADMITTANCE AREA

11.1 GENERAL REQUIREMENTS

- 11.1.1 This room is to be built onto all cell blocks under Project Five Star. This room is for the processing and booking of detainees before they are admitted to the cells. It also serves as access control for the cell block. See Annexure "A".
- 11.1.2 See POL2012/A – Admission Counter

11.2 GENERAL CONSTRUCTION

- 11.2.1 The walls to be conventional **230mm** brick work walls, with the approved high tensile steel mesh between the skins. A concrete ceiling at $\pm 3,0\text{m}$ high is to be provided over the area, with a conventional roof structure over the slab.
- 11.2.2 Walls to be painted in heavy duty, light coloured oil base coating. Proposed colours: ivory, light grey, etc. Approved undercoat Alkali resistant primer. No Contractors PVA. "See Annexure E"
- 11.2.3 The floor to be finished in a steel trowel grano finish with a **250mm high monolithic** upwards sloping concave skirting. The finished floor level has to be **85mm** higher than the secured passage.
- 11.2.4 A counter with brick support and steel trowel grano, with a drop in stainless steel prep bowl, has to be constructed in accordance with POL2012/A. See Annexure "A".
- 11.2.5 A concrete bench, similar to those in the cells has to be built against one of the walls. See Annexure "A" and POL2012/B1

11.3 WINDOWS

- 11.3.1 Cell windows and screens according to drawing no. POL2012/W1 to W3 has to be built in as high as possible from finished floor level.

11.3.2

11.4. DOORS AND GATES

- 11.4.1 A solid cell door with viewing panel and grill gate combination (as on drawing no. POL2012/D1 to D4) has to be built in, as

entrance to the admission area and secured passage. Door handles on both sides of solid doors. A trellis gate has to be built in as access to the secured lobby. See Annexure "A". When an oil jacketed boiling pot is specified for the kitchen, a wider door and frame to be installed. (See POL2012/D1A).

11.5 ELECTRICAL

- 11.5.1 Vandal proof wall and ceiling lights, as for cells, but without night-lights, are to be used throughout. See Annexure "D".
- 11.5.2 Lights to be fixed out of reach, against the ceiling and never near any element that can serve as a possible foothold. The lights to be a vandal proof fluorescent light without a night-light. See Annexure "A" and "D".
- 11.5.3 A lock-able sub-distribution board is to be installed behind the counter to house the network for the entire cell block. Two plugs and one computer plug must be provided in cell guard office. (Power skirting as per specification.)
- 11.5.4 3 way power skirting to be installed (data cable, IT cable and power point).

11.6 PLUMBING

- 11.6.1 The taps used with the prep bowl have to be robust and vandal proof as far as possible. See POL2012/A.

12. TEMPORARY HOLDING CELL

12.1 GENERAL REQUIREMENTS

- 12.1.1 This room is for the holding of detainees while they are being processed/booked. It should be directly off the admittance area. See Annexure "A".

12.2 GENERAL CONSTRUCTION

- 12.2.1 The side and back walls to be conventional **230mm** brick work walls, with the approved high tensile steel mesh between the skins in the exterior walls. The front face to be manufactured of 16 mm round bar framework, 90mm centre to centre with steel bracing, and a grill gate similar to cells. A concrete ceiling (\pm **3,0m** high) is to be provided over the area, with a conventional roof structure over the slab.
- 12.2.2 Walls to be painted in heavy duty, light coloured oil base coating. Proposed colours: ivory, light grey, etc. Approved undercoat Alkali resistant primer. No Contractors PVA. "See Annexure E"
- 12.2.3 The floor to be finished in a steel trowel grano finish with a

250mm high monolithic upwards sloping concave skirting. The finished floor level has to be **85 mm** higher than the secured passage.

- 12.2.4 A concrete bench, similar to those in the cells, **see Annexure "A"**

12.3 WINDOWS

- 12.3.1 No windows are necessary, as the area is ventilated via the gate.

12.4. DOORS AND GATES

- 12.4.1 A trellis gate (as on drawing no. POL2012/D1 to D4) has to be built in according to Annexure "A". Blank off inside keyhole.

12.5 ELECTRICAL

- 12.5.1 Vandal proof ceiling lights, as for cells, are to be used throughout. See Annexure "D".
- 12.5.2 Lights to be fixed out of reach, against the ceiling and never near any element that can serve as a possible foothold. The lights to be a vandal proof fluorescent light without a night-light. See Annexure "A" and "D".
- 12.5.3 No plugs are needed.

12.6 PLUMBING

- 12.6.1 No plumbing to this area.

13. SECURED SERVICE DUCT

13.1 GENERAL REQUIREMENTS

- 13.1.1 A secured service duct is to be built behind all external windows, to prevent access to the windows and plumbing services. See Annexure "A".

13.2 GENERAL CONSTRUCTION

- 13.2.1 The walls to be conventional **230mm** face brick walls of **±3m** high (height will be dictated by roof height and -overhang), with flush joints. Wall to be built in 3000 mm segments with an expansion joint between sections. A 460mm column to be built on each end of segment.
- 13.2.2 "Mentex 70" steel mesh to be hot dipped galvanised (according to drawing no. POL2012/G1) and to be built in over entire duct area.

- 13.2.3 A concrete apron to be provided around cell block, and extended to the screen wall in the service duct, to serve as a floor for this area.

13.3 WINDOWS

- 13.3.1 No windows are necessary.

13.4. DOORS AND GATES

- 13.4.1 A trellis gate (as on drawing no. POL2012/D1 to D4) has to be built in according to Annexure "A", at one end of the duct.

13.5 ELECTRICAL

- 13.5.1 1 Waterproof (outdoor) plug is needed in the duct.
- 13.5.2 Bulkhead light fitting to be fixed above the trellis gate and linked to the existing external lighting circuit.
One bulkhead light has to be provided between windows at max. 6 metre centres.

13.6 PLUMBING

- 13.6.1 No plumbing to this area. The main sewerage line from the cell block to be either located inside this duct or just outside it, according to National Building Regulations, with the cleaning eyes, etc. clearly marked.

14. ELECTRICAL GENERAL

- 14.1 The electrical consultant must inspect the condition of the electrical reticulation for compliance with Regulations. Everything found to be non-compliant, to be replaced or repaired under the contract. The contractor has to leave at least **10 lamps** of each type on site after completion of the contract. These are to be handed to the station commissioner for safekeeping.
- 14.2 The external lighting, especially around the cell block, has to be sufficient to ensure a secure environment. The lighting can either be wall-mounted fittings against the cell block, but not positioned as to blind any person doing inspections of the area. Another alternative is to provide conventional post top lighting on powder coated galvanised poles.
- 14.3 Where conduit has to be laid/chased in the walls or slabs (inside cells), a SABS approved PVC conduit has to be used for wiring. Where wiring has to be surface mounted (only allowed in rare circumstances, and only on external surfaces and out of reach of detainees) the type of conduit to be of the galvanised type.

- 14.4 The present bulk electricity supply has to be investigated in terms of consistency of supply, the installation of a new emergency generator needs to be investigated and included under the contract. This generator has to be able to service the essential areas in the station and cell block. (Entire cell block, security/external/passage lights, station commissioner office, entire community service centre, radio room and computer rooms). See Annexure "D". To ensure uniformity nationally, the type and size of generator to be discussed with:
- 14.5 Where needed 3-way power skirtings to be installed (data cable, IT cable and power point).

15. SECURE OFF-LAODING AREA

15.1 GENERAL REQUIREMENTS

The off-loading area must be built on to the cell admittance area under Project Five Star. This area is for save off-loading of detainees before processing and booking take place (see Annexure "A").

15.2 GENERAL CONSTRUCTION

The height of the walls of the secure off-loading to be minimum 3500 mm high x 10500 mm long. The vehicle entrance minimum 3000mm high x 4250 mm wide. The walls to be conventional 230 mm face brick walls with flush joints. (The height closer to the admittance area will be dictated by roof height and overhang) See Annexure A.

- 15.3 The floor to be finished in a steel trowel grano finish. The finished floor level has to be 85 mm lower than the cell admittance area.
- 15.4 "Mentex 70" steel mesh to be hot dipped galvanised (according to drawing No POL2012/G1) and to be built in over the entire off-loading area and to Engineer Specification.
- 15.5 Steel doors to be manufactured to POL2012/D1A.
- 15.6 Vehicle entrance gates to be manufactured to POL2012/D6, position of building and space available will determine if either a sliding gate or swing gates will be used.

16. IDENTIFICATION PARADE ROOM

16.1 GENERAL REQUIREMENTS

This room is to be built on to cell block complex under Project Five Star. It is mainly used for identification purposes.

16.2 GENERAL CONSTRUCTION

- 16.2.1 The walls to be conventional 230mm brick work walls, with the approved high tensile steel mesh between the skins.
- 16.2.2 A concrete ceiling is to be provided over the area with a

conventional roof structure over the slab.

- 16.2.3 1200x600mm acoustic suspended ceilings tiles hung from standard aluminium hangers fixed to concrete slab in only the Control Room and Waiting Rooms. (See DRW IPR/100)
- 16.2.4 To ensure that sound transfer between rooms are eliminated the walls in the Control Room to be clad with 500x500mm Needlepoint Stain proof fibre tiles to total thickness of 6mm laid in accordance with the SABS 0186-2000 fitting code of practice and fixed with an approved acrylic emulsion adhesive.
- 16.2.5 Lighting in Parade Room to be minimum seven (7) times additional intensity to those in the Control Room.
- 16.2.6 All rooms except toilets to be air-conditioned.
(Refer to **DRW IPR/100** for information and typical layout)

16.3 WINDOWS

- 16.3.1 The Viewing Panel to be min. **6000mm x 1300mm aluminium frame**. The underside of the lintol to be **2100mm from FFL**. The Viewing Panel to be positioned in the middle of the wall dividing the Control Room and Parade Room. (See DWG IPR/100)
- 16.3.2 Glazing to be provided in the aluminium Viewing Panel frame to consist of min. 9.5mm one way laminated reflective safety glass (High Impact). Colour of reflective coating to be **silver**.
- 15.3.3 Conventional steel frame windows to be used in toilets. Windows to be fitted with 12mmØ burglar bars. Windows must be positioned as far as practically possible away from each other to prohibit communication between witnesses in toilets.

16.4 DOORS AND GATES

- 16.4.1 Solid steel door to be provided for detainees entering Parade Room from cell block complex. (See DRW POL2012/D1)
- 16.4.2 All other door in ID Parade to be solid timber doors except in toilets. Toilets to receive hollow core timber doors.
- 16.4.3 Door from Control Room entering Parade Room to be a **solid timber door with handle only provided on the Control Room side**.
- 16.4.4 All doors in the Control Room to be clad with 500x500mm Needlepoint Stain proof fibre tiles to total thickness of 6mm laid in accordance with the SABS 0186-2000 fitting code of practice and fixed with an approved acrylic emulsion adhesive.

16.5 ELECTRICAL

- 16.5.1 Two way intercom system to be installed in the Control Room and Parade Room. Position of the system to be similar as indicated in DRW IPR/100.
- 16.5.2 Power points to be provided only in the Control Room and Waiting Rooms, **NO power points to be provided in Parade Room.** (See: DRW: IPR/100)
- 16.5.3 Green and Red indicator lights to be provided in the Waiting Rooms. (See: DRW IPR/100)
- 16.5.4 Please refer to Annexure "D": 'Technical Specification for Luminaries for Cell Block and Police Parade Rooms' for additional information.

16.6 RECORDING EQUIPMENT

- 16.6.1 All electrical recording equipment to be supplied by SAPS and does not form part of the building contract unless otherwise stated in writing.

16.7 PLUMBING

- 16.7.1 All plumbing in the ID Parade Room complex to be conventional plumbing fixtures and fittings to comply with SANS 10400.

17. GENERAL NOTES

- 17.1 Where the suitability of the water supply is suspect, a consultant has to be appointed as a disbursement under the architect's appointment, to do a complete investigation and compile a report about the suitability of the water for human consumption, the water pressure, the lime concentration, the consistency of the water supply, and any other relevant factors. Recommendations have to be made about booster pumps, filtering systems, de-liming systems, etc. (see 2.6.3)
- 17.2 Screen frame to be bolted at least a minimum of 6 brick layers below top edge of wall. The last eight (8) inner brick layers of the 230 mm brick walls at the following areas: cell exercise yards; kitchen yard; cell passage; maintenance passage and off-loading area are to be of solid bricks. If hollow bricks are used, holes must be filled with cement to ensure that mesh screens can be properly installed.
- 17.3 All plumbing and storm water drainage must be inspected by the consultant responsible, and be supplied under the contract. An adequate number of manholes must be provided, to enable easy cleaning, as foreign objects often block the sewerage system.
- 17.4 A **1 metre** wide apron is to be built around the cell block, where possible, but especially where there are entrances to the building.

- 17.5 Should circumstances necessitate it, changes to all or some of the aforementioned requirements will be determined by the surveying team during inspections.
- 17.6 Proposals for **similar approved products or materials** to be submitted to Division: Supply Chain Management, Expert Services, South African Police Service; through the regional office of the Department of Public Works, for evaluation and approval.
- 17.7 The perimeter- or boundary wall adjacent to the cell block has to be built as part of the contract, to ensure strict security of the area around the cell block.
- 17.8 Concrete capping must be provided on all external walls against weather with water drip.
- 17.9 Where there is no concrete roof/ceiling, and it is not possible to install a concrete ceiling, a **3mm thick mild steel plate** has to be fixed, under the existing ceiling. 3mm thick mild steel plate to be welded to steel framework and built into walls, similar to drawing POL2012/G1 (Upgrading of cells only)

THE FINAL DOCUMENTATION HAS TO BE APPROVED AND SIGNED BY SAPS: EXPERT SERVICES, PRIOR TO TENDERS. THIS SECTION HAS TO BE INFORMED OF ALL SITE MEETINGS AND PROGRESS OF THE PROJECT.

- 17.10 Signage also has to be provided under the contract. All exercise yards have to be numbered and named in the passage, namely: Male and Female. All other rooms also have to be named, e.g. Kitchen, Pantry, Visitor's Room, etc. Signage components, like plates, screws, etc. must not be accessible to detainees in the cell yards. **No cell capacity indications allowed.**
- 17.11 For more information on cell blocks or questions on this document, contact:

Expert Services

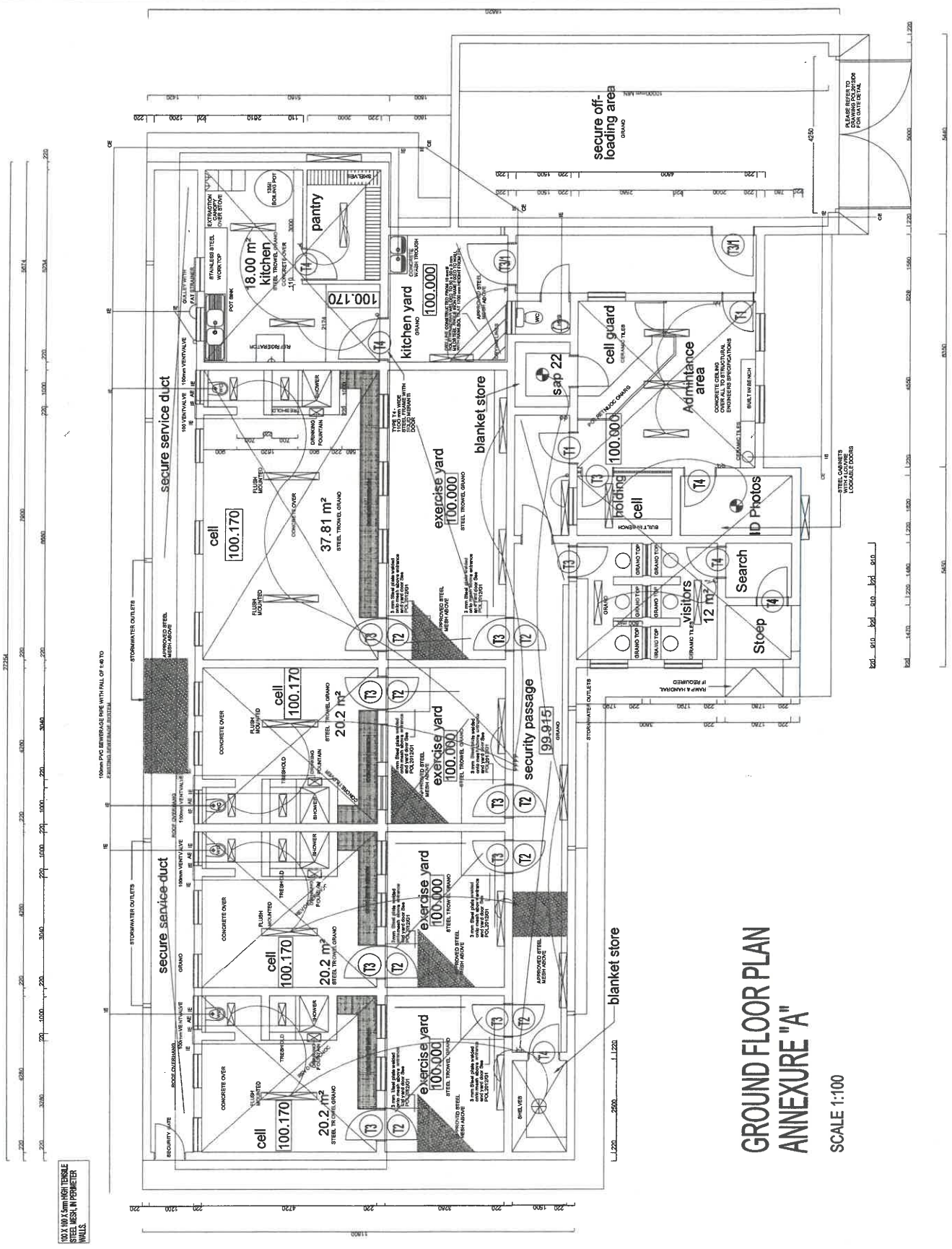
Division: Supply Chain Management
Private Bag X254
Pretoria
0001

Lt.Col. Dirk Els
(012) 845-8726 (T)
(012) 845-8762 (F)
(082) 499-0335 (C)
elsd@saps.org.za

Capt. Kobus Swart
(012) 349-6068 (T)
(012) 845-8762 (F)
(071) 688-7000 (C)
SwartKobus@saps.gov.za

- 17.12 The abovementioned office has to be kept informed as to **dates** for **site hand over**, and **ALL** dates for **site meetings**, during the construction phase. **All** site meeting minutes, etc are to be forwarded to the above address and/or fax numbers.
- 17.13 **Initial concept layouts** can be faxed to the above numbers for **inputs/comments**, to enable possible changes to be made at an early stage of the project.
- 17.14 **All steelwork and door frames** to be inspected by **Expert Services** at **manufacturers' premises** before galvanizing. (**SAPS** to supply certificate of approval).
- 17.15 **Manufacturers of cell windows**, using **manganese bars** and **overhead screens** for the entire cell complex have to submit certificates from material suppliers stating that correct material used as specified in the **5-Star specification 2012** before payment certificate can be issued.
- 17.16 The principal agent and contractor will be held responsible and liable for any deviations and additional costs due to any unapproved deviations from this **5 Star Specification**.
- 17.17 This **2012 version of the 5 STAR Specification** with all attached drawings and annexure's, supersedes the previous **2006 5 STAR Specifications** with all drawings and annexure's. The principal agent and contractors must ensure that they work from the latest specifications. The principal agent and contractor will be held responsible and liable for any deviations and additional cost due to work conducted from older specifications.

NO.	DATE	AMENDMENT	D.P.W.
<p>Copyright vests in the Department of Public Works</p> <p>NOTE</p> <p>References to trade names are used only to simplify detailing. Various similar and approved products are available and can be substituted with prior approval from SAPS SCM (Capital Services) Pretoria. Tel (012) 946 8726 Fax (012) 946 8762</p>			
<p>Call the name of the drawing ANNEXURE "A"</p>			
<p>DEPARTMENT OF PUBLIC WORKS Private Bag X65 Pretoria 0001 Tel (012) 337 2000 Director General T.M. Soku</p>			
<p>discipline ARCHITECTURAL service SOUTH AFRICAN POLICE SERVICE</p>			
<p>WCS number</p>			
<p>drawing file</p>			
<p>ANNEXURE "A" GROUND FLOOR PLAN</p>			
ref no	designed	scale	As Shown
date	JULY 2012	drawn	K. SWART
type number	checked	date	
drawing number			

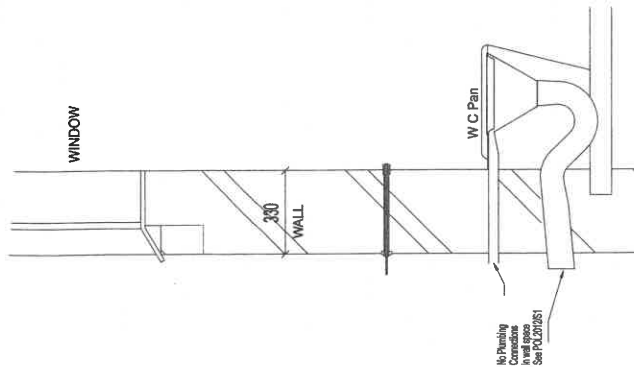


GROUND FLOOR PLAN ANNEXURE "A"

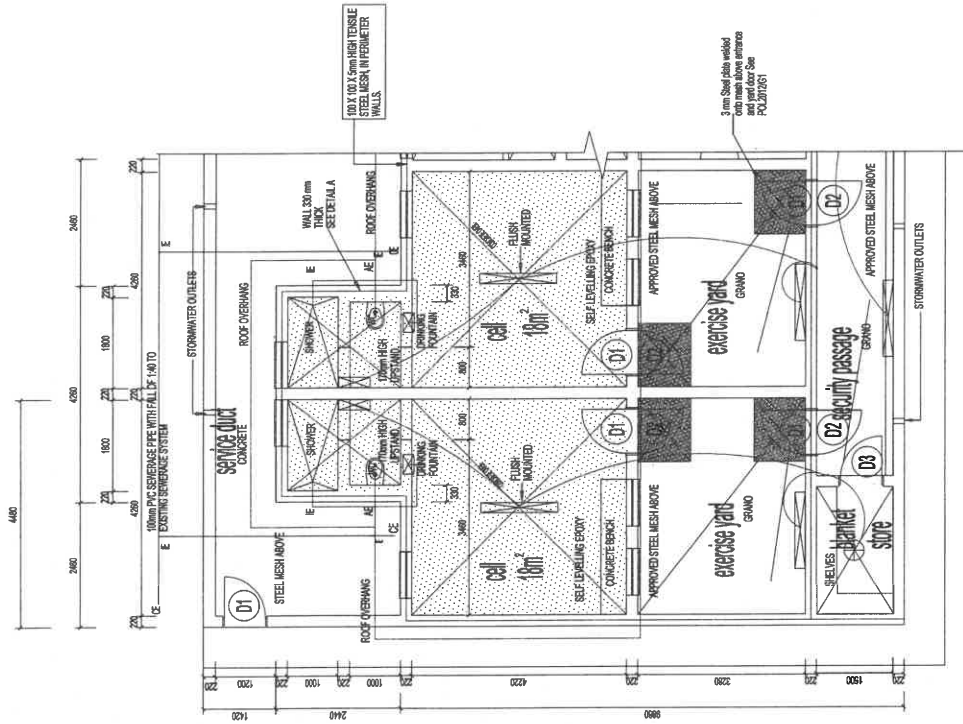
SCALE 1:100

SAPS 5-Star link to DPW Website:

http://www.google.com/url?q=http://www.publicworks.gov.za/PDFs/consultants_docs/2013/2/5%2520Star%2520Specifications%2520for%2520Police%2520Cells%2520%25202012.pdf&sa=U&ei=V5AFU5vh086A7QaN24GIBA&ved=0CA0QFjAA&usg=AFQjCNGhtMKk_VtDyWoTlGXC06dLkprj2A



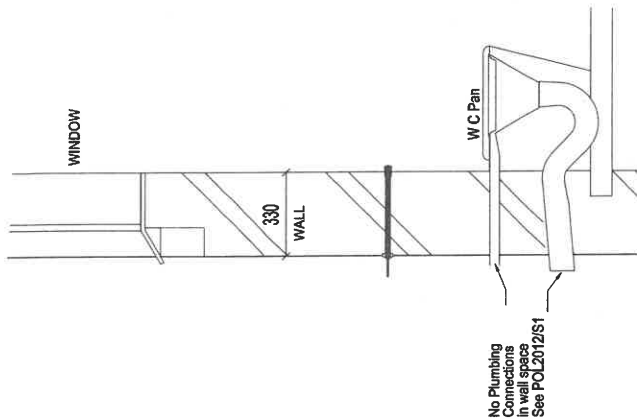
DETAIL A
SCALE 1:20



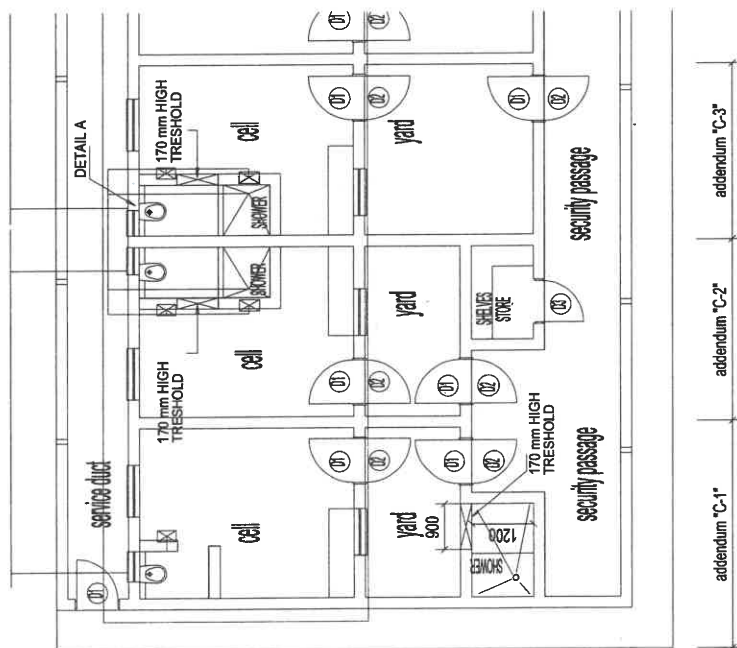
GROUND FLOOR PLAN
ANNEXURE "B"
SCALE 1:100

NO.	DATE	AMENDMENT	D.P.W.
<p>Copyright vests in the Department of Public Works</p> <p>NOTE References to trade names are used only to simplify detailing. Various similar and approved products are available and can be substituted with prior approval from SAPS SCM (Capital Services) Pretoria. Tel (012) 865 6726 Fax (012) 865 6762</p>			
<p>and the name S. ST. & DRIV ANNEXURE "B"</p>			
<p>DEPARTMENT OF PUBLIC WORKS Private Bag X85 Pretoria 0001 Tel (012) 337 2000 Director-General: T.M. Solukutu</p>			
<p>designs ARCHITECTURAL service SOUTH AFRICAN POLICE SERVICE</p>			
<p>WCS number</p>			
<p>drawing title ANNEXURE "B" GROUND FLOOR PLAN</p>			
ref no	designed	drawn	checked
scale	As Shown	drawn	K. SWART
date	JULY 2012	checked	
type number			
drawing number			

NO.	DATE	AMENDMENT	D.P.W.
<p>Copyright vests in the Department of Public Works</p> <p>NOTE References to trade names are used only to simplify detailing. Various similar and approved products are available and can be substituted with prior approval from SAPS SCM. Ernest Sechane Pretoria. Tel (012) 845 8726 Fax (012) 845 8762</p>			
<p>used file name S-44-01.DRW ANNEXURE "C"</p>			
<p>DEPARTMENT OF PUBLIC WORKS Private Bag X65 Pretoria 0001 Tel (012) 337 2000 Director-General T.M. Sokutu</p>			
<p>ANNEXURE "C" GROUND FLOOR PLAN</p>			
<p>discipline ARCHITECTURAL service</p>			
<p>SOUTH AFRICAN POLICE SERVICE</p>			
<p>WCS number</p>			
<p>drawing title</p>			
<p>scale As Shown</p>			
<p>date JULY 2012</p>			
<p>type number</p>			
<p>drawing number</p>			

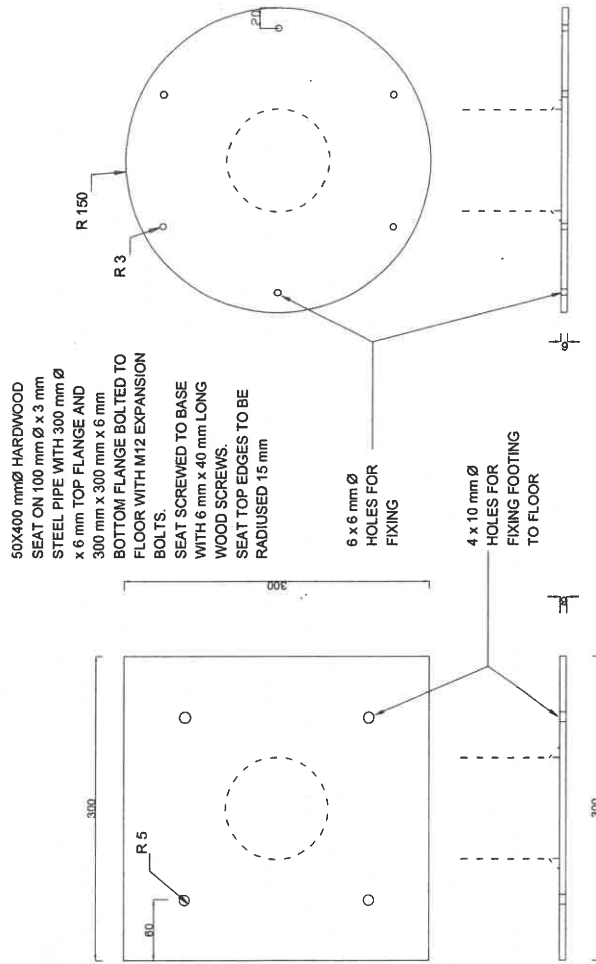


DETAIL A
SCALE 1: 20



GROUND FLOOR PLAN
ANNEXURE "C"
SCALE 1:100

NO.	DATE	AMENDMENT	D.P.M.
Copyright vests in the Department of Public Works			
NOTE References to trade names are used only to simplify detailing. Various similar and approved products are available and can be substituted with prior approval from SUPS LOGISTICS (Expert Services) Pretoria. Tel: (012) 346 0726 Fax: (012) 345 0702			
and file name PUB-CELL CHAIR DETAIL DRW CELL DOOR			
consultant/departmental			
discipline ARCHITECTURAL service SOUTH AFRICAN POLICE SERVICE			
WCS number			
drawing title CELL CHAIR FIXING DETAILS			
author	designed	scale	drawn by
As Shown	drawn by	checked	SWART
date	JULY 2012	type number	SKETCH
drawing number			



**CELL CHAIR SEAT PLATE
FIXED TO WOODEN SEAT**
SCALE 1:5

**CELL CHAIR FOOTING
FIXED TO FLOOR**
SCALE 1:5

SUID-AFRIKAANSE POLISIEDIENS**SOUTH AFRICAN POLICE SERVICE**

Verwysing
Reference:
Navrae
Enquiries
Telefoon
Telephone
Faksnommer
Fax number

**DIV COMMISSIONER
SUPPLY CHAIN MANAGEMENT
PRIVATE BAG X254
PRETORIA
0001**

2012-07-10

To whom it may concern

**SAPS : NEW AND EXISTING CELLS TO FIVE STAR SPECIFICATIONS
PROBLEMS WHICH ARE ALWAYS OVER LOOKED**

1. Cells

- 1.1 Drinking fountains to be built in screen walls at a minimum height of 1200 mm from floor height (see Pol 2006/S2).
- 1.2 A threshold to be built at shower/toilet area for water not to run into cell area.
- 1.3 The concrete bench must be built against the wall dividing the cell and the cell yard.
- 1.4 Solid cell door bow handles to be fixed with monobolts against frame and plate.
- 1.5 All hinges to be greased, set at the correct height and then to be tag welded and cold galvanized painted.
- 1.6 At least a 2 mm key hole cover plate welded to door/gate and cold galvanized painted where necessary.
- 1.7 Opening for meals in all grill gates and welding to Pol 2006/D4.
- 1.8 All visible bolt heads must be tag welded as well as the seat frames in the visitors room (cold galvanized paint).
- 2.0 See the cell WC pan detail for securing purposes. (No visible bolt heads) Pol 2006/S1.
- 2.1 A concrete washing trough to be installed with heavy duty "bib" taps. Only the cold water tap to be a hose type and hot water a union type.
- 2.2 The pot wash sink to be provided with heavy duty "bib" taps.
- 2.3 Splash back tiles behind stove and sink.

-2-

- 2.4 Provide a drying line constructed of R10 reinforced rods, or solid rods, welded to 50 mm x 50 mm mild steel angle iron sections.
- 2.5 Prisoner's visitor detail of aluminium frame to SAPS standard.

- 2.6 Provide security frame on visitor's side.
- 2.7 Close breeze block openings with steel mesh (store rooms and passages).
- 2.8 All screen walls to the toilet and showers are to be 230 mm walls, built up to concrete slab / ceiling.
- 2.9 If any dividing wall is built in the prisoners visitors room, it must be a 230 mm wall.
- 2.10 Where the finish of walls is face brick, the joints have to be filled in flush with the surface.
- 2.11 All steel doors, windows and grills must be inspected at the manufacturer's premises before delivery to site.
- 3. **Electrical**
- 3.1 Lights in the exercise yard to be fixed directly under steel mesh.
- 3.2 No open fluorescent tubes (visitors room, kitchen or stores).
- 3.3 All light fittings to be fixed against concrete ceilings with 70 mm x 8 mm anchor sleeves.
- 3.4 Light switches to be watertight rotatable switchgear, of an industrial type.
- 3.5 Lights in the passage to be fixed out of reach, against the ceiling / wall mounted and never near any element that can serve as a possible foothold.
- 3.6 Cell type lights to be fixed in the exercise yards, similar to cells without a night light.
- 3.7 An extractor hood has to be provided over the stove in the kitchen.
- 3.8 Make sure all lights in cells are vandal proof fluorescent lights with a built in PL9 night light.
- 3.9 The specification do not allow an electrical point in the prisoner's visitor side, exercise yards and passages.

SECTION HEAD : EXPERT SERVICES

**SAPS
5-STAR PROJECT**

PAINT SPECIFICATIONS

UPGRADE OF PAINTED SURFACES

SPECIFICATIONS FOR THE UPGRADE OF PAINTED SURFACES

Cleaning of unsound surfaces - plaster cracks and holes, peeling paint, lichen and algae, dirt and debris, greasy, chalky, and powdery surfaces.

Dirty, greasy surfaces, as well as paint coatings that have chalked, should be washed with a solution of SUGAR SOAP, or a water-soluble degreaser.

Rinse the complete wall surface thoroughly with clean water, removing residues of the cleaning solution and at the same time cleaning off dirt and debris from the walls.

The following conditions may cause poor adhesion of paint:

Moisture within the structure.

Friable or powdery substrate.

Numerous or excessively thick paint coatings.

Plaster cracks.

All loose and flaking paint should be removed down to sound substrate, using a sharp paint scraper and firm hand pressure. It is not necessary to remove well-bonded layers of paint.

Any existing waterproofing membrane must be completely removed.

Chalked and friable filling material must be removed.

It is recommended that crosshatch tests be done on all areas where the adhesion of paint is suspect.

Edges of tightly bonded paint are to be “feathered” with coarse to medium grit sandpaper to smooth them off and provide an even surface. The sanding will also serve to provide a profile.

Opened cracks, as well as all damp areas should be scrubbed with either of the following solutions in order to kill lichen and fungal growth: HTH (chlorine) and water 1 - 4 (20% solution), or JIK (sodium hypochlorite).

Ensure that the cracks are completely saturated, and allow the solution to react for a minimum of four (4) hours.

Rinse the complete wall surface thoroughly with clean water, removing residues of the cleaning solution and at the same time cleaning off dirt and debris from the walls.

The best method of cleaning away debris from walls is by high-pressure water blast - using a rotating nozzle, at a pressure of between 150 to 250 bars.

Filling of unsound surfaces - plaster cracks and holes, as well as the treatment of delaminating plaster.

It is recommended that all existing plaster with extensive crazed cracking be removed and re-plastered. Parapet wall tops between cells should be waterproofed (see below).

Every crack must be opened as follows:

Fine hair cracks (-0,3 mm) may just be sanded lightly.

Medium cracks (+0,3 mm and -2 mm) are to be raked out with a scraper blade.

Large cracks (+2 mm) must be opened out with a carborundum disk in an inverted V-shape to 3 mm or larger.

Medium cracks and holes should be filled with PROFILL, in accordance with the manufacturer's instructions.

Large cracks, as well as cracks occurring at joints or around windows, which are subject to movement, are to be filled with a soft, flexible crack filler, such as PRATLEY FLEXISEAL. Ensure that the FLEXISEAL is forced right inside the crack and filled to the top. An industrial pump-gun may be used for this purpose.

It is recommended that all filling material be removed from joints and replaced with PRATLEY FLEXISEAL, or similar.

VERY LARGE CRACKS may be cleaned and wetted, then filled with a sand/cement mix.

Plaster of which the adhesion is suspect (de-lamination) must be removed down to sound brickwork, and replaced.

Mortar, which is soft and friable, must be scraped out between the bricks and replaced.

Water ingress on parapet wall tops

After all defects have been remedied in accordance with the instructions in this specification, all causes of water ingress must be established and cured. The waterproofing should be done after cleaning and filling; and just before the final finishing coats of paint.

One of the recommended methods of waterproofing is with an approved high build and membrane water proofing system. The system should be taken up, over, and down parapets, and extended 10 cm down the sides. Special care should be taken to work the waterproofing system well into the substrate to prevent capillary reaction (water cohesion), thereby causing water ingress again.

Unsound Concrete

Concrete where carbonating occurs must be chipped away and removed. Ensure that all concrete areas with a negative Ph (less than 12) be removed and repaired.

Damaged and rusted steel reinforcing is to be prepared and painted in accordance with an approved paint supplier specification for structural steel. If left un-remedied, it may lead to further contamination of the concrete.

V-Joints, and medium to large cracks and holes may be filled with a flexible exterior crack filler in accordance with the manufacturer's instructions. We recommend PRATLEY FLEXISEAL - pure acrylic mastic.

Suspected water leaks within the structure or on roofs.

All causes of water ingress and leaks on roofs or within the structure, such as blocked or rusted pipes, must be established and repaired, or replaced. The walls must be allowed to dry out thoroughly - no more than 12% moisture content.

Rising dampness at or near ground level.

Floors in showers, toilets, and kitchens: In order to protect the walls from rising dampness, it is recommended that the floors be given an upwards sloping, concave skirting.

Rising dampness is a common cause of paint failure at or near ground level if the plaster has been continued below ground level, thereby breaching the damp proof course.

A reputable waterproofing specialist should remedy the problem in accordance with approved waterproofing methods. Alternatively, the following reasonably simple method may be used to remedy the situation:

Using an angle grinder, cut a slot through the plaster as near to ground/paving level as possible, the entire length of the wall (the width of a masonry disc is sufficient), until red brick dust is noticed.

Blow out all dust and debris, and fill the slot with PRATLEY FLEXISEAL, or similar product, flush with surrounding plaster.

Allow to dry/cure thoroughly. This acts as a second damp proof course and should prevent further problems.

Below the slot, remove all the paint and coat with a RUBBERISED WATERPROOFER.

Above the slot, remove all paint and efflorescence and allow the wall to dry out thoroughly. Fill any cracks or holes in the bare plaster with PROFILL, or similar product, and allow to dry/cure. Finish with the required coating system.

Efflorescence and lime bloom.

Efflorescence and lime bloom are a result of water within the structure, dissolving salts and lime, then evaporating and leaving a white deposit 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.

Repainting of damaged painted surfaces

Where newly painted walls have been damaged, the same principle applies as for the redecoration of existing surfaces - *any patching must be done from corner to corner.*

Where patching is done on a wall, there will be a colour difference due to the extra depth of colour on that one spot.

The patch will also stand slightly proud on the walls, which will result in an uneven appearance, from which the light reflectance will differ.

Touch-ups and patching are usually done with a brush and these brush marks will contribute to the difference in appearance, against a background where a roller was previously used.

The effect of spot-patching are usually done with a brush and these brush marks will contribute to the difference in appearance, against a background where a roller was previously used.

Before painting can commence, every problem must be remedied in strict accordance of the Paint Supplier specifications, after which the surfaces must be allowed to dry out thoroughly - the moisture content should not exceed 12%.

Apply COAT 1 as a patch primer (alkali resistant primer) taking special care to seal bare and repaired substrate areas. COAT 1 may be thinned up to 15% with mineral turpentine to aid absorption.

Finish with COATS 2 and 3 to achieve a closed film and solid colour.

“ANNEXURE F”

EXTERIOR AND INTERIOR MILD STEEL DOORFRAMES, WINDOW FRAMES, MESH GRILLES

Inspect surface thoroughly. Use paint remover, scraping or other suitable means to remove all loose and defective paint.

All corrosion products must be removed from the bare steel. Rusted areas may be wire-brushed, chipped or sanded until a bright metal condition is achieved.

Edges of tightly bonded paint are to be “feathered” with sandpaper to smooth them off and provide an even surface. The sanding will also serve to provide a profile.

Clean bare steel patches with a solvent wash (rags dipped in lacquer thinner). Change rags frequently.

NB: A rust remover may be used on areas where hand cleaning is ineffective.

To clean, rust-free steel areas, apply COAT 1 as a patch primer, and allow overnight drying.

Apply COAT 2 as an overall undercoat to the whole surface, and allow overnight drying. COAT 2 may be used to build-up flaked patches.

Finish with COATS 3 AND 4, to achieve a closed film and solid colour.

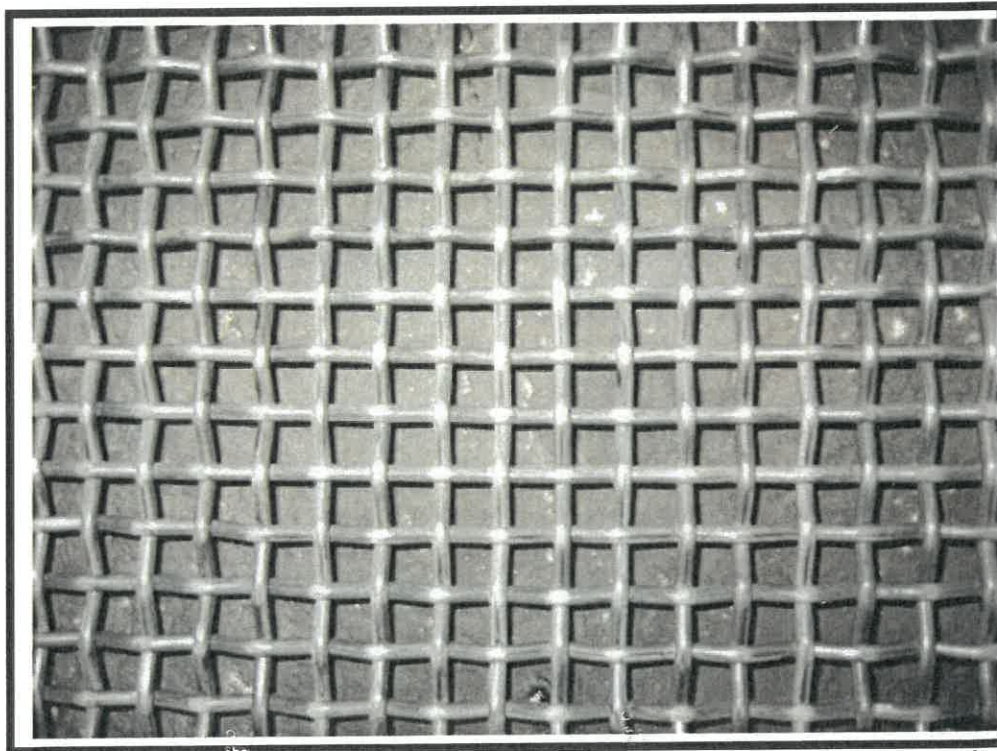
The spreading rate per square metre per litre is approximate only as it may be influenced by profile, texture or porous surfaces.

	<u>COATING SYSTEM</u>
COAT 1 Patching	APPROVED PAINT SUPPLIER SPECIFICATION PRIMER FOR STEEL
COAT 2	UNIVERSAL UNDERCOAT
COAT 3	GLOSS ENAMEL
COAT 4	GLOSS ENAMEL

Annexure G

Galvanised Carbon Hardened Woven Steel Mesh

- Mesh Aperture : 10.00 mm x 10.00 mm
- Wire Diameter : 4.80 mm
- Coating : High Carbon (Spring Steel)
Hot Dipped Galvanised SABS 763
(Before weaving) ISO 1461
- Weave Type : SW
- Company : Screenex wire Weaving Manufacturers
- Assist. Sales Manager : Basil Shelver
- Tel number : (011) 864 2773
- Fax number : (011) 864 6800

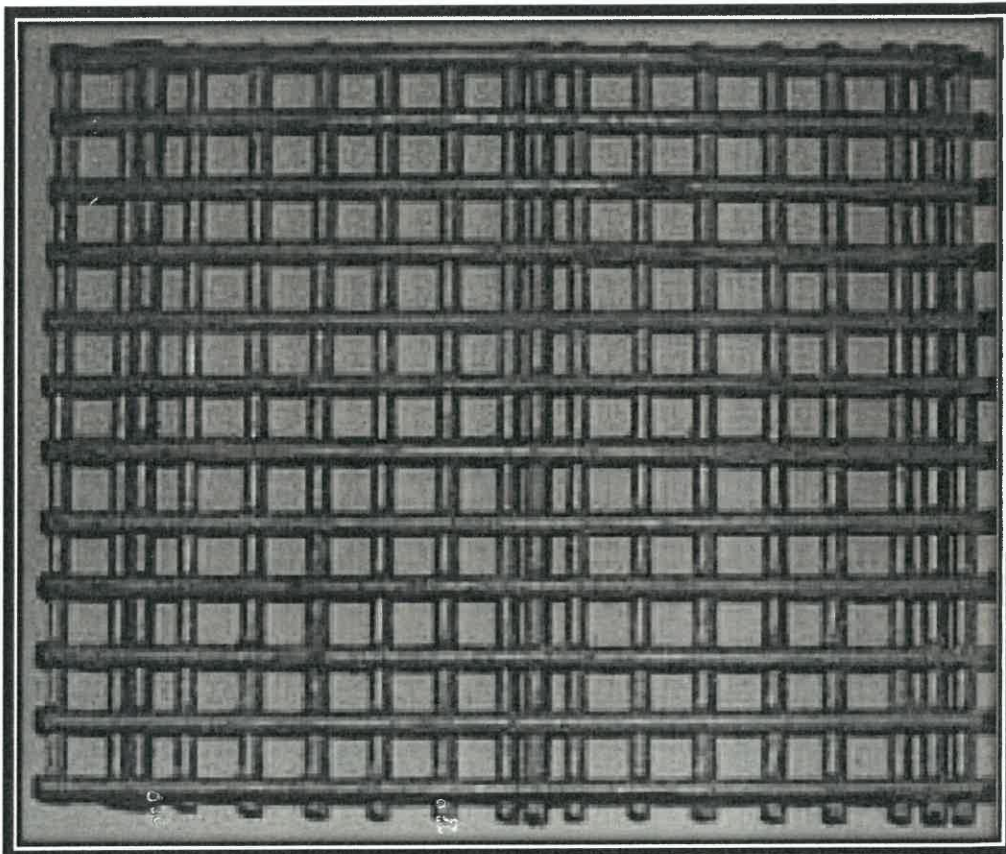


N.T.S.

Annexure H

358 Betafence Doubleskin (Zincalu) Welded Mesh

- Mesh Aperture : 8.70 mm x 8.70 mm (Inner)
- Wire Diameter : 4.00 mm Horizontal
- Coating : Zincalu coated in accordance to SANS 10244-2
- Company : Betafence
- Sales Consultant : Johan Goosen
- Cell number : 082 560 5656
- Tel number : 021 868 7300
- Fax Number : 021 868 7301



N.T.S.

WORK INSTRUCTION**IB BETAFENCE****TOUCH-UP OF HOT DIPPED GALVANIZING/ZINCALU**

WI : 83.7

Page : 1 of 1

Date : 05 July 2012

This instruction is applicable to all hot dipped galvanized and zincalu products.

This practise does not intend to preclude any practice that has proven equal or even better performance under varying conditions as weather, rain and sun.

1. INSTRUCTION

When any damages or uncoated areas are found the following instruction is applicable:

- The affected area must be cleaned by means of a wire brush, sand paper or file to ensure the area is smooth and free from rust or any other contamination.
- Before touch up ensure to check the technical data sheet of the coating supplier and apply in accordance with his guidelines.
- Bright, un-galvanized surfaces must be covered with Zinga Spray or Spanjaard – Cold Zinc Galv Spray.
- Shake can to free agitator balls before commencing with touch up.
- Apply the coating by spraying evenly 20cm from surface.
- Apply four (4) coats for the best protection - the thickness should be about 100µm or as specified by the paint supplier.
- Allow drying time between coats.
- If it is require to enhance the touched up area aesthetically, spray a thin layer of silver lacquer spray for a more shiny finish

2. REMARKS

Betafence guarantees the quality of the touch ups if "Betafence approved paint" is used and applied in accordance with the directives of the paint supplier. Betafence cannot take any responsibility if any other paint is used, or approved paint is not applied as specified.

For internal use: BETAFENCE only

Compiled by: A Venter

Approved by: G Wegener

Off line printed copy is uncontrolled. Check BFS A U:\drive (company data (\\bfs\server))

**FUNCTIONAL REQUIREMENTS & SPECIFICATION
FOR SAPS CELLS HEATPUMPS**

**SOUTH AFRICAN POLICE SERVICE
NATIONAL**

OCTOBER 2011

SOUTH AFRICAN POLICE SERVICE - NATIONAL
Functional Requirements & Specification
For Holding Cells Heatpumps

INDEX

ITEM	DESCRIPTION	PAGE
1	INTRODUCTION	3
2	INSTALLATION SPECIFICATION	3
3	HEATPUMP SPECIFICATION	3

1. INTRODUCTION

The purpose of this specification is to provide the requirements, in terms of supply and installation, of hot water geysers and heatpumps for new premises holding cells.

2. INSTALLATION SPECIFICATION

The holding cell hot water system will consist of a 5kW heatpump and 200 liter geyser, installed in the service passage. The geyser will be installed with the hot water outlet at an equal height as the through wall hole to the dispensing unit. The heatpump will be installed with the hot water outlet at a height equal to the inlet of the geyser. The hot water outlet of the geyser shall be not further away than 1 meter from the through wall hole to the dispensing unit.

The geyser will be wall mounted with wall mounting brackets specifically designed for wall mounting of the specified geyser. The geyser will be fully wrapped with a geyser blanket of the correct size and will be specifically designed for the intended purpose of hot water geyser isolation.

The heatpump will be wall mounted with wall mounting brackets specifically designed for wall mounting of the specified heatpump and be correctly rated for the weight of the unit.

The electrical supply of the heatpump will be obtained from the normal power section of the main distribution board of the facility. A 20A 1-pole circuit breaker with prospective fault current rating equal or above the distribution board fault current rating will be installed in the distribution board. The mounting interface of the circuit breaker will be the same as that of the distribution board. No mounting adapters will be allowed for the mounting of the circuit breaker.

In the event of the electrical distribution being of three phase type the installation of the heatpump will include load balancing of the electrical load.

The supply wiring from the distribution board to the heat pump isolator shall be made of 6mm² PVC insulated (general purpose house wire) or 6mm² twin plus earth surfix wiring. Both types of wiring will be installed along the complete route, from distribution to heatpump isolator, in a 20mm diameter galvanised conduit route mounted on galvanised raised saddles, elbows, draw boxes and conduit ends. PVC conduit routes installed within brick walls, concrete walls and slabs will be permissible. No cable joints will be allowed.

A 30A 2-pole isolator will be wall mounted within 1 meter from the heatpump unit and at the opposite side of the heatpump as the geyser unit. The isolator will be mounted within a weather proof enclosure with sliding lid.

The heatpump unit must be earthed to the earth bar within the electrical distribution board.

The Certificate of Compliance (COC) for the premises will include the electrical installation made for the heatpump system. If the heatpump system installation is made as a separate installation a COC must be issued separately for the complete electrical installation of the heatpump system.

All water piping that forms part of the installation shall be insulated for heat loss using only insulation material specifically designed for the intended purpose. The return cycle water pipe between the geyser and heatpump will also be fully insulated.

The installation shall comprise a fully functional installation consisting of all items as required for the successful operation of the system. The exclusion of any material and/or the installation thereof shall render the system incomplete and be for the account of the installer.

The electrical installation shall be made in accordance to SANS 10142, National Building Regulations and this specification.

On the date of first delivery inspection the contractor must have two handover files available, containing the following documentation:

- Certificate of compliance
- Equipment manuals
- Contractor company profile including all contact details
- As built drawings

3. HEATPUMP SPECIFICATION

ITEM	MIN /MAX	UNIT	SPECIFICATION
Cycle			Split Cycle Heating
Heating Capacity	Minimum	kW	5.0
Rated Power Input	Maximum	kW	1.29
Power Input	Maximum	kW	1.75
Power Supply		Voltage	220 - 240
		Phase	Single
		Hz	50
Recovery Period (250 Liter Water Tank Capacity)	Maximum	Hours / Minutes	2 Hours 4 Minutes
Hot Water Yield	Minimum	m ³ / Hour	0.11
Water Outlet Temperature		°C	50°C (Default), Adjustable Between 40°C to 55°C
Diameter, Water Inlet Pipe		mm	DN15
Diameter, Water Outlet Pipe		mm	DN15
Refrigerant		mm	R410a / R407
Rated for Water Tank Capacity	Minimum	L	250
Net Dimensions (Width x Height x Depth)		mm	790x736x260
Net Weight / Gross Weight		kg	62 / 66
Noise Level	Maximum	dB(A)	55

South African Police Service
Accredited manufacturers - cell doors and windows.

Techniweld Engineering.

Contact Person: Neels Pieterse
Contact Details: 082 784 2464 / 015 491 2638
Email: techniweld@telkomsa.net

Yebo Windows and Doors.

Contact Person: Johan / Cobus Kilian
Contact Details: 012 333 6689 / 083 463 1153
Email: yebo@mweb.co.za

SOUTH AFRICAN POLICE SERVICE



PROJECT FIVE STAR 2012

SPECIFICATIONS FOR NEW AND EXISTING POLICE CELLS

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GOVERNMENT NOTICE

DEPARTMENT OF HEALTH

No. R. 962

23 November 2012

FOODSTUFFS, COSMETICS AND DISINFECTANTS ACT, 1972 (ACT 54 OF 1972)

REGULATIONS GOVERNING GENERAL HYGIENE REQUIREMENTS FOR FOOD PREMISES AND THE TRANSPORT OF FOOD

The Minister of Health has in terms of section 15(1)(n), where applicable, read with section 15(7)(b), of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), made the regulations in the Schedule.

SCHEDULE

Definitions

In these regulations any word or expression to which a meaning has been assigned in the Act shall have such meaning and, unless the context otherwise indicates –

“**animal**” means any member of the animal kingdom;

“**available**” includes available elsewhere than on the food premises in question;

“**best available method**” means a method which is practicable and necessary for the protection of food against contamination or spoilage, having due regard to local conditions and circumstances whether at or on food premises or elsewhere, the prevailing extent of established practice and the financial implications thereof;

“**certificate of acceptability**” means a certificate of acceptability referred to in regulation 3;

“**clean**” means free of any dirt, impurity, objectionable matter or contamination to the extent that a state of hygiene is attained, and “**keep clean**” has a similar meaning;

“**container**” or “**food container**” includes anything in which or with which food is served, stored, displayed, packed, wrapped, kept or transported and with which food is in direct contact;

“**contaminate**” means the effect exerted by an external agent on food so that it –

- (a) does not meet a standard or requirement determined by any law;
- (b) does not meet acceptable food hygiene standards or consumer norms or standards; or

(c) is unfit for human consumption;
and **"contamination"** has a corresponding meaning;

"core temperature" means the temperature reading taken in the estimated centre of the food;

"facility" means any apparatus, appliance, equipment, implement, storage space, working surface or object used in connection with the handling of food;

"food" means a foodstuff intended for human consumption as defined in section 1 of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), excluding food referred to in regulation 14;

"food handler" means a person who in the course of his or her normal routine work on food premises comes into contact with food not intended for his or her personal use;

"food premises" means a building, structure, stall or other similar structure, and includes a caravan, vehicle, stand or place used for or in connection with the handling of food;

"good manufacturing practice" means a method of manufacture or handling or a procedure employed, taking into account the principles of hygiene, so that food cannot be contaminated or spoiled during the manufacturing process;

"handle" includes manufacture, process, produce, pack, prepare, keep, offer, store, transport or display for sale or for serving, and **"handling"** has a corresponding meaning;

"hands" includes the forearm or the part of the arm extending from the wrist to the elbow;

"health hazard" includes any condition, act or omission that may contaminate or spoil food so that consumption of such food is likely to be dangerous or detrimental to health;

"inspector" means a person contemplated in section 10 of the Act

"perishable food" means any foodstuff which on account of its composition, ingredients, moisture content and/or pH value and of its lack of preservatives and suitable packaging is susceptible to an uninhibited increase in microbes thereon or therein if the foodstuff is kept within the temperature spectrum of 4oC to 65oC, and includes the perishable foodstuffs listed in Government Notice No. R.1183 of 1 June 1990, as amended, excluding fruit and vegetables;

"person in charge", with regard to any food premises, means a natural person who is responsible for the food premises and/or the owner of such food premises, as the case may be;

"prepacked food", means food which, before it is presented for sale or for serving, has been packed as contemplated in regulation 7(3);

"ready-to-consume food" means any perishable food which may be consumed without having to undergo any further process of preparation to make it consumable;

“serve” includes the provision of food whether for a consideration or otherwise;

“the Act” means the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);

“thermometer” means an apparatus which can give the temperature readings referred to in these regulations, the combined accuracy of such a thermometer and its temperature-sensitive sensor being approximately 0,5°C;

“these regulations” includes any annexure to these regulations;

“unsound” means unwholesome sick, polluted, infected, contaminated, decayed or spoiled, or unfit for human consumption for any reason whatsoever;

“vehicle” means a train, trolley, wagon, cart, bicycle, sled, truck, boat, ship or aeroplane, and includes any other craft, vehicle or conveyance used in the handling or transport of food;

“water” means water that complies with the requirements set out in SANS 241: Water for domestic supplies.

Application

2. (1) A local authority which does not have the services of an inspector at its disposal for any reason may use the services of an inspector from another health authority or in private practice to exercise or execute the powers or duties of an inspector referred to in these regulations.
- (2) No provision of these regulations that is in conflict with regulations made under the Act with regard to the handling or transport of certain foods shall be valid in so far as it so conflicts.

Certificate of acceptability

3. (1) Subject to the provisions of subregulation (2) and regulation 15(5), no person shall handle food or permit food to be handled -
 - (a) on food premises in respect of which a valid certificate of acceptability has not been issued or is not in force
 - (b) in contravention of any restriction or condition or stipulation contained in such certificate of acceptability.
- (2) The provisions of subregulation (1) shall come into effect in the case of food premises existing at the time of publication of these regulations on the first day following a period of one year after the date of promulgation of these regulations.

- (3) The person in charge of any food premises wishing to obtain a certificate of acceptability in respect of such food premises shall apply therefor in writing to the local authority in whose area of jurisdiction the food premises are situated on a form containing at least the particulars that are substantially the same as those contained in the form in Annexure A to these regulations.
- (4) Upon receipt of an application referred to in subregulation (3), the local authority shall without delay refer the application to an inspector for consideration.
- (5) An inspector may, in considering such an application, request such further information as he or she may deem necessary or expedient from the applicant or from any other person.
- (6) If an inspector, after having carried out an inspection, is satisfied that the food premises concerned, having due regard to existing conditions of the adjacent land and facilities, subject to the provisions of regulations 4(2) and 15 –
 - (a) do in all respects comply with the provisions of regulations 5 and 6, a local authority shall issue a certificate of acceptability in the name of the person in charge on a form that is substantially the same as the form in Annexure B of these regulations; or
 - (b) do not in all respects comply with the provisions of regulations 5 and 6, a local authority may, subject to the provisions of regulation 4(2), grant an extension for a maximum of six months to enable the person in charge so to change or equip the food premises that they comply with the provisions in question: Provided that during the said period of extension the provisions of subregulation (1) shall not apply to the person concerned.
- (7) A certificate of acceptability shall be displayed in a conspicuous place for the information of the public on the food premises in respect of which it was issued or a copy thereof shall immediately be made available on request where the display thereof is impractical.
- (8) If the person in charge of food premises is replaced by another person, such person shall inform the local authority in writing of such replacement within 30 days after the date thereof and the local authority shall subject to the provisions of regulation 4(2), issue a new certificate of acceptability in the name of the new person in charge.
- (9) A certificate of acceptability –
 - (a) shall not be transferable from one person to another person and from one food premises to another food premises;
 - (b) shall be valid only in respect of the nature of handling set out in the application for a certificate of acceptability;
 - (c) may at any time be endorsed by a local authority by –
 - (i) the addition of any further restriction that may be necessary to

- prevent a health hazard; and
 - (ii) the removal of any restriction with regard to the category or type of food or the method of handling;
 - (d) shall expire temporarily for the period during which a prohibition under regulation 4(2) is in effect
 - (e) shall expire permanently if a prohibition referred to in regulation 4(2) is not removed within a stipulated period which shall not exceed six months from the date on which a notice was issued in terms of regulation 4(2);
 - (f) shall expire permanently if the provisions of subregulation (8) are not complied with.
- (10) No person may make any unauthorised changes or additions to or forge a certificate of acceptability.
- (11) Subject to the provisions of sub-regulation 3(8), sub-regulation 3(9) and sub-regulation 4(2), where applicable, a certificate of acceptability issued prior to the commencement of these regulations in terms of the regulations published in Government Notice No. R. 918 of 30 July 1999 shall be deemed a certificate of acceptability issued in terms of these regulations.

Prohibition on the handling and transportation of food

- 4. (1) No person shall handle food in a manner contrary to the provisions of these regulations.
- (2) If an inspector following an inspection of food premises or a facility is of the opinion –
 - (a) that such food premises or facility –
 - (i) are or is in such a condition or used in such a manner; or
 - (ii) do or does not comply with these regulations to the extent;
 - (b) that a particular activity with regard to the handling of food takes place in such a manner; or
 - (c) that such circumstances exist with regard to the food premises or facility or any other activity, that they or it constitute a health hazard and that the continued use of the food premises or facility or the activity should be prohibited, the local authority may summarily prohibit the use of the food premises or facility for the handling of food or any of the activities that relate to the handling of food, by serving a written order on the person in charge or, if he or she is not available, his or her representative informing such person of the prohibition.
- (3) A notice referred to in subregulation (2) shall contain at least the following particulars:

- (a) The reason(s) for the prohibition;
 - (b) a statement that the prohibition will in writing be removed by a local authority as soon as the reason(s) for the prohibition has (have) been removed and provided the inspector is satisfied that the reason(s) for the prohibition is (are) not likely to recur.
- (4)
 - (a) A prohibition shall come into operation from the time at and the date on which a notice is served under subregulation (2).
 - (b) No person shall perform any act that is contrary to such prohibition.
- (5) An inspector shall, within 72 working days hours of receiving a request for the removal of a prohibition, carry out an investigation of the food premises, facility, activity or circumstance which gave rise to the prohibition and the local authority shall upon completion of such investigation in writing inform the person on whom the prohibition notice was served or, if he or she is not available, any other person representing such person that the prohibition has been removed or remains, as the case may be.
- (6) A local authority may levy an inspection fee equivalent to the expenses incurred by the local authority for carrying out the inspection on the person in charge for each investigation carried out by an inspector in terms of subregulation (5).

Standards and requirements for food premises

- 5. (1) Subject to regulation 15 no person shall handle food elsewhere than on food premises that meet the requirements of this regulation and regulation 6.
- (2) Food premises shall be of such location, design, construction and finish and shall be so equipped, in such condition and so appointed that they can be used at all times for the purpose for which they were designed, equipped and appointed –
 - (a) without creating a health hazard; and
 - (b) in such manner that food –
 - (i) can be handled hygienically on the food premises or with the equipment thereon; and
 - (ii) can be effectively protected by the best available method against contamination or spoilage by poisonous or offensive gases, vapours, odours, smoke, soot deposits, dust, moisture, insects or other vectors, or by any other physical, chemical or biological contamination or pollution or by any other agent whatsoever.
- (3) For the purposes of subregulation (2) food premises shall meet the following requirements;
 - (a) All interior surfaces of walls, sides or ceilings, or of roofs without ceilings, and the surfaces of floors, or any other similar horizontal or vertical surfaces that form part of or enclose the food-handling area

- shall-
- (i) have no open joints or open seams and shall be made of smooth, rust-free, non-toxic, cleanable and non-absorbent material that is dust-proof and water-resistant: Provided that in a food-serving or storage area -
 - (aa) facebrick;
 - (bb) similar walls the joints of which are formed properly or are so formed and finished that they are easy to clean; or
 - (cc) decorative wall or ceiling finishes which are easy to clean,may be used;
 - (ii) be of such a nature that they cannot contaminate or contribute to the contamination of food.
- (b) Each room of food premises shall be -
- (i) ventilated effectively by means of -
 - (aa) natural ventilation through openings or openable sections which are directly connected to the outside air and so positioned in the external walls and/or roof that effective cross-ventilation is possible: Provided that such openings shall have a surface area equal to at least 5% of the floor area of the room concerned; or
 - (bb) artificial ventilation that complies with the requirements of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977),whichever of the two methods will facilitate the addition of adequate fresh air to and the effective removal of polluted or stale air from the food-handling area to the extent that air contaminants that could contaminate food, and that gas, vapours, steam and warm air that may arise during the handling of food are effectively removed, and that the emergence of any unhygienic or unhealthy condition in the food-handling area is prevented;
 - (ii) illuminated by means of -
 - (aa) unobstructed transparent surfaces in the external walls and/or roof which admit daylight, with an area equal to at least 10% of the floor area in the room concerned; or
 - (bb) artificial illumination which complies with the requirements of the National Building Regulations and the Building Standards Act, 1977, and which permits an illumination strength equal to at least 200 lux to fall on all food-handling surfaces in the room concerned.
- (c) Food premises shall -
- (i) have a wash-up facility with hot and cold water for the cleaning of facilities;
 - (ii) be rodentproof in accordance with the best available method:

- Provided that this requirement shall not apply in respect of food premises on which no food is handled or kept after the trading hours of the premises;
- (iii) be provided with effective means of preventing the access of flies or other insects to an area where food is handled;
 - (iv) have a waste-water disposal system approved by the local authority.
- (d) The following shall be available in respect of food premises:
- (i) The number of latrines, urinal stalls and hand washbasins specified in Annexure C to these regulations for the use of workers on the food premises and for use by persons to whom food is served for consumption on the food premises: Provided that separate sanitary facilities for workers and clients shall not be required: Provided further that where persons of only one sex or no more than ten persons work on food premises, separate sanitary facilities shall not be required for workers of different sexes;
 - (ii) hand-washing facilities which shall be provided with cold and/or hot water for the washing of hands by workers on the food premises and by persons to whom food is served for consumption on the food premises, together with a supply of soap (or other cleaning agents) and clean disposable hand-drying material or other hand-cleaning facilities or hand-drying equipment for the cleansing and drying of hands by such workers and persons;
 - (iii) liquidproof, easy-to-clean refuse containers with close-fitting lids suitable for the hygienic storage of refuse pending its removal from the food-handling area;
 - (iv) storage space for the hygienic storage of food, facilities and equipment and a suitable separate area for the hygienic storage of refuse containers on the food premises;
 - (v) a separate changing area with storage facilities for clothes;
 - (vi) an adequate supply of water.
- (e) No room in which food is handled shall have a direct connection with any area -
- (i) in which gas, fumes, dust, soot deposits, offensive odours or any other impurity is present or may arise in such a manner that food in the food-handling room could be contaminated or spoilt;
 - (ii) in which an act is performed in any manner or where any condition exists that could contaminate or spoil food in the foodhandling area;
- (f) A room in which food is handled may be connected to a room in which a latrine or urinal is situated -
- (i) only via a properly ventilated lobby: Provided that all relevant interconnecting doors shall cover the whole area of their apertures: Provided further that they shall be equipped with

- (ii) durable self-closing devices; or
- (ii) without such a lobby between them: Provided that the connecting aperture shall have a self-closing door as contemplated in item (i): Provided further that the latrine or urinal room shall be equipped with effective mechanical extraction ventilation to the outside air to render the atmosphere inside such room under a negative pressure in relation to the atmosphere in the food-handling room.

Standards and requirements for facilities on food premises

6. (1) The surface of any table, counter or working surface on which unwrapped food is handled and any equipment, utensil or basin or any other surface which comes into direct contact with food shall be made of smooth, rust-proof, non-toxic and non-absorbent material that is free of open joints or seams: Provided that wooden chopping blocks, cutting boards and utensils shall not be prohibited providing such items are kept in such a condition that dirt does not accumulate thereon or therein.
- (2) No surface referred to in subregulation (1) and no crockery, cutlery, utensils, basins or any other such facilities shall be used for the handling of food if they are not clean or if they are chipped, split or cracked.
- (3) Any utensil or item which is suitable for single use only -
 - (a) shall be stored in a dust-free container until used; and
 - (c) shall not be used more than used.
- (4) A surface referred to in subregulation (1) and a facility referred to in subregulation (2) shall be -
 - (a) cleaned and washed before food come into direct contact with it for the first time during each work shift; and
 - (b) cleaned and washed, as and when necessary, during and/or immediately after the handling of food, so that contamination of the food that comes into contact with any such surface or facility is prevented, and any such surface or facility shall, before food comes into direct contact therewith, contain -
 - (i) no more than 100 viable micro-organisms per cm² upon analysis, conducted in accordance with acknowledged scientific microbiological methods of investigation, of a sample taken in accordance with the swab technique prescribed by SABS Standard Test Method 763: Efficacy of Cleaning Plant, Equipment and Utensils: Swab Technique; and
 - (ii) no remains of cleaning materials or disinfectants which may pollute the food.

- (5) (a) Every chilling and freezer facility used for the storage, display or transport of perishable food shall be provided with a thermometer which at all times shall reflect the degree of chilling of the refrigeration area of such facility and which shall be in such a condition and positioned so that an accurate reading may be taken unhampered.
- (b) Every heating apparatus or facility used for the storage, display or transport of heated perishable food shall be provided with a thermometer which at all times shall reflect the degree of heating of the heating area concerned and which shall be in such a condition and positioned so that an accurate reading may be taken unhampered.

Standards and requirements for food containers

- 7. (1) No person shall sell canned or hermetically sealed food in a container which -
 - (a) bulges at the flat or round sides or ends or one side of which bulges when the other side is pressed;
 - (b) is in any way blown or from which gas escapes when it is opened or punctured, unless
 - (i) the container contains an aerated drink; or
 - (ii) gas has been used as a preservative;
 - (c) is so rusted or damaged that it is liable to contaminate or spoil the food or that it leaks or has become unsealed;
 - (d) had a leak which was resealed.
- (2) A container shall be clean and free from any toxic substance, ingredient or any other substance liable to contaminate or spoil the food in the container.
- (3) Repacked food, depending on the type of food, shall be packed in a dustproof and liquidproof container that protects the product therein against contamination under normal handling conditions and shall be so packed or sealed that the food cannot be removed from its container without the stopper or lid or similar seal being removed or without the wrapping, container or seal being damaged.
- (4) Perishable food, excluding the products referred to in regulation 14 and products that are not prepacked, except food for consumption as meals on food premises, shall, when served to the consumer, be packed in a container that protects the food therein against contamination.

Standards and requirements for the display, storage and temperature of food

- 8. (1) Food that is displayed or stored shall not be in direct contact with a floor or any ground surface.
- (2) Any shelf or display case used for displaying or storing food or any container

shall be kept clean and free from dust or any other impurity.

- (3) Non-prepacked, ready-to-consume food, including food served as meals and displayed in an open container, shall be protected in accordance with the best available method against droplet contamination or contamination by insects or dust.
- (4)
 - (a) Subject to subregulation (5) all food specified in Annexure D to these regulations shall, excluding the time taken by the food to cool down or to be heated to the required temperature in accordance with good manufacturing practice, during the storage, transport or display thereof be kept at a core temperature not exceeding the core temperature specified in column 3 of Annexure D opposite the relevant category of food, and no food shall be sold if, in the case of frozen or chilled food products, the core temperature thereof is higher than the required core temperature or the surface temperature thereof is more than 2oC higher than the required core temperature, and, in the case of heated food products, the core temperature thereof is lower than the required core temperature or the surface temperature thereof is more than 2oC lower than the required core temperature.
 - (b) The provisions of paragraph (a) shall not apply to -
 - (i) any perishable food that will be sold directly to a consumer within one hour of being processed or prepared or that will be consumed on the food premises within one hour of being processed or prepared;
 - (ii) venison, for a period not exceeding eight hours after the animal concerned has been killed: Provided that the surface temperature thereof shall not exceed 25oC;
 - (iii) unprocessed raw fish, molluscs or crustaceans or raw meat or edible offal or the carcasses of cattle, sheep, goats, pigs, horses, mules, donkeys, rabbits or ostriches while being transported for a period not exceeding one hour during delivery: Provided that the surface temperature thereof shall not exceed 25oC.
 - (iv) any food exposed to higher temperatures than those referred to in this regulation during a maturation period or as part of a manufacturing process: Provided that exposure to such higher temperatures shall be in accordance with good manufacturing practice.
- (5) Any food that is marketed as a frozen product and has thawed but the surface temperature of which has not exceeded 7oC may be refrozen: Provided that such refrozen product shall be handled in accordance with good manufacturing practice.
- (6) The code of practice for measuring the temperature of food set out in Annexure E to these regulations shall, in so far as it is applicable, be applied to measuring the temperature of food.

Standards and requirements for protective clothing

9. (1) No person shall be allowed to handle food without wearing suitable protective clothing as specified in subregulation (2).
- (2) The protective clothing, including head covering and footwear, of any person handling food that is not packed so that the food cannot be contaminated shall
- (a) be clean and neat when such person begins to handle the food;
 - (b) at all times during the handling of the food be in such a clean condition and of such design and material that it cannot contaminate the food;
 - (c) be so designed that the food cannot come into direct contact with any part of the body, excluding the hands.

Duties of a person in charge of food premises

10. A person in charge of food premises shall ensure that -
- (a) effective measures are taken to eliminate flies, other insects, rodents or vermin on the food premises;
 - (b) any person working on the food premises is adequately trained in food hygiene by an inspector or any other suitable person;
 - (c) refuse is removed from the food premises or from any room or area in which food is handled as often as is necessary and whenever an inspector requires it to be done;
 - (d) refuse is stored or disposed of in such a manner that it does not create a nuisance; (e) refuse bins are -
 - (i) cleaned regularly; and
 - (ii) disinfected whenever necessary and whenever an inspector requires it to be done;
 - (f) waste water on the food premises is disposed of to the satisfaction of the local authority;
 - (g) the food premises and any land used in connection with the handling of food and all facilities, freight compartments of vehicles and containers are kept clean and free from any unnecessary materials, goods or items that do not form an integral part of the operation and that have a negative effect on the general hygiene of the food premises;
 - (h) no person handling non-prepacked food wears any jewellery or adornment that may come into contact with the food, unless it is suitably covered;
 - (i) no animal, subject to the provisions of any law, is kept or permitted in any room or area where food is handled, except that -
 - (i) a guide dog accompanying a blind person may be permitted in the sales or serving area of the food premises;
 - (ii) fish, molluscs or crustaceans may be kept alive until prepared for consumption;

- (iii) a live animal may be killed in a separate room before the carcass is handled, subject to regulation i2(4);
- (j) no condition, act or omission that may contaminate any food arises or is performed or permitted on the food premises;
- (k) the provisions of these regulations are complied with;
- (l) all persons under his or her control who handle food at all times meet the standards and requirements and execute the duties prescribed by regulations 9 and 11, respectively;
- (m) a room or area in which food is handled shall not be used for -
 - (i) sleeping purposes;
 - (ii) washing, cleaning or ironing of clothing or similar laundry;
 - (iii) any other purpose or in any manner that may contaminate the food therein or thereon;
- (n) no food handler touches ready-to-consume non-prepacked food with his or her bare hands, unless it is unavoidable for preparation purposes, in which case such food shall be handled in accordance with good manufacturing practice;
- (o) the reporting of diseases and conditions contemplated in regulation 11(2)(b) are properly recorded and kept for perusal by an inspector.

Duties of a food handler

11. (1) Food, a facility or a container shall not be handled by any person -
 - (a) whose fingernails, hands or clothes are not clean;
 - (b) who has not washed his or her hands thoroughly with soap and water or cleaned them in another effective manner -
 - (i) immediately prior to the commencement of each work shift;
 - (ii) at the beginning of the day's work or after a rest period;
 - (iii) after every visit to a latrine or urinal;
 - (iv) every time he or she has blown his or her nose or after his or her hands have been in contact with perspiration or with his or her hair, nose or mouth;
 - (v) after handling a handkerchief, money or a refuse container or refuse;
 - (vi) after handling raw vegetables, fruit, eggs, meat or fish and before handling ready-to-use food;
 - (vii) after he or she has smoked or on return to the food premises; or
 - (viii) after his or her hands have become contaminated for any other reason.
- (2) Food, a facility or a container shall not be handled by any person -
 - (a) who has on his or her body a suppurating abscess or a sore or a cut or abrasion, unless such abscess, sore, cut or abrasion is covered with a moistureproof dressing which is firmly secured to prevent contamination

- of the food;
 - (b) who is or who is suspected of suffering from or being a carrier of a disease or condition in its contagious stage that can be transmitted by food, unless any such person immediately reports the disease or condition to the person in charge and a certificate by a medical practitioner stating that such person is fit to handle food is submitted;
 - (c) whose hands or clothing are not clean.
- (3) No person shall -
- (a) spit in an area where food is handled or on any facility;
 - (b) smoke or use tobacco in any other manner while he or she is handling non-prepacked food or while he or she is in an area where such food is handled;
 - (c) handle non-prepacked food in a manner that brings it into contact with any exposed part of his or her body, excluding his or her hands;
 - (d) lick his or her fingers when he or she is handling non-prepacked food or material for the wrapping of food;
 - (e) cough or sneeze over non-prepacked food or food containers or facilities;
 - (f) spit on whetstones or bring meat skewers, labels, equipment, or any other object used in the handling of food or any part of his or her hands into contact with his or her mouth, or inflate sausage casings, bags or other wrappings by mouth or in any other manner that may contaminate the food;
 - (g) walk, stand, sit or lie on food or on non-hermetically sealed containers containing food or on containers or on food-processing surfaces or other facilities;
 - (h) use a hand washbasin for the cleaning of his or her hands and simultaneously for the cleaning of facilities; or
 - (i) while he or she is handling food, perform any act other than those referred to above which could contaminate or spoil food.

Standards and requirements for the handling of meat

12. (1) (a) No person shall on food premises handle meat derived from an animal slaughtered in contravention of the Meat Safety Act, 2000 (Act No.40 of 2000).
- (b) No person shall on food premises handle the meat of an animal exempted from the provisions of the Meat Safety Act, 2000 (Act No.40 of 2000), unless a notice that is clearly visible and legible and that contains the following information or information to that effect, in letters at least 18 mm high, is displayed at the food premises: "The meat sold on these premises has been exempted from inspection in terms of Meat Safety Act, 2000 (Act No.40 of 2000).
- (2) Meat on a carcass shall not be handled on food premises, unless -

- (a) the carcass has been properly bled;
 - (b) the abdominal viscera were removed within 30 minutes after the killing of the animal in such a manner that neither the stomach and intestinal content nor any other matter polluted or spoiled the meat; and
 - (c) the thoracic viscera were removed within three hours after the killing of the animal.
- (3) Unskinned carcasses shall not be so handled that the skin thereof comes into contact with other food on food premises or that the meat of such carcasses is contaminated or spoiled.
- (4) Subject to Meat Safety Act, 2000 (Act No.40 of 2000) no animal shall be killed, bled, eviscerated, skinned or dressed on food premises other than in a room used specifically and exclusively for that purpose in accordance with good manufacturing practice: Provided that no further handling or processing of any such carcass shall take place in that room.

Standards and requirements for the transport of food

- 13. (1) No person shall transport food including the products referred to in regulation 14 on or in any part of a vehicle -
 - (a) unless that part is clean and has been cleaned to such an extent that chemical, physical or microbiological contamination of the food is prevented;
 - (b) together with -
 - (i) contaminated food or waste food;
 - (ii) poison or any harmful substance;
 - (iii) a live animal; or
 - (iv) any object that may contaminate or spoil the food.
- (2) Subject to subregulations (1) and (4), the freight compartment of a vehicle that is used for the transportation of food that is not packed or wrapped in liquidproof and dustproof sealed containers -
 - (a) shall have an interior surface made of an easy-to-clean and smooth, rustfree, non-toxic and non-absorbent material without open joints or seams and, before food is loaded into such freight compartment, no square centimetre of the said surface shall upon analysis as referred to in regulation 6(4) contain more than 100 viable micro-organisms;
 - (b) shall be dustproof;
 - (c) shall not be used simultaneously for the transport of any person or any other item that may contaminate the food.
- (3) Notwithstanding any provisions to the contrary contained in this regulation, no non-prepacked food shall be -
 - (a) transported in such a manner that it comes into contact with the floor of a

- vehicle or the floor covering thereof or a surface thereof that can be walked on or with anything else that could pollute the food; or
- (b) transported or carried in such a manner that the food could be spoiled or contaminated in any way.
- (4) Subregulations (2) and (3) (a) shall not apply to the transport of venison, fish, molluscs or crustaceans between the food premises and the place where the animals are hunted or the place where the fish, molluscs or crustaceans are caught or harvested: Provided that such transport shall be by the best available method and within a suitable time limit for transport as required by circumstances.
- (5) No person shall transport food in bulk and semi-packed food in contravention of the provisions of the *Codex Code of Hygienic Practice for the Transport of Food in Bulk and Semi-Packed Food* (CAC.RCP 47-2001).

Provisions concerning unprocessed products

14. Notwithstanding any provisions to the contrary contained in these regulations, an inspector shall, if he or she is of the opinion that conditions prevail that constitute a health hazard with regard to the packing, storage, display, sale or transport of fresh, raw and unprocessed fruit and vegetables and unprocessed maize, wheat, rye, unshelled peanuts, sugar cane, sunflower seed or other unprocessed agricultural crops, or with regard to the handling of food referred to in regulation 15(5)(a) -
- (a) subject to regulations made in terms of section 15 of the Act relating to inspections and investigations in respect of the handling of food, order that any condition that led to or could lead to such or any other health hazard be corrected or that any provision of these regulations be complied with; or
- (b) prohibit the continued use of the facility or food premises for the packing, storage, display, sale or transport of any of the said products, and the provisions of regulation 4(2) to (5) shall *mutatis mutandis* apply to such prohibition.
- 14A. No person shall handle bottled/package drinking water (other than natural mineral water) in contravention of the provisions of the *Codex Code of Hygienic Practice for Bottled/Package Drinking Waters (Other than Natural Mineral Waters)*(CAC/RCP 48-2001)

Exemptions, additional requirements and reservations

15. (1) A person in charge of food premises may, subject to regulation 3(1)(a), apply to the local authority concerned for exemption from any of the provisions of these regulations, excluding exemption from the issuing of a certificate of acceptability.

- (2) Upon receipt of an application referred to in subregulation (1) a local authority shall refer the application to an inspector without delay, and exemption shall not be granted unless the inspector has submitted a report to the local authority to the effect that he or she is satisfied that -
 - (a) the provision from which exemption is requested imposes unreasonable requirements in the case in question; and
 - (b) the granting of such exemption does not or will not result in conditions that constitute a health hazard.
- (3) An exemption referred to in this regulation -
 - (a) shall be subject to the conditions listed by the local authority in the certificate of acceptability or notice of exemption, as the case may be; and
 - (b) shall be withdrawn by the local authority on the grounds of an inspection report and a recommendation by an inspector to the effect that he or she is of the opinion that such exemption will result in conditions that constitute a health hazard.
- (4) Subject to regulation 3(6)(a) a local authority may, on the grounds of an inspection report and recommendations from an inspector, set additional requirements to be met on any food premises where, despite compliance with any provision contained in these regulations, a health hazard exists which is not provided for in these regulations, which additional requirements shall, subject to the principles of the best available method and good manufacturing practice, be limited to the minimum necessary to remove the health hazard in question.
- (5)
 - (a) Subject to the principles of the best available method and good manufacturing practice, the provisions of regulations 3(1) and 5 shall not apply in respect of the killing, bleeding or evisceration of an animal after the hunting thereof or of fish, molluscs or crustaceans after the catching or harvesting thereof.
 - (b) The provisions of regulation 3(1) shall not apply to -
 - (i) a private residence where food is handled for the purpose of making it available without compensation to a church, educational or amateur sports organisation or any registered welfare or fund-raising organisation for sale: Provided that the person in charge of any such organisation who receives such food shall keep a record of the type of food and the address of the private residence where the food was handled for a period of at least 30 days after receipt of the food; and
 - (ii) any vehicle used by the person in charge of food premises, for which a certificate of acceptability exists, to transport, display or serve prepacked food deriving from such food premises, but shall apply in respect of a vehicle used for the transport of perishable food on behalf of another person.

- (c) These regulations shall not apply to a private household which handles food for consumption by such household or, without compensation, by any other person.

Offences

16. Any person who contravenes a provision of these regulations or allows such a contravention to take place shall be guilty of an offence.

Commencement

17. These regulations will come into effect on the date of publication in the Government Gazette.

DR A MOTSOALEDI, MP
MINISTER OF HEALTH

ANNEXURE A
[Regulation 3(3)]

APPLICATION FORM OF A CERTIFICATE OF ACCEPTABILITY FOR FOOD PREMISES

A. PERSON IN CHARGE

Surname and first names of person in whose name the certificate of acceptability must be issued:.....	I.D. Number.....
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ADDRESS Postal address:

Residential address:

Tel. No.:

Business

Residential

B. PARTICULARS FOR FOOD PREMISES

Name of food premises (if any)....

Erf No.(if applicable).....

Type of food premises (e.g building, vehicle, stall).....

Location address or address where the food premises can be inspected

If the following are not situated on the food premises, note the address or describe the location thereof:

	Erf No.	Address
a) Sanitary (latrine) facilities		
b) Cleaning facilities (wash-basins for facilities)		

- c) Hand-washing facilities _____
 d) Storage facilities for food/facilities _____
 e) Preparation premises _____

C. FOOD CATEGORY

List and describe the food items or the nature or type of food involved

D. NATURE OF HANDLING

List and describe what your activities will entail (e.g preparation or packing and processing)

E. STAFF

Number of persons employed or to be employed.....

Men

Women

F. PARTICULARS OF EXEMPTION BEING APPLIED FOR

[Regulation 15(1)]

G. PARTICULARS OF APPLICANT

Name.....

Capacity (e.g. owner, managing director,
secretary, manager)

Postal address

Signature.....

Tel no.....

Date if application.....

ANNEXURE B
[Regulation 3(6)(a)]

CERTIFICATE OF ACCEPTABILITY FOR FOOD PREMISES

This certificate is not transferable from premises to premises

A. ISSUING LOCAL AUTHORITY:.....
CERTIFICATE No.:.....

NAME.....

	Tel No.

**OFFICIAL
DATE
STAMP**

B. FOOD PREMISE

Name (if any).....

Address: (Location or trading area, erf. N. or vehicle registration No.):
Address where food is processed:

C. PERSON IN CHARGE

Name:	

I.D. NUMBER.....

D. CERTIFICATION AND RESTRICTION

It is hereby certified that the above-mentioned food premises comply with the provisions of regulations 5 and 6 made by Government Notice No. of 2012 in respect of the handling of food in the manner specified.

Restrictions, conditions or stipulations in terms of regulation 3(1)(b)

E. SIGNATURE OF INSPECTOR

Name of inspector

Official designation

DATE

F. ENDORSEMENTS/EXEMPTIONS
In terms of regulation 15

DATE

SIGNATURE OF INSPECTOR

ANNEXURE C
[Regulation 5(3)(d)(i)]

SANITARY CONVENIENCES

Population: The number of staff members and the maximum number of customers for whom provision is made to consume food on any premises at any one time	Number of sanitary conveniences to be installed in relation to the population as given in the first column				
For a population up to	Men			Women	
	Latrines	Urinal stalls*	Hand washbasins	Latrines	Hand washbasins
10	1	1	1	1	1
20	1	2	2	2	2
40	2	3	2	3	3
60	3	3	2	4	4
80	4	4	3	6	5
100	4	4	3	8	6
120	5	5	4	9	7
140	5	5	4	10	8
180	5	6	5	11	8
	Add 1 latrine, 1 hand washbasin and 1 urinal for every 70 persons in excess of 180 persons			Add 1 latrine and 1 hand washbasin for every 35 persons in excess of 180 persons	

ANNEXURE D
[Regulation 8(4)]

FOOD TEMPERATURES

Column 1 Category	Column 2 Type of food	Column 3 Required core temperature of food products that are stored, transported or displayed for sale
Frozen products.....	Ice cream and sorbet, excluding sorbet which is used for soft serve purposes	-18°C
	Any other food which is marketed as a frozen product	-12°C
Chilled products	Raw unpreserved fish, mollusks, crustaceans, edible offal, poultry meat and milk	+4°C
	Any other perishable food that must be kept chilled to prevent spoilage	+7°C
Heated products	Any perishable food not kept frozen or chilled	>/+65°C

ANEXURE E
[Regulation 8(6)]

CODE OF PRACTICE FOR MEASURING TEMPERATURES OF FOOD

1. Informing the person in charge or person responsible

The inspector shall inform the person in charge, or a person supervising the operation if the person in charge is not available, that he or she wishes to measure the temperatures of the food concerned and shall explain to him or her all the procedures contained in this code.

2. Precautionary measures

- (1) All procedures shall be carried out as far as is practicable in a manner that is aseptic and free from chemical pollutants.
- (2) In the case of prepacked food, and if it is necessary, the inspector shall remove the packaging in such a manner that the minimum and only the most reasonable essential damage is caused, or the person in charge or the person supervising the operation shall remove the packaging at his or her own risk.
- (3) The temperature of food shall as far as is practicable be measured without removing the food from a chilling, freezing or heating facility.

3. Measurement of temperature

Prepacked food

- (1) If the food is prepacked, the estimated temperature of the food may be measured by placing or at least one minute the stem of a thermometer (hereinafter referred to as the "stem") between two or more food packages or, in the case of a single food package, on the outer surface of the package.
- (2) If the temperature reading is not in compliance with the core temperatures specified in Annexure D to these regulations or if the inspector has any doubts regarding the temperature of the food inside the package, the surface or core temperature of the food may be measured to determine the actual temperature.

Core temperature

- (3) If the food product is frozen a hole shall be drilled in the food up to the estimated core of the food product with a sterilised stainless steel bit with an external measurement of about 4mm. The sterilised stem shall be inserted into the hole up to the estimated center of the product and a reading shall be taken after two minutes. In the case of a heated, chilled or unchilled product, the sterilised stem

shall be inserted up to the estimated core of the food product and a reading shall be taken after one minute.

Surface temperature

- (4) The surface temperature shall be measured by placing the sterilised stem directly on the surface of the food for at least one minute or, in the case of liquid, in the liquid for at least one minute, and the reading shall be taken immediately thereafter.

4. Presumption in respect of representative temperature reading

The food temperature determined in accordance with this code of practice shall be regarded as being representative of the temperature of all food in the freezing, chilling or heating facility concerned if the inspector is satisfied that such food is in the same condition or has the same characteristics as the food the temperature of which was taken.
