



QAC

QUAD AFRICA CONSULTING

Est 2000

JOHANNESBURG | CAPE TOWN | DURBAN

Consulting Engineers

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THE PRACTICE

Quad Africa Consulting are Electrical Consulting Engineers and have been serving South Africa and neighboring African Countries since March 2000.

- ✓ The practice employs twenty technical staff of who thirteen are Project Engineers or Directors with extensive experience in all aspects of Electrical Engineering from project inception through to hand-over and ongoing support.

A consistently high technical standard and design uniformity is achieved by close collaboration between practices and the application of similar design guidelines in all offices. These technical design guidelines are living documents subject to ongoing review and enhancement to ensure they meet or exceed current best practice.

All projects are undertaken under the direct and visible control of a Director. The practice prides itself that all Directors are first and foremost Electrical Engineers who are intimately involved with all aspects of their projects.

A review of the professional careers of the key personnel shows diverse experience across a number of the major South African Consulting Engineering practices. The combined experience of the Directors is drawn on in an ongoing process of benchmarking, where every aspect of the design process is evaluated, to ensure the highest professional standards are maintained.



SCOPE OF SERVICES OFFERED

Quad Africa Consulting has a proven track record in the following aspects of Electrical Engineering:

Electrical Building Services

- HV Distribution and Transformers
- LV Distribution
- Power Factor Correction
- Lighting
- Small Power
- Standby Power Systems
- Lightning Protection and Earthing
- Vertical Transportation

Building Safety Systems

- Fire Detection and Alarms
- Alarm Monitoring Systems
- Perimeter Protection
- Access Control
- CCTV Systems
- Public Address Systems
- Evacuation

Specialised Building Systems

- Building Automation Systems
- Energy Management Systems
- Theatre Systems
- Uninterruptible Power Supplies (UPS)
- PABX and Communication Systems
- Structuring Cable Systems for
- Nurse Call Systems
- Sound Systems
- White Noise

Solar Energy

- Grid Tied Systems
- Off Grid Systems
- Fixed Installation
- Solar Tracking Systems
- Solar Farms

Electrical Reticulation

- HV and LV Distribution
- Street Lighting

Industrial Installations

- Motor Control
- Instrumentation

SOCIAL

RESPONSIBILITY

Quad Africa Consulting is a socially responsible practice who actively support the principles of Affirmative Action in the interests of establishing a truly free and equitable society in South Africa.

The practice is acutely aware of the fundamental importance of making electricity available to the entire populace to the success of Southern Africa.

The cornerstone principles of appropriate cost-effective design and strict cost control are applied to all design undertaken by the practice to achieve the maximum benefit from the available funds.

The establishment of joint ventures together with emerging practices and development of skills within the community are actively encouraged.

The community makes the largest possible contribution to each project, gaining real management and organizational skills.

Quad Africa Consulting is an equal opportunity employer with a staff compliment from all racial backgrounds. Quad Africa Consulting subscribes to the Employment Equity Act No. 55 of 1998 (as amended) and are therefore registered on the Employment Equity public register.



COST CONTROL

The success of Quad Africa Consulting is substantially due to economical design and effective construction stage cost control.

The project is split into Sub-Contracts, ensuring individual Sub-Contractors operate within their area of expertise. The Specification and bills of quantities of individual Sub-Contracts are tailored for each project to achieve the lowest tender price, whilst retaining the ability to manage changes effectively.

The cost build-up typically comprises of the following elements:



Lump sum measurement of sections of the works, which are well defined and not likely to change substantially e.g. basement and plant levels.



Bill rates for items where the scope may change dramatically during the construction stage e.g. powerskirting.



Per point rates for items, which are primarily dependent on tenant requirements e.g. power and telephone points.



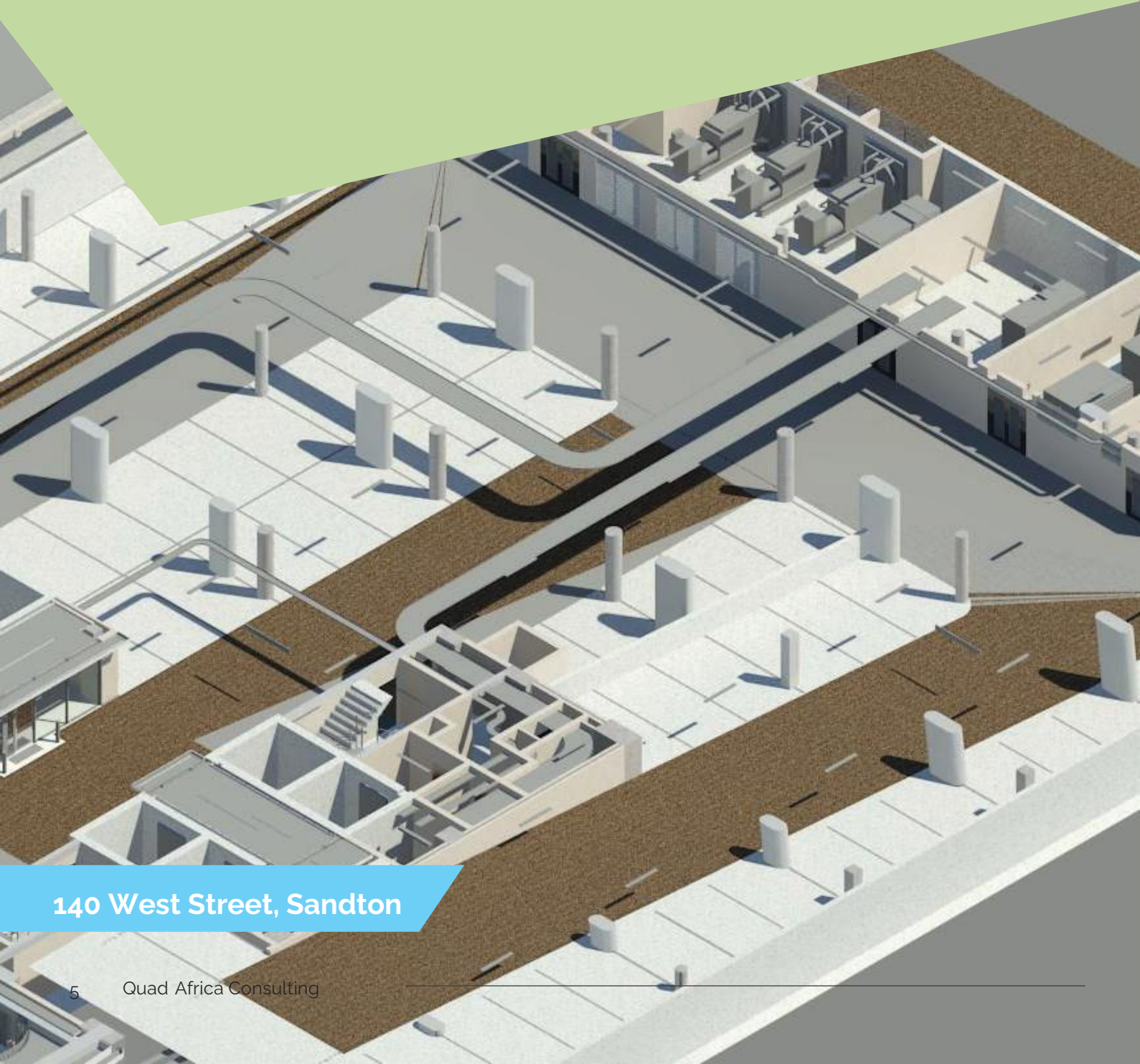
Prime cost amounts for high value sections of the work which need to be separately Tendered, to achieve the best price whilst retaining strict quality control e.g. distribution boards and luminaries.

Costing of the electrical installations is undertaken by Quad Africa Consulting from project inception to final account. Financial reports ensure that the Quantity Surveyors and the Project Team are able to accurately monitor and control the overall project. Project cost reports prepared by the Quantity Surveyors are reviewed to ensure the electrical works are accurately reported.

TECHNOLOGY

The Practice utilizes modern technology to design to a consistently high standard.

Computer Aided Design (CAD) is used whenever the architectural design is CAD based. This simplifies documentation, information interchange and co-ordination. The firm operates twenty-two CAD workstations in all offices. All CAD workstations run on AutoCAD. The addition of the Revit program on some of our larger projects has taken this to a new level. The CAD software is compatible with the major CAD programs currently available enabling simple two-way information interchange within the design team.

An aerial, isometric architectural rendering of a large building complex. The building has a white roof with numerous cylindrical ventilation units. A central courtyard area is visible, surrounded by various building wings. A blue banner is positioned at the bottom left of the image.

140 West Street, Sandton

CASE STUDIES

OFFICE BUILDINGS

Several office buildings have been completed by the Directors. The services undertaken for individual projects are listed below. The project list is limited to the most significant projects undertaken by the practice. A complete listing is available if required.

PROJECT NAME	Year's	Services	Value R 000
Watchtower	Current	EDSA	17 600
Illovo Central	2023	EGSA	16 500
Illovo Point	2022	EGSA	17 000
Perseus Park (Offices / Light Industrial)	2022	EGDFS	147 000
National Department of Health	2021	EGU	4 000
Illovo Central	2021	EGSA	17 000
25 Bart Avenue	2020	EGSA	4 800
Illovo Point	2019	EGSA	17 000
BCX	2017	EGD	55 000
Chemetall Offices	2017	EDF	1 800
De Beers JHB Campus - Eureka	2017	EG	3 600
Sasol Head Office	2017	EGSAF	169 000
140 West Street	2016	EGS	49 000
BMW Midrand (Offices)	2016	EGFS	18 000
Maxwell Office Park (Waterfall Development)	2016	EGF	42 000
85 Grayston Drive	2015	EGDFS	10 000
ABSA - Auckland Park	2015	E	Watching Brief
15 Alice Lane	2014	EGD	43 500
Atholl Towers	2014	EF	12 000
Barloworld Equipment	2014	EGDFS	196 000
BMW SA - Head Office	2014	EGDFS	15 000
Jindal Africa Head Office	2014	EGDFS	8 000
Alexander Forbes - Head Office	2012	EGDS	40 000
Bateman Offices	2012	EG	12 000
Fluxmans - 30 Jellicoe	2012	EGSA	8 500
General Electric - Head Office	2012	EGSA	2 900
Outsurance - Phase 2 - 4	2012	EGDFS	51 000
Podium @ Menlyn	2012	EGSA	9 000
Secunda Office Park	2011	EFGSD	18 000
Liberty Life Umhlanga - Phase 2 & 3	2011	EGS	27 000
Monash New Faculty Building	2011	EFGSD	7 300

PROJECT NAME	Year's	Services	Value R 000
VW New Head Office	2011	E	4 600
Highlands Estate - The Woodlands Office Park	2010	EFGSD	8 000
345 Rivonia Boulevard	2009	EGMS	11 000
Karen Street Office Development	2008	EFGSD	3 000
Knights Bridge Office Park	2008	EFGSD	6 000
No. 1 Charles Crescent	2008	EFGSD	1 500
Bergzicht	2008	EFGSD	1 400
WBHO - Phase II	2007	E	1 500
Wiphold Head Office - Houghton	2007	EFGSD	2 200
Discovery Head Office	2006	EFGSD	3 000
Highgrove Office Park - Phase 4	2006	E	1 600
National Ports Authority - JHB	2006	EFGSD	4 000
Time Square Building	2006	EFGSD	1 800
AMH Head Office	2005	EFGSD	2 000
WBHO	2005	EFGSD	3 000
Commerce Square	2004	EFS	4 000
Highgrove Office Park - Ph 2 & 3	2004	E	2 000
Outsurance Head Office	2003	EFGSD	13 000
Uplands 18 - Deloitte Touche	2000	EFGSD	1 200
Uplands 17 - McDonalds Head Office	1999	EFGSD	3 000
Chisselhurst	1998	EFGS	1 600

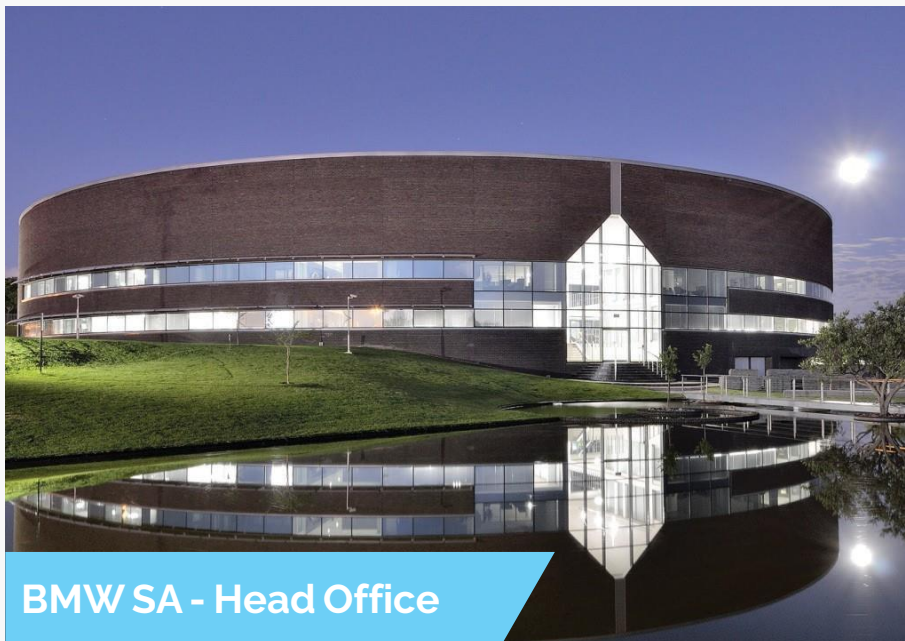


Alexander Forbes

E HV and LV Electrical Installation
G Standby Generator
D Data Cabling
PV Solar Installation

F Fire Detection
S Security, Access Control and CCTV
A Access Control and Security

OFFICE BUILDINGS



SHOPPING CENTRES

The Directors have completed a substantial number of Shopping Centers. The Scope of Services provided includes the complete range of electrical installations from main distribution to the internal electrical installations for a number of key national clients. The lighting of the mall areas significantly influences the feel and overall success of a Shopping Centre. The Practice has a substantial amount of experience in this field and stays abreast of local and international development. The project lists are a representative sample of the projects undertaken. A comprehensive listing is available, if required.

PROJECT NAME	Year's	Services	Value R 000
Springs Lifestyle Centre	Current	EGSM	40 000
Sitseng Plaza	Current	ESM	24 000
Nkuna Kraal	2023	EGSM	18 000
Makhado Crossing – Phase 2	2023	EGSM	32 000
Blueberry Shopping Centre	2023	EG	12 000
Mphephu Plaza	2023	ESG	9 300
Bushbuck Ridge	2023	EGS	20 000
Morena Mall	2021	EGS	17 000
Tshwane Regional Mall	2021	EGSM	95 000
Diepsloot Shopping Centre	2020	EGPSM	32 000
Cambridge West Street	2020	EGFS	3 300
Madadeni Shopping Centre	2019	EGFS	7 000
Nqutu Spar	2019	EPS	3 600
Nongoma Spar	2019	EFS	4 600
Masingita Mall - Giyani	2019	EGSM	49 000
Stimela Crossing - Barberton	2019	EGS	16 000
Springs Eco Mall	2017	EGDFSM	72 000
Table Bay Mall	2017	EGDFSMP	93 000
Tshilamba Retail Centre - Mutale	2017	E	13 900
Watercrest Mall	2017	EGFSM	43 000
Cosmo Mall	2016	EGFSM	28 000
Eden Meander Shopping Centre	2016	E	18 000
Mall of the South	2016	EGFSM	85 000



PROJECT NAME	Year's	Services	Value R 000
Gillwell Taxi Retail Park	2015	EGFSM	33 000
Mayfield Square	2015	EGFSM	35 000
Zebediela Shopping Centre	2015	EGF	19 000
Forest Hill City	2014	EGFSM	95 000
Waterfall Lifestyle Centre	2014	EGFS	8 900
Dihlabeng Retail Centre	2012	EGDPSM	37 500
Liberty Midlands Mall - Phase 3	2012	EFGSM	40 000
Wonderpark Shopping Centre	2012	EGDSM	49 000
Hemingways Shopping Centre	2010	EGSM	72 000
Greenstone Value Mart	2009	EFGS	11 000
Hartebeespoort Shopping Centre	2009	EFGMS	15 000
Mdantsane Mall - East London	2008	EFGMS	27 000
Woodmead Retail Park	2008	EFGMS	41 000
Lonehill Shopping Centre	2007	EFGMS	12 000
Bel Air Shopping Centre	2007	EFGMS	20 000
Lambton Court	2007	EGS	13 000
Makhado Crossing	2007	EGF	11 000
Mvudzuludzo Shopping Centre	2007	E	9 000
Tzaneng Mall	2007	EF	11 000
Trade Route Shopping Centre	2006	EGMS	30 000
World Wear Retail Development	2006	EGSM	8 000
Bezenzo The Buzz - Fourways	2006	EFMS	4 100
Cedar Square Shopping Centre	2006	EFGMS	26 000
Design Quarter - Fourways	2005	EFGMS	15 000



Table Bay Mall

E HV and LV Electrical Installation
G Standby Generator
D Data Cabling
PV Solar Installation

F Fire Detection
S Security, Access Control and CCTV
M Background Music

CINEMAS & VIRGIN ACTIVE



Virgin Active - Eastgate

STER-KINEKOR

PROJECT NAME	Year's	Services	Value R 000
Cresta	2017	EUD	1 500
Eastgate Mall	2016	EUD	3 100
Mall of Africa	2016	EDUG	3 100
Newtown	2016	EUD	3 200
The Grove - Windhoek	2016	EUD	2 700
The Grove - Imax Theatre	2016	E	500
Baywest Mall - P.E.	2015	EUG	2 800
Watercrest Mall - Hillcrest	2015	EUD	2 900
Forest Hill	2014	ESFMD	2 300
Matlosana - Klerksdorp	2013	ESFMD	2 200
Centurion	2010	ESFMD	1 100
Brooklyn	2009	ESFMD	110
Bedford Square	2008	ESFMD	1 700
Festival Mall	2008	ESFMD	1 700
Irene	2008	ESFMD	1 700

NU METRO

PROJECT NAME	Year's	Services	Value R 000
Mauritius	Current	EDG	7 000
Angola	Current	EDG	6 000
Mams Mall - Mamelodi	2018	EDG	2 600
Westgate Mall	2018	EDG	3 200
Cornubia Mall	2017	EDG	3 100
Ballito Junction - Durban	2016	EDG	2 900
Parkview Mall - Tshwane	2016	EDG	2 600



Virgin Active - Braamfontein

VIRGIN ACTIVE

PROJECT NAME	Year's	Services	Value R 000
Eastgate Mall	2017	EF	3 260
RED - Sammy Marks	2017	E	1 520
Table Bay Mall	2017	EFG	3 150
RED - Braamfontein	2016	E	1 500
RED - Centurion	2015	E	1 448
RED - Jabulani	2015	E	1 629
Key West Shopping Centre	2014	EGF	3 300
RED - Boksburg	2014	E	1 409
RED - Brackenfell - Cape Town	2014	EF	1 400
RED - Retail Crossing	2014	E	1 554
Waterfall Lifestyle Centre	2014	EGF	3 400
Melrose Arch - Refurbishment	2013	E	1 500
Sunny Park Shopping Centre	2013	EF	2 700
Victory Park Shopping Centre	2013	EGF	4 500
Balfour Park Shopping Centre	2012	EF	3 100

- E HV and LV Electrical Installation
- G Standby Generator
- D Data Cabling
- U UPS Installation
- F Fire Detection
- S Security, Access Control and CCTV
- M Background Music

HOTELS

The Directors have undertaken a large number of hotel developments and refurbishments throughout Southern Africa. The success of these projects are a result of the in-depth understanding gained over the large number of developments undertaken. The services undertaken for individual projects are listed below:

PROJECT NAME	Year's	Services	Value R 000
Hotel Sky - Sandton	2021	EG	34 000
101 Katherine Street - Sandton	2018	EGFSM	20 000
Burgersfort Hotel and Casino	2015	ESGU	25 000
Premier Hotel - Midrand	2013	EGFSA	6 300
Umfolozi Casino & Hotel (Phase II)	2011	ESG	11 500
Premier Airport Hotel - Rhodesfield	2011	ESFGU	11 000
Liberty Life - Umhlanga Ridge (Phase II)	2009/10	EGAU	26 033
Sandton Intercontinental Refurb	2009	E	9 200
Sandton Sun Refurb	2009	E	10 500
Stay Easy - Witbank	2009	E	6 500
Monash Apartments	2008	ESFCA	8 700
Emperors Metcourt Hotel	2008	ESF	13 100
Klerksdorp Rio Hotel I Conference	2008	ESF	6 300
Bethlehem Hotel & Casino	2006	ESF	5 500
Emperors Mondior Hotel	2005	ESF	7 300
San Lameer Mondazur Hotel	2005	E	1 200
Cullinan Hotel - Benoni	2002	ESFMCA	1 700
Intercontinental Lusaka	2001	ESFMCA	20 000
Cullinan Hotel - Rivonia	2000	ESFMCA	2 100

PROJECT NAME	Year's	Services	Value R 000
Saxon Hotel	1999	ESFMCA	9 000
Caesars Gauteng	1999	ESFMCA	78 000
Indaba Hotel Extensions	1998	ESFMCA	8 500
Edward Hotel Refurbishment	1996	ESFMCA	3 200
Polana Hotel Extensions	1996	SFMCA	6 300
Balalaika Crown Court	1994	ESFMCA	2 800
Indaba Hotel Conference Centre	1994	ESFMCA	4 700
Balalaika Hotel (Phase III)	1993	ESFMCA	7 200
Indaba Hotel Ext.	1993	ESFMCA	1 800
Indaba Hotel	1992	ESFMCA	2 300
Balalaika Hotel (Phase II)	1991	ESFMCA	4 100
Hotel Braamfontein	1990	ESFMCA	1 200
Balalaika Hotel	1989	ESFMCA	2 900
Drakensberg Sun T/Share Chalets	1989	ESFMCA	4 600
Holiday Inns - Refurbishments (9 Projects)	1987	FMS	1 100
Sun City Cascades	1986	ESFMCA	9 300
Gold Reef City	1986	ESFMCA	10 400

- E HV and LVElectrical Installation
- S Smoke Detection
- F Fire Evacuation
- M Background Music
- C CCTV
- A Access Control and Security
- G Standby Generator
- U UPS Installation



Peermont Francistown

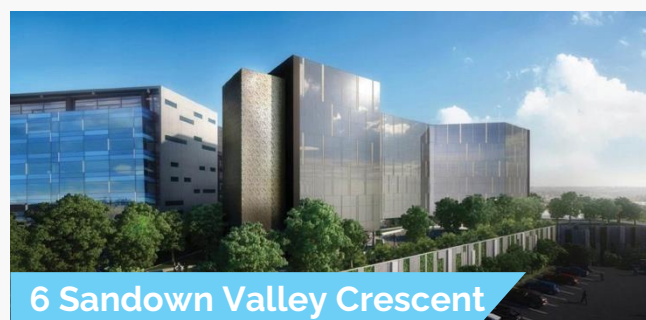
REFURBISHMENT PROJECTS AND EXTENSIONS

The Directors of Quad Africa Consulting have undertaken a significant number of refurbishment projects including large scale retail refurbishment without interruption of trading. A selection of the projects undertaken is listed below. A comprehensive listing is available on request. The services undertaken are as indicated.

PROJECT NAME	Year's	Services	Value R 000
Xerox	2022	E	2 000
DHL Elandsfontein	2022	E	500
Massmart LED Replacement	2021	E	38 000
Cambridge Warwick	2020	EGS	5 100
Northmead Square	2017	E	10 500
Riverside Shopping Centre	2017	EG	6 600
Eastmans Spar – Refurbishment	2016	EF	2 600
Fourways Crossing - Refurbishment	2016	E	2 800
Liberty Midlands Mall - Smart Metering	2016	E	10 000
Vosloorus Shopping Centre	2016	E	3 200
1A Protea Place	2015	EGSA	5 100
6 Sandown Valley Crescent	2015	EGSA	7 900
Bloed Street Mall - Phase 3	2015	E	7 300
Key West Shopping Centre - Phase 4	2015	E	7 200
Randburg Square	2015	EGSA	30 000
Riverwalk Shopping Centre	2014	EG	8 800
SARS - Atlas Road, Boksburg	2014	EGFU	1 700
Standard Chartered Bank	2014	ESMAGU	1 500
Village Square – Randfontein	2014	E	4 000
Hemingways Mall - Edcon Project	2013/14	E	1 700
Santam	2013	EGSFU	11 300
Bentley Office Park – Rivonia	2011	ES	1 000
Innovation Building - Old Nestle Building	2011	EGSFU	8 750
Kentucky Fried Chicken	2011	ESFG	12 000
Randridge Mall	2010	ESM	16 000
Granada Shopping Centre - Umhlanga Rocks	2009	EGSFAD	4 000
The Firs Shopping Centre	2009	EFGMS	11 000
Corporate Place - Offices	2009	EGS	5 000

E HV and LV Electrical Installation
 S Security, Access Control & CCTV
 F Fire Detection & Evacuation
 M Background Music
 G Standby Generator
 U UPS Installation

PROJECT NAME	Year's	Services	Value R 000
City Mall - Klerksdorp	2009	EGMS	16 000
Marylone Shopping Centre	2009	EFGMS	9 000
Balfour Park Shopping Centre	2008	EFGMS	20 000
Brightwater Commons	2008	EFMS	7 000
Lonehill Shopping Centre - Virgin Active	2008	EFGS	500
Quagga Shopping Centre	2008	EFM	9 000
SAB Entertainment Area	2008	ESFDA	2 500
Woodmead Office Park	2008	EFS	750
NHLS Laboratories	2008	E	3 000
World Wear Retail Development - Ph 2	2008	EFG	2 500
East Rand Mall	2007	EGSM	10 000
Lonehill Shopping Centre	2007	EFGMS	9 000
Sandton Sun	2007	E	5 400
Edgars - Lakeside Mall	2006	EG	2 000
Servamus Office Building	2006	ESF	5 000
Village Market Shopping Centre – Westville	2006	E	500
Rynfield Shopping Centre	2005	ES	500
San Lameer Mondazur Hotel	2005	ESF	1 200
Department of Home Affairs – Watloo	2005	EF	6 000
Siemens M.G.X Building	2005	EF	2 500
Mmabatho Megacity Shopping Centre	2004	EF	2 500
Relyant Group Regional Office - Durban	2003	E	400
Westgate Shopping Centre	1999	EFGMS	13 000
Holiday Inn Refurbishments - 9 Projects	1987	FMS	1 100



6 Sandown Valley Crescent

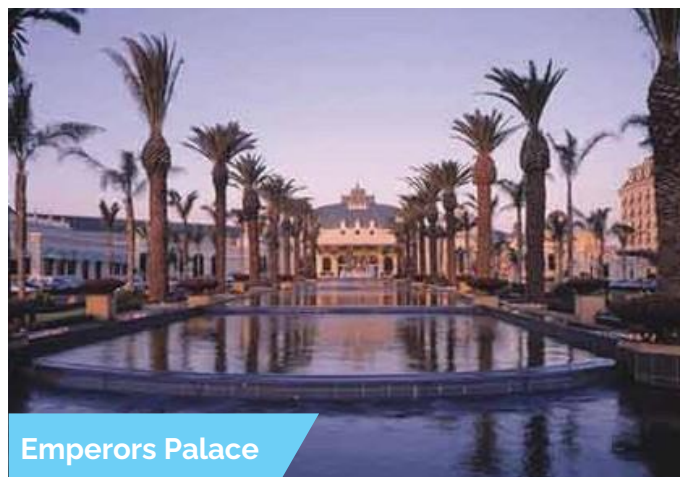
CASINOS AND LEISURE

Some of the hotels undertaken by the Directors include casinos and leisure facilities. The services undertaken for particular projects are as set out in the listing of hotel projects. The success of these projects relies on the in depth understanding of the functioning of casino operations particularly with regard to security and other back of house functions.

PROJECT NAME	Year's	Services	Value R 000
Emperors Palace – Metcourt Flag Restaurant	2017	E	245
Frontier Inn - Upgrade	2017	E	280
Khoroni Casino & Moo Bar	2017	E	2 350
Mmabatho Palms - Upgrade	2017	E	850
Emperors Palace – Metcourt Annex	2016	EFG	8 200
Emperors Palace – Red Roman Shed	2016	E	1 400
Khoroni Hotel - Extension	2016	E	1 500
Burgersfort Casino	2015	EGU	25 000
Emperors Palace - UPS	2015	EU	8 400
Ho Tram Grand Casino - Vietnam	2014	EFGUS	640 000
Emperors Palace	2011	EFGUS	128 000
Tusk Rio - Phase II	2011	E	7 800
Frontier Inn	2006	E	6 700
Grand Palm & Metcourt	2006	E	16 700
Umfolozi Casino	2002	E	3 500
Polana Hotel	1998	E	6 300
Thaba Nchu Sun	1986	E	4 800

E HV and LV Electrical Installation
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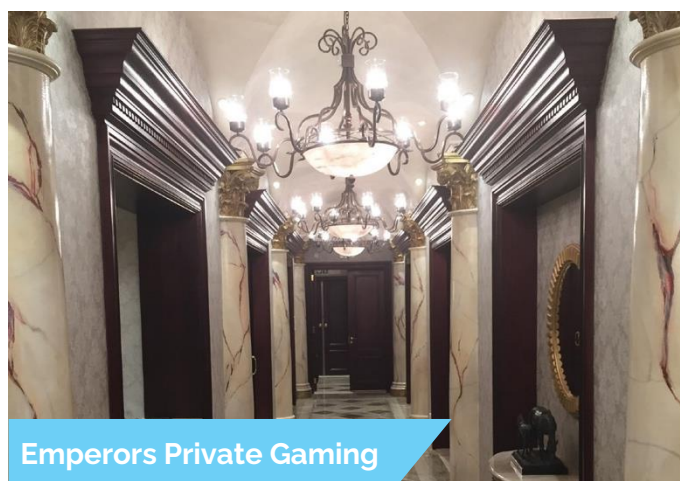
F Fire Detection
U UPS Installation



Emperors Palace



Umfolozi Casino



Emperors Private Gaming

MOTOR TRADE

The Directors have undertaken a substantial number of projects for the motor industry. A complete listing of projects is available on request.

PROJECT NAME	Year's	Services	Value R 000
NTT Toyota Potgietersrus	2017	E	4 500
Audi Centre - Paarl	2016	EG	5 000
NTT V.W. Heidelberg	2015	EG	3 500
Audi Centre - Sandton	2014	EGS	4 500
BMW Clearwater	2014	EG	2 600
NTT V.W. East London	2013	EGS	4 000
Maemo Motors - Rustenburg	2010	E	4 500
Tiger Wheel & Tyre - Rustenburg	2010	E	500
Audi Terminal - Hatfield	2009	EFGS	3 500
Lyndhurst Panel Shop	2008	EDS	2 500
McCarthy Nissan - Woodmead	2008	E	1 600
McCarthy Toyota - Woodmead	2008	E	1 700
Mercedes Lifestyle Centre	2008	EFGSM	5 600
Terex Truck Workshops	2008	ESDG	3 000
Zambezi Development	2008	ESDA	7 000
Honda - Bedfordview	2007	E	1 100
Lexus Showroom - Polokwane	2007	EF	190
Mazda - Melrose Arch	2007	E	900
Nissan / Honda - Edenvale	2007	EFGS	2 000

PROJECT NAME	Year's	Services	Value R 000
AMH Dealerships	2006	E	3 500
AMH Ontdekkers - Roodepoort	2006	EFS	1 100
Honda - Melrose Arch	2006	E	1 100
Hyundai Trucks - Boksburg	2006	EFS	2 200
Lindsay Saker - Mooi Street	2006	E	1 700
Lindsay Saker - Rivonia	2006	E	2 500
Lyndhurst BMW	2006	EDS	2 500
Mercedes Commercial Vehicles - Boksburg	2006	EFGSM	2 100
Mercedes Lifestyle - Klerksdorp	2006	E	1 600
Renault Ontdekkers - Roodepoort	2006	EFSG	900
Cargo Motors - Klerksdorp	2006	E	1 000
Audi Centre - Fourways	2006	E	1 000
Honda - Beyers Naude	2005	E	600
Honda - Zambezi	2005	E	750
V.W. - Hatfield, Bryanston	2005	E	1 200
Volvo Assembly Plant	2005	E	2 500
Tyco Truck Services (2 Projects)	1997	E	1 400
BMW Dealership - Boksburg	1996	E	400
Hyundai Dealership - Boksburg	1996	E	300
Mercurius Dealership	1996	E	450

ASSOCIATED MOTOR HOLDINGS

Training Centre	2008	ESD	2 500
AMH - Polokwane	2005	E	800
AMH - Zambezi	2005	E	900
Renault - Centurion	2005	E	600
AMH - Centurion	2004	E	950
Renault - Beyers Naude	2004	E	950
BMW - Pietersburg	2002	E	700
Lindsay Saker - Boksburg	2002	E	800
Lindsay Saker - Pietersburg	2002	E	600
Mercurius - Pietersburg	2002	E	650
Renault - Randburg	2002	E	900
Rover - Menlyn	2002	E	860
Citroen - Bedfordview	2001	E	1 050

- E HV and LV Electrical Installation
- S Security, Access Control & CCTV
- F Fire Detection & Evacuation
- M Background Music
- G Standby Generator

MOTOR TRADE

PROJECT NAME	Year's	Services	Value R 000
IMPERIAL GROUP			
Audi - Vereeniging	2012	ESG	1 650
Kia - Alberton	2012	ESG	1 300
Kia - Revamp Roll Out - Country Wide	2012	E	3 500
Europcar	2012	E	500
Multifranchise - Silverlakes	2012	E	3 500
Witfontein Ext 51	2012	E	5 500
Kia/Mitsubishi Part Store - Activia Park	2011	ESG	2 500
Toyota - Kempton Park	2011	ESG	2 200
VW Alberton	2011	ESG	750
Fiat - Skinner Road	2010	ESG	480
GM Kimberly	2010	ESG	1 800
PDI Centre - Boksburg	2010	E	2 000
Renault - Airport Park	2010	ESG	680
Toyota - Empire Road	2010	ESG	2 300
Audi Centre - Sandton	2009	ESG	540
Magnis Trucks - Richards Bay	2009	ESG	700
VW Craighall Park	2009	ESG	1 200
Auto Vaal - Vereeniging	2008	ESG	3 500



Mercedes-Benz Lifestyle Centre - Bedfordview

- E HV and LV Electrical Installation
- S Security, Access Control & CCTV
- F Fire Detection & Evacuation
- M Background Music
- G Standby Generator



Bentley

WAREHOUSING / INDUSTRIAL

The Directors have undertaken a substantial number of Warehousing Projects. A complete listing of projects is available on request.

PROJECT NAME	Year's	Services	Value R 000
Atlantis Coffee Freeze Dry	Current	EGSAD	150 000
YFPO (Industrial production facility)	Current	EGS	60 000
Rhenus Logistics	Current	EGSD	25 000
Intermodal Cargo	Current	EGS	9
Recycling Consolidated Holdings	Current	EDA	10 600
Rand Airport Industrial	Current	EG	156 000
DHL	Current	EG	5 800
ACDC Cape Town	Current	E	6 300
Clover South Africa x 4 Plants	Current	EGD	50 000
BMW (Body in White – Roslin)	2023	EGSD	45 000
Longlake Ext.21 Focus Rooms	2023	EG	1 900
Longlake Ext.21 Roads & Infrastructure	2023	E	1 200
Lords View – Improvon Industrial	2023	EG	65 000
Massmart DC – Cape Town	2022	EFGSD	35 000
Massmart DC – Durban	2022	EFGSD	55 000
Massmart DC – Johannesburg	2022	EFGSD	75 000
Sky Park Industrial (Phase 1)	2020	EG	11 000
Pomona – Ext. 207	2020	EG	9 400
Emit Logistics (Phase 1 & 2)	2020	E	2 700
Pomona – Ext. 205 – Veolia	2019	EG	6 000
Tupperware – Expansion	2019	E	800
Defy – Midrand	2019	EG	6 000
Samrand 899 and 901	2019	EG	6 800
Builders Warehouse – Boksburg	2018	EFGSD	11 000
Builders Warehouse – Fourways	2018	EFGSD	14 000
Builders Warehouse – Midrand	2018	EFGSD	12 000
Chilleweni Cold Storage Facility	2018	EG	8 000
Cummins Waterfall	2018	EG	16 800
Emperor Foods	2018	EG	3 100
Longlake Spec Warehouse	2018	EG	3 000
Specpharm Westfalia	2018	EG	4 000
BMW Rosslyn	2017	EG	45 000
Longlake Ext.19 Roads & Infrastructure	2017	E	2 900
Pomona Roads & Infrastructure	2017	E	1 500
SPAR - North Rand DC	2016	EG	4 000
Gosforth Park	2015	E	12 000
ID Logistics	2015	EG	11 000
Brenco Reelin Warehouse	2014	ES	1 200
Builders Express - Raslouw	2014	EGSA	2 000
Builders Warehouse - Cosmo Mall	2014	EGSA	1 800
Distell - Nelspruit	2014	E	2 000

PROJECT NAME	Year's	Services	Value R 000
MASSMART	2011	EFGSD	2 500
Plankenburg - Industrial	2011	EFGSD	6 000
Toyota Warehouse	2011	EGA	8 400
AMC Daneel Diamonds	2010	ES	1 000
Bell Equipment	2009	EGS	10 000
Electrolux Warehouse	2009	E	3 500
Geyser Allied Products - Isando	2009	E	850
Greenbushes Business Estate – P.E.	2009	EFGSM	3 500
Efficient Engineering	2008	EG	4 000
Builders Warehouse - Northgate	2008	E	3 000
Ingersollrand - Jet Park	2008	EFGS	3 800
Isando Warehouse (5000m2)	2008	ESD	2 000
Spartan Warehouse (5000m2)	2008	ESD	2 000
Sun Ace - Jet Park	2008	EFGS	1 600
AMH Bond Store - Southgate 2	2007	E	4 500
Builders Warehouse - Nelspruit	2007	E	3 000
Corporate Park	2007	ES	1 200
Pick 'n Pay Distribution Centre - Longmeadow	2007	EGSU	23 000
Rohlig Grindrod	2007	EGS	1 500
AMH Bond Store - Southgate	2006	E	270
Builders Express - Robindale	2006	EFGS	1 650
Builders Warehouse - Bloemfontein	2006	E	2 900
Builders Warehouse - Gleneagles	2006	E	2 800
AMH Bond Store - Mt Edgecombe	2005	E	450
Builders Warehouse - Polokwane	2005	E	2 800

PHARMACEUTICAL

SA Biomedical Upgrades	2018	EFGSD	1 800
Specpharm	2018	EFGSD	11 000
Dischem Warehouse and D.C.	2017	EGA	5 300
Unilever Warehouse D.C.	2009	EFDGSA	53 000
Merck Head Office - Longmeadow	2003	EFDGSA	14 000
SA Druggists	1994	EFDGSA	13 000
Merck Sharp & Dohme Pharmaceutical	1992	EFDGSA	20 000
Merck Sharp & Dohme Animal Health	1992	EFDGSA	12 000

E HV and LV Electrical Installation
 G Standby Generator
 D CCTV
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 F Fire Evacuation
 S Smoke Detection
 M Background Music

WAREHOUSING



Röhlig Grinrod Warehouse



Builders Warehouse

WOOLWORTHS PROJECTS

Several Woolworths projects have been undertaken for and on behalf of the Woolworths Group.

PROJECT NAME	Year's	Services	Value R 000
Hyde Park	2019	EGSFM	4 000
Mams Mall – Mamelodi	2019	EGSM	3 000
Mamelodi Crossing	2019	EGSFM	2 000
Grey Owl	2017	EF	1 600
Norwood Mall	2017	ESA	1 900
Springs Mall	2017	EGSA	3 800
Waterfall Mall	2017	E	817
Woodhill	2017	E	1 050
Bracken Gardens	2016	ESA	1 100
Elridge - Boksburg	2016	EGSA	1 100
Northmead	2016	EGSA	3 500
Sandton	2016	EF	1 200
Vaal Mall	2016	EFG	3 300
Valley Centre	2016	EF	1 800
Bethlehem	2015	EGSA	5 200
Green Valley	2015	EGSA	2 400
Mall of the South	2015	EGSA	8 700
Woolworths Stores - Various - Refurb	2014	EGSA	19 700
Woolworths Stores – Various - Refurb	2013	EGSA	7 300
Woolworths Stores – Various - Refurb	2010	EFDGSA	13 380
Brightwater Commons	2009	EGSFM	3 500
Hartebeespoort Shopping Centre	2009	EGSFM	2 500
Melrose Arch	2009	EGSFM	8 000
Monolith Shopping Centre - Krugersdorp	2009	EGSFM	1 200
Parkview Lifestyle Centre - Kimiad	2009	EGSFM	3 500
Wonderboom Junction - Pretoria	2009	EGSFM	3 500
Norwood Mall	2008	EGSFM	1 800
Quagga Shopping Centre	2008	EGSFM	2 800
Sunny Park - Pretoria	2008	EGSFM	3 500
Woodmead Retail Park	2008	EGSFM	3 000
Blue Bird	2007	EGSFM	800
Jacaranda Mall	2007	EGSFM	3 500
Lambton Mall	2007	EGSFM	2 800
Maponya Mall - Soweto	2007	EGSFM	3 800

PROJECT NAME	Year's	Services	Value R 000
Mooi Rivier Mall	2007	EGSFM	3 600
Eco Boulevard	2006	EGSFM	1 800
Greenstone	2006	EGSFM	4 000
Jabulani Mall	2006	EGSFM	3 500
Silver Lakes - Pretoria	2006	EGSFM	700
Trade Route Mall - Lenasia	2006	EGSFM	3 400
Vaal Mall	2005	EGSFM	3 600
Rosebank	2000	EGSFM	2 000
Menlyn Park	1999	EGSFM	3 000
Westgate	1999	EGSFM	1 700
Balfour Park	1998	EGSFM	2 500
Kolonnade (Montana)	1998	EGSFM	1 600
The Glen	1998	EGSFM	1 600
Waterfall Mall	1998	EGSFM	1 200
Bedfordview	1997	EGSFM	960
Edenvale	1997	EGSFM	960
Klerksdorp	1997	EGSFM	1 100
Pietersburg	1997	EGSFM	1 100
Sandton	1997	EGSFM	4 500
Southgate	1997	EGSFM	1 400
Bryanston	1996	EGSFM	300
Castle Walk	1996	EGSFM	300
Greenside	1993	EGSFM	300
La Lucia	1993	EGSFM	500
Stanger	1993	EGSFM	130
Westville	1993	EGSFM	1 000
Cresta	1992	EGSFM	900
Market Street	1992	EGSFM	600

- E HV and LV Electrical Installation
- F Fire Evacuation
- D CCTV
- G Standby Generator
- S Smoke Detection
- M Background Music
- A Access Control and Security



EDUCATIONAL

PROJECT NAME	Year's	Services	Value R 000
St. Andrews Science Lab	2020	E	1 100
St. Dunstons College	2018	E	2 200
The Ridge Pre-Primary	2018	E	1 200
St. Stithians College	2012	E	1 200
University of Stellenbosch - RW Wilcocks	2012	EFGSD	3 700
Roedene School	2011	E	400
Boland College	2010	E	600
University of Stellenbosch - Eendrag	2008/9	EFDSM	2 000
St. Stithians College	2007/11	ESG	4 500
Monash - Southnet	2006	EFSDAGU	7 700
Monash - Campus Centre	2006	EFSDAGU	6 300
WITS FADA	2005	E	7 000
GDE - Gauteng-On-Line	2004	EDAU	16 100
Monash University of SA - Seminar Building	2004	EFSDAGU	2 600
St. Dunstons College	2004	E	1 200
Reddam School	2003	E	1 000
Monash University of SA - PHASE 3	2002	EFSDAGU	4 200
Monash University of SA - PHASE 2	2001	EFSDAGU	400
R.A.U.	2000	EFSD	2 000
R.A.U.	2000	EFSD	1 200
Roedene IT & Art Centre	2000	EFSD	800



E HV and LV Electrical Installation
 G Standby Generator
 S Security, Access Control and CCTV
 D Data Cabling

F Fire Detection and Evacuation
 M Background Music
 U UPS Installation

RESIDENTIAL

PROJECT NAME	Year's	Services	Value R 000
6 Protea Place	2022	EGSA	18 000
24 Fredman Drive – Sandton – The Lineal	2022	EGFSAT	18 700
The Jade Development - Hyde Park	2021	EGFSAT	19 300
Jorissen Street Apartments	2021	EGSF	28 000
Illovo Central	2020	EGSADT	22 000
Huddle Park (Services Only)	2020	EFGMSA	48 000
15 West Road South - Masingita Towers	2019	EGDFSAT	29 400
House Koen - Serengeti	2019	EMAST	1 000
Drive Lines	2018	E	1 400
TCOTP - The Capital On The Park	2018	EGFSMT	35 000
43 Biccarr Street Apartments	2016	EF	3 000
Barloworld Isando - Student Accommodation	2014	E	375
Noswal Hall	2014	EGSA	8 400
Residence Sarno	2014	ESA	700
Jonkerzicht	2012	ESFGD	1 600
60 Lagoon Drive - Umhlanga Rocks	2009	EA	800
Far East Bank	2007	E	7 000
House Joubert - San Lameer	2006	ESM	300
Dream House - San Lameer	2005	ESM	300
The Auroras - Umhlanga Ridge	2004	ESUFAD	6 500

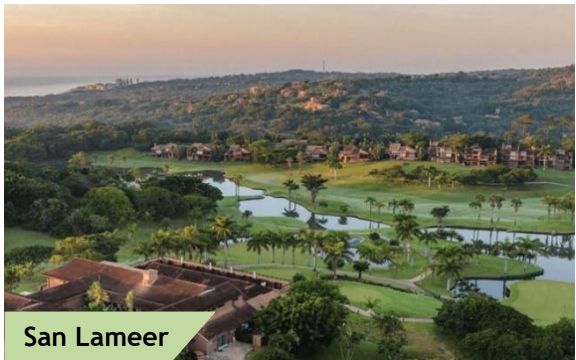
- E HV and LV Electrical Installation
- F Fire Detection and Evacuation
- G Standby Generator
- M Background Music
- S Security
- U UPS Installation
- A Access Control and Security
- D Data Cabling
- T Television Distribution



Masingita Towers



Maboneng District



San Lameer



The Lineal

HOSPITALS AND CLINICS

The Directors have completed a number of Hospitals and Clinics. These projects include a wide range of specialist facilities such as operating theatres, intensive care units and x-ray departments. Each of these facilities requires the specialist electrical expertise built up over the projects successfully completed. The scope of individual projects is as set out below. The projects listed are a representative sample of the projects undertaken. A comprehensive listing is available if required.

PROJECT NAME	Year's	Services	Value R 000
Herolim Private Hospital	Current	EUFTBND	25 000
Life Hilton Upgrade	2023	EUFTBND	12 900
Life Westville (ICU, High care)	2023	EUFTBND	8 100
Life Entabeni (22 Bed ICU)	2023	EUFTBND	6 500
Glenmarks Psychiatric Facility	2023	EUFTBND	2 409
Life Entabeni (Upgrade)	2023	EUFTBND	2 200
Empangeni Neo Natal	2022	EUFTBND	1 000
Life Chatsmed (Laundry)	2022	EFA	935
Life Mt Edgecombe Hospital New Renal Ward	2022	EFTN	346
Life Health Care Entabeni St. Joseph's Medical Centre	2022	EUFTNPD	2 145
Lenmed Ethekwini Hospital 14 Bed Paediatric Ward	2022	EFNTPDB	1 370
Lenmed Ethekwini Hospital 18 Bed Highcare Ward	2022	EFNTPDB	4 096
Life Mount Edgecombe	2021	G	2 500
Life Westville (Generator)	2019	G	2 300
Life Entabeni Fyfe 3 Wards	2019	EFNTD	780
Life Entabeni Fyfe 2 Wards	2019	EFNTD	850
Netcare Umhlanga Hospital Power Upgrade	2018	E	2 596
Netcare Umhlanga Hospital 26 Bed Haematology Ward	2018/19	EFNTPDB	2 146
Life Entabeni Medical & Paeds	2017/18	EFNTD	5 107
Eden Gardens Private Hospital	2018	EUFNTOGB	35 000
Netcare St. Augustines Surgical Ward Revamp	2017	EFNTPDB	1 875
KwaDukuza Private Hospital	2016	EGUFTNPODLB	9 800
KwaDukuza Private Hospital MV Upgrade	2016	E	1 750
Stanger Private Hospital	2016	EUFNTOGB	12 000

PROJECT NAME	Year's	Services	Value R 000
Life Health Care – Laundry	2015	EFADG	1 000
Life Health Care – Entabeni 20-Bed Medical Ward	2015	EFNTDB	700
Life Health Care – Mt Edgecombe Maternity Ward	2014/15	EUFNTOGB	2 700
Life Health Care – Westville 2 x 18 Bed Medical Wards	2014/15	EUFNTOGB	2 400
Life Health Care – Westville Vascular Theatre	2014	EO	400
Life Health Care – Westville Smoke Detection	2013	F	1 400
Life Health Care – Entabeni Ophthalmology Suite	2012	EFL	400
Mt Edgecombe Doctors Suites	2011	EF	500
NHLS-Braamfontein - Campus	2010	E	3 000
NHLS Alterations – Charlotte Maxeke	2010	EUD	1 500
NICD: VPVIU BSL3 Laboratory	2010	EG	300
Entabeni Hospital	2009	EUFTNPOB	2 900
Westville Hospital	2009	EFTNPB	800
Chris Hani Baragwanath Lab	2009	EU	70
Chris Hani Baragwanath Lab	2009	EG	1 200
Life Health Care – Chatsmed	2009	G	500
Life Health Care – Crompton	2009	G	500
Life Health Care – Empangeni	2009	G	500

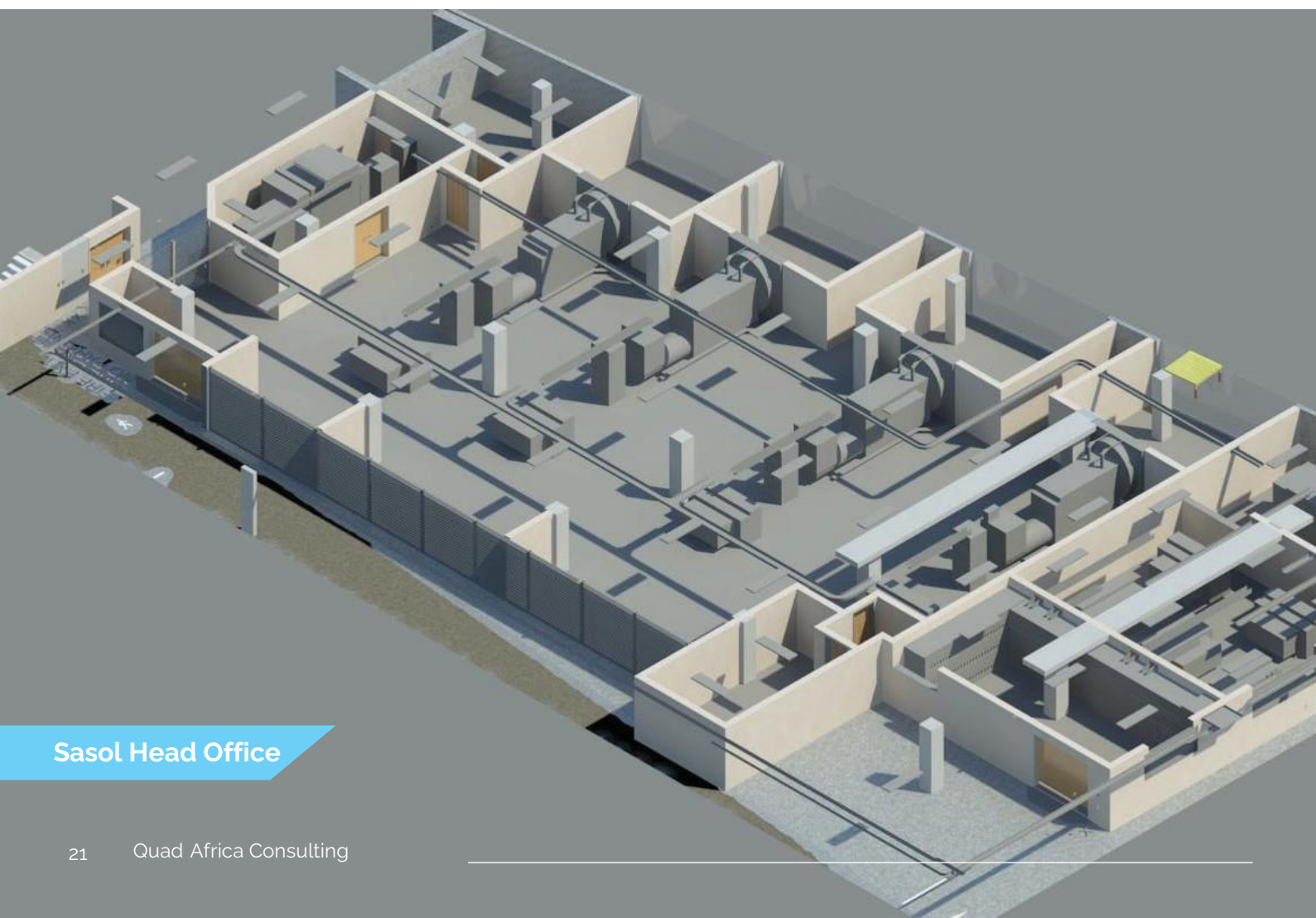


KwaDukuza Private Hospital

- | | |
|-------------------------------------|----------------------|
| E HV and LV Electrical Installation | N Nurse Call System |
| G Standby Generator | P Public Address |
| U UPS Installation | O Operating Theatres |
| F Fire Detection and Evacuation | D CCTV |
| T Television Distribution | L Lift Installation |
| B Bedhead Trunking | |

RETICULATION HT/LT

Protea Garden	33/11kV/400V
Sky Park Industrial (Ekurhuleni Self Build)	11kV/400V
Diepsloot Chuma Mall Self Build	11kV/400V
Bezenzo Park (Eskom)	22kV/400V
Magaliessig Ext 30 (Eskom)	11kV/400V
Ruimsig (City Power)	11kV/400V
SA Druggist (Eskom)	11kV
Woodlands (Eskom)	11kV
Outsurance (Pretoria Council)	11kV/400V
Caesars Gauteng (Germiston Council)	11kV/400V
L'Oreal (Pretoria Council)	11kV/400V
Polokwane Smelter	11kV/400V
Zambezi Precinct (Pretoria Council)	11kV/400V
Midlands Mall (Durban Council)	11kV/400V
Strubens Valley Business Park (City Power)	11kV/400V
Value Logistics	6.6kV/400V



Sasol Head Office

RENEWABLE ENERGY

Vega	192kWp	(T.B.A)
Blueberry Shopping Centre	500kWp	
BMW Midrand	300kWp	(T.B.A)
Congo Equipment DRC	800kWp	Solareff
Crown Wood Warehouse	300kWp	(T.B.A.)
Emperors Palace	1.2mWp	Terra Firma
Maseru Mall	1194kWp	(T.B.A.)
Midlands Mall	800kWp	Solareff
Tower Mall - Klerksdorp	600kWp	Terra Firma
Tsumeb Mall	500kWp	Solareff

GREEN BUILDING INSTALLATIONS

140 West Street	4-Star
15 Alice Lane	4-Star
85 Grayston Drive	4-Star
Alexander Forbes	4-Star
Atholl Towers	4-Star
BCX	4-Star
BMW Head office - Midrand	5-Star
Nemisa Offices	4-Star
Sasol Head Office	5-Star

PROJECTS IN AFRICA

MOZAMBIQUE

Anadarko Rest Camps	Complete
Anadarko Office Block - Phase 2 - Maputo	Complete
Builders Warehouse - Maputo	Complete
Builders Warehouse - Tete	Complete
Game Centre	Complete
Game Centre Extension - Costa Do Sol	Complete
Global Alliance - Head Office	Complete
Maputo Mixed Use Development	Complete
Pemba Industrial Park	Complete
Polana Casino	Complete
Polana Hotel Refurbishment - Phase One	Complete
Polana Hotel Refurbishment - Phase Two	Complete
Polana MAR Rooms	Complete
Praia Do Ouro Sol - Phase II	Complete
Vodacom Head Office	Complete
Caterpillar Workshops and Facilities - Tete	Complete
Game - Maputo	Complete

ANGOLA

Ster-Kinekor Complex - Luanda	Complete
Caterpillar Workshops and Facilities - Luanda	Complete

TANZANIA

Central Bank and Twin Towers - Dar Es Salaam	Complete
Tanzania Central Bank - Zanzibar	Complete

GABON

Gabon Constitutional Court - Libreville	Complete
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MALI

Anglo Mining Housing Scheme - Bamako	Complete
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LESOTHO

Hilton Hotels – Garden Inn - Maseru	Current
Maseru Site – Phase 2 - Infrastructure	Current
Nedbank Offices – Maseru	Current
Standard Bank Offices - Maseru	Current
Maseru Mall – Cinemas	Complete
Maseru Mall – Lesotho	Complete

NAMIBIA

Town Square – Offices / Shopping Centre	Current
Ster-Kinekor	Complete
Serenite Wellness Centre - Windhoek	Complete
Town Square – Offices / Shopping Centre	Complete

DRC

Congo Equipment	Complete
Citi Bank – Lubumbashi	Complete

CAMEROON

Ernst & Young	Complete
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GHANA

Ernest & Young	Current
Checkers Centre – Accra	Complete
Expro Test Centre – Takoradi	Complete
Marriot Hotel Airport	Complete

BOTSWANA

Botswana Accountancy College	Current
Sedibeng Casino - Francistown	Complete
Selebi Pikwe Casino	Complete
Metcourt Hotel - Gabarone	Complete
Grand Palm Casino	Complete
Grand Palm Hotel Refurbishment	Complete
Metcourt Lodge - Gabarone	Complete
Debid Lodge - Etosha	Complete
Francistown Lodge	Complete
Thapama Casino - Francistown	Complete
Airport Junction Lifestyle Centre	Complete
Airport Junction Lifestyle Centre – Virgin Active	Complete
Airport Junction Lifestyle Centre – Phase 2B	Complete
Townlodge - Botswana	Complete

ZAMBIA

Intercontinental Hotel - Lusaka	Complete
Ster-Kinekor Complex - Lusaka	Complete
Kafue Junction	Complete
Liberty Shopping Centre - Kitwe	Complete
Builders Warehouse - Lusaka	Complete
Citi Bank - Lusaka	Complete
Sandvik - Kitwe	Complete

SWAZILAND

FNB	Current
Piggs Peak Hotel and Casino – Eswatini	Complete

CONCLUSION

Quad Africa Consulting is an established practice with extensive experience in the Commercial and Industrial Sectors.

The opportunity to discuss the projects further, or visit some of our projects together with yourselves, would be greatly appreciated.

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