DRAFT

cc: EMazhani
C Maipambe
N Hobona
E Moje

BIDP NEWSLETTER

NOVEMBER 2011

Council news

BIDP held its Annual General Meeting on 20TH September, 2011 and the following Executive Council were elected:

BIDP Executive Council members:

Evans Moje	President
Edward Ted Mazhani	Vice President
Ontlametse Onneng	Treasurer
Ndingililo Doreen Hobona	Secretary
Paul Mvula Shimunza	Member (2 years)
Kabelo Morake	Member (2 years)
Chiwala Maipambe	Member
Mutua Mutuku	Member
Andreas Groth	Member
David Young	Member
Gerrit Herman Vlug	Member

EVENT

Talk on "Energy Efficiency Buildings"

Mr Andreas Groth gave a talk on Energy Efficiency Buildings. on 9th August, 2011 at University of Botswana.

Seminar to assist small contractors in preparing tenders

The Association of Electrical and Mechanical Contractors Botswana (AEMCB) held a successful workshop/seminar to assist small contractors and subcontractors in preparing tenders, on 28th June, 2011 at Botswana National Productivity Center

The workshop was facilitated by Botswana Institute of Development Professions (BIDP).

BIDP assisted with the speakers:

Vindfeldt Jorgensen:	"Preparation of pre-qualification tenders with emphasis on joint ventures"
Vindfeldt Jorgensen:	"Presentation skills for tender documents"
Martin Mogomela	"Effective & Sustainable Costing of Tenders"
Anthony Allen:	"Adjudication Procedure of Tenders"
Gerrit Vlug:	"Introduction to FIDIC conditions of contract (tender award, delays, extension of time, payment issues [sub-contractors], etc)"
Evans Moje:	"Project Financing in the Construction Industry"
Efraim Dondofema:	"Quality Control & Quality Assurance Documentation & Policy - a requirement from contractors"

BIDP WEBSITE www.bidp.bw

The Revised BIDP website is now operational and includes the following resources:

- Directory of members.
- Discussion forum; current topics include a lively discussion on the size of clay bricks.
- BIDP constitution and regulations.

BIDP – PUBLICATIONS REVIEW COMMITTEE

The BIDP Publications Review Committee has started discussion on a Form of Contract for Labour Only.

WORLD HABITAT AWARDS 2011/2012

Currently in their twenty-sixth year, the World Habitat Awards recognise innovative and sustainable housing and habitat solutions worldwide.

The competition is open to all individuals and organisations, including central and local governments, NGOs, community-based groups, research organisations and the private sector. The awards are presented each year at the United Nations global celebration of World Habitat Day.

Winning projects receive:

§International recognition for their work
§The opportunity for transfer of the award-winning approach with the ongoing support of BSHF
§A cash prize of £10,000.

Please note that the deadline for submission is 1st November 2011.

Click here to apply online

Details for entry can be found on the World Habitat Awards website at **www.worldhabitatawards.org**. If you require any further information, please do not hesitate to email us at **wha@bshf.org** or phone +44 (0)1530 510444 and ask to speak to a member of the World Habitat Awards team.

We look forward to hearing from you!

~ The World Habitat Awards team

BIDP Publications

Current list of publications:

	Standard document	Electronic document to one site to produce reference prints only under a four-year licence:
Minor works form of contract	P50.00	P70.00
Without quantities form of contract	P100.00	P100.00
With quantities form of contract	P100.00	P100.00
Form of nominated subcontract	P70.00	P70.00
Form of domestic subcontract	P70.00	P70.00
Form of major works subcontract for FIDIC contract	P200.00	
Electronic forms version 0.0.1 under a four year licence	P80.00	
Logo for site notice board	P30.00	
Certificate for payment pads	P70.00/pad	
Architect instruction pads	P70.00/pad	
Architect's appointment	P70.00	P70.00
Consultant's appointment	P50.00	
BIDP regulations for the promotion and conduct of architectural competitions	P30.00	P70.00
BIDP Architectural competitions advisory note	Free	
Site notice board layouts draft	Free	

The above are available from the BIDP shop at:

Plot 915, Phalane Close,
African Mall
Gaborone

Cell 7181 6811
fax 397 1181.

Newsletter compiled by Ellen Tshoganetso and *

BIDP Box 827, Gaborone; Phone 7181 6811; email bidp@mega.bw; Web site www.bidp.bw.

* Stamp to be impressed here if contract is under seal

ARTICLES OF AGREEMENT

Made the 12 day of MAY 2010

BETWEEN MR & MRS FRIKKIE AUGUSTYN

of (or whose registered office is situate at) SUITE 153 PHAKALANE P/BAG 346 GABORONE (PHONE: 71320413)

(hereinafter called 'the Employer') of the one part and ANVIL CONSTRUCTION (PTY) LTD WILLI MALHERBE

of (or whose registered office is situate at) PO BOX 60117 GABORONE (PH 72106962)

(hereinafter called 'the Contractor') of the other part. WHEREAS

the Employer is desirous of ** RESIDENTIAL DEVELOPMENT WET TRADES & 1st FIX M&E

(hereinafter called 'the Works') at PLOT 54903 PHAKALANE GABORONE

and has caused Drawings and Bills of Quantities showing and describing the work to be done to be prepared by or under the direction of GESA DESIGN GESA MACKEPRANG

of

his Architect PRINCIPLE AGENT

* No stamp is required if the Contract is under hand.

** State nature of the intended works

* AS WITNESS the hands of the said parties.

Signed by the said
Frikkie Augustyn
.....

In the presence of
Name GESA MACKEPRANG
Address PO BOX 403980 BROADHURST
Description PRINCIPLE AGENT

Signed by the said
G.J. MALHERBE
FOR DOMUS CONSTRUCTION

In the presence of
Name GESA MACKEPRANG
Address PO BOX 403980 BROADHURST
Description PRINCIPLE AGENT

* Footnote - If the Contract is to be executed under seal, this Clause and the words following it must be altered accordingly.

by the Architect under the preceding sub-clause upon completion or abandonment as the case may be of any such works, the provisions of sub-clause (2) (except sub-paragraph (vi) of paragraph (b)) of clause 26 of these Conditions shall apply, and the Contractor shall also be paid by the Employer the value of any work executed pursuant to instructions given under sub-clause (2) of this clause, the value being ascertained in accordance with clause 11 (4) of these Conditions as if such work were a variation required by the Architect.

33 (1) In the event of the Works or any part thereof or any unfixed materials or goods intended for, delivered to and placed on or adjacent to the Works sustaining war damage then notwithstanding anything expressed or implied elsewhere in this Contract: War damage.

(a) The occurrence of such war damage shall be disregarded in computing any amounts payable to the Contractor under or by virtue of this Contract.

(b) The Architect may issue instructions requiring the Contractor to remove and/or dispose of any debris and/or damaged work and/or to execute such protective work as shall be specified.

(c) The Contractor shall reinstate or make good such war damage and shall proceed with the carrying out and completion of the Works, and the Architect shall grant to the Contractor a fair and reasonable extension of time for completion of the Works.

(d) The removal and disposal of debris or damaged work, the execution of protective works and the reinstatement and making good of such war damage shall be deemed to be a variation required by the Architect.

(2) If at any time after the occurrence of war damage as aforesaid either party serves notice of determination under clause 32 of these Conditions, the expression 'protective work' as used in the said clause shall in such case be deemed to include any matters in respect of which the Architect can issue instructions under paragraph (b) of sub-clause (1) of this condition and any instructions issued under the said paragraph prior to the date on which notice of determination is given or received by the Employer and which shall not then have been completely complied with shall be deemed to have been given under clause 32 (2) of these Conditions.

(3) The Employer shall be entitled to any compensation which may at any time become payable out of monies provided by the Government of the Republic in respect of war damage sustained by the Works or any part thereof or any unfixed materials or goods intended for the Works which shall at any time have become the property of the Employer.

34 (1) All fossils, antiquities and other objects of interest or value which may be found on the site or in excavating the same during the progress of the work shall become the property of the Employer. The Contractor shall carefully take out and preserve all such objects and shall immediately or as soon as conveniently may be after the discovery of such articles deliver the same into the possession of the Architect or of the clerk of works uncleaned and as excavated. Antiquities.

(2) If in the opinion of the Architect compliance with the provisions of the preceding sub-clause has involved the Contractor in direct loss and/or expense for which he would not be reimbursed by a payment made under any other provision in this Contract then the Architect shall either himself ascertain or shall instruct the Quantity Surveyor to ascertain the amount of such loss and/or expense. Any amount from time to time so ascertained shall be added to the Contract Sum, and if an Interim Certificate is issued after the date of ascertainment any such amount shall be added to the amount which would otherwise be stated as due in such Certificate.

35 (1) Provided always that in case any dispute or difference shall arise between the Employer or the Architect on his behalf and the Contractor, either during the progress or after the completion or abandonment of the Works, as to the construction of this Contract or as to any matter or thing of whatsoever nature arising thereunder or in connection therewith (including any matter or thing left by this Contract to the discretion of the Architect or Arbitration.

the withholding by the Architect of any certificate to which the Contractor may claim to be entitled or the measurement and valuation mentioned in clause 30 (5) (a) of these Conditions or the rights and liabilities of the parties under clauses 25, 26, 32 or 33 of these Conditions), then such dispute or difference shall be and is hereby referred to arbitration in accordance with the Botswana Arbitration Act (Cap 06:01) as amended. The Arbitrator shall be the person named in the Appendix or, when no name has been inserted, a person appointed by the President of the Botswana Institute of Development Professions at the request of either party. The appointed arbitrator's cost will be divided equally between the parties until the arbitrator decides to the contrary.

(2) Such reference, except on article 3 or article 4 of the Articles of Agreement, or on the questions whether or not the issue of an instruction is empowered by these conditions, whether or not a certificate has been improperly withheld or is not in accordance with these Conditions or on any dispute or difference under clauses 32 and 33 of these Conditions, shall not be opened until after Practical Completion or alleged Practical Completion of the Works or termination or alleged termination of the Contractor's employment under this Contract, or abandonment of the Works, unless with the written consent of the Employer or the Architect on his behalf and the Contractor.

(3) Subject to the provisions of clause 2 (2), 30 (7) and 31C (3) of these Conditions the Arbitrator shall, without prejudice to the generality of his powers, have power to direct such measurements and/or valuations as may in his opinion be desirable in order to determine the rights of the parties and to ascertain and award any sum which ought to have been the subject of or included in any certificate and to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision, requirement or notice had been given.

(4) The award of such Arbitrator shall be final and binding on the parties.

Provision of Surety.

36* (1) The Contractor should allow for the provision of a cash deposit of 10% of the Contract Sum or Banker's Guarantee (to be approved by the Employer) for a total of 10% of the Contract Sum.

(2) Provision of the surety will be required within 14 days from the acceptance of the tender and will terminate on the date of Practical Completion of the Works as certified by the Architect.

* Delete if not required.

Original of the Signed Contract

7106962

7210 6962 – Anvil Construction.

Received unsigned
9th Meeting.

AGENDA

PRELIMINARY MEETING IN THE ARBITRATION BETWEEN

.....

1. Identification of the Parties, and their contact details. The Claimant party to identify themselves as such: other party will be the Respondent party.
2. Arbitrator's Declaration under Section 13 of the Arbitration Act.
3. Confirmation of the Arbitration Agreement (Parties' to bring a copy of their Contract Agreement, or other written document that any disputes be settled by arbitration).
4. Arbitrator confirms his appointment.
5. Terms of the appointment.
6. Claimant to give a very brief factual over view of the nature and extent of the dispute.
7. Respondent to reply if required.
8. Discussion on best way forward.
9. Rules for the conduct of the proceedings.
10. Dates for exchange of Pleadings, if any.
11. Date for Second Preliminary Meeting, or any subsequent meetings.

PARASTATALS IN BOTSWANA

1. Air Botswana (AB)	**3688528**	ematomela@airbotswana.co.bw
2. Bank of Botswana (BoB)	**360 6000**	kandjiis@bob.bw
3. Botswana Accountancy College (BAC)	**395 3962**	tebogom@bac.ac.bw
4. Botswana Agricultural Marketing Board (BAMB)	**395 1341**	bamb@it.bw
5. Botswana Building Society (BBS)	**397 1396**	mayilad@bbs.co.bw
6. Botswana Bureau of Standards (BOBS)	**390 3200**	Infoc@hq.bobstandards.bw
7. Botswana College of Agriculture (BCA)	**3650100**	lagang@bca.bw
8. Botswana Development Corporation (BDC)	**365 1300**	kagelelo@bdc.bw
9. Botswana Development Corporation (BDC)	**365 1300**	
10. Botswana Enterprise Development and Investment Agency (BEDIA)	**318 1931**	sebokom@bedia.bw
11. Botswana Examination Council (BEC)	**365 0700**	Bec.co.bw
12. Botswana Export Credit insurance (BECI)	**363 3300**	
13. Botswana Institute of Development Policy Analysis (BIDPA)	**397 1750**	webmaster@bidpa.bw
14. Botswana Meat Commission (BMC)	**533 0321**	marketing@bmc.bw
15. Botswana National Olympic Committee (BNOC)	**391 8944**	bnoc@info.bw
16. Botswana National Productivity Centre (BNPC)	**3626300**	info@bnpc.bw
17. Botswana National Sports Council (BNSC) -	**395 3449**	kmosanawe@bnsc.co.bw
18. Botswana Postal Services (BPS)	**395 3131**	sselei@botspost.co.bw
19. Botswana Power Corporation (BPC) -	**360 3000**	contact@bpc.bw
20. Botswana Railways (BR)	**4711375**	info@botrail.bw
21. Botswana Savings Bank (BSB)	**391 2555**	marketing@bsb.bw
22. Botswana Stock Exchange (BSE) -	**318 0201**	info@bse.co.bw
23. Botswana Technology Centre (BOTEC)	**391 4161**	scitech@botech.bw
24. Botswana Telecommunications (BTC)	**3958000**	publicrelations@btc.bw
25. Botswana Tourism Board	**391 3111**	board@botswanatourism.co.bw
26. Botswana Training Authority (BOTA)	**365 7200**	info@bota.or.bw
27. Botswana Unified Revenue Services (BURS)	**363 8000**	
28. Botswana Vaccine Institute (BVI)	**391 2711**	marketing@bvi.co.bw
29. Citizen Entrepreneur Mortgage Assistance Equity Fund (CEMAEF)		
30. Citizen Entrepreneurial Development Agency (CEDA)	**3170895**	info@ceda.co.bw
31. Construction Industry Trust Fund (CITF)	**3911362**	administrator@citf.co.bw
32. Institute of Development Management (IDM)	**390 6433**	directorcs@idmbls.com
33. International Financial Services Centre (IFSC)	**360 5000**	ifsc@ifsc.co.bw
34. Local Enterprise Authority (LEA)	**364 4000**	botsalea@lea.co.bw
35. Motor Vehicle Accidents Fund (MVA)	**318 8533**	mvafund@mvafund.bw
36. National Development Bank (NDB)	**395 2801**	kmusa@ndb.bw
37. Non-Bank Financial Institutions Regulatory Authority (NBFIRA)	**310 2595**	tmakwaeba@nbfira.org.bw
38. Public Enterprises, Evaluation and Privatisation Agency (PEEPA)	**318 8807**	peepa@peepa.co.bw
39. Public Procurement & Asset Disposal Board (PPADB)	**360 2000**	nbaleseng@ppadb.co.bw
40. Rural Industries Promotion Company	**365 1200**	kmogotlhwane@ripco.co.bw

41. Tertiary Education Council	**393 0741**	marketingcomms@tec.org.bw
42. University of Botswana (UB)	**355 0000**	fet@mopipi.ub.bw
43. Water Utilities	**360 4400**	metsi@wuc.bw

List of Botswana Parastatals

Memorandum of Agreement

BETWEEN

1. BOTSWANA HOTEL DEVELOPMENT COMPANY (PTY). LTD ..... THE CLIENT

2. TSWANA DESIGN ARCHITECTS ..... THE CONSULTANT

WHEREAS

A. The Client intends to

UNDERTAKE REFURBISHMENTS AND ALTERATIONS TO RILEYS HOTEL ..... THE PROJECT

At

PLOT 141/2 MAUN ..... THE LOCATION

B. The Client wishes to appoint the Consultant for the Project and the Consultant has accepted the appointment subject to the following:-

CONDITIONS.

1. The Consultant shall provide the services specified in the attached schedule.
2. The Consultant shall carry out the services in a professional manner.
3. The Consultant shall maintain sufficient indemnity insurance cover to protect the Client's interest.
4. The Client shall pay the Consultant on demand the fees, expenses and disbursements due in accordance with the attached scale of fees and schedule of payments.

INTERPRETATION.

1. This agreement will be subject to the laws of Botswana.
2. The following documents are deemed to form part of this agreement:
   a) The letter of acceptance.
   b) Schedule of Services.
   c) Scale of fees and schedule of payments.
   d) Additional reference (where applicable).

DATED.

26 MAY 2005 ..... 02.06.05

SIGNED.

..... THE CLIENT ..... THE CONSULTANT

WITNESSED.

SCHEDULE OF CONDITIONS.

1. DEFINITIONS.

Project	- is the project, as referred to in the Agreement, for which the consultant will supply the services.
Services	- are the services provided by the Consultant in accordance with Appendix A.
Client	- is the party named in the Agreement, who employs the Consultant, as well as the Legal successors to the Client and permitted assignees.
Consultant	- is the party, named in the Agreement, who is employed by the Client.
Party	- means the client and / or the Consultant or any other party.
Agreement	- is this agreement with all appendices.
Day	- is the period between any one midnight and the next.
Month	- is the period of one month in accordance with the Gregorian calendar, commencing with any day of the month and ending at the same day minus one in the next month.
Currency	- means the Botswana Pula.
Agreed Compensation	- means additional sums, which are agreed upon by both parties and which are payable under the agreement.

2. INTERPRETATION

2.1. The singular includes the plural and visa versa.
2.2. The masculine includes the feminine and visa versa.
2.3. In the event that there is a conflict between clauses and documents, which form part of the Agreement (whether they have been attached or not), the last written documents supersede the earlier conflicting one.

3. OBLIGATIONS OF THE CONSULTANT

3.1. Scope of services.
The Consultant shall perform services in a professional manner and in accordance with the scope of services as attached in Appendix A.

3.2. Client's property.
Anything supplied by or paid for by the Client, shall remain the property of the Client.

4. OBLIGATIONS BY THE CLIENT.

4.1 Information.
The Client shall do everything in his power to reduce delays in the obtaining of information by the Consultant, and shall give his full cooperation in making speedy decisions, when requested in writing by the Consultant.

4.2 Equipment and facilities.
The Client shall make available, free of cost to the Consultant, the equipment and facilities as described in Appendix B.

4.3 Client's personnel
In consultation with the Consultant, the Client shall, at his own cost, arrange for the selection and provision of personnel in his employment to the Consultant in accordance with Appendix B hereof. In connection with the services to be provided by the Consultant to the Client, the Client's personnel shall take instructions from the Consultant.

4.4. Services by others
The Client shall, at his cost, arrange for the provision of services by others, as described in Appendix B, and

JCM YHR

the Consultant shall cooperate with the Suppliers of such services but shall not be responsible for them or their performance.

5. PAYMENT

5.1 Payment
Payment for the services shall be calculated, charged and paid as set out in Appendix C.

5.2 Instalments
If the payment for the services is to be paid in instalments, clearly defined stages of the work must be identified or a time basis agreed and set out in Appendix C.

5.3 Revised rates
Unless otherwise agreed and stated in Appendix C time rates and mileage rates for vehicles shall be revised in line with rates issued by an independent authority.

5.4 Variations
Where any changes are made to the Consultant's services the fees specified in Appendix C shall be varied.

5.5 Expenses
The Client shall pay the expenses specified in Appendix C. Expenses other than those specified shall only be charged with the prior authorisation of the Client.

5.6 Disbursements
The Client shall reimburse the Consultant as specified in Appendix C for any disbursements made on the Client's behalf.

5.7 Interest on Outstanding Accounts
Any sums remaining unpaid at the expiry of twenty-eight days from the date of submission of an account shall bear interest thereafter. Such interest to accrue from day to day at the rate specified in Appendix C.

5.8 Payment on Suspension / Termination
On suspension or termination of the appointment the Consultant shall be entitled to, and shall be paid, fees for all services provided to that time calculated as incomplete services, and shall be entitled to expenses and disbursements reasonably incurred to that time.

5.9 Sales Tax or VAT
All fees, expenses and disbursements under the Appointment are exclusive of Sales Tax and VAT. Any Sales Tax or VAT due on the Consultant's services will be added and shall be paid by the Client.

6. LIABILITY

6.1 Consultant's Liability
The Consultant shall only be liable to pay compensation to the Client arising out of or in connection with the Agreement if a breach of Condition 2 is established against him. Special liability insurance beyond that described in Condition 3 would be an extra provision.

6.2 Client's Liability
The Client shall be liable to the Consultant if a breach of his duty to the Consultant is established against the Client.

6.3 Compensation
If it is considered that either party is liable to the other, compensation shall be payable only on the following terms:

i) Such compensation shall be limited to the amount of reasonably foreseeable loss and damage suffered as a result of such breach, but not otherwise.

ii) If either party is considered to be liable jointly with third parties to the other, the proportion of compensation payable by him shall be limited to that proportion of liability which is attributable to his breach.

6.4 Duration of Liability
Neither the Client nor the Consultant shall be considered liable for any loss or damage resulting from any occurrence unless a claim is formally made on him before the expiry of the relevant period stated in Appendix D or such earlier date as may be prescribed by Law.

6.5 Indemnity

The Client can request in writing that the Consultant insures against special liability under Clause 6.1. The cost of such extra insurance shall be at the expense of the Client.

7. DISPUTES

7.1 Disputed accounts

If any item or part of an item in an invoice submitted by the Consultant is contested by the Client, the Client shall give prompt notice with reasons and shall not delay payment on the remainder of the invoice.

7.2 Claims for Loss or Damage

Subject to Clause 6.4 any claim for loss or damage arising out of breach or termination of the Agreement shall be agreed between the Client and the Consultant or, failing agreement, shall be referred to arbitration in accordance with Clause 7.3.

7.3 Arbitration

Any dispute or claim arising out of or relating to this Agreement or the breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the rules stipulated in Appendix D in force at the effective date of the Agreement.

The parties agree to comply with the awards resulting from arbitration and waive their rights to any form of appeal insofar as such waiver can validly be made.

8. COPYRIGHT

8.1 Publication

Unless otherwise specified in Appendix D, the Consultant, either alone or jointly with others, can publish material relating to the works and services. Publication shall be subject to approval of the Client if it is within two years of completion or termination of the services.

8.2 Copyright

The Consultant retains copyright of all documents prepared by him. The Client shall be entitled to use them or copy them only for the works and the purpose for which they are intended, and need not obtain the Consultant's permission to copy for such use.

APPENDIX A

Scope of the Work / Services

1). Project Architectural Services as per attached schedule labelled "Appendix A"

APPENDIX B

1) Equipment and facilities to be provided by the Client

N/A

2) Provision of services by others to be provided by the Client

N/A

APPENDIX C

8.775% ~~8.25%~~ of the final building cost exclusive of print disbursements and travel disbursement and VAT and there will be no additional charges of fees payable resulting from alterations and/or changes to the Project during the course of the design and construction unless the client instructs you to make material and/or substantial alterations and or changes to the Project or as a result of circumstances that cannot be envisaged by the consultant at the time of commencement.

1) Payment to the Consultant

2) Stage payments

Stage payments per attached schedule labelled "Appendix C".

3) Revision of rates

N/A

4) Expenses Any unforeseen expense arising in the execution of these works that is not as a result of the consultant, will be recorded and presented to the client for payment.

5) Disbursements All expenses properly incurred by the consultant in connection with the Services shall be reimbursed on a monthly basis as an additional charge unless specifically incorporated in the fees and expenses set out in "Appendix C"

6) Interest on outstanding fees

2% per month

APPENDIX D

1) Duration of liability

Duration of Construction Contract plus 12 months thereafter

2) Arbitration rules

In accordance with Law of Botswana, subject to appeal on the Law or the facts

3) Right to publish

Refer clause 8.1 of this "Memorandum of Agreement"

ADDENDUM

1.0 Appointment of Project Manager

1.1. To facilitate the delivery and implementation of the Rileys Hotel Refurbishment Project; Botswana Hotel Development Company has secured the services of a Project Manager.

1.2. The appointed Project Manager is AMA Projects Botswana (Pty) Ltd.

2.0 Role of Project Manager

2.1. The role of the Project Manager is that of "Principal Agent" and Lead Consultant; as Principal Agent and Lead Consultant the Project Manager is responsible for the overall management and coordination of the project and is responsible to the Client's Project for the efficient delivery of the project in accordance with standard building contract and project management principles.

2.2. "Principal Agent" means the party appointed by the Client to take overall responsibility for the administration of the Project.

3.0 The Project Manager's basic services and duties

3.1. Provide overall project leadership, control, coordination and management of all Project Consultants.

3.2. Manage Project quality control management systems by ensuring that all project Consultants and Client Representatives meet their quality management obligations to the Project.

3.3. Act as a link between the Client and the Project Consultants and Contractors (i.e. a single point of contact regarding all Client requests/concerns) and shall with the assistance of the Consultants keep the Client informed regarding the design, budget, progress and other relevant matters related to the project.

3.4. AMA Projects Botswana (Pty) Ltd as Client's representative shall sign all contract documents relevant to the appointment of the Project Consultants on behalf of Botswana Hotel Development Company.

APPENDIX "C1"

PROPOSED REFURBISHMENT OF RILEYS HOTEL

SCHEDULE OF DISBURSEMENTS

1.0 Time Charges

Professional	Hourly Charge (Excl VAT)
Partner/Director	P190.00
Principal Architect, QS, Engineer	P170.00
Senior Architect, QS, Engineer	P150.00
Architect, QS, Engineer	P135.00
Assistant Architect, QS, Engineer	P135.00
Technician	P75.00

2.0 Administration Disbursement Charges

Item	Rate (Pula)
Typing	7.50 per A4 Size
Photocopying	0.50 per A4 Size
Photocopying	1.00 per A3 Size
Plan Printing	9.00 per A0 Size
Plan Printing	7.00 per A1 Size
Plan Printing	6.00 per A2 Size
Sepia	33.80 per A0 Size
Sepia	20.00 per A1 Size
CD	20.00 per CD
Collating	0.10 per copy
Binding	15.00 per document
Covers	5.00 per pair
Courier Postage	At cost plus 5% admin Charge
Accommodation	At cost plus 5% admin Charge
Air Travel	At cost plus 5% admin Charge
Contract Document Purchase	At cost plus 5% admin Charge
Facsimile Transmission	Included in Basic Fees
International Communication	Included in Basic Fees
Mileage	1.35 Per Kilometre

APPENDIX A

SERVICES OF THE PROJECT ARCHITECT

1. The Architect will be required assist the Project Manager to design and supervise the project as follows:

   1.1. Design development.

   1.2. Technical documentation and approvals.

   1.3. Contract administration and inspections.

   1.4. Closure of contracts and debriefing.

2. The Architect's role is the design, specification and documentation for the architectural and related aspects of the Works, assisting the Project Manager in leading the Design Team and co-coordinating their work, and inspecting the Work as constructed with the intention of achieving the Clients objectives for the completed project.

3. The Architect's Basic Services and duties are to;

   3.1. Report formally to the Client through the Project Manager

   3.2. Uncover, interpret and report on site information, town planning and regulatory requirements.

   3.3. Prepare the building Site plan taking cognisance of existing buildings.

   3.4. Submit Site Development Plan to local authority and expedite approvals.

   3.5. Advise the Client in conjunction with the Project Manager on the need for specialist design and technical Consultants.

   3.6. Assist the Project Manager to lead the multi-disciplinary Design Team in the process of complying with the objectives for the project.

   3.7. Prepare the Architectural design, specification and documentation.

   3.8. Submit the plans to the relevant local authorities for approval.

   3.9. Expedite plan approval by the local authorities by personal interventions.

   3.10. Co-ordinate the multi-disciplinary design and details for tender and construction purposes, establishment of co-ordination procedures and common information technology between the Design Team members to facilitate information flow.

3.11. Co-ordinate and control all Design Team documentation issues and changes.

3.12. Check shop drawings for compliance with design requirements.

3.13. Contribute towards the inspiration of a shared vision of excellence regarding quality of construction work and construction quality control procedures in conjunction with the Design Team and Contractors.

3.14. Regularly inspect all aspects of construction work during progress of such work, for conformance to architectural requirements. A proactive approach is required in order to minimize delays caused by defective construction work.

3.15. Co-ordinate the inspection by the other members of the Design Team of engineering and specialists aspects of construction work, and co-ordination of the preparation of all defects lists.

3.16. Issue proposed site instructions to clarify technical matters or Contractors queries in the architectural works. All formal site instructions to the Contractors will be issued or approved by the Project Manager unless specifically otherwise arranged by the Project Manager.

3.17. Facilitate the assembly of all submissions to the contractor as required by the local authorities in order for them to issue the Occupation Certificates, and expedite its issue prior to occupation so as not to delay the opening and use of the Works.

MRF

DM

APPENDIX "C"

PROPOSED REFURBISHMENT OF RILEYS HOTEL - PAYMENT SCHEDULE

PROFESSIONAL SERVICE — ARCHITECTURAL

COMPANY — TSWANA DESIGN [redacted]

ESTIMATED PROJECT COST — - (TBA)

FEE PERCENTAGE — 8.95%

PROJECT STAGE	ISSA STAGE	Value %	Amount
Appraisal & Definition	Stage 1	5%	-
Design Concept	Stage 2	15%	-
Design Development	Stage 3	15%	-
Technical Documentation for Construction	Stage 4	35%	-
Contract Administration	Stage 5	25%	-
End of Defect Liability & As-Built-Drawings		5%	-
TOTAL FEE*		100%	-

Botswana
Insurance Company Limited

PROFESSIONAL INDEMNITY

THE SCHEDULE

Policy Number	: GA-BPI-50009556
The Insured	: Tswana Design Architects
Business/Profession	: Architects, Interior Designing and Urban Planning
Business Address	: P.O. Box 1194 Gaborone
Period of Insurance	**From** : 18 February 2005
	To : 17 February 2006
Retroactive Date	: 18 February 2005
Limit of Indemnity	: P500,000.00

BUT LIMITED TO
P500,000.00

in the aggregate for all claims made during the period of insurance including costs and expenses

Renewal Date	: 18 February 2006
Reinstatement	: NIL
Deductible	: P 20,000.00 Each & Every
Agency/Broker	: Mastar Insurance Services (Gaborone)
Date	: 18 February 2005

.....
SIGNED FOR AND ON BEHALF OF
BOTSWANA INSURANCE COMPANY LTD

*
Stamp to be impressed here if contract is under seal

ARTICLES OF AGREEMENT

Made the ..... day of ..... 2 .....

BETWEEN .....

of (or whose registered office is situate at) .....

.....

.....

(hereinafter called 'the Employer') of the one part and .....

.....

.....

of (or whose registered office is situate at) .....

.....

(hereinafter called 'the Contractor') of the other part. WHEREAS

the Employer is desirous of ** .....

.....

(hereinafter called 'the Works') at .....

.....

and has caused Drawings and Bills of Quantities showing and describing the work to be done to be prepared by or under the direction of .....

.....

of .....

..... his Architect .....

* No stamp is required if the Contract is under hand.

** State nature of the intended works

This form of Agreement and Conditions is designed for use where minor building works or maintenance work, for which a specification and/or drawings have been prepared, are to be carried out for an agreed lump sum and where an Architect / Supervising Officer has been appointed on behalf of the Employer. The Form is not appropriate for works for which bills of quantities have been prepared or for which a schedule of rates is required for valuing variations.

This Agreement

is made the ..... day of ....., 2 .....

BETWEEN .....

of (or whose registered office is situated at) .....

(hereinafter called 'the Employer') of the one part

and .....

of (or whose registered office is situated at) .....
hereinafter called 'the Contractor') of the other part

WHEREAS the Employer wishes the following work .....

.....

(hereinafter called 'the Works') to be carried out under the direction of the Architect / Supervising officer'* and has

caused a specification and/or Drawings numbered ..... to ..... inclusive (hereinafter called the 'Contract Drawings') showing and describing the Works to be prepared:

AND WHEREAS the Specification and/or Contract Drawings have been signed by or on behalf of the parties hereto:

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. For the consideration hereinafter mentioned the Contractor will upon and subject to the Conditions annexed hereto carry out and complete the Works described in the Specification and/or shown on the Contract Drawings.

2. The Employer will pay to the contractor the sum of ..... (P -) or such other sum as shall become payable at the times and the manner specified in the said Conditions.

3. The term 'Architect / Supervising Officer' in the said Conditions shall mean .....

..... or in the event of his death or ceasing to be the Architect / Supervising Officer for the purpose of this Contract such other person as the Employer shall within 14 days of the death or cessation as aforesaid nominate for that purpose **PROVIDED** that no person subsequently appointed to be the Architect/ Supervising Officer under this Contract shall be entitled to disregard or overrule any certificate or instruction given by the Architect/Supervising Officer for the time being.

AS WITNESS the hands of the parties hereto

Signed for and on behalf of the Employer in the presence of

....

.....

Signed for and on behalf of the Contractor in the presence of

....

.....

---

* Where the person named is an Architect eligible for ordinary membership of the Botswana Institute of Development Professions (BIDP) delete 'Supervising officer'; in all other cases delete 'Architect'. Where 'Architect' is deleted the expression 'Architect' shall be deemed to have been deleted throughout this Agreement.

* Stamp to be impressed here if contract is under seal

ARTICLES OF AGREEMENT

Made the ..... day of ..... 2 .....

BETWEEN .....

of (or whose registered office is situate at) .....

.....

.....

(hereinafter called 'the Employer') of the one part and .....

.....

.....

of (or whose registered office is situate at) .....

.....

(hereinafter called 'the Contractor') of the other part. WHEREAS

the Employer is desirous of ** .....

.....

(hereinafter called 'the Works') at .....

.....

and has caused Drawings and a specification marked 'A' *** showing and describing the work to be done to be prepared by or under the direction of

.....

of .....

..... her Architect

* No stamp is required if the Contract is under hand.

** State nature of the intended works

*** It is important that the document to be used as Specification be marked 'A'

AGREEMENT AND SCHEDULE OF CONDITIONS OF BUILDING SUB-CONTRACT

(NOMINATED SUB-CONTRACT)

between

.....

.....

and

.....

.....

dated

.....

This contract is published by the Botswana Institute of Development Professions
and endorsed by the Association of Electrical & Mechanical Contractors of Botswana
1999 edition, this revision 2009

AGREEMENT AND SCHEDULE OF CONDITIONS OF BUILDING SUB-CONTRACT

(DOMESTIC SUB-CONTRACT)

between

.....

.....

and

.....

.....

dated

.....

This contract is published by the Botswana Institute of Development Professions

May, 2008 edition

Agreement and Schedule of Conditions of Building Sub-contract for major works

(Nominated form of Sub-contract for major works, to be used with the Federation Internationale Des Ingenieurs Conseils' "Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer")

between

.....

.....

and

.....

.....

dated

.....

In respect of

.....

BIDP Forms of Contract (Advantages / Disadvantages)

History

The Botswana Institute of Development Professions (BIDP) was formed in 1978 by construction professionals who were practicing privately in Botswana, at the request of the Ministry of Works. The BIDP is a voluntary association of professionals in the development arena of Architecture, Engineering and Quantity Surveying and other professions. Being the forerunner of all the development professional associations in Botswana the BIDP has come to be seen as a standard bearer of professionalism. Most professionals at the time of formation were expatriates from different countries. After forming the association the members then realized that there was no one standard form that was used for private projects either for appointment of professionals or even engagement of contractors. It was a norm then for individual professionals and even contractors to recommend use of forms of contract from their varied countries of origin, which commonly then could be Zambia, the United Kingdom, South Africa and / or even India. This was a problem because then one party had an advantage over others due to their familiarity with the form of contract against the naiveté of others. It was not uncommon to find that contractors would be experts at picking conditions of contract apart, particularly where such would be from Commonwealth countries as most contractors were at the time. Similarly professionals were often at pains to explain the benefits of recommending one form of contract from one country and not the other from another country to Clients.

In 1980 the BIDP produced 'conditions of engagement for architects'. There was very little work outside government, the mines and parastatal corporations like BPC and so the conditions of contract for private works employer/contractor followed slightly later, in 1984.

The standard BIDP Form of Contract with Quantities was first issued in 1985, and was then sold at P25.00 a copy. The conditions of contract were based on the Zambian Institute of Architects form similar to the British Joint Contract Tribunal (JCT) standard issues. The first issue was modeled on the Form of Contract with Quantities. To complement (the with Quantities) first issue other forms of contract were also published in the same year, being:

- BIDP Form of Contract Without Quantities, and
- BIDP Form of Contract for Minor Works

All the three forms of contract were widely received and have been revised from time to time, lastly in 2006. With the standard contracts place in the Botswana construction industry established the BIDP was implored by the contracting community to come up with forms of contract to regulate the engagement of sub-contractors. This was dully done when in 1999 the BIDP published the form of contract for nominated sub-contractors for major building and engineering works.

The form of contract for domestic sub-contracting was first published in 2008, and the nominated major works subcontract form in 2010, which was drafted at the request of the Ministry of Works and the AEMCB.

HOW DOES THE BIDP WORK?

The BIDP is run by an elected executive committee that is elected into office for a term of two years by the general membership. The general membership is comprised of graduate professionals, and there is a student membership for university students aspiring to join. In order to consult with members general meetings are held annually. The BIDP has a Contracts Review Committee whose mandate is to continually review contracts sold by the BIDP based on feedback from the contracting community. The Contracts Review Committee meets on a quarterly basis. The Contracts Review Committee is made up of senior members from the professions of Architecture, Engineering, Quantity Surveying and Arbitration. BIDP invites the participation of other organisations in the area to participate in the pContracts Review Committee.

LATEST WORKS

Of late the BIDP has completed work on a variant of the FIDIC form of contract for sub-contractors, to be used by sub-contractors on government projects where the principal contract is FIDIC. This work was done by the Contracts Review Committee working in consultation with representatives from the Department of Building and Engineering Services (DBES) and the AEMCB). Presently the BIDP is working on a simplified form of contract for the engagement of contractors on labour-only basis, where the Client undertakes to purchase and supply materials, as is common on private house construction works. Other items under consideration are design-and-build and procedural (ie NEC, FIDIC) styles of contract.

Advantages of BIDP Forms of Contract

The purpose of a form of contract in construction is to regulate relations between contracting parties of Client and Builder. The form of contract establishes the terms and conditions of engagement by expressly stating the obligations of each party to the contract. The Client engages the Contractor to build something as depicted in drawings and other documents for a fee. The Client is obliged to provide information on time to the Contractor, and the Contractor is supposed to build and finish the works at a pre-determined time, after which the Client should pay for the works within an agreed time. A construction project is a major undertaking that is normally carried out over a long period through the utilization of large quantities of varied materials that must be brought to the works in a controlled manner to produce a finished product that at the time of contracting was merely an image on paper attempting to convey the Clients instructions to the builder. There is a lot of risk involved in construction for both parties, and unexpected outcomes are common. Drawing from long experience on construction works standard forms of contract

attempt to address all the factors that come to play during a project from description of the works, contract amounts, commissioning, mobilization, performance bonds, safety on site, site management, supply of materials, workmanship, protection of works, insurance, interim payments, retentions, completion and handover, quality inspections and remedies of defects, final accounts, defects liability and return of performance bonds. If it was not for standard forms of contracts Clients and Contractors would have to approach lawyers to draft their terms and conditions of engagement for every project, and the cost of this would not be the P200 presently charged for a standard contract.

The advantage of the BIDP form of contract is the familiarity that the Botswana contracting community has acquired through use over the years. Where disputes arise they are easy to resolve by the parties with help from the project consultants. Where parties are unable to find a solution by themselves a mediator is easy to find from the many veterans who have used the conditions of contract over the years.

There are many forms of contract from around the world from the most common like JBCCs of South Africa, FIDIC Forms, NEC, JCT, and many others on the internet. On their own many of these forms of contract are very good documents. Their disadvantage however, is their unfamiliarity to the people who are supposed to commit themselves on the basis of the forms, and / or administer projects. As a contract binds two parties it is imperative that both parties are fully conversant of the terms and conditions of the contract they are binding themselves to. The government has recently adopted the FIDIC form of contract. It is apparent that either the government or contracting parties are not fully conversant and willing to abide with all the terms and conditions of the FIDIC form of Contract, like on the issue of Dispute Arbitration Boards, where such are supposed to be formed for each project. Similarly contractors are not very happy with the extension of defects liability period from 6 months as was with the former government white form, to the present 12 months with FIDIC. And the problem is that when one chooses to use novel forms of contracts parties are only going to find objectionable clauses only during project execution, which could be cause for disputes.

X:\BIDP\website\bidp\bweb\List of parastatals in Botswana.html

List of Botswana Parastatals 2011

Air Botswana (AB), tel 3688528, email ematomela@airbotswana.co.bw
Bank of Botswana (BoB), tel 360 6000, email kandjiis@bob.bw
Botswana Agricultural Marketing Board (BAMB), tel 395 1341 email bamb@it.bw
Botswana Building Society (BBS) , tel 397 1396, email mayilad@bbs.co.bw
Botswana Bureau of Standards (BOBS), tel 390 3200, email, infoc@hq.bobstandards.bw
Botswana College of Agriculture (BCA), tel 3650100, email agang@bca.bw
Botswana Development Corporation (BDC), tel 365 1300, email kagelelo@bdc.bw
Botswana Enterprise Development and Investment Agency (BEDIA), tel 318 1931, email sebokom@bedia.bw
Botswana Examination Council (BEC), tel 365 0700, email procurement@bec.co.bw
Botswana Institute of Development Policy Analysis (BIDPA), tel 397 1750, email webmaster@bidpa.bw
Botswana Meat Commission (BMC), tel 533 0321, email marketing@bmc.bw
Botswana National Olympic Committee (BNOC), tel 391 8944, email bnoc@info.bw
Botswana National Productivity Centre (BNPC), tel 3626300, email info@bnpc.bw
Botswana National Sports Council (BNSC), tel 395 3449, email kmosanawe@bnsc.co.bw
Botswana Postal Services (BPS), tel 395 3131, email sselei@botspost.co.bw
Botswana Power Corporation (BPC), tel 360 3000, email contact@bpc.bw
Botswana Railways (BR), tel 4711375, email info@botrail.bw
Botswana Savings Bank (BSB), tel 391 2555, email marketing@bsb.bw
Botswana Stock Exchange (BSE), tel 318 0201, email info@bse.co.bw
Botswana Technology Centre (BOTEC), tel 391 4161, email scitech@botech.bw
Botswana Telecommunications (BTC), tel 3958000, email publicrelations@btc.bw
Botswana Tourism Board, tel 391 3111, email board@botswanatourism.co.bw
Botswana Training Authority (BOTA), tel 365 7200, email info@bota.or.bw
Botswana Vaccine Institute (BVI), tel 391 2711, email marketing@bvi.co.bw
Citizen Entrepreneurial Development Agency (CEDA), tel 3170895, email info@ceda.co.bw
Construction Industry Trust Fund (CITF), tel 3911362, email administrator@citf.co.bw
International Financial Services Centre (IFSC), tel 360 5000,email ifsc@ifsc.co.bw
Local Enterprise Authority (LEA), tel 364 4000, email botsalea@lea.co.bw
Motor Vehicle Accidents Fund (MVA), tel 318 8533, email mvafund@mvafund.bw
National Development Bank (NDB), tel 395 2801, email kmusa@ndb.bw
Non-Bank Financial Institutions Regulatory Authority (NBFIRA), tel 310 2595, email tmakwaeba@nbfira.org.bw
Public Enterprises, Evaluation and Privatisation Agency (PEEPA), tel 318 8807, email peepa@peepa.co.bw
Public Procurement & Asset Disposal Board (PPADB), tel 360 2000,, email nbaleseng@ppadb.co.bw
Rural Industries Promotion Company, tel 365 1200, email kmogotlhwane@ripco.co.bw
Tertiary Education Council, tel 393 0741, email marketingcomms@tec.org.bw
University of Botswana (UB), tel 355 0000, email fet@mopipi.ub.bw
Water Utilities, tel 360 4400, email metsi@wuc.bw

ANNUAL GENERAL MEETING – 2011

PROXY VOTING FORM

I, ...being a fully paid up

member of the Botswana Institute of Development Professions hereby

appoint ..... as my proxy for any

vote that has to be made at the 2011 Annual General Meeting of the

Botswana Institute of Development Professions.

Signed: .....

Date: .....

To be shown by the proxy at the time of voting.

Phakalane
Golf Estate Hotel

Phakalane Golf Estates
P O Box 132
Gaborone
Botswana
Tel: +267 393 0000
+267 360 4000
Fax: +267 3159663
VAT NO: C00190701112

QUOTATION

Customer Information

Customer	**:BIDP**
Address	**:Gaborone**
Attention	**:Ellen**
Telephone	**:3971181**
Fax	3971181
Date	**: 7 SEP 2011**

Description	Days	Qty	Unit Price	Total
Conference Date : 20 September 2011				
Tea/coffee	1	30	P35.00	P1,050.00
Data Projector	1	1	P800.00	P800.00
Room Rental	1	1	P900.00	P900.00
Platter	1	1	P650.00	P650.00

Our Prices are inclusive of VAT

SUBTOTAL	**P2,992.00**
VAT 12%	**P408.00**
TOTAL	**P3,400.00**

CONTACT: KELEBOGILE SEEMISE
Email: banquetingc@phakalane.co.bw

PLEASE NOTE THAT THIS IS NOT A BOOKING BUT AN ENQUIRY

DAY 1
September 15
Master of Ceremonies: Chris Gofhamodimo: TBBA

0700: Registration Opens

0745: **Delegates Seated**

0800: Official Opening: Minister of Infrastructure, Science and Technology, Hon. Johnny Swartz

0900: From Projects to Maintenance- Panel Discussion
The Case of Roads (Department of Roads - Mr. Kabo Kote)
The Case of Buildings (MIST)
How to Adapt to the New Emphasis (Clive Evans)
Moderator (ABCON)

1000: *TEA*

1030: Standard Contracts: What We Need- Panel Discussion
FIDIC Advantages/Disadvantages (ACEB - Jay Mphake)
BIDP Advantages/Disadvantages (Botswana Institute of Development Professionals)
Moderator (Botswana Law Society)

1130: Standard Bidding Procedures and Information (PPADB)

1200: Contribution of Chinese Contractors to the Economy and Construction Industry - Discussion (Chinese Chamber of Commerce)

1300: Lunch Cafe in Exhibition Hall

DAY 2
September 16
Master of Ceremonies: Nic Janse van Rensburg: ABCON

0700: Registration Opens
0800: Standard Completion Procedures for Government Projects (DBES)
0845: HRDC Update (HRDAC)
0900: Vocational Training Fund (BoTA)
0930: Responding to HIV/AIDS in the Workplace (NACA and Business Coalition on AIDS)
1000: Construction Industry Regulation Board Update and Other Construction Industry Concerns (ABCON/MIST/TBBA)

1030: *TEA*

1100: Labour and Residence Permits – Current Policy and Practice (MLHA)
1130: Using Standards to Compete (BOBS)
1200: F. E. - ? (An Opportunity): F. G. Tatton *(see below)*

1300: Lunch Cafe in Exhibition Hall

DAY 3
September 17

0800: Exhibitions Open
1300: Exhibitions Close

F. E. - ?: An opportunity to voice your opinion about training of personnel for the construction industry and, if necessary, other sections of industry and commerce. Whether from government, parastatal or private sector, this is an ideal gathering for all three to get together, surely not to oppose.

Subject: Building Botswana Conference & Exposition 15 - 17 September 2011
From: "Norah Mohwasa" <norah@thebusinesscentre.co.bw>
Date: Mon, 12 Sep 2011 10:31:07 +0200
To: <bidp@mega.bw>

Hi Ellen

As requested, please forward to all your members

INVITATION

BUILDING BOTSWANA CONFERENCE & EXPOSITION

ABCON, the Association of Botswana Building and Civil Engineering Contractors, in association with Tshipidi Badiri Builders Association, the association of citizen building contractors, has released the detailed programme for the "Building Botswana" conference and exposition from September 15-17 at the Fairgrounds complex in Gaborone.

Advance registration to attend is the only way to ensure a copy of the conference magazine. Attendance is free and is open to all members of the construction and related industries, as well as any other interested persons. The general public is encouraged to attend the exhibition on the morning of Saturday, September 17.

The programme will be officially opened by the Minister of Infrastructure, Science and Technology, Hon. Johnny Swartz.

Also, for the first time this year, Building Botswana will be held in conjunction with the awards ceremony of the Botswana No. 1 Builder Competition sponsored by PPC Cement Botswana. The invitational awards dinner will be held on the evening of the 16th September and **will be screened exclusively in the exhibition hall.**

This year's conference has been very well received and exposition space is nearly full. There will be several international exhibitors who have never participated before, as well as many local firms who are key to the business. Also, the event will be broadcast live on GABZFM.

As the only exposition and conference by and for the building industry, it is expected that the programme will attract most building, design, engineering and related services firms in the nation. This will provide a unique opportunity for suppliers of building materials and services to display their products to a highly targeted audience.

SPACE IS LIMITED, PLEASE REGISTER BY COMPLETING THE ATTACHED FORM AND FAX BACK

For more information, please contact Boitumelo at Tel: +267 319 0918 Fax +267 318 4708 email: ruth@eventventures.co.bw or Norah at Tel: +267 318 4706

Fax: +267 318 4708 email: norah@eventventures.co.bw or go to www.buildingexpo.co bw to register online

Conference Programme -Final.pdf	**Content-Type:** application/pdf **Content-Encoding:** base64

Building Botswana Conference Registration Form.doc

Building Botswana Conference Registration Form.doc	**Content-Type:** application/msword **Content-Encoding:** base64

THANK YOU

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Official Broadcaster

GABZ FM 96.2
Today's hits Yesterday's Classics

BUILDING BOTSWANA CONFERENCE & EXPOSITION 2011

15 - 17 SEPTEMBER 2011

CONFERENCE PROGRAMME

FILL IN THE NAMES OF THOSE NOMINATED TO ATTEND THE CONSTRUCTION PITSO AND SEND IT BACK TO DBES OFFICE NO. 309/313

SURNAME	NAME	GENDER	ORGANISATION	TELEPHONE/CELL	E-MAIL
Shimunza	Paul	Male	BIDP	7147 7822	shimarchdesigns@yahoo.com
Gumston	Sidney	Male	BIDP	395 6753	sid@ada.co.bw

FAXED TO: DBES
ON DATE: 29/09/11
BY:

FILL IN THE NAMES OF THOSE NOMINATED TO ATTEND THE CONSTRUCTION PITSO AND SEND IT BACK TO DBES OFFICE NO. 309/313

SURNAME	NAME	GENDER	ORGANISATION	TELEPHONE/CELL	E-MAIL
Moje	Evans	Male	BIDP	3105073/72165484	ekmoje@mega.bw
Vlug	Gerrit	Male	BIDP	5337249/71204237	vlug@mega.bw
Shimunza	Paul	Male	BIDP	71477822	shimarchdesigns@yahoo.com

TELEPHONE : 3901027
FACSIMILE : 3909154
REFERENCE : VAT 57/ 8728

REPUBLIC OF BOTSWANA

DEPARTMENT OF CUSTOMS AND EXCISE
PRIVATE BAG 0106
GABORONE

HORN OF AFRICA (PTY) LTD
MOLOPO CROSSING PICK 'N PAY FAMILY SUPERMARKET
PO BOX 1950 GABORONE

Date : 07 March, 2003

Attention: MAHESHBHAI NANUBHAI PATEL

Dear Sir/Madam,

NOTICE OF REGISTRATION FOR VALUE ADDED TAX ISSUED IN TERMS OF SECTION 17(2)

You are hereby informed that you are registered for Value Added Tax in terms of Section 16 of the Value Added Tax Act of 2001, with effect from 01-MAR-2003.

In accordance with the registration procedures you have been allocated VAT Registration Number C05259101112.

Yours faithfully,

P.B. NKILE
For/DIRECTOR OF CUSTOMS AND EXCISE

BOTSWANA CUSTOMS & EXCISE
VALUE ADDED TAX
REGISTRATION
07 MAR 2003
No 1
HEADQUARTERS
GABORONE

VAT_REG

MOLAPO CROSSING

Pick 'n Pay
FAMILY Supermarket

Horn of Africa (Pty) Ltd T/a Molopo Crossing Pick 'n Pay Family Supermarket - Registration number: 2002/1778

Private Bag 003
Suite 109
Mogoditshane
BOTSWANA

Plot 54483
Molapo Crossing
GABORONE

Directors: M Patel
BJ Milne
TI Milne

Tel: +267 393 9317
Fax: +267 393 9319

FASTFOOD QUATATION

Customer Name: ATT: ELLEN **Date:** 19/09/11

Customer Tel: 7181681 **Fax:-** 3971181

Physical Adress: BOTSWANA INSTITUDE OF DEVELOPMENT PROFESSIONS

Date of Collection: QUOTATION **Time of collection:** QUOTATION

Details of Quotation/Order	Qty /Kg	Amount	Total
SAMOUSA	1	189-95	
SAUSAGE BITE	1	295-95	
	TOTAL	485-90	

Order /Quoted Amount QUOTATION

Deposit Paid QUOTATION

Amount payable at time of Collection N/A

Quotation Valid for 1 **Day's only** **Customer Sign:** Accepted 19/9/11

Tel (267) 3939317 **Fax (267)3939319**

Order / Quotation Taken By: GABA **Signature:**

Paid by A Gnoth To be collected @ about 4:30pm on 20/9/11

BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONS

P.O. Box 827
Gaborone

Fax: 3971181
Mobile (Executive secretary): 7181 6811
e-mail: bidp@mega.bw
website: http//www.bidp.bw

REPORT OF THE BIDP PRESIDENT TO THE 2011 ANNUAL GENERAL MEETING

Good evening ladies and gentlemen and welcome to the 33rd BIDP AGM.

I would like to begin by thanking all those who have taken the time to come to the AGM, and also those who have not been able to come but have sent proxy forms.

This has been a somewhat mixed year for the BIDP, leaving us with reasons to celebrate and also cause to reflect and consider the future.

Events.
I think this has been a record year for BIDP events, almost one a month!

The year started at the previous AGM with an interesting talk by Sandy Grant on the early history of Gaborone.

In November 2010 there was a talk by Bernard Hyde on Waste in the Construction Industry.

In February we visited the new SADC building and learned about the ins and outs of the PPP process that was piloted with this project. There was not time to tour the building, so this is still to be arranged.

In March we held a Symposium at Mokolodi Game Reserve on the topic: BIDP Building Contracts: Working for You. This was well attended and altogether a very successful event.

In April there was a talk by Letta Mosienyane on the subject: "Terms of Reference for Consultancy Services by Parastatals in Botswana".

In May we were invited to contribute to the End of Year Exhibition of the Architecture Unit at the University of Botswana. We helped with refreshments and also attended the event.

Also in May we visited the SSK airport project, with a walk around the construction site followed by a very interesting talk. There are clearly important lessons to be learned from this project.

In June we hired a stall at the Property Investment and Construction Exhibition.

Also in June we facilitated a workshop for the AEMCB on tendering for small contractors.

In August there was a talk by Andreas Groth on Energy Efficient Building Design.

In September there will be a talk on the evening of the AGM by David Young on Firetraps of Gaborone.

There are plans to hold a Symposium on Project Inception, Initiation and Implementation in the near future.

BIDP Website.
More work has been done on the website, including an improved format for the discussion forums and provision for photo galleries. A website consultant has helped with this and is now able to make further improvements and changes as required.

Collaboration with Government
BIDP was represented on the Reference Group for the establishment of a Construction Industry Board. Following a number of meetings at which Terms of Reference were prepared for a consultancy to establish this Board, the project now appears to have gone dormant.

BIDP participated at the Annual Consultative Stakeholder's Meeting of the Ministry of Infrastructure, Science and Technology in February 2011.

We have been invited to nominate two representatives to the MIST Construction Pitso to be held on 6 October 2011.

Contracts Committee
The Contracts Committee have had another busy year and are currently working on a 'labour only' form of contract.

Membership
This has also been a record year in terms of membership. At each Council meeting we have had the privilege to consider several applications for membership, most of which have been approved and resulted in tired wrists from signing the Certificates, a number of which we are handing over this evening.

This has really been the most gratifying aspect of the year, as it confirms that our organization does have something unique to offer, namely an organization that

represents people working in many different fields related to development in Botswana and provides opportunities to come together and learn from each other.

Thank you.
Our Executive Secretary, Ellen Tshoganetso has again done a fantastic job of supporting BIDP. Many thanks for her hard work and commitment in keeping the office in order, preparing and circulating minutes, compiling the newsletters, arranging the Symposium and other events as well as many other tasks that she is given.

David Young, the Secretary has quietly and efficiently worked away for endless hours arranging events, setting up exhibition stands, fixing the website and much more. He has also kindly hosted the BIDP office and provided a venue for our monthly meetings.

Gerrit Vlug has looked after our finances for countless years as well as contributing to the Publications Committee and actively participating as member of Council.

A big thank you to the other members of Council, Joseph Musuku the Vice President, Kabelo Morake, Ontlametse Onneng, Paul Shimunza, Bernard Hyde, and Evans Moje who have contributed in many ways to keeping BIDP up and running for another year.

So why did I begin by saying it has been a mixed year, when it would appear to have been quite a success in many ways?

What I fear we have failed to achieve is a broadening of the carrying structure of the organization. Too much of the work has fallen on too few old shoulders some of which have carried it for many years. Some of these may not be able to do so for much longer. If BIDP is to continue to grow and develop it needs a bigger group of people, full of enthusiasm and appetite for doing the rather tedious and often thankless tasks that make it happen.

My hope is that these people will come forward and take their turn at carrying BIDP forward.

We wish the incoming Council all the best and trust that they will be able to build on what has been done in the past and help to bring about the BIDP of the future.

Andreas Groth.
September 2011

BMP

CONSTRUCTION SECTOR CONSULTATION MEETING

PROGRAMME

3rd November @ 1400
Ministry of Health Conference Room

Chairperson: K. Shomah

REF	ITEMS	LED BY	TIME ALLOCATED
1.0	Opening Prayer	Volunteer	1 min
2.0	Opening Remarks	Chairperson	2 mins
3.0	Adoption of the Agenda	All	3 mins
4.0	Presentation on Trade in Services Negotiations	Secretariat	5 mins
5.0	Nomination of the committee	All	10 mins
6.0	Way Forward /Approach of Sector Consultations	All	5 mins
7.0	Closing Remarks	Chairperson	5 mins
			60 minutes

MTI Dept Int Trade. B Sebenego Mantsebo R.
WTO : trade rules for construction [industry] services: SACU
~~SADC~~
want proper consultation with construction industry

BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONS

P.O. Box 827
Gaborone

Fax: 3971181
Mobile (Executive secretary): 7181 6811
e-mail: bidp@mega.bw
website: http//www.bidp.bw

15th October, 2010

Ref: (A0kp)02

The Registrar of Societies
Ministry of Labour and Home Affairs
Private Bag 002
Gaborone

Dear Sir,

RE: ANNUAL RETURN FORMS

We enclose the completed annual return forms as requested.

Also attached are the Minutes of the Annual General Meeting with a copy of the signed list of the attendance and the financial year statement.

Please contact us if you need any further information.

Yours faithfully,

Ellen Tshoganetso
Executive Secretary, BIDP

cc: President, BIDP
File

enc

REPUBLIC OF BOTSWANA

THE REGISTRATION OF SOCIETIES REGULATIONS

FORM H
(REG. 15)

ANNUAL RETURN

The BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONS (name of Society)

Date of last annual general meeting 23RD SEPTEMBER, 2010

Present number of members of the Society 148

Office-bearers for the current year:

Designation	Full Names (BLOCK CAPITALS)	Occupation	Nationality
1. PRESIDENT	A GROTH	ENGINEER	MOTSWANA
2. VICE PRESIDENT	J MUSUKU	ENGINEER	ZAMBIAN
3. TREASURER	G VLUG	ARBITRATOR	MOTSWANA
4. SECRETARY	D YOUNG	ARCHITECT	BRITISH

Residential Address		Postal Address	Date of Appointment
1. PLOT 22263, GABORONE	3923462	PO BOX 2224, GABORONE	23/09/2010
2. PLOT 54037, GABORONE	3900019	PO BOX 41483, GABORONE	23/09/2010
3. PLOT 11, OTSE	5337249	PO BOX 17, OTSE	23/09/2010
4. PLOT 915, GABORONE	3971181	PO BOX 1049, GABORONE	23/09/2010

Have there been, since the date of application for registration or exemption from registration or the date of the last annual return, whichever is the later date, any changes in (answer Yes or No against item in question).

(a) the name of the Society NO

(b) the objects of the Society NO

(c) the organisations or groups of a political nature established outside the Republic of which the Society is a branch or to which it is affiliatated or with which it is connected NO

(d) the class or classes of persons to whom membership is restricted NO

(e) the titles of the office-bearers NO

(f) the immovable property owned by the Society NO

(g) the date of commencement of the financial or business year of the Society NO

(h) the constitution or rules of the Society NO

BDP

23se10

ATTENDANCE

DAVID YOUNG	3971181		YA@YABIN.k
BERNARD HYDE	~~329776~~ 3927764	Bernard Hyde	
ANDREAS GROTH	3723762		
GERRIT KLUG	7120237		
Ulf Södersström	71724703		
Efraim Dondofema	72402515		
H. Killion Monwele	75505291	Hkill.	killion@mpi.co.bw
ODIRILE KEDLETILE	74477616	OdirileKedletile	oak@knowhowmagnum.co
JOSEPH G. MUSUKU	7176907		
STRANGER J. MONARENG	72914573		stranger@mpi.co.
MARTIN MOGOMOTSI	71661545		
PAUL SHIMUNZA (Shimunzapl@yahoo.co.uk / Shimarch designs@yahoo.com)	71477822		
EVANS MOJE	72165484		
ONTLAMETSE ONNENG	71739548		
CHABU-IA MONYATSI	72862118		
KABELO MORALE kabelo@agb.co.bw	71645706		
MATILDAH MOTHEI matildah@agb.co.bw	74146342		
BINKIE SEMWAMADI	3181634		
KOZIBA PALALANI	3122687		

INCLUDES VISITORS

REPUBLIC OF BOTSWANA

THE REGISTRATION OF SOCIETIES REGULATIONS

FORM H
(REG. 15)

ANNUAL RETURN

The BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONS (name of Society)

Date of last annual general meeting 20TH SEPTEMBER, 2011

Present number of members of the Society 148

Office-bearers for the current year:

Designation	Full Names (BLOCK CAPITALS)	Occupation	Nationality
1. PRESIDENT	EVANS MOJE	QUANTITY SURVEYOR	MOTSWANA
2. VICE PRESIDENT	EDWARD MAZHANI	ARCHITECT	MOTSWANA
3. TREASURER	ONTLAMETSE ONNENG	QUANTITY SURVEYOR	MOTSWANA
4. SECRETARY	NDINGILILO HOBONA	ARCHITECT	MOTSWANA

Residential Address		Postal Address	Date of Appointment
1. PLOT 34548, GABORONE	3105073	PO BOX 50064, GABORONE	20/09/2011
2. PLOT 27541, GABORONE	3971181	PO BOX 1049, GABORONE	20/09/2011
3. PLOT 28641, GABORONE	5390671	P/BAG 002, RAMOTSWA	20/09/2011
4. PLOT 848, GABORONE	3927764	PO BOX 1289, GABORONE	20/09/2011

Have there been, since the date of application for registration or exemption from registration or the date of the last annual return, whichever is the later date, any changes in (answer Yes or No against item in question).

(a) the name of the Society NO

(b) the objects of the Society NO

(c) the organisations or groups of a political nature established outside the Republic of which the Society is a branch or to which it is affiliatated or with which it is connected NO

(d) the class or classes of persons to whom membership is restricted NO

(e) the titles of the office-bearers NO

(f) the immovable property owned by the Society NO

(g) the date of commencement of the financial or business year of the Society NO

(h) the constitution or rules of the Society NO

BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONALS

ANNUAL GENERAL MEETING ON 20 SEPTEMBER 2011

AT BOTSWANACRAFT IN GABORONE

NAME	SIGNATURE
O. Onneng	7173 9548
G. Mankis	3935188
CARMO MANIS	Manis
Shadrack KOROGE	883 391472
MUTUA MUTUKU	72116323
CHIWALA MAIPAMBE	3951883
G. Vlug	71204237
E. Moje	3105073
A. Groth	3923462
PAUL LZAMUYA	71477822
NDWGILILO HOBONTI	NDHola 7149357
DAVID YOUNG	3971181
ELLEN TSHOGANETSO	75961116

BOTSWANA CONFEDERATION OF COMMERCE, INDUSTRY AND MANPOWER

DECLARATION FORM

Please complete the form below:

COMPANY PARTICULARS

Name of company: _____Botswana Institute of Development Professions (BIDP)_____
Postal Address : ___PO Box 827, _____ Town / Village: __Gaborone_____
Telephone: ___7181 6811_____ Fax: __3971181____ Cell phone: __7181 6811__
E-mail _____bidp@mega.bw_____ Country: _BOTSWANA____
Website: _____

CONTACT DETAILS

Chief Executive Officer/ Managing Director

Name: ____EVANS MOJE_____Cell phone: __7181 6811____
Telephone : __7181 6811____Fax: ___3971181_____
Email: ___bidp@mega.bw_____
Preferred communication mode: ☐ Fax ☒ Email ☐ Mail ☐ Phone ☐ Cell

COMPANY PROFILE

Business sector (tick one)
Please fill in or tick where necessary (tick)

☐ MEDIA	☐ SECURITY	☐ CONSSTUCTION
☐ PETROLEUM &CHEMICALS	☐ PARASTATAL	☐ WHOLESALE
☐ AGRICULTURE	☐ INFORMATION TECH	☐ EDUCATION
☐ RETAIL TRADE	☐ MANUFACTURING	☐ PRINTING & PUBLISHING
☐ ENGENEERING	☐ WOMEN IN BUSINESS	☐ HEALTH CARE SERVICES
☐ REAL ESTATE	☐ TRANSPORT	☐ FINANCIAL SERVICES
☐ HOTEL & TOURISM	☒ PROFFESIONAL SERVICES	
☐ RESEARCH & DEVELOPMENT	☐ MOTOR TRADE	

OTHER:SPECIFY: _____

Products and services offered:

_____
Products imported_____
Products exported:_____

Please fill or tick where necessary (tick)

1. EMPLOYMENT SIZE:Number of employees____1/2___ Females __1/2__ Males _____
2. OWNERSHIP: MIXED ☐ Citizen ☐ Non citizen ☐ Joint venture
   a. If Non Citizen specify country of origin under ownership----------
   b. Male or Female owned----------
3. MANAGEMENT: ☐ Male managed ☐ Female managed
4. TYPE OF BUSINESS: ☐ Small ☐ Medium ☐ Large

OTHER INFORMATION

BOCCIM's mandate is to advocate and lobby for policy and regulatory matters as far as they affect the business environment in Botswana. In this regard BOCCIM engages Government through

various foras, such as the sectoral High Level Consultative Council(HLCC). There are other structures where private sector regulatory meets Government and stakeholders to discuss issues of a conducive business environment.

Please indicate areas where you would like your company/organization to participate:

1. Ministry of Agriculture Sectoral HLCC
2. Ministry of Defense & Security Sectoral HLCC
3. Ministry of Education Sectoral HLCC
4. Ministry of Enviroment, Wildlife and Tourism Sectoral HLCC
5. Ministry of Finance and Development Planning Sectoral HLCC
6. Ministry of Foreign Affairs and International CooperationSectoral HLCC
7. Ministry of Health Sectoral HLCC
8. Ministry of Infrastructure Science and Technology Sectoral HLCC
9. Ministry of Labour and Home Affairs Sectoral HLCC
10. Ministry of Local Government Sectoral HLCC
11. Ministry of Lands and Housing Sectoral HLCC
12.Ministry of Mineral Energy and Water Resources Sectoral HLCC
13.Ministry of Trade and Industry Sectoral HLCC
14.Ministry of Transport and Communications Sectoral HLCC
15.Ministry of Youth, Sports and Culture Sectoral HLCC

BIDP

CIRCULAR TO MEMBERS

Council has agreed to list firms operated by resident, ordinary members in accordance with BIDP regulations. If you are an ordinary member resident in Botswana and you operate a consultant firm in accordance with BIDP Regulations and would like it listed on the website, please sign and return the certificate below:

I certify that I .....

an ordinary member of BIDP resident in Botswana, operate the practice named below in accordance with BIDP regulations.

Practice name .....

Postal address: .....

Physical address: .....

Signature: ..... date: .....

If you have photos/articles of projects which could be used in the newsletter, please advise the Secretary.

BOTSWANA BUREAU OF STANDARDS

Member of International Organization for Standardization (ISO)

Plot Number 55745, Main Airport Road, Private Bag BO 48, Block 8, Gaborone, Botswana
Tel: (+267) 3903200, Fax: (+267) 3903120, Email: infoc@hq.bobstandards.bw
Website: www.bobstandards.bw

2012-01-18

Our Ref. **BCD-W**

To : **President**
Botswana Institute of Development Professions
Box 827
Gaborone

Dear Sir

Workshop:Workmanship standards- Installation of wall and floor tiles

As you may already be aware, the mandate of Botswana Bureau of Standards (BOBS) is to develop national standards and promote use of the standards by the industry and commerce, with the aim of improving quality of products and services ultimately culminating into improved quality of life of people. In order to reach out to users of standards, regulatory authorities and consumers in general, BOBS organizes, among other events, workshops and seminars from time to time on topical issues in order to sensitize its stakeholders on the importance of standards.

Over the past one year, the Technical Committee responsible for developing standards on tiles has been focusing on standards for workmanship in the tiling activities, due to the realization that poor workmanship in this area has contributed a lot towards poor quality building and construction works detriment to the performance of the buildings and to occupancy/user safety. This workshop is therefore aimed at refreshing stakeholders on the principles of workmaship in tiling activities as specified in the various Botswana Standards. During the workshop, participants will be required to draw up checklists for verifying quality of workmanship from the following standards:

BOS 221: The installation of textile floor coverings–Code of practice
BOS 110 The design and installation of ceramic tiling–Code of practice

After drawing up the checklists, participants will then conduct an inspection of the BOBS building to verify if the textile floor coverings as well as the ceramic/stone tiling were done satisfactorily, using the checklists developed. This exercise is meant to develop a practical understanding of how to apply the guidelines in the standards to ensure good workmanship.

Find enclosed the workshop programme, copies of the two standards and the attendance confirmation slip. You are requested to study the standards in readiness for the workshop. It will also be appreciated if you may confirm your attendance by completing the confirmation slip and returning it by fax or email to the undersigned not later than 17th February 2012. The seminar is free and BOBS will provide meals.

Yours faithfully

Hazwell Nyanda
Tiles Technical Committee Secretary
for **Managing Director**

BOTSWANA BUREAU OF STANDARDS

Following the adoption of the Standards Act by parliament in 1995, Botswana Bureau of Standards (BOBS) became a Parastatal in April 1997 as envisaged in the Act. It is headed by a 12 member Standards Council. BOBS is the official body responsible for all issues related to standardization and quality assurance at national level. BOBS is also a full member of the International Organization for Standardization (ISO) and the national contact point for all Southern African Development Community (SADC) programmes related to Standardization and Quality Assurance and the national Enquiry point for standards regulations under the World Trade Organization Technical Barriers to Trade Agreement (WTO/TBT).

BOBS was formed with the primary objectives of formulating Botswana standards and coordinating quality assurance activities in Botswana, with the mission to improve the quality of life of the citizens of Botswana.

BOBS offers technical services in the areas of standardization, testing of goods, certification of products, industrial and trade metrology, quality management systems, environmental management systems, information and training.

Contact us at:
Physical address: Plot No. 55745, Block 8, Airport Road, Gaborone.
Private Bag B0 48, Gaborone, Botswana.
Tel: **(+267) 3903200**
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E-mail: infoc@hq.bobstandards.bw
Website: www.bobstandards.bw

Francistown Office
Physical address: Plot No. lots 13393/4/5,
Insurance House, Second Floor
Postal address: Private Bag F465, Francistown, Botswana
Tel: (+267) 2416233
Fax: (+267) 2416251

OUR MISSION STATEMENT
To establish National standards and to promote and facilitate their implementation

We do this to improve competitiveness and efficiency of industry to enhance trade for the benefit and protection of consumers.

OUR VISION STATEMENT
To be amongst the ten best National Standards Bodies in enhancement of trade and consumer protection.

Installation of wall and floor tiles — Workshop Programme

DATE: **24th February 2012**

VENUE: **Botswana Bureau of Standards (BOBS) HQ— Gaborone**

0800 – 0830	**Arrival and registration of participants**
0830 – 0840	Welcome remarks by **Director of Standards – BOBS**
0840 – 0950	Introduction of objectives of Workshop by Chairperson of Tiles Technical Committee – **Mr Jode Anderson**
0950 – 1030	**Group A:** Preparation of inspection checklist based on BOS 221: The installation of textile floor coverings – Code of practice
	Group B: Preparation of inspection checklist based on BOS 110: The design and installation of ceramic tiling – Code of practice
1030 – 1100	**TEA BREAK**
1100 – 1245	**Group A and Group B:** Continue with preparation of inspection checklists
1245 – 1400	**LUNCH**
1400 – 1500	**Group A:** Conduct inspection of textile floor coverings in BOBS building
1400 – 1500	**Group B:** Conduct inspection of ceramic/stone floor tiling in BOBS building
1500 – 1530	**TEA BREAK**
1530 – 1600	Inspection feedback
1600	**Closing remarks — Chairperson Tiles Technical Committee**

BOTSWANA BUREAU OF STANDARDS
Member of International Organization for Standardization (ISO)

Plot No.55745, Main Airport Road, Private Bag BO 48, **Block 8,** Gaborone, Botswana
Tel: (+267) 3903200, Fax: (+267) 3903120, E-mail: infoc@hq.bobstandards.bw

To : **Botswana Bureau of Standards**

Fax No : **3910593**

Attention : **Mr H Nyanda**

Email : **nyanda@bobstandards.bw**

Workshop –Installation of wall and floor tiles

Attendance confirmation

I/We confirm that I/We will participate in the above-mentioned workshop to be held on 24th February 2012 at BOBS Headquarters.

*Indicate the name(s) of the person(s) who will attend, in the table below and fax to BOBS at 3910593

Name	Organization/ Company	Postal address	Telephone/Fax	email

Please fax/email back to BOBS

BOTSWANA STANDARD

BOS 221:2011
Second Edition

The installation of textile floor coverings — Code of practice

BOS 221:2011

BOTSWANA BUREAU OF STANDARDS

Contents

Page

Published by:
Botswana Bureau of Standards
Private Bag BO 48
Gaborone
Botswana
Telephone: +267 3903200
Fax: +267 3903120
Email: infoc@hq.bobstandards.bw
Website www.bobstandards.bw

ICS 59.080.60

The installation of textile floor coverings — Code of practice

1 Scope

This Botswana Standard makes recommendations for the installation of textile floor coverings and for the selection of appropriate materials. The loose laying of squares, rugs, runners, etc., is not included.

NOTE In the building industry, a distinction is made between textile products that are permanently fixed to the floor and those that are loose-laid or temporarily fixed, by use of the terms 'textile flooring' and 'textile floor covering', respectively. In the textile trade, no such distinction in terms of nomenclature is made. In this standard, the term 'textile floor covering' is used throughout to denote a textile product (other than an underlay) that is partially fixed or fully fixed (either permanently or temporarily) to the floor.

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced documents (including any amendments) applies. Botswana Bureau of Standards (BOBS) maintains registers of currently valid standards.

BOS 132-2, *Concrete floors – Part 2: Finishes to concrete floors.*

BOS 218, *Carpet underlays.*

BOS 219, *Textile floor coverings (needle-punched construction).*

BOS 220, *Textile floor coverings (pile construction).*

BOS 222, *Plywood and composite board.*

BOS 232, *The maintenance of textile floor coverings.*

BOS 269, *The installation of wood and laminate flooring*

BOS 308, (Part 1 to Part 7) *Particleboard: highly moisture-resistant exterior and flooring type.*

BOS 346, *Timber frame buildings.*

BOS 401-1, *Fibreboard products – Part 1: Uncoated fibreboard.*

BS 6925, *Specification for mastic asphalt for building and civil engineering (limestone aggregate).*

ISO 2424, *Textile floor coverings – Vocabulary – Bilingual edition.*

SANS 10004, *Terms and definitions for textiles and textile merchandise.*

SANS 10021, *Waterproofing of buildings (including damp-proofing and vapour barrier installation).*

SANS 10177-4, *Fire testing of materials, components, and elements used in buildings – Part 4: Surface fire index of floor coverings.*

SANS 10400, *The application of the National Building Regulations.*

a) for tiles,

b) where a foam or felt backing is an integral part of the textile floor covering, and

c) where the textile floor covering is to be adhered to the substrate or sub-underlay in accordance with the manufacturer's recommendations.

Consideration should be given to the location grade and the fire index class of the underlay, which should be at least equal to the location or area grade and the fire index class of the textile floor covering, especially in commercial installations. Fibrous and non-fibrous underlays are available in various location grades as specified in BOS 218.

NOTE 1 There are certain textile floor coverings for which manufacturers can recommend no underlay (e.g. needle-punched textile floor coverings).

NOTE 2 If fire hazards are to be considered, textile floor coverings and underlays to be laid on other than non-combustible surfaces should be tested together with the relevant sub-underlay for their performance in the event of a fire, because most reports that are readily available refer to fire test results obtained with textile floor coverings laid on non-combustible surfaces.

4.3 Textile floor coverings

4.3.1 Types of construction

4.3.1.1 Woven

4.3.1.1.1 Wilton

The following types of Wilton carpets are available:

a) **Plain Wilton**

A plain Wilton carpet is usually woven with a cut pile surface but can also be woven with a loop pile surface. The pile is of uniform length containing only a single colour.

b) **Figured or patterned Wilton**

A figured or patterned Wilton carpet is woven on a Jacquard loom, which selects yarns to create patterns or textured effects with loop surface or cut pile surface (or both). The yarn that does not appear on the surface is woven into the backing, which provides improved stability and performance. The system is usually limited to a maximum of five colours.

4.3.1.1.2 Axminster

The following systems are used in the manufacture of Axminster carpets:

a) **Spool system**

This system is particularly suitable for multicoloured designs in a virtually unlimited number of colours.

b) **Gripper system**

When this system is used, the number of colours used is limited. Most designs have up to eight colours, but up to twelve colours can be incorporated.

a) **Resistance to wear**

The way in which a textile floor covering wears is determined by a number of factors, for example the type of fibre or fibre blend, the mass per unit area of surface fibre, the tuft density, the pile thickness, and the tuft and fibre anchorage.

b) **Appearance retention**

Deterioration in appearance can be caused by fading, soiling, flattening, pile shading, felting, tearing at seams, fraying, rucking, and lifting from the fixing system. Susceptibility to any of these should be considered when a textile floor covering is being selected. When there is a likelihood of exposure to strong sunlight, for example, the choice of colours needs careful consideration. The causes of deterioration in appearance can be ascribed to performance inadequacy of the material of the textile floor covering, the nature of the substrate, poor installation techniques or severe use conditions. When a textile floor covering is in use, correct maintenance in accordance with BOS 232 should be carried out to improve the appearance retention. Footmarks, shading and soiling are less obvious on patterned surfaces than on plain surfaces.

c) **Soiling**

Certain areas of high traffic density, for example entrance halls, are subject to more dampness, grit and grease than are other areas. This should be considered when colour and design are being selected, even though the problem can be reduced by the provision of adequate soil removal devices (for example protective mats or metal scrapers) at the immediate entrance to the area concerned.

d) **Flammability**

Textile floor coverings can be damaged by smouldering cigarettes and other sources of ignition, and due consideration should be given to this when textile floor coverings are to be installed near heating appliances of any kind. In the case of a fire, textile floor coverings could present an additional fire hazard in that they could assist in the spreading of fire or produce additional smoke, or both.

NOTE 1 A laboratory test for determining the effects of fire on textile floor coverings is given in SANS 10177-4. In this method, the spread of flame, heat contribution and smoke emission indices are determined.

NOTE 2 Wool and wool-rich blends have natural fire-retardant qualities.

e) **Static electricity**

The static charges generated on the body of a person walking on textile floor coverings are, to a large extent, influenced by the surrounding atmospheric conditions. Although static charges can be generated at various levels of relative humidity, it is generally found that the lower the relative humidity, the more likely the development of static electricity; in extreme cases, the generation of static results in an electric shock on discharge. The maintenance of moderate levels of humidity in the environment, or the application of antistatic agents (which preferably do not promote soiling) to the textile floor coverings could minimize the formation of static charges (see also Annex F). More fibres and textile floor coverings that have low static-generation properties are being produced. Conductive metal fibres are used to produce an effective conducting pile that avoids static build-up, even at low levels of humidity. Some installations might require special fitting techniques such as the use of a conductive grid connected to a special earthing point.

NOTE The use of underfloor heating can lead to drying of the fibres and hence to a conducive environment for generation of static charges on all types of textile floor covering.

The correct melting point of the adhesive should be selected taking into account the type of fibre of the textile floor covering and whether underfloor or under carpet heating is used. The use of a heat shield is essential if such heating is used. Heat bonding tape that uses adhesive that has a low melting point should not be used where underfloor or under carpet heating is installed.

4.5.2 Double-sided tape

Double-sided adhesive tape with release-paper can be used for securing textile floor coverings. This tape is not recommended for use in cases where there is dust on the floor or fluff on the carpet backing (or both). In all cases where this tape is used, it is essential to pre-seal the substrate with an acceptable sealer.

4.5.3 Carpet gripper

The carpet gripper should be constructed of a strip of plywood that can maintain the angle of the zinc-plated pins. Because these pins will not rust, they will not stain the carpet. The carpet gripper should be securely fixed by means of hardened steel nails or a suitable adhesive, depending on the type of substrate.

4.5.4 Stair nosing

Stair nosing comprises a metal or rubber preformed strip that is intended to be fixed over the textile floor covering on the nose of stairs (see also 5.2.4).

4.5.5 Extruded sections

A wide range of extruded sections, usually of aluminium, are available for the finishing off of textile floor covering installations.

4.6 Adhesives

4.6.1 Textile floor coverings that can be installed using adhesives

4.6.1.1 Needle-punched

The following needle-punched textile floor coverings can be installed using adhesives:

a) roll form, foam-backed or unbacked;

b) tile form, foam-backed or unbacked;

c) tile form, adhesive-coated back, release-paper-protected; and

d) tile form, adhesive strip attached to backing, release-paper-protected.

4.6.1.2 Tufted

The following tufted textile floor coverings can be installed using adhesives:

a) roll form, hessian-backed;

b) roll form, latex-backed;

c) roll form, foam-backed;

d) tile form, hessian-backed;

e) tile form, latex-backed;

4.6.6 Types of adhesive for the double adhesive system

When a textile floor covering is laid by a method that involves total adhesion of the carpet underlay to the substrate and of the textile floor covering to the carpet underlay, the adhesives used should be as recommended by the adhesive manufacturer and should be compatible with the substrate, the carpet underlay and the textile floor covering.

5 Installation

5.1 Designation of responsibility

The performance of a textile floor covering is affected by the conditions on the site at the time of installation. If work other than the installation is carried out, soiling of, or damage to, the textile floor covering can result.

The performance of a textile floor covering is also affected by the quality and condition of the substrate on which it is laid. Before a textile floor covering is installed, the installer should ensure that the substrate is sufficiently dry (see Annex B), it shows no sign of crumbling and it is sound. If the substrate is not acceptable to the installer, he should not proceed with the installation until he has informed the contractor in writing and the conditions have been improved or he has obtained a written waiver of responsibility from the contractor. As soon as the installation is complete, the installer should obtain a certificate of completion from the contractor and any necessary protective measures for the textile floor covering should be implemented.

5.2 Substrates

5.2.1 Solid substrates in contact with the ground

It is recommended that solid substrates in contact with the ground incorporate a damp-proof membrane (see also Annex D).

5.2.2 Concrete substrates

If the surface of a structural concrete substrate is deemed by the installer not to be acceptably smooth, it should be finished as follows:

a) if the surface irregularities are not pronounced, a suitable levelling compound such as a cement emulsion should be applied; and

b) if the surface irregularities are pronounced, the installer should refer the problem to the contractor (see also Annex D).

5.2.3 Timber substrates

5.2.3.1 General

Timber substrates should be assessed carefully to determine whether they are suitable for the installation of textile floor coverings covered by this standard. In the case of new installations, the materials and construction used for timber substrates shall comply with the relevant provisions of BOS 346.

Timber substrates should not be covered if they

a) are structurally unsafe,

b) are mouldy or decaying, or

c) have a moisture content exceeding 18 % (by mass) at any point.

5.4 Underlays

5.4.1 General

Underlays should be free from excessive odour, should be of uniform thickness and density and should be laid flat with no folds or lumps. Textile floor coverings should not be laid over used underlays.

5.4.2 Separate underlays

All separate underlays should be secured at one end and on one side by being glued at intervals or, on timber substrates, by being glued and stapled at intervals. All joins should be flat and tightly butted. The seams of natural rubber, synthetic fibre and latex-bonded fibre underlays should be secured by tape or glue. Seams on all needled underlays should be sewn, stapled or glued.

5.4.3 Double adhesive system

If a double adhesive (double stick) system is installed, where the underlay is stuck to the substrate or sub-underlay and the textile floor covering is totally stuck to the upper surface of the underlay, the manufacturer's recommendations should be followed exactly. Adhesives that are compatible with both the materials used in the system and the substrate should be used.

5.5 Textile floor coverings

5.5.1 General

A textile floor covering should be so installed that it is flat and taut enough to ensure that movement of furniture over its surface does not cause rucking. A suitable knee kicker or power stretcher should be used as appropriate to the size, shape and type of installation. The installation of woven and jute-backed tufted textile floor covering requires the use of a power stretcher, with the heads and pins correctly adjusted and in good condition, especially on large areas (see Annex A). Where castors and trolleys are expected to be used, an adhesive laying technique is recommended. Manufacturers should be consulted when methods of installation are selected. When carpet underlays are used, they should be firm and non-yielding, and their application should be in accordance with BOS 218.

NOTE Special attention should be paid to the teeth of stretcher heads to ensure correct adjustment for different thicknesses of textile floor coverings.

5.5.2 Preparation

Before starting the installation of a textile floor covering, the position and depth of cables, heating elements and water pipes in the floor screed should be ascertained and a waiver of responsibility for damage should be obtained from the client or the contractor. All preliminary work, such as the fitting of the floor sockets for service plugs, should have been completed. The substrate should be clean, firm and dry and concrete should have been swept clean and sealed if necessary. When a textile floor covering is to be completely adhered, particular note should be taken of porous or dusty substrates, which should be primed as recommended by the adhesive manufacturer. Any existing wax-type polishes should be removed where adhesives are to be used.

Textile floor coverings and underlays are poor conductors of heat and consequently act as heat barriers. When they are used over an underfloor heating system, the temperature of the system needs to be raised to maintain the same room temperature as without them. This means that the temperature of the sub-underlay is raised, which could have an adverse effect on the heating system, the sub-underlay and, in some instances, on the textile floor covering, including the joins where heat-bonding tape has been used.

and certain bonded-pile textile floor coverings and tiles. All other textile floor coverings can also be fully bonded if required by the client.

2) **With underlay**

A textile floor covering laid using this system is fully bonded to an underlay and both are bonded to the substrate by means of adhesives. This system can only be used for woven and tufted textile floor coverings without secondary backings.

b) **Partially bonded system**

In an installation or when using pressure sensitive tiles it is necessary to fully bond a row of tiles to the substrate at intervals of not more than 3 m in both directions in order to create an anchor grid for stabilizing the installation. All cut-tiles should also be fully bonded. It is recommended that tiles in areas subjected to heavy traffic, castors and trolleys be also fully bonded.

5.5.4.2.2 Bonding

The bonding of textile floor coverings and tiles should be in accordance with the manufacturer's recommendations and any priming coat should be allowed to cure before the adhesive is applied including tackifiers and double-sided tape.

Most adhesives are spread with a notched trowel to ensure even coverage of the substrate, correct thickness of the adhesive and an adequate bead of adhesive to allow transfer to the carpet backing. This will result in an effective bond after the adhesive has cured. The types of trowels used for different textile floor coverings, tiles and adhesives are often specified by the adhesive manufacturer. The type of adhesive depends on the type of textile floor covering, the type of backing and the condition of the substrate. Where fire ratings are critical, for example in hotels and cinemas, non-flammable adhesives should be used.

The open assembly time of the adhesive determines the size of the area to be spread with adhesive at any one time. A roller of an appropriate mass, for example a three-section 68 kg roller, should be used to ensure a secure bond to the substrate and to eliminate air bubbles.

Where a solvent adhesive with a low flash point (for example adhesive that contains petroleum or naphtha) is used, the use of naked lights, pilot jets, etc., near the laying operation, shall be prohibited. Adhesives that have a flash point below 32 °C are considered dangerous and special storage facilities are required for them. The installation area should be well ventilated until all solvents have evaporated. This applies also to non-flammable solvents as some, such as carbon tetrachloride, trichloroethylene and methylene chloride, are toxic. Smoking in the presence of these vapours shall be prohibited, because poisonous gases are formed when the vapours are inhaled through burning tobacco.

CAUTION Operatives using flammable or toxic adhesives shall be advised of the dangers. Care should be taken not to smear adjacent surfaces when removing any adhesive that contaminates the face of the textile floor covering.

Before starting with the installation, ensure that a heated floor is turned off and cool enough not to affect the adhesive. The heating should not be turned on again for at least 48 h after completion of the installation.

A temperature of at least 10 °C should be maintained in the installation area for 48 h before and 48 h after the installation. A temperature of at least 15 °C should be maintained during the installation. Peak temperature of a heated floor should be avoided for at least 7 d after completion of the installation.

5.5.5 Seaming and joining

5.5.5.1 General

Textile floor coverings, other than needle-punched, should be so seamed or matched to ensure that

Good planning and careful setting out of tiles over the intended installation area are essential for secure positioning. It is recommended that lines be drawn on the substrate prior to laying and that tiles be loose-laid from the centre outwards to the walls, one row in each direction. If this results in an unbalanced effect at the walls and the door entrance, the positioning should be so adjusted that one or more full tiles occupy the entrance. The direction of work during the fixing of the tiles should be outwards, such that the body weight of the installer stabilizes tiles already laid. Each tile should be firmly butted against its neighbours. In the case of loose-lay tiles, it is necessary to bond a row of tiles to the substrate at intervals of not more than 3 m in both directions, in order to create an anchor grid for stabilizing the whole installation. All cut-tiles should also be fully bonded.

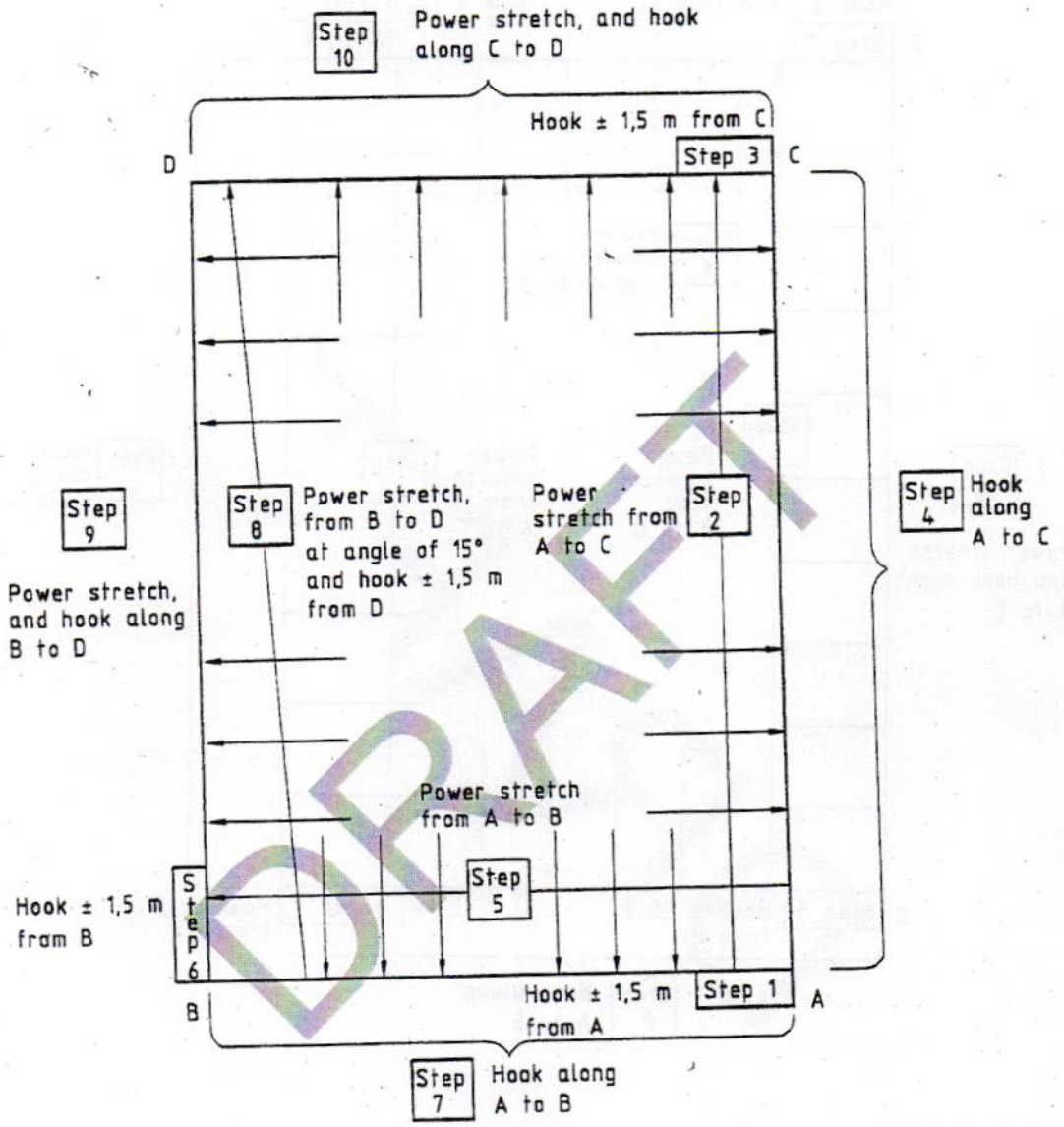
It is recommended that carpet tiles be laid tessellated (patterned as on a chequerboard).

5.5.7 Protection during installation

It is essential that the programming of other finishing trades is such that their access to the installation area is restricted until hand-over to the client or contractor.

5.6 Completion

The whole working area should be cleared of tools, waste, redundant materials, etc., and the job should be examined for lumps and tightness before the installation is handed over.



NOTE 1 Stretch in both warp and weft directions.

NOTE 2 "Power stretch" refers to the use of a power stretching device.

Figure A.2 — Wilton textile floor covering

Annex B
(normative)

Hygrometer test for humidity

B.1 Basis of test

A concrete substrate is sufficiently dry for the installation of a textile floor covering if a hygrometer shows that the relative humidity of a small volume of air in equilibrium with the surface of the concrete substrate, but isolated from the air of the room, does not exceed 75 %.

B.2 Apparatus

A suitable hygrometer that is calibrated periodically by exposure for 4 h to air in equilibrium with a slurry of common salt (sodium chloride) and water, after which the instrument should indicate a relative humidity of 75 %.

B.3 Procedure

To allow equilibrium to be established, take the first measurement at least 4 h (longer if possible) after positioning the hygrometer on the substrate. Record the period taken and, after repositioning the hygrometer to another position, allow a similar period before taking another reading.

When a water-sensitive textile floor covering is to be laid, leave the hygrometer for 24 h, and in the case of an exceptionally thick or lightweight concrete substrate, leave the hygrometer for 72 h before taking a reading.

Consider the substrate to be dry when each one of the three readings at different positions does not exceed 75 %. Artificial aids for accelerated drying should be turned off at least 4 d before the hygrometer test.

f) **Protection**

The method and the responsibility for the protection of the completed work and materials of the building.

g) **Contract**

Particulars of the form and type of contract; whether the work is to be completed in any specific order or in sections; safeguarding against damage and theft; safety and health provisions; transference of ownership of materials; welfare facilities; lighting and power supply; insurance; method of hand-over, payment and retentions.

h) **Time schedule**

A time schedule for the progress of the work of installing textile floor coverings.

Annex E
(normative)

Applied sub-underlays

E.1 Mastic asphalt

Mastic asphalt should comply with the requirements of BS 6925. Sub-underlays made of mastic asphalt should be of thickness at least 13 mm and should be laid in accordance with the recommendations of BOS 132-2. Consultation with the asphalt contractor is advised.

NOTE When asphalt is used, the local authority should be consulted and assurance obtained that no objections regarding fire hazard protection exist.

E.2 Emulsion cement mixtures

Emulsion cement mixtures consist of a mixture of cement, fine filler and a fine polymeric dispersion in water. The cement is usually portland cement, but high alumina cement is also suitable. The disperse phase of the dispersion may be a natural rubber, a synthetic rubber such as styrene butadiene, a polymer such as polyvinyl acetate or an acrylic resin. Its function is to assist adhesion to the concrete. There is such a wide variety of compositions that detailed guidance cannot be given in this standard, but some information on similar compounds can be found in BOS 132-2. Emulsion cement sub-underlays are generally sold as proprietary mixtures and should be applied in accordance with the manufacturer's recommendations. It is important to ensure that the recommended filler proportions are not exceeded.

BOTSWANA STANDARD **BOS 110:2005**

The design and installation of ceramic tiling — Code of practice

BOS 110:2005

BOTSWANA BUREAU OF STANDARDS

Contents

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Foreword

This Botswana Standard was approved by the Standards Council on 2005-02-24.

The Botswana Bureau of Standards (BOBS) was established under the Standards Act No.16 of 1995 with a primary responsibility of preparing Botswana Standards.

During the preparation of this standard, assistance was derived from a South African standard SANS 10107:1996 The design and installation of ceramic tiling, published by the South African Bureau of Standards.

During the preparation of this standard, the following member organizations were directly represented on the Technical Committee BCD2 – Tiles:

Architects Association of Botswana	Mr	J	Anderson	(Chairperson)
Botswana Bureau of Standards	Mr	H	Nyanda	(Technical Secretary)
Association of Botswana Building and Civil Engineering Contractors/ Contract Flooring Ltd	Mr	R	Firth	
Harvey Roofing Products (Pty) Ltd	Mr	T	Mogotsi	
Kalahari Floor Tiles (Pty) Ltd	Mr	S	Bhavani	
Ministry of Local Government, Gaborone City Council	Dr	P K	Lyamuya	
Ministry of Commerce and Industry, Department of Commerce and Consumer Affairs	Ms	M T	Nkhwa	
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ICS 91.100.25

SANS 1090, *Sand for plaster and mortar.*

SANS 1305, *Sealing compounds for the building industry, one component, silicone-rubber-base.*

SANS 1449, *Ceramic floor tiles) glazed and unglazed).*

BOS ENV 197-1, *Cement – Composition, specifications and conformity criteria – Part 1: Common cements.*

SANS ENV 197-2, *Cement – Composition, specifications and conformity criteria – Part 2: Conformity evaluation.*

SANS ENV 413-1, *Masonry cement – Part 1: Specifications.*

SANS 10155, *Accuracy in buildings.*

SANS 10164-1, *The structural use of masonry – Part 1: Unreinforced masonry walling.*

3 Definitions

For the purposes of this standard, the following definitions apply:

3.1 acceptable: acceptable to the parties concluding the purchase contract, but in relation to the standardization mark, acceptable to the Botswana Bureau of Standards.

3.2 adhesive: a proprietary fixative other than fine aggregate/cement bedding mortar.

3.2.1 cement-based adhesive: an adhesive in which the principal bonding component is a hydraulic cement (for example, common cement), modified by the inclusion of such other admixtures as might be necessary to achieve satisfactory bonding of ceramic tiles and mosaics.

3.2.2 organic-based adhesive: an adhesive that can be supplied as either a one-component or a two-component mix, in which the principal bonding component is an organic material.

3.3 aggregate: granular material such as fine aggregate, gravel, crushed stone, etc., that is used with a cementing medium to form a mortar.

3.4 background: a vertical surface that might require some form of treatment before it can receive the tiles or mosaics.

3.5 bedding: a layer of specified materials in which the tile is set and which bonds the tiles to a background or substrate (see Figure 1).

3.6 bonding agent: bond coat: a material that is used to improve adhesion of the bedding material or of the tile, to its respective background or substrate.

3.7 bush hammering: the roughening or dressing of a surface by the use of a bush hammer.

3.8 buttering: the spreading of an adhesive or bedding material onto the back of a ceramic tile just before the tile is placed.

3.9 butt-jointing: the laying of adjacent tiles in such a way that the edges are in direct contact.

3.10 contact coverage: the portion of the tile back or background that is in contact with the adhesive after the tile has been set into position.

3.11 crazing: the development of random hairline cracks in the glazed surface of a tile.

3.33 **separating layer:** a layer of material that isolates the base from the bedded finish (see Figure 1).

3.34 **screed:** a layer of material, normally cement-based, of a specified minimum thickness and that is laid over a substrate to a prescribed level (see Figure 1).

3.35 **slurry coat:** a strong wash of neat cement mixed with water or with a bonding agent or with both, that is used to improve adhesion between surfaces.

3.36 **spacer lugs:** small projections on the edges of tiles which, when in contact with one another on adjacent tiles, regulate the joint width.

3.37 **spatterdash:** a cement-rich mixture of cement and fine aggregate, or a proprietary composition that, in the form of closely spaced globules, is applied over the surface.

NOTE Requirements for fine aggregates are given in SANS 1083.

3.38 **substrate:** any material that is used as a base onto which a ceramic tile is to be fixed.

3.39 **tanking:** the total waterproofing of a contained area.

3.40 **tessera:** an individual component of glass or ceramic that is used to form mosaic.

3.41 **universal edge:** descriptive of tiles that have chamfered edges which, when the tiles are laid in contact, regulate the joint width.

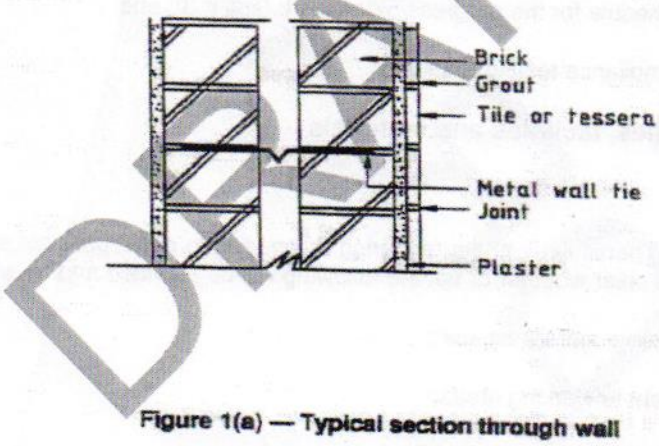


Figure 1(a) — Typical section through wall

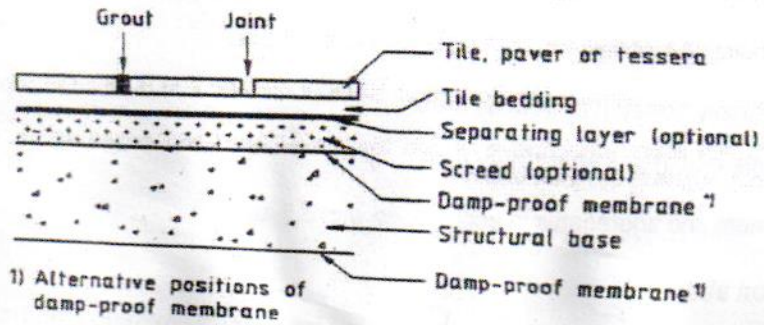


Figure 1 – Illustration of definitions

4.3 Time schedule

The time schedule for the whole building work should be planned in advance before operations begin and, where possible, in consultation with the persons who will become responsible for carrying out the work of each of the trades concerned.

When the time schedule for the work is being prepared, each operation should be considered in relation to others. Due consideration should be given to the use of general plant and scaffolding by the various trades to ensure that they do not interfere unduly with one another's work.

Before tiling commences, the recommended time schedules (see Figure 2) should have been adhered to as far as possible. Depending on the conditions on site, the climatic conditions and the mass of the structure, these times might have to be extended.

The schedule should also allow for the cutting of holes and chases in the walls and adjacent floors before any intermediate substrate is applied and tiling commences.

Provision should also be made for the completion of all subsidiary work necessary before the application of tiles or mosaic systems can begin. The schedule should include time for commencement and completion of tiling or mosaic work in the different parts of the building, allowing sufficient time between the bedding, the grouting and the final cleaning down.

Tiling can be adversely affected by frost during installation, and provision should be made in the time schedule to allow for suspension of operations during freezing conditions.

External tiling should be protected from direct sunlight during installation and during setting of the tile bedding and grout.

In the case of newly constructed buildings, tiling should commence at the highest level and be worked downwards. It might be necessary at each level to work upwards from a horizontal batten.

5.4 Mosaics

Mosaics are available in glazed and unglazed glass, in a variety of shapes and sizes. To facilitate ease of handling, mosaics are assembled as sheets, the individual tessera being glued either face-side down onto paper (paper-faced mosaics) or bed-side down onto synthetic mesh backing fabric or onto small tabs. Paper-faced mosaic are preferable since they allow full contact to be achieved with the mortar or adhesive bedding.

When sheets are assembled by means of backing mesh, the mesh should be made of water-resistant synthetic fabric such as nylon, and not from cotton or paper.

In the case of a mosaic that has been assembled with a backing fabric or tab,

a) the fabric or tabs and the bonding adhesive should not occupy more than 25 % of the area of each tessera; the critical factor is the contact of the adhesive with the backs of the tesserae; and

b) the fabric or tabs and the bonding adhesive should be water-resistant and should not weaken when exposed to moisture and should be compatible with the mortar or adhesive bedding.

5.5 Cement

Cement should comply with the requirements of BOS ENV 197-1, SANS ENV 197-2 or SANS ENV 413-1, as applicable.

High alumina cement that complies with the requirements of BS 915-2 may be used for specific purposes but it should not be mixed with other types of cement.

Cement should be stored under dry conditions and used in order of delivery. Cement that contains lumps should not be used.

5.6 Fine aggregates

5.6.1 General

All stocks of aggregates should be protected from rain, frost and contamination.

5.6.2 Fine aggregate for plaster, screeds and mortar bedding

Fine aggregate for plaster, screeds and mortar bedding should comply with the requirements of SANS 1090 or SANS 1083, as applicable.

5.6.3 Fine aggregate for grouting

Fine aggregate for grouting should comply with the grading limits given in Table 1.

5.7 Water

Water should be fresh potable water. All containers that are used for storing or carrying water or for soaking tiles should be clean and free from contamination.

5.8 Reinforcement

Where light reinforcement is required in a screed, it should consist of steel mesh that complies with the requirements of SANS 1024.

Table 1 – Fine aggregates for grouts for use in joints

Joint width mm	Sieve aperture size µm	Mass passing sieve %
>6	2360	100
	1180	95 to100
	600	80 to 100
	300	30 to 100
	150	0 to 60
	75	not greater than 7
<6	600	95 to 100
	300	80 to 95
	150	60 to 80
	75	45 to 55
	45	20 to 30

Table 2 – Typical flexible sealants – Summary properties

Type	Movement accommodation factor (MAF) %	Hardness IRHD	Cure time before serviceable (walking on, washing, etc.)	Flexibility
Epoxide polysulphide and flexibilized epoxide	5 to 10	70 to 95	1 to 7 days. Chemically cure. Rate of cure depends mainly on temperature	Slightly resilient
Polyurethane (one part and two part)	20 to 25	10 to 25	1 to 7 days. Chemically cure. Rate of cure depends mainly on temperature	Very resilient
Polysulphide (two part) high modulus	20	40 to 60	1 to 7 days. Chemically cure. Rate of cure depends on temperature.	Very resilient
Silicone (one part) high modulus	25	20 to 30	1 to 4 days. Moisture cure. Rate of cure depends on temperature and relative humidity.	Very resilient

5.13 Back-up materials

Back-up materials should be compressible so that they will not force out the sealant when the joint closes. Suitable back-up materials include closed-cell polyethylene foam which is available in the form of sheet, strip and circular cord of various sizes.

based materials are superior to cement-based mixtures by virtue of their impermeability and ease of cleaning and decontamination.

When tested as described in BS 5980 (as amended), grouts should not show any evidence of mould growth.

5.17 Mechanical support for plastering

5.17.1 General

Metal used to reinforce plastering should be galvanized steel or stainless steel and metal fixings should be compatible and installed in accordance with BS 5262.

5.17.2 Expanded metal lathing

Expanded metal lathing should comply with the requirements of BS 1369-1.

5.17.3 Ribbed lathing

Ribbed lathing should comply with the requirements of BS 1369-1. Ribs are formed integrally with expanded metal, thus providing rigidity.

5.17.4 Welded wire mesh

Plain welded wire mesh should either be galvanized after manufacture in accordance with the requirements of SANS 1024 or be of stainless steel. It should be of 25 mm to 50 mm mesh and have wires of diameter at least 1 mm.

5.17.5 Galvanized wire netting

Galvanized wire netting should be of 20 mm to 38 mm mesh and should comply with the requirements of BS 1485.

5.17.6 Corner and stop beads

Corner and stop beads should comply with the requirements of BS 6452-1.

6 Design considerations

6.1 Wall tiling

6.1.1 Backgrounds

6.1.1.1 General

The nature of the background is a prime consideration in the selection of any intermediate material or other preparatory treatment necessary before tiling. Properties of the background that could influence the choice are indicated in 6.1.2 to 6.1.8 and are also summarized in Table 3.

6.1.1.2 Porosity and suction

Porosity and suction affect the key and adhesion of the plaster. The amount of wetting required to reduce suction and to ensure uniformity of suction will depend on the nature of the background, the type of mix being used, the method of application and the ambient conditions.
Porosity and suction affect both the adhesion and the cohesion of the plaster and therefore influence the selection of the type of the tile bedding to be used.

6.1.2.3 Moderately strong and porous materials

most bricks and blocks, other than the very dense types considered in 6.1.2.2 or lightweight products considered in 6.1.2.4, fall into this class together with some medium strength natural aggregate concretes and structural lightweight concrete. Materials in this class have relatively high suction and generally provide a good mechanical key and good adhesion for an intermediate substrate, if required.

Drying shrinkage of concrete is variable and should be taken into consideration.

Most calcium silicate and dense concrete bricks fall within this class but since the strength, porosity and drying shrinkage of these vary considerably, special treatment might be necessary.

6.1.2.4 Moderately weak and porous materials

Blocks that contain lightweight aggregate and autoclaved aerated concrete and some bricks of relatively low strength need more care in the selection of an intermediate substrate than do backgrounds classed in 6.1.2.3. It is particularly important that the substrate and the background have similar shrinkage properties, since otherwise shrinkage is liable to lead to shearing of the surface off the background.

NOTE Lightweight concrete might exhibit differential movement which could be related to such factors as composition or degree of saturation (or both). Lightweight blocks of density less than 625 kg/m^2 should not be used as a background for plastering for tiling unless the plastering is reinforced with welded wire mesh secured to the block work (see 6.1.2.9 and 6.1.4.1).

6.1.2.5 No-fines concrete

No-fines concrete forms a class on its own. It has many relatively large voids and affords an effective mechanical key for an intermediate substrate. Drying shrinkage and suction vary from low to moderate, depending on the aggregate used.

6.1.2.6 Sheets and boards

Sheets and boards include plasterboard, glass-fibre-reinforced cement boards, fibre building boards, plywood chipboard and timber. Sheets and boards should be dry before tiling is commenced.

They are mainly used with framed or battened constructions, which should be designed to provide a rigid surface. To avoid subsequent movement and warping, the backs and edges of sheets or boards, other than plasterboards, should be treated against the ingress of moisture. The front face of sheets and boards should be sealed with a suitable non-oil-based sealant, to prevent moisture ingress during the installation of the tiles.

Sheets and boards should not be used in wet or damp conditions unless they are dimensionally stable in conditions of changing humidity.

6.1.2.7 Plastering

See 6.1.4 and 6.1.6.

6.1.2.8 Gypsum plaster

Gypsum plaster backgrounds are not suitable for ceramic tile installation.

NOTE It is not customary in Botswana to skim-coat plaster wherever tiling is to be applied, the reason being that gypsum in the Botswana context in generally a by-product with characteristics that are different from the natural gypsum used in overseas countries (see BS 5385-1).

Clean or remove any laitance on the surface and contamination by oil, grease, shutter release agent or any other substances that inhibit adhesion of the plaster. Brush off all loose material on the surface.

It is essential that the surface to be plastered provide a good key, a good bond being dependent upon a mechanical key and adequate suction or on the use of a suitable bonding agent (or on both).

Mechanical keys can be achieved by one of the methods given in 6.1.4.1.1 to 6.1.4.1.6.

6.1.4.1.1 Mechanical preparation

Remove the surface to a depth of about 3 mm by means of a scabbler or a brush hammer, or by shot-blasting or water scabbling, as appropriate.

6.1.4.1.2 Indented keys

Ensure that keys are formed in concrete by rubber or composition formers fixed to the shuttering. Clay bricks are available with indented keys.

6.1.4.1.3 Spatterdash

See 3.37.

6.1.4.1.4 Retarders

Retarders should be painted on shuttering for concrete to achieve a good key with the surface of the concrete. After the shuttering has been removed, considerable care is required to ensure that all traces of retarder, unset cement and loose particles are removed and that the aggregate is exposed uniformly; this can be done by wire brushing and thorough washing using clean water with a suitable detergent, followed by a final washing down with clean water. Retarders and detergents that contain dyes are recommended so that their removal can be seen to be complete when no traces of the dyes remain.

6.1.4.1.5 Metal lathing and reinforcement

Ensure that stainless steel fixings are used with stainless steel mesh. Galvanized wire netting should only be used in internal applications and can be used to inhibit cracking in the plaster at the junctions between different background materials not separated by a structural movement joint.

6.1.4.6 Bonding agents

Several different chemical types of bonding agents are available. Before a proprietary bonding treatment is decided on, the advice of the manufacturer of the bonding agent should be obtained as to its suitability, the method of application and the physical and mechanical properties necessary in the surface to receive it. The bonding agent should be one that does not deteriorate after application. Bonding agents can be applied by one of the following methods:

a) as a coating without additives before plastering;

b) as a slurry formed by mixing with cement, applied before plastering;

c) as an admixture to the plaster mix, partially or completely replacing the gauging water;

d) by combining (a) and (b) above with (c) above, in one plastering operation. Backgrounds on which bonding agents can be used are given in Table 3.

6.1.5 Treatment of backgrounds to receive tiles by direct bedding

6.1.5.1 General

Tiles can be bedded direct onto a background by means of adhesive, or into mortar. Methods of application and the suitability of backgrounds to accept these methods are described in Table 3.

The trueness of the background surface required for adhesive bedding should be such that, when checked with a 2 m straightedge, any gap behind the straightedge, between points of contact, does not exceed 3 mm. Where the gap exceeds 3 mm, local correction of the background by dubbing out to a thickness of up to 6 mm can be done using the same adhesive, but advice on this method should be obtained from the manufacturer of the adhesive.

When a mortar bedding is to be applied direct to a background, the surface should be treated as described for plastering in 6.1.4.1.

6.1.5.2 Sheets and boards

An important consideration with this type of background is that the sheets or boards should be adequately braced to provide a rigid surface, free from any springness and surface undulations. They should also not undergo any distortion during and after completion of the tiling.

Wherever possible, the boards should be screwed, not nailed, to the supporting framework.

In general, where the sheets or boards have a smooth and a rough side, the latter should be used for tiling. The surface to receive the tiles should be clean and free from dust and other forms of contamination.

It is also good practice to seal all exposed edges of boards, the back and the face with a suitable sealer, to prevent distortion by atmospheric changes, particularly in the case of wooden surfaces such as chipboard.

NOTE When gypsum plasterboard is required as a background for tiling, choice of an appropriate board grade and of lightweight tiles is a prerequisite.

6.1.5.3 Painted surfaces

It is important to make a detailed examination of a painted surface before deciding if it is suitable to receive tiles. All painted surfaces should be scabbled or chipped to expose a minimum area of 80% of the original background.

6.1.5.4 Existing glazed tiles and glazed brick surfaces

A sound tiled wall normally presents a surface sufficiently flat to permit its being covered with new tiles fixed with an appropriate adhesive as recommended by the adhesive manufacturer. If the old tiling is sound, clean down the existing glazed surface to ensure the removal of grease, grime, etc., before starting to fix the new tiles. Ensure that the old tiles still adhere firmly to the bedding and that the bedding is sufficiently strong to support the added mass and remove all loose tiles.

If only isolated areas of tiling are loose, the face of the original bedding, if in sound condition, should be dressed back to a sufficient depth to allow the old tiles to be re-fixed flush with the surrounding tiles, using a thin adhesive. Alternatively, after the loose tiles have been removed, the spaces left can be filled in flush with the surrounding tile surface, using mortar, which should be allowed to dry out thoroughly before the new tiles are applied.

Where loose tiling occupies entire walls, it might be convenient to apply the new tiling direct to the original bedding.

If the existing bedding is not firmly bonded to its backing, or if the backing is not sound even though the bedding might be firmly bonded to it, all unsound layers should be removed and the areas made good.

deposited at an interface such as that between background and plaster and could give rise to stresses great enough to cause adhesion failure.

Where soluble salts in the background are sulphates, there is the additional possibility that the salts could react with the cement of any cement/fine aggregate plastering to form the mineral "ettringite". The formation of this mineral is accompanied by expansion and this again could lead to stresses great enough to cause adhesion failure. Sulphate-resistant cements resist this particular form of chemical attack but have no greater resistance than any other cement to the physical action of the deposited salts referred to above.

The permanent exclusion of water from the background will usually be found more effective than the use of sulphate-resistant cement since it will minimize the possibility not only of sulphate attack but also of salt deposition.

6.1.6.3 Thickness and trueness of plastering

Plaster should not have a total thickness that exceeds 20 mm since this could result in unduly high shrinkage stresses and consequent cracking. Each coat of plaster should not be less than 8 mm and not more than 12 mm.

If two coats are required, the first coat should be "combed" before it hardens, to provide a key for the following coat. The comb usually consists of a wooden handle with metal teeth approximately 20 mm apart and is used to create wavy horizontal furrows of depth approximately 5 mm.

The first coat should be allowed to harden and dry out for a period of at least 24 h to permit shrinkage to take place before the second coat is applied. The second coat should not be richer than the first and should be less thick.

If the tile bedding is to be an adhesive, the trueness of the surface of the plaster should be such that when the plaster is checked with a 2 m straightedge, any gap behind the straightedge between points of contact does not exceed 3 mm.

6.1.7 Movement joints

6.1.7.1. General

Consideration should be given at the design stage to the provision of movement joints. The type and location of movement joints involve considerations of construction materials, bedding systems, anticipated temperature and humidity conditions, areas concerned and the setting out of the tiling.

Stresses occur in the tile installation as a result of movement caused by such factors as drying shrinkage and moisture and thermal changes. Such stresses could cause loss of adhesion, bulging or cracking of the tiling if they are allowed to build up over large areas, but they can be localized and reduced by the incorporation of movement joints.

The movement joints in the tiling, which are not to be confused with structural movement joints, might need to extend through the tiling and its bedding and should be of width at least 5 mm in order to accommodate movement.

Sealant for movement joints should comply with the recommendations given in 5.12 (see Table 2).

6.1.7.2 Location

Movement joints should be located in the tile installation to coincide and be continuous with all existing structural movement joints, although they will actually be formed as separate joints isolated by suitable thickness of back-up material.

Movement joints should be placed in the following locations:

6.1.7.4 Sealants

A summary of the more important properties of recommended sealants is given in Table 2 but the sealant manufacturer's advice should be taken into account since the properties of individual sealants might vary. Generally a sealant should be capable of accommodating the anticipated amount of movement without loss of adhesion to the sides of the joints and it should be able to withstand the normal service conditions that affect the installation, for example, it should be resistant to water and damage from cleaning processes.

The manufacturer's instructions should be strictly adhered to, particularly in respect of the use of primers. In most cases, the sealant should not be applied until the joint spaces are thoroughly clean and dry. Preferably, joints awaiting sealing should be protected from the ingress of foreign matter by being covered, for example by an adhesive tape or batten, but when moisture or solvents are present in the bedding or in the background, the joints should be left exposed until all moisture has evaporated and all solvents have dissipated.

Joint spaces left open and uncovered could collect deleterious matter and should be thoroughly cleaned before sealing.

If the sealing of joints is to be carried out by a specialist, the tiling contractor should be made aware of any specific jointing requirements in his instructions.

6.1.8 Grouts andcoloured grouts

Coloured grouts are vulnerable to staining, for example, to lime bloom. It is also advisable to check the potential risk of staining of tiles prior to application. In any doubtful case, an alternative grouting procedure should be adopted or the use of a proprietary tile sealer considered. Proprietary tile sealers should be used strictly in accordance with the manufacturer's instructions and should be applied before grouting is carried out, to provide a protective coating that can readily be removed after completion of grouting.

Table 3(b) – Backgrounds: summary of data and suitable tile bedding for internal use only – Moderately strong and porous background

Background	Drying shrinkage movement	Surface characteristics	Preparation of backgrounds		Additional comments	Material for fixing tiles on prepared backgrounds		
			For direct bedding (see 6.1.6)	For plaster mortar bedding or cement based adhesives		Cement based adhesives	Organic based adhesives	Cement/ sand mortar
Clay brickwork and clay block work (see 6.1.2.3)	Negligible	Moderate or high suction	Direct fixing with an adhesive may be adopted provided the surface is suitable (see 6.1.6.1)	Rake back (see 6.1.4.3.1)	Refer to Figure 2	S	S	S
Concrete, (natural aggregate) (see 6.1.2.3)	Low to high[1)]	Moderate suction		Poor to fair key. Remove any ridges and fins from in-situ concrete before cleaning down. Remove debris and release agents. Might require scabbling, bonding agent, lathing or netting (see 6.1.4.3.2)		S	S	S
Concrete brickwork and concrete block work (natural aggregate (see 6.1.2.3)	Low to high[1)]	Moderate suction		Rake back joints to form key. With some types of extremely smooth and dense bricks, scabbling, bonding agent, lathing or netting can be used to obtain key (see 6.1.4.3.3)		S	S	U
Calcium silicate brickwork (hard) (see 6.1.2.3)	Low to high[1)]	Moderate suction		Unsuitable		S	S[2]	U

The amount of movement to be expected could vary according to the particular grade or free water or both.

[2)] See manufacturer's recommendations for surface preparation

NOTE 1 Properties of backgrounds indicate only relative characteristics of the materials.

NOTE 2 S denotes 'suitable' but not all adhesives within a particular group are suitable. U denotes 'unsuitable' and C denotes that confirmation of the adhesive suitability should be sought from the manufacturer.

Table 3(d) – Backgrounds: summary of data and suitable tile bedding for internal use only – Other backgrounds

Background	Drying shrinkage movement	Surface characteristics	Preparation of backgrounds		Additional comments	Material for fixing tiles on prepared backgrounds		
			For direct bedding (see 6.1.6)	For plaster mortar bedding or cement-based adhesive		Cement-based adhesives	Organic-based adhesives	Cement/sand mortar
No-fines concrete (see 6.1.2.5)	Low to moderate according to aggregate used[1)]	Low to moderate suction	Unsuitable	Open textured surface should not require further keying (see 6.1.4.5.1)	Refer to Figure 2	S	S	S
Plasterboards (see 6.1.2.6)	Negligible	True and smooth	See (6.1.5.2)	Unsuitable	All boards should be rigidly fixed. In wet or damp conditions, plaster should not be used	C	S	S
Fibre cement board. Wood-based panel products (see 6.1.2.6)	Moderate to high	True and smooth	Seal exposed edges and back, and the face against water absorption. Priming might be necessary. Refer to adhesive manufacturer (see 6.1.5.2)	Unsuitable	All boards should be rigidly braced. Sheets and boards should not be used in wet or damp areas unless they are dimensionally stable	U	S	C

[1)]The amount of movement to be expected could vary according to the particular grade or free water or both.

[2)] See manufacturer's recommendations for surface preparation

NOTE 1 Properties of backgrounds indicate only relative characteristics of the materials.

NOTE 2 S denotes 'suitable' but not all adhesives within a particular group are suitable. U denotes 'unsuitable' and C denotes that confirmation of the adhesive suitability should be sought from the manufacturer.

6.2 Floor tiling

6.2.1 Substrate preparation

6.2.1.1 General

In solid and suspended floor constructions the stability and durability of the floor is dependent on a number of factors, including the load it has to support, the resistance it offers to the passage of water or water vapour either from above or from below, the dimensional changes produced by variations in moisture content and temperature within the floor and the attack of various corrosive agents, for example in chemical plants and industrial premises. These factors should be assessed at the design stage so that due allowance can be made for their possible effect on the finished floor.

Where possible, selection of the tiles or mosaics and bedding method should also be made at the design stage so that the appropriate depth can be allowed between the base and the finished floor surface. The variety of thicknesses in and between tiles, pavers, mosaics and tile beddings should be considered.

6.2.1.2 Finished floor level

Floor surfaces are usually required to be level or laid to a given fall. Some variations in surface level can be allowed without detriment to the satisfactory use of the floor, and this should be specified.

NOTE 1 Insistence on very close limits may result in unwarranted technical difficulties.

NOTE 2 Where the flooring is applied using a thin-bed adhesive, very little correction, if any, for variations in the base can be made. Consequently, the tolerance required of the surface has to be applied to the substrate. It is important that there be no appreciable difference in level across joints, especially in areas where loads are likely to be moved. For floor level and across-joint tolerances, see 7.3.4.

6.2.1.3 Alignment of wall and floor joints

Alignment of joints between wall tiles and floor tiles is sometimes possible if appropriately sized co-coordinating modular tiles are specified. However, the practical difficulties involved in achieving alignment should not be underestimated. Careful consideration should be given to the greater accuracy that is required in the setting out and construction of the walls to suit the tile module and all walls should be at right angles or parallel to each other.

6.2.2 Load considerations

When a floor is designed, due allowance should be made for the ultimate load it may have to bear including the flooring installation. Where an existing floor is to be covered by the tiles and bedding given in this standard, the floor should be sufficiently strong and rigid to accept the added load, particularly if the floor is of timber construction.

6.2.3 Substrates

6.2.3.1 General

Concrete and screeds are the most common substrates over which ceramic floor tiles and mosaics are laid but other bases may be encountered, such as timber or metal. In refurbishing work, it may sometimes be necessary to apply new finishes over existing floors such as ceramic tiles, terrazzo, granolithic finish and stone.

Before the tile bedding is applied, it is essential to check that:

a) the correct falls have been incorporated in the substrate;

b) the substrate is free from contamination, loose areas and cracks, and;

c) the substrate is true to the specified plane (see 7.3.3).

Table 4 – Suitability of tile bedding[1] for different substrates

Bases	Mortar		Cement/sand semi-dry mix		Adhesive (see 7.3.8)	Resins and mortars resistant to chemicals
	Bonded (see 7.3.6.1)	Unbonded (see 7.3.8.1)	Bonded (see 7.3.7.1)	Unbonded (see 7.3.7.3)		
New concrete (less than 6 weeks old) or screed (less than 4 weeks old)	U	S	U	S	U	U
Mature concrete or screed	S	S	S	S	S	S
Screed over suspended floor or underfloor heating	U	S	U	S	C	C
Timber	U	U	U	U	C	C
Existing hard floor finishes after preparation:						
Terrazzo	S	S	U	S	C	C
Unglazed ceramic tile	S	S	S	S	S	U
Glazed ceramic tile	S	S	U	S	C	U
Granolithic topping	S	S	S	S	S	C
Natural stone	S	S	S	S	S	U
Metal	U	U	U	U	C	S

[1] The tile bedding chosen will also depend on the traffic conditions (see 6.2.5).

Key: S Suitable
U Unsuitable
C Confirm suitability with manufacturer

d) **Class IV tiles**: suitable for areas that are exposed to frequent traffic with normal footwear in public buildings such as shops, hospitals, garages, restaurants and also in industrial kitchens and similar applications.

6.2.5.2.2 Suitability for use of unglazed tiles (see SANS 1449)

In areas where heavy traffic is anticipated such as in shopping centres, supermarkets, railway stations and sports stadia, use either unglazed extruded tiles that comply with the abrasion-resistance requirements of class B1.

NOTE Where doubt exists as to the suitability of a particular class of tile for the amount of traffic anticipated, contact the tile manufacturer.

6.2.5.3 Resistance to mechanical failure

The relevant mechanical properties of flooring are as follows:

a) **Resistance to surface wear**: physical hardness of the flooring itself and a surface free from irregularity in level;

b) **Resistance to loading:** strength and thickness of tile, solidity and strength of bedding and compressive strength of base;

c) **Resistance to impact:** in addition to the properties given in (a) and (b) above, the following factors are also important:

1) Within the normal tolerances of the flooring units used, the individual units should be laid to a true plane. Therefore, a true base is a necessary prerequisite.

2) The flooring units should be solidly bedded so that there are no voids.

3) Joints between ceramic floor tiles should be as narrow as possible, in accordance with the manufacturer's recommended values for the type of tile used, with a minimum of 3 mm. Ensure that joints are at least as deep as the thickness of the tiles. The maximum width should not exceed 10 mm when conventional cement/fine aggregate grouts are used because such joints possess lower impact resistance and abrasion resistance than do the tiles. In the case of joints wider than 10 mm, consideration should be given to the use of proprietary grouts specially formulated with enhanced resistance to impact, abrasion and low shrinkage.

6.2.5.4 Resistance to frost

Acceptable assurances about frost resistance should be obtained from suppliers of both tiles and bedding materials, in area where frost could occur. Tiles selected should be of class A1 or B1 as classified in SANS 1449.

6.2.5.5 Resistance to slip

Unglazed floor tiles (other than porcelain tiles) are not slippery when clean and dry but if water, oil, grease or wax is present on the surface, potentially slippery conditions will be created. Glazed tiles should not be used in areas likely to become wet unless designed to be slip resistant.

Floor surfaces may become slippery in time through the polishing action of traffic. When it is known that, in service, slippery conditions could arise and present a significant hazard, especially on steps and where floors are laid to falls, tiles or inserts with slip resisting finishes should be used.

Special attention should be paid to correct cleaning procedures as described in clause 9, both to remove contamination and to ensure that cleaning agents that could otherwise attack the surface are rinsed away.

Table 6 – Grout and joint materials: flexibility, resistance to intermittent contact with various chemicals

Grouts and Joint materials	Lemon juice	Vinegar	Acidic soft drinks	Alcoholic drinks	Tea and coffee	Sugar solution	Lactic acid	Olive oil	Disinfectant (phenolic)	Disinfectant (hypochloride)	Acids	Detergent (neutral)	10 % Ammonia solution	Paraffin	Acetone	Butyl-acetate	Carbon tetra-chloride	Urine	Sea water	Animal fat	Flexibility
Portland cement mortar	P	P	P	F/G	G	F	P	G	F	F/G	P	G	F	G	G	G	G	F/G	F	P	Rigid
High aluminium cement mortar	P	F	F	F/G	G	F	F	G	F	F/G	P/F	G	F	G	G	G	G	F/G	G	P/F	Rigid
Polymer modified cement	P	F/G[1)]	P/F	F/G[1)]	F/G[1)]	F/G	F/G[1)]	G	F/G[1)]	F/G	P/F	G	F	G	G	G	G	F/G	G	P/F	Slightly resilient
Furane resin	P	P/F	F	G	G	G	G	G	G	G	P/F	G	G	G	G	G	G	G	G	G	Rigid and tough
Epoxy resin	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	Rigid and tough

[1)] The higher resistance is obtained with certain synthetic rubbers

NOTE 1 Key P = Poor P/F = Poor/Fair F = Fair G = good

NOTE 2 This table should be regarded as a general guide to the materials listed. Preservative-use details of corrosive conditions should be obtained from specialists.

6.2.7 Variations in moisture content and temperature

Moisture expansion of ceramic tiles occurs as a direct result of absorption of moisture. Whereas the test method (see SANS 1449) merely yields a single value for moisture expansion, the actual expansion potential of the installed tile will be determined by its age and its individual expansion kinetics. The effects of this behaviour are essentially analogous to those produced by an increase in temperature. Appropriate measures such as the selection of tiles that have a low moisture expansion should be taken in the planning of a tiling system in order to counteract any effects of excessive expansion.

In solid and suspended floors, the base and the floor tiling usually have different dimensional reactions to changes in moisture content and temperature.

Probably the most extreme relative moisture movements occur when a new concrete floor or screed is covered before most of the drying shrinkage has taken place. The shrinkage of the substrate or screed persists for some time after the tiling has reached equilibrium, with the result that compression forces might ultimately crack the tiles or break down the adhesion between the tiles and the bedding. Vibration, impact and thermal shock could produce early failure while the floor tiling is in the stressed condition, as can further contraction and creep of the substrate, for example in very cold weather.

6.2.8 Movement joints

6.2.8.1 General

Stresses that affect the flooring can result from factors such as drying shrinkage, deflection and moisture movements in the substrate and thermal and moisture changes affecting the flooring. These stresses can lead to loss of adhesion and bulging or cracking of the floor. To counteract this, movement joints extending through the tiling and its bedding should be incorporated in the installation. The designer should assess the magnitude of any stresses and decide where movement joints, flexible joints and contraction joints should be located taking into account all the relevant factors including the type of flooring and bedding (see 7.3.5).

Movement joints floor tiling are incorporated as follows:

a) Structural movement joints; i.e. flexible joints aligned to structural movement joints in the substrate (see Figure 3);

b) Tile panel joints; i.e. flexible joints that accommodate smaller movements in the tiling but not in the substrate (see Figure 4);

c) Perimeter joints; flexible joints between a fixed building element (for example, walls and columns) that might be or are not covered with a tiling system, and an edge of the floor tiling system under consideration. Figure 5 shows perimeter joints between the floor tiles and either wall tiles or skirting tiles. In Figure 5(a), the skirting goes right down to the floor substrate, resulting in a non-compressible contraction joint that acts essentially only horizontally. In Figure 5(b), the wall/skirting tiles end at the top level of the floor tiling, resulting in a limited movement joint that can act both horizontally and vertically, especially if the optional bond-breaker is incorporated.

NOTE Further possibilities for movement joints are given in Annex A.

6.2.8.2 Structural movement joints

Structural movement joints in the bed and tiling should be sited direct over and be continuous with, and of the same width as, structural movement joints in the substrate.

6.2.8.3 Other movement joints

Tile panel movement joints (see Figure 4) should be inserted over supporting walls and beams at intermediate positions to accommodate deflection of the substrate and movements in the flooring.

Contraction joints (see Figure 5(a)) may be used instead of tile panel joints over supporting walls and beams. Flexible joints of either type should be used at floor perimeters and to divide the floor into bays at the intervals recommended (see 7.3.5). Wherever possible, they should coincide with structural features (for example, columns and door openings), or they can be planned to provide a decorative panelled effect. Where temperature changes are expected, for instance around boilers, over heating installations or from strong sunlight, an assessment of the likely temperature range and corresponding linear changes in the flooring should be made to determine whether any additional allowance for movement is necessary.

In floors that have to withstand hard-rimmed wheel traffic or the dragging of heavy loads, the position of movement joints should, when possible, be so planned that they do not occur in the traffic area. Where this is not practicable, the joints should be of types that have their edges reinforced with metal or rigid plastics sections (see Annex A).

Joints other than those that are protected by metal or rigid plastics edging, and that are subject to traffic heavier than light pedestrian, should not be wider than 10 mm. Information on the permissible maximum and minimum joint widths should be obtained from the manufacturer of the particular joint filling material.

NOTE The illustrations in Figure 3, 4 and 5 indicate the basic principles of the types of joints referred to above. Prefabricated materials (as shown in the examples in Annex A) are available that embody the principles shown, but they might differ in detail.

6.2.8.4 Typical movement joints around columns

6.2.8.4.1 General

Isolation joints permit horizontal and vertical movement between adjacent slab bays and fixed elements of the structure (see Figure 6). The main features of isolation joints are:

a) They are generally used where the floor meets fixed parts of the building, such as columns, walls and machinery bases; and

b) These joints can be used where the internal floor slab meets the external pavement.

6.2.8.4.2 Joint layout

A suitable joint layout is determined by a combination of requirements that include:

a) provision of isolation joints between fixed elements of the structures (for example, columns, walls or machinery bases) and adjacent slab bays;

b) location of construction joints where the bay length and width are dictated by the construction method; and

c) location of contraction joints dictated by bay length and width.

A suitable pattern of right-angled rectangular panels or bays is then selected. A typical joint layout is shown in Figure 6.

6.2.8.7 Pre-formed strips

Pre-formed strips are suitable for use in stress-relieving or compression joints where a watertight seal is not critical. Cork and cork/rubber compound strips are suitable for use in light traffic areas. Synthetic rubber strips with metal edge supports and PVC are suitable for use.

Where waterproof tiling is required, it is preferable that preformed strips be omitted and an appropriate sealant be used.

6.2.9 Skirtings

Skirtings can be used for protecting the base of wall surfaces for ease of cleaning, to assist in forming a liquid-tight system at the junction of floors and walls, or for aesthetic reasons.

Where it is important that the installation be resistant to the passage of water or other liquid, and especially where "tanking" is necessary (see 6.2.6), a coved base skirting should be used (see Figure 5(a)). This allows a perimeter to be positioned between the foot of the coved base and the adjacent floor tile to accommodate movement and which, when filled with an impervious sealant, will contribute to a smooth uninterrupted resistant surface from horizontal to vertical.

7 Installation methods and materials

7.1 General

7.1.1 Bedding methods

A suitable bedding for tiles might be one of the following:

a) a cement-based adhesive (see 7.2.9.1);

b) an organic-based adhesive (see 7.2.9.2); or

c) mortar (see 7.2.9.3).

The backgrounds to which each system is suited are summarized in Table 3.

For fixing tiles with smooth or shallow-keyed backs, methods (a) and (b) above are preferable. For fixing tiles with deep keys, a thick-bedding adhesive or mortar should be used provided it is compatible with the background.

7.1.2 Workmanship

The application of ceramic tiling requires effective supervision and the employment of skilled operatives, working safely and using protective clothing and equipment where appropriate.

7.2 Wall tiling

7.2.1 Compatibility of backgrounds and tile beddings

The treatment of base surfaces to produce backgrounds ready to receive tiling is detailed in clause 6. In 7.2.9.1.2 and 7.2.9.2.2, additional information is given that might be specific to a bedding method. Preparatory work in the formation of backgrounds that fail to meet the recommendations of this standard should be completed before tiling is commenced. Sufficient additional time should be allowed for curing, commensurate with the extent of making good, before the contemplated bedding system is used.

It is not practicable to give similarly precise instructions concerning mortar bedding. The properties of sand will depend upon its source and will in particular influence the quantity of water that has to be added to the mortar batch in order to give it the desired consistency.

The sand therefore has to be selected with care to obtain optimum performance from the cement/fine aggregate mortar.

Proper dry and wet mixing is essential for optimum performance. The ambient temperature, the porosity of the background and the thickness of the bedding should be considered in order to estimate the optimum water content necessary to achieve the desired mortar consistency for a particular application. This is vital to minimize drying shrinkage, to obtain maximum strength of the mortar and to limit adhesion failures.

7.2.6 Tolerances

7.2.6.1 Finished tile surfaces

The finished tile surface should be true such that, when it is checked with a 2 m straightedge with feet of thickness 3 mm at each end, the straightedge is not obstructed by the tiles and no gap exceeds 6 mm.

NOTE Where adhesives are used, this degree of accuracy can be achieved only when the background surface is equally true.

7.2.6.2 Level across joints

There should be no appreciable difference in level across joints and the maximum deviation between the surfaces on the two sides of a joint (including movement joints) should be as follows:

a) for joints of width less than 6 mm; 1 mm and

b) for joints of width 6 mm; 2 mm

7.2.7 Lighting during fixing

The type, direction and intensity of lighting at the time of tile fixing should be equal to the ultimate permanent lighting. Within the tolerance laid down for the overall plane, there could be differences of plane between adjacent tiles, and shading can be rendered visually insignificant in the ambient lighting by adjustments of the tiles during fixing. If the finished tiling is subsequently exposed to lighting from a different source and intensity, its appearance could be affected and no adjustments can then be made to the tiles to meet the changed circumstances.

7.2.8 Tile joint treatment

To ensure a high standard of finish, careful attention should be given to the selection of the methods and materials to be adopted in the proper filling and finishing of the joints. The selection will depend upon the joint width and the functional requirements of the installation (see 7.2.9.1.6 and 7.2.10).

7.2.9 Bedding methods

7.2.9.1 Bedding in cement-based adhesives

7.2.9.1.1 General

The method to be adopted for fixing tiles will vary with the type of background, the nature of the adhesive, the type of tile and the anticipated conditions to which the installation will be subjected in service.

There are several proprietary products available and some variations in fixing procedures exist.

amount of contact is also dependent on the twisting or sliding of the tiles as they are pressed onto the ribs of the adhesive.

It is sound practice to remove a tile occasionally as fixing proceeds, to check that adequate contact and wetting is being maintained with the adhesive.

b) Buttering method

This method may be necessary for occasional awkward tiling positions, for example, around openings and restricted areas where a notched trowel cannot be used. Where this technique has to be adopted, a trowel should be used to spread the adhesive evenly over the whole of the back of each dry tile. The bedding thickness should be slightly greater than the final thickness required so that the correct thickness is achieved when each tile is pressed or tapped firmly into position. The thickness should not exceed the maximum recommended by the manufacturer of the adhesive. Care should be taken to ensure that no voids are left behind the tiles.

c) Notched-trowelling and buttering method

This method combines the methods given in 7.2.9.1.5.1 and 7.2.9.1.5.2 and should be used to fix large tiles (for example, 700 cm^2 and bigger) and tiles with ribbed, deep keyed or heavy buttoned back profiles. The deep keys should be filled with a coating of adhesive buttered over the backs before the tiles are placed in position on the combed adhesive bed. There should be no significant increase in the bedding thickness.

NOTE This method is aimed at achieving a solid bed.

7.2.9.1.6 Tile joints

Tiles, including tiles with spacer lugs and universal edges, should never be butt-jointed. Joints of approximately 2 mm should be left around every tile by the insertion of tile spacers of suitable thickness between the tiles as fixing proceeds.

If, for design reasons, wider joints are required, the same technique should be adopted. Joint width should be consistent throughout the installation unless specified otherwise (see also 7.2.2).

Surplus bedding material on the surface of the tiles or in the joint spaces should be removed before it hardens, to prepare the joints for grouting (see 7.2.10 for grouting materials and procedures).

7.2.9.2 Bedding in organic-based adhesives

7.2.9.2.1 General

Organic-based adhesives should only be used in adequately ventilated areas, since some are highly flammable, narcotic or carcinogenic. Flammable adhesives should not be used near naked flames, cigarettes, electrical switchgear and other possible sources of ignition, and the lid should always be replaced on a container immediately after use.

NOTE It is dangerous to smoke during the application of solvent-based adhesives.

Bedding methods are similar to those given for cement-based adhesives, but there are some variations in fixing procedures. It is therefore important to follow the recommendation of the adhesive manufacturer concerning, for example, the type of trowel, the mixing procedure, the working time after spreading and the suitability of the background.

7.2.9.2.2 Backgrounds

Organic-based adhesives are suitable for use on cured plastered surfaces, concrete, brickwork, various sheets and boards, metal surfaces, correctly prepared painted surfaces, and existing tile and glazed brick surfaces. Solvent-based adhesives are not suitable for use on some painted surfaces because of possible interaction between the solvent and the paint.

by the need to produce a mortar that has the required properties with the minimum water content (see 7.2.5). If the fine aggregate is damp, due allowance should be made for this. Care should be taken that the use of admixtures, such as plasticizers, water-proofers and fungicides, does not adversely influence the adhesion strength, contraction or expansion of the mortar.

Once the proportions have been established, every attempt should be made to minimize random variations. Materials should be batched by mass wherever possible and the water addition should be controlled.

Where exact mass batching is impracticable, mortar batches should be based on multiples of an entire bag of cement (50 kg approximating to 0.035 m^3 or 35 ℓ). In such cases, the fine aggregate and water should be measured by volume, using correctly made gauge boxes or other suitable containers of fixed measurable volume. This method allows water addition to be checked and thus permits approximate mix proportions to be established and maintained.

Batching by the shovelful should never be allowed since it eliminates the possibility of establishing and controlling mix proportions. Wherever it is practicable, mixing of mortars should be by machine preferably of the forced action type.

When mixing by machine is not possible, mortars can be mixed on a clean non-absorbent surface using clean hand tools. Whatever method of mixing is used, the materials should be thoroughly blended in the dry state before water is added. Mixing should be continued until the batch has a uniform consistency.

Mortar should be discarded once it becomes unworkable and no attempt should be made to reconstitute it in any way. No additional water should be added.

7.2.9.3.5 Application of mortar and tile bedding

7.2.9.3.5.1 Floating and back-filling method

The mix as described in 7.2.9.3.4 should be trowelled onto the background to a thickness not exceeding 10 mm and should be finished with a wooden float. The bedding should be allowed to stiffen slightly before any tiles are applied to assist it in supporting the added back firmly.

Care should be taken to ensure that tiles that have deep keys, ribs or heavy buttoned back profiles are filled with the 1:1 cement/fine aggregate mortar (by volume) before they are placed in position on the floated wall.

NOTE All mortar bedding systems are aimed at achieving a solid bedding but, in practice, it is inevitable that there will be a small number of voids.

7.2.9.3.5.2 Buttering method

This method should only be used for small areas of tiling or in situations where it would be impracticable to float the wall.

Tiles should be evenly buttered with the mortar mix and tapped back firmly into position, in order to ensure that, as far as possible, the bedding is solid over the whole of the backs of the tiles, including the corners. Deep keys or frogs in the backs of the tiles should be filled during buttering. The resultant thickness of the bedding behind the tiles should generally be 6 mm but not more than 12 mm; the depth of mortar in keys or frogs is additional to these values.

This method should not be used to fix tiles of thickness less than 5.0 mm because of the risk of their cracking.

7.2.9.3.5.3 Finishing

A straightedge should be used to ensure that the surface of the tiling is flat and true as defined in 7.2.6. Any adjustment of tiles should be made within 10 min of fixing.

A rubber squeegee should be used to clean surplus mortar off the face of the work, which will also help to ensure that all joints are filled. The joints should then be tooled with a piece of wood or other material of suitable size and shape, after which the work should be carefully washed down and, when dry, polished with a clean, dry cloth.

7.2.10.4 Application of coloured grout

When coloured grout are required, it is advisable to check the potential risk of staining by applying the grout to a few tiles in a small trial area. In any doubtful case, this would enable an alternative grouting procedure to be adopted. Alternatively, the use of a proprietary tile sealant could be considered. Proprietary tile sealants should be used in accordance with the manufacturer's instructions and should be applied before grouting is carried out, in order to provide a protective coating that can easily be removed after completion of grouting.

For the colouring of cement/fine aggregate grout, a mineral pigment (see 5.14.2.3) should be thoroughly mixed with the dry cement before this is added to the mix, in order to obtain the best staining power and homogeneity. In the case of proprietary cement/fine aggregate grouts, these are preservative-pigmented by the manufacturer and no additional pigment need be added.

For the colouring of epoxy-resin-based grouts, mineral pigments may be incorporated in accordance with the recommendations of the resin manufacturer. In the case of proprietary epoxy-resin-based grouts, these are preservative-pigmented by the manufacturer and no additional pigment need be added.

With most tiles, no problems arise provided that surplus coloured grout is cleaned off promptly in accordance with the manufacturer's instructions.

However, coloured grouts might prove more difficult to remove from matt glazed tiles, tiles with textured surfaces and some unglazed tiles and in general, grouts that contain finer-grained pigments are likely to prove more troublesome in this respect than those containing coarser-grained pigments.

7.3 Floor tiling

7.3.1 Preparation of substrates to receive tile bedding

7.3.1.1 General

The bond between the bedding and the substrate depends to a great extent upon the conditions of the surface of the substrate at the time that the bedding is laid. Where the flooring is likely to be subject to heavy traffic or other rigorous service conditions, good adhesion to the substrate should be ensured by providing a mechanical key or using a suitable bonding agent, depending on the base and bedding system.

Where there is a risk of further accumulation of dirt, penetration of the substrate should be delayed until shortly before the bedding is to be laid.

7.3.1.2 In situ concrete substrates

Where a bonded bedding method (see BOS 132-2) is to be used, the laitance on the concrete surface should first be entirely removed by suitable mechanized equipment in order to expose clearly the coarse aggregate. All loose debris and dirt should be removed by thorough sweeping or preferably by vacuum equipment. Before the mortar bedding is laid, the reasons for any cracking of the substrate should be diagnosed and appropriate remedial treatment carried out. Cracked and loose or hollow portions should be cut out and made good.

Special precautions should be taken when direct bedding on a power-floated substrate is carried out.

7.3.1.3 Precast concrete units

Where the substrate is a concrete layer over precast concrete units, it should be prepared as in 7.3.1.2.

NOTE If the concrete layer is thin (for example less than 100 mm) and roughening by heavy mechanical scabbling is likely to damage it or the precast units below, the use of shot blasting or grit blasting equipment is an alternative.

7.3.5 Movement joints

7.3.5.1 General

Types of movement joints and stress-relieving joints are given in 6.2.8 and are illustrated in Figures 3, 4 and 5.

7.3.5.2 Structural movement joints

Structural movement joints should be inserted in the bedding tiles over movement joints or contraction joints in the base (see 6.2.87.2).

7.3.5.3 Perimeter joints

Perimeter movement joints should be inserted where the tiling abuts restraining surfaces such as perimeter walls, columns, curbs, steps and plant fixed to the base. In floors of dimensions 2 mm or less, perimeter joints are not necessary unless the conditions that could generate stresses are likely to be extreme, for example, extreme temperature changes or prolonged immersion in liquid.

7.3.5.4 Intermediate joints

The need for intermediate joints between perimeter joints depends on the dimensions of the floor, with the exception of floors in suspended construction. In the case of floors with less than 5 m between perimeter joints or free edges, no intermediate joints are necessary, but in larger floors, joints should be used to divide the area into bays.

In the case of interior large floors, it is advisable that movement joints that form bays be incorporated at intervals of not more than 5 m, divided by tile panel joints (see Figure 4).

On suspended floors, stress-relieving tile panel joints should be inserted where flexing is likely to occur, for example, over supporting walls or beams.

In the case of exterior floors, intermediate movement joints should be provided at intervals of not more than 3 m.

7.3.6 Bedding in mortar bonded to a substrate

7.3.6.1 Mixing and application of mortar

The mortar mix should neither be stronger than 1 part of portland cement to 3 parts of clean sharp fine aggregate by volume (1:3.4 by mass). The materials should be thoroughly mixed.

The thickness of the bedding should not be less than 15 mm and not more than 20 mm. Where, however, tiles of thickness 10 mm or less are used, the thickness of the bedding should be 10 mm to 15 mm. The mix should be of a stiff plastic consistency and should contain the appropriate quantity of water, so that when the bedding is tamped and fully compacted into place, free water does not bleed to the surface.

The mortar should be spread between wooden fillets and levelled with a draw float drawn across the containing fillets, sufficient area being laid for two to three hours of tiling work.

7.3.6.2 Preparation of porous tiles

To prevent too rapid suction and subsequent failure to bond with the mortar bedding, porous tiles should be soaked before fixing. The tiles should be removed from their cartons and completely immersed in clean water for at least 30 min. After soaking they should be stacked tightly together (with the end tile face outwards) on a clean surface, and allowed to drain. Tiles classified in SANS 1449 as classes A3, A4, B3 or B4 require this saturation treatment. Soaking of tiles of classes A1, A2 and B2 is unnecessary.

When tiles are laid on slurries that contain proprietary additives recommended for this purpose, the manufacturer's instructions should be followed.

7.3.7.4 Application of tiles

To prevent porous tiles from absorbing excessive moisture from the bedding, it will be necessary first to immerse them in clean water, and to drain off surface water before placing them into position (see 7.3.6.2).

Tiles that have uneven or deep patterns, such as some extruded tiles, should have the depressions filled with a suitably stiffened mortar of 1 part of cement to 2 parts of fine aggregate before the tiles are laid. Tiles should be fixed with joints of width at least 3 mm and in accordance with the tile manufacturer's instructions.

Extruded tiles should be fixed with joints of nominal width 6 mm to 10 mm. The tiles should be placed on the slurried bedding, care being taken to avoid depressing one of the corners. The tiles should be tapped firmly into position, a useful tool for this purpose being a rubber mallet. Special care should be taken to ensure that when tiles of thickness less than 10 mm are being tapped into the semi-dry bed, excessive material is not forced up into the tile joint, since this will restrict the thickness of grout which can be applied later, resulting in a significant reduction in the capacity of the joint to withstand point loading. The joints to receive grout should be of depth at least 6 mm unless tiles thinner than 6 mm are used (see 7.3.5).

The traditional "beating-in" of tiles involves thoroughly tapping the tiles with a flat faced wooden block which dimensionally is usually of size approximately 300 mm x 100 mm x 50 mm. Alternatively, some floor tiling contractors use vibrating machines for "beating-up". During this operation, the tile joints should be regulated and an occasional check made to establish that full contact is being achieved between tiles and the slurried bedding, by lifting a tile out at random; any slurry or mortar disturbed should be made good before the tile is replaced.

It is important that there be no delay between spreading the slurry on the semi-dry mix bedding, placing the tiles and tapping them in. Where tiles have been bedded using a vibrating machine, placement should be completed within 4 h.

7.3.7.5 Movement joints

Siting of movement joints should be as given in 7.3.5.

7.3.8 Bedding in adhesives

7.3.8.1 General

Only adhesives manufactured specifically for floor tile laying should be used. Cement-based adhesives are usually proprietary compositions in dry powder form that contain cement as the basic ingredient and generally require mixing on site with water only. Organic-based adhesives are usually proprietary products of diverse composition and are manufactured either as a ready-for-use mixture or have several components that have to be mixed on site shortly before use.

7.3.8.2 Bedding in cement-based-adhesives

The recommendations of the adhesive manufacturer should be followed concerning the mixing procedure, the method of use, the maximum thickness of the bedding, the working time before and after spreading and the suitability of the base.

The base should be clean, dry and prepared to suit the adhesive to be used. The surface being adhered to should not be dampened before the adhesive is applied.

Proprietary cement-based-adhesives should be applied with a minimum bedding thickness of 5 mm and a maximum bedding thickness in accordance with the manufacturer's instructions.

Dry powder adhesives should be mixed with clean water or with an approved admixture (or with both), any specific instructions being carefully followed to obtain the required consistency, usually a fairly thick creamy mix. Other

7.3.9.2.2 Cement/sand grout

Cement/sand grout should consist of portland cement and sand mixed with the minimum of water necessary to achieve a paste consistency. Too weak a paste might result in cracking in the joints as the grout dries out.

The proportions of cement and fine sand should be 1:3 by mass for joints wider than 3 mm. This grout requires dampness in the joint cavities to promote good adhesion, and is best suited to the mortar bedding methods given in 7.3.6.1 to 7.3.6.3 in which the tiles will have been dampened or soaked prior to being laid and where joints can be re-wetted if necessary.

NOTE When tiles are bedded in adhesive, wetting of the joints prior to grouting is not necessary.

7.3.9.2.3 Proprietary grouts

See 5.14.2.

7.3.9.2.4 Admixtures

See 5.15.

7.3.9.2.5 Pigments

See 5.14.3.

7.3.9.3 Grouting procedure

There should be dampness in the joint cavities and, if in the interval between the completion of tile laying and the start of grouting, the cavities have dried out, they should be re-wetted. The mortar, mixed as described in 7.3.6.1, should be spread over the surface and worked into the joint cavities until they are filled solidly, using a rubber squeegee or a similar tool. Grouting machines are available for this purpose that can be used to advantage on large floors. For the filling of joints wider than 6 mm, the mortar mix should be stiffer than that for narrower joints and should not be spread but should be trowelled into the joint cavities.

The grout should be brought flush with the tile surface as nearly as is practicable. Surplus grout should be removed from the floor surface before the grout sets too firmly. On no account should saw dust be used for this purpose, since there is a danger that if saw dust enters moist grout, it could break down the strength of the grout. After the removal of surplus grout and when the grout in the joints has hardened sufficiently, the surface of the work should be washed down with water and left clean. If any grout residue resists removal by water, it should be cleansed off as recommended in 9.2.

7.3.9.4 Grouting with proprietary grouts

The recommendations of the manufacturer of these materials should be followed regarding their mixing and application, removal of surplus grout and cleaning off the floor surface. The procedure when cement-based material (see 5.14.2(a)) is being used is as described in 7.3.9.3, except that the joints are not wetted.

As a rule, it is necessary to wet the joints but this point should be checked by reference to the manufacturer's instructions.

The application of chemically resistant grouts in situations where the floor will be subject to attack from aggressive substances should be as described in BS 5385-4.

8.7 Preparation of mosaics

All mosaics should be inspected and damaged tesserae removed and replaced. Designs and murals should be laid out prior to fixing. The paper of prefaced mosaics should be clear of the edges to assist with joint alignment whilst the sheets are being fixed.

8.8 Bedding methods for mosaics (other than glass mosaics)

8.8.1 Bedding in adhesives

Both cement-based and organic-based adhesives are suitable and the information given in 7.2.9.1, 7.2.9.2, 7.3.9.2 and 7.3.9.3 is relevant. The precise recommendations of the adhesives manufacturer should be followed concerning the suitability of the background, the mixing procedure, the method of use, the thickness of adhesive and the open time after spreading.

8.8.2 Bedding in mortar

The mortar mix should be as given in 7.2.9.3.4 and should be applied onto the prepared background using the technique described in 7.2.9.3.5 and finished with a wood float. The bedding should be allowed to stiffen slightly before any mosaic is applied but should not be left more than 2 h before fixing commences.

8.9 Application of mosaics

8.9.1 Preservative-grouting

Ideally, paper-faced mosaics should be preservative-grouted. It is not always practical to preservative-grout mosaics bedded in adhesives but paper-faced mosaics bedded in mortar should always be preservative-grouted with a cement-based grout. Where the joints are wider than 2 mm or the mosaic thickness exceeds 4 mm, it is advisable to mix fine aggregate (see Table 1 for joints < 6 mm) with the cement to avoid cracking as the grout dries out. A suitable mix is 1:1 cement/fine aggregate by volume.

8.9.2 Sequence and method of fixing

Sheets of mosaics should be fixed in position as accurately as possible and so tapped with a laying-on trowel or a wooden beater, that full contact with the bedding is achieved. In the case of walls, sheets should be fixed in horizontal lines starting at a suitable position.

Joint alignment should be checked as the work proceeds. The joint width between the tesserae established when the mosaics were assembled should be maintained between the sheets, otherwise the overall appearance of the mosaic will be marred by the outline of the sheets (see 8.2).

Sheets of mosaic that have been preservative-grouted should have the joints between them filled with grout as the work proceeds. A straightedge should be used to ensure that the surface of the mosaic is true as defined in 7.2.6.1.

After the sheets have been firmly tapped into place, any facing paper should be removed by soaking and sponging and, before the bedding sets, tesserae or joints should be adjusted if necessary. Any surplus grout or adhesive that remains on the face of the mosaic should be removed before it sets.

8.9.3 Grouting of mosaics

The general information given in 7.2.10 for the treatment of tile joints is relevant. In the case of fixing mesh-backed mosaics to proprietary cement-based adhesive, the manufacturer's recommendations should be followed with regard to bedding-in the sheets so that the grouting is carried out in a single operation with bedding material.

With paper-faced mosaics, it is usual for the grouting to be of similar material to that used for any preservative-grouting as regards type and colour. The grout should be rubbed over the a surface to fill the joints either as the work proceeds or when it is sufficiently firm, and the surface should be given a preliminary cleaning.

Care is necessary to ensure that cleaning agents are not allowed to come into contact with adjacent fixtures and wall surfaces. Apart from normal usage or obvious misuse, surface contamination can arise from:

a) efflorescence;

b) residual cement layers;

c) surface sealing materials;

d) the reaction of cleaning agents with hard water; and

e) unsuitable cleaning agents, including highly alkaline or acidic detergents and chemicals.

9.2.2 Glazed tiles

The routine cleaning of ceramic glazed wall tiles and mosaics should be carried out with warm water or a weak solution of a detergent or proprietary cleaner. Clean water and clean utensils are essential to prevent dust and dirt on the face of the tiles from being deposited in the joints, with resulting discolouration of the grouting.

9.2.3 Unglazed tiles

Unglazed tiles could retain a cement film, which is insoluble in water (see 9.4). Routine cleaning should be as for glazed tiles (see 9.2.2). As a new installation dries out, unglazed tiles could also develop efflorescence (see 9.3).

9.3 Efflorescence

Efflorescence is aggravated by damp conditions after installation, or by prolonged delay in drying out and can be persistent if it is caused by rising moisture where the construction is not sufficiently damp-resistant. The deposits should disappear with washing but can reappear after drying. They should diminish with progressive washing. The most effective treatment is to increase the frequency of washing until the deposit ceases. Persistent deposits can be treated with appropriate proprietary cleaners, but in such cases, the floor should be wetted and the free water removed before the application of the cleaning agent. It is important that such treatment be followed immediately by thorough rinsing with clean water.

9.4 Residual cement film

Some floor surfaces might retain a cement film which is insoluble in water. This can be removed only by treatment with appropriate proprietary acid cleaners. The floor should be wetted and free water removed before the application of the cleaning agent. It is important that such treatment be followed immediately by a thorough rinsing with clean water.

9.5 Surface sealing materials

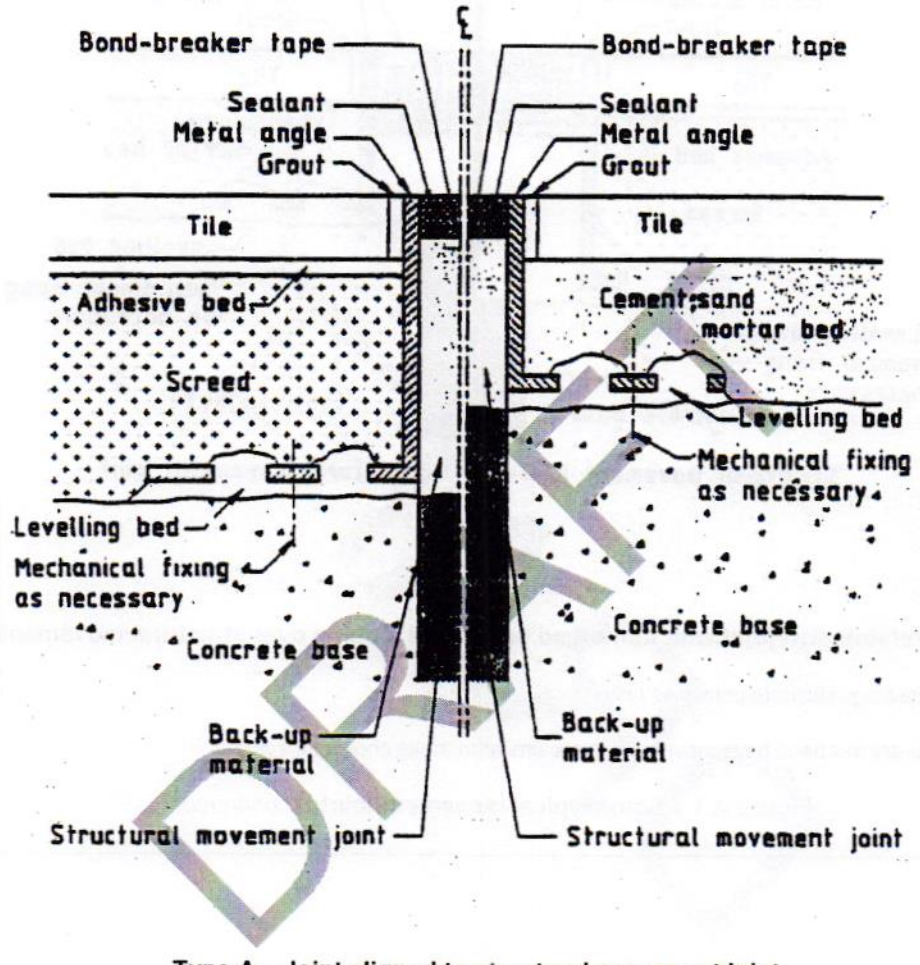
The application of a surface sealing composition or of a polish is not recommended, since these materials are not absorbed into the surface and tend to make the surface slippery and difficult to clean.

Temporary tile sealers can be used to facilitate cleaning-off after laying and grouting. These proprietary compositions can be readily removed after completion of the grouting operation, by the use of proprietary detergents and rinsing with clean water. Where temporary sealers are employed, they should be used in accordance with the manufacturer's instructions.

For the sealing of unglazed tiles, only proprietary penetrating sealants should be used in accordance with the tile manufacturer's instructions.

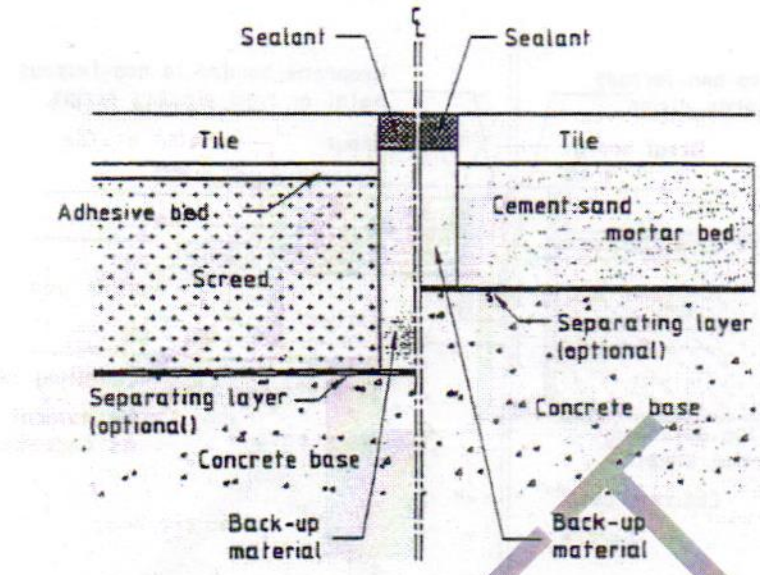
Annex A
informative

More examples of movement joint designs

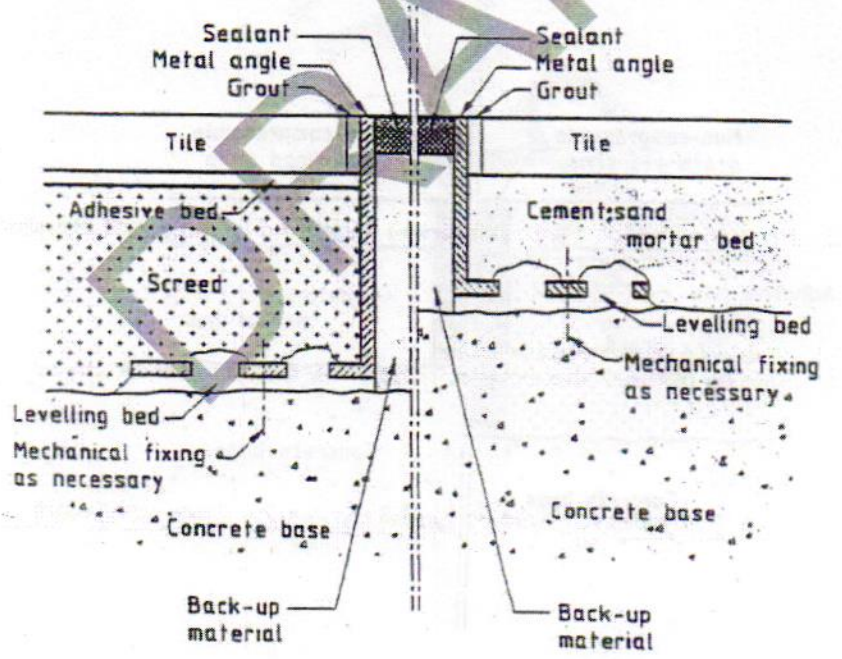


Type A – Joint aligned to structural movement joint

Figure A.1 – Some typical movement joints

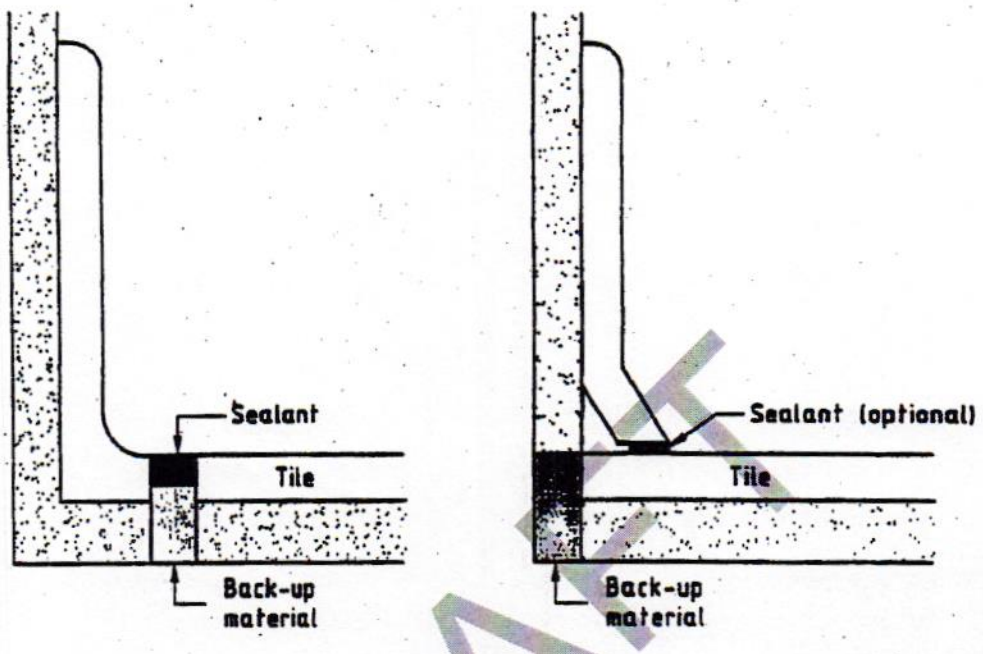


Type C –Flexible joints in bedding, with or without separating layer



Type D – Flexible joint with reinforced edges

Figure A.1 – Some typical movement joints (*continued*)



Type G – Alternative perimeter joints

Figure A.1 – Some typical movement joints *(concluded)*

Emailed to all

ENGINEERS REGISTRATION BOARD

NOTICE TO BOCCIM MEMBERS

BOCCIM is pleased to notify members that following the inauguration of the Engineers Registration Board (ERB) by the Minister of Infrastructure, Science and Technology on 11th August, 2011, ERB has since started work in preparation for commencement of registration of engineers at a later date during the year (date to be announced). At a recent meeting between the Registrar of the ERB and the Chief Executive Officer of BOCCIM, the two organizations pledged to support each other in pursuit of achieving their respective mandates. The ERB is a statutory body established under the Engineers Registration Act Cap 61:06 of 1998 as amended in 2008 in terms of which the ERB shall have the responsibility for regulating the activities and conduct of registered engineers in accordance with the functions and powers conferred upon it by the relevant Act. This is a development that BOCCIM welcomes as it will ensure that the provision of professional engineering services in Botswana accords with international best practice.

The Objectives of the ERB are set out in the Act as being to: "(a) promote the highest standards of engineering practice in Botswana; and (b) protect the welfare and interest of the public in the engineering practice". In this regard, the Engineers, just like Lawyers, Medical Doctors and Accountants, are required to be registered to legally comply with the requirement of their statute.

BOCCIM would like to encourage its members in the Engineering fraternity to be pro-active and ensure that they are duly registered with ERB at the earliest time possible once the registration process commences. This will help to minimize possible delays as a result of a huge influx of registration applications. Such delays could have the effect of negatively impacting on project implementation. It is also worth noting that failure to register with the ERB may result in losing out on opportunities for future projects since unregistered engineers will not be allowed by law to undertake any engineering assignments or jobs.

The Voice of Business

BOTSWANA CONFEDERATION OF COMMERCE INDUSTRY & MANPOWER (BOCCIM)

BOCCIM is a Business Association of Employers representing employers in all sectors of the Botswana economy in an advocacy capacity. The organisation was formed in 1971 and registered under the Trade Unions and Employers' Act No. 23 of 1983. BOCCIM has been the vanguard and main voice of the private sector in Botswana. The organisation has protected the economic interests of the business community and through its philosophy of constructive policy dialogue, BOCCIM has won the confidence and respect of Government and other stakeholders in Botswana.

The institutionalization of the High Level Consultative Council (HLCC) was the culmination of our quest for co-operation in and coordination of all matters of economic development and of making our country an oasis of sanity in a sub-region that was once a sub-region of political turbulence and oppression. The main HLCC which takes place twice a year, is chaired by the State President and is attended on the Government side, by all Ministries and their top policy making Officials. On the private sector side, the HLCC is attended by Captains of industry, representing the private sector in total. The HLCC meetings are mandated *"To consider and to resolve a wide range of issues which constrain the performance of the economy"*.

MEMBERSHIP OF BOCCIM

Membership of BOCCIM is voluntary and is open to registered companies, associations/organizations in both the private and parastatal sectors of the economy. An Application Form must be completed by every company wishing to be a member of BOCCIM. Applications can also be submitted via our website: www.boccim.co.bw.

From the information supplied by the applicant, BOCCIM is able to determine the annual subscription to be paid and the Sector under which the new members falls in addition to other information such as ownership of the new member company, and the gender component of the employees.

Benefits of Being a BOCCIM Member

1. Affiliation to an association that represents the voice of business in Botswana, which is recognized by government.
2. Access to industrial relations advice and services
3. Discounted rates for in-demand business courses

4. BOCCIM benefits card which gives you discounts with retail outlets and service providers in Botswana
5. Policy advocacy and general business advice
6. Discounts through BOCCIM's media partners
7. Access to trade missions and business delegation meetings and seminars
8. Networking opportunities through dynamic conferences and events
9. Access to local, regional and international business opportunities
10. Information sharing on important updates that can affect your business

Represented Sectors

BOCCIM members are represented under the following Sectors:

Agriculture, Construction, Education, Engineering, Financial Services, Health care
Hospitality & Tourism, Manufacturing, Media Industry, Mining & Quarrying, Motor Trade
Parastatals, Petroleum & Chemicals, Printing & Publishing, Professional Services
Retail Trade, Transportation, Wholesale, Security Services, Information, Communications, Technology (ICT), Women in Business Association (WIBA)

SOME OF BOCCIM'S ACHIEVEMENTS

- Organized the business sector to be a major player in the formulation of many national economic issues.
- Initiated the debate on the need for "**A Long-Term Vision or Botswana**".
- Establishment and institutionalization of the HLCC in 1996
  (BOCCIM called for the establishment of the HLCC from 1988)
- Privatization Policy for Botswana (BOCCIM initiated the privatization debate)
- Got Government to agree to the payment of a delayed payment penalty of 1.5% per month to the private sector.
- Liberalization/abolition of Exchange Controls in Botswana.
- Lowering of both the corporate and personal Tax from a high of 35% to a low of 15% for manufacturing and 25% as a general tax rate for Botswana.
- Maintenance of a stable Industrial Relations regime through the training of employers and employees in Industrial Relations and maintaining a unique system of dialogue and mutual respect between BOCCIM and the Botswana Federation of Trade Unions (BFTU).
- Nationalized the debate on Citizen Economic Empowerment.
- Broke the communication barrier between the private sector and top Government Officials.
- Raised the status for the role of the private sector in nation building.
- Established the National Business Council (NBC)

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2012 TRAINING SCHEDULE

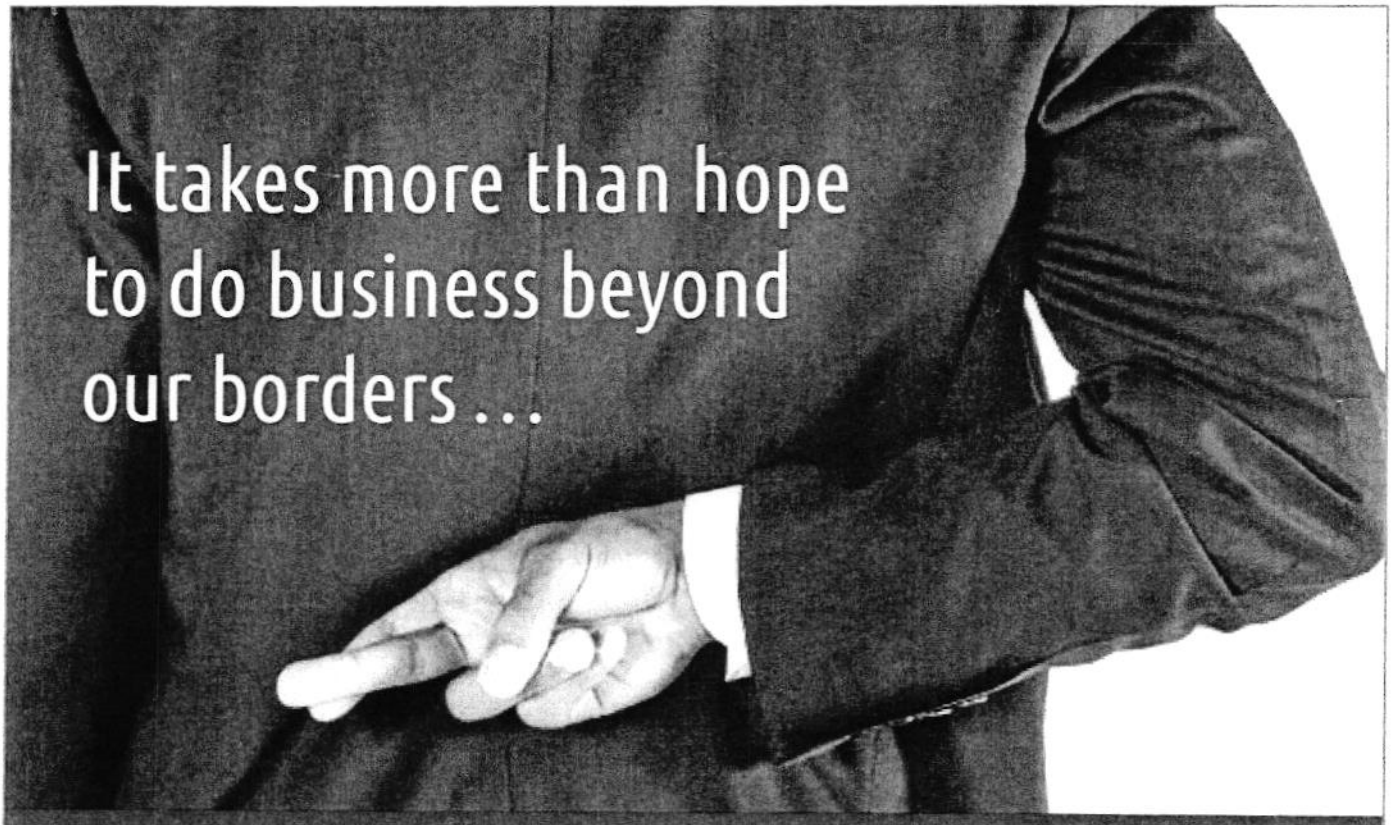
BOCCIM BOTA ACCREDITED SHORT COURSES

Appendix 3

Programme	Date	Location	Duration	Fee(Members)	Fee(Potential Members)
Disciplinary Hearing & Grievance Procedures	08-09 February	Gaborone	2 Days	1848	2125
Customer Service	15-16 Febreuary	Francistown	2 Days	1848	2125
Supervisory Skills	23-24 February	Gaborone	2 Days	1848	2125
Customer Service	07-08 March	Gaborone	2 Days	1848	2125
Industrial Disputes Workshop	14-15 March	Gaborone	2 Days	1848	2125
Leadership Dialogue	***16-Mar***	***Gaborone***	***1 Day***	***2300***	***2450***
5th Supervisors Forum	***22-23 March***	***Gaborone***	***2 Days***	***2833***	***3795***
Industrial Disputes Workshop	11-12 April	Francistown	2 Days	1848	2125
Introduction to Taxation	17-18 April	Palapye	2 Days	1848	2125
Introduction to Book-keeping	24-25 April	Gaborone	2 Days	1848	2125
22nd Secretaries Convention	***26-27 April***	***Gaborone***	***2 Days***	***3220***	***3795***
Introduction to Value Added Tax	08-09 May	Lobatse	2 Days	1848	2125
Finance for Non finance Managers	15-16 May	Gaborone	2 Days	1848	2125
Trade Unions and Management Relations	22-23 May	Gaborone	2 Days	1848	2125
Small Business Management	29-30 May	Gaborone	2 Days	1848	2125
Industrial Disputes Workshop	06-07 June	Maun	2 Days	1848	2125
Business Convention	***14-15 June***	***Francistown***	***2 Days***	***2833***	***3795***
Supervisory Skills	19-20 June	Francistown	2 Days	1848	2125
Customer Service	11-12 July	Maun	2 Days	1848	2125
Supervisory Skills	14-15 August	Selibe Phikwe	2 Days	1848	2125
Customer Service	22-23 August	Gaborone	2 Days	1848	2125
Entrepreneurs Symposium	***28-29 August***	***Gaborone***	***2 Days***	***2833***	***3795***
Supervisory Skills	30-31 August	Maun	2 Days	1848	2125
Disciplinary Hearing & Grievance Procedures	04-05 September	Maun	2 Days	1848	2125
Supervisory Skills	12-13 September	Gaborone	2 Days	1848	2125
Supervisory Skills	19-20 September	Kasane	2 Days	1848	2125
Disciplinary Hearing & Grievance Procedures	09-10 October	Gaborone	2 Days	1848	2125
Business Plans	10-11 October	Gaborone	2 Days	1848	2125
Customer Service	16-17 October	Maun	2 Days	1848	2125
Disciplinary Hearing & Grievance Procedures	23-24 October	Kasane	2 Days	1848	2125
Customer Service	06-07 November	Kasane	2 Days	1848	2125
Trade Unions and Management Relations	13-14 November	Gaborone	2 Days	1848	2125
The Practive of Business	20-21 November	Gaborone	2 Days	1848	2125

Please Note That These Workshops Can Be Conducted In-House

VAT INCLUSIVE



Business Conference - Atlanta USA

19-23 JULY 2012

Last October, BOCCIM hosted a business delegation from the National Black Chamber of Commerce (NBCC). Networking was done, partnerships were formed and doors opened for potential business. BOCCIM invites you to take it a step further and explore more, by joining us at a business conference in Atlanta USA, 19-23 July 2012, hosted by the NBCC.

- **Business across all sectors can attend.**
- **There will be a dedicated Botswana day.**
- **BOCCIM will be signing an MOU with the NBCC to establish and strengthen ties for our members.**

BOCCIM
The Voice of Business

Air fare	
GBE-Atlanta-GBE Economy	P29 021,50
GBE-Atlanta-GBE Business	P45 409,50

Hotel	
4 Seasons Atlanta	$150,00 per night

BOCCIM will complete all logistics for your flight and accommodation, and negotiate for discounted rates. However, delegates are requested to cover the costs.

Register with Patricia at 3953459 or mail pnkwe@boccim.co.bw

BOCCIM Calendar of Events 2012

January	Date	Event	Venue/Location
	01-09-12	BOCCIM Offices open	Gaborone & Francistown
February	**Date**	**Event**	**Venue/Location**
	02-02-12	Budget Review Dinner	Lobatse (Cumberland Hotel)
	02-02-12	Budget Review Dinner	Kanye (Motse Lodge)
	02-03-12	Budget Review Dinner	Molepolole (TBA)
	02-03-12	Budget Review Dinner	Mochusi (Molefhi Secondary School)
	02-07-12	Budget Review Dinner	Francistown
	02-08-12	Budget Review Dinner	Selebi Phikwe
	02-10-12	Printing & Publishing Sector AGM	BOCCIM Boardroom Gaborone
	21/2/2012	Agriculture Sector AGM	BOCCIM Boardroom Gaborone
	21/2/2012	Retail Sector AGM	BOCCIM Boardroom Gaborone
	22/2/2012	Wholesalers Sector AGM	BOCCIM Boardroom Gaborone
	22/2/2012	Parastatals Sector AGM	BOCCIM Boardroom Gaborone
	23/2/2012	Manufacturing Sector AGM	BOCCIM Boardroom Gaborone
	24/2/2012	Gaborone Business Council Meeting	BOCCIM Boardroom Gaborone
	29/2/2012	Ghanzi Business Council Meeting	TBA
March	**Date**	**Event**	**Venue/Location**
	03-01-12	Tshabong Business Council Meeting	Mokha Lodge, Tshabong
	03-06-12	Petroleum Sector AGM	BOCCIM Boardroom Gaborone
	03-06-12	ICT Sector AGM	BOCCIM Boardroom Gaborone
	03-07-12	Mochudi Business Council Meeting	TBA
	03-08-12	Security Sector AGM	BOCCIM Boardroom Gaborone
	03-09-12	WIBA Sector AGM	BOCCIM Boardroom Gaborone
	13/3/2012	Engineering Sector AGM	BOCCIM Boardroom Gaborone
	15/3/2012	Transport Sector AGM	BOCCIM Boardroom Gaborone
	16/3/2012	Molepolole Business Council Meeting	Lemepe Lodge,Molepolole
	20/3/2012	Education Sector AGM	BOCCIM Boardroom Gaborone
	20/3/2012	Mining & Quarrying Sector AGM	BOCCIM Boardroom Gaborone
	21/3/2012	Kanye Business Council Meeting	Motse Lodge, Kanye
	21/3/2012	Lobatse Business Council Meeting	Mazars, Lobatse
	22/3/2012	Financial Services Sector AGM	BOCCIM Boardroom Gaborone

	22/3/2012	Media Sector AGM	BOCCIM Boardroom Gaborone
	27/3/2012	Motor Industry Sector AGM	BOCCIM Boardroom Gaborone
	27/3/2012	Health Care Sector AGM	BOCCIM Boardroom Gaborone
	28/3/2012	Southern Region to Nominate BOCCIM Council Representative	TBA
	29/3/2012	Construction Sector AGM	BOCCIM Boardroom Gaborone
	29/03/2012	South Central to Nominate BOCCIM Council Representative	BOCCIM Boardroom Gaborone
	29-31 March 2012	Youth Expo	Francistown
	31-03-12	Fashion Show	Francistown
April	**Date**	**Event**	**Venue/Location**
	28-04-12	Women's Power Breakfast Seminar	Gaborone, Cresta
		Leadership Dialogue	GICC
	26-27/4/2012	Secretaries Convention	Gaborone Sun
May	**Date**	**Event**	**Venue/Location**
	24-25 May 2012	Supervisors Forum	Cresta
	24-27 May 2012	BOCCIM Northern Trade Fair (BNTF)	Francistown
June	**Date**	**Event**	**Venue/Location**
	28/6/2012	**Annual General Meeting**	Gaborone
July	**Date**	**Event**	**Venue/Location**
	13/7/2012	The PR Professional Seminar	Gaborone
August	**Date**	**Event**	**Venue/Location**
	08-03-12	BOCCIM Golf Day	Gaborone
	17/8/2012	Mochudi Business Council Dinner	Mochudi
	28-29/7/2012	Entrepreneurs Symposium	GICC
September	**Date**	**Event**	**Venue/Location**
	21/9/2012	Kanye Business Council Dinner	Kanye
	22/9/2012	Fashion Show	Gaborone
October	**Date**	**Event**	**Venue/Location**
	26/10/2012	Lobatse Business Council Dinner	Lobatse
	26/10/2012	Maun Business Council Dinner	Maun
November	**Date**	**Event**	**Venue/Location**
	11-03-12	Mahalapye Dinner	Mahalapye
	17/11/2012	BOCCIM Annual Dinner	Gaborone

BOTSWANA BUREAU OF STANDARDS
Member of International Organization for Standardization (ISO)

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Tel: (+267) 3903200, Fax: (+267) 3903120, E-mail: infoc@hq.bobstandards.bw

To : **Botswana Bureau of Standards**

Fax No : **391 0593**

Attention : **M.N. Ntau**

Email : **ntau@bobstandards.bw**

Seminar – Concrete Standards

Attendance confirmation slip

I/We confirm that I/We will participate in the above-mentioned workshop to be held on **13th June 2012** in Gaborone.

Indicate the name(s) of the person(s) who will attend, in the table below and send back to BOBS.

Name	Organization/Company	Postal address	Telephone	email

40th ANNUAL GENERAL MEETING (AGM)
BOIPUSO HALL- (THE PAVILION)

THURSDAY 28TH JUNE 2012

AGENDA

TIME	ACTIVITY	RESPOSIBLE PERSON
08:00 - 08:30	Registration	BOCCIM Staff
08:30 - 08:40	Welcome Remarks	BOCCIM President - Mr A Monchusi
08:40 - 08:55	Minutes of the Last AGM & Matters Arising	Chairperson
08:55 - 09:15	Hon. Treasurer's Report & Adoption of the 2011 Audited Accounts	Mr. Butler Phirie
09:15 - 09:30	Appointment of Auditors	Mr Butler Phirie
09:30 - 09:55	TEA BREAK	TEA BREAK
09:55 -10:00	Introduction of Guest Speaker	CEO-Ms Maria Machailo-Ellis
10:00 -10:30	Address on the Relocation of Diamond Trading Centre to Gaborone, Botswana	Permanent Secretary to the President- Mr Eric Molale
10:00 - 11:30	QUESTIONS & COMMENTS	BOCCIM Members
11:00 –11:10	Vote of Thanks	Vice President South -Mrs Daisy Molefhi
11:10 -11:25	Election of Vice President (Northern Region)	BOCCIM Members
11:25 - 11:40	Announcement of the 2012/13 BOCCIM Council	Ms Maria Machailo-Ellis
11:40 -12:30	Any other Business	ALL

MINUTES OF THE 39TH BOCCIM ANNUAL GENERAL MEETING
BOIPUSO HALL (THE PAVILION)
WEDNESDAY 22nd JUNE 2011

ITEM NO	TITLE OF ITEM	ACTION
1.0	**PRESIDENT MESSAGE TO THE AGM** The President observed protocol and welcomed all to the 39th AGM, and a special welcome to the guest speaker, Mr. Ndobano, the representative from the Ministry of Finance and Development planning. He noted that the AGM marked the end of his four years in office as BOCCIM President. He thanked members for the support they accorded him during his reign, as well as members of the press and other stakeholders. He mentioned that the meeting was important because of the elections for a new President as well as Deputy Vice President South, and secondly because of the topic chosen as the theme of the meeting; the Zimbabwe trade facility. He reflected back on four yearsago when he was elected to office. He mentioned the challenges he faced with his council during the four years, including the global recession and the negative growth Botswana experienced as a result, job losses and the crisis from which the country is yet to recover from.He mentioned that the challenges have forced BOCCIM to develop a strategic plan covering 2010-2014 in order to position the organization to become more relevant as the mouth piece of the private sector. Restructuring was on-going and recruitment was being carried out. He mentioned that the structure comes with a Performance Management Strategy that will guarantee delivery of the Strategic Plan. He thanked the CEO and staff of the Secretariat, Council members and other stakeholders in helping him overcome challenges faced by BOCCIM. He thanked His Excellency the President and his government for the support during his reign. He also thanked BOCCIM council members, and HLCC sectors for their efforts without being paid for their time. He concluded by wishing candidates good luck, and once again thanked the CEO for a good working relationship.	
2.0	**ADDRESS BY MR. NDOBANE, Deputy PS Ministry of Finance.** The guest speaker started by forwarding an apology for the Minister who was attending a SACU meeting in Namibia.	

3.0	He informed the meeting that a Management agreement with BECI was being finalized for the implementation of the Credit Line facility as the administrator. Consultations came up with conditions for the utilization of the Credit Line, and Commercial banks were all participating He mentioned that he ratification process was expected to be considered today (22nd June 2011) by the Botswana Cabinet, but that we would have to wait for Zimbabwe who have to pass it through Parliament. He encouraged the Private Sector to utilize this facility and invest in Zimbabwe. Trade flows in the region were very low despite tripartite agreements having been signed.	
3.1	**Questions:** 1. Concern was raised on the amount of time it has taken to finalize the agreement and the implementation of the facility. There was a suggestion that the termsand conditions should be discussed with BOCCIM before finalization to ensure that the facility is accessible to business people. • Answer: It was vital to put checks and balances so that it is well thought out, not rushing it ensure agreements are water tight. That notwithstanding, the Ministry appreciated concerns on the delay, and sympathized with those who have spent resources in getting ready to utilize the facility. Point taken to involve BOCCIM. 2. There was a request to get a time frame from the Ministry on when it will be finalized. • Answer: It is difficult when dealing with two governments because of the differences in processes, therefore it was not easy because the process in Zimbabwe is different; it has to go parliament even though the president has signed. 3. Is the facility still priority to Botswana given that Zimbabwe plans on nationalizing activities, why can't the funds be used to assist local business people.	

	• Answer: There are already facilities in the country to achieve this. The facility was a SADC initiative to assist Zimbabwe with economic recovery. 4. How sure are we that Zimbabwe will not renegade on the agreements given the leadership crisis there? • Answer: Legal institutions locally and from other countries regionally were engaged to ensure that parties adhere to the agreements.	
3.2	At this point the President of BOCCIM commented that generally Batswana do not have experience of operating business externally. He requested anyone from the audience doing business in Zimbabwe to share experiences in relation to things to guard against when doing business in Zimbabwe.	
3.3	One lady shared that she operated a bakery and bar in Zimbabwe, but is currently in the mining industry. She said compared to Botswana, there is no bureaucracy in attaining licenses. Police commissioner assisted in the process of her starting operations.	
3.4	5. Ministry requested to urge the Zimbabwe government to speed up finalization because the economy in Zimbabwe is recovering, and business people in Botswana are losing out on opportunities there. E.g airport at Livingstone and renovations of hotels by Zimbabweans. BDC to be allowed to invest outside the country etc. 6. Concern that other members may be left out. Suggest that Task Force go around the country to educate the rest of the population on this opportunity and disseminate information.	
3.5	Comments: Structure: commercial banks will be in the lead, and will be given guidelines on the implementation of the facility. BECI hopes that the facility will encourage Batswana to look for other markets outside the country, not just to Zimbabwe but to other countries.	
3.6	Closing: Ministry has noted concerns of the audience. Will continue to urge counterparts to speed up their processes. Noted request for road shows. Will arrange with BECI at time of launch.	

3.7	**Minutes of the 38th Annual General Meeting** No corrections were made on the minutes. The minutes were adopted as a true record of the proceedings.	
4.O	**Matters Arising:** 1. **No report on progress or feedback on items from the last meeting. Secretariat advised to follow up on points raised in the meeting and give feedback to members.** • **National Business Council last year where it was agreed that BOTA was to review the Vocational Training Levy and modify where necessary.**	
	TREASURER'S REPORT. The Treasurer summarized his report. He informed members that the report was audited by Deloittes and Touche, and referred members to the annual report for further details. **Question**: What is done to subscriptions that have not been paid for the year? **Answer:** The subs are not accrued; they are reported on a received basis. Comment: Request for members to assist secretariat **Question**: Members doubled as well as subscriptions, doesn't gel well. **Answer:** Target calculated based on 10% increase in membership, and the subscription increase was 100%. **Question:** Telephone expenditure too high, more that travel and accommodation. **Answer:** Our job as secretariat is to coordinate activities of the private sector therefore need to be in constant communication. Still thin on the ground to go out to reach members, so this expenditure is expected to continue to be high.	

	Comment: Appeal to Secretariat to follow up on payment of subscriptions. **Answer:** New council members coming in to follow up on this. BOCCIM membership voluntary therefore difficult to force people	
5.0	**Comment:** Commend treasurer on the performance of the company. General report: out of 19 sectors only 15 sectors reported in the Annual Report. How are members going to know that all sectors are represented well. **Answer:** Eights months before AGM, BOCCIM requests sector reports from all the sectors. Challenge is that although Council membership is voluntary, people who accept the responsibility should come to the party.	
6.0	<u>Adoption of Treasurer's Report</u> The adoption of accounts was moved by one member and seconded and the accounts were approved. <u>Appointment of Auditors</u> The meeting was informed that Council recommended that appointment of Deloitte and Touché as Auditors for the year. This recommendation was ratified by the AGM. <u>Introduction of Secretariat</u> The CEO introduced the Secretariat to the AGM. Mr. Moreri checked that the Constitution is being followed. Point 1. There is a gap in the time of elections, which are held in June when the financial year ends in December. This to be rectified. 2. To confirm that only paid up members are entitled to vote. Confirmed. 3. Clarify that the election is for only one VP because the other one is in place. 4. Confirm that the members standing for office are available and willing to serve, and ensure that they are members in good standing. Article 13.6 This was followed at a meeting in April where council nominated the candidates. At the entrance there is a form that ensures all members entering	

	are paid up members because they are the only ones eligible to vote. Candidates were introduced. After numerous questions and answers the voting process started. **ANNOUNCEMENT OF THE BOCCIM COUNCIL MEMBERS.** The names of the new council members were read to the AGM. **ANNOUNCEMENT OF THE NEW VICE PRESIDENT**	
7.0	The results of the voting for the Vice President – South were as follows: Mr Jubliee Mokgosi – 38 Mr Emang Maphanyane – 46 Mrs Daisy Molefhi – 114	
7.1	Mrs. Daisy Molefhi was voted as the new Vice President, South. She thanked all for the interest shown during her campaign. Proclaimed her passion in the implementation of the PSDS, and promised to work hard in delivering the mandate of her office. **ANNOUNCEMENT OF THE NEW PRESIDENT**	
8.1	The results of the voting for President were as follows: Thuli Johnson 71 votes Alex Monchusi 127 The new President was confirmed as Mr. Alex Monchusi. Mr. Mbaakanyi handed over to Mr. Monchusi and congratulated him on his new role. In his acceptance remarks, Mr. Monchusi acknowledged the outgoing President and all council members. He pledged to the members to deliver on the mandate of BOCCIM and continue.	

	ANY OTHER BUSINESS There being no further business the BOCCIM President closed the meeting.	

emailed to Council 14/6/12

40TH BOCCIM ANNUAL GENERAL MEETING

NOTICE TO ALL BOCCIM MEMBERS

DAY & DATE	:	Thursday 28th June 2012
VENUE	:	Boipuso Hall (The Pavilion)
TIME	:	08:00 am
TOPIC	:	***Relocation of the Diamond Trading Centre to Gaborone, Botswana***
PRESENTER	:	The Permanent Secretary to the President

All Paid-Up BOCCIM Members are invited to attend.

Please confirm your attendance with Onalenna at onalenna@boccim.co.bw / 3953459

BOTSWANA CONFEDERATION OF COMMERCE INDUSTRY & MANPOWER (BOCCIM)
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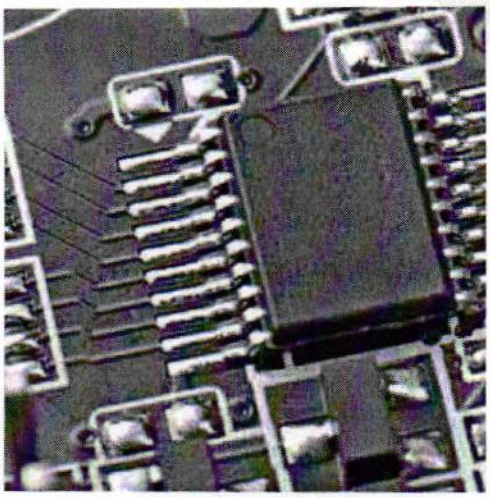
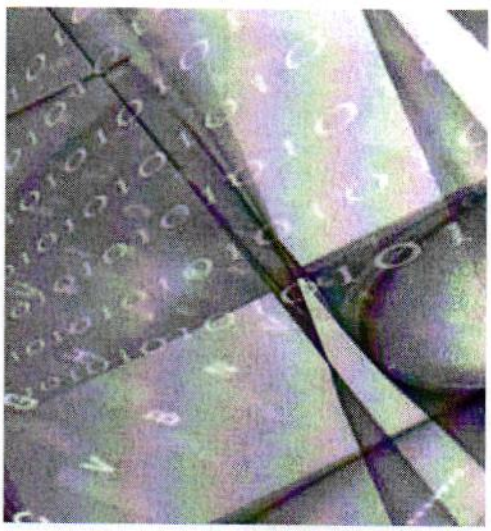
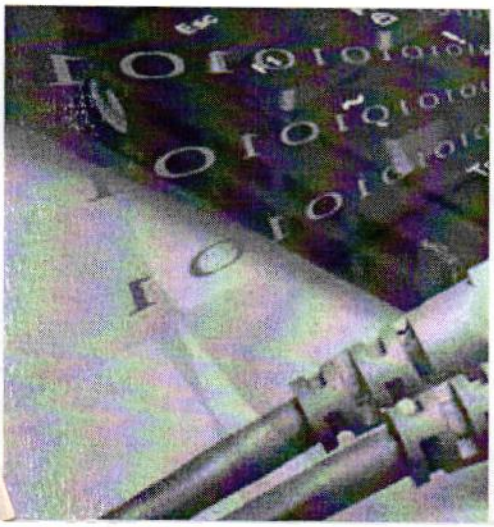
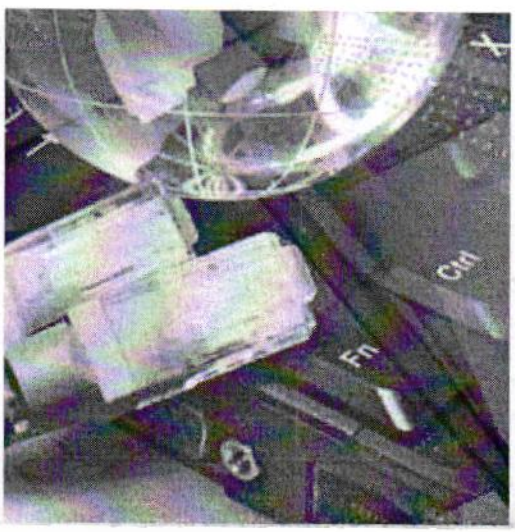


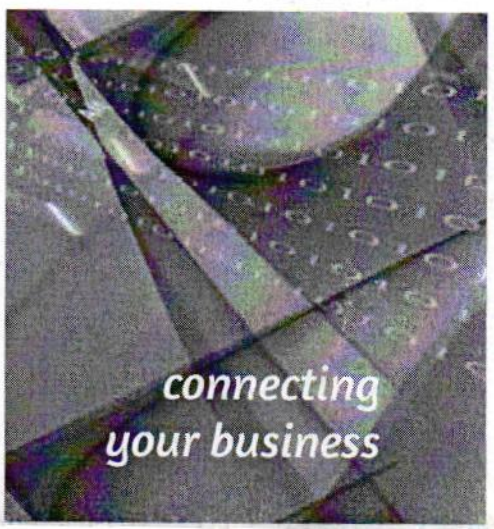
2012 BOTSWANA CONFEDERATION OF COMMERCE, INDUSTRY AND MANPOWER

BUSINESS DIRECTORY

BOCCIM
COMMERCE INDUSTRY MANPOWER
The Voice of Business





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