



**KAVANGO EAST REGIONAL COUNCIL
DIRECTORATE OF EDUCATION, ARTS AND CULTURE
REQUEST FOR SEALED QUOTATION FOR WORKS**

FOR

**CONSTRUCTION OF ABL2 (ABLUTION FACILITY) AT
SIGURUGURU JPS**

Procurement Reference No: W/RFQ/DOEAC-KERC/107/104/2023/2024

Cost: None

Bidder:.....
Address:.....
Tel:.....
Email Address:.....
Bid Price:.....



**KAVANGO EAST REGIONAL COUNCIL
DIRECTORATE OF EDUCATION, ARTS AND CULTURE**

Letter of Invitation

16 January 2024

.....
.....
.....

Procurement Reference No: W/RFQ/DOEAC-KERC/107/104/2023/2024

**CONSTRUCTION OF ABL2 (ABLUTION FACILITY) AT
SIGURUGURU JPS**

Dear Sir/Madam

The Kavango East Regional Council - Directorate of Education, Arts and Culture, will provide you with specification for the items described in details.

Any resulting contract shall be subject to the terms and conditions referred to in the document.

Queries, if any, should be addressed to Mr. V. S. Martin @ 0662589017 for Technical issues and Mr. J Kangumbe @ 066266000 for administrative issues during working hours from 0800 to 1700hours.

Please prepare and submit your quotation in accordance with the specifications and instructions given or inform the undersigned if you will not be submitting a quotation.

Yours faithfully,

.....
Mr. J.M. Kangumbe

Head: Procurement Management Unit



18/01/2024
.....
Date

SECTION I: INSTRUCTIONS TO BIDDERS

1. Rights of Public Entity

Kavango East Regional Council – Directorate of Education, Arts and Culture reserves the right:

- (a) to split the contract as per the lowest evaluated cost per lot; and
- (b) to accept or reject any quotation or to cancel the quotation process and reject all quotations at any time prior to contract award.

Please Note: Section:27 (2B) (A) of Public Procurement Amendment Act, 2022 will apply

2. Preparation of Quotations

You are requested to quote for the works mentioned in Section III, by completing, signing and returning:

- (a) the Quotation Letter in Section II with its annex for Bid Securing Declaration, where applicable;
- (b) the Priced Activity Schedule in Section IV;
- (c) the Specifications and Compliance Sheet in Section V; and
- (d) any other attachment as deemed appropriate

You are advised to carefully read the complete Request for Quotations document, including the Special Conditions of Contract in Section VII, before preparing your Quotation. The standard forms in this document may be retyped for completion but the Bidder is responsible for their accurate reproduction.

PLEASE NOTE: Compliance to the Public Procurement Act, 2015 (Act. 15 of 2015) as amended. Section 66 (2B) (a) will apply

3. Validity of Quotations

The quotation validity period shall be **180 days** from the date of bid submission deadline.

4. Eligibility Criteria

To be eligible to participate in this Quotation exercise, you should:

- (a) **have a valid copy of company Registration Certificate;**
- (b) **have a valid original/certified copy of good Standing Tax Certificate;**
- (c) **have a valid original/certified copy of good Standing Social Security Certificate;**
- (d) **have a valid certified copy of Affirmative Action Compliance Certificate, proof from Employment Equity Commissioner that bidder is not a relevant employer, or exemption issued in terms of Section 42 of the Affirmative Action Act, 1998;**
- (e) **have a copy of certificate indicating SME Status (for Bids reserved for SMEs);**
- (f) **Written undertaking in terms of section 138 of Labour Act, 2015 and section 50(2)(D) of the Public Procurement Act, 2015 and that it will abide to sub-clause 4.6 of the General conditions of Contract if it is awarded the contract or part thereof;**

(g) **Certified Copy of the National Identity Document. In case the company is owned by more than one person, all of them should submit certified copy of National Identity Document.**

(h) **Site Foreman to supervise the works must have experience in related works for at least two projects (attach complete curriculum vitae, list of projects with testimonials accompanied with contact details). Where the owner indicates that he/she will be the site Forman, he/she should attach the same.**

(i) **Electrician to do the works MUST attach valid certified NORED Licence. NB: The same licence to be availed during construction and practical completion as well as issuance of certificate of compliance**

(j) **Provide Company experience in related works for at least two projects**

(k) **Business Principal must be inline by with the nature of procurement**

5. Bid Securing Declaration

Bidders are required to subscribe to a Bid Securing Declaration for this procurement process.

6. Works Completion Period

The completion period for works shall be **four (4) months** after acceptance and issue of Purchase Order. Deviation in completion period shall not be accepted

Sealing and Marking of Quotations

Quotations should be sealed in a single envelope, clearly marked with the Procurement Reference Number, addressed to the Public Entity with the Bidder's name at the back of the envelope.

7. Submission of Quotations

Quotations should be deposited in the Quotation/Bid Box located at **Kavango East Regional Council, Rundu, for Attention Mr. J.M. Kangumbe not later than 30 January 2024 at 11H00**. Quotations by post or hand delivered should reach this office by the same date and time at latest. Late quotations will be rejected. Quotations received by e-mail will not be considered.

8. Opening of Quotations

Quotations will be opened internally by the Public Entity immediately after the closing time referred to in section 7 above. A record of the Quotation Opening stating the name of the bidders, the amount quoted the presence or absence of a Bid Securing Declaration. Opening register will be made available on request after three days of opening.

9. Evaluation of Quotations

The Public Entity shall have the right to request for clarifications in writing during evaluation. Offers that are substantially responsive shall be compared on the basis of evaluated cost, subject to Margin of Preference where applicable, to determine the lowest evaluated quotation.

10. Technical Compliance

The Specifications and Compliance Sheet details the minimum specifications of the works to be carried out. The specifications have to be met, but no credit will be given for exceeding the specifications.

11. Prices and Currency of Payment

Prices for the execution of works shall be fixed in Namibian Dollars as quoted.

Quotations shall cover all costs of labour, materials, equipment, overheads, profits and all associated costs for performing the works, and shall include all duties. The whole cost of performing the works shall be included in the items stated, and the cost of any incidental works shall be deemed to be included in the prices quoted.

12. Margin of Preference

12.1 Bids are reserved for Service Providers (SME's)

13. Award of Contract

The Bidder having submitted the lowest evaluated responsive quotation and qualified to perform the works shall be selected for award of contract. Award of contract shall be by issue of a Purchase Order/Letter of Acceptance in accordance with terms and conditions contained in Section VI: Contract Agreement and General Conditions of Contract.

14. Notification of Award and Debriefing

The Public Entity shall after award of contract promptly inform all unsuccessful bidders in writing of the name and address of the successful bidder and the contract amount. Furthermore, the Public Entity shall attend to all requests for debriefing made in writing within 7 days of the unsuccessful bidders being informed of the award.

SECTION II: QUOTATION LETTER

(to be completed by Bidders)

[Complete this form with all the requested details and submit it as the first page of your quotation with the Priced Activity Schedule and documents requested above. A signature and authorisation on this form will confirm that the terms and conditions of the RFQ prevail over any attachments. **If your quotation is not authorised, it will be rejected.**

Quotation addressed to:	
Procurement Reference Number:	
Subject matter of Procurement:	

We offer to execute the Works detailed in the Statement of Requirements, in accordance with the terms and conditions stated in your Request for Sealed Quotations referenced above.

We confirm that we are eligible to participate in this Quotation exercise and meet the eligibility criteria specified in Section 1: Instructions to Bidders

We undertake to abide by the Conduct of Bidders and Suppliers as provided under the Public Procurement Act during the procurement process and the execution of any resulting contract.

We have read and understood the content of the Bid Security/Bid Securing Declaration (BSD) attached hereto and subscribe fully to the terms and conditions contained therein. We further understand that this subscription could lead [forfeiture of the security amount / disqualification on the grounds mentioned in the BDS]

The validity period of our Quotation is _____ days *[insert number of days]* from the date of the bid submission deadline.

We confirm that the prices quoted in the Priced Activity Schedule are fixed and firm and will not be subject to revision or variation, if we are awarded the contract **prior to the expiry** date of the quotation validity.

Works will commence within _____ *[insert number]* days from date of issue of Purchase Order/ Letter of Acceptance.

Works will be completed within _____ *[insert number]* days from date of issue of Purchase Order/ Letter of acceptance.

Quotation Authorised by:

Name of Bidder		Company's Address and seal	
Contact Person			
Name of Person Authorising the Quotation:		Position:	Signature:
Date		Phone No./E-mail	

BID SECURING DECLARATION
(Section 45 of Act) (Regulation
37(1) (b) and 37(5))

Date:
[Day | month | year]

Procurement Ref No.: W/RFQ/DOEAC-KERC/107/104/2023/2024

To: Kavango East Regional Council – Directorate of Education, Arts and Culture

I/We* understand that in terms of section 45 of the Act a public entity must include in the bidding document the requirement for a declaration as an alternative form of bid security.

I/We* accept that under section 45 of the Act, I/we* may be suspended or disqualified in the event of

- (a) a modification or withdrawal of a bid after the deadline for submission of bids during the period of validity;
- (b) refusal by a bidder to accept a correction of an error appearing on the face of a bid;
- (c) failure to sign a procurement contract in accordance with the terms and conditions set forth in the bidding document, should I/We* be successful bidder; or
- (d) failure to provide security for the performance of the procurement contract if required to do so by the bidding document.

I/We* understand this bid securing declaration ceases to be valid if I am/We are* not the successful Bidder

Signed:
[insert signature of person whose name and capacity are shown]

Capacity of:.....
[indicate legal capacity of person(s) signing the Bid Securing Declaration]

Name:
[insert complete name of person signing the Bid Securing Declaration]

Duly authorized to sign the bid for and on behalf of:.....
[insert complete name of Bidder]

Dated on _____ day of _____
[insert date of signing]

Corporate Seal (where appropriate)

[Note*: In case of a joint venture, the bid securing declaration must be in the name of all partners to the joint venture that submits the bid.]



Republic Of Namibia

Ministry of Labour, Industrial Relations and Employment Creation

Witten undertaking in terms of section 138 of the Labour Act, 2015 and section 50(2)(D) of the Public Procurement Act, 2015

1. EMPLOYERS DETAILS

Company Trade Name:.....

Registration Number :.....

Vat Number:

Industry/Sector:

Place of Business:.....

Physical Address:.....

Tell No.:.....

Fax No.:.....

Email Address:.....

Postal Address:.....

Full name of Owner/Accounting Officer:.....

.....

Email Address:.....

2. PROCUREMENT DETAILS

Procurement Reference No.:.....

Procurement Description:

.....

.....

Anticipated Contract Duration:

Location where work will be done, good/services will be delivered:

.....

3. UNDERTAKING

I

[insert full name], owner/representative

of

[insert full name of company]

hereby undertake in writing that my company will at all relevant times comply fully with the relevant provisions of the Labour Act and the Terms and Conditions of Collective Agreements as applicable.

I am fully aware that failure to abide to such shall lead to the action as stipulated in section 138 of the labour Act, 2007, which include but not limited to the cancellation of the contract/licence/grant/permit or concession.

Signature:

Date:

Seal:.....

Please take note:
1. A labour inspector may conduct unannounced inspections to assess the level of compliance
2 This undertaking must be displayed at the workplace where it will be readily accessible and visible by the employees rendering service(s) in relations to the goods and services being procured under this contract

- A. SCOPE OF WORKS, SPECIFICATIONS AND PERFORMANCE REQUIREMENTS**

- B. BILL OF QUANTITY IS ATTACHED**

SECTION IV: PRICED ACTIVITY SCHEDULE

Procurement Reference Number: **W/RFQ/DOEAC-KERC/107/104/2023/2024**

[Complete the unit and total prices for each item listed below. Authorise the prices quoted in the signature block below.]

The quantities shown below are approximate and not subject to re-measurement for payment purposes.

Item No	Brief Description of Works	Quantity	Unit of Measure	Unit Price (NS)	Total Price (NS)
A*	B*	C*	D*	E	F
1	CONSTRUCTION OF ABL2 (ABLUTION FACILITY) AT SIGURUGURU JPS AS PER ATTACHED BILL OF QUANTITY	1			
Enter 0% VAT rate if VAT exempt.				Subtotal	
				VAT @ 15 %	
				Total	

*Columns A to D to be completed as applicable by the Public Entity

Priced Activity Schedule Authorised By:

Name:		Signature:	
Position:		Date:	
Authorised for and on behalf of:	Company		

SECTION V: SPECIFICATIONS AND COMPLIANCE SHEET

Procurement Reference Number: **W/RFQ/DOEAC-KERC/107/104/2023/2024**

[Bidders should complete columns C and D with the specifications and performance of the Works offered. Also state “comply” or “not comply” and give details of any non-compliance/deviation to the specifications required. Attach detailed technical literature if required. Authorise the specifications offered in the signature block below]

Item No	Specifications and Performance Required	Compliance of Specifications and Performance Offered	Details of Non-Compliance/ Deviation (if applicable)
<i>A*</i>	<i>B*</i>	<i>C</i>	<i>D</i>
1	CONSTRUCTION OF ABL2 (ABLUTION FACILITY) AT SIGURUGURU JPS AS PER ATTACHED BILL OF QUANTITY		

* Columns A and B to be completed by Public Entity.

Specifications and Compliance Sheet Authorised By:

Name:		Signature:	
Position:		Date:	
Authorised for and on behalf of:		Company	

SECTION VI: GENERAL CONDITIONS OF CONTRACT AND CONTRACT AGREEMENT

Any resulting contract shall be placed by means of a Purchase Order/Letter of Acceptance and shall be subject to the General Conditions of Contract (GCC) for the **Procurement of works – Ref. W/RFQ/DOEAC-KERC/107/104/2023/2024**

SECTION VIII SPECIAL CONDITIONS OF CONTRACT

Procurement Reference Number: **W/RFQ/DOEAC-KERC/107/104/2023/2024**

The clause numbers given in the first column correspond to the relevant clause number of the General Conditions of Contract.

GCC Clause Reference	Special Conditions
Employer GCC 1.1(r)	Kavango East Regional Council – Directorate of Education, Arts and Culture
Intended Completion Date GCC	The intended completion date is: May 2024
Project Manager GCC 1.1(y)	The Project Manager is: Mr. G. Sikoka
Site GCC 1.1(aa)	The site is at: SIGURUGURU JPS
Start Date GCC 1.1(dd)	The Start Date shall be: February 2024
The Works GCC 1.1(hh)	The Works consist of: CONSTRUCTION OF ABL2 (ABLUTION FACILITY)
Interpretation GCC 2.2	The project will be completed in the following sections: Four (4) Months
Interpretation GCC2.3	The following additional documents shall form part of the contract: Bill of Quantity, Standard Drawings, Purchase Order and appointment letter
Language and Law GCC 3.1	The language of the contract is English The law that applies to the Contract is the law of Namibia.
Project Manager's	The Project Manager shall obtain specific approval from the Employer before carrying out any of his duties under the Contract which in the Project Manager's

GCC Clause Reference	Special Conditions
Decisions 4.1	opinion will cause the amount finally due under the Contract to exceed the Contract Price or will give entitlement to extension of time. This requirement shall be waived in an emergency affecting safety of personnel or the Works or adjacent property.
Delegation GCC 5.1	The Project Manager may delegate his/her duties.
Notices GCC 6	<p>Any notice shall be sent to the following addresses:</p> <p>For the Employer, the address shall be as given on the page 2 of this Bidding Document and the contact name shall be</p> <p>Ms. Ludgela Nangura P/bag 2124, Rundu</p> <p>For the Contractor, the address shall be as given on the first page of the Purchase Order/Letter of Acceptance and the contact name shall be</p> <p>_____</p> <p>_____</p>
Insurance GCC 13.1	Not applicable
Site Date GCC 14.1	Not applicable
Possession of the Site GCC 20.1	The Site Possession Date shall be: February 2024
Procedure for Disputes GCC 24	No Adjudicator shall be appointed under the contract and arbitration shall not apply. If any dispute arises between the Employer and the Contractor in connection with or arising out of the Contract, the parties shall seek to resolve any such dispute by amicable agreement. If the parties fail to resolve such dispute by amicable agreement, within 14 days after one party has notified the other in writing of the dispute, then the dispute shall be referred to court by either party.
Program GCC 25.1	The Contractor shall submit for approval a Program for the Works within 5 days from the date of the Letter of Acceptance or issue of Purchase Order Agreement.
GCC 25.3	Program updates shall be required.
Defects Liability Period GCC 33.1	The Defects Liability Period is: 12 Months.
Payment Certificates GCC 39.7	Payment shall be made as per progress of works

GCC Clause Reference	Special Conditions
Payments GCC 40	The amount certified by the Project Manager shall be paid in full within 30 days of receipt by the Employer of an invoice, supported by: (a) the payment certificate; and (b) a certificate of Completion of the Works.
Adverse weather Conditions GCC 41.1 (I)	Rain, Storm, Flood
Price Adjustment GCC 44.	The Contract is not subject to price adjustment.
Retention GCC 45.	(ii) 5% of the amount shall be retained from any payment. Half of the retention money will be released after formal taking over of the Works and the remaining shall be released after the Defect Liability Period subject to the Contractor making good all defects.*
Liquidated Damages GCC 46.1	0.05% of the amount shall be retained from the total amount per day as penalties
Bonus GCC 47.1	Not applicable
Advance Payment GCC 48.1	No advance payment shall be made
Performance Security GCC 49.1	Not applicable
GCC 56.1	Not applicable
GCC 59.1	Not applicable

QUOTATION CHECKLIST SCHEDULE

Procurement Reference No.: W/RFQ/DOEAC-KERC/107/104/2023/2024

Description	Attached	Not Attached
Bid Letter		
List of Goods and Price Schedule		
Specification and Compliance Sheet		
Bid Securing Declaration		
Quotation		
Valid Original or Certified Good Standing Tax Certificate		
Valid Original or Certified Good Standing Social Security Certificate		
Valid Company Registration		

Disclaimer: The list defined above is meant to assist the Bidder in submitting the relevant documents and shall not be a ground for the bidder to justify its non-submission of major documents for its quotation to be responsive. The onus remains on the Bidder to ascertain that it has submitted all the documents that have been requested and are needed for its submission to be complete and responsive.

BILLS OF QUANTITIES

FOR: CONSTRUCTION OF ABLUTION FACILITY (ABL2) AT SIGURGURU J.P.

NOTES:

1. Please take note that this ablution block is based on drawings and specifications as attached
2. Items have been coded for procurement for ablution block (ABL2) at SIGURGUR J.P.
3. Descriptions and specifications in the Bill of Quantity to be read in conjunction with the drawings
4. Some descriptions and specifications on the drawings have been replaced as indicated in the Bill of Quantity. Bidders are hereby advised to ignore the information on the drawings which have been changed. Information regarding soil conditions, the supply and availability of water and electricity is responsibility of the contractor.
All unforeseen items to be measured and adjusted by the client's representative in this regard to reflect "as per built in" project upon completion of construction.
5. A contingency allowance has been made to cover unforeseen items, but will be reviewed assessed by client representative. But will have to be reviewed by the client representative once the construction process commences.

BILL NO. 1

FOUNDATIONS (PROVISIONAL)

For Preambles refer to "Model Preambles for Trades"

SUPPLEMENTARY PREAMBLES

Nature of ground

The nature of the ground is assumed to be loose sandy material, therefore "earth"

Earth

All material which is pickable or which can be excavated by means of a backactor (complete with all equipment and accessories and in good condition, producing not less than 57kw (gross) at the flywheel and with a bare tractor mass of not less than 7900kg, equipped with 600mm wide bucket with matching teeth) will be classified as "earth". All boulders not exceeding 0,3m3 in volume will also be classified as "earth"

Soft rock

All material which can not be removed as described above, but the removal of which necessitates the use of jack hammers withmoil points, will be classified as "soft rock"

Hard rock

All very hard material which can not be removed as described above, but the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock"

Risk of collapse

No risk of collapse will be measured or paid. It is the responsibility of the Contractor to ensure that the sides of the excavations are supported and that they do not collapse. In the event of the sides of the excavations collapsing, the Contractor must at his own cost remove all loose material and compact the bottoms of the trenches, holes, etc.

Carried to Collection

NS

Section No. 1
Bill No. 1
Foundations (Provisional)

Carting away of excavated material

Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site

Concrete

Prices for concrete cast against excavated surfaces shall include for casting against all types of material in the excavations and shall include for additional concrete required in filling to irregularities.

EARTHWORKS**EXCAVATION, FILLING, ETC****Excavation in earth exceeding 1m deep for:**

1	Trenches and holes	m3	31
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Extra over trench and hole excavations in earth for excavation in:

Selected earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density in layers not exceeding 150mm

2	Under floors, steps, pavings, etc	m3	5
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Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density in layers not exceeding 150mm

3	Backfilling to trenches, holes, etc	m3	16
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Earth filling supplied by the Contractor compacted to 93% Mod AASHTO density in layers not exceeding 150mm

4	Under floors, steps, pavings, etc	m3	16
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Carried to Collection

N\$

Section No. 1
Bill No. 1
Foundations (Provisional)

Compaction of surfaces

CARTING AWAY

SOIL POISONING

9	To bottoms and sides of trenches, etc	m2	140
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CONCRETE, FORMWORK AND REINFORCEMENT

UN-REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

10	Strip footings	m3	9
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STEEL REINFORCEMENT

High tensile steel reinforcement to structural concrete work

Carried to Collection

Section No. 1
Bill No. 1
Foundations (Provisional)

BRICKWORK**Brickwork in 14 MPa cement bricks in Class I mortar**

13	Half brick walls	m2	29
14	One brick walls	m2	33

BRICKWORK SUNDRIES**Brickwork reinforcement**

15	75mm Wide reinforcement built in horizontally	m	339
16	150mm Wide reinforcement built in horizontally	m	393

Carried to Collection

N\$

Section No. 1
 Bill No. 1
 Foundations (Provisional)

Section No. 1

Bill No. 1

Foundations (Provisional)

COLLECTION

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No

Amount

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-3-

-4-

-5-

N\$

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Section No. 1

Bill No. 1

Foundations (Provisional)

BILL NO. 2

CONCRETE, FORMWORK AND REINFORCEMENT

For Preambles refer to "Model Preambles for Trades"

SUPPLEMENTARY PREAMBLES

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Engineer. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Engineer. (Test cubes are measured separately)

Formwork

Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use

Formwork to soffits of solid slabs, etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described

Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

UNREINFORCED CONCRETE

Carried to Collection

NS

Section No. 1
Bill No. 2
Concrete, Formwork & Reinforcement

REINFORCED CONCRETE

25MPa/19mm concrete in:

TEST BLOCKS

Test Cubes

The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Department of Works. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Department of Works.

CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a wood float

Finishing top surfaces of concrete smooth with a steel float

8	Surfacebeds, slabs, etc	m2	47
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NS

Section No. 1
Bill No. 2
Concrete, Formwork & Reinforcement

ROUGH FORMWORK (DEGREE OF ACCURACY II)**Rough formwork not exceeding 3,5m high to sides of:**

- | | | | |
|----|---|----|----|
| 9 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 45 |
| 10 | Both exposed sides of pockets in one brick recess size 450mm x 4 courses high overall | No | 6 |

MOVEMENT JOINTS, ETC**One layer of 250 micron "USB Green" or similar approved waterproof sheeting in slip joints between horizontal concrete and steel surfaces**

- | | | | |
|----|---|---|---|
| 11 | In short lengths not exceeding 300mm wide | m | 1 |
|----|---|---|---|

Vertical construction joints through concrete

- | | | | |
|----|---|---|----|
| 12 | Surface beds and/or apron slabs not exceeding 300mm thick | m | 19 |
|----|---|---|----|

Carried to Collection

N\$

Section No. 1
 Bill No. 2
 Concrete, Formwork & Reinforcement

Section No. 1

Bill No. 2

Concrete, Formwork & Reinforcement

COLLECTION

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Page
No

Amount

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-9-

N\$

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Section No. 1

Bill No. 2

Concrete, Formwork & Reinforcement

Vermin proof air bricks and vents including forming opening in wall and rendering smooth all round in cement mortar

9	230mm x 160mm Galvanised air brick	No	6
10	Leave opening in half brick wall for air vent 110mm wide x one course high	No	10

PAVING

Paving of 55mm thick 25MPa rectangular paving bricks with butt joints on river sand bed (elsewhere) on compacted soil (elsewhere) with sand and cement mixture swept into joints and hosed down including preparation of ground or filling

11	Paving to duct areas in herringbone pattern	m2	6
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Carried to Collection

N\$

Section No. 1
Bill No. 3
Masonry

Section No. 1

Bill No. 3

Masonry

COLLECTION

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Amount

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Section No. 1

Bill No. 3

Masonry

N\$

Section No. 1
Bill No. 4
Waterproofing
REVISED MODULES (2008)

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 1</u>			
	<u>BILL NO. 5</u>			
	<u>ROOF COVERINGS, ETC</u>			
	For Preambles refer to "Model Preambles for Trades"			
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,5mm "IBR " galvanised steel profiled sheeting and accessories fixed to steel/timber purlins in accordance with the manufacturer's instructions</u>			
1	Roof covering in single lengths with pitch not exceeding 25 degrees fixed to steel purlins	m2	89	
2	Standard "IBR" galvanised half-round ridge capping including flute closers both sides	m	8	
	<u>ROOF INSULATION</u>			
	<u>"Sisalation 400" or similar approved industrial grade aluminium foil based insulation</u>			
3	Insulation laid taut over purlins (at approximately 1 200mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	60	
	<u>SUNDRIES</u>			
	<u>Approved oil/grease</u>			
4	Apply one layer approved oil to roof sheeting bedded on brickwork (Provisional)	m2	5	
	Carried Forward to Summary of Section No. 1			
	Section No. 1			
	Bill No. 5			
	Roof coverings			
			N\$	

Item
No

Quantity

Rate

Amount |

SECTION NO. 1

BILL NO. 6

CARPENTRY AND JOINERY

For Preambles refer to "Model Preambles for all Trades"

SUPPLEMENTARY PREAMBLES

Particle board

Particle board shall comply with the following specifications:

- a) SABS 1300 Particle board: exterior and flooring type
- b) SABS 1301 Particle board: interior type

Joinery

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc

1

No

FRAMED FRAMES, ETC

Carried to Collection

NS

Section No. 1
Bill No. 6
Carpentry & Joinery

Section No. 1
Bill No. 6
Carpentry & Joinery
REVISED MODULES (2008)

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Bill No. 6

Carpentry & Joinery

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N\$

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Section No. 1

Bill No. 6

Carpentry & Joinery

BILL NO. 7

CEILINGS, PARTITIONS AND ACCESS FLOORING

For Preambles refer to "Model Preambles for Trades"

SUPPLEMENTARY PREAMBLES

Descriptions

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete

Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere

METAL CEILINGS

0,5mm Thick "I.B.R" profile "Alu Zinc AZ 185" galvanised
sheet steel fixed to steel purlins

1	Ceilings pop riveted to steel purlins (elsewhere):	m2	52
	<u>Metal cornice</u>		
2	50mm x 50mm x 3mm x 2,24kg/m Mild steel cornice to suit horizontal ceilings screwed with 6mm diameter x 20mm long stainless steel self-tapping screws to sheet steel ceiling and plugged with 5mm thick sawn softwood spacer to brickwork/concrete at maximum 500mm centres	m	23
	<u>Sundries</u>		
3	Extra over "I.B.R." ceiling for access hatch 800mm x 800mm formed of 30mm x 30mm x 2,5mm thick mild steel frame filled in with "I.B.R." sheeting and set into 30mm x 30mm x 2,5mm mild steel frame riveted to steel purlin	No	1

Carried to Collection

NS

Section No. 1
Bill No. 7
Ceilings, Partitions & Access flooring

4 Apply one layer approved oil to ceiling sheeting bedded on brickwork

m2

3

Carried to Collection

N\$

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Bill No. 7
Ceilings, Partitions & Access flooring

MODULE: ABL 2

Section No. 1

Bill No. 7

Ceilings, Partitions & Access flooring

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N\$

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Section No. 1

Bill No. 7

Ceilings, Partitions & Access flooring

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 1</u>			
	<u>BILL NO. 8</u>			
	<u>IRONMONGERY</u>			
	For Preambles refer to "Model Preambles for Trades"			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Prices must allow for fixing to timber, steel and plastered or tiled walls as may be necessary.			
	All locks are to have consecutive numbers stamped on the forend and to be supplied with two keys attached to and including an approved chromium plated split ring; in addition prices are to include for the supply of one standard plastic tag key ring with number written on paper strip and one 35mm diameter circular key tags formed of 3mm thick perspex plates engraved in black with 6mm high numerals and letters corresponding with the respective lock numbers, holed for and fitted to split ring.			
	All locks to be fitted with pattern screws.			
	<u>HINGES</u>			
1	100 x 75mm Brass butt hinge with brass pin and nylon washers	No	14	
	<u>HANDLES</u>			
	<u>"Union" or other approved</u>			
2	"Waterbok" lever handle on concealed fixing backplate, code AL6W45-24AS (SET)			
3	"Waterbok" lever handle on concealed fixing backplate, code AL6W45-73AS (SET)			
	<u>LOCKS</u>			
	<u>"Union" or other approved</u>			
4	Four lever lock set, code 2261-76PL	No	4	
5	Bathroom lock set , code 22314-76PL	No	7	
	Carried to Collection			
	Section No. 1			
	Bill No. 8			
	Ironmongery			
			N\$	

- 6 "UN337800000000" or similar approved brass padlock

No

1

LETTERS, NAMEPLATES, ETC

1,2mm Thick natural anodised aluminium signage numberplate black engraved in 15mm high "Bold Condensed Helvetica" letters screwed to doors with aluminium counters sunk screws and sealed with approved silicone sealant as follows:

- 7 50mm x 25mm with 2 letters and/or numerals

No

12

Pictograms

- 8 152mm x 152mm x 3mm "Union AL5066E-06AS-E14" or other approved natural aluminium door sign with disabled motif engraved in black and screwed to timber door

No

1

- 9 152mm x 152mm x 3mm "Union AL5066E-06AS-E10/E11" or other approved natural aluminium door sign with male/female motif engraved in black and screwed to timber door

No

3

BATHROOM FITTINGS

- 10 "Holdit" or similar approved chromium plated thief-proof toilet roll holder plugged

No

9

"Chairman Industries" or other approved

- 11 "Code SR2" stainless steel rear grab rail around cistern plugged to brickwork

No

1

- 12 "Code DL2" satin polished stainless steel side grab rail plugged to brickwork

No

1

SUNDRIES

- 13 "Union" AL8730 AS or similar approved 38mm diameter black rubber door stop, plugged

No

5

- 14 "Union" AL8253 AS or similar approved rubber tipped hat hook

No

7

Carried to Collection

N\$

Section No. 1
Bill No. 8
Ironmongery

Section No. 1

Bill No. 8

Ironmongery

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Section No. 1

Bill No. 8

Ironmongery

Item
No

Quantity

Rate

Amount

SECTION NO. 1BILL NO. 9STRUCTURAL STEELWORK

For Preambles refer to "Model Preambles for Trades"

SUPPLEMENTARY PREAMBLESDescriptions

Descriptions of bolts shall be deemed to include nuts and washers

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete

Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described

Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete. Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork.

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.

All steel to be painted with two coats red oxide primer before delivery to site

Structural steel components and the calculation of masses are in accordance with "Structural Steel Tables" issued by the South African Institute of Steel Construction.

Prices for structural steelwork are to include for all cutting, fitting, welding, drilling of holes or slotted holes, bolts, nuts, washers, etc. and for bolting and welding components together either in the place of manufacture or on the site.

Carried to Collection

N\$

Section No. 1
Bill No. 9
Structural Steelwork

All steel work build into brickwork or concrete to be wrapped in two layers with DPC extending for a minimum of 150mm both sides of brickwork or concrete.

STEEL RAFTERS, TRUSSES, ETC

Welded roof trusses of 50mm x 50mm x 5mm angle section top- and bottom cords and 40mm x 40mm x 5mm angle section intermediate members including all angle rails, struts, braces, cleats, etc and flat section bearer, gusset and connection plates bolted to steel or fixed to concrete

- | | | | |
|---|--|----|-----|
| 1 | Double pitched trusses 10,440m x 1,095m high extreme | kg | 311 |
|---|--|----|-----|

Baseplates, bolts to trusses, etc

- | | | | |
|---|---|----|----|
| 2 | 150mm x 85mm x 6mm Base plate | kg | 4 |
| 3 | 12mm diameter mild steel U-bolt 700mm girth with 75mm threaded ends cast into concrete ringbeam | No | 6 |
| 4 | M8 "Rawl" bolt 100mm long | No | 24 |

PURLINS, GIRTS, BRACING, ETC

Purlins and girts welded to steel

- | | | | |
|---|--|----|-----|
| 5 | 100mm x 50mm x 20mm x 2,5mm Lipped channel section purlins | kg | 370 |
| 6 | 75mm x 50mm x 20mm x 2,5mm 3,85kg/m Lipped channel section purlins | kg | 560 |

Carried to Collection

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Section No. 1
Bill No. 9
Structural Steelwork

MODULE: ABL 2

Section No. 1

Bill No. 9

Structural Steelwork

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Section No. 1

Bill No. 9

Structural Steelwork

BILL NO. 10

METALWORK

For Preambles refer to "Model Preambles for Trades"

SUPPLEMENTARY PREAMBLES

Descriptions

Descriptions of bolts shall be deemed to include nuts and washers

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete

Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete

Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described

All steelwork to be primed and to receive two coats cold galvanised paint

PRESSED STEEL DOOR FRAMES

**1,2mm Double rebated frames suitable for one brick walls
supplied with 100mm steel hinges, rubber buffers and
strike plate complete**

1	Frame for door 813mm x 2 032mm high	No	2
2	Frame for door 813mm x 2 032mm high and fixed fanlight 305mm high	No	2

PRESSED STEEL SINGLE PANEL STEEL CHAWL
DOORS AND FRAMES

Carried to Collection

NS

Section No. 1
Bill No. 10
Metalwork

- | | |
|----|---|
| No | 1 |
|----|---|

Standard residential windows with NBP33 burglar bars to all sections

- | | |
|----|---|
| No | 6 |
|----|---|

"Wispeco" or similar approved standard adjustable louvre units type LC screwed into steel frames

- | | |
|----|---|
| No | 2 |
|----|---|

NS

Section No. 1

Bill No. 10

Metalwork

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Section No. 1
Bill No. 10
Metalwork

N\$

MODULE: ABL 2

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 1</u>			
	<u>BILL NO. 11</u>			
	<u>PLASTERING</u>			
	For Preambles refer to "Model Preambles for Trades"			
	<u>SCREEDS</u>			
	<u>1:3 Cement plaster screeds steel trowelled smooth on concrete</u>			
1	25mm Thick on floors and landings	m2	43	
	<u>INTERNAL PLASTER</u>			
	<u>1:5 Cement plaster on brickwork</u>			
2	On walls	m2	228	
3	On narrow widths	m2	8	
	<u>EXTERNAL PLASTER</u>			
	<u>1:5 Cement plaster on brickwork</u>			
4	On walls	m2	80	
5	On walls in foundations (Provisional)	m2	7	
6	On narrow widths	m2	2	
7	On sloping top, edge and projecting soffit of sills 300mm girth	m	6	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
8	25mm x 25mm x 3mm Mild steel angle section corner protectors in varying lengths with 25mm x 3mm fish tail lugs 50mm long welded on at 500mm centres including embedding in concrete	kg	1	
9	50mm x 50mm x 5mm Mild steel angle section corner protectors in varying lengths with 30mm x 3mm fish tail lugs 200mm long welded on at 400mm centres including embedding in concrete	kg	57	
	Carried to Collection			
	Section No. 1		N\$	
	Bill No. 11			
	Plastering			

MODULE: ABL 2

- 10 0,5mm "Mentis" or similar approved galvanised internal corner protectors in 1 500mm lengths including embedding in plaster in accordance with the manufacturer's specifications

No 4

- 11 3mm x 20mm Flat section brass dividing strips between different floor finishes

m 4

- 12 5mm x 50mm Flat section brass weatherbar cut to lengths, set on edge and embedded in concrete threshold

m 4

Carried to Collection

Section No. 1
Bill No. 11
Plastering

N\$

MODULE: ABL 2

Section No. 1

Bill No. 11

Plastering

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Section No. 1

Bill No. 11

Plastering

N\$

Item No		Quantity	Rate	Amount
<u>SECTION NO. 1</u>				
<u>BILL NO. 12</u>				
<u>TILING</u>				
For Preambles refer to "Model Preambles for Trades"				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Descriptions</u>				
Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors, etc shall be deemed to include 1:3 cement plaster bedding				
<u>WALL TILING</u>				
<u>200mm x 200mm "Samca OSH 1000" or other similar approved white glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere) including jointing and pointing with Dove Grey tile grout in strict accordance with the manufacturer's instructions</u>				
1	On walls as Item No: 1417.00	m2	183	
2	On narrow widths as Item No: 1419.00	m2	7	
<u>FLOOR TILING</u>				
<u>300mm x 300mm "porcelain fully body" ceramic tiles laid on screeds (elsewhere measured) with adhesive and including jointing and pointing with Dove Grey tile grout in strict accordance with the manufacturer's instructions</u>				
3	On floors and landings	m2	42	
4	Skirting 100mm high	m	79	
5	Floor to patterns	m2	42	
<u>SUNDRIES</u>				
<u>"Schlüter" or similar approved</u>				
6	Type "Rondec RO 60 AE" or similar approved natural anodized aluminum tile edge trim cut to lengths and bedded in tile adhesive	m	79	
Carried to Collection			N\$	
Section No. 1				
Bill No. 12				

MODULE: ABL 2

5 Type "DECO M 80 D" or similar approved solid brass tile edge trim cut to lengths and bedded in tile adhesive

m

3

Section No. 1
Bill No. 12
Tiling

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Section No. 1

Bill No. 12

Tiling

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Section No. 1

Bill No. 12

Tiling

N\$	

Item No	Quantity	Rate	Amount
<p><u>SECTION NO. 1</u></p> <p><u>BILL NO. 13</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p>For Preambles refer to "Model Preambles for Trades"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>uPVC pipes and fittings:</u></p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated and shall comply with SABS 967</p> <p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings</p> <p>Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be as described, all with similar push-in type joints</p> <p><u>Copper pipes:</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p>			
<p>Section No. 1 Bill No. 13 Plumbing & Drainage</p>			<p>Carried to Collection</p> <p>N\$</p>

Fixing of pipes

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include chasing into new and existing walls, etc, casting in, building in or suspending not exceeding 1m below suspension level

Reducing fittings

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster

Excavations

No claim for rock excavation will be entertained unless the contractor has timeously notified the Quantity Surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

Laying, backfilling, bedding, etc of pipes

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following:

SABS 1200 L : Medium-pressure pipelines

LD : Sewers

LE : Stormwater drainage

Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200

DB : Earthworks (Pipe trenches)

Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200

LB : Bedding (Pipes).

Unless otherwise described bedding of rigid pipes shall be class B bedding

Carried to Collection

N\$

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Plumbing & Drainage

Stainless steel basins, sinks, wash troughs, urinals, etc

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

Waste unions

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

Flush pans

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc

SOIL DRAINAGE**uPVC class 9 heavy duty pipes**

- | | | | |
|---|--|---|----|
| 1 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 10 |
|---|--|---|----|

Extra over uPVC class 9 heavy duty pipes for fittings

- | | | | |
|---|------------------------|----|---|
| 2 | 110mm Long radius bend | No | 6 |
| 3 | 110mm Access junction | No | 5 |

"Marley" or similar approved gulleys

- | | | | |
|---|---|--|--|
| 4 | 110mm Gulley P-trap (UGB 40) complete with gulley head (SGH 4) and head grate (UGA 40) cast into 470mm x 470mm x 500mm deep unreinforced 25MPa concrete support complete with 250mm high half brick surround on three sides, including joint to uPVC pipe and all necessary additional excavation, formwork and backfilling | | |
|---|---|--|--|

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Plumbing & Drainage

N\$

Inspection chambers formed of 110mm perimeter brickwork to receive cover (manhole cover elsewhere measured) plastered on inside, top and for a height of 250mm on the external face, built on top of 100mm thick 25MPa/19mm concrete base extending 100mm wider than external face of brickwork on all sides with and including 1:2 cement mortar benching to 1:6 fall; the whole inspection chamber inclusive of all excavation, filling, compaction, formwork, etc:				
5	Inspection chamber size 900mm x 600mm internally not exceeding 500mm deep internally	No	1	
<u>Covers, etc</u>				
6	900mm x 600mm Light duty Type 14B "Saint-Gobain" (product no.:2040) or similar approved manhole cover and frame set in position on top of brickwork in 1:3 cement mortar	No	1	
<u>Sundries</u>				
7	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	1	
8	Allow for testing the whole of the soil drainage installation			
<u>SANITARY FITTINGS</u>			Item	
All joints between edges of sanitary fittings and walls, etc. must be filled with white silicone sealant as Bostik 2525 sanitary ware sealant or similar approved.				
<u>Standard polyethylene fittings</u>				
9	"Atlas Plastic type Aries Pan" or similar approved polyethylene WC suite and remote flushing control "Shires Lynx" duranite low level cistern (9l) complete with conversion bend and "NIP" polypropylene white double flap hinged seat	No	7	
10	"Ballam Waterslot" or similar approved polyethylene WC suite and duranite low level cistern (9l) complete with conversion bend and "NIP" polypropylene white double flap hinged seat	No	2	
Carried to Collection				
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Plumbing & Drainage				

MODULE: ABL 2

Citimetal Products as supplied by Franke Kitchen Systems or similar approved

11 wall hung urinal bowl complete with spreader, 40mm waster outlet and domical fixed to wall no

12 "Franke model WB001" or similar approved wash hand basin, size 520mm x 435mm fitted with 32mm x 10mm apron all round and fixed to wall with pair of galvanised steel Eagle brackets as Item No: 1474.00 No 6

TRAPS, ETC

Pliable rubber

13 32mm "Castle 32x32P YDI.001" or similar approved P-trap as Item No: 1513.00 No 6

Brass

14 38mm "Cobra 370" or similar approved shallow seal P-trap as Item No: 1512.00 No 3

Chromium plated

TAPS, VALVES, ETC

Brass

15 32mm "Cobra 1001/125-32" or other approved gate valve including joint to 32mm HDPE on both sides including all fittings and adaptors required to execute joint as No 1

"Cobra Watertech" or similar approved

16 15mm Chromium plated extension angle valve with short length of chromium plated pipe 350mm long (code 232/350) or similar approved with joint to fitting and copper pipe No 11

Carried to Collection

N\$

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Plumbing & Drainage

MODULE: ABL 2

17	15mm "Star" pillar tap (code 111) or similar approved with joint to fitting and copper pipe	No	6
<u>SANITARY PLUMBING</u>			
<u>uPVC pipes and fittings (SABS 967)</u>			
18	40mm Pipes	m	4
19	50mm Pipes	m	2
20	110mm Pipes	m	14
21	50mm Pipe laid under solid floors not exceeding 1m deep	m	6
<u>Extra over uPVC pipes for fittings</u>			
22	32mm x 40mm BSP adaptor	No	6
23	38mm x 40mm BSP adaptor	No	2
24	40mm Bend	No	10
25	40mm Bend with inspection eye	No	5
26	110mm Bend with inspection eye	No	4
27	50mm x 40mm Reducer	No	4
28	110mm x 50mm Reducer	No	5
29	110mm Junction	No	4
30	110mm Junction with inspection eye	No	5
31	110mm x 50mm Double reducing junction with inspection eye	No	2
32	110mm Pan connector with Neoprene collar	No	9
33	50mm Diameter "Marley SAV 50" two way vent valve	No	5

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Bill No. 13
Plumbing & Drainage

<u>Sundries</u>				
34	Allow for testing the whole of the sanitary plumbing installation			
35	<u>WATER SUPPLIES</u>	Item		
<u>Note:</u>				
The hot and cold water services installations are to be executed in strict accordance with the latest revision of the "Code of Practice for Copper Plumbing" issued by the S.A Copper Development Association				
All surface mounted piping is to be supported at maximum 1,5m centres				
Fittings to pipes with diameters not exceeding 30mm have not been separated and the Contractor is to allow for this in his prices				
External Water reticulation has only been measured from the outside of the building up to the edge of the apron as no indication is given of quantities pertaining to site reticulation				
<u>H.D.P.E. type IV Class 10 pressure pipes with "Plasson" compression type joints</u>				
36	32mm Pipes laid in and including trenches	m	200	
<u>Class O copper pipes</u>				
37	15mm Pipes	m	45	
38	22mm Pipes	m	11	
<u>Extra over class O copper pipes for capillary fittings</u>				
39	15mm Fittings	No	20	
40	22mm	No	15	
<u>Pipe joints</u>				
41	Form joint of 32mm HDPE pipe to 22 mm copper pipe including all necessary fittings, adaptors etc to execute joint	No	1	
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Plumbing & Drainage				
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Sundries

42	Stopcock box size 450mm x 450mm internally and not less than 700mm deep to invert complete with rectangular cast iron stopcock box 225mm x 225mm type 11B (SABS 558-1973)	No	1
43	Allow for testing the whole of the water supply installation		Item

PIPE PROTECTION**Paper lagging**

44	Two layers of stout brown paper tightly wrapped around 15mm pipe and couplings and tied with wire prior to building in	m	19
45	Extra for wrapping around fittings	No	9
46	galvanized mild steel medium grade pipes including all joints <u>And connector</u>		
47	20mm pipe fixed	no	4
48	<u>brass tap</u>		
49	20mm hose bib tap	no	4
50	valve box	no	1

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Plumbing & Drainage		

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Section No. 1

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Plumbing & Drainage

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Plumbing & Drainage

[illegible]

Item No		Quantity	Rate	Amount
<u>SECTION NO. 1</u>				
<u>BILL NO. 15</u>				
<u>PAINTWORK</u>				
For Preambles refer to "Model Preambles for Trades"				
<u>ON FLOATED PLASTER</u>				
<u>Prepare and apply one coat plaster primer and two coats "Plascon Double Velvet" or similar approved paint</u>				
1	On internal walls	m2	43	
<u>Prepare and apply one coat plaster primer and two coats exterior quality "Plascon Polvin" or similar approved super acrylic PVA paint</u>				
2	On external walls	m2	83	
3	On external walls in foundations (Provisional)	m2	7	
<u>ON METAL</u>				
<u>Prepare, touch up factory primer and apply one coat universal undercoat and two coats high gloss enamel paint</u>				
4	On door frames	m2	11	
5	On doors	m2	4	
6	On windows with burglar bars (both sides measured over the full flat area)	m2	8	
7	On exposed members of roof trusses, purlins, etc,	m2	19	
<u>Prepare, remove storage oil with galvanised roof cleaner, rinse with clean water and apply two coats acrylic PVA</u>				
8	On profiled metal sheet ceilings and cornices (measured on flat)	m2	55	
<u>ON WOOD</u>				
Carried to Collection			N\$	
Section No. 1				
Bill No. 15				
Painting				

MODULE: ABL 2

<u>Prepare and apply two coats pink wood primer</u>		
9	On backs of frames, linings, etc not exceeding 300mm girth	m 29
<u>Prepare, knot, prime with oil based wood primer, stop, apply one coat universal undercoat and two coats high gloss enamel</u>		
10	On doors	m2 38
11	On skirtings, rails, etc not exceeding 300mm girth	

Section No. 1
Bill No. 15
Painting

Carried to Collection

N\$

Section No. 1

Bill No. 15

Painting

COLLECTION

Total Brought Forward from Page No.

Total Brought Forward from Page No.

Page
No

Amount

-47-

-48-

Carried Forward to Summary of Section No. 1

Section No. 1
Bill No. 15
Painting

N\$

Septic tank formed of 100mm thick 25MPa/19mm reinforced concrete cover slab to receive covers (manhole covers elsewhere measured), cover slab reinforced with 12mm diameter high tensile steel bars @ 150mm c/c in both directions, fitted on top of 330mm perimeter brickwork plastered on inside, built on top of 150mm thick 25MPa/19mm concrete base extending 200mm wider than external face of brickwork on all sides with and including 110mm internal plastered brickwork divisions with 150mm x 150mm openings and 110mm uPVC inlet and outlets with junctions and short lengths of pipes built into brickwork; the whole inspection chamber inclusive of all excavation, filling, compaction, formwork, etc :

- | | | | |
|---|--|----|---|
| 2 | Septic tank size 3 550mm x 2 400mm externally exceeding 2 000mm deep and not exceeding 2 250mm deep internally (B16 and B17) | No | 1 |
|---|--|----|---|

Covers, etc

- | | | | |
|---|--|----|---|
| 3 | 600mm x 600mm Double seal Type 6 "Saint-Gobain" (product no.:2280) or similar approved manhole cover and frame set in position on concrete slab in 1:3 cement mortar | No | 2 |
|---|--|----|---|

Carried to Collection

N\$

Section No. 1
Bill No. 16
External Work
REVISED MODULES (2008)

MODULE: ABL 2

4	Extra over heavy duty uPVC sewer pipes for 110mm junction	No	6
5	Extra over heavy duty uPVC sewer pipes for 110mm stopped end set in 2:1 cement mortar	No	1
<u>Sundries</u>			
6	Suitable flat stones placed over 110mm Diameter perforated pipe for sand filtering prevention	m	30.00
7	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	6

Section No. 1
Bill No. 16
External Work

Carried to Collection

N\$

Section No. 1

Bill No. 16

External Work

COLLECTION

Total Brought Forward from Page No.

Total Brought Forward from Page No.

Total Brought Forward from Page No.

Page
No

Amount

-50-

-51-

-52-

N\$

Carried Forward to Summary of Section No. 1

Section No. 1

Bill No. 16

External Work

SECTION SUMMARY - Building Works

Bill No		Page No	Amount
1	Foundations (Provisional)	-6-	
2	Concrete, Formwork & Reinforcement	-10-	
3	Masonry	-13-	
4	Waterproofing	-14-	
5	Roof coverings	-15-	
6	Carpentry & Joinery	-18-	
7	Ceilings, Partitions & Access flooring	-21-	
8	Ironmongery	-24-	
9	Structural Steelwork	-27-	
10	Metalwork	-30-	
11	Plastering	-33-	
12	Tiling	-36-	
13	Plumbing & Drainage	-45-	
14	Glazing	-46-	
15	Painting	-49-	
16	External Work	-53-	
Section No. 1			
Carried to Final Summary			N\$

Item No

MODULE: ABL 2

Amount

Section No. 2
Bill No. 1
Electrical Installation

Carried to Final Summary

NS

ELECTRICAL WORK OF ABL2 SIGURUGURU PRIMARY SCHOOL

SECTION IV: PRICED ACTIVITY SCHEDULE

Procurement Reference Number: _____

The quantities shown below are approximate, and subject to re-measurement for payment purpose.

Item No.	Brief Description of Works	Unit of Measure	Quantity	Unit of Price N\$	Total Price N\$
	ELECTRICAL INSTALLATION FOR MODULE ABL2				
1.0	Supply & install flush white epoxy powder coated sheet steel DB-8A (MOD-10) complete as specified but excluding equipment listed below	Lot	1.00		
1.1	40A DP 5kA Isolator	No	1.00		
1.2	5A SP 5kA MCB	No	1.00		
1.3	10A SP 5kA MCB	No	1.00		
1.4	60A SP 5KA MCB	No	1.00		
1.5	DB Labelling	No	1.00		
1.6	Surge Arresters	No	2.00		
1.7	Blank cover	No	2.00		
2.0	Supply & install 600/1000V PVCAS supply cable drawn into conduits or in ground				
2.1	16mm ² x 2c Cu	M	80.00		
	Terminate 600/1000V PVCAS cables in DBs, including glands, etc				
2.2	16mm ² x 2c Cu	No	2.00		
	Supply & install Bare Copper Earth wire cable drawn into conduits or in ground				
2.3	10mm ²	M	80.00		
3.0	Supply & install heavy gauge PVC conduit, including adapters, glueing, terminations, etc				
3.1	ø20mm flush in wall (chasing included), surface in ceiling, cast in concrete	M	72.00		
3.2	ø25mm flush in wall (chasing included), surface in ceiling, cast in concrete	M	6.00		

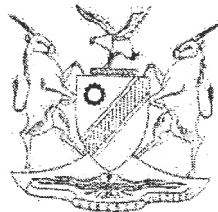
4.0	Supply & install Class 9 uPVC sleeves for supply cables to DBs				
4.1	ø50mm flush in wall (chasing included), surface in ceiling, cast in concrete, in ground	M	5.00		
4.2	ø50mm slow bends	No	1.00		
5.0	Supply & install light switches & socket outlets complete with cover plates & connection to circuit wiring				
5.0	Light switches				
5.1	16A flush 1-lever, 1-way	No	3.00		
5.2	Photocell	No	1.00		
6.0	Supply & install luminaire, including control gear & lamp complete & connect to circuit wiring				
6.1	Type A	No	8.00		
7.0	Supply & install grade 600/1000V PVC insulated stranded copper wiring drawn into conduits, sleeves & trunking				
7.1	2.5mm ²	M	150.00		
	Supply & install grade 600/1000V PVC insulated stranded copper earth wiring drawn into conduits, sleeves & trunking				
7.3	2.5mm ²	M	50.00		
8.0	Supply & install galvanised mild steel conduit outlet boxes, draw boxes & cover plates as required				
8.1	Ø20mm flush in wall (chasing included), surface in ceiling, cast in concrete	No	8.00		
8.2	100x50x50 flush in wall (chasing included), surface in ceiling, cast in concrete	No	4.00		
9.0	LV cable trenches 600 mm wide x 500 mm deep including backfilling & compaction				
9.1	In earth	M	80.00		
10.0	Supply and install 1.5m copper earth spikes to detail, including excavation, backfilling, compaction and connection to BCEW				
10.1	1.5m Copper earth spikes	No	2.00		

	Connect 50mm² earth wire to roof, stud in earth test point box and earth spike, including lugs and fixing hardware				
10.2	Connections 50mm ² insulated earth wire	No	6.00		
	Supply and install 50mm² insulated earth from earth test point to roof earth point and to earth spike				
10.3	50mm ² insulated earth	M	8.00		
	Earth terminal box complete with earth bar and clearly labelled "Earth Terminal"				
10.4	Terminal box	No	2.00		
Subtotal:					
Contingencies 10%					
VAT@15%					
Total					

MODULE

ABL2

LARGE ABLUTION BLOCK.



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NOTE:
CERAMIC WALL TILES TO
CEILING HEIGHT TO ALL
INTERNAL WALLS
SEE TILE SPEC 'B42'

ELEVATION
C

NOTE: BUTT JOINT IN WALLS
UNDER ALL WINDOWS

NOTE:
INTERNAL WC DIVIDING
WALLS 2100 HIGH

NOTE: 900mm WIDE
APRON WITH MAX.
PANELS OF 1200mm

ELEVATION
B

ELEVATION
D

PLAN
Scale 1:100



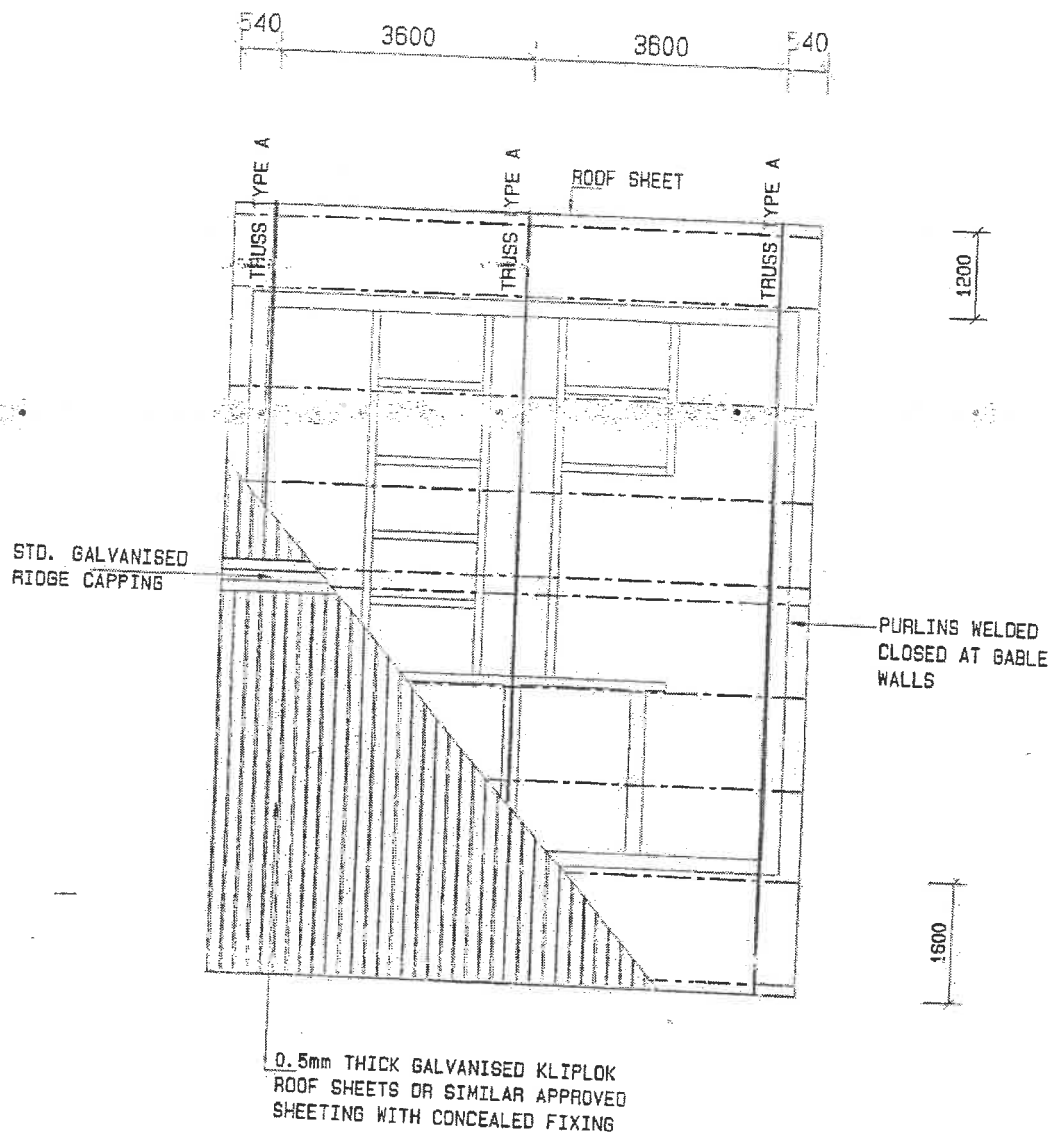
NOTE:
SPECIFICATION FOR WHEELCHAIR TOILET
ACCESSORIES:

GRAB RAILS - 1x ST. ST. DL2
1x ST. ST. SR2
AS SUPPLIED BY CHAIRMAN INDUSTRIES &
1x 'SOLID' IGS 150x150mm ALUMINIUM
ENGRAVED & FILLED WITH BLACK WHEELCHAIR
PICTOGRAM DOOR SIGN

NETT AREA : =48,8m²
GROSS AREA : =58,4m²

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:100	JAN08	ESAD	JAN08				GOVERNMENT OF NAMIBIA
LARGE ABLUTION BLOCK STRUCTURE PLAN				ABL2 2008	ABL2 01		PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE						TEL :	MINISTRY OF WORKS TRANSPORT & COMMUNICATION






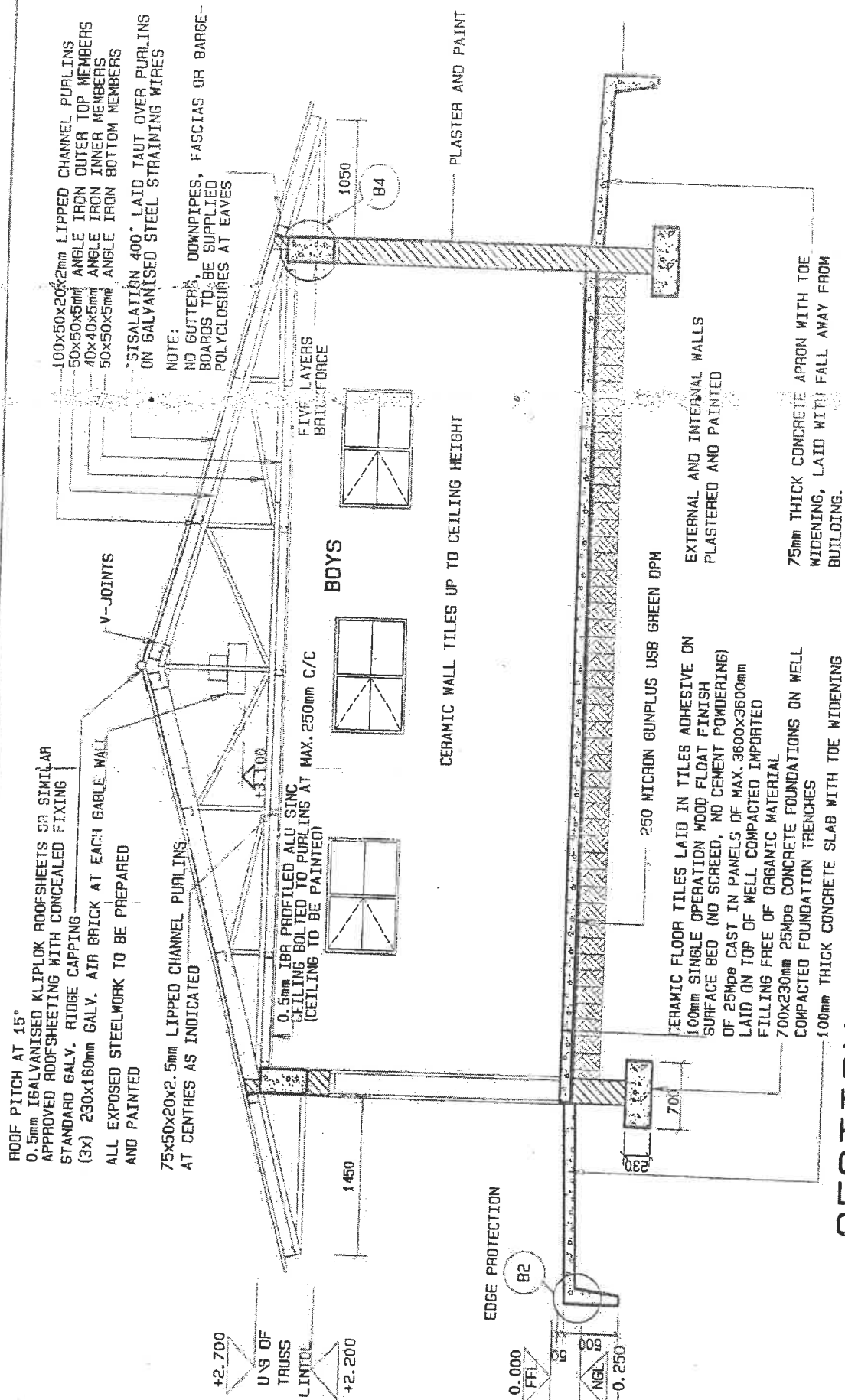
ROOF LAYOUT

Scale 1:100

LEGEND

- 100x50x20x2mm LIPPED CHANNEL PURLINS
- ===== 50x50x5mm ANGLE
- IRON TRUSSES

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	
1:100	JAN08	ESAD	JAN08				GOVERNMENT OF NAMIBIA	
LARGE ABLUTION BLOCK ROOF LAYOUT					ABL2	ABL2	PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008	03	TEL :	
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SECTION A-A

Scale 1:50

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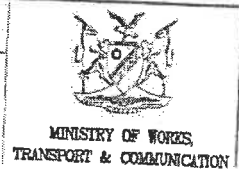
LARGE ABLUTION BLOCK
SECTION A-A

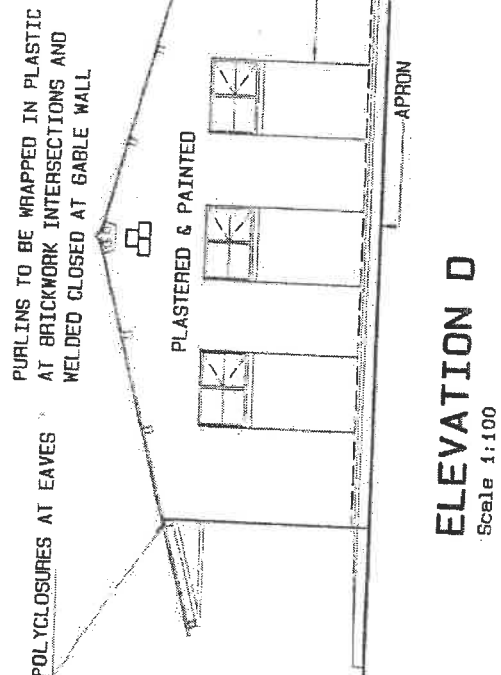
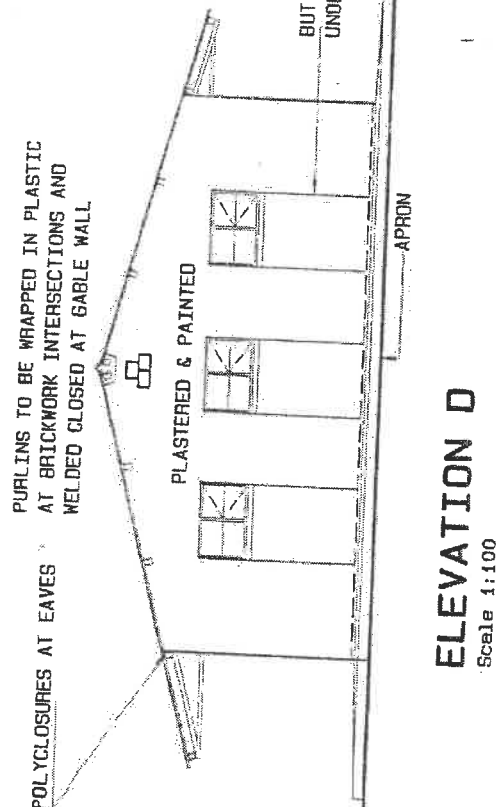
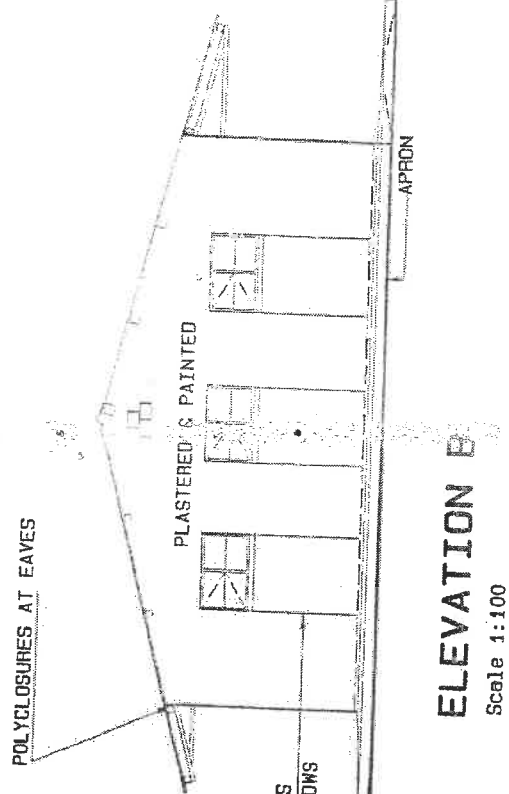
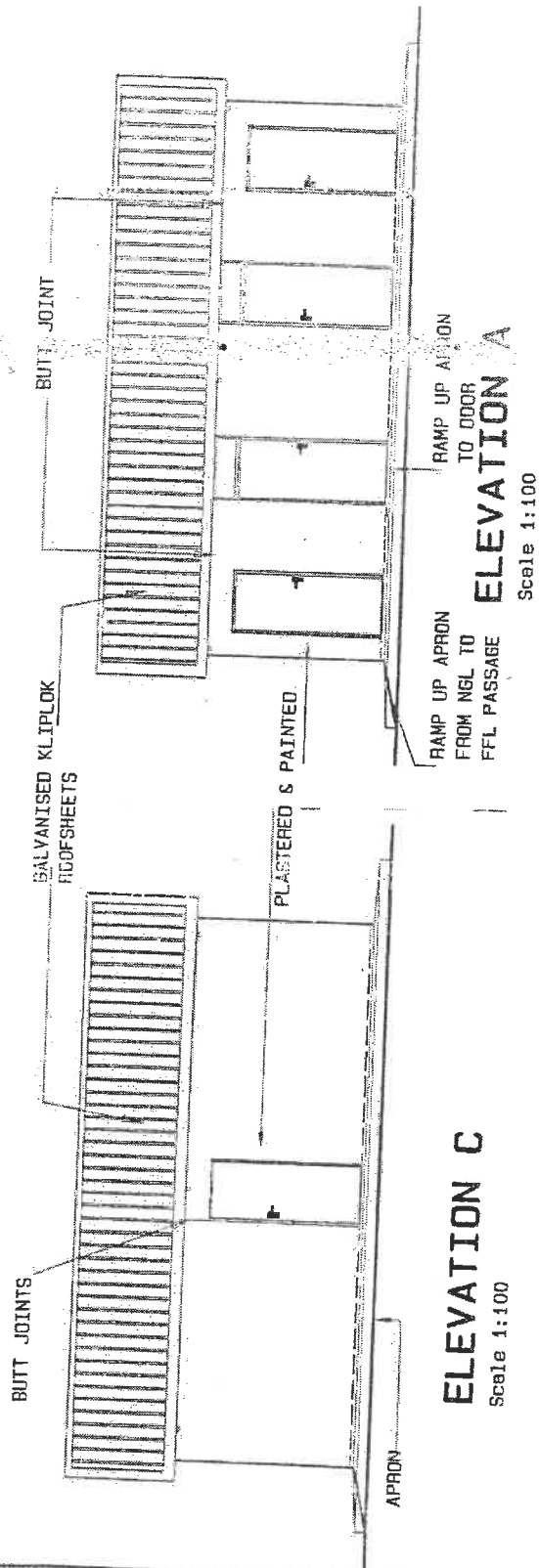
USER MINISTRY
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE

PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
ABL2 2008	ABL2 04	ABL2 04	GOVERNMENT OF NAMIBIA

PROJECT CONSULTANT

TEL :





SCALE	DATE	DRAWN	REVISIONS
1:100	JAN08	ESAD	JAN08

**LARGE ABLUTION BLOCK
ELEVATIONS**

USER: MINISTRY
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE

PROJECT
NUMBER

MODULE

**ABL2
2008**

DRAWING
NUMBER

**ABL 2
05**

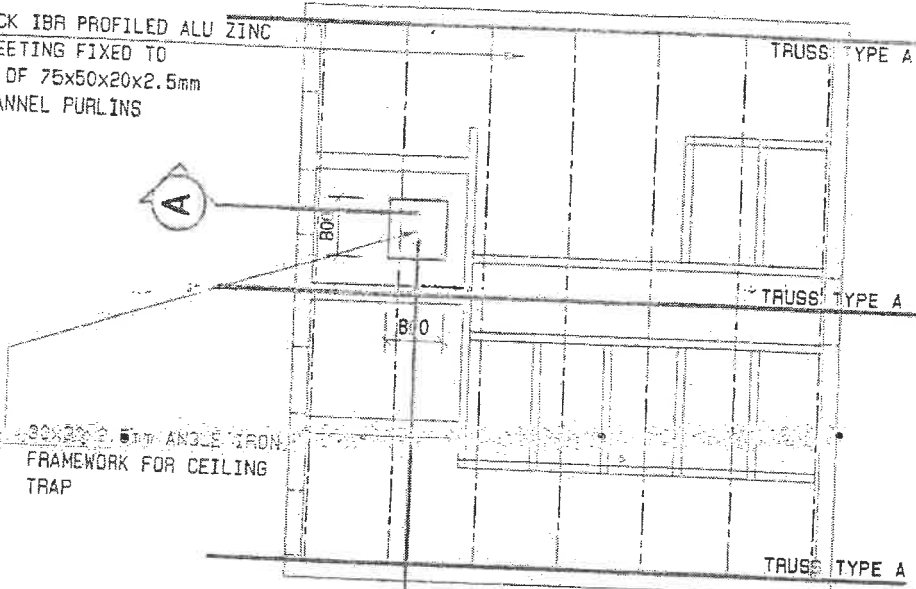
PROPERTY OF
GOVERNMENT OF NAMIBIA
PROJECT CONSULTANT

TEL :



MINISTRY OF WORKS,
TRANSPORT & COMMUNICATION

0.5mm THICK IFR PROFILED ALU ZINC
AZ 185 SHEETING FIXED TO
UNDERSIDE OF 75x50x20x2.5mm
LIPPED CHANNEL PURLINS



CEILING LAYOUT 
Scale 1:100

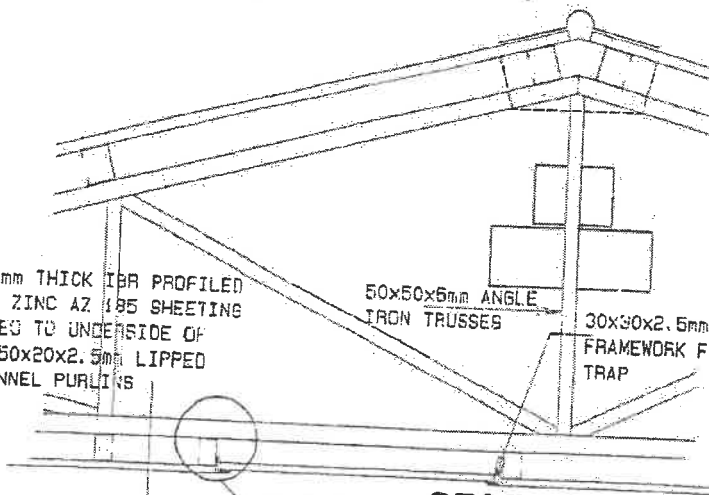
LEGEND

- 75x50x20x2.5mm LIPPED CHANNEL
- ===== 50x50x5mm ANGLE IRON TRUSSES

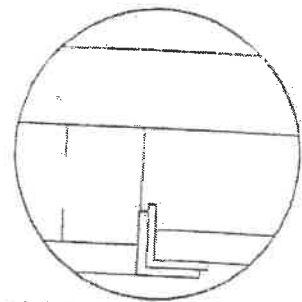
0.5mm THICK IFR PROFILED
ALU ZINC AZ 185 SHEETING
FIXED TO UNDERSIDE OF
75x50x20x2.5mm LIPPED
CHANNEL PURLINS

50x50x5mm ANGLE
IRON TRUSSES

30x30x2.5mm ANGLE IRON
FRAMEWORK FOR CEILING
TRAP



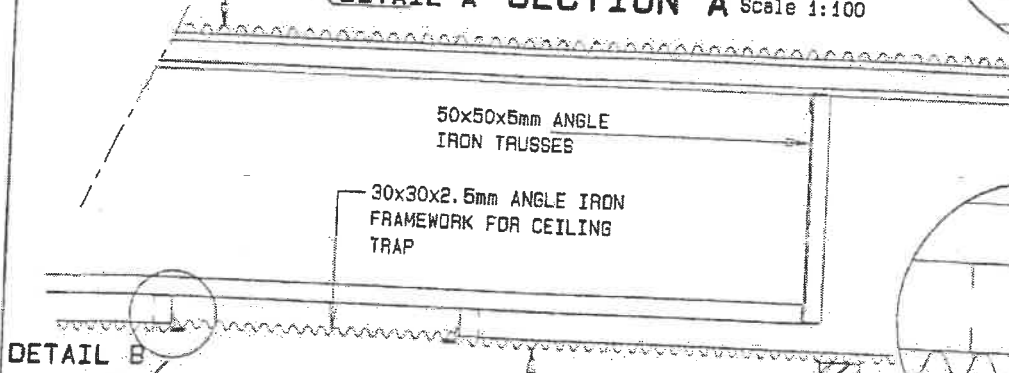
DETAIL A SECTION A Scale 1:100



DETAIL A
Scale 1:20

50x50x5mm ANGLE
IRON TRUSSES

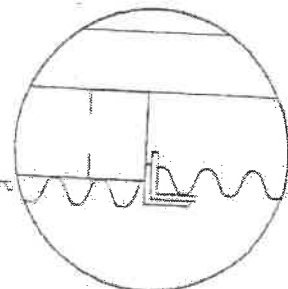
30x30x2.5mm ANGLE IRON
FRAMEWORK FOR CEILING
TRAP




DETAIL B

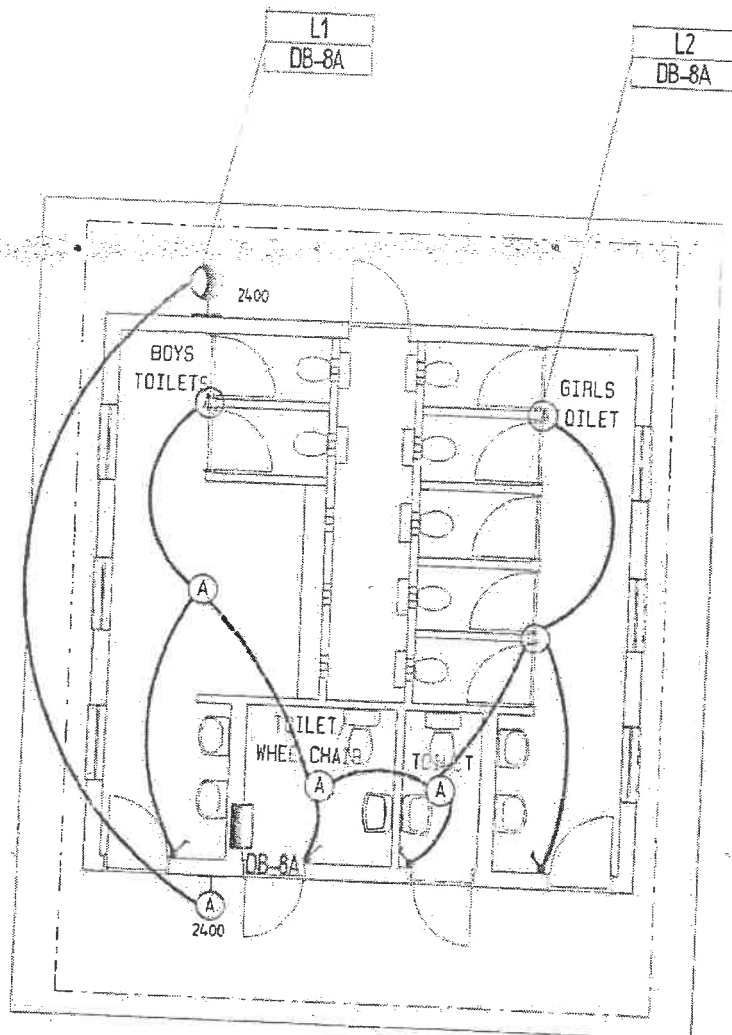
0.5mm THICK IFR PROFILED ALU ZINC
AZ 185 SHEETING FIXED TO
UNDERSIDE OF 75x50x20x2.5mm
LIPPED CHANNEL PURLINS

SECTION B
Scale 1:100




DETAIL B
Scale 1:20

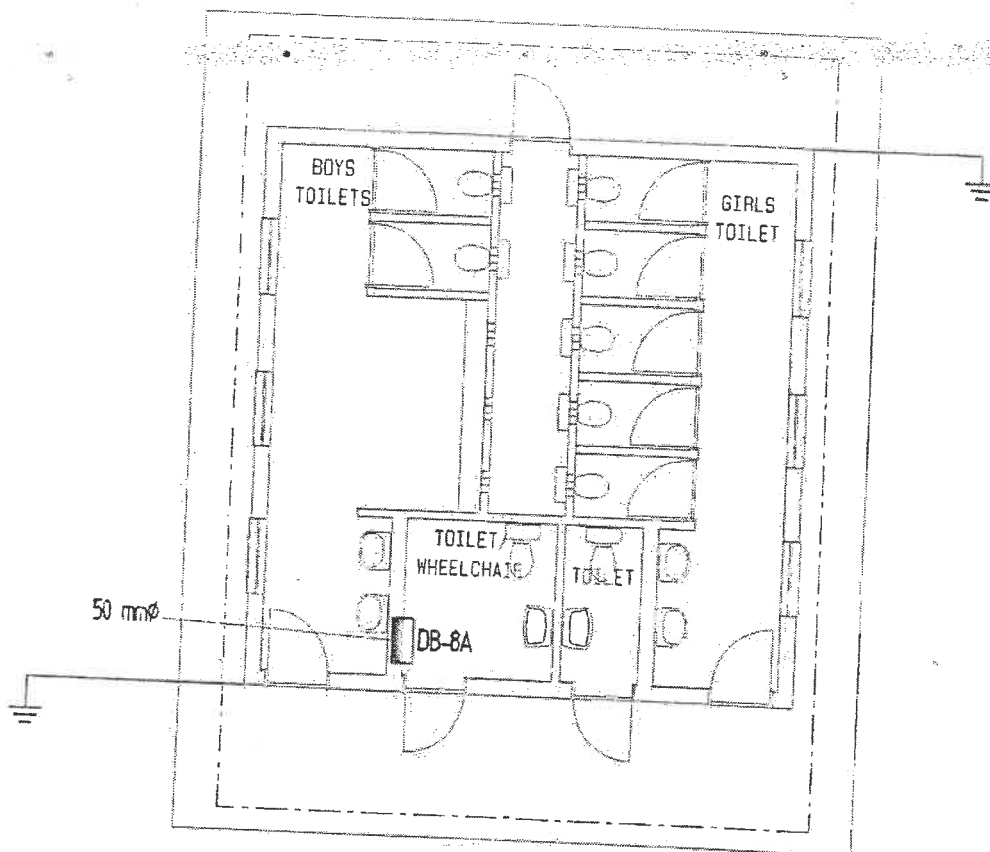
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LARGE ABLUTION BLOCK CEILING LAYOUT & DETAILS					ABL2 2008	ABL 2 06	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE						TEL :	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION



LIGHTING LAYOUT

Scale 1:100

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:100	JAN08	ESAD	JAN08		ABL2	ABL 2	GOVERNMENT OF NAMIBIA
LARGE ABLUTION BLOCK					2008	07	PROJECT CONSULTANT
USER MINISTRY							
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							
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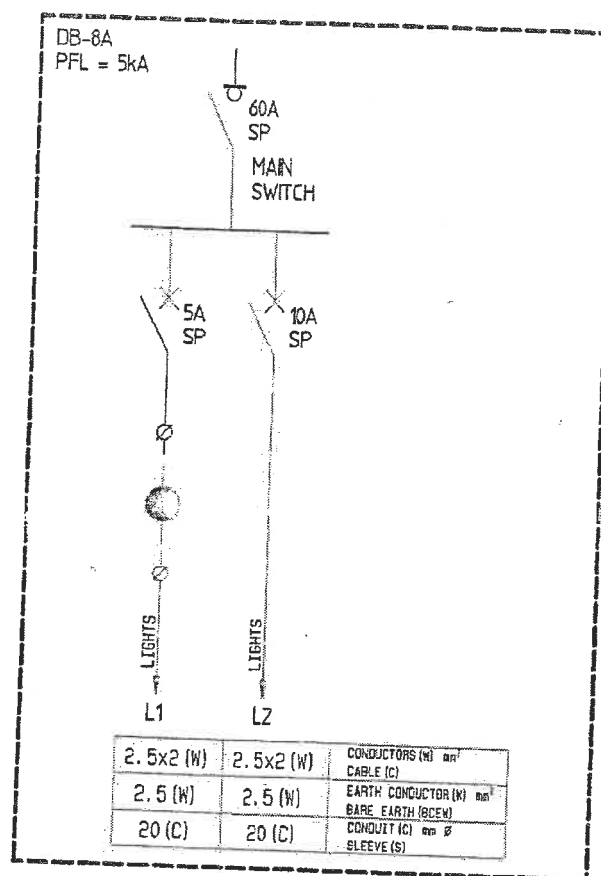
POWER LAYOUT

Scale 1:100

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
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LARGE ABLUTION BLOCK POWER INSTALLATION					2008	08	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :



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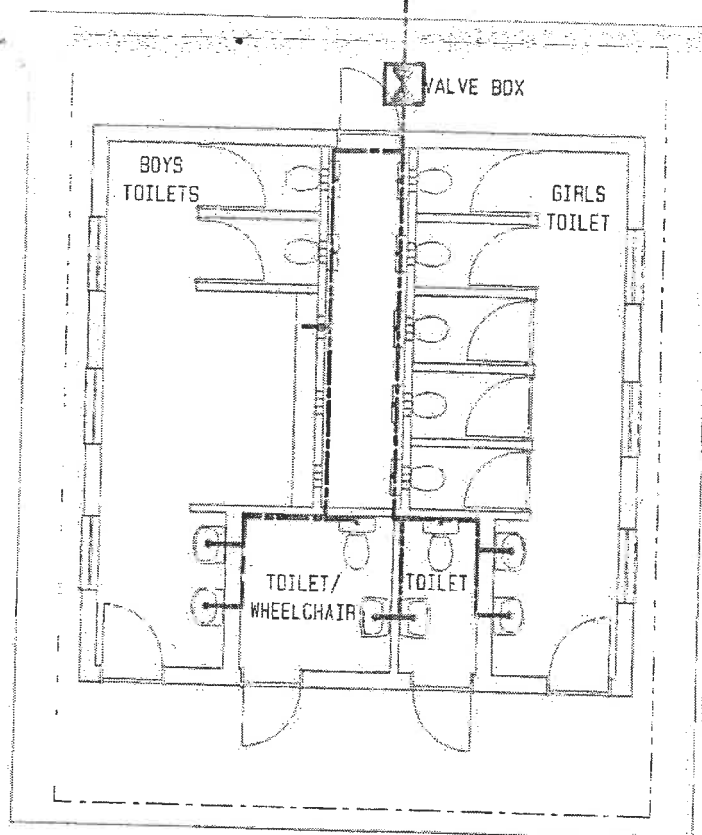
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N. T. S.	AUG03	ESAD					GOVERNMENT OF NAMIBIA
LARGE ABLUTION BLOCK SINGLE LINE DIAGRAM					ABL2 2008	ABL 2 08	PROJECT CONSULTANT
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- NOTE: 1-ALL WC, WHB, URINAL OUTLET
TO BE 15mm Ø
2-ALL INTERNAL PIPING TO BE
COPPER TYPE CLASS O.
3-ALL EXTERNAL VALVES SHALL BE
PLACED INTO VALVE BOX WITH
CAST IRON LID.

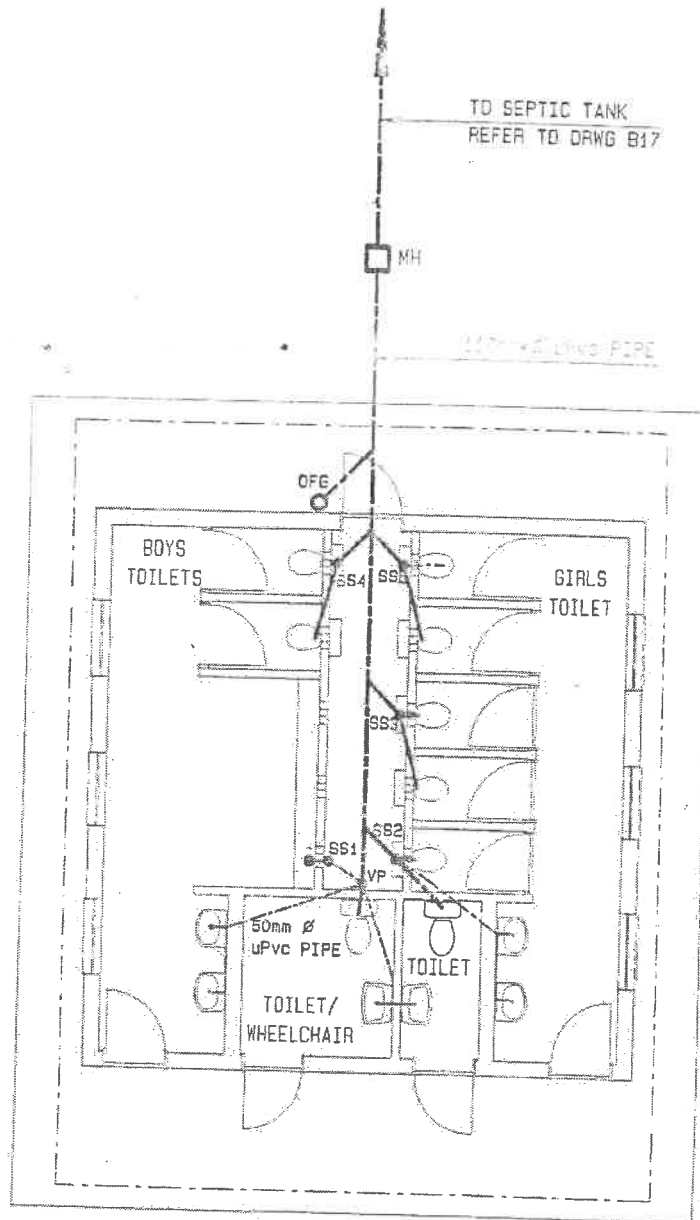
32mm Ø UPVC PIPE



WATER LAYOUT


Scale 1:100

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:100	JAN08	ESAD	JAN08		ABL2	ABL 2	GOVERNMENT OF NAMIBIA
LARGE ABLUTION BLOCK					2008	10	PROJECT CONSULTANT
WATER LAYOUT							TEL :
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							 MINISTRY OF WORKS, TRANSPORT & COMMUNICATION



DRAINAGE LAYOUT

Scale 1:100

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:100	JAN08	ESAD	JAN08		ABL2	ABL 2	GOVERNMENT OF NAMIBIA
LARGE ABLUTION BLOCK DRAINAGE LAYOUT					2008	11	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE						TEL :	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION

LIST OF DETAILS


CONSTRUCTION B 1
 DETAILS: B 2
 B 3
 B 4
 B 5
 B 6
 B 8
 B16
 B17
 B18
 B32
 B33
 B41
 B42

DOORS: D 1
 D 3
 D 4
 D 8

WINDOWS: W 5

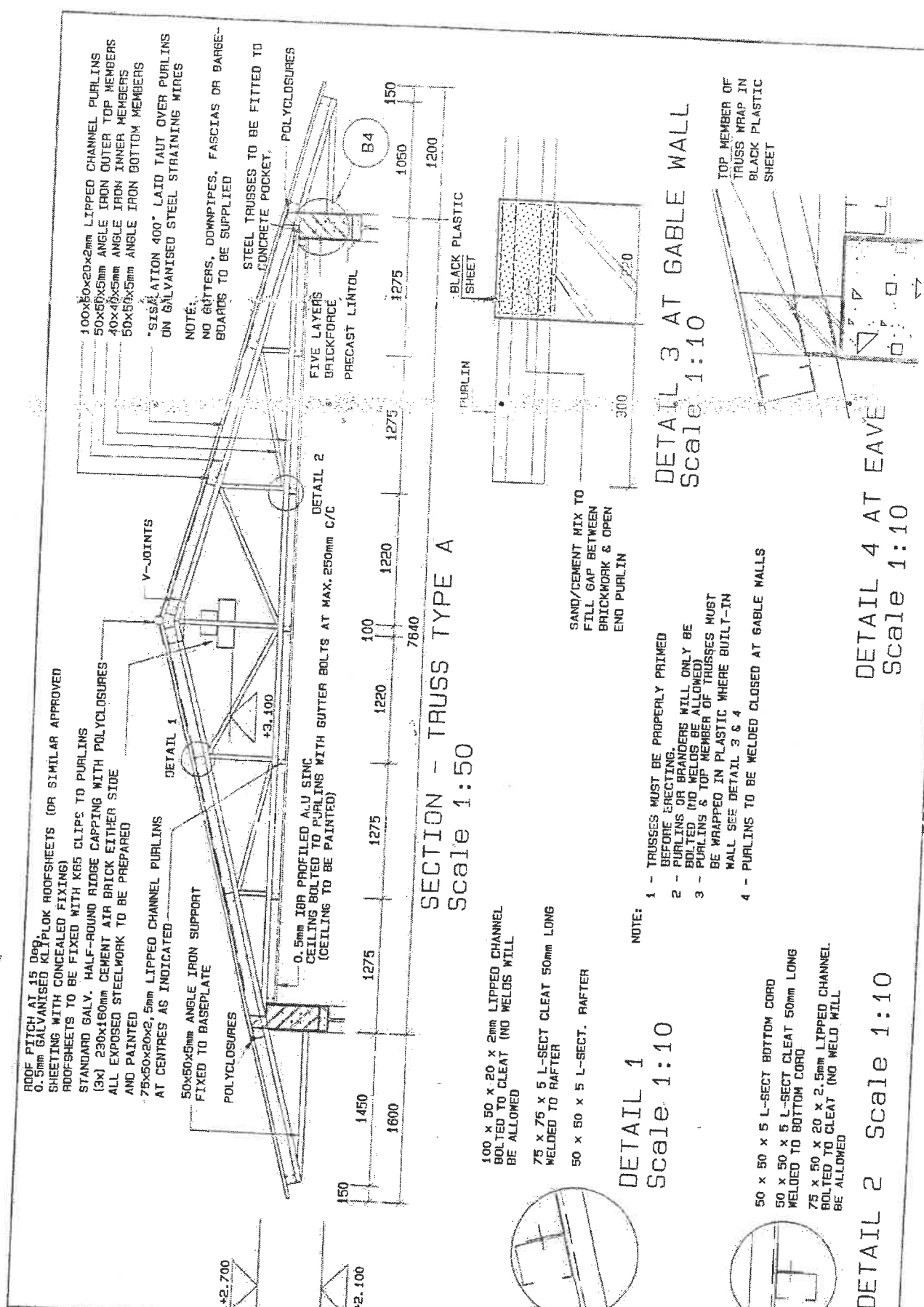
ELECTRICAL: E01
 E02

SANITARY: S 6
 S 7
 S 8
 S16

SCALE	DATE	DRAWN	REVISIONS	PROJECT	MODULE	DRAWING	PROPERTY OF
N/A	AUG03	ESAD	JAN08	NUMBER		NUMBER	GOVERNMENT OF NAMIBIA
LARGE ABLUTION BLOCK				ABL2	2008	ABL 2	PROJECT CONSULTANT
LIST OF DETAILS							
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE						 MINISTRY OF WORKS TRANSPORT & COMMUNICATION TEL :	

SCALE	DATE	DRAWN	REVISIONS
1:50/10	AUG03	ESAD	NOV07
SECTION THROUGH TRUSS TYPE A			
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE			

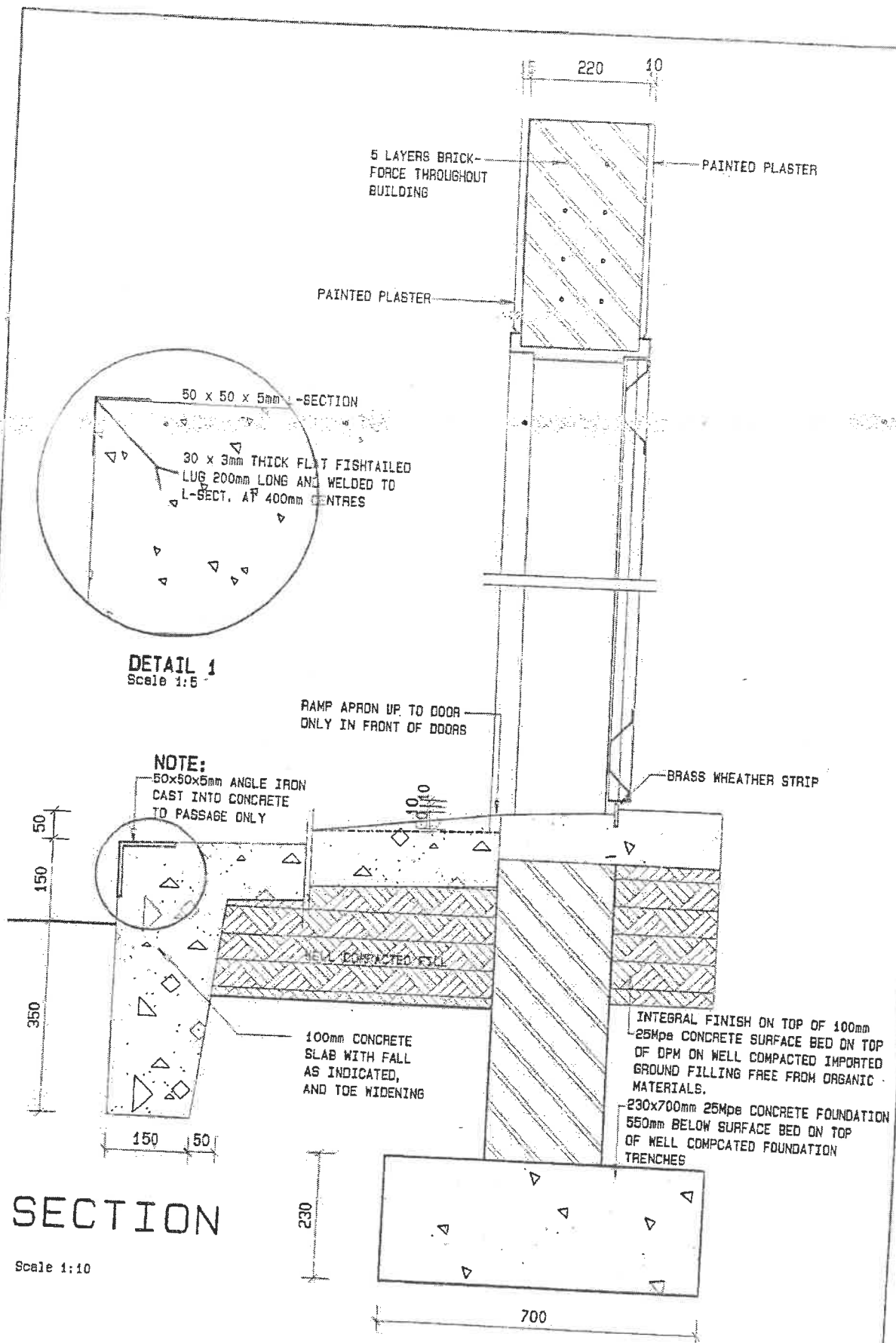
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	CONSTR. DETAILS	B1	GOVERNMENT OF NAMIBIA
	2008		PROJECT CONSULTANT
		TEL :	




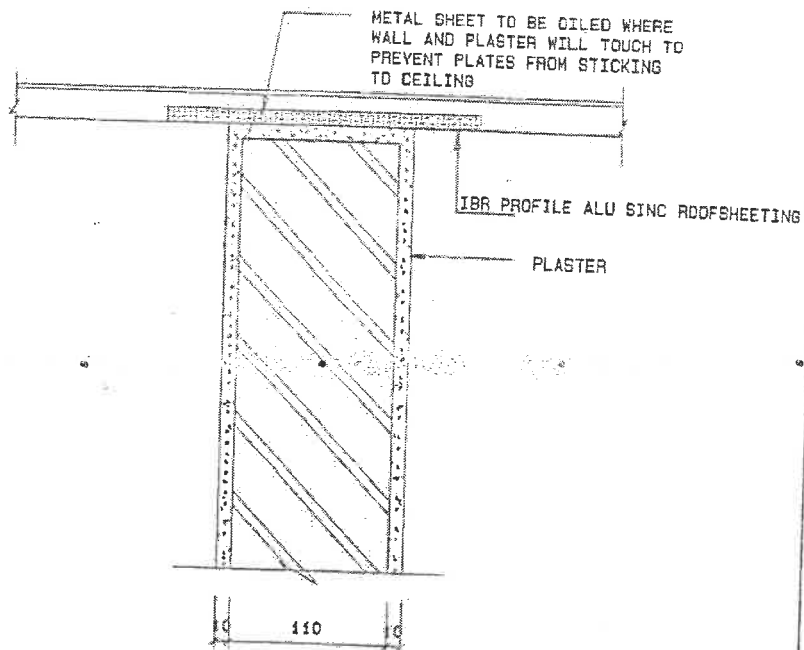
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SECTION THROUGH TRUSS TYPE A			
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE			

PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
	CONSTR. DETAILS	B1	GOVERNMENT OF NAMIBIA
	2008		PROJECT CONSULTANT
		TEL :	

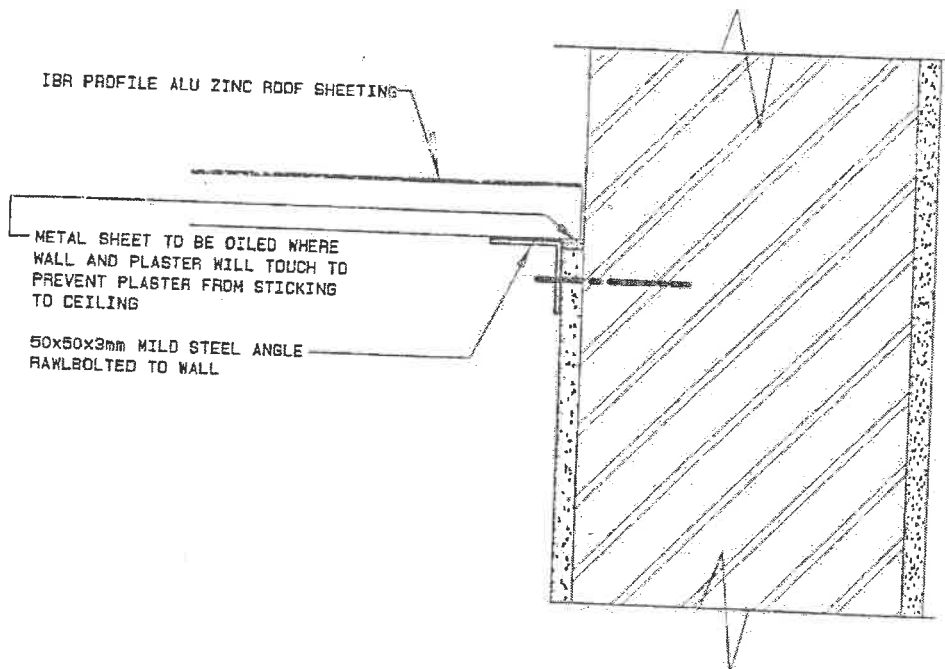





SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA	
1:10	AUG03	ESAD	NDV03		CONSTR.		PROJECT CONSULTANT	
SECTION THROUGH THRESHOLD AND PASSAGE					DETAILS	82		
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :	
								 MINISTRY OF WORKS, TRANSPORT & COMMUNICATION



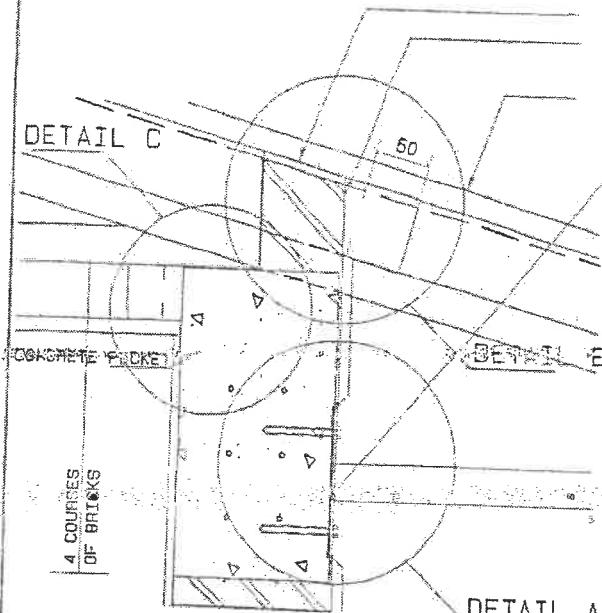
SECTION Scale 1:5
THROUGH INTERNAL WALLS



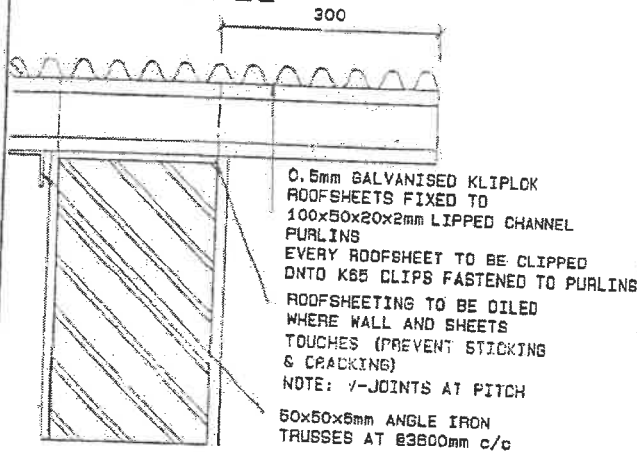
SECTION Scale 1:5
THROUGH CABLE END

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:2/5	AUG03	ESAD	NOV07				PROJECT CONSULTANT	
CEILING DETAIL AT WALL INTERSECTIONS					CONSTR. DETAILS 2008	B3	TEL :	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE								

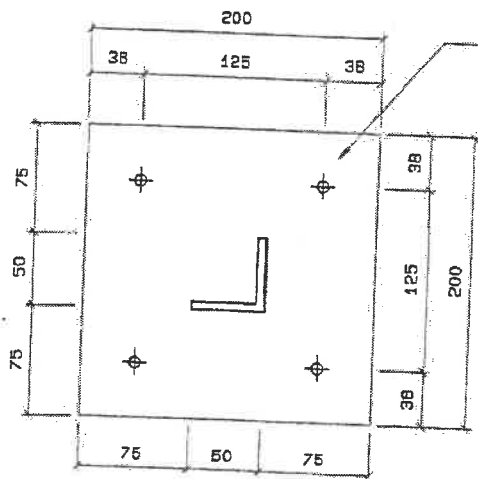
DETAIL C



SECTION THROUGH BACK & FRONT WALL



SECTION THROUGH GABLE END PLAN DETAIL C



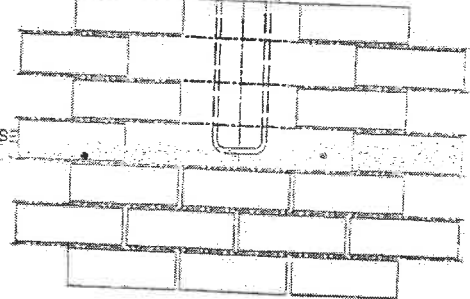
DETAIL A

ROOFSHEETING TO BE OILED WHERE WALL AND SHEETS TOUCHES (PREVENTS STICKING & CRACKING)
POLYCLOSURES TO EAVES

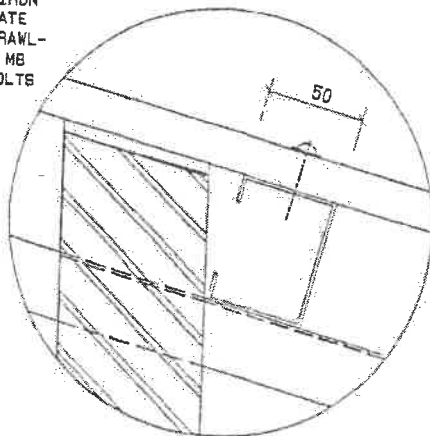
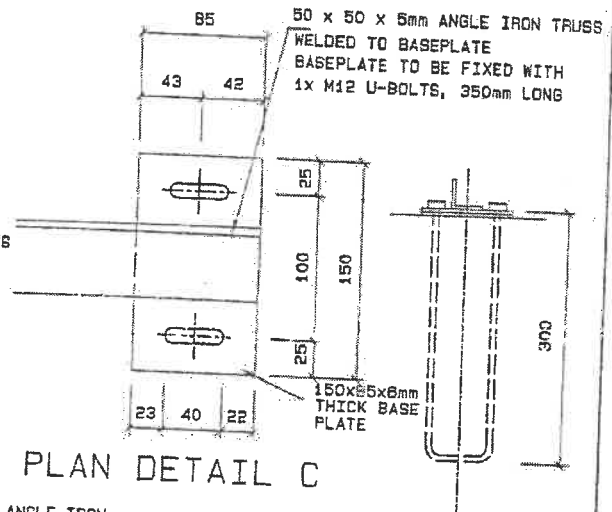
0.5mm GALVANISED KLIPLOK ROOFSHEETS
FIXED TO 100x50x20x2mm LIPPED CHANNEL PURLINS
FIXED TO 50x50x5mm ANGLE IRON TRUSSES AT 83600mm c/c
ROOFSHEETS TO BE BOLTED AT MAX. 250mm C/C TO PURLINS
50x50x5mm ANGLE IRON TIE BEAM WELDED TO
200x200x6mm BASEPLATE. BASEPLATE TO BE
RAWLBOLTED TO WALL WITH 4x MB RAWLBOLTS

SINGLE LAYER DPC
BETWEEN BASEPLATE
AND CONC. POCKET
CENTRE LINE TO TRUSSES
TRUSSES TO BE LAID ON
CONCRETE POCKET

BRICKWORK
EVERY COURSE



ELEVATION DETAIL C

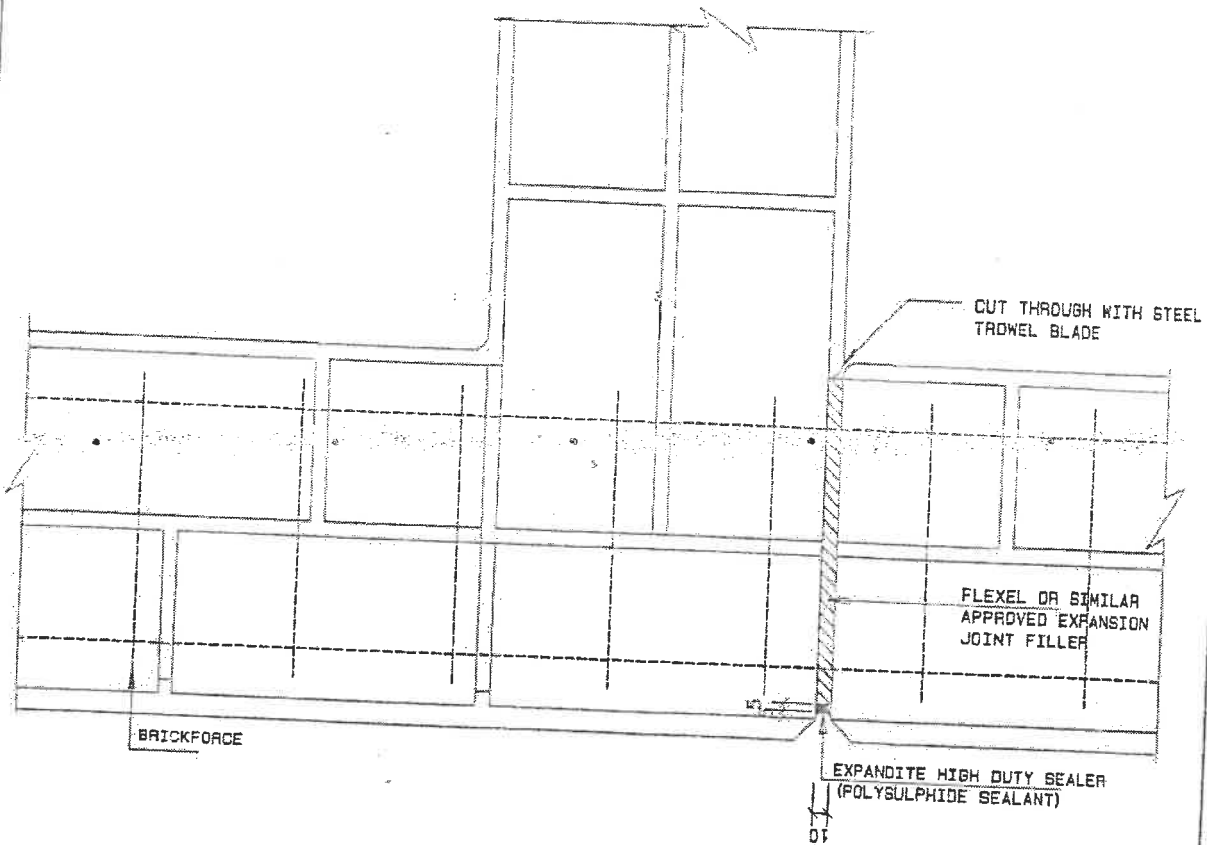


DETAIL B

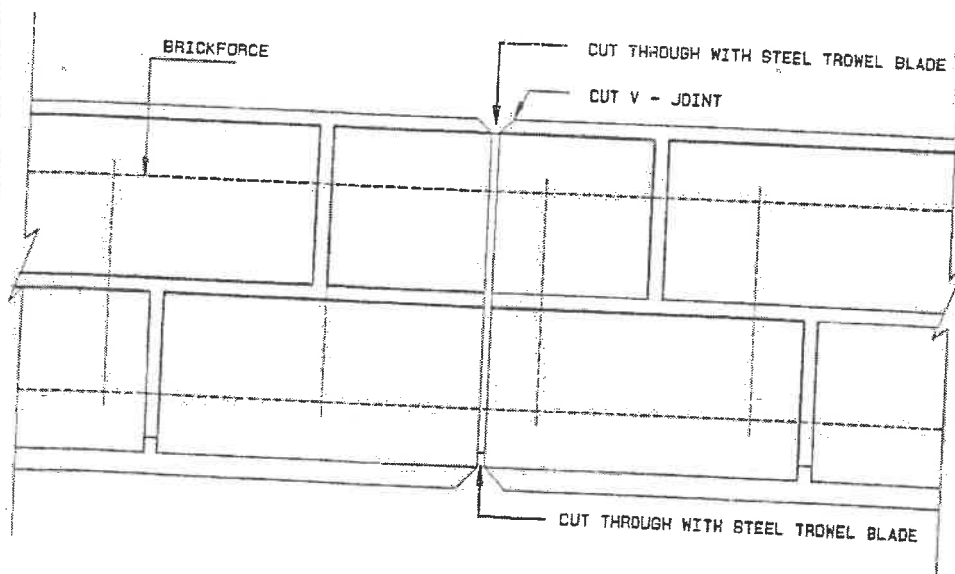
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:5/10	AUG03	ESAD	NOV07				GOVERNMENT OF NAMIBIA
DETAIL SECTIONS THROUGH PITCH ROOF					CONSTR.	B4	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					DETAIL		
					2008		TEL :




MINISTRY OF WORKS
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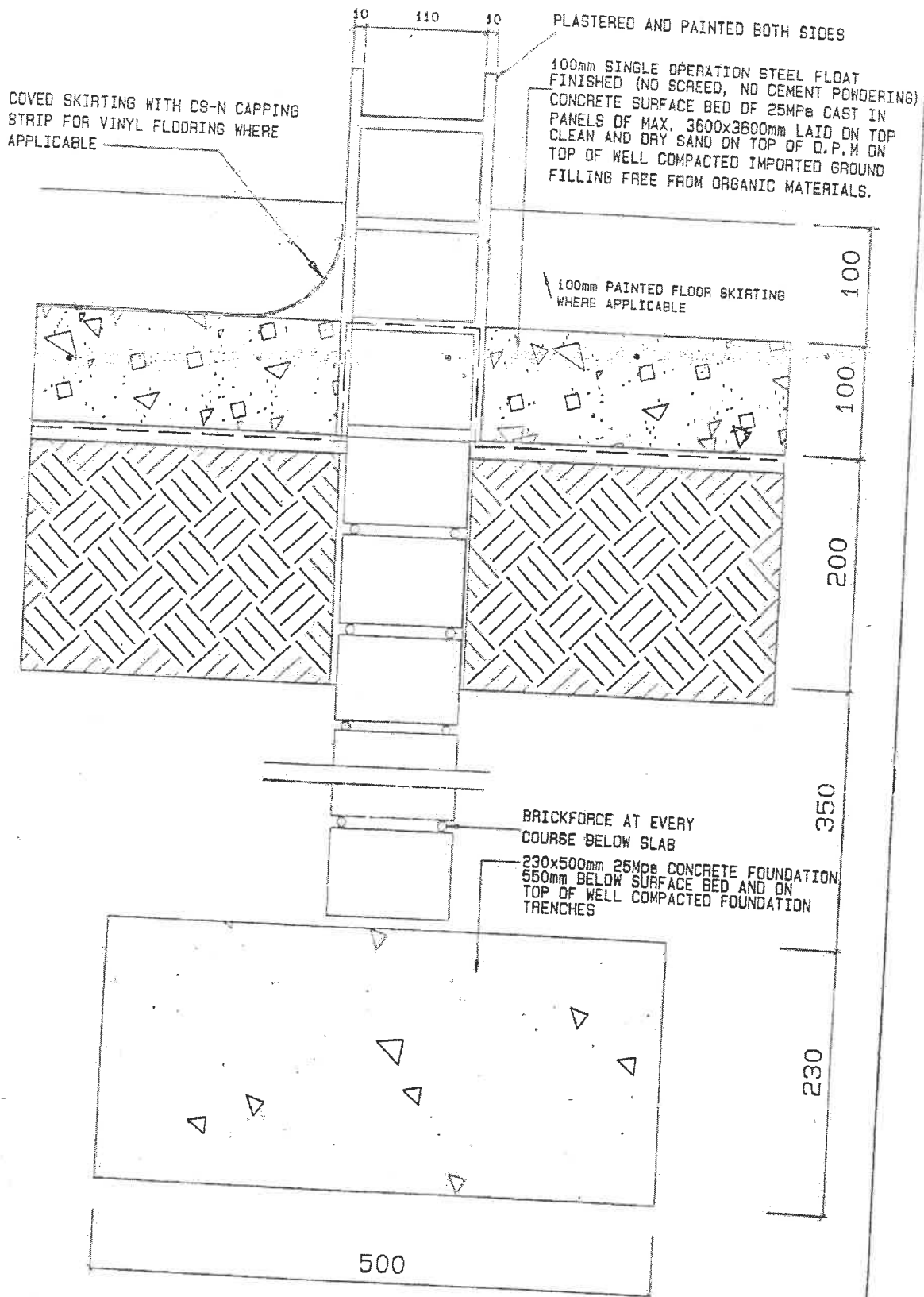


PLAN - EXPANSION JOINT



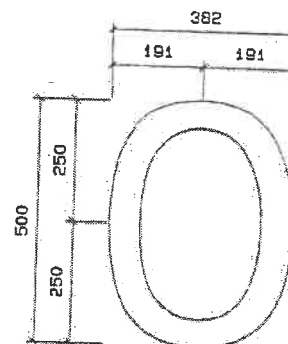
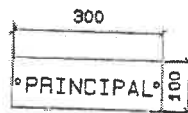
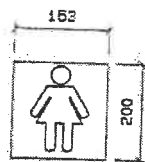
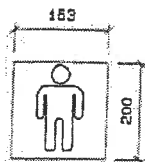
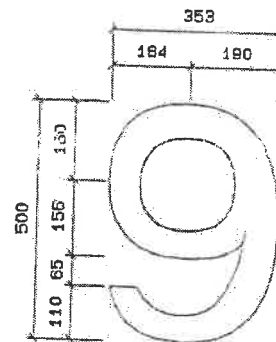
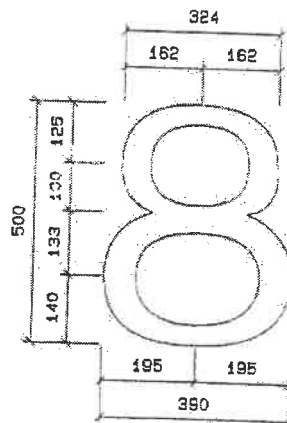
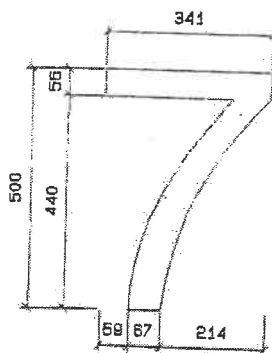
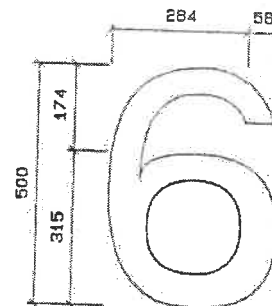
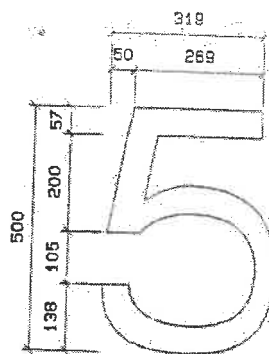
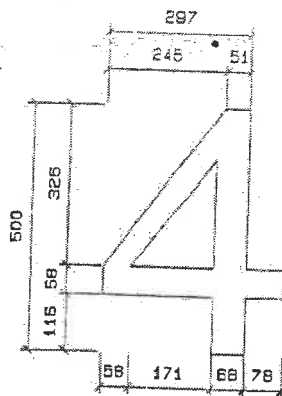
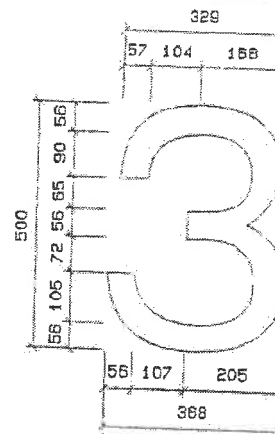
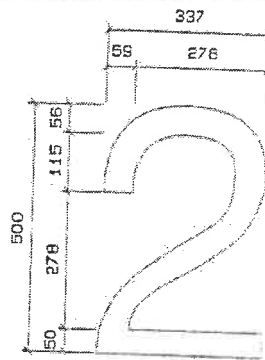
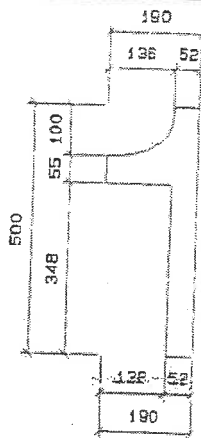
PLAN - BUTT JOINT

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	
1:5	AUG03	ESAD	NOV07		CONSTR. DETAILS	B5	GOVERNMENT OF NAMIBIA	
TYPICAL EXPANSION AND BUTT JOINT					2008		PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :	
								 MINISTRY OF WORKS TRANSPORT & COMMUNICATION




SECTION

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:5	AUG03	ESAD	NOV07				GOVERNMENT OF NAMIBIA
SECTION THROUGH INTERNAL WALLS					CONSTR. DETAILS	B6	PROJECT CONSULTANT
USER: MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008	TEL :	MINISTRY OF WORKS TRANSPORT & COMMUNICATION



- NOTE: 1. NUMBERS TO BE PAINTED ONTO ONE WALL OF SCHOOL
2. MAX NUMBER OF NUMERALS WILL BE THREE
3. MALE/FEMALE & OTHER SIGNALS TO BE PERSPEX OR ALUMINIUM

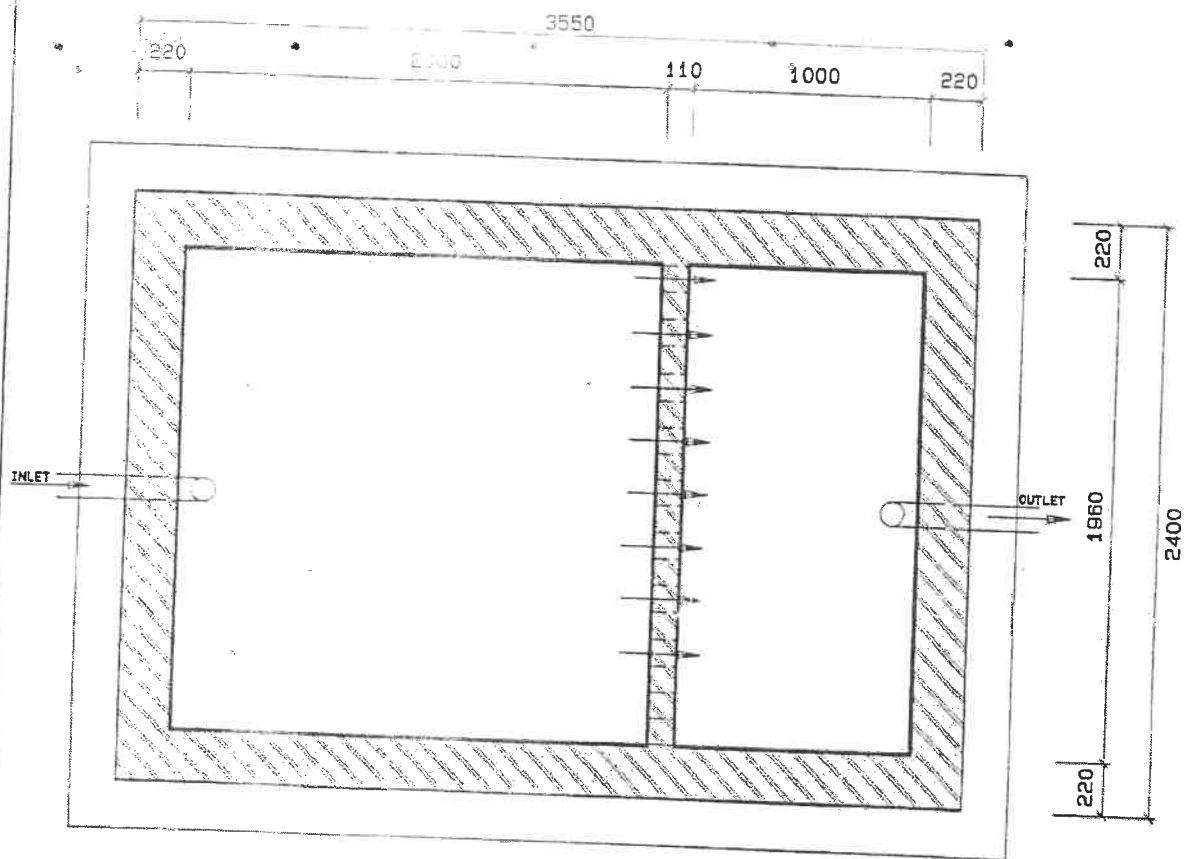
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1:15	AUG03	ESAD					
STANDARD HELVETICA					CONSTR. DETAILS	B8	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							
				2008			TEL :




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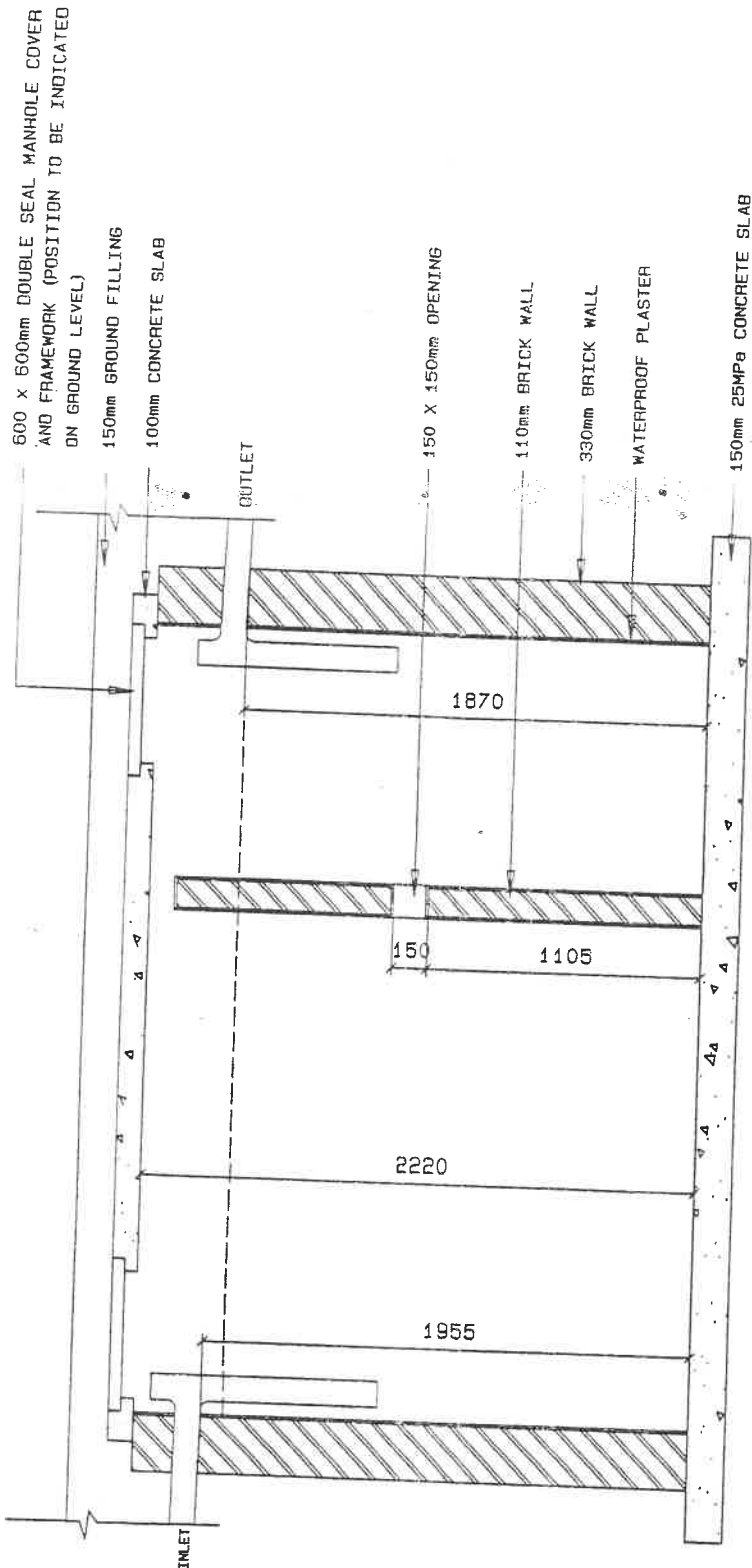


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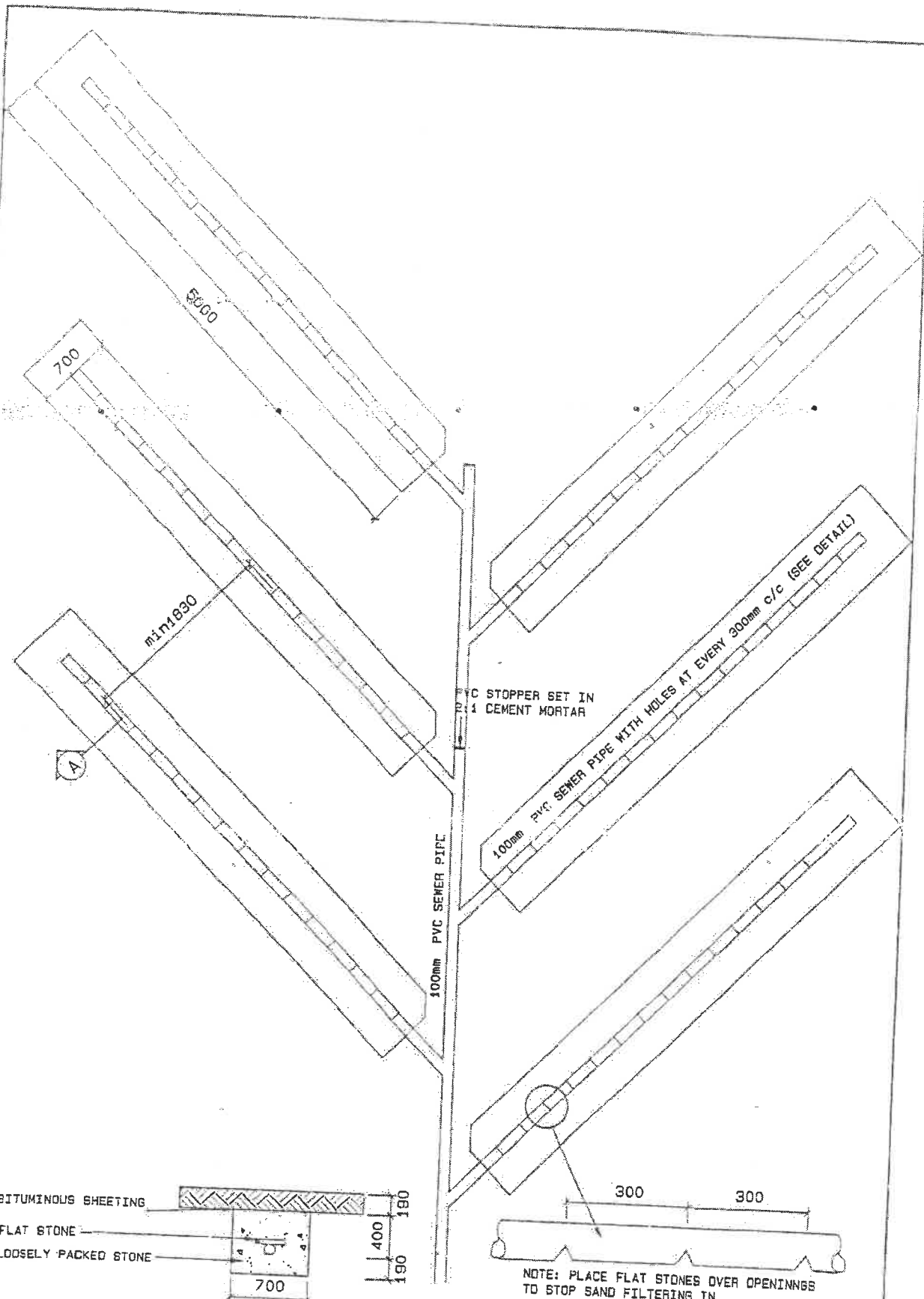
PLAN

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:30	AUG03	ESAD					GOVERNMENT OF NAMIBIA	
PLAN OF SEPTIC TANK					CONSTR. DETAILS	B16	PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :	




SECTION A-A

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:30	AUG03	ESAD					PROJECT CONSULTANT	
SECTION THROUGH SEPTIC TANK					CONSTR. DETAILS	B17		
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :	

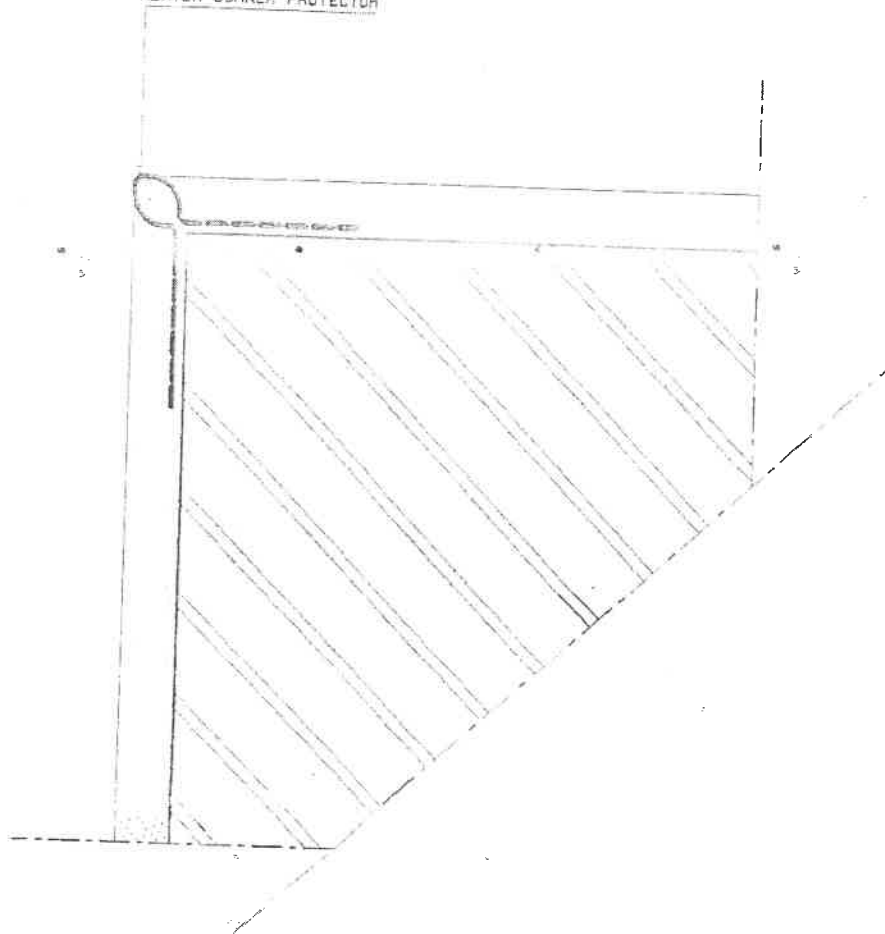


SECTION A-A

DETAIL A


SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:30	AUG03	ESAD					GOVERNMENT OF NAMIBIA
DETAIL PLAN OF FRENCH DRAIN					CONSTR. DETAILS	B18	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008	TEL :	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION

MENTEX CORNER PROTECTOR




DETAIL PLAN
Scale 1:2

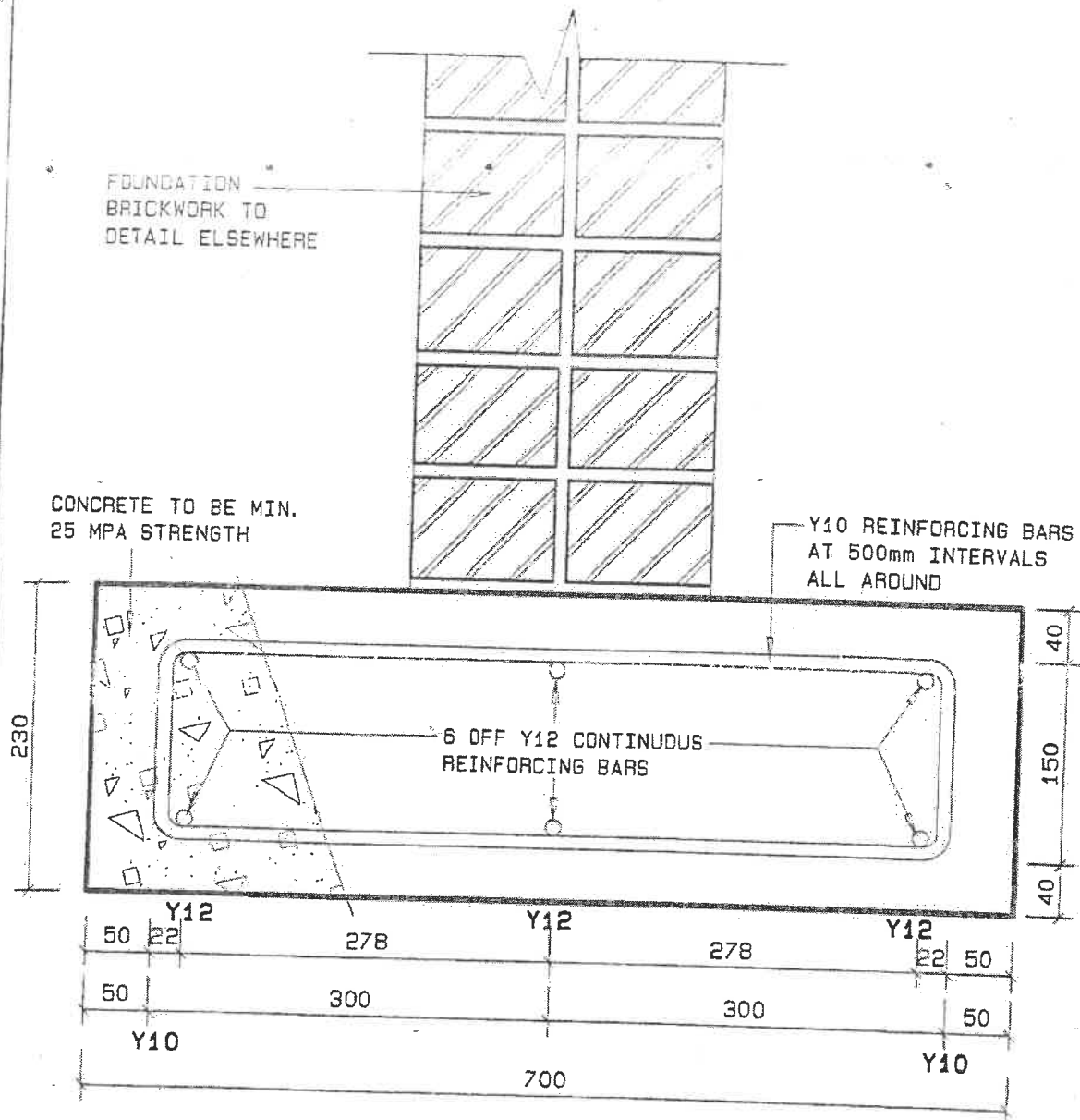
CORNER PROTECTOR TO ALL
INTERNAL EXPOSED CORNERS
TO 1500mm ABOVE FFL.


SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA
1:2	SEPT03	ESAD					
CORNER PROTECTOR					CONSTR. DETAILS 2008	B32	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE						TEL :	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION

GENERAL PAINT SPECIFICATION

1. PAINT SPECIFICATION FOR INTERNAL PLASTERED WALLS, PRIMER & 2 COATS DOUBLE VELVET PAINT TO ALL INTERNAL WALLS OF CLASS ROOMS, OFFICES, STORES, CORRIDOR, BEDROOMS, ETC. THE PAINT SPECIFICATION MUST COMPLY WITH SABS REQUIREMENTS AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATION.
ALL SHOWERS TO BE TILED TO CEILING HEIGHT WITH STANDARD 200x200 WHITE CERAMIC TILES.
2. WHERE SKIRTING SPECIFIED PAINTED ON PLASTERED WALL, PAINT MUST BE HIGH GLOSS ENAMEL.
3. ALL STEEL DOOR FRAME, CHAWL DOORLEAF AND WINDOW FRAMES MUST BE FACTORY PRIMED AND FINISHED WITH UNDER COAT AND TWO COATS HIGH GLOSS ENAMEL PAINT.
4. PAINT TO ALUZINC CEILING, ACRYLIC PVA WHITE, 2 COATS (PRIOR TO PAINT, CEILING MUST BE CLEANED WITH GALVANISED ROOF CLEANER)
5. ALL TRUSSES AND PURLINS AND EXPOSED STEELWORK MUST BE PRIMED WITH METAL PRIMER AND FINISHED WITH TWO COATS HIGH GLOSS ENAMEL.
6. EXTERNAL PAINT TO CONSIST OF PRIMER AND TWO COATS OF EXTERIOR QUALITY PVA AND APPLIED ACCORDING TO MANUFACTURER'S INSTRUCTION. ALL COLOURS MUST BE APPROVED BY PROJECT MANAGER OR REPRESENTATIVE OF THE CLIENT.

SCALE	DATE	DRAWN	REVISIONS	PROJECT	MODULE	DRAWING	PROPERTY OF	 MINISTRY OF WORKS, TRANSPORT & COMMUNICATION
N/A	SEPT03	ESAD	NOV07	NUMBER		NUMBER	GOVERNMENT OF NAMIBIA	
PAINT SPECIFICATION					CONSTR.	B33	PROJECT CONSULTANT	
USER MINISTRY					DETAILS			TEL :
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008			



SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:5	SEP03	ESAD			CONSTR.		PROJECT CONSULTANT	
FOUNDATION REINFORCING DETAIL - B41					DETAILS	B41		
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :	

GENERAL TILE AND VINYL SHEETING SPECIFICATION

1. FLOOR TILES: 300 X 300mm CERAMIC FLOOR TILES
'JOHNSON GN-572' LAID ON 100mm STEEL TROVELED
CEMENT SCREED WITH APPROVED TILE ADHESIVE. ALL JOINTS
MUST BE GROUTED WITH DOVE GREY GROUTING.

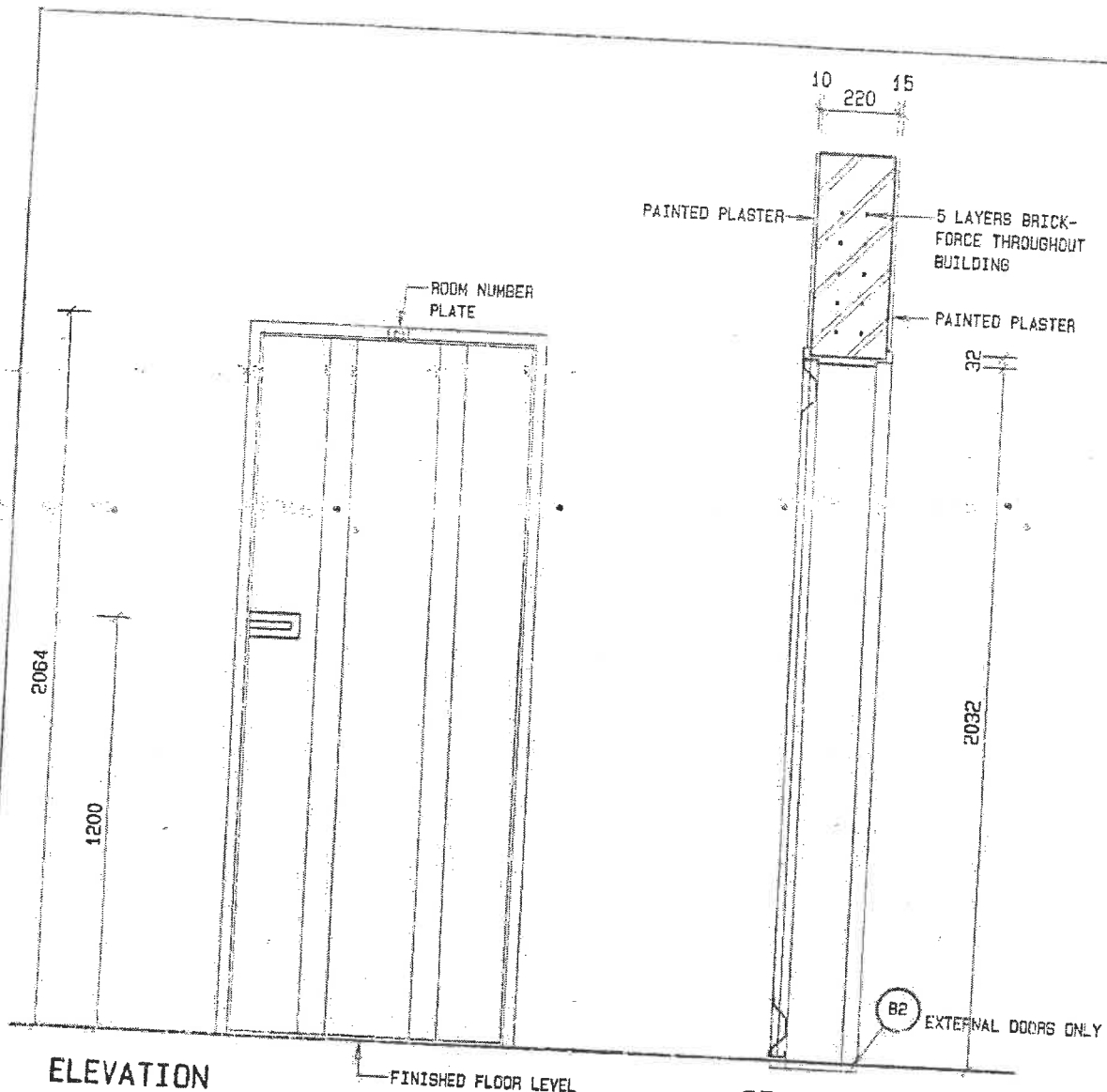
WHERE APPLICABLE TILES TO BE SET OUT FROM
CONSTRUCTION JOINTS. JOINT OVER CONSTRUCTION
JOINT TO BE FILLED WITH SILICON

2. SKIRTINGS: TILED SKIRTINGS OF 100mm HIGH CUT FLOOR
TILES TO WALLS LAID WITH APPROVED TILE ADHESIVE. ALL
JOINTS MUST BE GROUTED WITH DOVE GREY GROUTING
3. WALL TILES: 200 X 200mm CERAMIC WALL TILES
'SAMCA OSH 1000' UP TO CEILING HEIGHT WITH APPROVED
TILE ADHESIVE TO ALL BATHROOMS AND ABLUTIONS. ALL
JOINTS MUST BE GROUTED WITH DOVE GREY GROUTING.
4. SPLASHBACKS: 200 X 200mm CERAMIC WALL TILES
'SAMCA OSH 1000' AREAS AS INDICATED ON PLAN LAY
WITH APPROVED TILE ADHESIVE. ALL JOINTS MUST BE
GROUTED WITH DOVE GREY GROUTING.
5. PROVIDE 'SCHLUETER' TILE EDGING TYPE: 'RONDEC-AE' TO
ALL CORNERS AND EDGES OF SPLASHBACKS
6. POLYFLOR 2000 VINYL FLOOR SHEETING GLUED ONTO STEEL
FLOATED CONCRETE SURFACE WITH QUALITY TESTED ADHESIVE
STRICTLY TO MANUFACTURERES SPEC. 76 x 19mm MERANTI
SKIRTING FIXED TO WALL, PAINTED AS TO WALL. PROVIDE
TO ALL CERAMIC FLOOR TILE EDGES 'SCHLUTER' ALUMINIUM
RAILS TYPE: 'DECO M 80 D'.
9. ALL COLOURS MUST BE APPROVED BY PROJECT MANAGER OR
REPRESENTATIVE OF THE CLIENT

SCALE	DATE	DRAWN	REVISIONS	PROJECT	MODULE	DRAWING	PROPERTY OF
N/A	DEC07	ESAD		NUMBER		NUMBER	GOVERNMENT OF NAMIBIA
TITLE SPECIFICATION					CONSTR.	B42	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					DETAILS	2008	TEL :

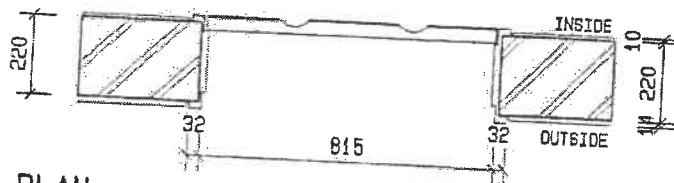


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ELEVATION

SECTION

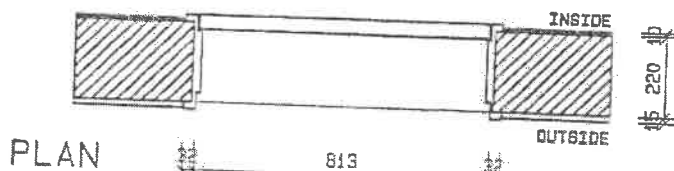
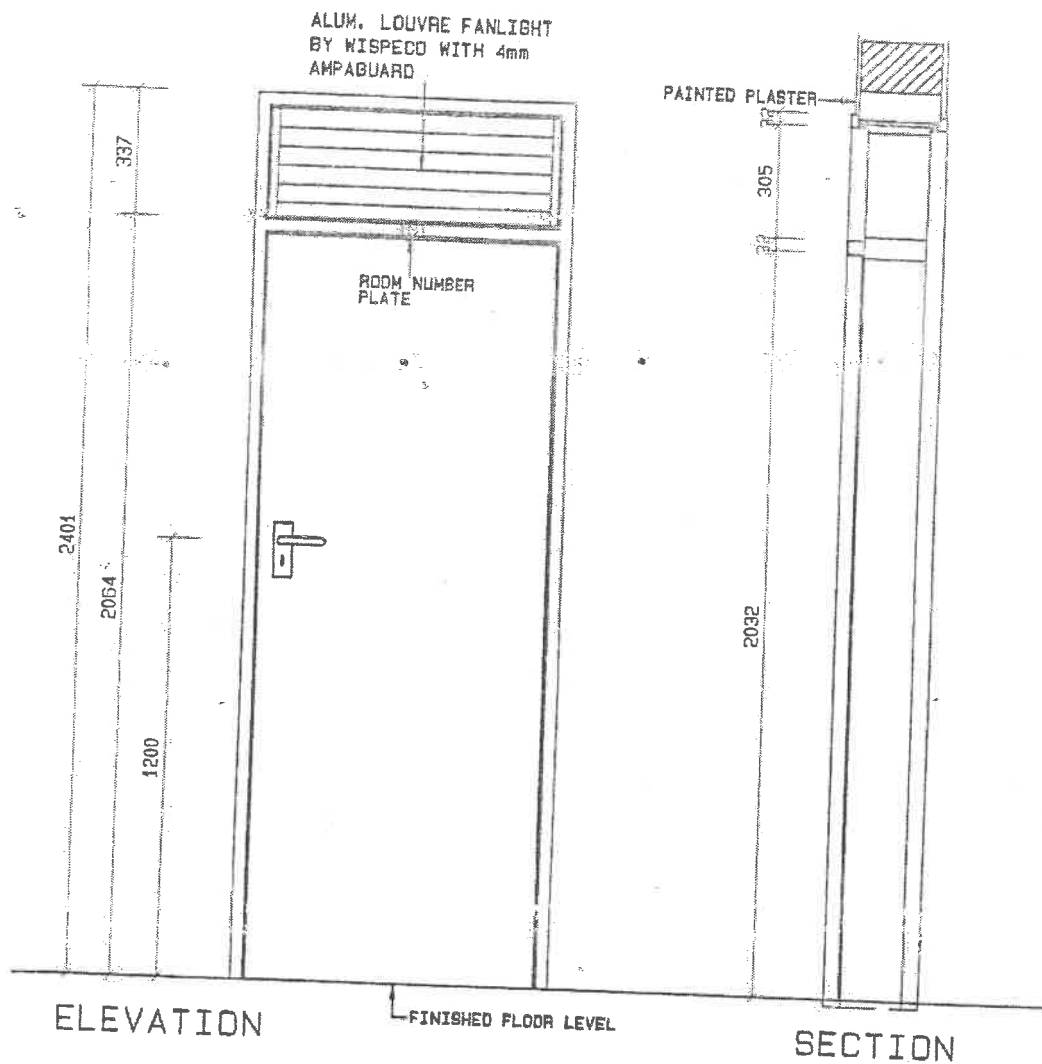


PLAN

CATALOGUE NO.	WISPECO CHAWL DOOR	CILL	N.A
ACTION/NO. REQD	SIDE HUNG WITH THREE HINGES / SEE KEY-PLANS	LINTOLS	5 LAYER BRICKFORCE
FRAME/GLAZ. BEAD	1.2mm MILD STEEL FRAME	BOLTS	PADLATCH WITH INDEPENDENT OPERATION FROM INSIDE
GLAZING	N.A	LOCK SETS	PADLOCK
SCREEN	N.A	HINGES/STOPS	STD HINGES/BLACK RUBBER DOOR STOP FIXED TO FLOOR
SOLID	SINGLE PANEL CHAWL DOOR	OTHER	ROOM NO. ABOVE DOOR - 20mm HIGH TYPE HELVETICA
FIXTURE	BUILT IN	FINISH	HIGH GLOSS ENAMEL
SCALE	DATE	DRAWN	REVISIONS
1:20	SEPT03	ESAD	NOV 07
PROJECT NUMBER		MODULE	DRAWING NUMBER
SINGLE PANEL CHAWL DOOR & FRAME 815X2032 TO SUIT 220MM WALL		DOORS 2008	01
PROPERTY OF GOVERNMENT OF NAMIBIA		PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE		TEL :	

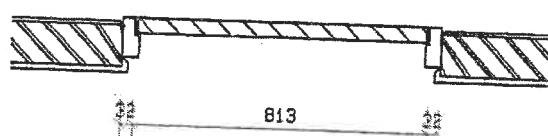
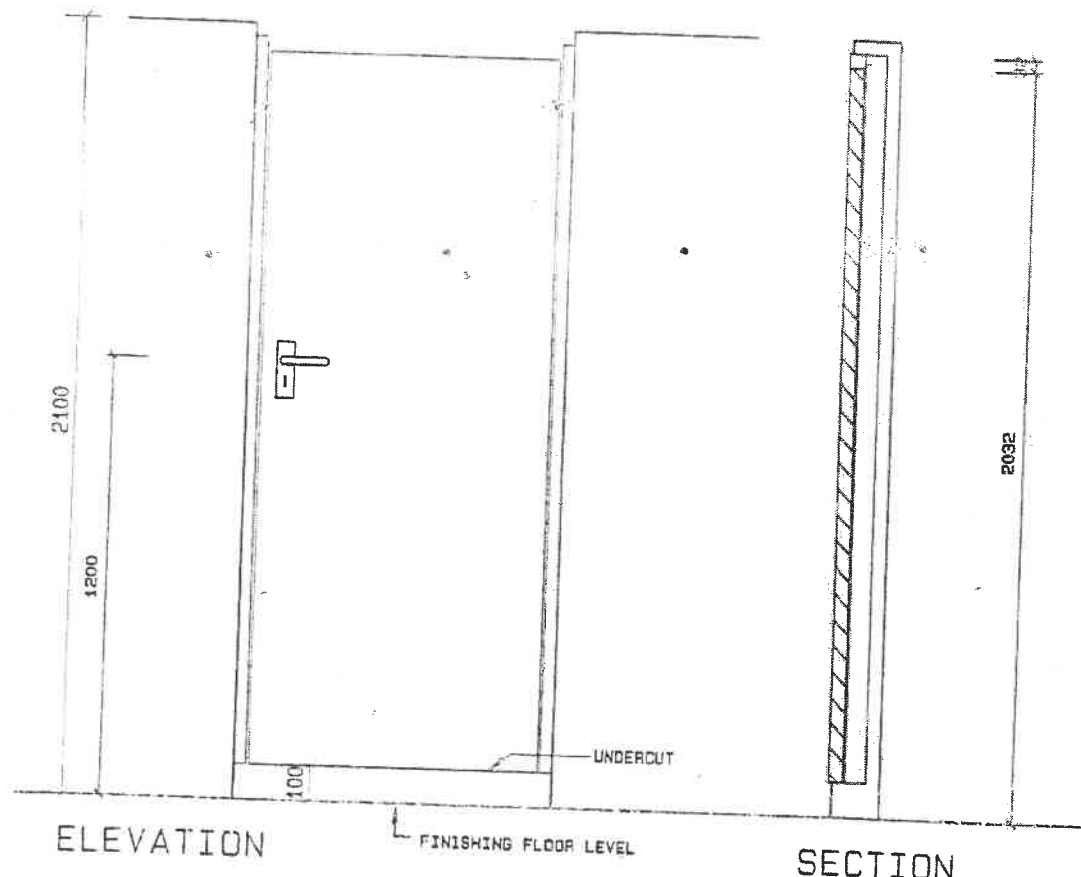


MINISTRY OF WORKS
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NOTE: LOCK TO BE FITTED WITH
PATTERN SCREWS

CATALOGUE NO.	WISPECO CHAWL DOOR WITH OPENABLE FANLIGHT	CILL	N.A
ACTION NO. REQD	BIDE HUNG OPENING INWARD SEE KEY-PLANS	LINTOLS	PRECAST CONCRETE
FRAME/GLAZ. BEAD	1.2mm MILD STEEL FRAME	HANDLES	'UNION' WATERBOX LEVER ON ROSE ART: AL8W45-24AS
GLAZING	4mm CLEAR GLASS IN ADJUST. ALUM. LOUVRES BY WISPECO TO FANLIGHT	LOCK SETS	'UNION' 4 LEVER LOCKSET ART: 2261-76PL
SCREEN		HINGES/STOPS	STD HINGES/BLACK RUBBER DOOR STOP FIXED TO FLOOR
LEAF	SOLID CORE FLUSH PANEL LEAF EXTERIOR QUALITY	OTHER	ROOM NO. ABOVE DOOR - 20mm HIGH TYPE: HELVETICA
FIXTURE	BUILT INTO BRICK WALLS	FINISH	HIGH GLOSS ENAMEL
SCALE	DATE	DRAWN	REVISIONS
1:100	SEP03	ESAD	
DOOR: SOLID CORE FLUSH PANEL: 813x2401x110mm WALL		PROJECT NUMBER	MODULE
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE		DOORS 2008	D3
		DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA PROJECT CONSULTANT
		TEL :	MINISTRY OF WORKS TRANSPORT & COMMUNICATION



NOTE: LOCK TO BE FITTED WITH
PATTERN SCREWS

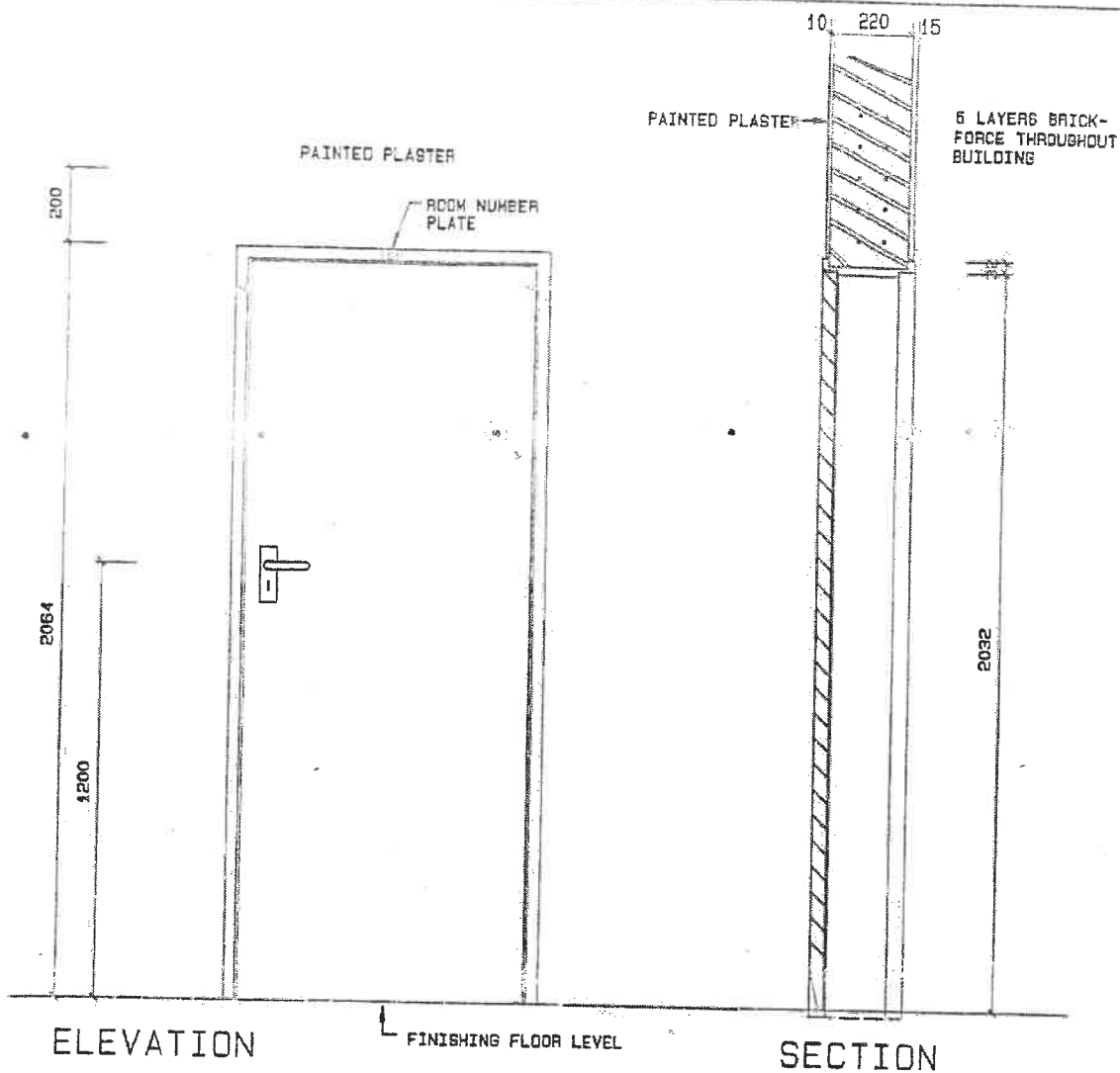
CATALOGUE NO.	PROPOSE MADE EX 114x75mm H/W MERANTI DOOR FRAME	CILL	N.A
ACTION/NO. REQD	SIDE HUNG / SEE KEY-PLANS	LINTOL'S	N.A
FRAME/GLAZ. REQD	EX 114x75mm MERANTI FRAME	HANDLES	'UNION' WATERBOK LEVER ON ROSE ART: ALB46-73AS
GLAZING	N.A	LOCK SETS	'UNION' BATHROOM WC LOCKSET ART: 22314-78PL
SCREEN	N.A	HINGES/STOPS	STD HINGES/RUBBER TIPPED HAT HOOK FIXED TO INSIDE OF DOOR BY 'UNION' ART: 'ALB253AS'
SOLID	SOLID CORE FLUSH PANEL LEAF EXT. GAULTY 100mm UNDERCUT	OTHER	ROOM NU. ABOVE DOOR - 20mm HIGH TYPE HELVETICA
FIXTURE	BUILT IN	FINISH	HIGH GLOSS ENAMEL
SCALE	DATE	DRAWN	REVISIONS
1:20	SEPT03	ESAD	DEC07
PROJECT NUMBER			
MODULE			
DRAWING NUMBER			
PROPERTY OF			
GOVERNMENT OF NAMIBIA			
PROJECT CONSULTANT			
TEL :			
			
MINISTRY OF WORKS TRANSPORT & COMMUNICATION			

STANDARD WISPECO DOOR FRAME FOR
813 X 2032 DOOR & 110MM WALL


USER MINISTRY
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE

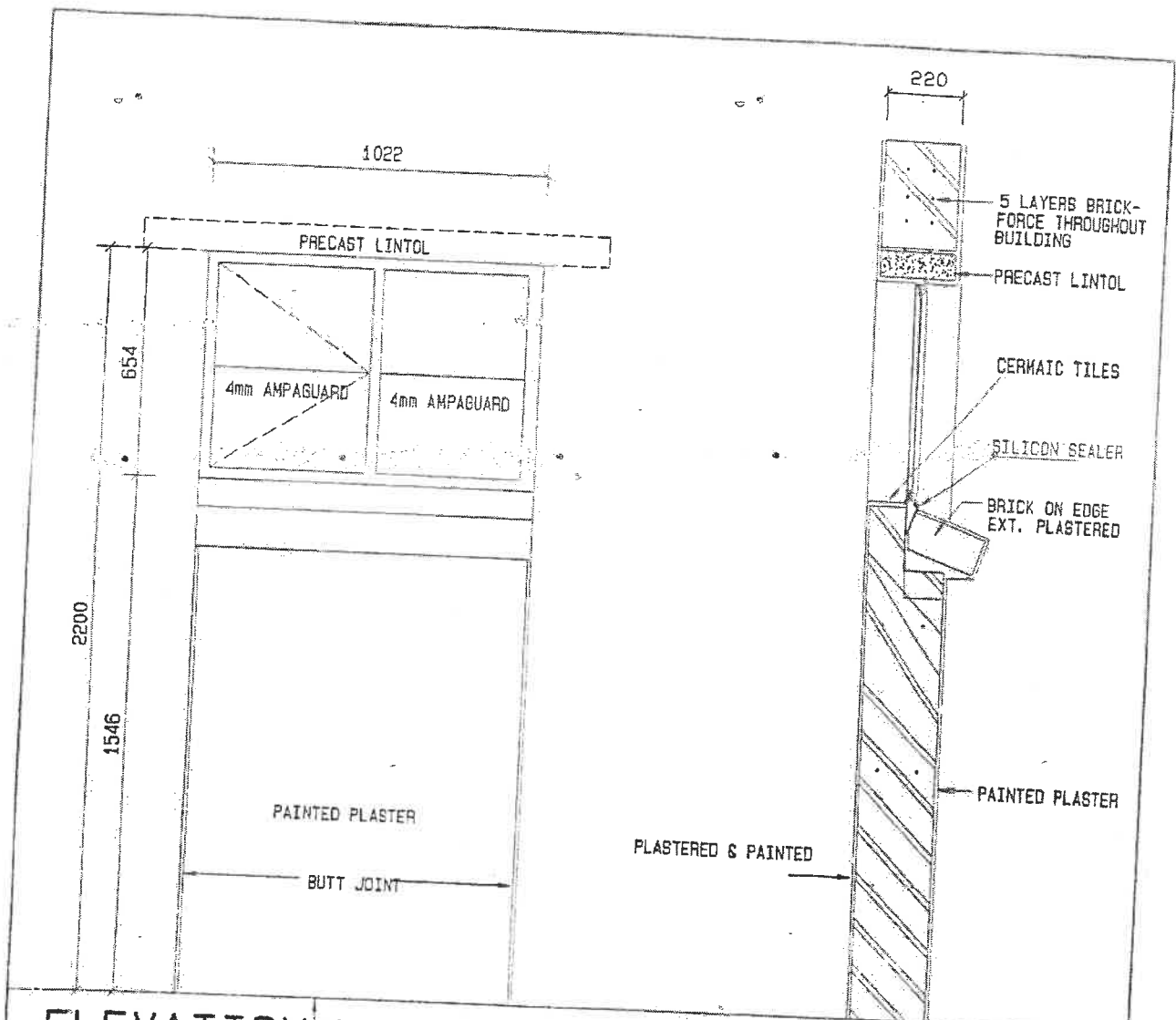
DOORS
2008

D4



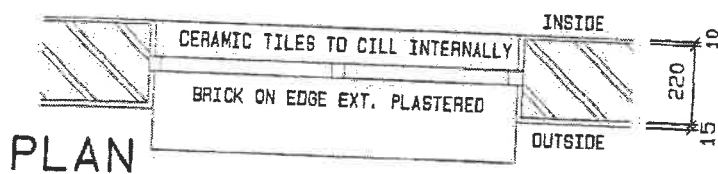
NOTE: LOCK TO BE FITTED WITH
PATTERN SCREWS

CATALOGUE NO.	STANDARD WISPECO FRAME	CILL	N.A.
ACTION/NO. REQD	SIDE HUNG / SEE KEY-PLANS	LINTOLS	6 LAYER BRICKFORCE
FRAME/GLAZ. BEAD	1.2mm MILD STEEL FRAME	HANDLER	'UNION' WATERBOX LEVER ON ROSE ART: ALW45-24AS
GLAZING	N.A.	LOCK SETS	'UNION' 4 LEVER LOCKSET ART: 2281-78PL
SCREEN	N.A.	HINGES/STOPS	STD HINGES/BLACK RUBBER DOOR STOP FIXED TO FLOOR
SOLID	SOLID CORE FLUSH PANEL LEAF EXT. GAULTY	OTHER	ROOM NO. ABOVE DOOR - 20mm HIGH TYPE HELVETICA
FIXTURE	BUILT IN	FINISH	HIGH GLOSS ENAMEL
SCALE	DATE	DRAWN	REVISIONS
1:20	SEPT03	ESAD	DECO7
PROJECT NUMBER			
MODULE			
DRAWING NUMBER			
PROPERTY OF			
GOVERNMENT OF NAMIBIA			
PROJECT CONSULTANT			
TEL :			
			
MINISTRY OF WORKS, TRANSPORT & COMMUNICATION			




ELEVATION FINISHED FLOOR LEVEL













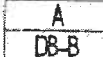











SECTION









PLAN

CATALOGUE NO.	STANDARD WISPECO ES2H	CILL	SEE SECTION
ACTION/NO. REQD	SIDE HUNG / SEE KEY-PLANS	LINTOLS	PRECAST LINTOL & 5 LAYERS BRICKFORCE THROUGHOUT BUILDING
FRAME/BLAZ. REQD	STD. WISPECO / SILICON	HANDLES	STANDARD WISPECO
GLAZING	POLYCARBONATE	LOCK SETS	N. A
SCREEN	N. A	HINGES/STOPS	STANDARD WISPECO
SOLID	N. A	OTHER	N. A
FIXTURE	BUILT IN	FINISH	HIGH GLOSS ENAMEL
SCALE	DATE	DRAWN	REVISIONS
1:20	SEP03	ESAD	NOV07
PROJECT NUMBER		MODULE	DRAWING NUMBER
WINDOW: TYPE ES2H		WINDOWS	W5
STD 1022x654x220mm WALL		2008	
USER MINISTRY		PROPERTY OF GOVERNMENT OF NAMIBIA	
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE		PROJECT CONSULTANT	
		TEL :	
			
		MINISTRY OF WORKS, TRANSPORT & COMMUNICATION	

DRAWING SYMBOLS


	BULKHEAD LUMINAIRE WITH CLEAR DIFFUSER AND 2xPL9 COOL WHITE LAMPS EQUAL OR SIMILAR APPROVED TO LASCON B10-2PL9				
	OPEN CHANNEL SINGLE TUBE FLUORESCENT LUMINAIRE WITH TELESCOPIC LAMPHOLDERS AND 1x58W COOL WHITE LAMP EQUAL OR SIMILAR APPROVED TO LASCON R1-158SS				
	OPEN CHANNEL DOUBLE TUBE FLUORESCENT LUMINAIRE WITH TELESCOPIC LAMPHOLDERS AND 2x58W COOL WHITE LAMPS EQUAL OR SIMILAR APPROVED TO LASCON R1-258SS				
	MOTORISED SIREN, 230 V WITH AN AUDIBLE DISTANCE OF 1000m				
	PILOT LIGHT WITH RED LENS AND 230V 15W PIGMY LAMP				
	16A SINGLE LEVER ONE WAY LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL				
	16A TWO LEVER ONE WAY LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL				
	16A SINGLE LEVER TWO WAY LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL				
	16A TWO LEVER TWO WAY LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL				
	16A SINGLE LEVER BELL PUSH LIGHT SWITCH, WHITE COVER PLATE, 1200mm AFFL				
	ELECTRICAL DISTRIBUTION BOARD, FLUSH MOUNTED ARCHITRAVE TYPE WHERE INSTALLED INDOOR AND SEMI-RECESSED WEATHERPROOF TYPE WHERE INSTALLED OUTDOORS. DOORS SHALL BE PADLOCKABLE, COLOUR WHITE				
	DAYLIGHT SWITCH, 10A, MOUNTED INSIDE EMPTY B10 BULKHEAD LIGHT FITTING				
	CIRCUIT A OF DISTRIBUTION BOARD B				
	16A SINGLE SWITCHED SOCKET OUTLET 300mm AFFL (UNDERSIDE) EXCEPT WHERE OTHERWISE INDICATED, COLOUR WHITE				
	16A DOUBLE SWITCHED SOCKET OUTLET 300mm AFFL (UNDERSIDE) EXCEPT WHERE OTHERWISE INDICATED, COLOUR WHITE				
	LOW VOLTAGE DC TERMINALS WITH 5 A 2.5 KA-MCCB 300mm AFFL (UNDERSIDE) EXCEPT WHERE OTHERWISE INDICATED, COLOUR WHITE				
	30A DOUBLE POLE ISOLATOR FLUSH MOUNTED 1200mm AFFL (UNDERSIDE) AND 50mm Ø OUTLET BOX 200mm AFFL BEHIND STOVE FOR STOVE CONNECTION, COLOUR WHITE				
	25A DOUBLE POLE ISOLATOR WEATHERPROOF IP 55 SURFACE MOUNTED. KNOCKOUT HOLES WHERE CONDUCTORS ENTER AND EXIT THE ISOLATOR MUST BE SEALED WITH SEALANT				
	20A DOUBLE POLE CORD GRIP ISOLATOR FLUSH MOUNTED 1200mm AFFL (UNDERSIDE) EXCEPT WHERE OTHERWISE INDICATED, COLOUR WHITE				
	EARTHING OF ROOF, 25mm Ø PVC CONDUIT CHASED IN WALL FROM 300mm BELOW NGL TO ROOF, 1.5mx16mm Ø COPPER PLATED EARTH ROD INSTALLED 300mm BELOW NGL, 50mm ² INSULATED COPPER CONDUCTOR BOLTED TO ROOF AND CLAMPED TO EARTH ROD.				
	100x100x50mm OUTLET BOX WITH WHITE COVER PLATE				
	100x50x50mm OUTLET BOX FOR PRE-PAYMENT METER				
	100x100x50mm OUTLET BOX WITH WHITE COVER PLATE 300mm AFFL (UNDERSIDE) AND 20mm Ø PVC CONDUIT TO ROOF SPACE FOR TV ANTENNA CABLE				
SCALE DATE DRAWN REVISIONS N. T. S. JUL03 ESAD	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF GOVERNMENT OF NAMIBIA	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
ELECTRICAL LEGEND FOR ALL MODULES - SHEET 1		E	E 01	PROJECT CONSULTANT	
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE		2008		TEL :	

DRAWING SYMBOLS

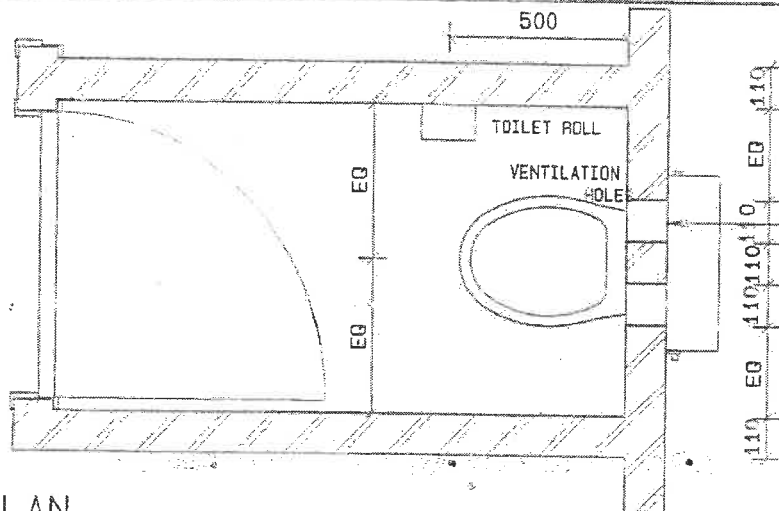
	100 VA, 230V AC TO 12V DC SWITCH MODE RECTIFIER POWER SUPPLY WITH LESS THAN 2.5% REGULATION FAULT AT FULL LOAD, MOUNTED INSIDE PADLOCKABLE VENTILATED SURFACE MOUNTED ENCLOSURE, COLOUR BEIGE
	25mmØ PVC CONDUIT
	32mmØ PVC CONDUIT
	50mmØ PVC SLEEVE
	TELEPHONE DISTRIBUTION BOARD 510x410x110mm FLUSH INSTALLED, COLOUR WHITE
	100x100x50mm OUTLET BOX WITH WHITE COVER PLATE 300mm AFFL (UNDERSIDE) OR AS INDICATED FOR TELEPHONE OUTLET POINT

GENERAL NOTES:

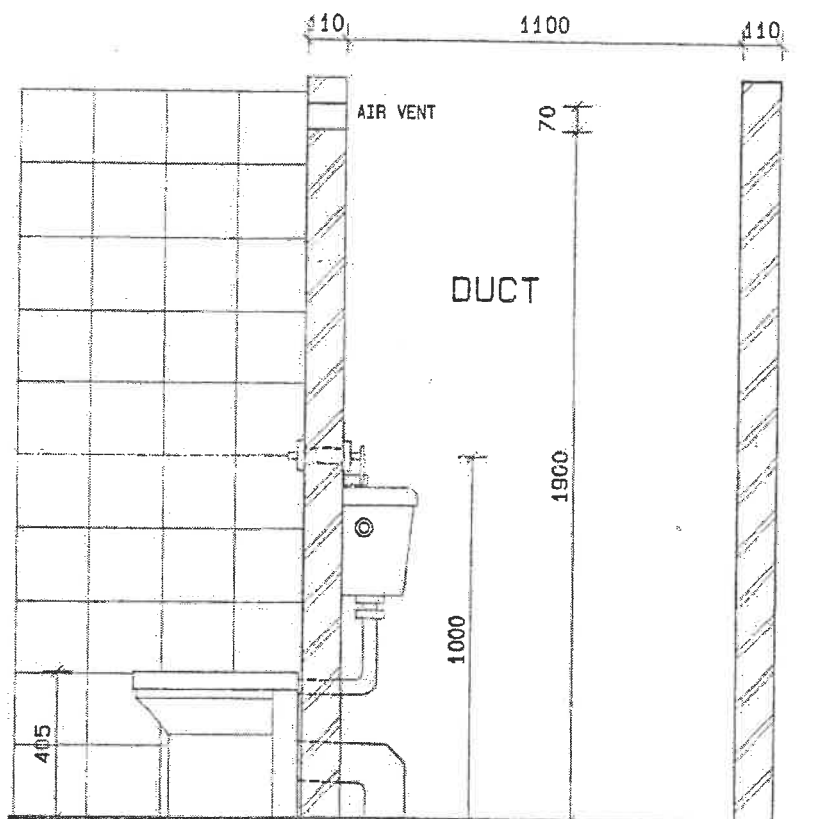
1. THE COMPLETE INSTALLATION SHALL BE FLUSH MOUNTED IN ACCORDANCE WITH THE LATEST "SABS 0142": CODE OF PRACTICE FOR THE WIRING OF PREMISES.
2. ALL CONDUITS IN CEILING VOIDS SHALL BE BLACK MILD STEEL.
3. CONDUITS IN FLOORS TO BE PVC.
4. CONDUIT FROM FLOOR TO ANY OUTLET POINT SHALL BE PVC AND FROM ANY OUTLET POINT TO CEILING SHALL BE BLACK MILD STEEL.
5. NO DRAW BOXES SHALL BE INSTALLED EXCEPT IF APPROVED BY THE ARCHITECT OR CLIENT.
6. ALL SWITCH GEAR TO BE RATED 5 KA.
7. LIGHT FITTINGS TO BE APPROVED BY ARCHITECT OR CLIENT PRIOR TO ORDERING.
8. METAL ROOFS TO BE EARTHED WITH 50mm sq PVC INSULATED COPPER EARTHWIRE IN 25mm CONDUIT BETWEEN CEILING VOID AND 300mm BELOW GROUND LEVEL AND WITH 1.5m LONG COPPER EARTH ELECTRODES AT THE CENTRE OF TWO SHORT SIDES OF THE EXTERNAL BUILDING WALLS. THE JOINT AT THE EARTH SPIKE TO BE PROPERLY PROTECTED AGAINST CORROSION.
9. ALL OUTDOOR LUMINAIRES AND ISOLATORS SHALL BE SEALED WHERE CONDUCTORS ENTER AND EXIT THE ENCLOSURES TO PREVENT THE INGRESS OF INSECTS AND WATER.
10. ALL ITEMS TO BEAR THE SABS MARK IF AN SABS MARK EXISTS FOR THE ITEM CONCERNED.

SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
N. T. S.	JUL03	ESAD			E	E 02	GOVERNMENT OF NAMIBIA
ELECTRICAL LEGEND FOR ALL MODULES - SHEET 2							PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL :
							 MINISTRY OF WORKS TRANSPORT & COMMUNICATION


NOTE:
CERAMIC WALL TILES TO
CEILING HEIGHT SEE
TILE SPECIFICATION
DWG "S642"

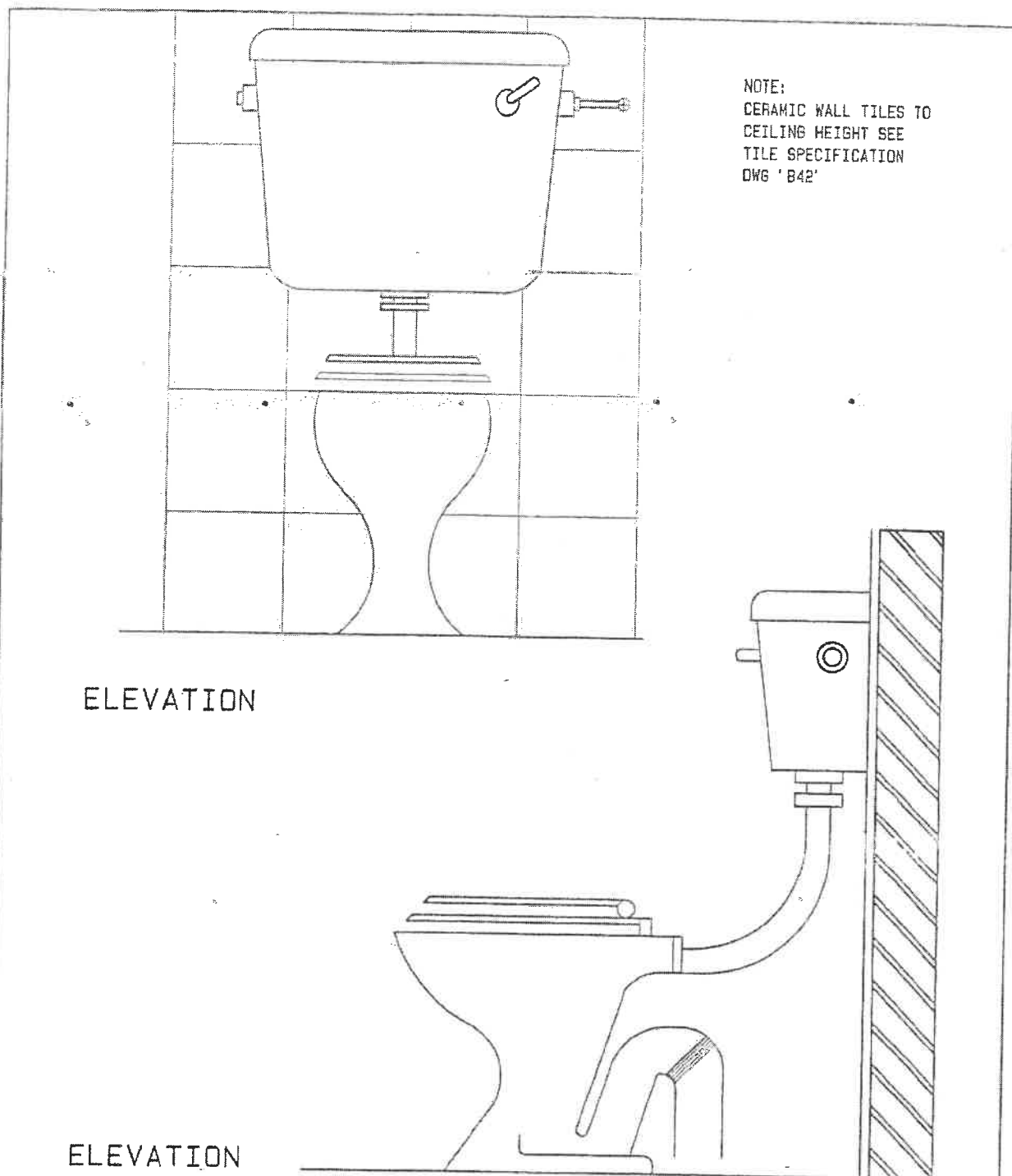


PLAN



SECTION

FIXTURES	'ATLAS PLASTICS' 'ARIES PAN' POLYETHYLENE TOILET BOWL & SHIRES REMOTE FLUSHING CONTROL						
FURNITURE	'SHIRES LYNX' DURANITE LOW LEVEL CISTERN (9L) & COBRA NO 232/350 ANGLE REGULATING VALVE						
WASTE FITTINGS	110mm Ø TRAP AND INSPECTION EYE						
MISCELLANEOUS	HOLDIT THIEFPROOF TOILET ROLL HOLDER						
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:20	SEP03	ESAD					GOVERNMENT OF NAMIBIA
WATERSLOT WC				SANITARY 2008		S6	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE						TEL :	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION

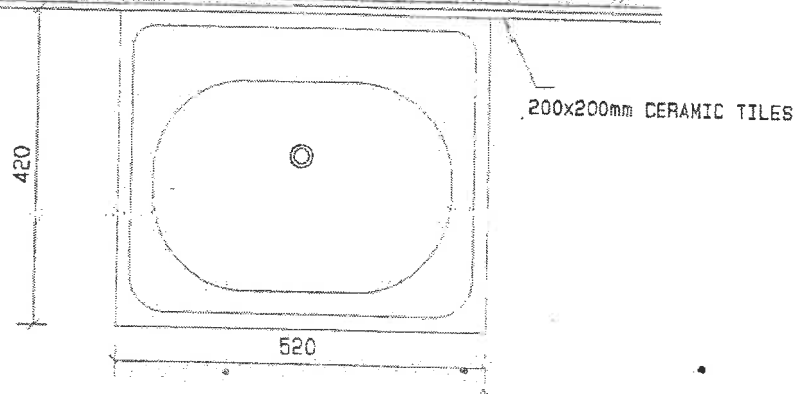


FIXTURES	'BALLAM WATERSLOT' POLYETHYLENE WATER-SAVING TOILET & DURANITE LOW LEVEL CISTERN (8L)						
FURNITURE	ANGLE REGULATING VALVE COBRA NO 232/350						
WASTE FITTINGS	100mm Ø PVC PIPE						
MISCELLANEOUS	HOLDIT THIEFPROOF TOILET ROLL HOLDER						
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:10	SEP03	ESAD					GOVERNMENT OF NAMIBIA
BALLAM WATERSLOT WC					SANITARY 2008	S7	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE							TEL : MINISTRY OF WORKS TRANSPORT & COMMUNICATION

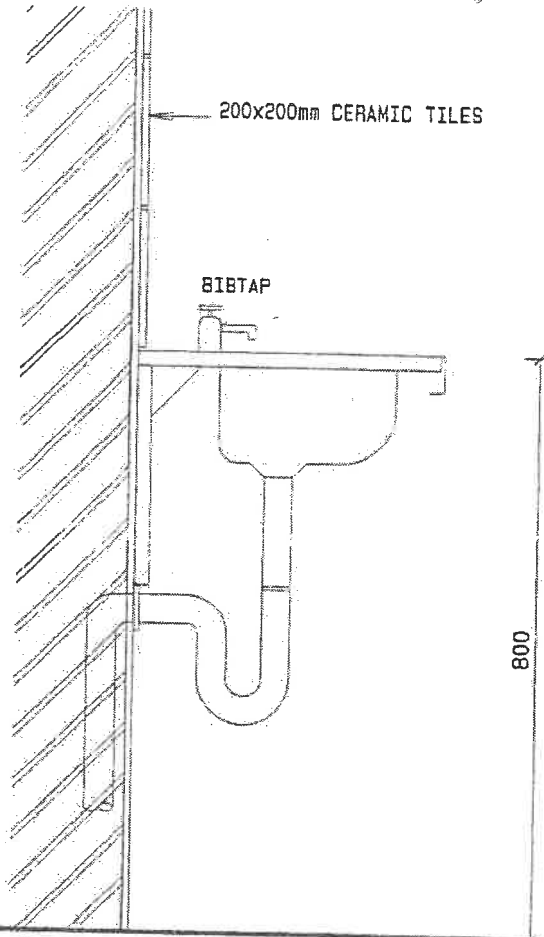



NOTE:
CERAMIC WALL TILES TO
CEILING HEIGHT SEE
TILE SPECIFICATION
DWG 'B42'

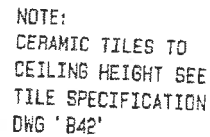
PLAN



SECTION




FIXTURES	PRESSED STAINLESS STEEL WASH HAND BASIN CMP W 800I WITH GUSSET BRACKET						
FURNITURE	'COBRA No. 232/350' 15mm Ø ANGLE REGULATING VALVE, CHROMIUM PLATED, ONE COBRA 111 PILLAR TAP STAR						
WASTE FITTINGS	'COBRA No. 310' 40mm Ø SINK WASTE & 'CASTLE PLAIBLE RUBBER 32x32P REF. YDI.001						
MISCELLANEOUS	PVC WASTEPIPE, 'COBRA' THIEFPROOF PLUG, 3 ROWS TILES ABOVE BASIN						
SCALE	DATE	DRAWN	REVISIONS	PROJECT NUMBER	MODULE	DRAWING NUMBER	PROPERTY OF
1:10	SEP03	ESAD					GOVERNMENT OF NAMIBIA
STAINLESS STEEL WASH HAND BASIN (520x420mm)					SANITARY	58	PROJECT CONSULTANT
USER MINISTRY MINISTRY OF BASIC EDUCATION, SPORT & CULTURE					2008		TEL :
							 MINISTRY OF WORKS, TRANSPORT & COMMUNICATION



SECTION A



SCALE	DATE	DRAWN	REVISIONS	PROJECT	MODULE	DRAWING	PROPERTY OF	 MINISTRY OF WORKS TRANSPORT & COMMUNICATION
1:25	SEP03	ESAD	FEB08	NUMBER		NUMBER	GOVERNMENT OF NAMIBIA	
URINAL AT ABLUTION BLOCK					SANITARY		PROJECT CONSULTANT	
TYPE CMP TU101 - 2 OFF					2008	S16		
USER MINISTRY								
MINISTRY OF BASIC EDUCATION, SPORT & CULTURE								
				TEL :				