

**House Plans**

Dunstan Moncho - Moabi Pekane

09/10/2013 03:56 PM


Afternoon Moabi

Please find the attached house typologies that were used from the year 2007 -2012.  
Size is 36 m2

In Region G the only 40 m2 were built by Province for example the ABT at Vlakfontien Ext 2 (Mino Global who's contract was terminate).

Ninety (90) house were by PHP size 40m2 at Vlakfontien Ext 1

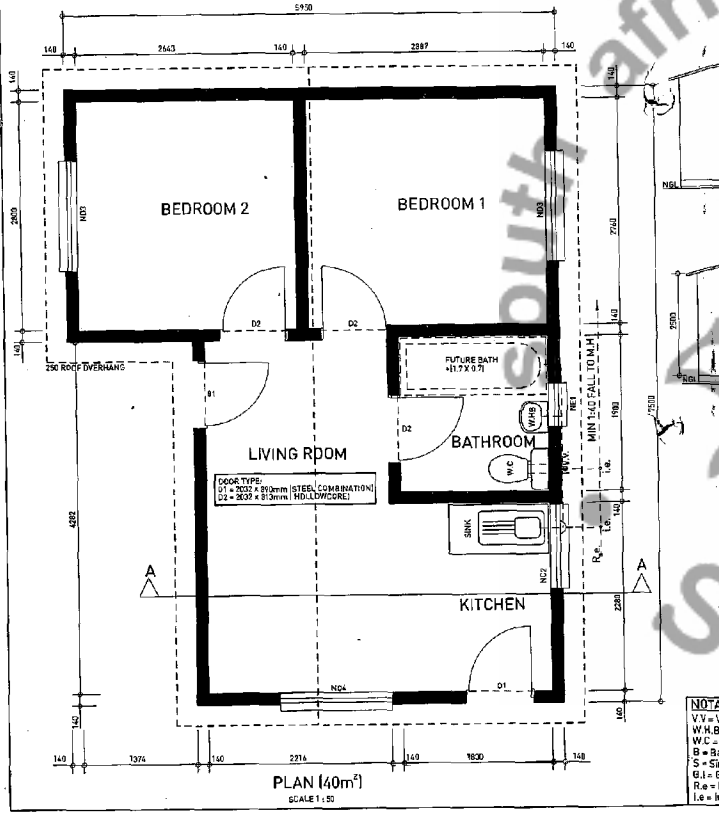
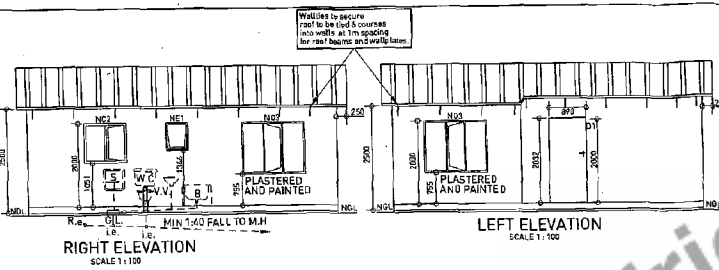
Regards

  
HOUSE TYPE 1.pdf HOUSE TYPE 1.pdf HOUSE TYPE 2.pdf HOUSE TYPE 3.pdf

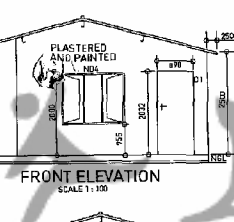
Morebudi Moncho



02.33-11 PM  
2008/04/26  
11. (MST) (AN) (CSB) 11 Typ: Home plan: 01883-02.dwg

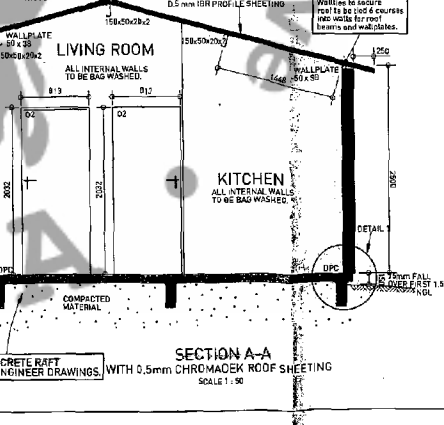
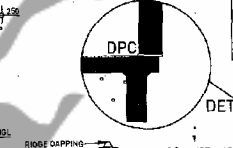


- FINISHES**
- Floors to be power-floated or have a smooth steel-troweled finish.
  - All steel doors, door and window frames including concealed areas of these, to be painted with 1 coat of universal undercoat (oil based) and 2 final coats of enamel paint addition to factory painted red-oxide.
  - Steel Roof Purlins to be painted same as at the gable ends exposed to the elements.
- GLAZING**
- Glazing area not to exceed 0.75 sq.m to be 2mm thick.
  - All glasses more than 0.75 sq.m to be 4mm thick.
  - Bath room glass to be 4mm thick obscured glass.
  - All pully to be treated with hardener and finished off with universal undercoat and 2 coats enamel based gloss paint to final colour and finish.
  - Glass to comply with SABS 0137.



- ROOF**
- Rational roof designed by a competent engineer
- 0.5mm "Full Hard" IBR or corrugated galvanized roof sheeting or department approved roof covering.
  - 150x30x20mm min cold formed tipped channel beams.
  - Roof slope to be min 15 degrees.
  - Corrugated sheets shall be provide, with laps of not less than one and a half corrugations. Rib through sheets shall be lapped one rib at the sides.
  - 4mm galvanized roof wire anchors built in 2 courses deep into walls laid over a 100mm over timber burlins and spaced at 1m intervals along a length of wall plate purlin.
  - Roof to be fixed with approved galvanized roof fixings hook bolts with water-proofed cups/washers. Provide for 3 hook bolts/nuts per purlin per roof sheet (1 at each a 2e lap and one in the middle of the roof sheet). Provide for 5 hook bolts/nuts per wall plate per roof sheet (1 at every rib of the roof sheet).

- GENERAL NOTES**
- All building materials to be SABS approved (stamped).
  - All workmanship to be carried out in accordance with National Building Regulations and Building Standards Act (Act 103 of 1977, as amended) and the NHBRC Home Building Regulations and the NHBRC Home Building Manual.
  - In case of uncertainty National Building Regulations and the NHBRC Home Building Manual should take precedence.
  - This drawing should be read together with Raft Foundation solution: Low-Cost super-structure specification.

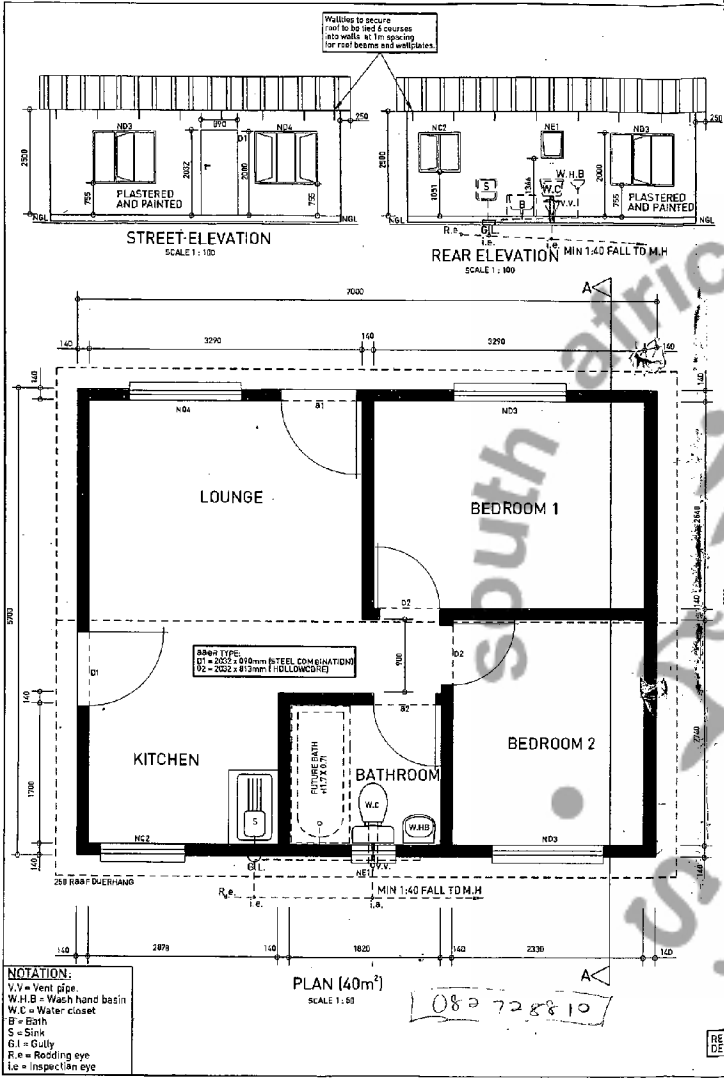


- DOORS AND STEEL WINDOWS**
- Clisco type steel window frames or similar approved.
  - For window sizes and quantities refer to GDH approved drawings 80x141/05 & 030x142/05.
  - Timber hollow core internal doors with two lever lockset on min. 1mm thick Pressed steel door frame.
  - 1mm thick Pressed steel combination doors with 3 lever lock set and door frames to external walls.
  - Window frames other than Clisco to comply with SABS 727.
- PLUMBING**
- Provide a ceramic wash hand basin with tap to bathroom.
  - Cistern to be made of porcelain or alternatively heavy duty plastic with 11 litres water capacity, complete with ball and float valve, flushing mechanism and flush pipe.
  - Water closet pan to be of glazed fire-clay or glazed porcelain, fixed to floor with 1:3 cement mortar mix. Seal to be heavy duty plastic with flap and hinges of similar quality properly fixed to the pan.
  - Provide 1 stainless steel Sink with tap to kitchen area. Sink to be at least 900mm long and securely fixed to wall.
  - Galvanized pipes to be Class B as per SABS 42 and 50V.
- DRAINAGE**
- Provide 1 gully under tap per house.
  - Provide a 100mm diameter vent pipe to drainage system.
  - Provide rodding eye at head of drain with 1.5m of connection point and inspecting it each junction.
  - Provide marked concrete cover at ground level for rodding eye.
  - Drainage pipes to be 1m away from the wall/foundations.
  - Drain pipe invert level to be min. 450mm (min. on invert level of drain.



- NOTES:**
- FOUNDATION**
- Foundation shall be as per the Engineer design and specifications.
  - The site shall be cleared of vegetation trees, grass and roots even stumps.
  - Fill shall contain no organic matter and be inspected by Engineer if it more than 400mm high.
  - Fill shall be compacted in 100mm layers.
- WALLS**
- External walls to be single leaf 140mm thick cement Maxi bricks (70x140x90) or similar approved (7mpa) on 375micron DPC.
  - 2.8mm brick force every 4 course, as well as every course above Windows and doors or as specified by the Engineer.
  - Internal walls to be 140mm maxi brick on flat (or 70x140x90mm high special brick) and duly bonded to external walls every 4 course, with DPC and brick force as above.
  - Internal wall to be built up to under side of roof covering.
  - Cement mortar mix for walls to be of 1:5 proportion by volume 2 bags cement (1 wheelbarrow) - 5 builders wheelbarrows sand.
  - Ceiling Height: A minimum of 2.5m.
  - All External walls to be plastered and painted. Paint to be SABS approved PVA.

#	30/04/09	DRAWING REDRAWN
A	10/03/09	DRAWING REVISED
No.	DATE	REVISION
<b>SCIP ENGINEERING GROUP</b>		
APPROVED		
PROJECT		
<b>DALESIDE</b>		
DESCRIPTION		
<b>TYPICAL DETAILS OF 40 SQM AFFORDABLE HOUSE L SHAPE</b>		
DESIGNED	PB	SCALE 1:100
DRAWN	HR	DATE JULY 2008
CHECKED	PD	CONTRACT NO. ....
DRAWING NO.	<b>883/09-02</b>	
REVISION	A	B



Windows to secure  
raft to be tied & courses  
into walls at 1m spacing  
for raft beams and wallplates.

Roof TYPE:  
R1 = 2002 x 918mm STEEL COMBINATION  
R2 = 2002 x 913mm F HOLLOWCORE

**NOTATION:**  
V.V. = Vent pipe.  
W.H.B. = Wash hand basin  
W.C. = Water closet  
B = Bath  
S = Sink  
G.I. = Gully  
R.E. = Rooding eye  
I.e. = Inspection eye

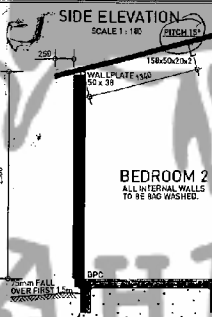
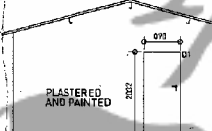
0833 728810

**ROOF**

- Rational roof designed by a competent Engineer
- 0.5mm "Full Hard" IFR or corrugated galvanized roof sheeting or department approved roof covering.
  - 150x50x20mm min cots formed tipped channel beams.
  - Raft slope to be min 15 degrees.
  - Corrugated sheets shall be provide, with laps of not less than one and a half corrugations. Rib through sheets shall be lapped one rib at the side.
  - 4mm galvanized real wire anchors bolted in 6 courses deep into walls tied over a nail over timber purlins and spaced at 1m intervals along a length a wall plate purlin.
  - Raft to be fixed with approved galvanized roof nails or hook bolts with water-proofed cup washers. Provide for 3 hook bolts/nails per purlin per raft sheet (1 at each side lap and one in the middle of the roof sheet). Provide for 5 hook bolts/nails per wall plate per raft sheet (1 at every rib of the roof sheet).

**GENERAL NOTES**

- All building materials to be SABS (yet stamped).
- All workmanship to be carried out in accordance with National Building Regulations and Building Standards Act (Act 103 of 1977, as amended) and the NHBC Home Building Regulations and the NHBC Home Building Manual should take precedence.
- In case of uncertainty National Building Regulations and the NHBC Home Building Manual should take precedence.
- This drawing should be read together with Raft Foundation solutions "Low-Cost super structure specification"



REINFORCED CONCRETE RAFT  
DETAILS AS PER ENGINEER DRAWINGS.

**FINISHES**

- Floors to be power-floated or have a smooth steel-trowelled finish.
- All steel doors, door and window frames including concealed areas of these, to be painted with 1 coat of universal undercoat (oil based) and 2 final coats of enamel paint addition to factory painted red-oxide.
- Steel Roof Purlins to be painted same as of the gable ends exposed to the elements.

**GLAZING**

- Glazing area not to exceed 0.75 sq m to be 3mm thick.
- All glasses more than 0.75 sq m to be 4mm thick.
- Bath room glass to be 4mm thick obscured glass.
- All putty to be treated with hardener and finished off with universal undercoat and 2 coats enamel based gross paint to final colour and finish.
- Glass to comply with SABS 0137.



**DOORS AND STEEL WINDOWS**

- Class 1 type steel window frames or similar approved.
- For window sizes and quantities refer to CDH approved drawings G00H/V/05 & G00H/V/05.
- Timber Mullion core internal doors with two lever lockset an min. 1mm thick Pressed steel door frame.
- 1mm thick Pressed steel combination doors with 2 lever lock set and door frames to external walls.
- Window frames other than Classica to comply with SABS 727.

**PLUMBING**

- Provide a ceramic wash hand basin with tap in bathroom.
- Cistern to be made of porcelain or alternatively heavy duty plastic with 11 litres water capacity, complete with ball and ball valve, flushing mechanism and flush pipe.
- Water Effect pan to be glazed fire-try or glazed porcelain, fixed to floor with 1:3 cement mortar mix. Seat to be heavy duty plastic type with flap and hinges of similar quality properly fixed to the pan.
- Provide 1 stainless steel Sink with tap to kitchen area. Sink to at least 900mm long and securely fixed to wall.
- Galvanized pipes to be Class B as per SABS 12 and 507.

**CRAINAGE**

- Provide 11 gully under tap per house.
- Provide a 110mm diameter vent pipe to drainage system.
- Provide rodding eye at head of drain with 1.5m of connection point and inspection eye at each junction.
- Provide marked concrete cover at ground level for rodding eye.
- Drainage pipes to be 1m away from the wall/foundations.
- Drain pipe invert level to be min. 450mm min. on invert level of drain.

DEPARTMENT OF HOUSING  
DEPARTMENT VAN BRUNSBURG  
LEFAPHA LA TSA MATLO  
UMKHANLULU WEZINDLU

**MIDVAAL**

**NOTES:**  
**FOUNDATION**

- Foundation shall be as per the Engineer design and specifications.
- The site shall be cleared of vegetation trees, grass and raats even stumps.
- Fill shall contain no organic matter and be inspected by Engineer if its more than 400mm high.
- Fill shall be compacted in 100mm layers.

**WALLS**

- External walls to be single leaf 140mm thick cement Maxi bricks (200x140x90) or similar approved (7mpal on 375mm core) DPC.
- 2.8mm brick force every 4 course, as well as every course above windows and doors or as specified by the Engineer.
- Internal walls to be 140mm maxi brick on flat (or 210x90x90mm high special brick) and duly bonded to external walls every 4 course, with DPC and brick force as above.
- Internal wall to be built up to under-side of roof covering.
- Cement mortar mix for walls to be of 1:5 proportion by volume 2 bags cement (1 wheelbarrow) : 5 builders wheelbarrows sand.
- Ceiling Height: A minimum of 2.5m.
- All External walls to be plastered and painted. Paint to be SABS approved PVA.

B	QUALITY	DRAWING REVISED
A	15/03/09	SEMINAR REVISED
NO.	DATE	REVISION

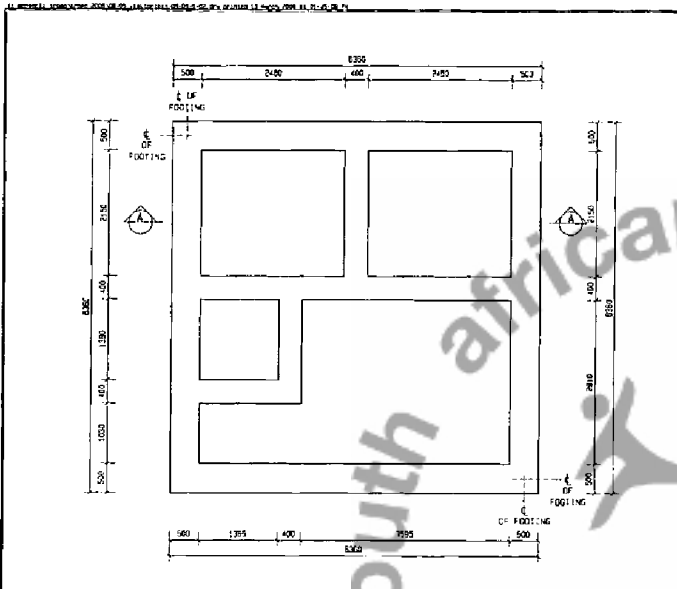
**SCIP**

APPROVED

PROJECT: **DALESIDE**

DESCRIPTION: **TYPICAL DETAILS OF 40 50m AFFORDABLE HOUSE SQUARE SHAPE**

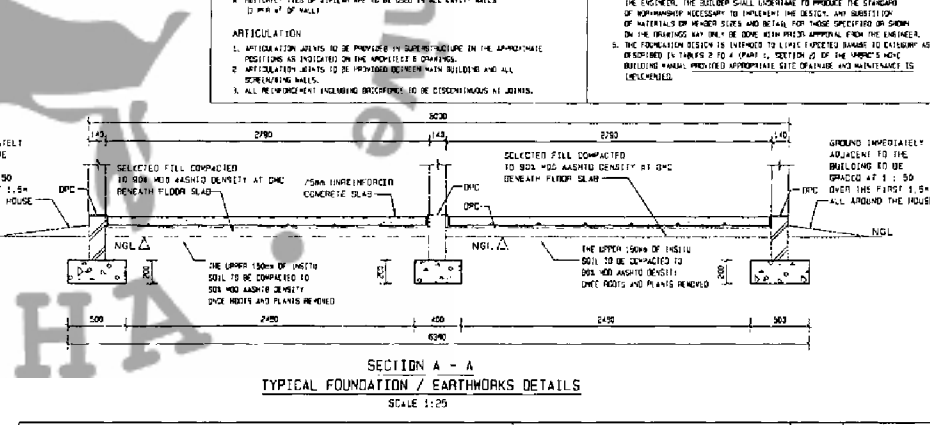
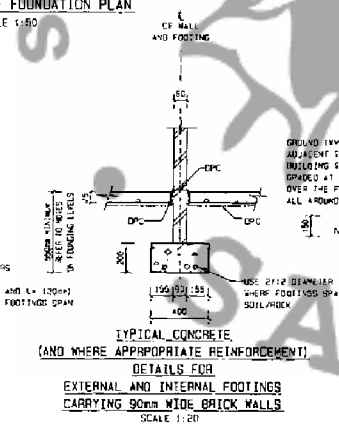
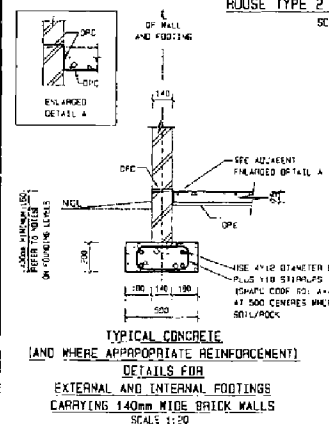
DESIGNED	PD	SCALE	1:100
DRAWN	HH	DATE	MARCH 2005
CHECKED	PB	CONTRACT NO	
DRAWING NO.	883/09-01		
REVISION	A B		



**NOTE:**  
 1/3 OF BRICKWORK TO COINCIDE WITH 1/3 OF FOUNDATION

THE FOUNDATION DESIGN IS APPLICABLE TO ALL THE STANDS WITH SITE CLASSIFICATION S AS SHOWN IN ASSOCIATED CLASSIFICATION STAND TABLE

**NOTE:**  
 ALL FOUNDATION TRENCHES MUST BE INSPECTED BY THE PROJECT GEOTECHNICAL ENGINEER



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**FOUNDING LEVELS**  
 STRIP FOUNDATIONS TO BE PROVIDED BENEATH ALL EXTERNAL AND INTERNAL WALLS. FOUNDATIONS TO BE FOUND AT MINIMUM DEPTH OF 0,9M BELOW ORIGINAL GROUND SURFACE. FOUNDATIONS MUST BE TAKEN THROUGH ANY FILL AND FOUND ON THE UNDERLYING NATURAL SOILS. ANY FILL BELOW SURFACE BEING MUST BE REMOVED AND REPLACED WITH ENGINEERED FILL.

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**NOTES**

**BACKFILL AND EARTHWORKS PREPARATION**

- REMOVE TOPSOIL OVER THE WHOLE AREA OF THE BUILDING FOOTINGS TO A DEPTH OF 150MM. TOPSOIL DEEPER THAN 150MM IN DEPTH SHOULD BE REMOVED COMPLETELY BENEATH THE FLOOR PLAN OF THE HOUSE.
- SOILS IN UNPROVED FILL (WHICH MAY BE QUALITY MATERIAL) UNDERNEATH OF SOIL AND COMPACT TO 90% MOISTURE DENSITY WITHIN 25 OF DMC.
- COMPACTION TO BE APPROVED BY ENGINEER PRIOR TO CASTING OF FOUNDATIONS.
- FOUNDING LEVELS TO BE APPROVED BY ENGINEER PRIOR TO CONCRETING. SETTING OUT MUST BE CALLED FOR AT THE SURVEYING ENGINEER'S DISCRETION.

**FOUNDING MATERIAL**

- ALL FOUNDATIONS TO BE FOUNDED AT LEVELS INDICATED ON THE DRAWINGS. THE FOUNDING MATERIAL MUST BE CHECKED AND APPROVED BY THE ENGINEER BEFORE CONCRETE IS POURED.

**CONCRETE WORKS**

- ALL WORK TO BE IN ACCORDANCE WITH SABS 1900 SERIES SPECIFICATION FOR THE RELEVANT CLASSIFICATION OF WORK.
- CONCRETE TO BE CAST TO BE OF THE FOLLOWING GRADES:  
 FOUNDATIONS CLASS 20/25  
 SLABS CLASS 20/25  
 BRICKWORK CLASS 10/20

**SLABS**

- ALL SLABS TO BE Laid ON 0,2M THICK HYPERGLASS SHEET ON FRAMED SUBGRADE TREATED WITH ANT-PONDING AND WEARSLIP.
- SURFACE TO BE FINISHED WITH MOULDED SLAB.

**BRICK/BLOCKWORK**

- ALL BRICKWORK AND BLOCKWORK TO COMPLY WITH THE RELEVANT SABS STANDARDS.
- ALL BRICKS TO BE TYPE I FIRST CLASS BRICKS AS INDICATED.
- USE 0,2M THICKER BRICKS THROUGHOUT (INDICATED) WHICH REQUIREMENT IN ALL BRICKWORK WITH JOINTS FOR UP AND WALL TIES ON AT THE CORNERS AND WALL JOINTS EVERY FOURTH COURSE GENERALLY PLUS.  
 \* IN TYPICAL JOINTS IMMEDIATELY ABOVE SLAB LEVEL.  
 \* IN THE JOINT IMMEDIATELY BELOW SLAB LEVEL.  
 \* IN TYPICAL JOINTS ABOVE IN RELEVANT LEVELS.  
 THE BRICKWORK IS TO BE CONTINUOUS AROUND THE HOUSE EXCEPT AT CORNERS AND AT THE INTERSECTION ALL JOINTS SHOULD BE REINFORCED AS FOLLOWS:  
 \* FOR ONE IN THE CASE OF 150MM THICK WALLS 150MM DIAMETER BARS WITH TIES TO BE PROVIDED IN EVERY SECOND JOINT WORK.  
 \* 150MM DIAMETER BARS TO BE PROVIDED IN EVERY JOINT WITH THE SPACING OF THE JOINTS BEING 1500MM UNLESS OTHERWISE SPECIFIED.  
 \* NEVER USE STRIP TIES SHOULD BE USED ON EACH FACE OF THE BRICKWORK UNDER THE SUPPORT OF THE ARCHITECTURE PARAPETS.  
 \* THE WALLS MUST BE BRICKWORK AND MUST BE SET OUT BEHIND THE ARCH OPENINGS.  
 \* BRICKWORK TO BE PROVIDED AS INDICATED ON AS INDICATED BY THE ARCHITECTURE ENGINEER.  
 \* HISTORICALLY TIES OF 6MM DIA TO BE USED IN WALL CORNER WALLS 150MM THICK WALL.

**ARTICULATION**

- ARTICULATION JOINTS TO BE PROVIDED IN SUPERSTRUCTURE IN THE APPROPRIATE POSITIONS AS INDICATED ON THE ARCHITECTURE DRAWINGS.
- ARTICULATION JOINTS TO BE PROVIDED BETWEEN MAIN BUILDINGS AND ALL SCREENING WALLS.
- ALL REINFORCEMENT INCLUDING BRICKWORK TO BE DISCONTINUED AT JOINTS.

**WINDMILLS AND FREE STANDING COLUMNS**

- WINDMILL SCREEN WALLS AND FREE STANDING EXTERNAL WALLS TO BE CONSTRUCTED IN A ROOM WITH A ROOM DEEP STRIP FOOTING REINFORCED WITH 2 x 40mm DIAMETER REINFORCING BARS IN BOTTOM OF FOUNDATION AND FOUNDED AT 0,9M BELOW SURFACE.  
 \* TO BE REINFORCED WITH BRICKWORK USING 2 x 40mm DIAMETER BRICK REINFORCEMENT WITH ROOM DEEP STRIP FOOTING REINFORCED WITH 2 x 40mm DIAMETER REINFORCING BARS ALSO TO BE USED.  
 \* IN THE FIRST FLOOR AND JOINTS ABOVE THE FOUNDATION.  
 \* IN THE FIRST AND SECOND FLOOR JOINTS IMMEDIATELY BELOW AND ABOVE WALL OPENINGS.  
 \* ALL REINFORCEMENT MUST BE DETACHED FROM THE MAIN STRUCTURE BY A VERTICAL, WELDING JOINT.  
 \* ALL FREE STANDING BRICK COLUMNS SHOULD NOT BE LESS THAN 200MM x 200MM IN CROSS SECTION. THE COLUMNS SHOULD BE FILLED WITH CONCRETE REINFORCED WITH A REINFORCING BAR FROM DIAMETER PLACED CENTRALLY FOR THE FULL HEIGHT OF THE COLUMN. THE REINFORCING BAR SHOULD BE ANCHORED INTO THE FOUNDATION FOR A MINIMUM DISTANCE 10X DIAMETER OF BARS.  
 \* THE FOUNDATION FOR THE COLUMN SHOULD COMPRISE A 1000MM x 1000MM x 250MM DEEP SPREAD FOUNDATION FOUNDED AT 0,9M BELOW SURFACE.

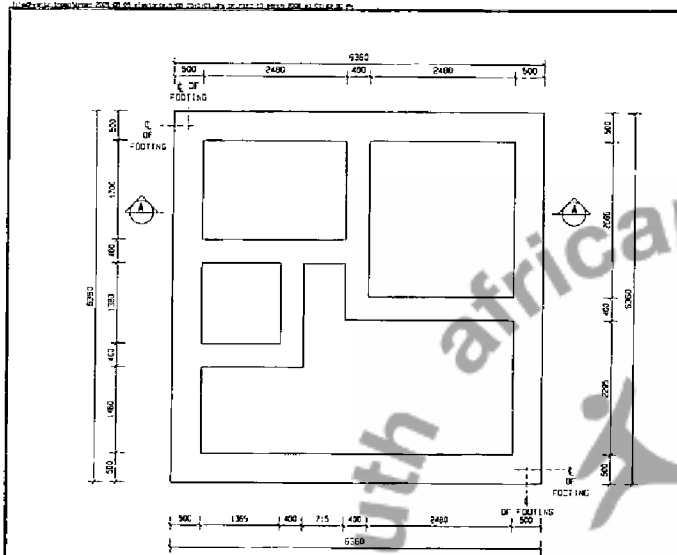
**SERVICES**

- THE FOLLOWING SHALL BE OBSERVED:  
 \* NO PLUMBING AND DRAINAGE SHALL BE PLACED UNDER FLOOR SLABS.  
 \* ALL SERVICE TRENCHES SHALL BE LOCATED AT LEAST 1,5M AWAY FROM STRUCTURES AND SHALL BE BACKFILLED WITH 200MM MATERIAL COMPACTED TO 90% LESS THAN 90% MOISTURE DENSITY.  
 \* WATER AND DRAIN PIPES AND FITTINGS SHALL BE PROVIDED WITH FLEXIBLE JOINTS.  
 \* WATER PIPES (UNDER AND OVER) SHALL BE PROVIDED TO ALLOW FOR MOVEMENT. PIPES UNDER SLABS SHALL BE SLOTTED TO PERMIT RELATIVE MOVEMENT AND NO TIES SHALL BE PROVIDED WITH A FLEXIBLE CONNECTION AT THE JUNCTION WITH THE PIPES.

**GENERAL NOTES**

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL THE SPECIFICATIONS AND DRAWINGS OF THE ARCHITECTURE AND STRUCTURE.
- ALL WORK IS TO COMPLY WITH THE CURRENT NATIONAL HOME BUILDING REGISTRATION CONTROL SYSTEM (NHR) HOME BUILDING MANUAL PARTS 1 TO 10 AND MUST ALSO SATISFY THE REQUIREMENTS AND DETAILS OF THE LOCAL COUNCIL AUTHORITY.
- ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK IS PUT IN HAND. ANY DISCREPANCIES OR DISCREPANCIES ON AS DEVELOPED BY THE ENGINEER PRIOR TO PROCEEDING.
- THE WORK IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE WORKING DRAWINGS AND SPECIFICATIONS AND MODIFIED WHERE NECESSARY TO SUIT THE EXISTING CONDITIONS OF THE SITE. ANY MODIFICATION TO THE WORKING DRAWINGS SHALL REQUIRE THE APPROVAL OF THE ARCHITECTURE ENGINEER. ANY MODIFICATION OF MATERIALS OF WORK SHALL BE APPROVED BY THE ARCHITECTURE ENGINEER PRIOR TO PROCEEDING.
- THE FOUNDATION DESIGN IS INTENDED TO BE USED FOR THE HOUSE AS DESCRIBED IN PARTS 1 TO 4 OF SECTION 2 OF THE HOME'S HOME BUILDING MANUAL PROVIDED APPROPRIATE SITE OF GRADE AND MAINTENANCE IS MAINTAINED.

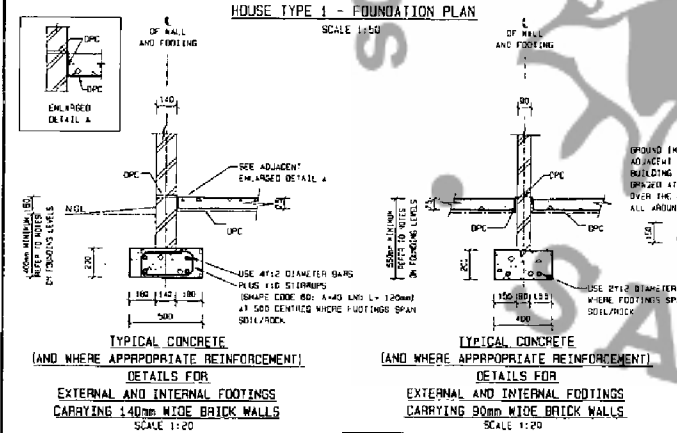
<b>INTRACONSULT/SCHWARTZ TROMP JOINT VENTURE</b>			
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P.O. Box 894 Fouriesburg, 2635 Tel: 27 (0)11 465-1000 Telefax: 27 (0)11 465-0308			
<b>CLIENT</b>		<b>MOBULE RESOURCES</b>	
<b>VLAKFONTEIN HOUSING DEVELOPMENT</b>			
FOUNDATION DETAILS FOR THE HOUSE: NORMAL FOUNDATION CONSTRUCTION HOUSE TYPE 2			
Engineer	BT	DATE	08/05/2008
Drawn	TC	DATE	08/05/2008
Checked	BT	DATE	08/05/2008
DATE	BT	DATE	08/05/2008
SCALE	AS SHOWN	REVISION	
		08/05/2002 0	



**NOTE:**  
 1/ OF BRICKWORK TO CONFORM WITH CODE OF FOUNDATION

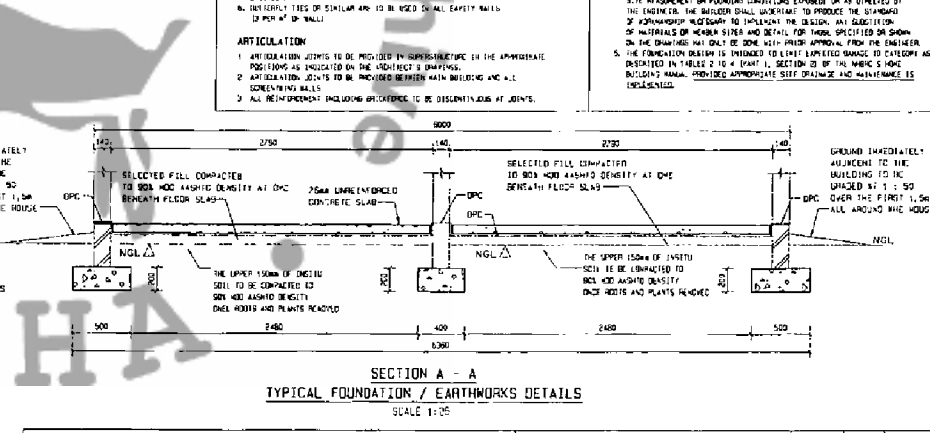
THE FOUNDATION DESIGN IS APPLICABLE TO ALL THE STANDS WITH SITE CLASSIFICATION 9 AS SHOWN IN ASSOCIATED CLASSIFICATION STAND TABLE

**NOTE:**  
 ALL FOUNDATION TRENCHES MUST BE INSPECTED BY THE PROJECT GEOTECHNICAL ENGINEER



**FOUNDING LEVELS**  
 STRIP FOUNDATIONS TO BE PROVIDED BENEATH ALL EXTERNAL AND INTERNAL WALLS. FOUNDATIONS TO BE FOUNDED AT MINIMUM DEPTH OF 0.4m BELOW ORIGINAL GROUND SURFACE. FOUNDATIONS MUST BE TAKEN THROUGH ANY FILL AND FOUNDED IN THE UNDERLYING NATURAL SOILS. ANY FILL BELOW SURFACE BEING MUST BE REMOVED AND REPLACED WITH ENGINEERED FILL.

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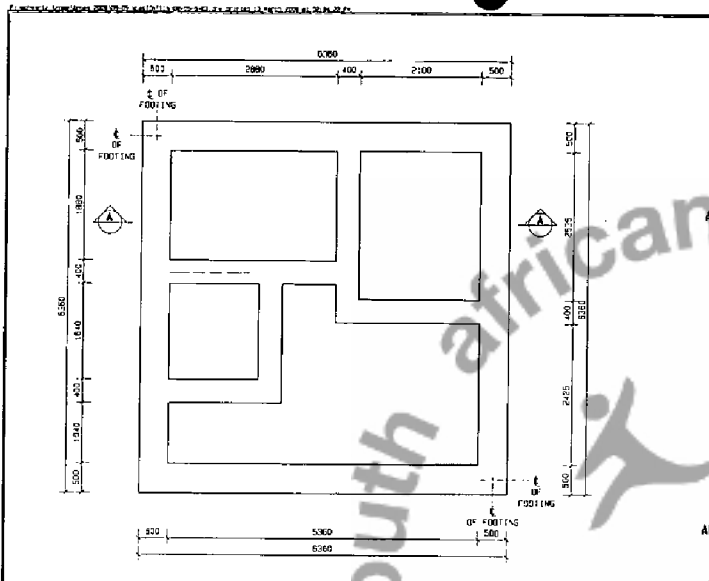


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 Tel: 27 (0)11 208 3747, Fax: 27 (0)11 898 0248

- BACKFILL AND EARTHWORKS PREPARATION**
1. BACKFILL WORK SHOULD COVER THE WHOLE AREA OF THE BUILDING FOOTPRINT TO PREVENT FURTHER SETTLEMENT. BACKFILL SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE UNCOMPACTED DRY WEIGHT OF THE SOIL TO BE USED.
  2. BRICKS IN APPROVED FILL SHOULD BE QUALITY INSITUALLY LAPPED TO A MINIMUM OF 100mm AND EMBEDDED IN THE FILL TO A MINIMUM OF 20mm.
  3. COMPACTED FILL TO BE APPROVED BY ENGINEER PRIOR TO LAYING OF FOUNDATIONS.
  4. FOUNDING LEVELS TO BE APPROVED BY ENGINEER PRIOR TO CONCRETING. BACKFILLING NOT TO BE CALLED FOR BY THE SUPERVISIVE ENGINEER'S DISCRETION.
- FOUNDING MATERIAL**
1. ALL FOUNDATIONS TO BE FOUNDED AT LEVELS INDICATED ON THE DRAWINGS. THE FOUNDED MATERIAL MUST BE COMPACTED AND APPROVED BY THE ENGINEER BEFORE CONCRETE IS LAYED.
- CONCRETE WORKS**
1. ALL WORK TO BE IN ACCORDANCE WITH SABS 2000 SERIES SPECIFICATION FOR THE RELEVANT CLASSIFICATION OF WORK.
  2. CONCRETE TO BE OF THE FOLLOWING GRADES:
    - SLABS: CLASS 20/25
    - BEAMS: CLASS 20/25
    - CLIMBERS: CLASS 20/25
- BRICK/MASONRY**
1. ALL BRICKWORK AND MASONRY TO COMPLY WITH THE RELEVANT SABS STANDARDS.
  2. ALL WALLS ARE TO HAVE FLAT TOPS UNLESS OTHERWISE SPECIFIED.
  3. 216mm DIAMETER BRASS DISHWASH INDICATION BRICK REINFORCEMENT ON ALL BRICKWORKS WITH 200mm OVERLAP AND WELL TIED TO ALL CORNERS AND WALL ENDINGS. FIRST TIGHTY COURSE SHALL HAVE PLUS.
  4. IN TYPICAL WALL JOINTS IMMEDIATELY ABOVE SLAB LEVEL.
  5. IN TYPICAL WALL JOINTS IMMEDIATELY ABOVE BEAM LEVEL.
  6. IN TYPICAL WALL JOINTS IMMEDIATELY ABOVE COLUMN LEVEL.
  7. THE BRICKWORK IS TO BE CONTINUED AROUND THE HOUSE READERS ADVISE DESIGNER.
  8. THE BRICKWORK MUST BE CONSTRUCTED AS FOLLOWS:
    - a. NO CORNER IN THE CASE OF 100mm (BRICK HALF) 150mm DIAMETER BRICK WALLS TO BE PROVIDED IN EVERY TWO JOINTS ALONG.
    - b. 216mm DIAMETER BRICKWORK TO BE PROVIDED IN EVERY TWO JOINTS ABOVE THE FOOTPRINT OF THE MAIN EXTERIOR WALLS UNLESS OTHERWISE SPECIFIED.
    - c. CENTER FROM CENTER TO CENTER TO BE TIED TO EACH FACE OF THE BRICKWORK ABOVE THE FOOTPRINT OF THE MAIN EXTERIOR WALLS UNLESS OTHERWISE SPECIFIED.
  9. BRICKWORK TO BE PROVIDED AS SPECIFIED OR AS DIRECTED BY THE SUPERVISIVE ENGINEER.
  10. UNDESIRABLE TIES OR SIMILAR ARE TO BE USED ON ALL EXPOSED WALLS IF PERMITTED BY WALL.
- ARTICULATION**
1. ARTICULATION JOINTS TO BE PROVIDED IN SUPERSTRUCTURE IN THE APPROPRIATE POSITIONS AS INDICATED ON THE RELEVANT DRAWINGS.
  2. ARTICULATION JOINTS TO BE PROVIDED BETWEEN MAIN WALLS AND ALL CORNER WALLS.
  3. ALL REINFORCEMENT INCLUDING BRICKWORK TO BE DISCONTINUED AT JOINTS.

- NOTES**
- WINDMILLS AND FREE STANDING COLUMNS**
1. WINDMILLS, SCREEN WALLS AND FREE STANDING COLUMNS SHALL BE CONSTRUCTED IN A 200mm WIDE x 200mm DEEP STRIP FOOTING REINFORCED WITH 2 x 12mm DIAMETER REINFORCING BARS IN EACH DIRECTION AND FOUNDED AT 100mm BELOW GROUND SURFACE.
  2. WINDMILLS TO BE REINFORCED WITH BRICKWORK USING 216mm DIAMETER BRICK REINFORCEMENT WITH 200mm OVERLAP AND WELL TIED TO ALL CORNERS AND WALL ENDINGS. FIRST TIGHTY COURSE SHALL HAVE PLUS.
  3. WINDMILLS TO BE REINFORCED WITH BRICKWORK USING 216mm DIAMETER BRICK REINFORCEMENT WITH 200mm OVERLAP AND WELL TIED TO ALL CORNERS AND WALL ENDINGS. FIRST TIGHTY COURSE SHALL HAVE PLUS.
  4. IN THE FIRST FLOOR BRICKWORK ABOVE THE FOUNDATION, IN THE FIRST AND SECOND FLOOR BRICKWORK, BRICKS AND MORTAR BY WALL JOINTS.
  5. ALL WINDMILL WALLS TO BE REINFORCED FOR THE MAIN STRUCTURE BY A TYPICAL REINFORCEMENT.
  6. ALL FREE STANDING BRICK WALLS SHALL NOT BE LESS THAN 200mm x 200mm IN SIZE. THE GUTTER FORMED WITHIN THE COLUMN SHALL BE FILLED WITH CONCRETE REINFORCED WITH A REINFORCING BAR FROM DIAMETER PLACED EXTERNALLY FOR THE FULL HEIGHT OF THE COLUMN. THE REINFORCING BAR SHOULD BE ANCHORED INTO THE FOUNDATION FOR A MINIMUM DISTANCE 200 EQUIVALENT OF 300mm.
  7. THE FOUNDATION FOR THE COLUMN SHOULD COMPOSE OF: 200mm x 200mm x 250mm DEEP SPREAD FOUNDATION FOUNDED AT 100mm BELOW GROUND SURFACE.
- SEWERAGES**
1. THE FOLLOWING SHALL BE OBSERVED:
    - NO PIPING AND DRAINAGE SHALL BE PLACED UNDER FLOOR SLABS.
    - ALL SEWER PIPES SHALL BE LOCATED AT LEAST 1.5m FROM FOUNDATIONS AND SHALL BE PROTECTED WITH IN SETA MATERIALS COMPACTED TO NOT LESS THAN 100mm ABOVE FOUNDATION.
    - SEWER AND DRAIN PIPES AND FITTINGS SHALL BE PROVIDED WITH FLEXIBLE JOINTS.
  2. WATER PIPE ENTRANCES INTO BUILDINGS SHALL BE PROVIDED TO ALLOW FOR MOVEMENT. PIPES THROUGH WALLS SHALL BE SLEEVED TO PERMIT RELATIVE MOVEMENT AND NO FLOW SHALL BE PROVIDED WITH A FLEXIBLE CONNECTION AT THE JUNCTION WITH THE PIPES.
- GENERAL NOTES**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL THE ARCHITECT'S AND ENGINEER'S DRAWINGS AND SCHEDULES.
  2. ALL WORK IS TO COMPLY WITH THE GOVERNMENT NATIONAL HOUSE BUILDING REGULATIONS CODE OF PRACTICE, LATEST EDITION, BUILDING MANUAL PARTS 1 TO 20 AND ALSO TAKE INTO ACCOUNT THE REQUIREMENTS AND STANDARDS OF THE LOCAL COUNCIL AUTHORITY.
  3. ALL LEVELS AND DIMENSIONS TO BE OBTAINED ON SITE BEFORE ANY WORK IS PUT IN HAND. ANY DISCREPANCIES OR OMISSIONS MUST BE REPORTED TO THE ENGINEER PRIOR TO PROCEEDING.
  4. THE WORK IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE WORKING DRAWINGS AND SPECIFICATIONS THAT REFERRED WHERE NECESSARY TO THE SITE SURVEYOR'S DRAWINGS OR DRAWINGS SUBMITTED OR AS DIRECTED BY THE ENGINEER. THE ENGINEER SHALL UNDERTAKE TO PRODUCE THE STANDARD OF WORKMANSHIP NECESSARY TO IMPLEMENT THE DESIGN. ANY SILENCING OF MATERIALS OF WORKMANSHIP AND DETAIL FOR THESE SPECIFIED ON DRAWING. THE ENGINEER SHALL UNDERTAKE TO PRODUCE THE STANDARD OF WORKMANSHIP NECESSARY TO IMPLEMENT THE DESIGN. ANY SILENCING OF MATERIALS OF WORKMANSHIP AND DETAIL FOR THESE SPECIFIED ON DRAWING. THE ENGINEER SHALL UNDERTAKE TO PRODUCE THE STANDARD OF WORKMANSHIP NECESSARY TO IMPLEMENT THE DESIGN. ANY SILENCING OF MATERIALS OF WORKMANSHIP AND DETAIL FOR THESE SPECIFIED ON DRAWING.
  5. THE FOUNDATION DESIGN IS INTENDED TO BE USED FOR THE PURPOSES SPECIFIED IN THESE DRAWINGS. THE ENGINEER SHALL UNDERTAKE TO PRODUCE THE STANDARD OF WORKMANSHIP NECESSARY TO IMPLEMENT THE DESIGN. ANY SILENCING OF MATERIALS OF WORKMANSHIP AND DETAIL FOR THESE SPECIFIED ON DRAWING.

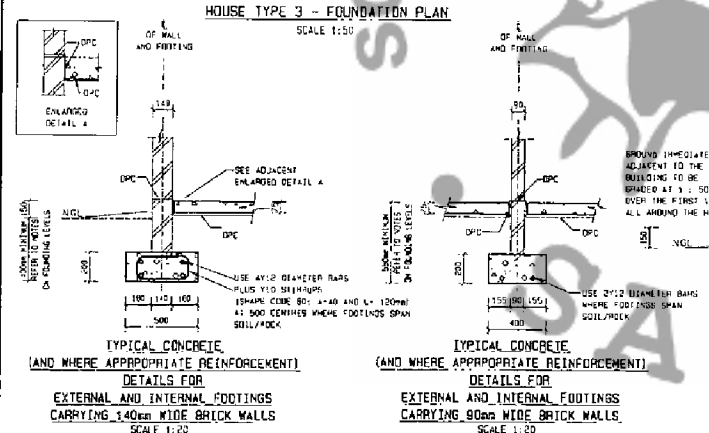
FILE	VLAKFOONTEIN HOUSING DEVELOPMENT
FOUNDATION DETAILS FOR THE HOUSE:	FOUNDATION CONSTRUCTION
HOUSE TYPE I	
CLIENT	MORULE RESOURCES
ENGINEER	By: [Signature] Date: 08/05/01
DRAWN	By: [Signature] Date: 08/05/01
CHECKED	By: [Signature] Date: 08/05/01
DATE	08/05/01
REVISION	0



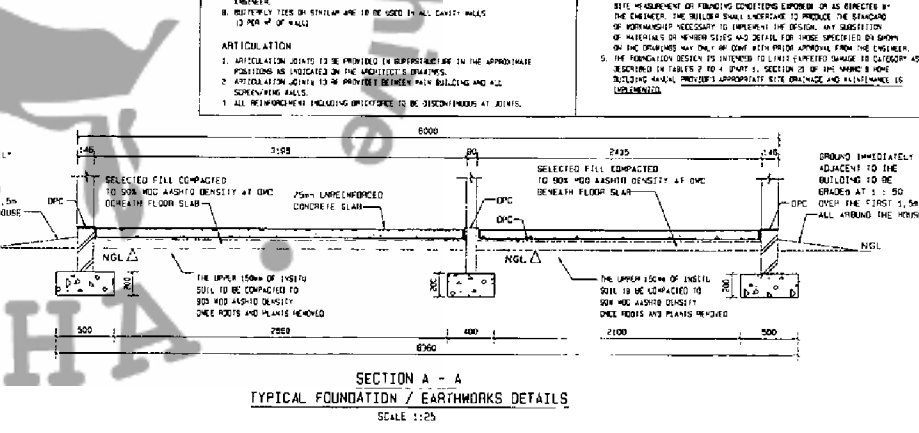
**NOTE:**  
 ± OF BRICKWORK TO COINCIDE WITH ± OF FOUNDATION

THE FOUNDATION DESIGN IS APPLICABLE TO ALL THE STANDS WITH SITE CLASSIFICATION S AS SHOWN IN ASSOCIATED CLASSIFICATION STAND TABLE

**NOTE:**  
 ALL FOUNDATION TRENCHES MUST BE INSPECTED BY THE PROJECT GEOTECHNICAL ENGINEER



**FOUNDATION LEVELS**  
 ± DITIP FOUNDATIONS TO BE PROVIDED BENEATH ALL EXTERNAL AND INTERNAL WALLS. FOUNDATIONS TO BE FOUND AT MINIMUM DEPTH OF 0.4m BELOW ORIGINAL GROUND SURFACE. FOUNDATIONS MUST BE TAKEN THROUGH ANY FILL AND FOUNDED IN THE UNDERLYING NATURAL SOILS. ANY FILL BELOW SURFACE BEDS MUST BE REMOVED AND REPLACED WITH ENGINEERED FILL.



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TITLE		DATE	
VLAKFONTEIN HOUSING DEVELOPMENT		Dr	28 MAR 2002
FOUNDATION DETAILS FOR THE 36th HOUSE		Dr	10 MAR 2002
NORMAL FOUNDATION CONSTRUCTION		Checked	BT MAR 2002
HOUSE TYPE 3		Scale	AS SHOWN
CLIENT		DRAWING NO.	REVISION
MORULE RESOURCES		08/05/03	0

- BACKFILL AND EARTHWORKS PREPARATION**
- REMOVE 100mm TOPSOIL OVER THE WHOLE AREA OF THE BUILDING FOOTPRINT TO EXPOSE THE SUBSOIL. ROOTS GREATER THAN 150mm IN DIAMETER SHOULD BE REMOVED COMPLETELY BELOW THE FLOOR PLAN OF THE HOUSE.
  - USING AN APPROVED FILL TECHNIQUE OF QUALITY MATERIALS TO UNDERPIN OF THE WALL AND COMPACT TO 95% WET WEIGHT DENSITY WITHIN 20% OF THE COMPACTION TO BE APPROVED BY THE ENGINEER PRIOR TO STARTING OF CONSTRUCTION.
  - FOUNDATION LEVELS TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. A FILLING MAY BE CALLED FOR AT THE SUPERVISING ENGINEER'S DISCRETION.
- FOUNDING MATERIAL**
- ALL FOUNDATIONS TO BE FOUNDED AT LEVELS INDICATED ON THE DRAWINGS. THE FOUNDING MATERIAL MUST BE CHECKED AND APPROVED BY THE ENGINEER BEFORE CONCRETE IS POURED.
- CONCRETE WORKS**
- ALL WORK TO BE IN ACCORDANCE WITH SABS 1008 SERIES SPECIFICATION FOR THE RELEVANT CLASSIFICATION OF WORK.
  - CONCRETE TO BE CLASSIFIED TO BE OF THE FOLLOWING RANGES:  
 FOUNDATION WALLS - CLASS 10MPa  
 SOILS - CLASS 20MPa  
 REINFORCING - CLASS 10MPa
- SLABS**
- ALL SLABS TO BE Laid ON 0.20m THICK HYDRAULIC CEMENT OR FILLING SUBGRADE TREATED WITH AN OIL AND WEATHERED.
  - SURFACE TO BE FINISHED WITH WOOD-PLANK.
- BRICK/BLINDWORK**
- ALL BRICKWORK AND REINFORCING TO COMPLY WITH THE RELEVANT SABS STANDARDS.
  - ALL WALLS ARE TO HAVE "FLAT" TYPE PERFORMANCE AS INDICATED.
  - USE 2mm SANDWICH SANDS OTHERWISE INDICATED WHICH REQUIREMENT IN ALL BRICKWORK WITH ROOM OVERLAP AND ALL TIE IN AT THE CORNERS AND WALL JUNCTIONS EVERY FOURTH COURSE GENERALLY PLUS:  
 - IN FIRST TWO BED JOINTS IMMEDIATELY ABOVE SLAB LEVEL.  
 - IN THE BED JOINTS IMMEDIATELY BELOW ROOM LEVEL.  
 - IN FIRST TWO COURSES ABOVE REINFORCING LEVEL.
  - THE BRICKWORK WITH ALL JOINTS SHOULD BE REINFORCED AS FOLLOWS:  
 - THE CORNER JOINTS TO BE REINFORCED WITH 2mm SANDWICH SANDS WHICH REQUIREMENT IN ALL BRICKWORK WITH ROOM OVERLAP AND ALL TIE IN AT THE CORNERS AND WALL JUNCTIONS EVERY FOURTH COURSE GENERALLY PLUS:  
 - IN FIRST TWO BED JOINTS IMMEDIATELY ABOVE SLAB LEVEL.  
 - IN THE BED JOINTS IMMEDIATELY BELOW ROOM LEVEL.  
 - IN FIRST TWO COURSES ABOVE REINFORCING LEVEL.
  - THE BRICKWORK IS TO BE CONTINUOUS ABOVE THE HOUSE EXCEPT ABOVE ROOM LEVELS TO BE PROVIDED IN EVERY BED JOINT ABOVE THE HOUSE.
  - 2mm SANDWICH SANDS TO BE PROVIDED IN EVERY BED JOINT ABOVE THE "SPRINGING" OF THE ARCH EXCEPT WHERE INDICATED OTHERWISE.
  - A POWER WIRE SHALL BE PROVIDED TO BE Laid ON THE FACE OF THE BRICKWORK ABOVE THE "SPRINGING" OF THE ARCH BEFORE BRICKWORKING.
  - THE SAND DRAIN PIPES, DOWNPIPES AND WASH PIPES TO BE Laid BEHIND THE BRICKWORK.
  - DOWNPIPE TO BE PROVIDED AS DETAILED OR AS DIRECTED BY THE SUPERVISING ENGINEER.
  - BRICKWORK TIES OR STAPLES ARE TO BE USED IN ALL CORNER WALLS TO 100% OF WALL.
- ARTICULATION**
- ARTICULATION JOINTS TO BE PROVIDED IN APPROPRIATE PLACES IN THE APPROXIMATE POSITIONS AS INDICATED ON THE ARCHITECT'S DRAWINGS.
  - ARTICULATION JOINTS TO BE PROVIDED BETWEEN MAIN BUILDING AND ALL SUBSEQUENT WALLS.
1. ALL REINFORCEMENT INCLUDING BRICKWORK TO BE DISCONTINUED AT JOINTS.

- NOTES**
- WINDWALLS AND FREE STANDING COLUMNS**
- WINDWALLS, BRICK WALLS AND FREE STANDING EXTERNAL WALLS TO BE CONSTRUCTED IN A ROOM WITH A ROOM DEEP WITH FLOORING REFINISHED WITH A 150mm BLANKET REINFORCING BARS IN WIDTH OF FOUNDATION AND FINISHED AT 100mm BELOW GROUND SURFACE.
  - WINDWALLS TO BE REINFORCED WITH BRICKWORK USING 40mm DIAMETER BRICK REINFORCING AT EACH ROOM OVERLAP WHERE APPLICABLE. EVERY 4TH COURSE GENERALLY. IN ADDITION REINFORCING SHOULD ALSO BE USED:  
 - IN THE FIRST THREE BED JOINTS ABOVE THE FOUNDATION.  
 - IN THE FIRST AND SECOND BED JOINTS IMMEDIATELY BELOW AND ABOVE ANY WALL OPENINGS.
  - ALL REINFORCING WALLS TO BE MANAGED FROM THE MAIN STRUCTURE BY A VERTICAL REINFORCING BARS.
  - ALL FREE STANDING BRICK WALLS SHOULD NOT BE LESS THAN 200mm x 200mm IN SIZE. THE CORNER JOINTS WITHIN THE COLUMN SHOULD BE TIED WITH CORNER REINFORCING WITH A REINFORCING BAR BEING PLACED CENTRALLY FOR THE FULL HEIGHT OF THE COLUMN. THE REINFORCING BAR SHOULD BE ANCHORED INTO THE FOUNDATION FOR A MINIMUM DISTANCE OF EQUIVALENT OF 800mm.
  - THE FOUNDATION FOR THE COLUMN SHOULD COMPRISE A 600mm x 600mm x 250mm DEEP SPREAD FOUNDATION FOUNDED AT 0.4m BELOW GROUND SURFACE.
- SERVICES**
- THE FOLLOWING SHALL BE OBSERVED:  
 - NO PLUMBING AND SERVICES SHALL BE PLACED OVER FLOOR SLABS.  
 - ALL SERVICE TRENCHES SHALL BE LOCATED AT LEAST 150mm FROM STRUCTURES AND SHALL BE SURFICED WITH IN SITE MATERIALS COMPACTED TO NOT LESS THAN 95% WET WEIGHT DENSITY.  
 - SEWER AND DRAIN PIPES AND FITTINGS SHALL BE PROVIDED WITH FLEXIBLE JOINTS.
  - WHERE PIPE PARTICES INTO BUILDINGS SHALL BE PROVIDED TO ALLOW FOR MOVEMENT. PIPES THROUGH WALLS SHALL BE SELECTED TO PERMIT RELATIVE MOVEMENT AND NO PIPES SHALL BE PROVIDED WITH A FLEXIBLE CONNECTION AT THE JUNCTION WITH THE PIPE.
- GENERAL NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL THE ARCHITECT'S AND ENGINEER'S DRAWINGS AND SPECIFICATIONS.
  - ALL WORK IS TO COMPLY WITH THE CURRENT NATIONAL HOME BUILDING REGULATION CODES'S, LAWS, AND REGULATIONS AND STANDARDS OF THE LOCAL COUNCIL AUTHORITY.
  - ALL LEVELS AND DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK IS PUT IN HAND. ANY DISCREPANCIES OR ERRORS MUST BE RESOLVED BY THE ARCHITECT PRIOR TO PROCEEDING.
  - THE WORK IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE NORMATIVE DRAWINGS AND SPECIFICATIONS (AS MODIFIED WHERE NECESSARY TO SUIT SITE REQUIREMENT OR FOUNDED CONDITIONS EXCEPTED OR AS DIRECTED BY THE ENGINEER. THE BUILDING SHALL BE PROVIDED TO PROVIDE THE SHOWN OR WORKMANSHIP NECESSARY TO IMPROVE THE DESIGN. ANY SUBSTITUTION OF MATERIALS OR MEMBER SIZES AND DETAIL FOR THOSE SPECIFIED BY WORKMAN ON THE DRAWINGS MAY ONLY BE DONE WITH PRIOR APPROVAL FROM THE ENGINEER.
  - THE FOUNDATION DESIGN IS INTENDED TO LIMIT WATER DAMAGE TO CATEGORY AS INDICATED IN TABLE 7 OF A SANS 1040-1 SECTION 2 OF THE SANS 1040-1 HOME BUILDING MANUAL. UNDESIRABLE UNDESIRABLE SITE DRAINAGE AND MAINTENANCE IS UNDESIRABLE.