



**NOTES**

- GENERAL**
- THE CONTRACTOR SHALL ENSURE THAT WATERPROOFING MATERIALS ARE NOT DAMAGED DURING BACKFILLING OPERATION AND FINISH OF STEEL REINFORCING MATERIALS DUE TO DAMAGE FOR CONTRACTOR'S COST.
  - ALL STRUCTURAL DRAWINGS TO BE IN ACCORDANCE WITH THE BILL OF MATERIALS, DIMENSIONS & DISCREPANCIES TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
  - ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
  - ALL WORK SHALL BE EXECUTED IN STRICT ACCORDANCE WITH SABS 1200 AND PROJECT SPECIFICATION IN THE CONTRACT DOCUMENTATION.
  - ALL LEVELS TO CORNERED WITH ARCHITECT.
- FOUNDATIONS AND EARTHWORKS**
- ALL EXCAVATION MUST BE INSPECTED AND APPROVED BY THE ENGINEERS BEFORE PLACING OF ANY CONCRETE FOUNDATION, BUILDING, WATERPROOFING OR GEOTEXTILE MEMBRANE.
  - A 30mm THICK BLENDING LAYER OF 1000/15mm SHALL BE CAST UNDER ALL REINFORCED FOUNDATIONS.
  - ALL FOUNDATIONS ARE PLACED SYMMETRICALLY BELOW COLUMNS AND BLOCKWORK UNLESS OTHERWISE SHOWN.
  - NO FOUNDATION SHALL BE CAST ON THE ENGINEERED FILL PORTIONS THAT ARE OVER EXCAVATED BEYOND THE DEPTH REQUIRED BY THE ENGINEER, TO BE FILLED WITH MASS CONCRETE (2000/25mm) AT CONTRACTOR'S RISK.
  - ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH SABS 1200 (B) INCLUDING THE LATEST REVISIONS.
  - ALL EARTHWORKS SHALL BE COMPACTED TO 98% MOD AS PER SABS 1200 (B) AND 95% MOD AS PER SABS 1200 (B) AT CONTRACTOR'S RISK.
  - ALL BACKFILL TO SURFACE BEHS AND BEHIND RETAINING WALLS TO BE COMPACTED TO 98% MOD AS PER SABS 1200 (B).
- BRICKWORK & BLOCKWORK**
- THE MINIMUM CRUSHING STRENGTH OF ALL LOAD BEARING BRICKWORK SHALL BE 14 MPa.
  - THE MINIMUM CRUSHING STRENGTH OF ALL LOAD BEARING BLOCK WORK SHALL BE 14 MPa.
  - THE MINIMUM CRUSHING STRENGTH OF MORTAR SHALL BE AS FOR CLASS II MORTAR IN ACCORDANCE WITH TABLE 1 SABS 048 PART 1: 1980.
  - EVERY FOURTH COURSE UNLESS OTHERWISE SPECIFIED ON DRAWINGS.
  - (I) LOAD BEARING BRICKWORK SHALL BE REINFORCED WITH AN APPROVED BRICKFORCE EVERY SECOND COURSE UNLESS OTHERWISE SPECIFIED ON DRAWINGS.
  - (II) LOAD BEARING BLOCKWORK SHALL BE REINFORCED WITH AN APPROVED BRICKFORCE EVERY SECOND COURSE UNLESS OTHERWISE SPECIFIED ON DRAWINGS.
  - (III) IN ADDITION, BRICK FORCE IS REQUIRED IN EVERY COURSE FOR THE FIRST COURSE ON TOP OF THE FOUNDATION & SLABS AS WELL AS OVER DOOR AND WINDOW OPENINGS.
  - (IV) ALL BRICKWORK OR BLOCKWORK SHOWN ON ENGINEERS DRAWINGS IS LOAD BEARING UNLESS OTHERWISE SPECIFIED.
  - SEE ARCHITECT'S DRAWINGS FOR GENERAL LAYOUT OF BRICKWORK/BLOCKWORK, SETTING OUT OF ALL BRICKWORK TO BE SHOWN WHERE THE WALL SHALL NOT BE SHOWN.
  - ALL BRICK ANCHORS AND STRAPS SHALL BE NOT BE GALVANIZED. ALL WALLS TO BE POOD TIES.
  - ALL BRICKWORK SHALL BE MADE IN ACCORDANCE WITH THE LATEST REVISIONS.
  - NO LOAD BEARING BRICKWORK / BLOCKWORK MAY NOT BE BUILT CLOSER THAN 20mm FROM THE SOFFITS AND SIDES OF BEAM AND SLAB UNLESS OTHERWISE SHOWN.
  - REFER TO ARCHITECT'S DRAWINGS FOR POSITIONS OF EXPANSION JOINTS IN BRICKWORK / BLOCKWORK.
  - WALL TIES FOR CAVITY WALLS TO COMPLY WITH REQUIREMENTS OF SABS 0400 SUBJECT TO THE PROVISION THAT TIES OF THE SAME SIZE WHERE THE WALL SHALL NOT BE SHOWN.
  - ALL BRICKWORK, BLOCKWORK, ANCHOR WALLS AND STRAPS SHALL BE IN ACCORDANCE WITH SABS 0400: 1990 AND SABS 048: 1980 INCLUDING THE LATEST REVISIONS.
  - ALL BRICKWORK SHALL BE FIXED TO CONCRETE & STEEL COLUMNS BY MEANS OF HOOP IRON EVERY FOURTH COURSE.
  - ALL BRICKWORK SHALL BE FIXED TO CONCRETE & STEEL COLUMN BY MEANS OF HOOP IRON EVERY SECOND COURSE.
- CONCRETE:**
- CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS:
- |                          |             |
|--------------------------|-------------|
| BLINDING                 | 100MPa/25mm |
| PILE CAPS & GROUND BEAMS | 300MPa/20mm |
| RETAINING WALLS          | 300MPa/25mm |
| SURFACE BEDS             | 200MPa/25mm |
| COLUMNS                  | 300MPa/25mm |
| SUPPERSED SLABS & BEAM   | 300MPa/25mm |
| BASES                    | 250MPa/25mm |
| STUR COLUMNS             | 200MPa/25mm |
- CURING OF CONCRETE SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH SABS 1200 G.

ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF SABS 1200 G.

CONCRETE FINISH TO BE AS FOLLOWS:

RETAINING WALLS	ROUGH SHUTTER
COLUMNS	SMOOTH SHUTTER
SUPPERSED SLABS & BEAMS	SMOOTH SHUTTER
STUR COLUMNS	SMOOTH SHUTTER

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SUPPERSED SLABS & BEAMS	SMOOTH SHUTTER
STUR COLUMNS	SMOOTH SHUTTER

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SUPPERSED SLABS & BEAMS	SMOOTH SHUTTER
STUR COLUMNS	SMOOTH SHUTTER

**REVISIONS**

RECOMMENDED BY	DATE

APPROVED BY	DATE

DRAWN	DESIGNED
CZ	GM/LC
CHECKED	ENGINEER
DP	DP

CLIENT APP.	DATE
	APRIL 2019

SCALE: AS SHOWN

CLIENT: MSINGA LOCAL MUNICIPALITY



PROJECT MANAGERS AND ENGINEERS

**DLV**

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CONTRACT: MAGOBELA GRAVEL ROAD

TITLE: CROSSING 3 PORTAL CULVERT GENERAL ARRANGEMENTS & SECTIONS

V29-02-009-C3PORT-T-00  
DRAWING NO

REV NO 00