

## 1.0 GENERAL

- 1.1 READ THIS DRAWING IN CONJUNCTION WITH OTHER GENERAL NOTES DRAWINGS. THE NOTES CONTAINED IN THIS SHEET PERTAIN TO ALL DRAWINGS LISTED UNDER CIVIL AND STRUCTURAL WORKS. IF A CONFLICT OCCURS BETWEEN GENERAL SPECIFICATIONS AND ANY OF THESE DRAWINGS, THE INDIVIDUAL DRAWINGS SHALL GOVERN.
- 1.2 CIVIL AND STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS, ARCHITECTURAL AND SERVICES ENGINEER'S DOCUMENTS AND DRAWINGS. ANY DISCREPANCIES IN THE DRAWINGS SHOULD BE REPORTED TO THE EMPLOYER'S PERSONNEL.
- 1.3 FOR SETTING OUT DIMENSIONS REFER TO ARCHITECTURAL DRAWINGS, NO DIMENSIONS ARE TO BE OBTAINED FROM SCALING DRAWINGS.
- 1.4 UNLESS OTHERWISE NOTED ALL LEVELS ARE IN METERS AND ALL DIMENSIONS IN MILLIMETERS. ELEVATIONS AND COORDINATION ARE BASED ON REDUCED LEVEL (R.L.). TEMPORARY BENCH MARK (T.B.M.) SHALL BE ESTABLISHED AND AGREED WITH THE RESIDENT ENGINEER AND THE LOCAL AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.
- 1.5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STABILITY OF THE STRUCTURE UNTIL ITS COMPLETION AND SHALL ENSURE THAT NO PART OF THE STRUCTURE IS OVERSTRESSED DURING ERECTION.
- 1.6 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT BRITISH CODES OF PRACTICE UNLESS MORE ONEROUS REQUIREMENTS ARE GIVEN IN THE PROJECT DRAWINGS/ SPECIFICATIONS.
- 1.7 ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- 1.8 INVERT LEVELS FOR MANHOLE SUMPS TO BE CONFIRMED WITH SERVICES DRAWINGS AND SHALL BE COORDINATED WITH EXISTING SERVICES.
- 1.9 LOCATIONS AND SIZES OF WALL AND SLAB OPENINGS FOR M&E DUCTING TO BE CONFIRMED WITH M&E DRAWINGS.
- 1.10 BASED ON THE DRAWINGS AND SPECIFICATIONS THE CONTRACTOR SHALL PRODUCE STRUCTURAL SHOP DRAWINGS FOR APPROVAL IF REQUESTED.
- 1.11 ALL PROPS AND FORMWORK FOR BEAMS AND SLABS SHALL BE REMOVED BEFORE CONSTRUCTION OF ANY MASONRY WALLS OR OTHER PERMANENT LOADING ON THE SLAB.
- 1.12 ALL NON-LOAD BEARING WALLS SHALL BE KEPT CLEAR OFF THE UNDERSIDE OF SLABS AND BEAMS BY 30mm. THE JOINT SHALL BE FILLED WITH FIBRE BOARD OR COMPRESSIBLE MATERIAL PRESSED METAL COVERING BOTH SIDES OF THE JOINT AND THE METAL COVERING SHALL BE FIXED TO SOFFIT OF THE BEAM OR SLAB AS THE CASE MAY BE.

## FOUNDATION

- 1.15 FOUNDATION HAS BEEN DESIGNED FOR SAFE GROUND PRESSURE OF 150 KN/m<sup>2</sup>
- 1.16 ALL BACKFILL SHOULD BE DONE WITH APPROVED MATERIAL AND SOURCE. ALL BACKFILL SHOULD BE STRUCTURAL FILL, COMPACTED IN LAYERS AS SPECIFIED.
- 1.17 WEAK POCKETS FOUND BELOW THE ASSUMED FOUNDATION LEVELS SHALL BE REMOVED AND REPLACED BY PLAIN CONCRETE.
- 1.18 IN CASE OF EXCAVATIONS BELOW THE ASSUMED LEVEL OF THE FOUNDATION, THE SOIL SHALL BE REPLACED BY PLAIN CONCRETE.
- 1.19 IN CASE GROUND WATER IS PRESENT ABOVE FOUNDATION LEVEL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING THE SITE AND LOWERING THE GROUND WATER TO AT LEAST 70cm BELOW LEVEL OF FOUNDATIONS.
- 1.20 THE CONTRACTOR SHALL MAINTAIN DRY WORKING CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD.
- 1.21 NO BACKFILLING SHALL BE PLACED AGAINST WALLS RETAINING EARTH, UNLESS THE WALLS ACHIEVE SUFFICIENT STRENGTH TO PREVENT MOVEMENT OR STRUCTURAL DAMAGE.

## 1.22 ABBREVIATIONS

APPROX	-APPROXIMATE
B	-BEAM
B.W.	-BOTH WAYS
BOT OR BTM	-BOTTOM
BOB	-BOTTOM OF BASE
BOS	-BOTTOM OF STEEL
BOT	-BOTTOM OF TRUSS
(B1)	-BOTTOM STEEL BOTTOM REINFORCEMENT
(B2)	-BOTTOM STEEL TOP REINFORCEMENT
BLDG	-BUILDING
€	-CENTER LINE
C/C	-CENTER TO CENTER
C	-COLUMN
CO-ORD	-CO-ORDINATE
DPC	-DAMP PROOF COURSE
DET OR DTL	-DETAIL
DIA	-DIAMETER
D/B	-DISTRIBUTION BAR
DWG	-DRAWING
EF	-EACH FACE
EW	-EACH WAY
EL	-ELEVATION (HEIGHT)
ELEV	-ELEVATION (VIEW)
FF	-FAR FACE
FS	-FAR SIDE
FW	-FILLET WELD
FFL	-FINISHED FLOOR LEVEL
FDN OR FND	-FOUNDATION
FB	-FOUNDATION BEAM
GA	-GENERAL ARRANGEMENT
G.I.	-GALVANIZED IRON
IL	-INVERT LEVEL
LG	-LONG OR LENGTH
MAX	-MAXIMUM
MKD	-MARKED
MIN	-MINIMUM
MISC	-MISCELLANEOUS

N/F	-NEAR FACE
N/S	-NEAR SIDE
NOM	-NOMINAL
NTS	-NOT TO SCALE
Nos	-NUMBERS
O/D	-OUTSIDE DIAMETER
PL	-PAVEMENT LEVEL
PROJ	-PROJECTION
QTY	-QUANTITY
RAD	-RADIUS
R.C.	-REINFORCED CONCRETE
REQ'D	-REQUIRED
SW	-SHEAR WALL
STIFF	-STIFFENER
SQ	-SQUARE
SFL	-STRUCTURAL FINISH LEVEL
THK	-THICK (NESS)
TEMP	-TEMPORARY
TOB	-TOP OF BEAM
TOC	-TOP OF COLUMN
TOG	-TOP OF GROUT
TO Platf	-TOP OF PLATFORM
TS	-TOP OF SLAB
TOS	-TOP OF STEEL
TOT	-TOP OF TRUSS
TYP	-TYPICAL
U/S	-UNDERSIDE
UNO	-UNLESS NOTED OTHERWISE
(T1)	-TOP STEEL TOP REINFORCEMENT
(T2)	-TOP STEEL BOTTOM REINFORCEMENT
(UPB)	-UPSTAND BEAM

## 2.0 REINFORCED CONCRETE

- 2.1 THE CONTRACTOR IS REQUIRED TO SUBMIT A DRAWING SHOWING THE INTENDED SEQUENCE OF POURING, LOCATION AND DETAILS OF CONSTRUCTION JOINTS TO MINIMIZE THE POSSIBILITY OF OCCURRENCE OF SHRINKAGE CRACKS.
- 2.2 STRUCTURAL CONCRETE SHALL UNLESS NOTED OTHERWISE HAVE FOLLOWING GRADES TO BS 8110 AND AGGREGATES SHALL BE TO BS 882 WITH A NOMINAL SIZE AS SHOWN.

STRUCTURAL ELEMENT	fcu (N/mm <sup>2</sup> )	AGGREGATE NOMINAL SIZE
FOUNDATION BEAM/SLAB	35	20
COLUMN	35	
R.C. WALL	30	
INSITU BEAMS	30	
SLABS	30	
STIFFENER & LINTEL	30	
MASS CONCRETE	25	
LEAN CONCRETE	15	

- 2.3 CEMENT SHALL BE ORDINARY PORTLAND CEMENT TO BS 12.
- 2.4 50mm BLINDING CONCRETE SHALL BE GRADE 15 TO BS 8110 MARINE AGGREGATES/SAND SHALL NOT BE USED (CHARACTERISTICS STRENGTH fcu=15N/mm<sup>2</sup> AND SHALL BE PLACED BENEATH ALL GROUND BEAMS, RAFT STRUCTURE AND BASES OF TRENCHES BEFORE LAYING OF REINFORCEMENT UNO.
- 2.5 MINIMUM COVER TO OUTERMOST REINFORCEMENT INCLUDING LINKS SHALL BE AS FOLLOWS.

STRUCTURAL ELEMENT	COVER (mm)
FOUNDATION BEAM & SLAB (EARTH FACE)	60
FOUNDATION BEAM & SLAB (INTERNAL FACE)	50
COLUMN	40
BEAM	35
SLAB	25
REINFORCED CONCRETE (R.C.) WALLS	30

- 2.6 REINFORCEMENT STEEL SHALL BE HOT ROLLED STEEL TO BS 4449 AS FOLLOWS:  
MILD STEEL GRADE 250, fy = 250 N/mm<sup>2</sup> DENOTED AS R  
HIGH TENSILE DEFORMED GRADE 460, fy = 460 N/mm<sup>2</sup> DENOTED AS T  
WELDED STEEL MESH TO BS 4483, fy = 485 N/mm<sup>2</sup> DENOTED AS WM
- 2.7 BAR DIAMETERS ARE EXPRESSED IN MILLIMETERS.
- 2.8 BENDING OF REINFORCEMENTS SHALL BE IN ACCORDANCE WITH BS 4466.
- 2.9 REINFORCEMENT IS NOTED AS FOLLOWS:  
10-R12-300(T). THIS DENOTES 10 Nos. 12mm DIAMETER MILD STEEL BARS AT 300mm CENTERS PLACED AT THE TOP.
- 2.10 ALL GROUTING SHALL BE 25mm THICK USING A 1:2 CEMENT/SAND MIXTURE UNLESS NOTED OTHERWISE ON THE DESIGN DRAWINGS.
- 2.11 APPROVED NON-SHRINK GROUT SHALL BE USED. GROUT CONTAINING METAL PARTICLES SHALL NOT BE USED.
- 2.12 ANCHOR BOLTS SHALL BE BOLT GRADE 4.6 IN STEEL MATERIAL OR GRADE S275 TO BS EN 10025 (GRADE 43A TO BS 4360) AND HOT-DIPPED GALVANISED U.N.O. ANCHOR BOLTS SHALL BE PLUMBED AND WITHIN 1mm OF THE POSITIONS AND LEVELS ON THE DESIGN DRAWINGS.
- 2.13 WATERPROOFING SYSTEM AS SPECIFIED IN THE SPECIFICATIONS SHALL BE USED IN STRUCTURAL ELEMENTS WHICH ARE CONTINUOUSLY IN CONTACT WITH SOIL OR WATER, LIFT PIT, ROOF SLAB, R.C. RETAINING WALL AND RAFT ETC.

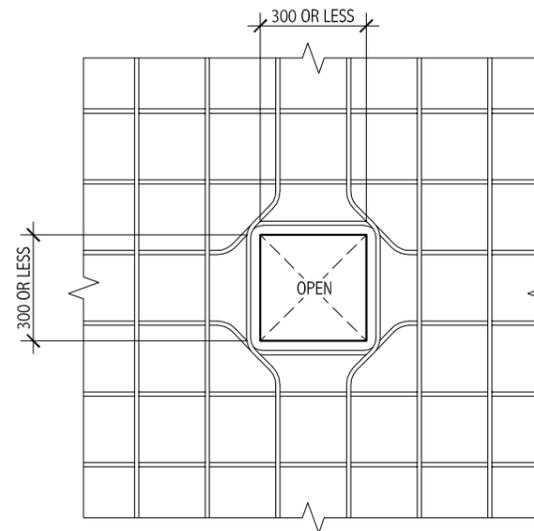
- 2.14 APPROVED SELF LEVELLING FREE FLOW PRECISION GROUTING SHALL BE USED TO LEVEL TOP OF WATER TANK CONCRETE PLINTHS IF NECESSARY.
- 2.15 REINFORCEMENT ANCHORAGE OR LAPPING IS AS FOLLOWS U.N.O.

	BAR GRADE 460
TENSION	560
COMPRESSION	400

Ø IS DIAMETER OF THE SMALLER SIZED LAPPED BAR.

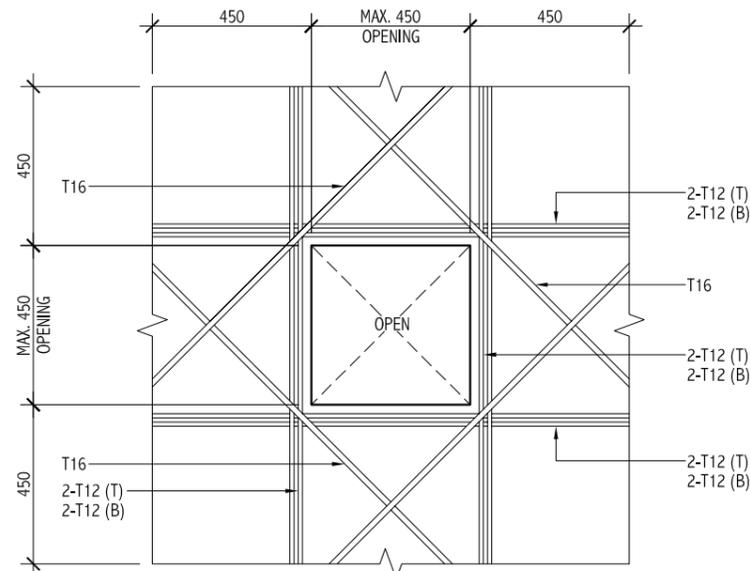
- 2.16 DISTRIBUTION BARS FOR SLABS ARE T10 @ 300 C/C UNO.
- 2.17 TO PROVIDE INTEGRAL SEALING BETWEEN CONCRETE CAST INSITU IN SEPERATE POUR, APPROVED WATERSTOP HAS TO BE INSTALLED FOR ALL CONSTRUCTION JOINTS IN CONTACT WITH WATER AND SOIL.
- 2.18 ONE LAYER OF 0.6mm PLASTIC SHEET ACTING AS DPM SHOULD BE PROVIDED AT AREAS WHERE GROUND FLOOR SLAB ARE IN CONTACT WITH SOIL.
- 2.19 R.C. RETAINING WALLS SHALL HAVE T12 @ 150 C/C VERTICAL BARS AND T12 @ 200 C/C HORIZONTAL BARS UNLESS NOTED OTHERWISE.
- 2.20 R.C. WALLS SHALL HAVE T12 @ 150 C/C VERTICAL BARS AND T10 @ 200 C/C HORIZONTAL BARS UNLESS NOTED OTHERWISE.
- 2.21 NO OPENING HOLES CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE IN THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR APPROVAL.
- 2.22 NO ELECTRICAL CONDUIT AND PIPES ARE TO BE CAST IN COLUMNS OR THROUGH BEAMS WITHOUT PRIOR APPROVAL UNLESS OTHERWISE SHOWN IN THE DRAWINGS.
- 2.23 SPECIAL RULES REGARDING CONCRETING IN HOT WEATHER SHALL BE OBSERVED.

## 3.0 TYPICAL DETAILING



## TYPICAL FLOOR SLAB OPENING DETAIL (LESS THAN 300mm)

SCALE 1:20



## TYPICAL FLOOR SLAB OPENING DETAIL (LESS THAN 450mm)

SCALE 1:20

Revision	Date	Drawn By	Checked By
-	-	-	-

Client :  
**MINISTRY OF ARTS, CULTURE & HERITAGE**

Project Title :

**KALHUVAKARU MOSQUE RELOCATION**

Building Name :

**KALHUVAKARU MOSQUE**

Drawing Title :

**GENERAL NOTES-01**

Scale :

**AS SHOWN**

Discipline :  
**STRUCTURAL**

Stage :  
**SUBMISSION**

Original Drawn By :  
**HOMER**

Date :  
**MARCH 2019**

Checked By :  
**RONNIE**

Design By :  
**HANEEF**

Drawing Number :  
**21-001**

Revision Number :  
**R00**

File Name :  
K3-21-001R00.dwg

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