

VEHICLE MAINTENANCE GROUND FLOOR

DB VM G1				180A TP MAIN BREAKER								70mmSQ 4C)				FED FROM MINISUB 2						
BREAKER CONTROL	10 SP	10 SP	30ELCB	30ELCB	30ELCB	20A SP	20A SP	5A SP	5A SP	5A SP	5A SP	5A SP	30A TP	100A TP	45A TP	SPARE	SPARE	TOTAL				
CIRCUIT N	L1	L2	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15					
LOAD/PHA	LGT	SP	SSO	SSO	SP	HD1	HD2	FCU	EF1	EF/WK-01	EF/WK-01	EF/WK-01	COMPRS	DB-GM-G	DB-GM-F	SPARE	SPARE					
WIRE(mm)	1C/1.5	SPARE	1C/2.5	1C/2.5	SPARE	1C/2.5	1C/2.5	1C/1.5	1C/1.5	1C/1.5	1C/1.5	1C/1.5	4C/4.0	4C/25	4C/6.0	SPARE	SPARE					
Watts	852	SPARE	7360	3680	SPARE	1000	1000	500	195	550	550	550	15000	56,384	25,999	SPARE	SPARE	113,620				
KW	0.852	SPARE	7.36	3.68	SPARE	1	1	0.5	0.195	0.55	0.55	0.55	15	56,384	25,999	SPARE	SPARE	114				
Div KW	0.9	SPARE	5.9	2.9	SPARE	0.8	0.8	0.5	0.2	0.4	0.4	0.4	15.0	50.7	23.4			102				
																		DIV	92.2			
							SINGLE PHASE (RED, YELLOW, BLUE)					EF	Extract Fan									
							THREE PHASE					FCU	Fan Control Unit/Casette									
DB VM G2				150A TP MAIN BREAKER				50mmSQ 4C)				FED FROM DB VM G1										
BREAKER CONTROL	10 SP	10 SP	30ELCB	30ELCB	30ELCB	20A SP	20A SP	5A SP	5A SP	5A SP	5A SP	5A SP	30A TP	45A TP	SPARE	TOTAL						
CIRCUIT N	L1	L2	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13							
LOAD/PHA	LGT	LGT	SSO	SSO	SP	HD1	HD2	FCU	EF1	EF/WK-01	EF/WK-01	EF/WK-01	COMPRS	DB-G2-F2	SPARE							
WIRE(mm)	1C/1.5	SPARE	1C/2.5	1C/2.5	SPARE	1C/2.5	1C/2.5	1C/1.5	1C/1.5	1C/1.5	1C/1.5	1C/1.5	4C/4.0	4C/6.0	SPARE							
Watts	0	SPARE	7360	3680	SPARE	1000	1000	500	195	550	550	550	15000	25,999	SPARE		56,384					
KW	0	SPARE	7.36	3.68	SPARE	1	1	0.5	0.195	0.55	0.55	0.55	15	25,999	SPARE		56					
Div KW	0.0	SPARE	5.9	2.9	SPARE	0.8	0.8	0.5	0.2	0.4	0.4	0.4	15.0	23.4			51					
																		DIV	45.8			
							SINGLE PHASE (RED, YELLOW, BLUE)					EF	Extract Fan									
							THREE PHASE					FCU	Fan Control Unit/Casette									

KITCHEN

[illegible]

KITCHEN A/C

[illegible]

WAREHOUSE 1,2,3 GROUND FLOOR

DB W-H GROUND1,2,3				75A TP			16mmSQ 4C)				FED FROM FP4			
BREAKER CONTROL	10 SP			30ELCB	30ELCB	30ELCB	20A SP	20A SP	20A SP	20A SP	20A SP	4S ATP		TOTAL
CIRCUIT N	L1	L2	P1	P2	P3	P4	P5	P6	P7	P8				
LOAD/PH/L	LGT	SPARE	SSO	SSO	SSO	HD1	HD2	HIGHWALL	HIGHWALL	HIGHWALL	DB W-H FF-FLOOR	SPARE		
WIRE(mm	1C/1.5	SPARE	1C/2.5	1C/2.5	1C/2.5	1C/2.5	1C/2.5	1C/1.5	1C/1.5	1C/1.5	4C/6.0	SPARE		
Watts	686	SPARE	3679	3680	3680	1000	1000	2500	2500	2500	24,620	SPARE	45,845	
KW	0.686	SPARE	3.679	3.68	3.68	1	1	2.5	2.5	2.5	25	SPARE	46	
Div KW	0.7	SPARE	2.9	2.9	2.9	0.8	0.8	2.0	2.0	2.0	20.5	SPARE	38	
								DIV LOAD				34		
				SINGLE PHASE (RED,YELLOW,BLUE)								EF	Extract Fan	
				THREE PHASE								FCU	Fan Control Unit/Cassette	

TYPICAL WAREHOUSE MEZZANINE (4. NO)

DB W-H GROUND 4				75A TP			25mmSQ 4C)			FED FROM FP4				
BREAKER	10SP	11SP	30ELCB	30ELCB	30ELCB	20A SP	20A SP	5A SP	5A SP	5A SP	45ATP		TOTAL	
CONTROL														
CIRCUIT N	L1	L2	P1	P2	P3	P4	P5	P6	P7	P8				
LOAD/PHA	LGT	SPARE	SSO	SSO	SSO	HD1	HD2	HIGHWALL	HIGHWALL	HIGHWALL	DB W-H FT	SPARE		
WIRE(mm	1C/1.5	SPARE	1C/2.5	1C/2.5	1C/2.5	1C/2.5	1C/2.5	1C/1.5	1C/1.5	1C/1.5	4C/6.0	SPARE		
Watts	0	SPARE	3679	3680	3680	1000	1000	2500	2500	2500	24,620	SPARE	45,159	
Kv	0	SPARE	3.679	3.68	3.68	1	1	2.5	2.5	2.5	25	SPARE	45	
DIV Kw	0.0	SPARE	2.9	2.9	2.9	0.8	0.8	2.0	2.0	2.0	20	SPARE	37	

VEHICLE MAINTENANCE TYPICAL

[illegible]

NOTES

1. ALL CABLES ENTIRELY TO EQUIPMENT LOCATED OUTDOORS AND IN WASH DOWN AREAS SHALL BE FROM BELOW.
2. SUFFICIENT CABLE STAKE LENGTHS SHALL BE PROVIDED FOR EQUIPMENT WHICH NEEDS FUTURE ADJUSTMENTS.
3. SINGLE CORE CABLES FOR PHASES A-C SHALL BE RUN IN TREFOL FORMATION.
4. THE MINIMUM BENDING RADII OF CABLES SPECIFIED BY THE MANUFACTURER SHALL BE MAINTAINED, AND CONCRETE SLABS SHALL BE USED TO SEPARATE THE SERVICES SEPARATION FROM COMMUNICATION CABLES SHALL BE 200mm MINIMUM.
5. ON CROSSING PIPE SERVICES A MINIMUM DISTANCE OF 150mm SEPARATION SHALL BE MAINTAINED.
6. ALL THE DIMENSIONS SHOWN ON DRAWINGS ARE METRIC (mm).
7. THE MEET OF THESE DRAWINGS IS TO GUIDE THE CONTRACTOR IN THE SCHEME OF WORKS. CONTRACTOR SHALL MAKE PROPER SHOP DRAWINGS FOR THE APPROVAL OF THE ENGINEER AND SUBMIT IT BEFORE THE WORK COMMENCES AT SITE.
8. ELECTRICAL WORKS SHALL BE EXECUTED IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATION.
9. THE ROUTING OF CABLES SHOWN ON THE DRAWINGS IS FOR GUIDANCE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK AT THE SITE THE DISTANCE, THE RUNS OF ALL CABLES IN RELATION TO STRUCTURAL RESTRICTION SO THAT ALL MATERIALS SUCH AS CONCRETE, REINFORCEMENT ACCESSORIES ARE INCLUDED IN THE PRICE. ACTUAL LOCATIONS OF ALL OUTLETS MUST BE VERIFIED BY THE SITE ENGINEER BEFORE INSTALLATION COMMENCES.
10. ALL ELECTRICAL EQUIPMENT SHALL BE SUPPLIED BY AN APPROVED MANUFACTURER AND THE CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT ARE SUITABLE FOR THE PURPOSE FOR WHICH THEY ARE USED AND THAT IT IS FUNCTIONING PROPERLY AFTER INSTALLATION.

LIGHTING AND SMALL POWER NOTES:-

1. MOUNTING HEIGHTS SHALL BE GENERALLY AS INDICATED BELOW OR AS INSTRUCTED BY THE ENGINEER WITHOUT ANY COST ADJUSTMENT TO THE CONTRACTOR.
 - LIGHTING SWITCH = 1500mm AFFL
 - GENERAL SOCKET OUTLET = 450mm AFFL
 - SOCKET OUTLET AT KITCHEN = 1100mm AFFL
 - HAND DRYERS = AS MENTIONED IN INTERIOR DESIGN DRAWINGS
- ISOLATOR SWITCH = ADJACENT TO EQUIPMENT
2. WIRE SIZES SHALL BE STRICTLY FOLLOWED ACCORDING TO THE INDICATED SIZES SHOWN IN THE PANEL DETAILS. WIRES SHALL BE COLOR CODED AS SPECIFIED.
3. WIRING FOR SMALL POWER AND LOW CURRENT CIRCUITS SHALL BE TOTALLY SEGREGATED THIS IS INCLUDING PANELS, RACEWAYS, WIRE BOXES, SWITCHES AND CABLES.
4. ALL ISOLATORS DESIGNATED FOR ELECTRIC APPLIANCES OR EQUIPMENT SHALL BE LABELLED WITH THE EQUIPMENT REFERENCE.
5. CONDUIT INSTALLATIONS SHALL AS PER SPECS.
6. REFER TO ARCHITECTURAL REFLECTED CEILING DRAWINGS AND FINISHING TABLES FOR EXACT ARRANGEMENT OF LUMINAIRE.
7. CORD (FLEXIBLE) OUTLET SHALL BE INSTALLED FOR ANY REMOTE.
8. WIRING FOR LIGHTING CIRCUITS ARE FOR GUIDANCE ONLY THE CONTRACTOR MAY CHOOSE THE MOST CONVENIENT ROUTE. MAKE SURE THE PROJECT SPECIFICATIONS AND SHOW IT IN HIS SHOP DRAWINGS.
9. THE CONTRACTOR SHALL SUBMIT PANEL BOARD DETAILS ALONG WITH THE REQUIRED SUBMITTALS AND SHOP DRAWINGS SHOWING:
 - CIRCUIT REFERENCE SHOWN ON LAYOUTS
 - ACTUAL LOAD OF EACH CIRCUIT PER PHASE IN VA
 - SUMMATION OF EACH PHASE LOAD ASSURING 3 PHASE LOAD
 - AREARS SERVED BY EACH CIRCUIT
 - RATING OF ALL COMPONENTS
 - WIRE SIZE AND No. OF WIRES
 - SCHEMATIC DIAGRAMS FOR CONTROL CIRCUITS IF ANY ENCLOSURE AND BUSBAR SPECIFICATIONS
10. CONVENIENCE SOCKET OUTLETS FED FROM EMERGENCY PANELS OR UPS SHALL BE SELECTED WITH DIFFERENT COLOR COVER PLATES OR

TENDER

STAGE : TENDER			
	INITIAL	SIGN	DATE
G4 Project Engineer			
Project Manager			
Project Architect			
Client			

REV	DESCRIPTION	DATE	INITIAL



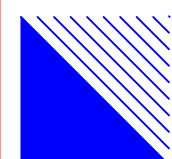
SOUTHERN AFRICAN
DEVELOPMENT COMMUNITY

PROJECT

SADC STANDBY FORCE REGIONAL
LOGISTICS DEPOT, AT RASESA,
GABORONE, BOTSWANA,

DRAWING TITLE

DB ONE-LINE
DRAWING-MILITARY POLICE,
HEALTH POST, VEHICLE
MAINTENANCE



G4 CONSULTING ENGINEERS
PRIVATE BAG BR 297
GABORONE
BOTSWANA

TEL. 3972510 FAX 3972504

DESIGNED : HG	JOB NO. : g4448
DRAWN : HG	SCALE : 1:100
APPROVED :	DATE : JUN 2021

DRAWING NO.	REV
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