



Orientation	
	Size A3
Scale 1 : 100	
XLBrng 62.00 deg.	
Date 28/07/2009	/Mg
Ln/XL 0.00 deg.	
Ln/AL 0.00 deg.	

Load Diagrams		Load	Strength
Bending Moment	General	---	---
----- (kNm) 120	Seismic	---	---
Shear Force	General	---	---
----- (kN) 350	Seismic	---	---
Soil Pressure	30 Shear	---	---
----- (kPa) 80	Bearing	---	---

Notes	
1) Structure SI's conform to the required design standard	
2)	
3)	
4)	

#	Target	Qty	Reference	Status	Description	Parameters	Inventory
1	P1	1	Line Pole	Erect New	Concrete(PS): Rctr(Dish) 11.0m	L 1.1(m) : GLD 240 x 430(mm) : #OD 4/18(mm)	
2	P2	1	Line Pole	Erect New	Concrete(PS): Rctr(Dish) 11.0m	L 1.1(m) : GLD 240 x 430(mm) : #OD 4/18(mm)	
3	M1	2	Cross Arm	Erect New	Wood(HHD): Rctr(Solid) HV Arm	L 1.8(m) : MXS 75 x 100(mm) : Shaved/Natural	
4	M2	1	Platform(Gen)	Erect New	Steel(GHS): Rctr(Solid) ABS Frame	L 0.8(m) : MXS 800 x 75(mm)	
5	M3	2	Cross Arm	Erect New	Wood(HHD): Rctr(Solid) DDO Fuse Arm	L 1.3(m) : GLD 75 x 100(mm) : Shaved/Natural	
6	M4	2	Cross Arm	Erect New	Wood(HHD): Rctr(Solid) DDO Fuse Arm	L 1.8(m) : GLD 75 x 100(mm) : Shaved/Natural	
7	M5	2	Platform(Gen)	Erect New	Steel(GHS): Channel(Regulator Support Frame	L 2(m) : MXS 80 x 150(mm)	
8	M6	2	Cross Arm	Erect New	Wood(HHD): Rctr(Solid) Regulator Support Arms	L 0.85(m) : GLD 90 x 90(mm) : Shaved/Natural	
9	M7	2	Cross Arm	Erect New	Wood(HHD): Rctr(Solid) Regulator Support Arms	L 0.85(m) : GLD 90 x 90(mm) : Shaved/Natural	
10	M8	2	Platform(Gen)	Erect New	Steel(GHS): Channel(Regulator Support Frame	L 1.4(m) : MXS 80 x 150(mm)	
11	M9	2	Platform(Gen)	Erect New	Steel(GHS): Channel(Regulator Support Frame	L 1.4(m) : MXS 80 x 150(mm)	
12	M10	1	Cross Arm	Erect New	Wood(HHD): Rctr(Solid) Jumper Arm	L 1.8(m) : MXS 75 x 100(mm) : Shaved/Natural	
13	M11	1	Cross Arm	Erect New	Wood(HHD): Rctr(Solid) Comm Cable Arm	L 1.8(m) : MXS 75 x 75(mm) : Shaved/Natural	
14	F1	1	Backfill	Erect New	Composite: Round(Solid) Compacted Gap40	L 1.8(m) : GLD 1200 x 1200(mm)	
15	F2	1	Pole Collar	Erect New	Concrete(RI): Round(Hw) Double Donut	L 0.3(m) : MSX 540 x 540(mm) : #OD 4/18(mm)	
16	A1	1	Transformer(Power)	Erect New	3Ph 11kV/220kVA : # Voltage Regulator (Star-Delta/0 deg)	Ref : 0	
17	A2	1	Transformer(Power)	Erect New	3Ph 11kV/220kVA : # Voltage Regulator (Delta-Star/0 deg)	Ref : 0	
18	N1	3	Insulator (Apps)	Erect New	Composite: Strain(PDI) (Standard) HV Insulator	Line Voltage / Unit : 11 kV	
19	N2	3	Insulator (Apps)	Erect New	Composite: Strain(PDI) (Standard) HV Insulator	Line Voltage / Unit : 11 kV	
20	N3	3	Insulator (Line)	Erect New	Porcelain: Bushing (Standard) Capacitor Insulator	Line Voltage / Unit : 11 kV	
21	N4	3	Insulator (Line)	Erect New	Porcelain: Bushing (Standard) Capacitor Insulator	Line Voltage / Unit : 11 kV	
22	N5	3	Insulator (Apps)	Erect New	Porcelain: Bushing (Standard) ABS Insulator	Line Voltage / Unit : 11 kV	
23	N6	3	Insulator (Apps)	Erect New	Porcelain: Bushing (Standard) HV Drop-out fuses	Line Voltage / Unit : 11 kV	
24	N7	2	Insulator (Apps)	Erect New	Porcelain: Bushing (Standard) HV Drop-out fuses	Line Voltage / Unit : 11 kV	
25	N8	3	Insulator (Apps)	Erect New	Porcelain: Bushing (Standard) ABS Insulator	Line Voltage / Unit : 11 kV	
26	N9	3	Insulator (Apps)	Erect New	Porcelain: Bushing (Standard) ABS Insulator	Line Voltage / Unit : 11 kV	
27	N10	3	Insulator (Line)	Erect New	Porcelain: Post (Standard) Jumpers	Line Voltage / Unit : 11 kV	
28	C1	3	Conductor	As-Built (37 Yrs)	ACSR/Fernet(63.00 x 13.00) Bare 11kV 3Ph	Hr(%C8S) 15 (0 Jnts) : L(m) 30 : B(deg) 332 : S(deg) 0	
29	C2	3	Conductor	As-Built (37 Yrs)	ACSR/Fernet(63.00 x 13.00) Bare 11kV 3Ph	Hr(%C8S) 8 (0 Jnts) : L(m) 52 : B(deg) 152 : S(deg) 0	
30	C3	1	Cable	Erect New	Galv(Stn)MPB302 24/4 Ribboned 4-Duct Figt(4/15) Bare 0.1kV Control	Hr(%C8S) 8 (0 Jnts) : L(m) 52 : B(deg) 152 : S(deg) 0	

Tests	#	Target	Pty	Instruction	Comments	Requirements
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Exposure			
Ref Site/Node	Prx	Wind (Pa)	1,200.000
Distance (m)	0.00	Snow (Pa)	0.000
Bearing (deg)	0.00	Ice mm	LC Mx
Terrain	Bush/Urban	T-Amb (deg C)	15.00
Topography	Flat/Undubting	T-High	T-Low 50.00
Class	Slope B1	0.00	Soil Class Firm
Site Access	Good Land Vehicle Access (No Special Restrictions)		

Performance		Load (SLS)		S.I (SLS)	
Classification	I	General	XLine ↑	4.17	2.10
Nom. Hght (m)	9.20	ALine →		5.89	3.66
Seismic Ftr (z)	0.60	Seismic	XLine ↑	3.59	2.40
Ductility Rr (u)	1.00	ALine →		3.23	5.85
VPeriod XL (s)	3.15	Foundation	Lateral →	43.79	2.06
VPeriod AL (s)	3.28	Bearing	⊗	188.96	1.19
Axial Load (kN)	74.03	Calc Model Rf	LSE V2010 SLS/SICalc		



Inspected		17/01/2012		Zone	
Modelled		17/01/2012		Line Northern	
Reviewed				Site 12345	
Power Company Limited		Site Address		Ntwk# 1111	
New Zealand		Smith Road		Node# 1	

Structure Data Sheet

(11kV Voltage Regulator & SF6 Pole Designs)