Project -	Project Number -
Renslade House - Western Tower	861_Rev 1

Description -	Sheet No. -
Typical Residential Unit	1 of 3

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Preliminary Electrical Load Study

A) Description	B) Number of points served	C) Connected load per point (W)	D) Total connected load of all points (B*C)/230 = (A)	E) Diversity Factor (pu)	F) Circuit current (A)
LED Downlight	8	10	0.35	0.5	0.17
4 Ring Hob	1	9000	39.13	0.2	7.83
32A Ring 1	As Drawing	See note 1	32	0.2	6.4
Kitchen Ring	As Drawing	See note 1	32	0.3	9.6
Towel Rail	1	2000	8.70	0.6	5.22
Extract Fans	1	37	0.16	0.2	0.03
Electric shaver socket outlet	1	10	0.04	0.2	0.01

Total for installation (A)	**29.26**

Summary:

Total connected load (A)	Active Power (kW)	Power Factor	Apparent Power (kVA)
29.26	6.73	0.8	8.41

Therefore, from figures adjacent it can be assumed that each dwelling can draw 8.41kVA of apparent power from the REC source at any one time however, it is unlikely that ALL dwellings will demand this power at the same time and as such, sitewide diversity, in the region of 25/30% should then be applied (See sitewide calculation for further information)

Notes:

1) The current associated with the ring final circuits to which diversity factors from above should be applied in order to estimate the maximum demand of the installation is the nominal current *(In)* of the circuit protective device

Project -	Project Number -
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Description -	Sheet No. -
Landlord Services	2of 3

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Preliminary Electrical Load Study

Landlord Site Services

A) Description	B) Number of points served	C) Connected load per point (W)	D) Total connected load of all points (B*C)/230 = (A)	E) Diversity Factor (pu)	F) Circuit current (A)
Ground Floor Lighting	160	20	13.91	0.7	9.74
Level 01 - 09 Lighting	360	10	15.65	0.7	10.96
Fire Panel	1	50	0.22	1	0.22
Ground Floor Ring 1	1	See Note 1	32	0.1	3.20
Ground Floor Ring 2	1	See Note 1	32	0.1	3.20
Ground Floor Ring 3	1	See Note 1	32	0.1	3.20
Ground Floor Ring 4	1	See Note 1	32	0.1	3.20
Communal Power Ring 1	1	See Note 1	32	0.1	3.20
Communal Power Ring 2	1	See Note 1	32	0.1	3.20
Communal Power Ring 3	1	See Note 1	32	0.1	3.20
Communal Power Ring 4	1	See Note 1	32	0.1	3.20
Communal Power Ring 5	1	See Note 1	32	0.1	3.20
External Façade Lighting	30	35	4.57	0.4	1.83
					51.54

kVA
14.8175

Description	Quantity Served	Applied Apparent Power (kVA)	Total Apparent Power (kVA)	Diversity Factor (pu)	Diversified Apparent Power (kVA)
Lift	2	45	90	0.3	27.00
Heat Recovery Unit	2	23	46	0.8	36.80
LTHW Pressurisation Unit	1	23	23	0.6	13.80
LTHW Pump	1	23	23	0.6	13.80
Booster Set	2	23	46	0.4	18.40
Hot Water Return Pump	1	5	5	0.6	3.00
Boiler Primary Pump	1	23	23	0.6	13.80
Cat 5 Booster System	2	23	46	0.8	36.80
Smoke Ventilation	2	8.6	17.2	0.1	1.72
					165.12

Total for installation (kVA)	**179.94**

Notes:-

1) The current associated with the ring final circuits to which diversity factors from above should be applied in order to estimate the maximum demand of the installation is the nominal current *(In)* of the circuit protective device

2) Applied apparent power for residential units/dwelling as derived from 'Typical flat elec demand calc' (Sheet 1 of this worksheet) landlord services and lifts apparent power are estimates at this stage and will be subject to further assesment.

Project -	Project Number -
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Description -	Sheet No. -
Site Wide Elec Demand	3of 3

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Preliminary Electrical Load Study

Site	Quantity Served	Applied Apparent Power (kVA) -	Total Apparent Power (kVA)	Diversity Factor (pu)	Diversified Apparent Power (kVA)
Residential Unit	211	8.41	1774.51	0.4	709.80
Landlord	1	179.94	179.94	0.6	107.96
Gym	1	30	30	0.3	9.00
Laundry	1	40	40	0.5	20.00

Total for installation (kVA)	846.77

Notes:-

1) The current associated with the ring final circuits to which diversity factors from above should be applied in order to estimate the maximum demand of the installation is the nominal current *(In)* of the circuit protective device

2) Applied apparent power for residential units/dwelling as derived from 'Typical flat elec demand calc' (Sheet 1 of this worksheet) landlord services and lifts apparent power are estimates at this stage and will be subject to further assesment.