EQUANS
8 Burnham St, Petone
Lower Hutt
PO Box 2102
WELLINGTON 6140

FIRE ALARM SYSTEM SURVEY - NZ Standard 4512, Section 603

Premises Name:	DRUMMOND STREET APPARTMENTS		Job Number: 501442
Address:	19-21 DRUMMOND STREET	PFA #	HCS 3574
	WELLINGTON	Alarm type	Type 2 - Manual Alarm
Survey Date:	31/05/2023	Monitoring:	SECURITY (HCS)
Installed Standard	NZ Standard 4512 : 1997	Enhance with	Heat & Smoke Detectors
Survey result:	PASS - System operate correctly		

A	Panel type / model:	Pertronic F100	System Battery Capacity	2 x 12 Volt | 17 Amp. Hour
B	Number of Zone / Circuit:	38	Evac. Battery Capacity	Not Applicable
C	System type:	Conventional Fire Alarm System	Input Device type	Indicating input devices

#	Operation checks and tests	Yes	No	NA
1	PANEL – Visual examination of general condition of all components of the system.	√		
2	Mimic Indicator & legend still current and clearly indicate their function at a viewing distance of 2 m.	√		
3	All zones / circuits LED indicate & operate correctly on panel & remote mimic indicator panel.	√		
4	Door interlocks working correctly.	√		
5	DEFECT - Warning Facilities: Defect signal at 12.2 Volt	√		
6	Perform stimulation test for defect as per Section 208.1 – abnormality high & low impedance on circuits.	√		
7	INPUT Devices: Operation of ALL Manual Call Points in situ.	√		
8	Heat Detectors sample tested in situ to a minimum of 2% of detectors.	√		
9	Smoke Detectors sample test by checking the sensitivity of a minimum of 20 %	√		
10	Analogue Detectors – Maintenance / Dirty Alert devices noted.			√
11	Panel checksum [CRC] value:			√
12	Are 'Short Circuit Isolator' located & function correctly (SCI are required between zones)			√
13	ALERTING DEVICES: Evacuation sound pressure level –building adequately cover (min. 65dB)			√
14	Defect signal on open or short circuit of evacuation circuit (after NZS 4512: 1994 installation)	√		
15	'Fire' test signal to remote receiving center	√		
16	Any circuit / zone / point isolated?		√	
17	BATTERY: Battery terminal clean / tight and free of corrosion?	√		
18	Evacuation Battery Capacity calculated as per Section NZS 4512: 2003, Section 503(e)	√		
19	System battery date: 16/06/2022 — Evac. battery date:			
20	Has the Battery Charger been turned back 'ON'?	√		

Battery Tests.	Charger Status	System Batteries		Evacuation Batteries		Others Batteries	
		Battery A	Battery B	Battery A	Battery B	Battery A	Battery B
Float Voltage	On	13.72	13.71				
Load Voltage	Off	11.98	12.06				
Recovery Voltage	Off	12.50	12.54				

Technician name:	Nirbhendra Lal / Bhagat	Date:	31/05/2023

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FIRE ALARM SYSTEM SURVEY – NZS 4512, Section 603.11 requirements

Premise Name:	DRUMMOND STREET APARTMENTS	Date:	31/05/2023

Zone/ Circuit No.	INDEX DESIGNATION i.e. Ground Floor Rear	ELECTRICAL TESTS					OPERATIONAL TESTS												LOCATION OF END OF LINE RESISTOR
		LOOP RESISTANCE		INSULATION RESISTANCE			CIRCUIT		INPUT DEVICES						SOUNDERS				
									HEAT		SMOKE		MCP						
		R-B	EOLR	R-B	R-E	B-E	CC	OC	No.	OK	No.	OK	No.	OK	No.	OK	Min	Max	
1	Block A Unit 26		9.95		IN	IN	D	F	11	√	-	-	1	√	6	√	75	85	HEAT = 12 LOUNGE
2	Block A Unit 27		9.78		IN	IN	D	F	11	√	-	-	1	√	6	√	78	87	HEAT = 13 LOUNGE
3	Block A Unit 28		9.69		IN	IN	D	F	9	√	-	-	1	√	6	√	74	83	HEAT = 13 LOUNGE
4	Block A Unit Roof Space		9.59		IN	IN	D	F	6	√	-	-	-	-	-	-	-	-	HEAT = 13 LOUNGE
5	Block A Unit Stairwell		9.95		IN	IN	D	F	1	√	3	√	-	-	-	-	-	-	SMOKE = 4 STAIRS
6	Block B Unit 23		9.72		IN	IN	D	F	11	√	-	-	1	√	6	√	79	89	HEAT = 12 LOUNGE
7	Block B Unit 24		9.65		IN	IN	D	F	11	√	-	-	1	√	6	√	76	86	HEAT = 12 LOUNGE
8	Block B Unit 25		9.82		IN	IN	D	F	11	√	-	-	1	√	6	√	80	87	HEAT = 12 LOUNGE
9	Block B Unit Roof Space		9.91		IN	IN	D	F	6	√	-	-	-	-	-	-	-	-	HEAT = 4 LOUNGE
10	Block B Unit Stairwell		9.82		IN	IN	D	F	1	√	3	√	-	-	-	-	-	-	HEAT = 4 LOUNGE
11	Block C Unit 17		9.94		IN	IN	D	F	11	√	-	-	1	√	6	√	78	86	MCP = 4 LOUNGE
12	Block C Unit 18		9.96		IN	IN	D	F	11	√	-	-	1	√	6	√	73	80	HEAT = 12 LOUNGE
13	Block C Unit 19		9.69		IN	IN	D	F	11	√	-	-	1	√	7	√	76	83	HEAT = 12 LOUNGE
14	Block C Unit 20		9.94		IN	IN	D	F	11	√	-	-	1	√	6	√	75	84	HEAT = 12 LOUNGE
15	Block C Unit 21		9.95		IN	IN	D	F	11	√	-	-	1	√	6	√	84	89	HEAT = 12 LOUNGE
16	Block C Unit 22		9.85		IN	IN	D	F	11	√	-	-	1	√	7	√	81	90	HEAT = 12 LOUNGE
17	Block C Unit Roof Space		9.961		IN	IN	D	F	12	√	-	-	-	-	-	-	-	-	HEAT = 12 LOUNGE
18	Block C Unit Stairwell		.9.97		IN	IN	D	F	1	√	3	√	-	-	-	-	-	-	SMOKE = 4 STAIRS
19	Block D Unit 9		9.94		IN	IN	D	F	11	√	-	-	1	√	6	√	78	85	HEAT = 12 LOUNGE
20	Block D Unit 10		9.91		IN	IN	D	F	11	√	-	-	1	√	6	√	79	89	HEAT = 12 LOUNGE
21	Block D Unit 11		9.94		IN	IN	D	F	11	√	-	-	1	√	6	√	76	84	HEAT = 12 LOUNGE

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FIRE ALARM SYSTEM SURVEY – NZS 4512, Section 603.11 requirements

Zone/ Circuit No.	INDEX DESIGNATION i.e. Ground Floor Rear	ELECTRICAL TESTS					OPERATIONAL TESTS												LOCATION OF END OF LINE RESISTOR
		LOOP RESISTANCE		INSULATION RESISTANCE			CIRCUIT		INPUT DEVICES						SOUNDERS				
									HEAT		SMOKE		MCP						
		R-B	EOLR	R-B	R-E	B-E	CC	OC	No.	OK	No.	OK	No.	OK	No.	OK	Min	Max	
22	Block D Unit 12		9.89		IN	IN	D	F	11	√	-	-	1	√	6	√	70	82	HEAT = 12 LOUNGE
23	Block D Unit 13		9.89		IN	IN	D	F	11	√	-	-	1	√	6	√	77	83	HEAT = 12 LOUNGE
24	Block D Unit 14		9.67		IN	IN	D	F	11	√	-	-	1	√	6	√	76	86	HEAT = 22 LOUNGE
25	Block D Unit 15		9.67		IN	IN	D	F	11	√	-	-	1	√	6	√	81	89	HEAT = 12 LOUNGE
26	Block D Unit 16		9.86		IN	LN	D	F	11	√	-	-	1	√	4	√	80	88	HEAT = 12 LOUNGE
27	Block D Unit Roof Space		9.56		IN	IN	D	F	13	√	-	-	-	-	-	-	-	-	HEAT = 12 LOUNGE
28	Block D Unit Stairwell		9.96		IN	IN	D	F	1	√	4	√	-	-	-	-	-	-	HEAT = 12 LOUNGE
29	Block E Unit 1		9.79		IN	IN	D	F	11	√	-	-	1	√	6	√	78	83	HEAT= 12 LOUNGE
30	Block E Unit 2		9.76		IN	IN	D	F	11	√	-	-	1	√	6	√	75	82	HEAT = 12 LOUNGE
31	Block E Unit 3		9.97		IN	IN	D	F	11	√	-	-	1	√	6	√	79	86	HEAT = 12 LOUNGE
32	Block E Unit 4		9.67		IN	IN	D	F	11	√	-	-	1	√	6	√	80	87	HEAT = 12 LOUNGE
33	Block E Unit 5		9.92		IN	IN	D	F	11	√	-	-	1	√	6	√	82	89	HEAT =12 LOUNGE
34	Block E Unit 6		9.95		IN	IN	D	F	11	√	-	-	1	√	6	√	74	82	HEAT = 12 LOUNGE
35	Block E Unit 7		9.93		IN	IN	D	F	11	√	-	-	1	√	6	√	68	79	HEAT = 12 LOUNGE
36	Block E Unit 8		9.85		IN	IN	D	F	11	√	-	-	-	-	6	√	75	84	HEAT = 12 LOUNGE
37	Block E Unit Roof Space		9.91		IN	IN	D	F	13	√	-	-	-	-	-	-	-	-	HEAT = 12 LOUNGE
38	Block E Unit Stairwell		9.92		IN	IN	D	F	1	√	4	√	-	-	-	-	-	-	HEAT = 5 LOUNGE

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FIRE ALARM SYSTEM SURVEY - NZS 4512, Section 503 (e) & Section 603 (a) & (b)

BUILDING NAME: DRUMMOND STREET APARTMENTS

Note: Section 603.3 (a) *Heat detectors shall be sample tested in situ by applying a safe heat source to a minimum of 2% of the detectors, if any detector fails to operate, a further sample of 10% of all detectors shall be hat tested. Any detector destroyed during these tests (e.g. eutectic alloy type) shall be replaced. (for more details refer to NZS 4512, Section 603)*
Section 603.3 (b) *Smoke detectors shall be sampled tested by checking the sensitivity of a minimum of 20% of the detectors – these detectors shall then be cleaned in accordance with the manufacturer's instruction for routine maintenance, and given in situ test by applying test smoke.*

Zone	MCP (Heat / Smoke) number tested – list device number.
1	MCP A26/1, A6.6(laundry) HEAT A26/5, A26/6, A26/11
2	MCP A27/1, HEAT A27/5, 27/8, 27/10
3	MCP A28/1 HEAT A28/05, A28/6, A28/10
4	AR/3
5	Smoke AS/3, AS/4
6	MCP B23/1, HEAT B23/04, B23/08, B23/12
7	MCP B24/NN HEAT B24/NN, B24/NN, B24/NN
8	MCP B25/1 HEAT B25/6, B25/11, B25/11- SMOKE - 4
9	B/3
10	Smoke BS/3, BS/2
11	MCP C17/12 HEAT C17/5, C17/08, C17/11
12	MCP C18/1, HEAT C18/03, C18/8, C18/10
13	MCP C19/1, HEAT C19/01, C19/7, C19/012
14	MCP C20/1, HEAT C20/01, C20/08, C20/11
15	MCP C21/1 HEAT C21/03, C21/06, C21/10 SMOKE - 4
16	MCP C22/1, HEAT C22/3, C22/5, C22/10
17	C8/12
18	Smoke CS/2, CS/5
19	MCP D9/1, HEAT D9/03, D9/08, D9/11
20	MCP D10/1 HEAT D10/3 ,10/07 D10/11

Zone	MCP (Heat / Smoke) number tested – list device number.
21	MCP D11/1, HEAT D11/03, D11/08, D11/11
22	MCP D12/1, HEAT D12/0, D12/09, D12/11
23	MCP D13/1, HEAT D13/3, D13/9, D13/11
24	MCP D14/1, HEAT D14/2, D14/5, D14/8, D14/11
25	MCP D15/1, HEAT D15/03, D15/07, D15/11
26	MCP D16/1, HEAT D16/3 D5/028 D16/11
27	D/4, D/7
28	Smoke D5/5, D5/2
29	MCP E1/1 HEAT E1/03, E1/5, E1/08
30	MCP E2/1 HEAT E2/02, E2/05, E2/07, E2/11
31	MCP E3/1 HEAT E3/02, E3/05, E3/08, E3/11
32	MCP E4/1 HEAT E4/02, E4/8, E4/11
33	MCP E5/1 HEAT E5/02, E5/05, E5/08, E5/11
34	MCP E6/1 HEAT E6/02, E6/05, E6/9, E6/11
35	MCP E7/1 HEAT E7/04, E7/08, E7/11
36	MCP E8/1 HEAT E8/1, E8/06, E8/09, E8/11
37	E/6
38	Smokes ES/2, ES/4

No.	Type of Ancillary Outputs Relays tested.	OK
1	Lift	NA
2	HVAC	NA
3	Automatic Doors	NA
4	Access Control Doors (Security)	NA
5	Smoke / Fire Stop Doors	NA
6	Smoke Curtain	NA
7	Extract Fan	NA
8	Stairwell Pressurization	NA
9	HVAC	NA
10		
11		
12		

NZS 4512, Section 603.10 State interface shall be checked between the fire alarm system and any ancillary service forming part of the building fire safety system.

Note: this TEST may only check that the RELAY has operated. It is not a functional test of the ancillary equipment connected via the relay. NOT a requirement to test the operation of Lift / HVAC / Automatic Doors / Smoke Stop Door etc.

Section 503 TEST ON ELECTRICAL EQUIPMENT – 88503 [e] Verify that each battery complies with 213 or 214, & [f] verify the output of battery charger complies with the requirement of section 212.

Verify Battery Capacity							Note: Brigade = 24 | Non Brigade = 72
Non Alarm Load Current	X	24 or 72 [Hours}	+	Alarm Current	=	Battery Capacity Current	Bat. Capacity = Non Alarm Load x 24 or 72 plus Alarm Current.
0.48	X	24	+	3.19	=	14.71 Amp.	

Verify Battery Charger requirement					Note:
Non Alarm Load Current	+	Amp Hour / 24	=	Min. Amp Charger	Amp. = Non Alarm Load + Bat. Capacity [A/H] / 24
0.48	+	17 / 24	=	1.18 Amp.	

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DEFECT [In-field material & labour information sheet] - Annual Survey

This in-field quotation sheet MUST be completed by technician / surveyor to assist Estimator in quoting job accurately.

Premises Name:	DRUMMOND STREET APARTMENT	Panel Type / Model	Pertronic F100A
Address:	19-21 DRUMMOND STREET	Panel Voltage:	24V

#	Type of Input Devices	Type / Model / Manufacturer (if known)	Output Devices	Type / Model / Manufacturer
1	Manual Call Point	Pertronic	Sounder:	PSSI
2	Heat Detector	Pertronic	Sounder Voltage:	24 VOLT
3	Smoke Detector	System sensor	Others:	
4	Others information:	Indicating (2003) ☑ | Non Indicating ☐	System type: Conventional ☑ | Analogue Addressable ☐	

Note: If unknown device – please provide photos (taking the label details and the physical device)

1	System Battery:	2	X 12 Volt	17 Amp Hr.	Evac. Battery:		X 12 Volt	__ Amp Hr.
2	Ceiling Type:				Ceiling Height:	_____ Meters.		
2a	*i.e. Removal ceiling tiles / Gibed ceiling / Open ceiling / Concrete ceiling etc. - any other degree of difficulties noted.*							
3	☐ Conduit ___ Length (4m) | ☐ Mini Trunking ___ Length (4m)				Scissor Lift require	Yes / No (circle)		

Defect description needs to be accurate, specific with correct details and clear statement – the following information is required:
Number: Number of device, Circuit / Zone number, Device number
Location: Level / Floor, Front / Rear, Left / Right side, next to (adjacent) or by something notable.
Material: cable, conduit & trunking length / estimate labour hour. Provide clear sketch drawing (if possible)
