

## WIRING DIAGRAMS

Address:

Owner:

Contractor:

Designer:

Director:

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# SPECIFICATIONS

introductory cable

Ground

Voltage

Power

Main fuse

ZR-YJV 4G185

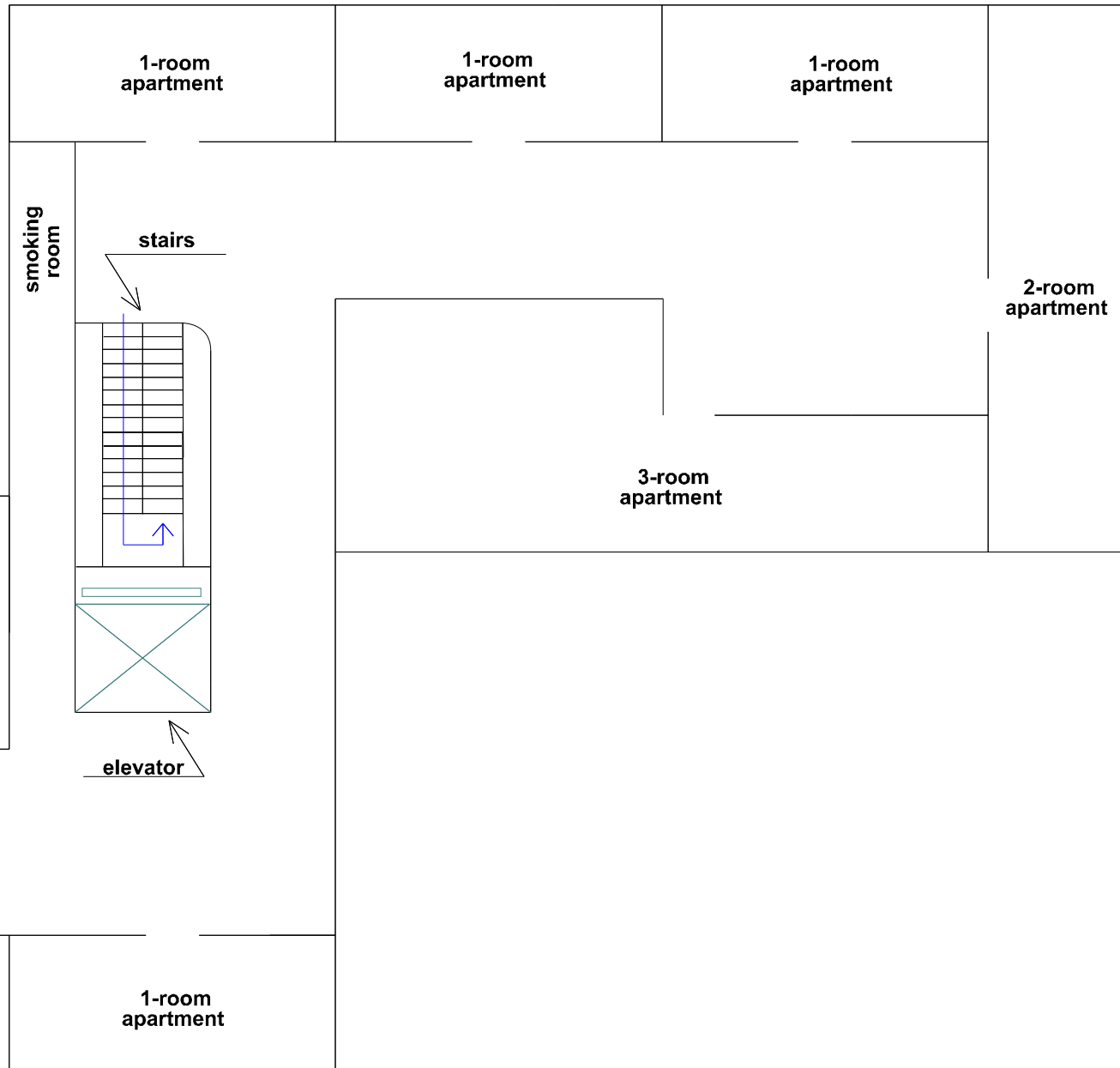
TN-C-S

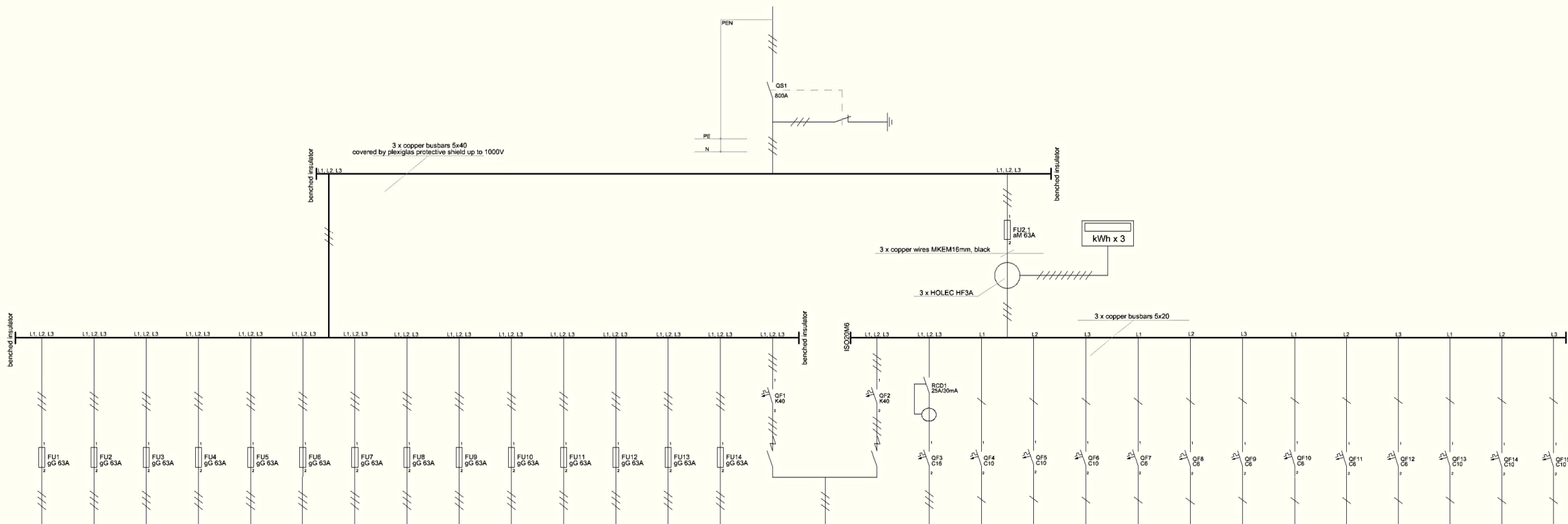
230/400 Y+N

345 KW

3x500

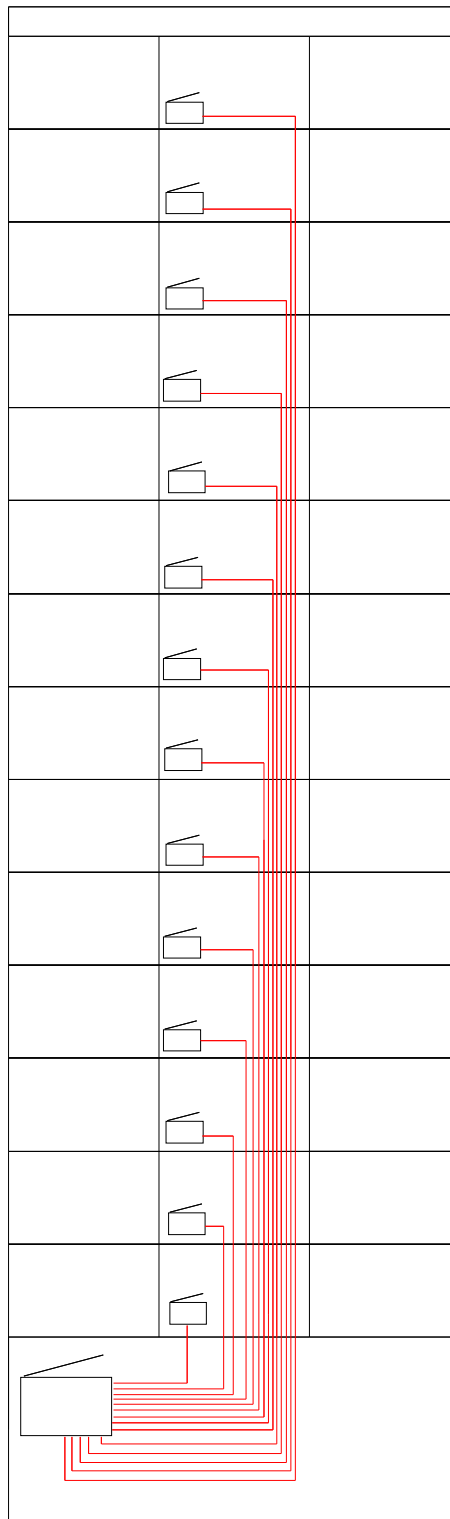
**BUILDING PLANT**

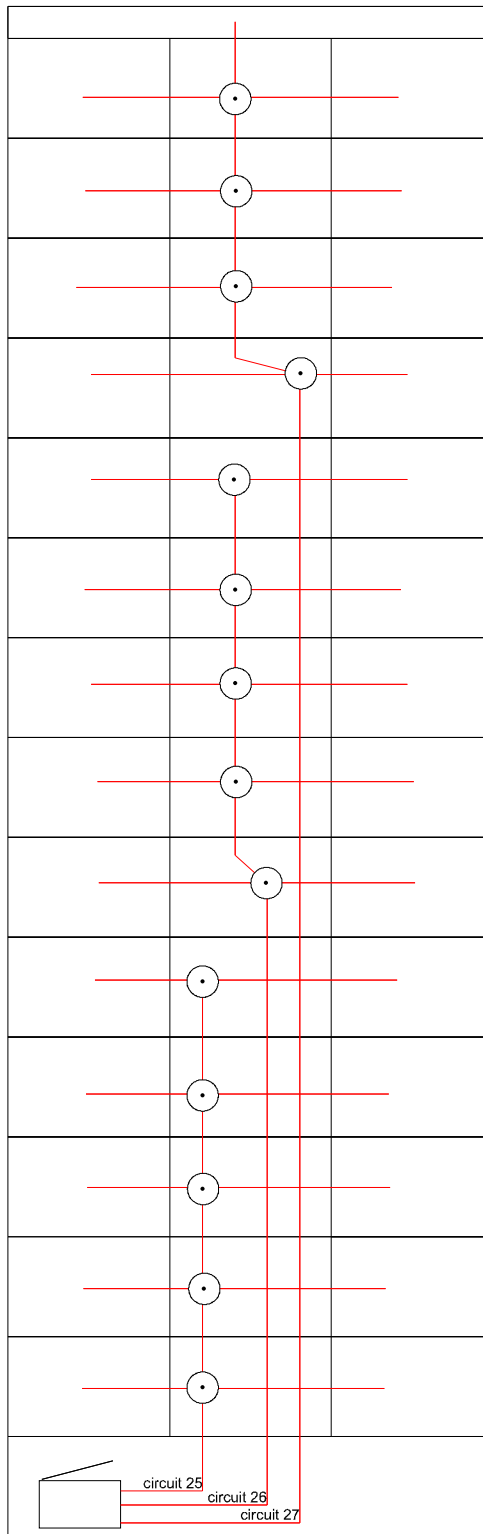




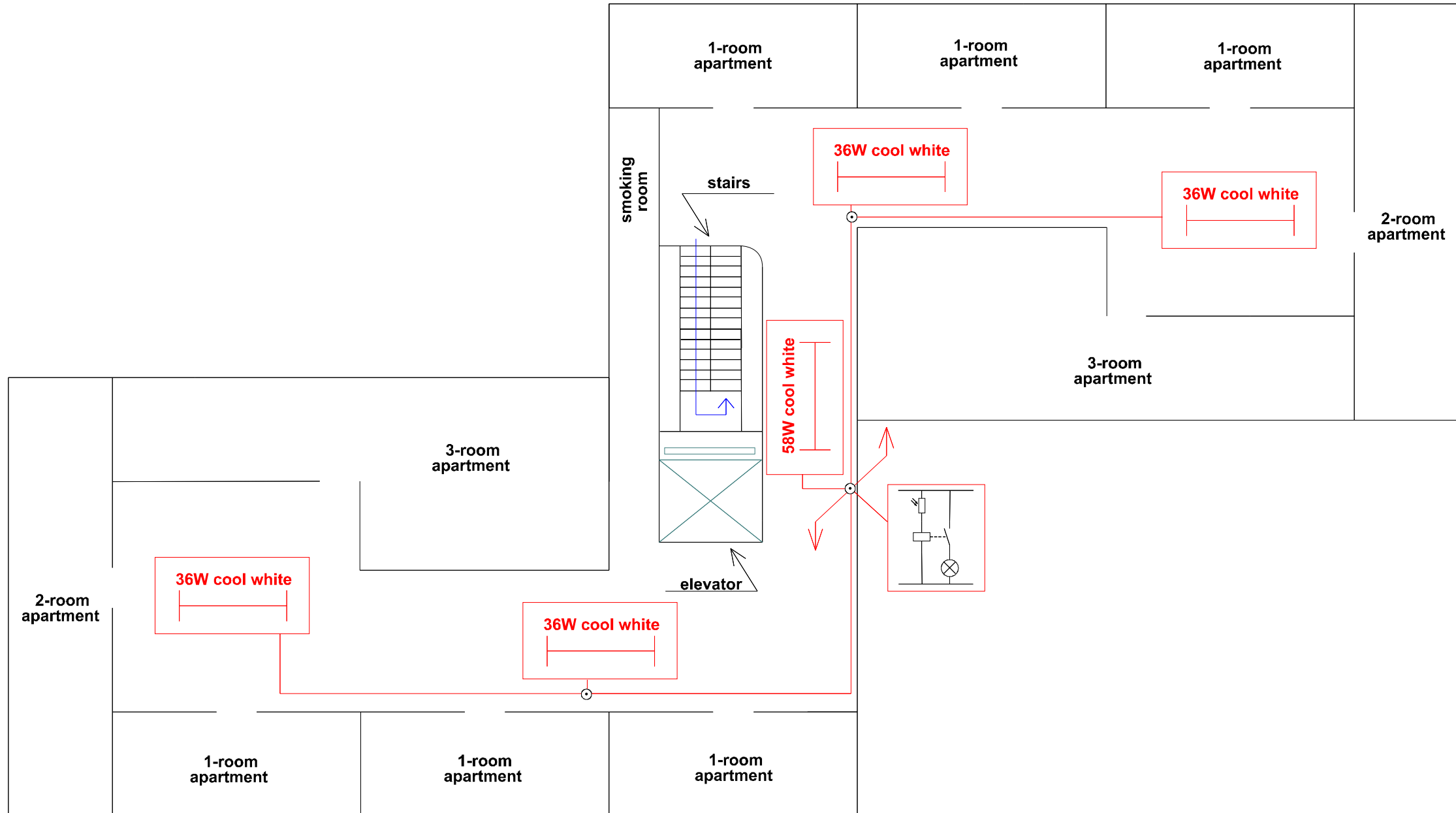
Receptors	Symbol																													
	number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
	name	floor 1	floor 2	floor 3	floor 4	floor 5	floor 6	floor 7	floor 8	floor 9	floor 10	floor 11	floor 12	floor 13	floor 14	transfer switch	elevators	transfer switch	socket 3-phase - 3x16A 400V	lamps in basement	lamps in outdoors	DCCSIS, DV-B-T routers	interroom	heating unit	emergency lamps	lamps floors 1-5	lamps floors 11-14 + roof	standby	standby	standby
	phase	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1, L2, L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
	cable	5G25	5G25	5G25	5G25	5G25	5G25	5G25	5G25	5G25	5G25	5G25	5G25	5G25	5G25	5G10	5G25	5G10	5G25	3G1.5	3G1.5	3G1.5	3G1.5	3G1.5	3G1.5	3G1.5	3G1.5	3G1.5	3G1.5	3G1.5
	load	3x63	3x63	3x63	3x63	3x63	3x63	3x63	3x63	3x63	3x63	3x63	3x63	3x63	3x63	3x40	3x63	3x40	3x16	10	10	10	6	6	6	6	6	6	10	10
	power	43500	43500	43500	43500	43500	43500	43500	43500	43500	43500	43500	43500	43500	43500	27000	43500	11000	2000	2000	2000	1400	1400	1400	1400	1400	1400	2000	2000	2000

CIRCUITS 1-14; SUBPANELS 1-14



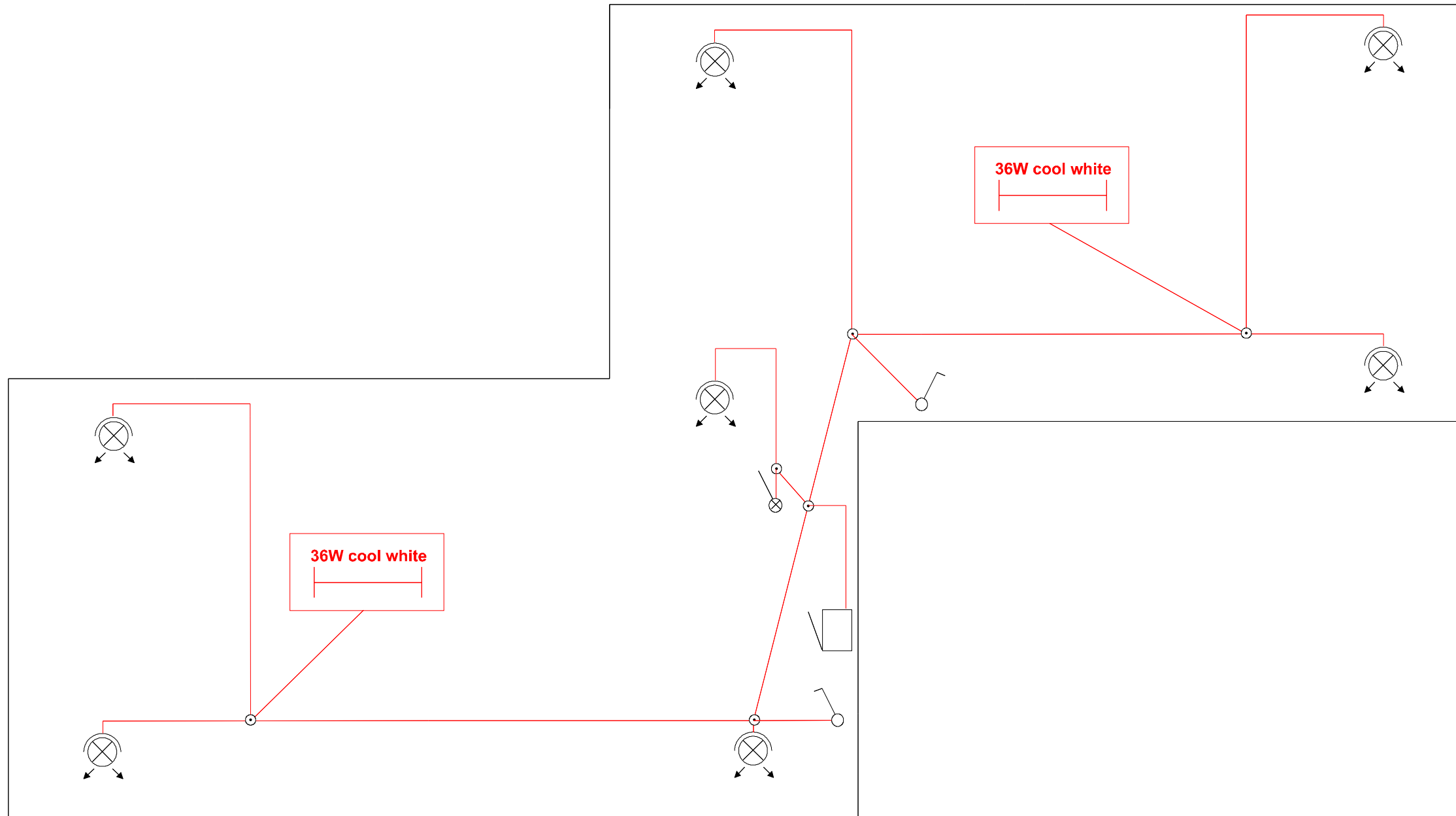


# LIGHTING CIRCUITS IN HALLWAY



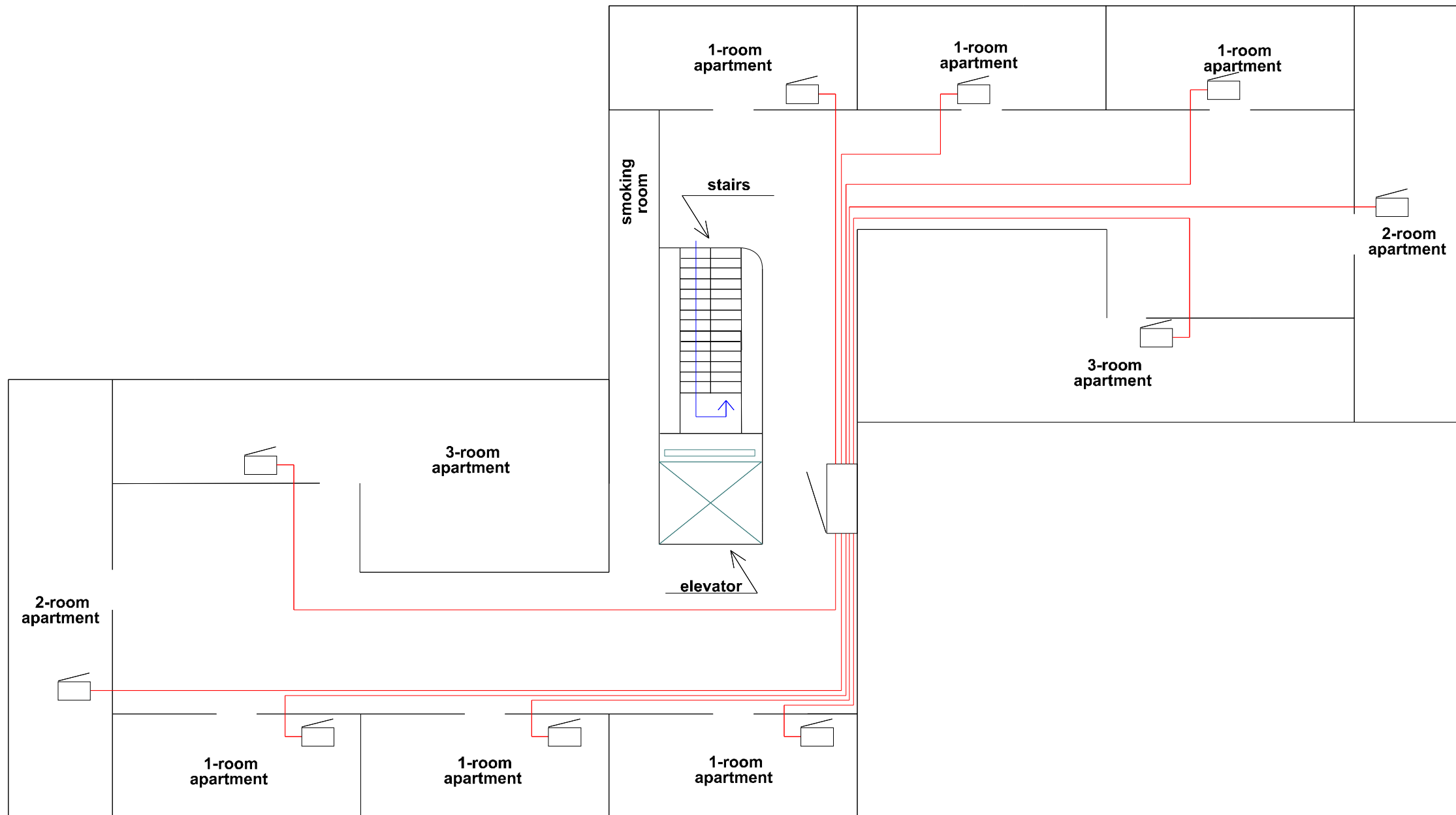


LIGHTING CIRCUITS IN BASEMENT (CIRCUIT 19)

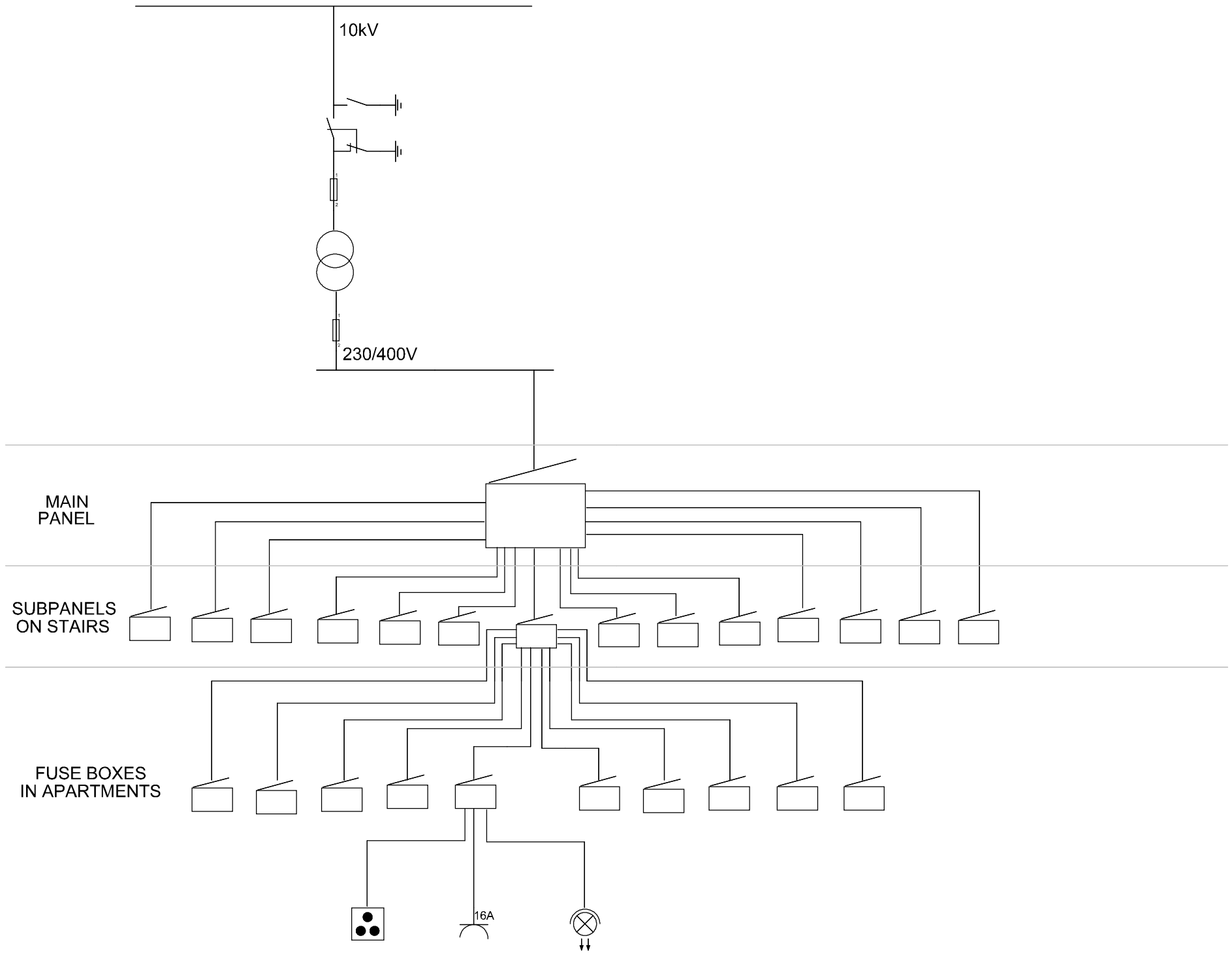




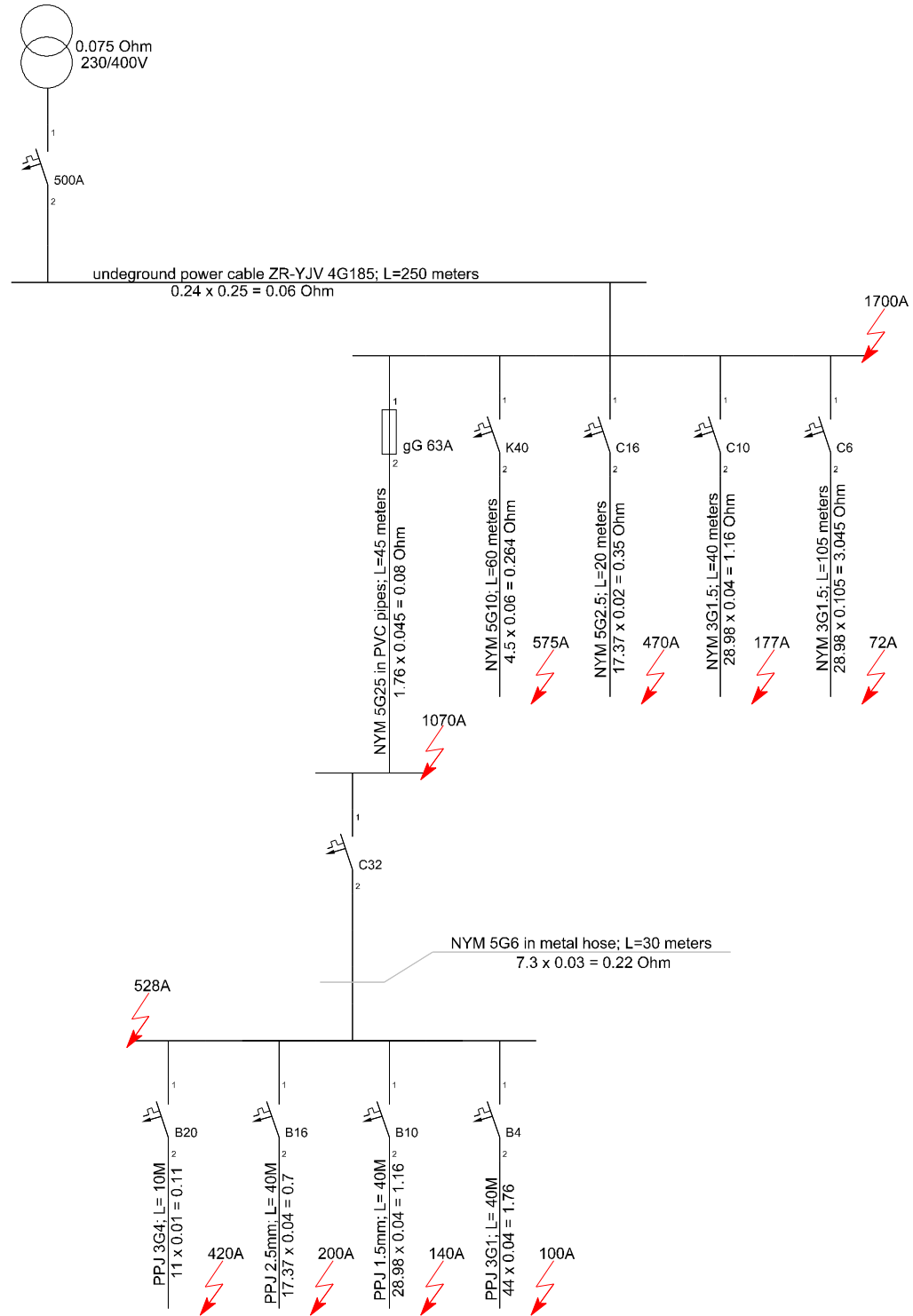
CIRCUITS 1-10 OF SUBPANELS 1-14

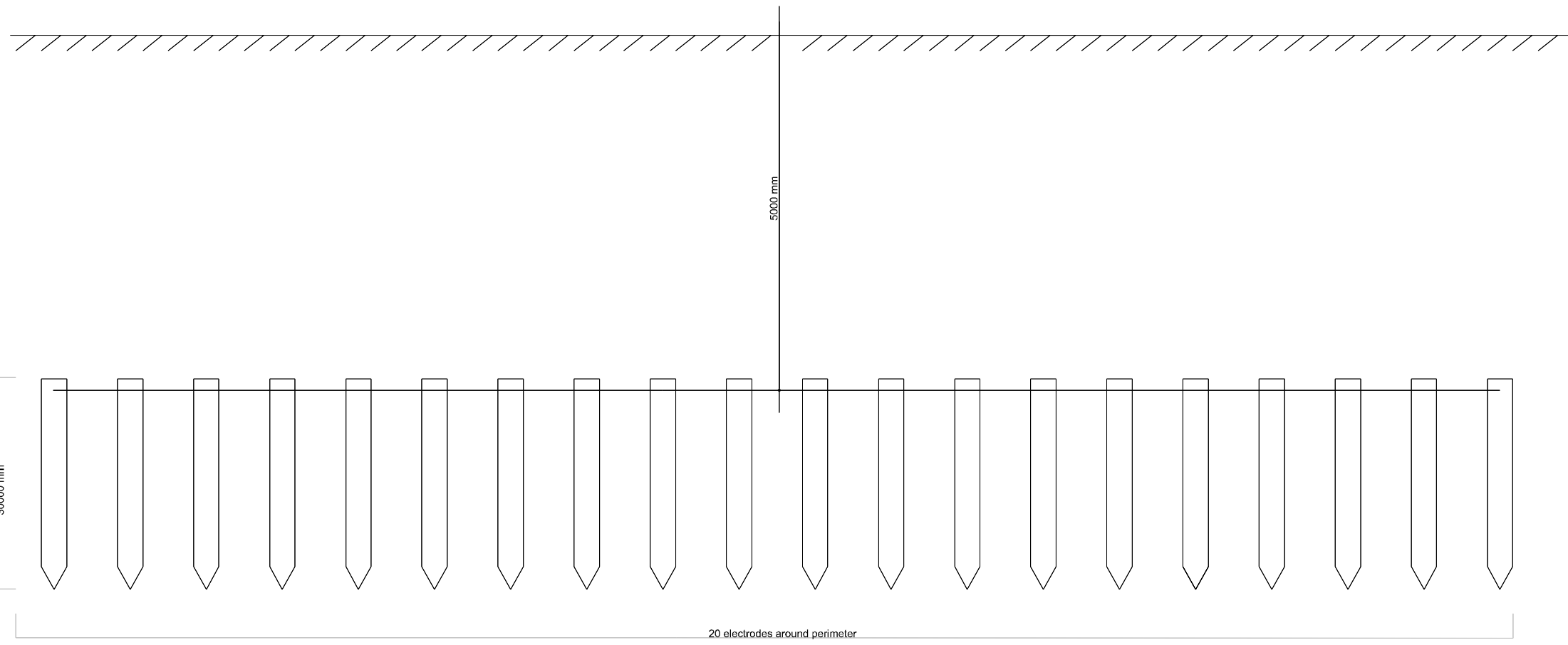


# FULL CONSTRUCTION



# SHORT CIRCUITS (FIRE SAFETY)



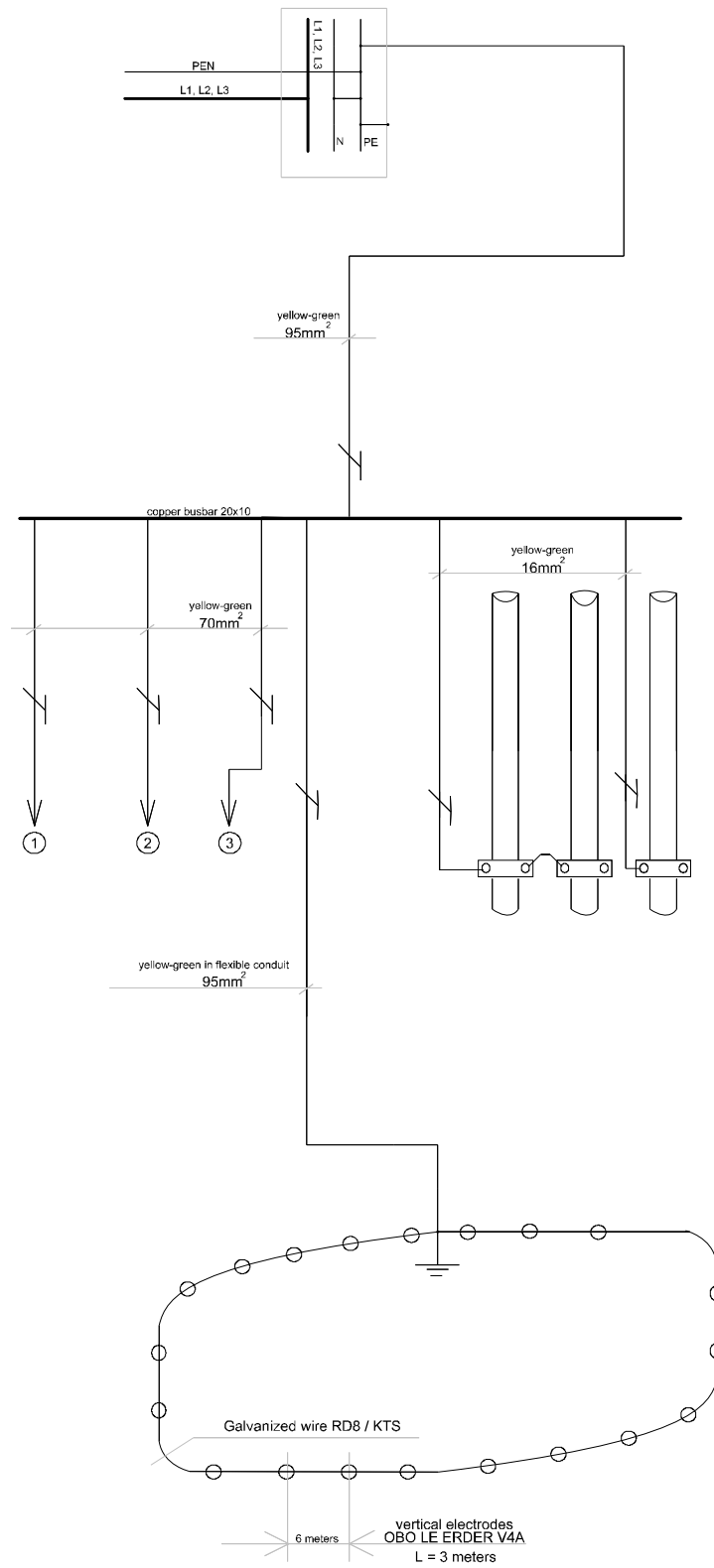


Ground impedance:

Vertical:

$$R(1 \text{ electrode}) = \frac{0.366 \times \rho}{L} \times \left( \lg \frac{2L}{D} + 0.5 \lg \frac{4T + L}{4T - L} \right) = 61 \times (3.08 + 0.084) = 193$$

$$R(16 \text{ electrodes}) = \frac{R(1 \text{ el})}{K_p + N} = 13.4$$



# MATERIALS

benched busbar holder 5x40.....	6	wire 95mm, yellow-green.....	10 meters
copper busbar 5x40.....	5	wire 70mm, yellow-green.....	50 meters
copper busbar 5x20.....	3	wire 16mm, yellow-green.....	300 meters
copper busbar 10x20.....	1	wire 16mm, black.....	15 meters
terminal PM5X.....	110	equipotential collar 16mm.....	20
terminal PM10X.....	30	fluorescent lamp 36W, el.ballast.....	60
busbar insulator ISO20M6.....	10	fluorescent lamp 58W, el.ballast.....	15
DIN-rail.....	3.5m	light fixture with moving detector 40W.....	20
load switch 800A 3-phase.....	1	photorelay for wall surface mounting, IP44.....	5
fuse disconnecter, size "000".....	15	light switch, IP44 for wall surface.....	10
fuse gG63, size "000".....	42	junction boxes 80x80.....	50
fuse aM63, size "000".....	3	grounding electrodes 1.5 meters.....	40
current transformer 100/5.....	3	coupling for electrodes.....	20
circuit breaker K40 3-phase.....	2	connector for electrodes.....	20
circuit breaker C16 3-phase.....	1	wire coupler 95mm, underground.....	1
circuit breaker C10.....	6	monitoring well.....	1
circuit breaker C6.....	6	earthing wire RD8 / KTS .....	150 meters
RCD 4-pole 25A/30mA.....	1	other (nails, screws, terminals).....	1
fuse box 24M, metal with DIN rail.....	14		
load switch 80A 3-phase.....	14		
busbar FORK 16mm.....	308M		
busbar N/PE 2x25+20x6.....	14		
circuit breaker C32 3-phase.....	6		
circuit breaker C32.....	6		
cable NYM 5G25.....	600 meters		
cable NYM 5G10.....	100 meters		
cable NYM 5G6.....	1800 meters		
cable NYM 3G6.....	1800 meters		
cable NYM 5G2.5.....	10 meters		
cable NYM 3G1.5.....	400 meters		
metal hose for electric cables.....	~2000 meters		
flexible conduit.....	*by installation process		
PVC pipes.....	by installation process	work.....	5 persons @ 200 hours