

- | | |
|-------------------------------------|---------|
| ● Double switched 10A socket | 90.0 EA |
| ● Single switched 10A socket outlet | 5.0 EA |
| ● EV Charger | 2.0 EA |
| ● Auto door | 5.0 EA |
| ● Distribution board | 5.0 EA |
| ● Main switchboard | 1.0 EA |
| ● Outdoor unit | 5.0 EA |
| ● Heater | 10.0 EA |
| ● Fridge | 6.0 EA |
| ● Hot water cylinder | 5.0 EA |
| ● Microwave | 6.0 EA |
| ● Range | 6.0 EA |
| ● Rangehood | 6.0 EA |
| ● Boiling water unit | 1.0 EA |
| ● Fire alarm panel | 1.0 EA |
| ● Washing Machine | 5.0 EA |
| ● Clothes Dryer | 5.0 EA |
| ● Pump | 1.0 EA |

B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design
Issue	Date	Description


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 STRUCTURAL MECHANICAL CIVIL HYDRAULIC ELECTRICAL FIRE

ELECTRICAL SERVICES

Job Title
**Kāinga Ora
 Roscommon Rd**

482-486 Roscommon Road,
 Clendon Park, Auckland

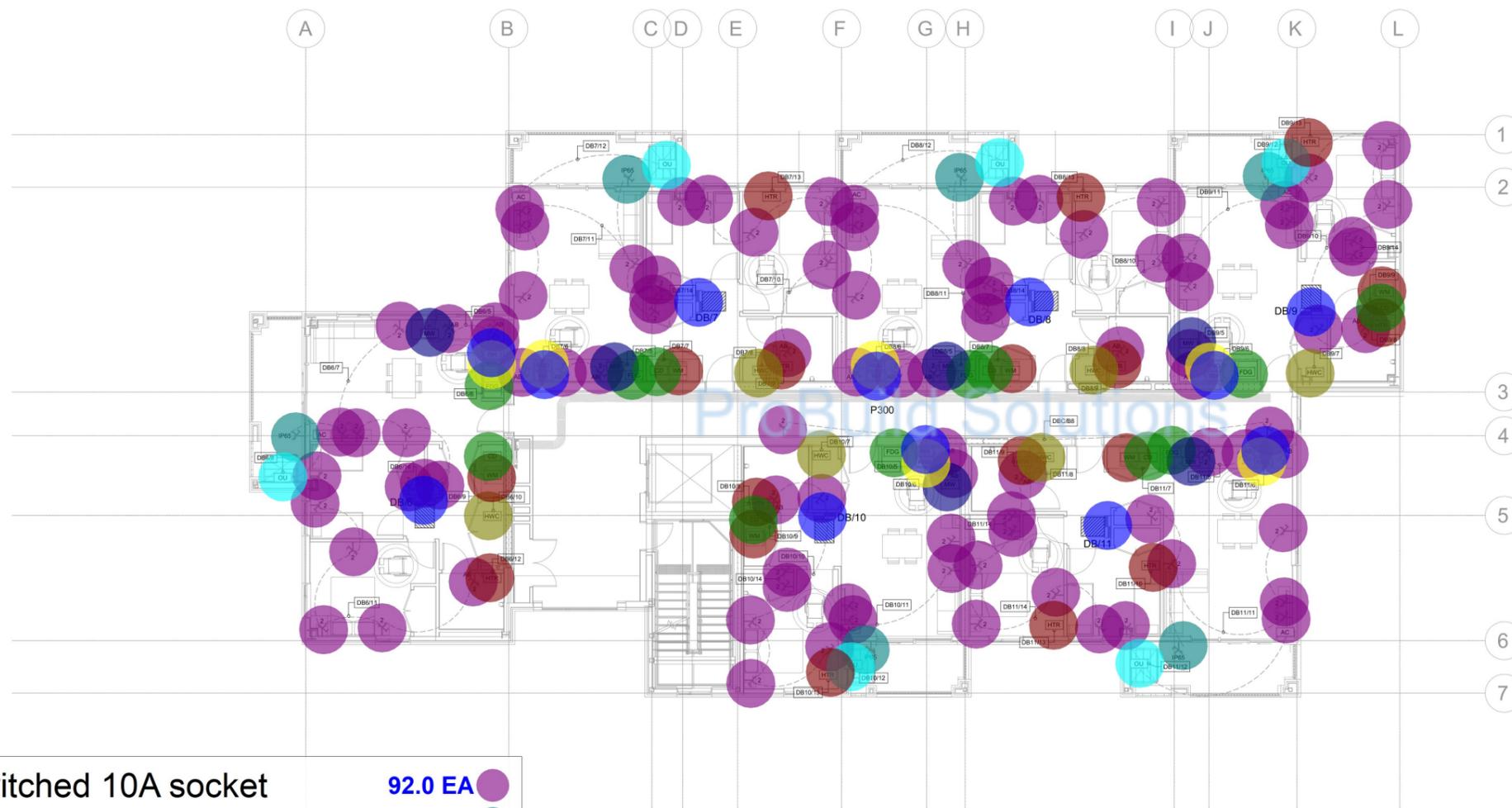
Drawing Name
**Ground Floor
 Power Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

Drawing Scale: **1:100 @ A1**

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Sheet No: **E2.1.1** Job No: **211099** Issue: **B**



- Double switched 10A socket 92.0 EA
- Single switched 10A socket outlet 6.0 EA
- Outdoor unit 6.0 EA
- Distribution board 6.0 EA
- Heater 12.0 EA
- Fridge 6.0 EA
- Hot water cylinder 6.0 EA
- Microwave 6.0 EA
- Range 6.0 EA
- Rangehood 6.0 EA
- Washing Machine 6.0 EA
- Clothes Dryer 6.0 EA

B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design
Issue	Date	Description


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 STRUCTURAL MECHANICAL CIVIL HYDRAULIC ELECTRICAL FIRE
ELECTRICAL SERVICES

Job Title
**Kāinga Ora
Roscommon Rd**
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 Clendon Park, Auckland

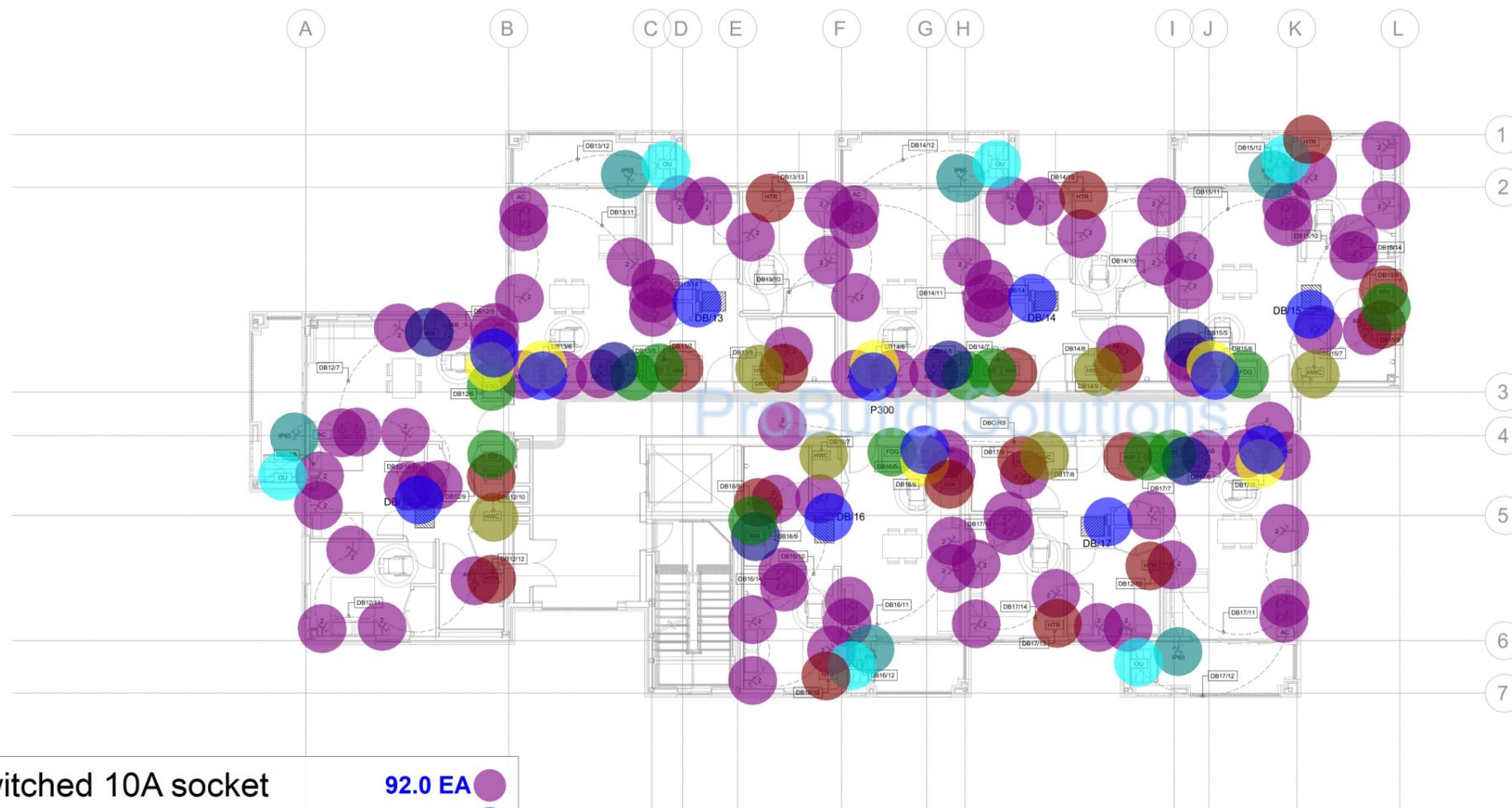
Drawing Name
**Level 1
Power Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

Drawing Scale: **1:100 @ A1**

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Sheet No: **E2.2.1** Job No: **211099** Issue: **B**



- | | | |
|-------------------------------------|---------|---|
| • Double switched 10A socket | 92.0 EA | ● |
| • Single switched 10A socket outlet | 6.0 EA | ● |
| • Distribution board | 6.0 EA | ● |
| • Outdoor unit | 6.0 EA | ● |
| • Heater | 12.0 EA | ● |
| • Fridge | 6.0 EA | ● |
| • Hot water cylinder | 6.0 EA | ● |
| • Microwave | 6.0 EA | ● |
| • Range | 6.0 EA | ● |
| • Rangehood | 6.0 EA | ● |
| • Washing Machine | 6.0 EA | ● |
| • Clothes Dryer | 6.0 EA | ● |

B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design
Issue	Date	Description

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ELECTRICAL SERVICES

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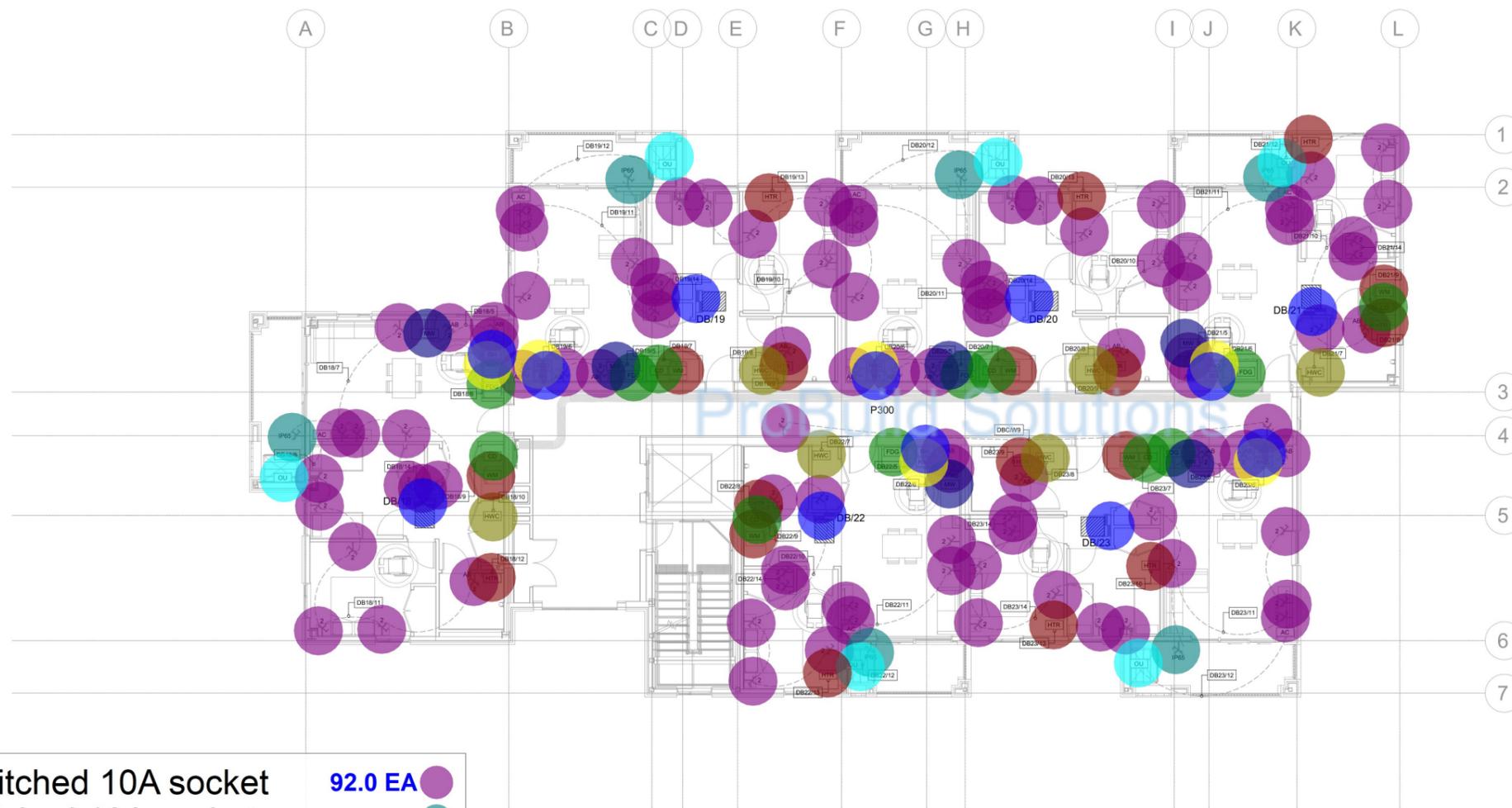
Drawing Name
**Level 2
 Power Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

Drawing Scale: **1:100 @ A1**

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Sheet No: **E2.3.1** Job No: **211099** Issue: **B**



- Double switched 10A socket 92.0 EA
- Single switched 10A socket ou... 6.0 EA
- Distribution board 6.0 EA
- Outdoor unit 6.0 EA
- Heater 12.0 EA
- Fridge 6.0 EA
- Hot water cylinder 6.0 EA
- Microwave 6.0 EA
- Range 6.0 EA
- Rangehood 6.0 EA
- Washing Machine 6.0 EA
- Clothes Dryer 6.0 EA

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2	01/11/22	For 60% Detailed Design
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ELECTRICAL SERVICES

Job Title
**Kāinga Ora
 Roscommon Rd**
 482-486 Roscommon Road,
 Clendon Park, Auckland

Drawing Name
**Level 3
 Power Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

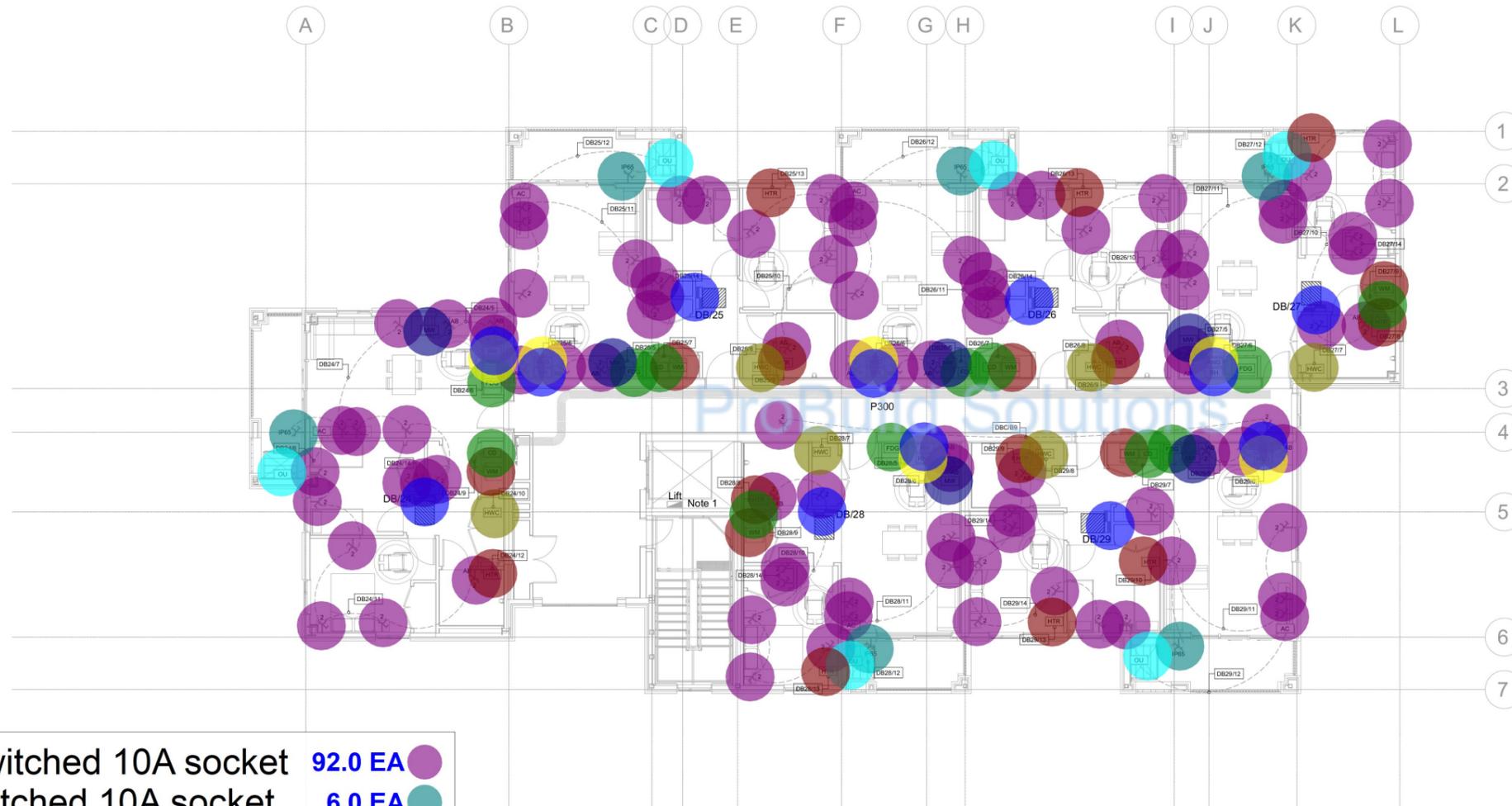
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Sheet No: **E2.4.1** Job No: **211099** Issue: **B**

Notes:

1. Power supply to lift to be co-ordinated with lift supplier.



- Double switched 10A socket 92.0 EA
- Single switched 10A socket ... 6.0 EA
- Distribution board 6.0 EA
- Outdoor unit 6.0 EA
- Heater 12.0 EA
- Fridge 6.0 EA
- Hot water cylinder 6.0 EA
- Microwave 6.0 EA
- Range 6.0 EA
- Rangehood 6.0 EA
- Washing Machine 6.0 EA
- Clothes Dryer 6.0 EA

B	27/01/23	For Consent
A	08/12/22	For Consent
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Issue	Date	Description


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 STRUCTURAL MECHANICAL CIVIL HYDRAULIC ELECTRICAL FIRE

ELECTRICAL SERVICES

Job Title
**Kāinga Ora
 Roscommon Rd**
 482-486 Roscommon Road,
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Drawing Name
**Level 4
 Power Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

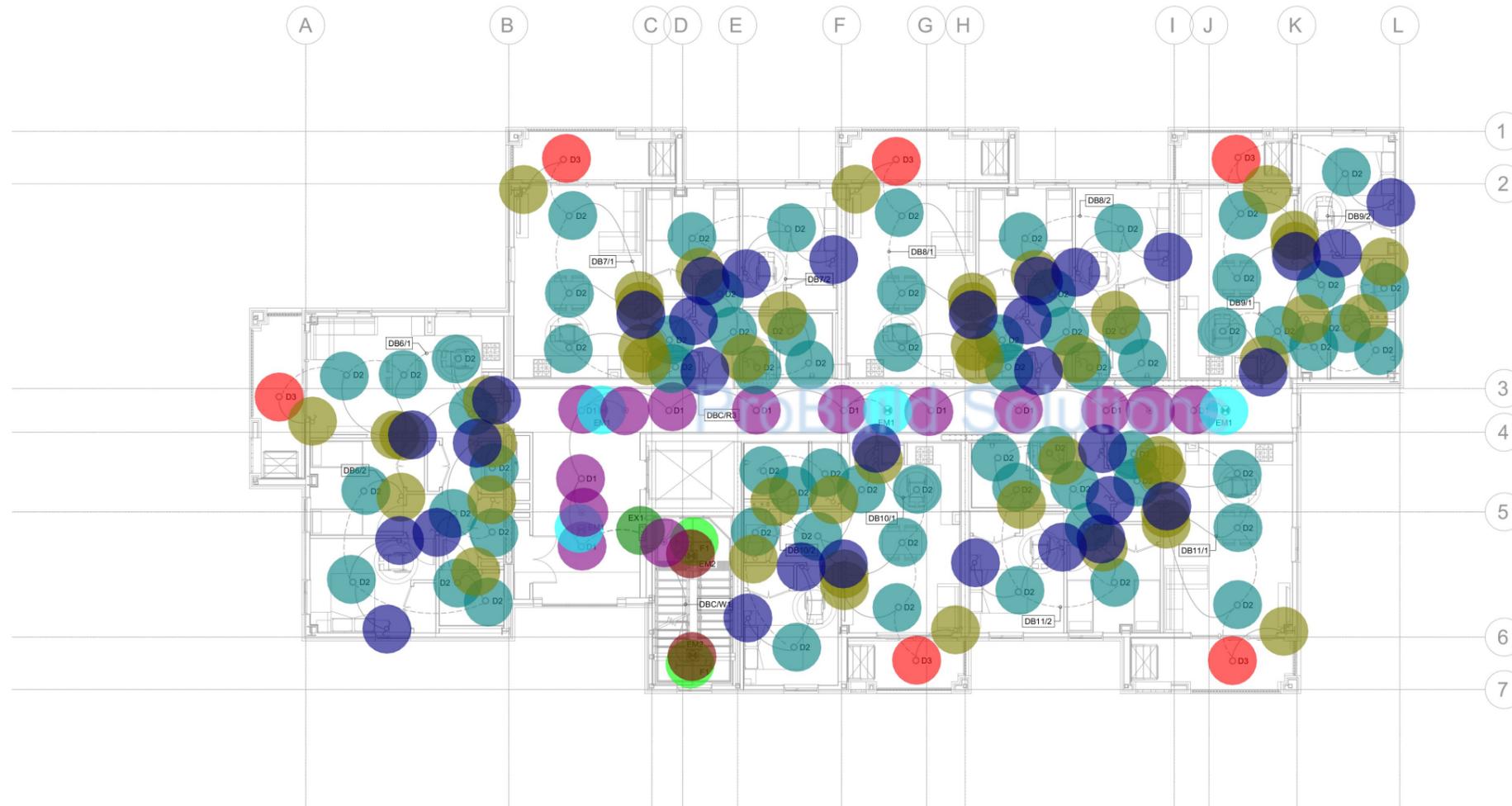
Drawing Scale: **1:100 @ A1**

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Sheet No: **E2.5.1** Job No: **211099** Issue: **B**

Notes:

1. Mounting heights for wall mounted luminaires shall be confirmed with architect prior to installation.



• Recessed downlight - D1	10.0 EA	●
• Recessed downlight - D2	67.0 EA	●
• Recessed downlight - D3	6.0 EA	●
• Batten luminaire - F1	2.0 EA	●
• Single way light switch	46.0 EA	●
• Two way light Switch	32.0 EA	●
• Recessed emergency luminaire - E...	4.0 EA	●
• Surface mounted emergency - EM2	2.0 EA	●
• Surface mounted exit sign - EX1	1.0 EA	●
• Ceiling mounted 360° PIR motion...	4.0 EA	●

Issue	Date	Description
B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design

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Job Title
**Kāinga Ora
 Roscommon Rd**
 482-486 Roscommon Road,
 Clendon Park, Auckland

Drawing Name
**Level 1
 Lighting Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

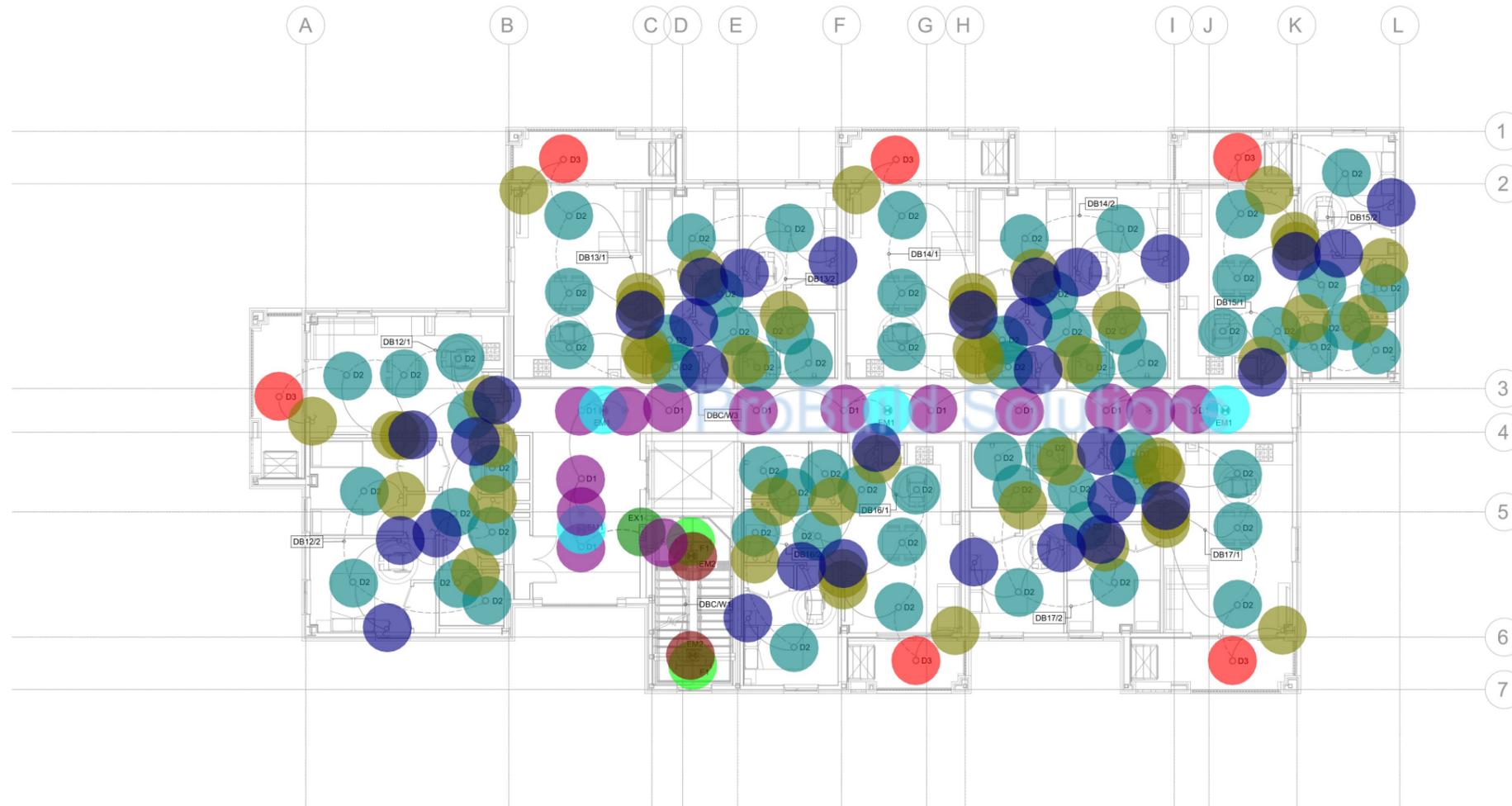
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Sheet No: **E3.2.1** Job No: **211099** Issue: **B**

Notes:

1. Mounting heights for wall mounted luminaires shall be confirmed with architect prior to installation.



• Recessed downlight - D1	10.0 EA	●
• Recessed downlight - D2	67.0 EA	●
• Recessed downlight - D3	6.0 EA	●
• Batten luminaire - F1	2.0 EA	●
• Single way light switch	46.0 EA	●
• Two way light Switch	32.0 EA	●
• Recessed emergency luminaire - EM1	4.0 EA	●
• Surface mounted emergency - EM2	2.0 EA	●
• Surface mounted exit sign - EX1	1.0 EA	●
• Ceiling mounted 360° PIR motion sensor	4.0 EA	●

B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design
Issue	Date	Description


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Job Title
**Kāinga Ora
 Roscommon Rd**
 482-486 Roscommon Road,
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Drawing Name
**Level 2
 Lighting Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

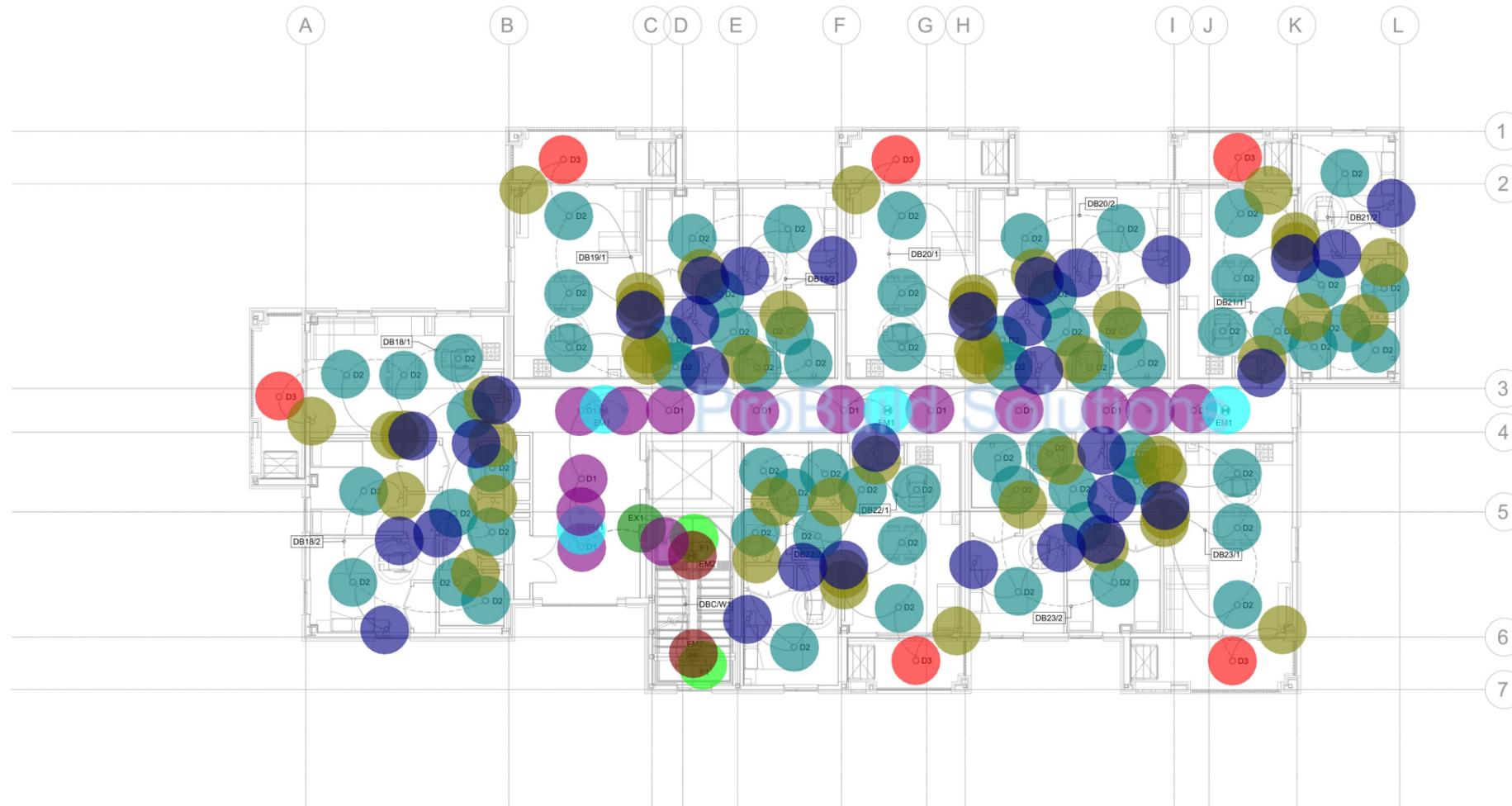
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Sheet No: **E3.3.1** Job No: **211099** Issue: **B**

Notes:

1. Mounting heights for wall mounted luminaires shall be confirmed with architect prior to installation.



- | | | |
|--|---------|---|
| • Recessed downlight - D1 | 10.0 EA | ● |
| • Recessed downlight - D2 | 67.0 EA | ● |
| • Recessed downlight - D3 | 6.0 EA | ● |
| • Batten luminaire - F1 | 2.0 EA | ● |
| • Single way light switch | 46.0 EA | ● |
| • Two way light Switch | 32.0 EA | ● |
| • Recessed emergency luminaire - EM1 | 4.0 EA | ● |
| • Surface mounted emergency - EM2 | 2.0 EA | ● |
| • Surface mounted exit sign - EX1 | 1.0 EA | ● |
| • Ceiling mounted 360° PIR motion sensor | 4.0 EA | ● |

Issue	Date	Description
B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design


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ELECTRICAL SERVICES

Job Title
**Kāinga Ora
 Roscommon Rd**
 482-486 Roscommon Road,
 Clendon Park, Auckland

Drawing Name
**Level 3
 Lighting Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

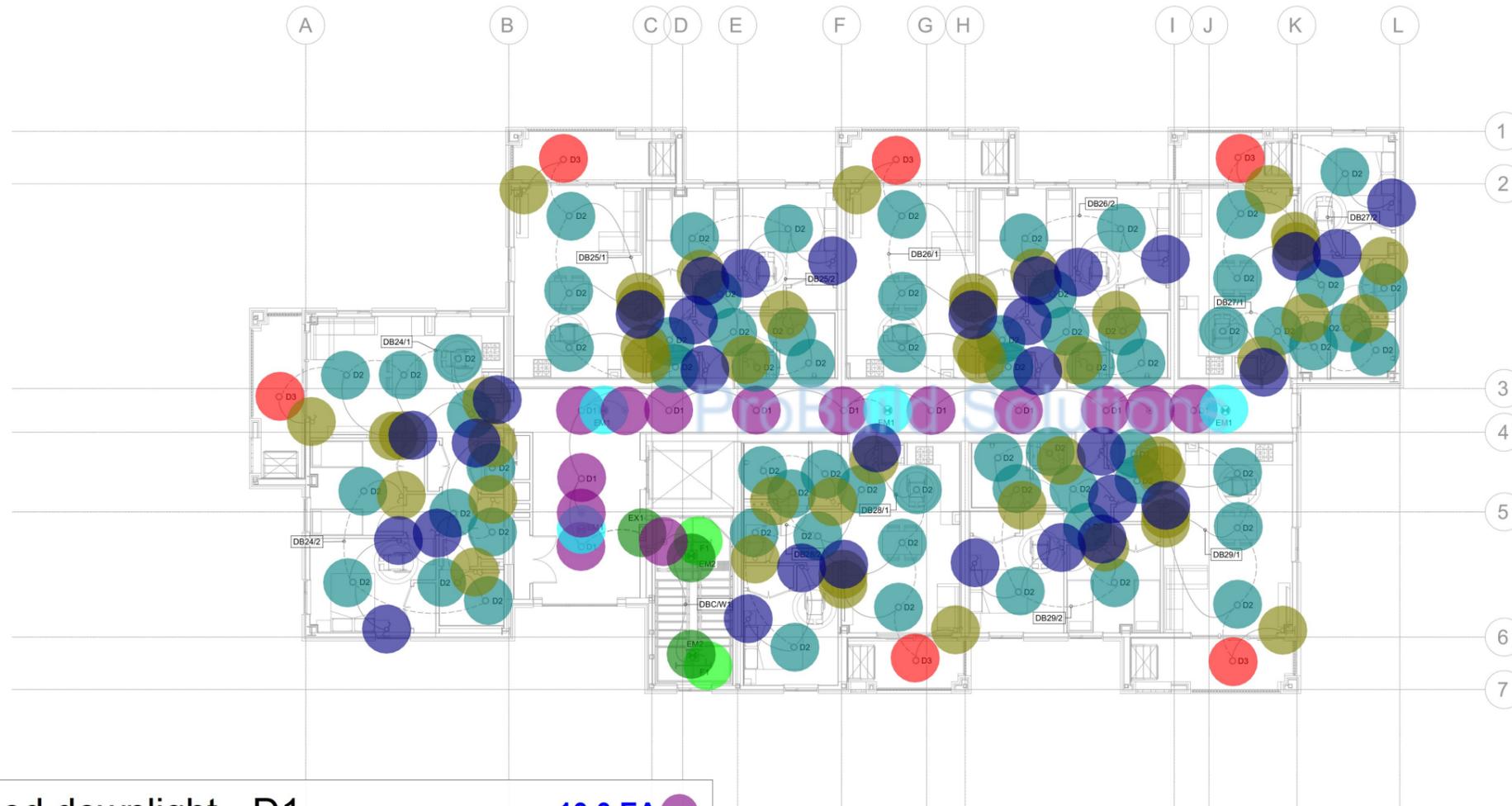
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Sheet No:	Job No:	Issue:
E3.4.1	211099	B

Notes:

1. Mounting heights for wall mounted luminaires shall be confirmed with architect prior to installation.



- | | | |
|---|---------|---|
| • Recessed downlight - D1 | 10.0 EA | ● |
| • Recessed downlight - D2 | 67.0 EA | ● |
| • Recessed downlight - D3 | 6.0 EA | ● |
| • Batten luminaire - F1 | 2.0 EA | ● |
| • Single way light switch | 46.0 EA | ● |
| • Two way light Switch | 32.0 EA | ● |
| • Recessed emergency luminaire - EM1 | 4.0 EA | ● |
| • Surface mounted exit sign - EX1 | 3.0 EA | ● |
| • Ceiling mounted 360° PIR motion se... | 4.0 EA | ● |

Issue	Date	Description
B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design


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 STRUCTURAL MECHANICAL CIVIL HYDRAULIC ELECTRICAL FIRE

ELECTRICAL SERVICES

Job Title
**Kāinga Ora
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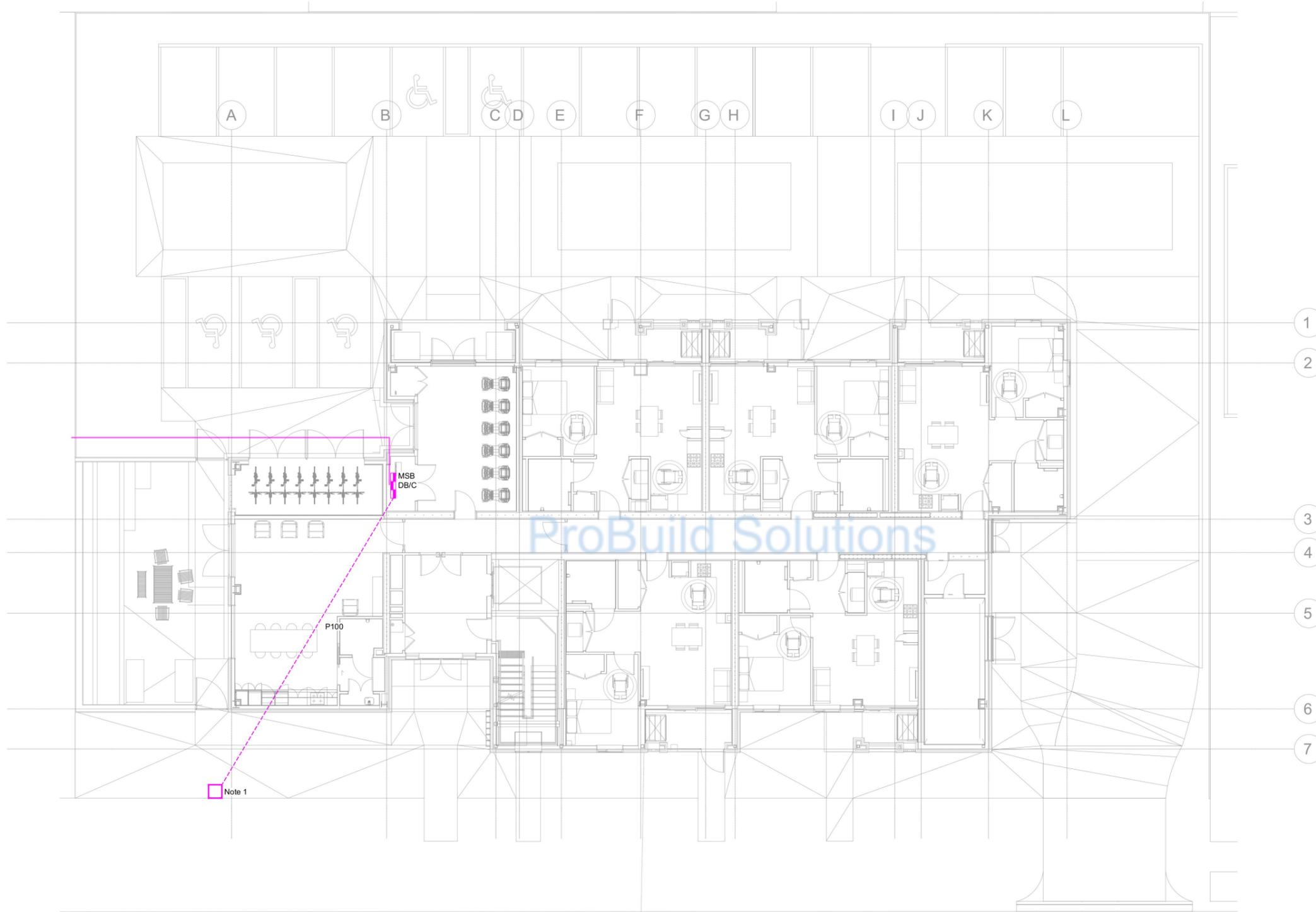
Drawing Name
**Level 4
 Lighting Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

Drawing Scale: **1:100 @ A1**

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Sheet No: **E3.5.1** Job No: **211099** Issue: **B**



Notes:

- Underground cable duct (for mains supply cable) to rise up within Vector services pillar. Liaise with Vector for final location and installation details. Service pillar is outside this scope of work.
- Underground incoming mains cable shall rise up through to MSB room via floor slab penetration.

Note 1

4 x 1C 240mm² AL XLPE/PVC

16.4 M

Issue	Date	Description
B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design


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 STRUCTURAL MECHANICAL CIVIL HYDRAULIC ELECTRICAL FIRE

ELECTRICAL SERVICES

Job Title
**Kāinga Ora
 Roscommon Rd**
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 Clendon Park, Auckland

Drawing Name
 Site Plan

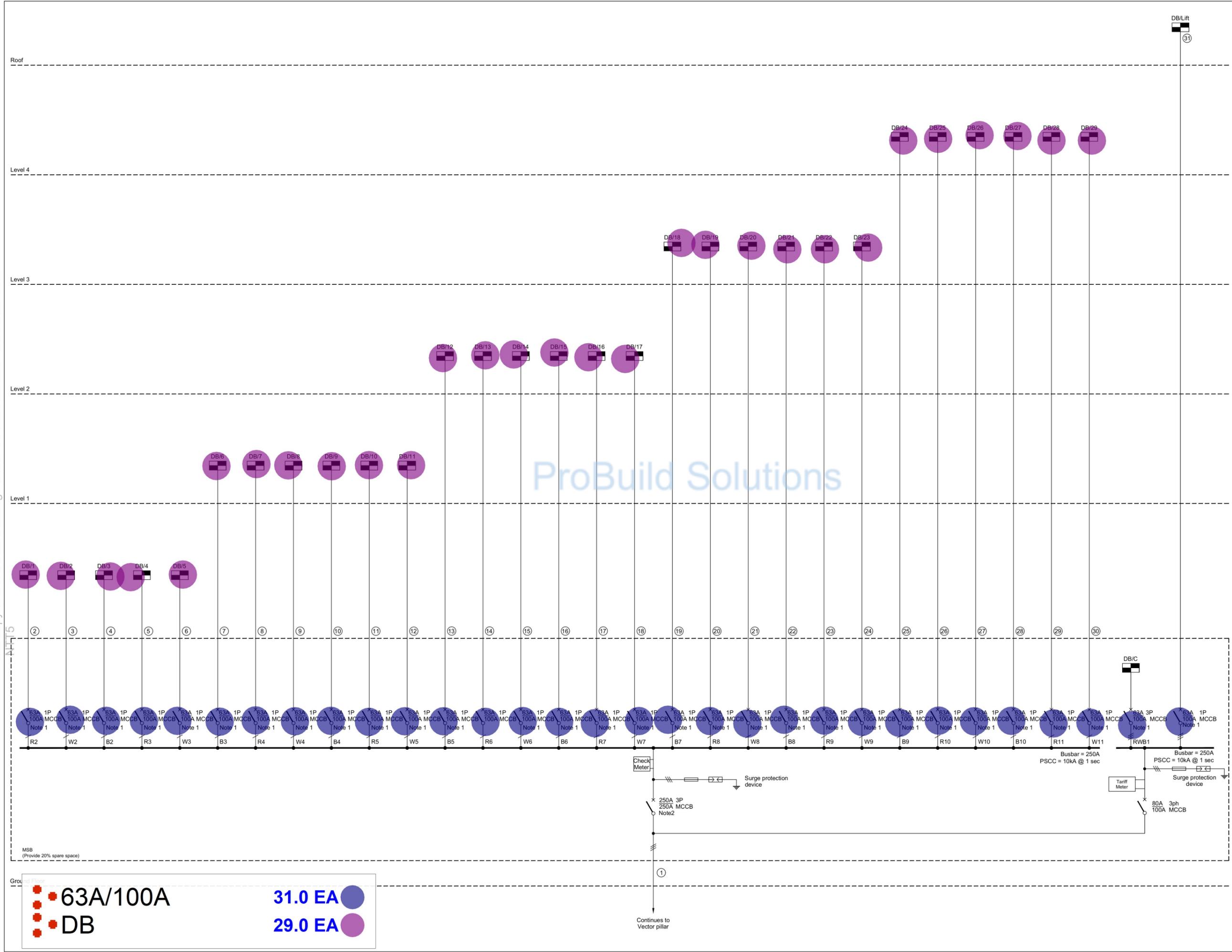
Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

Drawing Scale: **1:100 @ A1**

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Sheet No: **E1.2.1** Job No: **211099** Issue: **B**

- Notes:**
- MCCB to have thermal magnetic trip unit.
 - MCCB to have electronic trip unit.



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ProBuild Solutions

B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design
Issue	Date	Description

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ELECTRICAL SERVICES

Job Title
**Kāinga Ora
 Roscommon Rd**

482-486 Roscommon Road,
 Clendon Park, Auckland

Drawing Name
Single Line Diagram Power

Engineered by **Colin Hendersen**
 Drawn by **Mary Wahab**

Drawing Scale **NTS @ A1**

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Sheet No: **E1.3.1** Job No: **211099** Issue: **B**

Ground Marker

63A/100A **31.0 EA**
DB **29.0 EA**

Cable Schedule			
①	Vector Transformer	MSB	4 x 1C 240mm ² Al XLPE/PVC
②	MSB	DB/1	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
③	MSB	DB/2	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
④	MSB	DB/3	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑤	MSB	DB/4	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑥	MSB	DB/5	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑦	MSB	DB/6	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑧	MSB	DB/7	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑨	MSB	DB/8	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑩	MSB	DB/9	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑪	MSB	DB/10	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑫	MSB	DB/11	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑬	MSB	DB/12	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑭	MSB	DB/13	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑮	MSB	DB/14	1 x 2C +E 25mm ² Cu XLPE/PVC (6mm ² Earth)
⑯	MSB	DB/15	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑰	MSB	DB/16	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑱	MSB	DB/17	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑲	MSB	DB/18	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
⑳	MSB	DB/19	1 x 2C +E 25mm ² Cu XLPE/PVC (6mm ² Earth)
㉑	MSB	DB/20	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
㉒	MSB	DB/21	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
㉓	MSB	DB/22	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
㉔	MSB	DB/23	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
㉕	MSB	DB/24	1 x 2C +E 25mm ² Cu XLPE/PVC (6mm ² Earth)
㉖	MSB	DB/25	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
㉗	MSB	DB/26	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
㉘	MSB	DB/27	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
㉙	MSB	DB/28	1 x 2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)
㉚	MSB	DB/29	1 x 2C +E 25mm ² Cu XLPE/PVC (6mm ² Earth)
㉛	MSB	Litt	1 x 4C 16mm ² Cu PVC/XLPE (6mm ² Earth) Fire Rated Cable + 10mm ² Earth

B	27/01/23	For Consent
A	09/12/22	For Consent
Issue	Date	Description



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STRUCTURAL MECHANICAL CIVIL HYDRAULIC ELECTRICAL FIRE

ELECTRICAL SERVICES

Job Title
**Kāinga Ora
Roscommon Rd**
482-486 Roscommon Road,
Clendon Park, Auckland

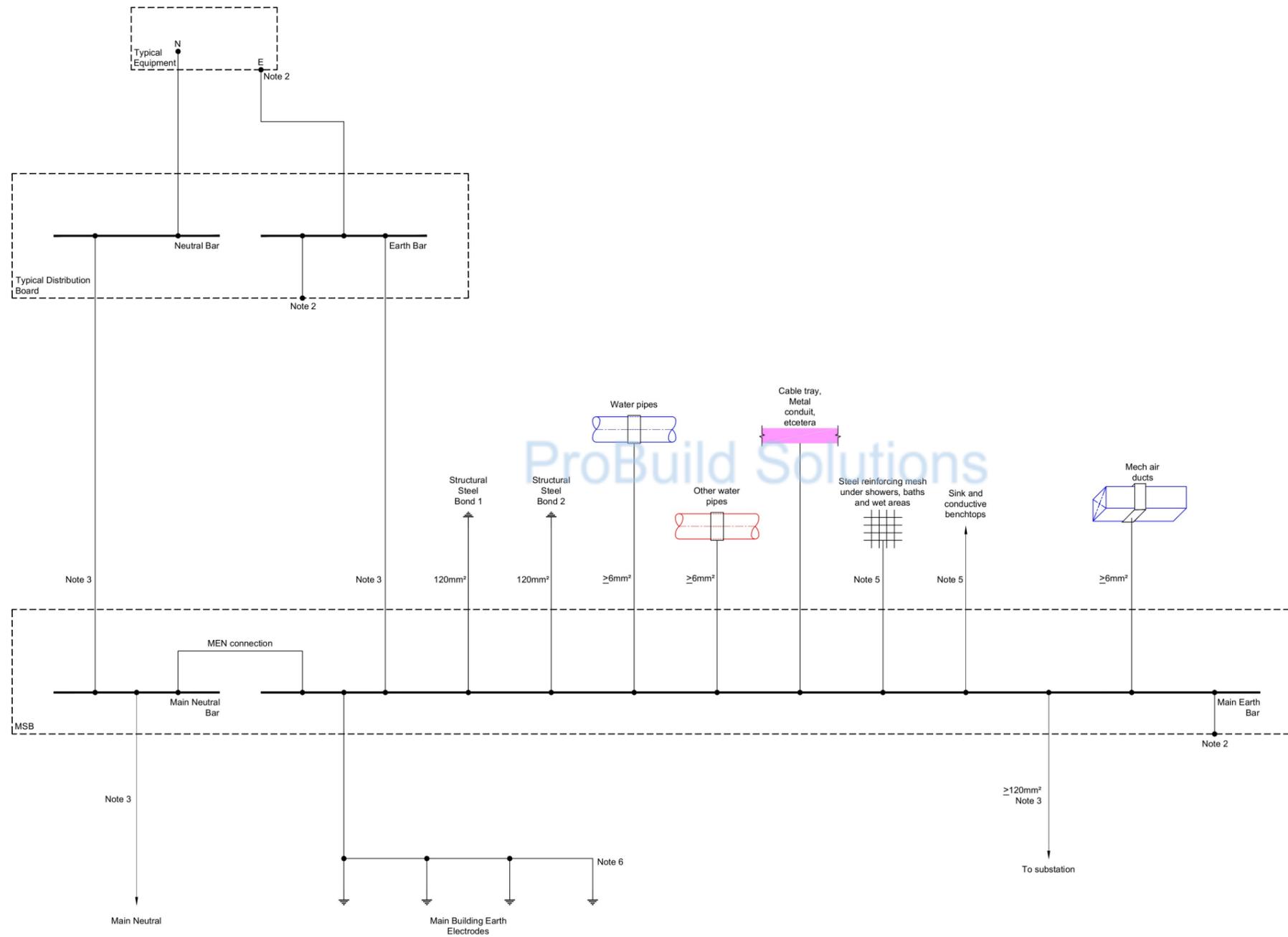
Drawing Name
Cable Schedule

Engineered by: **Colin Henderson**
Drawn by: **Mary Wahab**

Drawing Scale: **NTS @ A1**

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Sheet No:	Job No:	Issue:
E1.3.2	211099	B



Notes:

1. All earthing is to be provided in accordance with Section 5 of AS/NZS 3000:2007.
2. Connected to exposed conductive parts.
3. Refer to cable schedule in Electrical specification.
4. Cable to be sized in accordance with AS/NZS 3000:2007 clause 5.3.3.
5. Cable to be sized in accordance with AS/NZS 3000:2007 clause 5.6.3.2.
6. Size/installation method in accordance with AS/NZS 3000:2007 clause 5.3.6.

Issue	Date	Description
B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design


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TMCO.CO.NZ CONSULTING ENGINEERS
 STRUCTURAL MECHANICAL CIVIL HYDRAULIC ELECTRICAL FIRE

ELECTRICAL SERVICES

Job Title
**Kāinga Ora
 Roscommon Rd**
 482-486 Roscommon Road,
 Clendon Park, Auckland

Drawing Name
Single Line Diagram Earthing

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

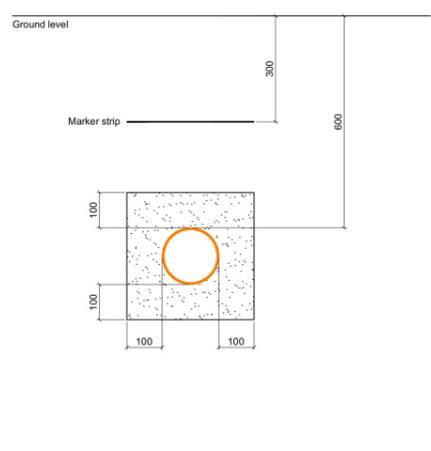
Drawing Scale **NTS @ A1**

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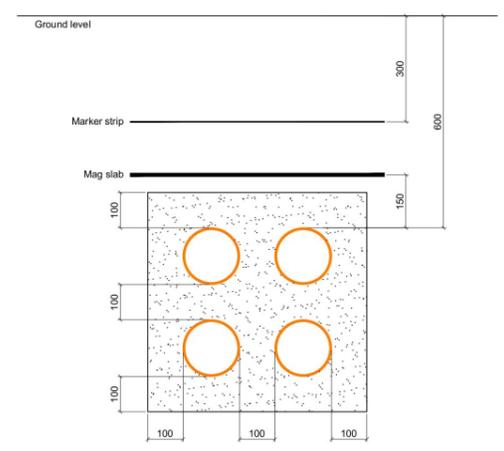
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Sheet No: **E1.4.1** Job No: **211099** Issue: **B**

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Detail 1: Typical section - Single underground duct
Scale: NTS

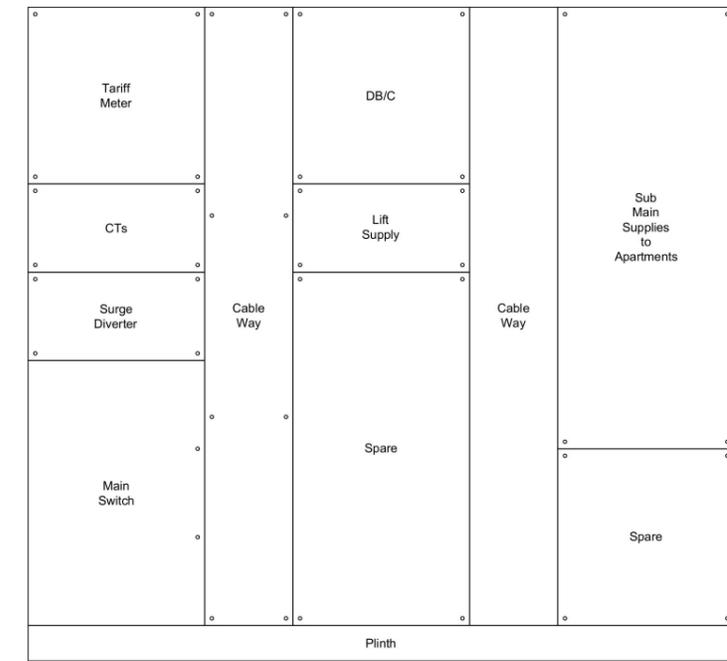


Detail 2: Typical section - Multiple underground ducts
Scale: NTS

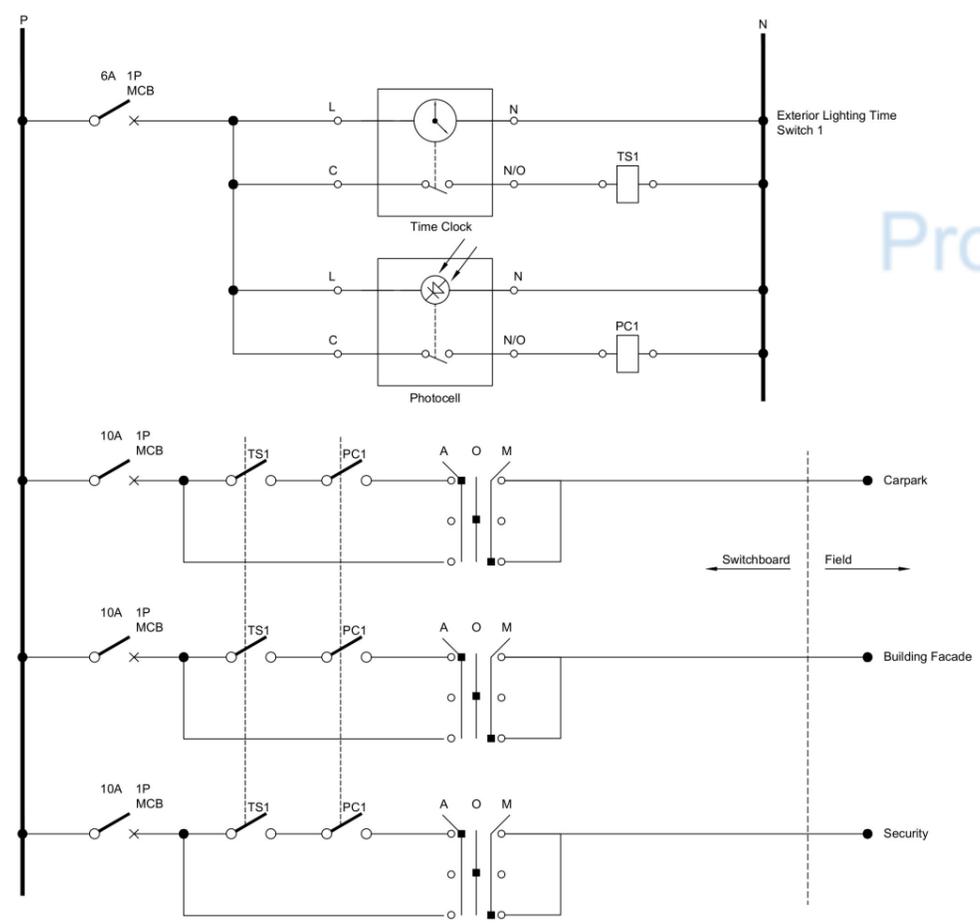
Type of service	Minimum separation to mechanically protected low voltage electrical
Water service not greater than 65mm inside diameter	100mm
Water service greater than 65mm inside diameter	300mm
Sanitary drainage	100mm
Stormwater drainage	100mm
Gas	100mm
Telecommunications	100mm

Notes:
1. Authorities, such as water and gas suppliers and electricity distributors, may require their services to be spaced at a greater distance from underground wiring systems

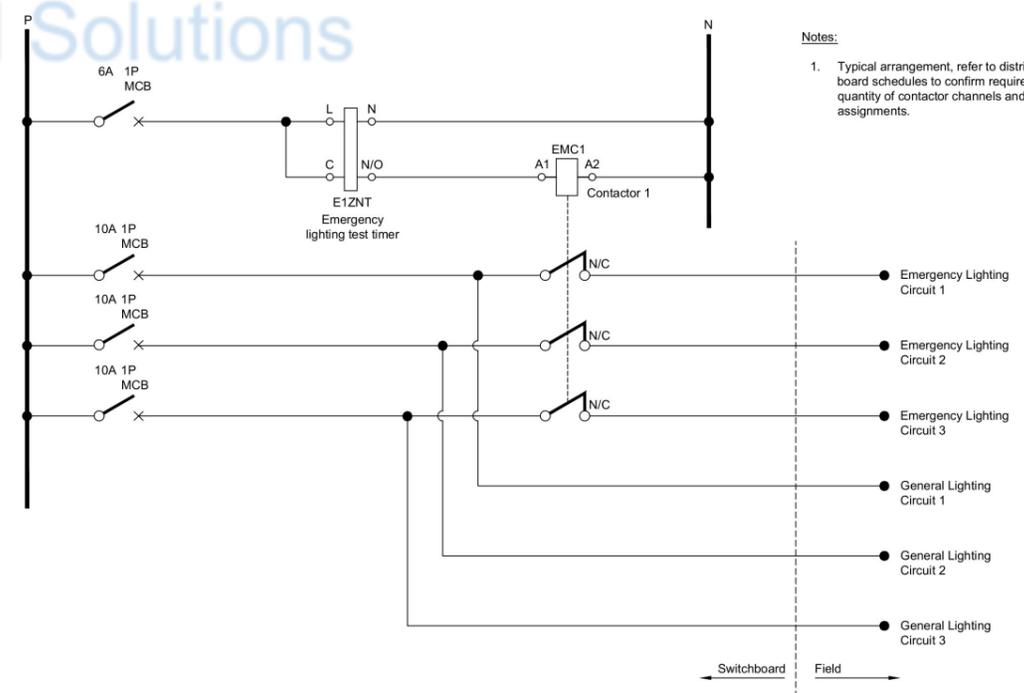
Table 1: Minimum Separation Distance - Underground Services



Detail 3: Main Switchboard Elevation
Scale: 1:10



Detail 3: Typical Exterior Lighting Schematic
Scale: NTS



Detail 4: Typical Emergency Lighting Schematic
Scale: NTS

Notes:
1. Typical arrangement, refer to distribution board schedules to confirm required quantity of contactor channels and circuit assignments.

B	27/01/23	For Consent
A	08/12/22	For Consent
3	14/11/22	For 90% Detailed Design
2	01/11/22	For 60% Detailed Design
Issue	Date	Description

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ELECTRICAL SERVICES

Job Title
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482-486 Roscommon Road,
Clendon Park, Auckland

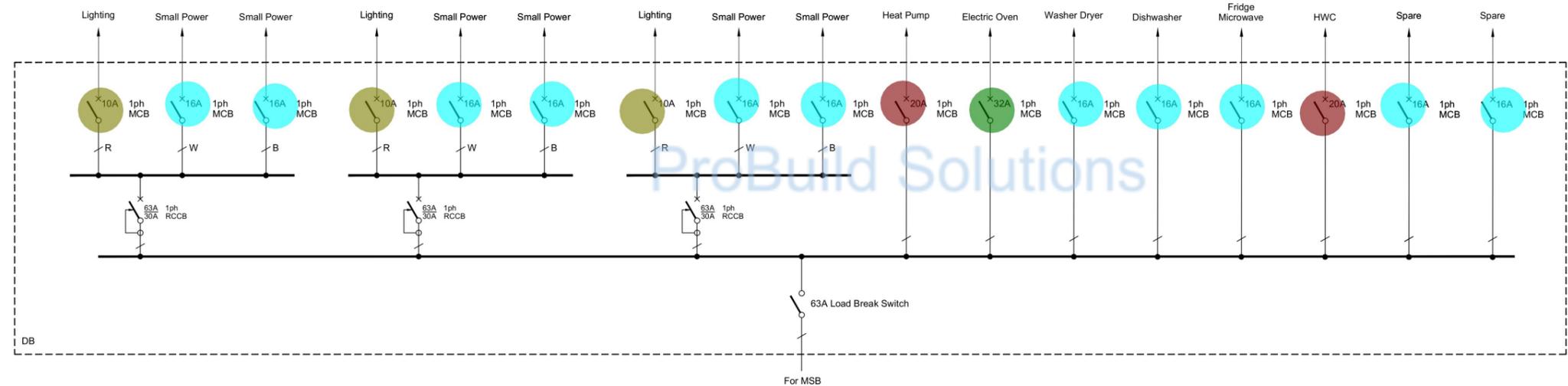
Drawing Name
Details

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Drawn by: **Mary Wahab**

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●●●● 16A	11.0 EA ●●
●●●● 20A	2.0 EA ●●
●●●● 32A	1.0 EA ●●
●●●● 10A	3.0 EA ●●

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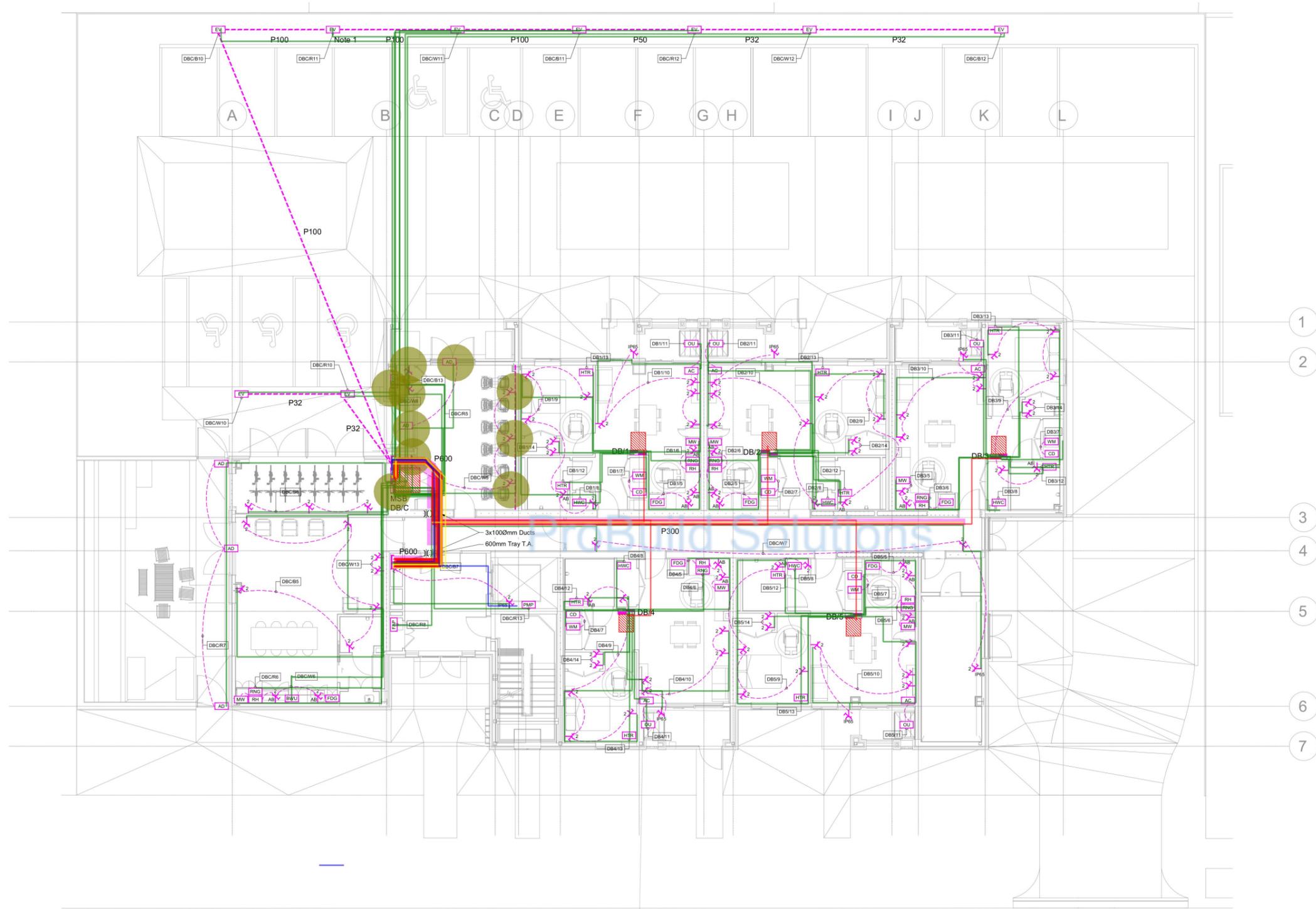
Drawing Name
Details P12

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Sheet No: **E1.5.2** Job No: **211099** Issue: **B**



- 2x4mm² + 2.5mm² Earth
- Power vertical
- 1x4C 16mm² CuPVC/XLPE (6mm² Earth) Fire rated cable+10mm² Earth
- 1x2C +E 16mm² Cu XLPE/PVC (6mm² Earth)
- 1x2C +E 25mm² Cu XLPE/PVC (6mm² Earth)
- 2x2.5mm²+2.5 Earth
- 300 Cable tray
- 600mm cable tray

- 850.8 M
- 10.0 EA
- 13.7 M
- 311.3 M
- 28.6 M
- 36.1 M
- 24.0 M
- 7.6 M

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2	01/11/22	For 60% Detailed Design
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Job Title

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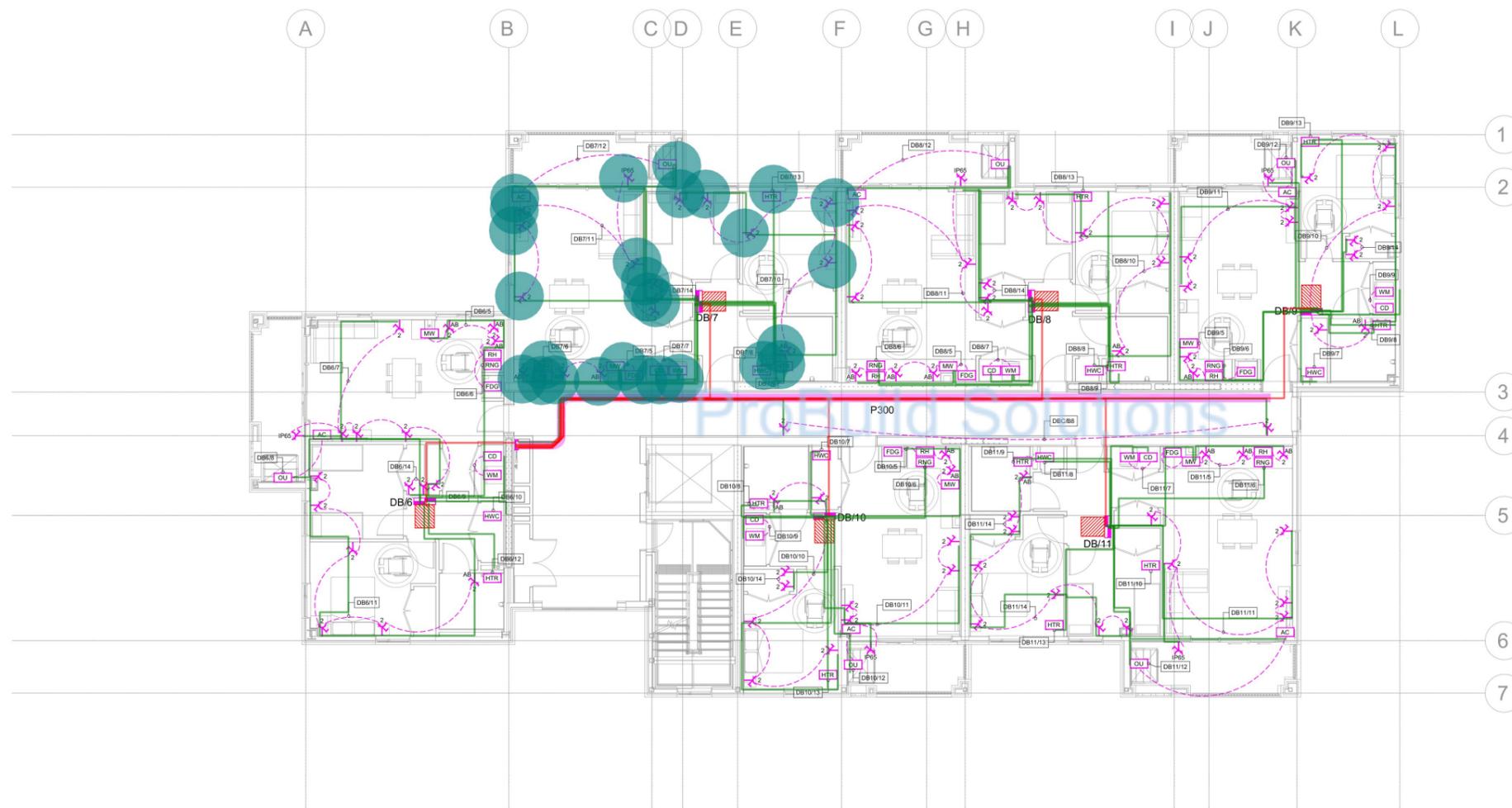
Drawing Name: Ground Floor
Power Layout

Engineered by: Colin Henderson
Drawn by: Mary Wahab

Drawing Scale: 1:100 @ A1

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E2.1.1	211099	B



	2x4mm ² + 2.5mm ² Earth	271.4 M	
	2x4mm ² + 2.5mm ² Earth	69.1 M	
	2x4mm ² + 2.5mm ² Earth	69.1 M	
	2x4mm ² + 2.5mm ² Earth	90.4 M	
	1x2C +E 16mm ² Cu XLPE/PVC (6mm ² Ea...)	114.1 M	
	vertical point	28.0 EA	

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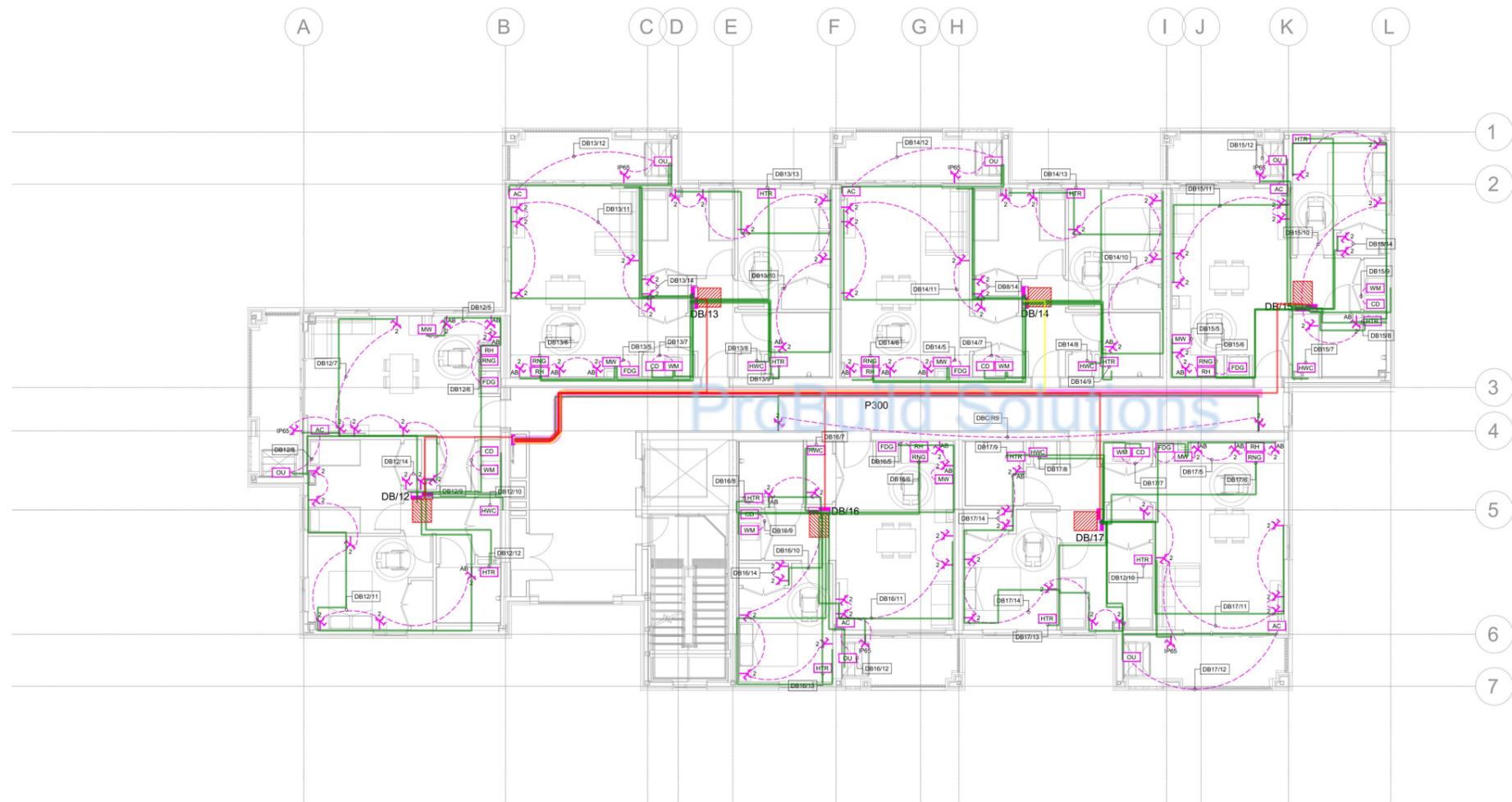
Drawing Name
**Level 1
 Power Layout**

Engineered by **Colin Henderson**
 Drawn by **Mary Wahab**

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	2x4mm ² + 2.5mm ² Earth	271.4 M	
	2x4mm ² + 2.5mm ² Earth	69.1 M	
	2x4mm ² + 2.5mm ² Earth	69.1 M	
	2x4mm ² + 2.5mm ² Earth	90.4 M	
	1x2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)	90.9 M	
	1x2C +E 25mm ² Cu XLPE/PVC (6mm ² Earth)	23.7 M	

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Job Title
Kāinga Ora
Roscommon Rd
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 Clendon Park, Auckland

Drawing Name
Level 2
Power Layout

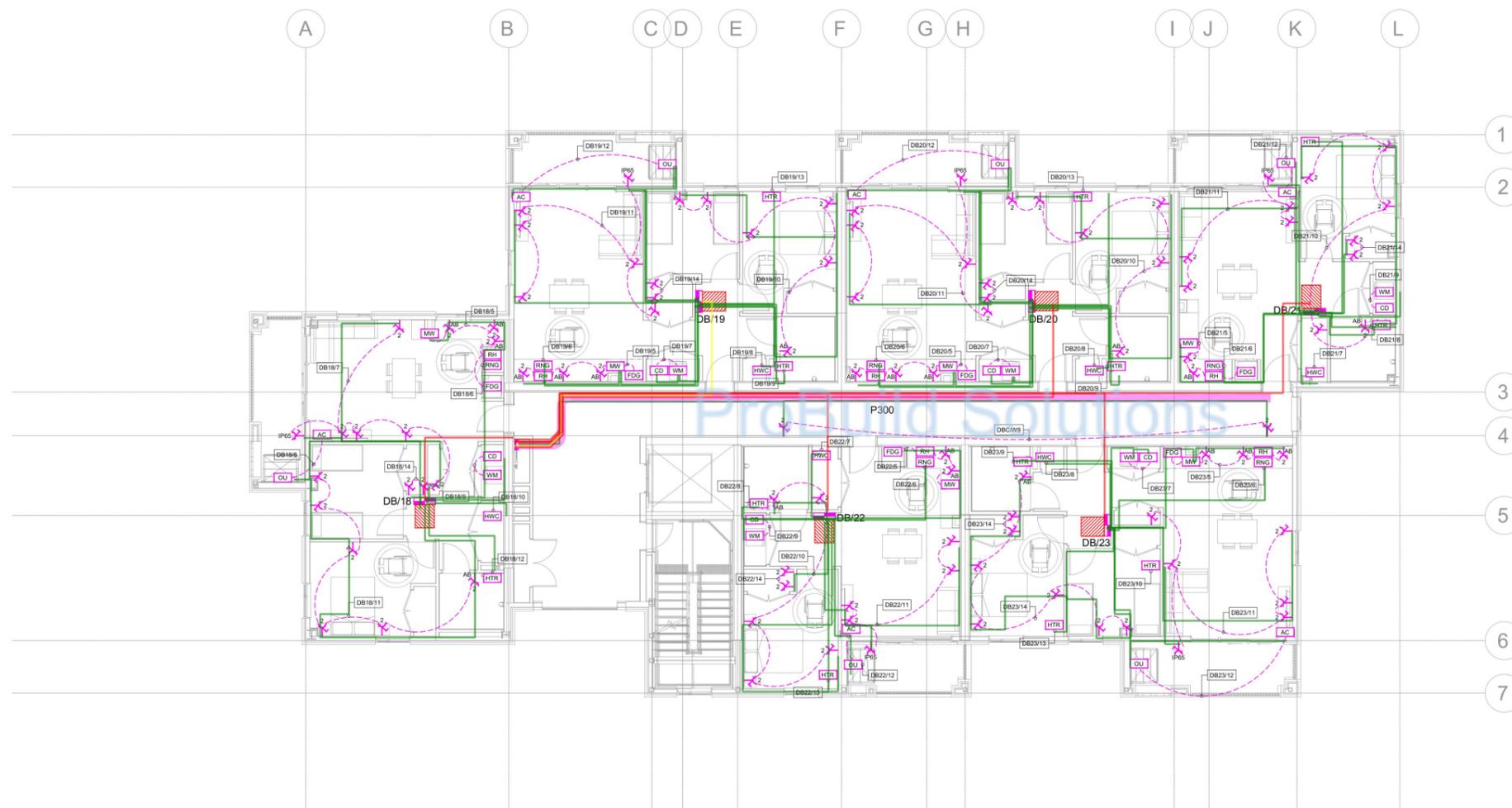
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	2x4mm ² + 2.5mm ² Earth	271.4 M	
	2x4mm ² + 2.5mm ² Earth	69.1 M	
	2x4mm ² + 2.5mm ² Earth	69.1 M	
	2x4mm ² + 2.5mm ² Earth	90.4 M	
	1x2C +E 16mm ² Cu XLPE/PVC (6mm ² Earth)	102.3 M	
	1x2C +E 25mm ² Cu XLPE/PVC (6mm ² Earth)	11.9 M	

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Job Title
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Roscommon Rd
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Drawing Name
Level 3
Power Layout

Engineered by **Colin Henderson**
 Drawn by **Mary Wahab**

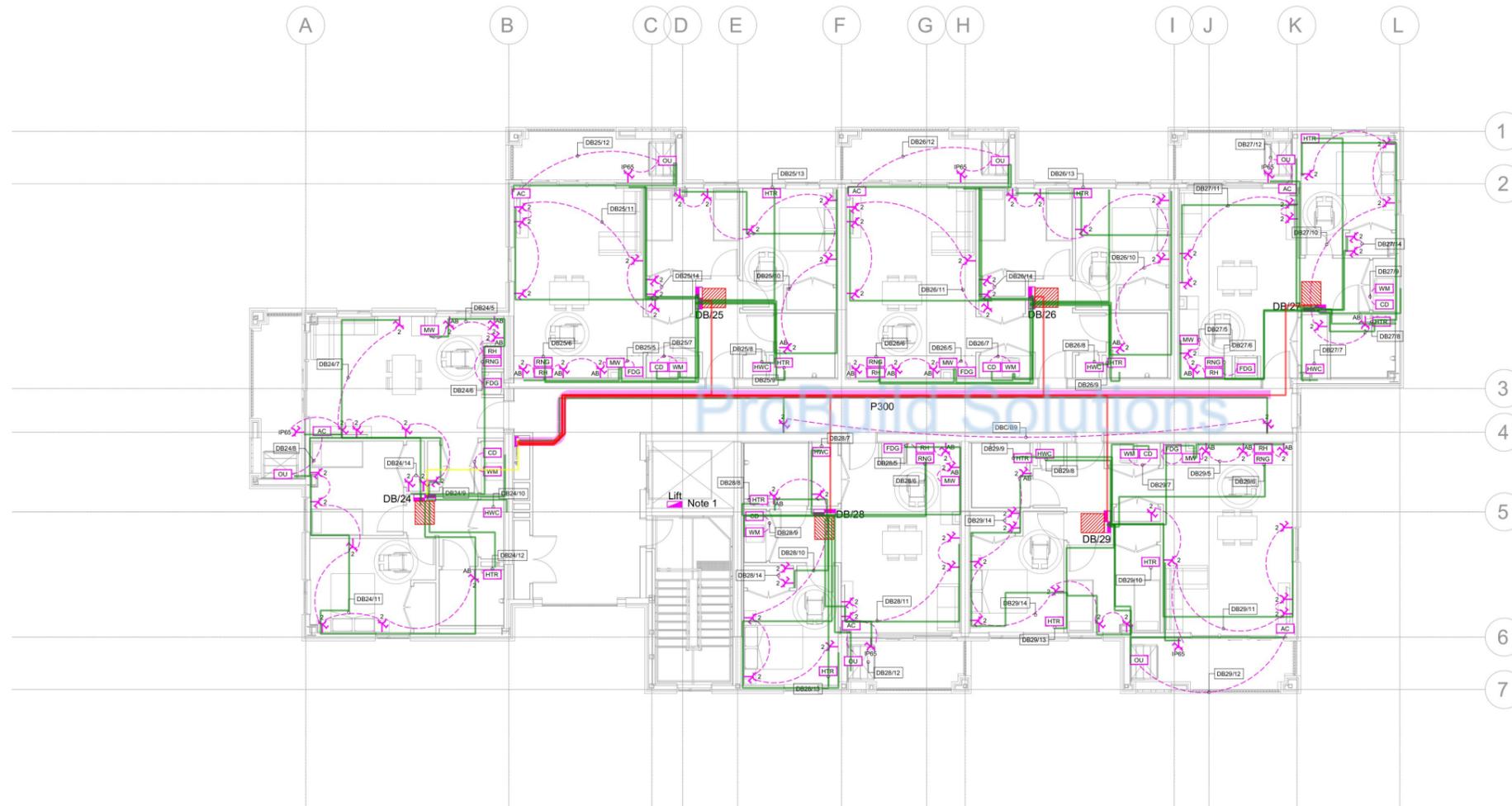
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Notes:

1. Power supply to lift to be co-ordinated with lift supplier.



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	2x4mm ² + 2.5mm ² Earth	271.4 M	
	2x4mm ² + 2.5mm ² Earth	69.1 M	
	2x4mm ² + 2.5mm ² Earth	69.1 M	
	2x4mm ² + 2.5mm ² Earth	90.4 M	
	1x2C + E 16mm ² Cu XLPE/PVC (6mm ² Earth)	108.8 M	
	1x2C + E 25mm ² Cu XLPE/PVC (6mm ² Earth)	5.1 M	

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Level 4
Power Layout

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Sheet No: **E2.5.1** Job No: **211099** Issue: **B**

Notes:

1. Mounting heights for wall mounted luminaires shall be confirmed with architect prior to installation.
2. Photovoltaic sensor shall be surface mounted on the underside of the eave above entrance.
3. Supply and install cable pit ACO Type 33 (340 x 340 x 440) or approved equivalent.
4. Cables to exterior bollards to drop down to underground conduit.



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	2x2.5mm ² +2.5 Earth		655.7 M
	3 way wire		18.4 M
	vertical		10.0 EA
	Switch Vertical		11.0 EA

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Job Title
**Kāinga Ora
Roscommon Rd**

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Drawing Name
Ground Floor
Lighting Layout

Engineered by: **Colin Henderson**
Drawn by: **Mary Wahab**

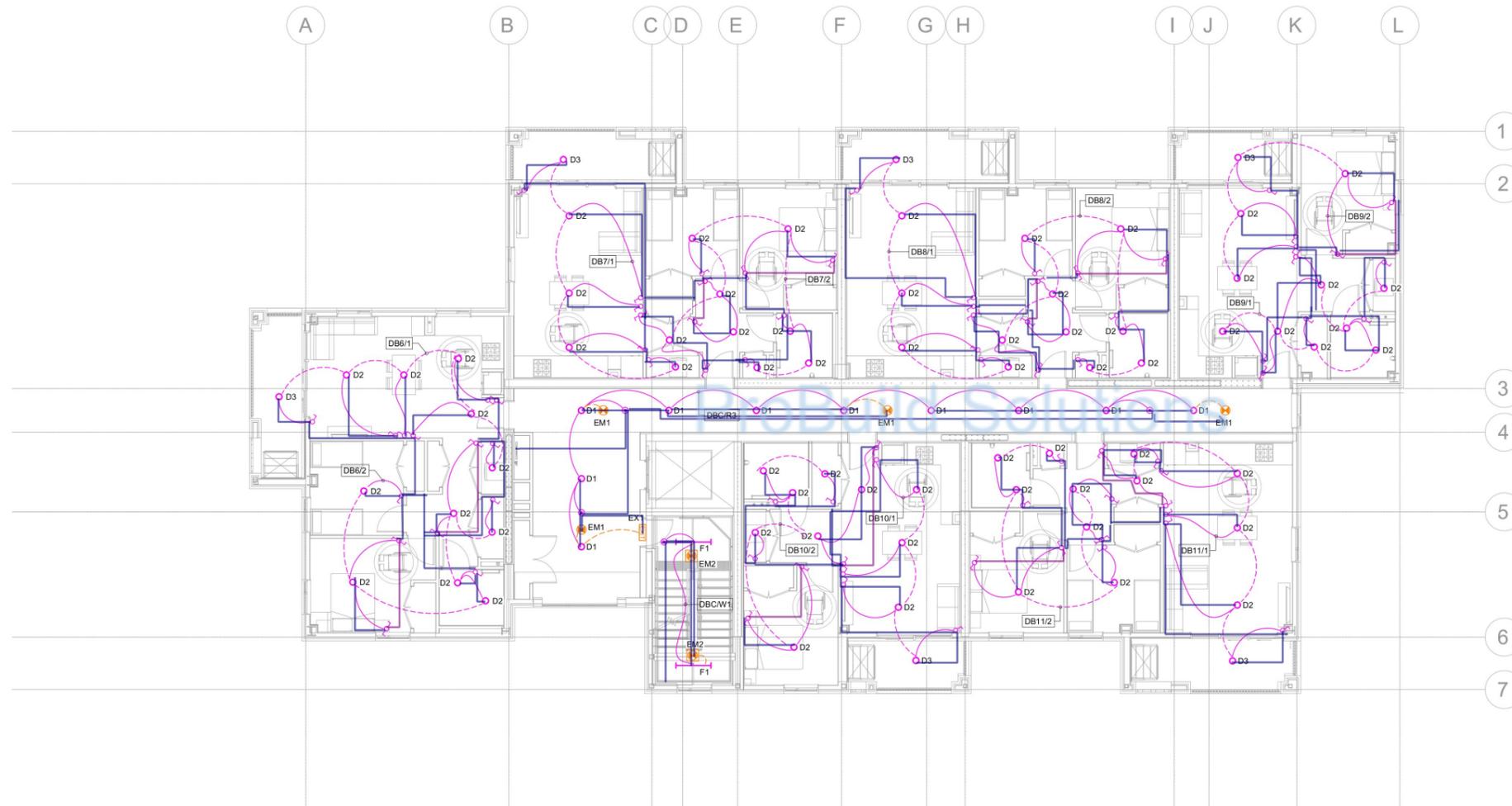
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Notes:

1. Mounting heights for wall mounted luminaires shall be confirmed with architect prior to installation.



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	2x2.5mm ² +2.5 Earth	378.1 M	
	3 way wire	38.2 M	

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Job Title
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Drawing Name
**Level 1
Lighting Layout**

Drawn by: **Colin Henderson**
 Drawn by: **Mary Wahab**

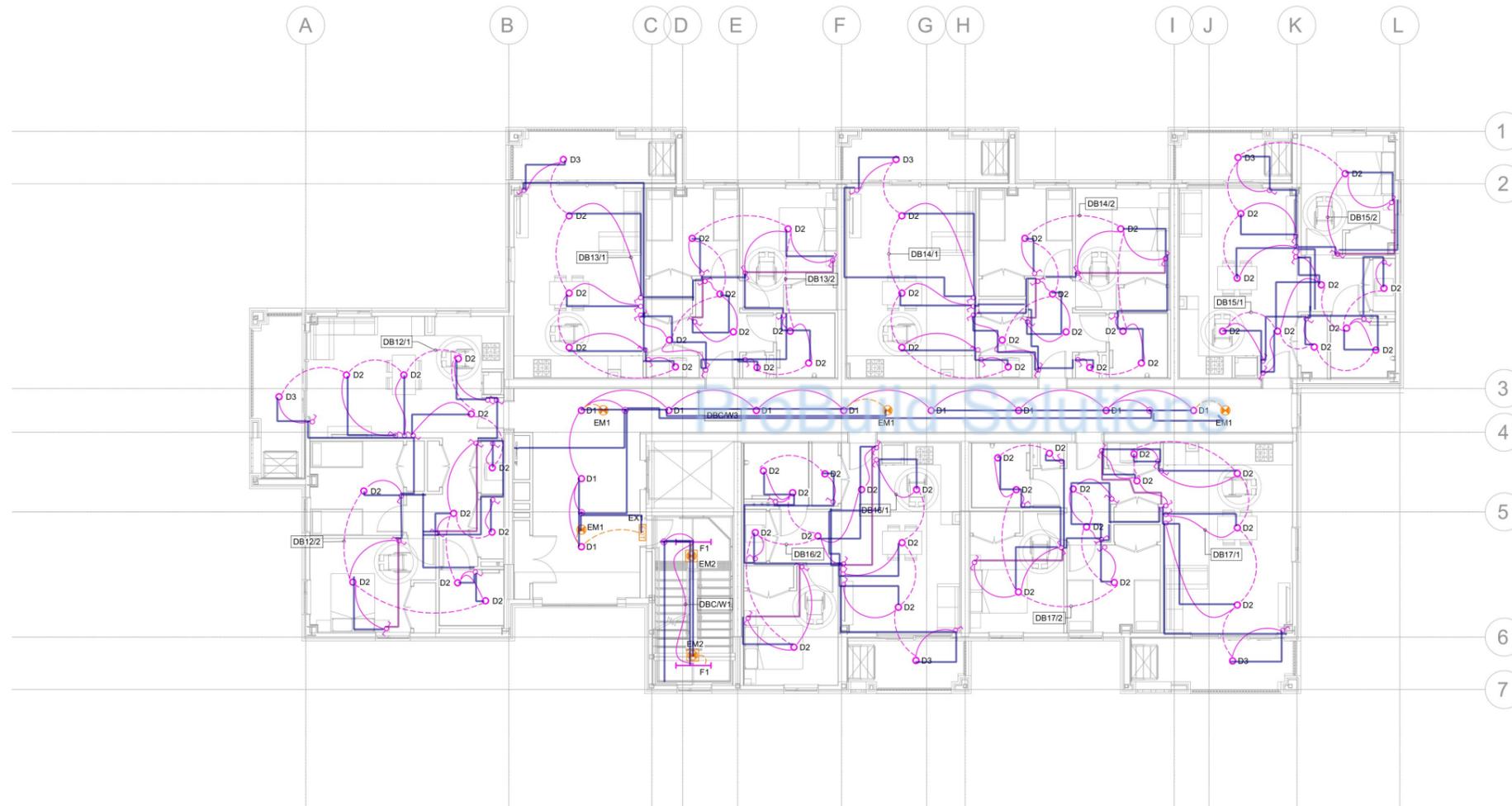
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Notes:

1. Mounting heights for wall mounted luminaires shall be confirmed with architect prior to installation.



2x2.5mm ² +2.5 Earth	378.1 M	
3 way wire	38.2 M	

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Job Title
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Drawing Name
 Level 2
 Lighting Layout

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

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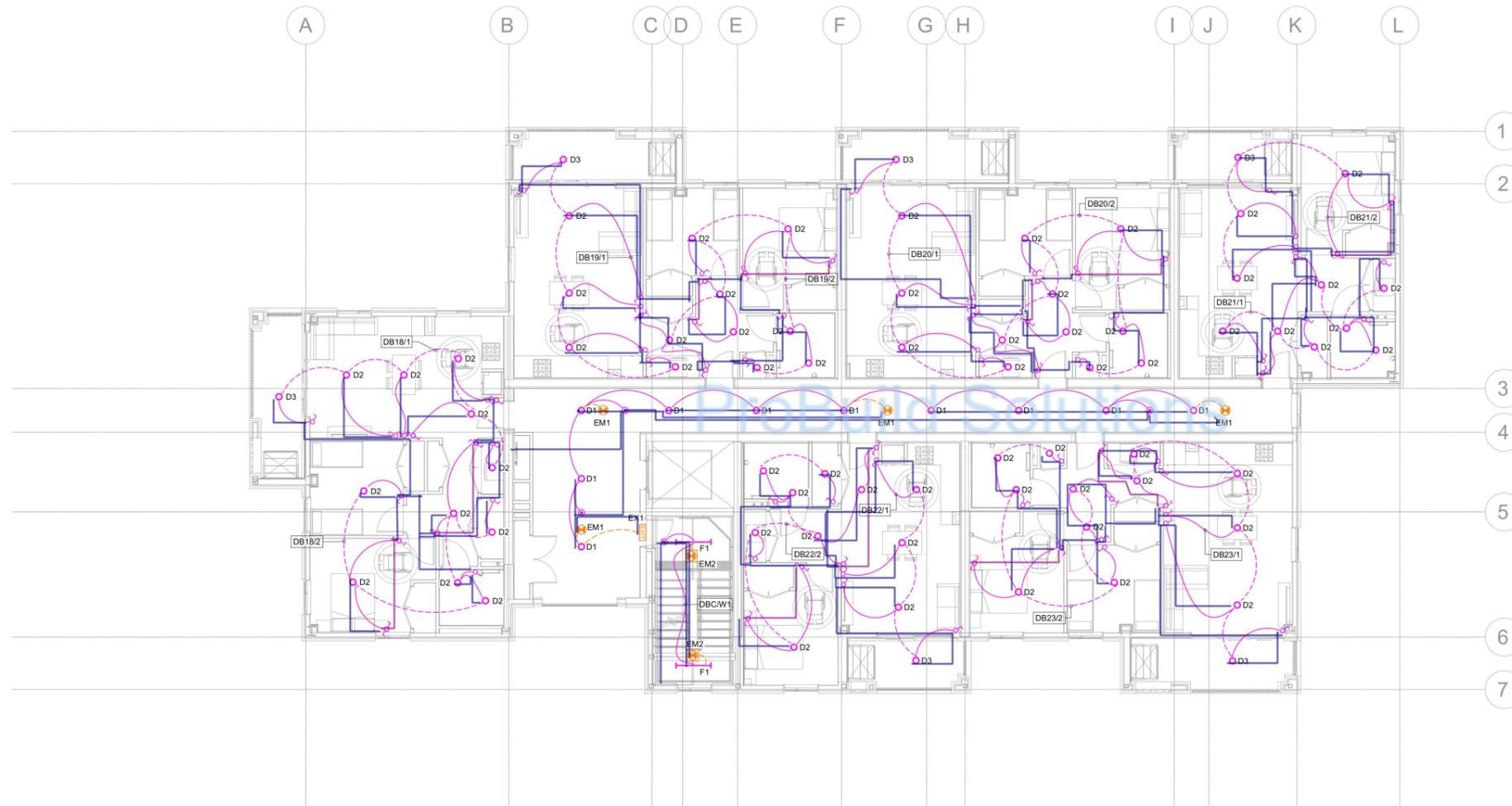
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	2x2.5mm ² +2.5 Earth	378.1 M	
	3 way wire	38.2 M	

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Drawing Name
Level 3
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Engineered by: **Colin Henderson**
Drawn by: **Mary Wahab**

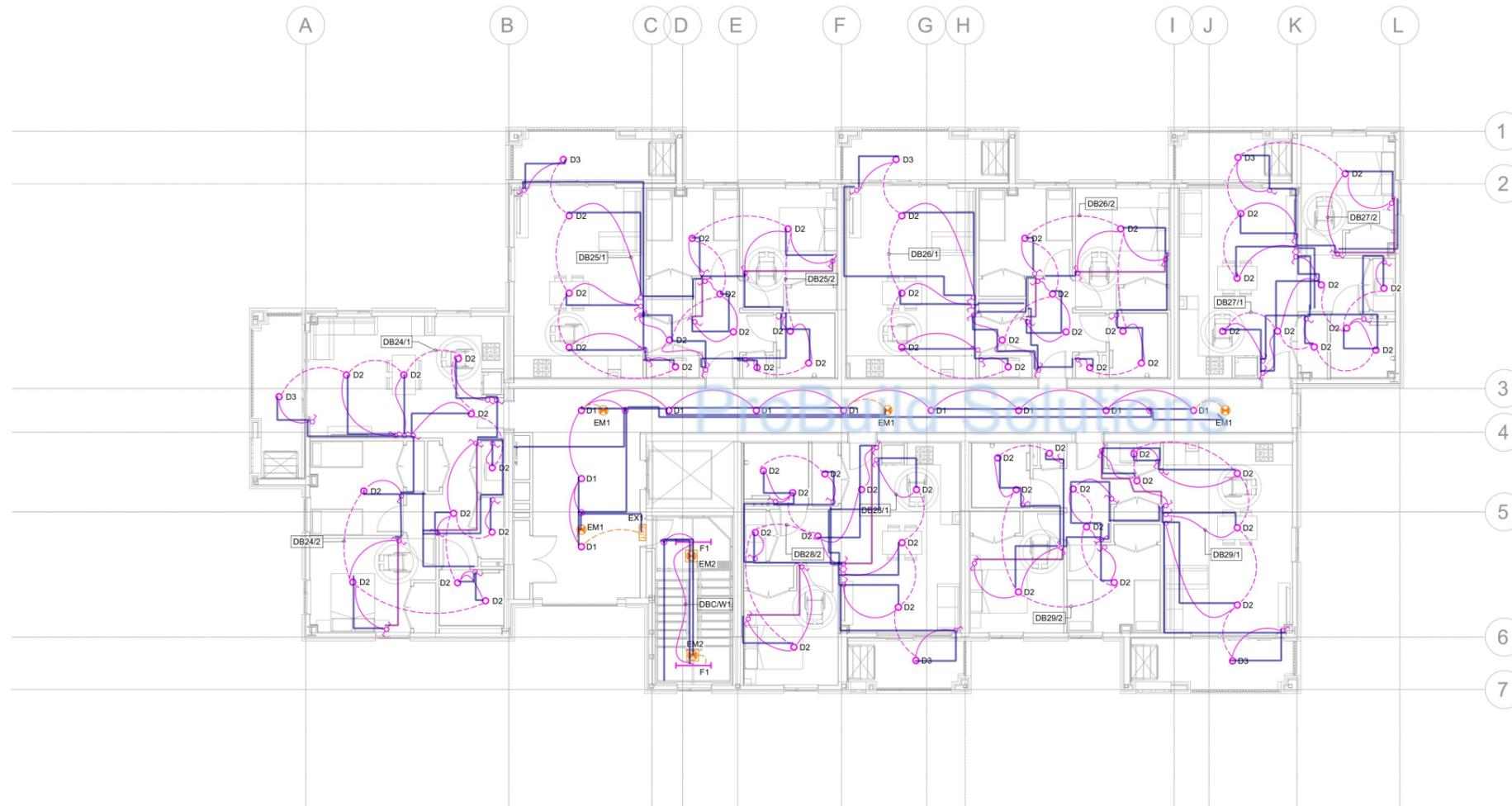
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Notes:

1. Mounting heights for wall mounted luminaires shall be confirmed with architect prior to installation.



 2x2.5mm ² +2.5 Earth	378.1 M	
 3 way wire	38.2 M	

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Job Title
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Drawing Name
**Level 4
 Lighting Layout**

Engineered by: **Colin Henderson**
 Drawn by: **Mary Wahab**

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