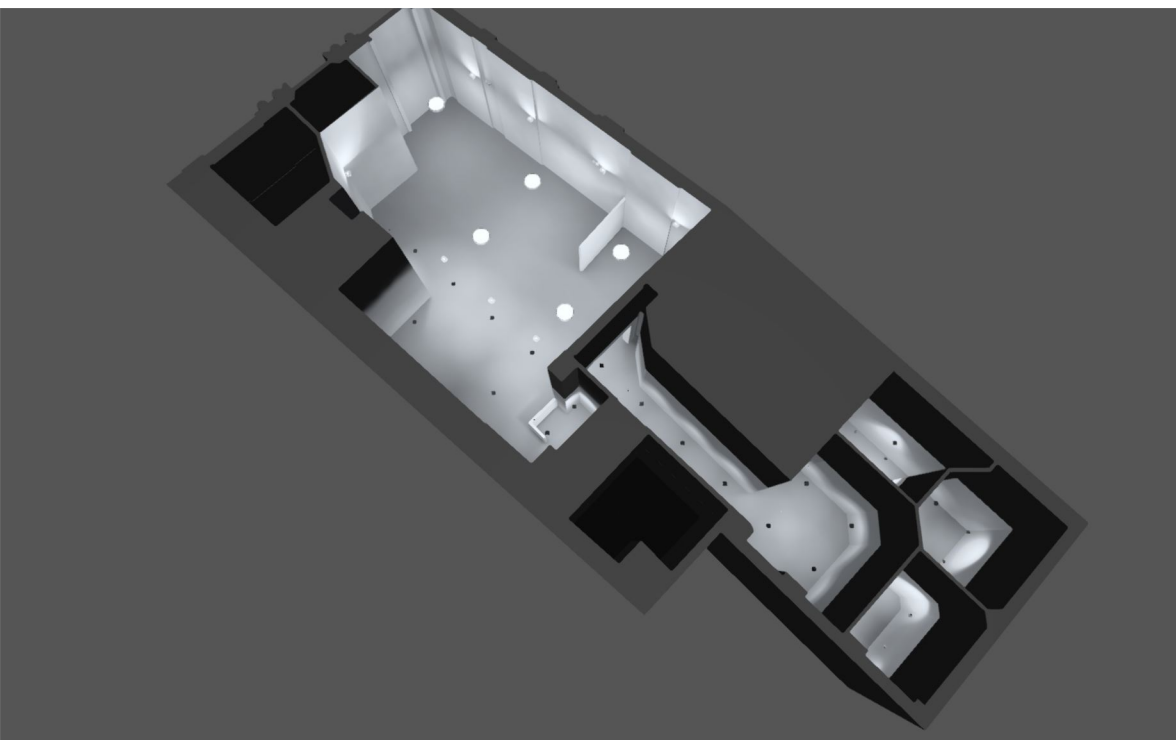
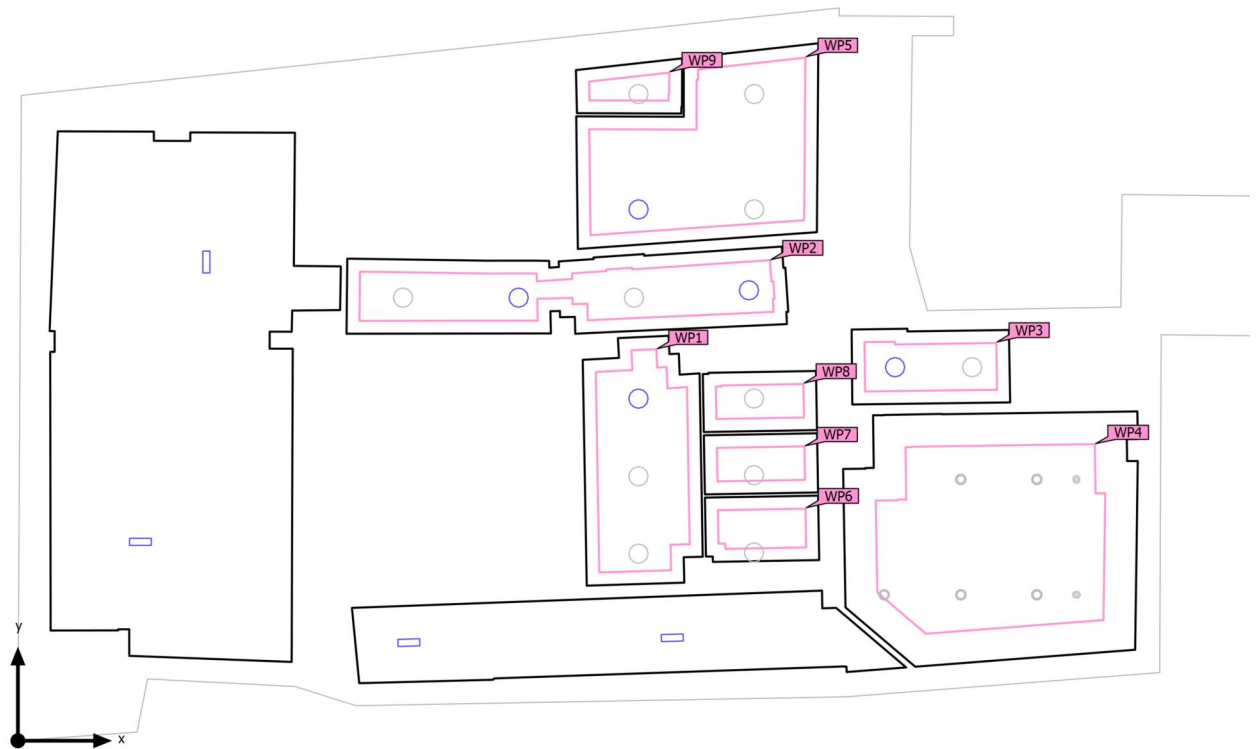




Halifax Wrexham REV 4

Building 1 · Basement (Emergency light scene)

## Calculation objects



## Building 1 · Basement (Emergency light scene)

**Calculation objects**

## Anti panic surfaces

| Properties                                                                                 | $E_{min}$<br>(Target)             | $E_{max}$ | $U_d$<br>(Target)             | Index |
|--------------------------------------------------------------------------------------------|-----------------------------------|-----------|-------------------------------|-------|
| Anti panic surface (Store)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m      | 2.05 lx<br>( $\geq 0.50$ lx)<br>✓ | 7.16 lx   | 0.29<br>( $\geq 0.025$ )<br>✓ | AP1   |
| Anti panic surface (Store 2)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m    | 1.99 lx<br>( $\geq 0.50$ lx)<br>✓ | 7.04 lx   | 0.28<br>( $\geq 0.025$ )<br>✓ | AP2   |
| Anti panic surface (Female W.C)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 3.69 lx<br>( $\geq 0.50$ lx)<br>✓ | 13.5 lx   | 0.27<br>( $\geq 0.025$ )<br>✓ | AP3   |
| Anti panic surface (Male W.C)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m   | 2.19 lx<br>( $\geq 0.50$ lx)<br>✓ | 13.5 lx   | 0.16<br>( $\geq 0.025$ )<br>✓ | AP4   |

## Escape routes

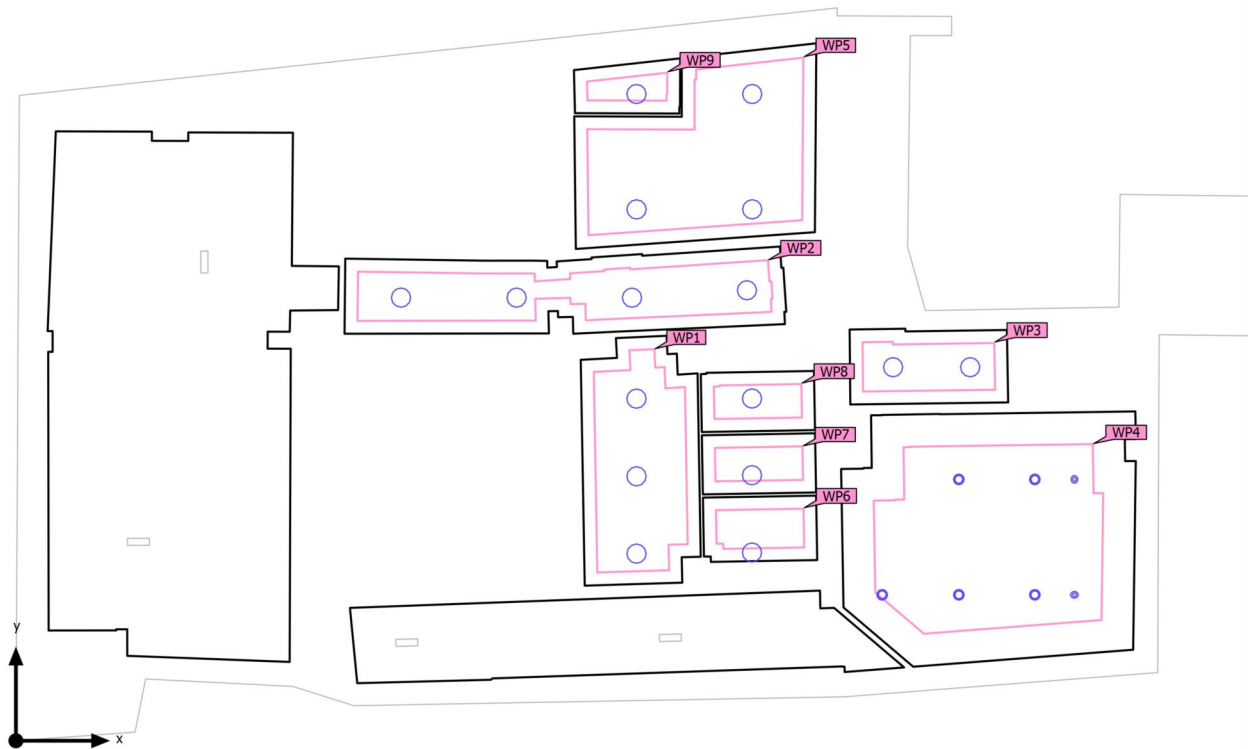
| Properties                                                                   | $E_{min}$<br>Middle area<br>(Target) | $E_{max}$<br>Middle area | $E_{min}$<br>Centerline<br>(Target) | $E_{max}$<br>Centerline | $U_d$<br>(Target)             | Index |
|------------------------------------------------------------------------------|--------------------------------------|--------------------------|-------------------------------------|-------------------------|-------------------------------|-------|
| Emergency route 1<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 3.29 lx<br>( $\geq 0.50$ lx)<br>✓    | 14.9 lx                  | 3.37 lx<br>( $\geq 1.00$ lx)<br>✓   | 14.8 lx                 | 0.23<br>( $\geq 0.025$ )<br>✓ | ER1   |

## Notes on planning:

The emergency lighting scene was calculated without reflection and without taking into account the placed furniture.

Building 1 · Basement (Light scene 1)

## Calculation objects



## Building 1 · Basement (Light scene 1)

**Calculation objects**

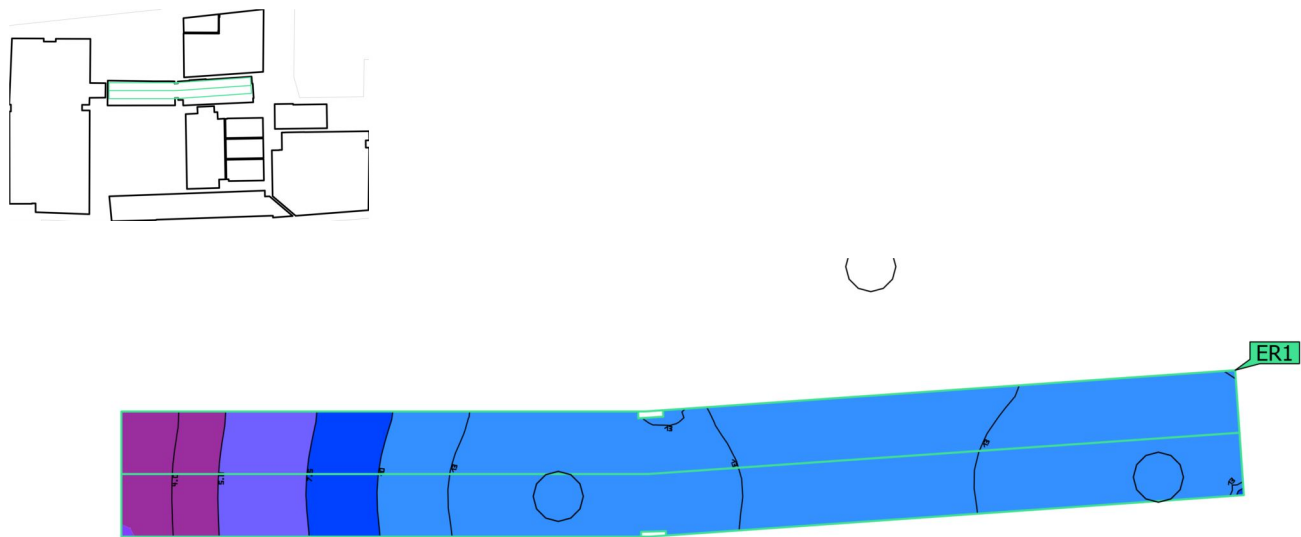
## Working planes

| Properties                                                                                                  | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|-------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-------------|-------|-------|
| Working plane (Female W.C)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m   | 287 lx    | 223 lx    | 321 lx    | 0.78        | 0.69  | WP1   |
| Working plane (Corridor)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m     | 246 lx    | 194 lx    | 268 lx    | 0.79        | 0.72  | WP2   |
| Working plane (Path)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m         | 255 lx    | 229 lx    | 270 lx    | 0.90        | 0.85  | WP3   |
| Working plane (Interview 1)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 545 lx    | 133 lx    | 814 lx    | 0.24        | 0.16  | WP4   |
| Working plane (Male W.C)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m     | 232 lx    | 144 lx    | 268 lx    | 0.62        | 0.54  | WP5   |
| Working plane (F. Cubicle 3)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m | 142 lx    | 130 lx    | 150 lx    | 0.92        | 0.87  | WP6   |
| Working plane (F. Cubicle 2)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m | 155 lx    | 143 lx    | 162 lx    | 0.92        | 0.88  | WP7   |
| Working plane (F. Cubicle 1)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m | 152 lx    | 141 lx    | 161 lx    | 0.93        | 0.88  | WP8   |
| Working plane (M Cubicle)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m    | 152 lx    | 141 lx    | 159 lx    | 0.93        | 0.89  | WP9   |

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Building 1 · Basement (Emergency light scene)  
**Emergency route 1**



| Properties                                                                   | $E_{min}$<br>Middle area<br>(Target) | $E_{max}$<br>Middle area | $E_{min}$<br>Centerline<br>(Target) | $E_{max}$<br>Centerline | $U_d$<br>(Target)             | Index |
|------------------------------------------------------------------------------|--------------------------------------|--------------------------|-------------------------------------|-------------------------|-------------------------------|-------|
| Emergency route 1<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 3.29 lx<br>( $\geq 0.50$ lx)<br>✓    | 14.9 lx                  | 3.37 lx<br>( $\geq 1.00$ lx)<br>✓   | 14.8 lx                 | 0.23<br>( $\geq 0.025$ )<br>✓ | ER1   |

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Building 1 · Basement (Emergency light scene)

## Emergency route 1

Notes on planning:

The emergency lighting scene was calculated without reflection and without taking into account the placed furniture.

Building 1 · Ground Floor (Emergency light scene)

## Calculation objects



## Building 1 · Ground Floor (Emergency light scene)

**Calculation objects**

## Anti panic surfaces

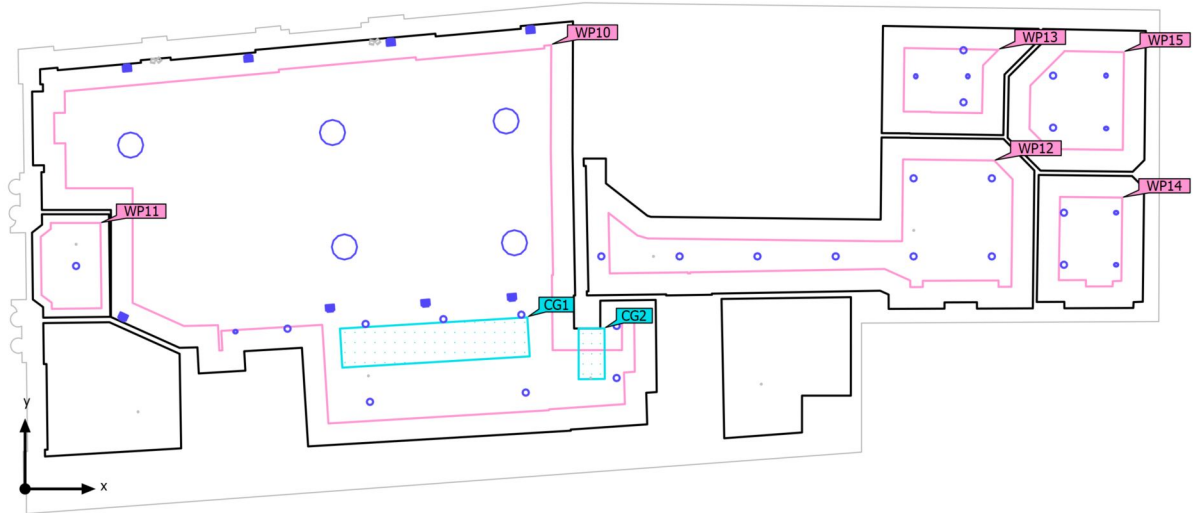
| Properties                                                                                   | $E_{min}$<br>(Target)             | $E_{max}$ | $U_d$<br>(Target)             | Index |
|----------------------------------------------------------------------------------------------|-----------------------------------|-----------|-------------------------------|-------|
| Anti panic surface (Banking Hall)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 1.55 lx<br>( $\geq 0.50$ lx)<br>✓ | 10.5 lx   | 0.15<br>( $\geq 0.025$ )<br>✓ | AP5   |
| Anti panic surface (Secure Admin)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 2.38 lx<br>( $\geq 0.50$ lx)<br>✓ | 7.32 lx   | 0.33<br>( $\geq 0.025$ )<br>✓ | AP6   |
| Anti panic surface (Admin Area)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m   | 2.41 lx<br>( $\geq 0.50$ lx)<br>✓ | 6.90 lx   | 0.35<br>( $\geq 0.025$ )<br>✓ | AP7   |
| Anti panic surface (Waiting Area)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 1.64 lx<br>( $\geq 0.50$ lx)<br>✓ | 8.20 lx   | 0.20<br>( $\geq 0.025$ )<br>✓ | AP8   |

## Notes on planning:

The emergency lighting scene was calculated without reflection and without taking into account the placed furniture.

Building 1 · Ground Floor (Light scene 1)

## Calculation objects



## Building 1 · Ground Floor (Light scene 1)

**Calculation objects**

## Working planes

| Properties                                                                                                  | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|-------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-------------|-------|-------|
| Working plane (Banking Hall)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m | 419 lx    | 116 lx    | 697 lx    | 0.28        | 0.17  | WP10  |
| Working plane (Entrance)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m     | 247 lx    | 192 lx    | 293 lx    | 0.78        | 0.66  | WP11  |
| Working plane (Waiting Area)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m | 453 lx    | 259 lx    | 593 lx    | 0.57        | 0.44  | WP12  |
| Working plane (Interview 2)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 567 lx    | 170 lx    | 1079 lx   | 0.30        | 0.16  | WP13  |
| Working plane (Interview 4)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 506 lx    | 133 lx    | 748 lx    | 0.26        | 0.18  | WP14  |
| Working plane (Interview 3)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 457 lx    | 120 lx    | 723 lx    | 0.26        | 0.17  | WP15  |

## Calculation surfaces

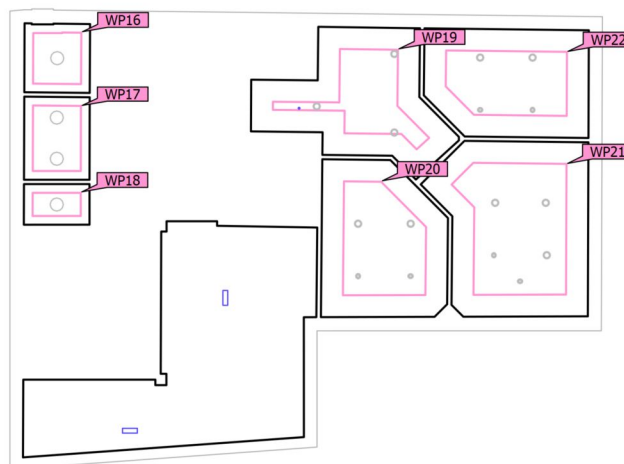
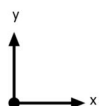
| Properties                                                        | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|-------------------------------------------------------------------|-----------|-----------|-----------|-------------|-------|-------|
| Cashier Desks<br>Perpendicular illuminance<br>Height: 0.750 m     | 541 lx    | 348 lx    | 650 lx    | 0.64        | 0.54  | CG1   |
| Banking Hall Desk<br>Perpendicular illuminance<br>Height: 0.750 m | 532 lx    | 390 lx    | 643 lx    | 0.73        | 0.61  | CG2   |

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Building 1 · First Floor (Emergency light scene)

## Calculation objects



## Building 1 · First Floor (Emergency light scene)

**Calculation objects**

## Anti panic surfaces

| Properties                                                                                   | $E_{min}$<br>(Target)             | $E_{max}$ | $U_d$<br>(Target)             | Index |
|----------------------------------------------------------------------------------------------|-----------------------------------|-----------|-------------------------------|-------|
| Anti panic surface (Plant Room)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m   | 1.68 lx<br>( $\geq 0.50$ lx)<br>✓ | 7.86 lx   | 0.21<br>( $\geq 0.025$ )<br>✓ | AP9   |
| Anti panic surface (Waiting Area)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 1.21 lx<br>( $\geq 0.50$ lx)<br>✓ | 7.53 lx   | 0.16<br>( $\geq 0.025$ )<br>✓ | AP10  |

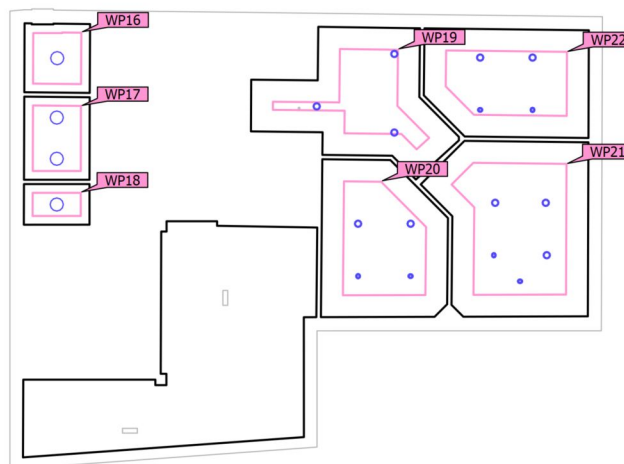
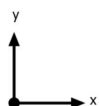
## Notes on planning:

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Building 1 · First Floor (Light scene 1)

**Calculation objects**

## Building 1 · First Floor (Light scene 1)

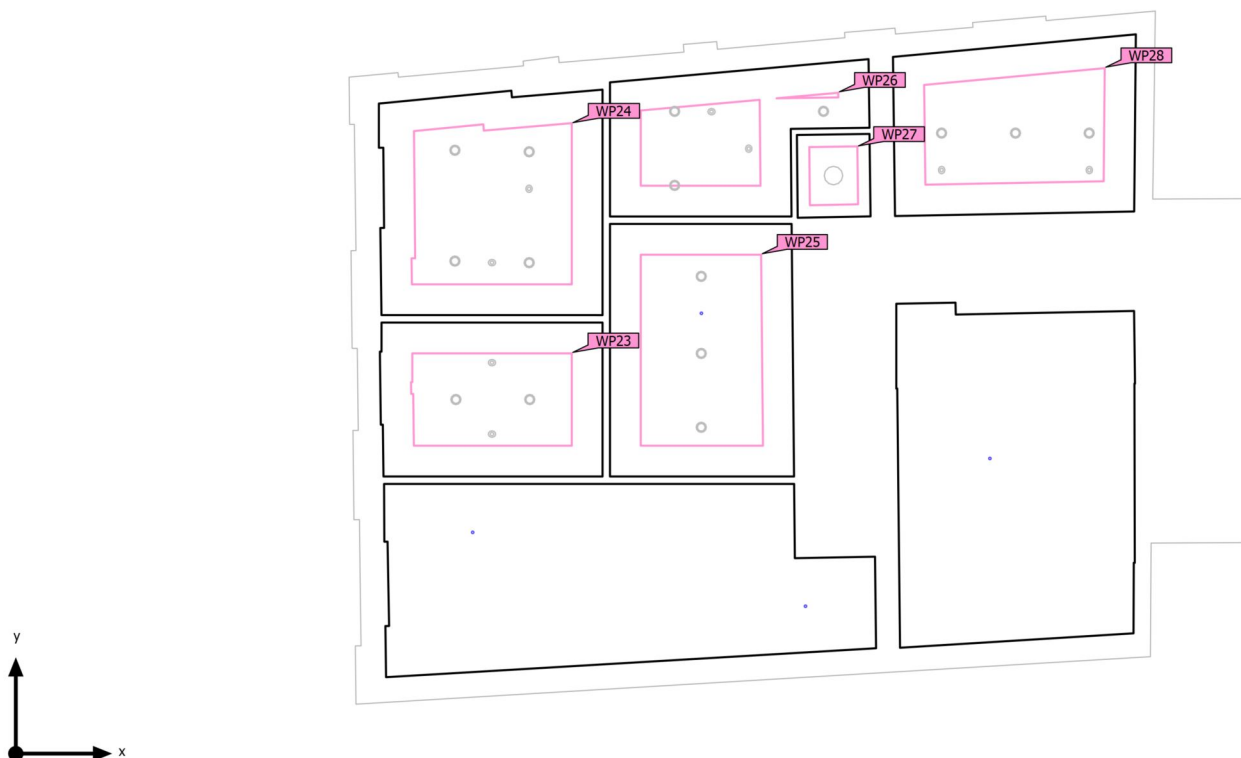
**Calculation objects**

## Working planes

| Properties                                                                                                  | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|-------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-------------|-------|-------|
| Working plane (Cleaners)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m     | 98.5 lx   | 86.0 lx   | 106 lx    | 0.87        | 0.81  | WP16  |
| Working plane (Disabled W.C)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m | 292 lx    | 260 lx    | 316 lx    | 0.89        | 0.82  | WP17  |
| Working plane (Store)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m        | 171 lx    | 165 lx    | 176 lx    | 0.96        | 0.94  | WP18  |
| Working plane (Waiting Area)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m | 416 lx    | 148 lx    | 504 lx    | 0.36        | 0.29  | WP19  |
| Working plane (Interview 7)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 580 lx    | 196 lx    | 907 lx    | 0.34        | 0.22  | WP20  |
| Working plane (Interview 6)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 635 lx    | 178 lx    | 1077 lx   | 0.28        | 0.17  | WP21  |
| Working plane (Interview 5)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 510 lx    | 192 lx    | 759 lx    | 0.38        | 0.25  | WP22  |

Building 1 · Second Floor (Emergency light scene)

## Calculation objects



## Building 1 · Second Floor (Emergency light scene)

**Calculation objects**

## Anti panic surfaces

| Properties                                                                                  | $E_{min}$<br>(Target)             | $E_{max}$ | $U_d$<br>(Target)             | Index |
|---------------------------------------------------------------------------------------------|-----------------------------------|-----------|-------------------------------|-------|
| Anti panic surface (Circulation)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 2.10 lx<br>( $\geq 0.50$ lx)<br>✓ | 6.89 lx   | 0.30<br>( $\geq 0.025$ )<br>✓ | AP11  |
| Anti panic surface (Comms (1))<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m   | 2.45 lx<br>( $\geq 0.50$ lx)<br>✓ | 7.07 lx   | 0.35<br>( $\geq 0.025$ )<br>✓ | AP12  |
| Anti panic surface (Comms (2))<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m   | 1.55 lx<br>( $\geq 0.50$ lx)<br>✓ | 6.93 lx   | 0.22<br>( $\geq 0.025$ )<br>✓ | AP13  |

Notes on planning:

The emergency lighting scene was calculated without reflection and without taking into account the placed furniture.

Building 1 · Second Floor (Light scene 1)

**Calculation objects**

## Building 1 · Second Floor (Light scene 1)

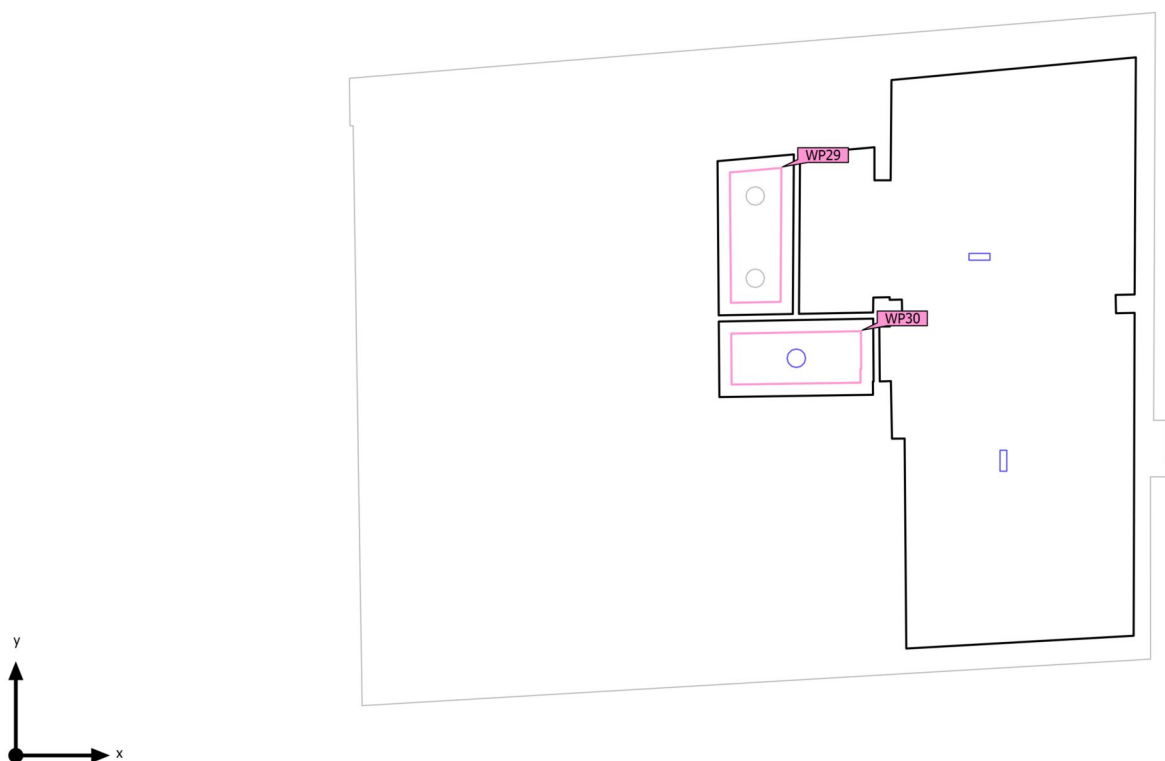
**Calculation objects**

## Working planes

| Properties                                                                                                  | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|-------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-------------|-------|-------|
| Working plane (Interview 11)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m | 523 lx    | 258 lx    | 770 lx    | 0.49        | 0.34  | WP23  |
| Working plane (Interview 10)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m | 602 lx    | 339 lx    | 1031 lx   | 0.56        | 0.33  | WP24  |
| Working plane (Circulation)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 462 lx    | 221 lx    | 660 lx    | 0.48        | 0.33  | WP25  |
| Working plane (Interview 9)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 554 lx    | 249 lx    | 726 lx    | 0.45        | 0.34  | WP26  |
| Working plane (Cleaners)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m     | 161 lx    | 153 lx    | 165 lx    | 0.95        | 0.93  | WP27  |
| Working plane (Interview 8)<br>Perpendicular illuminance (adaptive)<br>Height: 0.750 m, Wall zone: 0.500 m  | 563 lx    | 233 lx    | 743 lx    | 0.41        | 0.31  | WP28  |

Building 1 · Third Floor (Emergency light scene)

## Calculation objects



Building 1 · Third Floor (Emergency light scene)

**Calculation objects**

Anti panic surfaces

| Properties                                                                                  | $E_{min}$<br>(Target)             | $E_{max}$ | $U_d$<br>(Target)             | Index |
|---------------------------------------------------------------------------------------------|-----------------------------------|-----------|-------------------------------|-------|
| Anti panic surface (Staff Room)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m  | 0.90 lx<br>( $\geq 0.50$ lx)<br>✓ | 7.89 lx   | 0.11<br>( $\geq 0.025$ )<br>✓ | AP14  |
| Anti panic surface (Circulation)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m | 9.58 lx<br>( $\geq 0.50$ lx)<br>✓ | 13.5 lx   | 0.71<br>( $\geq 0.025$ )<br>✓ | AP15  |

Notes on planning:

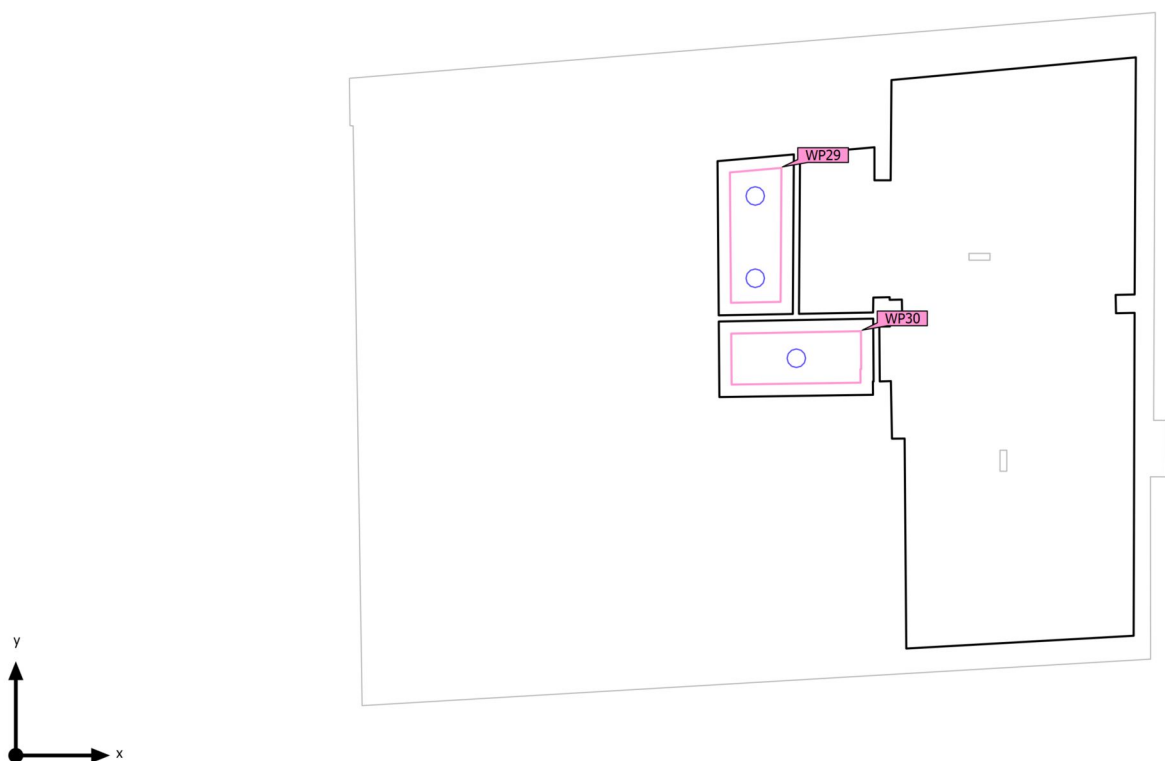
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Building 1 · Third Floor (Light scene 1)

## Calculation objects



Building 1 · Third Floor (Light scene 1)

## Calculation objects

### Working planes

| Properties                                                                                                 | $\bar{E}$ | $E_{min}$ | $E_{max}$ | $U_o (g_1)$ | $g_2$ | Index |
|------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-------------|-------|-------|
| Working plane (W.C)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m         | 249 lx    | 223 lx    | 266 lx    | 0.90        | 0.84  | WP29  |
| Working plane (Circulation)<br>Perpendicular illuminance (adaptive)<br>Height: 0.000 m, Wall zone: 0.200 m | 135 lx    | 114 lx    | 155 lx    | 0.84        | 0.74  | WP30  |