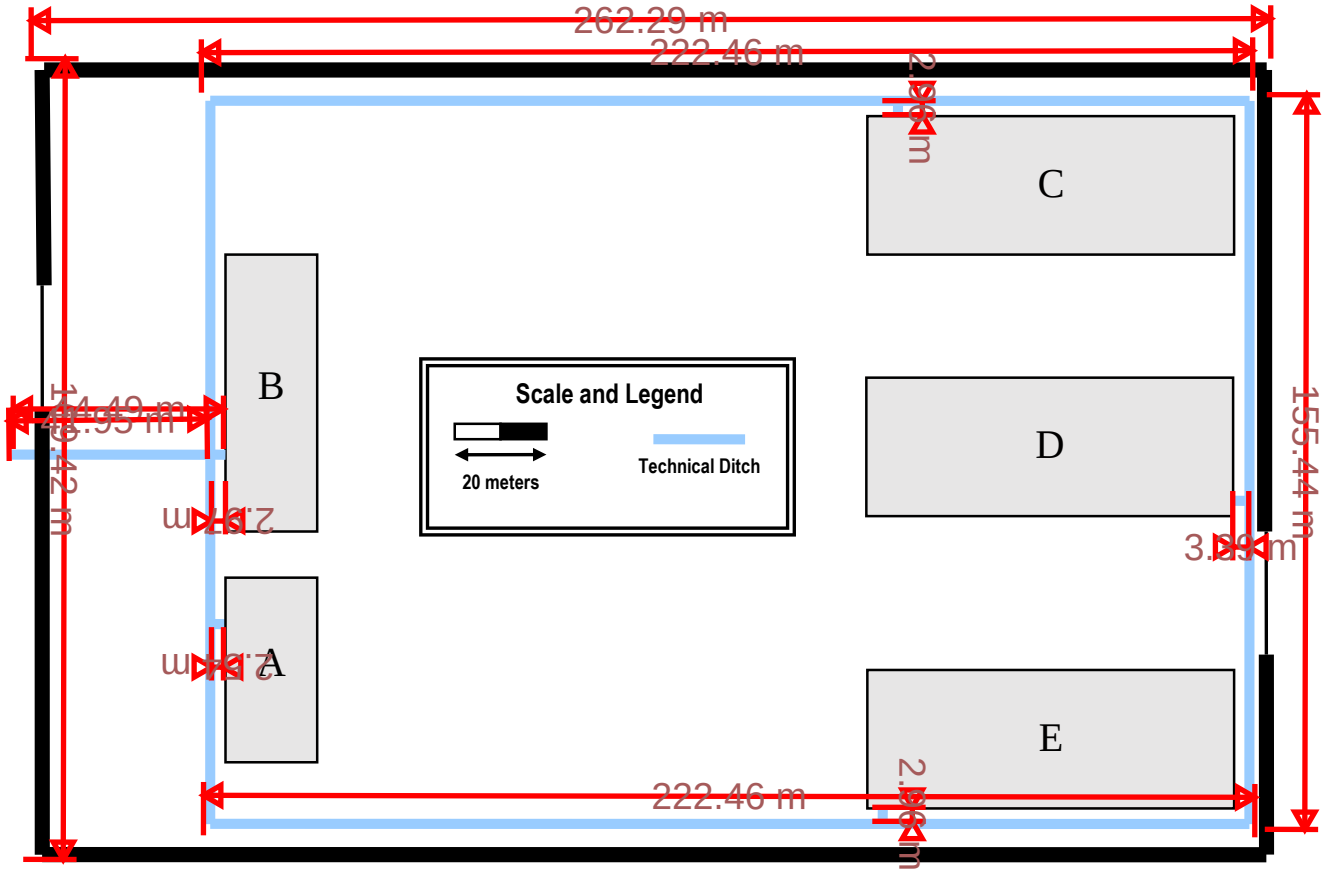
Project Description - Sprint 1

The team is now enrolled in a structured cabling project, the outcome for this sprint is a structured cabling deployment plan for a given physical environment. The project owner role is assumed by the laboratory class teacher.

1. Physical environment description

The structured cabling project is to embrace an industrial private closed area with five buildings, they all have two floors. Buildings are designated as A, B, C, D, and E.

The schematic plan below shows how those buildings are implanted in the area. An underground technical ditch with cable raceways (in light blue) exists and includes cable passage ways for all buildings, it's prepared for telecommunications cabling and others.



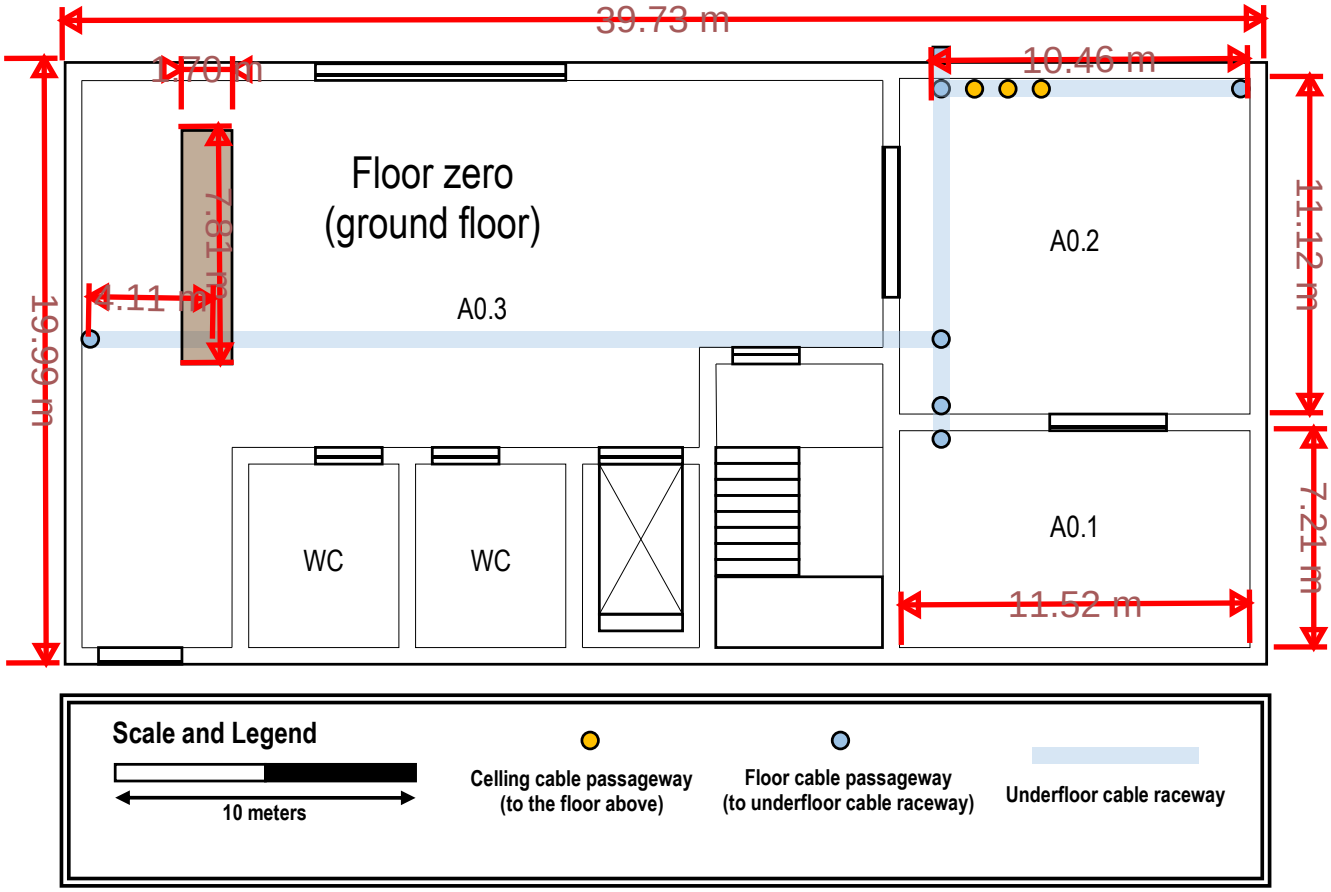
- The building A horizontal dimensions are, approximately, 40 x 20 meters.
- The building B horizontal dimensions are, approximately, 60 x 20 meters.
- Buildings C, D, and E horizontal dimensions are, approximately, 80 x 30 meters.

1.1. Building A

The building A is committed to house the datacentre, it will also house the main cross-connect for the structured cabling system. Both floors should have wireless LAN coverage (Wi-Fi).

1.1.1. Building A - Ground floor

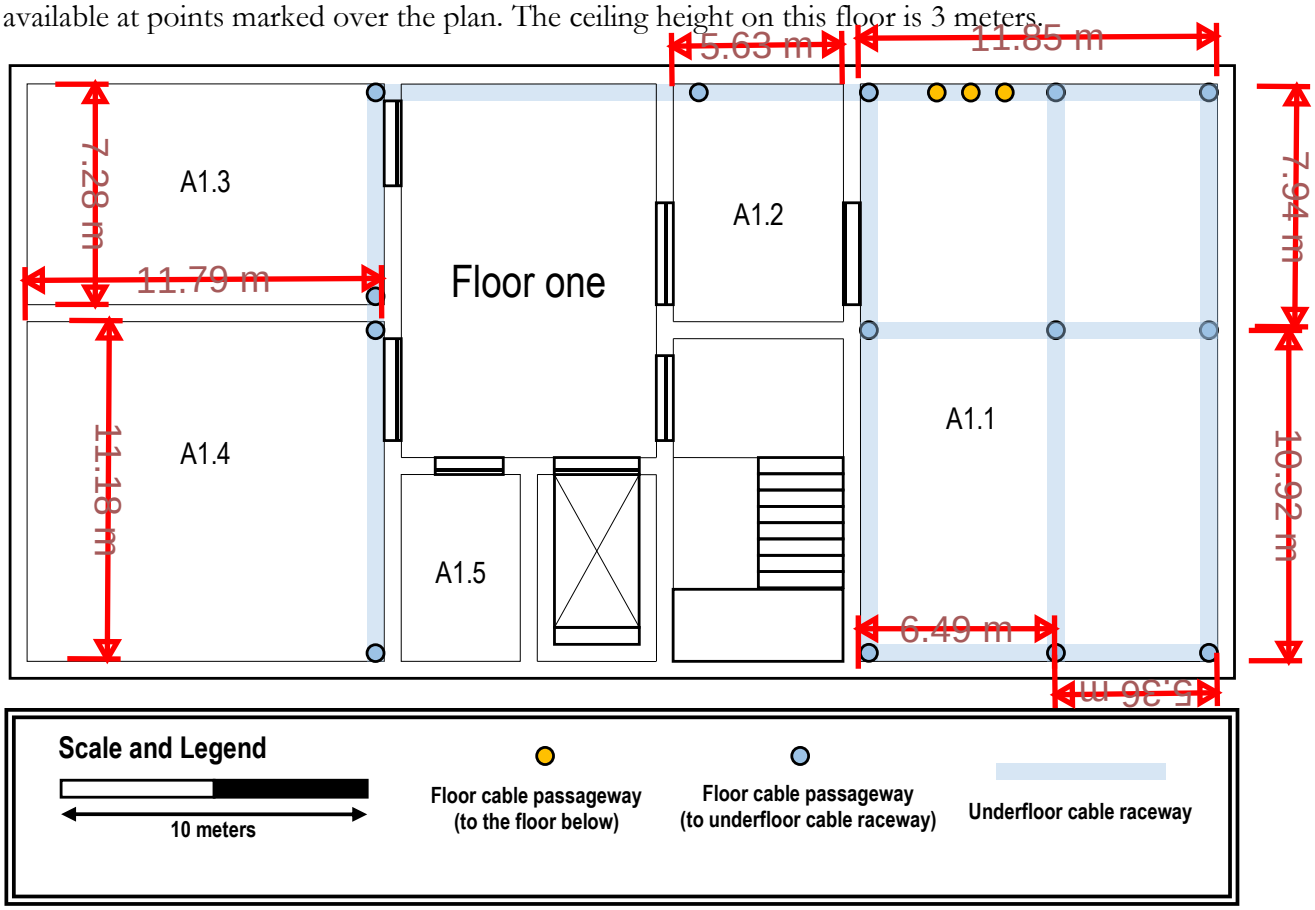
The ground floor is provided with an underfloor cable raceway connected to the external technical ditch. Access to the underfloor cable raceway is available at points marked over the plan. Multiple cable passageways are available to the above floor where the datacentre is housed.



The ceiling height on this floor is 4 meters. The A0.3 entrance area requires no network outlets, except for the entrance desk (in brown) where 5 outlets should be available, elsewhere the standard number of outlets per area rates should be honoured.

1.1.2. Building A - Floor 1

The ground floor is provided with an underfloor cable raceway. Access to the underfloor cable raceway is available at points marked over the plan. The ceiling height on this floor is 3 meters.



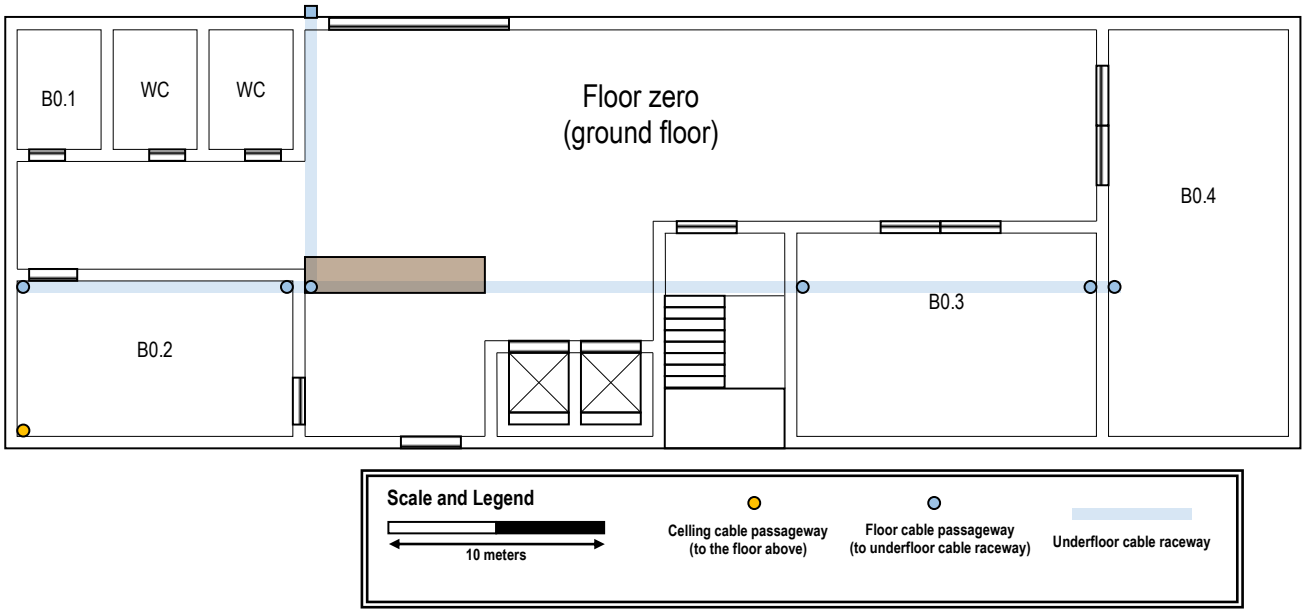
The A1.1 area is will house the datacentre itself, wiring and outlets there, are out of scope of this project. Room A1.5 is for storage and no outlets are required there, elsewhere the standard number of outlets per area rates should be honoured.

1.2. Building B

This building households several administrative services and offices. Both floors require full wireless LAN coverage (Wi-Fi).

1.2.1. Building B - Ground floor

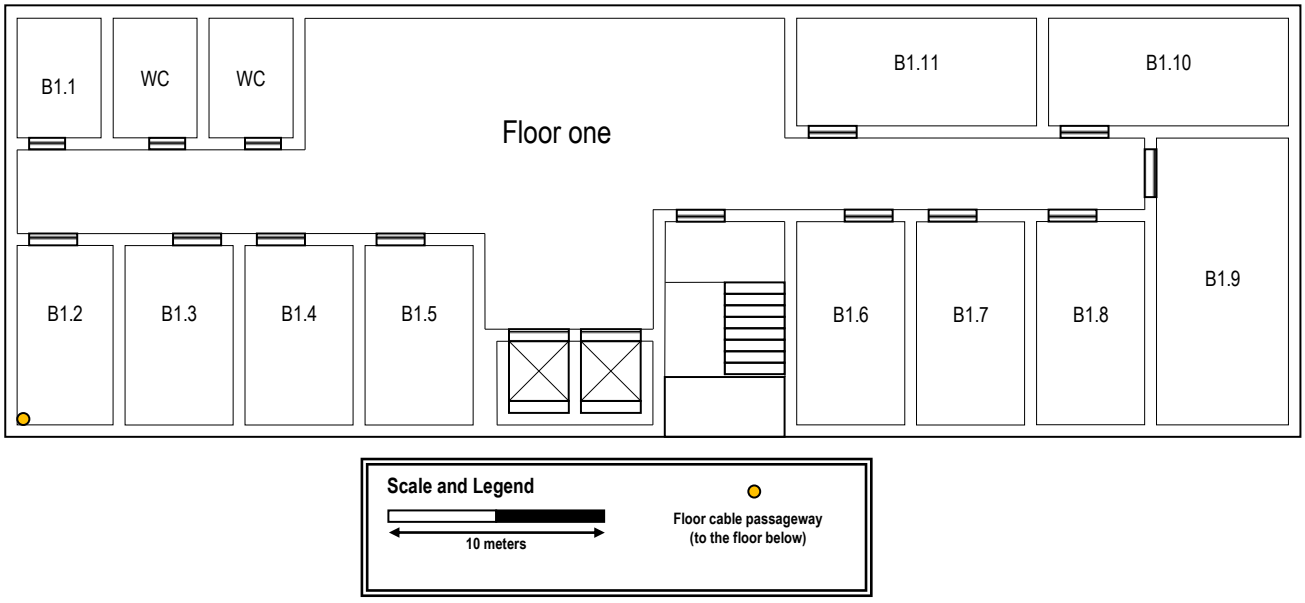
The ground floor is provided with an underfloor cable raceway connected to the external technical ditch. Access to the underfloor cable raceway is available at points marked over the plan. The ceiling height on this floor is 4 meters.



Room B0.1 is a storage area and network outlets are not required there, the same applies to restrooms. Regarding the entrance hall, network outlets are required only on the service desk (marked in brown).

1.2.2. Building B - Floor 1

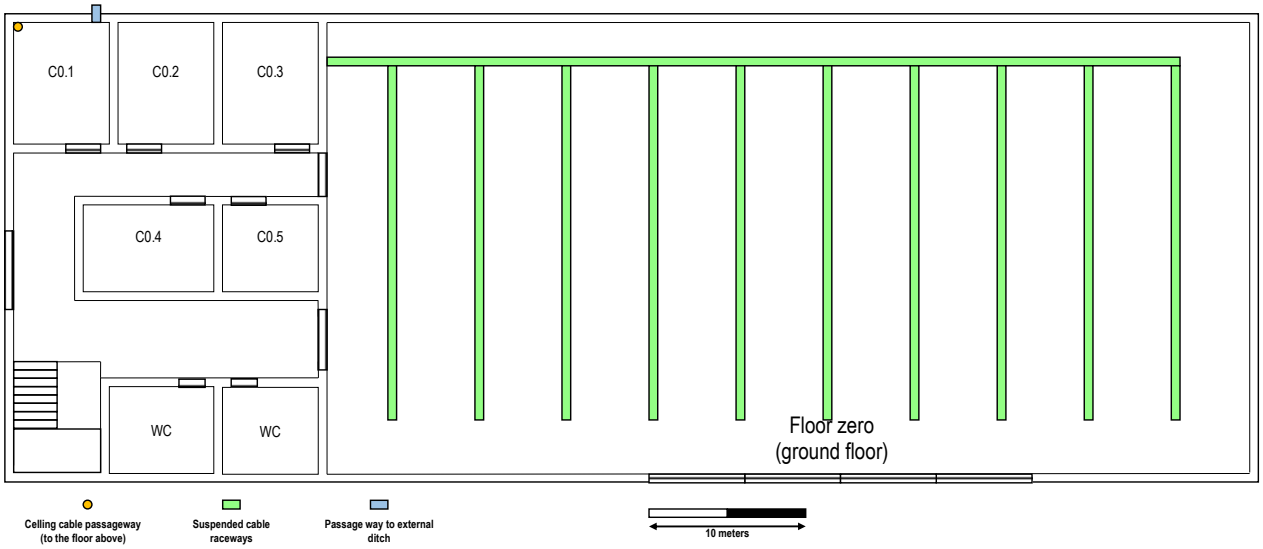
This floor has no underfloor cable raceway. The ceiling height on this floor is 3 meters, however there's a removable dropped ceiling, placed 2.5 meters from the ground, covering the entire floor. The space over the dropped ceiling is perfect to install cable raceways.



1.3. Building C

In this building, the left area (divided in rooms) has two floors, the right open area has a single floor whose height encompasses both left area floors. A full wireless LAN (Wi-Fi) coverage is required for this building.

1.3.1. Building C - Ground floor



Room C0.1 has a pass way to the external technical ditch. The left area ceiling height is 3 meters, with a removable dropped ceiling placed 2.5 meters from the ground, covering that entire left area. On the left side, common areas are not required to have network outlets, elsewhere the standard number of outlets per area rate is to be used.

The right side open area has a ceiling height of 6.5 meters, however, there's a grid of suspended communications cable raceways (represented in green), placed 3 meters from the ground. On these suspended cable raceways, network outlets are to be directly attached and provide a homogenous coverage of the entire open space, following the standard number of outlets per area rate.

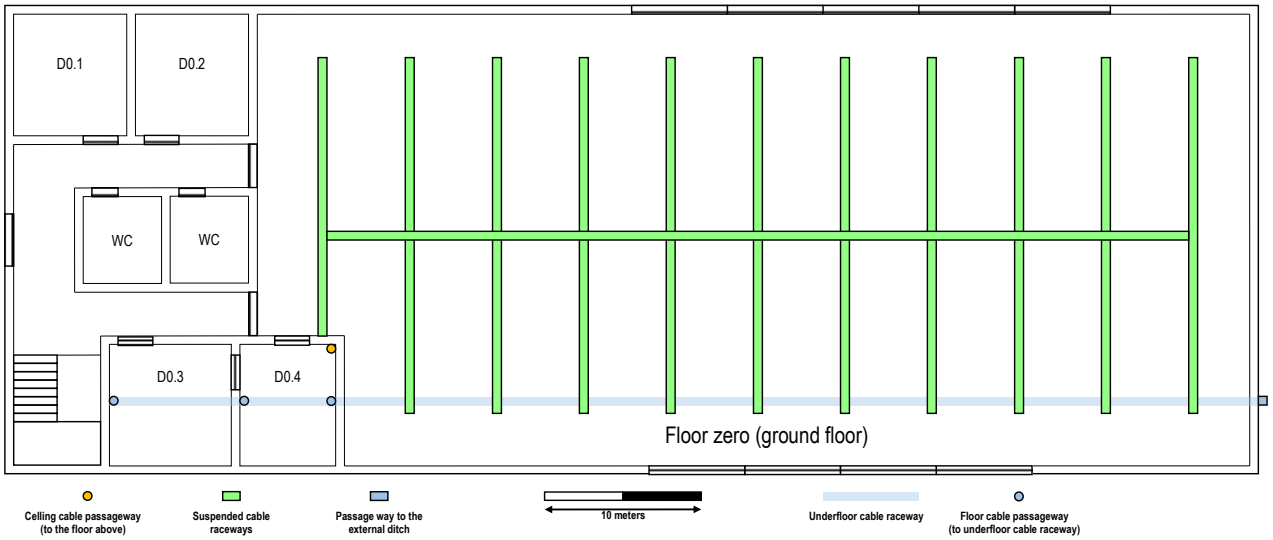
1.3.2. Building C - Floor one

The ceiling height on this floor is 3 meters, but there's a removable dropped ceiling, placed 2.5 meters from the ground, covering this entire floor. Common areas are not required to have network outlets, rooms should be provided with the standard number of network outlets.

1.4. Building D

In this building, the left area (divided in rooms) has two floors, the right open area has a single floor whose height encompasses both left area floors. A full wireless LAN (Wi-Fi) coverage is required for this building.

1.4.1. Building D - Ground floor

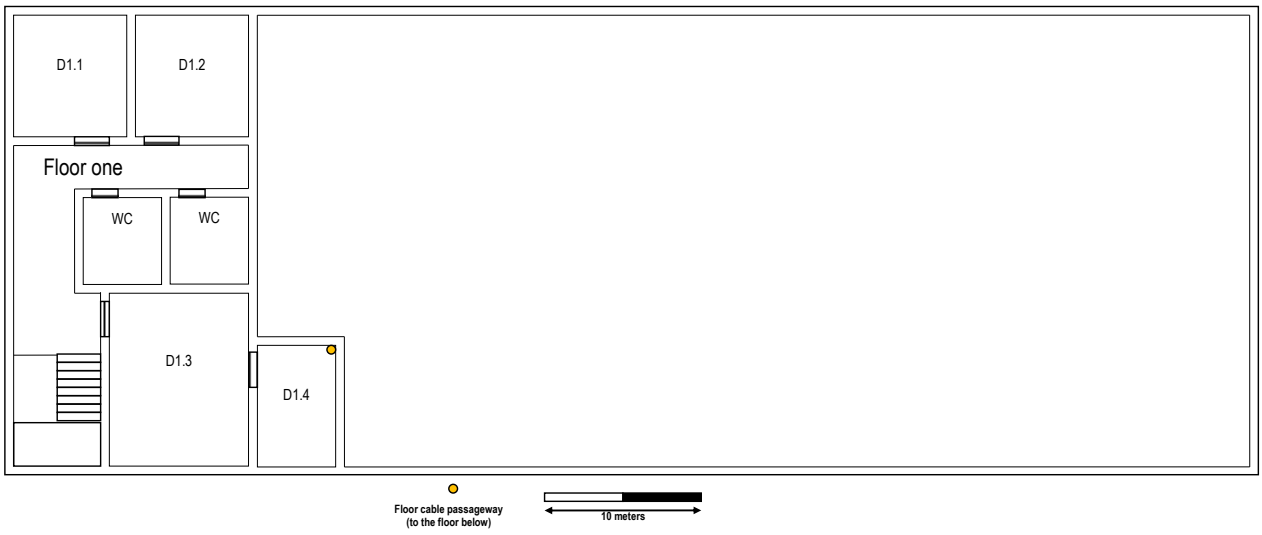


The ground floor is provided with an underfloor cable raceway connected to the external technical ditch. Access to the underfloor cable raceway is available at points marked over the plan.

The left area ceiling height on this floor is 3 meters with a removable dropped ceiling, placed 2.5 meters from the ground and covering that entire left area. On the left side, common areas are not required to have network outlets, elsewhere the standard number of outlets per area rate is to be used.

The right side open area has a ceiling height of 6.5 meters, however, there's a grid of suspended communications cable raceways (represented in green), placed 3 meters from the ground. On these suspended cable raceways, network outlets are to be directly attached and provide a homogenous coverage of the entire open space, following the standard number of outlets per area rate.

1.4.2. Building D - Floor one

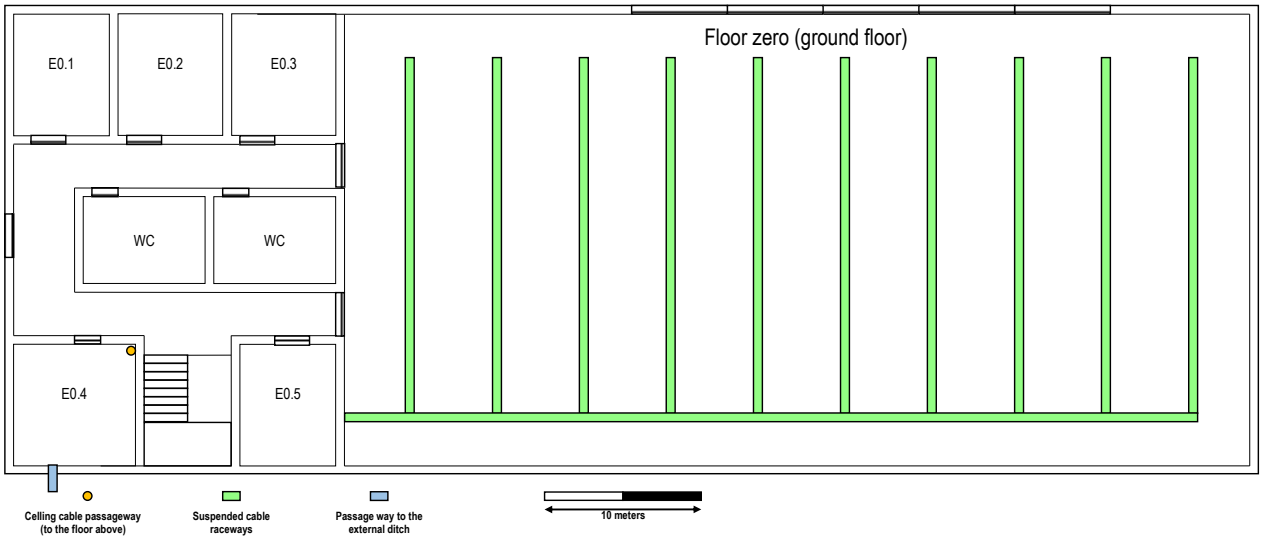


The ceiling height on this floor is 3 meters, but there's a removable dropped ceiling, placed 2.5 meters from the ground, covering this entire floor. Common areas are not required to have network outlets, rooms should be provided with the standard number of network outlets.

1.5. Building E

In this building, the left area (divided in rooms) has two floors, the right open area has a single floor whose height encompasses both left area floors. A full wireless LAN (Wi-Fi) coverage is required for this building.

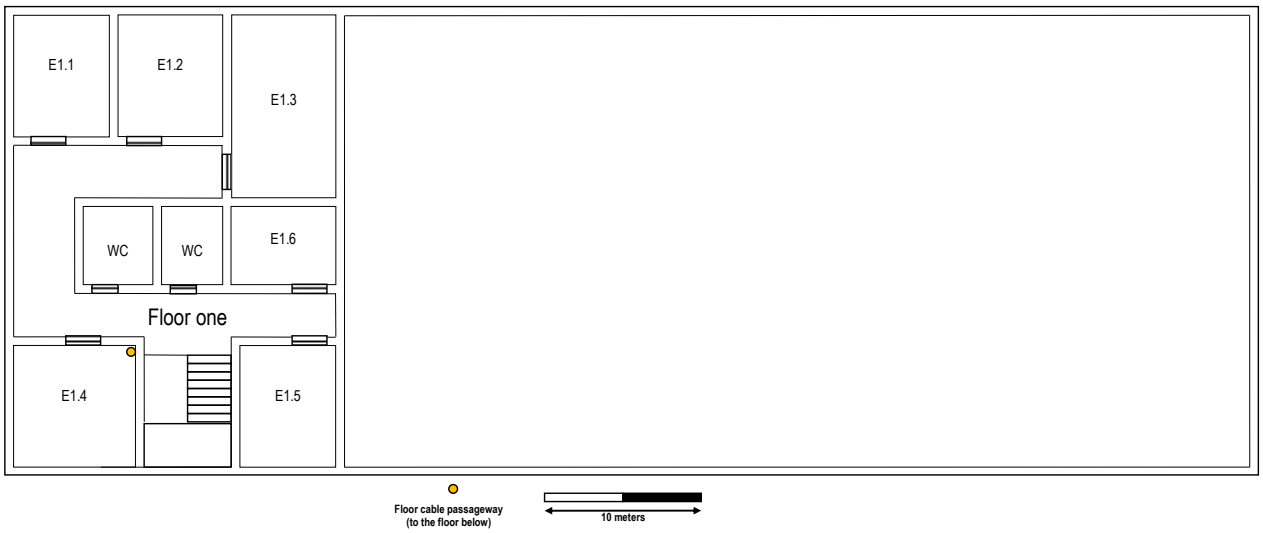
1.5.1. Building E - Ground floor



Room E0.4 has a pass way to the external technical ditch. The left area ceiling height is 3 meters, with a removable dropped ceiling placed 2.5 meters from the ground, covering that entire left area. On the left side, common areas are not required to have network outlets, elsewhere the standard number of outlets per area rate is to be used.

The right side open area has a ceiling height of 6.5 meters, however, there's a grid of suspended communications cable raceways (represented in green), placed 3 meters from the ground. On these suspended cable raceways, network outlets are to be directly attached and provide a homogenous coverage of the entire open space, following the standard number of outlets per area rate.

1.5.2. Building E - Floor one



The ceiling height on this floor is 3 meters, but there's a removable dropped ceiling, placed 2.5 meters from the ground, covering this entire floor. Common areas are not required to have network outlets, rooms should be provided with the standard number of network outlets.

2. Sprint 1 backlog

Task	Task description
T.1.1	Development of a structured cabling project for building A, and also encompassing the campus backbone.
T.1.2	Development of a structured cabling project for building B.
T.1.3	Development of a structured cabling project for building C.
T.1.4	Development of a structured cabling project for building D.
T.1.5	Development of a structured cabling project for building E.

Task T.1.5 is to be ignored by teams with only four members.

3. Sprint 1 outputs/products

For each task on this sprint, the output is a structured cabling project.
Each team member is free to provide this output in any desired format, it may be a single report or a set of items.

Whatever the format is, the following items are mandatory and will be subject of assessment:

- **Demonstration of calculations regarding the number of network outlets for each room.**
- **Network outlets deployment schematic plan (including outlets for wireless access points) and justification comments.**
- **Cross-connects deployment schematic plan and justification comments.**
- **Cable pathways deployment schematic plan and justification comments.**
- **Hardware inventories, including: total cable lengths by cable type, appropriate type patch panels, network outlets, telecommunication enclosures of suitable size.**

Keywords: explain, justify, and demonstrate.

The teacher's assessment is going to be focused on what is said to explain the solution.