

UN Common Services

**UN City | Refurbishment of
western access doors**

Scope of Works

ACC-ARUP-ZZ-XX-RP-V-0001

Issue | 9 februar 2021

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 267199-30

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1 Introduction

This document shall be read in conjunction with the other specifications and the rest of the contract documents and is intended to provide the Contractor with an overview and summary of the works as described in the Contract, Specifications, Schedules and Drawings.

The Contractor shall ensure that all requirements across the specifications, schedules and drawings are met.

The Contractor is responsible for the preparation of the construction documents, the construction, testing, commissioning, and handover of the scope of work described in this document and across the Contract, specification, schedules and drawings.

1.1 The Project

The project consists of two internal telescope glass doors and a new partition wall including Mechanical and Electrical services in the existing lobby area of the United Nations (UN) City in Copenhagen, Denmark.

1.2 Background

The existing western access doors at ground level serve both as emergency escape and common access for employees. The existing two automatic double doors are part of the facade which means outdoor air are led directly into the lobby causing drafts. To improve the indoor climate, internal doors and partition walls are established to form an air-lock. The existing doors, floor and wall will be maintained while the ceiling shall adapt to the new partition wall.

This Works include:

- Partial demolition and re-fitting of the existing ceiling ventilation, sprinkler and electrical installations.
- New glass/gyp-board partition wall with two glass telescope doors, as well as modification of existing electrical and mechanical services installations.

The Works are further described in the following sections.

1.3 General Scope

The Contractor shall take full responsibility for the elements and components included in this document, the specifications and drawings.

The Contractor shall undertake all design and construction activities:

- in accordance with the standards outlined in this specification and all other appendices to the Contract.
- in compliance with all applicable codes and laws.
- having regard for the concerns, need and interests of:
 1. all persons who will be facility users
 2. all authorities having jurisdiction
 3. the neighbouring properties and users
- in accordance with good industry practice.

The Contractor shall obtain all necessary approvals and shall comply with all requirements of the planning approvals. The Contractor shall coordinate and provide submissions to the local authorities including all relevant technical information, calculations, samples, finishes, performance data and other details.

The Contractor is responsible for actively co-ordinating with its sub-Contractors and suppliers to ensure adherence to this technical specification and all requirements specified in the contract documents.

The Contractor is fully responsible for recommending methods, preparing drawings, calculations, detailed specifications and installation for accessories.

The Contractor is responsible for obtaining all design and construction permits and approvals as noted in the scope of works and specifications. The Contractor is also responsible for testing and commissioning all utility networks and should allow for all necessary temporary works and fittings, third party attendances and associated costs as required.

The Contractor shall, before proceeding, obtain approval for any kind of material to be used. The materials to be used shall comply with samples, selected and approved by the Employer. For products specified to a Danish or European Standard, the contractor shall obtain certificates of compliance from manufacturers.

The Contractor shall ensure that the whole quantity of each product required to complete the work is of consistent kind, size, quality and overall appearance.

The Contractor shall check all delivery tickets, labels, identification marks and, the products themselves to ensure that all products comply with the project documents. Where different types of any product are specified, the Contractor shall check to ensure that the correct type is being used in each location.

The Contractor shall prevent products over-stressing, being distorted and experiencing any other type of physical damage.

The Contractor shall keep products clean and free from contamination as well as prevent staining, chipping, scratching or other disfigurement, particularly of products exposed to view in the finished work.

The Contractor shall keep products dry and in a suitably low humidity atmosphere to prevent premature setting, moisture movement and similar defects. Where appropriate, the Contractor shall store off the ground and allow free air movement around and between stored products.

The Contractor shall prevent excessively high or low temperatures and rapid changes of temperature in the products.

The Contractor shall protect adequately from rain, damp, frost, sun and other elements as appropriate. The Contractor shall ensure that products are at a suitable temperature and moisture content at time of use.

The Contractor shall ensure that sheds and covers are of ample size, in good weatherproof condition and well secured.

The Contractor shall keep different types and grades of products separately and adequately identified.

So far as possible, the Contractor shall keep products in their original wrappings, packings or containers until immediately before they are used.

Wherever possible the Contractor shall retain protective wrappings after fixing and until shortly before Completion.

The Contractor shall ensure that protective measures are fully compatible with and not prejudicial to the products/materials.

The Contractor shall provide samples in line with the requirements indicated in all the specifications and drawings.

The Contractor shall be responsible for carrying out risk management in accordance with ISO 31000 *Risk Management Principles and Guidelines*, unless otherwise noted.

All temporary works design is the responsibility of the Contractor. The Contractor shall employ a temporary works design engineer with a minimum of 10 years' relevant temporary works design experience.

1.4 Appointment of sub-contractors

Should the Contractor wish to appoint sub-contractors to assist in the completion of the Works, which are not mentioned in the Contract, the Contractor must inform the Engineer and obtain approval. The approval submission shall include as a minimum a description of the intended scope of works and responsibility, how quality insurance is achieved and relevant information documenting sufficient skill and experience in the field of work proposed to be covered.

1.5 Safety in Design

The Contractor's design shall comply with all relevant Safety in Design legislation and standards as described in the Health & Safety Plan.

2 Architecture

2.1 Decommissioning, Retain and Reuse

The Contractor shall retain the following elements;

- Walls
- Floor.

The Contractor shall retain and re-use/locate the following existing elements:

- Ceiling panels
- Electrical and mechanical installations.

2.2 Ceiling

The Contractor shall re-install the ceiling after erection of the partition wall and re-locate electrical and mechanical service as indicated on the reflected ceiling plan. Panels adjacent to the walls shall be cut to fit. The ceiling height in the airlock shall remain as existing.

The Contractor shall coordinate the ceiling and wall support with all Mechanical and Electrical installations.

2.3 Wall

The lower part wall shall be erected as a glass partition from floor to the top of the fixed glass above the façade doors. Above the glass

partition the wall is conventional gypsum board wall, without panels above the ceiling to allow ducts, pipes and cabling to cross.

2.4 Painting

The Contractor shall paint the walls to underside of the new ceiling + min 30mm.

2.5 Doors

The Contractor shall deliver and install 2 glass telescope doors. The doors shall be integrated with the existing fire alarm system so the these will open automatic to allow emergency exit.



3 Electrical Services

3.1 Electrical Engineering Works

The electrical services shall be installed in accordance with the specifications and drawings, all relevant Danish Standards and requirements of the local authorities and the Employer.

The electrical engineering works shall comprise, but not be limited to the following:

- Earthing and Bonding Installation
- Electrical Services Distribution within the lobby area
- Lighting and controls within the lobby area
- Emergency Lighting
- Fire Detection and Alarm System
- Retain power supplies to any existing mechanical, public health, plant, Building Management System (BMS), architectural and other systems.
- Extend containment for power, lighting, fire alarm, Public Address Voice Alarm (PAVA) and security within the lobby area.

This report shall be read together with the electrical specifications and drawings.

3.2 Decommissioning Works

The Contractor shall remove all of the following:

1. Existing emergency exit lighting above the external doors.
2. All cabling for the lighting, including any control cabling.

The Contractor shall however remove but retain the following systems and devices, which shall be reinstalled:

1. PAVA Speakers
2. Luminaires.
3. Fire Alarm devices (optical smoke detectors).

3.3 Distribution Boards

The Contractor shall update the existing distribution board that currently supplies the UN City lobby area. This shall include any additional circuit breakers, Residual circuit devices (RCDs) and all associated cabling and additional containment necessary from the distribution board to the lobby area.

3.4 Earthing and Bonding Installation

The Contractor shall install a complete earthing and bonding system in accordance with DS EN 50522. The Contractor shall carry out supplementary bonding on cable trunking, trays, ceiling and ceiling support systems, ventilation ductwork, pipework, etc.

3.5 General Purpose Small Power

The Contractor shall recess all accessories in the lobby area within the fabric of the building (socket outlets and associated conduits to be installed within the walls) and of finishes as per the specifications.

All accessories shall be located in accordance with all BR18 requirements.

The Contractor shall install all necessary additional containment required throughout the lobby. Horizontal distribution shall generally be installed within both the ceiling void in conduits, cable tray or trunking as required in the specifications and indicated on the electrical drawings.

High level conduits shall be installed to supply perimeter socket outlets, lighting/lighting controls cabling, and power supplies to equipment installed at high level (automatic doors, etc).

The Contractor shall provide residual current devices (RCDs) for all circuits.

3.6 Lighting

The Contractor shall retain the lighting within the existing lobby area as shown on the drawings. This include all luminaires themselves. The lamps, wiring, and control cabling shall all be replaced. Setting out of the luminaires shall be to the architectural drawings. All luminaires shall retain all the existing control gear.

The Contractor shall supply, install, test, and commission all lighting, emergency lighting and lighting controls as detailed in the schedules, specification and drawings.

The Contractor shall ensure that all luminaire locations are co-ordinated with the architectural drawings, the ceiling installations, and other high level services.

The Contractor shall modify the existing lighting control system, used throughout the UN City building, to control lighting within the lobby. All luminaires shall be controlled from DALI. All luminaires shall also be centrally controlled.

The Contractor shall investigate the installed emergency lighting in the lobby area and shall communicate this back to the Engineer. The Engineer shall then confirm the final emergency lighting installation within the lobby itself. The Contractor shall then complete the emergency lighting installation complete with luminaires, complete with changeover modules from the central battery system.

All the emergency and Exit luminaires shall be connected to the existing system and shall be in accordance with DS/EN 1838 and DBI 34 and as indicated on the drawings and specifications.

The emergency lighting wiring will be separate from the standard wiring for the rest of the lighting.

3.7 Fire Alarm System

The Contractor shall extend the addressable system within the UN City building comprising of PAVA speakers, smoke detectors and interface units. The system shall be installed, tested and commissioning in accordance with DS/EN 54, DBI 232 and BR18.

The Contractor shall liaise with the Employer to establish connection back to the existing Fire Alarm Panel in the main building. The Contractor shall liaise with the Employer's approved Fire Alarm maintenance company to confirm the exact connections back.

The Contractor shall refer to the Fire Alarm specification for further details.

4 Mechanical Services

4.1 Mechanical Engineering Works

The mechanical services shall be installed in accordance with the specifications and drawings, all relevant Danish Standards and requirements of the local authorities and the Employer.

The mechanical engineering works shall comprise, but not be limited to the following:

- Sprinkler System
- Ventilation.

4.2 Decommissioning Works

The Contractor shall remove but retain the existing air supply diffuser. The Contractor shall remove part of the associated ductwork to allow the diffuser to be relocated as per the mechanical drawings.

4.3 Sprinkler Systems

The Contractor shall provide sprinklers for the lobby area from the existing sprinkler main to all new sprinklers. The Contractor shall provide valves and provisions to allow the new branches and all fixture be accessible, maintainable and drainable.

All sprinkler pipes shall be routed at high level within the ceiling void.

4.4 Ventilation

The Contractor shall modify the existing duct routing for supply from the main distribution to new diffuser location (as per the mechanical drawings) in the lobby area. The Contractors shall provide duct accessory and provision to allow the modifications to the existing branch and all diffusers be accessible and maintainable.