

Project No. 25.009	WALTER SCOTT HOUSE	 OPW Oifig na nOibreacha Poiblí Office of Public Works
	BASEMENT CAR PARKING	
	WATER MIST SYSTEM	



SUITABILITY ASSESSMENT QUESTIONNAIRE - SUPPLEMENT

WATER MIST SYSTEM ASSOCIATED BUILDING, MECHANICAL AND ELECTRICAL WORKS

Document Reference: 25.009_Associated Building Mechanical and Electrical Works

The Office of Public Works
M&E Section
Jonathan Swift Street
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Co. Meath

Project Name: Walter Scott House – Basement Car Parking
Subject: Water Mist System

Project Number: 25.009
Date: October 2026

Approvals for Use

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1 INTRODUCTION

The following document provides a high-level summary of the anticipated scope of Building, Mechanical and Electrical Works associated with retrofitting of an automatic high-pressure water mist system for the two (2) levels of basement car parking in Walter Scott House, Military Road, Dublin 8.

The Applicant shall note that the Walter Scott House building was completed in Quarter 4 2022 and is a fully operational building providing a flagship facility for the work of An Garda Síochána. The building is operational 24 hours per day, 7 days per week, 52 weeks of each year.

This document must be read in conjunction with all other Suitability Assessment Questionnaire documents and appendices.

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2 Building Works

2.1 General

Includes provision of all general and special attendances for the water mist system and associated mechanical and electrical works.

2.2 Structures

Includes suitably secure and fire rated, built-in situ, prefabricated modular or containerised rooms to accommodate all main plant, equipment and control panels.

Includes support plinths and or steel work to securely support and fix all main plant, equipment and control panels.

2.3 Openings

Includes marking the positions of all openings, and forming or cutting of openings in walls floors and roofs for services distribution, pipes, and ducts. Builders' works drawings to be provided for all builders' works. Structural assessments to be conducted as required.

2.4 Sleeves, Flanges and Transits

Includes the supply and installation of:

- Pipe and duct sleeves through walls, floors and roofs and
- Puddle flanges, cable transit frames and wall inserts.

2.5 Offloading and Positioning

Includes the unloading, handling, transport, hoisting and lifting into position of structures, plant, equipment and control panels.

2.6 Firestopping

Includes the supply, installation and certification of all fire barriers, fire collars, intumescent mastics, and related items to all openings in walls floors and roofs for services distribution, pipes, and ducts.

2.7 Finishings

Includes the supply and installation of suitable grounds to support heavy equipment.

Includes the completion of repairs to new and existing surface finishes damaged as a result of the Works.

Includes the supply and installation of suitable finishes to any walls, floors, roofs and ceilings of new structures associated with the water mist system.

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2.8 Painting and Decorating

Includes the preparation of all surfaces and steel work for painting and decoration.

Includes supply and application of suitable priming or sealing coats, undercoats and finishing coats to a RAL colour to be agreed with the Employer.

2.9 Fencing

Includes the supply and installation of all fences, barriers, gates and similar items to secure plant, equipment and control panels from external interference or damage.

2.10 Demonstration and Handover

Provide separate and comprehensive services demonstrations to OPW and to An Garda Síochána (AGS) to an acceptable standard, which will be a requirement for Substantial Completion.

2.11 Operating and Maintenance (O&M) Manuals and Record Drawings

Provide comprehensive, accurate, detailed, operating and maintenance manuals and record drawings for the project.

O&M manuals to be provided for:

1. Water Mist System
2. Building Works
3. Mechanical Works
4. Electrical Works

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3 Mechanical Works

3.1 General

The Applicant shall have full responsibility for all works associated with the mechanical installation and for carrying out the work to a satisfactory conclusion. The Applicant shall engage the services of a Mechanical Contractor that is Construction Industry Register Ireland (CIRI) registered in the required divisions to complete all mechanical works.

The scope for the mechanical works generally comprises of the following:

3.2 Strip Out Works

Identification of all mechanical services requiring disconnection and alteration to accommodate the water mist system plant, equipment and associated structures (if required). This includes tracing of all existing pipes and ducts.

3.3 Cold Water Supply

Supply, installation, testing and commissioning of new cold-water services supply from the existing boosted cold water system at ground floor level to new water mist system water storage tanks at lower basement level.

3.4 Surface Water Drainage

Supply, installation, testing and commissioning of new drainage connections to the existing surface water system to allow for drain down and testing of the water mist system.

3.5 Leak Detection

Supply, installation, testing and commissioning of leak detection system to monitor the new water storage tanks including overflow pipes and tank trays.

3.6 Car Park Smoke Ventilation

Alterations to the existing car park smoke ventilation system to accommodate the water mist system plant, equipment and associated structures. This may include, for example, relocating existing jet fan(s) to make way for construction of new plant room for the water mist tank and pumps etc.

An updated CFD analysis shall be completed for the car park smoke ventilation system to take into account all new water mist system plant, equipment and associated structures. There must be no degradation in the performance of the car park smoke ventilation system following installation of the water mist system.

3.7 Building Management System (BMS)

Supply, installation, testing and commissioning of new BMS control enclosure complete with BMS outstation controller for connection of all monitoring points on the water mist system

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and integration of the new control enclosure with the existing system. Include for updating of the existing system graphics and software.

3.8 Inspection, Testing, Commissioning and Certification

Inspect, test, commission and certify all of the mechanical services.

3.9 Demonstration and Handover

Provide separate and comprehensive services demonstrations to OPW and to An Garda Síochána (AGS) to an acceptable standard, which will be a requirement for Substantial Completion.

3.10 Operating and Maintenance (O&M) Manuals and Record Drawings

Provide comprehensive, accurate, detailed, operating and maintenance manuals and record drawings for the project.

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4 Electrical Works

4.1 General

The Applicant shall have full responsibility for all works associated with the electrical installation and for carrying out the work to a satisfactory conclusion. The Applicant shall engage the services of a Registered Electrical Contractor to complete all electrical works.

The Electrical Contractor shall be registered on the Safe Electric Register. The selected Electrical Contractor shall be of good standing and shall have previous experience of completing similar projects.

A Completion Certificate must be provided following completion of all electrical installation works.

The scope for the electrical works generally comprises of the following:

4.2 Strip Out Works

Identification of all electrical services requiring disconnection and alteration to accommodate the water mist system plant, equipment and associated structures (if required). This includes tracing of all existing final LV circuits, all ELV cables for fire, security, BMS, smoke ventilation and data to determine the origin and termination of each and any junctions in between. This will also include strip-out works or diversions that may be required to accommodate the construction of the new plant room.

4.3 LV Distribution

Modification of the existing primary and secondary firefighting services distribution boards to accommodate the requirements for primary and secondary supplies to the water mist system plant and equipment.

Supply, installation, testing and commissioning of diversely routed, primary and secondary sub-mains cabling to the water mist system in accordance with BS 8519 and BS 9999.

Supply, installation, testing and commissioning of automatic transfer switches (ATSs) for dual supplies to the water mist system plant and equipment.

Connection of signal cabling from the automatic transfer switches to the existing Generator control panel. This includes tracing of the existing signal cabling from existing automatic transfer switches to determine the location of the existing marshalling point where the new cabling will need to be connected.

Supply, installation, testing and commissioning of new local distribution board and associated supply cable for auxiliary electrical services associated with the water mist system plant and equipment.

4.4 Standby Generator

Testing of the existing generator installation following commissioning of the water mist system to ensure the generator supports the system.

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4.5 Containment

Supply and installation of new containment and extensions to existing containment runs for all cabling associated with the water mist system plant and equipment.

4.6 Lighting and Emergency Lighting Installation

Alterations to the existing general lighting (including the KNX based controls) and emergency lighting installations to accommodate the water mist system plant, equipment and associated structures (if required).

Supply, installation, testing and commissioning of new general lighting (including KNX based controls) and emergency lighting installations.

4.7 General Services Installation

Alterations to the existing general service and small power installations to accommodate the water mist system plant, equipment and associated structures (if required).

Supply, installation, testing and commissioning of new general services and small power final circuits and supply points for auxiliary electrical services associated with the water mist system plant and equipment.

4.8 Structured Cabling

Alterations to the existing Cat6A based structured cabling installation to accommodate the water mist system plant, equipment and associated structures (if required).

Supply, installation, testing and commissioning of new Cat6A based structured cabling for the BMS network, ICT Local Area Networks and security systems.

4.9 Fire Detection and Alarm System

Alterations to the existing fire detection and alarm system device positions, loop wiring, interfaces and cause and effect strategy to accommodate the water mist system plant, equipment and associated structures (if required). The existing primary means of fire detection in the car parking areas is by heat detection.

Supply, installation, testing and commissioning of new detection, alarm and interface devices on the existing loops and panels.

4.10 CCTV installation

Alterations to the existing CCTV camera positions, to accommodate the water mist system plant, equipment and associated structures (if required).

Supply, installation, testing and commissioning of new cameras and additional recording capacity to ensure all areas covered by CCTV prior to installation of the water mist system, remain covered by CCTV after the water mist system is installed.

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4.11 Intruder Detection and Alarm System

Alterations to the existing intruder detection and alarm system device positions, wiring, and interfaces to accommodate the water mist system plant, equipment and associated structures (if required).

Supply, installation, testing and commissioning of new detection, alarm and interface devices to monitor plant spaces associated with the water mist system and integration of the new devices with the existing system.

4.12 Access Control System

Supply, installation, testing and commissioning of new access control equipment to secure plant spaces associated with the water mist system and integration with the existing system.

4.13 Electrical Services to Mechanical Plant & Equipment

Alterations to the existing wiring, and connection points to smoke ventilation system sensors and fans to accommodate the water mist system plant, equipment and associated structures (if required).

Supply, installation, testing and commissioning of new power and control wiring, and connection points to plant and equipment associated with the water mist system and for connections from the water mist system to the Building Management system.

4.14 Inspection, Testing, Commissioning and Certification

Inspect, test, commission and certify all of the electrical services.

4.15 Demonstration and Handover

Provide separate and comprehensive services demonstrations to OPW and to An Garda Síochána (AGS) to an acceptable standard, which will be a requirement for Substantial Completion.

4.16 Operating and Maintenance (O&M) Manuals and Record Drawings

Provide comprehensive, accurate, detailed, operating and maintenance manuals and record drawings for the project.