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Wrexham Library

Strip Out Works

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Revision Record

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1.0 Introduction

This report outlines the proposed soft strip works required at Wrexham Library. The primary goal is to remove all existing Mechanical, Electrical, and Plumbing (MEP) services and revert the building to a shell state. This document details the scope of work, requirements for interim safety measures, and considerations for the installation of temporary systems.

2.0 Scope of Work:

The soft strip of Wrexham Library will involve the complete removal of all existing MEP services. The specific items to be removed include, but are not limited to:

2.1 Mechanical Systems:

2.1.1 Plumbing Systems:

Radiators:

- Detachment and removal of all radiators, including wall-mounted and free-standing units.
- Proper disposal or recycling of removed radiators.

Water Pipes and Associated Fixtures:

- Removal of all exposed and hidden water pipes, including hot and cold water supply lines.
- Extraction of all plumbing fixtures such as taps, sinks, toilets, and associated plumbing.

2.1.2 AC Systems:

Indoor Units:

- Remove all wall-mounted or ceiling-mounted indoor units.
- Disconnect and remove all refrigerant piping connected to the indoor units.
- Remove associated condensate drain lines.
- Disconnect and safely remove electrical wiring and controls linked to the indoor units.

Outdoor Units:

- Safely disconnect and remove all outdoor condenser units.
- Remove all refrigerant piping connected to the outdoor units.
- Disconnect and remove electrical wiring and controls associated with the outdoor units.

Refrigerant Recovery:

- Recover all refrigerant from the systems in compliance with environmental regulations and safety standards.
- Ensure that refrigerant recovery is performed by certified personnel using appropriate equipment.

Piping and Ductwork:

- Remove all refrigerant piping, ensuring that it is properly sealed and capped to prevent any residual refrigerant leaks.
- Remove any associated ductwork, if applicable.

Electrical Components:

- Disconnect and remove all electrical components, including wiring, switches, and circuit breakers specific to the AC split systems.
- Ensure safe isolation of electrical circuits to prevent any risk of electric shock
- during the strip-out process.

Mounting Structures:

- Remove all brackets, mounts, and supports used to secure the indoor and outdoor units.
- Make good any damage to walls, ceilings, or floors resulting from the removal of mounting structures.

2.2 Electrical Systems:

Lighting Fixtures:

- All ceiling and wall-mounted light fixtures will be removed, including fluorescent, LED, and incandescent lights. Contractor to allow for safe disposal of fluorescent and incandescent lights/bulbs and comply to WEEE standards.
- Emergency lighting units and exit signs will also be taken down.

Dado Trunking:

- The removal of all dado trunking used for concealing electrical wiring along walls.
- This includes the careful extraction of all contained cables and sockets.

Electrical Outlets and Wiring:

- Disconnection and removal of all electrical outlets, switches, and associated wiring.
- Includes both surface-mounted and embedded wiring systems.

Electrical Data Wiring:

- Disconnection and removal of all data outlets and associated wiring.
- Includes both surface-mounted and embedded wiring systems.
- Disconnection of and removal of exisitng hardware shall be the responsibility if WCC ICT department.

- Exisitng main BT fibre to be retained and coiled up in one corner of the ground floor area for future use.

2.2.1 Safety and Security Systems:

CCTV Cameras and Related Equipment:

- Deactivation and removal of all CCTV cameras, including mounting brackets and wiring.
- Disconnection of recording and monitoring equipment.

Fire Alarm Systems:

- Removal of all components of the existing fire alarm system, including smoke detectors, heat detectors, alarm sounders, and control panels.

2.2.2 Miscellaneous Items:

Additional MEP Components:

- Removal of any additional mechanical, electrical, or plumbing components that contribute to the current operational state of the building. This includes HVAC units, Underfloor redundant data cabling and containment ductwork, and other related equipment.
- The building needs to be stripped back to a shell, with all non-structural elements removed. The focus is on ensuring that the structure is ready for future refurbishment or redevelopment, free from outdated or redundant systems.

2.2.3 Interim Safety Measures:

Given the extensive nature of the strip-out, it is essential to ensure the building remains compliant with insurance and fire safety regulations during the transition. As such, the following measures will be implemented:

2.3 Temporary Fire Alarm System:

Installation of Temporary Fire Alarm System:

- A new temporary fire alarm system will be installed to ensure continuous fire safety coverage during the strip-out and subsequent phases. This shall be a P2 coverage as it is temporary but this will need to be agreed with the local BCO and insurers.
- This system will include strategically placed smoke detectors, heat detectors, and manual call points to cover the building.

- Temporary fire alarm to be wired in softskin FP200 enhanced fire rated cabling surface mounted. Cable routes to be agreed with Heritage officer.

Monitoring and Maintenance:

- Regular monitoring and maintenance of the temporary fire alarm system to ensure it remains fully operational at all times.
- Coordination with local fire authorities to ensure compliance with fire safety regulations.

2.4 Temporary Security Alarm System:

Installation of Temporary Security Alarm System:

- A new temporary security alarm system will be installed to safeguard the building against unauthorised access and vandalism.
- This system will include motion detectors, door and an alarm control panel with keypad set/unset at one key entry point.
- This system shall link through to an ARC centre and can possibly connect up to the existing ARC centre for the building. Client to advise.

Monitoring and Response:

Continuous monitoring of the security system by a professional security company. Immediate response protocols in case of unauthorised entry or security breaches.

Rationale for Temporary Systems:

While retaining the existing fire and security systems was considered, it was determined that attempting to preserve and integrate these systems during the strip-out would present significant challenges. The complexity and volume of MEP services make it impractical to work around the existing infrastructure. Thus, a complete strip-out followed by the installation of temporary systems is deemed the most efficient and effective approach. This method ensures that all safety and security needs are met without compromising the project's progress.

3.0 Isolation Procedures

3.1 Electrical Systems Isolation

Before isolating electrical systems, a comprehensive survey shall be conducted to locate all circuits and equipment, verifying the positions of main and sub distribution boards. The isolation procedure includes the shutting off and applying lockout/tagout (LOTO) measures to all electrical supplies at the main distribution board and sub-boards. As part of the works, the electrical infrastructure is to be stripped back to the main exisitng cables entry point at ground floor rear office. All exisitng distribution boards, sub mains cables, isolators and bus bars shall be isolated and stripped out. The contractor shall, however retain the main supply and isolator so as this can provide power to the building to power the fire alarm system and intruder alarm system/monitoring whilst it sits as a shell and core.

3.2 HVAC Systems Isolation

Prior to isolation, all HVAC units, power sources, and control systems shall be identified through pre-checks. The isolation process involved shutting off and applying LOTO procedures to all HVAC unit power supplies, isolating control systems and any automated controls, and managing refrigerant lines as per regulatory guidelines for hazardous materials. Safety checks shall be completed to confirm that all systems are properly isolated and safe prior to removal.

3.3 Plumbing Systems Isolation

Pre-checks shall identify all water supply lines, drainage systems, and fixtures. The isolation process entailed shutting off the main water supply, draining all lines, and isolating and securing drainage outlets to prevent backflow or leaks. Safety checks shall be completed to confirm all water systems are completely drained and safe prior to removal.

3.4 Data and Communication Systems Isolation

Pre-checks shall identify all data cabling, communication racks, and associated hardware. The isolation procedure shall include disconnecting power supplies to data equipment, removing active data and communication links, and ensuring no live data or power connections remained. As part of the strip out works, the existing BT Openreach connection shall stripped back to the point of entry.

3.5 Security Systems Isolation

Pre-checks shall identify all components of the security system, including cameras, alarms, and control panels. The isolation process shall involve the shutting off and applying LOTO procedures to all power supplies to security equipment, disconnecting alarms and monitoring systems. Safety checks shall be completed to confirm systems are inactive and safe prior to removal.

3.6 Removal Procedures

The electrical systems, HVAC systems, plumbing systems, data, communication systems and security systems shall be removed as part of the upcoming works. The removal process will include dismantling light fixtures, emergency lighting units, associated wiring, power outlets, switches, internal wiring up to distribution boards, fire alarm system components such as sensors and control panels, heating units, ventilation ducts, air conditioning units, thermostats, HVAC control panels, plumbing fixtures like toilets and sinks, associated piping including water supply and drainage lines up to main lines, data and communication cabling, server racks, data points, hardware, CCTV cameras, sensors, control panels, alarm systems, access control devices.

3.7 Documentation and Reporting

Comprehensive documentation of the entire isolation and removal process, including photographic evidence, shall be provided. Certificates of isolation and removal for all systems shall be provided. All inspection, testing, and maintenance reports related to the sprinkler system shall be included.