

Electrical Services Report

Public Toilet Block – Warminster Road, Westbury, BA13 3PE

Prepared for: Information and Refurbishment Recommendations

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1. Introduction

This report has been prepared to assess the existing electrical services within the public toilet block located at Warminster Road, Westbury, and to provide recommendations for refurbishment works to bring the facilities up to current standards.

The facility comprises of the following:

- 2 x DDA toilet room
- 1 x unisex toilets
- 1 x storage room
- Service corridor housing M&E services, wall heater, and cleaner's sink with point-of-use water heater
- Service cupboard at the east elevation of the building, accommodates all M&E services for

All sanitaryware and electrical items are of stainless-steel anti-vandal construction, apart from one disused DDA WC located at the right-hand side of the south elevation which currently has vitreous china although this is currently disconnected from all services. The majority of the building appears to have been non-operational for some time, except for the DDA-compliant WC, which remains in use.

2. Electrical Services Review

2.1 Distribution Board

The next inspection date was March 2015, which is now over ten years overdue. A full Electrical Installation Condition Report (EICR) is strongly recommended as soon as possible as it represents a compliance failure, Periodic Inspections are required under BS7671, Part 6. (Photo(s) Ref 1)

The Distribution Board is plastic and does not comply with the current requirement for non-combustible (metal clad) consumer units as outlined in regulation 421.1.201. (Photo(s) Ref 1)

The existing board has no surge protection installed, with the absence of this it leaves sensitive equipment vulnerable to damage from transient overvoltage's. Modern installations require Type 2 SPDs as standard, in line with regulation 443.4.1.

The current setup includes RCD protection, however, if a single circuit develops a fault, it will trip the entire board. We recommend upgrading to RCBO protection on individual circuits to improve safety and minimise disruption. (Photo(s) Ref 1)

2.2 Containment & Cabling

Containment is mainly plastic trunking and plastic conduit, which have degraded over time and offers limited fire resistance. Modern Standards recommend the use of metallic containment in public access buildings to prevent premature collapse in a fire (Regulation 521.10.202). (Photo(s) Ref 2)

Installed cabling is standard PVC, not low smoke and fume (LSF) cable. Given this is a public building, LSF cabling is strongly recommended to reduce smoke and toxic emissions in the event of a fire, helping maintain visibility and safety. (Photo(s) Ref 2)

Some cables enter light fittings without protective grommets or sleeving. Additionally, single insulated conductors are visible, and connector block joints have been used inappropriately, such practices contravene BS7671 requirements for mechanical protection and secure terminals, specifically regulations 526.5 & 526.8.

2.3 Lighting & Accessories

Internal and external light fittings are mainly fluorescent, and several are not operational. We recommend replacing all fittings with LED luminaires for greater energy efficiency, improved lighting quality and extended lifespan. (Photo(s) Ref 3)

There is no emergency lighting present. As there is no natural or borrowed lighting, we recommend installing a compliant emergency lighting system.

Vacant/engaged indicator lights were found to be functional.

2.4 Fire & Safety

No fire detection systems are installed, while the toilet block may be considered a low risk environment for fire, a fire risk assessment should determine whether heat or smoke detection is required, particularly in service areas where electrical equipment is concentrated. At a minimum, installation of a standalone heat detector in the service area where cleaners' products and the electrical intake area should be considered. (Photo(s) Ref 4)

2.5 CCTV Systems

No CCTV system is currently installed; clarification is required on whether CCTV is a client or regulatory requirement for this facility for both safeguarding and vandalism deterrence.

2.6 Underfloor Heating

Underfloor heating is present but not tested during the survey, electrical heating systems require suitable RCD which are in place under Regulation 701.753. The age and condition of the system should be reviewed and tested. (Photo(s) Ref 5)

2.7 Earth Bonding

The majority of equipment and accessories had supplementary bonding in place. However, confirmation of compliance with BS7671 Part 5, Chapter 54 is recommended. Bonding conductors need to be tested for continuity and adequate sizing, and any missing could create dangerous potential differences under fault conditions especially on the metallic pipework and stainless steel sanitaryware that is in place.

2.8 Disabled Alarm Systems

A disabled assistance alarm system is installed with a beacon located outside to provide alert. This was assumed to be functional but not tested during this survey.

3. Compliance & Risk Considerations

In accordance with BS 7671 (IET Wiring Regulations), several compliance issues were identified: The Distribution Board requires an EICR immediately, as inspection is overdue by more than 10 years.

The Distribution Board is plastic and does not comply with the current requirement for non-combustible (metal clad) consumer units as outlined in regulation 421.1.201.

Lack of surge protection is non-compliant with current standards (Regulation 443.4.1).

RCD/RCBO protection must be reviewed and upgraded to provide individual circuit protection, in line with Chapter 41 of BS 7671.

Use of PVC cables in a public building does not comply with best practice. LSF (Low Smoke and Fume) cabling is strongly advised (Regulation 422.2.1).

Emergency lighting is required for safe evacuation in accordance with BS 7671 Section 560 and BS 5266.

All visible conductor joints and inadequate sleeving present risk and should be rectified (Regulations 526.5 and 526.8).

Failure to address these issues increases risk of fire, electrocution, and non-compliance with statutory obligations.

4. General Observations

There are clear signs of ageing electrical infrastructure, inconsistent wiring practices, and a lack of modern safety measures. Energy efficiency measures are limited, with outdated fluorescent fittings still in place. Accessibility systems, such as the disabled alarm, appear functional but require verification testing. The overall electrical installation falls short of current standards and presents both safety and operational risks.

5. Summary of Recommendations

The main recommendations are as follows:

- Immediate EICR testing to determine installation safety.
- Upgrade Distribution Board to metal clad with RCBOs and surge protection.
- Replace existing PVC cabling with LSF-rated cabling.
- Install compliant emergency lighting throughout.
- Replace all fluorescent fittings with LED luminaires.
- Ensure proper containment, sleeving, and termination of conductors.
- Test and certify disabled alarm.
- Consider installation of CCTV if required.

These measures will bring the installation into line with BS 7671 and improve safety, efficiency, and compliance.

6. Conclusion

The electrical installation within the public toilet block requires significant remedial works to achieve compliance with BS 7671 and modern safety standards. The overdue inspection, lack of surge protection, outdated cabling, and absence of emergency lighting are critical risks that must be addressed. Implementing the recommendations provided will ensure a safe, efficient, and compliant facility for public use.

7. Appendices – Photo References

Ref 1.



Ref 2.



Ref 3.



Ref 4.



Ref 5.



Ref 6.

