

PROJECT: 18603 Toilet Refurbishments TETB

TEM CONTRACT No: 18603

Document Title:

Electrical Scope of Works

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1 KEY PROJECT ENTITIES & SITE LOCATION

1.1 Key Project Entities

Key project entities are:

Entity	Name
Client:	TIPPERARY FET COLLEGE
Project Managers	Spendite
Structural Engineers	-
Architect	Spendite
Quantity Surveyor	-
M&E Services Consulting Engineers	TEM Engineering & Management DAC

Other key entities mentioned in this document:

- Main Contractor or Building Contractor: The firm appointed to carry out the building works.
- Electrical Contractor: The firm appointed to carry out the electrical works.

1.2 Description of Site

These works are located at three sites, which are:

- Tipperary FET College Roscrea:
 - Old Dublin Road, Roscrea, Co. Tipperary. E53 P797.
- Tipperary FET College Cappawhite:
 - Cappawhite, Co. Tipperary. E34 A320.
- Tipperary FET College Clonmel:
 - The Mall, Clonmel, Co. Tipperary. E91K2E2.

2 SCOPE OF WORKS

The scope of works is comprised of:

Definitions:

- Electrical Contractor – EC;
- Not Applicable – NA.

Item	Description	Scope
1	Preliminaries	EC
2	Site Services (Element 60)	NA
3	Electrical Supply and Main Distribution (Element 61)	NA
4	Power (Element 62)	EC
5	Lighting (Element 63)	EC
6	Communications (Element 64)	NA
7	Security and Protection (Element 65)	NA
8	Transport (Element 66)	-
9	Reserved (Element 67)	-
10	Other Services (Element 68)	EC

Notes:

1. The elements described above follow the “Capital Works Management Framework” document “How to use the Costing Document (Building Works) – CO 1”.

3 BOUNDARIES

All electrical services to be included.

4 MAIN TECHNICAL CHARACTERISTICS

This section presents the main technical characteristics for all elements. The contractor shall include any miscellanea needed for the perfect running of the system, even if it's not listed below.

4.1 Preliminaries

Strip out of existing electrical services and preparation for assembly of new installation.

4.2 Power (Element 62)

Power supply for cleaning and mechanical services (radiator controls and fans) to be envisaged on these works. Fire Alarm new detectors and interfacing with existing system shall be considered. Disable toilet specific requirements shall be met. Summary as follows.

- Cappawhite: four smoke detectors (2 in ceiling void and 2 for the room), two emergency signs, two power supply for hand dryer, one cleaning socket, two pull cord for disable person and two reset buttons.
- Roscrea: five smoke detectors (1 in ceiling void and 4 for the room), two emergency signs, four power supply for hand dryer, one cleaning socket, one pull cord for disable person and one reset button.
- Clonmel: This site has two layouts/location for development of works. Location one: five smoke detectors (1 in ceiling void and 4 for the rooms), two emergency signs, two power supply for hand dryer, one cleaning socket, one pull cord for disable person and one reset button. Location one: four smoke detectors (1 in ceiling void and 3 for the rooms), two emergency signs, three power supply for hand dryer, one cleaning socket, one pull cord for disable person and one reset button.

4.3 Lighting (Element 63)

New light fittings for the rooms modified/created as per architectural drawings.

- Cappawhite: two passive infrared detectors, two lighting fittings and two emergency lighting fittings. Accessories as needed (switches, etc.).
- Roscrea: two passive infrared detectors, eight to ten lighting fittings and four emergency lighting fittings. Accessories as needed (switches, etc.).
- Clonmel: This site has two layouts/location for development of works. Location one: three passive infrared detectors, thirteen lighting fittings and five emergency lighting fittings. Location two: four passive infrared detectors, four lighting fittings and four emergency lighting fittings.

4.4 Other Services (Element 58)

Other services as needed for the complete and perfect running of the system.

5 DEVELOPMENT OF WORKS

5.1 Builders Work through Structure and Fire Stopping

Should it be required to cut or drill any of the structural steelwork the Contractor shall obtain the approval of the Consultant in writing before any such cutting and drilling is carried out.

The contractor is responsible for all builders work necessary to complete the works. Where cables are routes and penetrate existing fire compartments the contractor is to re-seal same with a suitable fire seal.

6. WARRANTY / MAINTENANCE

The work is to be maintained in good running order for a period of twelve months after the completion of the Contract and after this period of twelve months, finally passed by the Engineers. Any defect developing in the system during this period to be rectified and made good at the Electrical Contractor's own expense. Causes outside the control of the Contractor are accepted.

7. TECHNICAL SPECIFICATIONS

The purpose of this section is to set out the specific criteria for the Electrical Services.

7.1 Codes, Standards and Design Guidelines

- Building Regulations:
 - Technical Guidance Document B – Fire Safety;
 - Technical Guidance Document E – Sound;
 - Technical Guidance Document F – Ventilation;
 - Technical Guidance Document G – Hygiene;
 - Technical Guidance Document H – Drainage and Waste Water Disposal;
 - Technical Guidance Document L – Conservation of Fuel and Energy;
 - Technical Guidance Document M – Access and Use;
 - Any other relevant technical guidance documentation.
- Other Regulations

- All relevant Irish Standards and Regulations;
- All relevant European Standards and Regulations;
- Guidance documentation from CIBSE, IEL etc.;
- IS 291:2015 Portable Fire Extinguishers;
- IS 820:2019 Non domestic Gas Regulations (Edition 3);
- HVCA DW 171 Standard for Kitchen Ventilation Systems;
- HVCA DW 144 Specification for Sheet Metal Ducting;
- Any other relevant technical guidance documentation.

7. 2 Electrical Supply and Main Distribution

Main, Submain, Cabling & Containment

General

This section includes the supply and installation, termination and testing of all 230/400V power distribution cabling and cable support systems as indicated on the drawings.

Distribution Cabling

Distribution cables shall be 600/1000V grade LSOH/SWA/PVC run on galvanised steel cable tray, supported on Unistrut.

Earthing and Bonding

General

The earthing and bonding of the installations shall be in accordance with the IS 10101 National Rules for Electrical Installations 2020 with latest amendments.

7.3 Power

General

- Small power and lighting cabling will be routed via galvanised steel conduit, Tray/ trunking throughout the building.
- All conduit drops will be concealed.
- All socket outlets to be flush mounted and shall be fitted with a twin USB port.

- Power shall be provided to the Gym area and all mechanical plant, and ancillary systems via switched fused connection units and isolations.
- Containment runs are as indicated on the drawing.

Isolators

All extract fans, pumps, supply fans shall be provided with isolators to IP.65, complete with auxiliary contacts.

Wet Areas

All power supplies serving wet areas (Lighting circuits and fan circuits) to be protected by RCBO's.

Extract Fans

All extract fans to have dedicated isolation switch outside.

Sockets Circuits

Each socket circuit to contain 4No sockets in total.

Small Power Circuits

Each small power circuit to serve only 1No isolator.

7.4 Lighting

General

Lighting shall be in accordance with IS EN 13464. Emergency lighting shall be in accordance with IS 3217:2023 V004 Emergency Lighting.

Lighting shall be wired utilising 2.5mm² LSF cabling in concealed galvanised steel conduit and trunking, unless otherwise stated. The circuits shall be protected by 10 Amp RCBO.

Emergency Lighting

An emergency lighting installation is to be provided throughout in accordance with IS3217:2023 V004 Emergency Lighting and Amendment 1:2017.

8 SPECIFICATION SCHEDULES

8.1 Electrical Drawing Schedule

As per architectural documentation.

9 Electrical TENDER SUMMARY AND BREAKDOWN

9.1 Tender Breakdown (Element 69)

Item	Description	Price
.1	Preliminaries	€
.2	Electrical Supply and Main Distribution (Element 61)	€
.3	Power (Element 62)	€
.4	Lighting (Element 63)	€
.5	Communications (Element 64)	€
.6	Security and Protection (Element 65)	€
.7	Transport (Element 66)	€
.8	Reserved (Element 67)	€
.9	Other Services (Element 68)	€
.10	Any Items Not Included Above.	€
	TOTAL	€