

CBS THURLES SECONDARY SCHOOL

**CLASSROOM EXTENSIONS AND
WOODWORK ROOM ALTERATIONS**

TENDER DOCUMENTS

**VOLUME C
PRICING DOCUMENT - SERVICES ENGINEERS**

**SECTION 1
ELECTRICAL SCHEDULE OF PRICES**

June 2017



Fahey O'Riordan
Consulting Engineers

Shanaclogh, Cappawhite, Co Tipperary. Tel:- 062 75929 Email:- info@force.ie

<i>Revision</i>	<i>Issue</i>	<i>Prepared By</i>	<i>Date</i>
T0	Issued For Tender	J. Fahey	29 th June 2017

Table of Contents

1.0	TENDER SUMMARY / SCHEDULE OF PRICES	4
1.1	SECTION A: PRELIMINARIES.....	4
1.2	SECTION B : ELECTRICAL WORKS	5
1.3	SECTION C: SUMMARY	17
2.0	DAYWORK RATES	18
3.0	ESTIMATE RATES	18
4.0	SCHEDULE OF SUB CONTRACTORS.....	19
5.0	SCHEDULE OF MANUFACTURERS AND DELIVERIES	20
6.0	SCHEDULE OF ALTERNATIVE MATERIALS AND/OR METHODS	21

1.0 TENDER SUMMARY / SCHEDULE OF PRICES

1.1 Section A: Preliminaries

Provide for the following as appropriate. Unless the tenderer specifically notes an amount of money or "not included" after each of the Preliminary items, it shall be taken by default that any costs associated with these items are included in the totalled tender figure.

Ref.	Description	Amount
A.1	Mobilisation of contractors management, supervision and staff	€
A.2	Carrying out the works in accordance with the terms and requirements of the specification.	€
A.3	Scaffolding, access platforms hoisting, plant, tools, ladders, vehicles, temporary buildings and any other support facilities required.	€
A.4	Health, safety, welfare and training of personnel.	€
A.5	Requirements of local authorities and others having jurisdiction; police regulations, customs duties/levies.	€
A.6	Setting out, supervision and programming.	€
A.7	National insurance and pensions for personnel; holidays; incentive bonus; transfer of personnel; country money.	€
A.8	Safeguarding the works, materials (including Employer's materials) and plant against damage and theft.	€
A.9	Maintenance of existing buildings, facilities, roads and repair of damage done by this Contractor.	€
A.10	Allow for water, power and light for works, to the extent required.	€
A.11	Insurances.	€
A.12	Preparation of working drawings.	€
A.13	Builders work drawings, setting out and supervision of associated builders work activities.	€
A.14	Labelling; provision of operating and maintenance manuals; as-built drawings; commissioning data records; instructing and training employer's representatives.	€
A.15	Allow for assisting the Project Supervisor for Construction Stage as required under the SHW Regulations.	€
A.16	Amount for preparation and submission of Electrical Services Safety File to the Employer – 2. No hard copies and 2 No soft copies on computer disc .	€
Sub Total for Section A Preliminaries		€
Carried forward to Overall Summary Section C		

1.2 Section B : Electrical Works

Provide for the following as appropriate. Totals shall include all necessary materials; labour; transport; delivery to site; loading/off-loading; storage; duties; levies; spares as specified in this specification, or by the product manufacturer/supplier; accessories and support devices; installation; erection; connection; testing and commissioning, as appropriate:

***Each item in this Summary must be priced separately otherwise the tender may be invalidated *.**

Ref.	Description	Amount
B60	General	€uro
(a)	Allow for completing a detailed site survey and investigation of the existing School to confirm existing services locations and connection points etc.	€
(b)	Allow for routine and preventative maintenance of the electrical installations installed under the contract for a period of 12 months from date of final handover to the client, (i.e. during the defects liability period).	
(c)	Allow for routine service and maintenance of the emergency lighting system in accordance with IS3217 2013 for a period of 12 months from date of final handover to the client.	€
(d)	Allow for a standard annual service / maintenance agreement for the fire alarm system by a specialist fire Alarm sub-contractor in accordance with the requirements of IS 3218 2013 for a period of 12 months from date of final handover to the client	€
(e)	Allow for any miscellaneous costs in relation to General Items / Maintenance not taken for elsewhere (tenderer to provide details below with breakout of costs)	€
	
	
	
Sub-total for Section B60		
Carried forward to Summary Section C		€

B61 Power Distribution System Amount

- (a) Allow for upgrade of the existing main distribution board to provide a new 63 Amp MCCB Feeder to supply power to the proposed new SDB-1 to serve the new extension. €
- (b) Supply and installation of the Classroom Extension Sub Distribution Board SDB-1 as specified €
- (c) Supply and installation of the medium duty galvanized steel cable tray system in the ceiling voids for sub-main power distribution cabling from the existing Main Board to the Classroom extension as specified. Note – use existing cable containment in the main corridors where feasible. €
- (d) Supply, install and terminate the 5 x 16mm sq. copper XLPE/SWA/LSF sub-main cable from the existing Main Board to the New Sub Board SDB-1 fixed on new cable tray / run on existing cable tray where feasible as specified €
- (e) Allow for Testing, Commissioning and Certification of the Power Distribution Systems. €
- (f) Allow for any miscellaneous costs in relation to the Power Distribution System not taken for elsewhere (tenderer to provide details below with breakout of costs) €

.....

Sub-total for Section B61

€

Carried forward to Summary Section C

=====

B62a Woodwork Room General Service & Equipment Power Amount

- (a) Allow for tracing isolation and disconnection and salvage of all existing electrical services mounted on the wall of the woodwork room which is to be demolished to enable safe demolition by the main contractor. Salvaged equipment shall be tested and where feasible re-used. €
- (b) Supply and installation of the galvanised steel, trunking and conduit system for the general service power distribution in the woodwork room as specified. €
- (c) Allow for upgrade / extension of the existing woodwork room board SDB-230V to provide four new 20A RCBO circuits and three new 20A MCB circuits wired out to terminals and including 25% spare space as specified. €
- (d) Supply, install and terminate the new general service power wiring (LSF) fed from SDB 230V as specified. €
- (e) Supply and install the key operated emergency stop switch as specified €
- (f) Supply, install and terminate the 110 Volt services power wiring (LSF) fed from SDB 110V as specified. €
- (g) Supply and installation of three compartment DADO trunkings to Teacher Workstations complete with proprietary bends, tees, joiners and end caps etc. as specified. €
(NOTE:-site fabricated DADO trunking components will not be accepted)
- (h) Supply and installation of two compartment Bench trunkings to Workbench complete with proprietary bends, tees, joiners and end caps etc. as specified. €
- (i) Supply and install general service power socket outlets accessories and devices as particularly specified. €
- (j) Supply and install fixed equipment spur outlets, accessories and devices as particularly specified. €
- (k) Allow for the complete earthing and bonding installation to new general service power installations including separate protective earth conductors to all final circuits to current ETCI requirements. €
- (l) Allow for testing, commissioning and certification of the new general service and equipment power systems. €
- (m) Allow for any miscellaneous costs in relation to the Woodwork Room General Service & Equipment Power System not taken for elsewhere (tenderer to provide details below with breakout of costs) €

.....
.....

Sub-total for Section B62a

€

Carried forward to Summary Section C

B62b Classroom & Office Extension General Service & Equipment Power Amount

- (a) Supply and installation of the galvanised steel, trunking and conduit system for the classroom extension general service power distribution as specified. €
- (b) Supply, install and terminate the general service power wiring (LSF) fed from the new SDB-1 Board as specified. €
- (c) Supply and installation of three compartment DADO trunkings to Teacher Workstations and office workstations complete with proprietary bends, tees, joiners and end caps etc. as specified. €
 (NOTE:-site fabricated DADO trunking components will not be accepted)
- (d) Supply and install general service power socket outlets accessories and devices as particularly specified. €
- (e) Supply and install fixed equipment spur outlets, accessories and devices as particularly specified. €
- (f) Supply and install power supplies / wiring to the heating room thermostats and 2 port valve controls as particularly specified. €
- (g) Allow for installation of the room thermostats supplied by the mechanical contractor. €
- (h) Allow for the complete earthing and bonding installation to new general service power installations including separate protective earth conductors to all final circuits to current ETCI requirements. €
- (i) Allow for testing, commissioning and certification of the new general service and equipment power systems. €
- (j) Allow for any miscellaneous costs in relation to the General Service & Equipment Power System not taken for elsewhere (tenderer to provide details below with breakout of costs) €

.....

Sub-total for Section B62b

€

Carried forward to Summary Section C

B62c Technology Room General Service & Equipment Power **Amount**

- (a) Supply and installation of the galvanised steel, trunking and conduit system for the technology room general service power distribution as specified. €
- (b) Supply, install and terminate the general service power wiring (LSF) fed from existing classroom circuits as specified. €
- (c) Supply and installation of three compartment DADO trunkings to Teacher Workstations complete with proprietary bends, tees, joiners and end caps etc. as specified. €
 (NOTE:-site fabricated DADO trunking components will not be accepted)
- (d) Supply and install general service power socket outlets accessories and devices as particularly specified. €
- (e) Allow for the complete earthing and bonding installation to new general service power installations including separate protective earth conductors to all final circuits to current ETCL requirements.
- (f) Allow for testing, commissioning and certification of the new general service and equipment power systems.
- (g) Allow for any miscellaneous costs in relation to the Technology Room General Service & Equipment Power System not taken for elsewhere (tenderer to provide details below with breakout of costs) €

.....

Sub-total for Section B62c
Carried forward to Summary Section C

€

B62d Science 3 & Prep Room General Service & Equipment Power Amount

- (a) Supply and installation of the galvanised steel, trunking and conduit system for the Science room 3 general service power distribution as specified. €
- (b) Supply, install and terminate the general service power wiring (LSF) fed from existing science classroom board and allow for supply and installation of three new RCBO circuits in the existing board as specified. €
- (c) Supply and installation of three compartment DADO trunkings to Teacher and student Workstations complete with proprietary bends, tees, joiners and end caps etc. as specified. €
 (NOTE:-site fabricated DADO trunking components will not be accepted)
- (d) Supply and install general service power socket outlets accessories and devices as particularly specified. €
- (e) Supply and install fixed equipment spur outlets, accessories and devices as particularly specified. €
- (f) Allow for the complete earthing and bonding installation to new general service power installations including separate protective earth conductors to all final circuits to current ETCI requirements. €
- (g) Allow for testing, commissioning and certification of the new general service and equipment power systems. €
- (h) Allow for any miscellaneous costs in relation to the Science 3 & Prep Room General Service & Equipment Power System not taken for elsewhere (tenderer to provide details below with breakout of costs) €

.....

Sub-total for Section B62d
Carried forward to Summary Section C

€

B63	Lighting & Emergency Lighting Systems	Amount
(a)	Supply and installation of galvanised steel trunking and conduit system for the lighting systems as specified, including separate ELV containment for automatic controls wiring.	€
(b)	Supply installation and termination of LSF mains wiring for the lighting systems as specified.	€
(c)	Supply installation and termination of controls wiring from automatic 'smart' lighting controls to individual luminaires.	€
(d)	Supply and installation of plate switch accessories and wiring devices for the lighting systems as required.	€
(e)	Supply, installation, erection and connection of the general luminaires.	
	Type A	€
	Type B	€
	Type C	€
	Type SF	€
(f)	Supply, installation, erection and connection of the emergency luminaires.	
	Type EX1 Exit Sign	€
	Type E External Emergency Bulkhead	€
	Type K/E External Emergency Bulkhead Exit Sign	€
(g)	Allow for relocation of the existing external lighting bulkheads .	€
(h)	Allow for programming and testing / commissioning of the automatic lighting controls by a trained Thorlux 'Smart' System specialist.	€
(i)	Allow for testing, commissioning and certification of the lighting systems and emergency lighting to IS3217 2013 (by competent specialist)	€
(j)	Allow for any miscellaneous costs in relation to the Lighting System not taken for elsewhere (tenderer to provide details below)	€
	€
	€
	Sub-total for Section B63	€
	Carried forward to Summary Section C	

B64 Communication Services		Amount
B64a ELV Containment		
(a)	Supply and installation of galvanised steel cable tray systems for the extra low voltage / communications systems cabling as required. Note all cabling shall be fully contained using either existing or new cable ways as required	€
(b)	Supply and installation of a galvanised steel conduit containment system for the extra low voltage communications systems as specified.	€
Sub-total for Section B64a		€
carried forward to <i>Electrical Summary</i>		
B64b Structured Cabling System		Amount
(a)	Supply and installation of a 1 No 24 Way data patch panels and cable management accessories as required.	
(b)	Supply, installation and termination of 4 pair UTP CAT 6 cabling from the nearest existing IDF patch panels to the new RJ45 data outlets by trained and certified data technicians.	€
(c)	Supply and installation of CAT 6 patch leads – Allow for 15 No 1 meter leads and 15 No 3 meter leads.	€
(d)	Allow for all attendances, liaison and all electrical works associated with the structured cabling installation.	€
(e)	Allow for supply and installation of an active 24 way ethernet switch in the IDF to provide an operational ICT system as specified.	€
(f)	Allow for supply and installation of a wall mounting wireless access hub in the Reception Area as specified.	€
(g)	Testing, labelling, commissioning and certification of the complete structured cabling system.	€
(h)	Allow for any miscellaneous costs in relation to the ICT System not taken for elsewhere (tenderer to provide details below with breakout of costs)	€
	€
	€
Sub-total for Section B64b		€
carried forward to <i>Summary Section C</i>		

B64c Public Address Systems	Amount
(a) Allow for upgrading the existing PA System amplifiers and control station as necessary to provide PA services to the proposed classroom extension as specified.	€
(b) Supply and installation of a galvanised steel conduit containment system for the public address systems as specified.	€
(c) Supply, install and test 1.5mm sq twin Public Address wiring from the PA Amp to each final speaker in the classroom extension as specified.	€
(d) Supply and installation of wall mounted Public Address Speakers in the Classrooms – new speakers to be compatible with the existing system.	€
(e) Allow for labelling, testing, commissioning and certification of the extended PA systems.	€
.....	
.....	
<i>Sub-total for Section B64c</i>	€
<i>Carried forward to Summary Section C</i>	

B65a Fire Alarm System	Amount
(a) Allow for Upgrade of the Existing Main Fire Alarm Panel as required to facilitate extension and connection of the proposed two classroom and office extension as specified.	€
(b) Supply and installation of a galvanised steel conduit system for the fire alarm cabling as specified.	€
(c) Supply and installation of the open protocol fire detection and alarm components including smoke detectors, breakglass units, I/O relays, short circuit line isolators and sounders etc as specified.	€
(d) Supply and installation of the Pirelli FP200 fire rated cabling, and all accessories associated with the fire alarm installation.	€
(e) Allow for all attendances, liaison and all electrical works associated with the fire alarm system installation.	€
(f) Allow for two separate site visits to provide detailed user instruction to the client staff in the proper operation of the Fire Alarm system as per IS3218.	€
(g) Allow for provision of the updated framed zone chart for the extended and modified fire alarm system as specified.	€
(h) Allow for updating the addressing and documentation of the fire alarm system to include all changes to the system.	€
(i) Allow for testing, commissioning and certification of the Fire Alarm Installation to IS 3218 2013. Note:- Model Form commissioning certificates part 2 and 3 to be provided by the systems and installation contractors. The specialist fire alarm system supplier's commissioning engineer shall fully instruct the School Authority representative(s) in the system in accordance with the requirements of IS3218 and shall arrange for completion and sign off of Part 4 of the model form certificate by the user.	€
(j) Allow for any miscellaneous costs in relation to the Fire Alarm System not taken for elsewhere (tenderer to provide details below with breakout of costs)	€
.....	€
.....	€
Sub-total for Section B65a	€
Carried forward to Summary Section C	€

B65b Intruder Alarm Systems	Amount
(a) Allow for upgrade of the existing School Intruder Alarm System as required to facilitate extending to cover the proposed new extensions as specified.	€
(b) Supply and installation of a galvanised steel conduit system, for the Intruder Alarm cabling as specified.	€
(c) Supply and installation of the intruder detection and alarm components including entry door magnetic sensors, Dual tech passive infra red motion sensors, keypads, sirens, etc to the proposed extensions as specified.	€
(d) Allow for the relocating and upgrade of the existing intruder alarm external bell box	€
(e) Supply and installation of the wiring and accessories associated with the Intruder Alarm installation.	€
(f) Allow for all attendances, liaison and all electrical works associated with the Intruder Alarm system installation.	€
(g) Allow for instruction of the client staff in the proper operation of the extended intruder alarm systems.	€
(h) Allow for testing, re-commissioning and re-certification of the intruder alarm installation using the schools existing specialist maintenance company.	€
(i) Allow for any miscellaneous costs in relation to the Intruder Alarm System not taken for elsewhere (tenderer to provide details below with breakout of costs)	€
.....	
.....	
Sub-total for Section B65b	€
Carried forward to Summary Section C	

B65d CCTV Systems

- (a) Allow for relocation / extension of the existing power and signal cables to external CCTV cameras that are being relocated due to the extension as required €
- (b) Allow for relocation of the CCTV cameras by the school's existing CCTV specialist under this contract. €
- (c) Allow for all attendances, liaison and all electrical works associated with the CCTV system relocation. €
- (d) Allow for testing, re-commissioning and re-certification of the CCTV system. €
- (e) Allow for any miscellaneous costs in relation to the CCTV System relocation not taken for elsewhere (tenderer to provide details below with breakout of costs) €

..... €
 €

Sub-total for Section B65d
Carried forward to Summary Section C

€

1.3 Section C: SUMMARY

	€uro
Sub-Total Section A Preliminaries:	€
Sub-Total Section B60 General	€
Sub-Total Section B61 Power Distribution System	€
Sub-Total Section B62a Woodwork Room GS & Equipment Power	€
Sub-Total Section B62b Classroom & Office GS & Equipment Power	€
Sub-Total Section B62c Technology Room GS & Equipment Power	€
Sub-Total Section B62d Science 3 & Prep GS & Equipment Power	€
Sub-Total Section B63 Lighting & Emergency Lighting Systems	€
Sub-Total Section B64a ELV Containment	€
Sub-Total Section B64b Structured Cabling System	€
Sub-Total Section B64c Public Address Systems	€
Sub-Total Section B65a Fire Alarm System	€
Sub-Total Section B65b Intruder Alarm Systems	€
Sub-Total Section B65d CCTV Systems	€
<hr/>	
Nett Tender Sum For Electrical Services	€
(Forward to Main Pricing Document)	
<hr/>	
VAT Analysis:-	
VAT @ 13 ½ % on €	€
VAT @ 23% on €	€
Total VAT	€
<hr/>	
Total Tender Amount Inclusive of VAT	€
<hr/>	

Signed :For and on behalf of

Name :PositionDate.....

2.0 DAYWORK RATES

To be applied to works that differ substantially in type from works priced in the tender.

Labour :

Foreman/Tradesman :	Charge € per hour
Chargehand/Tradesman :	Charge € per hour
Tradesman :	Charge € per hour
Apprentice (Senior) :	Charge € per hour
Apprentice (Junior) :	Charge € per hour
Labourer/Helper :	Charge € per hour

Materials :

Supply of Materials :	Nett cost%
Delivery of Materials :	Nett cost%

3.0 ESTIMATE RATES

To be applied to works that are similar in type to the works priced in the tender.

Labour :

Foreman/Tradesman :	Charge € per hour
Chargehand/Tradesman :	Charge € per hour
Tradesman :	Charge € per hour
Apprentice (Senior) :	Charge € per hour
Apprentice (Junior) :	Charge € per hour
Labourer/Helper :	Charge € per hour

Materials :

Supply of Materials :	Nett cost%
Delivery of Materials :	Nett cost%

Note : Labour rates shown shall be inclusive of all labour overheads. These rates are for normal working hours only and shall be adjusted accordingly for productive overtime hours and non-productive hours.

