

September
2026

LMETB

**Decarbonisation Works
at
Regional Skills &
Training Centre Dundalk
Pricing Document**

<u>PRELIMINARIES</u> <u>1. PRELIMINARIES PARTICULARS</u> 1 PRELIMINARY PARTICULARS This Pricing Document must be completed in full and returned with the tender <u>1.1 Project, parties and consultants</u> The name, nature and location of the project Heating system replacements / upgrades, solar photovoltaic system works and all associated works The nature of the Decarbonisation Works is the mechanical and electrical (M&E) upgrade works, electrical distribution upgrades, heat pump and solar photovoltaics system installations including all associated builder's works and site works The location of the site is as follows: RSTC Regional Skills & Training Centre, Coes Road, Industrial Estate, Dundalk, Co. Louth A general description of the works <i>The contract comprises the following works:</i> The proposed Works comprises of the mechanical and electrical (M&E) upgrade works, electrical distribution upgrades, heat pump and solar photovoltaics system installations including all associated builder's works and site works in accordance with the Volume A Works Requirements. Making good of any damage caused by the works to match the existing.				
Decarbonisation Works - RSTC Building Dundalk	1/1		To Collection €	

PRELIMINARIES (Cont)				
The names and address of the Employer and Consultants together with their respective roles. <i>The 'Employer' shall mean</i> Louth and Meath Education and Training Board (LMETB), Chapel Street, Dundalk, Co. Louth, A91 C7D8 Names and addresses of the Consultants <i>The term 'Employer's Representative' shall mean</i> KSN Horizon <i>The Building Services Engineer is:</i> Introba, Ireland Ltd, Cathedral Court, NewSt South, The Liberties, Dublin 8 D08C525 <i>The Quantity Surveyor is:</i> KSNPM				
1.2 Description of site				
A	The Works are to be carried out at RSTC Regional Skills & Training Centre, Coes Road, Industrial Estate, Dundalk, Co. Louth. The boundaries, access arrangements and positions of the Works are indicated on the Drawings included in the Works Requirements.	1	item	
B	The Contractor shall be deemed to have visited the site and satisfied themselves as to all site conditions, access constraints and the nature of the existing building and surrounding areas.	1	item	
<i>The existing boundaries of the site include the following:</i>				
C	The existing boundaries to the Dundalk RST Centre Building site shall remain unchanged for the duration of the Works.	1	Item	
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1/2				

<u>PRELIMINARIES (Cont)</u>				
A	The Contractor shall familiarise themselves with all boundary conditions and interfaces with adjoining properties and shall ensure no interference or damage is caused to same.	1	Item	
<i>Means of Access</i>				
B	Access to the Works shall be via the existing entrances to the Dundalk RST Centre Building site. No alternative access points shall be used without prior approval of the Employer's Representative.	1	Item	
C	The Contractor shall provide and maintain safe and secure access to the Works areas at all times and implement appropriate traffic management and signage to minimise disruption to the centre's operations, staff and local traffic.	1	Item	
D	The Contractor shall be responsible for maintaining clean and safe access routes and shall make good any damage arising from their operations.	1	Item	
E	The Contractor shall note the present condition of adjoining property, boundaries, paths, kerbs and roads. Any damage caused to adjoining/adjacent property will be made good at the Contractor's expense.	1	Item	
<i>Restrictions on Access</i>				
F	The Contractor's working areas shall be limited to the designated Works areas only and shall not impede the operation of the remainder of the Dundalk RST Centre Building site.	1	Item	
G	The Contractor shall allow for the presence of Dundalk RST Centre Building staff, students and others on site and shall ensure appropriate segregation, safety measures and controls are in place at all times.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Existing emergency access and egress routes shall be maintained throughout the Works.	1	Item	
<i>Visiting the Site</i>				
B	A site visit may be undertaken by prior appointment with the Employer's Representative.	1	Item	
<i>Position of the Works</i>				
C	The position and extent of the Works at each site are as indicated on the Drawings included in the Works Requirements.	1	Item	
D	The Contractor shall set out and coordinate the Works to suit the existing buildings, services and site constraints.	1	Item	
<i>Existing Buildings and Services</i>				
E	Existing buildings and services located within the site as indicated in the Works Requirements.	1	Item	
F	The Contractor shall ensure that all existing services remain operational within occupied areas for the duration of the Works and shall coordinate all works accordingly.	1	Item	
G	The Contractor shall verify the location of all existing services prior to commencing works and shall be responsible for avoiding damage to same.	1	Item	
H	All necessary liaison with Dundalk RST Centre's representatives shall be undertaken to coordinate works, particularly in relation to any service interruptions, which shall be minimised and agreed in advance.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Adjacent / Abutting Structures</i>				
A	The Contractor shall allow for working in proximity to existing buildings and adjoining properties and shall take all necessary precautions to prevent damage or disturbance.	1	Item	
B	A pre-construction condition survey of existing buildings, hardstandings and adjacent properties shall be carried out and issued to the Employer's Representative for record.	1	Item	
C	The Contractor shall liaise with adjacent stakeholders as required and shall ensure that disruption arising from the Works is kept to a minimum.	1	Item	
1.3 Drawings and other documents				
<i>Drawings and other documents used for the preparation of this bill of quantities are:</i>				
D	Documents contained in Volume A - Works Requirements	1	Item	
<i>Design Team Specification in relation to preliminaries</i>				
E	this preliminaries section should be read in conjunction with the preliminaries items as contained within the Employer's Representative's specification document	1	Item	
<i>Drawings - Copies</i>				
F	Copies of the Drawings, additional to those provided for in the Conditions of Contract shall be provided at the Contractor's expense. Keep one copy of all contract drawings on the works for inspection by the Employer's Representative on completion of the works.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Pricing Documents</i>				
A	Tenders must be priced in accordance with section 5.7 of the Instructions to Tenderers issued with this tender	1	Item	
B	Errors in the Pricing Document will be dealt with in accordance with section 8.1 of the Instructions to Tenderers issued with this tender	1	Item	
C	Unbalanced Tenders will be dealt with in accordance with section 8.2 of the Instructions to Tenderers issued with this tender	1	Item	
D	Abnormally low tenders, abnormally high or low rates or prices will be dealt with in accordance with section 8.3 of the Instructions to Tenderers issued with this tender	1	Item	
E	The Contractor shall keep one unpriced copy of the Pricing Document on the Works and the Employer's Representative or his representatives shall at all reasonable times have access to it.	1	Item	
F	No alterations or qualifications of any kind may be made by the Tenderer to the text of the Pricing Document. Should any alteration amendment note or addition be made it will be ignored and the text prepared by the Quantity Surveyor shall be adhered to.	1	Item	
G	The tendering contractor must comply with the rules set out in the Instructions to Tenderers when completing Volume C - Pricing Document	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Generic Names / Performance Requirements / Proprietary Names</i>				
A	To avoid long descriptions repetitions, certain descriptions and measured items refer to the specification by use of the words "as described" whether so referred or not, all instructions and information contained in the Specification Clauses will be deemed to have been taken into consideration in pricing the whole of this Pricing Document.	1	Item	
B	Wherever a proprietary name is used to specify a material or process it shall be deemed to have the term "or equivalent" appended to it.	1	Item	
C	Where a material or process is described by reference to its proprietary name the name is used to indicate the standard of construction, appearance, ease of maintenance and durability acceptable to the Employer's Representative. The Employer's Representative will approve the use of alternatives where such alternatives are shown to equal or surpass the qualities of the product or process specified. Accordingly proprietary names wherever mentioned in the Specification, Pricing Document or on the drawings shall be deemed to mean the provision of the named product or process or an equivalent.	1	Item	
D	If the Contractor wishes to propose an "equivalent" product to that specified, they must follow the following procedures:	1	Item	
E	a) Proposal to change must be formally requested through the employer's representative (ER) citing the reason why and demonstrating that the "equivalent" is equal to the original specification	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	b) The ER is entitled to seek further demonstration that the "equivalent" proposal is equal, and tendering contractors should expect and include for same	1	Item	
B	c) The ER's approval of the "equivalent" must be issued in writing prior to the works commencing	1	Item	
C	In exceptional cases where it has not been possible to specify a generic element and a specific product has been named, an equivalent product to that specified is acceptable where it meets the technical, functional and aesthetic standards of that specified: the onus is on the contractor to ensure that an equivalent product to that specified meets the standard by means of an agreement cert, insurance backed guarantee or warranty, detailed specifications, fire test certificates where applicable, brochure and other means of proof of compliance. Notwithstanding this, the appropriate foregoing documentation and samples are to be provided to the architect prior to being incorporated into the construction.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<u>2. CONTRACT</u>				
<u>2. CONTRACT</u>				
<u>2.1 Form, type and conditions of contract</u>				
Form, type and conditions of contract				
A	The Form of Conditions set out in the Short Public Works Contract PW-CF6 v1.15 25-11-2025 published on http://constructionprocurement.gov.ie/contracts/ on the date 10 days before the latest date for receipt of Tenders (disregarding any amendments posted on that date).The Contractor shall enter into an agreement with the Employer under this form. The Contractor shall further refer to the Instructions to Tenderers, Works Requirements, Form of Tender and Schedule accompanying these documents.	1	item	
B	nothing in the Drawings, Specification or Pricing Document shall override, modify or affect in any way whatsoever the application or interpretation of that which is contained in the Conditions of Contract.	1	item	
C	the Contractor shall make full provision in his Tender for complying with the Agreement and all the Conditions of the Contract. <i>Conditions of Contract - clause headings - in the following Clauses, where reference is made by Heading and Clause number, these refer to the Conditions of the Contract and shall be read as though herein contained in full and the Contractor shall include for any payment he requires for complying therewith. Insurances should be priced separately in the next section.</i>			
D	Clause 1. The Contract (including sub-clauses 1.1 -1.11)	1	item	
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<u>PRELIMINARIES (Cont)</u>				
A	Clause 2.0 The Site, starting and completing the works (including sub-clauses 2.1 - 2.9)	1	item	
B	Clause 3.0 The Works (including subclauses 3.1 - 3.15)	1	item	
C	Clause 4.0 The Price & Payment (including sub-clauses 4.1 - 4.19)	1	item	
D	Clause 5.0 Representation & Communications (including sub-clauses 5.1 - 5.3)	1	item	
E	Clause 6.0 Contractor's Personnel (including sub-clauses 6.1 - 6.3)	1	item	
F	Clause 7.0 Pay & Conditions of employment of workers (including sub-clauses 7.1 - 7.9)	1	item	
G	Clause 8.0 Loss of and Damage to the Works (including sub-clauses 8.1 - 8.4)	1	item	
H	Clause 9.0 Indemnity for claims and damage (including sub-clauses 9.1 - 9.2)	1	item	
J	Clause 10.0 Insurance (including sub-clauses 10.1 - 10.10)	1	item	
K	Clause 11.0 Property (including sub-clauses 11.1 - 11.4)	1	item	
L	Clause 12.0 Termination (including sub-clauses 12.1 - 12.4)	1	item	
M	Clause 13.0 Ethics in Public Office	1	item	
N	Clause 14.0 Project Supervisor for the Construction Stage	1	item	
P	Clause 15.0 Law, jurisdiction and disputes (including subclauses 15.1 - 15.6)	1	item	
Q	Clause 16.0 Covid-19 Mandatory Closure (including subclauses 16.1 - 16.3.4)	1	item	
R	Clause 17.0 Limit on Liability (including sub-clauses 17.1 - 17.2)	1	item	

<u>PRELIMINARIES (Cont)</u>			
A	Clause 18.0 Price Variation (including sub-clauses 18.1 - 18.9)	1	item
B	APPENDIX 1 TO CLAUSE 18	1	item
C	APPENDIX 2 TO CLAUSE 18	1	item
D	APPENDIX 3 TO CLAUSE 18	1	item
THE SCHEDULE - PART 1			
E	1.1 Employer's Representative and Communications	1	item
F	1.2 Time for Completion - As per Schedule	1	item
G	1.3 Other Documents	1	item
H	1.10 Performance Bond - Not required	1	item
J	2.6 Rate of Liquidated Damages - - As per Schedule	1	item
K	2.8 Weather Station - - As per Schedule	1	item
L	3.15 Defects Certificate Issued - - As per Schedule	1	item
M	4.1 Interim payment - As per Schedule	1	item
N	4.2 4.3 Time for Payment - As per Schedule	1	item
P	10.3 Minimum indemnity limit for public liability insurance - As per Schedule	1	item
Q	10.3 Minimum indemnity limit for employer's liability insurance - As per Schedule	1	item
R	10.4 Maximum levels of excess for insurance of the Works and goods and materials for the Works; public liability and employer's liability - As per Schedule		

<u>PRELIMINARIES (Cont)</u>				
A	12.3 Percentage of the unpaid portion of the Price to be paid if Employer terminates, clause 12.2 does not apply, and Employer appoints another contractor within 12 months - As per Schedule	1	item	
B	14 Project Supervisor for the Construction Stage - As per Schedule	1	item	
C	15.2 Body to appoint conciliator - As per Schedule	1	item	
D	15.3 Person to appoint adjudicator - As per Schedule	1	item	
E	17.1 Subject to clause 17.2 of the Conditions, the monetary amount of the Contractor's liability to the Employer under or arising out of this Contract - As per Schedule	1	item	
F	18 Table of Material Categories to apply for Clause 18 Price Variation - As per Schedule	1	item	
<i>The insertions in the Schedule Part 1 are:</i>				
<i>A. Employer's Representative and Communications</i>				
Notices under clauses 12 and 15 to be sent to				
Chief Executive, Louth and Meath Education and Training Board (LMETB)				
Louth Meath Education and Training Board, Abbey Road, Navan, Co Meath, C15 N67E				
Other notices to the Employer to be sent to				
Ms. Edel Donnelly, KSN Horizon				
Beech Hill Office Campus, Dublin, Ireland D04V5N2				
Phone: +353 (0)12776999				
Email: edonnelly@ksnhorizon.com				

<u>PRELIMINARIES (Cont)</u> The Employer's Representative is: Ms. Edel Donnelly, KSN Horizon Notices to the Employer's Representative to be sent to Ms. Edel Donnelly, KSN Horizon Beech Hill Office Campus, Dublin, Ireland D04V5N2 Phone: +353 (0)12776999 Email: edonnelly@ksnhorizon.com Maximum adjustment to the Contract Sum for a single Change Order € 2,000.00 Maximum cumulative value of adjustments to the Contract Sum for Change Orders in any 3 month period is: 0.25% of the Contract value, unless approved by the Employer. <i>B. Documents</i> Works Requirements are: As Scheduled in Volume A Works Requirements Pricing Document is: the Schedule of Quantities, provided in the completed pricing document (Volume C), as included in Volume C. <i>C. Project Supervisor (Sub-clause 14)</i> The Contractor is to be appointed project supervisor for the construction stage for the Works and any other work on the Site from the Starting Date until all construction work on the project has been completed. <i>D. Insurance (Sub-clause 10)</i> Insurance of the works: minimum amount insured for professional fees 12.5% of the Contract Sum	1	item	To Collection €	
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<u>PRELIMINARIES (Cont)</u>				
A	Minimum indemnity limit for Public Liability insurance: €6,500,000 for any one event, but this limit may be on an annual aggregate basis for products liability, collapse, vibration, subsidence, removal and weakening of supports and sudden accidental pollution	1	item	
B	Minimum indemnity limit for Employers' liability insurance: €13,000,000 for any one event	1	item	
C	Maximum excess for Insurance of Works and other Risk Items: the greater of 1% of the Project Value or 0.5% of Contractor's turnover	1	item	
D	Maximum excess for Public liability: the greater of 1% of the Project Value or 0.5% of Contractor's turnover in respect of property damage only. There shall be no excess for death, injury or illness.	1	item	
E	There is no excess permitted for Employers' liability insurance.	1	item	
<i>Permitted exclusions from all Insurances</i>				
F	War, invasion, act of foreign enemies, hostilities [whether war is declared or not], civil war, rebellion, revolution, insurrection or military or usurped power	1	item	
G	Pressure waves caused by aircraft or other airborne objects travelling at sonic or supersonic speeds	1	item	
H	Contamination by radioactivity or radioactive, toxic, explosive or other hazardous properties of any explosive nuclear assembly or its components, in each case not caused by the Contractor or the Contractor's Personnel	1	item	
J	Terrorism	1	item	
K	Asbestos	1	item	

<u>PRELIMINARIES (Cont)</u>				
	Permitted exclusions from insurance of the Works and other Risk Items:			
A	Use or occupation of the Works by the Employer except in connection with the Works	1	item	
B	Unless otherwise specified in the Works Requirements, cost of making good defects in the Works but not damage caused by such defects to other sound parts of the Works	1	item	
C	Wear, tear, normal upkeep or normal repair or gradual deterioration	1	item	
D	Inventory losses	1	item	
E	Loss of use or any consequential loss of any nature including penalties for delay, non-completion or non-compliance	1	item	
F	Failure of information technology	1	item	
G	Mechanical or electrical breakdown but not resulting damage	1	item	
H	Cessation of the Works for more than 3 months	1	item	
	Permitted exclusions from public liability insurance:			
J	Persons under a contract of service or apprenticeship with the insured	1	item	
K	Property of the insured or in the insured's custody or control other than existing premises and their contents temporarily occupied for the purposes of the Works	1	item	
L	Defective workmanship or materials but not resulting damage	1	item	
M	Mechanically propelled vehicles within the meaning of the Road Traffic Acts	1	item	
N	Loss or damage due to design	1	item	
P	Gradual pollution or contamination	1	item	

<u>PRELIMINARIES (Cont)</u>				
A	Territorial limits	1	item	
B	Unless otherwise specified in the Works Requirements, aircraft and waterborne craft	1	item	
C	Fines, penalties, liquidated damages	1	item	
	Permitted exclusions from employer's liability insurance:			
D	Offshore work	1	item	
E	Liability compulsorily insurable under the Road Traffic Acts	1	item	
	Permitted exclusions for professional indemnity insurance:			
F	Persons under a contract of service or apprenticeship with the insured	1	item	
G	Ownership, use, occupation or leasing of mobile or immobile property	1	item	
H	Effecting or maintenance of insurance of or in connection with the provision of finance or advice on financial matters	1	item	
J	Dishonest, malicious, criminal or deliberate illegal acts	1	item	
K	Libel and slander	1	item	
L	Insolvency	1	item	
M	Fines, penalties, liquidated damages or any penal, punitive, exemplary, non-compensatory or aggravated damages	1	item	
N	Failure of information technology	1	item	
P	Contractual liability that would not apply in the absence of the contract	1	item	
	Optional insurance provisions			

<u>PRELIMINARIES (Cont)</u>				
A	Insurance of the works and other Risk Items shall include the following property of the Employer, other than the Works and Work Items: Not applicable and the minimum sum for which this property is to be insured shall be Not applicable.	1	item	
B	If insurance of the Works and other Risk Items is to include terrorism cover, the minimum sum insured shall be: €0.00	1	item	
C	The Contractor is not required to extend the insurance of the Works and other Risk Items for a Section that has reached Substantial Completion until the Employer's Representative issues the certificate of Substantial Completion for the whole Works.	1	item	
D	Required extensions to Insurance: N/A	1	item	
E	Professional Indemnity Insurance is required	1	item	
F	If required, the Professional Indemnity Insurance is in place it must be kept in place for 12 years after Substantial Completion of the Works is certified by the Employer's Representative	1	item	
G	If required the minimum indemnity limit for professional indemnity insurance shall be €750,000 annual aggregate limit	1	item	
H	The maximum excess shall be the greater amount of 2% of the Contractor's annual turnover or € 5,000.	1	item	

<u>PRELIMINARIES (Cont)</u>				
<i>E. Performance Bond (Sub-clause 1.10)</i>				
<i>A performance bond is not required</i>				
A	The amount of the performance bond shall be 12.5% of the initial Contract Sum up to certification of Substantial Completion of the Works, and 6.25% of the initial Contract Sum for 450 days after that.	1	item	
<i>F(i). Collateral Warranties (Sub-clause 5.5)</i>				
<i>Collateral Warranties are required from the following categories of Specialists, by the following dates; and the amount withheld from payments under sub-clause 11.4.1 area as follows:</i>				
B	Not applicable	1	item	
<i>F(ii). Ancillary Certificates (Sub-clause 5.8)</i>				
<i>Ancillary Certificates are required from the following categories of Contractor's Personnel. The list reflects the works elements known at the time of tender but does not limit the Contractor's duties under sub-clause 2.3.1:</i>				
C	Refer to list of Ancillary Certificates included in Volume B - Schedule Part 1 (Note: The contractor should note that the list is not exhaustive).	1	item	
<i>F(iii). Named Specialists (Sub-clause 5.4)</i>				
D	Not applicable	1	item	
<i>G. Dates for Substantial Completion, Sections, Liquidated Damages, Retention</i>				
<i>The Works</i>				
E	Date for Substantial Completion:As per Schedule	1	item	
F	Rate of Liquidated Damages:As per Schedule	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>H. Early Completion</i>				
A	The Employer's Representative is required to issue the certificate of Substantial Completion if the Works or a Section reaches Substantial Completion before its Date for Substantial Completion.	1	item	
<i>I. Defects Period</i>				
B	The initial Defects Period is one year from the date of Substantial Completion of the Works	1	Item	
STATUTORY COMPLIANCE				
<i>Planning</i>				
C	The Contractor shall comply with all planning permissions (where applicable) relating to the Works, including all conditions attached thereto, and shall ensure that the execution of the Works does not give rise to any breach of such conditions.	1	Item	
<i>Fire Safety</i>				
D	The Contractor shall comply with all Fire Safety Certificates (where applicable) relating to the Works, including all conditions attached thereto, and shall ensure that the execution of the Works does not give rise to any breach of such conditions.	1	Item	
E	The Contractor shall engage a competent third party Fire Safety Certifier to provide an Ancillary Inspection Completion Certificate (SI RIAI ACI 02) in accordance with SI No. 9, in respect of all works relating to fire safety, including compliance with Building Regulations Part B and any applicable Fire Safety Certificate.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
	Inspect & photograph each and every element of fire protection during construction:			
A	Provide a detailed report and photographic log upon completion with interim reports at each fortnightly site meeting.	1	Item	
B	Provide Cs Cert for the supply & installation of the fire stopping.	1	Item	
<i>Disability Access Certificates (DAC)</i>				
C	The Contractor shall comply with all Disability Access Certificates (where applicable) relating to the Works, including all conditions attached thereto, and shall ensure that the execution of the Works does not give rise to any breach of such conditions.	1	Item	
<i>Building Control (Amendment) Regulations 2014</i>				
D	Where applicable, the Contractor shall comply in full with the Building Control Regulations (as amended), including the Building Control (Amendment) Regulations 2014 and the associated Code of Practice for Inspection and Certification.	1	Item	
E	The Contractor shall be responsible for the timely submission of all notices, documentation and statutory certificates required under the Regulations and shall ensure that no works commence until a valid Commencement Notice has been accepted by the Building Control Authority.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Certification and Coordination</i>				
A	The Contractor shall cooperate fully with the Assigned Certifier, Employer's Representative and Design Team and shall provide all information, documentation, inspections and confirmations required to support certification and compliance.	1	Item	
B	The Contractor shall coordinate all subcontractors, specialists and designers to ensure the provision of all Ancillary Certificates, test certificates and inspection records required for completion and certification of the Works.	1	Item	
<i>Inspection Plan and Notifications</i>				
C	The Contractor shall comply with the Preliminary Inspection Plan and Inspection Notification Framework and shall allow for all inspections, notifications, testing and record keeping required.	1	Item	
D	No claim for delay or additional cost shall arise from the Contractor's failure to properly plan, notify, coordinate or complete inspections or provide required documentation.	1	Item	
<i>Records and Handover</i>				
E	The Contractor shall maintain full and accurate records of inspections, tests and compliance throughout the Works and shall provide same to the Assigned Certifier as required.	1	Item	
F	Prior to completion, the Contractor shall provide all documentation necessary to enable certification and registration of the Works on the Building Control Management System.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Completion</i>				
A	The Contractor shall ensure that all certification requirements are satisfied to enable completion of the Works, including the submission of the Certificate of Compliance on Completion where applicable.	1	Item	
<i>Ancillary Certification</i>				
B	The Contractor shall engage and coordinate all necessary Ancillary Certifiers and ensure that all Ancillary Certificates are provided in accordance with the Works Requirements and the Building Control Regulations.	1	Item	
<i>Additional BC(A)R Requirements</i>				
Fire Protection Photographic Log				
C	Inspect & photograph each and every element of fire protection during construction:	1	Item	
D	Provide a detailed report and photographic log upon completion with interim reports at each fortnightly site meeting	1	Item	
E	Provide Cs Cert for supply & installation of firestopping	1	Item	
<i>COMPLIANCE WITH BUILDING CONTROL ACT 2007</i>				
F	All building works to conform fully with the requirements of the Building Control Act 2007 (including current amendments) and specific items of works are to be executed strictly in accordance with the recommendations set out in the various Technical Guidance documents. A full set of the Technical Guidance Documents to be provided and kept on site at the Contractor's expense.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	The Contractor on completion of the said Contract Works is to issue a certificate in a form acceptable to the Employer's Representative and Client confirming that all the Contract Works have been executed in accordance with the requirements of the Building Control Act 2007 and any amendments thereof.	1	Item	
<i>CONSTRUCTION CONTRACTS ACT 2013</i>				
B	The Contractor shall comply with the Main Contractor requirements as set out in the Construction Contracts Act 2013 and shall include for all costs associated with same. The "payment claim date" shall fall within the final full calendar week of each month for the duration of the construction Contract until the Certificate of Practical Completion is awarded.	1	Item	
<i>2.2 Contractor's liability</i>				
C	Contractors liability for risk or injury to persons and property and of damage to the works.	1	Item	
D	Provide for taking out and maintaining Public Liability and Employer's liability Insurances against injury to persons and property (minimum sum for Public Liability Insurances: (€6,500,000 for each and every claim; minimum sum for Employer's Liability Insurance €13,000,000) as required by the Conditions of Contract.	1	Item	
E	The Employer requires the Contractor to effect insurance in respect of the Contractor's liability for any such risk.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Provide for taking out and maintaining All Risks Insurance for the full value of the Works and ancillary items required by the Conditions of Contract.	1	Item	
B	The Contractor shall be responsible for any damage to adjoining property or existing site features arising from the Works and shall make good same at their own expense. The Contractor shall indemnify the Employer against any such claims.	1	Item	
C	Before commencement of the Works, the Contractor shall submit proposals for the off-site disposal of waste materials, which shall only be disposed of at suitably licensed or permitted facilities in accordance with the Waste Management Acts. Details shall be submitted to and agreed with the Employer's Representative.	1	Item	
D	The prices and rates shall include for any costs arising from the Contractor's obligations under the Waste Management Act 1996. or any other environmental legislation, with particular regard to the holding, transport recovery and disposal of waste arising from the carrying out of the works.	1	Item	
E	Insurances provided by Contractors must be authorised for this jurisdiction.	1	Item	
F	Any insurance policies which are renewed on or after 01 January 2021 with a UK domiciled Insurer will not be permitted in the ROI.	1	Item	
G	Any insurance policies which were in force prior to 01 January 2021 with a UK domiciled Insurer will remain valid (solely for the purposes of paying claims) for a period of 15 years.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Where asbestos handling or removal forms part of the Works, the Contractor shall ensure appropriate insurances are in place, including Employers Liability and Public/Products/Pollution Liability, with the Employer named as additional insured where required.	1	Item	
<i>2.3 Insurance liability of Employer</i>				
B	The Employer shall bear the risk of loss or damage to its existing facilities and to those parts of the Works which it occupies or uses, in accordance with the Conditions of Contract.	1	Item	
<i>2.4 Local Authority fees and charges</i>				
C	The Contractor shall be responsible for obtaining all necessary approvals, permits and licences required for the execution of the Works and shall include for all associated costs.	1	Item	
D	The Contractor shall comply with all statutory requirements and liaise with the relevant authorities as necessary.	1	Item	
<i>2.5 Obligations and restrictions imposed by the Employer</i>				
<i>a) Access to and possession or use of the site.</i>				
<i>Construction Access</i>				
E	The Contractor shall be responsible for providing, maintaining and managing all access to the Works areas, including pedestrian and vehicular access, and shall ensure safe and secure ingress and egress at all times.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	The Contractor shall be deemed to have satisfied themselves as to all access constraints and site conditions prior to submission of their tender.	1	Item	
<i>Construction Access and Traffic Management</i>				
B	The Contractor shall be responsible for all traffic management associated with the Works, including the preparation and implementation of a Construction Traffic Management Plan.	1	Item	
C	The Contractor shall ensure that construction activities, deliveries and removals are coordinated to minimise disruption to school staff, local residents and the public, and shall allow for the continued operation of the school sites where staff may be present.	1	Item	
D	Construction and FET centre-related activities shall be appropriately segregated at all times, and all access routes shall be maintained in a safe, clean and operational condition.	1	Item	
<i>Restrictions on Use of Site</i>				
E	The Contractor's operations shall be confined to the designated Works areas and shall not interfere with the operation of the remainder of the Buildings & sites.	1	Item	
F	The Contractor shall provide all necessary security measures, including controlled access points, and shall prevent unauthorised access to the Works areas at all times.	1	Item	
G	The Contractor shall ensure that existing emergency access and egress routes are maintained throughout the duration of the Works.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Site Management and Control</i>				
A	The Contractor shall implement appropriate site management procedures, including a site access control system, and shall ensure that all personnel entering the Works are properly managed and supervised.	1	Item	
B	The Contractor shall not use the Site for any purpose other than the execution of the Works.	1	Item	
<i>Access for Employer's Representative</i>				
C	The Employer's Representative and authorised persons shall be afforded full access to the Works, the Site and any workshops or locations where materials or components are being prepared for incorporation into the Works.	1	Item	
<i>b) Limitations of working space</i>				
D	The Contractor shall allow for all constraints associated with the limited working areas at each site and shall plan and execute the Works accordingly.	1	Item	
E	All Contractor and staff parking shall be confined to designated areas within the site boundaries, unless otherwise agreed.	1	Item	
F	The Contractor shall confine their operations, storage of materials, plant and welfare facilities to the designated Works areas only and shall ensure that all areas are maintained in a safe, tidy and controlled condition.	1	Item	
G	The Contractor shall ensure appropriate segregation between construction activities and any areas of the school sites that remain in use, including provision of safe access routes where required.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	The Contractor shall be responsible for any damage to buildings, services, roads or external areas arising from the Works and shall make good same at their own expense.	1	Item	
B	Where works extend beyond the immediate Works areas, the Contractor shall include for all necessary temporary works, protection, signage, permits and reinstatement to the satisfaction of the relevant authority.	1	Item	
<i>c) Limitations of working hours.</i>				
<i>The limitations on working hours will apply:</i>				
C	The Contractor shall carry out the Works during normal working hours, as agreed with the Employer's Representative, and in accordance with any statutory requirements or planning conditions where applicable.	1	Item	
D	The Contractor shall ensure that noise, vibration and general disturbance arising from the Works are minimised at all times.	1	Item	
E	Any works required outside agreed working hours shall be subject to the prior approval of the Employer's Representative and compliance with all statutory requirements.	1	Item	
<i>d) Limitations on use operation of plant with respect to adjoining property</i>				
F	The Contractor shall carry out the Works in a manner that minimises nuisance to adjoining properties and any occupied areas of the school sites, including control of noise, dust and vibration.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	The Contractor shall implement appropriate control measures and method statements as necessary and shall comply with all relevant statutory requirements and any planning conditions where applicable.	1	Item	
B	Out of hours work may be required. Some areas within the building will require work (routing of cable tray and power shutdowns) will be operational during normal operating hours. Out of hours work may be required. Discuss phasing approach with the Employer's Representative and allow for this in the tender			
	<i>e) The use or disposal of any material found on the site.</i>			
C	No materials arising from the Site shall be removed or reused except in accordance with the instructions of the Employer's Representative.	1	Item	
D	The Contractor shall be responsible for the proper handling, storage and disposal of all waste and surplus materials arising from the Works in accordance with all statutory requirements.	1	Item	
E	The Contractor shall ensure that no deleterious materials are discharged into drainage systems or the surrounding environment and shall maintain appropriate records of waste disposal.	1	Item	
F	Where hazardous or contaminated materials are encountered, the Contractor shall comply with all relevant statutory requirements and implement appropriate control and safety measures.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>f) Hoardings, fences, screens, temporary roofs, temporary name boards and advertising rights.</i>				
A	The Contractor shall provide and maintain all necessary temporary fencing, hoarding, barriers and protection required to safely segregate the Works areas from the remainder of the school sites and the public.	1	Item	
B	Such measures shall be appropriate to the nature and scale of the Works and shall generally comprise secure temporary fencing (e.g. Heras or similar), unless otherwise required by the Works Requirements or Employer's Representative.	1	Item	
C	The Contractor shall ensure that the Works areas are secure at all times and that unauthorised access is prevented. Safe access routes shall be maintained for school staff and others where required.	1	Item	
D	The Contractor shall provide all necessary signage, including safety signage and directional signage for construction access and deliveries. No advertisements or signage shall be displayed without the approval of the Employer's Representative.	1	Item	
E	The Contractor shall allow for dust control measures as necessary, including localised dust screens or partitions within buildings where works are carried out in proximity to occupied areas.	1	Item	
F	All temporary works and protection measures shall be maintained for the duration of the Works and removed on completion, with all affected areas made good.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>g) The maintenance and protection of existing services on, under or over the site.</i>				
A	The Contractor shall identify, protect and maintain all existing services on, under or over the site for the duration of the Works.	1	Item	
B	The Contractor shall plan and execute the Works to minimise disruption to existing services and shall ensure that all services remain operational, except where temporary interruptions are agreed in advance with the Employer's Representative and the school.	1	Item	
C	The Contractor shall verify the location of all existing services prior to commencing works and shall be responsible for avoiding damage to same.	1	Item	
D	Where works involve connections to or alterations of existing services, these shall be carefully coordinated and carried out with the minimum disruption, including provision for any temporary measures required to maintain service continuity.	1	Item	
E	The Contractor shall comply with all statutory requirements and liaise with relevant service providers where necessary.	1	Item	
F	The Contractor shall be responsible for any damage to existing services and for the full cost of repair, reinstatement and any associated consequences arising from their operations.	1	Item	
G	The Contractor shall allow for all necessary investigations to confirm the location and condition of existing services and no claims shall arise due to lack of knowledge in this regard.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>h) The execution or completion of the work in any specific order or in sections or phases, including any coincidental work not at the discretion of the contractor.</i>				
A	The Works shall be planned and executed in a manner that minimises disruption to the operation of the school sites, with due regard to the presence of school staff and other users.	1	Item	
B	The Contractor shall coordinate and sequence the Works appropriately across the various sites and shall allow for restricted access to certain areas where required.	1	Item	
C	The Contractor shall liaise with the Employer's Representative and school representatives to agree the timing of any works that may impact access or services.	1	Item	
<i>Services Connections / Tie-ins</i>				
D	Where the Works involve connections to or modifications of existing services, the Contractor shall plan and coordinate such works to minimise disruption.	1	Item	
E	Any required service interruptions shall be agreed in advance with the Employer's Representative and the school and shall be carried out at appropriate times.	1	Item	
F	The Contractor shall include for all programming, temporary works and measures necessary to facilitate such connections.	1	Item	
<i>Working Outside Designated Areas</i>				
G	Where works are required outside the immediate Works areas, the Contractor shall liaise with the relevant stakeholders and obtain agreement on access, extent and timing in advance of carrying out such works.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>i) Maintenance of specific temperature and humidity levels.</i>				
A	The Contractor shall provide any necessary temporary measures required to protect the Works and ensure suitable environmental conditions for installation and commissioning of equipment.	1	Item	
<i>j) Temporary accommodation and facilities for the use of the Employer including heating, lighting, furnishing and attendance.</i>				
B	The Contractor shall provide all temporary accommodation and welfare facilities required for the execution of the Works in accordance with statutory requirements.	1	Item	
C	The Contractor shall allow for meetings to be held on site in agreed locations, including within the existing school buildings where suitable and permitted.	1	Item	
D	The Contractor shall provide adequate sanitary and welfare facilities for site personnel for the duration of the Works.	1	Item	
<i>k) Provision of connections to temporary voice and data communications systems for use of the Employer.</i>				
E	The Contractor shall provide all communication systems necessary for the proper execution and management of the Works.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>l) Periodic using and access charges on voice and data communications systems for use of the Employer and associated running costs.</i>				
A	No dedicated temporary voice or data communication systems shall be required for the Employer unless specifically stated in the Works Requirements.	1	Item	
<i>m) Provision of the Project Supervisor Construction Stage services by the Contractor under the Safety, Health and Welfare at Works (Construction) Regulations.</i>				
B	The Contractor shall act as Project Supervisor for the Construction Stage (PSCS) and shall comply with all duties under the Safety, Health and Welfare at Work (Construction) Regulations 2013.	1	Item	
C	The Contractor shall prepare, implement and maintain the Construction Stage Safety and Health Plan and shall coordinate all contractors and activities on site.	1	Item	
D	The Contractor shall cooperate with the PSDP and provide all information required for the Safety File.	1	Item	
<i>Safety File</i>				
The Contractor shall provide all information necessary for inclusion in the Safety File, including relevant drawings, specifications, certificates and operation and maintenance information, prior to completion of the Works.				
<i>As-Built Information & O&M Manuals</i>				
E	The Contractor shall provide as-built drawings and operation and maintenance manuals for all installed systems and equipment.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Documentation shall include details of installed plant, operating instructions, maintenance requirements, test certificates and warranties, as applicable to the Works.	1	Item	
<i>Completion Certificates</i>				
B	The Contractor shall provide all relevant completion and test certificates for the Works, including:	1	Item	
C	Electrical installation certification (ETCI or equivalent)	1	Item	
D	Mechanical and equipment commissioning certificates	1	Item	
E	Manufacturer's certificates and warranties	1	Item	
F	Any ancillary or statutory certificates required under the Contract	1	Item	
<i>Temporary Works</i>				
G	The Contractor shall be responsible for the design, installation and safety of all temporary works required for the execution of the Works and shall comply with all statutory requirements.	1	Item	
<i>Fire Safety</i>				
H	The Contractor shall ensure that fire safety measures are maintained at all times during the Works and that all works comply with Building Regulations Part B and any applicable Fire Safety Certificate.	1	Item	
J	The Contractor shall provide all relevant fire safety certification on completion where applicable.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Security</i>				
A	The Contractor shall ensure that all Works areas are secure at all times and that unauthorised access is prevented.	1	Item	
B	Appropriate site control measures, including a sign-in/sign-out system, shall be implemented.	1	Item	
<i>Environmental</i>				
C	The Contractor shall comply with all statutory environmental requirements and shall ensure proper management, storage and disposal of waste materials.	1	Item	
D	The Contractor shall take all reasonable measures to prevent pollution, nuisance and environmental damage arising from the Works.	1	Item	
<i>Cleaning and Handover</i>				
E	The Contractor shall maintain the Works in a clean and tidy condition throughout and shall, on completion, leave all areas clean and ready for use.	1	Item	
<i>n) Any other obligation or restriction</i>				
<i>ESB</i>				
F	The Contractor shall be responsible for liaising with all relevant statutory authorities and service providers, including where applicable ESB, in relation to any connections, approvals or works required as part of the project.	1	Item	
G	The Contractor shall include for all associated requirements to ensure that any necessary connections or modifications to services are completed within the programme.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Programme</i>				
A	The Contractor shall prepare and submit a detailed programme prior to commencement of the Works, indicating the sequence and duration of all activities, including procurement, installation, testing and commissioning.	1	Item	
B	The programme shall demonstrate completion of the Works within the Contract period and shall be updated as required during the course of the Works.	1	Item	
C	The Contractor shall coordinate the Works across all sites and allow for any constraints associated with access, service connections and working in existing school environments.	1	Item	
D	The Contractor shall allow for all necessary submissions, inspections and approvals required under the Contract and statutory requirements within the programme.	1	Item	
E	Include all the requirements set out in Clause 4.9.1 of the Contract	1	Item	
<i>Use of Services Prior To Handover</i>				
F	The Contractor shall be responsible for the cost of all utilities used for construction, testing and commissioning of the Works prior to completion.	1	Item	
G	The Contractor shall provide and maintain all services necessary for the proper execution and completion of the Works.	1	Item	
<i>Materials & Workmanship</i>				
H	All materials and products used in the Works shall comply with the Construction Products Regulation (EU) No. 305/2011 and all applicable standards.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	British Standards (BS) and British Board of Agreement (BBA) certification are not acceptable methods of demonstrating compliance in accordance with Construction Products Regulation (EU) No 305/2011.	1	Item	
B	Products shall be CE marked where required and be accompanied by the relevant Declaration of Performance.	1	Item	
C	Where alternative materials or products are proposed, the Contractor shall provide evidence of equivalence in advance for approval.	1	Item	
<i>Regulations & Current Standards</i>				
D	The Works shall be carried out in accordance with all applicable statutory requirements, Building Regulations, and relevant national and European standards and codes of practice.	1	Item	
E	All referenced standards shall be the latest applicable editions at the time of tender.	1	Item	
<i>Schedule of Samples</i>				
F	The Contractor shall submit samples of materials and workmanship as required by the Works Requirements or as reasonably requested by the Employer's Representative (ER) for approval prior to incorporation into the Works.	1	Item	
G	Approved samples shall set the standard for the Works.	1	Item	
H	The Contractor shall allow for all costs associated with sampling and testing.	1	Item	
J	All testing of mechanical and electrical Works shall be in accordance with the Mechanical and Electrical Materials & Workmanship Specification.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Submittals</i>				
A	The Contractor shall not commence relevant works until required submittals have been reviewed by the ER.	1	Item	
B	The Contractor shall provide a schedule of submittals in line with the programme and allow reasonable time for review.	1	Item	
C	Submittals shall demonstrate compliance with the Works Requirements.	1	Item	
<i>Storage of Materials</i>				
D	Materials shall be stored in a safe and suitable manner in accordance with manufacturer's recommendations and best practice.	1	Item	
<i>Workmanship</i>				
E	All workmanship shall comply with applicable Building Regulations, standards and specifications.	1	Item	
F	Works shall be carried out by suitably qualified and experienced personnel and completed to a high standard.	1	Item	
<i>Method Statements</i>				
G	The Contractor shall prepare and submit method statements for key elements of the Works where required by the Works Requirements or reasonably requested by the ER.	1	Item	
H	Works shall not proceed until relevant method statements are in place where required.	1	Item	
<i>Building Fabric Standards</i>				
J	The Works shall comply with all current Building Regulations and applicable standards, including Part L (Conservation of Fuel and Energy).	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	The Contractor shall ensure that the building achieves the required air tightness performance and shall carry out air permeability testing on completion.	1	Item	
B	The Contractor shall publish and submit BER Certificate, including NCT or equivalent as built model.	1	Item	
C	Acoustic testing shall be carried out where required in accordance with Department of Education guidance.	1	Item	
D	Where applicable, radon protection measures shall be installed and tested in accordance with Building Regulations.	1	Item	
E	All testing and certification shall be submitted to the Employer's Representative prior to completion.	1	Item	
<i>CE Marking</i>				
F	All construction products used in the Works shall comply with the Construction Products Regulation (EU) No. 305/2011.	1	Item	
G	Products shall be CE marked where required and be accompanied by a valid Declaration of Performance (DoP).	1	Item	
H	Products certified by UK notified bodies will not be accepted unless compliant with EU requirements. Any non-compliant products shall be removed and replaced at the Contractor's cost.	1	Item	
<i>Testing and Commissioning</i>				
J	The Contractor shall carry out all testing and commissioning necessary to demonstrate that the Works comply with the Works Requirements and applicable standards.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Testing and commissioning proposals shall be submitted to the Employer's Representative (ER) for review.	1	Item	
B	All systems shall be fully tested and commissioned prior to completion, and relevant records and certificates shall be provided to the ER.	1	Item	
<i>Quality Assurance and Quality Control</i>				
C	The Contractor shall implement and maintain a quality management system appropriate to the Works. This shall include:	1	Item	
D	- inspection and test plans where required	1	Item	
E	- supervision of works and subcontractors	1	Item	
F	- ensuring compliance with the Works Requirements and Building Regulations	1	Item	
G	Quality records shall be maintained and made available to the ER on request.	1	Item	
<i>Non-Conformance / Defects</i>				
H	The Contractor shall promptly address any defects or non-conformances identified during the Works and maintain records of same.	1	Item	
<i>Contractor's Monthly Progress Reports</i>				
	The Contractor shall submit regular progress reports prior to site meetings, including:			
J	- progress against programme	1	Item	
K	- key issues affecting progress	1	Item	
L	- look-ahead of upcoming works	1	Item	
M	- any required information or decisions	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Progress photographs shall be provided as part of the report.	1	Item	
<i>Control of Noise & Nuisance</i>				
B	The Contractor shall carry out the Works in a manner that minimises noise, vibration, dust and general disturbance to the school and adjoining properties.	1	Item	
C	Works shall be carried out in accordance with applicable guidance, including BS 5228, where relevant.	1	Item	
D	The Contractor shall take all reasonable measures to avoid nuisance and shall comply with any reasonable directions of the Employer's Representative in this regard.	1	Item	
<i>General Nuisance / Liaison</i>				
E	The Contractor shall coordinate the Works with the school and shall ensure minimal disruption to ongoing activities.	1	Item	
F	Any complaints arising shall be promptly addressed by the Contractor.	1	Item	
<i>Tax Clearance</i>				
G	The Contractor shall comply with all statutory requirements in relation to tax clearance and shall ensure that all subcontractors engaged on the Works are similarly compliant.	1	Item	
<i>Custom Duties</i>				
H	The Contractor shall be deemed to have included for all applicable duties and statutory charges in their tender.		Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Value Added Tax (VAT)</i>				
A	The tender shall be submitted on a VAT exclusive basis. However tenderers shall list separately the items included in the tender amount that are liable for VAT at rates other than the special building rate (13.5%) to allow for the calculation of the Employer's total VAT outlay on the contract. The Employer reserves the right to seek advice from the Revenue Commissioners on the accuracy of the VAT allocations shown and, in the event of a dispute, the opinion of the Revenue Commissioners on the VAT rate appropriate to any item of work shall be final (See Appendix A of this Pricing Document).	1	Item	
<i>During the Contract, payment amounts due to the Contractor shall be invoiced on the following basis:</i>				
B	(a) the amount due to the Contractor that carries a VAT liability of 13.5% shall be invoiced separately from any other amounts due. This invoice shall be clearly marked with the statement 'VAT ON THIS SUPPLY TO BE ACCOUNTED FOR BY THE PRINCIPAL CONTRACTOR'	1	Item	
C	(b) amounts due to the Contractor that carry no VAT liability, or are liable at rates other than 13.5%, shall be invoiced on a second invoice that identifies amounts due at the various VAT rates (apart from 13.5%), identifies the VAT due at the various rates and states the total amount due for payment.	1	Item	
<i>Patent Rights and Royalties</i>				
D	The Contractor shall indemnify the Employer against any claims arising from infringement of patent rights, trademarks or other protected rights in connection with the Works.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Removal of Improper Work and Materials</i>				
A	The Employer's Representative may instruct the removal and replacement of any work or materials not in accordance with the Contract.	1	Item	
<i>Other items for consideration</i>				
B	The Works shall be completed to a standard suitable for occupation and use prior to certification of Substantial Completion. Any outstanding items shall be minor in nature and not prevent the intended use of the Works.	1	Item	
C	The Contractor shall coordinate deliveries and site activities to minimise disruption to the school and surrounding area.	1	Item	
<i>Site House Keeping</i>				
D	The Contractor shall maintain the Site in a safe, clean and orderly condition at all times.	1	Item	
E	Prevent dust, debris and nuisance arising from the Works	1	Item	
F	Maintain clear access for emergency vehicles at all times	1	Item	
G	Ensure no burning of waste or uncontrolled emissions on site	1	Item	
H	Protect and maintain existing drainage systems	1	Item	
J	Carry out works in a manner that minimises disruption to the school and surrounding area	1	Item	
<i>Road Cleaning</i>				
K	The Contractor shall ensure that adjoining roads and access routes are kept clean and free from mud and debris arising from the Works.	1	Item	
L	All cleaning measures shall be at the Contractor's expense.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Pre-Commencement Survey</i>				
A	Prior to commencement, the Contractor shall carry out a survey of existing site conditions and report any discrepancies to the Employers Representative.	1	Item	
<i>Schedule of Dilapidations</i>				
B	The Contractor shall, upon taking possession of the Site, provide a photographic record of the condition of adjacent roads, boundaries, buildings and any areas likely to be affected by the Works.	1	Item	
C	This record shall be submitted to the Employer's Representative and shall not relieve the Contractor of their obligations under the Contract.	1	Item	
D	Where works interface with existing buildings, the Contractor shall inspect and record the condition of affected areas prior to commencement and allow for all necessary protection and making good.	1	Item	
<i>Extended Guarantees</i>				
E	Provide all warranties and guarantees as specified in the Works Requirements.	1	Item	
<i>Discovery of Items</i>				
F	Any items of potential historical or archaeological interest discovered during the Works shall be reported to the Employers Representative and works in the affected area shall cease pending instruction.	1	Item	
<i>Environmental Management</i>				
G	The Contractor shall comply with all statutory environmental requirements and implement appropriate measures to control dust, noise, waste and pollution arising from the Works.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Where required, a Construction Environmental Management Plan shall be prepared and maintained.	1	Item	
<i>Waste Management</i>				
B	All waste shall be managed, stored and disposed of in accordance with current legislation.	1	Item	
<i>Services Co-ordination</i>				
C	The Contractor shall be responsible for the coordination of all building services and utility connections, including liaison with relevant authorities and ensuring timely installation, testing and commissioning.	1	Item	
<i>Maintenance During Defects Period</i>				
D	The Contractor shall maintain all installed systems and rectify defects during the Defects Liability Period in accordance with the Contract.	1	Item	
<i>Guarantees and Warranties</i>				
E	Provide all warranties, guarantees and certification as required under the Works Requirements and Specification.	1	Item	
<i>Schedule of Guarantees</i>				
F	The contractor shall include a cost herein for providing all required Guarantees/ Insurance Back Guarantees for the various elements of works. as outlined in the Volume A Works Requirements. No claims on the grounds of want of knowledge will be entertained whatsoever.	1	Item	
<i>Progress Records</i>				
G	The Contractor shall maintain appropriate records of progress and provide updates as reasonably required by the Employer's Representative.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>Handover Requirements</i>				
Prior to Substantial Completion, the Contractor shall provide:				
A	All statutory and BCAR certification	1	Item	
B	O&M manuals and as-built drawings	1	Item	
C	Test and commissioning records	1	Item	
D	Warranties and guarantees	1	Item	
E	Safety File	1	Item	
F	All works shall be fully completed, tested and snagged prior to handover.	1	Item	
<u>3. WORK BY NOVATED SPECIALISTS, SPECIALISTS, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY BY THE EMPLOYER</u>				
<u>3. WORK BY NOVATED SPECIALISTS, SPECIALISTS, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY BY THE EMPLOYER</u>				
<u>3.1 Work by Novated Specialists and other Specialists</u>				
G	n/a		Note	
<u>3.2 Work by Utility Providers</u>				
H	Capital contributions to statutory utility providers (e.g. ESB) shall be paid by the Employer.	1	Item	
The Contractor shall:				
J	Liaise with all utility providers	1	Item	
K	Coordinate all connections and diversions	1	Item	
L	Allow for all temporary connections and diversions required for the Works	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Include all costs associated with facilitating and coordinating these works	1	Item	
<u>3.3 Work by others engaged directly by the Employer</u>				
B	The Employer may appoint others to carry out specialist works or inspections associated with the project. The Contractor shall:	1	Item	
C	Liaise and coordinate with such parties	1	Item	
D	Provide reasonable access to the Site and Works	1	Item	
E	Coordinate the programme to accommodate such works where required	1	Item	
F	The Contractor shall not be responsible for the supply or execution of such works unless specifically included in the Contract.	1	Item	
<u>4. GENERAL FACILITIES AND OBLIGATIONS</u>				
4. GENERAL FACILITIES AND OBLIGATIONS				
G	Maintaining temporary works, adapting, clearing away and making good shall be deemed to be included with the following items Under 4. (General Facilities And Obligations). Notices and fees to statutory Authorities or Public or Private Utility Providers or Undertakings and related to the preceding items shall be deemed to be included with those items. No claims in this regard will be entertained whatsoever.	1	Item	

PRELIMINARIES (Cont)				
<u>a) Supervision and co-ordination of the Works.</u>				
A	The Contractor shall be responsible for the coordination, supervision and management of the Works, including all subcontractors and compliance with Building Regulations where applicable.	1	Item	
	The Contractor shall:			
B	Coordinate all works with the Employer, Design Team and school operations	1	Item	
C	Programme and manage subcontractors and suppliers	1	Item	
D	Ensure works are carried out safely and in accordance with the Contract	1	Item	
Building Regulations / BCAR				
	The Contractor shall:			
E	Comply with all applicable Building Regulations relevant to the Works	1	Item	
F	Provide all necessary inspection records, test certificates and documentation	1	Item	
G	Cooperate with the Assigned Certifier and Design Team as required	1	Item	
Method Statements				
	The Contractor shall submit method statements for key activities including:			
H	Installation of heating systems and associated services	1	Item	
J	Works in live/occupied environments	1	Item	
K	Any temporary works or isolations required	1	Item	
L	Method statements shall demonstrate safe systems of work and compliance with the Contract.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
Supervision Staff				
A	The Contractor shall provide adequate and competent supervision appropriate to the scale of the Works.	1	Item	
Temporary Works (If Required)				
B	The Contractor shall be responsible for the design, coordination and implementation of any temporary works required to complete the Works safely.	1	Item	
<u>b) Plant, tools and vehicles</u>				
C	The Contractor shall provide all plant, tools, transport and equipment necessary to complete the Works, including delivery, maintenance and removal on completion.	1	Item	
The Contractor shall allow for:				
D	- bringing all such plant to site and removing on completion	1	Item	
E	- maintaining on site for the duration of the works.	1	Item	
Removal of Plant				
F	Plant shall be removed from site as agreed with the Employer's Representative.	1	Item	
<u>c) Scaffolding</u>				
G	The Contractor shall provide safe access equipment as required for the Works, including scaffolding, podiums or MEWPs, in compliance with all relevant safety regulations.	1	Item	

<u>PRELIMINARIES (Cont)</u>				
	d) Site administration including the provision and keeping of all statutory records.			
	The Contractor shall:			
A	Provide site supervision, security and protection of the Works	1	Item	
B	Maintain site records including labour, materials and testing	1	Item	
C	Provide photographic record of pre-existing conditions where required			
	<i>Site Records / Progress Records</i>			
D	Maintain records of progress, labour, materials and tests, and make available to the Employer's Representative upon request.	1	Item	
	<i>Progress Meetings</i>			
E	Attend regular progress meetings and coordinate subcontractors as required.	1	Item	
	<i>Valuations</i>			
F	Submit when applicable, up to date detailed claims and supporting documents in accordance with the Conditions of Contract	1	Item	
	<i>Method Statement and Construction Management Plan</i>			
	The Contractor shall submit method statements in advance of the Works, including (where applicable):			
G	Works in occupied areas / live school environment	1	Item	
H	Fire safety and hot works	1	Item	
J	Asbestos awareness (if applicable)	1	Item	
K	Traffic and access management	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Services tie-ins and shutdown procedures	1	Item	
B	Site safety and security	1	Item	
<i>Working in Live Environment</i>				
The Contractor shall plan and execute the Works to minimise disruption to the school, including:				
C	Phasing of works	1	Item	
D	Out-of-hours or holiday working where required	1	Item	
E	Coordination of shutdowns and tie-ins with the Employer	1	Item	
<i>Working in Live Environment</i>				
The Contractor shall:				
F	Agree all shutdowns in advance with the Employer	1	Item	
G	Provide temporary services where required	1	Item	
H	Minimise downtime to existing systems	1	Item	
e) Security				
The Contractor shall be responsible for the security of the Works and shall:				
J	Secure all work areas to prevent unauthorised access, particularly within an occupied school environment	1	Item	
K	Maintain the site in a safe and controlled condition at all times	1	Item	
L	Provide appropriate barriers, signage and protection to segregate works from staff, students and the public	1	Item	
M	Implement a site access and sign-in procedure for all personnel	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Safeguard all materials, plant and equipment against damage or theft	1	Item	
B	Ensure safe access and egress for deliveries and coordinate with school operations	1	Item	
C	Prevent access to non-work areas and adjoining properties	1	Item	
D	The Contractor shall provide suitable barriers or enclosures appropriate to the nature of the Works.	1	Item	
E	The Contractor shall ensure all works are planned and executed to maintain the safe operation of the school at all times.	1	Item	
F	Particular care shall be taken to segregate construction activities from occupied areas.	1	Item	
<i>f) Provision of clearly identifiable site perimeters and surroundings.</i>				
The Contractor shall:				
G	Provide a designated site compound and storage area as agreed with the Employer/Es Representative	1	Item	
H	Keep all materials, plant and welfare facilities within this area	1	Item	
J	Maintain the compound in a safe and tidy condition	1	Item	
K	Remove all temporary facilities and reinstate areas on completion	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>g) Provisions for protection of the public from site operations and arrangements for protection of third parties and visitors to the site in accordance with all statutory requirements.</i> The Contractor shall:				
A	Protect the public, school occupants and visitors from the Works	1	Item	
B	Provide appropriate barriers, signage and safe access arrangements	1	Item	
C	Comply with all statutory safety requirements	1	Item	
<i>h) Transport for work people.</i>				
D	The Contractor shall provide all necessary transport for personnel to and from the site.	1	Item	
<i>i) Protecting the works from inclement weather</i>				
E	The Contractor shall protect the Works from adverse weather and provide any temporary coverings or protection required.	1	Item	
<i>j) Water for the works.</i> The Contractor shall:				
F	Provide all water required for the Works	1	Item	
G	Make all necessary temporary connections and pay associated costs	1	Item	
H	Comply with all statutory and Irish Water requirement	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>k) Temporary lighting and power for the works.</i>				
The Contractor shall:				
A	Provide all temporary power and lighting required for the Works	1	Item	
Make all necessary connections and pay associated costs				
B	Ensure all temporary installations are safe and removed on completion	1	Item	
<i>l) Temporary roads, hardstandings, crossing and similar items.</i>				
The Contractor shall:				
C	Provide safe access to and within the site as required	1	Item	
D	Maintain safe pedestrian and vehicle routes at all times	1	Item	
E	Minimise disruption to school operations and surrounding areas	1	Item	
F	Provide traffic management measures where required and agree same with the Employer	1	Item	
<i>Parking</i>				
The Contractor shall:				
G	Manage parking of site personnel within designated areas only	1	Item	
<i>m) Temporary accommodation for the use of the Contractor.</i>				
<i>Welfare Facilities</i>				
The Contractor shall:				

<u>PRELIMINARIES (Cont)</u>				
A	Provide welfare facilities in accordance with Safety, Health and Welfare at Work (Construction) Regulations	1	Item	
B	Maintain facilities in a clean and hygienic condition for the duration of the Works	1	Item	
<i>n) Temporary storage areas including suitable and separate storage for dangerous materials or substances.</i>				
The Contractor shall:				
C	Provide suitable storage for materials and equipment	1	Item	
D	Store materials safely and protect from damage	1	Item	
<i>o) Temporary telephones for the use of the Contractor.</i>				
E	The Contractor shall provide appropriate communication systems for site management and coordination of the Works.	1	Item	
<i>p) Traffic regulations</i>				
The Contractor shall:				
F	Comply with all traffic regulations	1	Item	
G	Manage deliveries and site traffic to minimise disruption	1	Item	
H	Ensure safe access at all times, particularly during school opening and closing hours	1	Item	
J	Provide supervision where required to manage interaction with students and staff	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>q) Welfare facilities for work people to be in compliance with the fourth schedule of the Safety Health and Welfare at Work (Construction) Regulations.</i>				
A	Provide all welfare facilities in accordance with statutory requirements.	1	Item	
<i>r) Safety Health and Welfare at Work provisions including items for the following:-</i> The Contractor shall:				
B	Comply with all requirements of the Safety, Health and Welfare at Work Acts and associated Construction Regulations	1	Item	
C	Provide all necessary supervision, safety personnel and procedures for the safe execution of the Works	1	Item	
D	Ensure all personnel hold valid Safe Pass and relevant certifications	1	Item	
E	Provide and maintain appropriate PPE for all personnel and visitors	1	Item	
F	Provide adequate first aid facilities and trained first aid personnel	1	Item	
G	Maintain safe access, egress and emergency procedures at all times	1	Item	
H	Provide all necessary safety signage and traffic management measures	1	Item	
<i>Live School Environment</i> The Contractor shall:				
J	Plan and execute the Works to ensure the safety of students, staff and visitors at all times	1	Item	
K	Segregate work areas from school operations	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Control noise, dust and disruption	1	Item	
B	Restrict works to agreed times where required	1	Item	
C	Provide supervision where works interface with school activities	1	Item	
<i>Overhead Services</i>				
D	Where working near existing services, the Contractor shall implement appropriate safety measures in accordance with statutory requirements.	1	Item	
<i>s) Disbursements arising from the employment of work people</i>				
The Contractor shall:				
E	Provide all labour necessary to complete the Works	1	Item	
F	Ensure all personnel are competent and suitably qualified	1	Item	
G	Comply with all employment legislation and industry requirements	1	Item	
<i>t) Maintenance of public and private roads</i>				
The Contractor shall:				
H	Maintain safe access and egress to the site at all times	1	Item	
J	Implement appropriate traffic management measures, particularly in relation to the live school environment	1	Item	
K	Schedule deliveries to avoid school peak times where required	1	Item	
L	Keep access routes and surrounding areas free from obstruction, mud and debris	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Make good any damage to roads, paths or adjoining property caused by the Works	1	Item	
<i>u) Removing rubbish, protective casings and coverings and cleaning the works on completion</i>				
The Contractor shall:				
B	Keep the Works and surrounding areas clean and tidy at all times	1	Item	
C	Remove rubbish and surplus materials regularly and dispose of same in accordance with statutory requirements	1	Item	
D	Prevent dust, debris and waste from impacting the school environment	1	Item	
E	On completion, remove all plant, materials and waste and leave the site clean and in good condition	1	Item	
F	Make good any areas disturbed by the Works	1	Item	
<i>v) Compliance with waste management statutory requirements</i>				
The Contractor shall:				
G	Manage and dispose of all waste arising from the Works in accordance with all statutory requirements	1	Item	
H	Use appropriately licensed waste collection and disposal facilities	1	Item	
J	Provide waste transfer documentation upon request	1	Item	
K	Ensure hazardous materials (if any) are handled, transported and disposed of in accordance with applicable regulations	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	Keep the site and surrounding areas free from waste and debris at all times	1	Item	
B	Remove all waste from site on completion of the Works	1	Item	
C	The Contractor shall allow for the removal and disposal of all existing plant, equipment and associated materials arising from the Works.	1	Item	
<i>w) Drying the works</i>				
D	The Contractor is fully responsible for drying out the works and for providing all the necessary plant or equipment to achieve this. The Contractor must included here for all costs associated with drying out the works.	1	Item	
<i>x) Temporary fencing, hoardings, gates, doors, screens, fans, planked footways, guardrails, gantries, floor, stair, roof edge protection, and protection of openings, safety nets and similar items</i>				
The Contractor shall:				
E	Provide all necessary temporary fencing, barriers and protection to safely segregate the Works from the live school environment	1	Item	
F	Prevent unauthorised access to work areas at all times	1	Item	
G	Provide temporary partitions where required to: prevent dust migration; reduce noise disturbance; maintain fire separation where required	1	Item	
H	emporary partitions shall be appropriate to the location and duration of the works	1	Item	

<u>PRELIMINARIES (Cont)</u>				
A	The Contractor shall provide fully weathered (fully flashed, independently drained), insulated, acoustically treated and fire rated partitions between the existing school and the new works in each location that an interface is required. These temporary partitions shall also prevent dust migrating from the construction area into the occupied school. This may require to be placed in a number of locations over the course of the construction stage and may require different versions for different phases. When weathering has been completed, the acoustic and fire related element of these partitions will still be required until substantial completion. Contractor to include herein all costs associated with this requirement and the design of these temporary works.	1	Item	
<i>y) Control of noise, pollution and compliance with statutory obligations</i> The Contractor shall:				
B	Carry out works in a manner that minimises disruption to the school environment	1	Item	
C	Agree working hours and any particularly noisy activities with the Employer's Representative	1	Item	
D	Provide advance notice of disruptive works where required	1	Item	
E	Implement measures to control noise and vibration	1	Item	
F	Implement dust control measures to prevent nuisance within the school and adjoining areas	1	Item	
G	Prohibit radios or unnecessary noise on site where required	1	Item	

<u>PRELIMINARIES (Cont)</u>				
<i>z) protection of the works</i>				
The Contractor shall:				
A	Protect all works, materials and equipment from damage, weather and theft	1	Item	
B	Protect all existing buildings, services and surrounding areas from damage arising from the Works	1	Item	
C	Make good any damage caused during the execution of the Works	1	Item	
D	Protect completed and partially completed works from damage, dirt or deterioration	1	Item	
<i>ADDITIONAL PRELIMINARIES</i>				
<i>General Attendance on Specialist Sub-Contractors</i>				
The Contractor shall:				
E	Provide all necessary attendance on subcontractors	1	Item	
F	Coordinate and manage all subcontract works to ensure proper sequencing and completion of the Works	1	Item	
<i>Subcontractor Coordination</i>				
The Contractor shall:				
G	Coordinate all subcontractors to ensure efficient progress of the Works	1	Item	
H	Provide all necessary information and setting out to avoid abortive work	1	Item	
<i>Certificates/ Guarantees</i>				
The Contractor shall:				

<u>PRELIMINARIES (Cont)</u>				
A	Provide all required certificates, warranties and guarantees for materials and workmanship	1	Item	
B	Submit all certification required for completion and handover	1	Item	
<i>Modifications to Entrances</i>				
C	The Contractor shall maintain safe access to the school at all times and provide temporary measures where required.	1	Item	
<i>Inspection / Notices</i>				
D	The Contractor shall give reasonable notice for inspections where required.	1	item	
<i>Completion / Handover</i>				
The Contractor shall:				
E	Provide all as-built drawings, O&M manuals and certification required for handover	1	Item	
F	Allow access to the Employer's Representative for inspection of the Works	1	Item	
G	Make good all defects during the Defects Period	1	Item	
<i>Services / Statutory Undertakers</i>				
The Contractor shall:				
H	Coordinate with all statutory undertakers and service providers as required	1	Item	
J	Ensure all works to existing services are carried out in accordance with relevant requirements	1	Item	

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PRELIMINARIES				
Carried to Summary				

(59) BUILDING SERVICES (Mechanical) GENERALLY				
(51) HEATING CENTRE				
Information Required				
A	The contractors attention is drawn to information as outlined on the drawings, schematics, schedules and specifications and related documents included in the Volume A - Works Requirements by Introba Consulting Engineers	note		
B	The following works are to be priced in accordance with the detailed design; performance specifications and scheme drawing numbers (list included in the Works Requirements) as prepared by Introba Consulting Engineers.	note		
C	New bivalent system is to aim for a performance split of 80% heat pump / 20% boiler operation throughout the heating season. The bivalent point for the design is 6degC (adjustable); above this point the heat pumps provide full heating demand, below that point it is a combination of heat pump with top up from boilers as needed to meet the heating demand. The heat pumps will be designated as the lead heat source in order to maximise gas reduction. The system will be designed to operate in parallel.	note		
D	Existing system information is indicative only and shall be verified on site by the contractor. The contractor shall allow for all commissioning, balancing, controls integration, optimisation and minor modifications necessary to achieve stable operation of the new heat pump installation integrated with the existing boilers and distribution systems operating in bivalent mode. Contact details for the existing systems available in the Volume A Works Requirements	note		

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
System				
A	This section relates to the heating centre element of the project, including Primary Equipment, distribution systems, insulation and other general items		note	
B	Installation of new Air Source Heat Pumps (ASHPs) in the parking area adjacent to the existing boiler room at ground level. Integral primary pump within each heat pump will distribute the LTHW from the heat pump(s) to the buffer tank. Condensate drainage from new ASHPs to drain to nearest drain.		note	
<u>Air Source Heat Pump System installation, testing and commissioning; complete; The Contractor shall include for the supply, installation, testing and commissioning of a complete new Air Source Heat Pump system complete with full controls package to control a bivalent system as indicated on the design drawings and described in this specification; The existing heating system shall be flushed and provided with appropriate chemical treatment; The LPHW heating system shall be installed so that all pumps, primary control valves and buffer tanks are housed in Heating Plantroom. Care is to be taken to avoid running pipe work runs over electrical services and distribution boards, The contractor shall provide, prior to handover, a commissioning certificate to confirm that correct treatment has been carried out; all in strict accordance with the Consulting Engineers Specifications and Drawings</u>				
C	Generally	1	Item	
				To Collection €

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
Primary Equipment				
<u>Air Source Heat Pumps; supply and installation complete; High Efficiency Low Noise External Air Source Heat Pump; including condensate drainage from each heat pump to nearby drain all in strict accordance with the Mechanical Particular Specification, Mechanical schedule and Drawings</u>				
A	Air Source Heat Pumps 50kW (Ref: ASHP-01 - 08; Location: External plant compound)	8	nr	
B	Extra over; supply & installation of modular structural steel framework support system (Bigfoot or equivalent) to elevate off the ground			
C	Extra over; supply and install ASHP enclosure; mesh security cage or fence system for protection of ASHPs; including access door/gate	1	Item	
D	Extra over; builder's work in connection with ASHP base; including excavations, stone base; reinforced insitu concrete plinth or pads to facilitate the framework for ASHPs; making good to the surrounding paving or surfaces on completion	1	item	
E	Extra over; supply and install protection bollards; including excavation bases and reinstatement of surfaces	10	nr	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
<u>Buffer Vessel; supply and installation complete; Storage Capacity: 1000lt; Typical Dimensions: 1000mm dia x 2160mm h; tank to be steel construction complete with 75mm hard polyurethane foam insulation; Complete with 3nr internal baffles and 6nr 100mm diameter connection ports; Accessories: Temperature Gauge, Pressure Gauge, Temp/Pressure, safety Valve & tundish; Warranty: 5 year parts and labour;all in strict accordance with the Mechanical Particular Specification, Mechanical schedules and Drawings</u>				
A	Buffer Vessel (Ref: BT-01, Location: Space adjacent to Boiler Room); modification of existing piping to/from existing gas boilers.	1	nr	
B	Extra over; existing cage to be modified to suit additional equipment being included	1	item	
<u>Expansion Tank; supply and installation complete; Additional System Volume: 1,560lt; Typical Dimensions: 512mm dia x 670mm h; tank to be carbon steel construction complete with synthetic rubber compund diaphragm; powder epoxy coating; complete; include for all accessories, fixings and mounting brackets; complete; include for all fixings and mounting brackets; Warranty: 5 year parts and labour;all in strict accordance with the Mechanical Particular Specification, Mechanical schedules and Drawings</u>				
C	Expansion Tank (Ref: ET-1, Location: Space adjacent to existing Boiler Room)	1	nr	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
A	<u>Pressurisation Unit; supply and installation; complete; Type: wall mounted; Pumps: Twin; Heating Load (kW): 40.5; Static Head (m): 6.5; Approx System Water capacity (litres): 4158; F/R Temperature: 75/55#C; Breaktank Capacity: 25lts; Breaktank Connection: 'AB' air gap to water supply; Max Cold Fill Pressure: 3.5 Bar; Connectivity: Volt Free Contacts required for High/Low level fault output to BMS; Digital Display: Required; Independent High / Low Pressure Alarm: Hard-wired; Auto Fill Capacity: Required; Power Supply: 1ph, 240V, 50 Hz (3A); Expansion Vessel: Total Capacity To be confirmed by Mechanical Contractor based on parameters noted above and contractors proposed manufacturer - Contractor to forward manufacturers expansion calculation for review when forwarding technical submittal; Max. Working Pressure of Expansion Vessels 10 bar; include for all fixings and mounting brackets; Warranty: 5 year parts and labour;all in strict accordance with the Mechanical Particular Specification, Mechanical schedules and Drawings</u>	1	nr	
	Pressurisation Unit (Ref: ; Location: Boiler room)			
B	<u>Chemical dosing pot; supply and installation; complete; Description: Chemical Dosing Pot; Application: LPHW Heating System; Capacity; 11 litres; Construction: Stainless Steel; Mounting: Wall mounted c/w wall mounting brackets; Connection Details: Tundish, 25mm fill valved connection, 25mm drain valved connection, 25mm flow valved connection, 25mm return valved connection, Air vent; Connection Sizes: 25 mm; Typical Height: 865 mm; Typical Diameter: 320 mm; Weight: 16.3 kg; include for all fixings and mounting brackets; Warranty: 5 year parts and labour;all in strict accordance with the Mechanical Particular Specification, Mechanical schedules and Drawings</u>	1	nr	
	Chemical dosing pot			

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
A	<u>Magnetic Filtration Unit; supply and installation; complete; include for all accessories, fixings and mounting brackets; complete; include for all fixings and mounting brackets; Warranty: 5 year parts and labour; all in strict accordance with the Mechanical Particular Specification, Mechanical schedules and Drawings</u> Magnetic Filtration Unit Terminal equipment associated with primary equipment <u>Heat Pump Control System</u> heat pump control system; to control the bivalent system (including existing boilers). Contractor to include for coordination with the existing BMS vendor (contact information in following section) for integration of new control panel with existing system. Heat control system integrated into existing front end, to allow building operator to monitor full system (existing and new); Contact details for the existing systems available in the Volume A Works Requirements	1	nr	
	Generally <u>Heat meter; supply and installation; complete; linked to BMS; all in accordance with the Mechanical Engineers Specification and Drawings</u> Heat meter, inline ultrasonic with multi position installation capacity	1	Item	
C	Heat meter	11	nr	
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(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
Accessories associated with Primary Equipment <u>Supply and install all necessary accessories and fittings associated with the terminal equipment, as stated in drawings, specification and schedules</u> Isolation valves; for isolation of LPHW pipework; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings				
A	32mm Isolation Valves	24	nr	
B	50mm Isolation Valves	8	nr	
C	100mm Isolation Valves	8	nr	
D	Isolation Valves for Chemical Dosing Pot: Size: TBC	1	nr	
Lock shield valves; for isolation of LPHW pipework; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings				
E	50mm LSV Valves	2	nr	
F	100mm LSV Valves	2	nr	
Auto air vent valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings				
G	100mm AAV Valves	1	nr	
H	150mm AAV Valves	2	nr	
Non-return Valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings				
J	32mm NRV Valves	8	nr	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)					
Strainer valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings					
A	32mm STR Valves	8	nr		
B	50mm STR Valves	1	nr		
Drain Cock Valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings					
C	100mm Drain Cock Valves	2	nr		
D	Drain Cock Valves for Chemical Dosing Pot; Size: TBC	2	nr		
E	Drain Cock Valves for Low Loss Header; Size: TBC	2	nr		
Safety Valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings					
F	Safety Valves for Heating Buffer Vessel; Size: TBC	1	nr		
G	Safety Valves for Low Loss Header; Size: TBC	1	nr		
Double regulating valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings					
H	50mm DRV Valves	1	nr		
Commissioning sets; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings					
J	50mm Commissioning set	1	nr		
K	100mm Commissioning set	1	nr		

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
	Pressure Differential By-Pass Valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings			
A	50mm Pressure Differential By-Pass valves	1	nr	
	3-port motorised Valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification and Drawings			
B	40mm 3-port motorised Valves			
	Temperature Sensor; linked to BMS; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification and Drawings			
C	50mm Temperature Sensor	8	nr	
D	100mm Temperature Sensor	8	nr	
	Differential Pressure Sensor; linked to BMS; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification and Drawings			
E	50mm Pressure Differential By-Pass valves	2	nr	
	Pressure Sensor; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification and Drawings			
F	50mm Pressure Sensor	2	nr	
G	100mm Pressure Sensor	2	nr	
H	Pressure sensor for Heating Buffer Vessel; Size: TBC	1	nr	
	Pressure Gauge; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification and Drawings			
J	50mm Pressure Gauge	8	nr	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
A	100mm Pressure Gauge	8	nr	
B	Pressure Gauge for Heating Buffer Vessel; Size: TBC	1	nr	
	Temperature Gauge; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification and Drawings			
C	50mm Pressure Gauge	4	nr	
D	Pressure Gauge for Heating Buffer Vessel; Size: TBC	1	nr	
	Flexible connections; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification and Drawings			
E	50mm Flexible connections	4	nr	
	Quick fill connections; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification and Drawings			
F	50mm Quick fill connections	1	nr	
	Flow & Return Header; Medium Grade Black Mild steel; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification and Drawings			
G	100mm dia Flow & Return Header	2	nr	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)			
<u>Distribution System</u>			
Supply, install and commission external pipework, pre-insulated continuous pipework, pipework to insulated using Polyurethane, overall outside diameter of pipe to be 150 mm diameter with 100 mm heating pipe internally, to include all necessary fittings and accessories, all necessary supports, fixings and brackets, all necessary flanges and unions, include for all necessary waterproofing to roof penetrations; include for connections into existing distribution headers; all in strict accordance with the Mechanical Particular Specification, Mechanical schedules and Drawings; New heating piping from buffer tank to tie into existing distribution headers.			
A	32mm diameter pipework	16	m
B	50mm diameter pipework	30	m
C	65mm diameter pipework	20	m
D	80mm diameter pipework	20	m
E	100mm diameter pipework	40	m
F	150mm diameter pipework	20	m
G	Extra over; connect to existing 150mm diameter existing flow and return headers	2	nr
H	Extra over; connect to existing 150mm diameter pipework from existing gas boilers	2	nr
Supply, install and commission pipework within the building, black iron medium quality mild steel pipework, to include all threaded bar, clamp and bracket supports from wall/ceiling, fittings and accessories, all necessary flanges and unions; all in strict accordance with the Mechanical Particular Specification, Mechanical schedules and Drawings			
J	65mm diameter pipework	10	m
K	80mm diameter pipework	10	m

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
Builder's Work				
<u>Builders work in connection with the contract works such as cutting or drilling of holes, forming apertures, chases in walls, floors and ceilings, will be carried out by the Works Specialist under the terms of the main contract. The Electrical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist; allow for all necessary making good including painting to match existing</u>				
A	generally	1	Item	
<u>Fire stopping and other associated fire protection work</u>				
B	Supply and install all fire stopping and other associated fireprotection work and the like to other services, complete and in accordance with the drawings and specifications	1	Item	
General				
<u>Testing and commissioning; all in accordance with Engineers Specification</u>				
C	Testing and commissioning new bivalent system; Rebalance existing hydronic circuits	1	item	
D	Testing,chemical dosing, sterilization and certification of all systems	1	item	
<u>Operating and maintenance manuals; all in accordance with Engineers Specification</u>				
E	Operating and maintenance manuals	1	Item	
<u>Working drawings; all in accordance with Engineers Specification</u>				
F	Working drawings	1	Item	
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(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
<u>Co-ordination drawings; all in accordance with Engineers Specification</u>				
A	Co-ordination drawings	1	Item	
<u>As built drawings; all in accordance with Engineers Specification</u>				
B	As built drawings	1	Item	
<u>Identification plates, labels and the like; all in accordance with Engineers Specification</u>				
C	Identification plates, labels and the like	1	Item	
<u>Maintenance and Warranties; all in accordance with Engineers Specification</u>				
D	The Contractor shall provide for full servicing of the Air Source Heat Pumps before handover and again before the end of the defects period.	1	Item	
E	The Contractor shall provide for full servicing of the Pressurisation unit before handover and again before the end of the defects period.	1	Item	
<u>(53) WATER SERVICES - HOT AND COLD WATER</u>				
Information Required				
F	The contractors attention is drawn to information as outlined on the drawings, schematics, schedules and specifications and related documents included in the Volume A - Works Requirements by Introba Consulting Engineers		note	
G	The following works are to be priced in accordance with the detailed design; performance specifications and scheme drawing numbers (list included in the Works Requirements) as prepared by Introba Consulting Engineers.		note	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
System				
A	<u>Removal of existing direct gas fired water heater including removal of the existing gas piping from unit back to a suitable location (to be agreed with client) and capped. Existing DHWS, DHWR and DCW piping to be capped at high level for connection to new calorifier</u>			
	Generally, located on the mezzanine level above the metal fabrication workshop	1	item	
B	Upgrade to existing Hot Water Distribution installation, testing and commissioning; complete; Domestic hot water must be circulated throughout the building at a minimum temperature of 55°C in order to protect against legionella; the contractor shall install pipework to all appliances and outlets as indicated on the drawings. General pipework shall be copper with plain ends, installed with foil -back insulation; The Contractor shall coordinate water service pipework with ductwork, electrical and heating services; The Contractor shall commission and test all systems under this contract prior to handover; all in strict accordance with the Mechanical Engineers Specification and Drawings			
	Generally	1	item	
To Collection €				

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
Equipment				
<u>Pump; supply and installation; complete;</u> <u>Type: Twin head c/w integral variable</u> <u>speed drives & BEMS connectivity; To</u> <u>operate as duty or standby operation</u> <u>complete with variable frequency drives;</u> <u>Required for BMS enable/fault; : Required;</u> <u>c/w flexible connections, test points;</u> <u>include for all fixings, anti vibration</u> <u>mounts and brackets; Warranty: 5 year</u> <u>parts and labour;all in strict accordance</u> <u>with the Mechanical Particular</u> <u>Specification, Mechanical schedules and</u> <u>Drawings</u>				
A	Pump Ref: P-DHW-01; Twin Head Hydraulic Circulation Pumps; Flow rate: 1.38 l/s; Head: 127KPA; complete	1	nr	
<u>DHW Calorifier Tank; supply and</u> <u>installation complete; Staorage Capacity</u> <u>471; Typical Dimensions: 755mm dia x</u> <u>1950mm h; preinsulated single coil</u> <u>cylinder with extra glass ceramic enamel</u> <u>internal surface coating; complete with</u> <u>6KW immersion heater; Warranty: 5 year</u> <u>parts and labour;all in strict accordance</u> <u>with the Mechanical Particular</u> <u>Specification, Mechanical schedules and</u> <u>Drawings</u>				
B	Calorifier Tank (Ref: DHWC-01, Location: Mezzanine above metal fabrication)	1	nr	
C	Extra over; re-connection of existing DHWS, DHWR and DCW piping	1	Item	
Accessories associated with Primary Equipment				
<u>Isolation valves; for isolation of water</u> <u>services pipework up to 50mm diameter;</u> <u>include for all fittings and accessories;</u> <u>all in strict accordance with the</u> <u>Mechanical Engineers Specification and</u> <u>Drawings</u>				
D	50mm Isolation Valves	5	nr	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
<u>Non Retun Valve; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification and Drawings</u>				
A	50mm Non Retun Valve	1	nr	
<u>Pressure Regulating Valve; for water services pipework at final connections to fittings; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification and Drawings</u>				
B	54mm Pressure regulating Valve	1	nr	
<u>Commissioning Set; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification and Drawing</u>				
C	50mm Commissioning Set	1	nr	
<u>Thermal balancing valve; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification and Drawings</u>				
D	50mm Thermal balancing valve	1	nr	
<u>Flow Regulating valve; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification and Drawings</u>				
E	50mm Flow Regulating valve	1	nr	
<u>Flexible connection; for water services pipework at final connections to fittings; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification and Drawing</u>				
F	50mm dia Flexible Connection	2	nr	
<u>Pressure Guage; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & Drawings</u>				
G	50mm dia Pressure Guage	2	nr	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
A	<u>Temperature Gauge; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification and Drawing</u> 80mm Temperature Gauge	1	nr	
	<u>Temperature Sensors; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification and Drawing</u> 50mm Temperature Sensors	1	nr	
Distribution				
C	<u>Pre-insulated, self-compensating, flexible heating pipework and fittings; Minimum heat loss of 0.216W/m; Insulation: closed cell PUR foam wrapped in corrugated HD PEXa; Operating temp: 95# C; tested to 6 bar; include for all accessories; all in strict accordance with the Mechanical Engineers Specification and Drawings</u> 50mm diameter pipework	20	m	
	Extra over; connect to existing DHW supply & return pipework	2	nr	
E	Extra over; connect to existing cold water service	1	nr	
<u>Insulation</u>				
F	Foil-faced Mineral Wool Insulation; Vlass: A1, CFC, HCFC free, ozone depletion factor zero; Max thermal conductivity: 0.035W/m/K; Density: 80-120kg/m3; all joints taped and sealed; all in accordance with the Mechanical Engineers Specification and Drawings Insulation, 40mm thick to 50mm diameter pipework	20	m	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
A	Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification Section 3			
	General Valves & Plant	1	item	
B	Builder's Work			
	<u>Builders work in connection with the contract works such as cutting or drilling of holes, forming apertures, chases in walls, floors and ceilings, will be carried out by the Works Specialist under the terms of the main contract. The Electrical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist; allow for all necessary making good including painting to match existing</u>			
C	generally	1	Item	
	<u>Fire stopping and other associated fire protection work</u>			
D	Supply and install all fire stopping and other associated fireprotection work and the like to other services, complete and in accordance with the drawings and specifications	1	Item	
	General			
E	<u>Testing and commissioning; all in accordance with Engineers Specification</u>			
	Testing and commissioning; including rebalancing existing hydronic circuits.	1	item	
F	Testing and certification of all systems	1	item	
	<u>Operating and maintenance manuals; all in accordance with Engineers Specification</u>			
	Operating and maintenance manuals	1	Item	
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(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)				
<u>Working drawings; all in accordance with Engineers Specification</u>				
A	Working drawings	1	Item	
<u>Co-ordination drawings; all in accordance with Engineers Specification</u>				
B	Co-ordination drawings	1	Item	
<u>As built drawings; all in accordance with Engineers Specification</u>				
C	As built drawings	1	Item	
<u>Identification plates, labels and the like; all in accordance with Engineers Specification</u>				
D	Identification plates, labels and the like	1	Item	
<u>Maintenance and Warranties; all in accordance with Engineers Specification</u>				
E	The Contractor shall provide for full servicing of the Air Source Heat Pumps before handover and again before the end of the defects period.	1	Item	
F	The Contractor shall provide for full servicing of the Pressurisation unit before handover and again before the end of the defects period.	1	Item	

(59) BUILDING SERVICES (Mechanical) GENERALLY (Cont)
COLLECTION

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(59) BUILDING SERVICES (Mechanical) GENERALLY
Carried to Summary

<u>(69) BUILDING SERVICES (Electrical) GENERALLY</u> <u>(61) ELECTRICAL SUPPLY & MAIN DISTRIBUTION - - LV INSTALLATIONS</u> Information Required The contractors attention is drawn to information as outlined on the drawings, schematics, schedules and specifications and related documents included in the Volume A - Works Requirements by Introba Consulting Engineers The following works are to be priced in accordance with the detailed design; performance specifications and scheme drawing numbers (list included in the Works Requirements) as prepared by Introba Consulting Engineers.		note note		
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(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
System				
<u>Modifications to the existing LV installation, testing and commissioning; complete; The electrical contractor shall allow for the modifications to the existing Main Distribution Board (MDB) to accommodate new dedicated connections for the heat pump system and solar PV installation, including all necessary modifications to existing switchgear, busbars, protective devices, metering, outgoing ways, cabling, terminations, containment, labelling and ancillary works required for a complete and operational installation; the Electrical Contractor shall engage with a LV panel manufacturer specialist to supply and install all switchgear necessary for the complete and proper operation and protection of the completed electrical engineering system. The main switchgear, sub main switchgear and distribution boards shall be as indicated on the contract drawings and all shall be panel manufacture factory built assembly.; The Contractor shall submit working drawings to the Engineer for approval prior to manufacture of switchgear; the contractor shall allow for liaising with the ESB; all in accordance with the Electrical Engineers Specification Section and Drawings</u>				
A	Electrical Supply and Main Distribution; modification and recertification of the existing main electrical distribution board	1	item	
B	Extra over; removal of power cables and breakers/fuse disconnects serving existing mechanical hot water system	1	item	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
Equipment				
<u>Modifications to existing Main Switch Board; supply and installation (including wiring) complete; The existing main switchboard arrangement requires additional modifications/alterations to accommodate facilitate the project is detailed on specific LV switchgear drawings. The electrical contractor shall appoint a specialist panel manufacturer to carry out the layout design, construction, installation and commissioning of the same; The switchboards shall comprise all components indicated on the drawings and be a factory built assembly - Multi-cubicle type to Form 4 Type 3 as defined by BS EN 60439-1 and shall comply with EN 50051, EN 50001/2, BS EN 60 - 439-1:1994, and BS 5846 Part 1 and IEC 439-1. All allowances shall be made by the contractor for site time involved in connecting the various sections of the switchboard together upon delivery and at time of installation.; Testing and commissioning: in accordance with current standards; all in strict accordance with the Electrical Engineers Specification Section 15.1 and Drawings E6051</u>				
A	400A Isolator Switch to Main Switchboard MSB; complete (Ref: DB-M1 Iso Switch)	1	nr	
B	PV Isolator Switch to Main Switchboard MSB; complete (Ref: PV ISO Switch)	1	nr	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
Sub-distribution Board; supply and installation (including wiring) complete; All distribution boards shall be factory assembled supplied by the switchgear sub specialist. All framework shall be cubic framework with Schneider electric components & protective devices. Separate distribution boards shall be provided for essential and non-essential supplies. Each will have their own main break and sub main supply.;International standard IEC 60439-3 / European standard EN 60439-3,The degree of protection, as per IEC 60529, shall be at least: IP30 for enclosures without a door;IP40 for enclosures with a door. Enclosures shall provide Class II total insulation (as per IEC/EN 60439-3, section 7.4.3.2) between outer space and all live components inside, The impact strength as per IEC 62262 shall be IK08. Large enclosures (24 modules wide) shall be fitted with metal reinforcements to increase the rigidity of equipped enclosures for shipping, handling, installation, etc ;Testing and commissioning: in accordance with current standards; all in strict accordance with the Electrical Engineers Specification and Drawings				
A	Sub-distribution board; complete (Ref: DB-M1; Location: Loading Bay)	1	nr	
B	Extra over; supply and install protective guard cage with access to subdistribution board unit; secure segregation fencing, similar to a mesh caged area; fix and bond fencing as required; ensure distance of 1.22m from the front of the panel to fence is maintained; including all necessary fixing to floors and walls	1	nr	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
Fittings				
<u>Multi-function digital electrical energy meters; supply and installation; complete;</u> <u>As part of an overall site energy monitoring strategy by the client, Smart meters shall be installed integral within the sub distribution switchboard to monitor the incoming the supply and all outgoing supplies' current, voltage, peak energy, Peak demand. The kWh Energy Meters shall be supplied using suitable protocols for remote monitoring by existing BMS systems; Each meter shall be capable of displaying both import & export energy registers. They shall read and record true RMS voltage, peak-to-peak, kVAR. ; all in accordance with the Electrical Engineers Specifications and Drawing</u>				
A	Multi-function digital meters to Air Source Heat Pumps; (Ref : M1-ASHP-1; M1-ASHP-2; M1-ASHP-3; M1-ASHP-4; M1-ASHP-5; M1-ASHP-6; M1-ASHP-7; M1-ASHP-8; Location DB-M1	8	nr	
<u>Multi-function digital electrical energy meters; supply and installation; complete;</u> <u>As part of an overall site energy monitoring strategy by the client, Smart meters shall be installed standalone to monitor the incoming the supply and all outgoing supplies' current, voltage, peak energy, Peak demand. The kWh Energy Meters shall be supplied using suitable protocols for remote monitoring by existing BMS systems; Each meter shall be capable of displaying both import & export energy registers. They shall read and record true RMS voltage, peak-to-peak, kVAR. ; all in accordance with the Electrical Engineers Specifications and Drawing</u>				
B	Multi-function digital meters to Heat Pump Control Panel; Ref : M9-HPCP-01; Location DB-M1	1	nr	
C	Multi-function digital meters to DHW; Ref : M10-DHW-01; Location DB-M1	1	nr	
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(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
A	Multi-function digital meters to Data logger; Ref : M11-Data Logger; Location DB-M1	1	nr	
B	Multi-function digital meters to PV Meter; Ref : M12-PV Meter; Location DB-M1	1	nr	
C	Multi-function digital meters to DHW; Ref : M13-DHWC-01; Location DB-M1	1	nr	
	<u>Insulated Matting/Carpet; 1000mm wide x full length of switch board, standards to comply with the International Standard; complete; include for all accessories; in strict accordance with the Electrical Engineers Specification and Drawing</u>			
D	Insulated matting; new distribution switch boards	1	nr	
	<u>Main switchboard drawing; 'A1' framed drawing of the switchboard to be installed within the switch room; the drawing shall be framed with a perspex cover; include for all accessories; in strict accordance with the Electrical Engineers Specification</u>			
E	Main switchboard drawing	1	nr	
	<u>Circuit charts; printed circuit charts shall be provided c/w a perspex cover and fitted to the inside of each distribution board access door; include for all accessories; in strict accordance with the Electrical Engineers Specification</u>			
F	Circuit charts	1	Item	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
Mains and Sub-mains cables				
<u>Supply and Installation of sub-mains cable from Main Distribution Board MDB to sub-distribution boards/ Control panels located throughout school building; Sub-mains distribution within the building shall be via XLPE/LSF/SWA/LSF armored cables laid in galvanised steel cable tray/trunking; a separate CPC shall be installed with every sub-mains feed and shall be of the size detailed on the drawings; terminating at both ends; all in strict accordance with the Electrical Engineers and Drawings</u>				
A	Submains; Mechanical Distribution Board(DB-M1 to each ASHP (ASHP-1 ASHP-8); 2 Run of 5c x 10sq.mm LSF/XLPE/SWA + 10sq.mm CPC	1	item	
B	Submains; Main Switch Board MSB to DB-M1; 2 Run of 5C x 70sq.mm XLPE/SWA	1	item	
C	Submains; M10 -DHWC-01 to DB-5; 3C x 10sq.mm LSF/ XLPE/SWA	1	item	
D	Submains; M9- HPCP-01 to DB-MB1; 3C x 10sq.mm LSF/ XLPE/SWA	1	item	
E	Submains; M11- Data Logger to DB-MB1; 3C x 10sq.mm LSF/ XLPE/SWA	1	item	
F	Submains; Main Switch Board MSB to Solar PV Invertor; 5C x 70sq.mm LSF/XLPE/SWA	1	item	
General Earthing and Bonding				
<u>General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification</u>				
G	General Earthing and Bonding; complete	1	item	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
Builder's Work				
<u>Builders work in connection with the contract works such as cutting or drilling of holes, forming apertures, chases in walls, floors and ceilings, will be carried out by the Works Specialist under the terms of the main contract. The Electrical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist; allow for all necessary making good including painting to match existing</u>				
A	generally	1	Item	
<u>Fire stopping and other associated fire protection work</u>				
B	Supply and install all fire stopping and other associated fireprotection work and the like to other services, complete and in accordance with the drawings and specifications	1	Item	
General				
<u>Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents</u>				
C	Testing and commissioning; complete	1	item	
<u>Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents</u>				
D	Operating and maintenance manuals; complete	1	item	
<u>Working drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
E	Working drawings; complete	1	item	
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(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
<u>Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
A	Co-ordination drawings;complete	1	item	
<u>As built drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
B	As built drawings; complete	1	item	
<u>Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents</u>				
C	Identification plates, labels and the like; complete	1	item	
<u>Maintenance and Warranties; all in accordance with Engineers Specification</u>				
D	The Contractor shall provide for full servicing of the LV System before handover and again before the end of the defects period.	1	Item	
<u>(61) ELECTRICAL SUPPLY AND MAIN DISTRIBUTION - CONTAINMENT</u>				
Information Required				
E	The contractors attention is drawn to information as outlined on the drawings, schematics, schedules and specifications and related documents included in the Volume A - Works Requirements by Introba Consulting Engineers		note	
F	The following works are to be priced in accordance with the detailed design; performance specifications and scheme drawing numbers (list included in the Works Requirements) as prepared by Introba Consulting Engineers.		note	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
System				
<u>Cable ladder/ tray/ trunking installation, testing and commissioning; complete; The Contractor shall supply and install a complete cable support system using cable tray, trunking, conduit and support steelwork as shown on the drawings and as detailed in the specification. The Contractor shall include for all incidental cable containment which may not be shown on the drawings but which may be required to effect cable routes to individual items of equipment, luminaires etc; include for all joints, fixing brackets and supports; all in accordance with the Electrical Engineers Specification and Drawings</u>				
A	Cable Tray; Submains cabling from DB5 to DHWC-01; heavy-duty galvanised steel; size 100mm wide x 64mm high; complete	1	item	
B	Cable Tray; Submains cabling from 8nr Air Source Heat Pumps to DB-M1; galvanised external grade steel; size 300mm wide x 75mm high; c/w bigfoot support system; complete	1	item	
C	Cable Ladder; Submains cabling from Solar PV Array to DB; heavy-duty galvanised steel; size 225mm wide x 64mm high; complete	1	item	
D	Cable Ladder; Submains cabling from DB-M1 to MSB; heavy-duty galvanised steel; size 300mm wide x 64mm high; complete	1	item	
E	Cable Tray; PV cabling; galvanised external grade steel; size 300mm wide x 75mm high; c/w bigfoot support system; complete	1	item	
F	Conduit; class 4 galvanised steel; size 25mm diameter; complete	1	item	
G	Conduit; PVC sheeted flexible metallic conduit, IP65; connections to plant; complete	1	item	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
General Earthing and Bonding				
<u>General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification</u>				
A	General Earthing and Bonding; complete	1	item	
Builder's Work				
<u>Builders work in connection with the contract works such as cutting or drilling of holes, forming apertures, chases in walls, floors and ceilings, will be carried out by the Works Specialist under the terms of the main contract. The Electrical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist; allow for all necessary making good including painting to match existing</u>				
B	generally	1	Item	
<u>Fire stopping and other associated fire protection work</u>				
C	Supply and install all fire stopping and other associated fireprotection work and the like to other services, complete and in accordance with the drawings and specifications	1	Item	
General				
<u>Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents</u>				
D	Testing and commissioning; complete	1	item	
<u>Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents</u>				
E	Operating and maintenance manuals; complete	1	item	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
<u>Working drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
A	Working drawings; complete	1	item	
<u>Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
B	Co-ordination drawings;complete	1	item	
<u>As built drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
C	As built drawings; complete	1	item	
<u>Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents</u>				
D	Identification plates, labels and the like; complete	1	item	
<u>(62) POWER DISTRIBUTION SERVICES - PV SYSTEM</u>				
Information Required				
E	The contractors attention is drawn to information as outlined on the drawings, schematics, schedules and specifications and related documents included in the Volume A - Works Requirements by Introba Consulting Engineers		note	
F	The following works are to be priced in accordance with the detailed design; performance specifications and scheme drawing numbers (list included in the Works Requirements) as prepared by Introba Consulting Engineers.		note	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
System				
Photovoltaic System installation, testing and commissioning; complete; The electrical contractor shall be responsible for the design, supply, installation, commissioning and demonstration of a solar power generating system suitable for installation on roofs. The Solar Photovoltaic (PV) system shall include the following main components, PV Modules, Module Mounting System, provision for safe access, Cabling DC and AC, Connectors, String Combiners, Inverters (power optimisers), Switch-disconnectors (isolators) DC and AC, Electrical Protection and Monitoring System. The electrical contractor shall engage a Photovoltaic (PV) Systems specialist but shall co-ordinate all elements of the installation in order to provide a complete system; all in strict accordance with the Electrical Engineers Specification and Drawings				
A	Photovoltaic System installation	1	item	
Equipment				
Solar PV Panels and mounting system; supply and installation (including wiring) ; complete; Tier1 solar PV panels, 25-year performance warranty, 10-year product warranty; south facing orientation; c/w cabling, connectors, junction boxes and string combiners; include for all accessories and fixings; all in strict accordance with the Electrical Engineers Specification and Drawings				
B	Solar PV Panels (Location: roof)	110	nr	
Fittings				
<u>PV Control and Protection Panel; supply and installation (including wiring); complete; include for all accessories and fixings; all in strict accordance with the Electrical Engineers Specification and Drawings</u>				
C	PV Control Panel	1	nr	
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(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
A	Photovoltaic Inverter, supply and installation (including wiring); complete; The inverter has inbuilt DC-side disconnection device, Ground fault monitoring, grid monitoring, DC reverse polarity protection, AC short-circuit current capability and All-pole sensitive residual-current monitoring unit, The inverter must have a protection class of I (according to IEC 62109-1) and overvoltage category of III for AC and II for DC (according to IEC 62109-1), The inverter must be a transformer-less inverter and employ Opticool cooling technology, Needs to be IP65 rated; include for all accessories and fixings; all in strict accordance with the Electrical Engineers Specification and Drawings Photovoltaic Inverter 50kW	1	nr	
B	LED Digital Monitor c/w mounting brackets, supply and installation (including wiring); complete; Size: 32"; Mounting: wall mounted; include for all accessories and fixings; all in strict accordance with the Electrical Engineers Specification and Drawings LED Digital Monitor Accessories associated with terminal equipment PV System Accessories; supply and installation (including wiring); complete; warranty of 10-years to be included in this contract; include for all accessories and fixings; all in strict accordance with the Electrical Engineers Specification and Drawings	1	nr	
C	Photovoltaic DC Isolator; shunt trip	1	nr	
D	Photovoltaic Mains AC Isolator; with shunt trip	1	nr	
E	Generation Meter	1	nr	
F	PV Alarm Light	1	nr	
Decarbonisation Works - RSTC Building Dundalk		To Collection €		

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)			
A	Emergency stop button	1	nr
B	Fire fighter safety gateway	8	nr
C	Control & communications gateway master	1	nr
General Earthing and Bonding			
<u>General Earthing and Bonding: Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification</u>			
D	General Earthing and Bonding; complete	1	item
Builder's Work			
<u>Builders work in connection with the contract works such as cutting or drilling of holes, forming apertures, chases in walls, floors and ceilings, will be carried out by the Works Specialist under the terms of the main contract. The Electrical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist; allow for all necessary making good including painting to match existing</u>			
E	generally	1	Item
<u>Fire stopping and other associated fire protection work</u>			
F	Supply and install all fire stopping and other associated fireprotection work and the like to other services, complete and in accordance with the drawings and specifications	1	Item
General			
<u>Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents</u>			
G	Testing and commissioning; complete	1	item

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
<u>Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents</u>				
A	Operating and maintenance manuals; complete	1	item	
<u>Working drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
B	Working drawings; complete	1	item	
<u>Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
C	Co-ordination drawings; complete	1	item	
<u>As built drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
D	As built drawings; complete	1	item	
<u>Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents</u>				
E	Identification plates, labels and the like; complete	1	item	
<u>Maintenance and Warranties; all in accordance with Engineers Specification</u>				
F	The Contractor shall provide for full servicing of the Solar PV System before handover and again before the end of the defects period.	1	Item	
<u>(68) BMS WIRING INSTALLATIONS</u>				
Information Required				
G	The contractors attention is drawn to information as outlined on the drawings, schematics, schedules and specifications and related documents included in the Volume A - Works Requirements by Introba Consulting Engineers		note	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
A	The following works are to be priced in accordance with the detailed design; performance specifications and scheme drawing numbers (list included in the Works Requirements) as prepared by Introba Consulting Engineers. System <u>Existing BMS Upgrades & new Wiring Installations; include control points / graphics of new systems; testing and commissioning; complete; Electrical Contractor must provide and issue as installed drawings for all electrical cabling associated with mechanical services. All wiring for mechanical services must be carried out under this contract to include wiring for heating, ventilation etc. The wiring to all mechanical devices must be taken from dedicated MCC (motor control centre) panels supplied as a 'Free Issue' item by the Mechanical Contractor as part of the BMS installation, and must be installed and connected up by the electrical contractor. Generally, the MCC panels must be installed all in accordance with the Volume A - Works Requirements</u>	1	note	
B	BMS Upgrade and Wiring Installations Equipment <u>Mechanical Control Panel; Mechanical and BMS wiring installation, testing and commissioning; complete; The Contractor shall allow for all wiring associated with the installation of the MCC and BMS outstations; The Contractor shall allow for all switchgear as indicated on the electrical services connection schedules and reflected on the electrical services layouts; all in accordance with the Mechanical Engineers Specification and Drawings</u>	1	item	
C	Mechanical Control Centre (Ref: BMS Panel)	1	item	

(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
A	Fittings <u>BMS final connections and wiring installation, testing and commissioning; complete; The Electrical Specialist shall include for the supply and installation of all LV/ELV / control wiring cables fed from the BMS pane to mechanically operated items installed under this contract; cables shall be drawn in trunking/ cable trays; all in accordance with the Electrical Engineers Specifications and Drawings</u>			
	Generally	1	Item	
	Final Circuits (including all points terminations) <u>Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from local sub-distribution board; Installation: Sub-circuit wiring shall be drawn in concealed galvanised steel conduit and/or galvanised steel trunking; all in accordance with the Electrical Engineers Specification and Drawing M-5806</u>			
B	Final Circuits - BMS Panel			
	Power Services	1	Item	
C	General Earthing and Bonding <u>General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification</u>			
	General Earthing and Bonding; complete	1	item	
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(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
Builder's Work				
<u>Builders work in connection with the contract works such as cutting or drilling of holes, forming apertures, chases in walls, floors and ceilings, will be carried out by the Works Specialist under the terms of the main contract. The Electrical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist; allow for all necessary making good including painting to match existing</u>				
A	generally	1	Item	
<u>Fire stopping and other associated fire protection work</u>				
B	Supply and install all fire stopping and other associated fireprotection work and the like to other services, complete and in accordance with the drawings and specifications	1	Item	
General				
<u>Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents</u>				
C	Testing and commissioning; complete	1	item	
<u>Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents</u>				
D	Operating and maintenance manuals; complete	1	item	
<u>Working drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
E	Working drawings; complete	1	item	
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(69) BUILDING SERVICES (Electrical) GENERALLY (Cont)				
<u>Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
A	Co-ordination drawings;complete	1	item	
<u>As built drawings; all in accordance with the Electrical Engineers Specification Documents</u>				
B	As built drawings; complete	1	item	
<u>Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents</u>				
C	Identification plates, labels and the like; complete	1	item	
<u>Maintenance and Warranties; all in accordance with Engineers Specification</u>				
D	The Contractor shall provide for full servicing of the BMS System before handover and again before the end of the defects period.	1	Item	

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TOTAL AMOUNT TO FORM OF TENDER				



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