McGAHON
SURVEYORS

CLIENT: BoM De la Salle College

JOB: De la Salle College, Dundalk

DATE: 22/09/2026

www.mcgahonsurveyors.com

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PRELIMINARIES

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1. PRELIMINARIES PARTICULARS					
1 PRELIMINARY PARTICULARS					
This Pricing Document must be completed in full and returned with the tender					
1.1 Project, parties and consultants					
The name, nature and location of the project					
Construction of a new two storey extension including all associated ancillary site works at De La Salle College, Castleblayney Road, Dundalk, Co. Louth					
The nature of the works consists of the construction of a new two storey extension and all associated site works.					
The Project is located at De La Salle College, Castleblayney Road, Dundalk, Co. Louth					
A general description of the works					
The contract comprises the following works:					
The project comprises the construction of a new two storey extension comprising general school accommodation at the lower level & an ASD unit at the upper level, completion of links to existing school, a plant room extension to the existing PE Hall, including revisions to the existing site entrance at Mill Road, all associated drainage works and construction of a secure hard and soft play area, a sensory garden, parking spaces and all other associated external works.					
The names and address of the Employer and Consultants together with their respective roles.					
The 'Employer' shall mean					
Board of Management, De La Salle College, Dundalk, Co. Louth					
Names and addresses of the Consultants					
The term 'Employer's Representative' shall mean					
McGahon Architects, 19 Jocelyn Street, Dundalk, Co. Louth, A91HPX2					
The Architect is:					
McGahon Architects, 19 Jocelyn Street, Dundalk, Co. Louth, A91HPX2					
The Civil and Structural Engineer is:					
Duffy Chartered Engineers Ireland, Second Floor Avenue Road Centre, Avenue Road, Dundalk, Co. Louth					
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1. PRELIMINARIES PARTICULARS (Cont)

The Building Services Engineer is:

Semple & McKillop Ltd., Monaghan Road, Moraghy, Castleblaney, Co. Monaghan

The Quantity Surveyor is:

McGahon Surveyors Ltd., Block 1, Quayside Business Park, Mill Street, Dundalk, Co Louth

The Project Supervisor Design Process is:

Arup, 50 Ringsend Road, Dublin

1.2 Description of site

A	The boundaries of the site, the means of access and the position of the works are as indicated on the Architect's drawings. The Contractor should visit the site and note all adjacent and/or abutting buildings.	1	item		
B	The site is located at De La Salle College Dundalk. The site is located between Castletown Road to the south and Mill Road to the west. To the east it borders with the grounds of St. Louis Secondary School for Girls. The site entrance from the Castletown Road is shared by both schools.	1	item		
C	There are two existing site entrances, one located to the south-east, at Castletown Road which is used by the staff and visitors only and one to the west of the site, at Mill Road, where an existing drop off point for the school is located. There are four buildings on site plus temporary prefab accommodation.	1	item		
D	Two of the buildings containing general school accommodation located to the east of the site have similar floor level, the third one, constructed in 2012, has a floor level about 1m higher and is accessible via a flight of stairs and a ramp. The PE Hall is situated at the top west has a floor level about 3.5m above the other buildings.	1	item		
E	The existing school shall remain fully operational during the proposed Construction Works.	1	item		
	<u>The existing boundaries of the site include the following</u>:				
F	The existing boundaries of the site are as indicated on Architect's Drawing No.1241/P-T/01 "Site Plan". The entrance off Mill Road (West of the site) is to be altered as part of these works, with all other boundary treatments remaining unchanged.	1	Item		
G	The contractor is expected to visit the site when preparing his tender submission and satisfy himself as to the existing site boundary conditions.	1	Item		

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	1. PRELIMINARIES PARTICULARS (Cont)					
	Means of Access					
A	The Contractor shall confine his activities to the work included in the Contract and shall not allow his staff, or anyone else connected with the works, to trespass onto other parts of the school or onto adjacent lands unless as directed in order to execute works included in this Contract. The Contractor shall liaise with the school in relation to coordination of access to the works areas.	1	Item			
B	The construction access will be from Mill Road. The Contractor must ensure that his works does not impede pedestrian or vehicular access routes. If a pedestrian route is hindered, the Contractor shall ensure that an alternative safe route exists and is marked out for pedestrians. Contractor to ensure that delivery areas are adequately positioned and cordoned off to minimise risk.	1	Item			
C	The Contractor is responsible for the security of the site. They must adequately safeguard the site, the works, products, materials arising, plant and any existing buildings affected by the works from trespass, damage, and theft. Security and hoarding arrangements around work areas must be adequate to prevent students, staff, the public, and visitors inadvertently gaining unauthorised access to areas of construction work.	1	Item			
D	The main contractor will be required to put a traffic management plan in place to manage safe access and egress of site workers.	1	Item			
E	The Contractor is required to provide a secure, control gate access point to the site for the full duration of the works.	1	Item			
F	The Contractor shall provide and maintain a full time "log in and out system" for all persons entering the works.	1	Item			
G	Disciplinary action may be taken against any person found entering or leaving (or attempting to enter or leave) the site other than by the designated gates or entrances. If the Contractor uses a gate or gates to gain access or egress from the site, the Contractor shall be responsible for securing such gate or gates at all times throughout the contract period.	1	Item			
H	The Contractor shall ensure that no damage is caused to the existing roads due to the delivery of materials or the removal of site materials, demolitions or rubbish. All vehicles entering or leaving the site carrying loads which constitute a potential dust or dirt nuisance such as aggregate, sand, gravel, soil or the like shall be secured so that no materials shall leave the vehicle.	1	Item			
J	The Contractor shall be responsible for keeping all roads adjacent to the site free from mud droppings or other materials which are due to his own and all other operations and safeguard the Employer from any liability resulting therefrom. The Contractor is expected to take reasonable care to ensure that all vehicles entering and leaving the site are free of mud on the wheels or tracks, and the loads are secure.	1	Item			
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	1. PRELIMINARIES PARTICULARS (Cont)					
A	In the event of fouling of any roads due to any operations the Contractor will be expected to clean them expeditiously at their own expense to the satisfaction of the Employer`s Representative and/or Employer. The Contractor shall be entirely responsible for any damage due to his failure to comply with this clause.	1	Item			
B	The Contractor shall confine his activities to the Works Area included in the contract and shall not allow his men to trespass on the other parts of the site or on the adjacent lands unless in direct execution of Works included in this Contract. In the event of any claims arising due to failure to comply with this clause, the Contractor shall be held entirely responsible and shall pay costs in connection therewith.	1	Item			
C	Prior to appointment the main contractor is to develop and provide by a specialist a clear strategy for the management of construction traffic and personel and school traffic/pedestrians during the construction works.	1	Item			
D	Access through the existing occupied school grounds is strictly forbidden; it is the responsibility of the contractor to ensure that all subcontractors, suppliers, visitors and others are made aware of the construction site access and do not enter the school grounds.	1	Item			
E	Tenderers must visit the site and ascertain the facilities for access thereto. They shall be understood to have acquainted themselves with the nature of the site, the existing school buildings and all adjacent buildings to the site and all other things insofar as they may have any connection with or affect the works. Tenderers must take all of the above into account when tendering and no claims for extras will be allowed in consequence of the failure to do this. Tenderers must make arrangements to visit the site by appointment with the employer or employer's representative.	1	Item			
	<u>Restrictions on Access</u>					
F	The school experiences high levels of traffic and pedestrian movements particularly during break times, and school drop-off and pick-up times. A Construction Traffic Management Plan shall be prepared to detail how the transport and delivery / removal of all construction plant, equipment and materials to and from the site shall be organised to minimise the impact of the works on the school, the locality, the environment, and other road users. The Contractor shall make every effort to avoid causing traffic congestion. This shall be achieved by arranging deliveries to and from the site during off-peak school traffic times. The Construction Traffic Management Plan is subservient to the school traffic management plan and due consideration must be paid to the needs of the school at all times.	1	Item			
G	School and construction traffic are to be separate at all stages of construction. Construction Traffic shall not park in the vicinity of the existing school buildings, or Castletown Road or Mill Road. It is the responsibility of the Contractor to inform all subcontractors and suppliers of this restriction. This should be fully coordinated with the school before works commence.	1	Item			
				To Collection €		

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	1. PRELIMINARIES PARTICULARS (Cont)					
A	All deliveries shall be outside of peak dropping off and collection times for pupils.	1	Item			
B	The contractor is fully responsible for Construction Management Plan and must ensure that all deliveries are coordinated and managed to ensure there is no queuing within the public roadways, and pedestrian footpaths and access routes are maintained at all times.	1	Item			
C	The existing school emergency exits and entrances shall be maintained throughout the construction period.	1	Item			
D	The contractor shall implement a road cleaning regime for the duration of the works, including wheel-washing facilities for vehicles entering and exiting the site. The frequency of cleaning is the Contractor's responsibility and shall be included in the Construction Management Plan to be issued to the ER and Local Authority prior to works commencing.	1	Item			
	Position of the Works					
E	The position of the works are indicated on the Architects Proposed Site Plan Drawing No. 1241/P-T/01 "Site Plan"	1	Item			
	Existing Buildings and Services					
F	The existing School buildings (on site), neighbouring school (St. Louis Secondary School) and residential buildings (adjacent to the site) may be seen by visiting the site.	1	Item			
G	The existing school is to be maintained throughout the duration of the works - Services connections must be maintained by the contractor in all employer occupied areas for the duration of the works.	1	Item			
H	A Ground Penetrating Radar Survey of the site has been completed which shows the extent of existing underground services - the survey is included in Appendix 3 of the ITT- Information Pack.	1	Item			
J	It is the contractor's responsibility to verify the location of all services as necessary prior to the carrying out of works, by way of a GPR survey or other means deemed appropriate.	1	Item			
K	The Contractor shall liaise with the existing school to ensure all existing services are maintained at all times, in particular where final connections to the diversion of existing services need to be completed. Final Connections shall take place outside of normal school hours, to avoid the loss of service to the school.	1	Item			
L	During the construction phases of the project method statements are to be prepared by the Contractor with regards to services tie ins, locations and the erection of hoardings and temporary security fencing and access to existing buildings to carry out necessary works. These method statements must be issued in a timely manner and in accordance with the Contract, for review and approval by the Employer's Representative.	1	Item			
				To Collection €		

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	1. PRELIMINARIES PARTICULARS (Cont)					
	Adjacent / Abutting Structures					
A	Where the works involve works and hoarding outside the boundary of the site, the Contractor is to include making good the existing public paths, public roads, grass and planted areas on the adjacent lands within the area of the works. The contractor shall liaise with the council, owners of the lands and affected local residents when this work is being undertaken, to minimise disruption to the local area.	1	Item			
B	A full condition survey of the existing building shall be undertaken prior to commencement and issued to the ER for record.	1	Item			
C	A full dilapidation survey of all surrounding land including site boundaries shall be undertaken prior to commencement and issued to the ER for record.	1	Item			
D	The contractor shall liaise with the adjacent landowners when undertaking the work to minimise disruption.	1	Item			
	1.3 Drawings and other documents					
	Drawings and other documents used for the preparation of this bill of quantities are:					
E	Documents contained in Volume A - Works Requirements	1	Item			
	Project Particulars & General Conditions					
F	Provide for any costs arising from complying with items given in Volume A1 - Project Particulars	1	Item			
	Drawings - Copies					
G	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			
	Pricing Documents					
H	The basis of measurement is the Agreed Rules of Measurement, Issue Four 2010 (ARM4) and ARM 4 Supplement 1, agreed between the Construction Industry Federation and the Society of Chartered Surveyors Ireland.	1	Item			
J	Mechanical & Electrical Works measured in accordance with The Agreed Rules of Measurement 4 to Supplement 2	1	Item			
K	Tendering Contractors are referred to the General Rules section of ARM 4 Supplement 1 (Issue 1 2010) and the ARM Standing Committee Notice of Amendments to ARM 4, Supplement 2 dated 15th November 2019 used in the production of Volume C Pricing Document.	1	Item			
L	Tenders must be priced in accordance with section 5.7 of the Instructions to Tenderers issued with this tender	1	Item			
				To Collection €		

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	1. PRELIMINARIES PARTICULARS (Cont)					
A	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			
B	Unbalanced Tenders will be dealt with in accordance with section 8.2 of the Instructions to Tenderers issued with this tender	1	Item			
C	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			
D	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			
E	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			
F	The tendering contractor must comply with the rules set out in the Instructions to Tenderers when completing Volume C - Pricing Document	1	Item			
	Generic Names / Performance Requirements / Proprietary Names					
G	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			
H	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			
J	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			
K	If the Contractor wishes to propose an "equivalent" product to that specified, they must follow the following procedures:	1	Item			
L	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			
M	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			
				To Collection €		

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	1. PRELIMINARIES PARTICULARS (Cont)					
A	c) The ER's approval of the "equivalent" must be issued in writing prior to the works commencing	1	Item			
B	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			
				To Collection €		

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1. PRELIMINARIES PARTICULARS (Cont)					
COLLECTION					
Page No. Preliminaries/1					
Page No. Preliminaries/2					
Page No. Preliminaries/3					
Page No. Preliminaries/4					
Page No. Preliminaries/5					
Page No. Preliminaries/6					
Page No. Preliminaries/7					
Page No. Preliminaries/8					
1. PRELIMINARIES PARTICULARS **Carried to Summary**					

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	2. CONTRACT					
	2. CONTRACT					
	2.1 Form, type and conditions of contract					
	Form, type and conditions of contract					
	The Form of Conditions set out in the Public Works Contract for Minor Building and Civil Engineering Works designed by the Employer with a cited revision reference commencing with v2 published on http://https://cwmf.gov.ie/en/pillars/pillar-1/pw-cf5/ on the date 10 days before the latest date for receipt of Tenders (disregarding any amendements posted on that date).					
	Articles of Agreement					
A	Agreement A2	1	Item			
	Conditions of Contract - clause headings					
	1. THE CONTRACT					
B	1.1 Definitions	1	item			
C	1.2 Interpretation	1	item			
D	1.3 Inconsistencies	1	item			
E	1.4 Pricing Document and Works Proposals	1	item			
F	1.5 Performance Bond	1	item			
G	1.6 (not used)	1	item			
H	1.7 Joint Ventures	1	item			
J	1.8 Assignment	1	item			
K	1.9 Miscellaneous	1	item			
L	1.10 Background Information	1	item			
	2.0 THE LAW					
M	2.1 Law governing the Contract	1	item			
N	2.2 Compliance with Legal Requirements	1	item			
P	2.3 Consents	1	item			
Q	2.4 Project Supervisor	1	item			
R	2.5 Safety, Health and Welfare at Work Act 2005 and Safety, Health and Welfare at Work (Construction) Regulations 2013	1	item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	2.6 Ethics in Public Office	1	item			
B	2.7 Data Protection	1	item			
	3.0 LOSS, DAMAGE AND INJURY					
C	3.1 Employer's Risks of Loss and Damage to the Works	1	item			
D	3.2 Care of the Works	1	item			
E	3.3 Insurance of the Works and Other Risk Items	1	item			
F	3.4 Contractor's Indemnity	1	item			
G	3.5 Employer's Indemnity	1	item			
H	3.6 Public Liability and Employer's Liability Insurances	1	item			
J	3.7 Professional Indemnity Insurance	1	item			
K	3.8 Existing Facilities and Use or Occupation by Employer	1	item			
L	3.9 General Requirements Concerning Insurance	1	item			
M	3.10 Limitation of Liability	1	item			
	4.0 MANAGEMENT					
N	4.1 Co-operation	1	item			
P	4.2 Contractor's Representative and Supervisor	1	item			
Q	4.3 Employer's Representative	1	item			
R	4.4 Employer's Representative's Communications	1	item			
S	4.5 Instructions	1	item			
T	4.6 Works Proposals	1	item			
U	4.7 Required Contractor Submissions	1	item			
V	4.8 (not used)	1	item			
W	4.9 Programme	1	item			
X	4.10 Progress Reports	1	item			
Y	4.11 Notice and Time for Employer's Obligations	1	item			
Z	4.12 Documents	1	item			
AA	4.13 Contractor's Management	1	item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	4.14 Communications	1	item			
B	4.15 Meetings	1	item			
C	4.16 Confidentiality and Secrecy	1	item			
D	4.17 Contractor's Things Not to be Removed	1	item			
E	4.18 Contractor's Documents	1	item			
	5.0 CONTRACTOR'S PERSONNEL					
F	5.1 Contractor's Personnel to carry out Contractor's Obligations	1	item			
G	5.2 Qualifications and Competence	1	item			
H	5.3 Pay and Conditions of Employment	1	item			
J	5.4 Subcontractors and Specialists	1	item			
K	5.5 Collateral Warranties	1	item			
L	5.6 Removal of Work Persons	1	item			
M	5.7 Weekly Labour Records	1	item			
N	5.8 Ancillary Certificates	1	item			
	6.0 PROPERTY					
P	6.1 Ownership of Work Items	1	item			
Q	6.2 Infringement of Property Rights	1	item			
R	6.3 Works Requirements	1	item			
S	6.4 Rights in Contractor's Documents	1	item			
	7.0 THE SITE					
T	7.1 Lands made available for the Works	1	item			
U	7.2 Trespassers	1	item			
V	7.3 Contractor Responsible for all Site Operations	1	item			
W	7.4 Services for Employer's Facilities	1	item			
X	7.5 Security and Safety of the Site and Nuisance	1	item			
Y	7.6 Other Contractors	1	item			
Z	7.7 Setting Out the Works	1	item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	7.8 Archaeological Objects and Human Remains	1	item			
B	7.9 Access and Facilities	1	item			
C	7.10 (not used)	1	item			
D	7.11 (not used)	1	item			
E	7.12 Charges	1	item			
	8.0 QUALITY, TESTING AND DEFECTS					
F	8.1 Standards of Workmanship and Works Items	1	item			
G	8.2 Quality Assurance	1	item			
H	8.3 Inspection	1	item			
J	8.4 Tests	1	item			
K	8.5 Defects	1	item			
L	8.6 Defects Period	1	item			
M	8.7 Defects Certificate	1	item			
	9.0 TIME AND COMPLETION					
N	9.1 Starting Date	1	item			
P	9.2 Suspension	1	item			
Q	9.3 Delay and Extension of Time	1	item			
R	9.4 Programme Contingency	1	item			
S	9.5 Omissions and Reduction of Time	1	item			
T	9.6 Substantial Completion	1	item			
U	9.7 (not used)	1	item			
V	9.8 Liquidated Damages	1	item			
	10.0 CLAIMS AND ADJUSTMENTS					
W	10.1 Compensation Event	1	item			
X	10.2 Contractor to Pay Employer's Cost of Checking Quantities	1	item			
Y	10.3 Contractor Claims	1	item			
Z	10.4 Proposed Instructions	1	item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	10.5 Employer's Representative's Determination	1	item			
B	10.6 Adjustments to the Contract Sum	1	item			
C	10.7 Delay Cost	1	item			
D	10.8 (Not used)	1	item			
E	10.9 Employer's Claims	1	item			
	11.0 PAYMENT					
F	11.1 Interim Payment	1	item			
G	11.2 Unfixed Works Items	1	item			
H	11.3 Retention	1	item			
J	11.4 Full payment	1	item			
K	11.5 Final Statement	1	item			
L	11.6 Time for Payment and Interest	1	item			
M	11.7 Value Added Tax	1	item			
N	11.8 Withholding Tax	1	item			
	12.0 TERMINATION					
P	12.1 Termination on Contractor Default	1	item			
Q	12.2 Consequences of Default Termination	1	item			
R	12.3 Suspension by the Contractor	1	item			
S	12.4 Termination by the Contractor	1	item			
T	12.5 Termination at Employer's Election	1	item			
U	12.6 Consequences of Termination by Contractor or at Employer's Election	1	item			
V	12.7 Survival	1	item			
W	12.8 Payment	1	item			
X	12.9 Reference to Conciliation	1	item			
	13.0 DISPUTES					
Y	13.1 Conciliation	1	item			
Z	13.2 Adjudication	1	item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	13.3 Arbitration	1	item			
B	13.4 Jurisdiction	1	item			
C	13.5 Agent for Service	1	item			
D	13.6 Continuing obligations	1	item			
	14.0 COVID-19 MADATORY CLOSURE					
E	14.1 Covid-19 Definitions	1	item			
F	14.2 Covid-19 General Provisions	1	item			
G	14.3 Covid-19 Costs	1	item			
	15.0 PRICE VARIATION					
H	15.1 Definitions	1	item			
J	15.2 Contract Sum Adjustments	1	item			
K	15.3 Proportions	1	item			
L	15.4 Change in Law	1	item			
M	15.5 Failure to Commence by the Start Date	1	item			
N	15.6 Failure to Complete on Time	1	item			
P	15.7 Excluded Amounts	1	item			
Q	15.8 Revisions to the Index Figures	1	item			
R	15.9 Permitted Increases and Permitted Decreases for Material Categories and Fuel Categories	1	item			
S	15.10 Adjustments for Labour	1	item			
T	15.11 Efficiency	1	item			
	APPENDICES TO CLAUSE 15					
U	Appendix 1 Definitions	1	item			
V	Appendix 2 Permitted Increases and Permitted Decreases for Materials and Fuel	1	item			
W	Appendix 3 Labour	1	item			
				To Collection €		

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	2. CONTRACT (Cont)					
	THE SCHEDULE - PART 1					
A	A. Employer's Representative and Communications	1	item			
B	B. Documents	1	item			
C	C. Project Supervisor	1	item			
D	D. Insurance	1	item			
E	E. Performance Bond	1	item			
F	F (i). Collateral Warranties	1	item			
G	F (ii). Ancillary Certificates	1	item			
H	F (iii). Named Specialists	1	item			
J	G. Dates for Substantial Completion, Sections, Liquidated Damages, Retention	1	item			
K	H. Early Completion	1	item			
L	I. Defects Period	1	item			
M	J. Random Checks for Employment Records	1	item			
N	K. Delay Events, Compensation Events, Programme Contingency, Delay Costs, Adjustments	1	item			
P	L. Payment Particulars	1	item			
Q	M. Cap on Liability	1	item			
R	N. Conciliation, Adjudication and Arbitration	1	item			
S	O. Rights in Contractor's Documents	1	item			
T	P. Material Categories	1	Item			
U	The completed Schedule Part 1 of the contract is contained within Volume B. Provide herin if not included elsewhere for complying in all respects with the schedule & conditions as described.	1	Item			
	<u>The insertions in the Schedule Part 1 are</u>:					
	<u>A. Employer's Representative and Communications</u>					
	Sub-clauses 4.3 and 4.14					
	Notices under clauses 12 and 13 to be sent to					
	Chairperson of the Board of Management, De La Salle College					
				To Collection €		

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2. CONTRACT (Cont)					
Castleblayney Road, Dundalk, Co. Louth					
Other notices to the Employer to be sent to					
Ms. Magda Michalak-Dobros, McGahon Architects					
19 Jocelyn Street, Dundalk, Co. Louth, A91HPX2					
Phone: 00353 42 933 46 77					
Email: magda@mcga.ie					
The Employer's Representative is: Ms. Magda Michalak-Dobros (McGahon Architects)					
Notices to the Employer's Representative to be sent to					
Ms. Magda Michalak-Dobros, McGahon Architects					
19 Jocelyn Street, Dundalk, Co. Louth, A91HPX2					
Phone: 00353 42 933 46 77					
Email: magda@mcga.ie					
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.					
B. Documents					
Works Requirements are:					
As Scheduled in Volume A Works Requirements					
Pricing Document is:					
A Bill of Quantities measured in accordance with the: Agreed Rules of Measurement 4, Supplement 1 as included in Volume C.					
Mechanical & Electrical works measured in accordance with The Agreed Rules of Measurement 4 to Supplement 2					
Works Proposals are:					
None					
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	2. CONTRACT (Cont)					
	C. Project Supervisor (Sub-clause 2.4)					
	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.					
	D. Insurance (Sub-clause 3)					
A	Insurance of the works: minimum amount insured for professional fees 12.5% of the Contract Sum	1	item			
B	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			
C	Minimum indemnity limit for Employers' liability insurance: €13,000,000 for any one event	1	item			
D	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			
E	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			
F	There is no excess permitted for Employers' liability insurance.	1	item			
	Permitted exclusions from all Insurances					
G	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			
H	Pressure waves caused by aircraft or other airborne objects travelling at sonic or supersonic speeds	1	item			
J	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			
K	Terrorism	1	item			
L	Asbestos	1	item			
	Permitted exclusions from insurance of the Works and other Risk Items:					
M	Use or occupation of the Works by the Employer except in connection with the Works	1	item			
N	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			
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	2. CONTRACT (Cont)					
A	Wear, tear, normal upkeep or normal repair or gradual deterioration	1	item			
B	Inventory losses	1	item			
C	Loss of use or any consequential loss of any nature including penalties for delay, non-completion or non-compliance	1	item			
D	Failure of information technology	1	item			
E	Mechanical or electrical breakdown but not resulting damage	1	item			
F	Cessation of the Works for more than 3 months	1	item			
	Permitted exclusions from public liability insurance:					
G	Persons under a contract of service or apprenticeship with the insured	1	item			
H	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			
J	Defective workmanship or materials but not resulting damage	1	item			
K	Mechanically propelled vehicles within the meaning of the Road Traffic Acts	1	item			
L	Loss or damage due to design	1	item			
M	Gradual pollution or contamination	1	item			
N	Territorial limits	1	item			
P	Unless otherwise specified in the Works Requirements, aircraft and waterborne craft	1	item			
Q	Fines, penalties, liquidated damages	1	item			
	Permitted exclusions from employer's liability insurance:					
R	Offshore work	1	item			
S	Liability compulsorily insurable under the Road Traffic Acts	1	item			
	Permitted exclusions for professional indemnity insurance:					
T	Persons under a contract of service or apprenticeship with the insured	1	item			
U	Ownership, use, occupation or leasing of mobile or immobile property	1	item			
V	Effecting or maintenance of insurance of or in connection with the provision of finance or advice on financial matters	1	item			
W	Dishonest, malicious, criminal or deliberate illegal acts	1	item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	Libel and slander	1	item			
B	Insolvency	1	item			
C	Fines, penalties, liquidated damages or any penal, punitive, exemplary, non-compensatory or aggravated damages	1	item			
D	Failure of information technology	1	item			
E	Contractual liability that would not apply in the absence of the contract	1	item			
	Optional insurance provisions					
F	Sub-clause 3.8 shall apply.	1	item			
G	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			
H	If insurance of the Works and other Risk Items is to include terrorism cover, the minimum sum insured shall be: €0.00	1	item			
J	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			
K	Required extensions to Insurance: N/A	1	item			
L	Professional Indemnity Insurance is required	1	item			
M	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			
N	If required the minimum indemnity limit for professional indemnity insurance shall be €500,000 annual aggregate limit	1	item			
P	The maximum excess shall be the greater amount of 2% of the Contractor's annual turnover or €5,000.	1	item			
	E. Performance Bond (Sub-clause 1.5)					
	A performance bond is required					
Q	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			
				To Collection €		

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	2. CONTRACT (Cont)					
	F(i). Collateral Warranties (Sub-clause 5.5)					
	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:					
A	Not applicable	1	item			
	F(ii). Ancillary Certificates (Sub-clause 5.8)					
	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:					
B	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			
	F(iii). Named Specialists (Sub-clause 5.4)					
C	Not applicable	1	item			
	G. Dates for Substantial Completion, Sections, Liquidated Damages, Retention					
	The Works					
D	Date for Substantial Completion: Last day of 78 Weeks (18 months) period starting on the Contract Date	1	item			
E	Rate of Liquidated Damages: €10,000.00 per week	1	Item			
	H. Early Completion (Sub-clause 9.6)					
F	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. Defects Period					
G	The initial Defects Period is one year from the date of Substantial Completion of the Works	1	Item			
	J. Random Checks for Employment Records					
H	Sub-clause 5.3.3A(2) shall be part of the contract	1	Item			
	K. Delay Events, Compensation Events, Programme Contingency, Delay Costs, Adjustments (Sub-clauses 9.3,9.4, 10.1, 10.6, 10.7)					
J	Event Nr 17 (Compensation Event - Yes)	1	item			
K	Event Nr 18 (Compensation Event - Yes)	1	item			
L	Event Nr 19 (Compensation Event - Yes)	1	item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	Event Nr 20 (Compensation Event - Yes)	1	item			
B	Event Nr 21 (Compensation Event - Yes)	1	item			
C	Weather station for measurement of weather events: Dublin Airport weather station	1	item			
D	An order or other act of a court or other public authority exercising authority under Law includes a Covid-19 Mandatory Closure.	1	item			
	In Sub-clause 9.4					
E	The programme contingency is 25 Site Working Days of delay caused by Compensation Events	1	item			
F	In Sub-clause 10.6.4(3), the rates to be used to determine the cost of plant are the rates in: Not applicable	1	item			
	Modified as follows:					
G	Rates will be treated as if in euro and any rates in the Pricing Document	1	item			
	In sub-clause 10.7, the amount to be added for delay cost is in accordance with sub-clause 10.7.1(2) the daily rate tendered by the Contractor in the Schedule, part 2D					
H	For the purposes of sub-clause 10.7, the Contractor is to tender in part 2D a single daily rate for delay costs	1	item			
	L. Payment Particulars (Clause 11)					
J	Period for interim payment is: Monthly	1	Item			
K	Minimum amount for interim payments, except release of retention, €5,000.00	1	Item			
L	Up to the percentage stated below of the Contract value of the following unfixed Works Items may be included in an interim payment in accordance with sub-clause 11.2:	1	Item			
M	On-Site Materials % of Contract value: 90%	1	Item			
N	Off-Site Materials with Bond % of Contract value: 90%	1	Item			
P	The retention percentage is 3%	1	Item			
	M. Cap on Liability (Sub-clause 3.10)					
	Subject to sub-clause 3.10.2 of the Conditions of Contract, the monetary amount of the Contractor's liabilty to the EMployer under or arising out of this Contract shall not exceed the amount stated below:					
Q	€Amount equal to Contract Sum	1	Item			
				To Collection €		

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	2. CONTRACT (Cont)					
	N. Conciliation, Adjudication and Arbitration (Sub-clauses 13.2, 13.3 and 13.4)					
A	Failing agreement, the conciliator (or Standing Conciliator) will be appointed by: The President of the RIAI	1	item			
B	The arbitration rules are the Capital Works Management Framework (CWMF) Arbitration Rules for use with Public Works and Construction Services Contracts (AR1)	1	Item			
C	The person or body to appoint the arbitrator, if not agreed by the parties, is The President of the RIAI	1	Item			
D	The person to appoint the adjudicator, if not agreed by the parties is Chairperson of the Panel of Adjudicators	1	Item			
	O. Rights in Contractor's Documents (Sub-clause 6.4)					
E	Copyright and all other rights in the following Contractor's Documents and Works Proposals described in sub-clause 6.4.2 transfers to the Employer in accordance with sub-clause 6.4: Nil	1	Item			
	P. Material Categories (sub-clause 15.9.1)					
F	Table 1B (All Materials Category only) applies.	1	Item			
	STATUTORY COMPLIANCE					
	Planning					
G	The Contractor is required to comply with the planning permission(s) that are applicable to the Works including compliance in full with all conditions attached to the permissions. Refer to Grant of Planning Permission included in the Information Pack (Appendix 3 to ITT) - Final Grant Order No.:21/558 Dated 10th May 2021 and include for any costs arising out of the conditions listed therein.	1	Item			
	Fire Safety					
H	The Contractor is required to comply with the Fire Safety Certificates(s) that are applicable to the Works including compliance in full with all conditions attached to these certificates.	1	Item			
J	The Contractor is solely responsible for all the costs required to comply with such conditions.	1	Item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	The contractor shall engage a third party fire safety certifier to provide Ancillary Inspection Completion Certificate (SI RIAI ACI 02) under SI 09 in relation to all of the construction elements of the building relating to Fire Safety and Compliance with Building Regulations Part B and the granted Fire Safety Certificate	1	Item			
	Inspect & photograph each and every element of fire protection during construction:					
B	Provide a detailed report and photographic log upon completion with interim reports at each fortnightly site meeting.	1	Item			
C	Provide Cs Cert for the supply & installation of the fire stopping.	1	Item			
	Disability Access Certificates (DAC)					
D	The Contractor is required to comply with the DAC(s) that are applicable to the Works including compliance in full with all conditions attached to these certificates.	1	Item			
E	The Contractor is solely responsible for all the costs required to comply with such conditions.	1	Item			
	Building Control (Amendment) Regulations 2014					
F	Please note that all references to 'Builder' refer to the Main Contractor		note			
G	The Contractor shall provide Certificates as required by The Building Control (Amendment) Regulations 2014, and shall comply with The Building Control (Amendment) Regulations 2014, and shall comply with The Code of Practice for Inspection and Certification issued by the Department of Environment, Community, and Local Government.	1	Item			
H	The Contractor shall be responsible for the serving of and compliance with all notices and the like required under the Building Control Act 1990, the current Building Regulations and the Building Control (Amendment) Regulations 2014 in connection with the execution of the works.	1	Item			
J	The Contractor shall comply with all Building Regulations over which he has control. The Main Contractor shall at Substantial Completion provide written confirmation signed by a Director of his company that he has so complied.	1	Item			
	1.0 Contract Requirements					
K	1.1 The Builder shall cooperate with the Assigned Certifier (AC) through the Employers Representative (ER) and coordinate the notifications and inspections	1	Item			

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	2. CONTRACT (Cont)					
A	1.2 The Builder to provide all confirmations and / or documentation required for Interim & Final Certificate for Payments	1	Item			
B	1.3.1 No claims for delay and/or additional expense will be entertained under the contract due to delays by the builder in notifying all inspections	1	Item			
C	1.3.2 No claims for delay and/or additional expense will be entertained under the contract due to delays in completing builders inspections	1	Item			
D	1.3.3 No claims for delay and/or additional expense will be entertained under the contract due to delays caused by re-inspections or provision of records	1	Item			
E	1.3.4 No claims for delay and/or additional expense will be entertained under the contract - Contractor to use best endeavours to minimise any delays in inspection	1	Item			
F	1.3.5 No claims for delay and/or additional expense will be entertained under the contract - The Employer may employ and pay other persons to provide such records, certificates or confirmations and all costs incurred in connection therewith sall be recoverable from the Builder	1	Item			
G	1.4 Phased Construction: Section Completion - The Builder shall promptly provide the documentation set out in detail of this document for each individual phase or section of the works that is identified in the Preliminary Inspection Plan and Inspection Notification Framework. This school is to be constructed in two parts with sectional handover of the first part prior to commencement of construction of the second adjoining part. It will be necessary to complete BC(A)R separately for each section of the building.	1	Item			
	2.0 Builder (Main Contractor) Obligations All of the obligations in this document are deemed to form part of the works requirements/ building contract and are to be included in the Builders tender costs. The Builder shall cooperate and coordinate with the Assigned Certifier and shall confirm and /or provide the following:					
H	1. that they accept from the Building Owner the assignment to build and supervise the building or works and provide/sign the statutory forms (see Appendices A) identified in the Commencement Notice	1	Item			
J	2. that they have familiarised themselves with the drawings, specifications and documents lodged with the Commencement Notice	1	Item			
K	3. Agree the execution, Inspection milestones, sequence and programme of works with the CA/ ER & Assigned Certifier in advance of commencement of works	1	Item			
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	2. CONTRACT (Cont)					
A	4. ensure Competent Person(s) are assigned to oversee the general construction works and/or specialist works. The specialist works and associated Assigned Certifiers which the Builder is responsible for are identified on a preliminary basis in the Inspection Notification Framework issued at tender	1	Item			
B	5. that they will co-operate at all times with the CA/ER, design team, the Assigned Certifier and other Ancillary Certifiers	1	Item			
C	6. ensure that the workmanship complies with the requirements of the Building Regulations	1	Item			
D	7. ensure that materials which they select and for which they are responsible comply with the requirements of the Building Regulations	1	Item			
E	8. Confirmation with documentation is provided at interim certificate stage if requested by the AC via the CA/ER	1	Item			
F	9. Provide a signed statutory form- Certificate of Compliance on Completion at handover	1	Item			
G	10. Promptly provide to the Assigned Certifier, via the CA/ER, all documents requested by the Assigned Certifier to enable the Assigned Certifier to collate particulars for the purposes of handover and certification, and/or for further submissions to the Building Control Authority	1	Item			
H	11. ensure the coordination and provision of all test certificates and confirmations to the Assigned Certifier via the ER/CA, to the satisfaction of the Assigned Certifier	1	Item			
J	12. co-ordinate the work of all specialist sub-contractors and designers to ensure the coordination and provision of all test certificates and confirmations to the designated inspectors, or Ancillary Certifiers, who are required to provide Ancillary Completion Certificates, as identified by the Assigned Certifier at any stage during the project. Refer to Works Requirements for list of Ancillary Certificates required.	1	Item			
K	13. ensure the coordination and provision of all test certificates and confirmations to the Assigned Certifier via the ER/CA, to the satisfaction of the Assigned Certifier	1	Item			
L	14. co-ordinate the work of all specialist sub-contractors and designers to ensure the coordination and provision of all test certificates and confirmations to the designated inspectors, or Ancillary Certifiers	1	Item			
M	15. Maintain records as detailed in the Works Requirements	1	Item			
N	16. Comply with the detailed requirements of the Preliminary Inspection Plan and Inspection Notification Framework as issued at tender, and as updated	1	Item			
P	17. Provide/furnish Ancillary Completion Certificates to the Assigned Certifier via the CA/ER for specialist works with design	1	Item			
				To Collection €		

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	2. CONTRACT (Cont)					
A	18. Co-operate with the Assigned Certifier, in the lodgement of supplementary documentation to the Building Control Authority during the course of the works	1	Item			
B	19. Incomplete design work or specialist design that is not available for submission at commencement stage can be submitted to the Building Control Authority at a later stage	1	Item			
C	20. Between 3-5 weeks in advance of a nominated completion date, provide all completed or prospective documentation and confirmations for which the Builder is responsible for, to the Assigned Certifier.	1	Item			
	3.0 Statutory BC(A)R Assigment & Certificate Forms					
D	3.1 In advance of the commencement of the works, in addition to and accompanying the commencement Notice, there are 2 statutory assignments and 3 statutory certificate's to be completed on-line using the Building Control Management System on-line system. The format for these are as per the Second Schedule, SI 9 2014. At completion, a 4th statutory certificate is completed on-line using the Building Control Management System on-line system. The format for these are as per the Second Schedule, SI 9 2014.	1	Item			
E	3.2. The two assignments, A1 and A2 as follows are submitted with the Commencement Notice; A.1) Notice of Assignment of Assigned Certifier (Notice of Assignment of Person to Inspect and Certify Works); A.2) Notice of Assignment of Builder	1	Item			
F	3.3 There are three statutory certificates F1, F2, F3 as follows to be submitted by the Building Owner with the Commencement Notice; F1) Design Certificate (Form of Certificate of Compliance-Design); F2) Undertaking by Assigned Certifier (Form of Certificate of Compliance); F3) Undertaking by Builder (Form of Certificate of Compliance)	1	Item			
G	3.4 The fourth statutory certificate, F4 is co-signed by the Assigned Certifier and Builder and submitted at project completion. F4) Certificate of Compliance on Completion	1	Item			
H	3.5 No works shall commence on site until a valid Commencement Notice, including all the associated uploaded documentation, has been submitted to, and successfully registered by the Building Control Management System.	1	Item			
	4.0 Ancillary Certifiers & Ancillary Completion Certificates					
J	4.1. The Builder shall co-coordinate the work of all specialist sub-contractors and all specialist subcontractors with design	1	Item			
K	4.2. The Builder shall coordinate the work of all the Ancillary Certifiers	1	Item			
L	4.3. Post Tender and prior to the issue of the Commencement Notice and subsequently as the works proceed, the Builder shall coordinate the notification of inspections and records with the Assigned Certifier and the Ancillary Certifiers in accordance with the Inspection Notification Framework	1	Item			
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	2. CONTRACT (Cont)					
A	4.4. The forms of Ancillary Completion Certificate to be used are included in the Tender Documentation	1	Item			
	5.0 Builder (Main Contractor) and Specialist Sub-Contractor Supervision					
B	5.1. The Contractor shall ensure that there are at all times on the site sufficiently suitably qualified, experienced and competent staff to supervise all work carried out under the contract	1	Item			
C	5.2. Supervision of the works shall always be the responsibility of the Builder and where relevant, the specialist Sub-Contractor (s).	1	Item			
D	5.3. Supervisors shall be provided both on and off the site that shall instruct the Sub- Contractor's tradesmen	1	Item			
E	5.4. Undertake all work with skill and care in order to produce work fit for its intended purpose and of good quality under the direct supervision	1	Item			
F	5.5. Sub-Contract pre-installation meetings shall be organised by the builder with the CA/ER, Assigned Certifier, Specialist Sub-Contractor, and Manufacturer's representatives, The Builder shall keep records of all such meetings	1	Item			
G	5.6. the Sub-Contractor shall notify the Builder the names of his appointed supervisors. No work shall be carried out unless one of the appointed supervisors is present	1	Item			
H	5.7. All work shall be carried out in accordance with the terms and requirements of the works requirements and approved submissions and samples.	1	Item			
J	5.8. The Architect or Assigned Certifier shall, if required, make random or periodic visits to suppliers premises to ensure that standards of manufacture and quality control are to their satisfaction.	1	Item			
	6.0 The Preliminary Inspection Plan					
K	6.1. The Preliminary Inspection Plan is a statutory document prepared by the Assigned Certifier that is has to be submitted to the Building Control Authority by the Employer with the Commencement Notice a minimum of 2 weeks and a maximum of 4 weeks in advance of the commencement of the works. At project completion the Inspection Plan as implemented is submitted to the Building Control Authority.	1	Item			
L	6.2. It is the responsibility of the Builder to employ competent persons to supervise the works. The inspection plan shall not in any way diminish the duty of the Builder to properly supervise, and any defective works, whether identified during or after the contract period, remain the sole responsibility of the Builder.	1	Item			
M	6.3. The Builder shall include with his tender submission a Method Statement and his own Preliminary Inspection Plan indicating his own inspection and supervision regime.	1	Item			
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	2. CONTRACT (Cont)					
A	6.4. A copy of the Preliminary Inspection Plan is included within the Tender Documents	1	Item			
	7.0 The Inspection Notification Framework					
B	7.1. The Inspection Notification Framework identifies in detail and by trade/ stage and critical milestone what the Assigned Certifier, Builder, and Ancillary Certifiers (designers, specialist sub-contractors, suppliers, w/wo design) are required to inspect, when they are to inspect, and if records are required.	1	Item			
C	7.2. The Builder shall have regard to the Inspection Notification Framework issued at tender with respect to programming of the works.	1	Item			
D	7.3. The tenderers are to include for all costs associated with the INF	1	Item			
E	7.4 . The Builder shall coordinate the inspections and provision of records of the Ancillary Certifiers for which he is responsible	1	Item			
F	7.5. The Builder shall at tender submit an associated method statement identifying on a preliminary basis how the INF and Inspection Protocols will be achieved	1	Item			
G	7.6. Project Specific Identified Risk Elements	1	Item			
H	7.7. Project Specific Tests Requirements	1	Item			
	8.0 Inspection Protocols					
J	8.1. The inspection requirements set out in this document do not in any way relieve, replace, or reduce the builders duty to supervise the works.	1	Item			
K	8.2. Coordination of tests, inspections & records: (a) the appointed Builder shall meet and coordinate and update the Inspection Notification Framework and preliminary Inspection Plan with the builders construction programme. (b) The Preliminary Inspection Plan is updated to show the agreed inspection milestones. (c) all elements identified in the Inspection Notification Framework to be made available for inspection at each milestone complete, not concealed and safely accessible. (d) The Builder shall facilitate random inspections by the Assigned Certifier or Ancillary Certifiers as if such inspections were identified in the Inspection Notification Framework. (e) The Builder to provide in a timely manner all certificates and tests for materials, products and assemblies	1	Item			
L	8.3. Advance notice and time for inspections: (a) Due consideration shall be given by the Builder for inspection notices. No claims for extension of time or financial claims shall be considered for delays arising out of inspection or re-inspection requirements. (b) The Builder shall ensure advance notifications are issued with respect to works to be inspected that are identified in the Inspection schedule. The minimum advance notice required for inspection of items of works is 5 working days.	1	Item			
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	2. CONTRACT (Cont)					
A	8.4. Re-Inspections/Follow up inspections: (a) The minimum notice required for re-inspection of items of works not complete or requiring remedial works shall be 3 working days. (b) The Assigned Certifier shall without delay notify the Builder of any incomplete work at a given milestone identified in the Inspection Notification Framework. (c) The Builder shall diligently ensure that any incomplete areas of given milestones are completed and that such works are kept available for inspection again, or until a record of completion is furnished, as may by required by the Assigned Certifier.	1	Item			
B	8.5. The Builder shall diligently ensure that any areas of non compliance are rectified and that such works are kept available for inspection again, or until a record of rectification is furnished, as may by required by the Assigned Certifier. The Main Builder shall ensure all tests and certificates for materials, components and assemblies listed in the Inspection Notification Framework are undertaken in a timely way. Any test failure shall immediately be made known to the ER/AC, the materials/works in question shall be replaced/rectified and retested undertaken prior to proceeding with subsequent work. It is the responsibility of the Builder to coordinate and supervise the works and no claim for delay or cost shall arise from the requirement to re-inspect.	1	Item			
C	8.6. Non-Conformance: (a) Materials & Workmanship- contract clauses. (b) Contract /Works Requirements - contract clauses. (c) Missed Inspections - Ultimately they are recorded on the completed Preliminary Inspection Plan and registered with Building Control.	1	Item			
	9.0 Record Keeping (Builders Progress Records)					
D	9.1. The Builder shall maintain progress records and inspection records prepared by him prepared in accordance with the Method Statement submitted at tender as set out in this document.	1	Item			
E	9.2. The Tenderers shall include in their tender costs for the provision of progress records as the works proceed.	1	Item			
F	9.3. Method of Recording	1	Item			
G	9.4. Promptly provide a copy to the Assigned Certifier of all progress records and inspection records prepared by the Builder and the Ancillary Certifiers	1	Item			
H	9.5. At completion the Builder shall issue the AC a copy of the records prepared by the Builder and the Ancillary Certifiers.	1	Item			
J	9.6. The Builder shall also retain in his own central office all records prepared by the Builder and the Ancillary Certifiers for a minimum period of 6 years.	1	Item			
K	9.7 One hardcopy and/or softcopy of all records shall be issued 5 days in advance of the nominated completion date.	1	Item			
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	2. CONTRACT (Cont)					
A	9.8. The record should include evidence of the successful execution of the Builders method statement on supervision including tests, check sheets, photographs and memos. All evidence shall be indexed by location and date.	1	Item			
B	9.9. Acceptance of such records shall not constitute approval or imply that their content has been examined.	1	Item			
	10.0 Tender Submittal Requirements					
	The apparently successful tenderer shall submit the following documentation after tender. The submission of satisfactory documentation is precedent to the award of the contract.	1				
C	1.Builders Competence Assessment	1	Item			
D	2.Sub-Contractor/Specialist Competence (Ancillary Certifiers) Assessment	1	Item			
E	3.Builders Method Statement	1	Item			
	11.0 Completion					
F	11.1. Tenderers shall note that Substantial Completion for this contract is contingent upon the successful registration of the works on the Building Control Management System.	1	Item			
G	11.2. Tenderers shall note that this project shall require a Prior Notification of Completion to be submitted to the Building Control Authority in advance of completion.	1	Item			
H	11.3. The Builder shall provide 4/6 weeks in advance of the nominated completion date all completed and/or prospective documentation and confirmations for Registration. The Assigned Certifier and the Builder shall co-sign the Completion Certificate.	1	Item			
J	11.4. The Assigned Certifier and Builder shall then lodge/upload the documentation onto the Building Control Authority system.	1	Item			
K	11.5. Notwithstanding any statutory duty to retain same, in advance of project completion, the Builder shall issue to the Assigned Certifier a copy of all inspection records retained by the Builder during the course of the project.	1	Item			
L	11.6 Refer also to Sections 9 above for the project specific requirements for records and method for retaining records.	1	Item			
	12.0 Additional BC(A)R Requirements					
	Fire Protection Photographic Log					
				To Collection €		

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	2. CONTRACT (Cont)					
	Refer to the Volume A Works Requirements for the following required for the entire fire protection installation throughout: fire barriers, cavity barriers, intumescent pillows, fire protection to steel, firestopping (doors to walls, head of compartment walls, opes in compartment walls/ floors) (non exhaustive)					
A	Inspect & photograph each and every element of fire protection during construction:	1	Item			
B	Provide a detailed report and photographic log upon completion with interim reports at each fortnightly site meeting	1	Item			
C	Provide Cs Cert for supply & installation of firestopping	1	Item			
	Wall Ties Photographic Log					
D	Provide a detailed report and photographic log upon completion with interim reports at each fortnightly site meeting for the blockwork installation throughout. Report to update on ongoing measures to ensure quality of installation.	1	Item			
	COMPLIANCE WITH BUILDING CONTROL ACTS/ BUILDING REGULATIONS					
E	The Contractor shall comply with all applicable requirements of the Building Control Acts, Building Regulations and associated Technical Guidance Documents, including all current amendments. The Contractor shall allow for all costs associated with such compliance and shall provide and maintain on site, at its own expense, all relevant Technical Guidance Documents and other statutory guidance applicable to the Works.	1	Item			
F	On completion of the Works, the Contractor shall provide a certificate, in a form acceptable to the Employer's Representative and the Employer, confirming that the Works have been completed in compliance with all applicable Building Control legislation, Building Regulations and associated statutory requirements.	1	Item			
	CONSTRUCTION CONTRACTS ACT 2013					
G	The Contractor shall comply with all applicable requirements of the Construction Contracts Act 2013 and shall allow for all costs associated with such compliance. For the purposes of the Contract, the payment claim date shall fall within the final full calendar week of each month throughout the Contract period, up to the issue of the Certificate of Substantial Completion.	1	Item			
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	2. CONTRACT (Cont)					
	2.2 Contractor's liability					
A	The Contractor shall be responsible for all risks of injury to persons, loss of or damage to property, and loss of or damage to the Works arising out of or in connection with the execution of the Works, except to the extent otherwise provided for under the Contract.	1	Item			
B	Provide, maintain and keep in force for the duration required by the Contract all necessary Public Liability and Employer's Liability insurances. Public Liability insurance shall provide cover of not less than €6,500,000 for any one claim, and Employer's Liability insurance shall provide cover of not less than €13,000,000, or such other amounts as may be required by the Conditions of Contract.	1	Item			
C	Effect and maintain all other insurances required under the Conditions of Contract in respect of the Contractor's liabilities and risks arising from the execution of the Works.	1	Item			
D	Provide and maintain Contractors' All Risks insurance for the full reinstatement value of the Works, including materials, goods, temporary works and ancillary items, for the period and on the terms required by the Conditions of Contract.	1	Item			
E	The Contractor shall be responsible for any loss of or damage to adjoining property, existing buildings, services, roads, footpaths or other property arising from the execution of the Works. Provide all necessary protection, make good any damage caused at the Contractor's expense, and indemnify the Employer against claims arising therefrom, subject to the provisions of the Contract.	1	Item			
F	Prior to commencement of site clearance and excavation, submit details of the proposed arrangements for the removal and disposal of excavated material and waste arising from the Works. Waste shall only be transported by appropriately authorised carriers and disposed of or recovered at suitably authorised facilities in accordance with applicable waste and environmental legislation. Where required, submit details to the Planning Authority or other relevant statutory authority.	1	Item			
G	The prices and rates shall include for all costs associated with compliance with the Waste Management Act 1996, as amended, and all other applicable environmental legislation, including the segregation, handling, storage, transport, recovery and lawful disposal of waste arising from the Works.	1	Item			
H	All insurance policies provided in connection with the Works shall be effected with insurers authorised to provide the relevant class of insurance within the State and shall comply with the requirements of the Conditions of Contract.	1	Item			
J	All insurance policies shall remain valid and enforceable within the Republic of Ireland for the duration required under the Contract and shall be placed with appropriately authorised insurers.	1	Item			
K	Where insurance cover is required to continue beyond completion of the Works, the Contractor shall ensure that such cover remains in force for the period stated in the Contract and shall provide evidence of same when requested by the Employer or Employer's Representative.	1	Item			
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	2. CONTRACT (Cont)					
A	Where the Works include the handling, disturbance or removal of asbestos-containing materials, provide evidence that the Contractor and any relevant specialist subcontractor maintain appropriate Employer's Liability and Public/ Products/Pollution Liability insurance covering such activities. The required policies shall include the Employer and Main Contractor as additional insureds where required by the Contract and shall incorporate an appropriate non-vitiation provision.	1	Item			
	2.3 Insurance liability of Employer					
B	The Employer shall bear the risk of loss of or damage to its existing facilities and to those parts of the Works used or occupied by the Employer, in accordance with sub-clause 3.8 of the Conditions of Contract.	1	Item			
	2.4 Local Authority fees and charges					
C	Obtain all Local Authority approvals, licences, permits and consents necessary for the execution and completion of the Works, and comply with all conditions attaching thereto.	1	Item			
D	The Contractor shall be responsible for obtaining all Road Opening Licences, temporary road closure licences and any other approvals required for works outside the Site boundary affecting public roads, footpaths, verges or adjoining public areas. Provide all information, drawings, notices and other documentation required by Louth County Council and any other relevant authority.	1	Item			
E	Allow in the Contract Sum for all fees, charges, bonds, deposits and other costs associated with obtaining and complying with the Local Authority licences, permits and approvals required for the Works. The Contractor shall liaise with Louth County Council to ascertain the applicable requirements and charges.	1	Item			
F	The tendering Contractor shall inspect the Site and surrounding area and satisfy itself as to the nature and extent of any works required within the public domain. The Contractor shall make all necessary enquiries with Louth County Council to establish the applicable licensing requirements, fees and charges and shall include for same in the Tender.	1	Item			
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	2. CONTRACT (Cont)					
	2.5 Obligations and restrictions imposed by the Employer					
	a) Access to and possession or use of the site.					
	Construction Access					
A	The Contractor will be responsible for providing, maintaining and removing all required pedestrian and vehicles access and egress points to the Works in accordance with the phasing drawings, the Traffic Impact Assessment Report for each Site, planning permission conditions, the preliminary Health & Safety Plan, the Safety, Health and Welfare at Work (Construction) Regulations 2013 and the Health and Welfare at Work (General Application) Regulations 1993. The Contractor is also responsible for providing, maintaining and removing all traffic management for all users of the public road and all school-related traffic as required by the phasing and construction of the Works. The Contractor shall pay particular care to avoid delay especially to neighbours and to users of the public road, including, where necessary, scheduling of deliveries to site outside of peak traffic periods and school pick-up and drop-off times, routing of site-related vehicles to avoid residential areas and existing schools, and, liaising with neighbours, other construction sites in the area, Local Authority Traffic and Roads Departments and local Gardai. All of the above provisions, and all others considered necessary for the safe execution of the Works, shall be outlined in a Construction Traffic Management Plan, which shall be made available to the ER prior to commencement on Site, and, be revised and maintained as required during the course of the Works.	1	Item			
B	Allow for all costs associated with providing unrestricted access to the existing school building for the duration of the works by the Emergency Services, School staff and Pupils etc. and others whom require access to the school; provide necessary safe routes for both pedestrian and vehicular traffic; include for all necessary adjustment and maintenance of these routes to ensure the safety of all; include all making good work to areas disturbed	1	Item			
C	Refer to Architects Proposed Site Plan Drawing No. 1241/P-T/01 "Site Plan" and in particular the temporary road highlighted in green to be provided by the Contractor to provide access to the existing school. The Contractor should include a cost herein for same if not included elsewhere. No claims on the grounds of want of knowledge in this respect will be entertained whatsoever.	1	Item			
D	The proposed construction access to the site for the construction of the new school building will be via the entrance off Mill Road. The contractor shall erect a suitable secure solid hoarding min. 2.4m high to separate the construction site from the existing school which will remain in operation for the full duration of the proposed works. The existing vehicular and pedestrian access to the live school environment shall be maintained for the use of the school for the duration of the new school building construction.	1	Item			
E	All deliveries shall be outside of peak dropping off and collection times for pupils.	1	Item			
F	The existing school emergency exits and entrances shall be maintained throughout the construction period.	1	Item			

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	2. CONTRACT (Cont)					
	Construction Access Restrictions					
A	Construction Access is shown on the Architects Drawings and is to be described in the Contractor's method statement for Traffic Management of the Works. The area is to be maintained in a clean, safe, condition in full compliance with all applicable Health & Safety Regulations. The area is also to be secured against entrance by unauthorised persons including members of the public, adjoining residents, pupils, school staff etc.	1	Item			
B	The school experiences high levels of traffic and pedestrian movements particularly during break times, and school drop-off and pick-up times. A Construction Traffic Management Plan shall be prepared to detail how the transport and delivery / removal of all construction plant, equipment and materials to and from the site shall be organised to minimise the impact of the works on the school, the locality, the environment, and other road users. The Contractor shall make every effort to avoid causing traffic congestion. This shall be achieved by arranging deliveries to and from the site during off-peak school traffic times. The Construction Traffic Management Plan is subservient to the school traffic management plan and due consideration must be paid to the needs of the school at all times.	1	Item			
C	School and construction traffic are to be separate at all stages of construction. Construction Traffic shall not park in the vicinity of the existing school buildings, or Castletown Road or Mill Road. It is the responsibility of the Contractor to inform all subcontractors and suppliers of this restriction. This should be fully coordinated with the school before works commence.	1	Item			
D	The Contractor is required to provide a secure, control gate access point to the site for the full duration of the works.	1	Item			
E	The main contractor will be required to put a traffic management plan in place to manage safe access and egress of site workers.	1	Item			
F	Disciplinary action may be taken against any person found entering or leaving (or attempting to enter or leave) the site other than by the designated gates or entrances. If the Contractor uses a gate or gates to gain access or egress from the site, the Contractor shall be responsible for securing such gate or gates at all times throughout the contract period.	1	Item			
G	The Contractor shall ensure that no damage is caused to the existing roads due to the delivery of materials or the removal of site materials, demolitions or rubbish. All vehicles entering or leaving the site carrying loads which constitute a potential dust or dirt nuisance such as aggregate, sand, gravel, soil or the like shall be secured so that no materials shall leave the vehicle.	1	Item			
H	The Contractor shall be responsible for keeping all roads adjacent to the site free from mud droppings or other materials which are due to his own and all other operations and safeguard the Employer from any liability resulting therefrom. The Contractor is expected to take reasonable care to ensure that all vehicles entering and leaving the site are free of mud on the wheels or tracks, and the loads are secure.	1	Item			
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	2. CONTRACT (Cont)					
A	In the event of fouling of any roads due to any operations the Contractor will be expected to clean them expeditiously at their own expense to the satisfaction of the Employer`s Representative and/or Employer. The Contractor shall be entirely responsible for any damage due to his failure to comply with this clause.	1	Item			
B	The Contractor shall confine his activities to the Works Area included in the contract and shall not allow his men to trespass on the other parts of the site or on the adjacent lands unless in direct execution of Works included in this Contract. In the event of any claims arising due to failure to comply with this clause, the Contractor shall be held entirely responsible and shall pay costs in connection therewith.	1	Item			
C	The Contractor shall provide and maintain a full time "log in and out system" for all persons entering the works.	1	Item			
D	The Contractor must not use the Site and Area Provided by the Employer for any other purpose other than complying with the Works Requirements;	1	Item			
	Access for Employer Representative to Site and Workshops					
E	The Employer Representative and any person authorised by him shall at all times have access to the Works and to the Site and to all Workshops and places where work is being prepared or where materials, manufactured articles and machinery are being obtained for the Works and the Contractor shall afford every facility for and every assistance in or on obtaining the right to such access.	1	Item			
	b) Limitations of working space					
F	Provide for complying with the limitations of the Site area and working space.	1	Item			
G	Parking for the contractor's and employee's vehicles must be entirely within the site boundaries.	1	Item			
H	School and construction traffic are to be separate at all stages of construction. Construction Traffic shall not park in the vicinity of the existing school buildings, or Castletown Road or Mill Road. It is the responsibility of the Contractor to inform all subcontractors and suppliers of this restriction. This should be fully coordinated with the school before works commence.	1	Item			
J	The Contractor must note that the works is to be carried out in / adjacent to a 'live school' and the existing schools' daily activities will have to continue, along side the construction works, on an uninterrupted basis. The Contractor should undertake adequate research and visit the site to ensure he is fully aware of the existing routines of the school and its patrons at present. The Contractor must provide herein for all costs associated with ensuring the uninterrupted continued use of the school. No claims on the grounds of want of knowledge in this respect will be entertained whatsoever.	1	Item			
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	2. CONTRACT (Cont)					
A	The Contractor must confine his operation within the immediate area covered by the works and such other area as may be indicated on drawings and will make good at his own expense any damage to buildings, grounds, roads or shrubbery occasioned through negligence or non observance of this clause.	1	Item			
B	Only these areas are to be used for contractor facilities, storage of materials etc., necessary for the works and skips for waste/rubble removal etc and must also be used by all subcontractors.	1	Item			
C	Where work is described as being beyond the boundary of the Site or in a Public Highway, the Contractor's prices shall be deemed to include for the following as required; adequate watching and lighting traffic signalling, temporary barricades, walking platforms and warning notices sufficient to ensure the safety of all persons and removing on completion, giving notice to the Local Authority, paying their fees and charges and carrying out the work to their satisfaction. The Contractor's prices shall also include for maintaining in working order all services, conduits, telephones cables, etc and for making good any damage done thereto, by reason of these Works, to the satisfaction of the Authority concerned.	1	Item			
D	Where work is described as being beyond the boundary of the Site or in a Public Highway, the Contractor's prices shall be deemed to include for all NRA obligations and requirements	1	Item			
E	The Contractor's attention is drawn to the restrictive nature of this site. He is referred to 'Works Requirements' and Architect's Drawings in this regard.	1	Item			
	c) Limitations of working hours.					
	The limitations on working hours will apply:					
F	The hours of operation on site shall be restricted to 8am to 6pm Monday to Friday, and 8am to 2pm on Saturdays. No works on Sundays or Public/ Bank Holidays.	1	Item			
G	No activity, which would be reasonably expected to cause annoyance to residents in the vicinity, shall take place between the hours of 6pm and 8am.	1	Item			
H	No deliveries of materials, plant or machinery shall take place before 8am in the morning or after 6pm in the evening.	1	Item			
J	The construction works shall be carried out in accordance with the noise guidance set out by BS 5228-1:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites and the NRA Guidelines for the treatment of Noise and Vibration in National Roads Schemes.	1	Item			
K	If there is any occasion when works must be carried on outside daytime hours, the Environmental Health Officer, local residents, and businesses in areas which are likely to be affected by noise from the proposed works shall be notified in advance, e.g. by letter or leaflet or in advertisement form.	1	Item			
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	2. CONTRACT (Cont)					
A	The Main Contractor should liaise with the Local Authority and local residents to avoid future noise and traffic issues	1	Item			
B	The contractor shall liaise with the school and agreed reasonable time restrictions for any half days, proposed holidays and during exams periods or on exam results days in August. Reasonable flexibility will be required from the contractor at specific points during the contract where reduced noise may be needed by the school. To be by arrangement with the school and is dependent on the programme.	1	Item			
C	The Contractor shall note the close proximity of the proposed extension to the existing operational school. No works shall be permitted during the State Examination periods. The Contractor shall allow in its programme and Tender Sum for the complete cessation of the Works and vacation of the Site during the Leaving Certificate and Junior Cycle examination periods in June 2027 and June 2028. The Contractor shall include for all costs arising from these stoppages, including demobilisation, remobilisation, temporary protection, security and any associated programme implications. No claim for additional cost or extension of time arising from these stated examination shutdown periods will be entertained on the grounds of lack of knowledge or failure to make due allowance at tender stage.	1	Item			
D	All deliveries shall be outside of peak dropping off and collection times for pupils.	1	Item			
E	Further Time Constraints: Comply with any time constraints as set out in any relevant planning permissions; Comply with any school by school time constraints; Comply with any restrictions stated in, arising out of or implied because of the Sectional Completions	1	Item			
F	Contract Stated Time Constraints; The time constraints in this section come within clause 7.11 of the contract	1	Item			
G	The Contractor shall herewith allow for any costs involved in complying with the limitations noted under convenience of neighbours and occupants	1	Item			
H	The contractor should allow for all costs involved in maintaining public relations with adjoining property owners, especially in relation to working hours, deliveries, noise levels and interruptions.	1	Item			
J	Provide for liaising with the Employer's Representative to arrange suitable times for carrying out work.	1	Item			
K	Subject to any provision to the contrary contained in the Contract none of the permanent work should be carried out during the night or Sundays without the permission of the Employer's Representative except when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the Works in which case the Contractor shall immediately advise the Employer's Representative.	1	Item			
L	Any overtime working shall be in strict compliance with statutory requirements and any arrangements for such working shall require the Employer's Representative's prior agreement in writing.	1	Item			
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	2. CONTRACT (Cont)					
	d) Limitations on use operation of plant with respect to adjoining property					
A	The Contractor shall liaise with adjoining owners and occupiers who may be affected by the Works and shall coordinate access arrangements, delivery routes and times, plant movements and all other activities which may affect adjoining properties.	1	Item			
B	The Contractor shall implement all necessary dust suppression, control and monitoring measures to prevent nuisance arising from the Works and shall comply with all applicable statutory requirements, planning conditions and environmental requirements relating to dust emissions.	1	Item			
C	The Works are to be carried out in close proximity to residential properties and occupied school buildings. The Contractor shall take all necessary measures to control and minimise noise, dust and vibration arising from the Works. Prepare and implement appropriate method statements, monitoring procedures and mitigation measures for all activities liable to cause disturbance.	1	Item			
	e) The use or disposal of any material found on the site.					
D	No sand, gravel, stone, soil or other material found on the Site shall be removed from the Site, become the property of the Contractor or be incorporated into the Works without the prior approval of the Employer's Representative. Where such material is approved for reuse in the Works, the quantity used shall be measured and valued and an appropriate adjustment made to the Contract Sum where applicable.	1	Item			
E	Where asbestos-containing materials or other hazardous materials are encountered, the Contractor shall cease work in the affected area and implement all necessary measures for their safe identification, handling, removal and disposal in accordance with applicable legislation and the Contract requirements. Allow for all necessary specialist personnel, PPE/RPE, welfare and decontamination facilities, health surveillance, records and licensed disposal arrangements.	1	Item			
F	The Contractor shall prevent the discharge of silt, pollutants, contaminated water or other deleterious materials to drains, watercourses, surface water systems or adjoining lands. Provide and maintain all necessary pollution prevention and control measures and comply with all applicable environmental and fisheries legislation.	1	Item			
G	The Contractor shall not deposit waste or deleterious material in drains, watercourses or elsewhere on or adjoining the Site. Implement an appropriate Construction and Demolition Waste Management Plan and maintain full records of the segregation, storage, transport, recovery and lawful disposal of all waste arising from the Works.	1	Item			
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	2. CONTRACT (Cont)					
	f) Hoardings, fences, screens, temporary roofs, temporary name boards and advertising rights.					
	Please refer to Architects Drawing No. 1241/P-T/01 "Site Plan" for the redline boundary of the site. Contractor to ensure the following:					
A	- site hoarding lines and hoarding type are adequate to secure the site	1	Item			
B	- site boundary lines are maintained	1	Item			
C	- site access is maintained at all times	1	Item			
D	- construction compound area is within the confines of the site	1	Item			
E	Provide all temporary works, protective measures and other precautions necessary for the safe execution of the Works. The Contractor shall remain fully responsible for the construction methods, temporary works and compliance with the Safety, Health and Welfare at Work (Construction) Regulations 2013, as amended.	1	Item			
F	Provide and maintain solid hoarding, minimum 2.4 m high, to the perimeter of the Works and at other locations indicated on Architect's Drawing No. 1241/P/T/01. Hoarding shall comprise robust external-grade materials suitable for the duration of the Works and shall be designed, constructed, maintained and secured to withstand the anticipated loading and site conditions.	1	Item			
G	Provide secure temporary fencing, solid hoardings, gates, barriers, protected walkways and guardrails as necessary to clearly segregate the Works from the occupied school and adjoining public areas, prevent unauthorised access and ensure the safety of pupils, staff, visitors and the public. Harris-type temporary fencing alone shall not be considered adequate where solid secure hoarding is required.	1	Item			
H	Maintain secure segregation at all times between Contractor-controlled areas and areas occupied by the school or accessible to the public. Hoardings, fencing and access arrangements shall be altered and relocated as necessary to suit the approved phasing of the Works.	1	Item			
J	The Site shall be maintained in a secure condition at all times and the Contractor shall prevent unauthorised access or encroachment into areas under its control.	1	Item			
K	Provide, maintain and update all necessary site signage, including construction access, delivery, emergency access, egress and general public safety signage.	1	Item			
L	Provide and maintain suitable directional signage identifying the Site and approved construction access routes for the duration of the Works.	1	Item			
M	No advertising, promotional signage or other displays shall be erected on the Site without the prior consent of the Employer's Representative.	1	Item			
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	2. CONTRACT (Cont)					
A	Provide and maintain a project display board incorporating the Employer, Contractor and Design Team details together with a suitable image of the completed project, in accordance with the Employer's requirements. The board shall be of suitable size and construction for external exposure and shall be supported on appropriate foundations and framing.	1	Item			
B	Agree the location and final layout of the project display board with the Employer's Representative prior to installation. Maintain the board in good condition for the duration of the Works and for any further period required by the Employer.	1	Item			
C	Provide, maintain, alter and remove on completion all temporary fencing, hoardings, barriers, protected walkways, guardrails and other protective measures necessary for the proper execution of the Works and the protection of school users, adjoining occupiers and the public. Comply with all applicable Local Authority and statutory requirements.	1	Item			
	Dust Screens/ Dust Control Measures					
D	Implement all necessary measures to control dust and airborne pollutants arising from the Works and prevent nuisance or adverse effects on the occupied school, adjoining properties and surrounding area.	1	Item			
E	Provide temporary coverings to skips and other waste containers where necessary to prevent the escape of dust, debris and other airborne material.	1	Item			
F	Provide suitable screening, sheeting or containment to scaffolding where required to control the spread of dust and debris.	1	Item			
G	Carry out regular damping, sweeping and cleaning of roads, paved areas, access routes and other affected surfaces as necessary to control dust and prevent the accumulation of debris.	1	Item			
H	Use water sprays, misting or other suitable dust-suppression measures during cutting, demolition, excavation and other activities liable to generate dust.	1	Item			
J	Provide and maintain suitable hardstanding and clean access routes for construction traffic to minimise the transfer of mud, dust and debris from the Site onto public roads and adjoining areas. Clean affected roads and access routes as required.	1	Item			
K	Provide and maintain all temporary protective sheeting and dust protection necessary to safeguard existing furniture, fittings, equipment and occupied areas affected by the Works.	1	Item			
L	Provide, maintain, relocate and remove all temporary dust screens and containment measures necessary for the proper execution of the Works and the protection of occupied areas.	1	Item			
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	2. CONTRACT (Cont)					
A	Provide temporary dust-tight partitioning at all interfaces and breakthrough locations between the existing occupied school and the new Works, including within areas affected by alterations to the existing building. Temporary partitions shall provide the required fire resistance, acoustic, thermal and dust-control performance appropriate to their location and shall be maintained for as long as required.	1	Item			
	g) The maintenance and protection of existing services on, under or over the site.					
B	All services and utilities serving the school are to be maintained at all times. The Contractor shall ensure that all Works are planned to allow for this requirement. Any disruption to school services and utilities should be the minimum disruption required to make tie-ins in a safe manner. The existing school security, fire safety alarms and electrical systems must be maintained at all times save for agreed (with the Employers Representative and School) programmed limited periods to allow tie-ins between 8am and 4pm Monday to Friday excluding public holidays.	1	Item			
C	There may be occasions where the Contractor will be expected to complete out of hours work to facilitate the continued operation of services within the School. The Contractor should ensure that they take account of this and include for all costs associated with out of hours works.	1	Item			
D	The Contractor will be responsible for all costs associated with alterations to or additional provision of any utilities made necessary as a result of the Works and will assume all risk (including costs and any other financial consequence, whether incurred by the Contractor, the Authority or any existing school) in relation to any interruption in, failure of supply to or availability of services to the existing school arising as a result of any act or omission of the Contractor or the Contractors Personnel, including in relation to complying with its obligations under this Section.	1	Item			
E	Provide for maintaining the flow in all/any existing drain runs at all times.	1	Item			
F	Provide for protecting and maintaining all services under or over the site.	1	Item			
G	Provide for all costs involved in locating, protecting and work around existing services during the Works. Assume all excavations in this regard will be carried out by hand.	1	Item			
H	The Contractor should undertake adequate research and visit the site to ensure he is fully aware of all existing services present. The Contractor must provide for maintaining theses services if necessary. No claims on the grounds of want of knowledge in this respect will be entertained whatsoever.	1	Item			
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	2. CONTRACT (Cont)					
A	The contractor is fully responsible for the management and disposal of all surface water and foul water from the construction site for the full duration of the works. The contractor shall note the Local Authority may not provide a temporary connection to the public system. The contractor shall allow for and provide measures necessary to deal with this restriction if it arises, including temporary tanks etc.	1	Item			
	Public and Private Services					
B	Notify all service authorities of the proposed works before commencing site operations. So far as reasonable, ascertain location of services or confirm that none exist in the vicinity of the works. Protect, uphold and maintain all services. Do not interfere with their operation without consent of the service authorities or private owners, or the Employer's Representative as appropriate.	1	Item			
C	Ensure that any work that may involve a risk to disruption to existing live services in the neighbourhood is agreed in advance with the local authority / neighbours. All such work shall, in any event, be pre-planned and agreed with the neighbours. Method Statements must be prepared, issued and agreed in advance of all work on or near live services.	1	Item			
	Existing Pipelines and Utility Services					
D	Where the works involve the construction of connections and modifications to existing pipelines and utility services, maintain the flows in existing pipes, sewers and water courses disturbed in the course of construction of the Works, and shall provide all temporary works and pumping necessary to do so and where such works are outside of the site boundary the Contractor shall consult with the drainage department of the local authority and submit schedules and methods of his work for its approval prior to the execution of these works including connections.	1	Item			
E	It may be necessary to raise and relay some existing services during the course of the construction Works. The Contractor shall, in this event, conduct his operations in such a manner that the minimum disruption possible is caused to the normal working of these services. The Contractor shall consult the responsible Local Authority and submit schedules and methods of operation for approval prior to the execution of all such work.	1	Item			
F	The Contractor is responsible for all additional costs involved in the execution of this work and in providing temporary diversions, over pumping and other such means to maintain the required levels of service during the construction of the Works.	1	Item			
G	It may be necessary to raise and relay some existing cables, ducts, chambers and similar belonging to the E.S.B., Eircom, Board Gais or other utility providers or any existing Site power and control cables etc. in the path or adjacent to the line of the proposed construction Works. The Contractor shall consult the responsible utility provider prior to the commencement of excavations for pipe laying or similar operations and submit schedules and methods of operation for approval.	1	Item			
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	2. CONTRACT (Cont)					
A	The Contractor shall be responsible for dealing with all aspects of work affected by water arising from all natural sources and causes as well as due to leakages from water or sewer mains adjacent to excavations of temporary and permanent Works.	1	Item			
	Services on and over the site					
B	The Contractor shall allow for all costs in connection with maintaining existing services during the works. The Contractor is referred to the Site Services layouts for locations of the various services infrastructure ducting/pipe runs and shall take all measures necessary to ensure that existing services remain uninterrupted, save for where connection or alteration works are required in which case the works shall be carried out with the minimum disruption possible.	1	Item			
	Planned Services Interruptions					
	The following measures are to be taken by the Contractor for planned services interruptions:					
C	1) The works are to be designed and method statements prepared by PSCS and issued to PSDP & Services Consultants for approval.	1	Item			
D	2) Risk Assessments and contingency plans to be issued and approved by the PSCS & PSDP.	1	Item			
E	3) Dates for carrying out the works to be agreed in advance.	1	Item			
F	4) Notification and regular written reminders to be issued to the Employers Representative in advance for the works being carried out.	1	Item			
	Existing Site Services - Survey					
G	The Contractor shall, as any record drawings of existing services are provided for guidance only and must be verified by the Contractor on site by whatever investigation means as is appropriate, be deemed to have allowed for all such investigation and possible delays in commencement of his excavation and other allied works in his work programme and consequential costs for such Works in his tender.	1	Item			
	Damage To Roads					
H	The Contractor shall be responsible for all damage to existing roads (private and/or public roads) caused by his own or Sub Contractor's or Suppliers' transport to and from the site. The approaches to the site shall be kept clear of mud and debris.	1	Item			
J	The Contractor shall be responsible for the maintaining and/or replacing of the existing bitmac access roads, carparking areas, footpaths and kerbs during the Contract and make good any damage caused by site traffic or site operations. The roads and carpark shall be kept free of mud and debris.	1	Item			
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	2. CONTRACT (Cont)					
A	The Contractor shall include for a photographic survey of the condition of the adjoining footpaths and roadways prior to starting onsite to negate later arguments with Louth County Council.	1	Item			
	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.					
B	It is intended that the new school extension and associated external works will generally be constructed as a single phase. Works affecting or interfacing with the existing school, including connections to the existing building, works to the carpark, alterations to the Mill Road entrance and footpaths, shall be programmed for school holiday periods and/or outside normal school hours as required. The Contractor shall plan and execute the Works so as to minimise disruption to the operation of the existing school and maintain safe and adequate access for staff, pupils, visitors, parking and drop-off arrangements at all times.	1	Item			
	Services Connections/ Diversions					
C	The Works include temporary and permanent connections of new mechanical and electrical services through and/or into the existing school, as detailed in the Works Requirements. Access within the existing school shall not be permitted during normal school hours in term time. The Contractor shall programme all works requiring access to occupied school areas, including service connections and commissioning, for school holiday periods or outside normal school hours, in agreement with the Employer's Representative and School Management.	1	Item			
D	Liaise with School Management and the Employer's Representative to ensure that all existing services serving the occupied school are maintained throughout the Works. Shutdowns, diversions and final connections shall be carefully planned and undertaken outside normal school hours or during agreed holiday periods so as to minimise interruption to the school. Allow in the Tender Sum and programme for all costs and restrictions associated with these requirements.	1	Item			
E	Maintain all existing utilities and services required for the continued operation of the school throughout the Works until the relevant replacement or permanent services have been completed, commissioned and brought into operation.	1	Item			
F	Where works are required outside the Contractor's normal Site working area, including within the existing school, elsewhere within the school grounds or within the public domain, liaise with the relevant occupier, School Management, Local Authority and Employer's Representative, as applicable, to agree the scope, extent, access arrangements and timing of such works. Submit proposals sufficiently in advance to allow review and coordination prior to commencement.	1	Item			
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	2. CONTRACT (Cont)					
A	Any review, comment or agreement by the Employer's Representative in relation to the Contractor's proposals shall not relieve the Contractor of responsibility for the planning, coordination, supervision and safe execution of the Works. The Contractor shall maintain the safety of pupils, staff, visitors, workers and the public and shall maintain all required school and public access arrangements. The Contractor shall assume that the existing school will remain fully operational and occupied throughout the Works except during specifically identified closure periods.	1	Item			
	i) Maintenance of specific temperature and humidity levels.					
B	Provide, maintain and operate all temporary heating, drying, ventilation and dehumidification equipment necessary to achieve and maintain the temperature and humidity conditions required for the proper execution, drying and completion of the Works. The Contractor shall programme and manage such measures so that the Works of all trades are not delayed. Where, with the prior agreement of the Employer's Representative, the permanent heating system is used for temporary heating or drying purposes, the Contractor shall allow for all associated costs, including fuel, energy consumption, operation, maintenance and any extension or reinstatement of warranties required as a consequence of such use.	1	Item			
	j) Temporary accommodation and facilities for the use of the Employer including heating, lighting, furnishing and attendance.					
C	Provide and maintain a secure temporary office for the exclusive use of the Employer's Site Representative, Clerk(s) of Works and other persons acting on behalf of the Employer. The office shall provide suitable accommodation for a minimum of two persons and shall include heating, ventilation, lighting, power, high-speed broadband, desks, chairs, lockable storage, filing facilities and suitable drawing/document storage. Provide suitable IT equipment, printing/ scanning facilities and other office equipment reasonably necessary for the administration and inspection of the Works. The office shall be fully operational within one week of commencement on Site, maintained for the duration required and removed on completion, with all affected areas made good.	1	Item			
D	Provide a suitable laptop computer, docking facilities and associated software necessary for the Employer's Site Representative/Clerk of Works to review project documentation, drawings and records for the duration of the Works.	1	Item			
E	Provide and maintain a suitably sized temporary meeting room for the use of the Employer, Employer's Representative, Design Team and other persons acting on behalf of the Employer. The meeting room shall accommodate a minimum of 15 persons and shall include heating, ventilation, lighting, power, broadband, suitable furniture and facilities for the display and review of drawings and other project information. The facility shall be fully operational within one week of commencement on Site, maintained for the duration required and removed on completion, with all affected areas made good.	1	Item			
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	2. CONTRACT (Cont)					
A	Provide within the temporary meeting room suitable facilities for hybrid and remote meetings, including a display screen, camera, microphone, speakers and reliable internet connection, capable of facilitating meetings using Microsoft Teams, Zoom or equivalent approved platform. Allow for all associated equipment, connections, subscriptions, maintenance and support for the duration of the Works.	1	Item			
B	Provide and maintain separate secure and lockable toilet facilities for the exclusive use of the Employer's representatives and Design Team, suitably located in relation to the temporary office and meeting facilities.	1	Item			
	k) Provision of connections to temporary voice and data communications systems for use of the Employer.					
C	Provide and maintain all temporary voice, data and communications services necessary for the use of the Employer, Employer's Representative and other Employer-appointed site personnel for the duration of the Works.	1	Item			
D	Provide a reliable high-speed fixed broadband connection to the Employer's site office and meeting facilities, of a standard suitable for normal commercial office use, document transfer and video conferencing.	1	Item			
E	Provide a suitable laptop computer, docking facilities and associated software necessary for the Employer's Site Representative/Clerk of Works to review project documentation, drawings and records for the duration of the Works.	1	Item			
F	Provide suitable A3 colour printing and scanning facilities for the Employer's site office for the duration of the Works.	1	Item			
G	Provide all office furniture, lockable storage and drawing/document storage required for the Employer's site office, as specified under the temporary accommodation requirements.	1	Item			
	l) Periodic using and access charges on voice and data communications systems for use of the Employer and associated running costs.					
H	Allow for and pay all installation, connection, rental, subscription, usage and other running costs associated with the temporary voice, data, broadband and communications services provided for the Employer for the duration of the Works.	1	Item			
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	2. CONTRACT (Cont)					
	m) Provision of the Project Supervisor Construction Stage services by the Contractor under the Safety, Health and Welfare at Works (Construction) Regulations.					
A	The Contractor shall, where appointed by the Employer, undertake the role of Project Supervisor for the Construction Stage (PSCS) and shall comply with all duties imposed on the PSCS under the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (Construction) Regulations 2013 to 2021, as amended, together with all other applicable safety and health legislation. Allow for all costs associated with fulfilling these obligations.	1	Item			
B	The Contractor shall formally accept its appointment as PSCS in writing and shall execute the appropriate form of appointment and/or collateral agreement included with the Contract Documents when requested by the Employer. The Contractor shall demonstrate that it has the competence, resources and organisational capability necessary to undertake the role.	1	Item			
C	Prior to commencement of construction work, the PSCS shall further develop the preliminary Safety and Health Plan prepared by the PSDP into a project-specific Construction Stage Safety and Health Plan and shall maintain, review and update the Plan throughout the Works to reflect progress, changes in the Works and identified risks.	1	Item			
D	Where the project is notifiable under the Construction Regulations, the PSCS shall notify the Health and Safety Authority prior to commencement of construction work and shall maintain the required notification on Site for the duration required by the Regulations.	1	Item			
E	The Contractor shall be responsible for the design, coordination, installation, inspection, maintenance and removal of all temporary works required for the execution of the Works. Appoint competent temporary works designer(s) and/or coordinator(s), as appropriate, and ensure that all temporary works are properly coordinated with the permanent works and existing structures. Provide designs, calculations, risk assessments and certifications where required by the Contract or Employer's Representative.	1	Item			
F	Provide suitably competent and adequately resourced management, supervision and technical personnel necessary for the safe planning and execution of the Works and for the discharge of the Contractor's and PSCS's statutory obligations. Any key personnel identified in the Contractor's tender submission shall not be replaced without prior notification to the Employer's Representative and the proposed replacement shall have equivalent or greater qualifications, experience and competence.	1	Item			
G	Ensure that all persons for whom Safe Pass or Construction Skills Certification Scheme (CSCS) certification is required hold valid certification appropriate to the work being undertaken. Maintain records of such certification and make them available for inspection when requested. Provide appropriate site-specific induction, information, instruction and training to persons working on the Site.	1	Item			
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	2. CONTRACT (Cont)					
A	The PSCS shall coordinate the activities of contractors and designers during the construction stage, including safe working procedures and information arising from changes, unforeseen conditions or Contractor-designed elements. Relevant design and safety information shall be communicated promptly to the PSDP and other affected designers as required.	1	Item			
B	Coordinate the collection and provision of all construction-stage safety information required by the PSDP for incorporation into the Safety File and provide such information progressively throughout the Works and prior to completion.	1	Item			
	SAFETY FILE					
C	The Contractor and, where appointed, the Project Supervisor Construction Stage (PSCS) shall cooperate fully with the Project Supervisor Design Process (PSDP) in the preparation and completion of the Safety File and shall provide all relevant construction-stage information required in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013, as amended.	1	Item			
D	Safety File information shall be compiled progressively throughout the Works and submitted to the PSDP in sufficient time to permit review and completion of the Safety File prior to handover. All outstanding information shall be provided at or before Substantial Completion unless otherwise agreed with the Employer's Representative and PSDP.	1	Item			
E	The Contractor shall appoint a suitably competent person to coordinate the collection, review and submission of all Contractor, subcontractor, supplier and specialist information required for the Safety File, operation and maintenance manuals and other project handover documentation.	1	Item			
F	Where a Digital Project Safety File or other digital handover system is required by the Employer, the Contractor shall provide all handover information in an indexed, searchable and logically structured electronic format agreed with the Employer's Representative and PSDP.	1	Item			
G	Electronic documentation shall generally be provided in PDF format, together with native editable files for drawings, schedules and other documents where specifically required by the Works Requirements. Record drawings shall also be provided in the specified CAD format where required.	1	Item			
H	Submit a draft of the complete handover information for review prior to the anticipated date of Substantial Completion. Address comments raised by the Employer's Representative, PSDP and relevant Design Team members and submit the final coordinated information at handover.	1	Item			
J	The Contractor shall provide all information necessary for completion of the Safety File and project handover documentation including, as applicable: record/ as-installed drawings; residual risk information; statutory and regulatory certificates; test and commissioning records; fire safety information; operation and maintenance manuals; product and equipment data; warranties and guarantees; asset registers; maintenance requirements; specialist reports; training records; and other information reasonably required by the PSDP or Employer's Representative.	1	Item			
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	2. CONTRACT (Cont)					
A	Operation and Maintenance Manuals shall provide sufficient information to enable the Employer to safely operate, inspect, maintain, repair and replace the building fabric, plant, equipment and systems installed as part of the Works. Manuals shall include manufacturers' information, operating instructions, maintenance schedules, fault-finding information, spare parts information, warranties, commissioning results and relevant emergency procedures.	1	Item			
B	Provide a coordinated asset register for installed plant and equipment identifying, as applicable, the asset reference, description, manufacturer, model, serial number, location, duty/capacity, warranty period and associated record drawing and O&M reference.	1	Item			
C	Provide all relevant statutory approvals, certificates and test records associated with the Works, including Building Control/BCAR documentation, fire safety and disability access documentation, electrical certification, mechanical commissioning records, specialist certificates and ancillary certificates required by the Contract.	1	Item			
	Record / As-Installed Drawings					
D	Provide a complete coordinated set of record/as-installed drawings accurately recording the Works as constructed, including architectural, civil, structural, mechanical, electrical, fire safety, specialist and underground services information.	1	Item			
E	Record drawings shall clearly identify all installed plant, equipment, services, valves, isolation points, distribution systems and concealed or underground services and shall contain sufficient information to facilitate the future operation, maintenance, alteration and replacement of the Works.	1	Item			
F	Provide record drawings electronically in PDF format and, where required by the Works Requirements, in native CAD format. Provide a searchable drawing register identifying drawing number, title, revision and date.	1	Item			
	Temporary Works					
G	The Contractor shall be responsible for the design, coordination, installation, inspection, maintenance and removal of all temporary works necessary for the execution of the Works. Appoint suitably qualified and competent temporary works designers for all temporary works requiring specialist design.	1	Item			
H	Temporary works associated with excavations, earthworks, structural alterations, demolition, propping, scaffolding, working platforms, access systems and other works affecting structural or ground stability shall be appropriately designed, checked and certified before use. Engage a competent geotechnical specialist where required by the nature of the Works or ground conditions.	1	Item			
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	2. CONTRACT (Cont)					
	FIRE SAFETY					
A	Maintain adequate fire brigade access, emergency access routes, fire hydrants and escape routes serving the existing occupied school throughout the Works. Coordinate any temporary alteration to such arrangements with the Employer's Representative and School Management.	1	Item			
B	Implement appropriate fire prevention measures throughout the Works, including control of hot works, combustible materials, temporary heating and electrical installations, waste accumulation and other potential ignition sources.	1	Item			
C	Provide all testing, commissioning, inspection and certification necessary to demonstrate that the completed Works comply with the approved Fire Safety Certificate, fire strategy and Works Requirements, including fire stopping, fire alarm, emergency lighting and relevant mechanical and electrical cause-and-effect systems. Include all required information and certification in the project handover documentation.	1	Item			
	SECURITY					
D	Secure the Site immediately upon taking possession and maintain all fencing, hoarding, gates, barriers, lighting and other measures necessary to prevent unauthorised access for the duration of the Works.	1	Item			
E	Maintain the Site in a safe, secure and orderly condition at all times, with particular regard to the proximity of the occupied school. Restrict access to construction areas to authorised persons and prevent pupils, staff, visitors and members of the public from entering Contractor-controlled areas.	1	Item			
F	Provide and maintain suitable arrangements for the secure storage of hazardous, flammable and valuable materials and for restricting access to scaffolding, temporary works, plant and other areas presenting a safety or security risk.	1	Item			
	ENVIRONMENTAL					
G	Where asbestos-containing materials or other hazardous materials are identified or encountered, comply with all applicable statutory requirements and HSA requirements and provide all necessary surveys, risk assessments, plans of work, notifications, permits, specialist personnel, training, PPE/RPE, health surveillance, containment and lawful disposal arrangements.	1	Item			
H	Provide designated and contained concrete washout facilities and prevent cementitious washout water, slurry or other alkaline material from entering drains, watercourses or the ground. Prepare and implement suitable procedures for the washing of concrete delivery vehicles, tools and equipment.	1	Item			
	Project Supervisor for the Design Stage					
J	The Project Supervisor for the Design Process (PSDP) for the Works is ARUP.	1	Item			
K	Safety and Health Plan - Preliminary	1	Item			
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	2. CONTRACT (Cont)					
A	The Preliminary Safety and Health Plan is included in Appendix 3 Information Pack of the Instructions to Tenderers	1	Item			
B	Project Supervisor for the Construction Stage	1	Item			
C	The Main Contractor shall be appointed as Project Supervisor Construction Stage (PSCS) and shall undertake all duties associated with that appointment in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013, as amended.	1	Item			
	n) Any other obligation or restriction					
	Uisce Eireann Connections					
D	The Contractor shall prepare, coordinate and submit all documentation, drawings and technical information required in connection with the water and wastewater connections to Uisce Eireann and shall liaise with Uisce Eireann, the Employer, Employer's Representative, Local Authority and other relevant parties to ensure that all necessary approvals and connections are obtained within the Contract programme.	1	Item			
E	The Contractor shall allow for all coordination, inspections, applications, road opening licences, notices and other requirements associated with completing the water and wastewater connections. The Contractor shall programme these activities sufficiently in advance so that the availability of permanent connections does not delay testing, commissioning or completion of the Works.	1	Item			
	Master Programme					
F	Prior to commencement on Site, submit a detailed Contract Programme, based on the programme submitted with the Tender, demonstrating completion of the Works within the Contract Period and complying with the programming requirements of the Contract. The programme shall be prepared in a format suitable for effective monitoring and updating of the Works.	1	Item			
G	The programme shall identify, as a minimum, the sequence and duration of the principal activities; procurement, manufacture and delivery periods; Contractor and specialist design information; approvals and information required from the Employer and Design Team; inspections and testing; commissioning; statutory approvals and connections; critical path activities; key interfaces; and all activities necessary to achieve Substantial Completion.	1	Item			
H	The programme shall take account of the Preliminary Inspection Plan, Inspection Notification Framework and all other inspection, testing and certification requirements forming part of the Works Requirements. Adequate periods shall be allowed for review, inspection and response by the Employer's Representative, PSDP and Design Team.	1	Item			
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	2. CONTRACT (Cont)					
A	Allow within the programme for the preparation, submission, review and approval, where applicable, of Contractor-designed elements, shop drawings, samples, technical submissions, specialist proposals and other information required for execution of the Works.	1	Item			
B	Clearly identify mobilisation, procurement and lead-in periods, critical activities, key milestones, testing and commissioning periods and any activities or information which may affect the critical path. Where information is not available at programme preparation stage, identify the relevant activity and make reasonable programme allowance based on the information available.	1	Item			
C	The Contractor shall regularly review and update the Contract Programme throughout the Works and shall comply with the requirements of Clause 4.9.1 of the Contract.	1	Item			
D	Where works or installations are to be undertaken by others, including the School Art Scheme where applicable, allow for all necessary coordination and access. Dates and interface requirements shall be agreed sufficiently in advance so as not to delay completion of the Works.	1	Item			
	Use of Services Prior To Handover					
E	The Contractor shall be responsible for all costs associated with electricity, water, gas, fuel and other utilities consumed for construction, temporary services, testing and commissioning purposes up to Substantial Completion, except where expressly stated otherwise in the Contract Documents.	1	Item			
F	Where permanent building services are used prior to Substantial Completion, provide temporary or permanent metering as necessary to separately identify consumption attributable to the Works. Maintain records of meter readings and make such records available to the Employer's Representative when requested.	1	Item			
G	Where construction, testing or commissioning consumption cannot be separately identified, the Employer's Representative may make a reasonable assessment of the amount attributable to the Contractor for adjustment in accordance with the Contract.	1	Item			
	Materials & Workmanship					
H	All materials, products and systems incorporated into the Works shall be new, unless otherwise specified, fit for their intended purpose and suitable for use under the conditions in which they are to be installed. They shall comply with the Works Requirements, applicable Irish Building Regulations, relevant standards and all applicable statutory requirements.	1	Item			
J	Construction products falling within the scope of the Construction Products Regulation shall comply with Regulation (EU) 2024/3110, together with applicable transitional provisions and any continuing requirements arising under Regulation (EU) No. 305/2011.	1	Item			
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	2. CONTRACT (Cont)					
A	Where required under the applicable Construction Products Regulation, products shall bear the appropriate CE marking and shall be accompanied by the applicable Declaration of Performance and Conformity, Declaration of Performance or other required technical documentation.	1	Item			
B	Where third-party assessment or certification is required under applicable legislation or the relevant harmonised technical specification, such assessment shall be undertaken by an appropriately designated EU Notified Body or other competent body recognised under the applicable regulatory framework.	1	Item			
C	Products and systems shall comply with applicable Irish Standards, European Standards, National Annexes, Standard Recommendations and other technical specifications relevant to their intended use in Ireland. Where an innovative or non-standard product or system is proposed, provide appropriate technical assessment, certification or other evidence demonstrating its suitability for the intended application.	1	Item			
D	Certification or approval issued under a non-EU national scheme, including British certification schemes, shall not in itself be accepted as a substitute for CE marking, declarations or other conformity requirements arising under applicable EU construction product legislation. Such certification may be submitted as supplementary evidence of suitability where relevant.	1	Item			
E	Where the Contractor proposes an alternative material, product or system, submit full technical particulars and evidence demonstrating equivalence with the specified requirements sufficiently in advance of the proposed installation date to permit proper review. Any delay arising from late or inadequate submission of such information shall remain the Contractor's responsibility.	1	Item			
	Regulations & Current Standards					
F	The Works shall be designed where applicable, constructed, tested and commissioned in accordance with all applicable legislation, Building Regulations, planning requirements, Fire Safety Certificate and Disability Access Certificate requirements, relevant Irish and European Standards, Codes of Practice and the Works Requirements.	1	Item			
G	References to standards, Codes of Practice and other technical documents shall mean the edition, including applicable amendments and revisions, stated in the Contract Documents or, where no edition is stated, the edition current at the Designated Date / date of tender as applicable under the Contract.	1	Item			
H	Compliance with the applicable statutory requirements, standards, Codes of Practice and Works Requirements shall constitute the minimum required standard. Where the Contractor proposes a product, material or system complying with an alternative standard, provide full technical information demonstrating equivalent or superior performance and suitability for the intended application, subject to review in accordance with the Contract.	1	Item			
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	2. CONTRACT (Cont)					
	Codes of Practice					
A	The Contractor shall maintain access to all legislation, Building Regulations, standards, Codes of Practice, Technical Guidance Documents and other technical information necessary for the proper execution and supervision of the Works.	1	Item			
	Samples, Inspections and Testing					
B	Submit samples of materials, products, finishes and workmanship where required by the Works Requirements or reasonably required by the Employer's Representative. Samples shall be submitted sufficiently in advance of procurement and installation to permit review without delay to the Works. Any review or comment by the Employer's Representative shall not relieve the Contractor of responsibility for compliance with the Contract. Retain approved benchmark samples where required and remove samples when no longer required.	1	Item			
C	Allow for all samples, mock-ups, inspections and tests specifically required by the Works Requirements and relevant specifications. Where additional inspections or tests are instructed by the Employer's Representative, responsibility for the associated cost shall be determined in accordance with the Conditions of Contract.	1	Item			
D	Prior to commencement of the relevant Works, prepare, coordinate and maintain appropriate inspection and test plans and procedures identifying the inspections, tests, hold points, witness points and records required to demonstrate compliance with the Works Requirements. Coordinate same with the Employer's Representative, Design Team and Inspection Plan requirements.	1	Item			
E	Testing of civil and structural works shall be carried out in accordance with the Civil and Structural Materials and Workmanship Specification, applicable standards and the Works Requirements.	1	Item			
F	Testing, commissioning and certification of mechanical and electrical installations shall be carried out in accordance with the Mechanical and Electrical Materials and Workmanship Specifications, applicable standards and the Works Requirements.	1	Item			
	Submittals					
G	The Contractor shall submit all working drawings, Contractor-designed information, technical submissions, samples and other information required by the Works Requirements sufficiently in advance of the relevant Works. The Contractor shall not proceed with any element requiring prior review until the relevant submission has been returned with a status permitting the Works to proceed.	1	Item			
H	Prepare and maintain a schedule of submittals coordinated with the Contract Programme. The schedule shall identify the description of each submission, required submission date, required-on-site/procurement date and any critical decision dates, including selections of finishes and colours. Update the schedule regularly throughout the Works.	1	Item			
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	2. CONTRACT (Cont)					
A	Unless otherwise agreed, allow a minimum of 10 working days for the Employer's Representative and Design Team to review each complete submission. The review period shall recommence following any material resubmission. The Contractor shall allow sufficient time in its programme for review and any necessary amendment and resubmission.	1	Item			
B	The Contractor shall make due allowance in its programme and procurement schedule for the preparation, review and resubmission of Contractor information. Late, incomplete or inadequate submissions shall not relieve the Contractor of its obligations under the Contract or entitle the Contractor to additional time or cost except where otherwise provided under the Contract.	1	Item			
C	The Employer's Representative and Design Team shall endeavour to review complete submissions within the stated review period. Where the Contractor submits information late, incomplete or without sufficient supporting information to permit proper review, any resulting effect on procurement or the Works shall remain the Contractor's responsibility, subject to the provisions of the Contract.	1	Item			
D	Prior to commencement of the relevant Works, submit a schedule/register of all working drawings, Contractor design submissions, technical submissions, samples and specialist information proposed to be issued during the Works. Maintain the register throughout the Contract.	1	Item			
E	Provide sufficient drawings, calculations, specifications, product data, certification, samples and other supporting information to demonstrate compliance with the Works Requirements. Provide additional information reasonably required to permit the submission to be properly reviewed.	1	Item			
	Prototype Classroom / Benchmark Area					
F	The Contractor shall, sufficiently in advance of the general finishing works, complete a representative internal and/or external benchmark area at a location and of an extent agreed with the Employer's Representative. The benchmark shall incorporate agreed finishes, materials, interfaces and workmanship and shall be used to establish the required standard for the remainder of the Works. Allow for all costs associated with its provision, amendment where necessary and retention for reference for the duration required.	1	Item			
	Storage of Materials					
G	Store all materials and products in accordance with manufacturers' recommendations and good industry practice and protect them from weather, contamination, deterioration, damage, distortion, staining and other adverse effects. Materials shall be stored, handled and transported in a manner which does not adversely affect their performance or the Works.	1	Item			
	Workmanship					
H	All workmanship shall be carried out in accordance with the Works Requirements, applicable Building Regulations, relevant Irish and European Standards, manufacturers' recommendations and good industry practice.	1	Item			
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	2. CONTRACT (Cont)					
A	Provide suitably qualified, competent and experienced tradespersons and operatives for each element of the Works. Where specialist installation or certification is required, use appropriately trained and authorised personnel.	1	Item			
B	Install materials and products accurately, securely and in accordance with the specified tolerances and manufacturers' requirements. Check site dimensions prior to manufacture or installation. Finished work shall be clean, undamaged, properly aligned and free from visible defects. Maintain consistency of colour, finish and appearance in adjoining or visually related materials. Do not scale dimensions from drawings unless expressly permitted; use stated dimensions and verify critical dimensions on Site.	1	Item			
	Method Statements					
C	Prepare and submit project-specific method statements for elements of the Works where required by the Works Requirements, applicable legislation, the Contractor's risk assessments or reasonably required by the Employer's Representative. Method statements shall describe, as applicable, the proposed sequence of work, resources, supervision, plant, temporary works, materials, interfaces, access arrangements, quality controls, inspections, testing and measures for the protection of existing buildings, occupants and adjoining property.	1	Item			
D	Prepare and maintain a schedule of required method statements coordinated with the Contract Programme. Unless otherwise stated or agreed, submit each method statement sufficiently in advance of the relevant procurement or construction activity, and normally not less than four weeks prior to commencement of the relevant Works where Design Team review is required.	1	Item			
E	Review or comment on a method statement by the Employer's Representative or Design Team shall not relieve the Contractor of responsibility for the means and methods of construction, temporary works, sequencing, coordination, safety or compliance with the Contract.	1	Item			
F	Controlling and checking deliveries to site to ensure that the correct products are supplied, delivered and checked, prior to incorporation into the works.	1	Item			
G	Method statements shall be provided, where applicable, for site logistics, deliveries, works adjacent to or within the occupied school, protection of adjoining property, temporary access arrangements and other activities presenting particular interface, safety or operational constraints.	1	Item			
H	Provide method statements, where applicable, for structural interfaces and temporary stability; roofing and weatherproofing; curtain walling, windows and external doors; cavity wall construction; radon protection; air-tightness; service penetrations through the building envelope; and other critical building fabric interfaces.	1	Item			
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2. CONTRACT (Cont)

A	Provide coordinated proposals and method statements, where applicable, for fire stopping, fire barriers, compartmentation, fire-rated doorsets and ironmongery, service penetrations, stairs, guarding and balustrades and other elements requiring particular demonstration of compliance with the Building Regulations, Fire Safety Certificate, Disability Access Certificate and Building Control requirements, as amended.	1	Item			
B	Provide method statements, where applicable, for drainage, below-slab services, underground services, mechanical and electrical coordination, service penetrations, shutdowns and connections to existing services, testing and commissioning.	1	Item			
C	Provide installation and quality-control proposals, where applicable, for floor finishes, painting and specialist finishes, acoustic performance, thermal continuity and avoidance of thermal bridging, durability and robustness of Contractor-selected materials and other performance-critical elements.	1	Item			
D	Provide method statements, where applicable, for works adjacent to Site boundaries and adjoining owners and for hard and soft landscaping, including protection of existing features and compliance with the planning requirements and specified planting schedules.	1	Item			
	Building Fabric Standards					
	Air Tightness & Thermographic Survey					
E	The Contractor shall construct and coordinate the building envelope to achieve the air permeability performance specified in the Works Requirements and required to demonstrate compliance with Part L of the Building Regulations. Particular attention shall be given to continuity of the air barrier at junctions, openings, service penetrations, interfaces and connections between new and existing construction.	1	Item			
F	Provide air permeability testing of the completed building/envelope by a suitably qualified and independently certified testing specialist in accordance with I.S. EN ISO 9972:2015 and the applicable requirements of TGD L and the Non-Domestic Energy Assessment Procedure. Carry out all necessary remedial works and repeat testing where required to achieve the specified performance. Provide the final test certificate and report for inclusion in the project handover documentation.	1	Item			
G	Where required by the Works Requirements, appoint a suitably qualified specialist to undertake a thermographic survey of the completed building envelope to identify defects in insulation continuity, thermal bridging and other anomalies. Submit a report identifying the findings and complete all necessary remedial works prior to handover.	1	Item			
H	Allow for all costs associated with air permeability testing, thermographic surveying, remedial works and repeat testing/surveys necessary to demonstrate compliance with the specified building fabric performance.	1	Item			

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	2. CONTRACT (Cont)					
	Building Energy Performance / BER					
A	The Works shall comply with the applicable requirements of Part L - Conservation of Fuel and Energy of the Building Regulations and the current Technical Guidance Document L - Buildings other than Dwellings, together with the applicable Energy Performance of Buildings Regulations and the energy performance requirements stated in the Works Requirements.	1	Item			
B	Appoint a suitably qualified and SEAI-registered Non-Domestic BER Assessor where required. The Assessor shall review the design and construction information sufficiently early in the Works to identify the information and evidence necessary to demonstrate compliance and to facilitate preparation of the required final BER.	1	Item			
C	The Contractor shall provide the BER Assessor with all information necessary to complete the assessment, including as-built construction details, insulation specifications and thicknesses, thermal bridging information, air permeability test results, glazing and door performance data, mechanical and electrical system information, controls, lighting, ventilation, heat-pump and renewable-energy system information and commissioning records.	1	Item			
D	Provide the final BER Certificate, Advisory Report and associated documentation required under the applicable Energy Performance of Buildings Regulations, where applicable to the Works, prior to occupation/handover and include copies within the project handover documentation. Allow for all assessor, registration and associated fees.	1	Item			
E	Where testing, assessment or calculation identifies non-compliance with the specified energy performance or applicable Part L requirements, carry out all necessary remedial works and provide revised testing, calculations and certification at the Contractor's expense where the non-compliance arises from the Contractor's Works.	1	Item			
	Acoustic Testing					
F	The new extension shall be constructed to achieve the acoustic performance requirements stated in the Works Requirements and the current Department of Education and Youth guidance, including SDG 02-05-03 - Acoustic Performance in New Primary & Post Primary School Buildings, as applicable.	1	Item			
G	On completion of the relevant Works, arrange for representative acoustic testing by a suitably qualified independent acoustic consultant to demonstrate compliance with the specified acoustic performance requirements. Testing shall be undertaken when the relevant areas are substantially complete, furnished as required for the test procedure and otherwise suitable for testing. Agree the extent and timing of testing with the Employer's Representative in advance. Submit the test report and carry out any necessary remedial works and repeat testing required to demonstrate compliance. Allow for all associated costs.	1	Item			
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	2. CONTRACT (Cont)					
	Radon Protection and Testing					
A	Where radon testing is required by the Works Requirements, appoint an EPA Registered Radon Testing Service to undertake the testing in accordance with the current EPA Radon Measurement Protocol. Allow for all associated testing, reporting and certification costs.	1	Item			
B	The Contractor shall ensure that all radon protection measures are installed in accordance with the Works Requirements, applicable Building Regulations, TGD C - Site Preparation and Resistance to Moisture, manufacturers' recommendations and the approved construction details. Particular care shall be taken to maintain the continuity and integrity of radon barriers at joints, penetrations and interfaces. Any defects attributable to the Contractor's Works shall be remedied at the Contractor's expense.	1	Item			
C	Arrange for post-completion radon testing to be undertaken under normal occupied conditions and in accordance with the EPA Radon Measurement Protocol. Testing shall extend for the period required by the applicable EPA guidance and shall be undertaken during the Defects Period at a time agreed with the Employer's Representative and School Management. Submit the final test results and report to the Employer's Representative and include same within the project handover records. Where results require remedial action, comply with the applicable statutory and EPA requirements.	1	Item			
	Construction Products / CE Marking					
D	All construction products incorporated into the Works shall comply with the applicable requirements of Regulation (EU) 2024/3110 - Construction Products Regulation, together with applicable transitional provisions and any continuing requirements arising under Regulation (EU) No. 305/2011.	1	Item			
E	Where required by the applicable Construction Products Regulation, products shall bear the appropriate CE marking and shall be accompanied by the applicable Declaration of Performance and Conformity, Declaration of Performance and other technical documentation required for the product and its intended use.	1	Item			
F	The Contractor shall obtain and retain appropriate evidence of conformity for construction products incorporated into the Works, including CE marking information, declarations, certificates and assessment or verification documentation where applicable. Provide such information to the Employer's Representative when requested and include relevant documentation within the project handover records.	1	Item			
G	Where third-party assessment is required under the applicable regulatory framework, the assessment shall be undertaken by a body appropriately notified or otherwise recognised for the purposes of placing the product on the European Union market. Certification or marking applicable solely to another jurisdiction shall not, of itself, demonstrate compliance with the requirements applicable in the Republic of Ireland.	1	Item			
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	2. CONTRACT (Cont)					
	Testing and Commissioning					
A	Prepare and maintain a coordinated testing and commissioning plan and programme for all systems, installations and elements of the Works requiring testing, inspection, demonstration or commissioning. Submit the proposals sufficiently in advance to the Employer's Representative and relevant Design Team members for review and coordination.	1	Item			
B	The Contractor shall be responsible for carrying out and coordinating all testing, commissioning, balancing, setting to work, demonstrations, inspections and statutory or third-party certification necessary to demonstrate compliance with the Works Requirements and to achieve Substantial Completion. Review or witnessing by the Employer's Representative or Design Team shall not relieve the Contractor of responsibility for the performance or compliance of the Works.	1	Item			
C	Testing and commissioning shall include, as applicable, all mechanical, electrical, life-safety, fire alarm, emergency lighting, BMS and controls, communications, security, access control, lift, drainage, utility, specialist and other building systems, together with all integrated and cause-and-effect testing necessary to demonstrate satisfactory operation of the completed installation.	1	Item			
D	Carry out all building fabric and performance testing required by the Works Requirements, including, where applicable, air permeability testing, thermographic surveying, acoustic testing, water penetration testing and other specified performance tests. Complete all necessary remedial works and repeat testing required to demonstrate compliance.	1	Item			
E	Coordinate all inspections, witnessing and testing required by statutory authorities, utility providers, Assigned Certifier, Design Team members and other relevant third parties and provide the notice periods required under the Contract and Inspection Plan.	1	Item			
F	Provide demonstrations and training to the Employer's personnel in the safe operation, control and routine maintenance of all relevant plant, systems and equipment prior to handover.	1	Item			
G	Maintain complete records of all inspections, tests and commissioning activities, including results, certificates, settings, balancing records, cause-and-effect test results and records of remedial and repeat testing. Include the final coordinated records within the Operation and Maintenance Manuals and project handover documentation and within the Safety File where relevant to future safety and health.	1	Item			
	Quality Assurance and Quality Control					
H	Further to Clause 8.2 of the Contract, the Contractor shall prepare, implement, maintain and update a project-specific Quality Management System covering the Contractor and all subcontractors and suppliers involved in the Works. The system shall establish the procedures, responsibilities, inspections, testing, records and controls necessary to demonstrate compliance with the Works Requirements.	1	Item			
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	2. CONTRACT (Cont)					
A	Prepare and maintain a project-specific Quality Plan setting out the Contractor's management structure, responsibilities, supervision arrangements, quality-control procedures, inspection and test plans, hold points, witness points, records and procedures for managing non-conformances. Submit the Quality Plan to the Employer's Representative for review prior to commencement of the relevant Works and update it as necessary throughout the Contract.	1	Item			
B	Prepare and maintain Inspection and Test Plans for the principal elements of the Works, identifying the inspections, tests, hold points, witness points, acceptance criteria, responsible persons and records necessary to demonstrate compliance. Coordinate the Contractor's inspection arrangements with the Preliminary Inspection Plan, Inspection Notification Framework and Assigned Certifier requirements.	1	Item			
C	Ensure that all Works are undertaken by suitably qualified, trained and competent personnel and in accordance with the Works Requirements, approved technical information and manufacturers' recommendations. Maintain appropriate records of specialist training, certification and competency where required.	1	Item			
D	Implement specific quality-control procedures for elements critical to Building Regulation compliance and building performance, including, as applicable, fire stopping and compartmentation, fire-rated doorsets, air-tightness, insulation continuity, thermal bridging, acoustic performance, radon protection, weathering, service penetrations, drainage, stairs and guarding and other concealed or performance-critical Works.	1	Item			
E	Implement procedures for the procurement, receipt, inspection, storage and incorporation of materials and products to verify compliance with the Works Requirements prior to their incorporation into the Works. Maintain relevant product data, certification and traceability records. Review or comment by the Employer's Representative or Design Team shall not relieve the Contractor of responsibility for compliance with the Contract.	1	Item			
F	Provide appropriate quality-control arrangements for concrete works, including pre-pour inspections, sampling, testing, curing, post-pour inspection and maintenance of all necessary records in accordance with the Civil and Structural Materials and Workmanship Specification and applicable standards.	1	Item			
G	Ensure that subcontractors and specialist contractors are appropriately competent and adequately supervised and that their work is incorporated within the Contractor's Quality Management System. Monitor and inspect subcontracted Works to demonstrate compliance with the Works Requirements.	1	Item			
H	Coordinate the testing, commissioning, inspection, demonstration and handover of all building fabric, mechanical, electrical and specialist systems. Maintain complete records of inspections, tests, commissioning, snagging, corrective works and final acceptance/verification for inclusion in the project handover documentation.	1	Item			
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	2. CONTRACT (Cont)					
A	Plan procurement and quality-control activities sufficiently in advance to accommodate Works which are restricted to school holiday periods, out-of-hours working or other limited access periods. The Contractor shall ensure that materials, approvals, specialist resources and necessary information are available in sufficient time to undertake such Works within the permitted periods.	1	Item			
B	Maintain an Observation and Non-Conformance Register recording all quality observations, defects and non-conformances identified by the Contractor, Employer's Representative, Design Team, Assigned Certifier or other authorised inspectors. Record the responsible party, required corrective action, target date and close-out status for each item.	1	Item			
C	Submit the current Observation and Non-Conformance Register to the Employer's Representative at agreed intervals and include an updated summary within the Contractor's monthly progress report. Corrective actions shall be implemented promptly and evidence of satisfactory close-out maintained.	1	Item			
	Contractor's Monthly Progress Reports					
D	Further to Clause 4.10.2 of the Contract, the Contractor shall submit a written Monthly Progress Report to the Employer's Representative not less than two working days prior to each monthly progress meeting.	1	Item			
E	The report shall include an updated Contract Programme and progress statement identifying actual progress against planned progress, critical path activities, key milestones, delays or matters materially affecting progress and the measures proposed to maintain or recover the Contract Programme.	1	Item			
F	Provide a minimum two-week look-ahead programme together with details of planned activities, subcontractors, labour resources, significant plant and equipment, deliveries and works affecting the occupied school or requiring particular access arrangements.	1	Item			
G	Provide an updated schedule of procurement, Contractor design information, technical submissions, samples and information required from the Employer's Representative or Design Team, identifying any matters which may affect the progress of the Works if not resolved by the stated required date.	1	Item			
H	Include a summary of inspections, testing, commissioning, Building Control/BCAR activities, Inspection Plan matters, quality observations and non-conformances arising during the reporting period and those planned for the following period.	1	Item			
J	Maintain and report appropriate records of labour resources, significant plant and equipment and weather conditions where relevant to the progress of the Works.	1	Item			
K	Provide dated progress photographs sufficient to record the progress of the Works, including representative overall Site views and key works completed during the reporting period. Photographs shall be provided electronically in an agreed format and location.	1	Item			
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	2. CONTRACT (Cont)					
	The Control of Noise					
A	The Contractor shall control and minimise construction noise in accordance with the Works Requirements, planning conditions, applicable Local Authority requirements and BS 5228-1:2009+A1:2014, or any superseding standard. Particular regard shall be given to the proximity of the occupied school and adjoining residential properties.	1	Item			
B	Where required by the Works Requirements, planning conditions or the nature of the activities being undertaken, provide suitable noise monitoring at agreed locations and maintain records of monitoring results. Include relevant monitoring results and details of any exceedances and corrective actions within the Monthly Progress Report.	1	Item			
	Vibration Monitoring					
C	Construction activities generating significant vibration shall be planned and undertaken in accordance with BS 5228-2:2009+A1:2014 and any applicable project-specific environmental or structural requirements.	1	Item			
D	Where vibration-generating works have the potential to affect adjoining properties, retained buildings or other sensitive structures, provide vibration monitoring at locations agreed with the Employer's Representative having regard to the nature, location and duration of the Works.	1	Item			
E	Monitoring equipment shall be suitably calibrated and maintained. Keep records identifying the date, time, location, vibration level and frequency of monitored events and promptly investigate any exceedance of the applicable project-specific criteria. Provide monitoring records to the Employer's Representative when requested.	1	Item			
	Nuisance Precautions / Liaison					
F	Take all reasonable precautions to prevent damage, nuisance or unreasonable disturbance arising from the Works, including noise, vibration, dust, mud, smoke, odours, waste, construction traffic and other Site activities. Particular regard shall be given to the occupied school and adjoining residential properties.	1	Item			
G	Appoint a named Site Liaison Officer responsible for coordinating communications with De La Salle College, the Employer's Representative and, where necessary, adjoining residents and occupiers in relation to construction activities likely to affect them. Submit the proposed liaison arrangements prior to commencement on Site.	1	Item			
H	Maintain a Complaints Register recording complaints associated with the Works, including the date and nature of the complaint, the person or property affected where provided, investigation undertaken, corrective action implemented and close-out. Make the register available to the Employer's Representative and include a summary in the Monthly Progress Report.	1	Item			
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	2. CONTRACT (Cont)					
	Tax Clearance					
A	The Contractor shall maintain valid Tax Clearance for the period required under applicable Revenue requirements and shall provide evidence of same where required by the Employer or Contracting Authority.	1	Item			
B	The Contractor shall comply with all applicable Relevant Contracts Tax (RCT) requirements in respect of subcontractors engaged in connection with the Works, including registration, contract notifications, payment notifications and deductions through the Revenue Online Service (ROS).	1	Item			
C	The Contractor shall ensure that all subcontractor payments and associated RCT obligations are dealt with in accordance with current Revenue requirements and shall maintain such records and evidence of compliance as may be required under applicable legislation.	1	Item			
	Custom Duties					
D	The Contractor shall allow in the Tender Sum for all customs duties, import charges, tariffs and other similar charges legally payable in connection with materials, products, plant and equipment required for the Works, except where expressly stated otherwise in the Contract Documents.		Item			
	Value Added Tax (VAT)					
E	The Tender shall be submitted exclusive of VAT. The Tenderer shall separately identify any elements of the Tender which are liable to VAT at a rate different from the rate generally applicable to construction services, or which are exempt or zero-rated, and shall state the applicable VAT treatment and rate. The Contractor shall comply with all current Revenue requirements in relation to VAT for the duration of the Contract.	1	Item			
F	Where the Employer is a Principal Contractor for the purposes of Relevant Contracts Tax and the VAT reverse charge applies, the Contractor shall issue invoices on a VAT-exclusive basis in accordance with current Revenue requirements. Such invoices shall include the statement:"VAT on this supply to be accounted for by the principal contractor."	1	Item			
G	Any amounts which are not subject to the VAT reverse charge, or which are liable to VAT at a different rate, shall be separately identified and invoiced in accordance with current Revenue requirements.	1	Item			
H	Applications for Payment and submissions in respect of Compensation Events shall clearly identify any items having a VAT treatment or rate different from that generally applicable to the construction services forming the Contract.	1	Item			
J	Where any item is exempt from VAT, zero-rated or otherwise subject to a particular VAT treatment, the relevant amount and applicable treatment shall be clearly identified.	1	Item			
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	2. CONTRACT (Cont)					
	Patent Rights and Royalties					
A	Subject to the Conditions of Contract, the Contractor shall obtain all licences, permissions and consents necessary for the use of patented or otherwise protected products, systems, processes and materials incorporated into the Works and shall allow for all associated royalties, licence fees and charges. The Contractor shall indemnify the Employer against claims arising from any infringement attributable to the Contractor's selection or use of such products, systems, processes or materials.	1	Item			
	Removal of Improper Work and Materials					
B	Where any materials, products, workmanship or other part of the Works does not comply with the Contract, the Contractor shall, when required in accordance with the Contract, remove, replace, rectify or re-execute the non-compliant work at its own cost. Previous inspection, testing, comment, certification or interim payment shall not relieve the Contractor of its responsibility to comply with the Contract.	1	Item			
	Other items for consideration					
C	Liaise and cooperate with the Employer's Representative and School Management throughout the Works to minimise disturbance to the operation of the existing school and adjoining occupiers. Radios, amplified music and other audio equipment shall not be used where they may cause nuisance or interfere with school activities.	1	Item			
D	Where the Contract provides for completion in Sections, each Section shall be fully operational, tested, commissioned, cleaned and sufficiently complete for its intended use prior to the Contractor requesting certification of Substantial Completion. Any minor outstanding works or Defects permitted under the Contract shall not materially affect the safe occupation, operation or intended use of the relevant Section and shall be completed promptly thereafter.	1	Item			
E	Prepare and implement delivery and construction traffic arrangements having particular regard to the operation of the existing school. Construction deliveries shall not take place during school arrival or departure periods unless specifically agreed in advance with School Management and the Employer's Representative.	1	Item			
	Site House Keeping					
F	Arrange and maintain scaffolding, plant, storage areas, skips, chutes, temporary works and other Site facilities so as to maintain safe access, good housekeeping and the continued safe operation of the occupied school and adjoining areas.	1	Item			
G	Take all necessary measures to prevent the uncontrolled spread of airborne dust and debris arising from the Works and maintain the Site and adjoining affected areas in a clean and orderly condition.	1	Item			
H	Maintain unobstructed access for emergency services, including fire brigade and ambulance access, to the existing school and other occupied buildings at all times.	1	Item			
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	2. CONTRACT (Cont)					
A	Burning of waste, rubbish or other materials on the Site shall not be permitted.	1	Item			
B	Maintain existing drains, sewers and other services serving the occupied school in an operational condition throughout the Works except during planned and agreed temporary diversions or shutdowns. Prevent construction debris, silt and other deleterious material from entering drainage systems.	1	Item			
C	Provide and maintain all edge protection, access systems, fall protection and other measures necessary for safe working on roofs and at height in accordance with applicable safety legislation and the Contractor's Safety and Health Plan.	1	Item			
D	Activities likely to generate significant noise, vibration or other disruption to the operation of the existing school shall be planned and coordinated with School Management and the Employer's Representative and, where necessary, undertaken outside normal school hours or during agreed closure periods.	1	Item			
E	Prevent mud, clay, rubble and other construction debris from being deposited on public roads, footpaths and adjoining areas. Provide wheel-cleaning and road-cleaning measures as necessary and promptly clean any affected public areas at the Contractor's expense. Comply with all relevant planning conditions and Local Authority requirements.	1	Item			
	Archaeology and Unexpected Finds					
F	If any archaeological object, feature, deposit, human remains or other material of potential archaeological significance is encountered during the Works, immediately cease work in the affected area, protect the find from disturbance and notify the Employer's Representative and the relevant statutory authority. The Contractor shall comply with all applicable archaeological heritage legislation and the requirements of the National Monuments Service and National Museum of Ireland and shall not remove or disturb any such find except as authorised.	1	Item			
G	Comply also with Clause 7.8 (Archaeological Objects and Human Remains) of the Conditions of Contract.	1	Item			
	Levels survey					
H	Prior to commencement of the Works, carry out a survey of existing ground, road, floor and other relevant levels within the areas affected by the Works. Submit the survey to the Employer's Representative in PDF and editable electronic/CAD format where applicable and promptly notify the Employer's Representative of any material discrepancy between the surveyed levels and the Contract Documents.	1	Item			
	Acoustic Commissioning Testing					
J	Carry out all acoustic performance testing specified in the Works Requirements and in the Acoustic Testing requirements elsewhere in these Preliminaries, including airborne and impact sound insulation, reverberation time and indoor ambient noise testing where applicable.	1	Item			
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	2. CONTRACT (Cont)					
	Radon Membrane Integrity Testing					
A	Where required by the Works Requirements, arrange for the installed radon/gas protection membrane to be independently inspected and integrity-tested by a suitably qualified and competent specialist prior to covering. Testing and verification shall be undertaken in accordance with the specified system requirements and current recognised good-practice guidance. Provide a verification report identifying inspections undertaken, test results, defects identified, remedial works and satisfactory close-out.	1	Item			
	Schedule of Dilapidations / Condition Survey					
B	Prior to commencement of the Works, prepare a detailed photographic and written condition survey of the existing school buildings, roads, footpaths, boundaries, adjoining structures and other areas liable to be affected by the Works. Submit the record to the Employer's Representative prior to commencing activities which could affect those areas. The condition survey shall not limit or otherwise affect the Contractor's liabilities under the Contract.	1	Item			
C	Prior to commencing demolition, alteration or structural intervention works, inspect and record the condition of the affected existing structures and adjoining construction and prepare appropriate method statements, temporary works proposals and protection measures for the safe execution of those Works.	1	Item			
	Third Party Fire Safety Certification					
D	Where required by the Works Requirements, appoint an independent suitably qualified fire safety specialist to undertake staged inspections of fire-safety-critical elements installed as part of the Works, including compartmentation, fire stopping and relevant mechanical and electrical interfaces. Submit inspection reports, identify and close out non-conformances and provide a final compliance report for inclusion in the project handover documentation.	1	Item			
	Existing Trees					
E	Prior to commencement of construction activities, protect all existing trees and vegetation identified for retention. Provide and maintain suitable protective fencing and prevent storage of materials, plant movement, excavation or other potentially damaging activities within designated tree protection areas except where specifically permitted by the Works Requirements.	1	Item			
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	2. CONTRACT (Cont)					
	Ecological Requirements					
A	Comply with all ecological requirements contained in the Planning Permission, Works Requirements and project ecological reports and with applicable wildlife legislation. Vegetation and hedgerow clearance shall, where practicable, be programmed outside the main bird nesting season of 1 March to 31 August inclusive. Where clearance during this period is unavoidable and otherwise permitted, arrange for the affected vegetation to be inspected immediately in advance by a suitably qualified ecologist. Where active nests, bat roosts, badger activity or other protected species are identified or suspected, cease the affected works and implement the ecologist's recommendations and any statutory licensing requirements before proceeding. Allow for all associated surveys, supervision and mitigation measures.	1	Item			
	Contractor Designed Items					
B	Where the Works Requirements identify any element as Contractor-designed, the Contractor shall allow for all design, specialist design, coordination, calculations, drawings, technical submissions, certification and other requirements necessary for the complete design and execution of that element. Provide Professional Indemnity Insurance where required by the Contract. Review or comment by the Employer's Representative or Design Team shall not relieve the Contractor or its designers of their responsibilities under the Contract. All costs inherent in fulfilling the identified Contractor design obligations shall be included in the Contract Sum except where otherwise provided for under the Contract.	1	Item			
	Construction Environmental Management Plan (CEMP)					
C	Prepare, implement and maintain a project-specific Construction Environmental Management Plan (CEMP) prior to commencement of the Works. Submit the CEMP to the Employer's Representative and, where required by the Planning Permission, to the Planning Authority or other relevant authority. The CEMP shall be maintained as a live document throughout the Works and shall address, as applicable, dust, noise and vibration, construction traffic, waste and resource management, protection of soils and groundwater, water pollution prevention, ecology and biodiversity, site housekeeping, emergency response, environmental incidents, extreme weather and the environmental roles and responsibilities of the Contractor and subcontractors.		Item			
	Resource & Waste Management					
D	Prepare, implement and maintain a project-specific Resource and Waste Management Plan (RWMP) in accordance with the current EPA Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects and all applicable waste legislation. Submit the Plan to the Employer's Representative and, where required by the Planning Permission, to the Planning Authority prior to commencement of the relevant Works.	1	Item			
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	2. CONTRACT (Cont)					
A	The RWMP shall address waste prevention, reuse, segregation, storage, recovery and lawful disposal; management of excavated soils and stones; anticipated waste streams and quantities; responsibilities; authorised waste collectors and facilities; record keeping and waste documentation; and implementation of the waste hierarchy. The Plan shall be maintained as a live document throughout the Works. All waste leaving the Site shall be transported by appropriately authorised collectors and recovered or disposed of at appropriately authorised facilities.	1	Item			
	Building Services Coordination					
B	The Contractor shall appoint a suitably qualified and experienced Building Services Coordinator with responsibility for the coordination of all mechanical, electrical, specialist and utility services for the duration necessary to complete the Works.	1	Item			
C	The Building Services Coordinator shall coordinate all service routes, plant, equipment, builders' work requirements, penetrations, access and maintenance requirements and interfaces between building services, structure, architecture and specialist installations. Prepare and maintain coordinated services drawings, integration matrices and other coordination information required by the Works Requirements.	1	Item			
D	Coordinate the activities of all mechanical, electrical and specialist subcontractors and liaise with the Design Team, utility providers, Local Authorities and other relevant bodies. Programme procurement, utility applications, statutory approvals, plant and equipment sufficiently in advance so as not to delay the Works.	1	Item			
E	Coordinate all testing, commissioning, balancing, integration, demonstrations and training associated with the building services and ensure that the completed installations comply with the Works Requirements and applicable Building Regulations.	1	Item			
F	Coordinate and provide complete record/as-installed drawings, asset information, Operation and Maintenance Manuals, manufacturers' literature, test and commissioning records, warranties, guarantees and other handover information required for the building services installations.	1	Item			
	Maintenance obligation on Mechanical and Electrical Installations for duration of Defects Period					
G	Where required by the Works Requirements, provide all planned preventative maintenance and servicing of the mechanical, electrical and specialist installations for the duration of the Defects Period, in addition to the Contractor's obligations in respect of defects. Maintenance shall be undertaken by suitably qualified personnel and in accordance with manufacturers' recommendations, warranty requirements and the Operation and Maintenance Manuals.	1	Item			
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	2. CONTRACT (Cont)					
A	Allow for all labour, attendance, maintenance consumables, filters, lubricants, replacement of items required as part of routine scheduled servicing, specialist attendance and lawful disposal of materials arising from such maintenance. Maintain records of all servicing and maintenance undertaken and provide copies to the Employer's Representative.	1	Item			
B	Normal utility and fuel consumption associated with the Employer's operation of the completed building shall be excluded unless expressly stated otherwise. Utilities, fuel and other costs arising from the investigation, rectification, testing or recommissioning of Defects attributable to the Contractor shall remain the Contractor's responsibility.	1	Item			
	Landscaping					
C	Maintain all hard and soft landscaping forming part of the Works throughout the Defects Period. Maintenance of soft landscaping shall include watering, weeding, mowing, pruning, staking, replacement of failed or defective planting and all other measures necessary to establish and maintain the landscaping in a healthy condition. Replace dead, diseased or unsuccessful planting prior to expiry of the Defects Period. Allow for all associated costs.	1	Item			
	Schedule of Guarantees and Warranties					
D	Provide all warranties, guarantees, insurance-backed guarantees and other forms of security expressly required by the Works Requirements for the relevant elements of the Works. Prepare and maintain a schedule identifying the item covered, provider, commencement date, duration and expiry date. Submit all final warranties and guarantees as part of the project handover documentation.	1	Item			
	Monthly Progress Photos/ Video					
E	Provide a monthly photographic record of the Works, including aerial/drone photography where practicable and permitted, showing overall Site progress and the principal areas of construction. Coordinate all aerial photography with School Management and comply with all applicable aviation, privacy and safeguarding requirements. Allow for all associated costs.	1	Item			
F	Provide a monthly video walkthrough of the building and external works sufficient to provide a clear record of progress during the reporting period. Videos shall identify the principal areas of work and be provided electronically in a format agreed with the Employer's Representative.	1	Item			
	Completion Photography					
G	On completion, appoint a competent professional photographer to provide a coordinated photographic record of the completed project, including internal and external photographs and agreed aerial/drone images where practicable. Provide high-resolution digital copies to the Employer together with appropriate rights for the Employer to use the photographs for project, educational, reporting and promotional purposes.	1	Item			
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	2. CONTRACT (Cont)					
	Pre-Substantial Completion Requirements/ Checklist					
	Prior to requesting certification of Substantial Completion, the Contractor shall demonstrate that the following requirements, where applicable to the Works, have been completed and that the relevant documentation has been submitted to the Employer's Representative. The checklist does not limit any other requirement of the Contract or Works Requirements.					
A	Provide final fire safety inspection, testing and compliance documentation required by the Works Requirements, including relevant fire stopping, compartmentation, fire doors, screens, ironmongery and services interfaces. Where an independent fire safety compliance report is specifically required, submit the completed report.	1	Item			
B	Provide the final air permeability test report and certification demonstrating achievement of the specified air-tightness performance.	1	Item			
C	Provide the final thermographic survey report where required by the Works Requirements, together with evidence that identified defects have been satisfactorily rectified.	1	Item			
D	Provide all final as-built information required by the BER Assessor and provide the final BER Certificate and associated documentation where applicable.	1	Item			
E	Provide all certificates, ancillary certificates, declarations and other documentation required to demonstrate compliance of the Works with the applicable Building Regulations and Building Control requirements.	1	Item			
F	Provide the completed Safety File information required from the Contractor/PSCS together with the final Operation and Maintenance Manuals and other project handover documentation.	1	Item			
G	Complete all testing, commissioning, setting to work, balancing, integrated systems testing, demonstrations and Employer training required for mechanical, electrical and specialist installations. Provide a coordinated commissioning and training register identifying the system, date, persons in attendance and associated records.	1	Item			
H	Provide the final schedule of warranties, guarantees and insurance-backed guarantees together with the associated documentation, clearly identifying the commencement date and duration of each.	1	Item			
J	Complete the Contractor's own detailed inspection and snagging of the Works prior to presenting the Works to the Employer's Representative and Design Team for final inspection. Close out all items which would prevent safe occupation, operation or certification of Substantial Completion.	1	Item			
K	Provide within the handover documentation a concise maintenance and statutory inspection schedule identifying plant, equipment and building elements requiring periodic maintenance, inspection or testing, together with the required frequency and initial due date.	1	Item			
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	2. CONTRACT (Cont)					
A	Complete handover of all keys, access cards, fobs and specialist access tools. Provide a coordinated key and access register identifying each item, reference, location and quantity handed over. Provide a minimum of two copies of each key unless otherwise stated in the Works Requirements.	1	Item			
B	Complete all specified drainage inspection and testing, including CCTV surveys, pressure testing, water testing or other testing required by the Civil/ Structural Specification, and provide final reports and recordings.	1	Item			
C	Remove all temporary draw ropes, obstructions and construction debris from ducts and service routes and verify that all required spare ducts and draw-wire installations are complete and serviceable.	1	Item			
	ADDITIONAL ENGINEERING PRELIMINARIES					
	Foundation Formation					
D	Prior to placing foundations, the Contractor shall arrange for the exposed foundation formations to be inspected by a suitably qualified and competent Geotechnical Engineer where required by the Works Requirements. The inspection shall confirm whether the exposed ground conditions are consistent with the ground conditions and design bearing parameters stated in the Contract Documents.	1	Item			
E	The foundation design parameters and allowable bearing pressures shall be as stated on the Structural Engineer's drawings and/or in the Works Requirements. Where the exposed formation differs materially from the anticipated conditions, notify the Employer's Representative immediately and do not proceed with the affected foundation until further instruction is received.	1	Item			
F	Allow for all Geotechnical Engineer attendance reasonably necessary to inspect representative foundation formations during the course of the Works and to provide the required inspection records and certification.	1	Item			
G	Include all costs associated with the Geotechnical Engineer's attendance, inspections, reporting and certification required under the Contract.	1	Item			
H	Maintain records of formation inspections identifying the locations inspected, ground conditions encountered, observations made and any recommendations or corrective actions arising. Submit the records to the Employer's Representative.	1	Item			
J	Provide a photographic record of representative foundation formations and other significant ground conditions encountered prior to covering.	1	Item			
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	2. CONTRACT (Cont)					
	Notifications					
A	Give the Employer's Representative not less than five working days' written notice, where practicable, of foundation formation inspections and other inspection hold points identified in the Inspection Plan. The Employer's Representative and Design Team shall be afforded reasonable opportunity to inspect prior to the Works being covered.	1	Item			
B	The Contractor shall make appropriate allowance within the Contract Programme for the inspection and notification requirements stated in the Contract and Works Requirements.	1	Item			
C	Immediately notify the Employer's Representative in writing of unexpected or materially different ground conditions encountered during the Works and, where necessary, suspend the affected activity and protect the Works pending further direction in accordance with the Contract.	1	Item			
	Testing of Sewers, Drains & Watermains					
D	Allow for all testing, inspection, flushing, disinfection, CCTV surveying and other verification of water, wastewater and drainage infrastructure required by the Civil Engineering Specification, Works Requirements, relevant statutory requirements and applicable Uisce Eireann requirements.	1	Item			
E	Coordinate the construction, phasing, inspection, testing and commissioning of water and wastewater infrastructure with the Site programme and with Uisce Eireann where the infrastructure is intended for connection to or taking in charge by Uisce Eireann.	1	Item			
F	Wastewater infrastructure shall be constructed and tested in accordance with the current Uisce Eireann Code of Practice and Standard Details for Wastewater Infrastructure applicable to the Connection Agreement, together with the Works Requirements.	1	Item			
G	Water infrastructure shall be constructed and tested in accordance with the current Uisce Eireann Code of Practice and Standard Details for Water Infrastructure applicable to the Connection Agreement, together with the Works Requirements.	1	Item			
	Testing of Subgrade					
H	Carry out testing of subgrade, fill and compacted materials in accordance with the Civil Engineering Specification and the current applicable methods of BS 1377, including BS 1377-2:2022 where relevant. Testing shall include determination of moisture content, density, compaction and CBR or other specified performance criteria as applicable.	1	Item			
J	Undertake field testing at sufficient frequency to demonstrate that the specified compaction and subgrade performance requirements have been achieved. Materials which fail to achieve the acceptance criteria stated in the Works Requirements shall be reworked, improved, removed or replaced as appropriate and retested. Maintain and submit complete test records.	1	Item			
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	2. CONTRACT (Cont)					
	Unbound Granular Fill / Pyrite					
A	All unbound granular fill/hardcore used beneath concrete floors and associated footpaths shall comply with S.R. 21:2014+A1:2016 Annex E, I.S. EN 13242 and I.S. 888, including applicable requirements relating to material properties, certification, procurement, delivery, traceability, storage and placement.	1	Item			
B	Prior to incorporation into the Works, obtain and retain all required supplier certification, declarations, delivery records and traceability documentation demonstrating that the material is suitable for the intended end use and presents an acceptable risk with regard to swelling or deleterious constituents.	1	Item			
C	Where independent verification testing is required by the Works Requirements or reasonably requested in accordance with the Contract, arrange testing by a suitably accredited independent laboratory and submit the results to the Employer's Representative. Material which does not satisfy the specified requirements shall not be incorporated into the Works.	1	Item			
	Concrete Masonry Units					
D	Concrete masonry units shall comply with I.S. EN 771-3 and applicable amendments, the Works Requirements and the Structural Specification. Where independent testing is required by the Structural Specification or Inspection Plan, arrange sampling and testing by a suitably accredited laboratory at the specified frequency and provide the test reports to the Employer's Representative.	1	Item			
	Mortar Testing					
E	Allow for all sampling, testing and certification of masonry mortar required by the Civil and Structural Materials and Workmanship Specification, applicable standards and the Inspection Plan. Provide all test results and associated records to the Employer's Representative.	1	Item			
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2. CONTRACT **Carried to Summary**					

3. WORK BY NOVATED SPECIALISTS, SPECIALISTS, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY BY T

3. WORK BY SPECIALIST WORKS CONTRACTORS, DISPUTE RESOLUTION, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY BY THE EMPLOYER

3.1 Work by Novated Specialists and other Specialists

A	n/a		Note		

3.2 Work by Utility Providers

B	Where works or services are required to be undertaken directly by Uisce Eireann, ESB Networks, Gas Networks Ireland, telecommunications providers, Local Authorities or other statutory utility providers, the charges payable directly to such bodies shall be borne by the Employer where expressly identified as Employer-paid within the Contract Documents. All other Contractor obligations associated with such connections shall be included in the Contract Sum.	1	Item		
C	The Contractor shall coordinate and facilitate all utility-provider works as an integral part of the Contract Programme. Allow for all necessary liaison, notices, applications, access, attendance, programming, sequencing and coordination with the Employer's Representative and relevant utility providers to ensure that connections and associated works are completed in sufficient time to permit testing, commissioning and Substantial Completion.	1	Item		
D	Unless expressly stated otherwise, the Contractor shall allow for all temporary services, temporary connections, temporary diversions and associated Contractor-side works necessary for the execution of the Works. This shall include temporary supplies, ducting, trenching, chambers, reinstatement and other temporary infrastructure required for the Contractor's operations.	1	Item		
E	All utility installations, diversions, connections and associated Contractor works shall comply with the Works Requirements and the current requirements, specifications and procedures of the relevant utility provider and statutory authority.	1	Item		
F	The Contractor shall coordinate all water and wastewater connection requirements with Uisce Eireann and shall prepare and provide all Contractor-side drawings, technical information, applications, quality assurance documentation and other information necessary to facilitate the connection process. Provide all private-side water and wastewater infrastructure, fittings, chambers, ducting, testing and associated works included in the Works Requirements.	1	Item		
G	The Employer shall execute any Connection Agreement and pay any Uisce Eireann connection charge identified in the Contract Documents as an Employer responsibility. The Contractor shall nevertheless programme, coordinate and facilitate the connection and shall provide all attendance and information necessary to achieve the connection within the Contract Programme.	1	Item		

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	3. WORK BY NOVATED SPECIALISTS, SPECIALISTS, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY BY T					
A	The Contractor shall provide all Contractor-side electrical infrastructure identified in the Works Requirements, including ducts, chambers, draw pits, service pillars, mini/micro-pillar infrastructure and associated civil works as applicable, and shall coordinate such works with ESB Networks and the Electrical Services Engineer. Comply with all current ESB Networks requirements and allow sufficient programme time for inspections, approvals, certification and energisation.	1	Item			
B	Provide the external and site lighting installations shown in the Works Requirements, including all associated ducting, cabling, chambers, columns, control equipment and other Contractor-side infrastructure. Coordinate interfaces with ESB Networks or the relevant Local Authority where applicable and comply with the applicable electrical and public-lighting requirements.	1	Item			
C	Coordinate with ESB Networks in relation to any diversion, protection or alteration of existing overhead or underground electricity infrastructure affected by the Works. Provide all Contractor-side civil works, attendance and coordination identified within the Works Requirements and programme the activities sufficiently in advance to avoid delay to the Works.	1	Item			
D	All electrical installations shall comply with applicable legislation, the current National Rules for Electrical Installations, I.S. 10101, ESB Networks requirements and the Works Requirements. Electrical work requiring certification shall be undertaken and certified by a suitably registered Registered Electrical Contractor (REC). Provide all applicable Safe Electric Completion Certificates, test records and associated certification prior to handover.	1	Item			
E	Provide all Contractor-side telecommunications infrastructure shown in the Works Requirements, including ducts, chambers, draw ropes, containment and building entry facilities. Liaise and coordinate with the Employer's nominated telecommunications provider(s) to facilitate installation and connection within the Contract Programme.	1	Item			
	3.3 Work by others engaged directly by the Employer					
	The Contractor must provide:					
F	Allow within the Contract Programme for the activities of Employer-appointed contractors and suppliers and coordinate their access, deliveries, installation, testing and commissioning with the Works. Provide reasonable notice of dates when relevant areas will be available and ensure that such activities can be completed without preventing achievement of Substantial Completion.	1	Item			
G	Provide reasonable general attendance for Employer-appointed contractors and suppliers, including coordinated access to the Site and relevant work areas, use of agreed welfare facilities, temporary lighting and power where available, and normal Site supervision and safety coordination associated with the Contractor's role as PSCS.	1	Item			
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	3. WORK BY NOVATED SPECIALISTS, SPECIALISTS, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY BY T					
A	Provide any special attendance expressly identified in the Works Requirements, including off-loading, lifting, temporary storage, distribution, positioning, builders' work, final connections and other specific assistance. Special attendance shall only include those obligations expressly stated in the Contract Documents.	1	Item			
	Employer-Supplied Furniture and Equipment					
B	Facilitate delivery of Employer-supplied loose furniture and equipment prior to Substantial Completion and provide access to the relevant completed areas. Where expressly required by the Works Requirements, provide distribution and positioning of such items within the building.	1	Item			
C	Receive, store where required, distribute and install Employer-supplied fixtures and fittings expressly identified for installation by the Contractor, including associated fixings and builders' work. Coordinate locations with the relevant drawings and the Employer's Representative.	1	Item			
D	Facilitate delivery and installation of Employer-supplied ICT and end-user equipment and provide the access, power, data outlets and other interfaces forming part of the Contract Works. Installation and commissioning of Employer ICT equipment shall be by the Employer's appointed provider unless expressly stated otherwise in the Works Requirements.	1	Item			
E	Where identified in the Works Requirements, receive, position and connect Employer-supplied appliances and specialist equipment, including electrical, water, drainage and other connections forming part of the Contract Works. Coordinate final testing and commissioning with the relevant Employer-appointed supplier or specialist.	1	Item			
F	Where identified in the Works Requirements, provide the necessary lifting, handling and positioning arrangements for Employer-supplied heavy or specialist equipment, including the kiln where applicable. Allow for appropriate lifting plant, access, temporary protection and specialist attendance necessary to safely position the equipment.	1	Item			
G	Facilitate the Employer's Artist / Percent for Art installation, including reasonable Site access and coordination with the Works. Provide any specific builders' work, services or attendance only where identified in the Works Requirements.	1	Item			
H	Employer-appointed contractors and specialists shall remain responsible for their own works, personnel, plant, equipment and insurances. The Contractor shall maintain the insurances required under the Contract and shall undertake the coordination, attendance and PSCS obligations expressly allocated to it. Facilitation or coordination of Employer-appointed parties shall not transfer responsibility for the design, workmanship or performance of their works to the Contractor, except to the extent expressly provided for under the Contract.	1	Item			
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3. WORK BY NOVATED SPECIALISTS, SPECIALISTS, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY BY T					
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3. WORK BY NOVATED SPECIALISTS, SPECIALISTS, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY **Carried to Summary**					

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	4. GENERAL FACILITIES AND OBLIGATIONS					
	4. GENERAL FACILITIES AND OBLIGATIONS					
A	Allow for all temporary works, adapting, maintaining, cleaning, removal and making good associated with the General Facilities and Obligations described in this section. Allow also for all notices, applications, attendance and fees payable by the Contractor to statutory authorities and utility providers arising from the Contractor's obligations under the Contract, except where expressly identified as an Employer cost elsewhere in the Contract Documents.	1	Item			
	a) Supervision and co-ordination of the Works.					
	Generally					
B	The Contractor shall accept responsibility for the management, supervision, coordination and administration of the Works, including the Works of subcontractors, specialists and suppliers, and shall provide adequate competent resources to ensure compliance with the Contract, Works Requirements and applicable statutory requirements.	1	Item			
C	Coordinate the activities and programmes of all subcontractors, specialists, suppliers, utility providers and other parties for whom the Contractor has responsibility. Obtain, prepare and issue all information necessary for the proper coordination and timely execution of the Works.	1	Item			
	Where appointed as the Builder for the purposes of the Building Control Regulations, the Contractor shall undertake all duties applicable to the Builder under the Building Control Regulations 1997 to 2026, as amended, and the current Code of Practice for Inspecting and Certifying Buildings and Works.					
D	The Contractor shall ensure that the Works are constructed in accordance with the Building Regulations, the certified design documentation, Works Requirements and applicable statutory requirements and shall cooperate fully with the Assigned Certifier, Design Certifier, Employer's Representative and Ancillary Certifiers.	1	Item			
E	Provide competent management and supervision of the Works and maintain appropriate inspection, testing, quality and compliance records. Provide all Contractor, subcontractor, specialist, supplier and manufacturer certificates, declarations, test results and other information reasonably required to demonstrate compliance and facilitate completion of the statutory certification process.	1	Item			
F	Comply with the Inspection Plan and Inspection Notification Framework and provide the required notice of identified inspection and hold points. Ensure that relevant Works remain accessible for inspection until the required inspection opportunity has been afforded.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Provide, execute and submit all Builder, Contractor and Ancillary Certificates required from the Contractor and its subcontractors, specialists and suppliers for the completion and certification of the Works. Provide such information sufficiently in advance to avoid delay to the Certificate of Compliance on Completion and Substantial Completion.	1	Item			
B	As part of the Contractor's Quality Plan, set out the management, supervision, inspection and record-keeping procedures by which compliance with the Building Regulations and Works Requirements will be demonstrated. Identify responsible personnel and the procedures for managing concealed, safety-critical and performance-critical Works.	1	Item			
C	The compliance arrangements shall address, as applicable, foundations and groundworks; below-slab services; radon protection; concrete and structural connections; precast elements; insulation and thermal continuity; cavity construction; air-tightness; fire stopping and compartmentation; fire doorsets; service penetrations; roofing and weathering; stairs and guarding; mechanical and electrical installations and other critical elements identified in the Inspection Plan or Works Requirements.	1	Item			
D	Where non-compliant work is identified, record the non-conformance, corrective action and satisfactory close-out. Where relevant, maintain photographic and other documentary evidence of removal, rectification and completed compliant work.	1	Item			
E	Provide adequate competent supervisory and management personnel for the duration of the Works, including a suitably authorised senior representative and sufficient full-time Site supervision to manage and coordinate the Works and achieve completion within the Contract Period.	1	Item			
F	The Contractor's management and supervisory personnel shall possess qualifications, competence and experience appropriate to the nature and complexity of the Works. Key personnel identified in the Contractor's tender submission shall not be replaced without prior notification to the Employer's Representative and proposed replacements shall be of equivalent or greater competence and experience.	1	Item			
G	The Contractor shall provide a suitably resourced project team appropriate to the Works including, where required by the Works Requirements, a Contracts/ Project Manager, Site Manager or Site Agent, Site Engineer, General Foreman, Finishing Foreman, Building Services Coordinator and personnel responsible for Building Control/quality coordination and temporary works. One individual may undertake more than one role where suitably qualified and adequately resourced to do so.	1	Item			
H	Appoint suitably qualified and competent temporary works designer(s), engineer(s) and/or coordinator(s), as appropriate to the nature and complexity of the Works, to design and coordinate all temporary works for which the Contractor is responsible.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Coordinate temporary works design with the permanent works, specialist designs, construction sequence and requirements of the PSDP and PSCS. Provide all calculations, drawings, design risk assessments, checking, certification and other information required under the Contract and applicable safety legislation.	1	Item			
	Supervision (See Clause 4 Management)					
B	Provide adequate competent management, supervision and technical personnel throughout the Works to properly manage, supervise, coordinate and administer the Contract and to achieve completion within the Contract Period. The Contractor shall maintain a suitably authorised representative on Site with authority to act on its behalf and sufficient supervisory resources appropriate to the nature, scale and complexity of the Works.	1	Item			
C	Allow for all on-site and off-site management, supervision, engineering, coordination and administration necessary for the execution and completion of the Works, including coordination of subcontractors, specialists, building services, utility providers and statutory bodies.	1	Item			
D	Key management and supervisory personnel shall be suitably qualified, competent and experienced for their respective duties. Personnel identified in the Contractor's tender submission shall not be replaced without prior notification to the Employer's Representative, and any proposed replacement shall be of equivalent or greater competence and experience.	1	Item			
	The Contractor shall provide a suitably resourced project team appropriate to the Works. As a minimum, the team shall include, where applicable:					
E	Contracts/Project Manager;	1	Item			
F	Site Manager / Site Agent;	1	Item			
G	Site Engineer;	1	Item			
H	General Foreman;	1	Item			
J	Finishing Foreman during the relevant stages of the Works;	1	Item			
K	Building Services Coordinator;	1	Item			
L	Building Control / Quality Coordinator; and	1	Item			
M	Temporary Works Coordinator/Engineer.	1	Item			
N	One suitably qualified individual may undertake more than one role where the Contractor demonstrates that adequate resources and competence are maintained and that this will not adversely affect the management or supervision of the Works.	1	Item			
	Temporary Works					
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Appoint a suitably qualified and competent Temporary Works Coordinator/Engineer with responsibility for coordinating all temporary works required for the execution of the Works, including temporary works designed by the Contractor, subcontractors, specialists and suppliers.	1	Item			
B	Coordinate the design, checking, installation, inspection, use, modification and removal of temporary works and ensure that temporary works are properly integrated with the permanent works, construction sequence and other Contractor and specialist designs.	1	Item			
C	Coordinate temporary works design information with the PSCS, PSDP, permanent works designers and relevant specialist designers. Ensure that all necessary design information, risk information, drawings, calculations and certification are exchanged in sufficient time to permit the safe execution of the Works and preparation of the Safety File.	1	Item			
D	Provide suitably qualified temporary works designers for temporary works requiring design and provide all necessary design calculations, drawings, independent checks where required, design risk assessments and certifications in accordance with the Works Requirements and applicable statutory requirements. Review or comment by the Employer's Representative or Design Team shall not relieve the Contractor or temporary works designers of their responsibilities.	1	Item			
	b) Plant, tools and vehicles					
E	Provide all transport, plant, equipment, tools, hoists, cranes, lifting equipment, vehicles and other resources necessary for the proper, safe and timely execution and completion of the Works and temporary works. Allow for all associated delivery, transport, freightage, mobilisation, operation, maintenance, supervision and removal costs.	1	Item			
F	Allow for the mobilisation and delivery to Site of all plant, equipment and temporary facilities required for the Works and for their removal on completion.	1	Item			
G	Maintain all plant, equipment, vehicles and temporary facilities in a safe, serviceable and compliant condition for the duration required for the Works.	1	Item			
	Removal of Plant					
H	Plant, scaffolding, hoists, temporary facilities and other items necessary for the execution or protection of the Works shall not be removed prematurely. Their removal shall be coordinated with the Contract Programme and the requirements of the Works and shall not prejudice safety, access, completion, inspection or rectification of outstanding work.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	c) Scaffolding					
A	Provide, erect, maintain, inspect, adapt and remove all scaffolding, access towers, working platforms, personnel hoists and other temporary access systems necessary for the safe execution of the Works. All such systems shall comply with applicable safety legislation, recognised standards and good practice and shall be erected, altered and inspected by suitably trained and competent persons.	1	Item			
B	Provide all specialist scaffolding and temporary access required by the Contractor and its subcontractors, specialists and suppliers, including access necessary for inspections, testing, snagging, commissioning and completion of the Works.	1	Item			
C	Provide suitable sheeting, screening, fans, protection and containment to scaffolding where necessary to prevent the escape of dust, debris or materials and to protect the occupied school, adjoining property and the public. Such measures shall be appropriate to the location and activities being undertaken.	1	Item			
D	Allow for all mobilisation, erection, alteration, inspection, maintenance, certification, dismantling and removal of scaffolding and temporary access systems required for the duration of the Works. Make good all affected areas following removal.	1	Item			
	d) Site administration including the provision and keeping of all statutory records.					
E	Provide all Site administration, management, security, watching, lighting and protection necessary for the proper execution of the Works and maintain all statutory and contractual records required for the duration of the Contract.	1	Item			
	<u>Site Records</u>					
F	Maintain accurate and contemporaneous Site records throughout the Works, including records of labour, subcontractors, significant plant and equipment, materials and deliveries, weather where relevant, inspections, incidents and other matters necessary for the proper administration of the Contract. Make such records available to the Employer's Representative when reasonably requested.	1	Item			
	<u>Inspection and Test Records</u>					
G	Maintain complete records of all inspections, tests, commissioning, certification and associated results required by the Works Requirements, Inspection Plan and applicable statutory requirements.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	Progress Records					
A	Maintain the Contract Programme and progress records in an up-to-date condition throughout the Works. Record actual progress against planned progress and update the programme at the intervals required by the Contract. Current programme and progress information shall be available for review at progress meetings.	1	Item			
	Progress Meetings					
B	The Contractor's authorised representative and such other appropriate members of the Contractor's team shall attend regular progress meetings with the Employer's Representative and Design Team. Meetings shall generally be held fortnightly or at such other intervals as are appropriate to the stage of the Works. Relevant subcontractors, specialists and suppliers shall attend when reasonably required.	1	Item			
	Applications for Payment					
C	Submit applications for payment, supporting measurements, breakdowns, records and other information in the form and at the times required by the Conditions of Contract. Provide sufficient supporting documentation to enable each application to be properly assessed.	1	Item			
	Method Statement and Construction Management Plan					
D	For works which may materially affect the operation, access, safety or services of the existing school, submit appropriate project-specific method statements and coordination proposals sufficiently in advance of the relevant activity. Unless otherwise agreed, submissions requiring Design Team review shall be provided not less than four weeks before commencement of the relevant activity.	1	Item			
E	Method statements shall address, as applicable, fire safety, asbestos and hazardous materials, construction traffic and road cleaning, statutory licences and planning requirements, Site security, Building Services interfaces and service tie-ins, temporary works, works affecting adjoining properties, phasing and other significant activities identified in the Works Requirements or Contractor's risk assessments.	1	Item			
F	Plan procurement, specialist resources, materials, plant and equipment sufficiently in advance to meet the Contract Programme, with particular regard to works restricted to school holiday periods or out-of-hours working. Method statements and look-ahead programmes shall identify relevant interfaces, service shutdowns and tie-ins, access requirements, statutory approvals and critical procurement items.	1	Item			
	e) Security					
G	Immediately upon taking possession of the Site, secure the construction areas by means of the hoardings, fencing, gates and other measures specified in the Works Requirements. Maintain the Site in a safe, secure and orderly condition for the duration of the Works and prevent unauthorised access.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Provide and maintain all watching, security lighting, fencing, hoarding, gates, barriers and other security measures necessary to protect the Works, materials, plant, existing school, adjoining property and the public, including during periods when the Site is not operational.	1	Item			
B	Maintain appropriate Site access-control arrangements and records of persons entering and leaving the construction areas. Visitors shall be appropriately authorised, inducted and accompanied where required by the Contractor's Site safety arrangements.	1	Item			
C	Secure all hazardous and flammable materials, plant, scaffolding, temporary access systems and other areas presenting a particular safety or security risk against unauthorised access.	1	Item			
D	Provide competent personnel as necessary to safely manage construction traffic entering and leaving the Site. Liaise with School Management, the Employer's Representative, An Garda Siochana, the Local Authority and other relevant bodies where traffic-management arrangements require their involvement.	1	Item			
E	Ensure that the Contractor's personnel, subcontractors and suppliers do not enter adjoining property, occupied school areas or other areas outside the Contractor's authorised working areas except where specifically permitted for execution of the Works.	1	Item			
	f) Provision of clearly identifiable site perimeters and surroundings.					
F	Locate Site accommodation, welfare facilities, storage areas, compounds, parking, delivery/set-down areas, wheel-wash facilities and other temporary Site facilities wholly within the areas allocated for the Contractor's use unless otherwise agreed with the Employer's Representative.	1	Item			
G	The Contractor shall be deemed to have inspected the Site and surrounding areas and to have satisfied itself as to the access, working space and other physical conditions relevant to the execution of the Works, subject always to the provisions of the Contract.	1	Item			
H	Provide, maintain, adapt and relocate as necessary all temporary compounds, hardstandings, storage areas, access routes and associated facilities required for the Works. Compounds shall be secure and maintained in a safe and orderly condition.	1	Item			
J	On completion, remove all temporary accommodation, hardstandings, materials, debris and temporary facilities and reinstate affected areas to the condition required by the Works Requirements.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	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.					
A	Provide and maintain all temporary protection, barriers, hoardings, lighting, signage, controlled access arrangements and other measures necessary to protect pupils, staff, visitors, adjoining occupiers and members of the public from the Site operations, in accordance with applicable statutory requirements and the Contractor's duties as PSCS.	1	Item			
	h) Transport for work people.					
B	Allow for all transport and travel arrangements necessary for the Contractor's personnel to execute the Works.	1	Item			
	i) Protecting the works from inclement weather					
C	Protect the Works, existing buildings and materials from adverse weather throughout the Contract. Provide and maintain all necessary temporary coverings, weatherproofing, frost protection, temporary enclosures, temporary drainage and rainwater disposal arrangements necessary to prevent damage and permit the proper execution and drying of the Works.	1	Item			
	j) Water for the works.					
D	The Contractor shall provide and maintain an adequate supply of clean water for construction, testing, commissioning, welfare and other Contractor requirements for the duration of the Works. Allow for all temporary connections, storage tanks, pipework, valves, taps, hoses, standpipes, metering and other temporary infrastructure necessary, together with all consumption, connection and associated charges.	1	Item			
E	The Contractor shall make its own arrangements for the temporary water supply and shall not rely upon the availability of a temporary connection from Uisce Eireann or the existing school systems unless expressly confirmed in the Contract Documents. Where the Contractor is permitted to use an existing or permanent water supply, provide appropriate metering and maintain records of consumption as required by the Employer's Representative. Remove temporary installations and make good affected areas on completion.					
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	k) Temporary lighting and power for the works.					
A	Provide and maintain all temporary electrical power and lighting necessary for the execution, testing, commissioning and completion of the Works, including all temporary distribution boards, cabling, connections, fittings and associated infrastructure. Allow for all connection, standing, consumption and disconnection charges. Remove temporary installations and make good affected areas on completion.	1	Item			
B	Determine and provide the temporary electrical supply capacity required for the Contractor, subcontractors and specialists and ensure that adequate supplies are available in sufficient time for their respective activities.	1	Item			
C	The Contractor shall make its own arrangements for temporary electrical supplies and shall not rely on the availability of a temporary ESB Networks connection or an existing school supply unless expressly confirmed in the Contract Documents.					
D	Where the Contractor is permitted to use an existing or permanent electrical supply, provide suitable separate metering and maintain records of consumption. The Contractor shall be responsible for all electricity consumed for construction, testing and commissioning purposes.	1	Item			
E	All temporary electrical installations shall comply with applicable legislation, electrical safety requirements and the Contractor's Safety and Health Plan and shall be maintained in a safe and serviceable condition throughout their use.	1	Item			
F	Provide and maintain all temporary utilities necessary for the Works, including electricity, water and telecommunications, and allow for all associated applications, connections, meters, standing charges, consumption, disconnection and reinstatement except where expressly stated otherwise in the Contract Documents.	1	Item			
	l) Temporary roads, hardstandings, crossing and similar items.					
G	Prior to commencement on Site, prepare and maintain a Site logistics plan identifying construction access, compound areas, storage and set-down areas, parking, pedestrian routes, delivery routes, wheel-wash facilities and principal temporary traffic arrangements. Coordinate the plan with the occupied school and the Works Requirements.	1	Item			
	Temporary Access					
H	Provide, maintain and adapt all temporary access arrangements necessary for the Works, including temporary entrances, openings, crossings and associated protection. Reinstate boundaries, surfaces and other affected areas on completion.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	Temporary road, hardstandings, crossings and similar items.					
A	Provide and maintain all temporary roads, haul routes, hardstandings, crossings, working platforms and associated temporary drainage required for the execution of the Works, including the requirements of subcontractors and specialists. Remove temporary works and reinstate affected areas on completion.	1	Item			
B	The Contractor shall take account of the restricted nature of the Site and shall plan Site logistics and temporary access arrangements accordingly.	1	Item			
	Traffic Management					
C	Maintain safe access to the existing school, adjoining properties and public roads and footpaths throughout the Works. Construction activities shall be planned to minimise obstruction, congestion and interference with school and public traffic.	1	Item			
D	Implement appropriate measures to manage construction traffic and prevent construction-related parking, deliveries or vehicle movements from causing unreasonable obstruction or nuisance on adjoining residential roads and streets.	1	Item			
E	Prior to commencement of construction traffic movements, prepare and implement a project-specific Construction Traffic Management Plan addressing access and egress, delivery routes and times, pedestrian segregation, school arrival and departure periods, traffic marshals/banksmen, signage and other necessary control measures. Coordinate the plan with the Employer's Representative, School Management and relevant statutory authorities where required.	1	Item			
F	Works outside the Site hoarding or within public roads, footpaths or other public areas shall only be undertaken following the necessary statutory approvals and coordination with the Employer's Representative and relevant authority.	1	Item			
	Car Parking					
G	Provide adequate parking arrangements for the Contractor's personnel and subcontractors within the areas allocated for the Contractor's use. Where sufficient on-Site parking is unavailable, make suitable off-Site arrangements which do not cause nuisance, obstruction or inappropriate parking on adjoining residential roads or school areas.	1	Item			
H	The Contractor's personnel and subcontractors shall not use the operational school car parks or other areas reserved for pupils, staff, visitors or school operations unless specifically agreed with School Management and the Employer's Representative.	1	Item			
	Parking facilities for Employer & Design Team					
J	Provide a reasonable number of suitably located parking spaces for the Employer's Representative and visiting Design Team members within or adjacent to the Site compound, where practicable and subject to the approved Site logistics arrangements. Maintain suitable access to such spaces for the duration required.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	m) Temporary accommodation for the use of the Contractor.					
A	Provide, maintain, adapt and remove on completion all temporary offices, welfare accommodation, changing facilities, drying facilities, mess/rest accommodation, washing facilities, sanitary conveniences and other facilities required for the Contractor, subcontractors and persons at work on the Site. Facilities shall be appropriate to the number of persons employed and the nature and duration of the Works and shall comply with Part 14 of the Safety, Health and Welfare at Work (Construction) Regulations 2013, as amended.	1	Item			
B	Welfare facilities shall be available from commencement of the Works, maintained in a clean, hygienic, adequately heated, ventilated and lit condition throughout their use and provided with safe access and egress. Provide potable drinking water and suitable facilities for taking meals, changing, storing and drying clothing and washing, including showers where required by the nature of the Works.	1	Item			
C	Provide and maintain adequate Site office and meeting accommodation for the Contractor's management and supervisory personnel, together with all furniture, IT, communications, broadband, printing, document-management and other facilities necessary for the proper administration and coordination of the Works.	1	Item			
D	On completion, remove all temporary accommodation and associated services and reinstate affected areas in accordance with the Works Requirements.	1	Item			
	n) Temporary storage areas including suitable and separate storage for dangerous materials or substances.					
E	Provide and maintain suitable temporary storage areas, stores, sheds and secure compounds necessary for materials, products, plant and equipment. Store and protect materials in accordance with the Works Requirements and manufacturers' recommendations and prevent damage, contamination, deterioration, distortion, staining, damp, vermin or other adverse effects.	1	Item			
F	Provide secure, suitably segregated and appropriately signed storage for fuels, chemicals, flammable materials, hazardous substances and other materials requiring special precautions, in accordance with applicable legislation, manufacturers' requirements and the Contractor's Safety and Health Plan.	1	Item			
G	Temporary storage facilities shall be located within the areas allocated for the Contractor's use unless otherwise permitted and shall be removed on completion, with affected areas made good.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	o) Temporary telephones for the use of the Contractor.					
A	Provide and maintain all communications, internet and data facilities necessary for the Contractor's management, supervision and administration of the Works.	1	Item			
	p) Traffic regulations					
B	Comply with all applicable traffic-management requirements and implement the Construction Traffic Management Plan required elsewhere in these Preliminaries. Particular regard shall be given to the occupied school, including pupil and staff movements at the Site entrance. Construction traffic shall be supervised and controlled as necessary to maintain safe pedestrian and vehicular access and avoid obstruction during school arrival and departure periods.	1	Item			
	q) Welfare facilities for work people to be in compliance with the fourth schedule of the Safety Health and Welfare at Work (Construction) Regulations.					
C	Provide and maintain all welfare facilities required by Part 14 of the Safety, Health and Welfare at Work (Construction) Regulations 2013, as amended, including suitable shelter and meal accommodation, changing and clothing-storage facilities, washing facilities, sanitary conveniences, potable drinking water and safe access to such facilities. Facilities shall be appropriate to the number and needs of persons at work and the nature and duration of the Works.	1	Item			
	r) Safety Health and Welfare at Work provisions including items for the following:-					
D	The Contractor shall comply with the Safety, Health and Welfare at Work Act 2005, the Safety, Health and Welfare at Work (Construction) Regulations 2013 to 2021, as amended, the Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2023, as amended, and all other applicable safety, health and welfare legislation. Allow for all costs associated with such compliance.	1	Item			
E	Ensure that all persons working on the Site hold valid Safe Pass registration and Construction Skills Certification Scheme (CSCS) certification where required by the Construction Regulations and have received appropriate Site-specific induction, information, instruction and training for the work undertaken. Maintain appropriate records and make them available for inspection when required.	1	Item			
F	SupervisionProvide all competent safety management, supervision and specialist advice required by the applicable legislation and the Contractor's Safety and Health Plan, including the appointment of Safety Officers, Safety Advisers and Site Safety Representatives where required.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Ensure that all plant, equipment, temporary installations and work equipment are suitable for their intended use, properly inspected, tested, maintained and certified where required. Provide and enforce the use of all appropriate personal protective equipment necessary for the Works.	1	Item			
B	Provide and maintain suitable emergency arrangements, including emergency routes and exits, fire and evacuation procedures, suitably trained personnel, first-aid equipment and an appropriate number of trained occupational first-aiders having regard to the number of persons employed, the nature of the Works and the Site risk assessment. Provide a first-aid room where required by the applicable risk assessment and legislation.	1	Item			
C	Provide and maintain appropriate safety signs, barriers, traffic routes, pedestrian routes, lighting, access and egress, working areas and other measures necessary to maintain a safe construction Site and protect persons at or in the vicinity of the Works.	1	Item			
D	Provide suitable visitor personal protective equipment for reasonable use by the Employer, Employer's Representative, Design Team and other authorised visitors to the Site, including safety helmets and high-visibility clothing and such other PPE as is appropriate to the areas being visited.	1	Item			
	Overhead Lines					
E	Where the Works are undertaken in the vicinity of overhead electrical lines, the Contractor shall identify and assess the associated risks and implement all precautions required by ESB Networks, the HSA-approved Code of Practice for Avoiding Danger from Overhead Electricity Lines and the Contractor's Safety and Health Plan. Liaise with ESB Networks sufficiently in advance of the Works and provide goalposts, barriers, warning signage, exclusion zones, height restrictions and other protective measures as appropriate.	1	Item			
	s) Disbursements arising from the employment of work people					
F	Allow for all labour costs and employment-related costs necessary for the execution and completion of the Works, including wages, overtime, allowances, pension contributions, sick pay, statutory contributions, travel and subsistence where applicable and all other payments required under applicable employment legislation, Sectoral Employment Orders, Employment Regulation Orders, registered employment agreements and the Conditions of Contract.	1	Item			
G	The Contractor shall make all necessary allowance in the Contract Sum and Contract Programme for overtime, shift working, out-of-hours working and other working arrangements reasonably necessary to comply with the Contract Programme and the restrictions stated in the Works Requirements. Any entitlement arising from a change or instruction shall be determined solely in accordance with the Conditions of Contract.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Provide sufficient suitably qualified, competent and experienced personnel to properly execute and complete the Works. The Contractor shall be responsible for the conduct, management and supervision of its personnel and those of its subcontractors in accordance with the Contract.	1	Item			
B	Ensure that the rates of pay and conditions of employment of all workers engaged in connection with the Works comply with clause 5.3 of the Contract, applicable employment legislation and the current Sectoral Employment Order applicable to the Construction Sector or other relevant sector, including any amendments or replacement Orders applicable during the Contract Period.	1	Item			
C	Provide and make all employer contributions to pension, death-in-service and sick-pay arrangements required under the applicable Sectoral Employment Order or other legally binding employment requirement.	1	Item			
D	Maintain all payroll, time, attendance, pension, deduction and other employment records required by law and the Conditions of Contract and ensure that equivalent obligations are complied with by subcontractors and other employers of workers engaged on the Works.	1	Item			
E	Provide the Employer's Representative with the weekly labour records required under clause 5.7 of the Contract and any other labour information which the Employer is entitled to request under clause 5.3.	1	Item			
F	With each interim statement, provide the Rates of Pay and Conditions of Employment Certificate required under clause 5.3.7 of the Contract, using the applicable Capital Works Management Framework Model Form MF 1.13.	1	Item			
G	The Contractor shall be responsible for the management of industrial relations in connection with the Works and shall comply with the dispute-resolution requirements of any applicable Sectoral Employment Order, Employment Regulation Order or registered employment agreement and with the requirements of clause 5.3 of the Contract.	1	Item			
	t) Maintenance of public and private roads					
H	Provide, maintain, adapt and remove on completion all temporary pedestrian and vehicular access and egress arrangements necessary for the Works. Access arrangements shall comply with the Works Requirements, Planning Permission, Construction Traffic Management Plan and applicable statutory requirements and shall maintain safe access to the existing school and adjoining properties.	1	Item			
J	Manage construction traffic so as to minimise disruption to school and public traffic. Provide suitably trained traffic marshals/banksmen where required by the Construction Traffic Management Plan or Site conditions. Particular regard shall be given to school arrival and departure periods, pedestrian movements and the avoidance of obstruction or inappropriate parking on adjoining roads.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Maintain Site access points in a safe, clean and unobstructed condition throughout the Works. Remove mud, debris and other material arising from construction activities and make good any damage caused by the Contractor's operations.	1	Item			
B	Comply with all applicable Planning Conditions, Local Authority requirements, road-opening licences and other statutory requirements relating to construction access, traffic management and works affecting public roads, footpaths and adjoining areas.	1	Item			
C	Provide and maintain suitable wheel-washing and road-cleaning arrangements as necessary to prevent mud, clay, dust and debris from being carried from the Site onto public roads and footpaths. Clean affected roads and public areas promptly and as often as necessary throughout the Works.	1	Item			
D	The Contractor shall be responsible for making good loss of or damage to roads, footpaths, services, boundaries and other public or private property caused by or attributable to its construction traffic, plant, personnel or operations, subject to the provisions of the Contract.	1	Item			
	u) Removing rubbish, protective casings and coverings and cleaning the works on completion					
E	Remove rubbish, waste, debris, surplus materials and redundant packaging from the Works regularly throughout the Contract and maintain the Site and Works in a clean, safe and orderly condition. Dispose of all waste in accordance with the Resource and Waste Management requirements of the Contract.	1	Item			
F	Prior to Substantial Completion, remove all surplus materials, temporary works, temporary facilities, Contractor's plant, waste, protective coverings and other items no longer required and make good all areas affected by their removal.	1	Item			
G	Thoroughly clean the completed Works internally and externally and leave all areas in a condition suitable for immediate occupation and use. Cleaning shall include floors, glazing, sanitary fittings, fixtures, joinery, finishes, plant and equipment and all other exposed surfaces affected by the Works.	1	Item			
H	Remove temporary markings, labels, protective films, coverings and wrappings unless otherwise required to remain in place. Make good minor damage, blemishes and defects to finishes and ensure repaired areas match the adjacent work in colour, texture and appearance.	1	Item			
J	Prior to handover, check, adjust, ease and lubricate doors, windows, ironmongery, access panels, movable fittings and other operable components as necessary to ensure safe, smooth and proper operation.	1	Item			
K	Use cleaning material only in accordance with manufacturers' recommendations and without damage to the Works.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	v) Compliance with waste management statutory requirements					
	Waste Management					
A	The Contractor shall comply with all applicable waste and environmental legislation and shall implement the project-specific Resource and Waste Management Plan required elsewhere in the Works Requirements. All costs associated with the segregation, storage, handling, transport, recovery and lawful disposal of waste arising from the Works shall be included in the Contract Sum.	1	Item			
B	Identify and classify all waste arising from the Works in accordance with the applicable List of Waste requirements. Hazardous waste shall be segregated, stored, handled, transported and recovered or disposed of in accordance with applicable legislation and shall not be mixed with non-hazardous waste except where expressly permitted by law.	1	Item			
C	Waste removed from the Site shall be transported only by appropriately authorised waste collectors and delivered only to facilities authorised to accept the relevant waste stream. Maintain appropriate records identifying the waste type, quantity, carrier, authorisation details and destination facility and make such records available to the Employer's Representative when requested.	1	Item			
D	Where hazardous waste is removed from the Site, provide all statutory movement and consignment documentation required for the particular waste stream, including C1 consignment documentation where applicable. Retain completed records demonstrating lawful transfer and acceptance at the authorised destination facility.	1	Item			
	w) Drying the works					
E	Provide, operate and maintain all temporary heating, ventilation, drying and dehumidification equipment necessary to achieve and maintain suitable environmental conditions for the proper execution, drying and completion of the Works. Allow for all associated equipment, fuel, electricity, attendance, monitoring and other costs.	1	Item			
F	Where, with the prior agreement of the Employer's Representative, permanent heating or ventilation systems are used for temporary heating, drying or environmental control prior to Substantial Completion, the Contractor shall be responsible for their operation, protection, maintenance and subsequent cleaning and recommissioning. Allow for all associated energy consumption, specialist attendance and any extension or reinstatement of manufacturers' warranties arising from such use.	1	Item			
G	Programme the Works to allow adequate drying time before the installation of moisture-sensitive finishes. Do not install flooring or other finishes until the substrate moisture content, relative humidity and environmental conditions comply with the Works Requirements and the relevant manufacturer's installation requirements. Carry out and record appropriate moisture testing prior to installation.	1	Item			
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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Where the Contractor proposes a moisture-suppression membrane or other remedial system because the required substrate condition has not been achieved, submit full technical details, compatibility information and written confirmation from the relevant finish manufacturer that the proposed system will not adversely affect the performance or warranty of the finished installation. Where the proposal represents a change to the specified construction, do not proceed without the appropriate instruction under the Contract.	1	Item			
	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					
B	Provide, erect, maintain, adapt and remove on completion all temporary fencing, hoardings, gates, barriers, protected walkways, guardrails, gantries, edge protection, protection to openings, safety nets and other temporary protection necessary for the safe execution of the Works and the protection of pupils, staff, visitors and the public. Comply with the Works Requirements and all applicable statutory and Local Authority requirements.	1	Item			
C	Provide and maintain secure hoarding and/or other appropriate segregation along the construction access and entrance road where necessary to safely separate construction traffic and activities from pedestrians, school users and other road users. Coordinate the arrangements with the Construction Traffic Management Plan.	1	Item			
D	No advertising, promotional signage or displays shall be erected on the Site without the prior consent of the Employer's Representative.	1	Item			
E	Maintain secure and clearly defined segregation between the Works and the occupied school at all times. Hoardings, gates and temporary barriers shall be robust, secure and suitable for the duration and location of the Works and shall prevent unauthorised access to construction areas.	1	Item			
F	Where temporary hoardings, screens, gantries or other protective works require design, provide suitably competent temporary works design, calculations, risk assessments, checking and certification as required by the Works Requirements. Submit relevant information sufficiently in advance for coordination with the PSCS, PSDP and Employer's Representative.	1	Item			
G	Provide all temporary works and protective measures identified in the Preliminary Safety and Health Plan and otherwise necessary for the safe execution of the Works.	1	Item			
H	Provide and maintain fully enclosed, weatherproof and dust-tight temporary partitions at interfaces between the occupied school and the Works. Temporary partitions shall provide the fire, acoustic, thermal and environmental performance stated in the Works Requirements and shall be designed and constructed to suit the relevant location and phase of the Works. Relocate, adapt and remove partitions as required by the approved phasing and make good all affected areas on completion.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	y) Control of noise, pollution and compliance with statutory obligations					
	Noisy Work/Disturbance					
A	Plan and execute particularly noisy or disruptive activities so as to minimise disturbance to the occupied school and adjoining properties. Where reasonably necessary, such activities shall be undertaken outside normal school hours or during agreed school closure periods in coordination with School Management and the Employer's Representative.	1	Item			
B	Give reasonable advance notice to the Employer's Representative and School Management of activities likely to cause significant noise, vibration or disruption and identify the proposed mitigation measures.	1	Item			
C	Implement all necessary noise-control measures in accordance with the Works Requirements, applicable Planning Conditions and BS 5228-1, or any superseding standard. Radios, amplified music or other audio equipment shall not be used where they may cause nuisance or interfere with school activities.	1	Item			
	Dust Control					
D	Implement all necessary dust suppression and containment measures to prevent dust and airborne contaminants from causing nuisance or adversely affecting the occupied school, adjoining properties or public areas. Measures shall include, as appropriate, water suppression, screening, sheeting, cleaning and appropriate control of cutting, demolition and vehicle movements.	1	Item			
	Pest Prevention					
E	Construct the Works so as to prevent the entry, harbourage and movement of rodents, insects and other pests within the completed building. Particular attention shall be given to service penetrations, cavities, ducts, drainage interfaces and other potential points of entry. Comply with the Works Requirements and current recognised good-practice guidance relating to pest-resistant construction.	1	Item			
	Surface Water, Wastewater and Dewatering					
F	Prevent surface water, construction runoff, silt, contaminated water or other discharge arising from the Works from flowing onto adjoining property or entering drains, watercourses or groundwater except through an approved and lawful discharge arrangement.	1	Item			
G	Provide and implement suitable arrangements for the collection, treatment, settlement, dewatering and lawful discharge or disposal of water arising from excavations and construction activities. Obtain all necessary consents and comply with applicable environmental, drainage and Local Authority requirements.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	Vibrations					
A	Plan and undertake vibration-generating activities so as to avoid damage or unreasonable nuisance to the existing school, retained structures and adjoining properties.	1	Item			
B	Where vibration monitoring is required by the Works Requirements or having regard to the nature of the Works, undertake monitoring in accordance with BS 5228-2 or other applicable project-specific criteria. Maintain calibrated monitoring equipment and provide records to the Employer's Representative when requested.	1	Item			
	Pollution					
C	Prevent the discharge or deposit of cementitious material, fuel, oil, chemicals, silt, waste or other polluting or deleterious substances into drains, surface waters, groundwater or adjoining lands. Comply with all applicable environmental, water-pollution, fisheries and waste legislation and with the requirements of the relevant statutory authorities.	1	Item			
	Clean Site / Roads					
D	Maintain the Site, access routes and adjoining public areas affected by the Works in a clean and orderly condition. Provide wheel-washing, sweeping and other cleaning measures as necessary to prevent mud and construction debris from being deposited on public roads.	1	Item			
	z) protection of the works					
E	Provide and maintain all temporary coverings, casings, screens, barriers and other protection necessary to safeguard the Works throughout construction against weather, impact, staining, contamination, accidental damage and other foreseeable risks.	1	Item			
F	Protect existing buildings, roads, footpaths, boundaries, services, drainage, landscaping and other property affected by or adjacent to the Works. Make good any damage caused by the Contractor's operations in accordance with the Contract.	1	Item			
G	Safeguard the Works, materials, plant and equipment against unauthorised access, theft and damage and provide all security measures, watching and lighting necessary for this purpose.	1	Item			
H	Protect completed and partially completed finishes as the Works progress and maintain them clean and free from damage, staining and deterioration until handover. Provide suitable durable protection to floor finishes and other vulnerable surfaces for as long as necessary. Remove protection prior to handover and make good any defects or damage.	1	Item			
				To Collection €		

4. GENERAL FACILITIES AND OBLIGATIONS (Cont)

ADDITIONAL PRELIMINARIES

	Statutory Obligations					
A	Comply with all statutory and regulatory requirements applicable to the Works, including requirements relating to Building Control, safety and health, environmental protection, noise, pollution and the activities of statutory authorities and utility providers. Allow for all costs arising from the Contractor's obligations in this regard.	1	Item			
	General Attendance on Specialist Sub-Contractors					
B	Provide all general attendance reasonably necessary for the Contractor's subcontractors and specialists, including access, temporary roads and hardstandings, welfare facilities, temporary lighting and power, water, normal lifting and access facilities where available, storage areas and removal of waste arising from their Works, except where otherwise stated in the Works Requirements.	1	Item			
	Site dimensions					
C	Verify all dimensions, levels and Site conditions relevant to the Works before commencing the affected work. Promptly notify the Employer's Representative of any material discrepancy between the Contract Documents and conditions found on Site before proceeding with the affected element.	1	Item			
	Contractor to take charge					
D	Take responsibility for the care and protection of the Works from the Starting Date until Substantial Completion, subject to the risk allocation and other provisions of the Contract. Provide all reasonable measures necessary to prevent damage to the Works, existing property and third parties and make good damage for which the Contractor is responsible under the Contract.	1	Item			
E	Prevent the Contractor's personnel, subcontractors and suppliers from entering adjoining property, occupied school areas or other areas outside the authorised Site boundaries except where access has been properly authorised for the execution of the Works.	1	Item			
	Sub-Contractor's work and the like					
F	Coordinate the works of all subcontractors, specialists and suppliers to ensure that the Works proceed in the correct sequence and in accordance with the Contract Programme. Provide them with all information necessary for the proper coordination and execution of their Works.	1	Item			
G	Identify and coordinate all builders' work requirements associated with subcontractor and specialist installations sufficiently in advance to avoid unnecessary cutting, alteration or disruption of completed Works.	1	Item			

To Collection €

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Obtain and provide all manufacturers', subcontractors' and specialist warranties and guarantees expressly required by the Works Requirements, including warranties extending beyond the Defects Period where specified. Include same within the project handover documentation.	1	Item			
B	Provide all fire-performance certificates, product certification, installation records and other evidence required by the Works Requirements for fire doorsets, fire stopping, compartmentation and other fire-safety-critical elements.	1	Item			
	Certificates of Substantial Completion					
C	Provide all Contractor, Builder, subcontractor, specialist, supplier and manufacturer certificates, ancillary certificates, test records and other compliance documentation required for completion of the Building Control certification process. Cooperate fully with the Assigned Certifier to facilitate completion and registration of the statutory Certificate of Compliance on Completion.	1	Item			
	Modifications to Entrances					
D	Provide all temporary modifications to existing entrances, roads, footpaths, islands, boundaries and associated areas necessary to facilitate the safe execution of the Works and maintain appropriate access to the occupied school. Provide all necessary temporary pedestrian and cyclist routes, barriers, directional and safety signage and other traffic-management measures.	1	Item			
E	On completion of the relevant Works, remove temporary alterations and reinstate or complete entrances, roads, footpaths, boundaries and adjoining surfaces in accordance with the Works Requirements. New materials and finishes shall match adjoining existing work where required.	1	Item			
	Protection of Trees					
F	Prior to commencement of construction activities, protect all trees and vegetation identified for retention. Provide and maintain suitable protective fencing and prevent excavation, storage, plant movement or other potentially damaging activities within designated tree protection areas except where expressly permitted by the Works Requirements.	1	Item			
	Setting Out					
G	The Contractor shall accurately set out the Works from the dimensions, levels and reference information contained in the Contract Documents and shall remain responsible for the accuracy of the setting out. Provide reasonable notice of identified inspection hold points before the relevant Works are covered or excavation proceeds. Any inspection by the Employer's Representative shall not relieve the Contractor of responsibility for the accuracy of the Works.	1	item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	Bench Marks					
A	Establish, protect and maintain suitable benchmarks and setting-out control points for the duration required for the Works. Record their location and datum and provide the information to the Employer's Representative when requested.	1	item			
	Tolerances					
B	Execute the Works within the tolerances stated in the Works Requirements, relevant applicable standards and manufacturers' requirements. Where no tolerance is expressly stated, comply with recognised good practice appropriate to the particular element of work.	1	item			
	Measurements					
C	Do not scale dimensions from drawings unless expressly permitted. Use stated dimensions and verify all critical dimensions, levels and interfaces on Site prior to manufacture, procurement or construction. Promptly report discrepancies to the Employer's Representative.	1	item			
	Existing Levels					
D	Verify relevant existing ground, road, floor and other levels before disturbance of the affected area. Promptly notify the Employer's Representative in writing of any material discrepancy between surveyed levels and those stated in the Contract Documents.	1	item			
	Notice to Employer's Representative for Inspection					
E	Provide the notices required by the Inspection Plan and Inspection Notification Framework and afford the Employer's Representative, Assigned Certifier and relevant Design Team members reasonable opportunity to inspect Works identified as hold or witness points before they are covered or made inaccessible. Inspection or comment shall not relieve the Contractor of responsibility for compliance with the Contract.	1	item			
	Notices					
F	Give all notices, applications and information required from the Contractor by statutory authorities, utility providers and other bodies having jurisdiction in connection with the execution of the Works.	1	item			
	Substantial Completion					
G	When the Contractor considers that the Works or a Section have achieved Substantial Completion, submit a written request to the Employer's Representative for certification in accordance with Clause 9.6 of the Contract.	1	Item			
				To Collection €		

4. GENERAL FACILITIES AND OBLIGATIONS (Cont)

	Handover Documentation				
A	Prior to requesting Substantial Completion, provide the Operation and Maintenance Manuals, Safety File information, record/as-installed drawings, asset information, certificates, warranties, commissioning records and other project handover documentation required by the Works Requirements, sufficiently complete to permit safe occupation, operation and statutory certification of the Works.	1	Item		
B	Provide complete coordinated record/as-installed drawings and surveys accurately recording the Works as constructed, including underground drainage and services. Submit in PDF format and, where required by the Works Requirements, in native editable/CAD format together with the associated drawing register and survey data.	1	Item		
C	Provide the Employer with final plans, drawings, schedules and other records showing the completed development and all information necessary for its future operation, maintenance and alteration, in the electronic formats stated in the Works Requirements.	1	Item		
	Making Good Defects				
D	Coordinate access with the Employer's Representative and School Management for the investigation and rectification of Defects during the Defects Period. Give reasonable advance notice of proposed attendance, comply with the operational requirements of the occupied school and promptly make good Defects for which the Contractor is responsible under the Contract.	1	Item		
	Access for Employer's Representative to Site and Workshops				
E	The Employer's Representative, Assigned Certifier and other authorised Employer's Personnel shall, subject to appropriate Site safety and access arrangements, be afforded reasonable access to the Works and to workshops, fabrication facilities and other locations where materials, products or elements of the Works are being manufactured or prepared. Provide reasonable assistance necessary to facilitate such inspections.	1	Item		
	Privately & Publicly Owned Services and Supplies				
F	Prior to excavation, demolition or other activities which may affect existing services, obtain and review available utility records and undertake such detection, surveying and investigation as is reasonably necessary to establish the location of existing services. The Contractor shall not rely solely on services information shown in the Contract Documents.	1	Item		
G	Coordinate all protection, temporary support, diversions, disconnections, alterations and connections affecting public or private services with the relevant utility provider, statutory authority, Employer's Representative and affected occupiers. Programme such activities sufficiently in advance to avoid unnecessary disruption or delay.	1	Item		

To Collection €

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Where required by the Works Requirements or reasonably necessary to establish the location, depth or condition of existing services, carefully undertake trial holes or other appropriate investigation before commencing the affected Works. Reinstate investigation areas on completion. The contractual consequences of previously unidentified or materially different conditions shall be determined in accordance with the Contract.	1	Item			
B	Do not interfere with, disconnect, remove or alter apparatus belonging to a statutory authority or utility provider except with the necessary authority and in accordance with its requirements. Arrange inspections, witnessing and attendance by the relevant provider where required.	1	Item			
	Traffic Safety & Management					
C	RequirementsWhere the Works affect a public road, footpath, cycleway or other area under the control of a Road Authority, the Contractor shall provide suitably qualified and competent personnel to design, implement, maintain and remove the temporary traffic management arrangements. Comply with all requirements of Louth County Council and other relevant statutory authorities.	1	Item			
D	Temporary traffic management shall comply with the current edition of Chapter 8 of the Department of Transport Traffic Signs Manual - Temporary Traffic Measures and Signs for Roadworks, the associated Temporary Traffic Management Design Guidance and Temporary Traffic Management Operations Guidance, and all applicable statutory and Road Authority requirements.	1	Item			
E	Prior to undertaking works affecting a public road, prepare a site-specific Temporary Traffic Management Plan and associated layout drawings appropriate to the nature, location, phasing and duration of the Works. The Plan shall be prepared by a suitably competent Temporary Traffic Management Designer and shall be submitted to Louth County Council and other relevant authorities where approval or consent is required.	1	Item			
F	The Contractor/PSCS shall be responsible for the safe implementation, operation, inspection, maintenance, amendment and removal of temporary traffic management arrangements. Appoint a suitably qualified Temporary Traffic Operations Supervisor (TTOS) where required by the applicable guidance.	1	Item			
G	The Temporary Traffic Management Plan shall address, as applicable, phasing, working areas, traffic lanes, barriers and safety zones, pedestrian and cyclist routes, construction access and egress, emergency access, traffic signals, temporary lighting, diversions, road signage and markings, timing of operations and interfaces with adjoining road users and properties.	1	Item			
H	Liaise with the Employer's Representative, School Management, Louth County Council, An Garda Siochana and other relevant parties as necessary in relation to temporary traffic arrangements, road closures, diversions and works within the public domain. Allow within the Contract Programme for all statutory applications, consultation, approval and notice periods.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
A	Regularly review the temporary traffic management arrangements to ensure that they remain appropriate to the actual Site conditions and construction sequence. Material changes shall be designed, documented and implemented in accordance with the applicable guidance and any Road Authority approval requirements.	1	Item			
B	Provide, inspect and maintain all temporary signs, signals, cones, barriers, road markings, lighting and other traffic-control equipment necessary for the Works. Equipment shall remain clean, legible, correctly positioned and serviceable throughout its use, and defective equipment shall be promptly replaced.	1	Item			
C	Keep traffic lanes, footpaths and cycle routes affected by the Works free from construction debris and other hazards. Make good any damage to public roads, footpaths, road markings, signs or other infrastructure caused by the Contractor's temporary traffic management arrangements or operations, subject to the provisions of the Contract.	1	Item			
D	Construction traffic shall use the access routes identified in the Works Requirements and approved traffic management arrangements. Provide suitable directional signage and prevent construction traffic from using unauthorised routes or causing unreasonable obstruction or nuisance on adjoining roads.	1	Item			
E	Where the Contractor proposes to use completed or partially completed permanent roads, pavement layers, sub-formation or sub-base for construction traffic, take all measures necessary to prevent damage or deterioration and to maintain the specified performance of the permanent Works.	1	Item			
F	Prior to such use, provide details of the proposed protection measures where required by the Civil Engineer. Any permanent Works damaged or rendered non-compliant by construction traffic shall be repaired, replaced or reinstated by the Contractor in accordance with the Contract.	1	Item			
	Hazardous Substances and Materials					
G	Identify, assess, control and manage all hazardous substances and materials associated with the Works in accordance with applicable safety, health and environmental legislation. Provide appropriate risk assessments, method statements, containment, PPE/RPE, storage, handling and disposal arrangements. Particular regard shall be given to contaminated soils, hazardous dusts, chemicals, coatings and work in or adjacent to live drainage and sewer systems.	1	Item			
H	Where previously unidentified contaminated or hazardous material is encountered, cease the affected Works where necessary, secure the area and immediately notify the Employer's Representative. Arrange appropriate investigation, classification, handling and lawful recovery or disposal in accordance with the Contract and applicable statutory requirements.	1	Item			
J	Where excavated material requires waste classification or characterisation, undertake the necessary assessment and testing in accordance with current EPA Waste Classification and List of Waste guidance and the requirements of the proposed authorised receiving facility. Undertake Waste Acceptance Criteria testing where applicable to the proposed disposal or recovery route.	1	Item			
				To Collection €		

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	4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
	Radon					
A	Install all radon protection measures in accordance with the Works Requirements, applicable Building Regulations, manufacturers' recommendations and approved construction details. Maintain continuity and integrity of radon barriers at all joints, penetrations and interfaces and provide inspection and certification records as required.	1	Item			
B	Where required by the Works Requirements, arrange independent inspection and integrity testing of the completed radon/gas protection system by a suitably qualified competent specialist prior to covering. Submit the verification report and satisfactorily rectify all identified defects.	1	Item			
C	Arrange post-completion radon testing where required by the Works Requirements using an EPA Registered Radon Testing Service and in accordance with the current EPA Radon Measurement Protocol. Testing shall be undertaken under normal occupied conditions for the required measurement period. Submit the results to the Employer's Representative and School Management and undertake any remedial measures for which the Contractor is responsible under the Contract.	1	Item			
				To Collection €		

				€	c
4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
COLLECTION					
Page No. Preliminaries/84					
Page No. Preliminaries/85					
Page No. Preliminaries/86					
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Page No. Preliminaries/92					
Page No. Preliminaries/93					
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Page No. Preliminaries/100					
Page No. Preliminaries/101					
Page No. Preliminaries/102					
Page No. Preliminaries/103					
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Page No. Preliminaries/106					

				€	c
4. GENERAL FACILITIES AND OBLIGATIONS (Cont)					
COLLECTION					
Page No. Preliminaries/107					
Page No. Preliminaries/108					
Page No. Preliminaries/109					
4. GENERAL FACILITIES AND OBLIGATIONS **Carried to Summary**					

		€	c
SUMMARY	**Page No.**		
1. PRELIMINARIES PARTICULARS	Preliminaries/9		
2. CONTRACT	Preliminaries/79		
3. WORK BY NOVATED SPECIALISTS, SPECIALISTS, WORK BY UTILITY PROVIDERS AND WORK BY OTHERS ENGAGED DIRECTLY BY THE EMPLOYER	Preliminaries/83		
4. GENERAL FACILITIES AND OBLIGATIONS	Preliminaries/111		
TOTAL AMOUNT CARRIED TO GENERAL SUMMARY			
Preliminaries/1 - Preliminaries/111.			

EXTENSION

					€	c
	(19) SUBSTRUCTURE					
	Notes					
A	1. Reduced levels measured in 'Site Prepartaion' Element of BOQ		Note			
	EXCAVATION AND EARTHWORK					
	Excavation					
	Excavation; refer 4371 221117 DCE IRL "Specification for Foundations"					
	Foundation Trenches					
B	Depth not exceeding 2.00m	865	m3			
	Pad Foundation Pits					
C	Depth not exceeding 2.00m	26	m3			
	Lift Pit (1Nr)					
D	Depth not exceeding 2.00m	3	m3			
	Soft spots					
E	Depth not exceeding 2.00m	135	m3			
	Extra on Excavation Items for:					
	Below Ground Water Level					
F	Generally	155	m3			
	Around Existing Services					
G	Eircom; parallel to excavations	50	m			
H	ESB; parallel to excavations	50	m			
J	Watermains; parallel to excavations	50	m			
K	Street Lighting; parallel to excavations	50	m			
L	Gas Main; parallel to excavations	50	m			
M	Eircom; crossing excavations	25	nr			
N	ESB; parallel to excavations	25	nr			
P	Watermains; parallel to excavations	25	nr			
Q	Street Lighting; parallel to excavations	25	nr			
R	Gas Main; parallel to excavations	25	nr			
				To Collection €		

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Breaking up existing					
A	Rock; include for all necessary trimming	155	m3			
	Working Space					
	Foundations Trenches					
B	Depth not exceeding 2.00m; backfilling trenches with Annex E of SR 21 hardcore	187	m2			
	Foundations Pits					
C	Depth not exceeding 2.00m; backfilling pits with Annex E of SR 21 hardcore	19	m2			
	Lift Pit (1Nr)					
D	Depth not exceeding 2.00m; backfilling trenches with Annex E of SR 21 hardcore	5	m2			
	Disposal					
	Water					
E	Surface	1	item			
F	Ground	1	item			
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
G	Off site; for trenches; Disposal to a suitable licensed waste disposal facility	498	m3			
H	Off site; for pits; Disposal to a suitable licensed waste disposal facility	26	m3			
J	Off site; for lift pits; Disposal to a suitable licensed waste disposal facility	3	m3			
K	Off site; for soft spots; Disposal to a suitable licensed waste disposal facility	135	m3			
L	For preservation in spoil heaps on-site; as directed by the Architect	367	m3			
				To Collection €		

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Filling with layers of well compacted hardcore rock material to be obtained off-site;'T0 Blind' in compliance with SR21 2014 & A1 2016; installed and compacted in layers in accordance with IS888:2016; depositing in 150mm layers maximum thickness; compacting					
	To make up levels					
A	Average thickness exceeding 250mm	29	m3			
	Filling with granular fill material to be obtained off-site; 'T1 Struc' in compliance with SR21 2014 & A1 2016 installed and compacted in layers in accordance with IS888:2016; depositing in 150mm layers maximum thickness; compacting					
	To excavations					
B	Average thickness exceeding 250mm	206	m3			
	Filling with granular fill material to be obtained off-site; 'T2 Perm' in compliance with SR21 2014 & A1 2016 installed and compacted in layers in accordance with IS888:2016; depositing in 150mm layers maximum thickness; compacting					
	To make up levels					
C	Average thickness exceeding 250mm	113	m3			
	Filling with free draining granular fill material to be obtained off-site; behind retaining walls; installed and compacted in layers; depositing in 150mm layers maximum thickness; compacting					
	To excavations					
D	Average thickness exceeding 250mm	79	m3			
	Filling with fill material to be obtained from on-site; installed and compacted in layers; depositing in 150mm layers maximum thickness; compacting					
	To make up levels					
E	Average thickness exceeding 250mm	367	m3			
	Surface Treatments					
	Compacting					
F	Generally	561	m2			

To Collection €

					€	c
	(19) SUBSTRUCTURE (Cont)					
	CONCRETE WORK					
	In-situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
A	Size 150 x 150 x 150mm	82	nr			
	Lean mix concrete; Mix reference: C12/15; nominal maximum aggregate size: 20mm; additions complying with: PFA GGBS; sulphate class: n/a; Exposure Classes X0; refer Engineer's Specification DAS001 for additional requirements					
	Bulk filling under foundations					
B	Generally; poured on or against earth or unblinded hardcore	31	m3			
	Bulk filling to soft spots					
C	Generally; poured on or against earth or unblinded hardcore	135	m3			
	In-situ Concrete; Reinforced					
	Grade C25/30					
	Other Items; Floor Screed					
D	75mm thick; to falls; reinforced	43	m3			
E	Extra over for forming recess in concrete for matwells; Overall size 1000mm x 1125mm; recessed 30mm to suit Entrance layout	2	nr			
F	Extra over for forming recess in concrete for matwells; Overall size 1600mm x 3700mm; recessed 30mm to suit Entrance layout	1	nr			
G	Extra over for forming recess in concrete for matwells; Overall size 2200mm x 3000mm; recessed 30mm to suit Entrance layout	1	nr			
H	Extra over for forming recess in concrete for matwells; Overall size 3300mm x 4000mm; recessed 30mm to suit Entrance layout	1	nr			
J	Extra over for forming recess in concrete for matwells; Overall size 2650mm x 9850mm; recessed 30mm to suit Entrance layout	1	nr			
				To Collection €		

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Structural Concrete; Mix reference: C30/37; nominal maximum aggregate size: 20mm; additions complying with: PFA GGBS; sulphate class: n/a; Exposure Classes X0, XC1, XC2, XF1; refer 4371 221117 DCE IRL Concrete Works Spec for additional requirements					
	Foundations					
A	Generally; Reinforced	136	m3			
	Pad Foundations					
B	Generally; Reinforced	23	m3			
	Lift Pit Foundations					
C	Generally; Reinforced	3	m3			
D	Extra over for tieing new foundations into existing foundations using 3 no 350mm long H12 bars dowelled into existing and fixed using injection mortar Hilti Hit-RE500 min 150mm embedment depth; all as per Engineer's Drawings S01	2	nr			
E	Extra over for forming steps in foundations; 225mm deep step, 600mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	1	nr			
F	Extra over for forming steps in foundations; 375mm deep step, 750mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	2	nr			
G	Extra over for forming steps in foundations; 375mm deep step, 950mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	1	nr			
H	Extra over for forming steps in foundations; 450mm deep step, 1000mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	7	nr			
J	Extra over for forming steps in foundations; 475mm deep step, 1000mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	1	nr			
K	Extra over for forming steps in foundations; 225mm deep step, 1050mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	1	nr			
L	Extra over for forming steps in foundations; 450mm deep step, 1300mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	7	nr			
M	Extra over for forming steps in foundations; 475mm deep step, 1300mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	1	nr			

To Collection €

					€	c
	(19) SUBSTRUCTURE (Cont)					
A	Extra over for forming steps in foundations; 450mm deep step, 1600mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	4	nr			
B	Extra over for forming steps in foundations; 375mm deep step, 3150mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	2	nr			
C	Extra over for forming steps in foundations; 450mm deep step, 3150mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	3	nr			
D	Extra over for forming steps in foundations; 475mm deep step, 3150mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	1	nr			
E	Extra over for forming steps in foundations; 225mm deep step, 3660mm wide; include for all additional formwork, reinforcement (measured elsewhere) and concrete; all as per Engineers Drawings S01, S02 & S18	2	nr			
	Beds					
F	Not exceeding 150mm; reinforced	85	m3			
	Columns					
G	Cross-sectional area not exceeding 0.10m2; Reinforced	3	m3			
H	Cross-sectional area exceeding 0.10m2; Reinforced	1	m3			
	Column Casings					
J	Cross-sectional area not exceeding 0.10m2; Reinforced	1	m3			
	Walls					
K	Exceeding 150mm thick; Lift Pit Walls	2	m3			
L	Exceeding 150mm thick; Retaining Walls	27	m3			
	Plinth					
M	Exceeding 150mm thick; Plinth A	1	m3			

To Collection €

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Sundries on In-situ Concrete					
	Designed Joints; refer Engineer's Drawings and Specification					
	Isolated Joint (IJ); approved joint sealant; 12mm wide x 12mm deep sealed surface groove; Joint filler shall be Aerofill Board 20mm wide or equivalent; 150mm deep; all in strict accordance with Detail on Engineer's Drawing 4001 and Specification					
A	Width not exceeding 150mm; Depth 150 - 300mm	313	m			
	Saw Cut Joints (SCJ); 5mm wide x 40mm deep saw cut; comprising of saw cut filled with expancell. Closed cell polyethylene foam with backup cord and thideflex 600 two part polysulphide sealant or equivalent; all in strict accordance with Detail on Engineer's Drawings and Specification					
B	Width not exceeding 150mm; Depth 150 - 300mm	72	m			
	All construction joints to Precast slabs at the discretion of the Main Contractor; all to Engineer's approval					
C	Width / depth 150 - 300mm	1	item			
	Waterstops; Supercast Hydrofoil 250 waterbar or equivalent; waterstop at kicker; tensile strength 15N/mm2; fusion site butt welding, strictly in accordance with the manufactures instructions					
D	Generally; straight runs; 215mm wide	8	m			
E	Extra over for angles	4	nr			
F	Generally; straight runs; 350mm wide	37	m			
G	Extra over for angles	2	nr			
	Surface Finishes					
	Powerfloating					
H	Generally	561	m2			
	Towelling					
J	Tops of foundations	441	m2			
				To Collection €		

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Reinforcement					
	Bar reinforcement; Hot rolled high yield steel bars shall be deformed and shall comply with BS 4449 Type 1; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification					
	Bar; straight or bent; Pad Foundations					
A	Nominal size 12mm - 25mm diameter	4.60	t			
	Bar; straight or bent; Retaining wall base					
B	Nominal size 12mm - 25mm diameter	8.60	t			
	Bar; straight or bent; Lift Pit Base					
C	Nominal size 12mm - 25mm diameter	0.60	t			
	Bar; straight or bent; Retaining Walls					
D	Nominal size 12mm - 25mm diameter	14.00	t			
	Bar; straight or bent; Lift Pit Walls					
E	Nominal size 12mm - 25mm diameter	0.40	t			
	Bar; straight or bent; Columns					
F	Nominal size 12mm - 25mm diameter	0.80	t			
	Bar; straight or bent; Plinth					
G	Nominal size not exceeding 12mm diameter	0.20	t			
	Fabric reinforcement; Steel fabric shall comply with BS 4483; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification					
	Reference A142 - 2.22 kg/m2; 250mm side laps; 250mm end laps					
H	Horizontal	561	m2			
	Reference A393 mesh - 6.16 kg/m2; 400mm side laps; 400mm end laps					
J	Horizontal	507	m2			

To Collection €

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Reference 1 layer of A252 mesh at each face - H10 corner L-bars at 200mm crs					
A	Vertical	10	m2			
	Formwork					
	Formwork; Basic Finish in accordance with specifications, faces fully compacted and to required tolerances, all as per Engineers Drawings; refer to Architect's and Engineer's Specification					
	Sides of foundations					
B	Height or width 250-500mm	499	m			
	Sides of pad foundations					
C	Height or width 250-500mm	79	m			
	Sides of lift pit foundations					
D	Height or width 250-500mm	13	m			
	Edges of Beds					
E	Height or width not exceeding 250mm	436	m			
	Sides of upstands and steps in top surfaces					
F	Height or width not exceeding 250mm; to form 1000 x 1125 x 30mm deep overall recess for matwell	9	m			
G	Height or width not exceeding 250mm; to form 1600 x 3700 x 30mm deep overall recess for matwell	11	m			
H	Height or width not exceeding 250mm; to form 2200 x 3000 x 30mm deep overall recess for matwell	11	m			
J	Height or width not exceeding 250mm; to form 3300 x 4000 x 30mm deep overall recess for matwell	15	m			
K	Height or width not exceeding 250mm; to form 2650 x 9850 x 30mm deep overall recess for matwell	25	m			
	Kickers					
L	Walls; 215mm wide	8	m			
M	Walls; 350mm wide	16	m			
	Walls					
N	Vertical; one side (One side measured)	77	m2			
				To Collection €		

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Columns					
A	Isolated; Rectangular / Square; cross sectional area not exceeding 0.10m2; height not exceeding 4.00m	38	m2			
B	Isolated; Rectangular / Square; cross sectional area exceeding 0.10m2; height not exceeding 4.00m	4	m2			
	Column Casings					
C	Isolated; Rectangular / Square; cross sectional area not exceeding 0.10m2; height not exceeding 4.00m	4	m2			
	Plinths					
D	Isolated; Rectangular / Square; cross sectional area exceeding 0.10m2; height not exceeding 4.00m	2	m2			
	Formwork; Plain Finish in accordance with specifications, faces fully compacted and to required tolerances, all as per Engineers Drawings; refer to Architect's Specification E20/620					
	Walls					
E	Vertical; one side; to retaining wall (One side measured)	77	m2			
F	Vertical; both sides; to lift pit wall (Both sides measured)	19	m2			
	Precast Concrete					
	Precast Concrete Lintels; Standard to IS EN 845-2 2003; 100 x 65mm. Placement: Bed on mortar used for adjacent work. Bearing length (minimum): 150mm each side; all as per and Engineers Drawings and Specification					
	Lintels					
G	100/215mm wide x 65mm deep x 500mm long	51	nr			
	Thresholds					
H	190mm wide x 225mm deep 860mm long	3	nr			
J	190mm wide x 225mm deep 1060mm long	3	nr			
K	190mm wide x 225mm deep 1360mm long	3	nr			
L	190mm wide x 225mm deep 2200mm long	2	nr			
M	190mm wide x 225mm deep 2410mm long	1	nr			
				To Collection €		

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Design, supply and install prestressed precast hollowcore concrete floor units; one hour fire resistant; in accordance with the specification and all relevant British Standards to support dead loads & superimposed loads as Engineers details; including all fixings, angles, bolts and the like as necessary to attach to surrounding structure; all joints between precast concrete units to be grouted with and including Grade C32/40 concrete as a separate operation prior to placing of RC topping (RC topping measured elsewhere); all in strict accordance with the Engineers Drawings and Specification					
	Floor or roof slabs; 250mm thick					
A	Span not exceeding 5.00m	206	m2			
	BRICKWORK AND BLOCKWORK					
	Blockwork					
	CONCRETE SOLID COMMON BLOCKWORK; Blocks: To BS EN 771-3; Manufacturer: Contractor's choice; Product reference: N/A. Compressive strength: 13N/mm2 with M12 mortar; 450 x 100mm taken as bed faces; all as per Engineer's Drawings and Masonry Spec ref "4371 221117 DCE IRL Masonry Spec" for additional requirements					
	Walls					
B	100mm thick	52	m2			
C	215mm thick	324	m2			
D	450mm thick	71	m2			
E	550mm thick	90	m2			
F	675mm thick	32	m2			
	Labours					
G	On blockwork; generally	1	item			

					€	c
	(19) SUBSTRUCTURE (Cont)					
	ROADSTONE INSULATING THERMAL BLOCKWORK: Roadstone 13N Thermal Liteblock or equivalent; Category I, Group 1 lightweight aggregate concrete masonry units manufactured to I.S. EN 771-3:2011+A1:2015 and certified under System 2+ factory production control; suitable for use below or near external ground level and for locations subject to exposure and freeze/thaw conditions in accordance with S.R. 325; declared mean compressive strength 13 N/mm2; nominal 450 x 100 mm bed face, actual block size approximately 440 x 100 x 215 mm; dry density not exceeding approximately 1,250 kg/m3; declared thermal conductivity approximately 0.35 W/mK; reaction to fire Euroclass A1; moisture movement approximately 0.6 mm/m; laid in M12 mortar with full, properly filled and compacted bed and perpendicular joints, accurately coursed, bonded, level and plumb; blocks to be cut neatly where required and laid strictly in accordance with the manufacturer's current recommendations; include all necessary cutting, bonding, closers and fitting around openings, structural members, service penetrations and other obstructions; recycled content: Contractor's choice; all in accordance with Engineer's Drawings and Masonry Specification Ref. "4371 221117 DCE IRL Masonry Spec" including all additional requirements.					
	Walls					
A	100mm thick	35	m2			
B	215mm thick	56	m2			
	Labours					
C	On blockwork; generally	1	Item			
				To Collection €		

(19) SUBSTRUCTURE (Cont)

Ancillaries to Brickwork/Blockwork

INSULATION TO LIFT PIT AND RC WALLS BELOW DPC LEVEL: Kingspan GreenGuard GG300 rigid extruded polystyrene (XPS) insulation or equivalent; manufactured to BS EN 13164:2012+A1:2015; fibre-free rigid insulation board with smooth dense faces, suitable for basement and below-ground applications and resistant to ground moisture penetration; nominal thickness 180 mm; thermal conductivity 0.033 W/mK; thermal resistance approximately 5.45mK/W; declared compressive strength 300 kPa when tested to BS EN 826; 180 mm thickness covered for basement applications by BBA Certificate 22/6048; manufactured under quality and environmental management systems certified to ISO 9001:2015 and ISO 14001:2015; recycled content: not applicable; boards securely fixed against outer face of reinforced concrete walls, externally of tanking/waterproofing membrane where applicable, with boards close butted and accurately cut and fitted around corners, junctions, openings, penetrations and other obstructions to maintain continuity of insulation; joints between boards and at closures and penetrations to be tightly fitted, with no gaps, and kept free from mortar, concrete and debris; including stainless steel wall ties to Specification fixed to RC walls at maximum 900 mm centres horizontally and 450 mm centres vertically, complete with compatible plastic insulation retaining clips; provide additional wall ties at maximum 225 mm centres adjacent to openings and at corners; all fixings and installation to be compatible with the insulation and associated waterproofing system and carried out strictly in accordance with the manufacturers current written recommendations, Architects Drawing T05 and Specification

Forming cavities; between new walls

A	180mm wide cavity; 180mm insulation as specified; behind lift pit walls	10	m2		
B	180mm wide cavity; 180mm insulation as specified; behind RC walls	77	m2		

To Collection €

(19) SUBSTRUCTURE (Cont)

INSULATION TO CAVITY WALLS BELOW DPC LEVEL: Kingspan GreenGuard GG300 rigid extruded polystyrene (XPS) insulation or equivalent; manufactured to BS EN 13164:2012+A1:2015; fibre-free rigid insulation board with smooth dense faces, suitable for basement, below-ground and below DPC applications and resistant to ground moisture; nominal thickness 150 mm; declared thermal conductivity 0.033 W/mK; thermal resistance 4.50 m2K/W; declared compressive strength 300 kPa to BS EN 826; use in basement applications covered by BBA Certificate 22/6048; manufactured under quality and environmental management systems certified to ISO 9001:2015 and ISO 14001:2015; recycled content: not applicable; boards securely positioned against outer face of reinforced concrete wall and installed continuously, close butted and accurately cut and fitted at corners, junctions, openings, closures, penetrations and other obstructions; joints between boards and at closures and penetrations to be tightly fitted with no gaps and kept free from mortar, concrete and debris; including stainless steel wall ties to Specification at maximum 900 mm centres horizontally and 450 mm centres vertically, complete with compatible plastic insulation retaining clips; provide additional wall ties at maximum 225 mm centres at openings and corners; all fixings, retaining clips and associated components to be suitable for the location and compatible with the insulation and adjoining construction; install strictly in accordance with the manufacturers current written instructions and recommendations and all in accordance with Architects Drawing T05 and Specification.

Forming cavities; between new walls

A	150mm wide cavity; 150mm insulation as specified	31	m2		

DAMP PROOF COURSE; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Accessories: Proprietary standard preformed cloaks at all window and door opes; Material: to be confirmed; all in strict accordance with Architect's and Engineers Drawings and Specification

Damp proof courses

B	Width not exceeding 225mm	148	m		
C	Width exceeding 225mm	129	m2		

Underfloor cavity wall ventilators sleeves in rising external blockwork walls; 150mm diameter sleeves including proprietary uPVC air brick ; as per Architects Drawings and Specification

Sundries; Ventilation Openings

D	150mm diameter	41	nr		

To Collection €

(19) SUBSTRUCTURE (Cont)

Vent sleeves in rising internal blockwork walls; 110mm diameter pipe; 250mm long ; as per Architects Drawings and Specification

Sundries; Ventilation Openings

A	110mm diameter	148	nr		

ROOFING, CLADDING AND WATERPROOFING

Mastic Asphalt, Waterproof and Gas proof Non-Metal Flexible Sheet Coverings

Loose laid polythene gas retardant damp proofing radon membrane; Product reference: Monarflex RMB400 gas membrane or equivalent. Material: Three layers of virgin low-density polyethylene (LDPE) with a 9 x 12mm multi-filament polyester (1670 dtex) reinforcing grid between. Weight (minimum): 407 g/m2. Thickness (minimum): 410 microns.Width (minimum): 2.0 m ; 4.0 m..Roll length (minimum): 25 m. Tensile strength (minimum): >600N/50mm. Tear resistance: >425N. Elongation to break: <19%. Water vapour resistance (minimum): 1024 MNsg-1. Antistatic properties: Required. Colour: Red; all as per Architects Drawings and Specification

Damp Proofing

B	Horizontal; Width not exceeding 300mm	148	m		
C	Horizontal; Width exceeding 300mm	561	m2		
D	Horizontal; Width exceeding 300mm; to lift pit base; 125mm thick	4	m2		
E	Vertical; Width exceeding 300mm	90	m2		

Extra Over For

F	Radon detailing to inner side of External Cavity Walls, complete, including easi-load radon DPC detail, folding radon membrane, Monobond 70mm etc, all as per Engineer's Drawings, Details and Specifications	123	m		
G	Radon detailing to Internal Cavity Walls, complete, including easi-load radon DPC detail, folding radon membrane, Monobond 70mm etc, all as per Engineer's Drawings, Details and Specifications	39	m		
H	Radon detailing to Internal Walls, complete, including easi-load radon DPC detail, folding radon membrane, Monobond 70mm etc, all as per Engineer's Drawings, Details and Specifications	148	m		

Collars around pipes, standards and the like; allow for dressing radon barrier around; including all additional radon membrane, additional tanking items, radon tape, collars etc.

J	Size of pipes; 110mm diameter; Height of Collar; 300mm	36	nr		

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Easi-Sump and Cap Link System or equivalent Radon Sumps; PVC radon sumps; including all fittings; all in strict accordance with the manufacturer's instructions and Architects Drawings and Specification					
	Gas proofing; Sumps					
A	284mm dia. x 149mm high	6	nr			
	Gas proofing; Radon vent pipework; interconnecting					
B	110mm dia.	75	m			
C	Bends	6	nr			
D	Easi Sump Cap Link or equivalent; including pvc cover, frame, coupling with gas seals top and bottom	6	nr			
	Waterproofing membrane; Preprufe 800 PA as manufactured by Grace Construction Products Ltd or equivalent, installed in strict accordance with the manufacturers recommendations with 2mm thick Grace protection 03 boards. Primer: Water based primer - bituthene primer W2. Internal and external corners and edges must be reinforced with precut strips of 300mm wide Preprufe 800 PA, ensure continious lap with DPM, include for all angle fillets; all to Engineer's Drawing S04 and Specification					
	Tanking					
E	Horizontal; Width not exceeding 300mm	24	m			
F	Horizontal; Width exceeding 300mm	71	m2			
G	Vertical; Width not exceeding 300mm	40	m			
H	Vertical; Width exceeding 300mm	86	m2			
J	Sloping; Width not exceeding 300mm	24	m			
	Waterproofing membrane; Preprufe 300 R as manufactured by Grace Construction Products Ltd or equivalent, installed in strict accordance with the manufacturers recommendations with 2mm thick Grace protection 03 boards. Primer: Water based primer - bituthene primer W2. Internal and external corners and edges must be reinforced with precut strips of 300mm wide Preprufe 300 R, ensure continious lap with DPM, include for all angle fillets; all to Engineer's Drawing S04 and Specification					
	Tanking					
K	Horizontal; Width not exceeding 300mm	24	m			
L	Horizontal; Width exceeding 300mm	71	m2			
M	Vertical; Width not exceeding 300mm	40	m			

					€	c
	(19) SUBSTRUCTURE (Cont)					
A	Vertical; Width exceeding 300mm	86	m2			
B	Sloping; Width not exceeding 300mm	24	m			
	Waterproofing membrane; Bituthene 8000 as manufactured by Grace Construction Products Ltd or equivalent, installed in strict accordance with data sheet, number of layers: 1; bonding: full adhesive bond, smooth out to exclude air; joints - surfaces to be joined, clean and dry beyond full width of joint, laps(minimum): 100mm min, preprufe tape centred over laps, sealing: preprufe tape, ensure continious lap with DPM, include for all angle fillets; all to Engineer's Drawing S04 and Specification					
	Tanking					
C	Horizontal; Width not exceeding 300mm	24	m			
D	Horizontal; Width exceeding 300mm	71	m2			
E	Vertical; Width not exceeding 300mm	40	m			
F	Vertical; Width exceeding 300mm	86	m2			
G	Sloping; Width not exceeding 300mm	24	m			
	Bithuthene Protection or equivalent; Bitumen board; include for Bitustik or equivalent patches; Bithuthene or equivalent tape; Primer B2 or equuivalent for adhesion; overlap boards by 75mm minimum; tape with Bithuthene or equivalent; including all temporary propping of boards where necessary; all to Engineer's Drawing S04 and Specification					
	Tanking					
H	Horizontal; Width not exceeding 300mm	24	m			
J	Horizontal; Width exceeding 300mm	71	m2			
K	Vertical; Width not exceeding 300mm	40	m			
L	Vertical; Width exceeding 300mm	86	m2			
M	Sloping; Width not exceeding 300mm	24	m			
	Permeable non woven geotextile terram 1000 behind retaining wall; all in strict accordance as per Engineer's Details and Specifications					
	Tanking					
N	Horizontal; Width not exceeding 300mm	24	m			
P	Horizontal; Width exceeding 300mm	71	m2			
Q	Vertical; Width not exceeding 300mm	40	m			
				To Collection €		

					€	c
	(19) SUBSTRUCTURE (Cont)					
A	Vertical; Width exceeding 300mm	86	m2			
B	Sloping; Width not exceeding 300mm	24	m			
	WOODWORK					
	Ironmongery, Accessories and Sundries					
	Underslab greenguard 700 insulation; Manufacturer: to be confirmed; Product reference: to be confirmed (or similar approved by Architect), comprising a greenguard 700 between low emissivity foil facings; To be installed in accordance with instructions issued by Manufacturer; Insulation thickness: 130mm or as per drawings; all to Engineer's Drawings and Specification					
	Insulation; Thermal					
C	130mm thick; width exceeding 225mm; horizontal	561	m2			
D	30mm thick; width exceeding 225mm; vertical	456	m			
	Underslab greenguard 700 insulation; Manufacturer: to be confirmed; Product reference: to be confirmed (or similar approved by Architect), comprising a greenguard 700 between low emissivity foil facings; To be installed in accordance with instructions issued by Manufacturer; Insulation thickness: 125mm or as per drawings; all to Engineer's Drawings and Specification					
	Insulation; Thermal					
E	125mm thick; width exceeding 225mm; horizontal	4	m2			
	Vapour Control to Top of Floor Insulation; Laps to be a minimum of 150mm; Sealing to be continuous mastic strip between overlaps; form folded welts at corners in upstands; all to Architects Drawings and Specification					
	Damp Proofing					
F	Horizontal; Width exceeding 300mm	561	m2			
G	Vertical; Width not exceeding 300mm	456	m			
	DRAINAGE					
	Drainage Below Ground - Foul & Storm					
	Excavation					
	Excavating trenches to receive pipes / ducts not exceeding 250mm diameter, earthwork support to sides of trenches; grading bottoms of excavations; backfilling with hardcore (e.m.); disposal of surplus spoil off site					
H	Average Depth 500 - 1000mm	56	m			

To Collection €

					€	c
	(19) SUBSTRUCTURE (Cont)					
	Graded Gravel					
	Beds and Surrounds					
A	550 x 550mm to 150mm diameter pipe	56	m			
	Hardcore filling; backfill trenches with fill complying with Clause 804; Granular material Type B or equal and approved; compacted in layers not exceeding 225mm; as per Engineer's Specification and Drawing					
	Backfilling; to top of trench; above concrete or graded gravel					
B	Average thickness 250 - 500mm; compacting in 150mm layers; average depth 500 - 1000mm	56	m			
	PVC marker tape "Heptape" or equal and approved					
C	Continuous strip laid during trench backfill, 100mm above pipework	56	m			
	Pipe; PVC SN8 pipework and fittings; to Engineer's Specification					
	Pipes; loose couplers and ceiling ring joints in the running length					
D	150mm diameter	115	m			
E	Extra over for strapping pipework to underside of precast slab; complete including all fixings necessary	59	m			
F	Extra over for long radius 90 degrees bends; "Pop Ups"	24	nr			
G	Extra over for bends	24	nr			
H	Extra over for boss adaptors	15	nr			
	Drainage Below Ground - Behind Retaining Wall					
	Excavation					
	Graded Gravel					
	Beds and Surrounds					
J	550 x 550mm to 150mm diameter pipe	24	m			
	Hardcore filling; backfill trenches with fill complying with Clause 804; Granular material Type B or equal and approved; compacted in layers not exceeding 225mm; as per Engineer's Specification and Drawing					
	Backfilling; to top of trench; above concrete or graded gravel					
K	Average thickness 250 - 500mm; compacting in 150mm layers; average depth 500 - 1000mm	24	m			
				To Collection €		

					€	c
	(19) SUBSTRUCTURE (Cont)					
	PVC marker tape "Heptape" or equal and approved					
A	Continuous strip laid during trench backfill, 100mm above pipework	24	m			
	Pipe; PVC SN8 pipework and fittings; to Engineer's Specification					
	Perforated Pipes; loose couplers and ceiling ring joints in the running length					
B	150mm diameter	24	m			
C	Extra over for wrapping pipe in geotextile cloth for protection	24	m			
	Services Below Ground - M & E Services					
	Excavation					
	Excavating trenches to receive pipes / ducts not exceeding 250mm diameter, earthwork support to sides of trenches; grading bottoms of excavations; backfilling with hardcore (e.m.); disposal of surplus spoil off site					
D	Average Depth 500 - 1000mm	50	m			
	Graded Gravel					
	Beds and Surrounds					
E	550 x 550mm to 150mm diameter pipe	50	m			
	Hardcore filling; backfill trenches with fill complying with Clause 804; Granular material Type B or equal and approved; compacted in layers not exceeding 225mm; as per Engineer's Specification and Drawing					
	Backfilling; to top of trench; above concrete or graded gravel					
F	Average thickness 250 - 500mm; compacting in 150mm layers; average depth 500 - 1000mm	50	m			
	PVC marker tape "Heptape" or equal and approved					
G	Continuous strip laid during trench backfill, 100mm above pipework	50	m			
	Ductwork; "Wavinduct" or equal and approved					
	100mm dia.; include for draw-wire					
H	Laid in trenches	50	m			

To Collection €

					€	c
	(19) SUBSTRUCTURE (Cont)					
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up under the ground floor to verify that the hardcore material used on site complies with the chemical requirements in BS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
A	Generally	1	item			
	TEMPORARY WORKS					
	Contractor to include for all necessary temporary works to Contractor's own design; include for all propping, shoring, concrete foundations etc.; refer to indicative details shown on Architects and Engineer's Drawings					
B	Generally	1	item			
				To Collection €		

				€	c
(19) SUBSTRUCTURE (Cont)					
COLLECTION					
Page No. Extension/1					
Page No. Extension/2					
Page No. Extension/3					
Page No. Extension/4					
Page No. Extension/5					
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Page No. Extension/21					
(19) SUBSTRUCTURE **Carried to Summary**					

					€	c
	(21) EXTERNAL WALLS					
	CONCRETE WORK					
	In-Situ Concrete					
	Insitu Concrete Lintels; Deep insitu Min. C30/37 Grade					
	Beams					
A	Cross sectional area not exceeding 0.10m2	1	m3			
	Surface Finishes					
	Troweling					
B	Generally; to tops of beams	2	m2			
	Reinforcement					
	Bar reinforcement; Hot rolled high yield steel bars shall be deformed and shall comply with BS 4449 Type 1; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification					
	Bar; straight or bent; Beam					
C	Nominal size 12mm - 25mm diameter	0.08	t			
	Formwork					
	Formwork; Plain finish in Accordance with Engineer's Drawings and Specification					
	Sides of beams					
D	Isolated; rectangular; soffit height not exceeding 4.00m; cross sectional area not exceeding 0.10m2; RC Lintels	7	m2			
	Precast Concrete					
	Precast Concrete Lintels; Standard to IS EN 845-2 2003; 100 x 65mm. Placement: Bed on mortar used for adjacent work. Bearing length (minimum): 150mm each side; all as per and Engineers Drawings and Specification					
	Lintels; in outer and internal leaf of external wall					
E	to suit 1450mm wide ope (L1)	3	nr			
F	to suit 1650mm wide ope (L1)	6	nr			

					€	c
	(21) EXTERNAL WALLS (Cont)					
	Precast Concrete Lintels; Deep Precast Min. C32/40 Grade; 100 x 215mm. Placement: Bed on mortar used for adjacent work. Bearing length (minimum): 250mm each side; all as per and Engineers Drawings and Specification					
	Lintels; in outer and internal leaf of external wall					
A	to suit 2800mm wide ope (L4)	1	nr			
	Precast Concrete Lintels; Deep Precast Min. C30/37 Grade; 215 x 215mm. Placement: Bed on mortar used for adjacent work. Bearing length (minimum): 300mm each side; all as per and Engineers Drawings and Specification					
	Lintels; in outer and internal leaf of external wall					
B	to suit 1060mm wide ope (L7)	1	nr			
C	to suit 1280mm wide ope (L7)	1	nr			
D	to suit 1450mm wide ope (L7)	1	nr			
E	to suit 1860mm wide ope (L7)	1	nr			
F	to suit 1950mm wide ope (L7)	6	nr			
G	to suit 3200mm wide ope (L7)	1	nr			
	U-BLOCK RECESSED RADIATOR LINTELS; Type to Engineer's drawings; size 215 x 215mm (Assume); include for reinforcement and concrete filling in accordance with Engineers Drawings; complete; all as per Architects Drawings and Specification and Engineers Drawings and Specification					
	Lintels; in recessed radiator					
H	to suit 3320mm wide ope	1	nr			
J	to suit 4650mm wide ope	6	nr			
K	to suit 6000mm wide ope	3	nr			
				To Collection €		

					€	c
	(21) EXTERNAL WALLS (Cont)					
	BRICKWORK AND BLOCKWORK					
	Brickwork					
	STACK BONDED BRICKWORK; Description: Bricks: To BS EN 771-1; Manufacturer: to be confirmed; Product reference:to be confirmed; Recycled content: to be confirmed; Special shapes: None; Compressive Strength (Nominal): 20 N/mm2; Mortar: Type M4; Standard: To BS EN 998-2; Mix: 1:0.25:3 cement:lime:sand; Additional requirements: as per manufacturer; Bond: Soldier Coursing; Joints: Bucket handle; Features: To North South elevation; As per Architect's and Engineer's Specification					
	Walls					
A	102.5mm thick; in skins of cavity walls (outer leaf)	204	m2			
	Extra over for special blocks					
B	Reveals	33	m			
	Labours					
C	On blockwork	1	item			
	Concrete common blockwork; Description; Blocks: To BS EN 771-3; Manufacturer: to be confirmed; Product reference: to be confirmed; Configuration: to be confirmed; Compressive strength; Mean value: 13 N/mm#; Characteristic value: 13 N/mm#; Category: To structural engineer's specification; Freeze/ thaw resistance: Suitable for exposed external use below dpc; Thermal properties: N/A; Recycled content: Contractor's choice; Work sizes (length x width x height): 440 x 215 x 215 mm and 215 x 215 x 215 hollow blocks; Tolerance category: to be confirmed; Special shapes: Half sizes; Additional requirements: Reaction to fire class: to be confirmed; Mortar: Type M6; Standard: To BS EN 998-2; Mix: 1:1:6 cement:lime:sand; Additional requirements: Durability: Freeze/ thaw resistance: Suitable for exposed external use below dpc; Bond: Half-lap stretcher; all in strict accordance as per Architect's and Engineer's Details, Drawings and Specifications					
	Walls					
D	100mm thick	406	m2			
E	215mm thick	373	m2			
	Labours					
F	On blockwork	1	item			

(21) EXTERNAL WALLS (Cont)

CONCRETE FACING BLOCKWORK; Blocks to BSEN771-3; Manufacturer: Submit proposals; Product reference: Paint Grade Blocks (smooth finish); Configuration: Group 1; Compressive strength: Mean value: 13.5 N/mm2; Category:I; Recycled content: 0% (minimum) to BS EN ISO 14021; Work sizes (length x width x height): 440 x 100 x 215mm; Tolerance category D2; Special shapes; Half sizes, Corner Blocks; Additional requirements: Density: 2100 kg/m2; Mortar : M6; Standard: To BS EN 998-2; Mix 1:1:6 cement: lime: sand; Bond: Half lap stretcher; Joints: Bucket handle; Features: Solid blocks to opening reveals; as per Architect's and Engineers Drawings and Specification

Walls

A	215mm thick; collar bonding; comprising of 1nr 100mm thick fair faced block to internal side, 1 nr standard solid blockwork to external side; Provide 10mm max full horizpntal M6 mortar bed and 25mm wide fully filled vertical M6 mortar between the two seperate leaves; Vertical collar joints between the two leaves are to be solidly filled with M4 mortar as the works proceed; (Bed Joint Reinforcement measured elsewhere)	188	m2		

Labours

B	On blockwork	1	item		

Bonding to other work, blockwork to concrete column; comprising ancon wall ties or equivalent wall ties at 225mm vertical centres; all in strict accordance with Detail on Engineers Drawing and Specification

Bonding to other work; blockwork to insitu concrete

C	Vertically	283	m		

Bonding to other work; blockwork to underside of steel beam; Ancon type IHR-Internal Head Restraint at 450mm centres or equivalent to suit 25-50mm gap with TEK screwed to RC Beam; all in strict accordance with Detail on Engineers Drawing and Specification

Bonding to other work; blockwork to insitu concrete

D	Horizontally; 215mm thick walls; soffit of steel Beams	182	m		

To Collection €

(21) EXTERNAL WALLS (Cont)

Ancillaries to Brickwork/Blockwork

PARTIAL FILL CAVITY INSULATION: Kingspan Kooltherm K108 Cavity Board or equivalent; premium performance fibre-free rigid thermoset phenolic insulation core faced on both sides with low emissivity composite foil facings; manufactured to BS EN 13166:2012+A2:2016 and covered by current BBA Agrement certification; nominal board size 1200 x 450 mm; nominal thickness 100 mm; declared thermal conductivity 0.019 W/mK; thermal resistance 5.25 m2K/W; compressive strength 100 kPa; reaction to fire Euroclass F; boards securely positioned tight against face of inner leaf and retained with proprietary insulation retaining clips fixed to wall ties forming part of the cavity wall construction; maintain minimum 50 mm clear and unobstructed residual cavity between outer face of insulation and inner face of outer leaf; boards accurately cut and lightly butted with joints close fitting and arranged to maintain continuity of insulation; joints, corners, openings, cavity closures, penetrations and other interruptions to be tightly fitted with no gaps; neatly cut and fit around wall ties, cavity trays, lintels, services and other obstructions without damaging board facings; keep insulation surfaces and residual cavity free from mortar droppings, debris and other contamination throughout construction; include all necessary cutting, fitting, proprietary retaining clips and ancillary components required for a complete installation; install strictly in accordance with manufacturers current written instructions and recommendations, BBA certification and Architects and Engineers Drawings, Details and Specifications.

Forming Cavities; between new walls

A	150mm wide; 100mm insulation as specified	610	m2		

Closing cavities

CAVITY CLOSERS: to heads and jambs of openings in cavity walls; Manufacturer Kingspan Insulation Ltd; Accessories; Jointing Clip; Jointing Strip and Fixing Tie; installed in strict accordance with manufacturer's recommendations; as per Architect's Specification F30 180

Closing cavities

B	To suit 150mm wide cavity; horizontal	118	m		
C	To suit 150mm wide cavity; vertical	88	m		

Cavity closers to tops of cavity walls to Architect's Specification ref. F30/180; Weather resistant cavity closer; Manufacturer: Kingspan Insulation Ltd. Product reference: Kingspan Kooltherm Cavity Closer 140 or equivalent. Accessories: Jointing Clip, Jointing Strip and Fixing Tie; installed in strict accordance with manufacturer's recommendations; all in accordance with the Architect's Drawings and Specification

Closing cavities

D	To suit 125mm wide cavity	182	m		

					€	c
	(21) EXTERNAL WALLS (Cont)					
	Damp proof courses					
	DAMP PROOF COURSE; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Accessories: Proprietary standard preformed cloaks at all window and door opes; Material: to be confirmed; all in strict accordance with Architect's and Engineers Drawings and Specification					
	Damp proof courses					
A	Width not exceeding 120mm; horizontal	19	m2			
B	Width exceeding 225mm; horizontal; below window cills	20	m2			
C	Width exceeding 225mm; horizontal; stepped across cavity; to Window and door top	43	m2			
D	Width exceeding 225mm; horizontal; to stepped across cavity of Window and door top	37	m2			
E	Width exceeding 225mm; horizontal; to stepped across cavity of pitched roof	32	m2			
	Joint Reinforcement					
	Joint reinforcement for blockwork walls; blockwork bed joint reinforcement; stainless steel wire weld type; no allowance in measurement for laps; Galvanised steel to blockwork as per Engineer's Drawings and Specification					
	Joint Reinforcement					
F	To suit 100mm thick blockwork	130	m			
G	To suit 215mm thick blockwork	829	m			
	Design Joints					
	Movement joints; 18mm wide joint; filled with closed cell polyurethane compressible filler board, backing chord and soudal silirub 2 sealant; include for Ancon Clark PPS ties (225mm long) with debond sleeves to one side only at 220mm centres; vertical; all in strict accordance with manufacturer's recommendations and Architects Drawings and Specification & Engineer's Specification					
	Design Joints					
H	100mm thick walls; generally	42	m			

					€	c
	(21) EXTERNAL WALLS (Cont)					
	Control Joint; complete, including caulking/sealant with backing rod in open/ open block joint and expamet stop bead to external render; stainless steel strip type wall ties at 225mm centres vertically either side of joint and within 150mm of joint; all in strict accordance with manufacturer's recommendations and Architects & Drawings and Specification and Engineer's Drawings and Specification					
	Design Joints					
A	100mm thick walls; generally	42	m			
	Sundries					
	Perpend Joint Plastics Weep holes; iManufacturer: Contractor's choice; Product reference: Contractor's choice; Locations: Through outer leaf immediately above base of cavity, at cavity trays, stepped dpcs and external openings. 75 mm above top of cavity fill at base of cavity; Provision: At not greater than 1000 mm centres and not less than two over each opening; As per Architect's Specification F30 132					
	Sundries					
B	Generally; within rendered blockwork walls	71	nr			
	WOODWORK					
	Ironmongery, Accessories and Sundries					
	External Weather seal; Epalyn EP or Similar Approved. Dimension: Raw material 30.5m long x 1.7m wide - cut to suit. Packaging: Rolls supplied on wooden pallets and are secured in polyethylene wrapping. End Use: Used as waterproofing membrane. Maintenance: None - except cleaning and repair of any damage to the membrane. Service Life: Vulcanised rubber membranes have demonstrably a life span of 30 years and an expected life span in excess of 40 years; all as per Architects Drawings and Specification F30					
	Sundries; Seals					
C	Width not exceeding 225mm, horizontal	118	m			
D	Width not exceeding 225mm, vertical	88	m			

					€	c
	(21) EXTERNAL WALLS (Cont)					
	Internal seal; Epalyn EP or Similar Approved. Dimension: Raw material 30.5m long x 1.7m wide - cut to suit. Packaging: Rolls supplied on wooden pallets and are secured in polyethylene wrapping. End Use: Used as waterproofing membrane. Maintenance: None - except cleaning and repair of any damage to the membrane. Service Life: Vulcanised rubber membranes have demonstrably a life span of 30 years and an expected life span in excess of 40 years; all as per Architects Drawings and Specification F30					
	Sundries; Seals					
A	Width not exceeding 225mm, horizontal	118	m			
B	Width not exceeding 225mm, vertical	88	m			
	THERMAL BRIDGING; Specialist rigid thermoplastic insulation used for thermal bridging detailing, including at window & door thresholds; COMPACFOAM 200 or equivalent to Architects approval; Locations: Under windows; Thermal conductivity = 0.046 W/mK; Average stress at 5%: 2.56 N/mm2; Average stress at 2%: 1.91 N/mm2; Modulus of elasticity in linear-elastic range (E-Module): 102 N/mm2; Recommended stress level (under service load): 1.01 N/mm2; Water vapour diffusion resistance factor: 25; Maximum water absorptive capacity during complete submersion: 5-10%; Material behaviour in response to fire, according to EN 13501: Euroclass E Elongation at maximum force (maximum strain at failure load): >10%; Final creep rate (anticipated long-term deformation at serviceability limit state: <3%; Dimensions: Available in rectangular bars in four sizes; Width/ height: 100 mm x 150 mm/ 100 mm X 75 mm/ 100 mm X 50 mm/ 100mm X 20mm; Length: 0.98 m (980 mm); Other dimensions available to special order; as per Architect's and Engineers Specification					
	Insulation; thermal					
C	Size 20mm x 100mm; to heads and jambs of openings	150	m			
D	Size 40mm x 100mm; to cill of openings	56	m			
	STRUCTURAL STEELWORK					
	Steelwork					
	Keystone SL/K Lintels; Bearing length (minimum): 200mm each side; all as per and Engineers Drawings and Specification					
	Lintels; in outer and internal leaf of external wall					
E	to suit 1750mm wide ope (L5)	1	nr			
F	to suit 3100mm wide ope (L5)	1	nr			

					€	c
	(21) EXTERNAL WALLS (Cont)					
	Cill Support Angle					
	120x120x10 RSA Support Angle Cills Bolted to U-Block; all in accordance with Engineers Drawings; complete; all as per Architects Drawings and Specification and Engineers Drawings and Specification					
	Support angle to cills					
A	to suit 1450mm wide ope	2	nr			
B	to suit 4150mm wide ope	6	nr			
C	to suit 5500mm wide ope	3	nr			
	Lintel Support Angle					
	Optima 12 Outer Leaf Support Angle to Window Lintels; all in accordance with Engineers Drawings; complete; all as per Architects Drawings and Specification and Engineers Drawings and Specification					
	Support angle to lintels					
D	to suit 4150mm wide ope	6	nr			
E	to suit 4890mm wide ope	1	nr			
F	to suit 5500mm wide ope	3	nr			
				To Collection €		

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(21) EXTERNAL WALLS (Cont)					
COLLECTION					
Page No. Extension/23					
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Page No. Extension/26					
Page No. Extension/27					
Page No. Extension/28					
Page No. Extension/29					
Page No. Extension/30					
Page No. Extension/31					
(21) EXTERNAL WALLS **Carried to Summary**					

					€	c
	(22) INTERNAL WALLS					
	CONCRETE WORK					
	In-situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
A	Size 150 x 150 x 150mm	2	nr			
	Structural Concrete; Mix reference: C40/50; nominal maximum aggregate size: 20mm; additions complying with: PFA GGBS; sulphate class: n/a; Exposure Classes X0, XC1, XC2, XC3, XC4, XD1, XD2, XD3, XS1, XS2, XS3, XF1, XF2, XF3, XF4, XA1; refer 4371 221117 DCE IRL Concrete Works Spec for additional requirements					
	Lift Shaft Walls					
B	Exceeding 150mm thick	11	m3			
	Reinforcement					
	Bar reinforcement; Hot rolled high yield steel bars shall be deformed and shall comply with BS 4449 Type 1; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification					
	Bar; straight or bent; Lift Walls					
C	Nominal size 12mm - 25mm diameter	2.20	t			
	Formwork					
	Formwork; Basic Finish in accordance with specifications, faces fully compacted and to required tolerances, all as per Engineers Drawings; refer to Architect's and Engineer's Specification					
	Walls					
D	Vertical; both sides (Both sides measured)	136	m2			

					€	c
	(22) INTERNAL WALLS (Cont)					
	Precast Concrete					
	Precast Concrete Lintels; Standard to BS EN 8500-2; 100 x 65mm. Placement: Bed on mortar used for adjacent work. Bearing length (minimum): 215 mm each side; all as per and Engineers Drawings and Specification					
	L3 - 100x150mm deep precast concrete c32/40 lintel with 1no. h16 bar bottom and 1no. h16 bar top with h6 links at 80mm c/c bearing min. 250mm at each end					
A	to suit 850mm wide ope	1	nr			
B	to suit 915mm wide ope	1	nr			
C	to suit 1000mm wide ope	2	nr			
D	to suit 1050mm wide ope	2	nr			
E	to suit 1100mm wide ope	1	nr			
F	to suit 1800mm wide ope	1	nr			
	L4 - 100x215mm deep precast concrete c32/40 lintel with 1no. h16 bar bottom and 1no. h16 bar top with h6 links at 130mm c/c bearing min. 250mm at each end.					
G	to suit 1050mm wide ope	2	nr			
H	to suit 2400mm wide ope	2	nr			
	L7 - 215x215mm deep precast min. c30/37 concrete lintel x215mm deep precast min. c30/37 concrete lintel bearing min. 300mm at each end with 2no. h20 bars top & bottom with h8 links at 130mm c/c. (refer to plans for l7 insitu beams)					
J	to suit 1050mm wide ope	8	nr			
K	to suit 1350mm wide ope	3	nr			
L	to suit 1765mm wide ope	2	nr			
M	to suit 1800mm wide ope	2	nr			
N	to suit 2400mm wide ope	2	nr			
				To Collection €		

(22) INTERNAL WALLS (Cont)

BRICKWORK AND BLOCKWORK

Blockwork

A	Concrete common blockwork; Description; Blocks: To BS EN 771-3; Manufacturer: to be confirmed; Product reference: to be confirmed; Configuration: to be confirmed; Compressive strength; Mean value: 13 N/mm#; Characteristic value: 13 N/mm2; Category: To structural engineer's specification; Freeze/ thaw resistance: Suitable for exposed external use below dpc; Thermal properties: N/A; Recycled content: Contractor's choice; Work sizes (length x width x height): 440 x 215 x 215 mm and 215 x 215 x 215 hollow blocks; Tolerance category: to be confirmed; Special shapes: Half sizes; Additional requirements: Reaction to fire class: to be confirmed; Mortar: Type M12; Standard: To BS EN 998-2; Mix: 1:1:6 cement:lime:sand; Additional requirements: Durability: Freeze/ thaw resistance: Suitable for exposed external use below dpc; Bond: Half-lap stretcher; all in strict accordance as per Architect's and Engineer's Details, Drawings and Specifications				
	Walls				
B	100mm thick	280	m2		
C	215mm thick	455	m2		
D	U-block; Beam Type to Engineer's drawings; size 215 x 215mm; include for reinforcement (measured elsewhere) and concrete filling in accordance with Engineers Drawings; complete	7	m		
E	CONCRETE FACING BLOCKWORK; Blocks to BSEN771-3; Manufacturer: Submit proposals; Product reference: Paint Grade Blocks (smooth finish); Configuration: Group 1; Compressive strength: Mean value: 13.5 N/mm2; Category:I; Recycled content: 0% (minimum) to BS EN ISO 14021; Work sizes (length x width x height): 440 x 100 x 215mm; Tolerance category D2; Special shapes; Half sizes, Corner Blocks; Additional requirements: Density: 2100 kg/ m2; Mortar : M12; Standard: To BS EN 998-2; Mix 1:1:6 cement: lime: sand; Bond: Half lap stretcher; Joints: Bucket handle; Features: Solid blocks to opening reveals; as per Architect's and Engineers Drawings and Specification				
	Walls				
F	100mm thick	93	m2		
G	215mm thick; collar bonding; comprising of 1nr 100mm thick fair faced block to each side; Provide 10mm max full horizpntal M12 mortar bed and 25mm wide fully filled vertical M12 mortar between the two seperate leaves; Vertical collar joints between the two leaves are to be solidly filled with M12 mortar as the works proceed; (Bed Joint Reinforcement measured elsewhere)	352	m2		

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	(22) INTERNAL WALLS (Cont)					
	Bonding to other work, blockwork to in situ concrete; comprising 2nr s/s ancon SPB or equivalent wall ties 225mm long at 220mm vertical centers, TEK screwed to RC Frame; all in strict accordance with Detail on Engineers Drawings and Specification					
	Bonding to other work; blockwork to in situ concrete					
A	Vertically; to RC Walls/Columns	233	m			
	Bonding to other work; blockwork to underside of concrete floor slab; Ancon type IHR-Internal Head Restraint at 450mm centers or similar approved; all in strict accordance with manufacturer's recommendations; in accordance with Engineers Drawing SE 0045 and Specification					
	Bonding to other work;					
B	Horizontally; 215mm thick walls	87	m			
	Ancillaries to Brickwork/Blockwork					
	CAVITY WALL INSULATION: Kingspan Kooltherm K108 Cavity Board or equivalent; rigid thermoset phenolic partial-fill cavity wall insulation; nominal thickness 150 mm; thermal conductivity 0.019 W/mK; boards securely positioned against face of inner leaf and retained with proprietary insulation retaining clips fixed to wall ties forming part of the cavity wall construction; maintain continuous clear residual cavity in accordance with manufacturers requirements and Architects details; boards accurately cut, close butted and tightly fitted at joints, corners, openings, closures, penetrations and other interruptions, with no gaps; keep insulation faces and residual cavity free from mortar droppings and debris; neatly cut and fit around wall ties, cavity trays, lintels, services and other obstructions without damaging board facings; include all necessary cutting, fitting, retaining clips and ancillary components required for a complete installation; install strictly in accordance with manufacturers current written recommendations, BBA certification and Architects and Engineers Drawings, Details and Specifications.					
	Forming Cavities; between new walls					
C	150mm wide; 100mm insulation as specified	140	m2			
	Movement joints; 18mm wide joint; filled with closed cell polyurethane compressible filler board, backing chord and soudal silirub 2 sealant; include for Ancon Clark PPS ties (225mm long) with debond sleeves to one side only at 220mm centres; vertical; all in strict accordance with manufacturer's recommendations and Architects Drawings and Specification & Engineer's Specification					
	Design Joints					
D	215mm thick walls; generally	80	m			

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	(22) INTERNAL WALLS (Cont)					
	Control Joint; complete, including caulking/sealant with backing rod in open/ open block joint and expamet stop bead to external render; stainless steel strip type wall ties at 225mm centres vertically either side of joint and within 150mm of joint; all in strict accordance with manufacturer's recommendations and Architects & Drawings and Specification and Engineer's Drawings and Specification					
	Design Joints					
A	215mm thick walls; generally	248	m			
	STAINLESS STEEL DOVETAIL TIES; At 450mm centers; to fit abbey slot style cast in Proprietary Channels; As per Engineer's Drawing.					
	Stainless Steel Dovetail ties					
B	215mm thick walls; generally	248	m			
	Sundries					
	Fireproofing					
C	FIRE STOPPING SYSTEM TO INDIVIDUAL SERVICES PENETRATIONS Generally; Joint filler: Pipe collars - concealed intumescent; Size or thickness: Not applicable; Pipe outside diameter: Varies; Sealant: Contractor's choice; Colour: Contractor's choice	1	Item			
D	FIRE STOPPING SYSTEM TO MULTIPLE SERVICES PENETRATIONS Generally; Panel material: Contractor's choice; Thickness: As required to met fire resistance; Number of layers: As required to met fire resistance; Framing: As required to met fire resistance; Finish: smooth and Painting as section M60; Sealant: Contractor's choice; Colour: TBC	1	Item			
E	Firestopping; filling any gaps around pipework wider than 25mm with Rockwool Corofil Fire Stop Compound or equivalent; to be fitted in accordance with manufacturer's recommendations	1	Item			
F	Firestopping; filling any gaps around pipework wider than 25mm with Rockwool ermanent Shuttering or equivalent; to be fitted in accordance with manufacturer's recommendations	1	Item			
G	Firestopping; cable trays to be fitted with Firepro Multicable Firestop; to be fitted in accordance with manufacturer's recommendations; all as per Architects Drawings and Specification	1	Item			
H	Firestopping; filling any gaps between fire door frames and fire rated walls and gaps between walls and doors of any room with acoustic sensitivity with Fire Pro Fire and Acoustic Foam; to be fitted in accordance with manufacturer's recommendations; all as per Architects Drawings and Specification	1	Item			

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	(22) INTERNAL WALLS (Cont)					
A	Firestopping; filling any gaps in floors at vertical service penetration, sealed with 60 minute fire rated flooring compound (integrity and insulation) with smooth trowel finish. Load bearing, non-shrinking with airtight seal; all as per Architects Drawings and Specification	1	Item			
B	Firestopping; filling any gaps in walls at high level for service penetrations, sealed with 2 no layers of high density fibreboard coated with fire rated acrylic. All fibres exceed 3 microns thickness and 200 microns in length. Non hazardous. All joints sealed with intumescent sealant and panel finished with fibre retardant aqueous polymer emulsion; all as per Architects Drawings and Specification	1	Item			
	Firestopping; Fire stopping to tops of internal block walls, 30 minutes fire stopping dense moisture resistant wool packing to be fitted in accordance with manufacturer's recommendations; Stability, integrity and insulation in accordance with BS476:Part 8/20-24 or equivalent and relevant recommendations of Appendix A of Technical Guidance Document B with uninsulated glazed elements confined to the locations identified in Table A4 of Technical Guidance Document B; all to Architect's Drawings and Specification					
	Sundries					
C	Horizontal; to 100mm blockwork; below concrete slab	17	m			
D	Horizontal; to 215mm blockwork; below concrete slab	71	m			
E	Horizontal; to 100mm blockwork; below roof	55	m			
F	Horizontal; to 215mm blockwork; below roof	115	m			
	Firestopping; Fire stopping to tops of internal block walls, 60 minutes fire stopping dense moisture resistant wool packing to be fitted in accordance with manufacturer's recommendations; Stability, integrity and insulation in accordance with BS476:Part 8/20-24 or equivalent and relevant recommendations of Appendix A of Technical Guidance Document B; all to Architect's Drawings and Specification					
	Sundries					
G	Horizontal; to 100mm blockwork; below concrete slab	10	m			
H	Horizontal; to 215mm blockwork; below concrete slab	25	m			
J	Horizontal; to 100mm blockwork; below roof	20	m			
K	Horizontal; to 215mm blockwork; below roof	40	m			

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(22) INTERNAL WALLS (Cont)					
COLLECTION					
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Page No. Extension/38					
(22) INTERNAL WALLS **Carried to Summary**					

					€	c
	(23) FLOORS, GALLERIES					
	NOTES					
A	1. When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		note			
B	2. Please refer to Consulting Engineers and Architect's Specification and Drawings		note			
C	3. 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		note			
	CONCRETE WORK					
	General Information					
D	The Contractor must include in his rates for all necessary props that may be required for the following slabs; no claims on the grounds of want of knowledge will be entertained whatsoever.	1	item			
	In-Situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
E	Size 150 x 150 x 150mm	9	nr			
	Structural Concrete; Mix reference: C30/37; nominal maximum aggregate size: 20mm; additions complying with: PFA GGBS; sulphate class: n/a; Exposure Classes X0, XC1, XC2, XC3, XC4, XD1, XD2, XD3, XS1, XS2, XS3, XF1, XF2, XF3, XF4, XA1; refer Engineer's Specification ref "4371 221117 DCE IRL Concrete Works Spec" for additional requirements					
	Slabs					
F	Not exceeding 150mm thick; reinforced	7	m3			
G	Exceeding 150mm thick; reinforced	19	m3			

(23) FLOORS, GALLERIES (Cont)

	Grade C25/30					
	Other Items; Floor Screed					
A	75mm thick; to falls; reinforced	26	m3			
	Extra over for					
B	H10 Perimeter Tie L-Bars at 200mm c/c As per Section L-L (S04) & S10 (Reinforcement measured elsewhere)	83	m			
	Sundries on In-situ Concrete					
	Designed Joints					
	All construction joints to Precast slabs at the discretion of the Main Contractor; all to Engineer's approval					
C	Width / depth 150 - 300mm	1	item			
	Surface Finishes					
	Powerfloating					
D	Generally	381	m2			
	Reinforcement					
	Bar reinforcement; Hot rolled high yield steel bars shall be deformed and shall comply with BS 4449 Type 1; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification					
	Bar; straight or bent; Slab					
E	Nominal size not exceeding 12mm diameter	0.17	t			
F	Nominal size 12mm - 25mm diameter	3.80	t			
	Fabric reinforcement; Steel fabric shall comply with BS 4483; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification					
	Reference A142 - 2.22 kg/m2; 250mm side laps; 250mm end laps					
G	Horizontal	336	m2			

To Collection €

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	(23) FLOORS, GALLERIES (Cont)					
	Reference A393 mesh - 6.16 kg/m2; 400mm side laps; 400mm end laps					
A	Horizontal	90	m2			
	Formwork					
	Formwork; Plain finish in Accordance with Engineer's Drawings and Specification					
	Edges of suspended slabs					
B	Height / width not exceeding 250mm	258	m			
	Soffits of slabs					
C	Soffit height not exceeding 4.00m	120	m2			
	Precast Concrete					
	Design, supply and install prestressed precast hollowcore concrete floor units; one hour fire resistant; in accordance with the specification and all relevant British Standards to support dead loads & superimposed loads as Engineers details; including all fixings, angles, bolts and the like as necessary to attach to surrounding structure; all joints between precast concrete units to be grouted with and including Grade C32/40 concrete as a separate operation prior to placing of RC topping (RC topping measured elsewhere); all in strict accordance with the Engineers Drawings and Specification					
	Floor or roof slabs; 250mm thick					
D	Span not exceeding 5.00m	48	m2			
E	Span 7.00 - 9.00m	213	m2			
	WOODWORK					
	Ironmongery, Accessories and Sundries					
	Lateral Restraint Straps; Material/ finish: Mild steel galvanised; 1200 x 30 x 5 mm, 150 mm cranked end; Fixing: To blockwork; Ensure that cranked end is in tight contact with cavity face of wall inner leaf and is not pointing upwards; Shot fixed to slabs and blockwork; all as per Engineers Drawings and Specification					
	Fixings; Restraint Straps					
F	Generally	56	nr			

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(23) FLOORS, GALLERIES (Cont)					
COLLECTION					
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(23) FLOORS, GALLERIES **Carried to Summary**					

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	(24) STAIRS					
	CONCRETE WORK					
	Precast Concrete					
	PRE-CAST STAIRS; Precast concrete stairs in accordance with the drawings. Shop drawings required for approval before the production All the stairs (internal and external) to be suitable for ambulant disabled. They will comply with the following; the minimum clear width between the enclosing walls to be 1.200m; the rise between the landing will not exceed 1.800m for internal stairs and 1.500m for external stairs; each step nosing to incorporate metal nosing with a permanently contrasting strip; 50-65mm wide at the edge of the tread; no overhanging step nosing allowed; the rise and going of each step to be consistent throughout the entire stairway; the rise and going to be as per drawings; as per Engineer's Drawings and Specification 4.13					
	Staircase; complete					
A	Staircase flights; Stair 01; 1200mm wide; 200mm waist; 7nr treads, 300mm wide; 8nr risers, 176mm high; wall two side, string both side; include for cast in recess formed in each thread to accommodate 50-65mm x 9mm magmastrip carborundum insert (insert measured with STAIR FINISHES)	2	nr			
B	Staircase flights; Stair 01; 1200mm wide; 200mm waist; 6nr treads, 300mm wide; 7nr risers, 176mm high; wall two side, string both side; include for cast in recess formed in each thread to accommodate 50-65mm x 9mm magmastrip carborundum insert (insert measured with STAIR FINISHES)	1	nr			
C	Staircase flights; Stair 02; 1200mm wide; 200mm waist; 9nr treads, 300mm wide; 10nr risers, 176mm high; wall two side, string both side; include for cast in recess formed in each thread to accommodate 50-65mm x 9mm magmastrip carborundum insert (insert measured with STAIR FINISHES)	2	nr			
D	Staircase flights; Stair 02; 1200mm wide; 200mm waist; 6nr treads, 300mm wide; 7nr risers, 176mm high; wall two side, string both side; include for cast in recess formed in each thread to accommodate 50-65mm x 9mm magmastrip carborundum insert (insert measured with STAIR FINISHES)	1	nr			
E	Staircase flights; Stair 02; 1200mm wide; 200mm waist; 1nr treads, 300mm wide; 2nr risers, 176mm high; wall two side, string both side; include for cast in recess formed in each thread to accommodate 50-65mm x 9mm magmastrip carborundum insert (insert measured with STAIR FINISHES)	1	nr			
	Stair Landings					
F	Half Landings; finished size approx 1200mm x 1200mm x 200mm thick; rectangular shape; edges abutting/set into walls - 2nr; all in accordance with Architect's and Engineer's Drawings and Specification (Stair 01)	2	nr			
G	Half Landings; finished size approx 1200mm x 1200mm x 200mm thick; rectangular shape; edges abutting/set into walls - 2nr; all in accordance with Architect's Drawing Nr. 4605 and Engineer's Drawings and Specification (Stair 02)	1	nr			

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	(24) STAIRS (Cont)					
A	Half Landings; finished size approx 1200mm x 1365mm x 200mm thick; rectangular shape; edges abutting/set into walls - 2nr; all in accordance with Architect's Drawing Nr. 4605 and Engineer's Drawings and Specification (Stair 02)	1	nr			
				To Collection €		

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(24) STAIRS (Cont)					
COLLECTION					
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(24) STAIRS **Carried to Summary**					

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	(25) AIR TIGHTNESS					
	AIR TIGHTNESS					
A	1. Not withstanding that this Bill of Quantities is measured in accordance with the Agreed Rules of Measurement, the tenderer should note the following works measured are not in accordance with ARM. The Air Tightness specialised design packages are priced in accordance with the Works Requirements and the relevant co-ordination is to include for all works there in contained.		note			
B	2. Ensuring the airtight quality of the buildings is a key element of the low energy strategy applied in the design of this building. Care has been taken by the designers in specifying the materials and systems and in providing construction details that are capable of achieving the specified level of air permeability.		note			
C	3. The contractor shall be responsible for ensuring that the building complies with the specified level of air permeability.		note			
D	4. When tested the building shall achieve an air permeability of 3 m3/hr/m2 @50 Pa building pressure or less.		note			
E	5. Refer to Section A33 of Architects Specification for this Section		note			
F	6. 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		note			
	The contractor shall include the cost of carrying out the following works if not included elsewhere in this Pricing Document.					
	<u>The main elements of the building construction providing protection against air infiltration (the seal boundary) are typically</u>:					
G	1. U/s of WPB ply to flat roof		item			
H	2. U/s of composite deck roof		item			
J	3. Taped Insulation to external face of blockwork/concrete walls		item			
K	4. Fibre cement cladding system		item			
L	5. Tapes/seals at the glazing system		item			
M	6. Radon membrane		item			
N	7. Ventilation dampers		item			

To Collection €

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	(25) AIR TIGHTNESS (Cont)					
A	8. Seals/grommits to all penetrations through the external wall/floor roof/ envelope.		item			
B	9. Membranes within cavities and seals to steel structures.		item			
C	The sealing of the construction junctions between these elements is a critical aspect of the airtight design. It is essential that the air seal boundary is continuous and is not breached in any location. All service penetrations which cross the line of the air seal boundary also must be comprehensively sealed to maintain continuity of the airtight barrier, with proprietary products as per the general specification.	1	item			
	Quality Management					
D	Effective and thorough quality management is essential if the specified level of air permeability is to be achieved.	1	item			
E	If the integrity of the air seal boundary is broken then it must be repaired. Particular care must be taken when constructing joints and junctions in the building envelope to ensure continuity of the air seal boundary. Repairs using unsuitable tape, Rockwool and expanding foam are not acceptable.	1	item			
F	In addition to the continuity of the air seal boundary, care must be exercised at all envelope penetrations for windows, doors, rooflights, services, cables etc applying appropriate sealing and draught barriers and sealing junctions between the air seal boundary and these elements.	1	item			
G	For the low air permeability strategy to be successful it is vital that all site workers are aware of the importance of maintaining the integrity of the air seal boundary. All subcontractors are to be briefed on the strategy and encouraged to report damage of the air seal boundary on a "no fault" basis.	1	item			
	The main contractor shall take overall responsibility for co-ordination of and maintaining continuity of the air seal boundary. One member of the contractor's site team is to be nominated as the 'air leakage officer', whose role shall include the following;					
H	Develop the project air leakage prevention plan	1	item			
J	Identify all significant potential sources of air leakage and the methods to be used to minimise leakage	1	item			
K	Ensure that all tapes and sealants used to minimise air leakage are fit for purpose and offer a long term protection to air leakage over the buildings lifetime	1	item			
L	Ensure that all equipment and components procured offer the required standard of air leakage	1	item			
M	Ensure that all sub contractors understand the importance of minimising air leakage in this building and take appropriate measures to minimise it	1	item			
				To Collection €		

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	(25) AIR TIGHTNESS (Cont)					
A	Undertake regular inspections of the building as it is constructed to ensure that air leakage paths are minimised	1	item			
B	Ensure that no elements of the construction are concealed without their air leakage integrity being considered and inspected	1	item			
C	Program the air test and prepare the building for its test	1	item			
D	Supervise the test procedure, including ensuring that all required temporary seals are applied to allow the test to take place	1	item			
E	Identify sources of leakage during the test procedure and their potential resolution in the event that the target air tightness is not achieved	1	item			
F	The main contractor shall ensure coordination of work between different work packages/ specialist sub-contractors in defining responsibility for sealing at junctions between different construction elements.	1	item			
	Areas critical in maintaining the air seal boundary include (but are not limited to):					
G	Monitoring and maintaining levels of construction quality	1	item			
H	Roof/ wall junctions	1	item			
J	Ground floor/ wall junction	1	item			
K	Changes in roof section	1	item			
L	Windows, doors and rooflights	1	item			
M	Service penetrations	1	item			
N	All materials systems junctions	1	item			
	Airtightness Specialist					
P	The contractor shall employ a recognised specialist approved by the Employer's Representative to carry out an airtightness test at a point in the construction programme when all elements of the external envelope/ air seal boundary are complete including all services penetrations.	1	item			
Q	The specialist must have had previous experience in the testing of buildings that have achieved the target set out below or improved on it, in at least one building of a similar size and complexity.	1	item			
R	The specialist shall provide a rig capable of testing the entire building as a single element. If the air test results show that the rig was unable to maintain a pressure of 50Pa at the required test result, the test will be deemed non-compliant	1	item			
				To Collection €		

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	(25) AIR TIGHTNESS (Cont)					
	The air test shall be carried out as detailed within the following standards:					
A	"Determination of air permeability in buildings - fan pressurisation method"	1	item			
B	CIBSE TM23:2000 "Testing buildings for air leakage"	1	item			
C	ATTMA TS1 July 2007 "Measuring air permeability of building envelopes"	1	item			
D	All instruments and equipment used must comply with the accuracy and tolerance requirements set down by these standards.	1	item			
E	The air test specialist must be accredited through INAB or UKAS to carry out air tightness testing of buildings in accordance with ISO 17025 - proof of this accreditation must be issued by the contractor to the ER and approved in writing, prior to appointment.	1	item			
F	The contractor shall also include for a minimum of 2 no site inspection from the accredited testing specialists during the course of construction.	1	item			
	Briefing Meeting					
G	Upon approval and appointment of the air testing specialist by the contractor, and at an appropriate time in the building programme, the specialist shall hold a briefing meeting with the contractors staff and the design team. Prior to this meeting, the contractor shall identify any points in the building that have a high risk of air leakage and shall detail the proposed sealing method with the air test specialist.	1	item			
H	The air test specialist shall also use this opportunity to detail the testing procedure and work required in preparation for the test.	1	item			
	Preliminary Smoke Test					
J	Once the glazing is installed, the contractor shall employ the air test specialist to carry out a smoke test on 3 no. typical rooms in the building, of differing sizes, scales and complexities, in order to identify any potential weaknesses in the installation that can be rectified before the full test is carried out.	1	item			
K	Note that an amount of temporary sealing will be required to prevent smoke escaping internally during the testing of this room.	1	item			
L	The contractor shall contact the local fire department in advance of the test and inform them that the smoke test may take place in order to prevent false alarms.	1	item			

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	(25) AIR TIGHTNESS (Cont)					
	Test Preparation					
	The contractor shall include all attendances associated with the airtightness testing including building preparation which shall typically include:					
A	(a) all external windows, trickle vents, smoke vents and doors must be closed (but not sealed)	1	item			
B	(b) all internal doors must be wedged open	1	item			
C	(c) all drainage traps must be filled with water. If traps have not been fitted then drainage pipes must be sealed with tape	1	item			
D	(d) all mechanical ventilation systems must be shut down and intake/ exhaust louvers sealed with tape/ polythene sheeting / compriband. This is most effectively achieved by sealing the intake and exhaust louvers for each fan or system	1	item			
E	(e) any combustion appliances within the airtight building envelope should be turned off and their flues sealed	1	item			
F	(f) the ground floor internal and external area within 5m of the fan equipment/ doorway must be clean and clear of all loose material	1	item			
G	(g) the contractor must ensure that no external doors/ windows/ trickle vents are opened for the duration of the test	1	item			
H	(h) some temporary minor carpentry works may be required to the doorway in which the fan equipment is mounted	1	item			
J	(j) notices must be posted at all entry and exit points to the building; "AIRTIGHTNESS TEST IN PROGRESS DO NOT OPEN".	1	item			
K	(k) remove suspended floor and ceiling tiles (where applicable) around the perimeter of the building	1	item			
L	(l) contractor to advise the employers representative of the proposed test date one month prior to the test date, weekend days may not be acceptable	1	item			
M	(m) Air test may only be carried out during appropriate weather conditions	1	item			
N	(n) contractor to obtain a list of test condition requirements from the air leakage test specialist four weeks prior to carrying out the air test	1	item			
P	(o) The building shall be brought up to normal working temperature 6 hours before the test is due to take place and maintained at the working temperature during the air and thermograph tests	1	item			
Q	Note that no additional taping or sealing of any building component must be undertaken without prior agreement from the client's representative.	1	item			
				To Collection €		

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	(25) AIR TIGHTNESS (Cont)					
A	No less than three weeks before the test is due to commence, the contractor shall measure the surface area that is proposed for use in the test and send the calculation to the clients representative for agreement.	1	item			
	The Test					
B	The building shall achieve an air leakage level of 3 m3/h/m2 at a test pressure of 50Pa, or less. (Where the area used is the true internal exposed area of the walls, roof, window, and ground floor surfaces).	1	item			
	The air test shall be carried out as detailed within the following standards:					
C	"Determination of air permeability in buildings - fan pressurisation method"	1	item			
D	CIBSE TM23:2000 "Testing buildings for air leakage"	1	item			
E	ATTMA TS1 July 2007 "Measuring air permeability of building envelopes"	1	item			
F	All instruments and equipment used must comply with the accuracy and tolerance requirements set down by these standards.	1	item			
G	The test must be witnessed by the Employers Representative. The contractor shall give sufficient notice to enable this to happen.	1	item			
H	The air testing specialist must produce a full detailed report of the air test on completion, identifying the area used for the test, the result achieved, and confirmation of any deviations from the standard test procedure	1	item			
J	In the event the test is failed the contractor shall carry out a full building smoke test to identify sources of leakage. The smoke test shall be carried out by filling the building with a smoke type that is harmless to the building and its systems and leave no residues within the building. During this test the contractor shall make a detailed list of all leakage points.	1	item			
K	The contractor shall promptly carry out all necessary remedial works and, cover all costs of further air and smoke tests required to prove compliance with the test standard.	1	item			
L	The contractor shall remove all building elements required to correctly seal the building and re-instate them to allow the further testing of the building until compliance is achieved.	1	item			
	Thermographic Survey					
M	The contractor shall employ a recognised specialist to carry out a thermographic survey of the completed building to prove continuity of insulation within all parts of the building fabric.	1	item			
N	The survey shall be conducted in accordance with the requirements and recommendations of TN 9/2002 'Thermal Imaging of Buildings'.	1	item			
P	The survey shall be carried out by a Level III certified thermographer.	1	item			
				To Collection €		

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	(25) AIR TIGHTNESS (Cont)					
A	In the event that the specified continuity of thermal insulation is not achieved the contractor shall open up the works and make good the deficiency. A further thermographic survey of the relevant areas is to be carried out to complete the demonstration of compliance with the specification.	1	item			
B	Any opening up or remedial works required are to be carried out at the contractors' expense until the specified performance is achieved.	1	item			

To Collection €

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(25) AIR TIGHTNESS (Cont)					
COLLECTION					
Page No. Extension/47					
Page No. Extension/48					
Page No. Extension/49					
Page No. Extension/50					
Page No. Extension/51					
Page No. Extension/52					
Page No. Extension/53					
(25) AIR TIGHTNESS **Carried to Summary**					

					€	c
	(27) ROOF					
	NOTES					
A	1. The Tenderer is advised that the measurement and descriptions are to be read in conjunction with the Architect's Drawings and Engineer's Drawings and Specification.		note			
B	2. 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		note			
	CONCRETE WORK					
	In-Situ Concrete; Reinforced					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
C	Size 150 x 150 x 150mm	4	nr			
	Structural Concrete; Mix reference: C30/37; nominal maximum aggregate size: 20mm; additions complying with: PFA GGBS; sulphate class: n/a; Exposure Classes X0, XC1, XC2, XC3, XC4, XD1, XD2, XD3, XS1, XS2, XS3, XF1, XF2, XF3, XF4, XA1; refer Engineer's Specification ref "4371 221117 DCE IRL Concrete Works Spec" for additional requirements					
	Slabs					
D	Exceeding 150mm thick; reinforced	7	m3			
	Beams					
E	Cross sectional area not exceeding 0.10m2	7	m3			
F	Cross sectional area exceeding 0.10m2	10	m3			
	Extra over for					
G	H10 U-bars at 200 centres around perimeter, at ceiling level to carry water tank; refer to engineers drawing "4371 S10 - Roof Slab Layout"	26	m			

(27) ROOF (Cont)

Sundries on In-situ Concrete

Designed Joints

All construction joints at the discretion of the Main Contractor; all to Engineer's approval

A	Width / depth not exceeding 150mm	1	item		
B	Width / depth 150 - 300mm	1	item		
C	Width / depth 300 - 450mm	1	item		

Surface Finishes

Trowelling

D	Generally; to tops of beams	40	m2		

Powerfloating

E	Generally	41	m2		

Reinforcement

Bar reinforcement; Hot rolled high yield steel bars shall be deformed and shall comply with BS 4449 Type 1; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification

Bar; straight or bent; Beam

F	Nominal size 12mm - 25mm diameter	2.69	t		

Fabric reinforcement; Steel fabric shall comply with BS 4483; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification

Reference 1 layers of A393 mesh (top and bottom) - 6.16 kg/m2; 400mm side laps; 400mm end laps

G	Horizontal	82	m2		

To Collection €

					€	c
	(27) ROOF (Cont)					
	Formwork					
	Formwork; Finish in accordance with Engineer's Drawings and Specification					
	Edges of suspended slabs					
A	Height / width not exceeding 250mm	26	m			
	Soffits of slabs					
B	Soffit height not exceeding 4.00m	41	m2			
	Beams					
C	Isolated; rectangular; soffit height 4.00-6.00m; cross sectionional area not exceeding 0.10m2; RC Beams	86	m2			
D	Isolated; rectangular; soffit height 4.00-6.00m; cross sectionional area exceeding 0.10m2; RC Beams	122	m2			
	ROOFING, CLADDING AND WATERPROOFING					
	Ironmongery, Accessories and Sundries					
	15mm thick Farrat Thermal Break; all as per Architects Specification and Engineers Drawings					
	Thermal Insulation Break					
E	200 x 200mm; complete	3	nr			
	Strap down beam using timber packing galvanised twist strap; all as per Architects Specification and Engineers Drawings					
	Strap down beam timber packing					
F	38mm x 1.5mm; 1500mm long	21	nr			

To Collection €

					€	c
	(27) ROOF (Cont)					
	WOODWORK					
	Structural and First Fixings					
	STRUCTURAL SOFTWOOD (GRADED DIRECT TO STRENGTH CLASS) FOR STRUCTURAL USE GENERALLY; Grading standard: To BS 4978, BS EN 14081-1, or other national equivalent and so marked; Strength class to BS EN 338: C16 unless noted otherwise on drawings; Treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8, Service life: 40 years; as per Architect's and Engineer's Details and Specification					
	Carcassing; to flat roof canopy; as per "4371 S05 - Ground floor layout and 4371 S08 - First floor layout"					
A	225mm x 44mm; C16 timber battens at 400mm centres; fixed or hung off timber ledger with cullen TM 44 hangers	60	m			
	Carcassing; pitched roofs					
B	50 x 50mm; timber battens to roof fascia; fixed to steel structure member; 775mm High	112	m			
C	100 x 75mm; timber wall plate to gutter side; fixed to the tops of steel structure member	35	m			
D	225mm x 44mm; C16 timber battens packing piece at 400mm centres to roof fascia; fixed or hung off timber ledger with cullen KM mini hangers	112	m			
	Boarding and Second Fixings					
	15mm Marine Plywood; external quality; water proof; screw fixed jointed andsecured to joists; complete					
	Boarding & Sheeting; Fascia and Soffits					
E	Exceeding 300mm; vertical backing board and horizontal board to fascia	150	m2			
	Ironmongery, Accessories and Sundries					
	Galvanised metal; all in accordance with Architect's Specification					
	Accessories; Straps & hangers					
F	Galvanised straps 1200mm long x 50mm x 3mm thick; all in accordance with manufacturer instructions	82	nr			

					€	c
	(27) ROOF (Cont)					
	Insulation; thermal					
	100mm thick mineral wool insulation; comprising 100mm thick mineral wool insulation to bottom of purlins; complete as per Detail on Architects Drawings "1241_P-T_14 Roof"					
A	Tightly packed between cavity walls and underside of roof	703	m2			
	15mm thick Farrat TBK Thermal Break bolted to concrete using 4no. M12 Hilti HST3-R bolts, min. 60mm embedment; as per Engineers Drawing S12					
	Thermal Break					
B	200 x 150 x 15mm thick thermal break	62	nr			
	ROOFING, CLADDING AND WATERPROOFING					
	Flexible Sheet Metal Coverings					
	Aluminium or Pressed Metal dressing or cladding to Fascia; backed with 50x50mm timber battens and plywood backing board (measured separately); complete as per Detail on Engineer's Drawings "4371 S12"					
	Fascias					
C	750 - 900mm girth; to profile shown on Engineer's Drawing	112	m			
	STEELWORK					
	Structural Steelwork					
	Fabricated, weldable steel; Steel Grades: Structural steel shall be of the Grade S355 for Beams & S275 for plates unless stated otherwise on all DCE IRL drawings and shall comply with the requirements of the appropriate British or European Standards.Construction and fabrication of the structural steelwork shall comply in all respects with the requirements of BS EN 1993, BS EN 1994, BS 4872 and BS EN 1011 and with the relevant additional requirements specified hereinafter.Connection Design by Steel Fabricator. DCE IRL to Provide Loads.As per Structural steel specification					
	Beams					
D	UC; 50 - 100Kg/m	1.84	t			
E	UC; 25 - 50Kg/m	0.07	t			
F	RHS; not exceeding 25Kg/m	0.14	t			
G	PFC; not exceeding 25Kg/m	3.30	t			
H	SHS; not exceeding 25Kg/m	0.42	t			

					€	c
	(27) ROOF (Cont)					
	Purlin					
A	Kingspan M205 065 250; Roof	3.67	t			
B	Kingspan M205 065 130	0.17	t			
C	Kingspan M205 065 265	0.16	t			
	Fittings					
D	General; including caps, bases, haunches, gussets, end plates, splice plates, cleats, brackets, stiffeners, distance pieces and the like	4.17	t			
	Surface treatments off site;All steelwork must be cleaned down to remove transit and site contamination. After erection, all areas damaged by transit and site erection shall be made good by scraping back to a firm edge and be thoroughly wire brushed and the patch primed with the products already stated to restore the paint film to the original minimum specified thickness at this stage; all to the satisfaction of the Engineer/Architect.As per Structural steel specification					
	Protective coatings					
E	General surfaces	20.87	t			
	Surface treatments off site; Galvanising of Steelwork; after abrasive blast cleaning (in works) galvanise in accordance with BS EN ISO 1461 "Hot Dipped Galvanised Coatings on Iron and Steel Articles"; minimum coating of 85 microns (610 g/ms); all to Engineer's Specification; Contractor to consult the Works Requirements to determine the amout of steel to be protected using this method; No Claims on the grounds of want of knwoledge will be entertained whatsoever					
	Protective coatings					
F	General surfaces	17.49	t			
	Fire proofing to provide 1 hour fire protection. All steel elements supporting floors & in load bearing walls require min 1 Hour fire rating. All affected steel will be identified by the architect in compliance with the fire cert. Use intumescent paint to achieve the required 1 hour rating. All specifications to be reviewed by the architect and DCE IRL. Confirmation from the supplier will be required if the paint can be left exposed during the construction phase or paint can only be applied in a weather tight environment.As per Structural steel specification					
	Protective Coatings; Fire proofing					
G	General surfaces; girth exceeding 300mm	438	m2			
				To Collection €		

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	(27) ROOF (Cont)					
	Bolts					
	Bolts; Grade 8.8; M12 Hilti HST3-R bolts with and including grout tubes; all to Engineer's Drawing S-12 and Specification					
A	Generally	248	nr			
	Holding down assemblies					
B	Baseplate; 200 x 150 x 12mm thick m.s. base plate; all in strict accordance with the Engineer's Drawing S12 and Specification	62	nr			
	Grouting					
	Grouting; Five Star or equivalent non-shrink epoxy grout					
C	Base plate; 12mm thick; 200 x 150mm plate	62	nr			
D	Holding down bolts; average 12mm diameter x 350mm deep mortices	248	nr			
	PAINTING AND DECORATING					
	Painting					
	Background surfaces to be prepared; Type 1-Internal Dry Environment-Primer: Apply in-shop by airless Spray: Intercure 200HS at 150 microns nominal DFT OR Epigrip C400V3 Zinc Phosphate Coating @ 125 microns DFT. Type 2 Damp Environment (Steelwork in the Cavity) Primer:Apply in-shop by airless Spray: Interzone 954 at 500 microns nominal DFT OR Epigrip C400V3 Zinc Phosphate Coating @ 250 microns DFT. Finish coat & Colour: Architect#s specification or As per Type 1 with DFT 175 microns of black bitumen paint. Type 3 External Environment (Exposed)- Apply in-shop by airless spray: Interzinc 52 at 75 microns nominal DFT & Intergard 269 at 30 microns nominal DFT OR Epigrip C400V3 Zinc Phosphate Coating @ 325 microns DFT OR Hot dip galvanised to EN ISO 1461 to a nominal dry film thickness of 140 microns. Prior to painting application surface to be prepared with a special etch primer. Paint Colour to Architect#s specification.As per Structural steel specification					
	Structural Metalwork; members of roof trusses, purlins, rails, lattice girders and the like					
E	Girth exceeding 300mm; height to ceiling 6.00-8.00m	438	m2			

				€	c
(27) ROOF (Cont)					
COLLECTION					
Page No. Extension/55					
Page No. Extension/56					
Page No. Extension/57					
Page No. Extension/58					
Page No. Extension/59					
Page No. Extension/60					
Page No. Extension/61					
(27) ROOF **Carried to Summary**					

					€	c
	(28) FRAME					
	NOTES					
A	1. When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		note			
B	2. Please refer to Consulting Engineers and Architect's Specification and Drawings		note			
C	3. 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		note			
	CONCRETE WORK					
	General Information					
D	The Contractor must include in his rates for all necessary props that may be required for the following slabs; no claims on the grounds of want of knowledge will be entertained whatsoever.	1	item			
	In-Situ Concrete					
	Insitu Concrete Lintels; Deep insitu Min. C30/37 Grade; 150 x 150mm. Placement: Bed on mortar used for adjacent work. Bearing length (minimum): 300mm each side; including formwork, reinforcement and all as per and Engineers Drawings and Specification					
	Lintels; in internal lift pit wall					
E	to suit 1100mm wide ope (L15)	1	nr			
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
F	Size 150 x 150 x 150mm	6	nr			

To Collection €

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	(28) FRAME (Cont)					
	Structural Concrete; Mix reference: C30/37; nominal maximum aggregate size: 20mm; additions complying with: PFA GGBS; sulphate class: n/a; Exposure Classes X0, XC1, XC2, XC3, XC4, XD1, XD2, XD3, XS1, XS2, XS3, XF1, XF2, XF3, XF4, XA1; refer Engineer's Specification ref "4371 221117 DCE IRL Concrete Works Spec" for additional requirements					
	Beams					
A	Cross sectional area not exceeding 0.10m2	8	m3			
B	Cross sectional area exceeding 0.10m2	16	m3			
	Columns					
C	Cross-sectional area not exceeding 0.10m2; Reinforced	13	m3			
	Padstones					
D	Exceeding 150mm thick; concrete padstones	1	m3			
	Surface Finishes					
	Troweling					
E	Generally; to tops of beams	48	m2			
	Reinforcement					
	Bar reinforcement; Hot rolled high yield steel bars shall be deformed and shall comply with BS 4449 Type 1; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings; refer to Engineer's Specification					
	Bar; straight or bent; Beam					
F	Nominal size 12mm - 25mm diameter	3.50	t			
	Bar; straight or bent; Columns					
G	Nominal size 12mm - 25mm diameter	2.66	t			
	Bar; straight or bent; Padstones					
H	Nominal size not exceeding 12mm diameter	0.03	t			

To Collection €

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	(28) FRAME (Cont)					
	Formwork					
	Formwork; Plain finish in Accordance with Engineer's Drawings and Specification					
	Sides of beams					
A	Isolated; Rectangular / Square; cross sectional area not exceeding 0.10m2; height not exceeding 4.00m	95	m2			
B	Isolated; Rectangular / Square; cross sectional area exceeding 0.10m2; height not exceeding 4.00m	160	m2			
	Sides of padstones					
C	Height / width not exceeding 250mm	22	m			
	Columns					
D	Isolated; Rectangular / Square; cross sectional area not exceeding 0.10m2; height not exceeding 4.00m	213	m2			
	Precast Concrete					
	Precast Concrete Lintels; Deep Precast Min. C30/37 Grade; 215 x 215mm. Placement: Bed on mortar used for adjacent work. Bearing length (minimum): 300mm each side; all as per and Engineers Drawings and Specification					
	Lintels; in internal lift pit wall					
E	to suit 1060mm wide ope (L7)	1	nr			
	STEELWORK					
	Structural Steelwork					
	Fabricated, weldable steel; Steel Grades: Structural steel shall be of the Grade S355 for Beams & S275 for plates unless stated otherwise on all DCE IRL drawings and shall comply with the requirements of the appropriate British or European Standards.Construction and fabrication of the structural steelwork shall comply in all respects with the requirements of BS EN 1993, BS EN 1994, BS 4872 and BS EN 1011 and with the relevant additional requirements specified hereinafter.Connection Design by Steel Fabricator. DCE IRL to Provide Loads.As per Structural steel specification					
	Beams					
F	UC; 50 - 100Kg/m	0.67	t			
G	UB; 50 - 100Kg/m	0.64	t			
H	UC; 50 - 100Kg/m	0.23	t			
J	UC; 50 - 100Kg/m	0.18	t			

To Collection €

					€	c
	(28) FRAME (Cont)					
A	UC; 50 - 100Kg/m	0.25	t			
B	UB; 25 - 50Kg/m	0.84	t			
C	UB; 25 - 50Kg/m	0.37	t			
	Lintels					
D	UB; not exceeding 25Kg/m	0.13	t			
E	UB; not exceeding 25Kg/m	0.04	t			
F	UB; 25 - 50Kg/m	0.34	t			
G	UB; 25 - 50Kg/m	0.14	t			
	Stanchions					
H	SHS; 25 - 50Kg/m	0.38	t			
J	SHS; not exceeding 25Kg/m	0.07	t			
	Fabricated, Galvanised steel; Steel Grades: Structural steel shall be of the Grade S355 for Beams & S275 for plates unless stated otherwise on all DCE IRL drawings and shall comply with the requirements of the appropriate British or European Standards.Construction and fabrication of the structural steelwork shall comply in all respects with the requirements of BS EN 1993, BS EN 1994, BS 4872 and BS EN 1011 and with the relevant additional requirements specified hereinafter.Connection Design by Steel Fabricator. DCE IRL to Provide Loads.As per Structural steel specification					
	Beams					
K	UB; 25 - 50Kg/m	0.42	t			
L	UB; 25 - 50Kg/m	0.28	t			
M	UB; 25 - 50Kg/m	0.02	t			
	Stanchions					
N	SHS; not exceeding 25Kg/m	0.17	t			
	Bracings					
P	RSA; not exceeding 25Kg/m	0.14	t			
Q	RSA; not exceeding 25Kg/m	0.09	t			
R	RSA; 25 - 50Kg/m	1.22	t			
				To Collection €		

					€	c
	(28) FRAME (Cont)					
	Fittings					
A	General; including caps, bases, haunches, gussets, end plates, splice plates, cleats, brackets, stiffeners, distance pieces and the like	4.20	t			
	Surface treatments off site;All steelwork must be cleaned down to remove transit and site contamination. After erection, all areas damaged by transit and site erection shall be made good by scraping back to a firm edge and be thoroughly wire brushed and the patch primed with the products already stated to restore the paint film to the original minimum specified thickness at this stage; all to the satisfaction of the Engineer/Architect. As per Structural steel specification					
	Protective coatings					
B	General surfaces	4.35	t			
	Surface treatments off site; Galvanising of Steelwork; SAll steelwork must be cleaned down to remove transit and site contamination. After erection, all areas damaged by transit and site erection shall be made good by scraping back to a firm edge and be thoroughly wire brushed and the patch primed with the products already stated to restore the paint film to the original minimum specified thickness at this stage; all to the satisfaction of the Engineer/Architect. As per Structural steel specification					
	Protective coatings					
C	General surfaces	2.27	t			
	Fire proofing to provide 1 hour fire protection. All steel elements supporting floors & in load bearing walls require min 1 Hour fire rating. All affected steel will be identified by the architect in compliance with the fire cert. Use intumescent paint to achieve the required 1 hour rating. All specifications to be reviewed by the architect and DCE IRL. Confirmation from the supplier will be required if the paint can be left exposed during the construction phase or paint can only be applied in a weather tight environment.As per Structural steel specification					
	Protective Coatings; Fire proofing					
D	General surfaces; girth exceeding 300mm	163	m2			
				To Collection €		

					€	c
	(28) FRAME (Cont)					
	Bolts-Single bolt connections shall not be permitted unless the Engineer's written approval is obtained.Bolt holes shall be drilled not burned.Where close tolerance and turned bolts are specified these shall be used strictly in accordance with the appropriate British Standard Specification, but it may be permissible to use black bolts with modified tolerances in certain instances by arrangement with the Engineer, provided that permission is obtained in writing beforehand.Bolts connecting members together shall have no threads within the bearing areas of the members and shall be fitted with the necessary washers to ensure proper tightening.Construction and fabrication of the structural steelwork shall comply in all respects with the requirements of BS EN 1993, BS EN 1994, BS 4872 and BS EN 1011 and with the relevant additional requirements specified hereinafter.As per Structural steel specification					
	Bolts; Grade 10; M20 H.D. with and including grout tubes;					
A	Generally	9	nr			
	Bolts; M16 H.D. with and including grout tubes;					
B	Generally	68	nr			
	Bolts; M12 H.D. with and including grout tubes;					
C	Generally	12	nr			
	Holding down assemblies					
D	Baseplate; comprising 4nr 16mm Dia. Hilti HST3 12mm Baseplate and minimum 100mm embedment	3	nr			
E	Baseplate; embedment with pad04;	4	nr			
	Grouting					
	Grouting; Five Star or equivalent non-shrink epoxy grout					
F	End plate; 10mm thick;	2	nr			
G	End plate; 12mm thick;	11	nr			
H	Cap plate; 12mm thick;	9	nr			

To Collection €

					€	c
	(28) FRAME (Cont)					
	METALWORK					
	Non Structural					
	Ancon MDC Bracket angle and Halfen HTA-CE 40/25 cast in channels; continuous proprietary steel angle and bracket system or equivalent; Bolted to RC Beam (measured elsewhere); to include all fixings etc; all in strict accordance with the Engineer's details and Drawings					
	Bars, Rods and the like					
A	Optima 10 angle	38	m			
B	Optima 12 angle	27	m			
	PAINTING AND DECORATING					
	Painting					
	Background surfaces to be prepared; Type 1-Internal Dry Environment-Primer: Apply in-shop by airless Spray: Intercure 200HS at 150 microns nominal DFT OR Epigrip C400V3 Zinc Phosphate Coating @ 125 microns DFT. Type 2 Damp Environment (Steelwork in the Cavity) Primer:Apply in-shop by airless Spray: Interzone 954 at 500 microns nominal DFT OR Epigrip C400V3 Zinc Phosphate Coating @ 250 microns DFT. Finish coat & Colour: Architect#s specification or As per Type 1 with DFT 175 microns of black bitumen paint. Type 3 External Environment (Exposed)- Apply in-shop by airless spray: Interzinc 52 at 75 microns nominal DFT & Intergard 269 at 30 microns nominal DFT OR Epigrip C400V3 Zinc Phosphate Coating @ 325 microns DFT OR Hot dip galvanised to EN ISO 1461 to a nominal dry film thickness of 140 microns. Prior to painting application surface to be prepared with a special etch primer. Paint Colour to Architect#s specification.As per Structural steel specification					
	Structural Metalwork; members of roof trusses, purlins, rails, lattice girders and the like					
C	Girth exceeding 300mm; height to ceiling 6.00-8.00m	163	m2			

				€	c
(28) FRAME (Cont)					
COLLECTION					
Page No. Extension/63					
Page No. Extension/64					
Page No. Extension/65					
Page No. Extension/66					
Page No. Extension/67					
Page No. Extension/68					
Page No. Extension/69					
(28) FRAME **Carried to Summary**					

					€	c
	(31) EXTERNAL WALL COMPLETIONS					
	ROOFING, CLADDING AND WATERPROOFING					
	Flexible Sheet Metal Coverings					
	ALUMINIUM WINDOW CILLS; Substrate: Mechanically fixed to aluminum window frames & clipped with aluminum clips to underside of profile; Underlay: EPDM membrane to underside; Aluminum: 2mm thick polyester powder coated to selected RAL colour; Alloy designation: EN AW-1200; Temper: F; Finish: Polyester Power Coated; Thickness: 2mm; Joints in top/ sill: To be agreed with Architect. shop drawing required for approval prior to fabrication; Joints in cheeks: All corners to be fully welded; Accessories:- 2mm thick aluminum clips to underside; as per Architects specification					
	Composite Items; Cills					
A	2mm thick; approx 330mm total girth; windows generally	56	m			
B	Extra over for PPC cill flashing; (installed after rendering complete)	56	m			
C	Extra over for installing treated timber batten, size 120mm wide x 45mm thick, once splayed; fixed to masonry/concrete	56	m			
	WOODWORK					
	Boarding and Second Fixings					
	MEDIUM DENSITY FIBREBOARD WINDOW CILL BOARDS; Manufacturer: Submit proposals; Product reference: Submit proposals for moisture resistant MDF; Standard: To BS EN 622-5; Type: MDF.H; Formaldehyde class: To BS EN 622-1, Class E1; Fire rating: Class 0 as defined in Building Regulations; Thickness: 22 mm. Edges: rounded; Finish: Prepared and primed as section M60; Support/ Fixing: Fix to 25 x 15mm PAR softwood battens with lost head nails at 600 mm centers in case of window boards; to Architects Specification					
	Window Board					
D	390mm wide x 22mm thick; horizontal; rounded exposed edges; fixed to blockwork	56	m			
	MEDIUM DENSITY FIBREBOARD WINDOW LINER; Manufacturer: Submit proposals; Product reference: Submit proposals for moisture resistant MDF; Standard: To BS EN 622-5; Type: MDF.H; Formaldehyde class: To BS EN 622-1, Class E1; Fire rating: Class 0 as defined in Building Regulations; Thickness: 22 mm. Edges: Quarter rounded; Finish: Prepared and primed as section M60; Support/ Fixing: Fix to 40 x 22mm PAR softwood battens with lost head nails at 600 mm centers in case of window boards; Glue with high performance polyethane resin adhesive for skirtings and architraves; to Architects Specification					
	Window Liner; to internal head and jambs					
E	235mm wide x 22mm thick; horizontal; rounded exposed edges; on and including for timber battens; fixed to blockwork	63	m			

					€	c
	(31) EXTERNAL WALL COMPLETIONS (Cont)					
A	235mm wide x 22mm thick; vertical; rounded exposed edges; on and including for timber battens; fixed to blockwork	88	m			
	SEALANT JOINTS; Sealant: - Manufacturer: Submit proposals; Product reference: Submit proposals; Colour: to match frames; Application: As section Z22 to prepared joints. Finish triangular fillets to a flat or slightly convex profile; as per Architect's Specification					
	Sundries; Seals					
B	10mm wide; to perimeter of external windows and doors	205	m			
	AIR TIGHTNESS TAPE TYPE A; Description: To external envelope junctions and openings; Manufacturer: Siga or equivalent to Architect's approval; Product reference: Siga-Fentrim 330or equivalent to Architect's approval; Material: Self-adhesive tape consisting of polyolefin film and fleece coated one side with an adhesive, backed with a slit release film; Diffusion-equivalent air layer thickness: 35m; Installation requirements; Method of fixing: Self-adhesive. All surfaces to be clean, dry and dust free; Joints: lapped 150 mm minimum; Openings: Tape to be adhered to all faces; Penetrations: Sealed; as per Architects Specification					
	Vapour Barrier					
C	Generally	205	m			

				€	c
(31) EXTERNAL WALL COMPLETIONS (Cont) **METALWORK** **Non-Structural** COMPOSITE ALUMINIUM-CLAD TIMBER WINDOWS: Proprietary factory-finished aluminium-clad timber window system; manufacturer and product reference to be confirmed or equivalent; sizes, configurations, handing, opening arrangements and divisions as shown on Architects Drawings and Window Schedules; complete window assemblies to comply with Department of Education TGD-021-1 Guidance on the Specification of Windows and relevant current standards, including I.S. EN 14351-1; timber frames and sashes manufactured from suitable durable, preservative-treated engineered timber, from sustainably sourced material, with proprietary externally applied aluminium cladding forming a drained and ventilated weather-resistant protective system; aluminium profiles and associated flashings, beads and trims complete with all necessary clips, brackets and concealed fixings; external aluminium finish to be Interpon D / Syntha Pulvin or equivalent polyester powder coating, applied by a QUALICOAT licensed applicator, to BS EN 12206-1, standard RAL colour in matt finish as selected by Architect, including appropriate pre-treatment; internal timber surfaces to receive manufacturers factory-applied opaque paint, stain or lacquer finish, colour as selected by Architect. Glazing to comprise factory-glazed insulating glass units, double or triple glazed as necessary to achieve the specified thermal performance, incorporating low-emissivity glass, argon-filled cavities and warm-edge spacer bars; glazing thermal transmittance not greater than 1.20 W/m2K and complete window U-value to comply with the Architects Specification, Building Regulations and TGD-021-1; Glazing thickness, type and safety classification to suit pane size, location, design wind pressure and risk of human impact, with safety glazing provided where required; insulating glass units, glazing beads, setting blocks, gaskets and seals to form a complete permanently weather-tight glazing system; Complete window units to achieve minimum air permeability Class 3 at 600 Pa, watertightness Class 9A at 600 Pa and wind resistance P1 1600 Pa, P2 800 Pa and P3 2400 Pa, in accordance with TGD-021-1; glazing sound reduction index Rw not less than 27 dB where applicable. Provide continuous proprietary weather seals and glazing gaskets, including EPDM or equivalent durable elastomeric seals, arranged to permit drainage and pressure equalisation and to maintain weather-tightness throughout the service life of the window; Ironmongery to comprise manufacturers heavy-duty proprietary system suitable for educational use and size and weight of sash, including multipoint single-lever locking to all opening sashes, handles, hinges, stays, restrictors, locking devices and all associated fittings; corrosion resistance to I.S. EN 1670:2007, minimum Class 3 and Class 4 where required by exposure conditions; opening sashes to operate freely and smoothly and incorporate child-safety restriction where required by TGD-021-1 and the Window Schedule; Include all necessary frames, sashes, mullions, transoms, glazing beads, aluminium cappings and trims, weather seals, drainage components, ironmongery, restrictors, fixing straps, brackets, screws, packings, shims, perimeter seals and sealants; securely fix window assemblies to surrounding construction to withstand design wind loads and operational forces, maintain continuity of air and weather seals and prevent water penetration at fixings; accurately fit, level, plumb and square; seal continuously to adjacent construction; complete installation in accordance with manufacturers current written instructions, Architects Drawings, Window Schedules and Specification.					
			To Collection €		

					€	c
	(31) EXTERNAL WALL COMPLETIONS (Cont)					
	Composite items; Windows					
A	Window Type C01; overall size (including frame) 4050mm long x 2025mm high; glazed units; comprising of total 9nr panels, including 3nr panels opaque glass; complete	4	nr			
B	Extra over for Safety Glass/Opaque	4	nr			
C	Window Type C02; overall size (including frame) 5400mm long x 2025mm high; glazed units; comprising of total 12nr panels, including 4nr panels opaque glass; complete	3	nr			
D	Extra over for Safety Glass/Opaque	3	nr			
E	Window Type C03; overall size (including frame) 2700mm long x 1350mm high; glazed units; comprising of total 4nr panels, including 2nr panels opaque glass; complete	1	nr			
F	Extra over for Safety Glass/Opaque	1	nr			
G	Window Type C04; overall size (including frame) 1350mm long x 2025mm high; glazed units; comprising of total 3nr panels, including 2nr panels opaque glass; complete	4	nr			
H	Extra over for Safety Glass/Opaque	4	nr			
J	Window Type C05; overall size (including frame) 4050mm long x 2700mm high; glazed units; comprising of total 12nr panels, including 5nr panels opaque glass; complete	2	nr			
K	Extra over for Safety Glass/Opaque	2	nr			
L	Window Type C06; overall size (including frame) 1350mm long x 675mm high; glazed units; comprising of total 1nr panels, including 1nr panels opaque glass; complete	3	nr			
M	Extra over for Opaque Glass	3	nr			
N	Window Type C07; overall size (including frame) 1350mm long x 1350mm high; glazed units; comprising of total 2nr panels, including 1nr panels opaque glass; complete	1	nr			
P	Extra over for Safety Glass/Opaque	1	nr			
				To Collection €		

				€	c
(31) EXTERNAL WALL COMPLETIONS (Cont) ALUMINIUM EXTERNAL DOORS: Proprietary heavy-duty commercial-grade thermally broken aluminium external door and framing system; manufacturer and product reference to be confirmed; or equivalent; sizes, configurations, handing, opening arrangements and glazing as shown on Architects Drawings and Door Schedules; complete doorsets to comply with I.S./BS EN 14351-1 and relevant current standards; aluminium extruded profiles of adequate section, strength and stiffness for door sizes, usage and design wind loads, incorporating proprietary thermal breaks, reinforced where required and complete with matching transoms, mullions, glazing beads, pressure plates, cappings, thresholds and associated profiles; Performance of complete doorset: air permeability Class 3 at 600 Pa or better to EN 12207; watertightness Class 9A at 600 Pa or better to EN 12208; resistance to wind load to achieve test pressures P1 = 1600 Pa, P2 = 800 Pa and P3 = 2400 Pa to EN 12210/EN 12211; acoustic performance Rw not less than 27 dB where applicable; thermal transmittance to meet the requirements stated in the Architects Specification and performance schedules; Aluminium surfaces to receive factory-applied polyester powder-coated finish to external and internal exposed faces, applied by a QUALICOAT licensed applicator to BS EN 12206-1; standard RAL colour and matt finish as selected by Architect; finish to include all necessary pre-treatment appropriate to exposure conditions; Glazed doors and side/screen panels to incorporate factory-glazed insulating glass units where indicated, comprising low-emissivity safety glass, warm-edge spacer bars and argon-filled cavities where required to achieve specified thermal performance; safety glazing to appropriate classification for doors, side panels and locations subject to human impact; glass thickness and build-up to suit pane size, design wind pressure, acoustic requirements and location; complete with proprietary glazing beads, setting blocks and EPDM or equivalent glazing gaskets; Provide continuous proprietary EPDM or equivalent durable weather seals to door leaves and frames, including perimeter compression seals, threshold seals and weathering details necessary to achieve the specified air and water performance; frames and thresholds to incorporate proprietary drainage and pressure equalisation arrangements with concealed drainage paths and outlets as required; Ironmongery to be heavy-duty commercial quality suitable for high-frequency use and size and weight of door leaf, including hinges or pivots, door closers, pull handles and/or lever furniture, locks, latches, cylinders, keeps, flush bolts to inactive leaves, door stops, restrictors and all associated fittings as required by Door Schedule; multipoint locking where specified; ironmongery to have corrosion resistance appropriate to external exposure. Provide emergency exit and panic escape hardware where required by the Fire Safety Strategy and Door Schedule, together with accessibility-compliant operating furniture and opening forces where applicable; Include thermally broken thresholds, cills where required, frame extensions, packings, shims, fixing straps, brackets, anchors, screws, cover trims, flashings, perimeter backing materials and compatible sealants necessary to provide a complete installation; securely fix frames to surrounding construction to resist design wind loads and operational forces without distortion; accurately install level, plumb and square; maintain continuity of thermal, air and weather seals at interfaces with surrounding construction; seal continuously internally and externally as appropriate; adjust door leaves and ironmongery on completion to ensure smooth operation, correct clearances and positive engagement of seals and locking mechanisms; all in accordance with manufacturers current written instructions and Architects Drawings, Door Schedules and Specification.					
			To Collection €		

(31) EXTERNAL WALL COMPLETIONS (Cont)

	Composite items; Doors					
A	External Double Door Type A07; overall opening size (including frame) 2200mm wide x 3150mm high; comprising 2nr double glazed door size 2200mm wide x 2237mm high; 1nr glazed panel above door panels size 2200mm wide x 912mm high; complete	1	nr			
B	Extra over for safety glazing	1	nr			
C	External Double Door Type A09; overall opening size (including frame) 2200mm wide x 2925mm high; comprising 2nr double glazed door size 2200mm wide x 2037mm high; 1nr glazed panel above door panels size 2200mm wide x 687mm high; complete	3	nr			
D	Extra over for safety glazing	3	nr			
E	External Double Door Type A11; overall opening size (including frame) 2200mm wide x 2925mm high; comprising 2nr double glazed door size 2200mm wide x 2075mm high; 1nr glazed panel above door panels size 2200mm wide x 650mm high; complete	1	nr			
F	Extra over for safety glazing	1	nr			
G	External Double Door Type B12; overall opening size (including frame) 2200mm wide x 2925mm high; comprising 2nr double door size 2200mm wide x 2050mm high; 1nr glazed panel above door panels size 2200mm wide x 650mm high; complete	1	nr			
H	Extra over for safety glazing	1	nr			
J	External Single Door Type B11; overall opening size (including frame) 1125mm wide x 2250mm high; comprising 1nr single door; incorporating 1Nr vision panel size 225mm wide x 1300mm high;complete	2	nr			
	Ironmongery, Accessories And Sundries					
	Supply and fix the following ironmongery items; KCC Architectural or equivalent; including all necessary fixings; fixing in strict accordances with the Architects Specification and manufacturer's printed instructions; refer to Ironmongery Schedule					
	Ironmongery; to doors					
K	Ironmongery - Set Ref: KC0404.1	1	nr			

To Collection €

					€	c
	(31) EXTERNAL WALL COMPLETIONS (Cont)					
	PAINTING & DECORATING					
	Painting					
	PAINT MDF LINERS AND SKIRTINGS; Dulux or equivalent Primer and undercoat for MDF to Architect's approval; Surfaces: Uncoated; Preparation: Degrease and provide key: Initial coats: As recommended by manufacturer; Number of coats: 2 priming undercoats; Undercoats: As recommended by manufacturer; Finishing coats: Dulux trade eggshell or equivalent; Number of coats: 2; as per Architect's Specification					
	General Surfaces					
A	Girth not exceeding 300mm; Window Boards, reveals, head liners etc.	205	m			

				€	c
(31) EXTERNAL WALL COMPLETIONS (Cont)					
COLLECTION					
Page No. Extension/71					
Page No. Extension/72					
Page No. Extension/73					
Page No. Extension/74					
Page No. Extension/75					
Page No. Extension/76					
Page No. Extension/77					
(31) EXTERNAL WALL COMPLETIONS **Carried to Summary**					

(32) INTERNAL WALL COMPLETIONS

WOODWORK

Boarding and Second Fixings

SECOND FIXINGS MEDIUM DENSITY FIBREBOARD; Manufacturer: Submit proposals; Product reference: Submit proposals for moisture resistant MDF; Standard: to be confirmed; Type: MDF.H; Formaldehyde class: to be confirmed, Class E1; Fire rating: Class 0 as defined in Building Regulations; Thickness: 50 mm, hgt 100mm. Edges: Quarter rounded; Finish:- to be confirmed; Recycled content: to be confirmed; Support/ Fixing:- Glue with high performance polyethane resin adhesive for skirtings and architraves; as per Architect's Specification

Second Fixing; Screen / Door Head/ Jamb Linings

A	100mm wide x 50mm thick; pencil round exposed edges; fixing to softwood battens fixed to blockwork	216	m		

SECOND FIXINGS MEDIUM DENSITY FIBREBOARD; Manufacturer: Submit proposals; Product reference: Submit proposals for moisture resistant MDF; Standard: to be confirmed; Type: MDF.H; Formaldehyde class: to be confirmed, Class E1; Fire rating: Class 0 as defined in Building Regulations; Thickness: 50 mm, hgt 100mm. Edges: Quarter rounded; Finish:- to be confirmed; Recycled content: to be confirmed; Support/ Fixing:- Glue with high performance polyethane resin adhesive for skirtings and architraves; as per Architect's Specification

Second Fixing; Architraves

B	Architrave; 65mm wide x 15mm thick;	432	m		

To Collection €

				€	c
(32) INTERNAL WALL COMPLETIONS (Cont) Supply and fit proprietary factory manufactured solid core timber doorsets, sizes, configurations, handing, fire ratings and minimum clear opening widths as indicated on Architects Drawings and Door Schedule; door leaves faced both sides with Formica High Pressure Laminate or equivalent, nominal 0.7 mm thick, conforming to EN 438, colour, pattern and finish as selected by Architect; laminate fully bonded to suitable door core and substrate using manufacturers recommended adhesive system; all exposed door edges finished with durable solid hardwood lippings, accurately machined, bonded and finished to provide a robust impact resistant edge suitable for heavy duty use; Provide hardwood framed vision panels to locations, sizes and configurations shown on Door Schedule, complete with hardwood glazing beads, concealed or non projecting fixings and glazing suitable for the location and door performance requirements; safety glazing to vision panels where required and fire resisting glazing to doorsets designated as fire rated, complete with compatible glazing seals, intumescent liners and proprietary glazing systems necessary to maintain the specified fire performance. All doors to incorporate continuous proprietary protective finger guards to the hinged edge, suitable for the full opening range and intended level of use, securely fixed and arranged so as not to create trapping or pinch points; provide emergency release hinge arrangement to all doors as specified, coordinated with door leaf, frame, finger protection and ironmongery and capable of permitting emergency access where required; Provide complete coordinated ironmongery set to each door leaf as indicated on Door Schedule and Architects Specification, including three heavy duty stainless steel butt hinges with stainless steel screws, hinges sized and graded to suit door leaf dimensions, weight, frequency of use and any door closer fitted and, where fitted to fire doors, tested and classified to BS EN 1935 and suitable for the specified fire rating; ASSA ABLOY or equivalent 5 lever horizontal pattern mortice lock complete with compatible latch, keep, strike plate, cylinder or key operation as scheduled; stainless steel safety pattern lever handles on rose, return to door type, with all associated spindle, roses, escutcheons and fixings; ironmongery to be suitable for heavy duty commercial and educational use and coordinated as a complete system.					
			To Collection €		

					€	c
	(32) INTERNAL WALL COMPLETIONS (Cont)					
	Provide self closing devices to all internal fire doors and other doors where indicated on Door Schedule, closers to BS EN 1154, power size selected to suit door width, weight and required opening forces, complete with adjustable closing and latching action and backcheck where required; closers fitted to fire doors to be approved for use with the relevant tested doorset and installed with all necessary intumescent protection; Fire rated doorsets, where scheduled, to comprise a complete compatible and certified assembly including door leaf, frame, glazing, hinges, closer, lock or latch, intumescent strips, smoke seals where required and all associated ironmongery, with components selected and installed so as not to compromise the specified fire and smoke performance; Include all necessary factory preparation, machining, drilling, recessing and reinforcement for ironmongery; hardwood lippings, glazing beads, vision panel framing, seals, finger guards, emergency release hardware, hinges, locks, handles, closers, keeps, stops, intumescent protection, smoke seals where required, screws, fixings and associated accessories necessary to provide complete fully operational doorsets; hang doors accurately with consistent clearances, adjust all ironmongery and ensure smooth operation on completion; all in accordance with manufacturers current written installation requirements, Door Schedule, Architects Drawings and Architects Specification Clause 4.26.					
	Door Type A01; Single leaf door; Associated Frame Sets; Non-fire rated; to Architect's Drawings 1241/P-T/16					
A	Overall opening size 850mm wide x 2250mm high; comprising of 1Nr single doors, including all acoustic seals	3	nr			
	Door Type A02; Single leaf door; Associated Frame Sets; Non-fire rated; to Architect's Drawings 1241/P-T/16					
B	Overall opening size 1050mm wide x 2250mm high; comprising of 1Nr single doors, including all acoustic seals	2	nr			
	Door Type A03; Single leaf door; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
C	Overall opening size 1350mm wide x 2250mm high; comprising of 1Nr single doors, each incorporating 1Nr vision panel size 215mm wide x 1312mm high;1 nr glazed size 319mm wide x 2250mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	2	nr			
	Door Type A04; Single leaf door and a half; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
D	Overall opening size 1350mm wide x 2250mm high; comprising of 1Nr single doors, each incorporating 1Nr vision panel size 225mm wide x 1312mm high;1 nr glazed screen size 319mm wide x 2250mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			

					€	c
	(32) INTERNAL WALL COMPLETIONS (Cont)					
	Door Type A05; Single leaf door and a half; Associated Frame Sets; 60min fire rated; to Architect's Drawings 1241/P-T/16					
A	Overall opening size 1350mm wide x 2250mm high; comprising of 1Nr single doors, each incorporating 1Nr vision panel size 225mm wide x 1312mm high;1 nr glazed screen size 319mm wide x 2250mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			
	Door Type A06; Single leaf door; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
B	Overall opening size 1050mm wide x 2250mm high; comprising of 1Nr single doors, including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			
	Door Type A08; Double leaf door and a half; Associated Frame Sets; 60min fire rated; to Architect's Drawings 1241/P-T/16					
C	Overall opening size 2700mm wide x 3400mm high; comprising of 2Nr double doors, each incorporating 2Nr vision panel size 850mm wide x 1945mm high; 2nr side glazed screen size 300mm wide x 2050mm high;1 nr glazed screen fan light size 2700mm wide x 1050mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			
	Door Type A10; Double leaf door; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
D	Overall opening size 2400mm wide x 2925mm high; comprising of 2Nr double doors, each incorporating 2Nr vision panel size 960mm wide x 1935mm high;1 nr glazed screen fan light size 2400mm wide x 675mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			
	Door Type B01; Single leaf door and a half; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
E	Overall opening size 2700mm wide x 2925mm high; comprising of 1Nr single doors, each incorporating 1Nr vision panel size 750mm wide x 1950mm high;2 nr side glazed screen size 875mm wide x 2050mm high;1 nr glazed screen fan light size 2700mm wide x 650mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			
	Door Type B02; Single leaf door; Associated Frame Sets; Non-fire rated; to Architect's Drawings 1241/P-T/16					
F	Overall opening size 1050mm wide x 2250mm high; comprising of 1Nr single doors, including all acoustic seals	5	nr			

					€	c
	(32) INTERNAL WALL COMPLETIONS (Cont)					
	Door Type B03; Single leaf door; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
A	Overall opening size 1050mm wide x 2250mm high; comprising of 1Nr single doors, each incorporating 1Nr vision panel size 225mm wide x 1312mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	5	nr			
	Door Type B04; Double leaf door; Associated Frame Sets; 30 min fire rated; to Architect's Drawings 1241/P-T/16					
B	Overall opening size 1800mm wide x 2250mm high; comprising of 1Nr double doors, each incorporating 2Nr vision panel size 225mm wide x 1412mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			
	Door Type B05; Single leaf door; Associated Frame Sets; Non-fire rated; to Architect's Drawings 1241/P-T/16					
C	Overall opening size 915mm wide x 2250mm high; comprising of 1Nr single doors, including all acoustic seals	1	nr			
	Door Type B06; Single leaf door; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
D	Overall opening size 1050mm wide x 2250mm high; comprising of 1Nr single doors, including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	2	nr			
	Door Type B07; Single leaf door; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
E	Overall opening size 1200mm wide x 2925mm high; comprising of 1Nr single doors, each incorporating 1Nr vision panel size 225mm wide x 1350mm high;1 nr glazed screen fan light size 1200mm wide x 675mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			
	Door Type B08; Single leaf door and a half; Associated Frame Sets;30 min fire rated; to Architect's Drawings 1241/P-T/16					
F	Overall opening size 2500mm wide x 2250mm high; comprising of 1Nr single doors, each incorporating 1Nr vision panel size 225mm wide x 1312mm high;2 nr glazed side screen size 763mm wide x 2250mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	2	nr			
	Door Type B09; double leaf door; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16					
G	Overall opening size 1800mm wide x 2250mm high; comprising of 1Nr double doors; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc	1	nr			
				To Collection €		

(32) INTERNAL WALL COMPLETIONS (Cont)

Door Type B10; Single leaf door; Associated Frame Sets; 30min fire rated; to Architect's Drawings 1241/P-T/16

A Overall opening size 1050mm wide x 2925mm high; comprising of 1Nr single doors, each incorporating 1Nr vision panel size 850mm wide x 1869mm high;1 nr glazed screen fan light size 1050mm wide x 675mm high; including all acoustic seals; fire resistant channel and all intumescent seals, strips etc — 2 nr

INTERNAL SCREENS/WINDOWS; Aluminium framed windows and commercial grade aluminium doors with side screens to be provided; Frames to match existing in colour; Windows to comply with DOES TGD 021-1 Guidance on the Specification of Windows; Each window assembly must be manufactured in accordance with TGD F and achieve a minimum rapid ventilation of 1/20 of the floor area of the room. The fabricator must demonstrate compliance in accordance with TGD-021-1; No trickle vents to be provided (refer to below fro room ventilation) Window brackets to be fixed to internal leaf. Window reveals to be covered with MDF as per drawings; The contractor is required to submit shop drawings including profiles, accessories and dimensions for to the Architect 's approval prior to fabrication; as per architect's specification 4.19

Window type C08; non-fire rated (smoke retardant construction); to Architect's Drawings 1241/P-T/16

B Overall size 2423mm x 1150mm high; including fire resistant channel and all intumescent seals, strips etc — 1 nr

Window type C09; non-fire rated (smoke retardant construction); to Architect's Drawings 1241/P-T/16

C Overall size 2550mm x 1150mm high; including fire resistant channel and all intumescent seals, strips etc — 1 nr

Ironmongery, Accessories And Sundries

Supply and fix the following ironmongery items; KCC Architectural or equivalent; including all necessary fixings; fixing in strict accordances with the Architects Specification and manufacturer's printed instructions; refer to Ironmongery Schedule

Ironmongery; to doors

D Ironmongery - Set Ref: KC1001.1 — 2 nr

E Ironmongery - Set Ref: KC1002.1 — 4 nr

F Ironmongery - Set Ref. KC1062.1 — 9 nr

G Ironmongery - Set Ref. KC1311.1 — 8 nr

H Ironmongery - Set Ref. KC1312.1 — 1 nr

J Ironmongery - Set Ref. KC2002.1 — 1 nr

To Collection €

					€	c
	(32) INTERNAL WALL COMPLETIONS (Cont)					
A	Ironmongery - Set Ref. KC0404.1	1	nr			
B	Ironmongery - Set Ref. KC2755.1	1	nr			
C	Ironmongery - Set Ref. KC3002.1	1	nr			
D	Ironmongery - Set Ref. KC2702.1	1	nr			
E	Ironmongery - Set Ref. KC2402.1	1	nr			
F	Ironmongery - Set Ref. KC1702.1	1	nr			
G	Ironmongery - Set Ref. KC2037.1	2	nr			
	Sealing gap between door/ screen frames and blockwork walls; gap to be sealed on both sides with intumescent mastic/ fire stop; all in strict accordance with Architect's Drawings					
	Sundries; Seals					
H	10mm wide	14	m			
	Acoustic seals to internal doors; Lorient IS1212 'Batwing' or equivalent head & jamb seals and IS7061 at meeting stiles; fitted in accordance with manufacturer's instructions; all in strict accordance with Architect's Drawing					
	Sundries; Seals					
J	Generally	216	m			
	PAINTING & DECORATING					
	Painting					
	PAINT MDF LINERS AND SKIRTINGS; Dulux or equivalent Primer and undercoat for MDF to Architect's approval; Surfaces: Uncoated; Preparation: Degrease and provide key: Initial coats: As recommended by manufacturer; Number of coats: 2 priming undercoats; Undercoats: As recommended by manufacturer; Finishing coats: Dulux trade eggshell or equivalent; Number of coats: 2; as per Architect's Specification					
	General Surfaces					
K	Girth not exceeding 300mm; Liners	216	m			
L	Girth not exceeding 300mm; frames and back of frames	216	m			
M	Girth not exceeding 300mm; Architraves	432	m			
N	Girth exceeding 300mm; doors	109	m2			

To Collection €

					€	c
	(32) INTERNAL WALL COMPLETIONS (Cont)					
	Window					
A	Girth exceeding 300mm	11	m2			
					To Collection €	

				€	c
(32) INTERNAL WALL COMPLETIONS (Cont)					
COLLECTION					
Page No. Extension/79					
Page No. Extension/80					
Page No. Extension/81					
Page No. Extension/82					
Page No. Extension/83					
Page No. Extension/84					
Page No. Extension/85					
Page No. Extension/86					
(32) INTERNAL WALL COMPLETIONS **Carried to Summary**					

					€	c
	(34) STAIRS COMPLETIONS					
	METALWORK					
	Non-Structural					
	HANDRAILS: Supply, fabricate and install stainless steel handrails to both sides of all internal and external stairs and stainless steel guarding where indicated on Architects Drawings; complete system to comply with current Building Regulations, TGD K and TGD M where applicable, Department of Education guidance where applicable and relevant current standards; stainless steel grade suitable for location and exposure, minimum Grade 304 for internal applications and Grade 316 for external applications, with uniform satin finish unless noted otherwise.Handrails to be 50 mm diameter circular hollow section with smooth continuous profile; top of handrail to be 950 mm above stair pitch line and landings unless otherwise indicated on drawings; handrails to continue across intermediate landings and extend minimum 300 mm horizontally beyond top and bottom risers; ends to return safely towards wall, floor or guarding so as not to create a snagging or impact hazard; maintain minimum 50 mm clear distance between handrail and adjacent wall or other obstruction; handrail, brackets and associated components arranged so that the handrail does not project more than 100 mm into the required clear width of the stair; Provide proprietary stainless steel wall brackets, posts, support brackets, base plates, cover plates, sleeves, connectors, bends, returns, end caps, anchors and all associated components necessary to provide a rigid and complete installation; bracket spacing and support centres to suit span, loading and manufacturers recommendations; fixings and supporting construction designed to resist applicable horizontal and vertical imposed loads in accordance with I.S. EN 1991-1-1 and Irish National Annex; fix securely to concrete, masonry, steel or other supporting construction using suitable stainless steel mechanical or resin anchors appropriate to substrate and exposure conditions; include all necessary design, fabrication, drilling, cutting, bending, welding, polishing, brackets, posts, base plates, anchors, fixings, packings, isolation materials and accessories required for a complete installation; protect finished stainless steel during construction and clean down on completion; all in accordance with Architects Drawings and Architects Specification Clause 4.14.					
	Composite Items; Handrails, Complete					
A	Raking; to blockwork or concrete base; 950mm high above FFL	30	m			
B	Horizontal; to blockwork or concrete base; 950mm high above FFL	45	m			
C	Extra over balustrades for Ramps	6	nr			
D	Extra over balustrades for Ends; handrail to extend 300mm beyond last step and turn down 150mm; Stair 2	8	nr			

To Collection €

					€	c
	(34) STAIRS COMPLETIONS (Cont)					
	HANDRAILS AND GUARDING: Supply, fabricate and install stainless steel handrails to both sides of all internal and external stairs and stainless steel guarding where indicated on Architects Drawings; complete system to comply with current Building Regulations, TGD K and TGD M where applicable, Department of Education guidance where applicable and relevant current standards; stainless steel grade suitable for location and exposure, minimum Grade 304 for internal applications and Grade 316 for external applications, with uniform satin finish unless noted otherwise.Handrails to be 50 mm diameter circular hollow section with smooth continuous profile with LED strip light at the bottom; top of handrail to be 950 mm above stair pitch line and landings unless otherwise indicated on drawings; handrails to continue across intermediate landings and extend minimum 300 mm horizontally beyond top and bottom risers; ends to return safely towards wall, floor or guarding so as not to create a snagging or impact hazard; maintain minimum 50 mm clear distance between handrail and adjacent wall or other obstruction; handrail, brackets and associated components arranged so that the handrail does not project more than 100 mm into the required clear width of the stair; Provide proprietary stainless steel wall brackets, posts, support brackets, base plates, cover plates, sleeves, connectors, bends, returns, end caps, anchors and all associated components necessary to provide a rigid and complete installation; bracket spacing and support centres to suit span, loading and manufacturers recommendations; fixings and supporting construction designed to resist applicable horizontal and vertical imposed loads in accordance with I.S. EN 1991-1-1 and Irish National Annex; fix securely to concrete, masonry, steel or other supporting construction using suitable stainless steel mechanical or resin anchors appropriate to substrate and exposure conditions. Stainless steel guarding to locations and heights shown on Architects Drawings; guarding to comprise posts, rails, balusters, infill panels or other components as detailed, designed and constructed so that a 100 mm diameter sphere cannot pass through any opening; guarding to stairs and landings to be arranged to prevent climbing where required, particularly in areas accessible to children; all exposed edges, corners, welds and joints to be smooth, rounded and free from burrs, sharp edges or projections; All joints to be accurately formed and aligned; welded joints to be fully finished, ground smooth and blended to match adjacent stainless steel finish; exposed mechanical fixings to be kept to a minimum and arranged uniformly; avoid direct contact between dissimilar metals and provide suitable isolation materials where required to prevent galvanic corrosion; external components, fixings and anchors to be suitable for permanent external exposure; Contractor to verify dimensions and supporting construction on site prior to fabrication and prepare coordinated shop drawings showing handrail and guarding layouts, levels, heights, post and bracket centres, fixing details, base plates, connections, interfaces and terminations for Architects review prior to manufacture; include all necessary design, fabrication, drilling, cutting, bending, welding, polishing, brackets, posts, base plates, anchors, fixings, packings, isolation materials and accessories required for a complete installation; protect finished stainless steel during construction and clean down on completion; all in accordance with Architects Drawings and Architects Specification Clause 4.14. Composite Items; Handrails & Balustrades, Complete					
A	Raking; to blockwork or concrete base; 1200mm high above FFL	5	m			
				To Collection €		

					€	c
	(34) STAIRS COMPLETIONS (Cont)					
A	Horizontal; to blockwork or concrete base; 1200mm high above FFL	3	m			
B	Extra over balustrades for Ramps	2	nr			
C	Extra over balustrades for Ends; handrail to extend 300mm beyond last step and turn down 150mm; Stair 2	2	nr			
	PAINTING AND DECORATING					
	Painting					
	Paint to handrail and guard rails and handrails to Architect's Specification; all in accordance with Architect's Drawings and Specification					
	Handrails					
D	Exceeding 300mm	18	m2			
E	Not exceeding 300mm	75	m			
				To Collection €		

				€	c
(34) STAIRS COMPLETIONS (Cont)					
COLLECTION					
Page No. Extension/88					
Page No. Extension/89					
Page No. Extension/90					
(34) STAIRS COMPLETIONS **Carried to Summary**					

					€	c
	(37) ROOF COMPLETIONS					
	NOTES					
A	1. The Tenderer is advised that all measurements and descriptions shall be read in conjunction with the Architect's Drawings and Specification		item			
B	2. For details of the nature and extent of the works to be carried out in this section, the Tenderer's shall refer to all Architect's Drawings and Specifications.		item			
C	3. The Tenderer shall fully familiarise himself, both from the drawings and site, with the structure, extent and adequacy of supports being provided and shall include for any additional supports as may be necessary to complete this section of the works.		item			
D	4. All drawings must be checked by the Contractor on site, the Design Team must be informed of any discrepancies (should they arise) prior to commencement of the works		item			
E	5. For details of the nature and extent of the works to be carried out in this section, the tenderers shall refer to all Architects and Engineers tender drawings accompanying this tender document		item			
F	6. The Tenderer is to agree exact site dimensions for openings and programming issues. No claims for additional costs will be entertained from failure to do so.		item			
G	7. All roof vents shall be fixed into structural opes with and including all necessary fixings		item			
H	8. 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		note			
				To Collection €		

					€	c
	(37) ROOF COMPLETIONS (Cont)					
	METALWORK					
	Non-Structural					
	STEEL LADDERS TO WATER TANK ROOM; Manufacturer: Contractor's choice; Product reference: Steel ship ladder; Standard: To BS 4211 or equivalent; Safety hoops: Not required; Platforms: Hot dip galvanized Durbar pattern mild steel tread plate; Finish as delivered: Galvanized to BS EN ISO 1461; Other requirements: Slip resistant coating to rungs, as section M60 and Joints welded and ground smooth; Fixing: Bolted to concrete floor edges; as per Architects Specification					
	Composite Items; Ladder; as per Architects drawing 145					
A	approx 3200mm high	1	nr			

To Collection €

(37) ROOF COMPLETIONS (Cont)

Fall Prevention System

SNPS ROOFSAFE FALL RESTRAINT SYSTEM: SNPS RoofSafe Anchor and Cable System by 3M DBI SALA or equivalent; proprietary permanent horizontal cable fall restraint system for safe access and maintenance to roof areas; complete system to be designed by specialist subcontractor to suit roof layout, access points, areas requiring maintenance, roof edges, rooflights and other fall hazards; overall system length, cable routes, number and location of end anchors, corner anchors, intermediate supports and associated components to specialist subcontractor design.System to comprise stainless steel horizontal safety cable, proprietary RoofSafe anchor assemblies, end terminations, tensioners, energy absorbing components, intermediate cable supports, corner units, travelling attachment devices and all necessary brackets, plates, fasteners, fixings and ancillary components required to provide a complete operational system; intermediate support spacing to specialist subcontractor design and manufacturers requirements.Provide anti pendulum anchors and swing fall protection anchors at locations required by the specialist design to prevent or limit pendulum and swing fall risks, particularly at corners, roof extremities and changes in direction; system to be configured primarily for fall restraint so that operatives are prevented from reaching an unprotected roof edge or other fall hazard wherever reasonably practicable;

System layout, number of users, anchor spacing, cable lengths, design loads, fall clearances and required personal protective equipment to be determined by specialist system designer taking account of roof configuration, supporting structure, proposed access and maintenance requirements and manufacturers design criteria; verify adequacy of supporting structure and roof construction to receive all system loads prior to installation and coordinate fixing requirements with roof manufacturer and Structural Engineer where applicable.System and anchor devices to comply with BS 7883:2019 and I.S. EN 795:2012; where system is designed for simultaneous use by more than one operative, system to comply with relevant multiple user requirements including PD CEN TS 16415 as applicable; installation to be carried out only by the system manufacturer or trained and authorised specialist installer approved by the system manufacturer.Include all drilling, brackets, anchor plates, mechanical fixings, structural fixings, isolation materials, weatherproofing, seals, flashings and making good required at connections to roof construction; all roof penetrations and fixings to maintain integrity, weather resistance and warranties of the completed roofing system.On completion, inspect, test, tension and commission complete system in accordance with manufacturers requirements and BS 7883; provide identification and inspection labels at appropriate access points together with system layout drawing, design calculations, test and commissioning certificates, system technical information, user instructions, inspection requirements and operation and maintenance information; system to be suitable for subsequent periodic inspection and recertification in accordance with manufacturers requirements.All as shown on Architects Drawings and in accordance with Architects Specification and specialist subcontractor design

Fall Prevention System

A	Generally	27	m			

To Collection €

					€	c
	(37) ROOF COMPLETIONS (Cont)					
A	SNPS Roof Posts on Trapezoidal Roof Panel; Generally	15	nr			
B	Anti-Pendulum Anchors; Generally	1	item			
	Personal Fall Protection Equipment (PFPE)					
C	2 Point Skyway Full Body Harness; 2m Skyway standard 2m shock absorbing Lanyard; 10m Skyway Rope & Grab; Skyway Cable Shuttle	2	set			
	Testing & certifying					
	System to be fully inspected and tested after installation and a 12 month test certificate be issued to Employer; as Architects requirements					
D	Generally	1	item			
	System to be fully inspected and re-certified at interval not exceeding 12 months or after the system has been used to arrest a fall; as Architects requirements					
E	Generally	1	item			
				To Collection €		

				€	c
(37) ROOF COMPLETIONS (Cont)					
COLLECTION					
Page No. Extension/92					
Page No. Extension/93					
Page No. Extension/94					
Page No. Extension/95					
(37) ROOF COMPLETIONS **Carried to Summary**					

					€	c
	(41) EXTERNAL WALL FINISHES					
	FLOOR, WALL AND CEILING FINISHES					
	In-situ Finishes					
	White dash render; Description: External render; Substrate: Concrete blockwork; Preparation: as per Architect's Specification; Cement; Type: Ready-to-use mortar or ready-mixed lime:sand; Pigment: Not required; Undercoats; Mix (cement:lime:sand): 1:1:5#6 (where final coat trowelled); Cement type: Contractor's choice; Thickness (excluding dubbing out and keys): First coat 8#12 mm (exclusive of keys) and second coat 6#10 mm; Final coat; Mix (cement:lime:sand): 1:0.5:4#4.5; Cement type: White Portland; Other requirements: Screen sand through 3 mm mesh sieve; Thickness: 6#8 mm; Finish: Varies. Combination of Nap & smooth, - Refer to elevation drawings. Sample panels to be erected on site for Architect's approval; Accessories: Stainless steel beads and Alkaline resistance render mesh to all corners to opes; As per Architect's specification					
	Walls					
A	Exceeding 300mm wide; to blockwork	406	m2			
B	Not exceeding 300mm wide; to reveals	179	m			
	BEADS/STOPS FOR EXTERNAL USE; Material: to be confirmed; fixed in strict accordance with the Architect's Drawings and Specification					
	Sundries					
C	External Corner Beads Horizontal; as per Architects Drawings	63	m			
D	External Corner Beads at openings; Horizontal; as per Architects Drawings	118	m			
E	External Corner Beads at openings; Vertical; as per Architects Drawings	88	m			
F	Stop Beads at openings; Horizontal; as per Architects Drawings	118	m			
G	Stop Beads at openings; Vertical; as per Architects Drawings	88	m			
H	Stop Bead fixed to top of render at eaves and verges in accordance with manufacturers instructions; as per Architects Drawings	112	m			
J	Stop Bead fixed to base of render at ground in accordance with manufacturers instructions; as per Architects Drawings	71	m			
K	Non Hardening Sealant; taken around reveals of openings; as per Architects Drawings	205	m			

					€	c
	(41) EXTERNAL WALL FINISHES (Cont)					
	PAINTING AND DECORATING					
	Painting					
	Exterior paint; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architect#s approval; Primer: to be confirmed or equivalent to Architect#s approval; Number of coats: to be confirmed; Colour: Refer to Elevations Drawing; as per Architect's Drawing's and Specification					
	Walls; to rendered blockwork					
A	Exceeding 300mm wide; to blockwork	406	m2			
B	Not exceeding 300mm wide; to reveals	179	m			

				€	c
(41) EXTERNAL WALL FINISHES (Cont)					
COLLECTION					
Page No. Extension/97					
Page No. Extension/98					
(41) EXTERNAL WALL FINISHES **Carried to Summary**					

(42) INTERNAL WALL FINISHES

FLOOR, WALL & CEILING FINISHES

Insitu Finishes

CEMENT LIME SAND INTERNAL PLASTER; Provide two coat cement lime sand internal plaster system to concrete blockwork; proprietary ready to use or factory produced general purpose plastering mortar to I.S. EN 998-1 or equivalent site mixed cement lime sand plaster; nominal strength Class CS II unless otherwise required by substrate or manufacturer; cement type Contractors choice; no pigment required; Background to be sound, clean and free from dust, laitance, efflorescence, oil, grease, loose material and other contaminants liable to impair adhesion; rake out or prepare masonry joints where required and remove projections and excessive mortar; assess suction and mechanical key of background prior to plastering and damp down high suction backgrounds or provide proprietary bonding treatment, scud coat or polymer modified bonding coat where necessary to achieve adequate adhesion; dubbing out of excessive irregularities to be completed and allowed to cure before application of plaster coats;

Apply first undercoat nominal 10 to 12 mm thick, firmly pressed onto background to achieve full bond, ruled true, level and plumb and adequately keyed to receive final coat; allow undercoat to set and cure sufficiently before application of succeeding coat; Apply final cement lime sand finishing coat nominal 3 to 5 mm thick, using fine graded plastering sand and compatible mix not stronger than preceding coat; finish to a uniform plain smooth surface suitable to receive specified decoration, free from hollows, ridges, trowel marks, cracking, crazing and other visible defects; total plaster thickness generally not less than 15 mm unless otherwise indicated on drawings or required by manufacturer; Provide galvanised or stainless steel plaster beads appropriate to location and exposure, including angle beads, stop beads, movement joint beads and other profiles required to form straight true arrises, terminations and junctions; provide alkali resistant reinforcing mesh across changes in background, dissimilar materials and other locations susceptible to cracking where required; Form neat plaster finishes to reveals, soffits, recesses, returns, openings and junctions with frames and other finishes; maintain all movement joints through completed plaster system and neatly finish around service penetrations, electrical boxes and other fittings; Protect completed work from rapid drying, excessive heat, draughts, frost, impact and contamination during curing; include all necessary background preparation, bonding treatment, undercoats, finishing coats, beads, reinforcement, dubbing out, cutting, forming of angles, reveals and returns, curing and protection required to provide a complete finished plaster system; all in accordance with I.S. EN 13914-2, manufacturers current recommendations and Architects Drawings and Specification

Walls

A	Exceeding 300mm	1,827	m2		
B	Not exceeding 300mm	206	m		

					€	c
	(42) INTERNAL WALL FINISHES (Cont)					
	Sand & Cement render to receive ceramic tiles to Architects Specification ref 4.25; mix proportions (masonry cement:sand): 1:3 1/2 - 4 1/2; single coat; 13mm thick (excluding dubbing out); fixed in strict accordance with the Architect's Drawings and Specification					
	Walls					
A	Exceeding 300mm wide; 13mm thick; to concrete block base	114	m2			
	Beads/ stops to Architects Specification; Galvanised steel or equal approved; to BS EN 13658-1; include where necessary silicon mastic seal joints; fixed in strict accordance with the Architect's Drawings and Specification Section M20					
	Sundries					
B	Angle beads	77	m			
C	Stops beads	216	m			
				To Collection €		

(42) INTERNAL WALL FINISHES (Cont)

Tile, Slab & Mosaic Finishes

TILING: Non porous glazed ceramic wall tiles with high gloss finish; tiles to comply with I.S. EN 14411; size, colour, pattern, joint width and setting out as indicated on Architects Drawings and Specification and as selected by Architect; tiles to be uniform in size, thickness, colour and finish and free from cracks, chips, crazing and other visible defects; Prepare backgrounds to receive tiling so that surfaces are sound, clean, dry, even and free from dust, laitance, grease, loose material and other contaminants liable to impair adhesion; apply compatible primer where required by adhesive manufacturer; Fix tiles with proprietary high performance adhesive suitable for ceramic tiles, substrate and exposure conditions and complying with I.S. EN 12004-1; adhesive applied strictly in accordance with manufacturers recommendations to achieve full and uniform bond, with adequate coverage and no unsupported voids; tiles accurately set out and laid true, level and plumb with consistent joints and neatly cut and fitted around corners, sanitary fittings, services, penetrations, access panels and other obstructions; Grout joints with proprietary polymer modified, water repellent and mould resistant grout suitable for ceramic wall tiling;

grout colour as selected by Architect; joints fully filled, compacted and finished evenly with excess grout removed from tile surfaces before hardening; Provide mould resistant sanitary grade silicone sealant at internal corners, changes in plane, junctions with sanitary fittings, baths, shower trays, worktops, door frames and other adjoining materials where movement may occur; colour to match or complement grout as selected by Architect; Provide proprietary tile trims to exposed edges, external corners, terminations and junctions where required, material and finish as selected by Architect; form movement joints where required and maintain movement joints occurring in backgrounds through completed tiled finish; Include all necessary preparation, priming, adhesive, grout, mould resistant sealant, trims, spacers, cutting, drilling, forming around fittings and penetrations, cleaning and protection necessary to provide a complete finished installation; clean tile surfaces on completion and leave free from adhesive, grout haze and staining; all in accordance with manufacturers current written instructions and Architects Specification Clause 4.25.

Walls; WC Area

A	Exceeding 300mm wide	184	m2		

Extra over for

B	Aluminium square edge tile trim or equivalent	57	m		

					€	c
	(42) INTERNAL WALL FINISHES (Cont)					
	PAINTING AND DECORATING					
	Painting					
	PAINT TO INTERNAL PLASTERED SURFACES; The contractor is to include for painting of all walls and plasterboard parts of ceilings with 1 No. coat of primer paint and 3 No. coats of internal durable, hard wearing and easy to cleanpaint. Colours to be selected by the client; all as per Architects Drawings and Specification 4.28					
	Walls					
A	Exceeding 300mm	1,827	m2			
B	Not Exceeding 300mm	200	m			
	PAINT TO INTERNAL FAIRFACED BLOCKWORK; The contractor is to include for painting of all walls and plasterboard parts of ceilings with 1 No. coat of primer paint and 3 No. coats of internal durable, hard wearing and easy to clean paint. Colours to be selected by the client; all as per Architects Drawings and Specification 4.28					
	Walls					
C	Exceeding 300mm	532	m2			
D	Not Exceeding 300mm	131	m			
	Durabel Vinyl Covering; all as per Architects Drawings and Specification 4.28					
	Walls					
E	Exceeding 300mm	70	m2			
F	Not Exceeding 300mm	12	m			
				To Collection €		

				€	c
(42) INTERNAL WALL FINISHES (Cont)					
COLLECTION					
Page No. Extension/100					
Page No. Extension/101					
Page No. Extension/102					
Page No. Extension/103					
(42) INTERNAL WALL FINISHES **Carried to Summary**					

					€	c
	(43) FLOOR FINISHES					
	WOODWORK					
	Medium density fibreboard; Description: boxed shaped pre finished MDF skirting ; Manufacturer: Submit proposals; Product reference: Submit proposals for moisture resistant MDF; Standard: to be confirmed; Type: MDF.H; Formaldehyde class: to be confirmed, Class E1; Fire rating: Class 0 as defined in Building Regulations; Thickness: 16 mm, height 100mm; Edges: Quarter rounded; Finish:to be confirmed; Recycled content: to be confirmed; Support/ Fixing: to be confirmed; Glue with high performance polyethane resin adhesive for skirting and architraves; as per Architects Specification 4.25					
	Skirtings					
A	Generally; 100mm high x 16mm thick	525	m			
	Ironmongery, Accessories and Sundries					
	Sundries; Non-hardening sealant to skirting/wall junction; all in strict accordance with Architect's Details on Drawings					
	Seals					
B	Generally	525	m			
	FLOOR, WALL & CEILING FINISHES					
	Insitu Finishes					
	Flexible Sheet Finishes					
	LINOLEUM FLOORING ROLL; Forbo Surestep; Colour: to be confirmed with Architect prior to order; Hot welded with matching coloured rod; Roll width: 2000 mm; Base Preparation: The subfloor to be smooth, clean, free from grease and dirt and in accordance with BS 8203 or DIN 18 365; Smoothing underlayment compound: Where necessary apply a smoothing and levelling compound as clause 461; Moisture suppressing DPM: Where necessary with rising or residual moisture apply a 2 coat epoxy primer DPM; Flooring roll: Linoleum 5305 sheet with 2 layer water based top shield factory applied protective finish; Linoleum installed with 414 adhesive must give a minimum 25yr warranty when installed and maintained as per manufacturers instructions; as per Architect's Specification 4.25					
	Floors					
C	Exceeding 300mm wide	115	m2			

					€	c
	(43) FLOOR FINISHES (Cont)					
	LINOLEUM FLOORING ROLL; Forbo Surestep Laguna; Colour: to be confirmed with Architect prior to order; Hot welded with matching coloured rod; Roll width: 2000 mm; Base Preparation: The subfloor to be smooth, clean, free from grease and dirt and in accordance with BS 8203 or DIN 18 365; Smoothing underlayment compound: Where necessary apply a smoothing and levelling compound as clause 461; Moisture suppressing DPM: Where necessary with rising or residual moisture apply a 2 coat epoxy primer DPM; Flooring roll: Linoleum 5305 sheet with 2 layer water based top shield factory applied protective finish; Linoleum installed with 414 adhesive must give a minimum 25yr warranty when installed and maintained as per manufacturers instructions; as per Architect's Specification 4.25					
	Floors					
A	Exceeding 300mm wide	23	m2			
	LINOLEUM FLOORING ROLL; Forbo Surestep Sarlon 19dB; Colour: to be confirmed with Architect prior to order; Hot welded with matching coloured rod; Roll width: 2000 mm; Base Preparation: The subfloor to be smooth, clean, free from grease and dirt and in accordance with BS 8203 or DIN 18 365; Smoothing underlayment compound: Where necessary apply a smoothing and levelling compound as clause 461; Moisture suppressing DPM: Where necessary with rising or residual moisture apply a 2 coat epoxy primer DPM; Flooring roll: Linoleum 5305 sheet with 2 layer water based top shield factory applied protective finish; Linoleum installed with 414 adhesive must give a minimum 25yr warranty when installed and maintained as per manufacturers instructions; as per Architect's Specification 4.25					
	Floors					
B	Exceeding 300mm wide	410	m2			
	LINOLEUM FLOORING ROLL; Forbo Mamoleum; Colour: to be confirmed with Architect prior to order; Hot welded with matching coloured rod; Roll width: 2000 mm; Base Preparation: The subfloor to be smooth, clean, free from grease and dirt and in accordance with BS 8203 or DIN 18 365; Smoothing underlayment compound: Where necessary apply a smoothing and levelling compound as clause 461; Moisture suppressing DPM: Where necessary with rising or residual moisture apply a 2 coat epoxy primer DPM; Flooring roll: Linoleum 5305 sheet with 2 layer water based top shield factory applied protective finish; Linoleum installed with 414 adhesive must give a minimum 25yr warranty when installed and maintained as per manufacturers instructions; as per Architect's Specification 4.25					
	Floors					
C	Exceeding 300mm wide	278	m2			

					€	c
	(43) FLOOR FINISHES (Cont)					
	SKIRTINGS; To WC's, Shower Room, Kitchens & Cleaners Store; Coved skirtings; as per Architect's specification 4.25					
	Skirtings					
A	Girth not exceeding 300mm	75	m			
	ENTRANCE MATTING; Location: Refer to Floor finishes drawing no.1241; Esplanade 1000 Primary Barrier Matting (Carpet wipers) or equivalent to Architects approval; Manufacturer: Gradus; Pattern: Ribbed; Colour: Black; Integral accessories: Matwell frame; Construction: Open; Flammability: Class Efl; as per Architects Specification 4.25					
	Floors					
B	Overall approx size 2665mm x 2400mm; irregular shape to suit layout; Recessed	1	nr			
C	Overall approx size 3680mm x 1600mm; irregular shape to suit layout; Recessed	1	nr			
D	Overall approx size 9850mm x 2600mm; irregular shape to suit layout; Recessed	1	nr			
	EDGING AND COVER STRIPS; Manufacturer: Forbo; Product reference: WX Transition - or equivalent to Architects approval; Material/ finish: Grey; Fixing: Secure with edge of covering gripped; Use matching fasteners where exposed to view; As per Architects Specification					
	Sundries; Dividing Strips					
E	Lino/Carpet	10	m			
	PAINTING AND DECORATING					
	Painting					
	Prepare and apply; 2no. coats Dulux Trade New Work Gloss Paint or equivalent; on 2no. coats Dulux Trade New Work undercoat; All to selected colour; Medite sealant to be applied prior to undercoat; as per Architects Specification					
	Second Fixings					
F	Girth not exceeding 300mm; Skirtings	525	m			

				€	c
(43) FLOOR FINISHES (Cont)					
COLLECTION					
Page No. Extension/105					
Page No. Extension/106					
Page No. Extension/107					
(43) FLOOR FINISHES **Carried to Summary**					

					€	c
	(44) STAIR FINISHES					
	WOODWORK					
	Boarding and Second Fixings					
	Medium density fibreboard; Description: boxed shaped pre finished MDF skirting ; Manufacturer: Submit proposals; Product reference: Submit proposals for moisture resistant MDF; Standard: to be confirmed; Type: MDF.H; Formaldehyde class: to be confirmed, Class E1; Fire rating: Class 0 as defined in Building Regulations; Thickness: 16 mm, hgt 100mm; Edges: Quarter rounded; Finish:to be confirmed; Recycled content: to be confirmed; Support/ Fixing: to be confirmed; Glue with high performance polyethane resin adhesive for skirting and architraves; as per Architects Specification 4.25					
	Skirtings					
A	Generally; 100mm high x 16mm thick	40	m			
	Ironmongery, Accessories and Sundries					
	Sundries; Non-hardening sealant to skirting/wall junction; all in strict accordance with Architect's Details					
	Seals					
B	Generally	40	m			
	FLOOR, WALL & CEILING FINISHES					
	Finishings; Flexible Sheet Finishes					
	LINOLEUM/VINYL FLOORING ROLL; Landing: Multipurpose impact absorbing linoleum/ vinyl floor, min. R9; Colour: to be confirmed with Architect prior to order; Hot welded with matching coloured rod; Roll width: 2000 mm; Base Preparation: The subfloor to be smooth, clean, free from grease and dirt and in accordance with BS 8203 or DIN 18 365; Smoothing underlayment compound: Where necessary apply a smoothing and levelling compound as clause 461; Moisture suppressing DPM: Where necessary with rising or residual moisture apply a 2 coat epoxy primer DPM; Flooring roll: Linoleum 5305 sheet with 2 layer water based top shield factory applied protective finish; Linoleum installed with 414 adhesive must give a minimum 25yr warranty when installed and maintained as per manufacturers instructions; as per Architect's Specification 4.25					
	Floors					
C	Exceeding 300mm wide; Ground Floor	3	m2			
D	Exceeding 300mm wide; Floor Landing	4	m2			
E	Exceeding 300mm wide; Stair Landings	6	m2			

					€	c
	(44) STAIR FINISHES (Cont)					
	Treads					
A	300mm wide	44	m			
	Risers					
B	176mm wide	51	m			
	STAIR NOSINGS AND TRIMS; Square nose heavy duty stair nosing with coloured strip 50- 65mm wide on each step					
	Sundries					
C	Nosing; Stair 01 & 02	51	m			
	Suspended Ceilings					
	SUSPENDED CEILING SYSTEM; Europhon focus DS White; as per Architect's ceiling drawing 1241_P-T_015					
	Ceilings					
D	Depth of Suspension 500mm-1000mm	11	m2			
	SUSPENDED CEILING SYSTEM; Acoustic plasterboard with sound screen fixed; as per Architect's drawing 1241_P-T_015 and Specification 4.25					
	Ceilings					
E	Depth of Suspension 500mm-1000mm	2	m2			
	Sundries					
F	Perimeter angle trim	31	m			
	PAINTING AND DECORATING					
	Painting					
	Prepare and apply 2no. coats Dulux Trade New Work Gloss Paint or equivalent; on 2no. coats Dulux Trade New Work undercoat; All to selected colour; Medite sealant to be applied prior to undercoat; as per Architects Specification					
	Second Fixings					
G	Girth not exceeding 300mm; Skirtings	40	m			

To Collection €

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	(44) STAIR FINISHES (Cont)					
	PAINT TO INTERNAL PLASTERED SURFACES AND FAIRFACED BLOCKWORK; The contractor is to include for painting of all walls and plasterboard parts of ceilings with 1 No. coat of primer paint and 3 No. coats of internal durable, hard wearing and easy to clean paint. Colours to be selected by the client; all as per Architects Drawings and Specification 4.28					
	Ceilings					
A	Exceeding 300mm	13	m2			
	MASONRY COATING; to soffit of Precast stairs; Manufacturer: Submit proposals; Product reference: Submit proposals; Surfaces: New internal precast concrete stairs; Preparation: Brush down to remove surface contaminants, Remove loose and spalled material and wash down, Patch and repair cracks, spall marks and unsightly surface areas; Initial coats: Silicon based primer; Number of coats: one; Undercoats: As recommended by manufacturer; Number of coats: As recommended by manufacturer; Finishing coats: Silicate masonry paint; Number of coats: As recommended by manufacturer; all as per Architects Specification					
	Ceilings					
B	Exceeding 300mm; Landings	6	m2			
C	Exceeding 300mm; Raking	18	m2			
D	Exceeding 300mm wide; to string of stairs	26	m2			

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(44) STAIR FINISHES (Cont)					
COLLECTION					
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(44) STAIR FINISHES **Carried to Summary**					

					€	c
	(35) & (45) CEILING FINISHES					
	FLOOR, WALL & CEILING FINISHES					
	Suspended Ceiling					
	SUSPENDED CEILING SYSTEM - Proprietary concealed metal frame suspended ceiling system, Gyproc CasoLine MF or equivalent; lined with Gyproc Moisture Resistant plasterboard or equivalent, Type H1 moisture resistant gypsum plasterboard to BS EN 520, nominal 12.5 mm thick unless otherwise indicated; boards securely screw fixed to proprietary galvanised steel ceiling framing system comprising MF5 ceiling sections, MF7 primary support channels, MF6 perimeter channels, soffit cleats, strap or angle hangers, connecting clips, screws, anchors and all associated suspension and fixing components; MF5 ceiling sections generally at maximum 400 mm centres or closer where required by manufacturers system design, board thickness, loading or fire performance; primary channels, hangers and suspension points at centres determined by manufacturers recommendations and structural requirements; perimeter channels securely fixed to surrounding construction at maximum 600 mm centres; complete suspension system securely fixed back to structural soffit using suitable proprietary anchors and independently supported from building services; Provide additional framing, trimming and supports around access panels, light fittings, diffusers, grilles, detectors, service penetrations, changes in ceiling level, bulkheads and other openings or interruptions; coordinate ceiling grid with all mechanical, electrical and other services; no ceiling component to be supported from service installations; Boards to be accurately cut, fitted and fixed with long edges supported and joints staggered where practicable; maintain consistent joints and neatly form junctions, internal and external angles, openings and abutments. Reinforce board joints and angles using proprietary joint tape and compatible jointing materials as required by ceiling system manufacturer; Where skim finish is specified, prepare moisture resistant plasterboard with proprietary bonding or pre treatment agent recommended by board and plaster manufacturer; Include for nominal 2 mm Gyproc Skimcoat or equivalent gypsum finish plaster, finished smooth and true ready to receive decoration; complete surface to be even, free from visible joints, ridges, hollows, trowel marks and other defects; Include all necessary suspension components, perimeter channels, hangers, channels, clips, fixings, screws, joint reinforcement, beads, trims, bonding agents, skim plaster, additional framing and accessories required to provide a complete ceiling system; install strictly in accordance with manufacturers current written instructions and Architects Ceiling Drawing 1241 P-T 15					
	Ceilings; fixed to underside of floor structure					
A	Depth of suspension 150mm - 500mm	25	m2			
	Ceilings; fixed to underside of roof structure					
B	Depth of suspension 150mm - 500mm	18	m2			
C	Depth of Suspension 150mm - 500mm; sloping not exceeding 15 degrees	6	m2			
D	Depth of Suspension 1000mm - 1500mm; sloping not exceeding 15 degrees	10	m2			

To Collection €

					€	c
	(35) & (45) CEILING FINISHES (Cont)					
	Sundries					
A	Perimeter angle trim	101	m			
	SUSPENDED CEILING SYSTEM - Proprietary concealed metal frame suspended acoustic plasterboard ceiling system, Gyproc CasoLine MF with Gyproc SoundBloc or equivalent; acoustic plasterboard to BS EN 520, nominal thickness to suit specified system performance and Architects requirements, with increased board density to provide enhanced sound insulation; boards securely screw fixed to proprietary galvanised steel ceiling framing system comprising Gypframe MF5 Ceiling Sections, MF7 Primary Support Channels, MF6A Perimeter Channels or equivalent, suspension hangers, soffit cleats, connecting clips, screws, anchors and all associated suspension and fixing components; Ceiling sections, primary channels, hangers and suspension points at centres in accordance with manufacturers tested system requirements, board thickness and imposed loading, generally with MF5 ceiling sections at maximum 450 mm centres, MF7 primary support channels at maximum 1200 mm centres and hangers at maximum 1200 mm centres unless more onerous requirements apply; perimeter channels securely fixed to surrounding construction; suspension system securely fixed back to structural soffit using suitable proprietary anchors and independently supported from building services; Provide continuous proprietary acoustic sealant at ceiling perimeter and junctions with walls and other adjoining construction to maintain acoustic integrity; seal around service penetrations and other interruptions where required to maintain specified acoustic performance; Provide additional framing, trimming and supports around access panels, light fittings, diffusers, grilles, detectors, service penetrations, changes in ceiling level, bulkheads and other openings or interruptions; coordinate ceiling framing with mechanical, electrical and other services; ceiling system not to be supported from service installations; Plasterboards to be accurately cut and fitted, with joints staggered where practicable and edges adequately supported; fix using proprietary drywall screws of type, length and spacing recommended by system manufacturer; neatly form junctions, internal and external angles, openings and abutments and reinforce joints and angles using proprietary joint tape, beads and compatible jointing materials; Include for Gyproc Skimcoat or equivalent gypsum finish plaster over complete plasterboard ceiling, prepared and applied in accordance with manufacturers recommendations, to provide smooth, even and continuous finish ready to receive decoration; completed surface to be true and uniform and free from visible joints, ridges, hollows, trowel marks and other defects; Include all necessary suspension components, framing sections, perimeter channels, hangers, cleats, clips, anchors, screws, acoustic sealant, joint reinforcement, beads, trims, skim plaster, additional framing and associated accessories necessary to provide a complete acoustic suspended ceiling system; install strictly in accordance with manufacturers current written instructions, relevant tested system requirements and Architects Ceiling Drawing 1241 P-T 15					
	Ceilings; fixed to underside of roof structure					
B	Depth of Suspension 500mm - 1000mm; sloping not exceeding 15 degrees	2	m2			

					€	c
	(35) & (45) CEILING FINISHES (Cont)					
	Sundries					
A	Perimeter angle trim	6	m			
	SUSPENDED CEILING SYSTEM - Ecophon Gedina E or equivalent proprietary demountable suspended acoustic ceiling system; acoustic ceiling tiles comprising high density glass wool core with Akutex T painted visible surface and glass tissue backing; tegular Edge E profile with painted edges providing recessed visible grid and shadow line appearance; nominal tile thickness 15 mm; module size as indicated on Architects Ceiling Drawing 1241 P-T 15; colour White 500 or colour selected by Architect; nearest NCS colour S 0500-N; light reflectance approximately 84 percent; Acoustic ceiling system to achieve Sound Absorption Class A in accordance with EN ISO 11654; reaction to fire classification A2-s1, d0 to EN 13501-1; humidity resistance Class C, suitable for permanent relative humidity up to 95 percent at 30 degrees C in accordance with EN 13964; tiles to be easily demountable to permit access to services within ceiling void; Install tiles on Ecophon Connect T24 exposed suspended grid system or equivalent, comprising galvanised steel main runners, cross tees, perimeter trims, adjustable hangers, hanger clips, connectors, brackets, anchors and all associated suspension components and accessories; exposed grid colour Connect White 01 or equivalent to coordinate with ceiling tiles; Main runners generally installed at maximum 1200 mm centres; 1200 mm cross tees generally at 600 mm centres with 600 mm cross tees where required to suit ceiling module; adjustable hangers generally at maximum 1200 mm centres with first hanger and main runner positioned within manufacturers maximum permitted distance from perimeter; all strictly in accordance with Ecophon Installation Diagram M121 or equivalent manufacturers tested installation arrangement; Suspension system to be securely fixed back to structural soffit using suitable proprietary anchors and independently supported from mechanical, electrical and other service installations. Provide additional suspension, trimming and grid support around light fittings, access panels, diffusers, grilles, detectors, service penetrations and other ceiling mounted components where required; Set out ceiling grid symmetrically within rooms and spaces unless otherwise indicated, with cut perimeter tiles of balanced and reasonable width; accurately form junctions, changes in level, bulkheads, columns and other interruptions; provide proprietary perimeter trims and shadow trims where indicated; neatly cut tiles without damage to exposed faces or edges; Include all ceiling tiles, main runners, cross tees, perimeter trims, hangers, clips, anchors, fixings, additional framing, cutting, fitting and all associated accessories necessary to provide a complete suspended ceiling installation; protect ceiling materials from moisture, contamination and damage prior to and during installation; completed ceiling to be level, true and free from damaged, stained or misaligned tiles; install strictly in accordance with manufacturers current written instructions, EN 13964 and Architects Ceiling Drawing 1					
	Ceilings; fixed to underside of floor structure					
B	Depth of suspension 150mm - 500mm	336	m2			
				To Collection €		

					€	c
	(35) & (45) CEILING FINISHES (Cont)					
	Ceilings; fixed to underside of roof structure					
A	Depth of Suspension 150mm - 500mm; sloping not exceeding 15 degrees	25	m2			
	Sundries					
B	Perimeter angle trim	252	m			
	SUSPENDED CEILING SYSTEM - Ecophon Focus Ds or equivalent proprietary demountable suspended acoustic ceiling system; 20 mm thick high density glass wool acoustic ceiling panels with concealed grid and symmetrical Ds edge profile, bevelled painted edges forming a narrow discreet groove between adjacent panels; module size and ceiling layout as indicated on Architects Ceiling Drawing 1241_P-T_015; visible face finished with Akutex FT water based painted surface; colour White Frost, nearest NCS S 0500-N, or colour as selected by Architect; light reflectance approximately 85 percent; Ceiling system to achieve Sound Absorption Class A to EN ISO 11654, with weighted sound absorption coefficient approximately 0.95 where installed to manufacturers tested arrangement; reaction to fire classification A2-s1,d0 to EN 13501-1; panels to remain dimensionally stable in environments up to 95 percent relative humidity at 30 degrees C in accordance with EN 13964; Install using Ecophon Connect Precision Lock concealed T24 suspension grid system or equivalent, comprising galvanised steel main runners, cross tees, space bars where required, adjustable hangers, perimeter trims, clips, connectors, brackets, anchors and all associated suspension and fixing components; grid arrangement and suspension centres to suit selected panel size and manufacturers current installation diagram; complete ceiling system to provide a level uniform appearance with concealed supporting grid and individually demountable panels for access to services above; Suspension system to be securely fixed to structural soffit using suitable proprietary anchors and independently supported from mechanical, electrical and other building services. Provide additional hangers, framing, trimming and support around light fittings, access panels, diffusers, grilles, detectors, service penetrations and other ceiling mounted components where required; Set out ceiling symmetrically within each room or space unless otherwise indicated on drawings; provide balanced perimeter cuts of reasonable width; accurately form junctions, changes in level, bulkheads, columns, openings and other interruptions; exposed cut edges to be sealed using proprietary Ecophon Edge Sealant or equivalent in accordance with manufacturers recommendations; Include all ceiling panels, concealed grid, main runners, cross tees, space bars where required, perimeter trims, adjustable hangers, clips, connectors, anchors, fixings, additional framing, cutting, fitting and all associated accessories necessary to provide a complete suspended ceiling installation; protect materials from moisture, contamination and damage during storage and installation; completed ceiling to be level, true and free from damaged, stained or misaligned panels; install strictly in accordance with manufacturers current written instructions, EN 13964 and Architects Ceiling Drawing 1241 P-T 015					
	Ceilings; fixed to underside of floor structure					
C	Depth of suspension 150mm - 500mm	13	m2			

To Collection €

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	(35) & (45) CEILING FINISHES (Cont)					
	Ceilings; fixed to underside of roof structure					
A	Depth of Suspension 150mm - 500mm; sloping not exceeding 15 degrees	471	m2			
	Sundries					
B	Perimeter angle trim	372	m			
	SUSPENDED CEILING SYSTEM - Ecophon Focus Ds Moonlight Sky or equivalent proprietary demountable suspended acoustic ceiling system; 20 mm thick high density glass wool acoustic ceiling panels with concealed grid and symmetrical Ds edge profile, with bevelled painted edges forming a narrow discreet groove between adjacent panels; module size and ceiling layout as indicated on Architects Ceiling Drawing 1241_P-T_015; visible face finished with Akutex FT water based painted surface; colour Moonlight Sky, nearest NCS S 7020-R90B, with light reflectance approximately 7 percent; Ceiling system to achieve Sound Absorption Class A to EN ISO 11654; reaction to fire classification A2-s1,d0 to EN 13501-1; humidity resistance Class C, suitable for environments up to 95 percent relative humidity at 30 degrees C in accordance with EN 13964; panels to be individually demountable to permit access to services within ceiling void; Install using Ecophon Connect Precision Lock concealed T24 suspension grid system or equivalent, comprising galvanised steel main runners, cross tees, space bars where required, adjustable hangers, perimeter trims, clips, connectors, brackets, anchors and all associated suspension and fixing components; grid arrangement, main runner spacing, cross tee spacing and suspension centres to suit selected panel size and manufacturers current installation diagram and system requirements; Suspension system to be securely fixed back to structural soffit using suitable proprietary anchors and independently supported from mechanical, electrical and other building services. Provide additional hangers, framing, trimming and support around light fittings, access panels, diffusers, grilles, detectors, service penetrations and other ceiling mounted components where required; Set out ceiling symmetrically within each room or space unless otherwise indicated on drawings; provide balanced perimeter cuts of reasonable width; accurately form junctions, changes in level, bulkheads, columns, openings and other interruptions; cut exposed panel edges to be sealed and finished using proprietary Ecophon Edge Sealant or equivalent in accordance with manufacturers requirements and matched as closely as practicable to adjacent finished panel surfaces; Include all ceiling panels, concealed grid, main runners, cross tees, space bars where required, perimeter trims, adjustable hangers, clips, connectors, anchors, fixings, additional framing, cutting, fitting and all associated accessories necessary to provide a complete suspended ceiling installation; protect materials from moisture, contamination and damage during storage and installation; completed ceiling to be level, true and free from damaged, stained or misaligned panels; install strictly in accordance with manufacturers current written instructions, EN 13964 and Architects Ceiling Drawing 1241_P-T_015					
	Ceilings; fixed to underside of roof structure					
C	Depth of Suspension 150mm - 500mm; sloping not exceeding 15 degrees	23	m2			

					€	c
	(35) & (45) CEILING FINISHES (Cont)					
	Sundries					
A	Perimeter angle trim	26	m			
	ACCESS PANELS GENERALLY; Type: Gyproc Profilex Standard Panel; Manufacturer: British Gypsum Ltd or equivalent; Sizes: 1300 x 1300mm; Frame: Picture frame; Zinc coated mild steel, with powder coated white finish; Panel: Zinc coated mild steel, with powder coated white finish; Lock: Budget lock; all as per Architects Specification					
	Accessories; Access Panels					
B	1300 x 1300mm; complete	12	nr			
	PAINTING AND DECORATING					
	Painting					
	PAINT TO INTERNAL PLASTERED SURFACES AND FAIRFACED BLOCKWORK; The contractor is to include for painting of all walls and plasterboard parts of ceilings with 1 No. coat of primer paint and 3 No. coats of internal durable, hard wearing and easy to clean paint. Colours to be selected by the client; all as per Architects Drawings and Specification 4.28					
	Ceilings					
C	Exceeding 300mm	384	m2			
				To Collection €		

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(35) & (45) CEILING FINISHES (Cont)					
COLLECTION					
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Page No. Extension/117					
Page No. Extension/118					
(35) & (45) CEILING FINISHES **Carried to Summary**					

				€	c
(47) ROOF FINISHES **MAIN ROOF** **PITCHED ROOFS** **ROOFING, CLADDING & WATERPROOFING** **Rigid Sheet Coverings and Decking** INSULATED ROOF PANEL - Kingspan QuadCore Topdek Roof Panel or equivalent; proprietary factory pre engineered insulated roof deck panel comprising high performance single ply PVC waterproofing membrane, QuadCore insulation core and trapezoidal metallic protected steel internal deck; suitable for flat and low pitched roof construction; nominal panel cover width 1000 mm; insulation core thickness 140 mm; overall panel thickness approximately 178 mm; thermal conductivity of insulation core 0.018 W/mK; complete panel construction to achieve U value not greater than 0.12 W/m2K; External weathering layer to comprise proprietary reinforced PVC single ply waterproofing membrane, Sikaplan SGK, Armourplan TD or equivalent compatible membrane forming part of the tested panel system; internal deck to comprise trapezoidal metallic protected steel sheet to BS EN 10346 with factory applied Kingspan CLEANsafe 15 or equivalent internal coating, standard bright white unless otherwise indicated by Architect; Panels laid on Multibeam purlins measured elsewhere and securely fixed to supporting structure in accordance with Engineers details, calculated design wind loads, panel span requirements and roof panel manufacturer requirements; provide proprietary primary fixings, secondary fixings, washers, fasteners, side joint components, sealants, tapes and all associated accessories necessary to provide a complete secure, airtight and weathertight roof installation; Panels to be laid with joints tightly engaged and accurately aligned; form continuous sealed longitudinal joints and end joints in accordance with manufacturer installation details; waterproofing membrane joints, laps and interfaces to be welded, sealed and completed using proprietary membrane system components to provide continuous watertight roof covering; Provide all necessary cutting and fitting around rooflights, upstands, kerbs, outlets, penetrations, vents, service openings and other roof interruptions; include proprietary closures, fillers, seals, membrane collars, reinforced membrane details and associated weathering components necessary to maintain continuity of thermal insulation, airtightness and waterproofing;					

					€	c
	(47) ROOF FINISHES (Cont)					
	Provide and coordinate all necessary eaves details, verge details, ridge details, abutments, upstands, interfaces with rooflights, gutters, outlets and other roof components as indicated on Architects Roof Drawings and Details; flashings and separate roof completion items measured elsewhere where applicable; Panel system to be suitable for roof pitches not less than 1:80 after deflection where applicable and to achieve relevant fire, structural, thermal and weather performance requirements of the specified Kingspan Topdek system or equivalent; panels, membrane and fixings to be selected to suit project specific loading, exposure, span and supporting construction; Include all necessary proprietary fixings, fasteners, washers, sealants, tapes, joint components, closures, fillers, membrane welding, cutting, fitting and ancillary components required to provide a complete insulated roof panel installation; protect panels and membrane from damage during storage and installation and make good any damage strictly in accordance with manufacturer requirements; all in accordance with manufacturers current written installation instructions, Engineers details and Architects Roof Drawings and Details					
	Roof Coverings					
A	Sloping 7 degree pitch; Exceeding 300mm wide	662	m2			
	MONO RIDGE to Architect's Specification; 3mm Polyester powdercoated aluminium flashing; RAL to match roof it is adjacent to PVF2 coated finish; include for High density insulation under welded top sheet; complete with and including all drip angles, closure flashings, additional insulation and any additional details shown on Architects drawings; all as Architects drawings					
	Mono Ridge					
B	Girth 1050 - 1200mm	35	m			
	VERGE to Architect's Specification; 2mmPolyester powdercoated aluminium flashing to verge with proprietary roof manufacturers verge channel, gable hook & tolerance clip extrucions all fixed to manufacturers detail and specification; RAL to match roof it is adjacent to PVF2 coated finish; include for High density insulation under welded top sheet; all as Architects drawings					
	Verge					
C	Girth 1050 - 1200mm	43	m			

(47) ROOF FINISHES (Cont)

Mill Finish aluminium Eaves; Comprising 2mm polyester powder coated pressed aluminium capping with fully welded corners and 150mm welded butt joints; gutters (measures elsewhere); 2mm thick aluminium gutter with ppc finish fixed to roof panel. kingspan to confirm size. colour to match roof panel; 2mm thick aluminium flashing profile with ppc finish fixed to roof panel. colour to match roof panel; Arc Cavity Stop Sock CSS160 (or equivalent) 160mm cavity barrier suitable for 160mm cavity, and tightly butted between board of rigid thermal insulation; As per Architects Roof Drawing and Details

Eaves

A	Girth 750 - 1000mm, Four times bent	35	m		

COMPOSITE GUTTERS; Comprising Kingspan membrane lining system on an including insulation or approved equivalent; 18 mm WEB plywood gutter support and corner fillets; all in strict accordance as per Architect's Details and Specification

Gutters

B	450mm girth gutter lining, four times bent (eaves flashing returned separately); profile as per Architect's Drawing 1241_P-T_05 to 1241_P-T_10 and as per architect's specification	35	m		
C	Extra over for forming 100mm diameter rainwater outlet; to suit 100mm dia rainwater downpipe; including all linings etc.	5	nr		

Solar Panel mounts fixed to roof finish; selected proprietary mount fitted to Manufacturer's Specifications; liquid applied waterproof coating consisting of reinforced base coat and protection top coat; include for solar mounting unit; baseplate; solar weld patch; fixed down to roof and structure (measured elsewhere); including all flashings, weatherings, coverings etc; as specified with the roofing system; all to Manufacturer's and Architect's instructions and Drawings

Mounts

D	Generally	112	nr		

(47) ROOF FINISHES (Cont)

SVP PIPES PENETRATING THE ROOF; selected proprietary weather collar to SVP fitted to Manufacturer's Specifications over top of skirt and soaker; liquid applied waterproof coating consisting of reinforced base coat and protection top coat; single piece profiled metal skirt fitting tight to pipe welded to main roof forming a water tight seal additional compressible filler fitted prior to welding to act as a secondary water stop; pipe penetrations to avoid panel seams where possible; gun-canister applied foam to panel manufacturer's specification; 150mm min Pro Clima Tescon Vana vapour control tape to specification section P10 continuously taped and sealed from pipe with Pro Clima Orcon F sealant to form an air tight seal; height of collar 250mm; pipe not exceeding 250mm; including all flashings, weatherings, coverings etc; as specified with the roofing system; as per Architect's specification

Collars around pipes, standards and the like

A	Generally	10	nr		

Holes

Forming holes for RWDP

B	Girth not exceeding 500mm	10	nr		

(47) ROOF FINISHES (Cont)

LINK ROOF

PITCHED ROOFS

ROOFING, CLADDING & WATERPROOFING

Rigid Sheet Coverings and Decking

INSULATED ROOF PANEL - Kingspan QuadCore Topdek Roof Panel or equivalent; proprietary factory pre engineered insulated roof deck panel comprising high performance single ply PVC waterproofing membrane, QuadCore insulation core and trapezoidal metallic protected steel internal deck; suitable for flat and low pitched roof construction; nominal panel cover width 1000 mm; insulation core thickness 140 mm; overall panel thickness approximately 178 mm; thermal conductivity of insulation core 0.018 W/mK; complete panel construction to achieve U value not greater than 0.12 W/m2K; External weathering layer to comprise proprietary reinforced PVC single ply waterproofing membrane, Sikaplan SGK, Armourplan TD or equivalent compatible membrane forming part of the tested panel system; internal deck to comprise trapezoidal metallic protected steel sheet to BS EN 10346 with factory applied Kingspan CLEANsafe 15 or equivalent internal coating, standard bright white unless otherwise indicated by Architect;

Panels laid on Multibeam purlins measured elsewhere and securely fixed to supporting structure in accordance with Engineers details, calculated design wind loads, panel span requirements and roof panel manufacturer requirements; provide proprietary primary fixings, secondary fixings, washers, fasteners, side joint components, sealants, tapes and all associated accessories necessary to provide a complete secure, airtight and weathertight roof installation; Panels to be laid with joints tightly engaged and accurately aligned; form continuous sealed longitudinal joints and end joints in accordance with manufacturer installation details; waterproofing membrane joints, laps and interfaces to be welded, sealed and completed using proprietary membrane system components to provide continuous watertight roof covering; Provide all necessary cutting and fitting around rooflights, upstands, kerbs, outlets, penetrations, vents, service openings and other roof interruptions; include proprietary closures, fillers, seals, membrane collars, reinforced membrane details and associated weathering components necessary to maintain continuity of thermal insulation, airtightness and waterproofing;

					€	c
	(47) ROOF FINISHES (Cont)					
	Provide and coordinate all necessary eaves details, verge details, ridge details, abutments, upstands, interfaces with rooflights, gutters, outlets and other roof components as indicated on Architects Roof Drawings and Details; flashings and separate roof completion items measured elsewhere where applicable; Panel system to be suitable for roof pitches not less than 1:80 after deflection where applicable and to achieve relevant fire, structural, thermal and weather performance requirements of the specified Kingspan Topdek system or equivalent; panels, membrane and fixings to be selected to suit project specific loading, exposure, span and supporting construction; Include all necessary proprietary fixings, fasteners, washers, sealants, tapes, joint components, closures, fillers, membrane welding, cutting, fitting and ancillary components required to provide a complete insulated roof panel installation; protect panels and membrane from damage during storage and installation and make good any damage strictly in accordance with manufacturer requirements; all in accordance with manufacturers current written installation instructions, Engineers details and Architects Roof Drawings and Details					
	Roof Coverings					
A	Sloping 7 degree pitch; Exceeding 300mm wide	52	m2			
	Mill Finish aluminium Eaves; Comprising 2mm polyester powder coated pressed aluminium capping with fully welded corners and 150mm welded butt joints; gutters (measures elsewhere); 2mm thick aluminium gutter with ppc finish fixed to roof panel. kingspan to confirm size. colour to match roof panel; 2mm thick aluminium flashing profile with ppc finish fixed to roof panel. colour to match roof panel; Arc Cavity Stop Sock CSS160 (or equivalent) 160mm cavity barrier suitable for 160mm cavity, and tightly butted between board of rigid thermal insulation; As per Architects Roof Drawing and Details					
	Eaves					
B	Girth 750 - 1000mm, Four times bent	12	m			
	COMPOSITE GUTTERS; Comprising Kingspan membrane lining system on an including insulation or approved equivalent; 18 mm WEB plywood gutter support and corner fillets; all in strict accordance as per Architect's Details and Specification					
	Gutters					
C	450mm girth gutter lining, four times bent (eaves flashing returned separately); profile as per Architect's Drawing 1241_P-T_05 to 1241_P-T_10 and as per architect's specification	12	m			
	FLAT ROOF ABUTMENT TO WALLI; Code 4 Lead Flashing; IKO Hyload DPC or equivalent; Masonry support angle lintel to engineers design and specification, fixed back to slab edge; as per Architects Drawings					
	Upstands					
D	Girth 750 - 900mm; including for dressing vapour membrane 600mm girth & roof membrane 830mm girth as indicated; as per architect's drawings	30	m			

To Collection €

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	(47) ROOF FINISHES (Cont)					
A	Extra over for forming 100mm diameter rainwater outlet; to suit 100mm dia rainwater downpipe; including all linings etc.	2	nr			

To Collection €

(47) ROOF FINISHES (Cont)

LOW ROOF

PITCHED ROOFS

ROOFING, CLADDING & WATERPROOFING

Rigid Sheet Coverings and Decking

INSULATED ROOF PANEL - Kingspan QuadCore Topdek Roof Panel or equivalent; proprietary factory pre engineered insulated roof deck panel comprising high performance single ply PVC waterproofing membrane, QuadCore insulation core and trapezoidal metallic protected steel internal deck; suitable for flat and low pitched roof construction; nominal panel cover width 1000 mm; insulation core thickness 140 mm; overall panel thickness approximately 178 mm; thermal conductivity of insulation core 0.018 W/mK; complete panel construction to achieve U value not greater than 0.12 W/m2K; External weathering layer to comprise proprietary reinforced PVC single ply waterproofing membrane, Sikaplan SGK, Armourplan TD or equivalent compatible membrane forming part of the tested panel system; internal deck to comprise trapezoidal metallic protected steel sheet to BS EN 10346 with factory applied Kingspan CLEANsafe 15 or equivalent internal coating, standard bright white unless otherwise indicated by Architect;

Panels laid on Multibeam purlins measured elsewhere and securely fixed to supporting structure in accordance with Engineers details, calculated design wind loads, panel span requirements and roof panel manufacturer requirements; provide proprietary primary fixings, secondary fixings, washers, fasteners, side joint components, sealants, tapes and all associated accessories necessary to provide a complete secure, airtight and weathertight roof installation; Panels to be laid with joints tightly engaged and accurately aligned; form continuous sealed longitudinal joints and end joints in accordance with manufacturer installation details; waterproofing membrane joints, laps and interfaces to be welded, sealed and completed using proprietary membrane system components to provide continuous watertight roof covering; Provide all necessary cutting and fitting around rooflights, upstands, kerbs, outlets, penetrations, vents, service openings and other roof interruptions; include proprietary closures, fillers, seals, membrane collars, reinforced membrane details and associated weathering components necessary to maintain continuity of thermal insulation, airtightness and waterproofing;

					€	c
	(47) ROOF FINISHES (Cont)					
	Provide and coordinate all necessary eaves details, verge details, ridge details, abutments, upstands, interfaces with rooflights, gutters, outlets and other roof components as indicated on Architects Roof Drawings and Details; flashings and separate roof completion items measured elsewhere where applicable; Panel system to be suitable for roof pitches not less than 1:80 after deflection where applicable and to achieve relevant fire, structural, thermal and weather performance requirements of the specified Kingspan Topdek system or equivalent; panels, membrane and fixings to be selected to suit project specific loading, exposure, span and supporting construction; Include all necessary proprietary fixings, fasteners, washers, sealants, tapes, joint components, closures, fillers, membrane welding, cutting, fitting and ancillary components required to provide a complete insulated roof panel installation; protect panels and membrane from damage during storage and installation and make good any damage strictly in accordance with manufacturer requirements; all in accordance with manufacturers current written installation instructions, Engineers details and Architects Roof Drawings and Details					
	Roof Coverings					
A	Sloping 7 degree pitch; Exceeding 300mm wide	25	m2			
	Mill Finish aluminium Eaves; Comprising 2mm polyester powder coated pressed aluminium capping with fully welded corners and 150mm welded butt joints; gutters (measures elsewhere); 2mm thick aluminium gutter with ppc finish fixed to roof panel. kingspan to confirm size. colour to match roof panel; 2mm thick aluminium flashing profile with ppc finish fixed to roof panel. colour to match roof panel; Arc Cavity Stop Sock CSS160 (or equivalent) 160mm cavity barrier suitable for 160mm cavity, and tightly butted between board of rigid thermal insulation; As per Architects Roof Drawing and Details					
	Eaves					
B	Girth 750 - 1000mm, Four times bent	15	m			
	COMPOSITE GUTTERS; Comprising Kingspan membrane lining system on an including insulation or approved equivalent; 18 mm WEB plywood gutter support and corner fillets; all in strict accordance as per Architect's Details and Specification					
	Gutters					
C	450mm girth gutter lining, four times bent (eaves flashing returned separately); profile as per Architect's Drawing 1241_P-T_05 to 1241_P-T_10 and as per architect's specification	15	m			
	FLAT ROOF ABUTMENT TO WALLI; Code 4 Lead Flashing; IKO Hyload DPC or equivalent; Masonry support angle lintel to engineers design and specification, fixed back to slab edge; as per Architects Drawings					
	Upstands					
D	Girth 750 - 900mm; including for dressing vapour membrane	9	m			
				To Collection €		

					€	c
	(47) ROOF FINISHES (Cont)					
A	Extra over for forming 100mm diameter rainwater outlet; to suit 100mm dia rainwater downpipe; including all linings etc.	1	nr			

To Collection €

					€	c
	(47) ROOF FINISHES (Cont)					
	CANOPY					
	ROOFING, CLADDING & WATERPROOFING					
	Rigid Sheet Coverings and Decking					
	BITUMINOUS ROOF WATERPROOFING SYSTEM - IKO Polygum Turbo Hi Tec or equivalent reinforced bituminous cap sheet roofing system incorporating IKO Quadra Rock Partial Bond Torch On Underlay or equivalent; provide complete proprietary two layer waterproofing system laid over 19 mm marine grade plywood roof deck measured elsewhere, supported on steel joists measured elsewhere and laid to nominal fall of 1:40 in accordance with Engineers details; Underlay to comprise IKO Quadra Rock or equivalent polyester reinforced partial bond bituminous torch applied underlay, installed to prepared plywood substrate in accordance with manufacturers requirements; provide compatible proprietary bituminous primer to plywood substrate where required by roofing manufacturer; Cap sheet to comprise IKO Polygum Turbo Hi Tec or equivalent high performance APP modified bitumen waterproofing membrane, nominal 4 mm thick, polyester reinforced and finished with protective mineral surfacing, colour as selected by Architect; cap sheet fully torch bonded to underlay with continuous watertight bond; Prepare roof deck prior to application to ensure substrate is sound, smooth, clean, dry and free from dust, loose material, projecting fixings, sharp edges, moisture and contaminants liable to impair adhesion or damage waterproofing membranes. Check falls and substrate condition before commencing roofing works and report defects prior to installation; Membrane sheets to be laid true and straight with side and end laps formed, bonded and sealed strictly in accordance with manufacturers requirements; stagger end joints between successive layers and provide continuous waterproofing without wrinkles, blisters, fishmouths, voids or inadequately bonded areas Form all upstands, kerbs, parapets, abutments, changes in level, roof edges, outlets, gutters, penetrations and interfaces with rooflights and other roof components using compatible reinforced bituminous detailing membranes and proprietary accessories; dress waterproofing securely into outlets and drainage components and maintain continuity of waterproofing at all junctions. Upstands generally to extend minimum 150 mm above finished roof level unless detailed otherwise; Include all necessary primers, underlay, cap sheet, bonding, torching, laps, additional reinforcing pieces, angle fillets where required, collars, corners, seals, cutting, fitting and proprietary ancillary materials necessary to provide a complete durable and watertight installation; Roofing system to be installed by suitably experienced specialist roofing operatives and, where required to obtain the specified warranty, by an installer approved by the system manufacturer; completed waterproofing system to be provided with a minimum 15 year warranty; protect completed waterproofing from damage by subsequent trades and make good any damaged areas using compatible system materials prior to completion; All materials and installation to be in accordance with manufacturers current written recommendations, relevant certification, Architects Roof Drawings and Details and Engineers requirements Roof Coverings					
A	Sloping 7 degree pitch; Exceeding 300mm wide	21	m2			

(47) ROOF FINISHES (Cont)

Cem Board HD cladding to soffit of canopy with recess to all four sides; Taped and filled joints; include for painting black; as per architect's drawings

Roof Coverings

A	Horizontal; exceeding 300mm wide; to underside of canopy	21	m2		

FLASHING; 2mm polyester powder coated pressed aluminium capping and fascia with fully welded corners and 150mm welded butt joints; 3 no. 100 x 50mm treated timber battons mechanically fixed to structural steel; 2mm x 60mm polyester powder coated pressed aluminium clips at 600mm centres, fixed to top of masonry outer leaf, to support parapet flashing; as per drawings

Flashings

B	Girth 750 - 1000mm	17	m		

FLAT ROOF ABUTMENT TO WALLI; Code 4 Lead Flashing; IKO Hyload DPC or equivalent; Masonry support angle lintel to engineers design and specification, fixed back to slab edge; as per drawings

Upstands

C	Girth 750 - 900mm; including for dressing vapour membrane	18	m		

RECESSED VALLEY GUTTER LINING; Underlay: Metdeck board; Zinc; Finish: Quartz Plus; Thickness: 0.8mm mm; Forming: With a clear width not less than 200mm, side upstands equal to step in substrate and top flanges of 25 mm; Laying: In lengths not more than 9 m; Cross joints: Drips; Zinc underlap clips: Cover to roof slope: Not less than 100mm with anti capillary welt at top edge; Fix to roof slope at 200mm centres; Joint with roof covering: Project roof coverings with underlap clips over each side of gutter and single welt around flanges in gutter lining to form drips; include for all flashings, dpc, weatherings, vapour barrier, air tightness membranes, sealants, fixings etc.; as per Architect's specification

Gutters

D	Girth 450 - 600mm overall	17	m		
E	Extra over for forming 100mm diameter rainwater outlet; to suit 100mm dia rainwater downpipe; including all linings etc.	2	nr		

To Collection €

				€	c
(47) ROOF FINISHES (Cont)					
COLLECTION					
Page No. Extension/120					
Page No. Extension/121					
Page No. Extension/122					
Page No. Extension/123					
Page No. Extension/124					
Page No. Extension/125					
Page No. Extension/126					
Page No. Extension/127					
Page No. Extension/128					
Page No. Extension/129					
Page No. Extension/130					
Page No. Extension/131					
(47) ROOF FINISHES **Carried to Summary**					

					€	c
	(5-) MECHANICAL INSTALLATIONS					
	Notes					
A	The tendering Contractors are referred to ARM 4 Supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		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 Semple McKillop Consulting Engineers.		note			
C	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.		note			
	(52) DRAINAGE AND REFUSE DISPOSAL					
	<u>System</u>					
	Soils and Waste Drainage Installation, testing and commissioning; complete; The complete installation of all above ground foul water drainage and refuse disposals; all in strict accordance with the Mechanical Engineers Particular Specification Part1, Section 4; Part 2; Part 3; Part 4 and Drawings 2556-SMK-ZZ-L0-DR-M-5201, 2556-SMK-ZZ-L1-DR-M-5202 & 2556-SMK-ZZ-RF-DR-M-5203					
	<u>Terminal equipment and fittings</u>					
	Sanitary ware; INSTALLATION AND FINAL CONNECTIONS ONLY (Sanitary ware measured elsewhere, refer to Bill of Quantities element (74) Sanitary Fittings for full details; fixing in accordance with the manufacturer's recommendations; all in accordance with the Architects and Mechanical Engineers Specification Section 4 and Drawings 2556-SMK-ZZ-L0-DR-M-5201, 2556-SMK-ZZ-L1-DR-M-5202 & 2556-SMK-ZZ-RF-DR-M-5203					
D	WC; c/w connections and fittings	9	nr			
E	WHB; c/w taps, waste traps, fittings and brackets	9	nr			
F	Sink (Single Bowl); c/w taps, anti-syphon waste traps, fittings and brackets	5	nr			
G	Shower; c/w taps, waste traps, fittings and brackets	2	nr			
H	Washing Machine; c/w waste traps and flexible fittings	1	nr			
J	Dishwasher; c/w waste traps and flexible fittings	1	nr			

(5-) MECHANICAL INSTALLATIONS (Cont)

Accessories associated with terminal equipment and fittings

PVC-U plastic pipework and fittings; supply and installation; complete; Jointing type: Solvent weld joints generally; ring seal joints at expansion joints; include for all joints; fittings; brackets and pipework supports; all in accordance with Mechanical Engineers General Specification Section 3

A	20mm diameter waste drop from MVHR to nearest SVP c/w HEPvO inline dry trap	4	nr		
B	32mm diameter waste drop from WHB to ground floor builders floor socket	4	nr		
C	32mm diameter waste drop from WHB to first floor builders floor socket	5	nr		
D	32mm cleaning eye	9	nr		
E	40mm diameter waste drop from Shower to ground floor builders floor socket	1	nr		
F	40mm diameter waste drop from Shower to first floor builders floor socket	1	nr		
G	40mm diameter waste drop from Sink to first floor builders floor socket	5	nr		
H	40mm diameter waste drop from Washing machine/dishwasher to first floor builders floor socket	2	nr		
J	40mm cleaning eye	9	nr		
K	110mm diameter waste drop from WC to ground floor builders floor socket	4	nr		
L	110mm diameter waste drop from WC to first floor builders floor socket	5	nr		
M	110mm diameter waste drop from SVP to ground floor builders floor socket	2	nr		
N	110mm diameter waste drop from SVP to first floor builders floor socket	5	nr		
P	110mm cleaning eye	6	nr		
Q	Balloon Cage	4	nr		

Distribution System

PVC-U plastic pipework and fittings; supply and installation; complete; Jointing type: Solvent weld joints generally; ring seal joints at expansion joints; include for all joints; fittings; brackets and pipework supports; all in accordance with the Mechanical General Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5201, 2556-SMK-ZZ-L1-DR-M-5202 & 2556-SMK-ZZ-RF-DR-M-5203

R	20mm nominal diameter; supports at average 500mm centres vertical, 500mm centres horizontal; ears fixed with screws to background requiring plugging	1	Item		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	32mm nominal diameter; supports at average 500mm centres vertical, 500mm centres horizontal; ears fixed with screws to background requiring plugging	1	Item			
B	40mm nominal diameter; supports at average 500mm centres vertical, 500mm centres horizontal; ears fixed with screws to background requiring plugging	1	Item			
C	50mm nominal diameter; supports at average 1200mm centres vertical, 1100mm centres horizontal; ears fixed with screws to background requiring plugging	1	Item			
D	75mm nominal diameter; supports at average 1500mm centres vertical, 1400mm centres horizontal; ears fixed with screws to background requiring plugging	1	Item			
E	110mm nominal diameter; surface fixed; supports at average 900mm centres vertical, 900mm centres horizontal; ears fixed with screws to background requiring plugging	1	Item			
	Insulation					
	Acoustic foil-faced mineral wool insulation; to all pipework services and fittings; 65mm thick; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Site Specific Specification Section 3					
F	to 20mm diameter pipework	1	Item			
G	to 32mm diameter pipework	1	Item			
H	to 40mm diameter pipework	1	Item			
J	to 50mm diameter pipework	1	Item			
K	to 75mm diameter pipework	1	Item			
L	to 110mm diameter pipework	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
M	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
N	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
P	Working drawings	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Co-ordination drawings; all in accordance with Engineers Specification					
A	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
B	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
C	Identification plates, labels and the like	1	Item			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

(53) WATER SERVICES - HOT AND COLD WATER

System

Cold Water Distribution installation, testing and commissioning; complete; The cold water services for the buildings shall be supplied via a cold water storage tank located on the ground floor tank room in the boiler mezzanine; A cold water booster set shall provide boosted cold water to all sanitary ware throughout the new extension and existing school; with a separate boosted cold feed to the gas fired hot water heater located in the Boiler House which in turn shall provide boosted hot water to all sanitary fittings as required through the school; 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 Part 1, Section 6; Part 2; Part 3; Part 4, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

Hot Water Distribution installation,testing and commissioning; complete; Hot water will be generated by a new gas fired water heater located in the existing plant room; 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 hot supply will have a recirculation pump and return pipework providing hot water to within 1m of all hot water outlets. To prevent scalding all hot water outlets will be provided with thermostatic mixing valves to control outlet temperatures to 43 degree C; 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 Part 1, Section 6; Part 2; Part 3; Part 4, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

Accessories associated with Primary Equipment

Isolation valves; for isolation of water services pipework up to 50mm diameter; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

A	15mm Isolation Valves	11	nr		
B	22mm Isolation Valves	5	nr		

Thermal balancing valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

C	15mm Thermal balancing valve	8	nr		

To Collection €

(5-) MECHANICAL INSTALLATIONS (Cont)

Expansion Bellows; for water services pipework at final connections to fittings; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

A	15mm dia Expansion Bellow	2	nr		
B	22mm dia Expansion Bellow	2	nr		
C	28mm dia Expansion Bellow	1	nr		
D	35mm dia Expansion Bellow	1	nr		

Terminal equipment and fittings

Sanitary ware; FINAL CONNECTIONS ONLY (Sanitary ware measured elsewhere, refer to Bill of Quantities element (74) Sanitary Fittings for full details); fixing in accordance with the manufacturer's recommendations; all in accordance with the Architects and Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

E	WHB; 15mm; connecting in accordance with the manufacturer's instructions	9	nr		
F	Belfast Sink; 15mm; connecting in accordance with the manufacturer's instructions	1	nr		
G	Single Sink; 15mm; connecting in accordance with the manufacturer's instructions	5	nr		
H	Shower Mixer; 15mm; connecting in accordance with the manufacturer's instructions	2	nr		
J	Appliance; 15mm; connecting in accordance with the manufacturer's instructions	2	nr		

Thermostatic Blending Valves; supply and installation; complete; TMV3 standard fail-safe, lockable thermostatic mixing valve c/w integral strainer and non-return valves; Outlet temperature: 42/43°C; all in accordance with the Mechanical Engineers Specification Part 4, Section 2.9 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

K	15mm Thermostatic Mixing Valves	13	nr		

Shower Thermostatic Blending Valves; supply and installation; complete; TMV3 standard fail-safe, lockable thermostatic mixing valve c/w integral strainer and non-return valves; Outlet temperature: 42/43°C; all in accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

L	15mm Shower Thermostatic Mixing Valves	2	nr		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Ballofix Isolation Valves; PTFE seals and stem seals, treaded; for isolation of water services pipework at final connections to fittings; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
A	15mm Ballofix Isolation Valves	34	nr			
	Distribution					
	Copper Pipes and Fitting; supply and installation complete; Application: rainwater pipelines; Material: Copper; Finish: uncoated; include for all fixing brackets, hangers and supports; include for all elbows, expansion bellows, unions and tees necessary to complete works; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 1 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
B	15mm diameter pipework	1	Item			
C	22mm diameter pipework	1	Item			
D	28mm diameter pipework	1	Item			
E	35mm diameter pipework	1	Item			
F	42mm diameter pipework	1	Item			
G	54mm diameter pipework	1	Item			
	Insulation					
	Foil-faced Mineral Wool Insulation; max thermal conductivity: 0.038W/mK (@50°C); Density: 80-120kg/m3; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 3 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
	Insulation, 20mm thick					
H	to 15mm diameter pipework	1	Item			
J	to 22mm diameter pipework	1	Item			
K	to 28mm diameter pipework	1	Item			
L	to 35mm diameter pipework	1	Item			
M	to 42mm diameter pipework	1	Item			
N	to 54mm diameter pipework	1	Item			

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Insulation, 30mm thick					
A	to 15mm diameter pipework	1	Item			
B	to 22mm diameter pipework	1	Item			
	Insulation, 35mm thick					
C	to 28mm diameter pipework	1	Item			
D	to 35mm diameter pipework	1	Item			
E	to 42mm diameter pipework	1	Item			
F	to 54mm diameter pipework	1	Item			
	Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification Section 3					
G	General Valves & Plant	1	Item			
	General					
	Testing and commissioning; all in accordance with the Mechanical Engineers Specification Documents					
H	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Mechanical Engineers Specification Documents					
J	Operating and maintenance manuals;complete	1	Item			
	Working drawings; all in accordance with the Mechanical Engineers Specification Documents					
K	Working drawings; complete	1	Item			
	Co- ordination drawings; all in accordance with the Mechanical Engineers Specification Documents					
L	Co- ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Mechanical Engineers Specification Documents					
M	As built drawings; complete	1	Item			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

Identification plates, labels and the like; all in accordance with the Mechanical Engineers Specification Documents

A	Identification plates, labels and the like; complete	1	Item		

(53) WATER DISTRIBUTION - MAINS WATER

System

Mains Water Distribution installation, testing and commissioning; The existing incoming mains water supply shall be isolated, drained, disconnected and retired back to the point of entry to the building. A new non-metallic pipework and distribution system shall be connected to the incoming supply and shall rise to the attic space and shall be distributed around the existing and new extension as indicated on the design drawings with the final connection being the supply to the water tanks. This will ensure continuous flow through the main water pipework in an effort to mitigate against stagnation. Please refer to the plumbing drawings and schematic for valving arrangement; Prior to handover, the Contractor shall arrange to have a sample from a mains water drinking tap tested for compliance with S.I. No.122 of 2014 - European Union (Drinking Water) Regulations 2014; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 6; Part 2; Part 3; Part 4, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301, 2556-SMK-ZZ-ZZ-DR-M-5302 & 2556-SMK-ZZ-XX-DR-M-5350

Accessories associated with Primary Equipment

Stop Valves; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

B	15mm Isolation Valves	1	nr		

Terminal equipment and fittings

Countertop, steam-free water boiler; Storage Capacity: 7.5 litres; Delivery (Instantaneous): 45 cups; Delivery (Hour): 140 cups; Power Rating: 3kW, 1ph, 230V, 50Hz; Water Supply: Potable Water; Water Supply Pressure: 1.0 bar - 7.0 bar; Nominal Dimensions: 578 mm (H) x 318 mm (W) x 198 mm (D); Construction: Twin Chamber, Stainless Steel c/w cool touch tap; Finish: Stainless Steel; Warranty: 2 years; Accessories: Drip Tray; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 4, Section 2.12 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

C	Countertop, steam-free water boiler (Ref: WB1)	1	nr		

(5-) MECHANICAL INSTALLATIONS (Cont)

Frost free bib tap; Body: Gun Metal with Chrome Finish; Seat Seals: EPDM; Extension Kit: Copper; Extension Kit: Required; Automatic Draining: Required; Back Flow Prevention: Required; Fixing Set: Required; Lockable / Cap: Required; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 4, Section 2.10 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

A	Frost free bib tap	1	nr		

Sanitary ware; FINAL CONNECTIONS ONLY (Sanitary ware measured elsewhere, refer to Bill of Quantities element (74) Sanitary Fittings for full details); fixing in accordance with the manufacturer's recommendations; all in accordance with the Architects and Mechanical Engineers Specification

B	Sink, single bowl; 15mm; connecting in accordance with the manufacturer's instructions	5	nr		

Accessories associated with terminal equipment and fittings

Ballofix Isolation Valves; PTFE seals and stem seals, threaded; for isolation of water services pipework at final connections to fittings; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

C	15mm Ballofix Valves	7	nr		

Distribution system

Non-metallic pipework and fittings; in accordance with the Irish Standard IS EN 806:2005: Specification for installations inside buildings conveying water for human consumption; include for all fixing brackets, hangers and supports; include for all elbows, unions and tees necessary to complete works; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 1 & Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

D	15mm diameter pipework	1	Item		
E	22mm diameter pipework	1	Item		
F	28mm diameter pipework	1	Item		

Insulation

Foil-faced Mineral Wool Insulation; max thermal conductivity: 0.038W/mK (@50°C); Density: 80-120kg/m3; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 3 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

Insulation; 20mm thick

G	15mm diameter pipework	1	Item		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	22mm diameter pipework	1	Item			
B	28mm diameter pipework	1	Item			
	Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification Section 3					
C	General Plant & Valves	1	Item			
	General					
	Testing and commissioning; all in accordance with the Mechanical Engineers Specification Documents					
D	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Mechanical Engineers Specification Documents					
E	Operating and maintenance manuals;complete	1	Item			
	Working drawings; all in accordance with the Mechanical Engineers Specification Documents					
F	Working drawings; complete	1	Item			
	Co- ordination drawings; all in accordance with the Mechanical Engineers Specification Documents					
G	Co- ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Mechanical Engineers Specification Documents					
H	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Mechanical Engineers Specification Documents					
J	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	(53) WATER SERVICES - RAIN WATER SERVICES					
	System					
	Rain Water Distribution installation, testing and commissioning; complete; An existing rainwater harvesting and distribution system is currently installed on the site; The Civil Engineer shall be responsible for specifying a new submersible booster pump, leaf filters and all integral equipment and fittings and shall be supplied and installed by the Main Contractor. The Mechanical contractor shall be responsible for the remainder of the rain water harvesting installation including Medium Density Poly-Ethylene (MDPE) colour blue underground distribution pipework from the underground tank to the Water Tank Room and the complete above ground rain water installation including control panel, 120 micron water filter, pressure sensors, level sensors/probes, expansion vessel etc to make a complete fully operational system. Upon entry to the water tank room the pipework shall transition to copper and be piped directly to the daily header storage tank. This tank shall supply collected rain water to all WC's throughout the new extension and the existing school via a booster pump; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 6; Part 2; Part 3; Part 4 and Drawings 2556-SMK-ZZ-L0-DR-M-5301, 2556-SMK-ZZ-ZZ-DR-M-5302 & 2556-SMK-ZZ-L0-DR-M-5350					
A	Equipment					
	Rain water Storage Tank; supply and installation; complete; storage tank shall be pre-insulated, sectional, GRP type; Nominal Capacity: 3000 Litres; Dimension (L X W X H): 1.65m x 2.15m x 1.0m; Internal Divider: Required; Drip Tray: Required; inlet connection: DN 22; outlet connection: DN 28; Overflow Connection: 2 no. DN 34; Sensor Connections: 4 no. DN 25; Vents: 2 no; Access Hatch: 2no. 600 x 600; Internal Ladder: Required; External Ladder: Required; Tank cover description: Heavy duty and pre-insulated c/w internal flange; complete; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
B	Rain Water Storage Tank; (Ref: WT-02)	1	nr			
				To Collection €		

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Booster Pump Set; supply and installation; complete; Type: single head booster pump c/w integrated VSD; Design Duty: 0.6 l/s @ 1.5 bar; Integral Frequency Converter and PI Controller: Required; Integral Expansion Vessel, Pressure Transducer & Pressure Gauge: Required; Integral Non-return Valve: Required; Variable Speed Drive: Required; Pump Housing Material: 304 Stainless Steel; Impeller Material: 304 Stainless Steel; Rubber Material: EPDM; Shaft Seal Material: HQQE; Max. Ambient Temperature: 40°C; Max. Operating Pressure: 10 bar; Motor Type: IE 5; Rated Power - P2: Contractor to confirm; Mains Voltage: 200V - 240V / 50 Hz; Rated current: Contractor to confirm; Rated speed: Contractor to confirm; Enclosure class (IEC 34-5): IP55; Insulation class (IEC 85): F; Energy Efficiency Index (EEI): <0.23; Volt Free Contacts: Required for BMS enable/ fault; Manufacturer's Warranty: 2 years (minimum); Packaged Unit: Yes; Dry Run Protection: Required; include for all fixings, anti vibration mounts and brackets; all in strict accordance with the Mechanical Specification Part 4, Section 2.6 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
A	Packaged Cold Water Booster Pump Set; (Ref: BS-02)	1	nr			
	Rainwater Harvesting Control Panel; Volt-free contacts for fault output; include for all accessories; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 6.12.3; Part 4, Section 2.11 and Drawing 2556-SMK-ZZ-L0-DR-M-5350					
B	Rainwater Harvesting Control Panel	1	nr			
	<u>Accessories associated with Primary Equipment</u>					
	Isolation valves; for isolation of water services pipework up to 50mm diameter; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
C	15mm Isolation Valves	1	nr			
D	22mm Isolation Valves	4	nr			
E	25mm Isolation Valves	2	nr			
F	28mm Isolation Valves	3	nr			
	Pressure Sensor; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & Drawing 2556-SMK-ZZ-L0-DR-M-5350					
G	25mm dia Pressure Sensor	1	nr			
	Drain Tap with hose connection; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & Drawings 2556-SMK-ZZ-L0-DR-M-5350					
H	25mm Drain Tap with hose connection	1	nr			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

Maintenance Tap c/w signage; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & Drawings 2556-SMK-ZZ-L0-DR-M-5350

A	Maintenance Tap c/w signage	1	nr		

Water Meter; supply and installation; complete; Water meter type to be ultrasonic; Meters shall be complete with modbus interface or other interface to allow connection to the BMS provided; include for all accessories; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 3 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

B	Water Meter	1	nr		

120 Micron Water Filter; supply and installation; complete; include for all accessories; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 2.11 and Drawing 2556-SMK-ZZ-L0-DR-M-5350

C	120 Micron Water Filter	1	nr		

Level sensors; supply and installation; complete; include for all accessories; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 2.11 and Drawing 2556-SMK-ZZ-L0-DR-M-5350

D	Level sensors	2	nr		

Expansion Vessel; supply and installation; complete; Capacity: 15 litres; include for all accessories; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 2.11 and Drawing 2556-SMK-ZZ-L0-DR-M-5350

E	Expansion Vessel	1	nr		

Terminal equipment and fittings

Sanitary ware; FINAL CONNECTIONS ONLY (Sanitary ware measured elsewhere, refer to Bill of Quantities element (74) Sanitary Fittings for full details); fixing in accordance with the manufacturer's recommendations; all in accordance with the Architects and Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

F	WC; 15mm; connecting in accordance with the manufacturer's instructions	9	nr		

Accessories associated with terminal equipment and fittings

Ballofix Isolation Valves; PTFE seals and stem seals, threaded; for isolation of water services pipework at final connections to fittings; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

G	15mm Ballofix Isolation Valves	9	nr		

To Collection €

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Distribution					
	Copper Pipes and Fitting; supply and installation complete; Application: rainwater pipelines; Material: Copper; Finish: uncoated; include for all fixing brackets, hangers and supports; include for all elbows, expansion bellows, unions and tees necessary to complete works; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 1 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
A	15mm diameter pipework	1	Item			
B	22mm diameter pipework	1	Item			
C	25mm diameter pipework	1	Item			
D	28mm diameter pipework	1	Item			
	Insulation					
	Foil-faced Mineral Wool Insulation; max thermal conductivity: 0.038W/mK (@50°C); Density: 80-120kg/m3; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 3 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
	Insulation, 20mm thick					
E	to 15mm diameter pipework	1	Item			
F	to 22mm diameter pipework	1	Item			
G	to 25mm diameter pipework	1	Item			
H	to 28mm diameter pipework	1	Item			
	Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
J	General Valves & Plant	1	Item			
	Aluminium Cladding; to valves and plant; 18mm gauge aluminium, fixed with self-tapping screws; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
K	to 15mm diameter pipework	1	Item			
L	to 22mm diameter pipework	1	Item			
M	to 25mm diameter pipework	1	Item			
N	to 28mm diameter pipework	1	Item			
P	to General Valves & Plant	1	Item			

To Collection €

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
A	Testing and commissioning	1	Item			
B	Testing,chemical dosing, sterilization and certification of all systems	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
C	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
D	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
E	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
F	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
G	Identification plates, labels and the like	1	Item			
				To Collection €		

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	(56) SPACE HEATING					
	System					
	Heating installation, testing and commissioning; consisting of gas fired condensing boiler serving radiators throughout the school building; The heating system shall be an LPHW system with radiators as the primary source of heat emitter; With the exception of the temperature control from the dedicated heating manifolds in the SEN Classroom 1 & 2 area all rooms shall be provided with individual room temperature control by means of two-port motorised valves that are fed from a digital, room temperature sensor; The heating system shall be flushed and provided with appropriate chemical treatment; Commissioning results including a flue gas analysis shall be provided for the boilers prior to handover, along with a statement by the manufacturer/supplier confirming their correct and efficient operation; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 8; Part 2; Part 3; Part 4, Section 4 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
	Terminal equipment and fittings					
	Low Surface Temperature Radiators; Finish: Epoxy polyester white RAL 9016 scratch -resistant surface coatings, Pressure tested: 7.0 bar; Maximum working pressure: 5.4 bar; Steel wall thickness: 1.5mm folded to 3.0mm; c/w concealed wall mounting brackets; all in accordance with the Mechanical Engineers Specification, Part 4, Section 4.1.1 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
A	Radiator Ref: R01; Size 830mm length x 590mm height x 130mm depth	1	nr			
B	Radiator Ref: R02; Size 1830mm length x 590mm height x 130mm depth	2	nr			
C	Radiator Ref: R03; Size 1030mm length x 590mm height x 180mm depth	1	nr			
D	Radiator Ref: R04; Size 1430mm length x 590mm height x 180mm depth	5	nr			
E	Radiator Ref: R05; Size 1630mm length x 590mm height x 180mm depth	1	nr			
F	Radiator Ref: R06; Size 1830mm length x 590mm height x 180mm depth	4	nr			
	Radiators; Finish: Epoxy polyester white RAL 9016 scratch -resistant surface coatings, Pressure tested: 6.0 bar; Maximum working pressure: 4.6 bar; Steel wall thickness: 1.5mm; c/w concealed wall mounting brackets, floor support leg; all in accordance with the Mechanical Engineers Specification Part 4, Section 4.1.1 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
G	Radiator Ref: R07; Size 500mm length x 571mm height x 80mm depth	4	nr			
H	Radiator Ref: R08; Size 1000mm length x 571mm height x 80mm depth	1	nr			
J	Radiator Ref: R09; Size 1400mm length x 571mm height x 80mm depth	2	nr			
K	Radiator Ref: R10; Size 1500mm length x 571mm height x 80mm depth	2	nr			

To Collection €

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	Radiator Ref: R11; Size 1600mm length x 571mm height x 80mm depth	3	nr			
B	Radiator Ref: R12; Size 1400mm length x 571mm height x 119mm depth	4	nr			
C	Radiator Ref: R13; Size 1400mm length x 642mm height x 119mm depth	4	nr			
D	Radiator Ref: R14; Size 1800mm length x 642mm height x 119mm depth	2	nr			
E	Radiator Ref: R15; Size 2200mm length x 642mm height x 119mm depth	2	nr			
	Electrical Radiator; oil filled radiator; white stove enamel finish; minimum output: 1kw; c/w wall mounting brackets; include for all accessories; all in accordance with the Mechanical Engineers Specification Part 4, Section 1.4 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
F	Oil filled electric radiator	1	nr			
	Pre-assembled Heating Manifold c/w wiring station; include for all fittings; all in accordance with the Mechanical Specification, Part 4, Section 4.3 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
G	Pre-assembled Heating Manifold	1	nr			
	Heating manifold floor box; include for all fittings; all in accordance with the Mechanical Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
H	Heating Manifold Floor Box	8	nr			
	Accessories associated with terminal equipment and fittings					
	Lockshield radiator valves; supply and installation; complete; Type: Manually operated lockshield radiator valves; Application: LTHW heating radiator presetting and isolating; Kitemark certified; Type 4 - reference Y11.2260A; Finish - Chromium plated; include for all accessories; all in accordance with the Mechanical Engineers Specification Part 4, Section 4.2 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
J	15mm Lockshield radiator valves	68	nr			
	Thermostatic radiator valves; supply and installation; complete; Type: self-regulating radiator valve; Application: LTHW heating radiator presetting and isolating; Kitemark certified; Table A.1 series - reference Y11.2270A; Finish - Chromium plated; include for all accessories; all in accordance with the Mechanical Engineers Specification Part 4, Section 4.2 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
K	15mm Thermostatic radiator valves	8	nr			

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Isolation valves; supply and installation; complete; Type: Lever operated; WRAS approved; Kitemark certified; Materials: copper alloy body to IS EN 13828, include for all accessories and fittings; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
A	15mm Isolation Valves	30	nr			
B	32mm Isolation Valves	3	nr			
	Double Regulating Valve Valves; Type: lockable globe valves for balancing; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
C	15mm Double Regulating Valve	13	nr			
	Expansion Bellow; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 1, Section 8.7 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
D	20mm Expansion Bellow	2	nr			
E	32mm Expansion Bellow	2	nr			
	Commisssioning Set; include for all fittings and accessories; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
F	32mm Commissioning Set	1	nr			
	2 - Port Motorised Valve and Actuator; supply and installation; complete; Assisted Lift Servo Operated Valve; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 1, Section 8.13 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
G	15mm 2 port Motorised Valves	24	nr			
	Digital Space Thermostats; supply and installation; complete; Functions: clear temperature display; clear set point display; lockable; 24 Vac/dc power supply; c/w modbus connections; wired to BMS; Wall mounted; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 4, Section 4.4 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
H	Digital Space Thermostats	15	nr			
				To Collection €		

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Distribution					
	Medium Grade Black Mild steel pipework and fittings; include for all fixings and supports; include for all elbows, expansion bellows; unions and tees necessary to complete the work, all pipework up to 50mm to be screw joints, pipework above 50mm to be welded, plant room pipework to be flanged; all connections to valves shall be screwed; Painting: two coat of zinc chromate primer prior to fitting of insulation; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
A	15mm diameter pipework	1	Item			
B	20mm diameter pipework	1	Item			
C	25mm diameter pipework	1	Item			
D	32mm diameter pipework	1	Item			
	Pipe-in-pipe c/w oxygen diffusion barrier pipework and fittings; Pipe runs under floor level in jointless pipe in pipe, c/w pipe sleeve to ensure pipework can be re-fed at a later date; include for all fixings and supports; include for all elbows,expansion bellows; unions and tees necessary to complete works; all in strict accordance with Engineers Specification Section					
E	15mm diameter pipework	1	Item			
F	20mm diameter pipework	1	Item			
	Insulation					
	Foiled faced rigid fibreglass insulation; to all new pipework services; class A1, CFC and HCFC free with ozone depletion factor of zero; Thermal conductivity not exceeding 0.043W/mK; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
	Insulation, 30mm thick					
G	to 15mm diameter pipework	1	Item			
	Insulation, 35mm thick					
H	to 20mm diameter pipework	1	Item			
J	to 25mm diameter pipework	1	Item			
K	to 32mm diameter pipework	1	Item			
	Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification					
L	General Valves & Plant	1	Item			

To Collection €

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Aluminium Cladding; to valves and plant; 18mm gauge aluminium, fixed with self-tapping screws; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
A	to 15mm diameter pipework	1	Item			
B	to 20mm diameter pipework	1	Item			
C	to 25mm diameter pipework	1	Item			
D	to 32mm diameter pipework	1	Item			
E	to General Valves & Plant	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
F	Testing and commissioning	1	Item			
G	Testing,chemical dosing, sterilization and certification of all systems	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
H	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
J	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
K	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
L	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
M	Identification plates, labels and the like	1	Item			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

(57) VENTILATION SERVICES

System

Ventilation installation, testing and commissioning; complete; The contractor shall supply and install all ventilation ductwork, terminals and plant within the building; all in accordance with the Mechanical Engineers Specification Part 1, Section 9; Part 2; Part 3; Part 4, Section 5 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

Primary Equipment

Heat Recovery Unit; supply and installation; complete; Description: Demand Controlled Horizontal Heat Recovery Ventilation Unit; Dimensions (WxDxH): 888 x 1016 x 331mm; Airflow / ESP / Sound Pressure Levels: SP 1: 35 ltr/s 'v'8 Pa (18 dBA), SP 2: 69 ltr/s 'v' 30 Pa (19 dBA), SP 3: 104 ltr/s 'v' 68 Pa (28 dBA), SP 4: 139 ltr/s 'v' 110 Pa (34 dBA); Max Specific Fan Powers: Speed 1: 0.34 W/(l/s), Speed 2: 0.46 W/(l/s), Speed 3: 0.75 W/(l/s), Speed 4: 1.19 W/(l/s); Filters: EU - G3 Panel Filters; Casing: Galvanised sheet steel; Heat Exchanger Efficiency: 80% minimum; By Pass Damper: Yes - modulating; Fans: 4 speed settings, low energy, high efficiency, ErP rated motorised fans providing low specific fan powers; Weight: 33 kg's; Voltage: 220-240V/1/50Hz; Fuse Rating: 6A; Max Noise Levels: 34 dB(A) at 1.5m; Warranty: 3 years; Accessories: Wall controller, PIR motion detector, Duct mounted C02 Sensor for Demand Control of fan speeds, Suspension brackets, VFC for BEMS connectivity, Remote ON/OFF Adapter (PAC-SE55RA-E or similar) to allow MHRV unit to disable under fire alarm conditions; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.1 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

A	Heat Recovery Unit Ref: HRU1; Supply fan duty: 90l/s; Supply fan static resistence: 85; Extract fan duty: 90m3/s; Extract fan static resistence: 80; SFP: 0.75w/l/s; Heat exchanger type: Cross counter flow; Duct connection: 200mm; Location: SEN Safe space 1 & 2, Practical activity room	3	nr		

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Heat Recovery Unit; supply and installation; complete; Description: Demand Controlled Horizontal Heat Recovery Ventilation Unit; Dimensions (WxDxH): 1144 x 1004 x 404mm; Airflow / ESP / Sound Pressure Levels: SP 1: 56 ltr/s 'v' 10 Pa (18 dBA), SP 2: 111 ltr/s 'v' 38 Pa (23 dBA), SP 3: 167 ltr/s 'v' 85 Pa (30 dBA), SP 4: 222 ltr/s 'v' 150 Pa (34.5 dBA); Max Specific Fan Powers: Speed 1: 0.30 W/(l/s): Speed 2: 0.54 W/(l/s), Speed 3: 0.96 W/(l/s), Speed 4: 1.51 W/(l/s); Filters: EU - G3 Panel Filters; Casing: Galvanised sheet steel; Heat Exchanger Efficiency: 80% minimum; By Pass Damper: Yes - modulating; Fans: 4 speed settings, low energy, high efficiency, ErP rated motorised fans providing low specific fan powers; Weight: 54 kg's; Voltage: 220-240V/1/50Hz; Fuse Rating: 6A; Max Noise Levels: 34.5 dB(A) at 1.5m; Warranty: 3 years; Accessories: Wall controller, PIR motion detector, Duct mounted C02 Sensor for Demand Control of fan speeds, Suspension brackets, VFC for BEMS connectivity, Remote ON/OFF Adapter (PAC-SE55RA-E or similar) to allow MHRV unit to disable under fire alarm conditions; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.2 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
A	Heat Recovery Unit Ref: HRU2; Supply fan duty: 180l/s; Supply fan static resistence: 95; Extract fan duty: 180m3/s; Extract fan static resistence: 85; SFP: 0.9w/l/s; Heat exchanger type: Cross counter flow; Duct connection: 250mm; Location: Daily living skill	1	nr			
	Constant Pressure Internal Duct Mounted Fan; supply and installation; complete; Fan Type: Constant Pressure Internal Duct Mounted Fan; Size: 745x672x334mm; Minimum Operating Requirements: See schedule; Casing: Double skinned heavy gauge corrosion resistant Aluzinc Steel; ominal Fan Speed: 4000 rpm; Extraction rate (minimum value): As required to meet design duty refer to extract fan schedule; Sound Output (maximum value): 4000 rpm : 29dB(A) @ 3m; Specific Fan Power: 0.9 W/l/s; Removable motor core assembly: Required; Rotating motor chassis assembly: Required; Working Temperature: -5°C to +60°C; Standard Thermal Overload Protection: Required; Plane of Operation: Horizontal; Voltage: 220-240V/1/50Hz; Full Load Current: 1.4 A; Leakage Calss: L2; Warranty: 5 years; Operational Functions: Integral Frequency inverter/speed controller, Integral adjustable run-on timer, Maximum and minimum speed adjustment/setting (trickle and boost), Volt free run & failure/status indication, 0-10V BMS interface for remote operation, Multiple low voltage sockets for interconnection of sensors or fans, Background ventilation/trickle enable switch; Accessories: Anti-vibration mounting kit, Mounting bracket(set of 4); 1000mm matched silencer acoustically lined, 7 day digital time clock; c/w sound attenuator, backdraught dampers, flexible connections and av mounts; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.4 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
B	Inline Fan Ref: F1; Flow Rate: 130 L/s; ESP: 90Pa; Max SFP: 0.5w/l/s	1	nr			

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Inline Extract Fan; supply and installation; complete; FanType: Sentinel Box In-line Fan; Size: As required to meet design duty; Design Duty: As indicated on Grille Schedule on Ventilation Drgs M-5701; Impeller Type: Backward Curved Impeller; Casing: Aluzinc; Sound Output: < 20 dB(A) @ 3m (Quiet Fans); Specific Fan Power (max): 0.5 W/l/s; Speed Controller: Required; Ambient Working Temperature: -25°C to +60°C; Motor: EC; Voltage: 220-240V/1/50Hz; Insulation: B; Motor IP Rating: IP 44; Warranty: 5 years; c/w sound attenuator, backdraught dampers, flexible connections and av mounts; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.4 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
A	Inline Fan Ref: F2; Flow Rate: 30 L/s; ESP: 60Pa; Max SFP: 0.5w/l/s	1	nr			
B	Inline Fan Ref: F3; Flow Rate: 60 L/s; ESP: 70Pa; Max SFP: 0.5w/l/s	1	nr			
C	Inline Fan Ref: F4; Flow Rate: 70 L/s; ESP: 75Pa; Max SFP: 0.5w/l/s	1	nr			
	Wall Extract Fan; supply and installation; complete; Fan Type: SELV Extract Fan; & Wall Termination Kit; Size: 150; Design Duty: As indicated on Fan Schedule; Nominal Dimensions: 223 (L) x 223 (W) x 19 (D) mm; Sound Output: < 43 dB(A) @ 3m (Quiet Fans); Specific Fan Power (max): 0.3 W(/l/s); Speed: 2 Speed; Indicator Light: Neon; Integral Back Draught Shutters: Spring Operated; Motors: Ball Bearing (Vert / Horz Mounting); Electrical Requirements: 1ph/50Hz/230V (6W); Motor IP Rating: IPX4; Warranty: 5 years; Accessories: Integral adjustable Run-On-Timer variable between 5-30 minutes, Wall Termination Kit; c/w sound attenuator, backdraught dampers, flexible connections and av mounts; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.4 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
D	Wall Extract Fan Ref: F5; Flow Rate: 20 L/s; ESP: F.A.D; Max SFP: 0.5w/l/s	1	nr			
E	Wall Extract Fan Ref: F6; Flow Rate: 55 L/s; ESP: F.A.D; Max SFP: 0.5w/l/s	1	nr			
F	Wall Extract Fan Ref: F7; Flow Rate: 20 L/s; ESP: F.A.D; Max SFP: 0.5w/l/s	1	nr			
	Extract Canopy; Type: Stainless steel tapered extractor hood; Size: 600mm width x 500mm depth; Casing: Stainless steel; Mounting: suspended; Speed Settings: 3; Maximum Extraction 307 m3/hr; Max. Sound Output: 64 dB(A) on speed 3; Minimum Energy Rating: C; Maximum Working Ambient Temperature: +50°C; Integral Lights: 2 x3w LED); Washable Metal Grease Filter: Required; Charcoal Filter: Required; Exhaust Duct Spigot: 125mm diameter/150mm; Voltage: 230-240V/1/50Hz; IEC Protection: Class I; IP Rating: IP 44; Warranty: 2 years; include for all accessories; all in accordance with the Mechanical Specification					
G	Extract Canopy; Ref: CH; Location: Practical Activity Room/ Daily living skills	2	nr			

(5-) MECHANICAL INSTALLATIONS (Cont)

Accessories Associated with Primary Equipment

MHRV room controller; supply and installation; complete; Power Supply: Fed from MHRV unit; Relay contact rating: 230 Vac 10A; Fan Speed Selection: Speeds 1- 4; Ventilation Mode: Energy Recovery/Bypass/Auto; Weekly Timer: Required; Filter Cleaning Sign: Required; HRV Core Cleaning Sign: Required; Error Indication: Required; Error History: Required; OA/RA/SA Temp Display: Required; Backlit LCD Display: Required; Housing: White ABS; Dimensions(L)x(W)x(D): 120 x 120 x 19mm; Mounting: Wall / Flush mounted; Volt Free Contacts: For BEMS Fault Connectivity; Warranty: 5 years;

A	MHRV room controller	4	nr		

CO2 Monitoring Control Panel; supply and installation; complete; Description: CO2 Sensor; Nominal Size: 125mm x 86mm x 36mm; LED Display: Required (25cm2 min); Traffic Light Indication: Green <1500ppm, Amber 1500 -2000ppm; Red >2000ppm; Power Supply: 240 VAC / 50Hz; Power Consumption: 3 W; CO2 Range: 0 - 5,000ppm; Co2 Display Resolution: 1ppm; CO2 Sensing Mode: Solid State NDIR; CO2 Response Time: 30 Seconds; CO2 Sensor Life: 10 Years; IP Rating: IP40; Housing Material: Flame Retardant ABS; all in accordance with the Mechanical Specification Part 4, Section 5.10 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

B	CO2 Monitoring Control Panel	8	nr		

Presence Detectors; supply and installation; complete; Modes of operation: Presence and absence detection; Supply Voltage: 230VAC +/- 10%, 50Hz; Power Consumption: On 625mW, Off 807mW; Max. Load Rating: 2.5A / 600W Inductive; Mounting: Ceiling; Mounting Component: Standard UK single gang mounting box; Time-out period range: Adjustable 5 to 25 minutes; Light level: Light to dark; Ingress Protection: IP43; Temperature Operation: -10°C to 35°C;Connectivity: Volt-free contacts; all in accordance with the Mechanical Specification Part 4, Section 5.5.1 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

C	Presence Detector; (Ref: PIR)	13	nr		

Thermoswitches; supply and installation; complete; Modes of operation: Automatic switching of fan on rise/fall of air temperature; Setting Range: 6°C to 30°C; Temperature Range Locking Facility: Required; Max. Load Current: 16 A resistive); Contact Rating: 1.5 A (inductive); Mounting: Surface mounted; Max. dimensions: 80mm(H) x 104mm(W) x 36mm(D); Ingress Protection: IP20; all in accordance with the Mechanical Specification Part 4, Section 5.5.3 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

D	Room Temperature Stats	1	nr		

To Collection €

(5-) MECHANICAL INSTALLATIONS (Cont)

Speed Controllers; supply and installation; complete; Modes of operation: On/off fan control; Variable speed control; Operation Indication: Fan active - led; Supply Voltage: 220-240V/1/50Hz; Max. Load Rating: 400W; Mounting: Above Ceiling; Max. dimensions: 86mm(H) x 156mm(W) x 53mm(D); Ingress Protection: IP20; Temperature Operation: 0°C to 40°C; all in accordance with the Mechanical Specification Part 4, Section 5.5.2 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

A	Speed Controller	1	nr		

Terminal equipment and fittings

Fire dampers; supply and installation; complete; Dampers shall be installed to the manufacturers recommendations and shall either be installed within, or keyed to the wall; include for all accessories and fittings; all in accordance with the Mechanical Engineers Specification Part 4, Section 7.4 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

B	Fire Damper; to 150mm ducts	7	nr		
C	Fire Damper; to 200mm ducts	6	nr		
D	Fire Damper; to 250mm ducts	2	nr		

Back draught dampers; supply and installation; complete; dampers shall be installed to the manufacturers recommendations; include for all accessories and fittings; all in accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

E	Back Draught Damper; to 125mm ducts	4	nr		
F	Back Draught Damper; to 150mm ducts	5	nr		

Constant Volume Dampers; Size: 300x180x195mm; Minimum Operating Requirements: See schedule; Casing: Double skinned heavy gauge corrosion resistant Aluzinc Steel; Nominal Design Pressure Drop: 60Pa; Max Pressure across damper: 120Pa; Typical Accuracy: +/- 2l/s; Flow Settings: 2 Flow settings: Trickle, Boost; Additional Features: Run on timer will hold damper in the boost setting for a pre set time (1to60 min); include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.2.2and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

G	Constant Volume Dampers; Ref: CVD	4	nr		

Volume control dampers; supply and installation; complete; dampers shall be installed to the manufacturers recommendations; include for all accessories and fittings; all in accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702

H	Volume Control Damper; to 150mm ducts	3	nr		
J	Volume Control Damper; to 200mm ducts	10	nr		

To Collection €

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	Volume Control Damper; to 250mm ducts	3	nr			
	Swirl Diffuser; Nominal Size: 595 x 595mm; Volume Flow-rate: As indicated on Diffuser Schedule; Max. Pressure Drop: 20 Pa; Max Noise Levels: NR 35; Material & Finish: Polyester Powder Coated Extruded Aluminium; Colour: White RAL 9010; Integral Opposed Blade Damper: Required; Plenum Box: Side Entry with neck spigot to suit ductwork size; Noise Attenuation: Not Required; c/w Neck Spigots to suit ductwork sizes; connecting collar and flexible connections; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.6 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
B	Swirl diffuser; size 600mm x 600mm; Ref: S1	8	nr			
	Linear four-way louvre-faced diffuser; Nominal Size: As indicated on Grille Schedule; Volume Flow-rate: As indicated on Grille Schedule: Max. Pressure Drop: 20 Pa; Max Noise Levels: Refer to grille schedule; Material & Finish: Powder Coated Extruded Aluminium; Colour: White RAL 9010; Integral Opposed Blade Damper: Required; Plenum Box: Side Entry with neck spigot to suit ductwork size; Noise Attenuation: Not Required; c/w Neck Spigots to suit ductwork sizes; connecting collar and flexible connections; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.6 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
C	4-way louvre face diffuser; size 500mm x 250mm; Ref: E3	3	nr			
	Four-way louvre-faced ceiling diffuser; Nominal Size: As indicated on Grille Schedule on Ventilation Drgs M-5701; Volume Flow-rate: As indicated on Grille Schedule on Ventilation Drgs M-5701; Max. Pressure Drop: 20 Pa; Material & Finish; Powder Coated Extruded Aluminium to RAL 9010; Integral Opposed Blade Damper: Required; Integral Class E60 Fire Damper: Not Required; Max. Noise Level: NR 30; Installation Acessories: Side Entry Plenum Boxes c/w Neck Spigots to suit ductwork sizes; connecting collar and flexible connections; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.6 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
D	4-way louvre face diffuser; size 225mm x 225mm; Ref: E4	3	nr			
	Circular Air Exhaust Valve: Nominal Size: 150 mm - 200mm; Volume Flow-rate: As indicated on Grille Schedule on Ventilation Drgs M-5701; Max. Pressure Drop: 20 Pa; Material: Polyester powder gloss white RAL 9010; Adjustable Volume Flow-rate: Required; Integral Class E60 Fire Damper: Not Required; Max. Noise Level: NR 30; Installation Acessories: Sealing Gasket, Mounting Ring; connecting collar and flexible connections; include for all fittings and accessories; all in accordance with the Mechanical Specification Part 4, Section 5.6 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
E	Extract valve; size 150mm; Ref: E1	5	nr			
F	Extract valve; size 200mm; Ref: E2	2	nr			
				To Collection €		

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
	External Louvres; supply and installation; complete;Type: Pitch Louvre; Blade Pitch: 38mm; Flange Width: 22.5mm; Free Area: 50%; Material & Finish: Powder Coated Aluminium to Architects RAL specification; Insect Screen: Required; Max. Pressure Drop: 20 Pa; Max. Sound Output: N/A; Noise Attenuation: Not Required; include for all weathering, fittings and supports; all in accordance with the Mechanical Specification Part 4, Section 5.9 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
A	External Louvre; size 200mm x 200mm (Ref: L1)	5	nr			
B	External Louvre; size 300mm x 250mm (Ref: L2)	6	nr			
C	External Louvre; size 400mm x 300mm (Ref: L3)	2	nr			
	Wall Termination Set; Nominal Size: Based on Fan Exhaust Duties; Telescopic Liner: Required; Free Area: 50%; Material & Finish: Plastic to Architects RAL Specification; Insect Screen: Required; Max Pressure Drop: 20 PA; Max Sound Output: NR 45; Noise Attenuation: Not Required; include for all weathering, fittings and supports; all in accordance with the Mechanical Specification Part 4, Section 5.7 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
D	Wall Termination Set	3	nr			
	Roof Cowl; supply and installation; complete; Nominal Size: 600x600mm; Volume Flow-rate: Refer to Fan schedule for each cowl exhaust volume; Free Area: 50% minimum; Material & Finish: Powder Coated moulded plastic to Architect's RAL specification; Bird Guard: Required; Insect Screen: Not Required; Max. Pressure Drop: 20 Pa; Max. Sound Output: N/A; Noise Attenuation: Not Required; include for all weathering, fittings and supports; all in accordance with the Mechanical Specification Part 4, Section 5.8 and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
E	Roof Cowl; Size: 600mm x 600mm; Connection size: 150mm diameter duct	2	nr			
F	Roof Cowl; Size: 600mm x 600mm; lift shatt	1	nr			
	<u>Distribution System</u>					
	Galvanised Sheet Steel Ductwork; supply and installation; complete; Type: circular ductwork; Standards: in accordance with HVCA DW141, DW142; include for all flexible connections; quick fix connections; joints; ductwork supports; access hatches, test holes, accessories and fixings; all in accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
G	Ductwork; size 100mm diameter	1	Item			
H	Ductwork; size 125mm diameter	1	Item			
J	Ductwork; size 150mm diameter	1	Item			
K	Ductwork; size 200mm diameter	1	Item			

To Collection €

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	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	Ductwork; size 250mm diameter	1	Item			
	Insulation					
	Foil faced fibreglass duct insulation; For circular supply and return air ductwork; 50mm thick; PVC backing; applied strictly in accordance with the manufacturers instructions; butt joints, taped and sealed; 150mm long 18mm gauge steel selves at location of duct supports; include for all insulation hangers and accessories; all in accordance with the Mechanical General Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5701 & 2556-SMK-ZZ-L1-DR-M-5702					
B	Insulation; 100mm diameter ducts	1	Item			
C	Insulation; 125mm diameter ducts	1	Item			
D	Insulation; 150mm diameter ducts	1	Item			
E	Insulation; 200mm diameter ducts	1	Item			
F	Insulation; 250mm diameter ducts	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
G	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
H	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
J	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
K	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
L	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
M	Identification plates, labels and the like	1	Item			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

(58) FIRE PROTECTION INSTALLATION

System

Fire Fighting installation, testing and commissioning; complete; Hand held fire extinguishers and fire blankets shall be provided throughout the building as detailed on the drawings; The Contractor shall ensure that all fire safety equipment and installation meets the relevant Fire and Local Authority requirements and complies with any specific requirements of the company insuring the project on completion. In general and where relevant, the installation shall comply with current standards; The Contractor shall be responsible for carrying out the commissioning of the portable fire extinguishers before they are installed; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 11, Part 2; Part 3, Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-M-5201 & 2556-SMK-ZZ-L1-DR-M-5202

Terminal equipment and Fittings

Fire Extinguishers supply and installation; complete with 5 years guarantee, CE approved and marked; all in accordance with the Mechanical Specification Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-M-5201 & 2556-SMK-ZZ-L1-DR-M-5202

A	CO2 Gas Extinguishers c/w wall mounting brackets and signage	9	nr		
B	Aqueous Film Forming Foam	8	nr		

General

Testing and commissioning; all in accordance with Engineers Specification

C	Testing and commissioning	1	Item		

Operating and maintenance manuals; all in accordance with Engineers Specification

D	Operating and maintenance manuals	1	Item		

Working drawings; all in accordance with Engineers Specification

E	Working drawings	1	Item		

Co-ordination drawings; all in accordance with Engineers Specification

F	Co-ordination drawings	1	Item		

As built drawings; all in accordance with Engineers Specification

G	As built drawings	1	Item		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Identification plates, labels and the like; all in accordance with Engineers Specification					
A	Identification plates, labels and the like	1	Item			
	GENERAL ITEMS					
	Defects Liability period					
B	The contractor shall allow for the full servicing of all systems at handover and again before the end of the defects liability period and shall allow for the maintainance of each system for one year during the extent of the defects liability period; all in strict accordance with Vol.A works requirements.	1	Item			
	MECHANICAL INSTALLATIONS					
	Sundries & Builders Work					
	General Attendances					
C	Provide all general attendances in accordance with Arm 4 .	1	Item			
D	Provide use of the Main Contractors temporary roads and hardstandings.	1	Item			
E	Provide use of the Main Contractors scaffolding.	1	Item			
F	Provide use of the Main Contractors standing power operated hoisting plant.	1	Item			
G	Provide accommodation for the subcontractors staff for eating, site lavatories, site washing facilities and cloakroom facilities.	1	Item			
H	Each sub-contractor shall be permitted the free use, in common with other trades engaged on the site, of any available water supply, temporary plumbing and electrical services.	1	Item			
J	Provide temporary distribution systems for lighting, power, water and fuel for the execution of the Mechanical services works, including testing and commissioning , and pay all ongoing operation charges.	1	Item			
K	Provide safe and dry storage accommodation for the sub-contractors materials, plant and tools.	1	Item			
L	Provide space for the provision by the sub-contractors of their own site offices.	1	Item			
M	Provide temporary telephone services to the Mechanical Contractors temporary office and pay all charges associated with installation and operation.	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	Include for unloading, hoisting/cranage and placing into position all items of heavy plant and site offices supplied by the sub-contractors.	1	Item			
B	Allow for maintaining all ducts, chases, trenches, trunking, etc., clean and free of all water, debris and rodents at all times.	1	Item			
C	Allow for making good and fire sealing of all builders work opes with proprietary sealant to Architects details, where services penetrate fire zones.	1	Item			
D	Fire proofing (material) around ducts and pipework shall be the responsibility of the Main Contractor	1	Item			
E	Timber grounds shall be provided within stud partitions to facilitate fixing of wall mounted accessories	1	Item			
	Special Attendances					
F	Provide all special attendances in accordance with Arm 4 Clause 3.1	1	Item			
G	Provide temporary roads and hardstandings in connection with heavy items of plant and the like.	1	Item			
H	Provide accommodation for the sub-contractor's staff for eating, site lavatories, site washing facilities, and cloaks.	1	Item			
J	Provide safe and dry storage accommodation for the sub-contractors materials, plant and tools.	1	Item			
K	Provide space for the provision by the sub-contractors of their own site offices.	1	Item			
L	Provide temporary distribution systems for lighting, power, water for the execution of the electrical services works, including testing and commissioning, and pay all ongoing operation charges	1	Item			
M	Provide the free use, in common with other trades engaged on the site, of any available water supply, temporary plumbing and electrical services	1	Item			
N	Protection of the works the Main Contractor is responsible for providing adequate protection at all times for the Mechanical services installation	1	Item			
P	Protection/Maintenance, provide covers for placing on live equipment/ fittings in areas under construction at the start of each work day and removing the covers at the end of each work day	1	Item			
Q	Provide external access to high level on building facade to permit the installation of any external equipment/fittings and for the removal of existing services as required	1	Item			
R	Provide Mobile Elevated Working Platforms (MEWP) or scaffolding for Mechanical sub-contractors working at high level	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	Provide for weathering & sleeving around all penetrations through the external structure of the building and to allow for sealing to fabric to maintain air tightness	1	Item			
B	Allow for maintaining all ducts, chases, trenches, trunking etc, clean and free of all water, debris and rodents at all times	1	Item			
C	Allow for making good and fire sealing of all builders work opes with proprietary sealant to architects details, where services penetrate fire zones	1	Item			
D	Allow for coordination with local authorities and utility providers in respect of application for connections, providing excavation of roads and full coordination with various utility companies	1	Item			
E	Coordinate with Mechanical Contractor to facilitate fitting of all sanitary ware	1	Item			
F	Allow for patrices behind ceiling tiles and ceilings for the support of light fittings, grilles, smoke detectors, sensors etc	1	Item			
G	Allow for weathering details on all services passing through external envelope	1	Item			
H	Allow for all service / utility entries into building	1	Item			
J	Allow for clearing away and disposal of any rubbish		Item			
K	Provide safe access to roofspace to facilitate Mechanical installation work	1	Item			
L	Making good of opes for fire smoke dampers	1	Item			
M	Provide and maintain the specific temperatures and humidity levels	1	Item			
N	Contractor to provide for the construction of a walkway within the Attic space for service and maintenance of water and ventilation services	1	Item			
	Unload, hoist distribute, and place in position the following items of plant and equipment:					
P	Radiators	1	Item			
Q	Extract Fans	1	Item			
R	Pumps	1	Item			
S	Gas boiler	1	Item			
T	Cylinders	1	Item			
U	CWS Tanks	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	RWS Tanks	1	Item			
	Sundries & Builders Work					
	General					
B	Marking positions of holes, mortices and chases	1	Item			
C	Testing & Commissioning	1	Item			
D	Preparing drawings of "as completed" installations	1	Item			
E	Identification plates, labels and the like; Provide and fit colour identification markers to ceiling hatches to mark the location of isolating devices within ceiling voids	1	Item			
F	Keys, tools and spares	1	Item			
	Sundries & Builders Work					
	Casings to Architects Specification; The use of ordinary MDF WILL NOT be permitted. As an alternative Medite Ecologique MDF (Zero Formaldehyde) should be used; Base: 50 X 35mm Treated softwood battens Additional supports as specified; Thickness: 18 mm; Durability class: H; Surface finish: Sanded; Edges: Rebated and Radiused as per detail drawings - Cut or profiled edges to be sanded with 150-240 grit, prior to painting coat edges with MDF sealer, prime and topcoat with de-nibbing in between coats to produce a smooth finish; Formaldehyde free coatings to be used; Fix at 150 mm maximum centres along edges of boards and 300 mm maximum centres along intermediate supports with brass wood screws, countersunk and pelleted; Joint treatment: Butt joints; all to Architect's Drawings and Specification					
	Pipe Casings					
G	200mm x 200mm wide; 2nr sides only; casings fixed vertically; complete; include all necessary insulation (measured elsewhere), battens, screws, bolts, masonry fixings, decoration etc.; in various locations throughout building; complete	38	m			
	Manifold Cupboard					
H	2000mm lenght x 400mm depth x 1500mm height ; complete; c/w fully louvred, lockable, hinged access door; include all necessary battens, screws, bolts, masonry fixings, decoration 2nr under coats, 1nr finish coat; complete	1	nr			
	Forming and sleeving for underfloor heating pipework to SENU; all in accordance with the Service Engineers drawings, schedule and specification					
	Underfloor Ducts					
J	Under floor ducts	120	m			

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Chasing to blockwork walls; include for firestopping, making good all structures and finishes; all in accordance with the Architects / Engineers / Service Engineers drawings, schedule and specification					
	Chasing					
A	Chasing for 1nr 15mm diameter pipe	11	m			
B	Chasing for 3nr 15mm diameter pipe	14	m			
C	Chasing for 4nr 15mm diameter pipe	7	m			
	Equipment supports; provide mounting grounds for the installation of the following fittings; making good structure and finishes; in strict accordance with the Architects/ Services Engineers drawings, schedule and specifications					
	Equipment supports					
D	Provide fixings on wall for radiators supports	38	nr			
E	Provide wall fixings for portable fire extinguishers to corridor walls at 1500mm above floor	21	nr			
	Forming or cutting holes/mortices/chases and the like; including sleeves/plates, intumescent collars; making good structure and finishes; include for a fully completed installation where nothing must remain to be done to the installation by others; in strict accordance with the Architects/ Services Engineers drawings, schedule and specifications					
F	cutting or forming holes is deemed to include all finishes and decorations both sides of the structure		note			
G	cutting or forming opes is deemed to include the making good and sealing of the ope		note			
	Cutting or forming holes in external walls; include for building in sleeves; firestopping making good all finishes on completion					
H	200mm x 200mm opes	6	nr			
J	300mm x 250mm opes	6	nr			
K	400mm x 300mm opes	2	nr			
	Cutting or forming holes in internal walls; include for building in sleeves; firestopping making good all finishes on completion					
L	200mm diameter opes	13	nr			
M	250mm diameter opes	8	nr			
N	300mm diameter opes	2	nr			

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	150mm x 100mm opes	9	nr			
B	300mm x 150mm opes	8	nr			
C	300mm x 300mm opes	3	nr			
D	450mm x 300mm opes	1	nr			
E	500mm x 150mm opes	5	nr			
F	500mm x 250mm opes	4	nr			
G	700mm x 300mm opes	1	nr			
H	2250mm x 300mm opes	1	nr			
	Cutting or forming holes in existing internal walls; include for building in sleeves; firestopping making good all finishes on completion					
J	500mm x 150mm opes	3	nr			
	Cutting or forming holes in suspended concrete floor slab; include for building in sleeves; firestopping making good all finishes on completion					
K	100mm x 100mm opes	4	nr			
L	300mm x 100mm opes	6	nr			
M	300mm x 300mm opes	6	nr			
N	500mm x 150mm opes	1	nr			
P	600mm x 350mm opes	1	nr			
	Fire stopping system to multiple and single service penetrations; including intumescent boards, fire stop laminate; intumescent foams and mastic; intumescent pillows; intumescent putty; mineral wool rigid batts; intumescent collars and sealants to achieve 1 hour fire resistance; all in accordance with the Architects specification P12					
	Special works were services pass through structures; external walls, making good all finishes on completion					
Q	200mm x 200mm opes	6	nr			
R	300mm x 250mm opes	6	nr			
S	400mm x 300mm opes	2	nr			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Special works were services pass through structures; internal walls, making good all finishes on completion					
A	200mm diameter opes	13	nr			
B	250mm diameter opes	8	nr			
C	300mm diameter opes	2	nr			
D	150mm x 100mm opes	9	nr			
E	300mm x 150mm opes	8	nr			
F	300mm x 300mm opes	3	nr			
G	450mm x 300mm opes	1	nr			
H	500mm x 150mm opes	5	nr			
J	500mm x 250mm opes	4	nr			
K	700mm x 300mm opes	1	nr			
L	2250mm x 300mm opes	1	nr			
	Special works were services pass through structures; existing internal walls, making good all finishes on completion					
M	500mm x 150mm opes	3	nr			
	Special works were services pass through structures; suspended concrete floors, making good all finishes on completion					
N	100mm x 100mm opes	4	nr			
P	300mm x 100mm opes	6	nr			
Q	300mm x 300mm opes	6	nr			
R	500mm x 150mm opes	1	nr			
S	600mm x 350mm opes	1	nr			
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(5-) MECHANICAL INSTALLATIONS (Cont)					
COLLECTION					
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(5-) MECHANICAL INSTALLATIONS (Cont)					
COLLECTION					
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Page No. Extension/169					
(5-) MECHANICAL INSTALLATIONS **Carried to Summary**					

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	(52) RAINWATER AND DISPOSALS					
	RAINWATER AND DISPOSALS					
	DRAINAGE					
	Disposal above Ground - Rainwater Installation					
	ALUMINIUM PIPEWORK FOR EXTERNAL USE: Pipes, fittings and accessories: To BS 2997 and BS1474; Manufacturer and reference: JWD Rainwater Systems Ltd or equivalent; Type/Grade: JWD Regency Cast / Extruded Heavy Duty grade aluminium to BS2997; Profile: Round 152mm diam; 2mm wall thickness; Fixing: plugged & screwed through lugged collars and pipe brackets at 1.5m max centres; Finish/Colour: Syntha Pulvin or Interpons 600/610 paint finish to Architect's selected colour; See Section Z31; all as per Architects Drawings and Specification					
	100mm diameter round downpipes					
A	Surface fixed; vertical	62	m			
	Extra over pipes on which they occur for					
B	Shoes	10	nr			
C	Rainwater Head	10	nr			
D	Leafguard	10	nr			
	ANTICLIMB RAINWATER PIPE COVERS; Manufacturer: Contractor's choice; Product reference: Contractor's choice; Material: Aluminium; Profile: Round top hat; Size: 3000 mm long x 150 mm wide; Finish: Polyester powder coating; Colour: Self colour; in accordance with Architect's specification					
	Rainwater pipe covers					
E	3000mm long x 150mm wide	10	nr			

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(52) RAINWATER AND DISPOSALS (Cont)					
COLLECTION					
Page No. Extension/172					
(52) RAINWATER AND DISPOSALS **Carried to Summary**					

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	(6-) ELECTRICAL INSTALLATIONS					
	Notes					
A	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		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 Semple McKillop Consulting Engineers.		note			
C	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.		note			
	ALTERNATIVE RULES FOR THE MEASUREMENT OF ELECTRICAL SERVICES					
	(61) ELECTRICITY SUPPLY & MAIN DISTRIBUTION - LV INSTALLATIONS					
	System					
	LV installation, testing and commissioning; complete; The Contractor shall allow for the supply and installation of all switchgear, distribution boards and sub mains cables in accordance with the drawings and attached specification; The Contractor shall be responsible for safe off-loading, receiving, storage, positioning and fixing of the boards and shall be liable for any damage to boards during installation; 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 Part 1, Section 15; Part 2; Part 3; Part 4, Section 2 and Drawings 2556-SMK-ZZ-LL-DR-E-6150					
D	Electrical Supply and Main Distribution	1	Item			
				To Collection €		

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Equipment					
	Main Switch Board; supply and installation (including wiring) complete; Switchboard Classification: Form 4B, Type 2; Enclosure: Metal clad unit fabricated from 2.5mm thick sheet electro galvanised Iron phosphated steel plate, 2mm thick sheet steel enclosure doors, minimum protective rating of IP 54; Mounting: Floor mounted; distribution board to provide 30% spare capacity for future expansion; complete with and include for all PVC cables, 630Amp TP ACB, bush bar system, TP&N's, MCCB's, MCB's, RCBO's; HOA switches, CTU's, open/ closed contractors; remote key switches, phase indicator lamps, time clocks, metering, surge protection, space for future power factor correction equipment and automatic changeover; space for integral switch board DB1A and BD SL1(measured elsewhere); earth terminal; Labels: Traffolyte, black on white, screw on type, to all chambers inside and outside the panel; Testing and commissioning: in accordance with current standards; all in strict accordance with the Electrical Engineers Specification Part 1, Section 15; Part 4, Section 2 and Drawings 2556-SMK-ZZ-LL-DR-E-6150					
A	Sub-distribution board; complete (Ref: DB-1 Lighting & Power Services; Location: Plantroom / Store)	1	nr			
B	Sub-distribution board; complete (Ref: DB-2 Lighting & Power Services; Location: Design & Communication Graphics)	1	nr			
C	Sub-distribution board; complete (Ref: DB-3 Power Services; Location: SENU Store)	1	nr			
	Fittings					
	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 Part 1, Section 15.3.5					
D	Insulated matting; Sub-distribution board	3	nr			
	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 Part 1, Section 15.18					
E	Circuit charts	3	nr			

To Collection €

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Mains and Sub-mains cables					
	Supply and Installation of sub-mains cable from Main Distribution Board MDB; Location: Plant room adjacent PE Hall; to sub-distribution boards/ Control panels located throughout school building; Sub-mains distribution within the building shall be via XLPE/LSF/SWA/LSF armoured 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 Specification and Drawings 2556-SMK-ZZ-LL-DR-E-6150					
A	Submains Ref: 4; MSB to DB-2; 4 x 25sq.mm XLPE/LSF/SWA/LSF + 16sq.mm CPC	1	Item			
B	Submains Ref: 4; MSB to Solar PV G-10 relay; 4 x 25sq.mm XLPE/LSF/SWA/LSF + 16sq.mm CPC	1	Item			
C	Submains Ref: 5; MSB to DB-1; 4 x 35sq.mm XLPE/LSF/SWA/LSF + 25sq.mm CPC	1	Item			
D	Submains Ref: 5; MSB to Lift Isolator; 4 x 35sq.mm XLPE/LSF/SWA/LSF + 25sq.mm CPC	1	Item			
E	Submains Ref: 6; MSB to DB-3; 4 x 50sq.mm XLPE/LSF/SWA/LSF + 35sq.mm CPC	1	Item			
F	Submains Ref: 13; MSB to Fire Alarm Panel; 2c and earth x 2.5sq.mm PH120 Red Enhanced Grade Fire Rated Cable	1	Item			
G	Submains Ref: 13; MSB to Disable refuse Panel; 2c and earth x 2.5sq.mm PH120 Red Enhanced Grade Fire Rated Cable	1	Item			
H	Submains Ref: MSB to Intruder Alarm Panel; 3 x 4sq.mm LSF	1	Item			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
J	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
K	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
L	Operating and maintenance manuals	1	Item			

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Working drawings; all in accordance with Engineers Specification					
A	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
B	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
C	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
D	Identification plates, labels and the like	1	Item			
	(61) ELECTRICAL SUPPLY AND MAIN DISTRIBUTION - CONTAINMENT					
	System					
	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, luminaries etc; include for all joints, fixing brackets and supports; all in accordance with the Electrical Engineers Specification Part 1, Section 16; Part 2; Part 3; Part 4, Section 1 and Drawings 2556-SMK-ZZ-L0-DR-E-6103 & 2556-SMK-ZZ-L1-DR-E-6104					
E	Cable Tray; Submains; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
F	Cable Tray; Submains; galvanised steel; size 300mm wide x 75mm high; complete	1	Item			
G	Cable Tray; PV Submains; galvanised steel; size 100mm wide x 50mm high; c/ w bigfoot support system; complete	1	Item			
H	Cable Tray; PV Submains; galvanised steel; size 300mm wide x 50mm high; c/ w bigfoot support system; complete	1	Item			
J	Cable Tray; Fire Alarm; galvanised steel; size 50mm wide x 50mm high; complete	1	Item			
K	Cable Tray; Fire Alarm; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Cable Trucking; Mains wiring; 2 compartment; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
B	Cable Trucking; ELV & Mech wiring; 2 compartment; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
C	Cable Trucking; Lighting & Power; 2 compartment; galvanised steel; size 300mm wide x 75mm high; complete	1	Item			
D	Cable Wire Basket; Fire Alarm; galvanised steel; size 50mm wide x 50mm high; complete	1	Item			
E	Cable Wire Basket; Fire Alarm; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
F	Cable Wire Basket; CAT 6A data and IPCCTV; galvanised steel; size 150mm wide x 65mm high; complete	1	Item			
G	Cable Wire Basket; CAT6A; galvanised steel; size 300mm wide x 64mm high; complete	1	Item			
H	Cable Wire Basket; CAT6A; galvanised steel; size 600mm wide x 64mm high; complete	1	Item			
J	Cable In-Screed Trunking; Underfloor Services; 1 compartment; galvanised steel; Size 100mm wide x 75mm high; complete	1	Item			
K	Dado Trunking; PVC- U, high impact self-extinguishing; refer to drawing E6201; complete	1	Item			
L	Conduit; galvanised steel; size 25mm diameter; complete	1	Item			
M	Conduit; flexible; connections to plant; complete	1	Item			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
N	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents					
P	Testing and commissioning; complete	1	Item			
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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents					
A	Operating and maintenance manuals; complete	1	Item			
	Working drawings; all in accordance with the Electrical Engineers Specification Documents					
B	Working drawings; complete	1	Item			
	Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents					
C	Co-ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers Specification Documents					
D	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents					
E	Identification plates, labels and the like; complete	1	Item			
	(62) POWER					
	System					
	General Services and small power installation, testing and commissioning; complete; The contractor shall provide and install throughout, a general-purpose socket outlet and fixed power installation as indicated on the drawings; all in strict accordance with the Electrical Specification Part 1, Section 16 -17, Part 2, Part 3, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
F	General Services Installation	1	Item			
	Accessories associated with terminal equipment					
	Socket Outlets; supply and installation (including wiring); complete; metalclad finish; c/w heavy gauge steel back boxes and safety covers; surface mounting; include for all accessories and fixings; all in strict accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
G	13 Amp Switched; Double Socket	2	nr			

(6-) ELECTRICAL INSTALLATIONS (Cont)

	Socket Outlets; supply and installation (including wiring); complete; brushed stainless steel finish; c/w heavy gauge steel back boxes and safety covers; surface mounting; include for all accessories and fixings; all in strict accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202				
A	13 Amp Switched; Double Socket	7	nr		
B	Cleaner 13 Amp Switched; Single Socket	9	nr		
	Socket Outlets; supply and installation (including wiring); complete; brushed stainless steel finish; c/w heavy gauge steel back boxes and safety covers; recessed mounting; include for all accessories and fixings; all in strict accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202				
C	13 Amp Switched; Double Socket	6	nr		
D	13 Amp Unswitched; Double Socket	30	nr		
E	Cleaner 13 Amp Switched; Single Socket	2	nr		
F	Cleaner 13 Amp Unswitched; Single Socket	13	nr		
	Socket Outlets; supply and installation (including wiring); complete; dark in colour to achieve LRV value >30; c/w back boxes and safety covers; Surface fixed to PVC-U dado trunking; include for all accessories and fixings; all in accordance with the Electrical Engineers Specification 13.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202				
G	13 Amp Switched; Double Socket	83	nr		
	Fused Connection Outlet; supply and installation (including wiring); complete; brushed stainless steel finish; 13A Fused Outlet With Neon; 1 Gang 86 x 86mm; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202				
H	Fuse Connection Outlet; Unswitched; recessed mounted	16	nr		
J	Fuse Connection Outlet; Unswitched; surface mounted	6	nr		
K	Fuse Connection Outlet; Switched; recessed mounted	26	nr		
L	Fuse Connection Outlet; Switched; surface mounted	16	nr		

To Collection €

(6-) ELECTRICAL INSTALLATIONS (Cont)

Double-pole Switch; supply and installation (including wiring); complete; brushed stainless steel finish; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

A	20A Double-pole switch	8	nr		
B	20A Double-pole switch; key operated	1	nr		

3-Pole Fan Isolating Switch; supply and installation (including wiring); complete; brushed stainless steel finish c/w galvanised steel back boxes; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

C	3-Pole Fan Isolating Switch; recessed mounted	5	nr		
D	3-Pole Fan Isolating Switch; surface mounted	4	nr		

45Amp Cooker Switch; supply and installation (including wiring); complete; brushed stainless steel finish c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

E	45Amp Cooker Switch c/w Low Level Outlet	1	nr		

Isolator Switch; supply and installation (including wiring); complete; Mounting: fixed to blockwork; include for all accessories and fixings; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

F	16 Amp SPN Isolator	2	nr		
G	20 Amp SPN Isolator	4	nr		
H	32 Amp SPN Isolator	1	nr		
J	32 Amp TPN Isolator	1	nr		
K	40 Amp SPN Isolator	1	nr		
L	63 Amp SPN Isolator	1	nr		
M	63 Amp TPN Isolator	2	nr		

To Collection €

(6-) ELECTRICAL INSTALLATIONS (Cont)

	Final Circuits (including all points terminations as per M&E Drawings)					
	Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from local sub-distribution boards; Socket outlets and small power services outlets shall be circuited as shown on the drawings; Circuits shall be wired with insulated LSF/LSZH cables; standards to Engineers Specification; laid in galvanised trunking /conduit. Cable sizes are as follows: 10amp radial circuits: 2.mm2/2.5mm2 CPC, 16amp radial circuits: 4.0mm2/4.0mm2 CPC, 20amp radial circuits: 4.0mm2/4.0mm2 CPC; 32amp radial circuits (non cooker): 6.0mm2/6.0mm2CPC; 32amp radial circuits (cooker): 10.0mm2/10.0mm2CPC; all in strict accordance with the Electrical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
	Final Circuits - DB-1					
A	Power Services; Single Phase; 16Amp MCB/RCBO	11	nr			
B	Power Services; Single Phase; 20Amp MCB/RCBO	17	nr			
	Final Circuits - DB-2					
C	Power Services; Single Phase; 20Amp MCB/RCBO	11	nr			
	Final Circuits - DB- 3					
D	Power Services; Single Phase; 20Amp MCB/RCBO	37	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
E	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents					
F	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents					
G	Operating and maintenance manuals; complete	1	Item			
	Working drawings; all in accordance with the Electrical Engineers Specification Documents					
H	Working drawings; complete	1	Item			

To Collection €

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents					
A	Co-ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers Specification Documents					
B	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents					
C	Identification plates, labels and the like; complete	1	Item			
	(62) POWER DISTRIBUTION SERVICES - PV SYSTEM					
	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 a sloping roofs. The PV system shall be a building integrated and grid-connected system and operate in parallel with the grid network. The PV array is to be installed on the south facing school roof with minimal acceptable peak power rating of 8.68kWp using 310W panels. 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 Part 1, Section 18 Part 2, Part 3 and Drawings 2556-SMK-ZZ-RF-DR-E-6203					
D	Photovoltaic System installation	1	Item			
	Equipment					
	Solar PV Panels and mounting system; supply and installation (including wiring); complete; Teir 1 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 Part 1, Section 18 and Drawings 2556-SMK-ZZ-RF-DR-E-6203					
E	Solar PV Panels (Location: roof)	28	nr			

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Fittings					
	G10 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 Part 1, Section 18 and Drawings 2556-SMK-ZZ-RF-DR-E-62036203					
A	G-10 PV Control Panel	1	nr			
	Photovoltaic Inverter, supply and installation (including wiring); complete; include for all accessories and fixings; all in strict accordance with the Electrical Engineers Specification Part 1, Section 18 and Drawings 2556-SMK-ZZ-RF-DR-E-62036203					
B	Photovoltaic Inverter	2	nr			
	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 Part 1, Section 18 and Drawings 2556-SMK-ZZ-RF-DR-E-62036203					
C	LED Digital Monitor	1	nr			
	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 Part 1, Section 18 and Drawings 2556-SMK-ZZ-RF-DR-E-62036203					
D	Photovoltaic DC Isolator; shunt trip	1	nr			
E	Photovoltaic Mains AC Isolator; with shunt trip	1	nr			
F	Generation Meter	1	nr			
G	PV Alarm Light	1	nr			
H	Emergency stop button	1	nr			
J	Fire fighter safety gateway	1	nr			
K	Control & communications gateway master	1	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
L	General Earthing and Bonding; complete	1	Item			
				To Collection €		

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents					
A	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents					
B	Operating and maintenance manuals; complete	1	Item			
	Working drawings; all in accordance with the Electrical Engineers Specification Documents					
C	Working drawings; complete	1	Item			
	Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents					
D	Co-ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers Specification Documents					
E	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents					
F	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	(63) LIGHTING					
	System					
	General Lighting installation, testing and commissioning; complete; The Contractor shall include for the supply, installation, wiring, testing and commissioning of the general lighting installation as described in the Electrical Specification and as indicated on the tender drawings and equipment schedules; The system shall consist of ceiling mounted / recessed LED fittings. The lighting system shall be fed from local sub-distribution boards as indicated on the system drawings. The internal lighting circuits shall be run in LSZH 2.5sq.mm cable with a separate 2.5sq.mm earth throughout the installation. All lighting circuits shall be protected by MCB's of a minimum size of 10A. Final connections to each light fitting shall be made in 1.5mm2 LSF heat resistant cable. An automatic lighting control system shall be provided in all areas. In areas where daylight levels are sufficient, as indicated on the drawings, dimmable electronic control gear shall be provided; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21; Part 2; Part 3; Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
A	General Lighting	1	Item			
	External Lighting installation, testing and commissioning; complete; The Contractor shall include for the supply, installation, wiring, testing and commissioning of the external lighting installation as described in the Electrical Specification and as indicated on the tender drawings and equipment schedule; The school external amenity lighting comprises lighting of the car park, school footpaths/walkways and building facade lighting. All external/ amenity lighting shall be wired from a site lighting distribution board located in the new main switch room. The time clocks shall be a 24 hour, 7 day, day omit time clock located within the distribution board. The photoelectric cell shall be mounted 3000mm AFFL in a suitable location. HOA Manual / Override external lighting switchbacks shall be provided. The switchbacks shall incorporate a master override "lights on" switch to override the automatic control; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21; Part 2; Part 3; Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
B	External Lighting	1	Item			

To Collection €

(6-) ELECTRICAL INSTALLATIONS (Cont)

Emergency lighting installation, testing and commissioning; complete; The Contractor shall include for the supply, installation, wiring, testing and commissioning of the external lighting installation as described in the Electrical Specification and as indicated on the tender drawings and equipment schedule; The emergency lighting installation shall comply with IS3217:2013/ A1:2017 and EN1838: 1999. The emergency lighting system shall operate in maintained mode where they take the form of an integral conversion. Emergency exit signage operating in maintained mode and wired off the local lighting circuit. Recessed and surface mounted LED down-lighters and bulkheads that are totally self-contained shall be non-maintained. All emergency luminaires shall be LED technology throughout. All emergency fittings shall incorporate Ni-MH battery packs capable of maintaining the luminaire for 3 hours in the event of a mains failure. All emergency fittings shall be CE certified. Central test units ELT1 shall be installed locally at each distribution board for means of testing local lighting circuits; The contractor shall include for the provision of an A3 sized chart at each central test location; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21; Part 2; Part 3; Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302

A	Emergency Lighting	1	Item		
	Equipment				
	Emergency Lighting Test Unit; supply and installation (including wiring); complete; Standards to IS3217: 2013; include for all mounting grounds and accessories; Part 1, Section 19 - 21, Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302				
B	Emergency Lighting Test Unit (Ref: ELTU)	2	nr		
	Fittings				
	Luminaries; supply and installation (including wiring); complete; Luminaries shall be complete with lamps and mounting kits/ fixing brackets; Final connections: plug-in ceiling rose unit with 1.5mm2 LSF heat resistant flex cable mounted on a besa box; Earthing: 1.5mm2 green/yellow CPC boned to luminaire metalwork to lighting circuit; including all necessary accessories; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21, Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302				
C	Luminaire Ref: A; Recessed LED luminarie; Size: 597mm x 597mm x 55mm; Watt: 32.9W	43	nr		
D	Luminaire Ref: B; Recessed LED luminarie; Size: 596mm x 596mm x 55mm; Watt: 27.4W	12	nr		
E	Luminaire Ref: C; Recessed LED luminarie; Size: 597mm x 597mm x 55mm; Watt: 22.3W	44	nr		
F	Luminaire Ref: D; Surface mounted Linear LED luminarie; Size: 1600mm x 92mm x 90mm; Watt: 52.7W	11	nr		

To Collection €

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Luminaire Ref: F; Recessed LED downlight luminarie; Size: 220mm dia. x 94mm; Watt : 13.2W	24	nr			
B	Luminaire Ref: G; Recessed LED luminarie; Size: 597mm x 597mm x 55mm; Watt: 24.4W	39	nr			
C	Luminaire Ref: H; Surface mounted round bulkhead LED luminarie; Dimension: 455mm dia. x 140mm; Watt: 22.5W	10	nr			
D	Luminaire Ref: K; Recessed LED compact lens wallwasher luminarie; Watt: 10W	10	nr			
E	Luminaire Ref: M; Surface mounted Linear LED luminarie; Size: 1600mm x 92mm x 90mm; Watt: 32.6W	1	nr			
F	Luminaire Ref: EM1; Recessed high performance LED self-contained non-maintained emergency luminaire; Size: 50mm dia. x 31mm; Watts: 3W; Optics: open area	49	nr			
G	Luminaire Ref: EM2; Recessed high performance LED self-contained non-maintained emergency luminaire; Size: 50mm dia. x 31mm; Watts: 3W; Optics: escape route	11	nr			
H	Luminaire Ref: E1; Blukhead LED self-contained non-maintained emergency luminaire; Size: 352mm. x 118mm x 77mm; Watts: 1W; surface mounted to ceiling	4	nr			
J	Luminaire Ref: E1; Blukhead LED self-contained non-maintained emergency luminaire; Size: 352mm. x 118mm x 77mm; Watts: 1W; surface mounted to wall	9	nr			
K	Luminaire Ref: EA; Emergency exit sign, edge lit double sided LED luminarie; Size: 310mm x 219mm x 46mm; ceiling/wall mounted	15	nr			
L	Luminaire Ref: V; Surface mounted LED luminaire; Size: 330mm x 225mm x 50mm; Watt: 39W; surface mounting to wall	11	nr			
M	Luminaire Ref: Y; Vandal resistant luminaire; Size: 381mm x 196mm x 305mm; Watts: 25W; surface mounting to wall	11	nr			
	Lighting Control detectors; supply and installation (including wiring); complete; including all necessary accessories; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21, Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
N	Programmable microwave detector c/w 360 degree absence detection pattern, providing 7m dia. coverage at 2.8m; recessed ceiling mounted; (Ref:S1)	10	nr			
P	Infrared PIR detector; c/w 360 degree movement detection pattern, providing 6m dia. coverage at 2.6m; recessed ceiling mounted; (Ref:S2)	16	nr			
Q	Infrared PIR detector; c/w 360 degree movement detection pattern, providing 6m dia. coverage at 2.6m; recessed ceiling mounted; (Ref:S3)	2	nr			

To Collection €

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Programmable microwave detector c/w 20x20m range for use in corridors and stairwells; recessed ceiling mounted; (Ref:S4)	13	nr			
B	Photocell (Ref: PC)	1	nr			
C	Time Clock for External Lighting switch	2	nr			
	Accessories associated with terminal equipment					
	Light Switches; supply and installation (including wiring) complete; Light switch: 10/20amp, brushed stainless steel finish; c/w heavy guage steel back boxes; surface mounting 1100mm to centre of outlet above finished floor level, minimum distance from internal corners 350mm; including all necessary accessories; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
D	Light Switch; 1nr 1way	6	nr			
E	Light Switch; 1nr 1way (Push to Make Switch- Retractable)	3	nr			
F	Light Switch; 1nr 2way	8	nr			
G	Light Switch; 1nr key switch	4	nr			
	Light Switches; supply and installation (including wiring) complete; Light switch: 10/20amp, brushed stainless steel finish; c/w heavy guage steel back boxes; recessed mounting 1100mm to centre of outlet above finished floor level, minimum distance from internal corners 350mm; including all necessary accessories; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
H	Light Switch; 1nr 1way	13	nr			
J	Light Switch; 1nr 1way (Push to Make Switch- Retractable)	2	nr			
K	Light Switch; 1nr 2way	6	nr			
L	Light Switch; 1nr intermediate switch	1	nr			
M	Light Switch; HOA	6	nr			
N	Light Switch; 1nr digital time delay switch	6	nr			
				To Collection €		

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Final Circuits (including all points terminations)					
	Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from the main and sub-distribution boards; Circuits shall be wired with insulated LSF cables; standards to Engineers Specification; enclosed within class 4 screwed galvanised trunking /conduit. Cable sizes are as follows: 10amp lighting circuits: 2.5mm2/2.5mm2 CPC; all in strict accordance with the Electrical Engineers Specification Part 1, Section 19 - 21,					
	Final Circuits - DB-1					
A	Lighting / Emergency Lighting; Single Phase; 10Amp MCB	11	nr			
	Final Circuits - DB-3					
B	Lighting / Emergency Lighting; Single Phase; 10Amp MCB	13	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
C	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
D	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
E	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
F	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
G	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
H	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
J	Identification plates, labels and the like	1	Item			
				To Collection €		

(6-) ELECTRICAL INSTALLATIONS (Cont)

(64) COMMUNICATION - DATA & IT

System

Information and Communication Technology System installation, testing and commissioning; complete; The ICT structured cabling system should be an integrated network to support both data and the telephony part of data. The infrastructure shall include the structured cabling, RJ45 sockets, RJ45 patch panels and cabinets. The primary network shall be designed as Category 6 enhanced / Class EA. It is deemed essential that the structured cabling system be installed by suitably trained electrical contractors, or appropriately trained personnel, however only specialists contractors shall be used to install optic fibre cabling. Fibre optic cables shall be provided between the DCC and any Intermediate Distribution Facility (IDF); all in strict accordance with the Electrical Engineers Specification Part 1, Section 22; Part 2; Part 3; Part 4, Section 4 and Drawings 2556-SMK-ZZ-L0-DR-E-6201, 2556-SMK-ZZ-L1-DR-E-6202 & 2556-SMK-ZZ-LL-DR-E-6450

A	Data / IT Installations	1	Item		

Telephony System installation, testing and commissioning; complete; The telephone backbone system installed as part of this project will use BT Ireland specification CW1308 multicore cable, providing a minimum of 2-pair modularity to each outlet. The specialist contractor should refer to the building layout drawings when making provision for the voice backbone infrastructure. The multi-core cable must be sized to cover the total number of voice points shown, whilst allowing for 30% future capacity; all in strict accordance with the Electrical Engineers Specification Part 1, Section 22; Part 2; Part 3; Part 4, Section 4 and Drawings 2556-SMK-ZZ-L0-DR-E-6201, 2556-SMK-ZZ-L1-DR-E-6202 & 2556-SMK-ZZ-LL-DR-E-6450

B	Telephone System	1	Item		

To Collection €

(6-) ELECTRICAL INSTALLATIONS (Cont)

Equipment

Communications Cabinet; supply and installation (including wiring) complete; Performance Specification: Size: 42U, 800mm wide x 800mm deep; Front Door: Mesh door with security locking system; Rear Door: Steel ventilated, wire mesh with security locking system; Side Panels: Lockable & removable side panels: Top Cover: Ventilated; Cable Tray: Yes; Cable Management: 1U for every 24 RJ45 ports installed and vertically along each side top-to-bottom; 19" Panel Mounts Front and Rear: Yes; Cross Member Supports: Yes; Internal Shelves: 2 No. heavy-duty & 2 No. cantilever (front mounting) shelves; 1 x 4 way low-noise fan: Yes; Retractable Cabinet Feet: Yes, castors for transport only; Power Unit: 2 x 9-way 13-AMP power distribution unit - powered from dedicated 20A circuit; Safety Earthing Kit: Yes; c/w fibre optic patch panels; CAT 6a patch panels, voice patch panel; structured and backbone cabling, outlets, RJ45 patch frames, device leads, patch leads and 25% spare capacity; include for all and accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 22; Part 4, Section 4 and Drawings 2556-SMK-ZZ-LL-DR-E-6450

A	Communications Cabinet; complete (Location: Plant room/Store)	1	nr		

Test Jack Frame; supply and installation; complete test jack frame c/w 20-pair Krone strip; include for all accessories and fixings; all in accordance with the Electrical Engineers Specification Part 1, Section 22 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

B	Test Jack Frame c/w 20-pair Krone stip	1	nr		

Accessories associated with terminal equipment

Data Outlet; supply and installation (including wiring); complete; Outlets: 8pin modular (RJ45) jacks; metalclad finish; Mounting: surface mounting; 450mm to centre of outlet above finished floor level, minimum distance from internal corners 350mm; all accessories shall be engraved to indicate the circuit reference number; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Engineers Specification Part 1, Section 22 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

C	Data Outlets - 1 point (NP)	7	nr		

Data Outlet; supply and installation (including wiring); complete; Outlets: 8pin modular (RJ45) jacks; brushed stainless steel finish; Mounting: recessed mounting; 450mm to centre of outlet above finished floor level, minimum distance from internal corners 350mm; all accessories shall be engraved to indicate the circuit reference number; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Engineers Specification Part 1, Section 22 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

D	Data Outlets - 1 point	7	nr		
E	Data Outlets - 1 point (WAPNP)	7	nr		
F	Data Outlets - 1 point (NP)	7	nr		

To Collection €

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Data Outlets - 1 point (PCNP)	4	nr			
B	Data Outlets - 1 point (CCTVNP)	4	nr			
C	Data Outlets - 1 point (IP CCTVNP)	7	nr			
	Data Outlet; supply and installation (including wiring); complete; Outlets: 8pin modular (RJ45) jacks; Finish: White metal clad; c/w back boxes; Mounting: surface mounting to dado trunking, include for all accessories shall be engraved to indicate the circuit reference number; include for all accessories and fixings; all in accordance with the Electrical Engineers Specification Part 1, Section 22 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
D	Data Outlets - 1 point	3	nr			
E	Data Outlets - 1 point (WAPNP)	5	nr			
F	Data Outlets - 1 point (TPNP)	4	nr			
G	Data Outlets - 1 point (DPNP)	6	nr			
H	Data Outlets - 1 point (PCNP)	33	nr			
J	Data Outlets - 2 point (PCNP)	4	nr			
K	Data Outlets - 1 point (PNP)	1	nr			
	Project audio faceplate; supply and installation (including wiring); complete; include for all accessories and fixings; all in accordance with the Electrical Engineers Specification Part 1, Section 22 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
L	Project Audio faceplate; Ref: PAF 1	5	nr			
M	Project Audio faceplate; Ref: PAF 2	5	nr			
	Mains Sub-mains Cables					
	Multicore Cable; installation, testing and commissioning; complete; 50 pair PVC/ PETP Multicore cable; distributed within galvanised trunking /conduit; terminations at both ends; include for all fittings and accessories; all in strict accordance with the Electrical Engineers Specification and Drawing 2556-SMK-ZZ-LL-DR-E-6450					
N	Cabling from Krone Patch Frame to New comms cabinets (Ref: IDF)	1	Item			
P	Cabling from Krone Patch Frame to Existing comms cabinets (Ref: MDF)	1	Item			

To Collection €

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Fibre Cable; installation, testing and commissioning; complete; 8 core OM4 lazerspeed fibre cable; distributed within galvanised trunking /conduit; 8 core OM4 lazerspeed fibre external grade cable; distributed within underground ducts; terminating at both ends; include for all fittings and accessories; all in strict accordance with the Electrical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
A	Cabling from Existing Comms cabinets to New comms cabinet (Ref: IDF)	1	Item			
B	Cabling from Existing Comms cabinets to Lucy pillars	1	Item			
	CAT 6a UTP Cable; installation, testing and commissioning; complete; distributed within galvanised trunking /conduit; include for all fittings and accessories; all in strict accordance with the Electrical Engineers Specification and Drawing 2556-SMK-ZZ-LL-DR-E-6450					
C	Cabling from Existing Comms cabinets to New comms cabinet (Ref: IDF)	1	Item			
D	Cabling from New Comms cabinets (Ref: IDF) to BMS panel	1	Item			
	Final Circuits (including all points terminations as per M&E Drawings)					
	CAT 6a UTP Cable; installation, testing and commissioning; complete; distributed within galvanised trunking /conduit; include for all fittings and accessories; all in strict accordance with the Electrical Engineers Specification and Drawing 2556-SMK-ZZ-LL-DR-E-6450					
E	Cable from new comms (Ref: IDF) to data points	113	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
F	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
G	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
H	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
J	Working drawings	1	Item			
				To Collection €		

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Co-ordination drawings; all in accordance with Engineers Specification					
A	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
B	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
C	Identification plates, labels and the like	1	Item			
	(64) COMMUNICATIONS - PUBLIC ADDRESS					
	System					
	Public Address System installation, testing and commissioning; complete; The electrical contractor shall provide a one-way public address (PA) system within the school building. The public address system shall enable each classroom and each zone to be independently addressable from the desk mounted paging stations, the multi-zone amplifiers shall be linked together to allow operation as one complete integrated system, allowing paging in groups, globally or individually as required. As per current TGD update, loudspeakers in all special educational needs unit (SENU) classroom accommodation shall have local volume control. All speakers shall be wall-mounted, operate at 100V, with side mounted integral volume control, steel vandal proof body painted white RAL9010, and have tapping facilities for 3watts and 6watts. External speakers shall be 15W and IP67 rated horn-type speakers. All new speakers shall be addressed from the master control position in the proposed administration office. Wiring between the master switch and speakers shall be by means of 2core 2.5mm2 stranded flexible cable; The electrical contractor shall allow for a new 50 pair multicore 1mm2 PA cable to link back the new PA system located in the SENU office the existing PA system located in the existing school office. The system shall be commissioned and tested by the specialist installer who shall be certified technology specialists (CTS) and approved by the engineer. Installation shall include 12 months warranty. Commissioning documentation shall be included in the O&M manuals at handover; all in strict accordance with the Electrical Engineers Specification Part 1, Section 23; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6501, 2556-SMK-ZZ-L1-DR-E-6502 & 2556-SMK-ZZ-LL-DR-E-6550					
D	Public Address System Installation	1	Item			

(6-) ELECTRICAL INSTALLATIONS (Cont)

	Equipment					
	Public Address desk mounted console; supply and installation (including wiring); c/w amplifier, programme signal-timer; gooseneck mic, Aux-inputs, tone oscillator, multi. no. selector switches, 1nr. master switch, input SKT for mic leads and other external source lead, reproduction facilities for recording and broadcasts, automatic class change system operating though 24-hr master clock system c/w external sounder, PA transistorised 60A; include for all and accessories; all in strict accordance with the Electrical Particular Specification 18.3 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
A	Public address desk mounted console (Ref: PA AMP; Location: SENU Office)	1	nr			
	PA rack unit; supply and installation; 600x600 open cabinet frame; glazed front door with secure locking system; steel ventilated rear door with secure locking system; steel ventilated side panels with secure locking system; 600x600 fully ventilated top cover; 19" mounting rails fitted front and rear of cabinet; cross member supports; cabinet feet x 4; 4-way, 600x600 low noise fan tray; 9-way Power distribution strip; earthing kit; baying kit (vertical and horizontal); lacing bars (as required); blanks (as required); velcro straps (as required); brush panels (as required); trim strips (as required); include for all accessories; all in strict accordance with the Electrical Specification Part 1, Section 23.5					
B	PA rack unit (Location: SENU office)	1	nr			
	Fittings					
	Public Address Fittings; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Specification Part 1, Section 23 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
C	Speaker; external horn speaker; wall mounted c/w mounting brackets	6	nr			
D	Speaker; 2-way intercom speaker; volume control; wall mounted c/w mounting brackets	11	nr			
E	Speakers; 1-way speaker; internal; wall mounted/w mounting brackets	10	nr			
F	Speakers; 1-way speaker; volume control; internal; wall mounted/w mounting brackets	2	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
G	General Earthing and Bonding; complete	1	Item			

To Collection €

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
A	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
B	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
C	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
D	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
E	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
F	Identification plates, labels and the like	1	Item			
	(64) COMMUNICATIONS - DISABLE WC ASSISTANCE ALARM					
	System					
	Disabled Toilet Alarm Installation, testing and commissioning; complete; The contractor shall allow for the installation of a disabled person call alarm system in all disabled persons WC's as indicated on the drawings. The system shall comprise, central remote indicator unit/panel located in the existing admin office and local power supply unit(s), over door indicators, reset buttons and pull cords. All units shall be surface mounted with the exception of the panel in the admin office that shall be a single panel that can easily identify as to which bathroom the alarm has been raised. This shall be by means of a visual indicator and engraved text under the indicator. Individual indicator units shall not be accepted. The contractor shall liaise with the specialist supplier prior to submission of his tender to ensure that all wiring, containment and power supplies have been allowed for in the overall tender figure, no claims shall be entertained post tender; all in strict accordance with the Electrical Engineers Specification Part 1, Section 25; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702					
G	Disable Toilet Alarm System Installation	1	Item			

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Equipment					
	Disabled WC Assistance Alarm Control Unit; supply and installation (including wiring); including all necessary accessories; all in accordance with the Electrical Engineers Specification Part 1, Section 25 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702					
A	WC Assistance Alarm Control Panel c/w PSU unit	1	nr			
	Accessories associated with terminal equipment					
	Disabled WC Assistance Alarm Accessories; supply and installation (including wiring); including all necessary accessories; all in accordance with the Electrical Engineers Specification Part 1, Section 25 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702					
B	Reset Unit	7	nr			
C	Over Door Indicator Unit	7	nr			
D	Pull Cord	8	nr			
E	Remote Indicator	5	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
F	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
G	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
H	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
J	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
K	Co-ordination drawings	1	Item			

To Collection €

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	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	As built drawings; all in accordance with Engineers Specification					
A	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
B	Identification plates, labels and the like	1	Item			

To Collection €

(6-) ELECTRICAL INSTALLATIONS (Cont)

(65) SECURITY & PROTECTION - INTRUDER ALARM

System

Intruder Alarm System installation, testing and commissioning; complete; The contractor shall allow for employing a PSA licensed intruder alarm specialist for the supply, terminations, testing and commissioning of a closed circuit intruder alarm system installation; The system installation and equipment must all comply with EN50131-1: 2004, Grade 3; On completion of the entire school, including all phases, the schools intruder alarm shall be one single system, with functionality available from all keypads; Panic attack pushbuttons shall be provided in the admin office and principals offices, as detailed on the contract drawings; A new control panel shall be provided in the extension which shall be located in the plant room and linked back to the existing panel located within the main school building near reception; Internally the system shall be wired using 8c 0.7mm2 PVC/PVC cable in radial circuits. External wiring shall be carried out in multi-pair Pol/Poly gel filled cable; Activation and deactivation of the entire system shall be by keypad and key-fobs; A new keypad shall be located in the entrance foyer of the new build; The intruder alarm system shall be connected up to a central monitoring station for remote monitoring of the installation. The system shall have GSM dual path signalling monitoring service, which shall monitor the system 24-hours a day, 7 days a week, by the monitoring company. This phone line monitoring service operates 24 hours a day, verifying that the phone line is operational and has not been cut by intruders. In addition, if the phone line goes down, the GSM will automatically switch alarm communications to the mobile phone network, allowing the alarm system to operate as per normal even though the regular phone line is inoperative. In this way, the phone line is disrupted due to intruder attack or other reasons (e.g. accidents etc) the system will still be fully functional;

The contractor shall allow for all monitoring costs for the first 12-months and for liaising with the monitoring station for the provision and initial cost for setting up external monitoring. This shall be included at tender stage. The contractor shall be responsible for providing all telephone cabling as necessary within the school between Eircom's incoming position and the intruder alarm panel. The specialist installer shall include in their tender for the cost of comprehensive maintenance of the systems for a period of 12 months from the date of commissioning. This cost shall include for 24-hour engineering maintenance cover. Preventative maintenance and corrective maintenance will be provided and will consist of 2 site visits to be carried out on a 6 monthly basis. Copies of all maintenance carried out shall be forward to the engineer for his records. The intruder alarm system must be connected to the high level external security lighting installation. The fire alarm system must be connected to the intruder alarm system, which will automatically connect to a 24-hour central station; all in strict accordance with the Electrical Engineers Specification Part 1, Section 32; Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-E-6501, 2556-SMK-ZZ-L1-DR-E-6502 & 2556-SMK-ZZ-LL-DR-E-6550

A	Intruder Alarm System	1	Item			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Equipment					
	Intruder Alarm equipment; supply and installation (including wiring); c/w standby rechargeable battery backup; including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 32; Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
A	Intruder Alarm Control Panel; complete (Ref: IAP; Location: Plant Room/ Store)	1	nr			
	Fittings					
	Intruder Alarm Fittings; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 32; Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
B	Detector; Long Range PIR (Ref: PIR)	5	nr			
C	Detector; PIR Dual Tech Wide Angle	9	nr			
D	Detector; 360 Degree PIR Dual-tech Anti-Mask	2	nr			
E	Sounder; Internal	1	nr			
F	Sounder; External Sounder/ strobe c/w weather proof wire cage	2	nr			
G	Magnetic Door Contact	12	nr			
H	Keypad	1	nr			
J	Digi Dialer	1	nr			
K	Panic Button	1	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
L	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
M	Testing and commissioning	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Operating and maintenance manuals; all in accordance with Engineers Specification					
A	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
B	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
C	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
D	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
E	Identification plates, labels and the like	1	Item			
	(65) SECURITY & PROTECTION - ACCESS CONTROL					
	System					
	Access Control System installation, testing and commissioning; complete; The electrical contractor shall employ a security sub-specialist for the supply, installation, commissioning & demonstrations of the entire TCP/IP door intercom and access control proposed for this project as described in the specification and as detailed on tender drawings; all in strict accordance with the Electrical Engineers Specification Part 1, Section 30; Part 2, Part 3 & Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
F	Access Control System	1	Item			
	Equipment					
	Door Entry Equipment; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Specifications Part 1, Section 30 & Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
G	Door Entry Control Panel (Ref: DECP)	1	nr			

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Fittings					
	Door Entry Fittings; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Specifications Part 1, Section 30 & Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
A	Door Entry Internal Handset	2	nr			
B	Door Entry Push to Talk Video Intercom Unit	1	nr			
C	Escape Door Lock Package; flush mounted, T1 delay; to EN 13637 incorporating fob reader, green break glass, keyswitch, magnectic lock; complete	2	nr			
D	Escape Door Lock Package external grade; flush mounted, T1 delay; to EN 13637 incorporating fob reader, green break glass, keyswitch, magnectic lock; complete	3	nr			
E	Electronic Magnetic Lock; to EN 179; complete	3	nr			
F	Electronic Panic Bars; Dorma EN 1125 or equivalent; complete	5	nr			
G	Egress Button	3	nr			
H	Break Glass Unit, Green	4	nr			
J	FOB/Prox Reader; internal	5	nr			
K	FOB/Prox Reader; external	9	nr			
L	Key fob tokens	20	nr			
M	Alert Buzzer Push Button	1	nr			
N	Electronic Door Bell	1	nr			
P	Key switch	4	nr			
Q	Door controller in ceiling void	7	nr			
R	Power Supply Unit	7	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
S	General Earthing and Bonding; complete	1	Item			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
A	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
B	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
C	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
D	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
E	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
F	Identification plates, labels and the like	1	Item			
	(65) SECURITY & PROTECTION - CCTV					
	System					
	Closed Circuit Television System installation, testing and commissioning; complete; The electrical contractor shall allow employing a PSA (Private Security Authority) licensed security specialist for the purchase, supply, installation & commissioning of the IP Analytical CCTV installation associated with this project. The system shall be installed to EN50132 Parts 1-7; The electrical contractor shall supply and install all wire ways and segregated cable containment systems to all CCTV point locations and provide a link to the system in the existing building; The managed IP CCTV platform shall be monitored after building hours by a PSA licenced monitoring company in accordance with PSA33:2014. The costs for the first 1-year monitoring shall be included within the contract; all in strict accordance with the Electrical Engineers Specification Part 1, Section 31; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
G	CCTV System	1	Item			

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Equipment					
	CCTV Control Unit; supply and installation supply and installation (including wiring); c/w Network Video Management Software (NVMS), Network Video Recording Hardware (NVR) and workstation; including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 31 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
A	CCTV Central Control Equipment; complete (Ref: NVR; Location: Plant Room/ Store)	1	nr			
	NVR cabinet; supply and installation; complete; Size: 800mm wide x 1000mm deep wall cabinets; Glazed front door with security locking system; Steel ventilated, wire mesh rear door with security locking system; Lockable side panels; Ventilated top cover; Vertical cable management; Vertical cable tray; 19" panel mounts fitted front and rear; Cross member supports; 1 x 4-way low-noise fan tray; 2 x 12-way 13-AMP power distribution unit; including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 31.9					
B	NVR cabinet (Location: Plant Room/Store)	1	nr			
	Uninterruptible Power System; supply and installation; complete; 800VA / 480-watts capacity; 220/230/240VAC voltage; 81-145VAC / 162-290VAC voltage range; 60/50Hz (auto sensing) frequency range; +/- 10% AC voltage regulation (battery mode); Transfer time: 2-6ms, 10ms max.; Waveform (battery mode): simulated sine wave; With short-circuit and overload protection; 12V / 9AH x 1 battery; 23-minutes autonomy (based on 1 No. PC load at 99W); Recharge time: 4-hours recovery to 90% capacity; With green, yellow and red flashing indicators for AC mode, battery mode and fault respectively; With overload, discharge and overcharge protection; Alarms for battery-mode, low-battery, overload, battery replacement and fault; Dimensions 330(d) x 100(w) x 140(h)mm; < 40dB noise level; Management: USB port supports windows 2008, Linux and MAC; including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 31.10					
C	Uninterruptible Power System (Ref: UPS; Location: Plant Room/Store)	1	nr			
	Fittings					
	CCTV Fittings; supply and installation supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 31 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
D	40" LED Colour Monitor c/w mounting brackets	1	nr			
E	External CCTV Camera	1	nr			
F	Fixed Dome CCTV Camera	1	nr			
G	CCTV Camera; WIRING PROVISION ONLY for future installation of camera	5	nr			
				To Collection €		

(6-) ELECTRICAL INSTALLATIONS (Cont)

Accessories Associated with Terminal Equipment

External CCTV Camera; supply and installation; complete; Each sign shall carry a symbol of a CCTV camera and contain the following wording 'This system is controlled and operated by Del La Salle College'; include for all and accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 31 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502

A	External CCTV camera signage	1	nr		
B	Dome CCTV camera signage	1	nr		

General Earthing and Bonding

General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification

C	General Earthing and Bonding; complete	1	Item		

General

Testing and commissioning; all in accordance with Engineers Specification

D	Testing and commissioning	1	Item		

Operating and maintenance manuals; all in accordance with Engineers Specification

E	Operating and maintenance manuals	1	Item		

Working drawings; all in accordance with Engineers Specification

F	Working drawings	1	Item		

Co-ordination drawings; all in accordance with Engineers Specification

G	Co-ordination drawings	1	Item		

As built drawings; all in accordance with Engineers Specification

H	As built drawings	1	Item		

Identification plates, labels and the like; all in accordance with Engineers Specification

J	Identification plates, labels and the like	1	Item		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	(65) SECURITY SERVICES - PANIC ATTACK ALARM SYSTEM					
	System					
	Wireless Panic Alarm System installation, testing and commissioning; complete; The contractor shall allow for a wireless panic attack system consisting of central display stations in the School Office and emergency assist/panic personal activation devices worn by staff shall be supplied and installed as part of the electrical installation. A display shall also be located in the Central Activities Space. The central control panel shall be located in the comms room, close to the SENU. Refer to the security drawings for details; The system provided shall provide coverage for both the Special Educational Needs Accommodation as well as the outdoor spaces associated with the SENU. The system shall be an addressable system comprising mobile personal activation devices worn by staff members and a number of addressable infrared receiver units throughout the facility; All wiring, containment and power supplies and other provisions necessary for the full, safe and complete operation of the system shall be allowed for; The contractor shall appoint the system specialist supplier/installer to test and commission the installation as specified. The contractor shall include for attendance by the specialist supplier/installer to demonstrate the functionality of the completed installation to the client or the client's representative; all in accordance with the Electrical Engineers Specification Part 1, Part 2, Part 3 and Drawing 2556-SMK-ZZ-L1-DR-E-6502					
A	Wireless Panic Alarm System	1	Item			
	Equipment					
	Panic Attack Alarm Control Panel; supply and installation; complete; include for all and accessories; all in strict accordance with the Electrical Engineers Specification					
B	Panic Attack Alarm Control Panel	1	nr			
	Fittings					
	Wireless Receivers; supply and installation (including wiring); Type: addressable; include for all and accessories; all in strict accordance with the Electrical Engineers Specification					
C	Wireless Receivers, internal (Ref: IR)	21	nr			
D	Wireless Receivers, external; IP65 (Ref: RF)	5	nr			
	LCD Display Unit; supply and installation (including wiring); c/w integral sounder and 2-lines of text to show incident location and caller i.d; include for all and accessories; all in strict accordance with the Electrical Engineers Specification					
E	LCD Display Unit (Central activities space)	1	nr			
F	LCD Display Unit (School office)	1	nr			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Accessories Associated with Terminal Equipment					
	Panic Button; supply and installation (including wiring); complete; include for all and accessories; all in strict accordance with the Electrical Engineers Specification					
A	Panic Button	3	nr			
	Personal activation devices; supply and installation; complete; Type: IR and FR key-ring type; include for all and accessories; all in strict accordance with the Electrical Engineers Specification					
B	Personal activation devices	5	nr			
C	Personal activation radio pager devices	5	nr			
	General Earthing and Bonding					
	General Earthing; to be provided to the parameters of the ETCI National Rules for Electrical Installations; all in accordance with Engineers specification and drawings					
D	Generally	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
E	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
F	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
G	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
H	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
J	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
K	Identification plates, labels and the like	1	Item			
				To Collection €		

(6-) ELECTRICAL INSTALLATIONS (Cont)

(65) SECURITY & PROTECTION - FIRE ALARM

System

Fire Alarm installation; testing and commissioning; complete; The Contractor shall supply, install, test and commission an analogue, fully addressable, automatic Fire Detection & Alarm System; with a minimum of L2/L3 coverage to IS3218:2013 +A1 2019 and as detailed on the drawings; the system and all equipment shall be open protocol;"Managed" with closed protocol system shall not be acceptable, The sensors, sounders and manual call points shall be in the same loop circuit. The system shall be capable of controlling 100 devices per loop, c/w 4 No. loop cards fitted and tested; All devices, sounders and break glass units shall be wired in 2 core & earth 1.5mm2 (unless stated otherwise) fire rated cable to PH120 classification; The fire alarm system shall interface with the following: Disable refuse, Aspirating smoke detection system; Gas Detection Panel, Lift Control Panel, MCC, Smoke Vents, Electro-Magnetic Door Hold-Open Devices, The Fire Alarm System shall be linked to the monitoring station via the digi-dialer on the intruder alarm panel allow 4C 1.5mm2 PH120 cable between the fire alarm panel and intruder alarm panel; Wiring connections of telephone line at EIRCOM DP point, setting-up and activating the link to the monitoring station shall be provided; The entire system shall be tested and commissioned in accordance with IS3218:2013 on completion of the installation, documentation and as-installed drawings, including sound levels shall be included in the O&P manuals; an audibility test shall be carried out throughout the building; The contractor shall include for Fire Alarm Zone/Loop Chart. The contractor shall include for monitoring the installation and pay all costs for the first 12 months of operation, which shall include 24 hour (4 hour call out period maximum) response to system faults and free parts and labour warranty for the duration of this maintenance contract; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 2; Part 3; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702 & 2556-SMK-ZZ-LL-DR-E-6750

A	Fire Alarm System	1	Item		

Equipment

Fire Alarm Panel; supply and installation (including wiring); complete; surface fixed to fair faced block-work; include for all and accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702

B	Fire Alarm Panel; 4 loop panel; complete (Ref: MFACP)	1	nr		
C	Fire Alarm Repeater Panel; complete (Ref: RFACP)	1	nr		

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Fittings					
	Fire Alarm Fittings; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702					
A	Addressable Smoke Detector Optical	15	nr			
B	Addressable Smoke Detector c/w remote indicator	33	nr			
C	Addressable Smoke Detector/ Sounder	22	nr			
D	Addressable Smoke Detector/ Sounder & Beacon	17	nr			
E	Fire Alarm Sounder/Beacon - External	2	nr			
	Accessories associated with Terminal Equipment					
	Fire Alarm accessories; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702					
F	Electronic Magnetic Door Hold Open Device c/w Manual Release	4	nr			
G	Fire Alarm Interface Unit (Ref; I/F)	10	nr			
H	Manual call point; Fully resettable type via key operation	10	nr			
J	Manual Override/Reset keyswitch & Yellow Breakglass	1	nr			
K	Firemans Switch	1	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
L	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
M	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
N	Operating and maintenance manuals	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Working drawings; all in accordance with Engineers Specification					
A	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
B	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
C	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
D	Identification plates, labels and the like	1	Item			
	(65) SECURITY & PROTECTION - AIR SAMPLING SMOKE DETECTION SYSTEM					
	System					
	Air Sampling Smoke Detection System; The contractor shall supply and install an Air Sampling Aspirating Smoke Detection (ASSD) system in the proposed new lift shaft. The installation equipment inclusive of pipe and pipe fittings and accessories shall conform to EN-54-20, IS3218:2013+A1 2019 & BS5839-1:2017; all in strict accordance with the Electrical Engineers Specification Part 1, Section 28; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702					
E	Air Sampling Smoke Detection System	1	Item			
	Equipment					
	Air Sampling Smoke Detection Control Panel; supply and installation (including wiring); complete; surface fixed to fair faced block-work; include for all and accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 28 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702					
F	Air Sampling Smoke Detection Control Pane (Ref: ASSDS; Location: Daily Living Skills)	1	nr			
	Accessories associated with Terminal Equipment					
G	The following item is not measured in accordance with ARM4 supplement 2.		Note			
H	Air sampling tube 22mm diameter to lift; c/w sample points, unions, tees, valves, coulpings, bends, end caps and support system; include for all accessories; all in accordance with the Electrical Engineers Specification Part 1, Section 28 and Drawing 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702	20	m			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	End of items not measured in accordance with ARM4 supplement 2		Note			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
B	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
C	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
D	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
E	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
F	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
G	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
H	Identification plates, labels and the like	1	Item			
				To Collection €		

(6-) ELECTRICAL INSTALLATIONS (Cont)

(65) SECURITY & PROTECTION - DISABLE REFUSE

System

Disable Refuse installation, testing and commissioning; complete; The contractor will supply, install, test and commission a disabled refuge system. A master panel will be installed in the main lobby linked to outstations in locations as per the contract drawings. The system will provide two-way communication between the main panel and outstations. The system will also be linked to the fire alarm system which shall activate the disabled refuge system on activation of the fire alarm mitigating false use of the system. Until the disabled refuge system is activated by the fire alarm system a visual indication that the system is not activated will be provided at each outstation. All wiring will be carried out in enhanced 2-core & earth 1.5mm2 fire-rated screened cable. Circuits will be in the form of monitored loops. Emergency power will be in the form of a battery back-up capable of providing a minimum of 24 hr standby and 3hr use. The main control panel will be contained in a stainless-steel enclosure with a lockable glazed door with outstations in IP66 green steel enclosures; After the final commissioning the system shall be demonstrated to the school; The hand over documents must include the following: Certificate of demonstration to Contractor, Certificate of demonstration to Employer's Representative, Certificate of demonstration to Client, Operation manuals, Commission Certificate; all in strict accordance with the Electrical Engineers Specification Part 1, Section 29; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702 & 2556-SMK-ZZ-LL-DR-E-6750

A	Disable Refuse System	1	Item		

Equipment

Disabled Refuge Control system; supply and installation (including wiring); complete; Control panel mounting height 1400mm - 1500mm to panel centre; include for all and accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 29 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702 & 2556-SMK-ZZ-LL-DR-E-6750

B	Disable Refuse Main Control Panel (Location: Entrance Lobby, Ref: DRCP)	1	nr		

Fittings

Disabled Refuge Remote Outstation; supply and installation (including wiring); complete; Outstation mounting height 900mm - 1200mm to panel centre; include for all mounting grounds and accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 29 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702 & 2556-SMK-ZZ-LL-DR-E-6750

C	Disabled Refuse Speech Panel (Ref: SU)	2	nr		

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification and Drawings 2691-SMK-ZZ-L0-DR-E-6701 & 2691-SMK-ZZ-L1-DR-E-6702					
A	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
B	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
C	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
D	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
E	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
F	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
G	Identification plates, labels and the like	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	(65) SECURITY & PROTECTION - LIGHTNING PROTECTION					
	System					
	Lightning Protection Installation; installation; testing and commissioning; complete; The contractor will supply, install, test and commission a level IV lightning protection system (through a specialist) in IS EN62305. The system shall be integrated into the existing LP system. The system shall consist of a roof top air terminal network (bonded to all external metal part on or above roof level) connecting through sheathed copper down conductors (minimum size of 3mm x 25mm) to earth pits for each down conductor with all above ground elements coated in PVC to RAL colour of the architect's choice; all in strict accordance with the Electrical Engineers Specification Part 1, Section 34 and Drawings 2556-SMK-ZZ-RF-DR-E-6503					
A	Lightning Protection System	1	Item			
	Fittings					
	Strike pads; installed on the apex of the pitched roof areas; c/w saddle supports; complete; as per Engineers Specifications Part 1, Section 34 and Drawings 2556-SMK-ZZ-RF-DR-E-6503					
B	Strickle pads	4	nr			
	Cables					
	High conductivity PVC coated, annealed copper; conductor tape fitted at roof level; PVC cover shall be provided to all horizontal conductors; fitted with non matalic clips suitable for copper tape, screw fixed; include for square tape clamps as required; complete; as per Engineers Specifications Part 1, Section 34 and Drawings 2556-SMK-ZZ-RF-DR-E-6503					
C	25mm x 3mm Lightning Conductor tape	1	Item			
	Lightning Protection bond from the air termination network to items of plant, roof lights, guttering etc; complete; as per Engineers Specifications Part 1, Section 34 and Drawings 2556-SMK-ZZ-RF-DR-E-6503					
D	Lightning Protection bond - roof lights	1	Item			
E	Lightning Protection bond - Flues	1	Item			
F	Lightning Protection bond - Roof covering to structural Steel	1	Item			
G	Lightning Protection bond - Steel Columns	1	Item			
H	Lightning Protection bond - PV Panels	1	Item			
J	Lightning Protection bond - Access Hatch	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Down Conductors and Earthing points; 2.4m copper bond earth electrode c/w rod tape clamp; Conductors to be PVC coloured to match masonry work; terminating at ground level in a set of earth rods (measured elsewhere); complete; as per Engineers Specifications 27 and Drawings 2556-SMK-ZZ-RF-DR-E-6503					
A	Down Conductors and Earthing points	1	Item			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification and Drawings 2691-SMK-ZZ-L0-DR-E-6701 & 2691-SMK-ZZ-L1-DR-E-6702					
B	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
C	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
D	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
E	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
F	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
G	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
H	Identification plates, labels and the like	1	Item			

To Collection €

(6-) ELECTRICAL INSTALLATIONS (Cont)

(65) SECURITY & PROTECTION - EARTHING

System

Earthing and Bonding Installation; testing and commissioning; complete; The contractor shall contact the supply authority to determine the earthing system proposed and which shall be applicable in the new building as defined in the ETCI Regulations, NSAI IS10101:2020. The installation Earthing Conductor shall be connected to the Protective Conductor of the incoming services, The installations shall be provided with main earthing terminals or bars as part of the main L.V. Switchboard, to which the earthing conductors, Main equipotential bonding conductors shall be in accordance with IS10101:2020 and shall be installed to connect the main earthing terminals or bars; all in accordance with the Electrical Engineers Specifications Part 1, Section 37; Part 2; Part 3; Part 4 and Drawings 2556-SMK-ZZ-LL-DR-E-6150

A	Earthing and Bonding	1	Item			

Fittings

Earth terminal bar; supply and installation; c/w insulating shrouds to I.S. 10101:2020 and of suitable capacity for the number and size of cables to be connected; all in strict accordance with the Electrical Engineers Specification Part 1, Section 37 and Drawing 2556-SMK-ZZ-LL-DR-E-6150

B	Earth Terminal Bar	1	nr			

Mains and Sub-mains cables

Earth conductor cable; supply and installation complete; Design parameters as defined within I.S 10101: 2020 regulations; all in accordance with the Electrical Engineers Specification and Drawings 2556-SMK-ZZ-LL-DR-E-6150

C	From MSB to earth terminal bar	1	Item			

Earth conductor cable; supply and installation complete; Cable size 50mm2 LSF; all in accordance with the Electrical Engineers Specification and Drawings 2556-SMK-ZZ-LL-DR-E-6150

D	From MSB to earth pits	1	Item			

Main equipotential earth bonding; Cable size 195mm2 LSF; be provided from each of the following items, as a minimum, to the main earthing bar; all in accordance with the Electrical Engineers Specification and Drawings 2556-SMK-ZZ-LL-DR-E-6150

E	Incoming Water Main	1	Item			
F	Incoming Gas Main	1	Item			
G	Metal drainage pipes	1	Item			
H	Structural Steelwork	1	Item			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Main Heating Pipework	1	Item			
B	Main Ventilation Ductwork	1	Item			
C	Lightning Protection System	1	Item			
D	Eircom DP	1	Item			
	Main equipotential earth bonding; Cable size 16mm2 LSOH; be provided from each of the following items, as a minimum, to the main earthing bar; all in accordance with the Electrical Engineers Specification and Drawings 2556-SMK-ZZ-LL-DR-E-6150					
E	Comms cabinet	1	Item			
	Supplementary earth bonding shall be carried out on extraneous metal parts at the following locations; Design parameters as defined within I.S 10101: 2020 regulations; all in accordance with the Electrical Engineers Specification					
F	Metallic Wireways and Containment	1	Item			
G	Suspended Ceiling Grids	1	Item			
H	Wash Hand Basins	1	Item			
J	Showers	1	Item			
K	Sinks	1	Item			
L	WC's	1	Item			
M	Cleaners Sinks	1	Item			
N	Catering equipment	1	Item			
P	Metal worktops	1	Item			
Q	Plant room Pipework	1	Item			
	<u>General Earthing and Bonding</u>					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
R	General Earthing and Bonding	1	Item			

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers specification documents and drawings					
A	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers specification documents and drawings					
B	Operating and maintenance manuals; complete	1	Item			
	Working drawings; all in accordance with the Electrical Engineers specification documents and drawings					
C	Working drawings; complete	1	Item			
	Co- ordination drawings; all in accordance with the Electrical Engineers specification documents and drawings					
D	Co- ordination drawings; complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers specification documents and drawings					
E	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers specification documents and drawings					
F	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	(65) SECURITY & PROTECTION - SURGE PROTECTION					
	System					
	Transient & Overvoltage Protection installation, testing and commissioning; The Contractor shall be responsible for the supply and installation of all incoming and outgoing cables (of all types) to be provided with Lightning/Surge Protection devices. The electrical contractor shall ensure allowance for surge protection at all panels within his scope and those provided by others; The devices shall be suitable for a TNC-S system of earthing. The devices shall be capable of suppressing lightning, voltage spikes and surges. The device shall be low measured limiting voltage performance on switching generated ring wave transients, incorporating metal oxide varistor suppressor design and low impedance surge paths. Type C MCB's shall be fitted in series with each device. Each device shall have an indicator to denote if the device has operated; all in strict accordance with the Electrical Engineers Specification Part 1, Section 15.9, Par 2, Part 3 and Drawings 2556-SMK-ZZ-RF-DR-E-6503 & 2556-SMK-ZZ-LL-DR-E-6150					
A	Transient & Overvoltage Protection	1	Item			
	Fittings					
	Surge Suppression Devices; installation (including wiring); complete; all in strict accordance with the Electrical Engineers Specification Part 1, Section 15.9 and Drawings 2556-SMK-ZZ-RF-DR-E-6503 & 2556-SMK-ZZ-LL-DR-E-6150					
B	Surge Protection Ref 1 for Main Distribution Board (Ref: MSB)	1	Item			
C	Surge Protection Ref 3 for Distribution Boards (Ref: DB-1)	1	Item			
D	Surge Protection Ref 3 for Distribution Boards (Ref: DB-1A)	1	Item			
E	Surge Protection Ref 3 for Distribution Boards (Ref: DB-2)	1	Item			
F	Surge Protection Ref 3 for Distribution Boards (Ref: DB-3)	1	Item			
G	Surge Protection Ref 3 for Distribution Boards (Ref: DB-EV Charger)	1	Item			
H	Surge Protection Ref 3 for Distribution Boards (Ref: DB-SL1)	1	Item			
J	Surge Protection Ref 3 for Distribution Boards (Ref: DB-MCCP)	1	Item			
K	Surge Protection Ref 3 for BEMS CONTROL PANEL	1	Item			
L	Surge Protection Ref 3 for Internal Lift	1	Item			
M	Surge Protection Ref 3 for Rainwater Harvesting Pump Isolator	1	Item			
N	Surge Protection Ref 5 for Solar Inverter line	1	Item			
P	Surge Protection Ref 5 for Disabled Refuse Panel	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Surge Protection Ref 5 for Fire Alarm Panel	1	Item			
B	Surge Protection Ref 5 for Intruder Alarm Panel	1	Item			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
C	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
D	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
E	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
F	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
G	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
H	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
J	Identification plates, labels and the like	1	Item			
				To Collection €		

(6-) ELECTRICAL INSTALLATIONS (Cont)

(68) MECHANICAL AND BMS WIRING INSTALLATIONS

System

Mechanical & BMS Wiring Installation; 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 in boiler houses, plant rooms, etc. all in accordance with the Mechanical Specification, Electrical Specification and drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802

A	Mechanical & BMS Wiring Installation	1	Item		

Equipment

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 Particular Specification Section and drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802

B	Mechanical Control Centre (Ref: BMS Panel, Location: Boiler Room)	1	Item		

Fittings

Heating; Mechanical 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 MCC panel 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 drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802

C	Boiler Fault/Enable	2	nr		
D	Pressurisation Unit high /low level fault	1	nr		
E	Pump Fault/Enable	2	nr		
F	Manifold fault/enable	1	nr		
G	Outdoor Air Temperature Stat	1	nr		
H	Boiler Immersion Temperature Sensor	2	nr		
J	Immersion Temp Sensor flow/return	2	nr		

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	LPHW High Limit Stat	1	nr			
B	Circuit Flow Temperature Sensor	4	nr			
C	Room Themostats	15	nr			
D	2-port motorised valves	24	nr			
E	Run on Timer Heating Classroom Zone	6	nr			
F	Cold water tank leak detection	1	nr			
G	Heat meter pulsed signal	2	nr			
	Water Services; Mechanical 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 MCC panel 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 drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802					
H	Water heater fault/enable	1	nr			
J	Hot water return pump fault/enable	1	nr			
K	Cold Water booster pump fault/enable	1	nr			
L	Domestic Hot Water Temperature Sensor	2	nr			
M	Domestic Hot Water Limit Stat	1	nr			
N	2-port motorised valves	1	nr			
P	3-port motorised valves	1	nr			
Q	Water meter	1	nr			
	Gas detection System; Mechanical 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 gas detection panel 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 Drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802					
R	Gas Detection Panel	2	nr			
S	Gas Detection Sensors	3	nr			
T	Gas Push Button	1	nr			
U	Slam Shut Valve	2	nr			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Rainwater Harvesting System; Mechanical wiring installation, testing and commissioning; complete; The Electrical Specialist shall include for the supply and installation of all ELV / control wiring cables fed from the RWH panel 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 drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802					
A	RWH control Panel monitoring/fault	1	nr			
B	RWH booster pump fault/enable	1	nr			
C	Tank Level switches	1	nr			
D	Rain Water Meter	1	nr			
E	2-port motorised valves	1	nr			
F	Rain Water leak detection	1	nr			
	Mechanical wiring installation, testing and commissioning; complete; The Electrical Specialist shall include for the supply and installation of all MODBUS ELV / control wiring cables fed from the MCC panel 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 drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802					
G	Electrical Meters	1	nr			
H	Main Switch board Alarm	1	nr			
J	Intruder Alarm Input	1	nr			
K	Fire Alarm Interface	1	nr			
	Mechanical wiring installation, testing and commissioning; complete; The Electrical Specialist shall include for the supply and installation of all MODBUS ELV / control wiring CAT 6A cables fed from the MCC panel to the remote panel located in the principals office; cables shall be drawn in trunking/ cable trays; all in accordance with the Electrical Engineers Specifications and Drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802					
L	CAT 6A cable to remote monitoring panel	1	nr			
M	CAT 6A cable to PV System monitoring status	1	nr			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Ventilation System; Mechanical 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 local switch board 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 drawing 2556-SMK-ZZ-L0-DR-M-5801 & 2556-SMK-ZZ-L1-DR-M-5802					
A	MVHR Unit Enable/fault	4	nr			
B	MHRV room controller	4	nr			
C	Inline Extract Fan	7	nr			
D	Cooker hood	2	nr			
E	Co2 monitors	8	nr			
F	Presence Detector	13	nr			
G	Room Temperature Stats	1	nr			
H	Speed controller	1	nr			
	Final Circuits (including all points terminations)					
	Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from local sub-distribution board; Installation: Sub-circuit wiring 4c 2.5mm2 LSZH + 2.5mm2 CPC (unless otherwise stated); shall be drawn in concealed galvanised steel conduit and/or galvanised steel trunking; all in accordance with the Electrical Engineers Specification					
	Final Circuits - MCC					
J	Power Services - Main Supply to BMS	1	nr			
K	Power Services - Boiler	2	nr			
L	Power Services - Domestic water heater	1	nr			
M	Power Services - Pressurisation Unit	1	nr			
N	Power Services - Heating Circulation Pumps	2	nr			
P	Power Services - Hot Water Return Pump	1	nr			
Q	Power Services - Gas Detection Panel	1	nr			
R	Power Services - Booster Pump	2	nr			
S	Power Services - Senu Heating manifold Wiring Station	1	nr			
T	Power Services - Heat meters	2	nr			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from local sub-distribution board; Installation: Sub-circuit wiring 3x10mm2 XLPE/SWA/LSF; shall be drawn in concealed galvanised steel conduit and/or galvanised steel trunking; all in accordance with the Electrical Engineers Specification					
	Final Circuits - MCC					
A	Power Services - Rain Water Harvesting Control Panel	1	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
B	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents					
C	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents					
D	Operating and maintenance manuals; complete	1	Item			
	Working drawings; all in accordance with the Electrical Engineers Specification Documents					
E	Working drawings; complete	1	Item			
	Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents					
F	Co-ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers Specification Documents					
G	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents					
H	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	GENERAL ITEMS					
	Defects Liability period					
A	The contractor shall allow for the full servicing of all systems at handover and again before the end of the defects liability period and shall allow for the maintainance of each system for one year during the extent of the defects liability period; all in strict accordance with Vol.A works requirements.	1	Item			
	ELECTRICAL INSTALLATIONS					
	Sundries and Builders Work					
	General Attendances					
B	Provide all general attendances in accordance with Arm 4.	1	Item			
C	Provide use of the Main Contractors temporary roads and hardstandings.	1	Item			
D	Provide use of the Main Contractors scaffolding.	1	Item			
E	Provide use of the Main Contractors standing power operated hoisting plant.	1	Item			
F	Provide accommodation for the subcontractors staff for eating, site lavatories, site washing facilities and cloakroom facilities.	1	Item			
G	Each sub-contractor shall be permitted the free use, in common with other trades engaged on the site, of any available water supply, temporary plumbing and electrical services.	1	Item			
H	Provide temporary distribution systems for lighting, power, water and fuel for the execution of the Electrical services works, including testing and commissioning, and pay all ongoing operation charges.	1	Item			
J	Provide safe and dry storage accommodation for the sub-contractors materials, plant and tools.	1	Item			
K	Provide space for the provision by the sub-contractors of their own site offices.	1	Item			
L	Provide temporary telephone services to the Electrical Contractors temporary office and pay all charges associated with installation and operation.	1	Item			
M	Include for unloading, hoisting/cranage and placing into position all items of heavy plant supplied by the subcontractors.	1	Item			
N	Allow for maintaining all ducts, chases , trenches, trunking, etc., clean and free of all water, debris and rodents at all times.	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Allow for making good and fire sealing of all builders work opes with proprietary sealant to Architects details, where services penetrate fire zones.	1	Item			
B	Fire proofing (material) around ducts and pipework shall be the responsibility of the Main Contractor	1	Item			
C	Timber grounds shall be provided within stud partitions to facilitate fixing of wall mounted accessories	1	Item			
	Special Attendances					
D	Provide all special attendances in accordance with Arm 4 Work Section B Clause 3.1	1	Item			
E	Provide use of the Main Contractors temporary roads and hardstandings.	1	Item			
F	Provide use of the Main Contractors scaffolding.	1	Item			
G	Provide use of the Main Contractors standing power operated hoisting plant.	1	Item			
H	Provide accommodation for the subcontractors staff for eating, site lavatories, site washing facilities and cloakroom facilities.	1	Item			
J	Each sub-contractor shall be permitted the free use, in common with other trades engaged on the site, of any available water supply, temporary plumbing and electrical services.	1	Item			
K	Provide safe and dry storage accommodation for the sub-contractors materials, plant and tools.	1	Item			
L	Provide space for the provision by the sub-contractors of their own site offices.	1	Item			
M	Provide temporary telephone services to the Mechanical Contractors temporary office and pay all charges associated with installation and operation.	1	Item			
N	Provide temporary power supplies (3 phase 400V and maximum loading 15kVA) for welding, handtools, and for commissioning, including infrastructure and all charges fot the contractors use of the facility.	1	Item			
P	Provide scaffolding additional to the main contractors standing scaffolding, or access towers if required.	1	Item			
Q	Protection of the works the Main Contractor is responsible for providing adequate protection at all times for the Electrical services installation	1	Item			
R	Protection/Maintenance, provide covers for placing on live equipment/ fittings in areas under construction at the start of each work day and removing the covers at the end of each work day	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Access, provide external access to high level on building facade to permit the installation of any external equipment/fittings and for the removal of existing services as required	1	Item			
B	Provide external access to high level on building facade to permit the installation of any external equipment/fittings and for the removal of existing services as required	1	Item			
C	Seal all incoming services to prevent ingress of vermin	1	Item			
D	Fire Stopping to all services penetrations throughout	1	Item			
E	Provide safe access to roof space to facilitate electrical installation work	1	Item			
F	Attendance to electrical sub-contractor	1	Item			
G	Provide safe access for electrical sub-contractor to all sections of the site	1	Item			
	Unload, hoist, distribute and place in position the following items of heavy plant and equipment					
H	Main switch board	1	Item			
J	Sub-distribution boards	1	Item			
K	MCC panel	1	Item			
L	Containment	1	Item			
M	Cabling	1	Item			
N	Lighting	1	Item			
	Sundries & Builders Work					
	General					
P	Marking positions of holes, mortices and chases	1	Item			
Q	Testing & Commissioning	1	Item			
R	Preparing drawings of "as completed" installations	1	Item			
S	Identification plates, labels and the like; Provide and fit colour identification markers to ceiling hatches to mark the location of isolating devices within ceiling voids	1	Item			
T	Keys, tools and spares	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Cable trunking in floor screed; in strict accordance with the Architects/ Services Engineers drawings, schedule and specifications					
	Cable ducts					
A	300 x 38mm Floor trucking for mains power and CAT 6A cabling	24	m			
	Forming or cutting holes/mortices/chases and the like; including sleeves/plates, intumescent collars; making good structure and finishes; include for a fully completed installation where nothing must remain to be done to the installation by others; in strict accordance with the Architects/ Services Engineers drawings, schedule and specifications					
B	cutting or forming holes is deemed to include all finishes and decorations both sides of the structure		note			
C	cutting or forming opes is deemed to include the making good and sealing of the ope		note			
	Cutting or forming holes in external walls; include for building in sleeves; firestopping making good all finishes on completion					
D	300mm x 150mm opes	1	nr			
	Cutting or forming holes in internal walls; include for building in sleeves; firestopping making good all finishes on completion					
E	200mm x 100mm opes	1	nr			
F	300mm x 150mm opes	12	nr			
G	500mm x 100mm opes	6	nr			
H	1200mm x 300mm opes	14	nr			
J	2250mm x 300mm opes	1	nr			
	Cutting or forming holes in existing internal walls; include for building in sleeves; firestopping making good all finishes on completion					
K	200mm x 100mm opes	1	nr			
L	500mm x 150mm opes	3	nr			
M	1200mm x 300mm opes	4	nr			
	Cutting or forming holes in suspended concrete floor slab; include for building in sleeves; firestopping making good all finishes on completion					
N	1200mm x 400mm opes	1	nr			

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Cutting or forming holes in ceiling finishes; include for building in sleeves; firestopping making good all finishes on completion					
A	not exceeding 50mm diameter opes	61	nr			
B	50mm diameter opes	60	nr			
C	140mm diameter opes	10	nr			
D	220mm diameter opes	39	nr			
	Chasing to blockwork walls for concealed installations; include for intumesent fire and acoustic internal socket box inserts; making good all structures and finishes; all in accordance with the Architects /Service Engineers drawings, schedule and specification					
E	Power points	116	nr			
F	Lighting points	65	nr			
G	Data points	92	nr			
H	Fittings, equipment & control gear	141	nr			
	Fire stopping system to multiple and single service penetrations; including intumescent boards, fire stop laminate; intumescent foams and mastic; intumescent pillows; intumescent putty; mineral wool rigid batts; intumescent collars and sealants to achieve 1 hour fire resistance; all in accordance with the Architects specification P12					
	Special works were services pass through structures; external walls, making good all finishes on completion					
J	300mm x 150mm opes	1	nr			
	Special works were services pass through structures; internal walls, making good all finishes on completion					
K	200mm x 100mm opes	1	nr			
L	300mm x 150mm opes	12	nr			
M	500mm x 100mm opes	6	nr			
N	1200mm x 300mm opes	14	nr			
P	2250mm x 300mm opes	1	nr			
	Special works were services pass through structures; existing internal walls, making good all finishes on completion					
Q	200mm x 100mm opes	1	nr			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	500mm x 150mm opes	3	nr			
B	1200mm x 300mm opes	4	nr			
	Special works were services pass through structures; suspended concrete floors, making good all finishes on completion					
C	1200mm x 400mm opes	1	nr			
	Special works were services pass through structures; ceiling finishes, making good all finishes on completion					
D	not exceeding 50mm diameter opes	61	nr			
E	50mm diameter opes	60	nr			
F	140mm diameter opes	10	nr			
G	220mm diameter opes	39	nr			
				To Collection €		

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(6-) ELECTRICAL INSTALLATIONS (Cont)					
COLLECTION					
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(6-) ELECTRICAL INSTALLATIONS **Carried to Summary**					

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	(67) LIFT SERVICES INSTALLATION					
	Notes					
A	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		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 Semple McKillop Consulting Engineers.		note			
C	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.		note			
	ALTERNATIVE RULES FOR THE MEASUREMENT OF ELECTRICAL SERVICES					
	(67) TRANSPORT					
	System					
	Transport installation, testing and commissioning; complete; The contractor shall all for the Installation of 1nr 630kgs eight person passenger gearless lift car and controls; complete with doors; control system; drives; alarm and communication system; to serve two stops with two entrances; all in accordance with the Electrical Engineers Passenger Lift Services Specification					
D	Transport Installation	1	Item			
	Equipment					
	Passenger lift car, doors and controls; supply and installation (including wiring); complete; Type of lift: Passenger; Type of Drive: Machine Room Less Electric Traction Lift; Rated Load: 630kg/8 persons; Rated Motor/Control Speed: 1 m/s minimum; Number of Stops: 2; Lift Travel: 1nr storey, Refer to Architectural Sections; Number of entrance: 1nr at each level; Leveling accuracy: 3mm; Well Dimensions: as per Architects drawings, Pit Depth: 1000mm, Headroom: 3400mm; Lift Car Internal Dimensions: Width: 1100mm, Depth: 1400mm, Height: 2100mm; Door dimensions: 900mm width x 2200mm height; Lift door: side opening, automatic door, 2hr fire rated; Car Operating Panel: tactile target push buttons with clear symbols and key override; Access: call button & key call access, one for each door of the lift; Car position indicator: Digital position indicators at all levels; Battery backup: yes; Communication system: yes; Induction loop: yes; Ladders: yes; Power supply: 3Ph/400V/50Hz, 32amp; all in accordance with the Electrical Engineers Lift Specification					
E	Passenger lift car, doors and controls	1	nr			

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	(67) LIFT SERVICES INSTALLATION (Cont)					
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
A	General Earthing and Bonding	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
B	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
C	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
D	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
E	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
F	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
G	Identification plates, labels and the like	1	Item			
	LIFT INSTALLATIONS: SUNDRIES & BUILDERWORK					
	The Contractor must note the following					
H	The Electrical Installations design packages are to be priced in accordance with the Specification and Drawings as prepared by the Services Consultant and the relevant services co-ordination is to include for all works contained there in		Note			

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	(67) LIFT SERVICES INSTALLATION (Cont)					
A	The contractor must consult the Builders Works Drawings and Schedule as prepared by Semple McKillop Consulting Engineers when pricing the following works. No additional funding will be authorized for the requirement of any additional labour, plant or materials set out within the Services Engineers documents which are not sufficiently outlined in the pricing document. Should the contractor believe there are any additional works which are not specifically outlined within this pricing document they should include for the same here.		Note			
B	The Contractor is to note that the building has been designed to achieve air tightness levels of less than 3m3/h/m2 of measured envelope area at a test pressure of 50Pa. The Contractor is to take care in the selection of materials and workmanship to ensure that the air tightness levels specified above are attained.		Note			
C	The Tenderer / Contractor is advised that the following items are to be read in conjunction with the Architects and Structural Engineers Drawings and Specifications and his tender submission will be deemed to include for the scope, standard and quality in terms of Components and Installation as set out in the Architect's and Structural Engineer's Drawings and Specifications		Note			
	The Contractor must include for the following					
D	compliance with Services Engineers drawings, schedule and specifications	1	Item			
E	completion demonstrations / walk-through demonstrations with Design Engineers, Architects and Client including demonstrations/instructing & DVD productions, seasonal commissioning and re -commissioning as specified	1	Item			
F	compliance with Health & Safety requirements	1	Item			
G	employment of a clean as you go policy and removal of waste from site in accordance with EC directives	1	Item			
H	complete underground and over-ground survey of existing mechanical services and detailing of same on AutoCAD drawing	1	Item			
J	provide method statements for all works	1	Item			
K	amount for collateral warranty	1	Item			
L	liaising with the Electrical Contractor to co-ordinate the electrical installation	1	Item			
M	liaising with the Lift Contractor to co-ordinate the electrical installation	1	Item			
	General Attendances					
N	Provide all general attendances in accordance with Arm 4.	1	Item			
P	Provide use of the Main Contractors tempory roads and hardstandings.	1	Item			
				To Collection €		

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	(67) LIFT SERVICES INSTALLATION (Cont)					
A	Provide use of the Main Contractors scaffolding.	1	Item			
B	Provide use of the Main Contractors standing power operated hoisting plant.	1	Item			
C	Provide accommodation for the subcontractors staff for eating, site lavatories, site washing facilities and cloakroom facilities.	1	Item			
D	Each sub-contractor shall be permitted the free use, in common with other trades engaged on the site, of any available water supply, temporary plumbing and electrical services.	1	Item			
E	Provide temporary distribution systems for lighting, power, water and fuel for the execution of the Electrical services works, including testing and commissioning, and pay all ongoing operation charges.	1	Item			
F	Provide safe and dry storage accommodation for the sub-contractors materials, plant and tools.	1	Item			
G	Provide space for the provision by the sub-contractors of their own site offices.	1	Item			
H	Provide temporary telephone services to the Electrical Contractors temporary office and pay all charges associated with installation and operation.	1	Item			
J	Include for unloading, hoisting/cranage and placing into position all items of heavy plant supplied by the subcontractors.	1	Item			
K	Allow for maintaining all ducts, chases , trenches, trunking, etc., clean and free of all water, debris and rodents at all times.	1	Item			
L	Allow for making good and fire sealing of all builders work opes with proprietary sealant to Architects details, where services penetrate fire zones.	1	Item			
M	Fire proofing (material) around ducts and pipework shall be the responsibility of the Main Contractor	1	Item			
N	Timber grounds shall be provided within stud partitions to facilitate fixing of wall mounted accessories	1	Item			
	Special Attendances					
P	Provide all special attendances in accordance with Arm 4 Work Section B Clause 3.1	1	Item			
Q	Provide tempory roads and hardstandings in connection with heavy items of plant.	1	Item			
R	Provide weatherproof covered storage and accomodation including lighting, power, heating, ventilation, water and drainage services	1	Item			
				To Collection €		

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	(67) LIFT SERVICES INSTALLATION (Cont)					
A	Provide tempory power supplies (3 phase 400V and maximum loading 15kVA) for welding, handtools, and for commissioning, including infrastructure and all charges fot the contractors use of the facility.	1	Item			
B	Provide scaffolding additional to the main contractors standing scaffolding, or access towers if required.	1	Item			
C	Protection of the works the Main Contractor is responsible for providing adequate protection at all times for the Mechanical services installation	1	Item			
D	Protection/Maintenance, provide covers for placing on live equipment/ fittings in areas under construction at the start of each work day and removing the covers at the end of each work day	1	Item			
E	Access, provide external access to high level on building facade to permit the installation of any external equipment/fittings and for the removal of existing services as required		Item			
F	Provide external access to high level on building facade to permit the installation of any external equipment/fittings and for the removal of existing services as required	1	Item			
G	Construct a lift shaft as detailed on the Engineers drawings; Building tolerances shall be to +/- 25mm	1	Item			
H	Provide 2,500kg lifting beam; cast in; painted; SWL marking;	1	Item			
J	Provide machine support lifting beam; 3,000mm long to lift 630kg	1	Item			
K	Provide wire mesh safety screen to divide lift wells	1	Item			
L	Provide well division steel for multi lifts	1	Item			
M	Paint lift shaft walls to Architects specification	1	Item			
N	Allow for any works requested by Lift contractor; such as grouting around lift doors etc.	1	Item			
P	Allow for protecting all adjacent finishes and the like while the work is in progress	1	Item			
	Unload, hoist, distrubute and place in position the following items of heavy plant and equipment					
Q	Lift Control Panel	1	nr			
R	Guide rails	1	Sets			
S	Lift Car	1	nr			
				To Collection €		

					€	c
	(67) LIFT SERVICES INSTALLATION (Cont)					
	Sundries & Builders Work					
	General					
	Marking the position of holes, mortices, chases or the like					
A	Testing and Commissioning	1	Item			
B	Providing operating and maintenance manuals	1	Item			
C	Preparing Drawings of "as completed" installations	1	Item			
D	Identification plates, labels and the like	1	Item			
E	Key, tools and spares	1	Item			
	Forming or cutting holes; including metal sleeves/plates, intumescent collars to give 1 hour fire resistance; making good structure and finishes; include for a fully completed installation where nothing must remain to be done to the installation by others; in strict accordance with the architects/ Services Engineers drawings, schedule and specifications					
F	cutting or forming holes is deemed to include all finishes and decorations both sides of the structure		note			
G	cutting or forming opes is deemed to include the making good and sealing of the ope around the pipe or duct		note			
	Froming or cuttign holes; through lift shaft walls					
H	Forming ventilation ope; 300 x 300mm wide within shaft wall; including wall louvre	2	nr			
J	Forming floor indicator ope; 200 x 100 x 30mm deep	2	nr			
K	Forming floor controller ope; 50 x 100 x 30mm deep	2	nr			
	Fire stopping system to multiple and single service penetrations; including intumescent boards, fire stop laminate; intumescent foams and mastic; intumescent pillows; intumescent putty; mineral wool rigid batts; intumescent collars and sealants to achieve 1 hour fire resistance; all in accordance with the Architects specification P12 and Drawings (42)302 - 304, (FC)602-604					
	Special works were services pass through structures; internal walls, making good all finishes on completion					
L	Forming ventilation ope; 300 x 300mm wide within shaft wall; including wall louvre	2	nr			
M	Forming floor indicator ope; 200 x 100 x 30mm deep	2	nr			
N	Forming floor controller ope; 50 x 100 x 30mm deep	2	nr			

To Collection €

					€	c
	(67) LIFT SERVICES INSTALLATION (Cont)					
	Provide the following labours in association with the lift installation					
	General Items					
A	Forming concrete buffer stools in lift shaft	1	Item			
B	Provision of permanent access ladders, steps and guard rails for machine room and pit	1	Item			

To Collection €

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(67) LIFT SERVICES INSTALLATION (Cont)					
COLLECTION					
Page No. Extension/236					
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(67) LIFT SERVICES INSTALLATION **Carried to Summary**					

					€	c
	(74) SANITARY FITTINGS					
	GLAZING					
	Special Glazing					
	MIRRORS; Description: Over sinks / wash basins; Manufacturer: Contractor's choice; Product reference: Submit proposals; Material: Contractor's choice; Finish/ colour: Plain; as per Architects Specification 4.27					
	Mirrors					
A	Mirror; 500mm x 1200mm x 6mm thick float glass; all to Architects Specification and Drawings	6	nr			
	FITTINGS, EQUIPMENT AND FURNITURE					
	Fittings, Equipment and Furniture; WCS					
B	WCS AND CISTERNS - WC to comply with IS EN 997:2003 in terms of key dimensions. Flat topped clouse-coupled cistern with tamper proof lids. Top of the cistern to be used as a colostomy changing surface; Description: to individual WCs; Type: Low height pan, low level cistern; Pan; Standards: To BS EN 33 and BS EN 997; Manufacturer: Armitage Shanks or equivalent to Architects approval; Product reference: Sandringham 21 or equivalent to Architects approval; Material: Vitreous china, white; Seat and cover; Standard: To BS 1254; Manufacturer: Contractor's choice; Product reference: Submit proposals; Material: Plastics; Finish/ Colour: LRV contrast to BS 8493 of 30 points (minimum) with pan; Pan connector; Standard: To BS 5627; Manufacturer: Contractor's choice; Product reference: Submit proposals; Colour: To match pan; Cistern; Manufacturer: Contractor's choice; Product reference: Submit proposals; Material: Vitreous china; Finish/ Colour: To match pan; Lockable: Yes; Flushing arrangement: Plastics diaphragm type float operated valve and siphon, to BS 1212-3 and float to BS 2456; Manufacturer: Contractor's choice; Product reference: Submit proposals; Operating control: Push button, chrome plated; Water supply connection: Side; Flush volume: Dual flush 6 or 4 L; Flush pipe: Exposed; Manufacturer: Contractor's choice; Product reference: Submit proposals; Material: Plastics, white; Accessories: As WC schedule; as per Architects Specification					
	WC					
C	Generally	6	nr			

					€	c
	(74) SANITARY FITTINGS (Cont)					
	WASHBASINS; Description: Wall mounted; Manufacturer: Armitage Shanks - or equivalent to Architects approval; Product reference: Sandringham 21; Size: 450 x 300 mm; Material: Vitreous china, white; Tap/ Chainstay/ Overflow holes: - One tap hole, centre;- No chainstay hole; and- Overflow hole; Water supply fittings: Basin mixer tap; Water supply temperature (maximum): 43rC; Flow rate (maximum): 6 L/ min. at 3 bar; Manufacturer: Contractor's choice; Product reference: Submit proposals; Operation: Lever handles; Wastes: Grated; Standards: To BS EN 274-1, -2 and -3; Manufacturer: Contractor's choice; Product reference: Submit proposals; Size: DN 40; Material: Stainless steel;Tail: Slotted; Traps: Bottle; Standards: To BS EN 274-1, -2 and -3; Manufacturer: Contractor's choice; Product reference: Submit proposals; Size: DN 40;Material: Brass, chrome plated; Depth of seal (minimum): 75 mm; Accessories: None; As per Architect's Specification					
	WHB					
A	Generally	6	nr			
	Fittings, Equipment and Furniture; Handrails/Grab rails					
	HANDRAILS AND GRAB BARS; Description: Where shown; Manufacturer: Contractor's choice; Product reference: Submit proposals; Diameter: 35 mm; Material: Vinyl wrapped steel; Finish/ colour: LRV contrast of 30 points to background, White; as per Architect's Specification					
	Handrails & Grab bars					
B	Grab Rails; Horizontal; 600mm long	12	nr			
	UNISEX ACCESSIBLE WC EQUIPMENT PACKAGES; (Document M); Description: To accessible WCs; Manufacturer: Armitage Shanks - or equivalent to Architects approval; Product reference: Doc M Pack; Type approval certificate: Submit; Finish/ colour; Pan: Vitreous china, white; Cistern: Manufacturer's standard; Seat: Plastics, blue; Basin: Vitreous china, white; Handrails and grab bars: Coated steel, dark blue; Transfer handing: Left hand and right hand per schedule; Water supply fittings (basin): Lever operated thermostatic basin mixer tap; Water supply temperature (maximum): 43rC; Accessories: - Clothes hooks;- Hand drier;- Mirror; and- Paper towel dispenser; as per Architects Specification					
	Doc M Pack					
C	Generally	3	nr			

					€	c
	(74) SANITARY FITTINGS (Cont)					
	SHOWER UNITS; Description: Disabled access, per M & E drawings & Specification; Tray: Flush; Manufacturer: Contractor's choice; Product reference: Submit proposals; Size: 1700 x 1700 mm; Material: Selected Floor Finish; Shower fittings: - Thermostatic shower mixer, concealed;- Fixed adjustable bracket for spray head; and- Handspray and hose; Manufacturer: Contractor's choice; Product reference: Submit proposals; Finish: Chrome plated; Operating control: Lever and temperature ring; Water supply temperature (maximum): 43rC; Flow rate: 9 L/ min. at 37rC at 3 bar; Wastes: Grated, top access; Standards: To BS EN 274-1, -2 and -3; Manufacturer: Contractor's choice; Product reference: Submit proposals; Size: DN 40; Material: Stainless steel; Tail: Unslotted; Traps: Tubular, P type; Standards: To BS EN 274-1, -2 and -3; Manufacturer: Contractor's choice; Product reference: Submit proposals; Size: DN 40; Material: Stainless steel; Depth of seal (minimum): 50 mm; Enclosure: White nylon curtain; Manufacturer: Contractor's choice; Product reference: Submit proposals; as per Architects Specification					
	Doc M Shower Pack					
A	Generally; Wash Hand Basins	2	nr			

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(74) SANITARY FITTINGS (Cont)					
COLLECTION					
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(74) SANITARY FITTINGS **Carried to Summary**					

					€	c
	(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE					
	MINIMUM STANDARDS FOR MATERIALS AND FINISHES					
	Core material for worktops, doors and carcasses:					
A	Dry Fibre Board (MDF) to IS En 622-5 Class E1 formaldehyde content tested to EN 120. Moisture resistant board to IS EN 622-5 MDF.H, class E1 formaldehyde content tested to EN 120.	1	Note			
B	Core materials to be finished with plastic laminates to comply with IS EN 438, grade HGS/HGP (including vertical panels, shelves and doors). Balancing laminate to be used in all cases.	1	Note			
C	Edges of all laminates (if not postformed) to be finished with solid colour laminate (2mm thickness), PVC or hardwood edges to seal all edges.	1	Note			
D	Solid timber to comply with IS EN 942, Class J10. FSC/PEFC chain of custody certification required for all timber and timber products, including MDF.	1	Note			
	Metal frames:					
E	Generally 60 x 30mm mild steel frame with welded caps and adjustable feet. Epoxy powder coated to selected RAL colour	1	Note			
	Ironmongery:					
F	Stainless steel door handles, reversed fixed through doors. High quality stainless steel or nickel plated self-closing hinges (180 degrees) and high quality cylinder style lock on masterkeyed system to suit the school's requirements;	1	Note			
G	Hardwood plinth size to be coordinated with skirting height in rooms	1	Note			
	General					
H	Alternative materials and finishes of equal or higher specification and performance are permitted.	1	Note			
J	Drawings to be read in conjunction with speciifcation.	1	Note			
K	Minimum worktop height to be 710mm.	1	Note			

(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)

SEN CLASSROOMS (2NR)

FITTINGS

Fitting, Equipment and Furniture

ELECTRONIC HEIGHT ADJUSTABLE SINK UNIT; SKM electronic height adjustable frame for sink units by SKM Advanced Products Ltd or equivalent; SKM electronic height adjustable frame by press button controller with removeable power isolating key - unit can be used for sink / hob or with plain top for various uses including food reparation etc; Height range is set /initialised by computer programme; Tubular framework is made to size in this case 1140mm long by 580mm deep to allow for an 1150mm x 600mm top; Unit is fitted with two electronic actuators with control box and hand controller, mains lead has a 13 amp plug - appropriate electrical supply by qualified electrician as plug to be removed and directly wired to appropriate spur and linked to safety switch; The framework and motors are finished in a black powder coated paint; Base is fitted with levelling feet and floor fixing brackets to secure; Frame is supplied with stainless steel disability single bowl - single drainer sink and with swan neck monobloc tap with separate hand control levers for hot & cold water; Shallow sink is 120 mm - length of 780mm and breath of 480mm; Also supplied complete with flexi waste pipe and 2 end fittings for same and 4 in total flexi hoses for hot cold water - each with a turn key valve; as per Architects Specification N10 150A

Furniture, Furnishings; Height Adjustable Worktop & Sink Unit

A	Height adjustable Worktop & Sink Unit; complete; overall dimension 1250 x 600 x 700mm high; 150mm height adjustment; worktop with ope for sink (sink e.m.); incorporating drawer units; all in accordance with Architect's Specification and Drawings	2	nr			

Provide and fit the following Sanitary fittings; include for all screws, washers etc; all fixings

Sanitary Fittings

B	Sanitaryware by Armitage Shanks / Ideal Standard / Simmons or equal and approved; Stainless steel single bowl single drainer sink; approx size 1400mm long x 500mm wide; grade 304; include 2nr tap holes; 2nr ceramic disk lever action mixer tap units; chainstay and overflow holes; chains & plugs, 52mm diameter; tubular P Type traps, 52mm diameter; sealing at abutments with mastic sealent; all in accordance with the manufacturer's instructions and Architect's Specification and Drawings	2	nr			
C	Extra over for flexible waste to allow movement in worktop; as per Architect's Specification	2	nr			
D	Extra over for heat insulated cover to underside of sink; as per Architect's Specification	2	nr			

To Collection €

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	(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)					
	Underbench Storage Unit to Architect's Details; complete; comprising 40mm thick moisture resistant MDF worktop with decorative high pressure laminate; 40 x 15 varnished beech edge trim to worktop; 18mm thick MDF cupboard doors with beech edge trims and carcass with high pressure laminate; 18mm thick height adjustable MDF shelf with high pressure laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; 12mm thick MDF removable back panel with high pressue laminate; lacquered hardwood plinth 100 x 25mm with adjustable carcass support feet; include for ironmongery comprising stainless steel D shape handle, 180 degrees self closing hinges and cylinder type locks; include for timber carcassing as required; 35mm SW bearers behind unit; sealing at abutments with mastic sealent; as per Architect's Specification					
	Furniture, Furnishings; Cupboards					
A	Low level units; complete; overall dimension 600 x 600 x 750mm high; incorporating 2nr press units; all in accordance with Architect's Specification and Drawings	2	nr			
	High Level Storage Units as per Architect's Details; 18mm thick MDF decorative high pressure laminate carcass and doors; 12mm thick MDF back panel with decorative high pressure laminate; 18mm thick height adjustable MDF shelf with high pressure laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; include for 35mm SW bearers behind unit; include for all ironmongery comprising stainless steel D shape handles, 180 degrees self closing hinges and cylinder type locks; high level unit to be fixed 1400mm above FFL; include for all fixings; complete; as per Architect's Specification and Drawing RE-01					
	Furniture, Furnishings; Cupboards					
B	High level units; complete; overall dimension 500 x 400 x 600mm high; incorporating 1nr press units; all in accordance with Architect's Specification and Drawings	2	nr			
C	High level units; complete; overall dimension 600 x 400 x 600mm high; incorporating 1nr press units; all in accordance with Architect's Specification and Drawings	2	nr			
D	High level units; complete; overall dimension 1000 x 400 x 600mm high; incorporating 2nr press units; all in accordance with Architect's Specification and Drawings	2	nr			
	Pin Boards to Architect's Specification ref. N10; complete					
	Furniture, Furnishings; Pin Boards					
E	1000mm high x 800mm long; generally	6	nr			

(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)

White Boards to Architect's Specification ref. N10; complete

Furniture, Furnishings; White Boards

A	1200mm high x 2400mm long; generally	4	nr		

SNU Room Coat unit to Architect's Drawings; comprising timber supports / carcassing to ends of storage wall, intermediate support, heads and base, all studding to be finished in painted MDF to selected colour; to include 170mm x 18mm MDF continuous pelmet painted in selected colour; complete with 18mm thick MDF shelves, with high pressure plastic laminate finish, sides of shelves to be finished with coloured core edging to match colour of shelves; proprietary double slot adjustable cantilever system, heavy duty double slotted powder coated suppurting channel, uprights spaced at maximum 600mm centres and fixed to wall with countersunk fixings in accordance with manufacturers instructions; conprising 6No. 18mm thick x 270mm wide x 200mm high, high level shelves and 6No. 18mm thick x 270mm wide x 150mm high, low level shelves; including all decoration as necessary; all in accordance with Architect's Specification N10, Drawing RE-01

Furniture, Furnishings; SNU Storage Wall Units

B	1560mm long x 1200mm high x 750mm wide overall; straight length	2	nr		

Cloaks Units/ Coat Rail to Architect's Drawings; comprising 200 x 18mm thick MDF with VGS grade laminate fixed to blockwork wall at required centres with recessed fixings, plugged and pelleted; with and including stainless steel coat hooks to be Basta Stainless Steel Hat and Coat Hook or equal approved scew fixed to Backing Board with countersunk fixings; units fixed securely to walls using discreet fixings; all in accordance with Architect's Specification N10 and Drawings

Furniture, Furnishings; Coat Rack

C	1560mm x 200mm high; fixed 680mm above FFL; complete	2	nr		

Extra Over for

D	Coat hooks to be Basta Stainless Steel or similar or equal approved	16	nr		

(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)

SNU Student Bag Storage units to Architect's Drawings; comprising timber supports / carcassing to ends of storage wall, intermediate support, heads and base, all studding to be finished in painted MDF to selected colour; to include 100mm x 18mm MDF continuous pelmet painted in selected colour; complete with 18mm thick MDF shelves, with high pressure plastic laminate finish, sides of shelves to be finished with coloured core edging to match colour of shelves; proprietary double slot adjustable cantilever system, heavy duty double slotted powder coated suppurting channel, uprights spaced at maximum 600mm centres and fixed to wall with countersunk fixings in accordance with manufacturers instructions; include for 1no. SS coat hook fixed to back panel of each bag storage unit; Top of unit to include 30mm post formed formica or equivalent worktop with 150mm upstand; including all decoration as necessary; all in accordance with Architect's Specification N10 & Drawings RE-01 & SCH-06

Furniture, Furnishings; SNU Storage Wall Units

A	2500mm long x 1200mm high x 550mm wide overall; straight length; including 6no. ss coat hooks	2	nr		

SNU Room Student Workstation; 40mm Post formed support, carcass and shelf; all in accordance with Architect's Specification N10 & Drawing SCH-06

Furniture, Furnishings; SNU Student Workstation

B	Generally	12	nr		

SNU Room Computer Workstation; 30mm Post formed carcass, shelving and supports; Provide lipping to exposed edges; include for lockable high quality plastic roller shutter; 40 x 40mm metal framed housing - powder coated finish with 4no. high quality swival braked castor wheels fixed to frame; all in accordance with Architect's Specification N10 & Drawing SCH-06

Furniture, Furnishings; SNU Computer Workstation

C	Generally	2	nr		

SNU Room Mobile TV Unit; 30mm Post formed carcass, shelving and supports; Provide lipping to exposed edges; include for lockable high quality plastic roller shutter; 40 x 40mm metal framed housing - powder coated finish with 4no. high quality swival braked castor wheels fixed to frame; all in accordance with Architect's Specification N10 & Drawing SCH-06

Furniture, Furnishings; SNU Computer Workstation

D	Generally	2	nr		

					€	c
	(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)					
	STORE					
	FITTINGS					
	Fitting, Equipment and Furniture					
	Shelving; 4 rows of 30mm deep heavy duty shelving total height 2.1m. Length as per drawings; all as per Architects Specification 4.21					
	Furniture, Furnishings; Shelving					
A	300mm wide	58	m			
B	600mm wide	15	m			
	CLEANERS / SLUICE ROOM					
	FITTINGS					
	Single Sink Unit to Architect's Details; complete; comprising 40mm thick moisture resistant MDF worktop with decorative high pressure laminate; 40 x 15 varnished beech edge trim to worktop; 18mm thick MDF cupboard doors with beech edge trims and carcass with high pressure laminate; 18mm thick height adjustable MDF shelf with high pressure laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; 12mm thick MDF removable back panel with high pressue laminate; lacquered hardwood plinth 100 x 25mm with adjustable carcass support feet; include for ironmongery comprising stainless steel D shape handle, 180 degrees self closing hinges and cylinder type locks; include for timber carcassing as required; 35mm SW bearers behind unit; sealing at abutments with mastic sealent; as per Architect's Specification & Drawings					
	Furniture, Furnishings; Cupboards					
C	Low level units; complete; overall dimension 1900 x 600 x 900mm high; worktop with ope for sink (sink e.m.); incorporating 2nr press units and 2Nr openings for washing machine and tumble dryer under worktop (Washing Machine & Tumble Dryer to be provided by others); all in accordance with Architect's Specification and Drawings	1	nr			

					€	c
	(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)					
	Provide and fit the following Sanitary fittings; include for all screws, washers etc; all fixings					
	Sanitary Fittings					
A	Sanitaryware by Armitage Shanks / Ideal Standard / Simmons or equal and approved; Stainless steel single bowl single drainer sink; approx size 1000mm long x 450mm wide; grade 304; include 1nr tap hole; ceramic disk lever action mixer tap unit; chainstay and overflow holes; chain & plug, 52mm diameter; tubular P Type traps, 52mm diameter; sealing at abutments with mastic sealent; all in accordance with the manufacturer's instructions and Architect's Specification and Drawings	1	nr			
B	SINK; Belfast sink with bucket grate mounted with the top of the basin 530mm over FFL; all as per Architects Specification 4.21	1	nr			
	Shelving; Open shelf (3 rows) high level sturdy storage unit, 350mm deep, 900mm high, length as per drawing to accommodate clothes and linens over the sing unit; all as per Architects Specification 4.21					
	Furniture, Furnishings; Shelving					
C	1900mm long x 350mm deep x 900mm high	1	nr			
	High Level Storage Units as per Architect's Details; 18mm thick MDF decorative high pressure laminate carcass and doors; 12mm thick MDF back panel with decorative high pressure laminate; 18mm thick height adjustable MDF shelf with high pressure laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; include for 35mm SW bearers behind unit; include for all ironmongery comprising stainless steel D shape handles, 180 degrees self closing hinges and cylinder type locks; high level unit to be fixed 1400mm above FFL; include for all fixings; complete; as per Architect's Specification and Drawings					
	Furniture, Furnishings; Cupboards					
D	High level units; complete; overall dimension 1200 x 400 x 600mm high; incorporating 2nr press units; all in accordance with Architect's Specification and Drawings	1	nr			
	PRACTICAL ACTIVITY ROOM					
	FITTINGS					
	Shelving; Lockable storage with formica (or similar) 2.1m high with 4 rows of shelves; all as per Architects Specification 4.21					
	Furniture, Furnishings; Shelving					
E	3170mm long x 2100mm high	1	nr			

(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)

DAILIY LIVING SKILLS

FITTINGS

Fitting, Equipment and Furniture

Single Sink Unit to Architect's Details; complete; comprising 40mm thick moisture resistant MDF worktop with decorative high pressure laminate; 40 x 15 varnished beech edge trim to worktop; 18mm thick MDF lockable cupboard doors with beech edge trims and carcass with high pressure laminate; 18mm thick height adjustable MDF shelf with high pressure laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; 12mm thick MDF removable back panel with high pressue laminate; lacquered hardwood plinth 100 x 25mm with adjustable carcass support feet; include for ironmongery comprising stainless steel D shape handle, 180 degrees self closing hinges and cylinder type locks; include for timber carcassing as required; 35mm SW bearers behind unit; sealing at abutments with mastic sealent; Units to incorporate LED lighting to the bottom; as per Architect's Specification & Drawings

Furniture, Furnishings; Cupboards

A	Low level units; complete; overall dimension 4500 x 600 x 900mm high; worktop with ope for sink (sink e.m.); incorporating 1Nr knee space 1000mm wide and 4Nr openings for integrated dishwasher, integrated oven, combined washing machine and tumble dryer and integrated fridge under worktop (to be provided by others); include for ope in worktop for hob; all in accordance with Architect's Specification and Drawings	1	nr			

Provide and fit the following Sanitary fittings; include for all screws, washers etc; all fixings

Sanitary Fittings

B	Sanitaryware by Armitage Shanks / Ideal Standard / Simmons or equal and approved; Stainless steel single bowl single drainer sink; approx size 1000mm long x 450mm wide; grade 304; include 1nr tap hole; ceramic disk lever action mixer tap unit; chainstay and overflow holes; chain & plug, 52mm diameter; tubular P Type traps, 52mm diameter; sealing at abutments with mastic sealent; all in accordance with the manufacturer's instructions and Architect's Specification and Drawings	1	nr			

To Collection €

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	(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)					
	High Level Storage Units as per Architect's Details; 18mm thick MDF decorative high pressure laminate carcass and doors; 12mm thick MDF back panel with decorative high pressure laminate; 18mm thick height adjustable MDF shelf with high pressure laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; include for 35mm SW bearers behind unit; include for all ironmongery comprising stainless steel D shape handles, 180 degrees self closing hinges and cylinder type locks; high level unit to be fixed 1400mm above FFL; include for all fixings; complete; as per Architect's Specification and Drawing RE-02					
	Furniture, Furnishings; Cupboards					
A	High level units; complete; overall dimension 600 x 400 x 600mm high; incorporating 1nr press units; all in accordance with Architect's Specification and Drawing RE-02	1	nr			
B	High level units; complete; overall dimension 1200 x 400 x 600mm high; incorporating 2nr press units; 1nr oven extract hood; all in accordance with Architect's Specification and Drawing RE-02	1	nr			
	Counter; Lockable undercounter drawer unit (3 drawers) with formica finish or similar approved.; all as per Architects Specification 4.21					
	Furniture, Furnishings; Counter					
C	Counter; 3900mm long x 600mm deep; generally	1	nr			
	Lockable wall presses; with hinged formica or similar approved laminate at 600mm over counter. The presses to be 600mm high and 300mm deep. LED lighting to be incorporated into the bottom of the wall presses; all as per Architects Specification 4.21					
	Furniture, Furnishings; Lockable wall press					
D	Lockable wall presses; 4500mm long x 300mm deep; generally	1	nr			
	DESIGN AND COMUNICATION GRAPHICS					
	FITTINGS					
	Fitting, Equipment and Furniture					
	Writing Boards; Non-interactive whiteboard 1.8x 1.2m to be provided by school, fixed by main contractor at 800-900mm above FFL; all as per Architects Specification 4.21					
	Furniture, Furnishings; White board					
E	1800mm long x 1200mm high; generally	4	nr			
F	2400mm long x 1200mm high; generally	1	nr			
				To Collection €		

					€	c
	(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)					
	Worktop (CWT); Computer Worktop 4230 x 900 x750h; all as per Architects Specification 4.21					
	Furniture, Furnishings; Worktop					
A	Computer Worktop 4230 x 900 x750h	6	nr			
	Worktop (WT); Worktop 1800 x 900 x 750h; all as per Architects Specification 4.21					
	Furniture, Furnishings; Worktop					
B	Worktop 1800 x 900 x 750h	1	nr			
	GENERAL CLASSROOM (2NR)					
	FITTINGS					
	Fitting, Equipment and Furniture					
	Writing Boards; Non-interactive whiteboard 1.8x 1.2m to be provided by school, fixed by main contractor at 800-900mm above FFL; all as per Architects Specification 4.21					
	Furniture, Furnishings; White board					
C	1800mm long x 1200mm high; generally	4	nr			
D	1200mm long x 1200mm high; generally	4	nr			
	MULTI-SENSORY ROOM					
	METALWORK					
	Non-Structural					
	Eye bolts fixed to universal beam (measured elsewhere) to Architect's Drawings; 7000-I forged steel eye bolts, 100mm long, 30mm dia. eye, fixed to universal steel beam with lock nut & washer (must be accessible at all times); eye bolts to be 450mm from centre eye bolt, then 3 bolts at 150mm centres, remaining bolts at 450mm centres after; include for drilling holes in steel beam to Engineer's approval; as per Architect's Specification & Drawings					
	Fixings; Bolts					
E	Generally	2	nr			

(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)

Eye bolts fixed to blockwork walls to Architect's Drawings; Hilti-anchored eye bolts fixed to blockwork walls, 125mm long, 30mm dia. eye; eye bolts to be fixed at 150mm centres directly below the steel beam and either side of the room; include for drilling holes in blockworkl; as per Architect's Specification & Drawings

Fixings; Bolts

A	Generally	2	nr		

OFFICE

FITTINGS

Fitting, Equipment and Furniture

Office Workstation to Architect's Details; complete; worktop to be 40mm thick MDF with decorative high pressure laminate with 100mm upstand at rear; 40 x 15 varnished beech edge trim to worktop; all exposed corners, edges and ends to be rounded or chamfered; worktop to be fixed to 60 x 30mm mild steel c-shaped metal frame at 1200mm centres; frame to be epoxy powder coated to RAL 7039; include for welded end caps and adjustable feet; include for all fixings; include for 35mm thick continuous SW bearer fixed to wall; provide 18 x 250mm deep laminated coutesy panel in case of free-standing unit; include for desk grommets to worktop with covers in colour to match worktop; all in strict accordance with Architect's Specification & Drawings

Furniture, Furnishings; Worktops

B	Office Workstation Worktops; overall dimension 5160 x 700 x 720mm high; worktop c/w 100mm upstand; all in accordance with Architect's Specification and Drawings	1	nr		

To Collection €

					€	c
	(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)					
	Pedestal Drawer Unit to Architect's Details; complete; comprising 18mm thick medite ecologique MDF drawer fronts with formica laminated finish, edges rounded PVC formica to wrap round, colour ref: lemon K5818; 18mm thick medite ecologique MDF carcass with formica laminated finish, plastic strip edges, colour ref: mouse F7928; 18mm thick medite ecologique MDF drawer box with formica laminated finish, plastic strip edges, colour ref: mouse F7928; drawer runners to be high quality with stay closed feature, bottom mounting bracket and drawer stop; 18mm thick height adjustable MDF shelf with formica laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; include for heavy duty castors, approximately 35mm diameter, minimum load capacity 75kg per castor with steel pin and mounting plate; include for ironmongery comprising stainless steel recessed door handle fixed through back of drawer; include for timber carcassing as required; as per Architect's Specification					
	Furniture, Furnishings; Drawers					
A	Pedestal Drawer Unit; complete; overall dimension 600 x 605 x 720mm high; incorporating 4nr press/drawer units; all in accordance with Architect's Specification	1				
B	Pedestal Drawer Unit; complete; overall dimension 600 x 605 x 850mm high; incorporating 5nr press/drawer units; all in accordance with Architect's Specification	1				
	Lockable Base Unit to Architect's Details on Furniture Layout drawings; complete; comprising 40mm thick MDF with decorative high pressure laminate; 40 x 15 varnished beech edge trim to worktop; 18mm thick MDF cupboard doors with beech edge trim and carcass with high pressure laminate; 18mm thick height adjustable MDF shelf with high pressure laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; 12mm thick MDF removable back panel with high pressue laminate; lacquered hardwood plinth 100 x 25mm with adjustable carcass support feet; include for ironmongery comprising stainless steel D shape handle, 180 degrees self closing hinges and cylinder type locks; include for timber carcassing as required; 35mm SW bearers behind unit; sealing at abutments with mastic sealent; as per Architect's Specification					
	Furniture, Furnishings; Cupboards					
C	Low level units; complete; overall dimension 1000 x 600 x 720mm high; incorporating 2nr press units; all in accordance with Architect's Specification	1				
	Pin Boards to Architect's Specification ref. N10; complete					
	Furniture, Furnishings; Pin Boards					
D	1200mm high x 800mm long; generally	1				

					€	c
	(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)					
	High Level Storage Units as per Architect's Details; 18mm thick MDF decorative high pressure laminate carcass and doors; 12mm thick MDF back panel with decorative high pressure laminate; 18mm thick height adjustable MDF shelf with high pressure laminate to all sides complete with steel plug in type adjustable shelf supports, capacity to be 100kg/shelf; include for 35mm SW bearers behind unit; include for all ironmongery comprising stainless steel D shape handles, 180 degrees self closing hinges and cylinder type locks; high level unit to be fixed 1400mm above FFL; include for all fixings; complete; as per Architect's Specification and Drawings					
	Furniture, Furnishings; Cupboards					
A	High level units; complete; overall dimension 600 x 400 x 600mm high; incorporating 1nr press units; all in accordance with Architect's Specification and Drawings	1				
B	High level units; complete; overall dimension 3542 x 400 x 600mm high; incorporating 7nr press units; all in accordance with Architect's Specification and Drawings	1				
				To Collection €		

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(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE (Cont)					
COLLECTION					
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Page No. Extension/253					
Page No. Extension/254					
Page No. Extension/255					
Page No. Extension/256					
Page No. Extension/257					
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Page No. Extension/259					
Page No. Extension/260					
(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE **Carried to Summary**					

					€	c
	(76) STORAGE, SCREENING FITTINGS - BLINDS					
	FITTINGS					
	Fitting, Equipment and Furniture					
	Blinds; light transmission 9%-12%, solar absorption 17%-20%, openness factor 3%-5%, optimum shading coefficient; manufacture and installation of the blinds to comply with I.S EN 13120. Materials used in manufacture of the blinds to meet designation of #flameproof# when assessed in accordance with BS 3120:1959. A test certificate shall be supplied. Samples and colours of window frames to be approved by Architect; all as per Architects Specification 4.21					
	Furniture, Furnishings; Blinds					
A	Blinds; Overall Opening 4050mm x 2025mm	2	nr			
B	Blinds; Overall Opening 5400mm x 2025mm	2	nr			
C	Blinds; Overall Opening 1350mm x 2025mm	1	nr			
D	Blinds; Overall Opening 1350mm x 675mm	3	nr			
E	Blinds; Overall Opening 1350mm x 1350mm	1	nr			
	Blackout Blinds; light transmission 9%-12%, solar absorption 17%-20%, openness factor 3%-5%, optimum shading coefficient with an openness factor of 1%; manufacture and installation of the blinds to comply with I.S EN 13120. Materials used in manufacture of the blinds to meet designation of #flameproof# when assessed in accordance with BS 3120:1959. A test certificate shall be supplied. Samples and colours of window frames to be approved by Architect; all as per Architects Specification 4.21					
	Furniture, Furnishings; Blackout Blinds					
F	Blackout Blinds; Overall Opening 2700mm x 1350mm	1	nr			
G	Blackout Blinds; Overall Opening 1350mm x 2025mm	1	nr			
H	Blackout Blinds; Overall Opening 4050mm x 2025mm	2	nr			
J	Blackout Blinds; Overall Opening 5400mm x 2025mm	1	nr			
K	Blackout Blinds; Overall Opening 1350mm x 2025mm	1	nr			
L	Blackout Blinds; Overall Opening 1350mm x 2025mm	1	nr			
M	Blackout Blinds; Overall Opening 4050mm x 2700mm	2	nr			

To Collection €

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	(76) STORAGE, SCREENING FITTINGS - BLINDS (Cont)					
A	Electrically operates blinds to roof lights. Blinds: light transmission 9%-12%, solar absorption 17%-20%, openness factor 3%-5%, optimum shading coefficient; Manufacture and installation of the blinds to comply with I.S EN 13120. Materials used in manufacture of the blinds to meet designation of #flameproof# when assessed in accordance with BS 3120:1959. A test certificate shall be supplied. Samples and colours of window frames to be approved by Architect; all as per Architects Specification 4.21					
	Furniture, Furnishings; Electrically Operates Blinds					
B	Electrically Operates Blinds; Overall Opening 1000mm x 2985mm	6	nr			
C	Metal Venetian blinds incorporated into a double glazed screen; Manufacture and installation of the blinds to comply with I.S EN 13120. Materials used in manufacture of the blinds to meet designation of #flameproof# when assessed in accordance with BS 3120:1959. A test certificate shall be supplied. Samples and colours of window frames to be approved by Architect; all as per Architects Specification 4.21					
	Furniture, Furnishings; Metal Venetian blinds					
D	Metal Venetian blinds; Overall Opening 2500mm x 1150mm	1	nr			
E	Metal Venetian blinds; Overall Opening 2320mm x 1150mm	1	nr			
				To Collection €		

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(76) STORAGE, SCREENING FITTINGS - BLINDS (Cont)					
COLLECTION					
Page No. Extension/262					
Page No. Extension/263					
(76) STORAGE, SCREENING FITTINGS - BLINDS **Carried to Summary**					

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SUMMARY	**Page No.**				
(19) SUBSTRUCTURE	Extension/	22			
(21) EXTERNAL WALLS	Extension/	32			
(22) INTERNAL WALLS	Extension/	39			
(23) FLOORS, GALLERIES	Extension/	43			
(24) STAIRS	Extension/	46			
(25) AIR TIGHTNESS	Extension/	54			
(27) ROOF	Extension/	62			
(28) FRAME	Extension/	70			
(31) EXTERNAL WALL COMPLETIONS	Extension/	78			
(32) INTERNAL WALL COMPLETIONS	Extension/	87			
(34) STAIRS COMPLETIONS	Extension/	91			
(37) ROOF COMPLETIONS	Extension/	96			
(41) EXTERNAL WALL FINISHES	Extension/	99			
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SUMMARY	**Page No.**		
(76) STORAGE, SCREENING FITTINGS - FITTED FURNITURE	Extension/261		
(76) STORAGE, SCREENING FITTINGS - BLINDS	Extension/264		
TOTAL AMOUNT CARRIED TO GENERAL SUMMARY			
Extension/1 - Extension/264.			

EXISTING BUILDING

(10) DEMOLITIONS & ALTERATIONS

DEMOLITION & ALTERATIONS

GENERAL

A 1. THE ONUS IS ON THE CONTRACTOR TO VISIT THE SITE OF THE WORKS AND TO SATISFY HIMSELF AS TO THE NATURE AND EXTENT OF THE WORKS AND ALL OTHER MATTERS THAT MIGHT INFLUENCE HIS PRICE OR TIME FOR COMPLETION OF THE WORKS (ARRANGEMENTS TO VISIT THE SITE SHOULD BE MADE WITH THE EMPLOYER'S REPRESENTATIVE). THE CONTRACTOR MUST INCLUDE WITHIN HIS PRICE FOR ALL WORKS IN CONNECTION WITH THE DEMOLITION WORKS AND WORKS TO THE EXISTING BUILDINGS, WHICH COULD BE REASONABLY FORESEEN OR IMPLIED BY THE TENDER DOCUMENTS. NO CLAIMS ON THE GROUNDS OF WANT OF KNOWLEDGE IN RESPECT OF THE ABOVE WILL BE ENTERTAINED WHATSOEVER. Note

B 2. All demolition work is to be carried out in accordance with BS 6187 and the Health and Safety Executive Guidance Notes GS29/1, 3 and 4; All operatives must be appropriately skilled and experienced for the type of work and must hold or be training to obtain relevant CITB Certificates of Competence; All site staff responsible for supervision and control of work are to be experienced in the assessment of the risks involved and in the methods of demolition to be used. Note

C 3. No demolition shall proceed in advance of consultation and sign off by Architectural Heritage and archaeological consultants. All conservation reports must be taken into account with respect to demolition works; The Contractor is refered to the Archaeological Assessment which is part of the Tender Documents; The Contractor must include herein for all costs associated with same. Note

D 4. Demolition work is to be entrusted only to workmen with experience in this type of work, and all precautions must be taken to avoid accidents and to safeguard persons and property. Note

E 5. All excess builders rubble, topsoil, demolished materials etc, that is to be disposed off site, must be disposed in a licensed landfill site approved by the local authority. Note

F 6. The Contractor shall provide and maintain all necessary temporary fencing, hoarding, fans, planked footways, gaurdrails, gantries and the like for the protection of the Public and meeting the requirements of the Local Authority. Note

G 7. The Contractor is to include for all necessary scaffolding, hoisting and other facilities required for carrying out the works. Contractor also to make provisions for adequately supporting all structures if required. Note

H 8. The Contractor should include herein for all costs associated with obtaining the appropriate licences, as these must be undertaken prior to any works being carried out Note

J 9. The Contractors attention is drawn to the presence of existing services; due care must be taken when excavating in the proximity of existing buildings and boundaries Note

To Collection €

(10) DEMOLITIONS & ALTERATIONS (Cont)

A	10. When pricing the following items, the Contractor's attention is drawn to the information contained in the Works Requirements & Appendices of this Pricing Document. The Contractor's rates are to include for all items specifically referred to or implied therein. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		Note			
B	11. The Contractor must provide a method statement to the Architect for approval, outlining in detail the manner in which he proposes to carry out the removal of the demolition materials contained within the site.		Note			
C	12. The Contractor should include herein for all costs associated with the removal of contaminated earth arising from the demolition of existing buildings; the contractor shall include for disinfecting the material as required by the Local Authority.		Note			
D	13. The Contractor shall report to the Employer's Representative any bench marks or other survey information found on any structures that are to be demolished; any bench marks or information found must not be removed or destroyed unless instructed by the Employer's Representative		Note			
E	14. The Contractor must note that any work carried out to or which affects new or existing services must be in accordance with the byelaws or regulations of the relevant statutory authority		Note			
F	15. The Contractor should include herein for all costs associated with the locating and marking the positions of services affected by the demolition work; Contractor shall arrange with the appropriate authorities for the locating and marking of the positions of the mains services		Note			
G	16. The Contractor must arrange with the appropriate authorities, before demolition is commenced, for the disconnection of services and removal of fixtures, fittings, furniture and equipment		Note			
H	17. The Contractor must take adequate precautions to prevent fire or explosion caused by gas or vapour		Note			
J	18. The Contractor must reduce dust by periodically spraying general demolition works with water during any alteration works to masonary etc.		Note			
K	19. The Contractor must take adequate precautions to protect site operatives and the general public from health hazards associated with dangerous fumes and dust arising during the course of the works		Note			
L	20. The Contractor should include herein for all costs associated with the temporary support and protection of adjoining property and buildings; Contractor must repair any damage caused at his own expense; Contractor must not leave any unnecessary or unstable projections and report any exposed or apparent defects to the Employer's Representative		Note			
M	21. The Contractor must illuminate and protect and dangerous openings as necessary		Note			

To Collection €

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	(10) DEMOLITIONS & ALTERATIONS (Cont)					
A	22. The Contractor should include herein for all costs associated with the removal of timber infected by fungal/insect attack; the timber must be removed from the building and destroyed as soon as possible		Note			
B	23. The Contractor must include herein for submitting to the Architect / Engineer, prior to commencement, the order and method of each operation. This is to include proposed methods of propping, shoring, protection of adjoining properties, areas, etc.		Note			
C	24. The demolition shall be carried out without damage to adjoining properties. If such damage should occur, the Contractor shall reinstate and make good at his own expense.		Note			
D	25. The Contractor shall ensure the safety of works and public during demolition works. Demolition work should be carried out so as to cause minimum inconvenience to the public and to adjoining owners.		Note			
E	26. The Contractor shall include herein for clearly indicating, in writing, the manner of demolition i.e. machine, mechanical tools, piece by piece hand method etc. for each area		Note			
F	27. The Contractor must note that no method of demolition which will transmit vibration into adjoining properties shall be permitted.		Note			
G	28. The contractor must peruse the Architects and Engineers drawings and check all dimensions on site. No claim on the grounds of discrepancies between on site dimensions and drawings, in regards to demolition and associated works, will be entertained whatsoever.		Note			
H	29. The contractor must include herein for ensuring that all services, electricity, gas, telecomunications, water, sewage, etc., are made safe prior to demolition		Note			
J	30. The contractor is to report to the Architect / Engineer details of any underground chambers, vaults, walls, etc., discovered during demolition work.		Note			
K	31. The contractor must prevent access to unauthorised persons to partly demolished structures and must leave the site safe at close of each days work.		Note			
L	32. Care must be taken to prevent debris from overloading any part of the structure		Note			
M	33. The Contractor shall ensure that the impact of the works on the surroundings are in accordance with the set maximum levels for vibration and noise as defined in the guidelines presented in the relevant codes of practice.	1	Note			
				To Collection €		

					€	c
	(10) DEMOLITIONS & ALTERATIONS (Cont)					
	DEMOLITION					
	Alterations					
	Cutting; Openings or recesses in existing structures					
	Cutting opening in existing external wall to form new door opening; approx size 2700mm wide x 4000mm high opening in existing cavity wall; including new structural head, associated padstones, beams etc, include for all other temporary propping etc as shown on Detail in this item; include making good to reveals, disposal of all material, making good the existing structure and finishes of the adjoining existing walls to match existing; all as per Architects Drawings and Specification					
A	Generally; making good structure; making good finishings	1	nr			
	Removing					
	Finishes					
B	Existing external render wall finishes to certain locations within existing building; disposal of all materials off site; prepare walls to receive new finishes; including any dubbing out and replastering of existing walls	112	m2			
C	Existing ceiling finishes to corridor area; disposal of all materials off site; prepare ceiling area to receive new ceilings (measured elsewhere)	110	m2			
				To Collection €		

				€	c
(10) DEMOLITIONS & ALTERATIONS (Cont)					
COLLECTION					
Page No. Existing Building/1					
Page No. Existing Building/2					
Page No. Existing Building/3					
Page No. Existing Building/4					
(10) DEMOLITIONS & ALTERATIONS **Carried to Summary**					

					€	c
	(42) INTERNAL WALL FINISHES					
	FLOOR, WALL & CEILING FINISHES					
	Insitu Finishes					
	CEMENT LIME SAND INTERNAL PLASTER; Provide two coat cement lime sand internal plaster system to concrete blockwork; proprietary ready to use or factory produced general purpose plastering mortar to I.S. EN 998-1 or equivalent site mixed cement lime sand plaster; nominal strength Class CS II unless otherwise required by substrate or manufacturer; cement type Contractors choice; no pigment required; Background to be sound, clean and free from dust, laitance, efflorescence, oil, grease, loose material and other contaminants liable to impair adhesion; rake out or prepare masonry joints where required and remove projections and excessive mortar; assess suction and mechanical key of background prior to plastering and damp down high suction backgrounds or provide proprietary bonding treatment, scud coat or polymer modified bonding coat where necessary to achieve adequate adhesion; dubbing out of excessive irregularities to be completed and allowed to cure before application of plaster coats; Apply first undercoat nominal 10 to 12 mm thick, firmly pressed onto background to achieve full bond, ruled true, level and plumb and adequately keyed to receive final coat; allow undercoat to set and cure sufficiently before application of succeeding coat; Apply final cement lime sand finishing coat nominal 3 to 5 mm thick, using fine graded plastering sand and compatible mix not stronger than preceding coat; finish to a uniform plain smooth surface suitable to receive specified decoration, free from hollows, ridges, trowel marks, cracking, crazing and other visible defects; total plaster thickness generally not less than 15 mm unless otherwise indicated on drawings or required by manufacturer; Provide galvanised or stainless steel plaster beads appropriate to location and exposure, including angle beads, stop beads, movement joint beads and other profiles required to form straight true arrises, terminations and junctions; provide alkali resistant reinforcing mesh across changes in background, dissimilar materials and other locations susceptible to cracking where required; Form neat plaster finishes to reveals, soffits, recesses, returns, openings and junctions with frames and other finishes; maintain all movement joints through completed plaster system and neatly finish around service penetrations, electrical boxes and other fittings; Protect completed work from rapid drying, excessive heat, draughts, frost, impact and contamination during curing; include all necessary background preparation, bonding treatment, undercoats, finishing coats, beads, reinforcement, dubbing out, cutting, forming of angles, reveals and returns, curing and protection required to provide a complete finished plaster system; all in accordance with I.S. EN 13914-2, manufacturers current recommendations and Architects Drawings and Specification					
	Walls					
A	Exceeding 300mm	112	m2			
				To Collection €		

					€	c
	(42) INTERNAL WALL FINISHES (Cont)					
	Beads/ stops to Architects Specification; Galvanised steel or equal approved; to BS EN 13658-1; include where necessary silicon mastic seal joints; fixed in strict accordance with the Architect's Drawings and Specification Section M20					
	Sundries					
A	Angle beads	30	m			
B	Stops beads	30	m			
	PAINTING AND DECORATING					
	Painting					
	PAINT TO INTERNAL PLASTERED SURFACES AND FAIRFACED BLOCKWORK; The contractor is to include for painting of all walls and plasterboard parts of ceilings with 1 No. coat of primer paint and 3 No. coats of internal durable, hard wearing and easy to clean paint; Colours to be selected by the client; all as per Architects Drawings and Specification 4.28					
	Walls					
C	Exceeding 300mm	417	m2			
D	Not Exceeding 300mm	30	m			
				To Collection €		

				€	c
(42) INTERNAL WALL FINISHES (Cont)					
COLLECTION					
Page No. Existing Building/6					
Page No. Existing Building/7					
(42) INTERNAL WALL FINISHES **Carried to Summary**					

					€	c
	(35) & (45) CEILING FINISHES					
	FLOOR, WALL & CEILING FINISHES					
	Suspended Ceiling					
	SUSPENDED CEILING SYSTEM - Ecophon Gedina E or equivalent proprietary demountable suspended acoustic ceiling system; acoustic ceiling tiles comprising high density glass wool core with Akutex T painted visible surface and glass tissue backing; tegular Edge E profile with painted edges providing recessed visible grid and shadow line appearance; nominal tile thickness 15 mm; module size as indicated on Architects Ceiling Drawing 1241 P-T 15; colour White 500 or colour selected by Architect; nearest NCS colour S 0500-N; light reflectance approximately 84 percent; Acoustic ceiling system to achieve Sound Absorption Class A in accordance with EN ISO 11654; reaction to fire classification A2-s1, d0 to EN 13501-1; humidity resistance Class C, suitable for permanent relative humidity up to 95 percent at 30 degrees C in accordance with EN 13964; tiles to be easily demountable to permit access to services within ceiling void; Install tiles on Ecophon Connect T24 exposed suspended grid system or equivalent, comprising galvanised steel main runners, cross tees, perimeter trims, adjustable hangers, hanger clips, connectors, brackets, anchors and all associated suspension components and accessories; exposed grid colour Connect White 01 or equivalent to coordinate with ceiling tiles; Main runners generally installed at maximum 1200 mm centres; 1200 mm cross tees generally at 600 mm centres with 600 mm cross tees where required to suit ceiling module; adjustable hangers generally at maximum 1200 mm centres with first hanger and main runner positioned within manufacturers maximum permitted distance from perimeter; all strictly in accordance with Ecophon Installation Diagram M121 or equivalent manufacturers tested installation arrangement; Suspension system to be securely fixed back to structural soffit using suitable proprietary anchors and independently supported from mechanical, electrical and other service installations. Provide additional suspension, trimming and grid support around light fittings, access panels, diffusers, grilles, detectors, service penetrations and other ceiling mounted components where required; Set out ceiling grid symmetrically within rooms and spaces unless otherwise indicated, with cut perimeter tiles of balanced and reasonable width; accurately form junctions, changes in level, bulkheads, columns and other interruptions; provide proprietary perimeter trims and shadow trims where indicated; neatly cut tiles without damage to exposed faces or edges; Include all ceiling tiles, main runners, cross tees, perimeter trims, hangers, clips, anchors, fixings, additional framing, cutting, fitting and all associated accessories necessary to provide a complete suspended ceiling installation; protect ceiling materials from moisture, contamination and damage prior to and during installation; completed ceiling to be level, true and free from damaged, stained or misaligned tiles; install strictly in accordance with manufacturers current written instructions, EN 13964 and Architects Ceiling Drawing 1 Ceilings					
A	Depth of suspension 150mm - 500mm	110	m2			
				To Collection €		

					€	c
	(35) & (45) CEILING FINISHES (Cont)					
	Sundries					
A	Perimeter angle trim	90	m			

				€	c
(35) & (45) CEILING FINISHES (Cont)					
COLLECTION					
Page No. Existing Building/9					
Page No. Existing Building/10					
(35) & (45) CEILING FINISHES **Carried to Summary**					

					€	c
	(5-) MECHANICAL INSTALLATIONS					
	(10) DEMOLITIONS AND ALTERATIONS - EXISTING BUILDING					
	ALTERATIONS					
	Removing					
	Plumbing and Engineering Installations					
A	Mechanical contractor to allow for isolating, draining, disconnecting and removing all existing LPHW heating and plumbing services located in the existing plant room; disposal offsite; all in accordance with Mechanical Specification Part 1, Section 3.2	1	Item			
	Notes					
B	The tendering Contractors are referred to ARM 4 Supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		note			
C	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 Semple McKillop Consulting Engineers.		note			
D	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.		note			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

ALTERNATIVE RULES FOR THE MEASUREMENT OF MECHANICAL INSTALLATIONS

(51) HEATING CENTRE - EXISTING BUILDING PLANT ROOM

System

Heating centre installation, testing and commissioning; complete; consisting of natural gas fired condensing boilers located in the existing building serving radiators throughout the new school extension; the boiler installation shall include a pressurisation unit, expansion vessel, pipework, shunt pumps and all associated valves; a one pumped circuit shall be provided and the building shall be divided into separate Zones; The heating system shall be flushed and provided with appropriate chemical treatment; The contractor shall provide, prior to handover, a commissioning certificate to confirm that correct treatment has been carried out; The Contractor shall commission the boilers to maximise condensing within and shall provide for full servicing of the boilers before handover and again before the end of the defects period; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 4; Part 2; Part 3; Part 4 and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-ZZ-DR-M-5150

Primary Equipment

Boiler; supply and installation complete; Type: Wall-mounted boiler cascade arrangement; Fuel: Natural Gas; Boiler Output: 102 kW @ 80/60°C (each); Total Rated Output: 204 kW @ 80/60°C; LPHW Flow & Return Temps: 80 / 60°C; Max. Gas Consumption: 22.2 kg/h; Gas Supply Pressure: 17 - 25 mbar; Boiler Dimensions: 600mm wide x 952mm high x 584mm deep; Skid Dimensions: 2672mm long x 1800mm high x 645mm deep; Flue connection (per boiler): 110/160mm diameter; Condensate drain: 20 -24 mm; Heat Exchanger Material: Stainless Steel; Nominal heat output at 80/60°C: Cascade = 11.4 -204 kW, Per Boiler = 11.4 -102 kW; ErP efficiency rating: N/A; Seasonal efficiency (as L2B): 97.2 %; NOx Level (Dry @ 0% O2): 24.7; Maximum working pressure: 4 bar; Water Flow Rate: @ 20° AT:1.22 l/s per boiler; Hydraulic Resistance @ 20° AT: 22 kPa per boiler; Design Flow temperature: 80 °C; Electrical supply (per boiler): 230 V, 1 Ph., 50-60 Hz; Electrical consumption (full load): 165 W each; Shunt Pump Control: 0 - 10V; Combustion Control: Siemens controller or equivalent; c/w cascade system; low loss header & gas header; Pump group connections and class A modulating pump (per boiler); boiler piping; manifold configuration support; header pipework insulation; immersion sensor pocket; safety valve; altitude gauge; temperature gauge flow and return; drain cock; controls and contacts for BMS; Warranty: 5 years parts & labour; include for all fixings and wall mounting brackets; all in strict accordance with the Mechanical Specification Part 1, Section 1.1 and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-XX-SC-M-5150

A	Boiler (Ref: B-01; Location: Plant Room)	1	nr		
B	Boiler (Ref: B-02; Location: Plant Room)	1	nr		

To Collection €

(5-) MECHANICAL INSTALLATIONS (Cont)

Pressurisation Unit; supply and installation; complete; Type: Floor standing; Pumps: Twin; Heating Load (kW): 160; Static Head (m): 8.0; Approx System Water capacity (litres): 2112; Flow Temperature (°C): 80degrees; Breaktank Capacity: 25 lts; Breaktank Connection: 'AB' air gap to water supply; Max Working Pressure: 10 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 (2.5A); Power Consumption: 0.37 kW; Expansion Vessel: 800 Litres capacity; 634mm diameter x 758mm High; c/w isolation valve; lock shield valve, stainer on pump; pressure gauge; air relief valve, pressure relief valve, control panel, pump test button; include for all fixings and mounting brackets; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 1.5 and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-XX-SC-M-5150

A	Pressurisation Unit (Ref: PU-01)	1	nr		

Expansion Vessel; supply and installation; complete; include for all accessories, fixings and mounting brackets; complete; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-XX-SC-M-5150

B	Expansion Vessel	1	nr		

Pumps; supply and installation; complete; Type: single head Twin head canned-rotor type c/w integral variable speed drives & BMS connectivity; Minimum Energy Class: A; Pump Housing Material: Cast iron; Impeller Material: Composite; Maximum Operating Pressure: 10 bar; Power Input: Contractor to confirm; Electrical Requirements: 1phase / 230V / 50 Hz; Enclosure Class: X4D; Insulation Class: F; Energy Efficiency Index (EEI): <0.23; On-board VSD: Required; Volt Free Contacts: Required for BMS enable/fault; Differential Pressure Transducer Kit for sealed circuits: Required; c/w flexible connections, test points; include for all fixings, anti vibration mounts and brackets; all in strict accordance with the Mechanical Specification Part 4, Section 2.7 and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-XX-SC-M-5150

C	Pump for LPHW; Flow rate: 1.15 Kg/s; Head: 130KPA; Motor rating: 1.5kW (Ref: P1)	1	nr		
D	Pump for LPHW; Flow rate: 0.9 Kg/s; Head: 115KPA; Motor rating: 1.5kW (Ref: P2)	1	nr		

Balanced Flue kit; supply and installation; complete; Twin wall insulated Stainless steel, Construction: Inner casing: 304 grade stainless steel; Outer casing: 304 stainless steel, powder coated steel; Insulated thickness: 40mm; Fire Rating: 2 hours Terminal type:Suitable for Horizontal discharge; Support brackets: powder coated stainless steel; External wall terminal kit: Required; include for all accessories, fittings and fire stopping; complete; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 2.4; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 1.2 and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-XX-SC-M-5150

E	160mm diameter exhaust flue	1	nr		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Magnetic filter;supply and installation; complete; Housing: 304 grade stainless steel; Max Working Pressure: 10 bar; Lid Seal: EPDM; Maximum Temperature: 140°C; Sight Glass: Integral; Connection Details: 80mm; Connection Sizes: 3"; Filter Diameter: 210 mm; Magnet Length: 206 mm; Drain: 11/4" BSPT Drain; c/w wall mounting brackets; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 4, Section 1.6 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
A	Magnetic filter	1	nr			
	Combined de-aerator & dirt separator; supply and installation; complete; Dosing capacity: 10 litres; Construction: stainless steel; c/w air vent and dirt drain; include for all fixings and wall mounting brackets; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-XX-SC-M-5150					
B	Combined de-aerator & dirt separator	1	nr			
	Heat meter; supply and installation; complete; linked to BMS; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 1, Section 10.15					
C	Heat Meter	2	nr			
	Accessories associated with Primary Equipment					
	Isolation valves; for isolation of LPHW pipework; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
D	22mm Isolation Valves	2	nr			
E	32mm Isolation Valves	5	nr			
F	40mm Isolation Valves	5	nr			
G	100mm Isolation Valves	5	nr			
	Strainer valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
H	32mm Strainer Valves	1	nr			
J	40mm Strainer Valves	1	nr			
	Test point valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
K	100mm test point valves	1	nr			

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Non-return Valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
A	22mm Non-return Valves	2	nr			
B	32mm Non-return Valves	1	nr			
C	40mm Non-return Valves	1	nr			
	Lock shield valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
D	22mm Lock shield valves	2	nr			
	Drain Cock Valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
E	32mm Drain Cock Valves	1	nr			
F	40mm Drain Cock Valves	1	nr			
G	100mm Drain Cock Valves	3	nr			
	Safety Valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
H	100mm Safety Valve	1	nr			
	Commissioning sets; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
J	32mm Commissioning set	1	nr			
K	40mm Commissioning set	1	nr			
	Pressure Differential By-Pass Valves; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
L	32mm Pressure Differential By-Pass valves	1	nr			
M	40mm Pressure Differential By-Pass valves	1	nr			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Pressure Gauge; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
A	32mm Pressure Gauge	5	nr			
B	40mm Pressure Gauge	5	nr			
	Temperature Gauge; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
C	32mm Temperature Gauge	2	nr			
D	40mm Temperature Gauge	2	nr			
	Temperature Sensor; linked to BMS; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
E	32mm Temperature Sensor	2	nr			
F	40mm Temperature Sensor	2	nr			
G	100mm Temperature Sensor	1	nr			
	High Pressure Switch; linked to BMS; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
H	22mm High Pressure Switch	1	nr			
	Low Pressure Switch; linked to BMS; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
J	22mm Low Pressure Switch	1	nr			
	Immersion Thermostat; linked to BMS; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
K	100mm dia Immersion Thermostat	1	nr			
	Flexible connections; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-XX-SC-M-5150					
L	22mm Flexible connections	1	nr			
M	32mm Flexible connections	2	nr			
N	40mm Flexible connections	2	nr			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	External frost sensor; linked to BMS; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification					
A	External frost sensor	1	nr			
	Distribution					
	Medium Grade Black Mild steel pipework and fittings; include for all fixings and supports; include for all elbows, expansion bellows; unions and tees necessary to complete the work, all pipework up to 50mm to be screw joints, pipework above 50mm to be welded, plant room pipework to be flanged; all connections to valves shall be screwed; Painting: two coat of zinc chromate primer prior to fitting of insulation; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-XX-SC-M-5150					
B	22mm diameter pipework	1	Item			
C	32mm diameter pipework	1	Item			
D	40mm diameter pipework	1	Item			
E	100mm diameter pipework	1	Item			
F	100mm diameter pipework; Low loss header	1	Item			
	Insulation					
	Foiled faced rigid fibreglass insulation; to all new pipework services; class A1, CFC and HCFC free with ozone depletion factor of zero; Thermal conductivity not exceeding 0.043W/mK; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-XX-SC-M-5150					
	Insulation, 40mm thick					
G	to 22mm diameter pipework	1	Item			
H	to 32mm diameter pipework	1	Item			
	Insulation, 45mm thick					
J	to 40mm diameter pipework	1	Item			
K	to 100mm diameter pipework	1	Item			
	Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-ZZ-DR-M-5150					
L	General Valves & Plant	1	Item			

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Aluminium Cladding; 18mm gauge aluminium, fixed with self-tapping screws; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-ZZ-DR-M-5150					
A	to 22mm diameter pipework	1	Item			
B	to 32mm diameter pipework	1	Item			
C	to 40mm diameter pipework	1	Item			
D	to 100mm diameter pipework	1	Item			
E	to General Valves & Plant	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
F	Testing and commissioning	1	Item			
G	Testing,chemical dosing, sterilization and certification of all systems	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
H	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
J	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
K	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
L	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
M	Identification plates, labels and the like	1	Item			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

(53) WATER SERVICES - HOT AND COLD WATER

System

Cold Water Distribution installation, testing and commissioning; complete; The cold water services for the buildings shall be supplied via gravity from existing high level storage tank to the following items: hot water generator, wash hand basins, sinks and showers 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 Part 1, Section 6; Part 2; Part 3; Part 4, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301, 2556-SMK-ZZ-ZZ-DR-M-5302, 2556-SMK-ZZ-XX-DR-M-5350 & 2556-SMK-ZZ-SC-DR-M-510

Hot Water Distribution installation,testing and commissioning; complete; Hot water will be generated by a calorifier located in the existing plant room; 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 hot supply will have a recirculation pump and return pipework providing hot water to within 1m of all hot water outlets. To prevent scalding all hot water outlets will be provided with thermostatic mixing valves to control outlet temperatures to 43 degree C; 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 Part 1, Section 6; Part 2; Part 3; Part 4, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301, 2556-SMK-ZZ-ZZ-DR-M-5302, 2556-SMK-ZZ-XX-DR-M-5350 & 2556-SMK-ZZ-SC-DR-M-510

A Equipment

Cold water Storage Tank; supply and installation; complete; Type: GRP pre-insulated sectional water Storage Tank; Contents: Potable Cold Water; Specification: Format 30; Capacity: 1000Litres; Dimensions (LxWxH): 1.15m x 1.15m x 1.15m; Internal Divider; Not Required; Drip Tray: Required; Inlet Connection; 1 no. DN 22; Outlet Connection: 1 no. DN 42; Overflow Connection: 1 no. DN 54; Vents: 1 no.; Access Hatch: 600 x 600; Internal Ladder: Not required; External Ladder: Not required; Tank cover description: Heavy duty and pre-insulated c/w internal flange; complete; all in strict accordance with the Mechanical Engineers Specification Part 4, Section no. 52.1 and Drawings 2556-SMK-ZZ-XX-DR-M-5350

B	Cold Water Storage Tank; (Ref: WT1)	1	nr		

(5-) MECHANICAL INSTALLATIONS (Cont)

Gas Fired Condensing Hot Water Heater; supply and installation; complete; Minimum storage capacity: 291L; Fuel: Natural Gas; Recovery Rate at 50oC: 540 litres/hour; Heat Input (Gross): 12.1 kW; Heat Output: 11.7 kW; Storage Vessel: Enamel Lined; Heat exchanger: Stainless steel; Insulation: polyurethane; Dimensions: 1269mm height x 560mm diameter; Burner: fully modulating air/gas premix burner; Power Consumption: 85 W; Volt Free Contacts / BMS Interface: Required / Remote Enable Terminals & Fault Output; Accessories: 1no. WH17 Unvented Kit; include for all accessories, fittings and fire stopping; complete; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 2.3 and Drawings 2556-SMK-ZZ-XX-DR-M-5350

A	Gas Fired Water Heater; (Ref: WH-01)	1	nr		

Balanced Flue kit; supply and installation; complete; Twin wall insulated Stainless steel, Construction: Inner casing: 304 grade stainless steel; Outer casing: 304 stainless steel, powder coated steel; Insulated thickness: 40mm; Fire Rating: 2 hours Terminal type:Suitable for Horizontal discharge; Support brackets: powder coated stainless steel; External wall terminal kit: Required; include for all accessories, fittings and fire stopping; complete; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 2.4 and Drawings 2556-SMK-ZZ-XX-DR-M-5350

B	250mm diameter Balance Flue	1	nr		

Accessories associated with Primary Equipment

Isolation valves; for isolation of water services pipework up to 50mm diameter; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

C	22mm Isolation Valves	2	nr		
D	35mm Isolation Valves	3	nr		
E	42mm Isolation Valves	9	nr		

3 port Control Valve; for water services pipework at final connections to fittings; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

F	35mm dia 3 port control valve	1	nr		

Anti Vacuum Valve; for water services pipework at final connections to fittings; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

G	35mm dia Anti Vacume Valve	1	nr		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Double Check Valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
A	22mm dia Check Valve	1	nr			
B	35mm dia Double Check Valve	2	nr			
	Lock Shield Valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
C	35mm dia Lock Shield Valve	1	nr			
	Drain Cock Valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
D	35mm dia Drain Cock Valve	1	nr			
	Pressure Regulating Valve; for water services pipework at final connections to fittings; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
E	35mm dia Pressure regulating Valve	1	nr			
F	42mm dia Pressure regulating Valve	1	nr			
	Commissioning Set; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
G	22mm dia Commissioning Set	1	nr			
	Safety Valve; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
H	35mm dia Safety Valve	2	nr			
	Pressure Gauge; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
J	35mm dia Pressure Gauge	2	nr			
K	42mm dia Pressure Gauge	2	nr			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Temperature Gauge; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
A	22mm dia Temperature Gauge	1	nr			
B	35mm dia Temperature Gauge	1	nr			
	Pumps; supply and installation; complete; Type: single head; Minimum Energy Class: A; Design Duty: 0.15 kg/s 'V' 150 kPa; Pump Housing Material: Stainless Steel EN 1.4308; Impeller Material: PES 30%GF; Maximum Operating Pressure: 10 bar; Maximum Operating Temperature: 110°C; Power Input: Contractor to confirm; Maximum Current Consumption: Contractor to confirm; Electrical Requirements: 1phase / 230V / 50 Hz; Enclosure Class: X4D; Insulation Class: F; Energy Efficiency Index (EEI): .0.23; On-board VSD: Required; c/w flexible connections, test points; BMS failure alarm, BMS monitoring; include for all fixings, anti vibration mounts and brackets; all in strict accordance with the Mechanical Specification Part4, Section 2.7 and Drawings 2556-SMK-ZZ-XX-DR-M-5350					
C	Pump for Hot Water service return ; Flow rate: 0.15 kg/s; head: 150KPA (Ref: P-03)	1	nr			
	Booster Pump Set; supply and installation; complete; Type: Cold Water booster pump c/w integrated VSD; Design Duty: 2.172 l/s @ 2.0 Bar; Integral Frequency Converter and PI Controller: Required; Integral Expansion Vessel, Pressure Transducer & Pressure Gauge: Required; Integral Non-return Valve: Required; Variable Speed Drive: Required; Pump Housing Material: 304 Stainless Steel; Impeller Material: 304 Stainless Steel; Rubber Material: EPDM; Shaft Seal Material; HQQE; Max. Ambient Temperature: 40°C; Max. Operating Pressure: 10 bar; Rated Power- P2: Contractor to confirm; Mains Frequency: 50 Hz; Mains Voltage: 200V - 240V; Enclosure class (IEC 34-5): IP55; Insulation class (IEC 85): F; Volt Free Contacts: Required for BMS enable/fault; Manufacturers Warranty: 2 years (minimum); include for all fixings, anti vibration mounts and brackets; all in strict accordance with the Mechanical Engineers Specification Part 4, Section 2.5 and Drawings 2556-SMK-ZZ-XX-DR-M-5350					
D	Packaged Cold Water Booster Pump Set; (Ref: BS-01)	1	nr			
	Expansion Vessel; supply and installation; complete; include for all accessories, fixings and mounting brackets; complete; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-XX-DR-M-5350					
E	Expansion Vessel	1	nr			

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Distribution					
	Copper Pipes and Fitting; supply and installation complete; Application: rainwater pipelines; Material: Copper; Finish: uncoated; include for all fixing brackets, hangers and supports; include for all elbows, expansion bellows, unions and tees necessary to complete works; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 1 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
A	15mm diameter pipework	1	Item			
B	22mm diameter pipework	1	Item			
C	28mm diameter pipework	1	Item			
D	35mm diameter pipework	1	Item			
E	42mm diameter pipework	1	Item			
F	54mm diameter pipework	1	Item			
	Insulation					
	Foil-faced Mineral Wool Insulation; max thermal conductivity: 0.038W/mK (@50°C); Density: 80-120kg/m3; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 3 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
	Insulation, 20mm thick					
G	to 15mm diameter pipework	1	Item			
H	to 22mm diameter pipework	1	Item			
J	to 28mm diameter pipework	1	Item			
K	to 35mm diameter pipework	1	Item			
L	to 42mm diameter pipework	1	Item			
M	to 54mm diameter pipework	1	Item			
	Insulation, 30mm thick					
N	to 15mm diameter pipework	1	Item			
P	to 22mm diameter pipework	1	Item			
	Insulation, 35mm thick					
Q	to 28mm diameter pipework	1	Item			
R	to 35mm diameter pipework	1	Item			

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	to 42mm diameter pipework	1	Item			
B	to 54mm diameter pipework	1	Item			
	Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification Section 3					
C	General Valves & Plant	1	Item			
	General					
	Testing and commissioning; all in accordance with the Mechanical Engineers Specification Documents					
D	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Mechanical Engineers Specification Documents					
E	Operating and maintenance manuals;complete	1	Item			
	Working drawings; all in accordance with the Mechanical Engineers Specification Documents					
F	Working drawings; complete	1	Item			
	Co- ordination drawings; all in accordance with the Mechanical Engineers Specification Documents					
G	Co- ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Mechanical Engineers Specification Documents					
H	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Mechanical Engineers Specification Documents					
J	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

(53) WATER DISTRIBUTION - MAINS WATER

System

Mains Water Distribution installation, testing and commissioning; The existing incoming mains water supply shall be isolated, drained, disconnected and retired back to the point of entry to the building. A new non-metallic pipework and distribution system shall be connected to the incoming supply and shall rise to the attic space and shall be distributed around the existing and new extension as indicated on the design drawings with the final connection being the supply to the water tanks. This will ensure continuous flow through the main water pipework in an effort to mitigate against stagnation. Please refer to the plumbing drawings and schematic for valving arrangement; Prior to handover, the Contractor shall arrange to have a sample from a mains water drinking tap tested for compliance with S.I. No.122 of 2014 - European Union (Drinking Water) Regulations 2014; all in strict accordance with the Mechanical Engineers Site Specific Specification Section 4, General Specification Section 3 and Drawings 2556-SMK-ZZ-L0-DR-M-5301, 2556-SMK-ZZ-ZZ-DR-M-5302 & 2556-SMK-ZZ-XX-DR-M-5350

Accessories associated with Primary Equipment

Stop Valves; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-XX-DR-M-5350

A	22mm Isolation Valves	5	nr		

Pressure Reducing Valve; supply and installation; complete; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-XX-DR-M-5350

B	28mm Pressure reducing Valve	1	nr		

2 Port Control Valve; supply and installation; complete; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-XX-DR-M-5350

C	22mm 2-Port Control valve	1	nr		

Drains Cocks; supply and installation; complete; Type: Lockshield connection to accept key, Fit outlet with hosepipe connector; Materials: PVC; Ends: Threaded; fitted at all low points in the system that can not be drained through outlets; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-XX-DR-M-5350

D	28mm Drain Cock	1	nr		

Stop Cock Valves; supply and installation; complete; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-XX-DR-M-5350

E	28mm Stop Cock Valve	1	nr		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Test Point Valve; supply and installation; complete; include for all seals and accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-XX-DR-M-5350					
A	28mm Test Point valve	1	nr			
	Pressure Gauge; include for all associated accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-XX-DR-M-5350					
B	28mm Pressure Gauge	2	nr			
	Double Check Valve; include for all associated accessories; all in accordance with the Mechanical Engineers Specification Part 3, Section 2 & drawings 2556-SMK-ZZ-XX-DR-M-5350					
C	22mm Double Check Valve	1	nr			
D	28mm Double Check Valve	1	nr			
	Chemical Dosing pot;supply and installation; complete; capacity :11 litres; Construction: stainless steel; c/w wall mounting brackets; include for all accessories and fittings; complete; all in accordance with the Mechanical Engineers Specification Part 4, Section 1.7 and Drawings 2556-SMK-ZZ-XX-DR-M-5350					
E	Dosing Pot	1	nr			
	Water Meter; supply and installation; complete; Water meter type to be ultrasonic; Meters shall be complete with modbus interface or other interface to allow connection to the BMS; include for all accessories; all in strict accordance with the Mechanical Engineers Specification Part 3 & drawings 2556-SMK-ZZ-XX-DR-M-5350					
F	Water Meter; Max Flowrate: 3l/s; Normal Flowrate: 1.5l/s; Minimum Flow rate: 0.05l/s	1	nr			
	<u>Distribution system</u>					
	Non-metallic pipework and fittings; in accordance with the Irish Standard IS EN 806:2005: Specification for installations inside buildings conveying water for human consumption; include for all fixing brackets, hangers and supports; include for all elbows, unions and tees necessary to complete works; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 1 & Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302					
G	15mm diameter pipework	1	Item			
H	22mm diameter pipework	1	Item			
J	28mm diameter pipework	1	Item			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

Insulation

Foil-faced Mineral Wool Insulation; max thermal conductivity: 0.038W/mK (@50°C); Density: 80-120kg/m3; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 3 & drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

Insulation; 20mm thick

A	15mm diameter pipework	1	Item			
B	22mm diameter pipework	1	Item			
C	28mm diameter pipework	1	Item			

Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification Section 3

D	General Plant & Valves	1	Item			

General

Testing and commissioning; all in accordance with the Mechanical Engineers Specification Documents

E	Testing and commissioning; complete	1	Item			

Operating and maintenance manuals; all in accordance with the Mechanical Engineers Specification Documents

F	Operating and maintenance manuals;complete	1	Item			

Working drawings; all in accordance with the Mechanical Engineers Specification Documents

G	Working drawings; complete	1	Item			

Co- ordination drawings; all in accordance with the Mechanical Engineers Specification Documents

H	Co- ordination drawings;complete	1	Item			

As built drawings; all in accordance with the Mechanical Engineers Specification Documents

J	As built drawings; complete	1	Item			

Identification plates, labels and the like; all in accordance with the Mechanical Engineers Specification Documents

K	Identification plates, labels and the like; complete	1	Item			

To Collection €

(5-) MECHANICAL INSTALLATIONS (Cont)

(53) WATER SERVICES - RAIN WATER SERVICES

System

Rain Water Distribution installation, testing and commissioning; complete; An existing rainwater harvesting and distribution system is currently installed on the site; The Civil Engineer shall be responsible for specifying a new submersible booster pump, leaf filters and all integral equipment and fittings and shall be supplied and installed by the Main Contractor. The Mechanical contractor shall be responsible for the remainder of the rain water harvesting installation including Medium Density Poly-Ethylene (MDPE) colour blue underground distribution pipework from the underground tank to the Water Tank Room and the complete above ground rain water installation including control panel, 120 micron water filter, pressure sensors, level sensors/probes, expansion vessel etc to make a complete fully operational system. Upon entry to the water tank room the pipework shall transition to copper and be piped directly to the daily header storage tank. This tank shall supply collected rain water to all WC's throughout the new extension and the existing school via a booster pump; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 6; Part 2; Part 3; Part 4 and Drawings 2556-SMK-ZZ-L0-DR-M-5301, 2556-SMK-ZZ-ZZ-DR-M-5302 & 2556-SMK-ZZ-L0-DR-M-5350

Distribution

Copper Pipes and Fitting; supply and installation complete; Application: rainwater pipelines; Material: Copper; Finish: uncoated; include for all fixing brackets, hangers and supports; include for all elbows, expansion bellows, unions and tees necessary to complete works; all in strict accordance with the Mechanical Engineers Specification Part 3, Section 1 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

A	22mm diameter pipework	1	Item		

Insulation

Foiled faced rigid fibreglass insulation; to all new pipework services; class A1, CFC and HCFC free with ozone depletion factor of zero; Thermal conductivity not exceeding 0.035W/mK; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification Part 3 and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

Insulation, 30mm thick

B	to 22mm diameter pipework	1	Item		

Aluminium Cladding; to valves and plant; 18mm gauge aluminium, fixed with self-tapping screws; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5301 & 2556-SMK-ZZ-ZZ-DR-M-5302

C	to 22mm diameter pipework	1	Item		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
A	Testing and commissioning	1	Item			
B	Testing,chemical dosing, sterilization and certification of all systems	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
C	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
D	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
E	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
F	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
G	Identification plates, labels and the like	1	Item			
	(54) GAS SERVICES					
	System					
	Gas distribution; installation testing and commissioning; The school building will be fed from a new incoming natural gas supply, The contractor shall be responsible for extending the new gas main to all items of plant in the Boiler House requiring a gas supply; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 7; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-ZZ-DR-M-5150					
	Accessories associated with Primary Equipment					
	Isolation Valves for isolation of gas services pipework; include for all accessories; all in strict accordance with the Mechanical Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-ZZ-DR-M-5150					
H	15mm Isolation Valves	1	nr			
J	32mm Isolation Valves	3	nr			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	40mm Isolation Valves	4	nr			
	Second stage regulator c/w tamperproof, lockable metal cage; include for all accessories and fittings; complete; all in strict accordance with the Mechanical Specification Part 1, Section 7.8					
B	Second stage regulator & temper proof cage	1	nr			
	Gas Meter c/w tamperproof, lockable metal cage; Gas meter to have volt free contacts for connection to the BMS; include for all accessories and fittings; complete; all in strict accordance with the Mechanical Specification Part 1, Section 7.8					
C	Gas Meter	1	nr			
	Distribution System					
	Galvanised Medium Grade Mild steel pipework and fittings; include for all fixings and supports, elbows,expansion bellows; unions and tees necessary to complete works; Painted with two coats of yellow ochre paint; pipework run in ceiling voids; all in strict accordance with the Mechanical Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-ZZ-DR-M-5150					
D	15mm diameter pipework	1	Item			
E	32mm diameter pipework	1	Item			
F	40mm diameter pipework	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
G	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
H	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
J	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
K	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
L	As built drawings	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Identification plates, labels and the like; all in accordance with Engineers Specification					
A	Identification plates, labels and the like	1	Item			
	(54) GAS DETECTION SYSTEM					
	System					
	Gas detection system installation testing and commissioning; A gas leak detection system shall be supplied, installed, tested and commissioned in the new Boiler House as indicated on the design drawings, schematics and as described in Part 4: Equipment Schedules; The new system shall comprise of a control panel c/w integral emergency stop activation, emergency slam shut-off solenoid valve fitted to the gas pipework at point of entry to the Boiler House with natural gas sensors at each item of gas-fired equipment. The gas detection panel shall be provided with volt free contacts and an interface unit for connection to the BEMS and school fire alarm. The new gas detection system shall shut down the gas supply to the Boiler House on detection of a gas leak or activation of the fire alarm with a manual reset required; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 7.9; Part 2; Part 3; Part , Section 3 and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-ZZ-DR-M-5150					
	Primary Equipment					
	Gas detection control panel; include for all accessories and fittings; complete; all in accordance with the Mechanical Specification Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-M-5101 & 2556-SMK-ZZ-ZZ-DR-M-5150					
B	Gas detection control panel (Ref: CP-01; Location: Boiler room)	1	nr			
C	Gas providing panel (Ref: CP-02; Location: Reception)	1	nr			
	Accessories associated with Primary Equipment					
	Gas Solenoid Valves; include for all accessories and fittings; complete; all in strict accordance with the Mechanical Specification Part 3					
D	32mm dia Gas Solenoid Valve	1	nr			
E	40mm dia Gas Solenoid Valve	1	nr			
	Emergency Stop Button; include for all accessories and fittings; complete; all in strict accordance with the Mechanical Specification					
F	Emergency Stop Button	1	nr			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	Gas Sensor; include for all accessories and fittings; complete; all in strict accordance with the Mechanical Specification Part 1, Section 7.9					
A	Gas Sensor	3	nr			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
B	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
C	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
D	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
E	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
F	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
G	Identification plates, labels and the like	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	(56) SPACE HEATING					
	System					
	Heating installation, testing and commissioning; consisting of gas fired condensing boiler serving radiators throughout the school building; The heating system shall be an LPHW system with radiators as the primary source of heat emitter; With the exception of the temperature control from the dedicated heating manifolds in the SEN Classroom 1 & 2 area all rooms shall be provided with individual room temperature control by means of two-port motorised valves that are fed from a digital, room temperature sensor; The heating system shall be flushed and provided with appropriate chemical treatment; Commissioning results including a flue gas analysis shall be provided for the boilers prior to handover, along with a statement by the manufacturer/supplier confirming their correct and efficient operation; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 8; Part 2; Part 3; Part 4, Section 4 and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
	Distribution					
	Medium Grade Black Mild steel pipework and fittings; include for all fixings and supports; include for all elbows, expansion bellows; unions and tees necessary to complete the work, all pipework up to 50mm to be screw joints, pipework above 50mm to be welded, plant room pipework to be flanged; all connections to valves shall be screwed; Painting: two coat of zinc chromate primer prior to fitting of insulation; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
A	15mm diameter pipework	1	Item			
B	20mm diameter pipework	1	Item			
C	25mm diameter pipework	1	Item			
D	32mm diameter pipework	1	Item			
	Insulation					
	Foiled faced rigid fibreglass insulation; to all new pipework services; class A1, CFC and HCFC free with ozone depletion factor of zero; Thermal conductivity not exceeding 0.043W/mK; all joints taped and sealed; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
	Insulation, 30mm thick					
E	to 15mm diameter pipework	1	Item			
	Insulation, 35mm thick					
F	to 20mm diameter pipework	1	Item			
G	to 25mm diameter pipework	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
A	to 32mm diameter pipework	1	Item			
	Insulation Jackets; Velcro fixed pump jackets; supply and installation; complete; all in accordance with the Mechanical Engineers Specification					
B	General Valves & Plant	1	Item			
	Aluminium Cladding; to valves and plant; 18mm gauge aluminium, fixed with self-tapping screws; all in strict accordance with the Mechanical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-M-5601 & 2556-SMK-ZZ-L1-DR-M-5602					
C	to 15mm diameter pipework	1	Item			
D	to 20mm diameter pipework	1	Item			
E	to 25mm diameter pipework	1	Item			
F	to 32mm diameter pipework	1	Item			
G	to General Valves & Plant	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
H	Testing and commissioning	1	Item			
J	Testing,chemical dosing, sterilization and certification of all systems	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
K	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
L	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
M	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
N	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
P	Identification plates, labels and the like	1	Item			
				To Collection €		

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	(58) FIRE PROTECTION INSTALLATION					
	System					
	Fire Fighting installation, testing and commissioning; complete; Hand held fire extinguishers and fire blankets shall be provided throughout the building as detailed on the drawings; The Contractor shall ensure that all fire safety equipment and installation meets the relevant Fire and Local Authority requirements and complies with any specific requirements of the company insuring the project on completion. In general and where relevant, the installation shall comply with current standards; The Contractor shall be responsible for carrying out the commissioning of the portable fire extinguishers before they are installed; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 11, Part 2; Part 3, Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-M-5201 & 2556-SMK-ZZ-L1-DR-M-5202					
	Terminal equipment and Fittings					
	Fire Extinguishers supply and installation; complete with 5 years guarantee, CE approved and marked; all in accordance with the Mechanical Specification Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-M-5201 & 2556-SMK-ZZ-L1-DR-M-5202					
A	CO2 Gas Extinguishers c/w wall mounting brackets and signage	1	nr			
B	Automatic Dry Powder extinguisher c/w ceiling mounting brackets and signage	3	nr			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
C	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
D	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
E	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
F	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
G	As built drawings	1	Item			
				To Collection €		

(5-) MECHANICAL INSTALLATIONS (Cont)

Identification plates, labels and the like; all in accordance with Engineers Specification

A	Identification plates, labels and the like	1	Item		

(58) HVAC MOTOR CONTROL CENTRE & BUILDING MANAGEMENT SYSTEM

System

BMS System Installation; testing and commissioning; complete; Building management software including a target and monitoring system based on a traffic light system shall be designed and installed in this school to inform relevant personnel for energy usage in the school. How utility supplies are behaving when set against targeted parameters. This information is to be available on the principals pc. They should be capable of remote monitoring and alarm if there is a problem; all in accordance with the Mechanical Engineers Specification Part 1, Section 10; Part 2; Part 3; Part 4, Section 6 and Drawing 2556-SMK-ZZ-LO-DR-M-5801, 2556-SMK-ZZ-LO-DR-M-5802

Primary Equipment

MCC Panel; supply and installation; complete; The MCC panel: wall mounted top entry and top exit type with hinged front doors, Form 2b classification; Spare capacity: 50%; The MCC shall contain hand/off/auto switches with run and trip indicators and interfaces for all items as detailed on the drawings; each button shall be clearly labelled showing the area served; include for all fittings and accessories; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 1, Section 10; Part 4, Section 6.1 and Drawings 2556-SMK-ZZ-LO-DR-M-5801, 2556-SMK-ZZ-LO-DR-M-5802

B	MCC Panel (Location: Existing Plant Room)	1	nr		

Remote Panels; supply and installation; complete; include for all fittings and accessories; all in accordance with the Mechanical Engineers Specification Part 4, Section 6.2

C	Remote Panel (Location: Admin Office)	1	nr		

Touch Screen; supply and installation; complete; Panel mounted; include for all fixings; all in accordance with the Mechanical Engineers Specification

D	Touch Screen	1	nr		

Central Monitoring Facility; 1nr PC c/w 21" colour LCD monitor, keyboard, DVD RW, inkjet printer and software; supply and installation; complete; all in accordance with the Mechanical Engineers Specific Controls Specification

E	Central Monitoring Facility	1	nr		

To Collection €

					€	c
	(5-) MECHANICAL INSTALLATIONS (Cont)					
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
A	Testing and commissioning	1	Item			
B	Testing,chemical dosing, sterilization and certification of all systems	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
C	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
D	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
E	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
F	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
G	Identification plates, labels and the like	1	Item			
	GENERAL ITEMS					
	Defects Liability period					
H	The contractor shall allow for the full servicing of all systems at handover and again before the end of the defects liability period and shall allow for the maintainance of each system for one year during the extent of the defects liability period; all in strict accordance with Vol.A works requirements.	1	Item			
				To Collection €		

				€	c
(5-) MECHANICAL INSTALLATIONS (Cont)					
COLLECTION					
Page No. Existing Building/12					
Page No. Existing Building/13					
Page No. Existing Building/14					
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(5-) MECHANICAL INSTALLATIONS (Cont)					
COLLECTION					
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(5-) MECHANICAL INSTALLATIONS **Carried to Summary**					

					€	c
	(6-) ELECTRICAL INSTALLATIONS					
	Notes					
A	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		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 Semple McKillop Consulting Engineers.		note			
C	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.		note			
	ALTERNATIVE RULES FOR THE MEASUREMENT OF ELECTRICAL SERVICES					
	(61) ELECTRICITY SUPPLY & MAIN DISTRIBUTION - LV INSTALLATIONS					
	System					
	LV installation, testing and commissioning; complete; The Contractor shall allow for the supply and installation of all switchgear, distribution boards and sub mains cables in accordance with the drawings and attached specification; The Contractor shall be responsible for safe off-loading, receiving, storage, positioning and fixing of the boards and shall be liable for any damage to boards during installation; 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 Part 1, Section 15; Part 2; Part 3; Part 4, Section 2 and Drawings 2556-SMK-ZZ-LL-DR-E-6150					
D	Electrical Supply and Main Distribution	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Equipment					
	Main Switch Board; supply and installation (including wiring) complete; Switchboard Classification: Form 4B, Type 2; Enclosure: Metal clad unit fabricated from 2.5mm thick sheet electro galvanised Iron phosphated steel plate, 2mm thick sheet steel enclosure doors, minimum protective rating of IP 54; Mounting: Floor mounted; distribution board to provide 30% spare capacity for future expansion; complete with and include for all PVC cables, 630Amp TP ACB, bush bar system, TP&N's, MCCB's, MCB's, RCBO's; HOA switches, CTU's, open/ closed contractors; remote key switches, phase indicator lamps, time clocks, metering, surge protection, space for future power factor correction equipment and automatic changeover; space for integral switch board DB1A and BD SL1(measured elsewhere); earth terminal; Labels: Traffolyte, black on white, screw on type, to all chambers inside and outside the panel; Testing and commissioning: in accordance with current standards; all in strict accordance with the Electrical Engineers Specification Part 1, Section 15; Part 4, Section 2 and Drawings 2556-SMK-ZZ-LL-DR-E-6150					
A	Sub-distribution board; complete (Ref: DB-MCCP; Location: Plant room Existing Building)	1	nr			
	Fittings					
	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 Part 1, Section 15.3.5					
B	Insulated matting; Sub-distribution board	1	nr			
	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 Part 1, Section 15.18					
C	Circuit charts	1	nr			
	Mains and Sub-mains cables					
	Supply and Installation of sub-mains cable from Main Distribution Board MDB; Location: Plant room adjacent PE Hall; 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 Specification and Drawings 2556-SMK-ZZ-LL-DR-E-6150					
D	Submains Ref: 16; MSB to DB -MCCP; 3 x 10sq.mm XLPE/LSF/SWA/LSF	1	Item			
E	Submains Ref: 11; MSB to Switchboard serving existing school; 2nr 4 x 185sq.mm XLPE/SWA/LSF + 95sq.mm CPC	1	Item			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Submains Ref: 11; MSB to Switchboard serving existing sports hall; 2nr 4 x 185sq.mm XLPE/SWA/LSF + 95sq.mm CPC	1	Item			
B	Submains Ref: 4; MSB to BEMS Panel; 4 x 25sq.mm XLPE/SWA/LSF + 16sq.mm CPC	1	Item			
C	Submains Ref: 2; MSB to RWH Pump Isolator; 5 x 10sq.mm LSF	1	Item			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
D	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
E	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
F	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
G	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
H	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
J	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
K	Identification plates, labels and the like	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	(61) ELECTRICAL SUPPLY AND MAIN DISTRIBUTION - CONTAINMENT					
	System					
	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, luminaries etc; include for all joints, fixing brackets and supports; all in accordance with the Electrical Engineers Specification Part 1, Section 16; Part 2; Part 3; Part 4, Section 1 and Drawings 2556-SMK-ZZ-L0-DR-E-6103 & 2556-SMK-ZZ-L1-DR-E-6104					
A	Cable Tray; Submains; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
B	Cable Tray; Submains; galvanised steel; size 300mm wide x 75mm high; complete	1	Item			
C	Cable Tray; PV Submains; galvanised steel; size 100mm wide x 50mm high; c/ w bigfoot support system; complete	1	Item			
D	Cable Tray; PV Submains; galvanised steel; size 300mm wide x 50mm high; c/ w bigfoot support system; complete	1	Item			
E	Cable Tray; Fire Alarm; galvanised steel; size 50mm wide x 50mm high; complete	1	Item			
F	Cable Tray; Fire Alarm; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
G	Cable Trucking; Mains wiring; 2 compartment; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
H	Cable Trucking; ELV & Mech wiring; 2 compartment; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
J	Cable Trucking; Lighting & Power; 2 compartment; galvanised steel; size 300mm wide x 75mm high; complete	1	Item			
K	Cable Wire Basket; Fire Alarm; galvanised steel; size 50mm wide x 50mm high; complete	1	Item			
L	Cable Wire Basket; Fire Alarm; galvanised steel; size 100mm wide x 50mm high; complete	1	Item			
M	Cable Wire Basket; CAT 6A data and IPCCTV; galvanised steel; size 150mm wide x 65mm high; complete	1	Item			
N	Cable Wire Basket; CAT6A; galvanised steel; size 300mm wide x 64mm high; complete	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
A	Cable Wire Basket; CAT6A; galvanised steel; size 600mm wide x 64mm high; complete	1	Item			
B	Cable In-Screed Trunking; Underfloor Services; 1 compartment; galvanised steel; Size 100mm wide x 75mm high; complete	1	Item			
C	Dado Trunking; PVC- U, high impact self-extinguishing; refer to drawing E6201; complete	1	Item			
D	Conduit; galvanised steel; size 25mm diameter; complete	1	Item			
E	Conduit; flexible; connections to plant; complete	1	Item			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
F	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents					
G	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents					
H	Operating and maintenance manuals; complete	1	Item			
	Working drawings; all in accordance with the Electrical Engineers Specification Documents					
J	Working drawings; complete	1	Item			
	Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents					
K	Co-ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers Specification Documents					
L	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents					
M	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

(6-) ELECTRICAL INSTALLATIONS (Cont)

(62) POWER

System

General Services and small power installation, testing and commissioning; complete; The contractor shall provide and install throughout, a general-purpose socket outlet and fixed power installation as indicated on the drawings; all in strict accordance with the Electrical Specification Part 1, Section 16 -17, Part 2, Part 3, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

A	General Services Installation	1	Item		

Accessories associated with terminal equipment

Socket Outlets; supply and installation (including wiring); complete; IP65 socket outlet c/w back boxes; surface mounting; include for all accessories and fixings; all in strict accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

B	13 Amp Switched; Double Socket	2	nr		

Isolator Switch; supply and installation (including wiring); complete; Mounting: fixed to blockwork; include for all accessories and fixings; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

C	25 Amp SPN Isolator	12	nr		

Final Circuits (including all points terminations as per M&E Drawings)

Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from local sub-distribution boards; Socket outlets and small power services outlets shall be circuited as shown on the drawings; Circuits shall be wired with insulated LSF/LSZH cables; standards to Engineers Specification; laid in galvanised trunking /conduit. Cable sizes are as follows: 10amp radial circuits: 2.mm2/2.5mm2 CPC, 16amp radial circuits: 4.0mm2/4.0mm2 CPC, 20amp radial circuits: 4.0mm2/4.0mm2 CPC; 32amp radial circuits (non cooker): 6.0mm2/6.0mm2CPC; 32amp radial circuits (cooker): 10.0mm2/10.0mm2CPC; all in strict accordance with the Electrical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202

Final Circuits - MCCP

D	Non Essential Services; Single Phase; Protected by 20Amp MCB/RCBO	1	nr		

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
A	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents					
B	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents					
C	Operating and maintenance manuals; complete	1	Item			
	Working drawings; all in accordance with the Electrical Engineers Specification Documents					
D	Working drawings; complete	1	Item			
	Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents					
E	Co-ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers Specification Documents					
F	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents					
G	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	(64) COMMUNICATION - DATA & IT					
	System					
	Information and Communication Technology System installation, testing and commissioning; complete; The ICT structured cabling system should be an integrated network to support both data and the telephony part of data. The infrastructure shall include the structured cabling, RJ45 sockets, RJ45 patch panels and cabinets. The primary network shall be designed as Category 6 enhanced / Class EA. It is deemed essential that the structured cabling system be installed by suitably trained electrical contractors, or appropriately trained personnel, however only specialists contractors shall be used to install optic fibre cabling. Fibre optic cables shall be provided between the DCC and any Intermediate Distribution Facility (IDF); all in strict accordance with the Electrical Engineers Specification Part 1, Section 22; Part 2; Part 3; Part 4, Section 4 and Drawings 2556-SMK-ZZ-L0-DR-E-6201, 2556-SMK-ZZ-L1-DR-E-6202 & 2556-SMK-ZZ-LL-DR-E-6450					
A	Data / IT Installations; Linking exisitng IT system to new system located in extension	1	Item			
	Telephony System installation, testing and commissioning; complete; The telephone backbone system installed as part of this project will use BT Ireland specification CW1308 multicore cable, providing a minimum of 2-pair modularity to each outlet. The specialist contractor should refer to the building layout drawings when making provision for the voice backbone infrastructure. The multi-core cable must be sized to cover the total number of voice points shown, whilst allowing for 30% future capacity; all in strict accordance with the Electrical Engineers Specification Part 1, Section 22; Part 2; Part 3; Part 4, Section 4 and Drawings 2556-SMK-ZZ-L0-DR-E-6201, 2556-SMK-ZZ-L1-DR-E-6202 & 2556-SMK-ZZ-LL-DR-E-6450					
B	Telephone System; Linking existing IT system to new system located in extension	1	Item			
	Accessories associated with terminal equipment					
	Data Outlet; supply and installation (including wiring); complete; Outlets: 8pin modular (RJ45) jacks; metalclad finish; Mounting: surface mounting; 450mm to centre of outlet above finished floor level, minimum distance from internal corners 350mm; all accessories shall be engraved to indicate the circuit reference number; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Engineers Specification Part 1, Section 22 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
C	Data Outlets - 2 point (NP)	1	nr			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Final Circuits (including all points terminations as per M&E Drawings)					
	CAT 6a UTP Cable; installation, testing and commissioning; complete; distributed within galvanised trunking /conduit; include for all fittings and accessories; all in strict accordance with the Electrical Engineers Specification and Drawing 2556-SMK-ZZ-LL-DR-E-6450					
A	Cable from new comms (Ref: IDF) to data points	2	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
B	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
C	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
D	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
E	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
F	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
G	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
H	Identification plates, labels and the like	1	Item			
				To Collection €		

(6-) ELECTRICAL INSTALLATIONS (Cont)

(64) COMMUNICATIONS - PUBLIC ADDRESS

System

Public Address System installation, testing and commissioning; complete; The electrical contractor shall allow for a new 50 pair multicore 1mm2 PA cable to link back the new PA system located in the SENU office the existing PA system located in the existing school office. The system shall be commissioned and tested by the specialist installer who shall be certified technology specialists (CTS) and approved by the engineer. Installation shall include 12 months warranty. Commissioning documentation shall be included in the O&M manuals at handover; all in strict accordance with the Electrical Engineers Specification Part 1, Section 23; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6501, 2556-SMK-ZZ-L1-DR-E-6502 & 2556-SMK-ZZ-LL-DR-E-6550

A	Public Address System Installation	1	Item			

General Earthing and Bonding

General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification

B	General Earthing and Bonding; complete	1	Item			

General

Testing and commissioning; all in accordance with Engineers Specification

C	Testing and commissioning	1	Item			

Operating and maintenance manuals; all in accordance with Engineers Specification

D	Operating and maintenance manuals	1	Item			

Working drawings; all in accordance with Engineers Specification

E	Working drawings	1	Item			

Co-ordination drawings; all in accordance with Engineers Specification

F	Co-ordination drawings	1	Item			

As built drawings; all in accordance with Engineers Specification

G	As built drawings	1	Item			

Identification plates, labels and the like; all in accordance with Engineers Specification

H	Identification plates, labels and the like	1	Item			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	(64) COMMUNICATIONS - DISABLE WC ASSISTANCE ALARM					
	System					
	Disabled Toilet Alarm Installation, testing and commissioning; complete; The contractor shall allow for linking the new disable WC alarm back to the existing system located in the existing building admin office; all in strict accordance with the Electrical Engineers Specification Part 1, Section 25; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702					
A	Disable Toilet Alarm System Installation; Linking existing system back to new system located in new extension	1	Item			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
B	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
C	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
D	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
E	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
F	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
G	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
H	Identification plates, labels and the like	1	Item			
				To Collection €		

(6-) ELECTRICAL INSTALLATIONS (Cont)

(65) SECURITY & PROTECTION - INTRUDER ALARM

System

Intruder Alarm System installation, testing and commissioning; complete; A new control panel shall be provided in the extension which shall be located in the plant room and linked back to the existing panel located within the main school building near reception; On completion of the entire school, including all phases, the schools intruder alarm shall be one single system, with functionality available from all keypads; all cabling and work required to integrate the new system shall be allowed for; The contractor shall allow for employing a PSA licensed intruder alarm specialist for the supply, terminations, testing and commissioning of a closed circuit intruder alarm system installation; The system installation and equipment must all comply with EN50131-1: 2004, Grade 3; all in strict accordance with the Electrical Engineers Specification Part 1, Section 32; Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-E-6501, 2556-SMK-ZZ-L1-DR-E-6502 & 2556-SMK-ZZ-LL-DR-E-6550

A	Intruder Alarm System, linking existing intruder alarm system to the new IAP panel	1	Item			

General Earthing and Bonding

General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification

B	General Earthing and Bonding; complete	1	Item			

General

Testing and commissioning; all in accordance with Engineers Specification

C	Testing and commissioning	1	Item			

Operating and maintenance manuals; all in accordance with Engineers Specification

D	Operating and maintenance manuals	1	Item			

Working drawings; all in accordance with Engineers Specification

E	Working drawings	1	Item			

Co-ordination drawings; all in accordance with Engineers Specification

F	Co-ordination drawings	1	Item			

As built drawings; all in accordance with Engineers Specification

G	As built drawings	1	Item			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Identification plates, labels and the like; all in accordance with Engineers Specification					
A	Identification plates, labels and the like	1	Item			
	(65) SECURITY & PROTECTION - CCTV					
	System					
	Closed Circuit Television System installation, testing and commissioning; complete; The electrical contractor shall allow employing a PSA (Private Security Authority) licensed security specialist to link the existing CCTV system to the new CCTV system located in the new extension.The electrical contractor shall supply and install all wire ways and segregated cable containment systems to all CCTV point locations and provide a link to the system in the existing building; The managed IP CCTV platform shall be monitored after building hours by a PSA licenced monitoring company in accordance with PSA33:2014. The costs for the first 1-year monitoring shall be included within the contract; all in strict accordance with the Electrical Engineers Specification Part 1, Section 31; Part 2; Part 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
B	CCTV System; linking existing system back to new system located in extension	1	Item			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
C	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
D	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
E	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
F	Working drawings	1	Item			
				To Collection €		

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Co-ordination drawings; all in accordance with Engineers Specification					
A	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
B	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
C	Identification plates, labels and the like	1	Item			
	(65) SECURITY & PROTECTION - FIRE ALARM					
	System					
	Fire Alarm installation; testing and commissioning; complete; The Contractor shall supply, install, test and commission an analogue, fully addressable, automatic Fire Detection & Alarm System to the new extension; This fire alarm system shall provide a minimum of L2/L3 coverage to IS3218:2013; the system and all equipment shall be open protocol;"Managed" with closed protocol system shall not be acceptable, The sensors, sounders and manual call points shall be in the same loop circuit. The system shall be capable of controlling 100 devices per loop, c/w 4 No. loop cards fitted and tested; The system shall be capable of controlling 100 devices per loop, c/w 4 No. loop cards fitted and tested; All devices, sounders and break glass units shall be wired in 2 core & earth 1.5mm2 (unless stated otherwise) fire rated cable to PH120 classification; The Contractor shall allow for linking the new fire alarm panel back to the addressable panel located in the existing building in 4-core 1.5mm2 firetuf enhanced grade PH120 to facilitate 2-way communication between panels; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 2; Part 3; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702 & 2556-SMK-ZZ-LL-DR-E-6750					
D	Fire Alarm System; linking existing system back to new system located in extension	1	Item			
	Fittings					
	Fire Alarm Fittings; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702					
E	Addressable Heat Detector/ Sounder	1	nr			

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	Accessories associated with Terminal Equipment					
	Fire Alarm accessories; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702					
A	Fire Alarm Interface Unit (Ref; I/F)	2	nr			
B	Manual call point; Fully resettable type via key operation	1	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
C	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
D	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
E	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
F	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
G	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
H	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
J	Identification plates, labels and the like	1	Item			

To Collection €

					€	c
	(6-) ELECTRICAL INSTALLATIONS (Cont)					
	GENERAL ITEMS					
	Defects Liability period					
A	The contractor shall allow for the full servicing of all systems at handover and again before the end of the defects liability period and shall allow for the maintainance of each system for one year during the extent of the defects liability period; all in strict accordance with Vol.A works requirements.	1	Item			
				To Collection €		

				€	c
(6-) ELECTRICAL INSTALLATIONS (Cont)					
COLLECTION					
Page No. Existing Building/41					
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Page No. Existing Building/56					
(6-) ELECTRICAL INSTALLATIONS **Carried to Summary**					

		€	c
SUMMARY	**Page No.**		
(10) DEMOLITIONS & ALTERATIONS	Existing Building/5		
(42) INTERNAL WALL FINISHES	Existing Building/8		
(35) & (45) CEILING FINISHES	Existing Building/11		
(5-) MECHANICAL INSTALLATIONS	Existing Building/40		
(6-) ELECTRICAL INSTALLATIONS	Existing Building/57		
TOTAL AMOUNT TO GENERAL SUMMARY			
Existing Building/1 - Existing Building/57.			

SITEWORKS

					€	c
	(10) SITE PREPARATION					
	DEMOLITIONS AND ALTERATIONS					
	GENERAL					
A	THE ONUS IS ON THE CONTRACTOR TO VISIT THE SITE OF THE WORKS AND TO SATISFY HIMSELF AS TO THE NATURE AND EXTENT OF THE WORKS AND ALL OTHER MATTERS THAT MIGHT INFLUENCE HIS PRICE OR TIME FOR COMPLETION OF THE WORKS (ARRANGEMENTS TO VISIT THE SITE SHOULD BE MADE WITH THE EMPLOYER'S REPRESENTATIVE). THE CONTRACTOR MUST INCLUDE WITHIN HIS PRICE FOR ALL WORKS IN CONNECTION WITH THE DEMOLITION WORKS AND WORKS TO THE EXISTING BUILDINGS, WHICH COULD BE REASONABLY FORESEEN OR IMPLIED BY THE TENDER DOCUMENTS. NO CLAIMS ON THE GROUNDS OF WANT OF KNOWLEDGE IN RESPECT OF THE ABOVE WILL BE ENTERTAINED WHATSOEVER.	1	item			
B	All demolition work is to be carried out in accordance with BS 6187 and the Health and Safety Executive Guidance Notes GS29/1, 3 and 4; All operatives must be appropriately skilled and experienced for the type of work and must hold or be training to obtain relevant CITB Certificates of Competence; All site staff responsible for supervision and control of work are to be experienced in the assessment of the risks involved and in the methods of demolition to be used.	1	item			
C	Demolition work is to be entrusted only to workmen with experience in this type of work, and all precautions must be taken to avoid accidents and to safeguard persons and property.	1	item			
D	All excess builders rubble, topsoil, demolished materials etc, that is to be disposed off site, must be disposed in a licensed landfill site approved by the local authority.	1	item			
E	The Contractor shall provide and maintain all necessary temporary fencing, hoarding, fans, planked footways, gaurdrails, gantries and the like for the protection of the Public and meeting the requirements of the Local Authority.	1	item			
F	The Contractor is to include for all necessary scaffolding, hoisting and other facilities required for carrying out the works. Contractor also to make provisions for adequately supporting all structures if required.	1	item			
G	The Contractor should include herein for all costs associated with obtaining the appropriate licences, as these must be undertaken prior to any works being carried out	1	item			
H	The Contractors attention is drawn to the presence of existing services; due care must be taken when excavating in the proximity of existing buildings and boundaries	1	item			
J	When pricing the following items, the Contractor's attention is drawn to the information contained in the Works Requirements & Appendices of this Pricing Document. The Contractor's rates are to include for all items specifically referred to or implied therein. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.	1	item			

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	(10) SITE PREPARATION (Cont)					
A	The Contractor must provide a method statement to the Architect for approval, outlining in detail the manner in which he proposes to carry out the removal of the asbestos materials contained within the site.	1	item			
B	The Contractor shall report to the Employer's Representative any bench marks or other survey information found on any structures that are to be demolished; any bench marks or information found must not be removed or destroyed unless instructed by the Employer's Representative	1	item			
C	The Contractor must note that any work carried out to or which affects new or existing services must be in accordance with the byelaws or regulations of the relevant statutory authority	1	item			
D	The Contractor should include herein for all costs associated with the locating and marking the positions of services affected by the demolition work; Contractor shall arrange with the appropriate authorities for the locating and marking of the positions of the mains services	1	item			
E	The Contractor must arrange with the appropriate authorities, before demolition is commenced, for the disconnection of services and removal of fixtures, fittings, furniture and equipment	1	item			
F	The Contractor must take adequate precautions to prevent fire or explosion caused by gas or vapour	1	item			
G	The Contractor must reduce dust by periodically spraying general demolition works with water during any alteration works to masonary etc.	1	item			
H	The Contractor must take adequate precautions to protect site operatives and the general public from health hazards associated with dangerous fumes and dust arising during the course of the works	1	item			
J	The Contractor should include herein for all costs associated with the temporary support and protection of adjoining property and buildings; Contractor must repair any damage caused at his own expense; Contractor must not leave any unnecessary or unstable projections and report any exposed or apparent defects to the Employer's Representative	1	item			
K	The Contractor must illuminate and protect and dangerous openings as necessary	1	item			
L	The Contractor should include herein for all costs associated with the removal of any timber infected by fungal/insect attack; the timber must be removed from the building and destroyed as soon as possible	1	item			
M	The Contractor must include herein for submitting to the Architect / Engineer, prior to commencement, the order and method of each operation. This is to include proposed methods of propping, shoring, protection of adjoining properties, areas, etc.	1	item			
N	The demolition shall be carried out without damage to adjoining properties. If such damage should occur, the Contractor shall reinstate and make good at his own expense.	1	item			
				To Collection €		

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	(10) SITE PREPARATION (Cont)					
A	The Contractor shall ensure the safety of works and public during demolition works. Demolition work should be carried out so as to cause minimum inconvenience to the public and to adjoining owners.	1	item			
B	The Contractor shall include herein for clearly indicating, in writing, the manner of demolition i.e. machine, mechanical tools, piece by piece hand method etc. for each area	1	item			
C	The Contractor must note that no method of demolition which will transmit vibration into adjoining properties shall be permitted.	1	item			
D	The contractor must peruse the Architects and Engineers drawings and check all dimensions on site. No claim on the grounds of discrepancies between on site dimensions and drawings, in regards to demolition and associated works, will be entertained whatsoever.	1	item			
E	The contractor must include herein for ensuring that all services, electricity, gas, telecomunications, water, sewage, etc., are made safe prior to demolition	1	item			
F	The contractor is to report to the Architect / Engineer details of any underground chambers, vaults, walls, etc., discovered during demolition work.	1	item			
G	The contractor must prevent access to unauthorised persons to partly demolished structures and must leave the site safe at close of each days work.	1	item			
H	Care must be taken to prevent debris from overloading any part of the structure	1	item			
J	The Contractor shall ensure that the impact of the works on the surroundings are in accordance with the set maximum levels for vibration and noise as defined in the guidelines presented in the relevant codes of practice.	1	item			
	DEMOLITIONS AND ALTERATIONS					
	General Information					
	Information					
K	The contractor should consult with the Architect and must visit the site to ascertain the extent of the works involved under this section. No variations will be approved for works that ought to have been apparent to the contractor after a site inspection and review of the Architects drawings and specifications		note			
L	The Contractors attention is drawn to the presence of existing services; due care must be taken when excavating in the proximity of existing buildings and boundaries		note			
				To Collection €		

(10) SITE PREPARATION (Cont)

A	The following demolition works include for disposal off-site of debris material		note		
	DEMOLITIONS AND ALTERATIONS - SITE CLEARANCE				
	General Clearance				
B	Existing block wall to be demolished and removed off-site; approx. height: 2200mm; approximately 40m long; include for grubbing up and disposal of existing concrete footings and backfilling with Grade C16/20 S3 lean mix to Engineer's satisfaction; disposal of all materials off-site; Tendering Contractor to visit the site in accordance with the Invitation To Tender to assess the full extent of the works to be completed. No claims on the grounds of want of knowledge will be entertained whatsoever; refer to Engineers Drawings	1	item		
C	Existing steel double vehicular entrance gates to be demolished and removed off-site; 1nr set; approx 4000mm wide; include for grubbing up and disposal of existing concrete footings and associated gate posts; backfilling with Grade C16/20 S3 lean mix to Engineer's satisfaction; disposal of all materials off-site; Tendering Contractor to visit the site in accordance with the Invitation To Tender to assess the full extent of the works to be completed. No claims on the grounds of want of knowledge will be entertained whatsoever; refer to Architects Drawings	1	item		
D	Existing concrete steps on site to be demolished and removed off site; include for removing all handrails and balustrades; grubbing up and disposal of existing concrete footings and backfilling with Grade C16/20 S3 lean mix to Engineer's satisfaction; making good existing finishes upon removal; disposal of all materials off-site; Tendering Contractor to visit the site in accordance with the Invitation To Tender to assess the full extent of the works to be completed. No claims on the grounds of want of knowledge will be entertained whatsoever; refer to Architects Drawing	1	item		
	ALTERATIONS				
	Removing				
	Plumbing and Engineering Installations				
E	Removal and disposal of existing oil tanks (1 No.); include for grubbing up and disposal of all associated pipework; pipework length: Approx. 25m; include fittings, etc.; include for disposal & making good where necessary; backfilling with Grade C16/20 S3 lean mix to Engineer's Satisfaction; complete; refer to M&E Engineers Drawing	1	item		
F	Existing Gas tank to be relocated (1 No.); include for grubbing up and disposal of all associated pipework; pipework length: Approx. 25m; include fittings, etc.; include for disposal & making good where necessary; backfilling with Grade C16/20 S3 lean mix to Engineer's Satisfaction; complete; refer to M&E Engineers Drawing	1	item		

To Collection €

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	(10) SITE PREPARATION (Cont)					
A	Removal, disposal, making good and backfilling all existing site services installations - electrical installations (above and below ground); ESB Ducts; Length: 187m; throughout the proposed site; include for grubbing up and disposal of all ducting, fittings, valves, junctions, covers, junction boxes, pits, manholes, tanks, meters, etc.; include for disposal & making good where necessary; backfilling with Grade C16/20 S3 lean mix to Engineer's Satisfaction; complete; Tendering Contractor to visit the site in accordance with the Invitation To Tender to assess the full extent of the works to be completed. No claims on the grounds of want of knowledge will be entertained whatsoever; Contractor to assess existing drainage on site before pricing this item; refer to M&E Engineers Drawings E-6000	1	item			
B	Existing Lighting Columns on site to be removed off site; include for grubbing up and disposal of existing concrete footings and backfilling with Grade C16/20 S3 lean mix to Engineer's satisfaction; making good existing finishes upon removal; disposal of all materials off-site; Tendering Contractor to visit the site in accordance with the Invitation To Tender to assess the full extent of the works to be completed. No claims on the grounds of want of knowledge will be entertained whatsoever; refer to M&E Engineers Drawing E-6000	6	nr			
	EXCAVATION AND EARTHWORK					
	Excavation					
	Removing					
	Trees					
C	Girth 0.45 - 1.5m	28	nr			
D	Girth 1.5 - 3.0m	10	nr			
	Hedges					
E	Generally	25	m			
	Site vegetation					
F	Generally, scrub, vegetation etc., disposing off-site	1,733	m2			
	Excavation					
	Topsoil for preservation					
G	Average depth approx. 200mm	1,733	m2			
	Reduce levels					
H	Depth between not exceeding 2.00m	1,770	m3			
J	Depth between 2.00 - 4.00m	449	m3			

To Collection €

					€	c
	(10) SITE PREPARATION (Cont)					
	Extra on Excavation Items for:					
	Below Ground Water Level					
A	Generally	2,218	m3			
	Breaking up existing					
B	Hard surfaces; Tarmacadam surface; 100mm thick; complete	2,079	m2			
C	Rock; include for trimming etc.	63	m3			
	Disposal					
	Water					
D	Surface	1	item			
E	Ground	1	item			
	Topsoil					
F	For preservation in spoil heaps on-site; as directed by the Architect	142	m3			
G	Disposal off site at the discretion of the Contractor	205	m3			
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
H	Disposal on site; Disposal to a suitable licensed waste disposal facility	18	m3			
J	Disposal off site; Disposal to a suitable licensed waste disposal facility	483	m3			
K	Disposal off site; made ground material; Disposal to an inert waste licensed landfill	1,509	m3			
L	Disposal off site; existing tarmac; Disposal to a suitable licensed waste disposal facility	208	m3			
	Filling with granular fill material to be obtained off-site; Class 6F2 compliant with TII Publications series 600, free from pyrite and macarsite; depositing in 150mm layers maximum thickness; compacting; as per Engineers Drawings and Specification					
	To make up levels					
M	Average thickness exceeding 250mm	127	m3			
				To Collection €		

					€	c
	(10) SITE PREPARATION (Cont)					
	Filling with excavated material to be obtained from on site spoil heaps; depositing and compacting as specified by the Employer's Representative					
	To make up levels					
A	Average thickness exceeding 250mm	18	m3			
	WORK OUTSIDE THE BOUNDARY OF THE SITE					
	Extra Over For: -					
B	A portion of the works in this section are outside the boundary of the site; see Architect's & Engineer's Drawings	1	item			
				To Collection €		

				€	c
(10) SITE PREPARATION (Cont)					
COLLECTION					
Page No. Siteworks/1					
Page No. Siteworks/2					
Page No. Siteworks/3					
Page No. Siteworks/4					
Page No. Siteworks/5					
Page No. Siteworks/6					
Page No. Siteworks/7					
(10) SITE PREPARATION **Carried to Summary**					

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM					
	(19) SUBSTRUCTURE					
	Notes					
A	1. Reduced levels measured in 'Site Prepartaion' Element of BOQ		Note			
	EXCAVATION AND EARTHWORK					
	Excavation					
	Excavation					
	Foundation Trenches					
B	Depth not exceeding 2.00m	10	m3			
	Soft spots					
C	Depth not exceeding 2.00m	1	m3			
	Extra on Excavation Items for:					
	Below Ground Water Level					
D	Generally	2	m2			
	Working Space					
	Foundations					
E	Depth not exceeding 2.00m; backfilling trenches with Annex E of SR 21 hardcore	16	m2			
	Disposal					
	Water					
F	Surface	1	item			
G	Ground	1	item			
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
H	Disposal Off site	10	m3			
J	Disposal Off site; for soft spots	1	m3			
				To Collection €		

	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	Filling with granular fill material to be obtained off-site; 'T2 Perm' in compliance with SR21 2014 & A1 2016 installed and compacted in layers in accordance with IS888:2016; depositing in 150mm layers maximum thickness; compacting					
	To make up levels					
A	Average thickness exceeding 250mm	7	m3			
	To excavations					
B	Average thickness exceeding 250mm	5	m3			
	Filling with granular fill material to be obtained off-site; 'T2 Perm' in compliance with SR21 2014 & A1 2016 installed and compacted in layers in accordance with IS888:2016; depositing in 150mm layers maximum thickness; compacting					
	To make up levels					
C	Average thickness exceeding 250mm	3	m3			
	Filling with granular fill material to be obtained off-site; 'T3 Blind' in compliance with SR21 2014 & A1 2016 installed and compacted in layers in accordance with IS888:2016; depositing in 150mm layers maximum thickness; compacting					
	Blinding					
D	Generally; poured on or against earth or unblinded hardcore	1	m3			
	Surface treatments					
	Levelling and compacting; bottom of excavations					
E	Horizontal	9	m2			
	CONCRETE WORK					
	In-situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
F	Size 150 x 150 x 150mm	1	nr			

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	Grade C16/20					
	Bulk filling to soft spots					
A	Generally; poured on or against earth or unblinded hardcore	1	m3			
	Blinding					
B	Generally; poured on or against earth or unblinded hardcore	1	m3			
	Sundries; filling					
C	Cavity Walls; 100mm wide	1	m3			
	Grade C32/40					
	Foundations					
D	Generally; Reinforced	3	m3			
	Beds					
E	Not exceeding 150mm; reinforced	2	m3			
	Sundries on In-situ Concrete					
	Designed Joints					
	Isolated Joint (IJ); approved joint sealant; 12mm wide x 12mm deep sealed surface groove; Joint filler shall be Aerofill Board 20mm wide or equivalent; 150mm deep; all in strict accordance with Detail on Engineer's Drawing and Specification					
F	Width not exceeding 150mm; Depth 150 - 300mm	8	m			
	Saw Cut Joints (SCJ); 5mm wide x 40mm deep saw cut; comprising of saw cut filled with expancell. Closed cell polyethylene foam with backup cord and thideflex 600 two part polysulphide sealant or equivalent; all in strict accordance with Detail on Engineer's Drawings and Specification					
G	Width not exceeding 150mm; Depth 150 - 300mm	5	m			
	Surface Finishes					
	Powerfloating					
H	Generally	12	m2			

To Collection €

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	Reinforcement					
	Fabric					
	Reference A393; 400mm side laps; 400mm end laps					
A	Horizontal	18	m2			
	Reference A142; 400mm side laps; 400mm end laps					
B	Horizontal	12	m2			
	Formwork					
	Formwork; Basic finish in Accordance with Engineer's Drawings and Specification E20 610					
	Sides of foundations					
C	Height or width 250 - 500mm	15	m			
	Edges of Beds					
D	Height or width not exceeding 250mm	14	m			
	Precast Concrete					
	Precast concrete: Class A to (9.5mm) BS 5977 Part 1 (1981) and Part 2 (1983): IS 240: pre-stressed: T12 reinforcement top and bottom; bedding in gauged mortar; by approved manufacturer; to Engineer's Specification and Drawings					
	Lintels					
E	215mm wide x 150mm deep	1	nr			
F	100mm wide x 100mm deep	1	nr			
				To Collection €		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	BRICKWORK AND BLOCKWORK					
	Blockwork					
	CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13.5N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: M12; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specification					
	Walls in trenches					
A	100mm thick	6	m2			
B	215mm thick	6	m2			
	Labours					
C	On blockwork	1	item			
	ROADSTONE INSULATING THERMAL BLOCKWORK; Blocks: To BS EN 771-3; Manufacturer: to be confirmed; Product reference: to be confirmed; Suitable for exposed external use below dpc; Recycled content: Contractor's choice; Compressive strength: 13N/mm2 with M12 mortar; 450 x 100mm taken as bed faces; all as per Engineer's Drawings and Masonry Spec ref "4371 221117 DCE IRL Masonry Spec" for additional requirements					
	Walls in trenches					
D	100mm thick	2	m2			
E	215mm thick	2	m2			
	Labours					
F	On blockwork	1	item			
				To Collection €		

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

Ancillaries to Brickwork/Blockwork

Insulation to Cavity Walls below DPC level; Insulation: Greenguard (or equivalent approved by Architect); Product certification: BS EN ISO 9001 Quality Management System BS EN ISO 14001 Environmental Management System; Manufacturer: to be confirmed; Product reference: to be confirmed; Recycled content: Not applicable; Thickness (nominal): 180mm; Additional requirements: Placement: Secure against outer face of concrete wall; Joints between boards, at closures and penetrations: No gaps and free from mortar and debris; including Stainless steel wall ties to Specification; 900mm centres horizontally and 450mm centres vertically; including plastic insulation retaining clips; additional wall ties at 225mm centres at openings and corners; all in accordance with the Architect's Drawing T05 and Specification

Cavities between new walls

A	100mm wide cavity	6	m2		

DAMP PROOF COURSE; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Accessories: Proprietary standard preformed cloaks at all window and door opes; Material: to be confirmed; all in strict accordance with Architect's and Engineers Drawings and Specification

Damp proof courses; horizontal; laps 150mm

B	Width exceeding 225mm	6	m2		

ROOFING, CLADDING AND WATERPROOFING

Mastic Asphalt, Waterproof and Gas proof Non-Metal Flexible Sheet Coverings

Loose laid polythene gas retardant damp proofing radon membrane; Product reference: Monarflex RMB400 gas membrane or equivalent. Material: Three layers of virgin low-density polyethylene (LDPE) with a 9 x 12mm multi-filament polyester (1670 dtex) reinforcing grid between. Weight (minimum): 407 g/m2. Thickness (minimum): 410 microns.Width (minimum): 2.0 m ; 4.0 m..Roll length (minimum): 25 m. Tensile strength (minimum): >600N/50mm. Tear resistance: >425N. Elongation to break: <19%. Water vapour resistance (minimum): 1024 MNsg-1. Antistatic properties: Required. Colour: Red; all as per Architects Drawings and Specification

Damp Proofing

C	Horizontal; Width exceeding 300mm	12	m2		
D	Vertical; Width exceeding 300mm	4	m2		
E	Sloping; Width not exceeding 300mm	8	m		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	Extra Over For					
A	Radon detailing to inner side of External Cavity Walls, complete, including easi-load radon DPC detail, folding radon membrane, Monobond 70mm etc, all as per Engineer's Drawings, Details and Specifications	4	m			
B	Radon detailing to Internal Cavity Walls, complete, including easi-load radon DPC detail, folding radon membrane, Monobond 70mm etc, all as per Engineer's Drawings, Details and Specifications	4	m			
	Collars around pipes, standards and the like; allow for dressing radon barrier around; including all additional radon membrane, additional tanking items, radon tape, collars etc.					
C	Size of pipes; 110mm diameter; Height of Collar; 300mm	1	nr			
	Easi-Sump and Cap Link System or equivalent Radon Sumps; PVC radon sumps; including all fittings; all in strict accordance with the manufacturer's instructions and Architects Drawings and Specification					
	Gas proofing; Sumps					
D	284mm dia. x 149mm high	4	nr			
	Gas proofing; Radon vent pipework; interconnecting					
E	110mm dia.	4	m			
F	Bends	1	nr			
G	Easi Sump Cap Link or equivalent; including pvc cover, frame, coupling with gas seals top and bottom	1	nr			
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up under the ground floor to verify that the hardcore material used on site complies with the chemical requirements in BS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
H	Generally	1	item			
				To Collection €		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	(21) EXTERNAL WALLS					
	CONCRETE WORK					
	Precast Concrete					
	Precast Concrete Lintels; Standard to IS EN 845-2 2003; 100 x 65mm. Placement: Bed on mortar used for adjacent work. Bearing length (minimum): 150mm each side; all as per and Engineers Drawings and Specification					
	Lintels; in outer and internal leaf of external wall					
A	to suit 2000mm wide ope (L1)	2	nr			
	BRICKWORK AND BLOCKWORK					
	Blockwork					
	CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: M12; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specificatio					
	Walls					
B	100mm thick	36	m2			
	Labours					
C	On blockwork	1	item			
	Labours					
D	On blockwork	1	item			
	Bonding to other work, blockwork to eisting blockwork; comprising ancon wall ties or equivalent wall ties at 225mm vertical centres; all in strict accordance with Detail on Engineers Drawing and Specification					
	Bonding to other work; blockwork to existing blockwork					
E	Vertically	8	m			

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

Ancillaries to Brickwork/Blockwork

Partial fill cavity insulation - Insulation: Kingspan Kooltherm K108 Cavity Board (or similar approved) 100mm to BS EN 13162- Or equivalent approved by Architect; Product certification: British Board of Agrement (BBA); Manufacturer: to be confirmed; Product reference: to be confirmed; Recycled content: Not applicable; Face size (length x width): 1200 x 600 mm; Thickness (nominal): 100mm; Thermal conductivity: to be confirmed; Reaction to fire class: to be confirmed; Additional requirements: Note: 50mm cavity; Placement: Secure against face of inner leaf; Residual cavity: Clear and unobstructed; Joints between boards, at closures and penetrations: No gaps and free from mortar and debris; as per Architect's and Engineer's Details and Specifications

Cavities between new walls

A	Generally	18	m2			

CAVITY CLOSERS: to heads and jambs of openings in cavity walls; Manufacturer Kingspan Insulation Ltd; Accessories; Jointing Clip; Jointing Strip and Fixing Tie; installed in strict accordance with manufacturer's recommendations; as per Architect's Specification F30 180

B	To suit 100mm wide cavity	2	m			

Cavity closers to tops of cavity walls to Architect's Specification ref. F30 180 A; Weather resistant cavity closer; Manufacturer: Kingspan Insulation Ltd. Product reference: Kingspan Kooltherm Cavity Closer 140 or equivalent. Accessories: Jointing Clip, Jointing Strip and Fixing Tie; installed in strict accordance with manufacturer's recommendations; all in accordance with the Architect's Drawings and Specification Ref F30 180 A

C	To suit 100mm wide cavity	14	m			

1Hour Fire Resisting Cavity barrier; compressible to fit 125mm masonry cavity; barrier comprised of mineral wool core and faced on both sides with reinforced aluminium foil to give class 0 rating, tested ans assessed in accordance with BS 476 : Part 20: 1987; horizontal fire stops are to be provided with DPC cavity tray, vertical fire stops are to have a vertical DPC, joints between adjacent lengths of cavity barriers should be sealed on the top surface with aluminium foil tape; stainless steel fixing brackets to be provided at 500mm centres, built into the bed joints of the internal leaf, built into mortar joints of inner leaf; to be fitted in accordance with manufacturer's recommendations and Architect's Drawing 4001 - 4005 and Specification P10 410 B

D	To suit 100mm cavity; horizontal	14	m			
E	To suit 100mm cavity; vertical	12	m			

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

DAMP PROOF COURSE; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Accessories: Proprietary standard preformed cloaks at all window and door opes; Material: to be confirmed; all in strict accordance with Architect's and Engineers Drawings and Specification

A	Width not exceeding 225mm; stepped	2	m		
B	Width not exceeding 225mm; vertical	5	m		

Flexible sheet Damp proof courses; High-bond strength, Polyethylene DPC or equivalent; fixed to RC beam using DPC fixing strip, 25 x 3 x 2mm pre drilled at 150mm centres fixed using hyload DPC fixing pins, complete including all fixings, sealants, adhesive tapes etc necessary; installed in accordance with Architects Drawings and Specification F30

C	750mm wide overall; stepped; above openings	2	m		

Site Formed flexible sheet cavity trays; High-bond strength, Polypropylene DPC or equivalent; carried through internal leaf and lapped into wall construction above dpc level or equivalent; bedding in cement lime mortar (1:1:6); installed in accordance with manufacturer's recommendations; size to suit 125mm cavity; all to Architect's Specification F30 390

D	Cavity trays; 600mm wide overall; stepped; above openings	2	m		

Preformed cavity tray junction cloaks/ stop ends; High-bond strength, Polyethylene DPC or equivalent; size to suit 125mm cavity; fixing in strict accordance with Manufacturer's written recommendations; to Architect's Specification F30 385

E	Cavity trays; 450mm wide overall; stepped	2	nr		

Design Joints

Control Joint; complete, including caulking/sealant with backing rod in open/ open block joint and expamet stop bead to external render; stainless steel strip type wall ties at 225mm centres vertically either side of joint and within 150mm of joint; all in strict accordance with manufacturer's recommendations and Architects & Drawings and Specification and Engineer's Drawings and Specification

F	100mm thick walls; generally	32	m		

Sundries

Perpend Joint Plastics Weep holes; immediately above the base of the cavity, external openings and stepped dpcs; all to Architect's Specification Section F30 132 A

G	Generally	4	nr		

To Collection €

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

WOODWORK

Ironmongery, Accessories and Sundries

External Weather seal; Epalyn EP or equivalent. Dimension: Raw material 30.5m long x 1.7m wide - cut to suit. Packaging: Rolls supplied on wooden pallets and are secured in polyethylene wrapping. End Use: Used as waterproofing membrane. Maintenance: None - except cleaning and repair of any damage to the membrane. Service Life: Vulcanised rubber membranes have demonstrably a life span of 30 years and an expected life span in excess of 40 years; all as per Architects Drawings and Specification F30

Sundries; Seals

A	Width not exceeding 225mm, horizontal	2	m		
B	Width not exceeding 225mm, vertical	5	m		

Internal seal; Epalyn EP or equivalent. Dimension: Raw material 30.5m long x 1.7m wide - cut to suit. Packaging: Rolls supplied on wooden pallets and are secured in polyethylene wrapping. End Use: Used as waterproofing membrane. Maintenance: None - except cleaning and repair of any damage to the membrane. Service Life: Vulcanised rubber membranes have demonstrably a life span of 30 years and an expected life span in excess of 40 years; all as per Architects Drawings and Specification F30

Sundries; Seals

C	Width not exceeding 225mm, horizontal	2	m		
D	Width not exceeding 225mm, vertical	5	m		

VMZINC membrane or equivalent;, lay membrane over insulation (measured elsewhere) as work proceeds ensuring continuity, overlap the joints not less than 150mm and seal with tape recommended by the membrane manufacturer, to prevent water reaching the insulation. Fully seal at penetrations using tape methods recommended by the membrane manufacturer. Before covering , check for tears and punctures, carefully repair using a patch of breather membrane with 150mm laps sealed with tape. Ensure that the bottom edges overlap flashings, gutters, sills etc to allow free drainage to the exterior; complete; all as Architects Drawing 4000 - 4005 and Specification

Insulation; Breather Membrane

E	Width not exceeding 225mm; Vertical	5	m		
F	Width not exceeding 225mm; Horizontal	2	m		

To Collection €

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

(27) ROOFS

STEELWORK

Structural Steelwork

Fabricated, weldable steel; Steel Grades: Structural steel shall be of the Grade S355 for Beams & S275 for plates unless stated otherwise on all DCE IRL drawings and shall comply with the requirements of the appropriate British or European Standards.Construction and fabrication of the structural steelwork shall comply in all respects with the requirements of BS EN 1993, BS EN 1994, BS 4872 and BS EN 1011 and with the relevant additional requirements specified hereinafter.Connection Design by Steel Fabricator. DCE IRL to Provide Loads.As per Structural steel specification

Wires, cables, rods and bars

A	Typical Purlin connection detail; Connection of Steel Purlin into RC Beam; as per Engineer's Drawings and Specification; with and including 4 no. bolts per connection to beam	4	nr		

Kingspan M145065120 Multibeam purlins or equivalent; fixed in accordance with Manufacturer's instructions at 600mm centres; all as per Architects & Structural Engineers Drawings

Cold Rolled Members; Purlins / cladding rails

B	M145065120 Multibeam purlins @ 600mm centres; fixed to steel/concrete beam	17	m		

(31) EXTERNAL WALL COMPLETIONS

WOODWORK

Boarding and Second Fixings

MEDIUM DENSITY FIBREBOARD WINDOW CILL BOARDS; Manufacturer: Submit proposals; Product reference: Submit proposals for moisture resistant MDF; Standard: To BS EN 622-5; Type: MDF.H; Formaldehyde class: To BS EN 622-1, Class E1; Fire rating: Class 0 as defined in Building Regulations; Thickness: 22 mm. Edges: Quarter rounded; Finish: Prepared and primed as section M60; Recycled content: 60% (minimum) to BS EN ISO 14021; Support/ Fixing: Fix to 25 x 15mm PAO softwood battens with lost head nails at 600 mm centres in case of widnow boards; Glue with high performance polyethane resin adhesive for skirtinngs and architraves; to Architects Specification P20

Window Board & Liner

C	165mm wide x 20mm thick; square exposed edges; fixed to blockwork; internal; to internal head and jambs	7	m		

To Collection €

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

Sealant joints to Architect's Specification Ref. L10 810; Sealant: - Manufacturer: Submit proposals; Product reference: Submit proposals; Colour: to match frames; Application: As section Z22 to prepared joints. Finish triangular fillets to a flat or slightly convex profile

Sundries; Seals

A	10mm wide; to perimeter of external windows and doors	7	m		

AIR TIGHTNESS TAPE TYPE A; Description: To external envelope junctions and openings; Manufacturer: Siga or equivalent to Architect's approval; Product reference: Siga-Fentrim 330or equivalent to Architect's approval; Material: Self-adhesive tape consisting of polyolefin film and fleece coated one side with an adhesive, backed with a slit release film; Diffusion-equivalent air layer thickness: 35m; Installation requirements; Method of fixing: Self-adhesive. All surfaces to be clean, dry and dust free; Joints: lapped 150 mm minimum; Openings: Tape to be adhered to all faces; Penetrations: Sealed; as per Architects Specification

Vapour Barrier

B	Generally	7	m		

METALWORK

Non-Structural

Aluminium External Doors; Description: Air permeability: Class 3 at 600Pa. or better to comply with EN12207:2000; Water tightness: Test class 9A at 600Pa. or better; Wind Resistance: P1=1600Pa, P2=800Pa, P3=2400Pa; All windows and doors to comply with requirements of BS 8200 standard; Acoustic Performance: Rw not less than 27db to comply with BS EN ISO 140; Thermal Transmittance: As per table F.4; Manufacturer: to be confirmed or equivalent to Architect#s approval; Product reference: to be confirmed or equivalent to Architect#s approval; Doors: commercial grade aluminium doors; As per Architect's Specification

Composite items; Doors

C	Double Door; Overall nominal size (including frame) 2000mm wide x 2100mm high; including ironmongery as per Drawings & Ironmongery Schedule; complete to Architect's Drawing	1	nr		

To Collection €

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	PAINTING & DECORATING					
	Painting					
	PAINT MDF LINERS AND SKIRTINGS; Dulux or equivalent Primer and undercoat for MDF to Architect's approval; Surfaces: Uncoated; Preparation: Degrease and provide key: Initial coats: As recommended by manufacturer; Number of coats: 2 priming undercoats; Undercoats: As recommended by manufacturer; Finishing coats: Dulux trade eggshell or equivalent; Number of coats: 2; as per Architect's Specification					
	General Surfaces					
A	Girth not exceeding 300mm; Window Boards, reveals, head liners etc.	7	m			
	(41) EXTERNAL WALL FINISHES					
	FLOOR, WALL & CEILING FINISHES					
	In-Situ Finishes					
	White dash render; Description: External render; Substrate: Concrete blockwork; Preparation: as per Architect's Specification; Cement; Type: Ready-to-use mortar or ready-mixed lime:sand; Pigment: Not required; Undercoats; Mix (cement:lime:sand): 1:1:5-6 (where final coat trowelled); Cement type: Contractor's choice; Thickness (excluding dubbing out and keys): First coat 8-12 mm (exclusive of keys) and second coat 6-10 mm; Final coat; Mix (cement:lime:sand): 1:0.5:4-4.5; Cement type: White Portland; Other requirements: Screen sand through 3 mm mesh sieve; Thickness: 6#8 mm; Finish: Varies. Combination of Nap & smooth, - Refer to elevation drawings. Sample panels to be erected on site for Architect's approval; Accessories: Stainless steel beads and Alkaline resistance render mesh to all corners to opes; As per Architect's specification					
	Walls					
B	Exceeding 300mm wide; to blockwork	18	m2			
C	Not exceeding 300mm wide; to reveals	7	m			
	BEADS/STOPS FOR EXTERNAL USE; Material: to be confirmed; fixed in strict accordance with the Architect's Drawings and Specification					
	Sundries					
D	External Corner Beads at openings; Horizontal	8	m			
E	External Corner Beads at openings; Vertical	12	m			
F	Stop Beads; Horizontal	8	m			

To Collection €

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
A	Stop Beads; Vertical	12	m			
B	Stop Bead fixed to base of render at ground in accordance with manufacturers instructions	8	m			
	PAINTING AND DECORATING					
	Painting					
	Exterior paint; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Primer: to be confirmed or equivalent to Architect#s approval; Number of coats: to be confirmed; Colour: Refer to Elevations Drawing; as per Architect's Drawing's and Specification					
	Walls					
C	Exceeding 300mm wide; to render	18	m2			
D	Not exceeding 300mm wide; to reveals	7	m			
	(42) INTERNAL WALL FINISHES					
	PAINTING AND DECORATING					
	Painting					
	PAINT TO INTERNAL FAIRFACED BLOCKWORK; The contractor is to include for painting of all walls and plasterboard parts of ceilings with 1 No. coat of primer paint and 3 No. coats of internal durable, hard wearing and easy to clean paint. Colours to be selected by the client; all as per Architects Drawings and Specification 4.28					
	Walls					
E	Exceeding 300mm wide; to render	18	m2			
F	Not exceeding 300mm wide; to reveals	7	m			
				To Collection €		

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

(43) FLOOR FINISHES

PAINTING AND DECORATING

Painting

FLOOR COATING to Boiler and store Room; Manufacturer: Dulux Trade or equivalent; Product reference: Floorshield or equivalent; System code: D8107 - Concrete flooring; Colour: Earth Red; Coats: 2no.; as per Architects Specification M60 180A

Floors

A	Exceeding 300mm	12	m2		

PITCHED ROOFS

ROOFING, CLADDING & WATERPROOFING

Rigid Sheet Coverings and Decking

Quadcore Topek Roof Panel or equivalent; Core thickness: 140mm; Uvalue: 0.12W/m2K laid on multibeamed purlins (measured elsewhere) to engineers details; all as per Architects Roof Drawings and Details

Roof coverings

B	Sloping 7 degree pitch; Exceeding 300mm wide	15	m2		

FLASHING; 2mm polyester powder coated pressed aluminium capping and fascia with fully welded corners and 150mm welded butt joints; 3 no. 100 x 50mm treated timber battons mechanically fixed to structural steel; 2mm x 60mm polyester powder coated pressed aluminium clips at 600mm centres, fixed to top of masonry outer leaf, to support parapet flashing; as per drawings

Flashings

C	Girth 750 - 1000mm	8	m		

MONO RIDGE to Architect's Specification; 3mm Polyester powdercoated aluminium flashing; RAL to match roof it is adjacent to PVF2 coated finish; include for High density insulation under welded top sheet; complete with and including all drip angles, closure flashings, additional insulation and any additional details shown on Architects drawings; all as Architects drawings

Mono Ridge

D	Girth 1050 - 1200mm	5	m		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	VERGE to Architect's Specification; 2mmPolyester powdercoated aluminium flashing to verge with proprietary roof manufacturers verge channel, gable hook & tolerance clip extrucions all fixed to manufacturers detail and specification; RAL to match roof it is adjacent to PVF2 coated finish; include for High density insulation under welded top sheet; all as Architects drawings					
	Verge					
A	Girth 1050 - 1200mm	4	m			
	Mill Finish aluminium Eaves; Comprising 2mm polyester powder coated pressed aluminium capping with fully welded corners and 150mm welded butt joints; gutters (measures elsewhere); 2mm thick aluminium gutter with ppc finish fixed to roof panel. kingspan to confirm size. colour to match roof panel; 2mm thick aluminium flashing profile with ppc finish fixed to roof panel. colour to match roof panel; Arc Cavity Stop Sock CSS160 (or equivalent) 160mm cavity barrier suitable for 160mm cavity, and tightly butted between board of rigid thermal insulation; As per Architects Roof Drawing and Details					
	Eaves					
B	Girth 750 - 1000mm, Four times bent	5	m			
	COMPOSITE GUTTERS; Comprising Kingspan membrane lining system on an including insulation or approved equivalent; 18 mm WEB plywood gutter support and corner fillets; all in strict accordance as per Architect's Details and Specification					
	Gutters					
C	450mm girth gutter lining, four times bent (eaves flashing returned separately); profile as per Architect's Drawing 1241_P-T_05 to 1241_P-T_10 and as per architect's specification	5	m			
D	Extra over for forming 100mm diameter rainwater outlet; to suit 100mm dia rainwater downpipe; including all linings etc.	1	nr			

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

(52) RAINWATER AND DISPOSALS

DRAINAGE

Disposal above Ground - Rainwater Installation

ALUMINIUM PIPEWORK FOR EXTERNAL USE: Pipes, fittings and accessories: To BS 2997 and BS1474; Manufacturer and reference: JWD Rainwater Systems Ltd or equivalent; Type/Grade: JWD Regency Cast / Extruded Heavy Duty grade aluminium to BS2997; Profile: Round 152mm diam; 2mm wall thickness; Fixing: plugged & screwed through lugged collars and pipe brackets at 1.5m max centres; Finish/Colour: Syntha Pulvin or Interpons 600/610 paint finish to Architect's selected colour; See Section Z31; all as per Architects Drawings and Specification

100mm diameter round downpipes

A	Surface fixed; vertical	4	m			

Extra over pipes on which they occur for

B	Shoes	1	nr			
C	Rainwater Head	1	nr			
D	Leafguard	1	nr			

ANTICLIMB RAINWATER PIPE COVERS; Manufacturer: Contractor's choice; Product reference: Contractor's choice; Material: Aluminium; Profile: Round top hat; Size: 3000 mm long x 150 mm wide; Finish: Polyester powder coating; Colour: Self colour; in accordance with Architect's specification

Rainwater pipe covers

E	3000mm long x 150mm wide	4	m			

Notes

F	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		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 Semple McKillop Consulting Engineers.		note			
H	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.		note			

To Collection €

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

ALTERNATIVE RULES FOR THE MEASUREMENT OF ELECTRICAL SERVICES

(61) ELECTRICITY SUPPLY & MAIN DISTRIBUTION - LV INSTALLATIONS

System

LV installation, testing and commissioning; complete; The Contractor shall allow for the supply and installation of all switchgear, distribution boards and sub mains cables in accordance with the drawings and attached specification; The Contractor shall be responsible for safe off-loading, receiving, storage, positioning and fixing of the boards and shall be liable for any damage to boards during installation; 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 Part 1, Section 15; Part 2; Part 3; Part 4, Section 2 and Drawings 2556-SMK-ZZ-LL-DR-E-6150

A	Electrical Supply and Main Distribution	1	Item		

Equipment

Main Switch Board; supply and installation (including wiring) complete; Switchboard Classification: Form 4B, Type 2; Enclosure: Metal clad unit fabricated from 2.5mm thick sheet electro galvanised Iron phosphated steel plate, 2mm thick sheet steel enclosure doors, minimum protective rating of IP 54; Mounting: Floor mounted; distribution board to provide 30% spare capacity for future expansion; complete with and include for all PVC cables, 630Amp TP ACB, bush bar system, TP&N's, MCCB's, MCB's, RCBO's; HOA switches, CTU's, open/ closed contractors; remote key switches, phase indicator lamps, time clocks, metering, surge protection, space for future power factor correction equipment and automatic changeover; space for integral switch board DB1A and BD SL1(measured elsewhere); earth terminal; Labels: Traffolyte, black on white, screw on type, to all chambers inside and outside the panel; Testing and commissioning: in accordance with current standards; all in strict accordance with the Electrical Engineers Specification Part 1, Section 15; Part 4, Section 2 and Drawings 2556-SMK-ZZ-LL-DR-E-6150

B	Main Switch board; complete (Ref: MSB; Location: Plant room adjacent PE hall)	1	nr		

To Collection €

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

Distribution board; supply and installation (including wiring) complete; Switchboard Classification: Form 4B, Type 2; Enclosure: Metal clad unit fabricated from 2.5mm thick sheet electro galvanised Iron phosphated steel plate, 2mm thick sheet steel enclosure doors, minimum protective rating of IP 31; Mounting: wall recessed mounted; distribution board to provide 30% spare capacity for future expansion; complete with and include for all PVC cables, bush bar system, TP&N's, MCCB's, MCB's, RCBO's; HOA switches, CTU's, open/closed contractors; remote key switches, time clocks, metering, surge protection, earth terminal; Labels: Traffolyte, black on white, screw on type, to all chambers inside and outside the panel; Testing and commissioning: in accordance with current standards; all in strict accordance with the Electrical Engineers Specification Part 1, Section 15; Part 4, Section 2 and Drawings 2556-SMK-ZZ-LL-DR-E-6150

A	Sub-distribution board; complete (Ref: DB-1A; Power Services; Location: Integral to MSB)	1	nr		
B	Sub-distribution board; complete (Ref: DB-SL1; Lighting & General Services; Location: Integral to MSB)	1	nr		

Fittings

Multi-function digital meter; supply and installation; complete; Parameters to be measured include kW, kilowatt hours, kVARh, kVA, voltage, and current displayed on a three-line backlit LCD display; with link back to BMS; installation as per manufacturers recommendations; all in accordance with the Electrical Engineers Specifications Part 1, Section 15.10

C	Multi-function digital meter	14	nr		

Main MCCB; supply and installation; complete; all in strict accordance with the Engineers Drawing and specification

D	630amp TP MCCB	1	nr		

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 Part 1, Section 15.3.5

E	Insulated matting; Main distribution board MDB	1	nr		

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 Part 1, Section 15.3.1

F	Main switchboard drawing	1	nr		

To Collection €

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	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 Part 1, Section 15.18					
A	Circuit charts	2	nr			
	Mains and Sub-mains cables					
	Supply and installation of sub-mains cable from Main Distribution Board MDB; Location: Plant room adjacent PE Hall; to sub-distribution boards/ Control panels located throughout school building; Sub-mains distribution within the building shall be via XLPE/LSF/SWA/LSF armoured cables laid in galvanised steel cable tray/trunking external submains shall be laid in underground ducts; 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 Specification and Drawings 2556-SMK-ZZ-LL-DR-E-6150					
B	Submains Ref: 2; MSB to RWH Pump Isolator (Location: existing building); 5 x 10sq.mm LSF	1	Item			
C	Submains Ref: 4; MSB to DB-2 (Location: new building); 4 x 25sq.mm XLPE/ LSF/SWA/LSF + 16sq.mm CPC	1	Item			
D	Submains Ref: 4; MSB to Solar PV G-10 relay (Location: new building); 4 x 25sq.mm XLPE/LSF/SWA/LSF + 16sq.mm CPC	1	Item			
E	Submains Ref: 4; MSB to BEMS Panel (Location: new building); 4 x 25sq.mm XLPE/SWA/LSF + 16sq.mm CPC	1	Item			
F	Submains Ref: 4; MSB to DB- SL1; 4 x 25sq.mm XLPE/LSF/SWA/LSF + 16sq.mm CPC	1	Item			
G	Submains Ref: 5; MSB to DB-1 (Location: new building); 4 x 35sq.mm XLPE/ LSF/SWA/LSF + 25sq.mm CPC	1	Item			
H	Submains Ref: 5; MSB to Lift Isolator (Location: new building); 4 x 35sq.mm XLPE/LSF/SWA/LSF + 25sq.mm CPC	1	Item			
J	Submains Ref: 6; MSB to DB-3 (Location: new building); 4 x 50sq.mm XLPE/ LSF/SWA/LSF + 35sq.mm CPC	1	Item			
K	Submains Ref: 11; MSB to Switchboard serving existing school; 2nr 4 x 185sq.mm XLPE/SWA/LSF + 95sq.mm CPC	1	Item			
L	Submains Ref: 11; MSB to Switchboard serving existing sports hall; 2nr 4 x 185sq.mm XLPE/SWA/LSF + 95sq.mm CPC	1	Item			
M	Submains Ref: 11; MSB to EV charger; 4 x 185sq.mm XLPE/LSF/SWA/LSF + 95sq.mm CPC	1	Item			

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
A	Submains Ref: 13; MSB to Fire Alarm Panel (Location: new building); 2c and earth x 2.5sq.mm PH120 Red Enhanced Grade Fire Rated Cable	1	Item			
B	Submains Ref: 13; MSB to Disable refuse Panel; 2c and earth x 2.5sq.mm PH120 Red Enhanced Grade Fire Rated Cable	1	Item			
C	Submains Ref: MSB to Intruder Alarm Panel (Location: new building); 3 x 4sq.mm LSF	1	Item			
D	Submains Ref: 16; MSB to DB-MCCP (Location: existing building); 3 x 10sq.mm XLPE/LSF/SWA/LSF	1	Item			
E	Submains Ref: 16; MSB to DB- 1A; 3 x 10sq.mm XLPE/LSF/SWA/LSF	1	Item			
	<u>General Earthing and Bonding</u>					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
F	General Earthing and Bonding; complete	1	Item			
	<u>General</u>					
	Testing and commissioning; all in accordance with Engineers Specification					
G	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
H	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
J	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
K	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
L	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
M	Identification plates, labels and the like	1	Item			
				To Collection €		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	(62) POWER					
	System					
	General Services and small power installation, testing and commissioning; complete; The contractor shall provide and install throughout, a general-purpose socket outlet and fixed power installation as indicated on the drawings; all in strict accordance with the Electrical Specification Part 1, Section 16 -17, Part 2, Part 3, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
A	General Services Installation	1	Item			
	Accessories associated with terminal equipment					
	Socket Outlets; supply and installation (including wiring); complete; IP65 socket outlet c/w back boxes; surface mounting; include for all accessories and fixings; all in strict accordance with the Electrical Specification Part 1, Section 16 -17, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
B	13 Amp Switched; Double Socket	4	nr			
	Final Circuits (including all points terminations as per M&E Drawings)					
	Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from local sub-distribution boards; Socket outlets and small power services outlets shall be circuited as shown on the drawings; Circuits shall be wired with insulated LSF/LSZH cables; standards to Engineers Specification; laid in galvanised trunking /conduit. Cable sizes are as follows: 10amp radial circuits: 2.mm2/2.5mm2 CPC, 16amp radial circuits: 4.0mm2/4.0mm2 CPC, 20amp radial circuits: 4.0mm2/4.0mm2 CPC; 32amp radial circuits (non cooker): 6.0mm2/6.0mm2CPC; 32amp radial circuits (cooker): 10.0mm2/10.0mm2CPC; all in strict accordance with the Electrical Engineers Specification and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
	Final Circuits - DB1A					
C	Power Services; Single Phase; 20Amp MCB/RCBO	6	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
D	General Earthing and Bonding; complete	1	Item			
				To Collection €		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers Specification Documents					
A	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers Specification Documents					
B	Operating and maintenance manuals; complete	1	Item			
	Working drawings; all in accordance with the Electrical Engineers Specification Documents					
C	Working drawings; complete	1	Item			
	Co-ordination drawings; all in accordance with the Electrical Engineers Specification Documents					
D	Co-ordination drawings;complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers Specification Documents					
E	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers Specification Documents					
F	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	(63) LIGHTING					
	System					
	General Lighting installation, testing and commissioning; complete; The Contractor shall include for the supply, installation, wiring, testing and commissioning of the general lighting installation as described in the Electrical Specification and as indicated on the tender drawings and equipment schedules; The system shall consist of ceiling mounted / recessed LED fittings. The lighting system shall be fed from local sub-distribution boards as indicated on the system drawings. The internal lighting circuits shall be run in LSZH 2.5sq.mm cable with a separate 2.5sq.mm earth throughout the installation. All lighting circuits shall be protected by MCB's of a minimum size of 10A. Final connections to each light fitting shall be made in 1.5mm2 LSF heat resistant cable. An automatic lighting control system shall be provided in all areas. In areas where daylight levels are sufficient, as indicated on the drawings, dimmable electronic control gear shall be provided; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21; Part 2; Part 3; Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
A	General Lighting	1	Item			
	External Lighting installation, testing and commissioning; complete; The Contractor shall include for the supply, installation, wiring, testing and commissioning of the external lighting installation as described in the Electrical Specification and as indicated on the tender drawings and equipment schedule; The school external amenity lighting comprises lighting of the car park, school footpaths/walkways and building facade lighting. All external/ amenity lighting shall be wired from a site lighting distribution board located in the new main switch room. The time clocks shall be a 24 hour, 7 day, day omit time clock located within the distribution board. The photoelectric cell shall be mounted 3000mm AFFL in a suitable location. HOA Manual / Override external lighting switchbacks shall be provided. The switchbacks shall incorporate a master override "lights on" switch to override the automatic control; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21; Part 2; Part 3; Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
B	External Lighting	1	Item			

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

Emergency lighting installation, testing and commissioning; complete; The Contractor shall include for the supply, installation, wiring, testing and commissioning of the external lighting installation as described in the Electrical Specification and as indicated on the tender drawings and equipment schedule; The emergency lighting installation shall comply with IS3217:2013/ A1:2017 and EN1838: 1999. The emergency lighting system shall operate in maintained mode where they take the form of an integral conversion. Emergency exit signage operating in maintained mode and wired off the local lighting circuit. Recessed and surface mounted LED down-lighters and bulkheads that are totally self-contained shall be non-maintained. All emergency luminaires shall be LED technology throughout. All emergency fittings shall incorporate Ni-MH battery packs capable of maintaining the luminaire for 3 hours in the event of a mains failure. All emergency fittings shall be CE certified. Central test units ELT1 shall be installed locally at each distribution board for means of testing local lighting circuits; The contractor shall include for the provision of an A3 sized chart at each central test location; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21; Part 2; Part 3; Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302

A	Emergency Lighting	1	Item		
	Equipment				
	Emergency Lighting Test Unit; supply and installation (including wiring); complete; Standards to IS3217: 2013; include for all mounting grounds and accessories; Part 1, Section 19 - 21, Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302				
B	Emergency Lighting Test Unit (Ref: ELTU)	2	nr		
	Fittings				
	Luminaries; supply and installation (including wiring); complete; Luminaries shall be complete with lamps and mounting kits/ fixing brackets; Final connections: plug-in ceiling rose unit with 1.5mm2 LSF heat resistant flex cable mounted on a besa box; Earthing: 1.5mm2 green/yellow CPC boned to luminaire metalwork to lighting circuit; including all necessary accessories; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21, Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302				
C	Luminaire Ref: D; Surface mounted Linear LED luminarie; Size: 1600mm x 92mm x 90mm; Watt: 52.7W	2	nr		
D	Luminaire Ref: E1; Blukhead LED self-contained non-maintained emergency luminaire; Size: 352mm. x 118mm x 77mm; Watts: 1W; surface mounted to ceiling	2	nr		

To Collection €

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	Lighting Control detectors; supply and installation (including wiring); complete; including all necessary accessories; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21, Part 4, Section 3 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
A	Infrared PIR detector; c/w 360 degree movement detection pattern, providing 6m dia. coverage at 2.6m; recessed ceiling mounted; (Ref:S2)	1	nr			
	Accessories associated with terminal equipment					
	Light Switches; supply and installation (including wiring) complete; Light switch: 10/20amp, brushed stainless steel finish; c/w heavy guage steel back boxes; surface mounting 1100mm to centre of outlet above finished floor level, minimum distance from internal corners 350mm; including all necessary accessories; all in strict accordance with the Electrical Specification Part 1, Section 19 - 21, Part 4, Section 2.2 and Drawings 2556-SMK-ZZ-L0-DR-E-6301 & 2556-SMK-ZZ-L1-DR-E-6302					
B	Light Switch; 1nr digital time delay switch	1	nr			
	Final Circuits (including all points terminations as per M&E Drawings)					
	Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from the main and sub-distribution boards; Circuits shall be wired with insulated LSF cables; standards to Engineers Specification; enclosed within class 4 screwed galvanised trunking /conduit. Cable sizes are as follows: 10amp lighting circuits: 2.5mm2/2.5mm2 CPC; all in strict accordance with the Electrical Engineers Specification Part 1, Section 19 - 21,					
	Final Circuits - DB1A					
C	Lighting / Emergency Lighting; Single Phase; Protected by 10Amp MCB	6	nr			
	Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from the main/ sub-distribution boards; Circuits shall be wired with insulated XPLE/SWA cables; standards to Engineers Specification; in galvanised trunking /conduit. Cable sizes are as follows: 10.0mm2 with a separate 10.0mm earth; all in strict accordance with the Electrical Engineers Specification Part 1, Section 19 - 21,					
	Final Circuits - DB-SL1					
D	Site Lighting; Single Phase; 10Amp MCB	6	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
E	General Earthing and Bonding; complete	1	Item			
				To Collection €		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
A	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
B	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
C	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
D	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
E	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
F	Identification plates, labels and the like	1	Item			
	(64) COMMUNICATION - DATA & IT					
	System					
	Information and Communication Technology System installation, testing and commissioning; complete; The ICT structured cabling system should be an integrated network to support both data and the telephony part of data. The infrastructure shall include the structured cabling, RJ45 sockets, RJ45 patch panels and cabinets. The primary network shall be designed as Category 6 enhanced / Class EA. It is deemed essential that the structured cabling system be installed by suitably trained electrical contractors, or appropriately trained personnel, however only specialists contractors shall be used to install optic fibre cabling. Fibre optic cables shall be provided between the DCC and any Intermediate Distribution Facility (IDF); all in strict accordance with the Electrical Engineers Specification Part 1, Section 22; Part 2; Part 3; Part 4, Section 4 and Drawings 2556-SMK-ZZ-L0-DR-E-6201, 2556-SMK-ZZ-L1-DR-E-6202 & 2556-SMK-ZZ-LL-DR-E-6450					
G	Data / IT Installations	1	Item			
				To Collection €		

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	Telephony System installation, testing and commissioning; complete; The telephone backbone system installed as part of this project will use BT Ireland specification CW1308 multicore cable, providing a minimum of 2-pair modularity to each outlet. The specialist contractor should refer to the building layout drawings when making provision for the voice backbone infrastructure. The multi-core cable must be sized to cover the total number of voice points shown, whilst allowing for 30% future capacity; all in strict accordance with the Electrical Engineers Specification Part 1, Section 22; Part 2; Part 3; Part 4, Section 4 and Drawings 2556-SMK-ZZ-L0-DR-E-6201, 2556-SMK-ZZ-L1-DR-E-6202 & 2556-SMK-ZZ-LL-DR-E-6450					
A	Telephone System	1	Item			
	Accessories associated with terminal equipment					
	Data Outlet; supply and installation (including wiring); complete; Outlets: 8pin modular (RJ45) jacks; metalclad finish; Mounting: surface mounting; 450mm to centre of outlet above finished floor level, minimum distance from internal corners 350mm; all accessories shall be engraved to indicate the circuit reference number; c/w galvanised steel back boxes; include for all accessories and fixings; all in accordance with the Electrical Engineers Specification Part 1, Section 22 and Drawings 2556-SMK-ZZ-L0-DR-E-6201 & 2556-SMK-ZZ-L1-DR-E-6202					
B	Data Outlets - 2 point (NP)	2	nr			
	Final Circuits (including all points terminations as per M&E Drawings)					
	CAT 6a UTP Cable; installation, testing and commissioning; complete; distributed within galvanised trunking /conduit; include for all fittings and accessories; all in strict accordance with the Electrical Engineers Specification and Drawing 2556-SMK-ZZ-LL-DR-E-6450					
C	Cable from new comms (Ref: IDF) to data points	4	nr			

To Collection €

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	(65) SECURITY & PROTECTION - INTRUDER ALARM					
	System					
	Intruder Alarm System installation, testing and commissioning; complete; The contractor shall allow for employing a PSA licensed intruder alarm specialist for the supply, terminations, testing and commissioning of a closed circuit intruder alarm system installation; The system installation and equipment must all comply with EN50131-1: 2004, Grade 3; On completion of the entire school, including all phases, the schools intruder alarm shall be one single system, with functionality available from all keypads; Panic attack pushbuttons shall be provided in the admin office and principals offices, as detailed on the contract drawings; A new control panel shall be provided in the extension which shall be located in the plant room and linked back to the existing panel located within the main school building near reception; Internally the system shall be wired using 8c 0.7mm2 PVC/PVC cable in radial circuits. External wiring shall be carried out in multi-pair Pol/Poly gel filled cable; Activation and deactivation of the entire system shall be by keypad and key-fobs; A new keypad shall be located in the entrance foyer of the new build; The intruder alarm system shall be connected up to a central monitoring station for remote monitoring of the installation. The system shall have GSM dual path signaling monitoring service, which shall monitor the system 24-hours a day, 7 days a week, by the monitoring company. This phone line monitoring service operates 24 hours a day, verifying that the phone line is operational and has not been cut by intruders. In addition, if the phone line goes down, the GSM will automatically switch alarm communications to the mobile phone network, allowing the alarm system to operate as per normal even though the regular phone line is inoperative. In this way, the phone line is disrupted due to intruder attack or other reasons (e.g. accidents etc) the system will still be fully functional; The contractor shall allow for all monitoring costs for the first 12-months and for liaising with the monitoring station for the provision and initial cost for setting up external monitoring. This shall be included at tender stage. The contractor shall be responsible for providing all telephone cabling as necessary within the school between Eircom's incoming position and the intruder alarm panel. The specialist installer shall include in their tender for the cost of comprehensive maintenance of the systems for a period of 12 months from the date of commissioning. This cost shall include for 24-hour engineering maintenance cover. Preventative maintenance and corrective maintenance will be provided and will consist of 2 site visits to be carried out on a 6 monthly basis. Copies of all maintenance carried out shall be forward to the engineer for his records. The intruder alarm system must be connected to the high level external security lighting installation. The fire alarm system must be connected to the intruder alarm system, which will automatically connect to a 24-hour central station; all in strict accordance with the Electrical Engineers Specification Part 1, Section 32; Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-E-6501, 2556-SMK-ZZ-L1-DR-E-6502 & 2556-SMK-ZZ-LL-DR-E-6550					
A	Intruder Alarm System	1	Item			

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
	Fittings					
	Intruder Alarm Fittings; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 32; Part 4, Section 7 and Drawings 2556-SMK-ZZ-L0-DR-E-6501 & 2556-SMK-ZZ-L1-DR-E-6502					
A	Detector; PIR Dual Tech Wide Angle	1	nr			
B	Magnetic Door Contact	2	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strict accordance with the Electrical Engineers Specification					
C	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
D	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
E	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
F	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
G	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
H	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
J	Identification plates, labels and the like	1	Item			

To Collection €

(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)

(65) SECURITY & PROTECTION - FIRE ALARM

System

Fire Alarm installation; testing and commissioning; complete; The Contractor shall supply, install, test and commission an analogue, fully addressable, automatic Fire Detection & Alarm System; with a minimum of L2/L3 coverage to IS3218:2013 +A1 2019 and as detailed on the drawings; the system and all equipment shall be open protocol;"Managed" with closed protocol system shall not be acceptable, The sensors, sounders and manual call points shall be in the same loop circuit. The system shall be capable of controlling 100 devices per loop, c/w 4 No. loop cards fitted and tested; All devices, sounders and break glass units shall be wired in 2 core & earth 1.5mm2 (unless stated otherwise) fire rated cable to PH120 classification; The fire alarm system shall interface with the following: Disable refuse, Aspirating smoke detection system; Gas Detection Panel, Lift Control Panel, MCC, Smoke Vents, Electro-Magnetic Door Hold-Open Devices, The Fire Alarm System shall be linked to the monitoring station via the digi-dialer on the intruder alarm panel allow 4C 1.5mm2 PH120 cable between the fire alarm panel and intruder alarm panel; Wiring connections of telephone line at EIRCOM DP point, setting-up and activating the link to the monitoring station shall be provided; The entire system shall be tested and commissioned in accordance with IS3218:2013 on completion of the installation, documentation and as-installed drawings, including sound levels shall be included in the O&P manuals; an audibility test shall be carried out throughout the building; The contractor shall include for Fire Alarm Zone/Loop Chart. The contractor shall include for monitoring the installation and pay all costs for the first 12 months of operation, which shall include 24 hour (4 hour call out period maximum) response to system faults and free parts and labour warranty for the duration of this maintenance contract; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 2; Part 3; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701, 2556-SMK-ZZ-L1-DR-E-6702 & 2556-SMK-ZZ-LL-DR-E-6750

A	Fire Alarm System	1	Item		

Fittings

Fire Alarm Fittings; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702

B	Addressable Heat Detector/ Sounder	1	nr		

Accessories associated with Terminal Equipment

Fire Alarm accessories; supply and installation (including wiring); including all necessary accessories; all in strict accordance with the Electrical Engineers Specification Part 1, Section 27; Part 4, Section 6 and Drawings 2556-SMK-ZZ-L0-DR-E-6701 & 2556-SMK-ZZ-L1-DR-E-6702

C	Manual call point; Fully resettable type via key operation	1	nr		

To Collection €

					€	c
	(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
A	Fireman Isolation Switch	1	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
B	General Earthing and Bonding; complete	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
C	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
D	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
E	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
F	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
G	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
H	Identification plates, labels and the like	1	Item			
	GENERAL ITEMS					
	Defects Liability period					
J	The contractor shall allow for the full servicing of all systems at handover and again before the end of the defects liability period and shall allow for the maintainance of each system for one year during the extent of the defects liability period; all in strict accordance with Vol.A works requirements.	1	Item			
				To Collection €		

				€	c
(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
COLLECTION					
Page No. Siteworks/9					
Page No. Siteworks/10					
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(20) ANCILLARY SITE STRUCTURES - PLANT ROOM (Cont)					
COLLECTION					
Page No. Siteworks/32					
Page No. Siteworks/33					
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Page No. Siteworks/35					
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Page No. Siteworks/40					
Page No. Siteworks/41					
(20) ANCILLARY SITE STRUCTURES - PLANT ROOM **Carried to Summary**					

					€	c
	(30) SITE ENCLOSURES - 2000MM HIGH FENCING					
	SURFACE PAVINGS, FENCING AND LANDSCAPING					
	Fencing					
	Open mesh steel panel general purpose fencing; Manufacturer: Submit proposals; Product reference: Submit proposals; Standard: To Architect Specification; Height: 2400 mm; Mesh and wire: Welded mesh, 200 mm vertical x 50 mm horizontal x 6 mm vertical wire diameter x 8+ 8 mm horizontal wire diameter, plastics coated to Architect Specification; Posts: Galvanized rectangular hollow section, green plastics coated; Maximum centres of posts: 3 m; Posts cast into 450x450x600mm deep concrete grade C28/35 base, starting 300mm below ground level; posts embedded 600mm minimum into foundation; Bottom of fencing: Anchored to a concrete sill; Accessories: 2No. Double leaf entrance gate at pedestrian entrance and Double gates at vehicular entrance / exits per drawing; Conformity: Submit manufacturer's and installer's certificates, to Architect Specification; Colour: Fence Type 2 - Black; include for additional fixings and works required for stepping details and clip detail as per Architect's Drawing; include for all necessary end posts, corner posts, fixings, caps, clips, security screws, excavation, disposal, backfilling and fixings; all in accordance with the Architect's Specification and Drawing					
	Open Mesh Steel Panel Fencing System					
A	2000mm high above ground level	73	m			
	Extra over for					
B	Angle posts; 60x60x2 SHS posts, 2000mm high above ground level and 900mm below ground level; set in 450x450x600mm deep concrete grade C28/35 base	4	nr			
C	End posts; 60x60x2 SHS posts, 2000mm high above ground level and 900mm below ground level; set in 450x450x600mm deep concrete grade C28/35 base	5	nr			
	Gates					
D	Double gate; opening size approx 1800 x 2000mm high	2	nr			
E	Single gate; opening size approx 1000 x 2000mm high	1	nr			
	100x100x10 SHS hot dipped galvanised SHS powder coated post; gate posts set in 1000x1000x1000mm C28/35 concrete pocket; top of concrete 300mm below ground level; galvanised to Architect Specification and polyester powder coating to Architects Specification in selected colour, colour to be chosen by the Architect from samples provided on site by the Contractor; complete					
	Gate Posts					
F	100 x 100 SHS posts; 2000mm high above ground level and 900mm below ground level; min 600mm embedment in concrete	6	nr			

				€	c
(30) SITE ENCLOSURES - 2000MM HIGH FENCING (Cont)					
COLLECTION					
Page No. Siteworks/44					
(30) SITE ENCLOSURES - 2000MM HIGH FENCING **Carried to Summary**					

					€	c
	(30) SITE ENCLOSURES - 1100MM HIGH GUARDING					
	METALWORK					
	Non-Structural					
	Specialist uPVC coated galvanised steel fencing; Height: 900mm; Fixed Frame: 50 x 6mm steel flat fixed with counter-sunk steel fixings; Balluster: 15mm diameter round steels at 115mm centres; Treatment: Hot dip galvanized; Finish: Synthapulvin or equivalent uPVC coating - anthracite in colour; Method of fixing: Fixed with galvized anchors to block rising wall to engineers design; As per Architects Specification and drawing TD-005 and Engineers Drawing C-100					
	Composite Items; Railing					
A	Railing; 1100mm high	23	m			

				€	c
(30) SITE ENCLOSURES - 1100MM HIGH GUARDING (Cont)					
COLLECTION					
Page No. Siteworks/46					
(30) SITE ENCLOSURES - 1100MM HIGH GUARDING **Carried to Summary**					

					€	c
	(30) SITE ENCLOSURES - PLANTERS					
	EXCAVATION AND EARTHWORK					
	General Information					
	Information					
A	The contractor should consult with the Architect and must visit the site to ascertain the extent of the works involved under this section. No variations will be approved for works that ought to have been apparent to the contractor after a site inspection and review of the Architects drawings and specifications	1	note			
B	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.	1	note			
	Excavation					
	Excavation					
	Foundation Trenches					
C	Depth not excedding 2.00m	23	m3			
	Soft spots					
D	Depth not excedding 2.00m	2	m3			
	Extra on Excavation Items for:					
	Below Ground Water Level					
E	Generally	5	m2			
	Working Space					
	Foundations					
F	Depth not excedding 2.00m; backfilling trenches with clause 804 hardcore compliant with SR21 Annex E	50	m2			
	Disposal					
	Water					
G	Surface	1	item			
H	Ground	1	item			
				To Collection €		

					€	c
	(30) SITE ENCLOSURES - PLANTERS (Cont)					
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
A	Disposal On-site	10	m3			
B	Disposal Off-site	13	m3			
C	Disposal Off-site; for soft spots	2	m3			
	Filling with material to be obtained on-site; as per Engineer's Specification; compacted as per Engineer's Specification					
	To excavations					
D	Average thickness exceeding 250mm	10	m3			
	Surface treatments					
	Levelling and compacting; bottom of excavations					
E	Horizontal	21	m2			
	CONCRETE WORK					
	In-situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
F	Size 150 x 150 x 150mm	1	nr			
	Grade C16/20 S3					
	Bulk filling to soft spots					
G	Generally; poured on or against earth or unblinded hardcore	2	m3			
	Blinding					
H	Generally; poured on or against earth or unblinded hardcore	2	m3			
	In-situ Concrete; Reinforced					
	Grade C28/35					
	Foundations					
J	Generally; Reinforced	9	m3			

(30) SITE ENCLOSURES - PLANTERS (Cont)

Reinforcement

Fabric

Reference A393; 350mm side laps; 350mm end laps

A	Horizontal	41	m2		

Formwork

Formwork Generally

Sides of foundations

B	Height or width 250 - 500mm	45	m		

Precast Concrete

PRECAST CAPPINGS GENERALLY; Concrete: Components manufacturer's 'proprietary' concrete; Identity: Submit labelled sample; Evidence: Submit third party certification from a UKAS accredited laboratory; Exposure class: N/A; Reinforced components: Submit proposals for type of reinforcement and cover; Matching sample for finish to visible faces: As reference sample; Other requirements: Lay on a full bed of mortar to line and level; Joints are to be equally spaced with sections at opposite ends of wall to be equal in size no less than half the full size of a full coping section; Copings to be mechanically fixed down to wall below, with fixings to contractor's design, and loadings as per Engineer's specification; Forward proposals for joints to architect prior to fabrication of copings/cappings; Coping/Capping DPCs; Placement: Bed in one operation to ensure maximum bond between masonry units, mortar and dpc; Dpcs crossing cavity: Provide rigid support to prevent sagging; All cappings to boundary walls to be vandal-proof cappings to CA approval (Fixing system and Products to be Agrement Certified) unless otherwise clearly shown as in-situ cappings; as per Architect's Drawings & Specification

Copings

C	400 x 50mm; top of walls	23	m		

To Collection €

					€	c
	(30) SITE ENCLOSURES - PLANTERS (Cont)					
	BRICKWORK AND BLOCKWORK					
	Blockwork					
	CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13.5N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: M12; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specification					
	Walls in trenches					
A	215mm thick	15	m2			
	Labours					
B	On blockwork	1	item			
	CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: M12; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specificatio					
	Walls					
C	215mm thick	11	m2			
	Labours					
D	On blockwork	1	item			

					€	c
	(30) SITE ENCLOSURES - PLANTERS (Cont)					
	Designed Joints					
	MOVEMENT JOINTS WITH SEALANT TO EXTERNAL CONCRETE BLOCKWORK; Joint preparation and sealant application: As section Z22; Filler: Closed cell polyethylene foam; Thickness: To match design width of joint; Manufacturer: Contractor's choice to be approved; Product reference: Contractor's choice to be approved; Placement: Build in as work proceeds with no projections into cavities and to correct depth to receive sealant system; Sealent: Manufacturer: Contractor's choice to be approved; Product reference: Contractor's choice to be approved; Colour: To match adjoining blockwork; Ties: slip ties to be at max vertical spacing of 225mm and horizontal spacing of 200mm centred around movement joint; wall ties to be at max vertical spacing of 225mm and horizontal spacing of 225mm centred around movement joint; all in accordance with Architects Drawings and Specification & Engineers Drawing					
A	Generally	5	m			
	FLOOR, WALL & CEILING FINISHES					
	In-Situ Finishes					
	White dash render; Description: External render; Substrate: Concrete blockwork; Preparation: as per Architect's Specification; Cement; Type: Ready-to-use mortar or ready-mixed lime:sand; Pigment: Not required; Undercoats; Mix (cement:lime:sand): 1:1:5-6 (where final coat trowelled); Cement type: Contractor's choice; Thickness (excluding dubbing out and keys): First coat 8-12 mm (exclusive of keys) and second coat 6-10 mm; Final coat; Mix (cement:lime:sand): 1:0.5:4-4.5; Cement type: White Portland; Other requirements: Screen sand through 3 mm mesh sieve; Thickness: 6#8 mm; Finish: Varies. Combination of Nap & smooth, - Refer to elevation drawings. Sample panels to be erected on site for Architect's approval; Accessories: Stainless steel beads and Alkaline resistance render mesh to all corners to opes; As per Architect's specification					
	Walls					
B	Exceeding 300mm wide; to blockwork	11	m2			
	BEADS/STOPS FOR EXTERNAL USE; Material: to be confirmed; fixed in strict accordance with the Architect's Drawings and Specification					
	Sundries					
C	External Corner Beads at openings; Horizontal	23	m			
D	External Corner Beads at openings; Vertical	4	m			
E	Stop Beads; Horizontal	23	m			
F	Stop Beads; Vertical	4	m			
G	Stop Bead fixed to base of render at ground in accordance with manufacturers instructions	23	m			

To Collection €

					€	c
	(30) SITE ENCLOSURES - PLANTERS (Cont)					
	PAINTING AND DECORATING					
	Painting					
	Exterior paint; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Primer: to be confirmed or equivalent to Architect#s approval; Number of coats: to be confirmed; Colour: Refer to Elevations Drawing; as per Architect's Drawing's and Specification					
	Walls					
A	Exceeding 300mm wide; to render	11	m2			
				To Collection €		

				€	c
(30) SITE ENCLOSURES - PLANTERS (Cont)					
COLLECTION					
Page No. Siteworks/48					
Page No. Siteworks/49					
Page No. Siteworks/50					
Page No. Siteworks/51					
Page No. Siteworks/52					
Page No. Siteworks/53					
(30) SITE ENCLOSURES - PLANTERS **Carried to Summary**					

					€	c
	(30) SITE ENCLOSURES - GAS COMPOUND					
	EXCAVATION AND EARTHWORK					
	General Information					
	Information					
A	The contractor should consult with the Architect and must visit the site to ascertain the extent of the works involved under this section. No variations will be approved for works that ought to have been apparent to the contractor after a site inspection and review of the Architects drawings and specifications	1	note			
B	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.	1	note			
	Excavation					
	Excavation					
	Foundation Trenches					
C	Depth not excedding 2.00m	9	m3			
	Soft spots					
D	Depth not excedding 2.00m	1	m3			
	Extra on Excavation Items for:					
	Below Ground Water Level					
E	Generally	2	m2			
	Working Space					
	Foundations					
F	Depth not excedding 2.00m; backfilling trenches with clause 804 hardcore compliant with SR21 Annex E	18	m2			
	Disposal					
	Water					
G	Surface	1	item			
H	Ground	1	item			
				To Collection €		

					€	c
	(30) SITE ENCLOSURES - GAS COMPOUND (Cont)					
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
A	Disposal On-site	2	m3			
B	Disposal Off-site	7	m3			
C	Disposal Off-site; for soft spots	1	m3			
	Filling with material to be obtained on-site; as per Engineer's Specification; compacted as per Engineer's Specification					
	To excavations					
D	Average thickness exceeding 250mm	2	m3			
	Surface treatments					
	Levelling and compacting; bottom of excavations					
E	Horizontal	8	m2			
	CONCRETE WORK					
	In-situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
F	Size 150 x 150 x 150mm	1	nr			
	Grade C16/20 S3					
	Bulk filling to soft spots					
G	Generally; poured on or against earth or unblinded hardcore	1	m3			
	Blinding					
H	Generally; poured on or against earth or unblinded hardcore	1	m3			
	In-situ Concrete; Reinforced					
	Grade C28/35					
	Foundations					
J	Generally; Reinforced	3	m3			
				To Collection €		

					€	c
	(30) SITE ENCLOSURES - GAS COMPOUND (Cont)					
	Concrete roof slab					
A	Generally; Reinforced	3	m3			
	Fabric					
	Reference A393; 350mm side laps; 350mm end laps					
B	Horizontal	32	m2			
	Formwork					
	Formwork Generally					
	Sides of foundations					
C	Height or width 250 - 500mm	17	m			
	Sides of roof slab					
D	Height or width 250 - 500mm	13	m			
	soffit of roof slab					
E	slab thickness: 300mm thick	9	m2			
	Precast Concrete					
	PRECAST CAPPINGS GENERALLY; Concrete: Components manufacturer's 'proprietary' concrete; Identity: Submit labelled sample; Evidence: Submit third party certification from a UKAS accredited laboratory; Exposure class: N/A; Reinforced components: Submit proposals for type of reinforcement and cover; Matching sample for finish to visible faces: As reference sample; Other requirements: Lay on a full bed of mortar to line and level; Joints are to be equally spaced with sections at opposite ends of wall to be equal in size no less than half the full size of a full coping section; Copings to be mechanically fixed down to wall below, with fixings to contractor's design, and loadings as per Engineer's specification; Forward proposals for joints to architect prior to fabrication of copings/cappings; Coping/Capping DPCs; Placement: Bed in one operation to ensure maximum bond between masonry units, mortar and dpc; Dpcs crossing cavity: Provide rigid support to prevent sagging; All cappings to boundary walls to be vandal-proof cappings to CA approval (Fixing system and Products to be Agrement Certified) unless otherwise clearly shown as in-situ cappings; as per Architect's Drawings & Specification					
	Copings					
F	400 x 50mm; top of walls	9	m			

					€	c
	(30) SITE ENCLOSURES - GAS COMPOUND (Cont)					
	BRICKWORK AND BLOCKWORK					
	Blockwork					
	CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13.5N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: M12; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specification					
	Walls in trenches					
A	215mm thick	6	m2			
	Labours					
B	On blockwork	1	item			
	CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: M12; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specificatio					
	Walls					
C	215mm thick	13	m2			
	Labours					
D	On blockwork	1	item			
				To Collection €		

(30) SITE ENCLOSURES - GAS COMPOUND (Cont)

Designed Joints

MOVEMENT JOINTS WITH SEALANT TO EXTERNAL CONCRETE BLOCKWORK; Joint preparation and sealant application: As section Z22; Filler: Closed cell polyethylene foam; Thickness: To match design width of joint; Manufacturer: Contractor's choice to be approved; Product reference: Contractor's choice to be approved; Placement: Build in as work proceeds with no projections into cavities and to correct depth to receive sealant system; Sealent: Manufacturer: Contractor's choice to be approved; Product reference: Contractor's choice to be approved; Colour: To match adjoining blockwork; Ties: slip ties to be at max vertical spacing of 225mm and horizontal spacing of 200mm centred around movement joint; wall ties to be at max vertical spacing of 225mm and horizontal spacing of 225mm centred around movement joint; all in accordance with Architects Drawings and Specification & Engineers Drawing

A	Generally	3	m		

METALWORK

Non-Structural

Steel Gates to Architect's Specification; comprising 30mm diameter vertical mild steel rails at 106.5mm centres; fixed to 10 x 60mm mild steel frame (top, intermediate, bottom & side rails); include for 15mm thick galvanised metal infill sheet at bottom of gate, approx 500mm high, fixed to steel frame and steel verticals; gate complete with and including padlock bolt, polyester powder coated black, all painting and spraying to be done in the factory; gate wheel spring loaded, polyester powder coated black; drop bolt, polyester powder coated black; include for pivot hinges to suit gate; all painting and spraying to be done in the factory; shop drawings to be provided for approval by Architect prior to manufacture; include for galvanised spud blocks set in concrete to hold gates in open and closed position; Finish: all steel to be polyester powder coated galvanised steel; Hot dipped galvanised to BS EN ISO 1461 after fabrication; all welding work carried out prior to surface finishing; steel hinges to be fixed into brickwork piers as per Engineer's Details; hinges to be spaced 'not climbable'; include for P.P.C & Glavanised mild steel inset to receive lockable/slip/sliding bolt to all gates; Sliding bolt to be covered in rubber to prevent friction/wearing, on P.P.C galvanished steel drop down bolt into recessed reciever to be treated in same number, all gates; include for hinges etc; include for 4 coats of paint finish comprising 1 coat of calcum plumbate, 2 coats of undercoat and 1 coat gloss finish, all to Architect's Specification; all in accordance with the Architect's Specification and Drawing 4203

Composite Items; Gates

B	Double Gate; approx overall ope size; 3880 x 1350mm high	1	nr		

					€	c
	(30) SITE ENCLOSURES - GAS COMPOUND (Cont)					
	FLOOR, WALL & CEILING FINISHES					
	In-Situ Finishes					
	White dash render; Description: External render; Substrate: Concrete blockwork; Preparation: as per Architect's Specification; Cement; Type: Ready-to-use mortar or ready-mixed lime:sand; Pigment: Not required; Undercoats; Mix (cement:lime:sand): 1:1:5-6 (where final coat trowelled); Cement type: Contractor's choice; Thickness (excluding dubbing out and keys): First coat 8-12 mm (exclusive of keys) and second coat 6-10 mm; Final coat; Mix (cement:lime:sand): 1:0.5:4-4.5; Cement type: White Portland; Other requirements: Screen sand through 3 mm mesh sieve; Thickness: 6#8 mm; Finish: Varies. Combination of Nap & smooth, - Refer to elevation drawings. Sample panels to be erected on site for Architect's approval; Accessories: Stainless steel beads and Alkaline resistance render mesh to all corners to opes; As per Architect's specification					
	Walls					
A	Exceeding 300mm wide; to blockwork	25	m2			
	BEADS/STOPS FOR EXTERNAL USE; Material: to be confirmed; fixed in strict accordance with the Architect's Drawings and Specification					
	Sundries					
B	External Corner Beads at openings; Horizontal	17	m			
C	External Corner Beads at openings; Vertical	12	m			
D	Stop Beads; Horizontal	17	m			
E	Stop Beads; Vertical	12	m			
F	Stop Bead fixed to base of render at ground in accordance with manufacturers instructions	17	m			
	PAINTING AND DECORATING					
	Painting					
	Exterior paint; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Primer: to be confirmed or equivalent to Architect#s approval; Number of coats: to be confirmed; Colour: Refer to Elevations Drawing; as per Architect's Drawing's and Specification					
	Walls					
G	Exceeding 300mm wide; to render	25	m2			

				€	c
(30) SITE ENCLOSURES - GAS COMPOUND (Cont)					
COLLECTION					
Page No. Siteworks/55					
Page No. Siteworks/56					
Page No. Siteworks/57					
Page No. Siteworks/58					
Page No. Siteworks/59					
Page No. Siteworks/60					
(30) SITE ENCLOSURES - GAS COMPOUND **Carried to Summary**					

					€	c
	(30) SITE ENCLOSURES - ENTRANCE WALL					
	EXCAVATION AND EARTHWORK					
	General Information					
	Information					
A	The contractor should consult with the Architect and must visit the site to ascertain the extent of the works involved under this section. No variations will be approved for works that ought to have been apparent to the contractor after a site inspection and review of the Architects drawings and specifications		note			
B	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		note			
	Excavation					
	Excavation					
	Foundation Trenches					
C	Depth between not exceeding 2.00m	60	m3			
	Soft spots					
D	Depth between not exceeding 2.00m	3	m3			
	Extra on Excavation Items for:					
	Below Ground Water Level					
E	Generally	12	m2			
	Breaking up existing					
F	Rock; include for all necessary trimming	8	m3			
	Working Space					
	Foundations					
G	Depth between not exceeding 2.00m; backfilling trenches with clause 804 hardcore compliant with SR21 Annex E	89	m2			
	Disposal					
	Water					
H	Surface	1	item			
J	Ground	1	item			
				To Collection €		

					€	c
	(30) SITE ENCLOSURES - ENTRANCE WALL (Cont)					
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
A	Disposal On-site	14	m3			
B	Disposal Off-site	46	m3			
C	Disposal Off-site; for soft spots	3	m3			
	Filling with hardcore to be obtained off-site; Clause 804 crushed stone well compacted on firm clean formation; compliant with TII Publications series 800, free from pyrite and macarsite as per Engineer's specification					
	To make up levels					
D	Average thickness exceeding 250mm	25	m3			
	Filling with material to be obtained on-site; as per Engineer's Specification; compacted as per Engineer's Specification					
	To excavations					
E	Average thickness exceeding 250mm	14	m3			
	Surface treatments					
	Levelling and compacting; bottom of excavations					
F	Horizontal	41	m2			
	CONCRETE WORK					
	In-situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
G	Size 150 x 150 x 150mm	4	nr			
	Grade C12/15					
	Bulk filling to soft spots					
H	Generally; poured on or against earth or unblinded hardcore	3	m3			
	Blinding					
J	Generally; poured on or against earth or unblinded hardcore	3	m3			
				To Collection €		

					€	c
	(30) SITE ENCLOSURES - ENTRANCE WALL (Cont)					
	In-situ Concrete; Reinforced					
	Grade C30/37					
	Foundations					
A	Generally; Reinforced	13	m3			
	Walls					
B	Generally; Reinforced	4	m3			
	Reinforcement					
	Bar reinforcement; hot rolled deformed high yield steel; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings and Specification					
	Bar; straight or bent					
C	Nominal size not exceeding 12mm diameter	0.62	t			
D	Nominal size 12mm - 25mm diameter	0.92	t			
	Fabric					
	A393 mesh reinforcement; 350mm laps; 350mm end laps; all in strict accordance with the Engineers Drawings and Specification					
E	Horizontal	81	m2			
	Surface Finishes					
	Trowelling					
F	Generally; insitu concrete staircases and landings	3	m2			
	Formwork					
	Formwork Generally					
	Sides of foundations					
G	Height or width 250 - 500mm	66	m			
	Kickers					
H	Walls	11	m			
				To Collection €		

					€	c
	(30) SITE ENCLOSURES - ENTRANCE WALL (Cont)					
	Walls					
A	Vertical; Retaining Wall	32	m2			
	Precast Concrete					
	PRECAST CAPPINGS GENERALLY; Concrete: Components manufacturer's 'proprietary' concrete; Identity: Submit labelled sample; Evidence: Submit third party certification from a UKAS accredited laboratory; Exposure class: N/A; Reinforced components: Submit proposals for type of reinforcement and cover; Matching sample for finish to visible faces: As reference sample; Other requirements: Lay on a full bed of mortar to line and level; Joints are to be equally spaced with sections at opposite ends of wall to be equal in size no less than half the full size of a full coping section; Copings to be mechanically fixed down to wall below, with fixings to contractor's design, and loadings as per Engineer's specification; Forward proposals for joints to architect prior to fabrication of copings/cappings; Coping/Capping DPCs; Placement: Bed in one operation to ensure maximum bond between masonry units, mortar and dpc; Dpcs crossing cavity: Provide rigid support to prevent sagging; All cappings to boundary walls to be vandal-proof cappings to CA approval (Fixing system and Products to be Agrement Certified) unless otherwise clearly shown as in-situ cappings; as per Architect's Drawings & Specification					
	Copings					
B	400 x 50mm; top of walls	33	m			
C	620 x 100mm; twice splayed with flat top; top of piers	15	nr			
	BRICKWORK AND BLOCKWORK					
	Blockwork					
	CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13.5N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: M12; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specification					
	Walls in trenches					
D	215mm thick	23	m2			
E	440mm thick; piers	5	m2			

To Collection €

					€	c
	(30) SITE ENCLOSURES - ENTRANCE WALL (Cont)					
	Labours					
A	On blockwork	1	item			
	CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: M12; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specificatio					
	Walls					
B	215mm thick	73	m2			
C	440mm thick; piers	15	m2			
	Labours					
D	On blockwork	1	item			
	Designed Joints					
	MOVEMENT JOINTS WITH SEALANT TO EXTERNAL CONCRETE BLOCKWORK; Joint preparation and sealant application: As section Z22; Filler: Closed cell polyethylene foam; Thickness: To match design width of joint; Manufacturer: Contractor's choice to be approved; Product reference: Contractor's choice to be approved; Placement: Build in as work proceeds with no projections into cavities and to correct depth to receive sealant system; Sealent: Manufacturer: Contractor's choice to be approved; Product reference: Contractor's choice to be approved; Colour: To match adjoining blockwork; Ties: slip ties to be at max vertical spacing of 225mm and horizontal spacing of 200mm centred around movement joint; wall ties to be at max vertical spacing of 225mm and horizontal spacing of 225mm centred around movement joint; all in accordance with Architects Drawings and Specification & Engineers Drawing					
E	Generally	19	m			

					€	c
	(30) SITE ENCLOSURES - ENTRANCE WALL (Cont)					
	METALWORK					
	Non-Structural					
	Steel Gates to Architect's Specification; comprising 30mm diameter vertical mild steel rails at 106.5mm centres; fixed to 10 x 60mm mild steel frame (top, intermediate, bottom & side rails); include for 15mm thick galvanised metal infill sheet at bottom of gate, approx 500mm high, fixed to steel frame and steel verticals; gate complete with and including padlock bolt, polyester powder coated black, all painting and spraying to be done in the factory; gate wheel spring loaded, polyester powder coated black; drop bolt, polyester powder coated black; include for pivot hinges to suit gate; all painting and spraying to be done in the factory; shop drawings to be provided for approval by Architect prior to manufacture; include for galvanised spud blocks set in concrete to hold gates in open and closed position; Finish: all steel to be polyester powder coated galvanised steel; Hot dipped galvanised to BS EN ISO 1461 after fabrication; all welding work carried out prior to surface finishing; steel hinges to be fixed into brickwork piers as per Engineer's Details; hinges to be spaced 'not climbable'; include for P.P.C & Glavanised mild steel inset to receive lockable/slip/sliding bolt to all gates; Sliding bolt to be covered in rubber to prevent friction/wearing, on P.P.C galvanished steel drop down bolt into recessed reciever to be treated in same number, all gates; include for hinges etc; include for 4 coats of paint finish comprising 1 coat of calcum plumbate, 2 coats of undercoat and 1 coat gloss finish, all to Architect's Specification; all in accordance with the Architect's Specification and Drawing 4203					
	Composite Items; Gates					
A	Sliding Vehicular Gate; approx overall ope size; 10975 x 1950mm high	1	nr			
B	Double Pedestrian Gate; approx overall ope size; 2200 x1950mm high	1	nr			

					€	c
	(30) SITE ENCLOSURES - ENTRANCE WALL (Cont)					
	FLOOR, WALL & CEILING FINISHES					
	In-Situ Finishes					
	White dash render; Description: External render; Substrate: Concrete blockwork; Preparation: as per Architect's Specification; Cement; Type: Ready-to-use mortar or ready-mixed lime:sand; Pigment: Not required; Undercoats; Mix (cement:lime:sand): 1:1:5-6 (where final coat trowelled); Cement type: Contractor's choice; Thickness (excluding dubbing out and keys): First coat 8-12 mm (exclusive of keys) and second coat 6-10 mm; Final coat; Mix (cement:lime:sand): 1:0.5:4-4.5; Cement type: White Portland; Other requirements: Screen sand through 3 mm mesh sieve; Thickness: 6#8 mm; Finish: Varies. Combination of Nap & smooth, - Refer to elevation drawings. Sample panels to be erected on site for Architect's approval; Accessories: Stainless steel beads and Alkaline resistance render mesh to all corners to opes; As per Architect's specification					
	Walls					
A	Exceeding 300mm wide; to blockwork	161	m2			
B	Not exceeding 300mm wide; to blockwork piers	132	m			
	BEADS/STOPS FOR EXTERNAL USE; Material: to be confirmed; fixed in strict accordance with the Architect's Drawings and Specification					
	Sundries					
C	External Corner Beads at openings; Horizontal	66	m			
D	External Corner Beads at openings; Vertical	132	m			
E	Stop Beads; Horizontal	66	m			
F	Stop Beads; Vertical	132	m			
G	Stop Bead fixed to base of render at ground in accordance with manufacturers instructions	66	m			
	PAINTING AND DECORATING					
	Painting					
	Exterior paint; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Primer: to be confirmed or equivalent to Architect#s approval; Number of coats: to be confirmed; Colour: Refer to Elevations Drawing; as per Architect's Drawing's and Specification					
	Walls					
H	Exceeding 300mm wide; to render	161	m2			
J	Not exceeding 300mm wide; to blockwork piers	132	m			

					€	c
	(30) SITE ENCLOSURES - ENTRANCE WALL (Cont)					
	DRAINAGE					
	Below Ground					
	Pea Gravel fill bed and surround; granular side and fill cover to be placed uniformly on either side of the pipe in layers not exceeding 150mm, each layer being compacted by hand and tamping until the pipe has a minimum 150mm compacted cover; as per Engineer's Drawings DG0010-01 & Specification					
	Beds and Surround					
A	450 x 450mm to 150mm diameter pipe	33	m			
	Pipework; land drain pipe					
	Pipes; perforated; PVC SN8 pipework and fittings; as per Engineer's Drawings & Specification					
B	150mm diameter; include for geotextile cloth wrapping for protection	33	m			
				To Collection €		

				€	c
(30) SITE ENCLOSURES - ENTRANCE WALL (Cont)					
COLLECTION					
Page No. Siteworks/62					
Page No. Siteworks/63					
Page No. Siteworks/64					
Page No. Siteworks/65					
Page No. Siteworks/66					
Page No. Siteworks/67					
Page No. Siteworks/68					
Page No. Siteworks/69					
(30) SITE ENCLOSURES - ENTRANCE WALL **Carried to Summary**					

					€	c
	(30) SITE ENCLOSURES - RETAINING WALL					
	EXCAVATION AND EARTHWORK					
	General Information					
	Information					
A	The contractor should consult with the Architect and must visit the site to ascertain the extent of the works involved under this section. No variations will be approved for works that ought to have been apparent to the contractor after a site inspection and review of the Architects drawings and specifications		note			
B	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		note			
	Excavation					
	Excavation					
	Foundation Trenches					
C	Depth between not exceeding 2.00m	47	m3			
D	Depth between 4.00 - 6.00m	795	m3			
	Soft spots					
E	Depth between not exceeding 2.00m	3	m3			
F	Depth between 4.00 - 6.00m	40	m3			
	Extra on Excavation Items for:					
	Below Ground Water Level					
G	Generally	169	m2			
	Breaking up existing					
H	Rock; include for all necessary trimming	545	m3			
	Working Space					
	Foundations					
J	Depth between not exceeding 2.00m; backfilling trenches with clause 804 hardcore compliant with SR21 Annex E	85	m2			
K	Depth between 4.00 - 6.00m; backfilling trenches with clause 804 hardcore compliant with SR21 Annex E	193	m2			

To Collection €

					€	c
	(30) SITE ENCLOSURES - RETAINING WALL (Cont)					
	Disposal					
	Water					
A	Surface	1	item			
B	Ground	1	item			
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
C	Disposal On-site	265	m3			
D	Disposal Off-site	577	m3			
E	Disposal Off-site; for soft spots	43	m3			
	Filling with hardcore to be obtained off-site; Clause 804 crushed stone well compacted on firm clean formation; compliant with TII Publications series 800, free from pyrite and macarsite as per Engineer's specification					
	To make up levels					
F	Average thickness exceeding 250mm	234	m3			
	Filling with material to be obtained on-site; as per Engineer's Specification; compacted as per Engineer's Specification					
	To excavations					
G	Average thickness exceeding 250mm	265	m3			
	Surface treatments					
	Levelling and compacting; bottom of excavations					
H	Horizontal	145	m2			
	CONCRETE WORK					
	In-situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
J	Size 150 x 150 x 150mm	27	nr			
				To Collection €		

	(30) SITE ENCLOSURES - RETAINING WALL (Cont)					
	Grade C12/15					
	Bulk filling to soft spots					
A	Generally; poured on or against earth or unblinded hardcore	43	m3			
	Blinding					
B	Generally; poured on or against earth or unblinded hardcore	8	m3			
	In-situ Concrete; Reinforced					
	Grade C30/37					
	Foundations					
C	Generally; Reinforced	55	m3			
	Walls					
D	Generally; Reinforced	68	m3			
	Reinforcement					
	Bar reinforcement; hot rolled deformed high yield steel; must be free of loose millscale and thoroughly cleaned to remove all loose rust, oil, grease or other harmful matter prior to being placed in position with and including all necessary laps, spacers, chairs and tying wire; all in strict accordance with the Engineers Drawings and Specification					
	Bar; straight or bent					
E	Nominal size not exceeding 12mm diameter	7.38	t			
F	Nominal size 12mm - 25mm diameter	11.07	t			
	Fabric					
	A393 mesh reinforcement; 350mm laps; 350mm end laps; all in strict accordance with the Engineers Drawings and Specification					
G	Horizontal	289	m2			
	Surface Finishes					
	Trowelling					
H	Generally; insitu concrete staircases and landings	20	m2			

To Collection €

					€	c
	(30) SITE ENCLOSURES - RETAINING WALL (Cont)					
	Formwork					
	Formwork Generally					
	Sides of foundations					
A	Height or width 250 - 500mm	140	m			
	Kickers					
B	Walls	70	m			
	Walls					
C	Vertical; Retaining Wall	413	m2			
	METALWORK					
	Non-Structural					
	Specialist uPVC coated galvanised steel fencing; Height: 900mm; Fixed Frame: 50 x 6mm steel flat fixed with counter-sunk steel fixings; Balluster: 15mm diameter round steels at 115mm centres; Treatment: Hot dip galvanized; Finish: Synthapulvin or equivalent uPVC coating - anthracite in colour; Method of fixing: Fixed with galvized anchors to block rising wall to engineers design; As per Architects Specification and drawing TD-005 and Engineers Drawing C-100					
	Composite Items; Railing					
D	Railing; 1100mm high	41	m			
	FLOOR, WALL & CEILING FINISHES					
	In-Situ Finishes					
	White dash render; Description: External render; Substrate: Concrete blockwork; Preparation: as per Architect's Specification; Cement; Type: Ready-to-use mortar or ready-mixed lime:sand; Pigment: Not required; Undercoats; Mix (cement:lime:sand): 1:1:5-6 (where final coat trowelled); Cement type: Contractor's choice; Thickness (excluding dubbing out and keys): First coat 8-12 mm (exclusive of keys) and second coat 6-10 mm; Final coat; Mix (cement:lime:sand): 1:0.5:4-4.5; Cement type: White Portland; Other requirements: Screen sand through 3 mm mesh sieve; Thickness: 6#8 mm; Finish: Varies. Combination of Nap & smooth, - Refer to elevation drawings. Sample panels to be erected on site for Architect's approval; Accessories: Stainless steel beads and Alkaline resistance render mesh to all corners to opes; As per Architect's specification					
	Walls					
E	Exceeding 300mm wide; to blockwork	187	m2			

					€	c
	(30) SITE ENCLOSURES - RETAINING WALL (Cont)					
	BEADS/STOPS FOR EXTERNAL USE; Material: to be confirmed; fixed in strict accordance with the Architect's Drawings and Specification					
	Sundries					
A	External Corner Beads at openings; Horizontal	82	m			
B	External Corner Beads at openings; Vertical	36	m			
C	Stop Beads; Horizontal	82	m			
D	Stop Beads; Vertical	36	m			
E	Stop Bead fixed to base of render at ground in accordance with manufacturers instructions	82	m			
	PAINTING AND DECORATING					
	Painting					
	Exterior paint; Manufacturer: to be confirmed; Product reference: to be confirmed or equivalent to Architects approval; Primer: to be confirmed or equivalent to Architect#s approval; Number of coats: to be confirmed; Colour: Refer to Elevations Drawing; as per Architect's Drawing's and Specification					
	Walls					
F	Exceeding 300mm wide; to render	187	m2			
	DRAINAGE					
	Below Ground					
	Pea Gravel fill bed and surround; granular side and fill cover to be placed uniformly on either side of the pipe in layers not exceeding 150mm, each layer being compacted by hand and tamping until the pipe has a minimum 150mm compacted cover; as per Engineer's Drawings DG0010-01 & Specification					
	Beds and Surround					
G	450 x 450mm to 150mm diameter pipe	70	m			
	Pipework; land drain pipe					
	Pipes; perforated; PVC SN8 pipework and fittings; as per Engineer's Drawings & Specification					
H	150mm diameter; include for geotextile cloth wrapping for protection	70	m			

				€	c
(30) SITE ENCLOSURES - RETAINING WALL (Cont)					
COLLECTION					
Page No. Siteworks/71					
Page No. Siteworks/72					
Page No. Siteworks/73					
Page No. Siteworks/74					
Page No. Siteworks/75					
(30) SITE ENCLOSURES - RETAINING WALL **Carried to Summary**					

					€	c
	(40) ROADS, PATHS, PAVINGS - ACCESS ROAD AND CAR PARKING					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Filling with hardcore to be obtained off-site; sub-base material shall comply with clause 808; depositing in 150mm layers maximum thickness; compacting; compliant with Annex E of SR 21, free from pyrite and macarsite as per Engineer's specification					
	To make up levels					
A	Average thickness exceeding 250mm	104	m3			
	Filling with granular fill material to be obtained off-site; Class 6F2 compliant with TII Publications series 600, free from pyrite and macarsite; depositing in 150mm layers maximum thickness; compacting; as per Engineers Drawings and Specification and Drawing					
	To make up levels					
B	Average thickness exceeding 250mm	92	m3			
	Surface treatments					
	Levelling and compacting; blinding with quarry dust					
C	Horizontal; 50mm thick; to hardcore	460	m2			
	SURFACE PAVING, FENCING AND LANDSCAPING					
	In-situ Surface Pavings					
	Road Surfacing; 40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and Drawing C400					
	Roads, on blinded hardcore base					
D	160mm thick; three coat work; to falls and cross falls	460	m2			
E	Extra over for forming joint to existing finishes; edges of existing carriageway to be cut back by 500mm with a rotary saw to form a vertical face and primed in accordance with TII 900 Series; include for planing existing finishes where required; where the roadbase is to be laid in two layers, the upper layer of the roadbase should be stepped into the existing pavement by a minimum of 1000mm, with the basecourse and wearing course to be each stepped in a further 1000mm minimum respectively; include for regulating course; include for neat bitumen pour joint between new and existing; as per Engineer's Drawing & Specification	4	m			
				To Collection €		

					€	c
	(40) ROADS, PATHS, PAVINGS - ACCESS ROAD AND CAR PARKING (Cont)					
	Sundries					
	Membrane to Engineer's Specification; Geotextile Terram T1000 or equivalent; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings C08					
A	Horizontal	460	m2			
	Line markings to Macadam surfaces to Architect's Specification; Prepare and apply two coats approved thermoplastic road marking paint; all in strict accordance with Road Safety Markings Association standard specification document for road markings and road studs (Stanspec) and Architect's Specification and Engineer's Drawing					
	Line marking					
B	RRM 001; Continuous Centre Line; 100mm Thick	16	m			
C	RRM 017; Stop Line; 200mm thick	7	m			
D	RRM 013; Perpendicular Parking Bay Markings; 100mm thick	75	m			
E	RRM 015; Disabled Persons' Parking Bay Symbol with buffer zone; 2500mm x 1200mm wide Symbol; 1200 wide buffer zone	1	nr			
F	Blue thermoplastic surfacing to disabled car parking bays	118	m2			
G	Green thermoplastic surfacing to EV car parking bays	188	m2			
	Letters and Figures					
H	M 114; Worded Stop Marking; 2800mm long	1	nr			
J	Electric Car parking Symbols	16	nr			
	Preformed Paving and Edging Units					
	Precast concrete kerb; 125mm wide x 250mm high; set in concrete haunching 300mm wide x 400mm deep, mix ST4; include for joints as per Engineer's requirements; include for all necessary haunching in lean mix concrete, as per Engineer's Specification					
	Kerbs; concrete foundation and haunching; formwork					
K	125 x 250mm deep concrete kerb	119	m			
L	Extra over for curved work	10	m			

					€	c
	(40) ROADS, PATHS, PAVINGS - ACCESS ROAD AND CAR PARKING (Cont)					
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up to verify that the hardcore material used on site complies with the chemical requirements in IS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
A	Generally	1	item			
	Contractor to allow for an on-site CBR Test. (See Engineers Specification)					
B	Generally	1	item			
				To Collection €		

				€	c
(40) ROADS, PATHS, PAVINGS - ACCESS ROAD AND CAR PARKING (Cont)					
COLLECTION					
Page No. Siteworks/77					
Page No. Siteworks/78					
Page No. Siteworks/79					
(40) ROADS, PATHS, PAVINGS - ACCESS ROAD AND CAR PARKING **Carried to Summary**					

					€	c
	(40) ROADS, PATHS, PAVINGS - POROUS ASPHALT PLAY AREA					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Filling with hardcore to be obtained off-site; 4/20mm crushed clean coarse graded aggregate to Engineer's Specification; depositing in 150mm layers maximum thickness; compacting					
	To make up levels					
A	Average thickness exceeding 250mm	107	m3			
	Filling with granular fill material to be obtained off-site; Class 6F2 compliant with TII Publications series 600, free from pyrite and macarsite; depositing in 150mm layers maximum thickness; compacting; as per Engineers Drawings and Specification and Drawing					
	To make up levels					
B	Average thickness exceeding 250mm	86	m3			
	Surface treatments					
	Levelling and compacting; blinding with quarry dust					
C	Horizontal; 50mm thick; to hardcore	428	m2			
	SURFACE PAVING, FENCING AND LANDSCAPING					
	In-situ Surface Pavings					
	Footpath Surfacing; 30mm thick clima-phalt surface course by Kilsaran or equivalent; laid on 60mm thick clima-phalt binder course by Kilsaran or equivalent; laid on 30mm thick 2/14mm choker course by Kilsaran or equivalent to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and Drawing C09					
	Footpath, on blinded hardcore base					
D	120mm thick; three coat work; to falls and cross falls	428	m2			
	Sundries					
	Membrane to Engineer's Specification; Permeable nonwoven thrace S13NW geotextile or equivalent; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings C08					
E	Horizontal	428	m2			

					€	c
	(40) ROADS, PATHS, PAVINGS - POROUS ASPHALT PLAY AREA (Cont)					
	Preformed Paving and Edging Units					
	Precast concrete pin kerb; 50mm wide x 150mm high; set in concrete haunching 300mm wide x 400mm deep, mix ST4; include for joints as per Engineer's requirements; include for all necessary haunching in lean mix concrete, as per Engineer's Specification					
	Kerbs; concrete foundation and haunching; formwork					
A	50mm wide x 150mm high concrete kerb	96	m			
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up to verify that the hardcore material used on site complies with the chemical requirements in IS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
B	Generally	1	item			
	Contractor to allow for an on-site CBR Test. (See Engineers Specification)					
C	Generally	1	item			
				To Collection €		

				€	c
(40) ROADS, PATHS, PAVINGS - POROUS ASPHALT PLAY AREA (Cont)					
COLLECTION					
Page No. Siteworks/81					
Page No. Siteworks/82					
(40) ROADS, PATHS, PAVINGS - POROUS ASPHALT PLAY AREA **Carried to Summary**					

					€	c
	(40) ROADS, PATHS, PAVINGS - TARMAC FOOTPATHS					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Filling with hardcore to be obtained off-site; sub-base material shall comply with clause 808; depositing in 150mm layers maximum thickness; compacting; compliant with Annex E of SR 21, free from pyrite and macarsite as per Engineer's specification					
	To make up levels					
A	Average thickness exceeding 250mm	174	m3			
	Filling with granular fill material to be obtained off-site; Class 6F2 compliant with TII Publications series 600, free from pyrite and macarsite; depositing in 150mm layers maximum thickness; compacting; as per Engineers Drawings and Specification and Drawing					
	To make up levels					
B	Average thickness exceeding 250mm	116	m3			
	Surface treatments					
	Levelling and compacting; blinding with quarry dust					
C	Horizontal; 50mm thick; to hardcore	578	m2			
	SURFACE PAVING, FENCING AND LANDSCAPING					
	In-situ Surface Pavings					
	Footpath Surfacing; 50mm thick asphalt concrete, 10mm nominal aggregate size, open surface, 70/100 binder type supplied in compliance with IS EN 13108, laid in accordance with BS594987 to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and Drawing C09					
	Footpath, on blinded hardcore base					
D	50mm thick; one coat work; to falls and cross falls	578	m2			
E	Extra over for forming joint to existing finishes; edges of existing footpath to be cut back by 500mm with a rotary saw to form a vertical face and primed in accordance with TII 900 Series; include for planing existing finishes where required; where the roadbase is to be laid in two layers, the upper layer of the roadbase should be stepped into the existing pavement by a minimum of 1000mm, with the basecourse and wearing course to be each stepped in a further 1000mm minimum respectively; include for regulating course; include for neat bitumen pour joint between new and existing; as per Engineer's Drawing & Specification	9	m			
				To Collection €		

					€	c
	(40) ROADS, PATHS, PAVINGS - TARMAC FOOTPATHS (Cont)					
	Sundries					
	Membrane to Engineer's Specification; Geotextile Terram T1000 or equivalent; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings C08					
A	Horizontal	578	m2			
	Preformed Paving and Edging Units					
	Precast concrete pin kerb; 50mm wide x 150mm high; set in concrete haunching 300mm wide x 400mm deep, mix ST4; include for joints as per Engineer's requirements; include for all necessary haunching in lean mix concrete, as per Engineer's Specification					
	Kerbs; concrete foundation and haunching; formwork					
B	50mm wide x 150mm high concrete kerb	410	m			
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up to verify that the hardcore material used on site complies with the chemical requirements in IS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
C	Generally	1	item			
	Contractor to allow for an on-site CBR Test. (See Engineers Specification)					
D	Generally	1	item			

				€	c
(40) ROADS, PATHS, PAVINGS - TARMAC FOOTPATHS (Cont)					
COLLECTION					
Page No. Siteworks/84					
Page No. Siteworks/85					
(40) ROADS, PATHS, PAVINGS - TARMAC FOOTPATHS **Carried to Summary**					

					€	c
	(40) ROADS, PATHS, PAVINGS - CONCRETE FOOTPATHS					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Filling with granular fill material to be obtained off-site; 'T2 Perm' in compliance with IS EN 13242 and SR21 2014 & A1 2016 installed and compacted in layers in accordance with IS888:2016; depositing in 150mm layers maximum thickness; compacting; As per Engineers Specification and Drawing					
	To make up levels					
A	Average thickness exceeding 250mm	64	m3			
	Surface treatments					
	Levelling and compacting; blinding with quarry dust					
B	Horizontal; 50mm thick; to hardcore	317	m2			
	CONCRETE WORK					
	In-situ concrete; plain; to IS EN 206					
	Grade C32/40; to Engineer's Specification					
	Paths; laid on compacted hardcore base					
C	Not exceeding 150mm thick	37	m3			
	Sundries					
	Sundries					
	Membrane to Engineer's Specification; Geotextile Terram T1000 or equivalent; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings C08					
D	Horizontal	317	m2			
	Design Joints					
	Predetermined construction joints in concrete					
E	Horizontal; 20mm wide filling with 2 Nr layers bituminous felt to IS34; 150mm depth; including formwork	64	m			
				To Collection €		

(40) ROADS, PATHS, PAVINGS - CONCRETE FOOTPATHS (Cont)

Surface Finishes

Brushed finish as per Architect's & Engineer's Specifications; floating with wooden trowel while still green then lightly brushed with a brass broom to produce the required surface texture

A	Grading to falls	317	m2		

Trowelled finish to margins; all labours

B	100mm wide	289	m		

SURFACE PAVING, FENCING AND LANDSCAPING

Preformed Paving and Edging Units

CONVENTIONAL CONCRETE BLOCK PAVING TACTILE PAVING AT THE ROAD CROSSINGS; Granular sub-base: To the engineer's specification for public footpaths; Thickness: To the engineer's specification; Geotextile: To the engineer's specification; Manufacturer: Contractor's choice. Submit proposals; Product reference: Square350mm x 350xx square (approx.) pink-red coloured, tactile pavement with raised nipples which indicate to people with visual impairment that a road crossing lies ahead; Laying course: Material: To the engineer's specification; Category: To the engineer's specification; To the engineer's specification; Nominal thickness after compaction: To the engineer's specification; Blocks: To the engineer's specification; Manufacturer: Contractor's choice. Submit proposals; Product reference: Contractor's choice. Submit proposals; Sizes: Approx. 350mm x 350mm, square in shape; Special blocks: Edgings; Colour/ Finish: Pink-red; Recycled content: Contractor's choice; Jointing: Material: To the engineer's specification; Joint width: 2-5 mm; Sealer/ Stabilizer: Not required; Setting out: Bond: Running; Features: Mortar bedded edge restraint; Refer to architectural drawing for the proposed location and extent; As per Architects Specification

Pavings; cast into concrete footpath / paving

C	50mm thick; to falls and crossfalls	32	m2		

Precast concrete pin kerb; 50mm wide x 150mm high; set in concrete haunching 300mm wide x 400mm deep, mix ST4; include for joints as per Engineer's requirements; include for all necessary haunching in lean mix concrete, as per Engineer's Specification

Kerbs; concrete foundation and haunching; formwork

D	50mm wide x 150mm high concrete kerb	289	m		

					€	c
	(40) ROADS, PATHS, PAVINGS - CONCRETE FOOTPATHS (Cont)					
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up to verify that the hardcore material used on site complies with the chemical requirements in IS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
A	Generally	1	item			
	Contractor to allow for an on-site CBR Test. (See Engineers Specification)					
B	Generally	1	item			
				To Collection €		

				€	c
(40) ROADS, PATHS, PAVINGS - CONCRETE FOOTPATHS (Cont)					
COLLECTION					
Page No. Siteworks/87					
Page No. Siteworks/88					
Page No. Siteworks/89					
(40) ROADS, PATHS, PAVINGS - CONCRETE FOOTPATHS **Carried to Summary**					

					€	c
	(40) ROADS, PATHS, PAVINGS - PAVING					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Filling with hardcore to be obtained off-site; 6mm aggregrate laying course depositing in 50mm layers maximum thickness; compacting; As per Engineers Specification and Drawing					
	To make up levels					
A	Average thickness not exceeding 250mm	5	m3			
	Filling with hardcore to be obtained off-site; 4/20mm coarse graded aggregrate; depositing in 150mm layers maximum thickness; compacting; As per Engineers Specification and Drawing					
	To make up levels					
B	Average thickness exceeding 250mm	30	m3			
	Surface treatments					
	Levelling and compacting; blinding with quarry dust					
C	Horizontal; 50mm thick; to hardcore	84	m2			
	SURFACE PAVING, FENCING AND LANDSCAPING					
	Preformed Paving and Edging Units					
	Conventional concrete block paving; Description: To footpaths; Subgrade improvement layer: per Engineers' Spec; Compacted thickness: per Engineers' Spec; Geotextile: per Engineers' Spec; Manufacturer: per Engineers' Spec; Product reference: per Engineers' Spec; Granular sub-base: per Engineers' Spec; Compacted thickness: per Engineers' Spec; Laying course; Material: In accordance with architects specification; Category: per Engineers' Spec; Method of screeding, in accordance with BS 7533-3: per Engineers' Spec; Nominal thickness after compaction: per Engineers' Spec; Blocks: To architects specification; Manufacturer: Acheson Glover or equivalent; Product reference: Plaza Paving flags - or equivalent to Architect#s approval; Sizes: 200 x 150 x 60 mm and 300 x 150 x60mm; Special blocks: - Channels;- Edgings; and- Kerbs; Arrises: No requirement; Colour/ Finish: Salt with pepper bands and perimeter blocks; Recycled content: 5% (minimum) to BS EN ISO 14021; Requirements: N/A; Freeze/ thaw resistance: Class 1; Abrasion resistance: Class 1; Slip/ Skid resistance: PTV to BS 7976-2 of 45; Jointing; Material: In accordance with architects specification; Joint width: 2-5 mm; Sealer/ Stabilizer: Required; Setting out; Bond: Stretcher; Features: Mortar bedded edge restraint; Accessories: None; as per Architects Drawing and Specification and Engineers Drawing C400					
	Paving					
D	Exceeding 300mm wide; 60mm thick	84	m2			

					€	c
	(40) ROADS, PATHS, PAVINGS - PAVING (Cont)					
	Sundries					
	Membrane to Engineer's Specification; Geotextile Terram T1000 or equivalent; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings C08					
A	Horizontal	84	m2			
	Membrane to Engineer's Specification; Nonwoven Thrace S13NW Geotextile or equivalent; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings C400					
B	Horizontal	84	m2			
	Precast concrete pin kerb; 50mm wide x 150mm high; set in concrete haunching 300mm wide x 400mm deep, mix ST4; include for joints as per Engineer's requirements; include for all necessary haunching in lean mix concrete, as per Engineer's Specification					
	Kerbs; concrete foundation and haunching; formwork					
C	50mm wide x 150mm high concrete kerb	53	m			
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up to verify that the hardcore material used on site complies with the chemical requirements in IS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
D	Generally	1	item			
	Contractor to allow for an on-site CBR Test. (See Engineers Specification)					
E	Generally	1	item			

				€	c
(40) ROADS, PATHS, PAVINGS - PAVING (Cont)					
COLLECTION					
Page No. Siteworks/91					
Page No. Siteworks/92					
(40) ROADS, PATHS, PAVINGS - PAVING **Carried to Summary**					

					€	c
	(40) ROADS, PATHS, PAVINGS - WET POUR SOFT PLAY AREA					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Filling with hardcore to be obtained off-site; sub-base material shall comply with clause 808; depositing in 150mm layers maximum thickness; compacting; compliant with Annex E of SR 21, free from pyrite and macarsite as per Engineer's specification					
	To make up levels					
A	Average thickness exceeding 250mm	43	m3			
	Filling with granular fill material to be obtained off-site; Class 6F2 compliant with TII Publications series 600, free from pyrite and macarsite; depositing in 150mm layers maximum thickness; compacting; as per Engineers Drawings and Specification and Drawing					
	To make up levels					
B	Average thickness exceeding 250mm	29	m3			
	Surface treatments					
	Levelling and compacting; blinding with quarry dust					
C	Horizontal; 50mm thick; to hardcore	143	m2			
	SURFACE PAVING, FENCING AND LANDSCAPING					
	In-situ Surface Pavings					
	Asphalt Concrete Surfacing to Engineer's Specification; 50mm thick asphalt concrete, 10mm nominal aggregate size, open surface, 70/100 binder type supplied in compliance with IS EN 13108, laid in accordance with BS594987 to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and Drawing					
	Play surface, on blinded hardcore base					
D	50mm thick; one coat work; to falls and cross falls	143	m2			

					€	c
	(40) ROADS, PATHS, PAVINGS - WET POUR SOFT PLAY AREA (Cont)					
	IN SITU SYNTHETIC SURFACING; Surface course: 18mm Wet pour, in situ laid polyurethane bound EPDM rubber crumb surface; Base: SBR Rubber Granule Base; Thickness: 82 mm; Colour: Blue / Green / Red; Critical fall height: 2.6 m; Health and safety: Substance known to be toxic or carcinogenic on skin contact or released as vapour or dust during normal use: Not permitted; Submit: Resistance to abrasive wear, slip resistance, resistance to indentation and ease of ignition; As per Architects Specification and Drawing and Engineers Drawing					
	Play surface, on blinded hardcore base					
A	100mm thick; two coat work; to falls and cross falls	143	m2			
	Sundries					
	Membrane to Engineer's Specification; Geotextile Terram T1000 or equivalent; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings C08					
B	Horizontal	143	m2			
	Preformed Paving and Edging Units					
	Precast concrete pin kerb; 50mm wide x 150mm high; set in concrete haunching 300mm wide x 400mm deep, mix ST4; include for joints as per Engineer's requirements; include for all necessary haunching in lean mix concrete, as per Engineer's Specification					
	Kerbs; concrete foundation and haunching; formwork					
C	50mm wide x 150mm high concrete kerb	50	m			
D	Extra over for curved work	17	m			
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up to verify that the hardcore material used on site complies with the chemical requirements in IS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
E	Generally	1	item			
	Contractor to allow for an on-site CBR Test. (See Engineers Specification)					
F	Generally	1	item			
				To Collection €		

				€	c
(40) ROADS, PATHS, PAVINGS - WET POUR SOFT PLAY AREA (Cont)					
COLLECTION					
Page No. Siteworks/94					
Page No. Siteworks/95					
(40) ROADS, PATHS, PAVINGS - WET POUR SOFT PLAY AREA **Carried to Summary**					

					€	c
	(40) ROADS, PATHS, PAVINGS - SET DOWN AREA					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Filling with hardcore to be obtained off-site; sub-base material shall comply with clause 808; depositing in 150mm layers maximum thickness; compacting; compliant with Annex E of SR 21, free from pyrite and macarsite as per Engineer's specification					
	To make up levels					
A	Average thickness exceeding 250mm	37	m3			
	Filling with granular fill material to be obtained off-site; Class 6F2 compliant with TII Publications series 600, free from pyrite and macarsite; depositing in 150mm layers maximum thickness; compacting; as per Engineers Drawings and Specification and Drawing					
	To make up levels					
B	Average thickness exceeding 250mm	33	m3			
	Surface treatments					
	Levelling and compacting; blinding with quarry dust					
C	Horizontal; 50mm thick; to hardcore	163	m2			

					€	c
	(40) ROADS, PATHS, PAVINGS - SET DOWN AREA (Cont)					
	SURFACE PAVING, FENCING AND LANDSCAPING					
	Preformed Paving and Edging Units					
	Conventional concrete block paving; Description: To footpaths; Subgrade improvement layer: per Engineers' Spec; Compacted thickness: per Engineers' Spec; Geotextile: per Engineers' Spec; Manufacturer: per Engineers' Spec; Product reference: per Engineers' Spec; Granular sub-base: per Engineers' Spec; Compacted thickness: per Engineers' Spec; Laying course; Material: In accordance with architects specification; Category: per Engineers' Spec; Method of screeding, in accordance with BS 7533-3: per Engineers' Spec; Nominal thickness after compaction: per Engineers' Spec; Blocks: To architects specification; Manufacturer: Acheson Glover or equivalent; Product reference: Plaza Paving flags - or equivalent to Architect#s approval; Sizes: 200 x 150 x 60 mm and 300 x 150 x60mm; Special blocks: - Channels;- Edgings; and- Kerbs; Arrises: No requirement; Colour/ Finish: Salt with pepper bands and perimeter blocks; Recycled content: 5% (minimum) to BS EN ISO 14021; Requirements: N/A; Freeze/ thaw resistance: Class 1; Abrasion resistance: Class 1; Slip/ Skid resistance: PTV to BS 7976-2 of 45; Jointing; Material: In accordance with architects specification; Joint width: 2-5 mm; Sealer/ Stabilizer: Required; Setting out; Bond: Stretcher; Features: Mortar bedded edge restraint; Accessories: None; as per Architects Drawing and Specification and Engineers Drawing C400					
	Paving					
A	Exceeding 300mm wide; 60mm thick	163	m2			
	Sundries					
	Membrane to Engineer's Specification; Geotextile Terram T1000 or equivalent; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings C08					
B	Horizontal	163	m2			
	Precast concrete kerb; 125mm wide x 250mm high; set in concrete haunching 300mm wide x 400mm deep, mix ST4; include for joints as per Engineer's requirements; include for all necessary haunching in lean mix concrete, as per Engineer's Specification					
	Kerbs; concrete foundation and haunching; formwork					
C	125 x 250mm deep concrete kerb	82	m			

					€	c
	(40) ROADS, PATHS, PAVINGS - SET DOWN AREA (Cont)					
	MISCELLANEOUS WORKS					
	Contractor to allow for an independent tester to undertake pyrite tests of the stone material to be used in the hardcore build up to verify that the hardcore material used on site complies with the chemical requirements in IS EN 13242 & S.R. 21 Annex E (The percentage of Total Sulphur content in hardcore shall be limited in accordance with S.R. 21). Hardcore material to be stockpiled on site and a composite sample taken. Hardcore is not to be placed prior to the testing of the site material to be used. (See Engineers Specification)					
A	Generally	1	item			
	Contractor to allow for an on-site CBR Test. (See Engineers Specification)					
B	Generally	1	item			
				To Collection €		

				€	c
(40) ROADS, PATHS, PAVINGS - SET DOWN AREA (Cont)					
COLLECTION					
Page No. Siteworks/97					
Page No. Siteworks/98					
Page No. Siteworks/99					
(40) ROADS, PATHS, PAVINGS - SET DOWN AREA **Carried to Summary**					

					€	c
	(40) ROADS, PATHS, PAVINGS - STEPS & TIERED SEATING					
	EXCAVATION AND EARTHWORK					
	General Information					
	Information					
A	The contractor should consult with the Architect and must visit the site to ascertain the extent of the works involved under this section. No variations will be approved for works that ought to have been apparent to the contractor after a site inspection and review of the Architects drawings and specifications	1	note			
B	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.	1	note			
	Excavation					
	Excavation					
	Foundation Trenches					
C	Depth not excedding 2.00m	5	m3			
	Soft spots					
D	Depth not excedding 2.00m	1	m3			
	Extra on Excavation Items for:					
	Below Ground Water Level					
E	Generally	1	m2			
	Working Space					
	Foundations					
F	Depth not excedding 2.00m; backfilling trenches with clause 804 hardcore compliant with SR21 Annex E	11	m2			
	Disposal					
	Water					
G	Surface	1	item			
H	Ground	1	item			
				To Collection €		

	(40) ROADS, PATHS, PAVINGS - STEPS & TIERED SEATING (Cont)					
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
A	Disposal Off-site	5	m3			
B	Disposal Off-site; for soft spots	1	m3			
	Filling with hardcore to be obtained off-site; sub-base material shall comply with clause 808; depositing in 150mm layers maximum thickness; compacting; compliant with Annex E of SR 21, free from pyrite and macarsite as per Engineer's specification					
	To make up levels					
C	Average thickness exceeding 250mm	12	m3			
	To excavations					
D	Average thickness exceeding 250mm	1	m3			
	Surface treatments					
	Levelling and compacting; blinding with quarry screenings					
E	Horizontal; 50mm thick; to hardcore	53	m2			
	CONCRETE WORK					
	In-Situ Concrete					
	Concrete cubes for testing					
	Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification					
F	Size 150 x 150 x 150mm	5	nr			
	Grade C12/15					
	Bulk filling to soft spots					
G	Generally; poured on or against earth or unblinded hardcore	1	m3			
	Blinding					
H	Generally; poured on or against earth or unblinded hardcore	10	m3			

To Collection €

					€	c
	(40) ROADS, PATHS, PAVINGS - STEPS & TIERED SEATING (Cont)					
	Grade C30/37					
	Foundations					
A	Generally; Reinforced	2	m3			
	Grade C32/40					
	Staircases					
B	Staircases to include all flights and landings; reinforced; poured against formwork (to achieve Plain formed finish); all in accordance with the Engineer's Drawings and Specification	11	m3			
	Tiered Seating					
C	Tiered Seating; reinforced; poured against formwork (to achieve Plain formed finish); all in accordance with the Engineer's Drawings and Specification	6	m3			
	Sundries in In-Situ Concrete					
	Designed Joints					
	All designed joints at the discretion of the Main Contractor					
D	Width/ depth not exceeding 150mm	1	item			
	Surface Finishes					
	Trowelling					
E	Generally; insitu concrete staircases and landings	54	m2			
	Reinforcement					
	Fabric					
	Reference A393; 350mm side laps; 350mm end laps					
F	Horizontal	53	m2			
	Formwork					
	Formwork Generally					
	Sides of foundations					
G	Height or width 250 - 500mm	10	m			

To Collection €

(40) ROADS, PATHS, PAVINGS - STEPS & TIERED SEATING (Cont)

Formwork; to achieve Plain formed finish as specified in the Structural Engineer's Specification

Stairflights

A	Stairflights; Stair, 1810mm wide; 150mm waist; 315mm threads; 7Nr risers - 164mm high; edges abutting/ set into wall 1nr side; complete; all as per Architect's Drawing & Engineers Drawing and Specification	2	m		
B	Stairflights; Stair, 1610mm wide; 150mm waist; 315mm threads; 6Nr risers - 168mm high; edges abutting/ set into wall 1nr side; complete; all as per Architect's Drawing & Engineers Drawing and Specification	2	m		
C	Stairflights; Stair, 1610mm wide; 150mm waist; 315mm threads; 6Nr risers - 168mm high; edges abutting/ set into wall 1nr side; complete; all as per Architect's Drawing & Engineers Drawing and Specification	3	m		
D	Stairflights; Stair, 1610mm wide; 150mm waist; 315mm threads; 6Nr risers - 168mm high; edges abutting/ set into wall 1nr side; complete; all as per Architect's Drawing & Engineers Drawing and Specification	5	m		
E	Stairflights; Stair, 2000mm wide; 150mm waist; 315mm threads; 5Nr risers - 165mm high; edges abutting/ set into wall 1nr side; complete; all as per Architect's Drawing & Engineers Drawing and Specification	5	m		
F	Stairflights; Stair, 2000mm wide; 150mm waist; 350mm threads; 5Nr risers - 165mm high; edges abutting/ set into wall 1nr side; complete; all as per Architect's Drawing & Engineers Drawing and Specification	5	m		
G	Stairflights; Stair, 4030mm wide; 150mm waist; 300mm threads; 6Nr risers - 175mm high; edges abutting/ set into wall 1nr side; complete; all as per Architect's Drawing & Engineers Drawing and Specification	5	m		
H	Tiered Seating; 3560mm wide; 150mm waist; 720mm threads; 2Nr risers - 800mm high; edges abutting/ set into wall 1nr side; complete; all as per Architect's Drawing & Engineers Drawing and Specification	5	m		

Extra on any of the foregoing formwork categories for:

J	Recesses; all treads to have a cast in recess to accommodate 50 x 6mm contrasting delineation strip	15	m		

To Collection €

(40) ROADS, PATHS, PAVINGS - STEPS & TIERED SEATING (Cont)

BRICKWORK AND BLOCKWORK

Blockwork

CONCRETE COMMON BLOCKWORK; Blocks: To IS EN 771-3:2011; Manufacturer: Contractor's choice. Refer also the Engineer's specification; Configuration: Solid; Compressive strength: Mean value: 13.5N/mm2; Characteristic value: Refer to the Structural Engineer's specfication; Category: Refer to the Structural Engineer's specfication; Freeze/ Thaw resistance: Refer to the Structural Engineer's specfication; Work sizes (length x width x height): 440 x 100 x 215mm; Special shapes: As shown on drawings; Additional requirements: The contractor will provide certification that the blocks have been tested in accordance with the test requirements specified by the structural engineer.; Mortar: To IS EN 998-2 2016; Mix: For jointing mortar: 1:3 masonry cement:sand with lime content to be determined by the Engineer; Bond: Half lap stretcher; to Architect's Drawings and Specification

Walls in trenches

A	215mm thick	2	m2			

Labours

B	On blockwork	1	item			

METALWORK

Non-Structural

Purpose-made balustrades; Description: Externally; Component material, grade and finish as delivered; Guarding: Galvanized Low carbon steel; Handrails: 50mm dia. soild Oak and recess in base for steel support plate with 10x25mm continuous galvanized steel flat bar support; 48mm diameter CHS support uprights with welded top plate and 15mm dia solid steel upright welded to handrail support plate; All steel to be galvanished and painted; uprights to be cast into concrete steps ;Workmanship; Joinery: To section Z10; Metalwork: To section Z11; Other requirements: None; As per Architects Specification L30 515

Composite Items; Handrails, Complete

C	Raking; to concrete base; fixed 900mm high above FFL	36	m			
D	Horizontal; to concrete base; fixed 900mm high above FFL	15	m			
E	Extra over handrails for Ends; handrail to extend 300mm beyond last step and turn down 150mm	22	nr			
F	Extra over handrails for Bends	30	nr			

To Collection €

					€	c
	(40) ROADS, PATHS, PAVINGS - STEPS & TIERED SEATING (Cont)					
	PAINTING AND DECORATING					
	Painting					
	Paint to external mild steel guard rails and handrails to Architect's Specification; preparation: rub down and make sure free from grease and dirt; 3 coats Gloss paint to colour selected by Architect; all in accordance with Architect's Drawings and Specification					
	Balustrades					
A	Exceeding 300mm wide	90	m2			
	Decorative woodstain/ varnish/ preservative; Description: External; Manufacturer: Crown Trade, product of Crown Paints Ltd or equivalent; Product reference: Translucent Woodstain or equivalent to Architect#s approval; Colour: Teak to approved sample and from at least a range of 4 to choose from. As standard; Finish: Semi-gloss; Composition: Pigment: Coloured pigments. Resin: Alkyd; Solvent: Dearomatised white spirit. Drying time: Recoatable after 16-24 hours under normal drying conditions; Coverage: Up to 15 m2/ litre on smooth surfaces; Wet film thickness: 66 micrometres at 15 m2/l; Dry film thickness: 29 micrometres at 15 m2/l; VOC Content: EU limit value for this product (cat A/e): 400 g/l (2010). This product contains max. 399 g/l VOC.; all as per Architects Drawings 4004 and Specification M60 106A					
	Handrails					
B	Not exceeding 300mm wide	50	m			

				€	c
(40) ROADS, PATHS, PAVINGS - STEPS & TIERED SEATING (Cont)					
COLLECTION					
Page No. Siteworks/101					
Page No. Siteworks/102					
Page No. Siteworks/103					
Page No. Siteworks/104					
Page No. Siteworks/105					
Page No. Siteworks/106					
(40) ROADS, PATHS, PAVINGS - STEPS & TIERED SEATING **Carried to Summary**					

					€	c
	(50) SITE SERVICES - STORM DRAINAGE					
	DRAINAGE					
	General Information					
	Information					
A	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		Note			
B	Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification		Note			
	Drainage Below Ground - Storm Water					
	Excavation					
	Excavating trenches to receive pipes / ducts not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported selected fill material free from stones larger than 40mm, lumps of clay over 100mm, timber, frozen material and vegetable matter; approved by the Engineer; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations; as per Engineer's Drawing					
C	Average Depth 500 - 1000mm	161	m			
D	Average Depth 1000 - 1500mm	129	m			
E	Average Depth 1500 - 2000mm	17	m			
F	Average Depth 2000 - 2500mm	14	m			
G	Average Depth 2500 - 3000mm	41	m			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	Extra over excavating trenches irrespective of depth					
	Breaking up & Reinstating					
A	Breaking out existing roadway and associated make-up (585mm total); saw cutting surface; include for reinstating road surfacing and all associated hardcore makeup;40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and to TII Publications clause 910, laid on 225mm deep clause 808 stone sub-base; laid on 200mm 6F2 capping layer; include for fair jointing to fair edges; include for breaking out and reinstating all kerbing required; disposal of excavated material off site; all in accordance with the Engineer's Specification	6	m			
B	Breaking out footpath; saw cutting surface; include for reinstating surfacing to match existing including T3 prem sub base material where necessary; fair jointing to fair edges; disposal of excavated material off site; include for replacing associated concrete kerbs; all to satisfaction of Engineers Specification & Drawings	94	m			
C	Excavating existing grass and making good to match existing after excavation and drainage runs have been laid	39	m			
D	Rock Excavation; 500mm deep	17	m			
E	Rock Excavation; 1000mm deep	14	m			
F	Rock Excavation; 1500mm deep	41	m			
	Disposal					
G	Ground water	1	item			
H	Surface water	1	item			
	Granular fill bed and surround; 14mm or 5mm graded aggregate or 10mm single sized aggregate; complying with the requirements of the Engineer's Specification; compaction factor value not greater than 0.2 when measured in accordance with Engineer's Specification; well compacted; as per Engineer's Drawings & Specification					
	Beds and Surround					
J	600 x 650mm to 150mm diameter pipe	71	m			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	Plain in-situ concrete bed and surround; minimum 150mm bed; Class C20/25; leanmix concrete backfill; as per Engineer's Drawing					
	Beds and Surrounds					
A	332 x 332mm to 32mm diameter pipe	128	m			
B	400 x 400mm to 100mm diameter pipe	33	m			
C	450 x 450mm to 150mm diameter pipe	129	m			
	PVC marker tape "Heptape" or equivalent					
D	Continuous strip laid during trench backfill, 100mm above pipework	360	m			
	Pipe; PVC SN8 pipework and fittings; to Engineer's Specification					
	Pipes; loose couplers and ceiling ring joints in the running length					
E	32mm diameter	128	m			
	Extra over pipework runs for					
F	Easy sweep bends	4	nr			
G	connection to rainwater harvesting tank	2	nr			
H	expansion joints in the concrete bed and surround	26	nr			
	Pipe; PVC SN8 pipework and fittings; to Engineer's Specification					
	Pipes; loose couplers and ceiling ring joints in the running length					
J	100mm diameter	33	m			
	Extra over pipework runs for					
K	connection to manholes	1	nr			
L	connection to AJ	10	nr			
M	connection to BIGT	12	nr			
N	connection to ACO Channel	6	nr			
P	T-Junctions; 150 x 150 x 100mm	1	nr			
Q	expansion joints in the concrete bed and surround	7	nr			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	Pipe; PVC SN8 pipework and fittings; to Engineer's Specification					
	Pipes; loose couplers and ceiling ring joints in the running length					
A	150mm diameter	199	m			
	Extra over pipework runs for					
B	connection to manholes	19	nr			
C	connection to AJ	17	nr			
D	connection to road gullies	5	nr			
E	connection to Leaf filter	2	nr			
F	connection to rainwater harvesting tank	2	nr			
G	T-Junctions; 150 x 150 x 150mm	2	nr			
H	expansion joints in the concrete bed and surround	26	nr			
	Accessories					
	Back Inlet Gully Trap; complete; as per Architect's Specification Q10; Manufacturer: Contractor to submit proposals for selection by ER; Type: Back inlet Bottle gully (roddable) to requirements of BS4660: 2000; Cover: Square topped grating to be galvanised steel to requirements of BS EN1253: Part 2. Grating to allow for surface water collection; Support: 300x300x200mm deep concrete base and lean mix of concrete (no richer than I in 18) should support the Bottle Gully; surrounded with granular backfill. To ensure the gully is easily accessible for cleaning out, its base should be within easy reach from ground level; jointed to PVC pipes; include for all excavation, disposal, backfilling, concrete, formwork, etc; as per Architect's Specification					
J	Back Inlet Gully Trap; 100mm outlet; galvanised cast iron grid cover	12	nr			
	Access junctions to Engineer's Specification; complete with cast iron access cover; bedding and surrounding in concrete Grade 25N20; backfilling with granular material; including all necessary excavations, disposal, dewatering, back filling, etc; as per Engineers Drawings and Specification					
K	Access junction; 100mm / 150mm outlets; include for all depth extensions	10	nr			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	Road Gulleys, Complete; 450mm diameter precast gully; gully encased in 150mm concrete grade C20/25; include for 600 x 600 mm CO Class D 400 (IS/EN 124) C.I. gully grating & Frame depth 150mm frame bedded in morta The gulley cover frames shall be set in 2:1 cement mortar or not less than two not more than four courses of 225mm concrete brickwork.r; gullies to be hinged at right angles to kerb line so they close with direction of traffic with slots at right angle to kerb; include for rodding eye fixed with stopper and galvanised; include for chain; include for concrete surround to gully grating; include for 160mm diameter uPVC bend if required at connection; including all necessary excavation, disposal, working space, earthwork support, dewatering, backfilling, formwork, reinforcement, construction joints and finishes; all as per C and S Specification and Drawing					
A	Trapped; 450mm diameter; 150mm outlet; heavy duty cast iron gully grating	5	nr			
	METAL COVERED CONCRETE SLOT CHANNEL DRAINS - Manufacturer: Concrete preformed and manufactured concrete drainage laid to fall with galvanised steel slatted cover; Profile: Box with half round internal section; Gauge: N / A: Size: 110mm X 80mm: Cover Treatment: Hot dip galvanized to BS EN ISO 1461 after manufacture; Finish: Powder coated, minimum 60 microns thick: Brackets: N / A: Fixings: Bedded in lean mix sand and cement apron; Size: As above; Accessories: The drain will be positioned under any level access doors; Each drain will be separately drained to the fill under the paving which will be laid around the perimeter of each house; the extent of the steel ground drainage gutters and paving: Each drain will be trapped below each outlet to avoid the occurrence of bad smells; The area in front of each door will fall away from the door by 1:50 toward any other paving; As per Architects Specification					
B	Ground Drainage Gutters; to include grating; complete	122	m			
	<u>Manholes</u>					
	Manholes, Complete; Precast Manhole; Internal Dims: 1200mm diameter; 600mm x 600mm opening in slab; 500mm C30/37 mm Reinfoced Concrete Foundations on 75mm grade C12/15 bliding concrete; invert in base should be formed with cast in-situ concrete C25/30 20mm aggregate finished with a 1:3 cement sand mortar; Manhole Construction: 150mm thick grade C16/20 in-situ concrete suround; Precast concrete manhole rings to IS 420 in conjunction with IS EN 1917:2004; 1:3 cement:sand mortar with steel towel finish at a 1:30 slope towards the channel; when chamber is occupied where the pipe; precast RC roof slab shall be 225mm thick in Class 30N/20mm with 40mm cover to steel; 1 to 3 courses of class B engineering bricks to Engineer's Specification set in C50/60 mortar; short length pipe and pipe joint external to manhole shall not exceed 600mm from the inner face of manhole wall; pipe should be cut flush with the inside surface of the manhole wall so that the channel extends the full length of the manhole; including all necessary excavation, disposal, working space, earthwork support, dewatering, backfilling, formwork, reinforcement, construction joints, concrete lintols and finishes; all as per specification and Engineers Specification and Drawing					
C	Depth to invert 1000-1500mm	2	nr			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
A	Extra over for supply & installation of leaf filter in manhole as per Engineer's Specification & Drawing; 3P Technik 3P volume filter VF6 or equivalent; Leaf filter allow for proprietary self cleansing filter to accommodate 1441m2 Roof Area; leaf filters shall be fully stainless steel and sized to cope with the rainwater flow rate and shall have a bypass to the stormline; basket filters or weir-type filters are not acceptable due to infinite detention times, increased maintenance intervals and poor performance; the leaf filter shall have an easily removable mesh for maintenance, an efficiency of at least 90% and a maximum particle size of passing of 1.25mm; for adequate filter performance and a degree of self-cleansing the height/head difference between inlet and outlet of the filter manhole is to be no less than 320mm; include for all fixings; complete	2	nr			
B	Depth to invert 1500-2000mm	3	nr			
C	Depth to invert 2000-2500mm	3	nr			
D	Depth to invert 3000-3500mm	1	nr			
E	Extra over for Rock Excavation	9	m3			
	Sundries					
	Perforated half circle channel pipes; bedding and jointing in cement mortar (1:2)					
F	100mm; curved, 1200mm long	1	nr			
G	150mm; curved, 1200mm long	15	nr			
H	150mm; straight, 1200mm long	5	nr			
	Benching; clause 20/20 concrete; finished in 2:1 snad cement mortar with a smooth trowel finish; 1 in 30 slope towards channel; as per Engineer's Specification					
J	benching in bottoms; 1200mm diameter; trowelling	9	nr			
	Standard rungs; 25mm diameter solid mild steel; 360mm wide x 119mm high x 270mm long; 300mm c/c; galvanised to the latest version of BS EN ISO 1461:2009					
K	270mm tails	30	nr			
	Approved pattern cast iron manhole cover and frame; Class D400 to IS/EN 124; 150mm deep; non rock design; closed keyways; manufactured from sphericial graphite cast iron (ductile cast iron), 600x600 clear opening; cover and frame coated in bitumen or other approved material; cover to have a minimum mass of 140kg/m2; frame bedding area shall be 80,000mm2 min; frames shall be designed to prevent covers falling into manholes; frames shall be bedded on approved mortar to manufacturers instructions					
L	Ope size 600 x 600mm	9	nr			

(50) SITE SERVICES - STORM DRAINAGE (Cont)

Composite Item

A	Petrol Interceptor; Bypass Petrol Interceptor - KLARGESTER type NSBE015 or equivalent; 2947mm long x 1220mm diameter; installed on 300mm thick Grade C28/35 concrete base with A393 mesh reinforcement; backfilling sides with 400mm (min) thick Grade lean mix back fill surround; 300mm thick grade C28/35 concrete cover slab with A393 mesh reinforcement; include for excavating, disposal, earthwork support, formwork, backfilling etc. to pit to suit unit; include for pipework reducers from 250mm diameter to pipework diameter to match inlets & outlets; include for all works associated with alarm system; incldue for 110mm uPVC vent pipe; include for access shaft extensions to suit unit and site; 2 courses of Class B engineering brick between cover and cover slab; D400 cover and frame; include for surrounding frames with a 1:3 cement:sand collar 150mm wide x 100mm thick; including all necessary excavation, disposal, working space, earthwork support, dewatering, backfilling, formwork, reinforcement, construction joints and finishes; all in strict accordance with the Engineer's Specification and Drawing C-065 and Manufacturers Details	1	nr			

Mains

Connection to existing

B	Connecting new storm manhole to existing storm drain; locating and diverting flows; connecting new manhole to existing drain; include for carefully excavating by hand; form new connection into manhole; include for all fittings, etc.; making good and reinstating all work and surfaces disturbed to match existing; maintain flow at all times; all in strict accordance with the Engineer's specification and Drawing	4	nr			
C	Connecting new storm drain to existing storm manhole; locating and diverting flows; connecting new drain to existing manhole; include for carefully excavating by hand; form new connection into manhole; include for all fittings, etc.; making good and reinstating all work and surfaces disturbed to match existing; maintain flow at all times; all in strict accordance with the Engineer's specification and Drawing	2	nr			

Testing and Commissioning

D	TESTING OF SEWERS: All foul and storm drainage pipes to be tested in accordance with clause 3.20 Recommendations for Site Development Works for Housing areas by the DOE&LG. The contractor is to engage an engineer with professional indemnity insurance to supervise all air/water tests on sewer mains and watermains before backfilling. Manhole infiltration Manholes shall be tested for infiltration according to clause 3.21 Recommendations for Site Development Works for Housing areas by the DOE&LG.	1	item			
E	1. PREPARATION: (a) The section of pipeline to be tested shall consist of one class of pipe only. (b) Pipe joints shall be left exposed during the test. (c) Each pipe opening shall be securely plugged by means of screw down sewer plugs, fitted across the diameter of the pipes.	1	item			

To Collection €

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
A	2. FLUSHING: (a) Before backfilling or haunching, each length of sewer or drain between manholes, or such lengths as may be decided upon by the Test Engineer/Supervisor, shall be cleaned through (e.g. by dragging a suitable rubber plunger through the pipe). (b) A sufficient interval of time shall be allowed to elapse to permit the joints to set to the satisfaction of the Test Engineer/Supervisor.	1	item			
B	3. PRESSURE TESTING: Air Test: (i) Air shall be pumped into the line by suitable means until a pressure of 100mm head of water is indicated on a U-tube connected to the system. (ii) The system shall be allowed to stabilise, and pumped again until the pressure of 100mm is reached once more. (iii) The air pressure shall not fall to less than 75mm head during a period of 5 minutes without further pumping. Failure to pass an air test should not be taken as conclusive. When failure occurs, a water test should be undertaken. Acceptance or rejection of the line under test should be based on the results of this water test.	1	item			
C	Water Test: (iv) A hydraulic pressure of not less than 1.2 meters and not more than 2.5 meters of water over the soffit of the sewer shall be applied to the higher end of the test section by means of a standpipe. (v) The section under test shall be allowed to stand for 1 hour to accommodate absorption. The head at the lower end shall not exceed 6.0 metres, and steeply graded sewers shall be tested in sections where the latter pressure would be exceeded if the whole section were tested at once. (vi) The loss of water over the test period shall be measured by adding water to the standpipe from a measuring vessel at 10-minute intervals and noting the quantity required to maintain water level in the standpipe. (vii) The average quantity of water added shall not exceed 0.5 litres of water per mm bore of main per 100m of pipeline per 24 hours. (viii) The Test Pressure shall be maintained for at least twenty minutes and the pipes shall bear the test without signs of leakage or injury either on the joints or on the barrels. Any defective joints or pipes shall be removed and made good to the satisfaction of the Test Supervisor.	1	item			
D	4. INFILTRATION TEST: (a) On completion, an infiltration test will be carried out unless otherwise directed by the Test Engineer/Supervisor, by collecting the discharge of the section under test in a vessel of known capacity. Non-pressure pipelines and manholes shall be inspected and tested for infiltration, after backfilling. All inlets to the system shall be effectively closed, and any residual flow shall be deemed to be infiltration. (b) The rate of infiltration shall not exceed 0.1 litres per second, per metre diameter per kilometre of pipe. (c) Notwithstanding the satisfactory completion of the above inspection or test, if there is any discernible flow of water entering the sewers or manholes which can be seen either by visual or CCTV inspection, the Developer shall take measures as are necessary to stop such infiltration. The contractor Engineer shall conduct these tests and an Engineers Certification shall be submitted in regard to sewer tests prior to completion of the development.	1	item			
E	WATER TIGHTNESS OF MANHOLES, CHAMBERS AND PUMP CHAMBERS; These shall be inspected to ensure that they are watertight with no identifiable flow of water penetrating the chamber.	1	item			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
A	FAILURE OF TESTS & REMEDIAL WORKS; The failing of tests and any subsequent remedial works must be notified to the Consultant Engineer. Remedial works to be approved by Consultant Engineer. Further tests to be carried out and any further remedial works completed until the required tests yield a PASS result. All pipelines or manholes that are defective will have to be rectified by the Developer at their own expense.	1	item			
B	CLEANING OF SEWERS, DRAINS & MANHOLES; At the time of completion of the drainage works, the developer should ensure, to the satisfaction of the local authority, that all sewers, drains and manholes within the site are clean and free from obstructions. This is to be carried out prior to internal inspections such as CCTV surveys.	1	item			
C	AS-BUILT INSPECTIONS & SURVEYS CCTV; A CCTV survey must be carried out by an independent contractor of the as-built foul and storm drainage main drainage lines and associated manholes, as shown on the engineering drawings, on completion of the works. The CCTV survey is also to include all the permitter drainage as shown on the architects drawing and is to include all the under slab pipe work upto the floor pop ups. Provide continuous recording with still photographs. Illumination to be of adequate intensity. The CCTV survey shall include a DVD of recordings and narrative report. Report to include photographs of each manhole and clearly identify the manhole and location on site by providing a site layout showing the positions of all manholes relative to the road and/or dwelling outline. Two copies of the report and DVD to be submitted to the Consultant Engineer prior to practical completion. The CCTV survey to be submitted to the Consultant Engineer for review and any pipelines or manholes that are defective will have to be rectified by the Developer. A repeat CCTV survey is to be carried out for this section of pipeline or manhole, this is at the Developers own expense. Complete testing to be done in two different stages: Initially a copy of the CCTV survey including a diagrammatic layout of the sewer is to be submitted to the engineer prior to backfilling of works. On completion of works a cctv survey is to be carried out on the existing and new drainage in the public sewer. The contractor is to carry out a cctv survey of all public sewers in the vicinity of the site including all spurs into the public sewer coming out of the site.	1	item			
D	AS-BUILT SURVEY; Upon completion of all ground works, in relation to services and drainage, an as-built topographical survey must be submitted including - location of manholes relative to the building outline - cover and invert levels and pipe diameters - location of gullies relative to the road edge - identify the location and type of drainage pipeline for the entire drainage length - location and type of service access points - identify the location and type of each service run around the site for its entire length This is to be submitted to the Consultant Engineer for review prior to practical completion. The topographical survey is to be submitted in AutoCAD 2010 with two hard copies of adequate scale.	1	item			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	ATTENUATION TANK					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Excavation					
	Reduce Levels					
A	Depth not exceeding 2.00m	62	m3			
	Extra on Excavation Items for:					
	Breaking up existing					
B	Rock; include for all necessary trimming	16	m3			
	Working Space					
	Foundations; excavations					
C	Depth not exceeding 2.00m; backfilling with imported hardcore	53	m2			
	Disposal					
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
D	Disposal On site	15	m3			
E	Disposal Off site	47	m3			
	Filling with hardcore to be obtained off-site; 35/50mm clean washed crushed stone blinded with 8/12 clean crushed sand ; depositing in 150mm layers maximum thickness					
	To make up levels					
F	Average thickness not exceeding 250mm	5	m3			
G	Average thickness exceeding 250mm	13	m3			
	Filling with material to be obtained on-site; as per Engineer's Specification; compacted as per Engineer's Specification					
	To excavations					
H	Average thickness exceeding 250mm	15	m3			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	Surface treatments					
	Levelling and compacting; bottom of excavations					
A	Horizontal	31	m2			
	DRAINAGE					
	Below Ground					
	Surface water underground attenuation tank; Chambers shall be Stormtech SC-740 or equivalent; the installed chamber system shall provide the load factors specified in the aashto LRFD bridge design specifications section 12.12 for earth and live loads, with consideration for impact and multiple vehicle presences; chambers shall meet ASTM F 2418 05 Standard specification for polypropylene (PP) corrugated wall stormwater collection chambers; installed as per manufacturer's recommendations; include for all end caps, underdrain pipework and fittings, distribution pipework, outlets, isolator rows, inspection ports, pvc riser pipework and fittings, floor box frame and lid c/w stainless steel cap screw lid closure, floor box surrounded in class c concrete; as per Engineer's Specification and Drawings C-02					
	Attenuation Tank					
B	Depth of Chambers 1143mm; to accomodate 20m3 of rainwater	1	nr			
	Pipes; perforated; loose couplers and ceiling ring joints in the running length					
C	150mm diameter	20	m			
D	connection to chamber	2	nr			
	Sundries					
	Needle punched filter geotextile that meets mass specification of 120g/m2 (EN965) BDIMS32 or AZTEXSPR14 (Grey); layers around base and sides fo excavation and to top of stone for protection; all necessary laps and joints; to manufacturers instructions and Engineer's Specification and Drawings					
E	Generally	114	m2			
	Woven geotextile that meets strength specification of 50kn/m (EN10319); polybrane PB240 or AZTEXW600 (Black) between foundation stone and chambers; all necessary laps and joints; to manufacturers instructions and Engineer's Specification and Drawings					
F	Generally	155	m2			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	RAINWATER HARVESTING TANK					
	EXCAVATION AND EARTHWORK					
	Excavation					
	Excavation					
	Reduce Levels					
A	Depth 2.00 - 4.00m	25	m3			
	Working Space					
	Foundations; excavations					
B	Depth 2.00 - 4.00m; backfilling with Clause 804 imported hardcore filling	30	m2			
	Disposal					
	Water					
C	Surface	1	item			
D	Ground	1	item			
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
E	Disposal Off-site	25	m3			
	CONCRETE WORK					
	In-situ Concrete					
	Grade C30					
	Bulk Filling					
F	Generally; poured on or against earth; to surround & tops of rainwater tanks	14	m3			
	Insitu concrete; reinforced					
	Reinforced in - situ concrete; Grade C30					
	Beds					
G	Exceeding 150mm thick; poured on or against earth or unblinded hardcore; reinforced	4	m3			
				To Collection €		

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	Sundries					
	Surface Finishes					
	Wood Floating					
A	Generally	26	m2			
	Reinforcement					
	Fabric					
	Reference A393; 350mm side laps; 350mm end laps					
B	Horizontal	11	m2			
	Formwork					
	Formwork Generally					
	Edges of beds					
C	Height or width 250 - 500mm	14	m			
D	Height or width exceeding 500mm; to sides of bulk filling	26	m2			
	DRAINAGE					
	Composite Item					
	Supply & Installation of Rainwater Harvesting Tank; capacity 10500 litres; approx 2700mm diameter x 1965mm long; positioned on 300mm deep concrete base and surrounded with lean mix concrete (elsewhere measured); include for precast concrete chamber to be built on top of tank, allow for removable safety grid in chamber (300x300mm GRID) off 40x40x5 RSA with chemical anchors; provide tank with one 600mm diameter access shaft to suit site levels, neck extension all surrounded in concrete; provide manhole access cover to access shaft; provide all fittings necessary including any adaptors from 160mm inlet socket; tank to be vented with 110mm cowl vent finishing 200mm above external ground level; provide high level overflow to adjacent storm water drainage chamber minimum 1000mm above nominal level of water in tank; include for non return valve, calmed inlet and vermin guard to tank; including pipe reducers, turret, lid, calmed inlet, overflow, vermin trap; to be installed in strict accordance with manuafcaturer's recommendations and M&E Engineer's Specification and Drawing					
	Rainwater harvesting Tank					
E	Approx 2700mm diameter x 1965mm long; to accommodate 10500 litres of rainwater	1	nr			
				To Collection €		

(50) SITE SERVICES - STORM DRAINAGE (Cont)

Notes

A The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document. 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 Semple McKillop Consulting Engineers. Note

C 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 Mechanical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist. Note

ALTERNATIVE RULES FOR THE MEASUREMENT OF MECHANICAL INSTALLATIONS

(50) SITE SERVICES (MAINLY MECHANICAL) - RAINWATER HARVESTING

System

Rainwater Harvesting site services installation testing and commissioning; An existing rainwater harvesting and distribution system is currently installed on the site; The Civil Engineer shall be responsible for specifying a new submersible booster pump, leaf filters and all integral equipment and fittings and shall be supplied and installed by the Main Contractor; The Mechanical contractor shall be responsible for the remainder of the rain water harvesting installation including Medium Density Poly-Ethylene (MDPE) colour blue underground distribution pipework from the underground tank to the Water Tank Room and the complete above ground rain water installation including control panel, 120 micron water filter, pressure sensors, level sensors/probes, expansion vessel etc to make a complete fully operational system. Upon entry to the boiler house the pipework shall transition to copper and be piped directly to the daily header storage tank within the water tank room; This tank shall supply collected rain water to all WC's throughout the new extension and the existing school via a booster pump; all in strict accordance with the Mechanical Engineers Specification Part 1, Section 6; Part 2; Part 3 Part 4 and Drawing 2556-SMK-XX-ZZ-DR-M5001

Distribution System

Medium Density Polyethylene pipework and fittings; supply and installation; complete; MDPE, colour blue; include for all fixings and supports; include for all elbows,expansion bellows, unions and tees necessary to complete works; all in strict accordance with the Mechanical Engineers Specification

D 25mm diameter pipework 1 Item

To Collection €

					€	c
	(50) SITE SERVICES - STORM DRAINAGE (Cont)					
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
A	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
B	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
C	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
D	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
E	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
F	Identification plates, labels and the like	1	Item			
				To Collection €		

(50) SITE SERVICES - STORM DRAINAGE (Cont)

COLLECTION

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(50) SITE SERVICES - STORM DRAINAGE
Carried to Summary

					€	c
	(50) SITE SERVICES - FOUL DRAINAGE					
	DRAINAGE					
	General Information					
	Information					
A	A percentage of the following items are works OUTSIDE THE BOUNDARY OF THE SITE or in PUBLIC HIGHWAYS. The Contractor should visit the site and examine the drawings in order to satisfy himself of the extent of works outside the site boundary. The Contractor's rates are to include for all items necessary for such works. No claims on the grounds of want of knowledge in this respect will be entertained whatsoever.		Note			
B	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		Note			
C	Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification		Note			
	Drainage Below Ground - Foul Water					
	Excavation					
	Excavating trenches to receive pipes / ducts not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported selected fill material approved by the Engineer; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
D	Average Depth 500- 1000mm	37	m			
E	Average Depth 1000- 1500mm	63	m			
F	Average Depth 2500- 3000mm	50	m			

					€	c
	(50) SITE SERVICES - FOUL DRAINAGE (Cont)					
	Extra over excavating trenches irrespective of depth					
	Breaking up & Reinstating					
A	Breaking out existing roadway and associated make-up (585mm total); saw cutting surface; include for reinstating road surfacing and all associated hardcore makeup;40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and to TII Publications clause 910, laid on 225mm deep clause 808 stone sub-base; laid on 200mm 6F2 capping layer; include for fair jointing to fair edges; include for breaking out and reinstating all kerbing required; disposal of excavated material off site; all in accordance with the Engineer's Specification	2	m			
B	Excavating existing grass and making good to match existing after excavation and drainage runs have been laid	31	m			
C	Rock Excavation; 1500mm deep	50	m			
	Disposal					
D	Ground water	1	item			
E	Surface water	1	item			
	Granular fill bed and surround; 14mm or 5mm graded aggregate or 10mm single sized aggregate; complying with the requirements of the Engineer's Specification; compaction factor value not greater than 0.2 when measured in accordance with Engineer's Specification; well compacted; as per Engineer's Drawings & Specification					
	Beds and Surround					
F	600 x 650mm to 150mm diameter pipe	50	m			
	Plain in-situ concrete bed and surround; minimum 150mm bed; Class C20/25; leanmix concrete backfill; as per Engineer's Drawing					
	Beds and Surrounds					
G	400 x 400mm to 100mm diameter pipe	37	m			
H	450 x 450mm to 150mm diameter pipe	63	m			
	PVC marker tape "Heptape" or equivalent					
J	Continuous strip laid during trench backfill, 100mm above pipework	149	m			

To Collection €

					€	c
	(50) SITE SERVICES - FOUL DRAINAGE (Cont)					
	Pipe; PVC SN8 pipework and fittings; to Engineer's Specification					
	Pipes; loose couplers and ceiling ring joints in the running length					
A	100mm diameter	37	m			
	Extra over pipework runs for					
B	connection to AJ	13	nr			
C	connection to BIGT	13	nr			
D	expansion joints in the concrete bed and surround	8	nr			
	Pipe; PVC SN8 pipework and fittings; to Engineer's Specification					
	Pipes; loose couplers and ceiling ring joints in the running length					
E	150mm diameter	112	m			
	Extra over pipework runs for					
F	connection to manholes	5	nr			
G	connection to AJ	13	nr			
H	expansion joints in the concrete bed and surround	13	nr			
	Accessories					
	Back Inlet Gully Trap; complete; as per Architect's Specification Q10; Manufacturer: Contractor to submit proposals for selection by ER; Type: Back inlet Bottle gully (roddable) to requirements of BS4660: 2000; Cover: Square topped grating to be galvanised steel to requirements of BS EN1253: Part 2. Grating to allow for surface water collection; Support: 300x300x200mm deep concrete base and lean mix of concrete (no richer than I in 18) should support the Bottle Gully; surrounded with granular backfill. To ensure the gully is easily accessible for cleaning out, its base should be within easy reach from ground level; jointed to PVC pipes; include for all excavation, disposal, backfilling, concrete, formwork, etc; as per Architect's Specification					
J	Back Inlet Gully Trap; 100mm outlet; galvanised cast iron grid cover	13	nr			
	Access junctions to Engineer's Specification; complete with cast iron access cover; bedding and surrounding in concrete Grade 25N20; backfilling with granular material; including all necessary excavations, disposal, dewatering, back filling, etc; as per Engineers Drawings and Specification					
K	Access junction; 150mm / 225mm outlets; include for all depth extensions	8	nr			
				To Collection €		

					€	c
	(50) SITE SERVICES - FOUL DRAINAGE (Cont)					
	Manholes					
	Manholes, Complete; Precast Manhole; Internal Dims: 1200mm diameter; 600mm x 600mm opening in slab; 225mm C28/35 Mass Concrete Foundations concrete; invert in base should be formed with cast in-situ concrete C25/30 20mm aggregate finished with a 1:3 cement sand mortar; Manhole Construction: 150mm thick grade C16/20 in-situ concrete suround; Precast concrete manhole rings to IS 420 in conjunction with IS EN 1917:2004; 1:3 cement:sand mortar with steel towel finish at a 1:30 slope towards the channel; when chamber is occupied where the pipe; precast RC roof slab shall be 200mm thick in Class C25/30 with 40mm cover to steel; 1 to 3 courses of class B engineering bricks to Engineer's Specification set in C50/60 mortar; short length pipe and pipe joint external to manhole shall not exceed 600mm from the inner face of manhole wall; pipe should be cut flush with the inside surface of the manhole wall so that the channel extends the full length of the manhole; including all necessary excavation, disposal, working space, earthwork support, dewatering, backfilling, formwork, reinforcement, construction joints, concrete lintols and finishes; all as per Irish Water Details STD-WW-10					
A	Depth to invert 1500 - 2000mm	1	nr			
B	Depth to invert 2000 - 2500mm	1	nr			
C	Depth to invert 3000 - 3500mm	1	nr			
D	Extra over for Rock Excavation	5	m3			
	Sundries					
	Perforated half circle channel pipes; bedding and jointing in cement mortar (1:2)					
E	150mm; curved, 1200mm long	3	nr			
F	150mm; straight, 1200mm long	2	nr			
	Benching; clause 20/20 concrete; finished in 2:1 snad cement mortar with a smooth trowel finish; 1 in 30 slope towards channel; as per Engineer's Specification					
G	benching in bottoms; 1200mm diameter; trowelling	3	nr			
	Standard rungs; 25mm diameter solid mild steel; 360mm wide x 119mm high x 270mm long; 300mm c/c; galvanised to the latest version of BS EN ISO 1461:2009					
H	270mm tails	10	nr			
				To Collection €		

					€	c
	(50) SITE SERVICES - FOUL DRAINAGE (Cont)					
	Approved pattern cast iron manhole cover and frame; Class D400 to IS/EN 124; 150mm deep; non rock design; closed keyways; manufactured from sphericial graphite cast iron (ductile cast iron), 600x600 clear opening; cover and frame coated in bitumen or other approved material; cover to have a minimum mass of 140kg/m2; frame bedding area shall be 80,000mm2 min; frames shall be designed to prevent covers falling into manholes; frames shall be bedded on approved mortar to manufacturers instructions					
A	Ope size 600 x 600mm	3	nr			
	Mains					
	Connection to existing					
B	Connecting new foul manhole to existing foul drain; locating and diverting flows; connecting new manhole to existing drain; include for carefully excavating by hand; form new connection into manhole; include for all fittings, etc.; making good and reinstating all work and surfaces disturbed to match existing; maintain flow at all times; all in strict accordance with the Engineer's specification and Drawing	2	nr			
	Testing and Commissioning					
C	The contractor is to include for the employment of a chartered engineer with Professional Indemnity insurance to €6.5m to supervise and witness the installation and backfilling of all air tests/ water & other Irish Water QA as required under the Irish Water Quality Assurance (QA) field inspection requirements manual, January 2018 version 2.	1	item			
D	It is a requirement of the main contractor to agree the required QA with the IW field inspectors, retain all the QA documents on site & repair any defects. The main contractors chartered engineer & the main contractor are responsible for agreeing on site conformance with IW prior to hand over of the works to IW. The price for all the above is deemed to be included in the main contractors tender sum.	1	item			
E	TESTING OF SEWERS: All foul and storm drainage pipes to be tested in accordance with clause 3.20 Recommendations for Site Development Works for Housing areas by the DOE&LG. The contractor is to engage an engineer with professional indemnity insurance to supervise all air/water tests on sewer mains and watermains before backfilling. Manhole infiltration Manholes shall be tested for infiltration according to clause 3.21 Recommendations for Site Development Works for Housing areas by the DOE&LG.	1	item			
F	1. PREPARATION: (a) The section of pipeline to be tested shall consist of one class of pipe only. (b) Pipe joints shall be left exposed during the test. (c) Each pipe opening shall be securely plugged by means of screw down sewer plugs, fitted across the diameter of the pipes.	1	item			
				To Collection €		

					€	c
	(50) SITE SERVICES - FOUL DRAINAGE (Cont)					
A	2. FLUSHING: (a) Before backfilling or haunching, each length of sewer or drain between manholes, or such lengths as may be decided upon by the Test Engineer/Supervisor, shall be cleaned through (e.g. by dragging a suitable rubber plunger through the pipe). (b) A sufficient interval of time shall be allowed to elapse to permit the joints to set to the satisfaction of the Test Engineer/Supervisor.	1	item			
B	3. PRESSURE TESTING: Air Test: (i) Air shall be pumped into the line by suitable means until a pressure of 100mm head of water is indicated on a U-tube connected to the system. (ii) The system shall be allowed to stabilise, and pumped again until the pressure of 100mm is reached once more. (iii) The air pressure shall not fall to less than 75mm head during a period of 5 minutes without further pumping. Failure to pass an air test should not be taken as conclusive. When failure occurs, a water test should be undertaken. Acceptance or rejection of the line under test should be based on the results of this water test.	1	item			
C	Water Test: (iv) A hydraulic pressure of not less than 1.2 meters and not more than 2.5 meters of water over the soffit of the sewer shall be applied to the higher end of the test section by means of a standpipe. (v) The section under test shall be allowed to stand for 1 hour to accommodate absorption. The head at the lower end shall not exceed 6.0 metres, and steeply graded sewers shall be tested in sections where the latter pressure would be exceeded if the whole section were tested at once. (vi) The loss of water over the test period shall be measured by adding water to the standpipe from a measuring vessel at 10-minute intervals and noting the quantity required to maintain water level in the standpipe. (vii) The average quantity of water added shall not exceed 0.5 litres of water per mm bore of main per 100m of pipeline per 24 hours. (viii) The Test Pressure shall be maintained for at least twenty minutes and the pipes shall bear the test without signs of leakage or injury either on the joints or on the barrels. Any defective joints or pipes shall be removed and made good to the satisfaction of the Test Supervisor.	1	item			
D	4. INFILTRATION TEST: (a) On completion, an infiltration test will be carried out unless otherwise directed by the Test Engineer/Supervisor, by collecting the discharge of the section under test in a vessel of known capacity. Non-pressure pipelines and manholes shall be inspected and tested for infiltration, after backfilling. All inlets to the system shall be effectively closed, and any residual flow shall be deemed to be infiltration. (b) The rate of infiltration shall not exceed 0.1 litres per second, per metre diameter per kilometre of pipe. (c) Notwithstanding the satisfactory completion of the above inspection or test, if there is any discernible flow of water entering the sewers or manholes which can be seen either by visual or CCTV inspection, the Developer shall take measures as are necessary to stop such infiltration. The contractor Engineer shall conduct these tests and an Engineers Certification shall be submitted in regard to sewer tests prior to completion of the development.	1	item			
E	WATER TIGHTNESS OF MANHOLES, CHAMBERS AND PUMP CHAMBERS; These shall be inspected to ensure that they are watertight with no identifiable flow of water penetrating the chamber.	1	item			
				To Collection €		

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	(50) SITE SERVICES - FOUL DRAINAGE (Cont)					
A	FAILURE OF TESTS & REMEDIAL WORKS; The failing of tests and any subsequent remedial works must be notified to the Consultant Engineer. Remedial works to be approved by Consultant Engineer. Further tests to be carried out and any further remedial works completed until the required tests yield a PASS result. All pipelines or manholes that are defective will have to be rectified by the Developer at their own expense.	1	item			
B	CLEANING OF SEWERS, DRAINS & MANHOLES; At the time of completion of the drainage works, the developer should ensure, to the satisfaction of the local authority, that all sewers, drains and manholes within the site are clean and free from obstructions. This is to be carried out prior to internal inspections such as CCTV surveys.	1	item			
C	AS-BUILT INSPECTIONS & SURVEYS CCTV; A CCTV survey must be carried out by an independent contractor of the as-built foul and storm drainage main drainage lines and associated manholes, as shown on the engineering drawings, on completion of the works. The CCTV survey is also to include all the permitter drainage as shown on the architects drawing and is to include all the under slab pipe work upto the floor pop ups. Provide continuous recording with still photographs. Illumination to be of adequate intensity. The CCTV survey shall include a DVD of recordings and narrative report. Report to include photographs of each manhole and clearly identify the manhole and location on site by providing a site layout showing the positions of all manholes relative to the road and/or dwelling outline. Two copies of the report and DVD to be submitted to the Consultant Engineer prior to practical completion. The CCTV survey to be submitted to the Consultant Engineer for review and any pipelines or manholes that are defective will have to be rectified by the Developer. A repeat CCTV survey is to be carried out for this section of pipeline or manhole, this is at the Developers own expense. Complete testing to be done in two different stages: Initially a copy of the CCTV survey including a diagrammatic layout of the sewer is to be submitted to the engineer prior to backfilling of works. On completion of works a cctv survey is to be carried out on the existing and new drainage in the public sewer. The contractor is to carry out a cctv survey of all public sewers in the vicinity of the site including all spurs into the public sewer coming out of the site.	1	item			
D	AS-BUILT SURVEY; Upon completion of all ground works, in relation to services and drainage, an as-built topographical survey must be submitted including - location of manholes relative to the building outline - cover and invert levels and pipe diameters - location of gullies relative to the road edge - identify the location and type of drainage pipeline for the entire drainage length - location and type of service access points - identify the location and type of each service run around the site for its entire length This is to be submitted to the Consultant Engineer for review prior to practical completion. The topographical survey is to be submitted in AutoCAD 2010 with two hard copies of adequate scale.	1	item			
				To Collection €		

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(50) SITE SERVICES - FOUL DRAINAGE (Cont)					
WORK OUTSIDE THE BOUNDARY OF THE SITE					
Extra Over For: -					
A — A portion of the works in this section are outside the boundary of the site; see Architect's & Engineer's Drawings	1	item			

To Collection €

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(50) SITE SERVICES - FOUL DRAINAGE (Cont)					
COLLECTION					
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(50) SITE SERVICES - FOUL DRAINAGE **Carried to Summary**					

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	(50) SITE SERVICES - WATERMAIN					
	DRAINAGE/SERVICES - WATERMAIN					
	General Information					
	Information					
	Builders Work in Connection With Watermains					
	Excavation					
	Excavating trenches to receive pipes / ducts not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported compacted stone fill in strict accordance with Irish Water guidelines; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
A	Average Depth 1000 - 1500mm	47	m			
	Extra over excavating trenches irrespective of depth					
	Breaking up & Reinstating					
B	Breaking out existing roadway and associated make-up (585mm total); saw cutting surface; include for reinstating road surfacing and all associated hardcore makeup;40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and to TII Publications clause 910, laid on 225mm deep clause 808 stone sub-base; laid on 200mm 6F2 capping layer; include for fair jointing to fair edges; include for breaking out and reinstating all kerbing required; disposal of excavated material off site; all in accordance with the Engineer's Specification	10	m			
C	Breaking out footpath; saw cutting surface; include for reinstating surfacing to match existing including T3 prem sub base material where necessary; fair jointing to fair edges; disposal of excavated material off site; include for replacing associated concrete kerbs; all to satisfaction of Engineers Specification & Drawings	2	m			
D	Excavating existing grass and making good to match existing after excavation and drainage runs have been laid	24	m			
	Around existing services crossing excavations					
E	Storm Drainage; crossing excavations	2	nr			

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	(50) SITE SERVICES - WATERMAIN (Cont)					
	Disposal					
A	Ground water	1	item			
B	Surface water	1	item			
	Granular fill bed and surround; 14mm or 5mm graded aggregate or 10mm single sized aggregate; complying with the requirements of the Engineer's Specification; compaction factor value not greater than 0.2 when measured in accordance with Engineer's Specification; well compacted; as per Engineer's Drawings & Specification					
	Beds and surrounds					
C	500 x 500mm to 100mm diameter pipes / ducts	47	m			
	PVC marker tape "Heptape" or equivalent					
D	Continuous strip laid during trench backfill, 100mm above pipework	47	m			
	Water warning mesh; Blue polythene warning mesh; in accordance with the Engineer's Specification					
E	Continuous strip laid during trench backfill, 400mm wide water warning mesh; 350mm below the finished ground surface with steel tracer wire; include for tieing to valves	47	m			
	Watermain pipework; HDPE Type PE100 watermain pipe					
	Watermain; including all rubber ring joints in running length; include for concrete anchor blocks					
F	100mm diameter	47	m			
	Extra over pipework runs for					
G	Bends; 100mm diameter	1	nr			
H	T Junctions; 100 x 100 x 100mm	2	nr			
J	Connection to sluice valve	4	nr			
K	Connection to hydrant	1	nr			

To Collection €

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	(50) SITE SERVICES - WATERMAIN (Cont)					
	Pipework Accessories					
A	Sluice Valves shall be resilient seated and shall comply with Engineer's Specification; All Sluice Valves shall be anticlockwise closing; thrust blocks (not shown on drawing) to be provided as per STD-W-28 at all tees, bends, tapers, dead ends and pipes at steep slopes; flanged tailpeices as required for the watermains to be fitted; anti corrosion tape to be provided around buried flanges; connected to watermain; include for VJ couplings; include for spindle extension where required; include all necessary ties, connections and fittings; all in strict accordance with the Local Authority's regulations and the Engineer's Specification (Chamber measured elsewhere); as per Engineer's Specification & Drawings & Irish Water Standard Detail STD-W-15	2	nr			
B	Extra over for constructing on existing pipe	1	nr			
C	Fire Hydrant; All Hydrants, surface box frames and covers shall comply with the relevant provisions of the Engineer's Specification; Fire Hydrants shall be Type 2, the hydrant inlet shall be 80mm diameter with PN16; all hydrants shall be clockwise closing; thrust blocks (not shown on drawings) to be provided as per Standard Drawing STD-W-28 at all tees, bends, tapers, dead ends and pipes at steep slopes; size and type of outlet and direction of closing shall comply with the requirements of the planning authority; connected to watermain; include all necessary VJ couplings, flanged riser pieces, flanged tees, double flanged spool pieces, ties, connections and fittings; anti-corrosion tape to be provided around buried flanges; all in strict accordance with the Local Authority's regulations (Chamber measured elsewhere);as per Engineer's Specification & Drawings & Irish Water Standard Detail STD-W-18	1	nr			
	Identification plates; In accordance with Engineer's Specification					
D	Identification plates; sluice valve marker plate, on precast concrete post; excavation, backfilling and disposal, concrete surround, as per Engineers Specification	2	nr			
E	Identification plates; fire hydrant marker plate, on precast concrete post; excavation, backfilling and disposal, concrete surround, as per Engineers Specification	1	nr			

To Collection €

(50) SITE SERVICES - WATERMAIN (Cont)

Chambers

Sluice Valve chamber; 150mm minimum thick C25/30 concrete base on 75mm of lean mix concrete blinding, grade C15/40; 215mm thick solid blockwork walls; bedded in cement mortar; allow for sand/cement fill around pipework; 150mm thick concrete roof slab c/w opening for 445 x 280mm cover; include for sluice valve cover, Group 4, 445 x 280mm frame opening; cover and frame to be bedded on mortar; overall internal dimensions 600 x 600mm; include for support plinth; all blockwork to be taken clear of pipes and suitabily arched or supported by concrete lintols; top of cover slab to be 50mm below FGL in roads and footpaths and at FGL in fields and grass margin; include for concrete surround to perimeter of manhole cover; include for 50mm diameter drain in chamber; including all necessary excavation, disposal, working space, earthwork support, dewatering, backfilling, formwork, reinforcement, construction joints and finishes; all as per specification and Engineers Specification and Drawings & Irish Water Standard Detail STD-W-15

A	600 x 600mm minimum internal dimensions; depth 1000 - 1500mm	2	nr		

Fire Hydrant chamber; 100mm minimum thick C25/30 concrete base on 75mm of lean mix concrete blinding, grade C15/40; 215mm thick solid blockwork walls; bedded in cement mortar; allow for sand/cement fill around pipework; 150mm thick concrete roof slab c/w opening for 445 x 280mm cover; include for hydrant cover; 445 x 280mm frame opening; cover and frame to be bedded on mortar; overall internal dimensions 600 x 600mm; include for support plinth; all blockwork to be taken clear of pipes and suitabily arched or supported by concrete lintols; top of cover slab to be 50mm below FGL in roads and footpaths and at FGL in fields and grass margin; include for concrete surround to perimeter of manhole cover; include for 50mm diameter drain in chamber; including all necessary excavation, disposal, working space, earthwork support, dewatering, backfilling, formwork, reinforcement, construction joints and finishes; all as per Engineers Specification and Drawings & Irish water Standard Detail STD-W-18

B	600 x 600mm minimum internal dimensions; depth 1000 - 1500mm	1	nr		

Concrete bases/Anchor blocks

Excavate; level and compact bottoms of excavation; part backfill; dispose of surplus; The formation level of all anchor blocks shall be prepared by hand at specified depths below the trench formation level and the bearing area shall be excavated carefully by hand to avoid over excavation. Following preparation and approval of the formation, the Contractor shall provide and lay a 50.0 mm depth Class 7.5/20 concrete to prevent deterioration of the formation during fixing of bends and fittings and the erection of anchor block formwork. The anchor blocks shall be constructed in Class 20/25 concrete to the dimensions shown on Irish Water - Water Infrastructure Standard Details.as per Engineer's Drawings

C	size 450 x 450 x 600mm deep anchor blocks; complete	1	nr		

To Collection €

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	(50) SITE SERVICES - WATERMAIN (Cont)					
	Mains					
	Connection to existing watermain pipe					
A	Connection to existing watermain pipe; 100mm diameter; provide opening for new watermains connection; carefully excavate by hand to locate existing live watermain; include for all fittings including flange adaptors, flanged tees, HDPE branch etc required to make the connection; including all excavation, disposal, working space, backfilling; making good; reinstate all finishes to match existing; maintain flow at all times; Connection to be co-ordinated with Engineer; it will be the duty of the Contractor to seek all necessary road opening licences, permissions, etc including any Irish Water / Local Authority / Group Water Scheme connection levies; The connection must be made in accordance with Local Authority Guideliens and trench backfilled in accordance with Civil/ Structural Engineering Spec and Guidelines for the Opening, Backfilling and Reinstatement of Trenches in Public Roads - Dept of Env & Local Gov 2002 and Specification for the Reinstatement of Openings in Highways HUAC 2010; all new fittings, branches and ferrules to be installed as per Local Authority requirements and Irish Water Requirements; The Contractor shall carry out any investigations, searches, tests, trial holes, slit trenches, and trial holes necessary to locate existing services at his own expense; all as per Engineer's Specification	1	nr			
	Testing and Commissioning					
B	PREPARATION: (a) The section of pipeline to be tested shall consist of one class of pipe only. (b) Pipe joints shall be left exposed during the test. (c) Sufficient backfill shall be placed around the pipe to prevent excessive movement during the test. (d) The pipes shall be tested in such lengths, up to a maximum length of 800 metres. (e) The ends of the section to be tested shall be blanked off using bolted blank flanges or fused end caps, adequately strutted or anchored to solid undisturbed ground. (f) Blank flanges or end caps shall be fitted with appropriate tappings to enable flushing out and filling of the pipeline and to accommodate the necessary pressure gauges. (g) Testing against a closed valve is not permitted, and these shall be in fully open position during the test. (h) Air valves and hydrants shall be subjected to the Test Pressure and should be inspected whilst the main is under pressure to ensure that they are not leaking.	1	item			
C	FLUSHING: (a) The section to be tested shall be thoroughly flushed with fresh clean water. A flushing velocity of at least 1 metre per second should be maintained. (b) Flushing shall be continued until the Testing Engineer/Supervisor is satisfied that the section under test has been thoroughly cleaned.	1	item			

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	(50) SITE SERVICES - WATERMAIN (Cont)					
A	DISINFECTION: (a) After flushing, the mains shall be filled with chlorinated water, having a minimum chlorine content of 20 mg/litre (20 p.p.m.). This water shall be left standing in the pipeline for at least 24 hours. (b) The chlorinated water shall then be drained off, and shall be treated to dilute the chlorine to a level of 0.5 mg/l before discharge to a sewer or watercourse. (c) The mains shall then be thoroughly flushed again with potable water from the supply, or with water having a minimum chlorine content of 0.5 mg/l provided by the Developer if none is available from the Public Mains. (d) After thorough flushing, a bacteriological test shall be carried out on the main. The test must show that the water in the new mains is in accordance with the Chemical and Bacteriological Water Quality Requirements of the European Communities (Quality of Water Intended for Human Consumption) Regulations (current version, including any amendments or additions thereto).	1	item			
B	SETTING UP THE PRESSURE TEST: (a) The test position shall be located at the lower end of the pipeline profile. (b) The section under test shall be filled with water, ensuring all air has been eliminated from it. The pipe shall be filled slowly to avoid risk of damage due to surge. (c) After filling it shall be left under operating pressure for a period in order to achieve stable conditions. (d) All air vents shall be closed and the system left to stabilise for 2 to 3 hours. The Test Pressure may then be applied.	1	item			
C	PRESSURE TESTING: (a) Pressure shall be applied at a constant and consistent rate by pumping with the Test Pump, until the Test Pressure is achieved. (b) The Test Pressure shall be maintained by additional pumping as required for 30 minutes. (c) The pressure shall then be reduced to 2 bars (30 p.s.i. or 68 ft or 20 metres) by rapid bleeding from the system. (d) Pressure gauge readings shall then be noted as follows: (i) At 2-minute intervals for the first 10 minutes (5 readings) (ii) At 5-minute intervals for the next 30 minutes (4 readings) (iii) At 10-minute intervals for the next 60 minutes (6 readings) (e) After 30 minutes at a pressure of 2 bars, the pressure in a leaktight system will have stabilised at approximately 4 bars (60 p.s.i. approximately), and should not fall away. A test failure will be indicated by a falling pressure. (f) If a drop in pressure occurs, the quantity of water added in order to re-establish the Test Pressure shall be carefully measured. The maximum allowable leakage from the main which has been subjected to the Test Pressure and allowed to stand under pressure for 24 hours shall not exceed 0.1 litres per mm bore of main per 1000m of pipe under test. (g) If the test is not satisfactory the fault shall be found and rectified. All defective pipes, whether cracked, porous, leaking or exhibiting other faults shall be removed and replaced by new pipes. All leaking joints shall be made good. Burning, plugging, stopping or other repairs to porous or faulty pipes will not be permitted.	1	item			
D	TESTING OF THERMOPLASTIC PRESSURE PIPELINES: The testing of thermoplastic pressure pipelines shall be carried out in accordance with the procedures in A Guide to testing of water supply pipelines and sewer rising mains, published by WRc.	1	item			
				To Collection €		

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	(50) SITE SERVICES - WATERMAIN (Cont)					
A	COMPLETION TEST (FOR STAGE DEVELOPMENTS) (a) Where the water service main system within a development has been tested in stages, a Completion test shall be carried out on the entire system before it can be taken over by the Council. (b) The Test Pressure shall be full static pressure on the system, or the total normal pumping head in the case of pumped systems. The Test Pressure shall be applied for a period of not less than 6 hours or more than 24 hours. The leakage rate shall not exceed 0.11 litres per mm bore of main per 1000m of pipeline per 24 hours.	1	item			
B	TEST PRESSURES: The Test Pressure shall be as outlined below for the various types and classes of pipe, unless otherwise specified in the documents or directed by the Test Engineer/Supervisor. Pipelines shall be tested in sections, under an internal water pressure as per details in Engineer's Specification; The Test Pressure for gravity mains is the Rated Pressure or 1.5 times the maximum static head, whichever is greater. For pumping mains the Test Pressure is the Rated Pressure or 1.5 times the maximum working pressure, whichever is greater. The above Test Pressure shall apply at the highest point of the section under test but the Developer shall ensure that no pipe on the pipeline under test is subjected to more than twice the normal working pressure for the class of pipe under test.	1	item			
C	Watermains should be tested at 1.5 times the working pressure for one hour in the presence of a member of staff from the waterworks department; details of testing procedure to be discussed on site with Contractor	1	item			
D	All testing (pressure chlorination & bacterial) tests to be in accordance with Local Authorities specification; the Engineer is to inspect the pressure test after the water control meters are installed. All hydrants & valves are to be included in the test	1	item			

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(50) SITE SERVICES - WATERMAIN (Cont)					
COLLECTION					
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Page No. Siteworks/138					
Page No. Siteworks/139					
(50) SITE SERVICES - WATERMAIN **Carried to Summary**					

					€	c
	(50) SITE SERVICES - UPGRADNG EXISTING WATERMAIN					
	DRAINAGE/SERVICES - UPGRADING EXISTING WATERMAIN					
	General Information					
	Information					
	Builders Work in Connection With Watermains					
	Excavation					
	Excavating trenches to receive pipes / ducts not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported compacted stone fill in strict accordance with Irish Water guidelines; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
A	Average Depth 1000 - 1500mm	84	m			
	Extra over excavating trenches irrespective of depth					
	Breaking up & Reinstating					
B	Breaking out existing roadway and associated make-up (585mm total); saw cutting surface; include for reinstating road surfacing and all associated hardcore makeup;40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and to TII Publications clause 910, laid on 225mm deep clause 808 stone sub-base; laid on 200mm 6F2 capping layer; include for fair jointing to fair edges; include for breaking out and reinstating all kerbing required; disposal of excavated material off site; all in accordance with the Engineer's Specification	7	m			
C	Breaking out footpath; saw cutting surface; include for reinstating surfacing to match existing including T3 prem sub base material where necessary; fair jointing to fair edges; disposal of excavated material off site; include for replacing associated concrete kerbs; all to satisfaction of Engineers Specification & Drawings	3	m			
D	Excavating existing grass and making good to match existing after excavation and drainage runs have been laid	70	m			
	Around existing services crossing excavations					
E	Storm Drainage; crossing excavations	1	nr			
F	Foul Drainage; crossing excavations	1	nr			
G	ESB Duct; crossing excavations	1	nr			

To Collection €

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	(50) SITE SERVICES - UPGRADNG EXISTING WATERMAIN (Cont)					
A	EIR Duct; crossing excavations	1	nr			
	Disposal					
B	Ground water	1	item			
C	Surface water	1	item			
	Granular fill bed and surround; 14mm or 5mm graded aggregate or 10mm single sized aggregate; complying with the requirements of the Engineer's Specification; compaction factor value not greater than 0.2 when measured in accordance with Engineer's Specification; well compacted; as per Engineer's Drawings & Specification					
	Beds and surrounds					
D	500 x 500mm to 100mm diameter pipes / ducts	84	m			
	PVC marker tape "Heptape" or equivalent					
E	Continuous strip laid during trench backfill, 100mm above pipework	84	m			
	Water warning mesh; Blue polythene warning mesh; in accordance with the Engineer's Specification					
F	Continuous strip laid during trench backfill, 400mm wide water warning mesh; 350mm below the finished ground surface with steel tracer wire; include for tieing to valves	84	m			
	Watermain pipework; HDPE Type PE100 watermain pipe					
	Watermain; including all rubber ring joints in running length; include for concrete anchor blocks					
G	100mm diameter	84	m			
	Extra over pipework runs for					
H	Bends; 100mm diameter	3	nr			
J	Connection to sluice valve	2	nr			
				To Collection €		

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	(50) SITE SERVICES - UPGRADNG EXISTING WATERMAIN (Cont)					
	Pipework Accessories					
A	Sluice Valves shall be resilient seated and shall comply with Engineer's Specification; All Sluice Valves shall be anticlockwise closing; thrust blocks (not shown on drawing) to be provided as per STD-W-28 at all tees, bends, tapers, dead ends and pipes at steep slopes; flanged tailpeices as required for the watermains to be fitted; anti corrosion tape to be provided around buried flanges; connected to watermain; include for VJ couplings; include for spindle extension where required; include all necessary ties, connections and fittings; all in strict accordance with the Local Authority's regulations and the Engineer's Specification (Chamber measured elsewhere); as per Engineer's Specification & Drawings & Irish Water Standard Detail STD-W-15	1	nr			
	Identification plates; In accordance with Engineer's Specification					
B	Identification plates; sluice valve marker plate, on precast concrete post; excavation, backfilling and disposal, concrete surround, as per Engineers Specification	1	nr			
	Chambers					
	Sluice Valve chamber; 150mm minimum thick C25/30 concrete base on 75mm of lean mix concrete blinding, grade C15/40; 215mm thick solid blockwork walls; bedded in cement mortar; allow for sand/cement fill around pipework; 150mm thick concrete roof slab c/w opening for 445 x 280mm cover; include for sluice valve cover, Group 4, 445 x 280mm frame opening; cover and frame to be bedded on mortar; overall internal dimensions 600 x 600mm; include for support plinth; all blockwork to be taken clear of pipes and suitabily arched or supported by concrete lintols; top of cover slab to be 50mm below FGL in roads and footpaths and at FGL in fields and grass margin; include for concrete surround to perimeter of manhole cover; include for 50mm diameter drain in chamber; including all necessary excavation, disposal, working space, earthwork support, dewatering, backfilling, formwork, reinforcement, construction joints and finishes; all as per specification and Engineers Specification and Drawings & Irish Water Standard Detail STD-W-15					
C	600 x 600mm minimum internal dimensions; depth 1000 - 1500mm	1	nr			
	Concrete bases/Anchor blocks					
	Excavate; level and compact bottoms of excavation; part backfill; dispose of surplus; The formation level of all anchor blocks shall be prepared by hand at specified depths below the trench formation level and the bearing area shall be excavated carefully by hand to avoid over excavation. Following preparation and approval of the formation, the Contractor shall provide and lay a 50.0 mm depth Class 7.5/20 concrete to prevent deterioration of the formation during fixing of bends and fittings and the erection of anchor block formwork. The anchor blocks shall be constructed in Class 20/25 concrete to the dimensions shown on Irish Water - Water Infrastructure Standard Details.as per Engineer's Drawings					
D	size 450 x 450 x 600mm deep anchor blocks; complete	3	nr			
				To Collection €		

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	(50) SITE SERVICES - UPGRADNG EXISTING WATERMAIN (Cont)					
	Mains					
	Connection to existing watermain pipe					
A	Connection to existing watermain pipe; 100mm diameter; provide opening for new watermains connection; carefully excavate by hand to locate existing live watermain; include for all fittings including flange adaptors, flanged tees, HDPE branch etc required to make the connection; including all excavation, disposal, working space, backfilling; making good; reinstate all finishes to match existing; maintain flow at all times; Connection to be co-ordinated with Engineer; it will be the duty of the Contractor to seek all necessary road opening licences, permissions, etc including any Irish Water / Local Authority / Group Water Scheme connection levies; The connection must be made in accordance with Local Authority Guideliens and trench backfilled in accordance with Civil/ Structural Engineering Spec and Guidelines for the Opening, Backfilling and Reinstatement of Trenches in Public Roads - Dept of Env & Local Gov 2002 and Specification for the Reinstatement of Openings in Highways HUAC 2010; all new fittings, branches and ferrules to be installed as per Local Authority requirements and Irish Water Requirements; The Contractor shall carry out any investigations, searches, tests, trial holes, slit trenches, and trial holes necessary to locate existing services at his own expense; all as per Engineer's Specification	1	nr			
	Testing and Commissioning					
B	PREPARATION: (a) The section of pipeline to be tested shall consist of one class of pipe only. (b) Pipe joints shall be left exposed during the test. (c) Sufficient backfill shall be placed around the pipe to prevent excessive movement during the test. (d) The pipes shall be tested in such lengths, up to a maximum length of 800 metres. (e) The ends of the section to be tested shall be blanked off using bolted blank flanges or fused end caps, adequately strutted or anchored to solid undisturbed ground. (f) Blank flanges or end caps shall be fitted with appropriate tappings to enable flushing out and filling of the pipeline and to accommodate the necessary pressure gauges. (g) Testing against a closed valve is not permitted, and these shall be in fully open position during the test. (h) Air valves and hydrants shall be subjected to the Test Pressure and should be inspected whilst the main is under pressure to ensure that they are not leaking.	1	item			
C	FLUSHING: (a) The section to be tested shall be thoroughly flushed with fresh clean water. A flushing velocity of at least 1 metre per second should be maintained. (b) Flushing shall be continued until the Testing Engineer/Supervisor is satisfied that the section under test has been thoroughly cleaned.	1	item			
				To Collection €		

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	(50) SITE SERVICES - UPGRADNG EXISTING WATERMAIN (Cont)					
A	DISINFECTION: (a) After flushing, the mains shall be filled with chlorinated water, having a minimum chlorine content of 20 mg/litre (20 p.p.m.). This water shall be left standing in the pipeline for at least 24 hours. (b) The chlorinated water shall then be drained off, and shall be treated to dilute the chlorine to a level of 0.5 mg/l before discharge to a sewer or watercourse. (c) The mains shall then be thoroughly flushed again with potable water from the supply, or with water having a minimum chlorine content of 0.5 mg/l provided by the Developer if none is available from the Public Mains. (d) After thorough flushing, a bacteriological test shall be carried out on the main. The test must show that the water in the new mains is in accordance with the Chemical and Bacteriological Water Quality Requirements of the European Communities (Quality of Water Intended for Human Consumption) Regulations (current version, including any amendments or additions thereto).	1	item			
B	SETTING UP THE PRESSURE TEST: (a) The test position shall be located at the lower end of the pipeline profile. (b) The section under test shall be filled with water, ensuring all air has been eliminated from it. The pipe shall be filled slowly to avoid risk of damage due to surge. (c) After filling it shall be left under operating pressure for a period in order to achieve stable conditions. (d) All air vents shall be closed and the system left to stabilise for 2 to 3 hours. The Test Pressure may then be applied.	1	item			
C	PRESSURE TESTING: (a) Pressure shall be applied at a constant and consistent rate by pumping with the Test Pump, until the Test Pressure is achieved. (b) The Test Pressure shall be maintained by additional pumping as required for 30 minutes. (c) The pressure shall then be reduced to 2 bars (30 p.s.i. or 68 ft or 20 metres) by rapid bleeding from the system. (d) Pressure gauge readings shall then be noted as follows: (i) At 2-minute intervals for the first 10 minutes (5 readings) (ii) At 5-minute intervals for the next 30 minutes (4 readings) (iii) At 10-minute intervals for the next 60 minutes (6 readings) (e) After 30 minutes at a pressure of 2 bars, the pressure in a leaktight system will have stabilised at approximately 4 bars (60 p.s.i. approximately), and should not fall away. A test failure will be indicated by a falling pressure. (f) If a drop in pressure occurs, the quantity of water added in order to re-establish the Test Pressure shall be carefully measured. The maximum allowable leakage from the main which has been subjected to the Test Pressure and allowed to stand under pressure for 24 hours shall not exceed 0.1 litres per mm bore of main per 1000m of pipe under test. (g) If the test is not satisfactory the fault shall be found and rectified. All defective pipes, whether cracked, porous, leaking or exhibiting other faults shall be removed and replaced by new pipes. All leaking joints shall be made good. Burning, plugging, stopping or other repairs to porous or faulty pipes will not be permitted.	1	item			
D	TESTING OF THERMOPLASTIC PRESSURE PIPELINES: The testing of thermoplastic pressure pipelines shall be carried out in accordance with the procedures in A Guide to testing of water supply pipelines and sewer rising mains, published by WRc.	1	item			
				To Collection €		

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	(50) SITE SERVICES - UPGRADNG EXISTING WATERMAIN (Cont)					
A	COMPLETION TEST (FOR STAGE DEVELOPMENTS) (a) Where the water service main system within a development has been tested in stages, a Completion test shall be carried out on the entire system before it can be taken over by the Council. (b) The Test Pressure shall be full static pressure on the system, or the total normal pumping head in the case of pumped systems. The Test Pressure shall be applied for a period of not less than 6 hours or more than 24 hours. The leakage rate shall not exceed 0.11 litres per mm bore of main per 1000m of pipeline per 24 hours.	1	item			
B	TEST PRESSURES: The Test Pressure shall be as outlined below for the various types and classes of pipe, unless otherwise specified in the documents or directed by the Test Engineer/Supervisor. Pipelines shall be tested in sections, under an internal water pressure as per details in Engineer's Specification; The Test Pressure for gravity mains is the Rated Pressure or 1.5 times the maximum static head, whichever is greater. For pumping mains the Test Pressure is the Rated Pressure or 1.5 times the maximum working pressure, whichever is greater. The above Test Pressure shall apply at the highest point of the section under test but the Developer shall ensure that no pipe on the pipeline under test is subjected to more than twice the normal working pressure for the class of pipe under test.	1	item			
C	Watermains should be tested at 1.5 times the working pressure for one hour in the presence of a member of staff from the waterworks department; details of testing procedure to be discussed on site with Contractor	1	item			
D	All testing (pressure chlorination & bacterial) tests to be in accordance with Local Authorities specification; the Engineer is to inspect the pressure test after the water control meters are installed. All hydrants & valves are to be included in the test	1	item			
	WORK OUTSIDE THE BOUNDARY OF THE SITE					
	Extra Over For: -					
E	A portion of the works in this section are outside the boundary of the site; see Architect's & Engineer's Drawings	1	item			

To Collection €

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(50) SITE SERVICES - UPGRADNG EXISTING WATERMAIN (Cont)					
COLLECTION					
Page No. Siteworks/141					
Page No. Siteworks/142					
Page No. Siteworks/143					
Page No. Siteworks/144					
Page No. Siteworks/145					
Page No. Siteworks/146					
(50) SITE SERVICES - UPGRADNG EXISTING WATERMAIN **Carried to Summary**					

					€	c
	(60) SITE SERVICES - GAS					
	DRAINAGE/SERVICES - GAS MAIN					
	General Information					
	Information					
A	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		note			
B	Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification		note			
	Builders work in connection with all installation					
	Excavation					
	Excavating trenches to receive 1nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported compacted stone fill; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations; as per Engineer's Drawing					
C	Average Depth 500 - 1000mm	558	m			
	Extra over excavating trenches irrespective of depth					
	Breaking up & Reinstating					
D	Breaking out existing roadway and associated make-up (585mm total); saw cutting surface; include for reinstating road surfacing and all associated hardcore makeup;40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and to TII Publications clause 910, laid on 225mm deep clause 808 stone sub-base; laid on 200mm 6F2 capping layer; include for fair jointing to fair edges; include for breaking out and reinstating all kerbing required; disposal of excavated material off site; all in accordance with the Engineer's Specification	73	m			
E	Breaking out footpath; saw cutting surface; include for reinstating surfacing to match existing including T3 prem sub base material where necessary; fair jointing to fair edges; disposal of excavated material off site; include for replacing associated concrete kerbs; all to satisfaction of Engineers Specification & Drawings	12	m			
F	Excavating existing grass and making good to match existing after excavation and drainage runs have been laid	375	m			

					€	c
	(60) SITE SERVICES - GAS (Cont)					
	Around existing services crossing excavations					
A	Storm Drainage; crossing excavations	7	nr			
B	Foul Drainage; crossing excavations	7	nr			
C	Watermain pipe; crossing excavations	7	nr			
D	ESB Duct; crossing excavations	1	nr			
E	EIR Duct; crossing excavations	1	nr			
	Around existing services parallel excavations					
F	Storm Drainage; parallel excavations	105	m			
G	Foul Drainage; parallel excavations	105	m			
H	Watermain pipe; parallel excavations	105	m			
	Disposal					
J	Ground Water	1	item			
K	Surface Water	1	item			
	Sand bed and surround; to Engineer's Specification					
	Beds and surrounds					
L	263 x 188mm, to 63mm pipes / ducts	558	m			
	PVC marker tape "Heptape" or equivalent					
M	Continuous strip laid during trench backfill, 100mm above pipework	558	m			
	Base to relocated Gas Tank					
	Construction of concrete base to proposed gas tank; base to be 3880mm x 1920mm x 400mm deep concrete; with and including 100mm deep hardcore sub base and 300mm deep capping layer; include for 2 layers of seperation membrance; include for long radius bends for both incoming and outgoing gas pipes; include for forming openings in concrete base for incoming and outgoing pipes; include for all excavation, disposal, working space, hardcore, concrete, reinforcement, surface finishes, formwork, etc required to carry out the works; all in accordance with M & E Engineers Specification & Civil Engineers drawing					
N	3880 x 1920 x 400mm deep concrete base	1	item			
				To Collection €		

(60) SITE SERVICES - GAS (Cont)

Base to Gas Meter

Construction of concrete base to proposed gas meter; base to be 1200mm x 400mm x 250mm deep concrete; with and including 150mm deep hardcore sub base; include for 2 layers of seperation membrance; include for long radius bends for both incoming and outgoing gas pipes; include for forming openings in concrete base for incoming and outgoing pipes; include for all excavation, disposal, working space, hardcore, concrete, reinforcement, surface finishes, formwork, etc required to carry out the works; all in accordance with M & E Engineers Specification & drawing

A	1200 x 400 x 150mm deep concrete base	1	item		

Mechanical Installations

Gas pipework as per Engineer's Specification & Gas Suppliers details; complete

Pipework

B	Installation only of gas pipework; size: 63mm; pipe to be supplied by Gas Supplier; complete	558	m		

Gas Tank

C	Contractor to provide attendances to suppliefor relocated gas tank; complete	1	nr		

Gas Meter

D	Contractor to provide attendances to supplier of Gas Meter; complete	1	nr		

Sundries

E	Connecting new 1nr Gas pipe to existing Gas pipe; include for forming new connection; include for all fittings, etc.; making good and reinstating all work and surfaces disturbed to match existing; all in strict accordance with the Engineer's specification and drawings	1	nr		

MECHANICAL INSTALLATIONS

Generally

General; complete; refer to M&E Drawings, M&E Mechanical Engineering General Specification

General

F	Testing and commissioning; all in accordance with Engineers specification documents and drawings	1	Item		
G	Operating and maintenance manuals; all in accordance with Engineers specification documents and drawings	1	Item		

To Collection €

					€	c
	(60) SITE SERVICES - GAS (Cont)					
A	Working drawings; all in accordance with Engineerss specification documents and drawings	1	Item			
B	Co- ordination drawings; all in accordance with Engineers specification documents and drawings	1	Item			
C	As built drawings; all in accordance with Engineers specification documents and drawings	1	Item			
D	Identification plates, labels and the like; all in accordance with Engineers specification documents and drawings	1	Item			
E	Builderswork; forming and cutting holes, mortices, chases or the like, providing grounds, lifting, re-fixing and replacing as required existing chequer plates, floor boards or raised access floor panels etc. and amking good, all in accordance with Engineers specification documents and drawings	1	Item			
F	Fire stopping and other associated fire protection works; all in accordance with Engineers specification documents and drawings	1	Item			
	WORK OUTSIDE THE BOUNDARY OF THE SITE					
	Extra Over For: -					
G	A portion of the works in this section are outside the boundary of the site; see Architect's & Engineer's Drawings	1	item			
	Notes					
H	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		Note			
J	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 Semple McKillop Consulting Engineers.		Note			
K	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 Mechanical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist.		Note			
				To Collection €		

					€	c
	(60) SITE SERVICES - GAS (Cont)					
	ALTERNATIVE RULES FOR THE MEASUREMENT OF MECHANICAL INSTALLATIONS					
	(50) SITE SERVICES (MAINLY MECHANICAL) - NATURAL GAS					
	System					
	Natural Gas installation testing and commissioning; Gas Networks Ireland shall make a new connection and extend to a new gas rig/meter as indicated on the design drawings. From the new gas rig/meter the mechanical contractor shall be responsible for the supply and installation of a new gas main from the meter to the existing boiler house. The Main Contractor shall be responsible for all trenching, builders work's and attendances, back filing and making surface good. 2 no. natural gas valved spurs are to be installed underground for future connection to existing school boiler plant. Main contractor to provide manhole chambers as per Civil Engineers specification; all in strict accordance with the Mechanical Engineers SpecificationPart 1, Section 7; Part 2; Part 3 and Drawing 2556-SMK-XX-ZZ-DR-M5001					
	Accessories associated with primary equipment					
	Gas valve spur; supply and installation; complete; include for all accessories; all in strict accordance with Mechanical Engineers Specification and Drawing 2556-SMK-XX-ZZ-DR-M5001					
A	25mm Gas Valve Spur	2	nr			
	Distribution System					
	Medium Density Polyethylene pipework and fittings; supply and installation; complete; MDPE SDR 11 colour yellow; include for all fixings and supports; include for all elbows,expansion bellows, unions and tees necessary to complete works; all in strict accordance with the Mechanical Engineers Specification					
B	25mm diameter pipework	1	Item			
C	32mm diameter pipework	1	Item			
D	63mm diameter pipework	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
E	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
F	Operating and maintenance manuals	1	Item			
				To Collection €		

					€	c
	(60) SITE SERVICES - GAS (Cont)					
	Working drawings; all in accordance with Engineers Specification					
A	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
B	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
C	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
D	Identification plates, labels and the like	1	Item			
				To Collection €		

				€	c
(60) SITE SERVICES - GAS (Cont)					
COLLECTION					
Page No. Siteworks/148					
Page No. Siteworks/149					
Page No. Siteworks/150					
Page No. Siteworks/151					
Page No. Siteworks/152					
Page No. Siteworks/153					
(60) SITE SERVICES - GAS **Carried to Summary**					

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - ESB					
	SITE SERVICES (MAINLY ELECTRICAL) - ESB					
	General Information					
	Information					
A	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		Note			
B	Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification		Note			
C	The contractor shall also ascertain whether or not there are any E.S.B. cables on the site and arrange for their removal so that it does not delay site progress. All, redundant site services/site services made redundant, for all utilities and services, will be removed as part of the contract.	1	item			
	Builders work in connection with all installation					
	Excavation					
	Excavating trenches to receive 1nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
D	Average depth 500 - 1000mm	399	m			
	Excavating trenches to receive 2nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
E	Average depth 500 - 1000mm	156	m			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - ESB (Cont)					
	Excavating trenches to receive 3nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
A	Average depth 500 - 1000mm	67	m			
	Extra over excavating trenches irrespective of depth					
	Breaking up & Reinstating					
B	Breaking out existing roadway and associated make-up (585mm total); saw cutting surface; include for reinstating road surfacing and all associated hardcore makeup;40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and to TII Publications clause 910, laid on 225mm deep clause 808 stone sub-base; laid on 200mm 6F2 capping layer; include for fair jointing to fair edges; include for breaking out and reinstating all kerbing required; disposal of excavated material off site; all in accordance with the Engineer's Specification	17	m			
C	Breaking out footpath; saw cutting surface; include for reinstating surfacing to match existing including T3 prem sub base material where necessary; fair jointing to fair edges; disposal of excavated material off site; include for replacing associated concrete kerbs; all to satisfaction of Engineers Specification & Drawings	81	m			
D	Excavating existing grass and making good to match existing after excavation and drainage runs have been laid	296	m			
	Around existing services crossing excavations					
E	Storm Drainage; crossing excavations	7	nr			
F	Foul Drainage; crossing excavations	7	nr			
G	Watermain pipe; crossing excavations	7	nr			
	Around existing services parallel excavations					
H	Storm Drainage; parallel excavations	85	m			
J	Foul Drainage; parallel excavations	85	m			
K	Watermain pipe; parallel excavations	85	m			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - ESB (Cont)					
	Disposal					
A	Ground water	1	item			
B	Surface water	1	item			
	Sand bed and surround; to Engineer's Specification					
	Beds and Surrounds					
C	325 x 250mm; to 1nr 125mm duct	391	m			
D	350 x 275mm; to 1nr 150mm duct	8	m			
E	525 x 250mm; to 2nr 125mm duct	100	m			
F	575 x 275mm; to 2nr 150mm duct	56	m			
G	800 x 275mm; to 3nr 150mm duct	67	m			
	PVC Red marker tape; "Heptape" or equivalent					
H	Continuous strip; laid during trench backfill; 100mm above pipework	621	m			
	PVC Yellow marker tape; "Heptape" or equivalent					
J	Continuous strip; laid during trench backfill; 300mm above pipework	621	m			
	Ductwork; uPVC duct; to ESB Speciifcation					
	125mm dia.; include for draw-wire					
K	Laid in trenches	590	m			
L	Extra over for easy sweep bends complete with puddle flanges; set in concrete	16	nr			
	Ductwork; uPVC duct; to ESB Speciifcation					
	150mm dia.; include for draw-wire					
M	Laid in trenches	320	m			
N	Extra over for easy sweep bends complete with puddle flanges; set in concrete	3	nr			

To Collection €

(60) SITE SERVICES (MAINLY ELECTRICAL) - ESB (Cont)

Chambers

Draw pit chamber; complete; excavating pits from stripped level 1000x1000x1000mm deep internally; dispose of surplus soil; grading bottom; earthwork support; open bottom pit filled with 50mm course gravel for drainage; RC3 concrete base on 50mm blinding grade gen 3; Concrete roof slab grade C25 c/w opening for cover and frame; 225mm thick Class B engineering brickwork in english bond; Walls: 1000mm high with 50mm rebate for removable cover; include for openings for ducts; Heavy duty cast iron cover and frame to Engineer's Specification bedded in epoxy mortar; include for step irons; all pvc pipes to fall away from building and all pits should not waterlog; pipes to be buried 750mm below ground level; include for backfilling to sides of chamber where necessary; all in accordance with M & E Engineers Drawing ME 1000 (C)

A	Average depth not exceeding 1000mm	5	nr		

Sundries

B	Allow for sealing all incoming service ductwork to prevent ingress of damp, dirt and vermin	1	item		
C	Allow for clearance between Telecom ducts and ESB ducts and cables over 650 volts; of 300mm vertical clearance at crossings and 600mm lateral clearance in parallel trenches	1	item		
D	Allow for clearance between ESB ducts and cables and other service ducts; 150mm vertical clearance at crossings and 300mm lateral clearance in parallel trenches	1	item		
E	Provide for all necessary attendances on ESB to include liaising with ESB before, during and after installation of electrical services and providing and making available site data for their use	1	item		
F	Provide markings/signage of ESB cables at locations as agreed with Local Engineering Officer and in accordance with ESB Specifications; as per Engineer's Drawing	1	item		
G	Provide all necessary attendances and builders work in association with disconnecting and removing existing underground ESB supply; complete	1	item		

WORK OUTSIDE THE BOUNDARY OF THE SITE

Extra Over For: -

H	A portion of the works in this section are outside the boundary of the site; see Architect's & Engineer's Drawings	1	item		

To Collection €

				€	c
(60) SITE SERVICES (MAINLY ELECTRICAL) - ESB (Cont)					
COLLECTION					
Page No. Siteworks/155					
Page No. Siteworks/156					
Page No. Siteworks/157					
Page No. Siteworks/158					
(60) SITE SERVICES (MAINLY ELECTRICAL) - ESB **Carried to Summary**					

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV					
	SITE SERVICES (MAINLY ELECTRICAL) - EV					
	General Information					
	Information					
A	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		Note			
B	Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification		Note			
C	The contractor shall also ascertain whether or not there are any E.S.B. cables on the site and arrange for their removal so that it does not delay site progress. All, redundant site services/site services made redundant, for all utilities and services, will be removed as part of the contract.	1	item			
	Builders work in connection with all installation					
	Excavation					
	Excavating trenches to receive 1nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
D	Average depth 500 - 1000mm	99	m			
	Excavating trenches to receive 2nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
E	Average depth 500 - 1000mm	54	m			
	Extra over excavating trenches irrespective of depth					
	Disposal					
F	Ground water	1	item			
G	Surface water	1	item			

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)					
	Sand bed and surround; to Engineer's Specification					
	Beds and Surrounds					
A	300 x 225mm; to 1nr 100mm duct	99	m			
B	475 x 225mm; to 2nr 100mm duct	54	m			
	PVC Red marker tape; "Heptape" or equivalent					
C	Continuous strip; laid during trench backfill; 100mm above pipework	153	m			
	PVC Yellow marker tape; "Heptape" or equivalent					
D	Continuous strip; laid during trench backfill; 300mm above pipework	153	m			
	Ductwork; uPVC duct; to ESB Speciifcation; Red					
	100mm dia.; include for draw-wire					
E	Laid in trenches	207	m			
F	Extra over for easy sweep bends complete with puddle flanges; set in concrete	6	nr			
	Chambers					
	Draw pit chamber; complete; excavating pits from stripped level 1000x1000x1000mm deep internally; dispose of surplus soil; grading bottom; earthwork support; open bottom pit filled with 50mm course gravel for drainage; RC3 concrete base on 50mm blinding grade gen 3; Concrete roof slab grade C25 c/w opening for cover and frame; 225mm thick Class B engineering brickwork in english bond; Walls: 1000mm high with 50mm rebate for removable cover; include for openings for ducts; Heavy duty cast iron cover and frame to Engineer's Specification bedded in epoxy mortar; include for step irons; all pvc pipes to fall away from building and all pits should not waterlog; pipes to be buried 750mm below ground level; include for backfilling to sides of chamber where necessary; all in accordance with M & E Engineers Drawing ME 1000 (C)					
G	Average depth not exceeding 1000mm	11	nr			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)					
	EV Luci Pillars					
	EV Luci Pillar to Engineer's & ESB Specification; Luci pillars will be manufactured in glass reinforced plastic to fully comply with Electricity Supply Industry Specification ESI 37 and IS EN 60439-5. The same requirements are to be met as for distribution boards in terms of capacity, busbars etc.. The enclosure will have a minimum protection rating of IP64. Each mini-pillar will include: Quick-acting barlock and high security padlock. Set of isolator operating and locking off tools. Spare fuse tray with spare fuses. A 65 Watt switched, fused anti-condensation heater. This heater should incorporate thermostatic control for on and off control. Purpose-made base unit for cable entry. All minipillars will be painted against rusting (stove glass enamel). Colour to match standard manufacturers finish. After final painting treat interior with a cork based paint to reduce level of condensation by providing a thermal barrier between enclosure metalwork and internal air; include for associated concrete base; complete; disposal of excavated material off-site; level and compacting bottom of excavation; earthwork support; all to Engineer's Specification and Drawings					
A	EV Luci Pillar; include for cover and frame	1	nr			
	EV Luci Pillar Vault and VC2 Cover					
	EV Luci Pillar Vault and VC2 Cover; complete; with ESB Networks Approved Pre-Fabricated and Pre-cast minipillar caults and vault cover; Excavating pits from finished road level; making good surrounding areas where necessary; disposal of excavated material off-site; level and compacting bottom of excavation; earthwork support; 150mm thick 15N concrete base and surrond; cover and frame to suit; include openings for ducts; step irons; cable bearers and brackets; all in accordance to ESB Network Standards					
B	850 x 850 x 900mm deep; include for cover and frame	1	nr			
	ESB Mini Pillars					
	ESB Mini Pillar to Engineer's & ESB Specification; Minipillars will be manufactured in glass reinforced plastic to fully comply with Electricity Supply Industry Specification ESI 37 and IS EN 60439-5. The same requirements are to be met as for distribution boards in terms of capacity, busbars etc.. The enclosure will have a minimum protection rating of IP64. Each mini-pillar will include: Quick-acting barlock and high security padlock. Set of isolator operating and locking off tools. Spare fuse tray with spare fuses. A 65 Watt switched, fused anti-condensation heater. This heater should incorporate thermostatic control for on and off control. Purpose-made base unit for cable entry. All minipillars will be painted against rusting (stove glass enamel). Colour to match standard manufacturers finish. After final painting treat interior with a cork based paint to reduce level of condensation by providing a thermal barrier between enclosure metalwork and internal air; include for associated concrete base; complete; disposal of excavated material off-site; level and compacting bottom of excavation; earthwork support; all to Engineer's Specification and Drawings					
C	ESB Mini Pillar; include for cover and frame	1	nr			

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)					
	ESB Mini Pillar Vault and VC2 Cover					
	ESB Mini Pillar Vault and VC2 Cover; complete; with ESB Networks Approved Pre-Fabricated and Pre-cast minipillar caults and vault cover; Excavating pits from finished road level; making good surrounding areas where necessary; disposal of excavated material off-site; level and compacting bottom of excavation; earthwork support; 150mm thick 15N concrete base and surrond; cover and frame to suit; include openings for ducts; step irons; cable bearers and brackets; all in accordance to ESB Network Standards					
A	850 x 850 x 900mm deep; include for cover and frame	1	nr			
	Sundries					
B	Allow for sealing all incoming service ductwork to prevent ingress of damp, dirt and vermin	1	item			
C	Allow for clearance between Telecom ducts and ESB ducts and cables over 650 volts; of 300mm vertical clearance at crossings and 600mm lateral clearance in parallel trenches	1	item			
D	Allow for clearance between ESB ducts and cables and other service ducts; 150mm vertical clearance at crossings and 300mm lateral clearance in parallel trenches	1	item			
E	Provide for all necessary attendances on ESB to include liaising with ESB before, during and after installation of electrical services and providing and making available site data for their use	1	item			
F	Provide markings/signage of ESB cables at locations as agreed with Local Engineering Officer and in accordance with ESB Specifications; as per Engineer's Drawing	1	item			
G	Provide all necessary attendances and builders work in association with disconnecting and removing existing underground ESB supply; complete	1	item			
	Notes					
H	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		Note			
J	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 Semple & McKillop Consulting Engineers.		Note			
				To Collection €		

(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)

A 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. — Note

ALTERNATIVE RULES FOR THE MEASUREMENT OF ELECTRICAL SERVICES

(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV CHARGERS

System

Power to EV Charging installation, testing and commissioning; complete; The Electrical contractor shall provide an Electric Vehicle Charging point for use by electric plug in vehicles at one location in the car park as indicated on the contract drawings. The contractor shall also install ducting to 20% of the car parking spaces in the development; all underground electrical services cables shall be within ducts; separate underground service ducts shall be provided as part of the builders works element; smart energy mobile subscription services are to be included for the client for the first year; all in accordance with the Electrical Engineers Specification Part 1, Section 14; Part 2; Part 3; Part 4 and Drawing 2556-SMK-00-LL-DR-E-6050, 2556-SMK-ZZ-SI-DR-E-6002

B EV Charging Power Installation — 1 — Item

Equipment

Sub-distribution board; supply and installation (including wiring) complete; Switchboard to provide 25% spare capacity for future expansion; complete with and include for all PVC cables, bush bar system, TP&N's, MCCB's, MCB's, RCBO's; HOA switches, CTU's, open/closed contactors; remote keyswitches, timeclocks, metering, surge protection, earth therminal; Labels: Traffolyte, black on white, screw on type, to all chambers inside and outside the panel; Testing and commissioning: in accordance with current standards; all in strict accordance with the Electrical Engineers specificiaction Part 1, Part 4

C Sub - Distribution board; complete (Ref: E-Charge Board, Location: Site Carpark E-Charge Mini Pillar) — 1 — nr

To Collection €

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)					
	Mini Pillars; supply and installation; complete; Cast iron services pillar; black RAL colour finishes c/w zinc phosphate resin treatment; Pillar cap and sides in close grain grey iron to BS 1452 Grade 180; IP3L3 degree of protection to IEC 947-1 standard c/w 2No. yale lock; Doors and back panel to be fabricated from 4mm special chrome enriched steel; c/w 15mm marine ply backboard; c/w concealed ventilation; root mounted pillar; c/w power circuits; c/w tubular heater and thermostat; Pillar shall be highline (1454mm H x 1553mm W); House PoE equipment and switches; House relay units; Contain local distribution board; all in accordance with the Electrical Specification Part 1, Section 14.1					
A	Mini Pillar	1	nr			
	<u>EV dual charger and pedestal; 22KW electric double car charger c/w EV smart charging equipment; supply and installation (including wiring); complete; all in accordance with the Electrical Engineers Specification Part 1, Section 14 and Drawing</u>					
B	Electrical Vechile Charger, complete	1	nr			
	<u>Fittings</u>					
	Isolator Switch; supply and installation (including wiring); complete; c/w back boxes; all in accordance with the electrical specification					
C	Isolator Switch; TPN 40amp (external)	1	nr			
	<u>Mains and Sub-mains cables</u>					
	Supply and installation of sub-mains cable from Main Distribution Board MDB; Location: Plant room adjacent PE Hall; 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 external submains shall be laid in underground ducts; 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 Specification and Drawings 2556-SMK-00-LL-DR-E-6050					
D	Submains Ref: E; MSB to Lucy Pillar; 4 x 150sq.mm XLPE/LSF/SWA/LSF + 150sq.mm CPC	1	Item			
	<u>Final Circuits</u>					
	Final Circuits; cable installation (including wiring), Complete; Final circuits shall be fed from local sub-distribution boards; Circuits shall be wired with insulated 4c 10mm2 SWA/XPLE/LSZH cables; standards to Engineers Specification; cables laid in under ground ducts; all in strict accordance with the Electrical Engineers Specification and Drawing 2556-SMK-00-LL-DR-E-6050					
	Final Circuits - E-Car Charge mini pillar nr.1					
E	EV charger; Three Phase; 40amp MCB	1	nr			

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)					
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
A	Generally	1	Item			
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers specification documents and drawings					
B	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers specification documents and drawings					
C	Operating and maintenance manuals; complete	1	nr			
	Working drawings; all in accordance with the Electrical Engineers specification documents and drawings					
D	Working drawings; complete	1	Item			
	Co- ordination drawings; all in accordance with the Electrical Engineers specification documents and drawings					
E	Co- ordination drawings; complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers specification documents and drawings					
F	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers specification documents and drawings					
G	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)					
	(60) SITE SERVICES (MAINLY ELECTRICAL) - EV CHARGING COMMS CABLE INSTALLATION					
	System					
	Comms cable to EV charging installation, testing and commissioning; complete; The Electrical contractor shall provide CAT 5/6 cable from EV smart charging equipment to EV dual charger location in the car park as indicated on the contract drawings. The contractor shall also install ducting to 20% of the car parking spaces in the development; all underground electrical services cables shall be within ducts; separate underground service ducts shall be provided as part of the builders works element; smart energy mobile subscription services are to be included for the client for the first year; all in accordance with the Electrical Engineers Specification Part 1, Section 14; Part 2; Part 3; Part 4 and Drawing 2556-SMK-00-LL-DR-E-6050					
A	EV Charging Comms Cable Installation	1	Item			
	Final Circuits					
	CAT 5/6 cable installation, testing and commissioning; complete; distributed within galvanized steel cable tray/trunking within the building; laid in concealed underground ducts externally on site (measured elsewhere); terminating at both ends; include for all fittings and accessories; all in strict accordance with the Electrical Engineers Specification and Drawings 2556-SMK-00-LL-DR-E-6050					
B	Cable from EV smart charging equipment to EV dual charger	1	nr			
	Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
C	Generally	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
D	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
E	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
F	Working drawings	1	Item			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)					
	Co-ordination drawings; all in accordance with Engineers Specification					
A	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
B	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
C	Identification plates, labels and the like	1	Item			
				To Collection €		

				€	c
(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV (Cont)					
COLLECTION					
Page No. Siteworks/160					
Page No. Siteworks/161					
Page No. Siteworks/162					
Page No. Siteworks/163					
Page No. Siteworks/164					
Page No. Siteworks/165					
Page No. Siteworks/166					
Page No. Siteworks/167					
Page No. Siteworks/168					
(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO EV **Carried to Summary**					

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO RAINWATER HARVESTING TANK					
	SITE SERVICES (MAINLY ELECTRICAL) - RAINWATER HARVESTING TANK					
	General Information					
	Information					
A	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		Note			
B	Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification		Note			
C	The contractor shall also ascertain whether or not there are any E.S.B. cables on the site and arrange for their removal so that it does not delay site progress. All, redundant site services/site services made redundant, for all utilities and services, will be removed as part of the contract.	1	item			
	Builders work in connection with all installation					
	Excavation					
	Excavating trenches to receive 1nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
D	Average depth 500 - 1000mm	104	m			
	Extra over excavating trenches irrespective of depth					
	Breaking up & Reinstating					
E	Breaking out existing roadway and associated make-up (585mm total); saw cutting surface; include for reinstating road surfacing and all associated hardcore makeup;40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and to TII Publications clause 910, laid on 225mm deep clause 808 stone sub-base; laid on 200mm 6F2 capping layer; include for fair jointing to fair edges; include for breaking out and reinstating all kerbing required; disposal of excavated material off site; all in accordance with the Engineer's Specification	32	m			

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO RAINWATER HARVESTING TANK (Cont)					
	Disposal					
A	Ground water	1	item			
B	Surface water	1	item			
	Sand bed and surround; to Engineer's Specification					
	Beds and Surrounds					
C	300 x 225mm; to 1nr 100mm duct	104	m			
	PVC Red marker tape; "Heptape" or equivalent					
D	Continuous strip; laid during trench backfill; 100mm above pipework	104	m			
	PVC Yellow marker tape; "Heptape" or equivalent					
E	Continuous strip; laid during trench backfill; 300mm above pipework	104	m			
	Ductwork; uPVC duct; to ESB Speciifcation; Red					
	100mm dia.; include for draw-wire					
F	Laid in trenches	104	m			
G	Extra over for easy sweep bends complete with puddle flanges; set in concrete	4	nr			
	Chambers					
	Draw pit chamber; complete; excavating pits from stripped level 1000x1000x1000mm deep internally; dispose of surplus soil; grading bottom; earthwork support; open bottom pit filled with 50mm course gravel for drainage; RC3 concrete base on 50mm blinding grade gen 3; Concrete roof slab grade C25 c/w opening for cover and frame; 225mm thick Class B engineering brickwork in english bond; Walls: 1000mm high with 50mm rebate for removable cover; include for openings for ducts; Heavy duty cast iron cover and frame to Engineer's Specification bedded in epoxy mortar; include for step irons; all pvc pipes to fall away from building and all pits should not waterlog; pipes to be buried 750mm below ground level; include for backfilling to sides of chamber where necessary; all in accordance with M & E Engineers Drawing ME 1000 (C)					
H	Average depth not exceeding 1000mm	5	nr			
	Sundries					
J	Allow for sealing all incoming service ductwork to prevent ingress of damp, dirt and vermin	1	item			
K	Allow for clearance between Telecom ducts and ESB ducts and cables over 650 volts; of 300mm vertical clearance at crossings and 600mm lateral clearance in parallel trenches	1	item			

To Collection €

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO RAINWATER HARVESTING TANK (Cont)					
A	Allow for clearance between ESB ducts and cables and other service ducts; 150mm vertical clearance at crossings and 300mm lateral clearance in parallel trenches	1	item			
B	Provide for all necessary attendances on ESB to include liaising with ESB before, during and after installation of electrical services and providing and making available site data for their use	1	item			
C	Provide markings/signage of ESB cables at locations as agreed with Local Engineering Officer and in accordance with ESB Specifications; as per Engineer's Drawing	1	item			
D	Provide all necessary attendances and builders work in association with disconnecting and removing existing underground ESB supply; complete	1	item			
	Notes					
E	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		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 Semple & McKillop Consulting Engineers.		Note			
G	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.		Note			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO RAINWATER HARVESTING TANK (Cont)					
	ALTERNATIVE RULES FOR THE MEASUREMENT OF ELECTRICAL SERVICES					
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO RAIN WATER HARVESTING PUMP					
	System					
	Power to Rain water harvesting installation, testing and commissioning; complete; The electrical contractor shall provide all wiring and power supplies associated with the rain water harvesting submersible pump as detailed on the wiring schematic. The external tank shall be located remote from the building and the electrical contractor shall be required to provide control wiring from this external tank location to the RWH control panel in the plant room; all in accordance with the Electrical Engineers Specification Part 1, Part 2; Part 3; Part 4 and Drawing 2556-SMK-ZZ-SI-DR-ME-6002					
A	Rain Water Harvesting Power Installation	1	Item			
	Final Circuits					
	Final Circuits; cable installation (including wiring), Complete; Final circuits shall be fed from local sub-distribution boards; Circuits shall be wired with insulated 3c 10.0mm2 XLPE/SWA/LSF cables; standards to Engineers Specification; cables laid in under ground ducts; all in strict accordance with the Electrical Engineers Specification and Drawing 2556-SMK-ZZ-SI-DR-ME-6002					
	Final Circuits - RWH Panel					
B	Power Services Circuit; RWH pump set	1	nr			
	Final Circuits; cable installation (including wiring), Complete; Final circuits shall be fed from local sub-distribution boards; Circuits shall be wired with insulated 8c 0.75mm2 screened external grade cables; standards to Engineers Specification; cables laid in under ground ducts; all in strict accordance with the Electrical Engineers Specification and Drawing 2556-SMK-ZZ-SI-DR-ME-6002					
	Final Circuits - RWH Panel					
C	Power Services Circuit; RWH pump set	1	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
D	Generally	1	Item			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO RAINWATER HARVESTING TANK (Cont)					
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers specification documents and drawings					
A	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers specification documents and drawings					
B	Operating and maintenance manuals; complete	1	nr			
	Working drawings; all in accordance with the Electrical Engineers specification documents and drawings					
C	Working drawings; complete	1	Item			
	Co- ordination drawings; all in accordance with the Electrical Engineers specification documents and drawings					
D	Co- ordination drawings; complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers specification documents and drawings					
E	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers specification documents and drawings					
F	Identification plates, labels and the like; complete	1	Item			
				To Collection €		

				€	c
(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO RAINWATER HARVESTING TANK (Cont)					
COLLECTION					
Page No. Siteworks/170					
Page No. Siteworks/171					
Page No. Siteworks/172					
Page No. Siteworks/173					
Page No. Siteworks/174					
(60) SITE SERVICES (MAINLY ELECTRICAL) - POWER TO RAINWATER HARVESTING TANK Carried to Summary					

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - STREET LIGHTING					
	SITE LIGHTING SERVICES					
	General Information					
	Information					
A	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		note			
B	Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification		note			
	Builders work in connection with all installation					
	Excavation					
	Excavating trenches to receive 1nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
C	Average depth 500 - 1000mm	265	m			
	Extra over excavating trenches irrespective of depth					
	Breaking up & Reinstating					
D	Breaking out existing roadway and associated make-up (585mm total); saw cutting surface; include for reinstating road surfacing and all associated hardcore makeup;40mm thick of 10mm AC surface course close surf 70/100 DES to TII 900 Series; laid on 50mm thick of 20mm DBM binder course 40/60 DES to TII 900 Series; laid on 70mm thick of 32mm DBM roadbase 40/60 DES to TII 900 Series; rolled with 10-12.5 tonne roller; as per Engineer's Specification and to TII Publications clause 910, laid on 225mm deep clause 808 stone sub-base; laid on 200mm 6F2 capping layer; include for fair jointing to fair edges; include for breaking out and reinstating all kerbing required; disposal of excavated material off site; all in accordance with the Engineer's Specification	10	m			
E	Breaking out footpath; saw cutting surface; include for reinstating surfacing to match existing including T3 prem sub base material where necessary; fair jointing to fair edges; disposal of excavated material off site; include for replacing associated concrete kerbs; all to satisfaction of Engineers Specification & Drawings	3	m			
F	Excavating existing grass and making good to match existing after excavation and drainage runs have been laid	57	m			

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - STREET LIGHTING (Cont)					
	Disposal					
A	Ground water	1	item			
B	Surface water	1	item			
	Sand bed and surround; to Engineer's Specification					
	Beds and Surrounds					
C	300 x 225mm; to 1nr 100mm duct	265	m			
	PVC Red marker tape; "Heptape" or equivalent					
D	Continuous strip; laid during trench backfill; 100mm above pipework	265	m			
	PVC Yellow marker tape; "Heptape" or equivalent					
E	Continuous strip; laid during trench backfill; 300mm above pipework	265	m			
	Ductwork; uPVC duct; to ESB Speciifcation; Red					
	100mm dia.; include for draw-wire					
F	Laid in trenches	265	m			
G	Extra over for easy sweep bends complete with puddle flanges; set in concrete	8	nr			
	Lamp standard bases complete; excavation not exceeding 2000mm deep; grading bottoms; earthwork support; disposal of surplus excavated soil by removal off site; including alignment with wedges to Engineer's approval					
	Lamp standard bases					
H	650 x 650 x 1000mm deep Grade C28/35 reinforced concrete; including 1nr 100mm ducts from chamber to column in line with cable entry; concrete base and surround; backfilling with hardcore to top of trench; all as per Engineer's Specification and Drawing	18	nr			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - STREET LIGHTING (Cont)					
	Chambers					
	Draw pit chamber; complete; excavating pits from stripped level 1000x1000x1000mm deep internally; dispose of surplus soil; grading bottom; earthwork support; open bottom pit filled with 50mm course gravel for drainage; RC3 concrete base on 50mm blinding grade gen 3; Concrete roof slab grade C25 c/w opening for cover and frame; 225mm thick Class B engineering brickwork in english bond; Walls: 1000mm high with 50mm rebate for removable cover; include for openings for ducts; Heavy duty cast iron cover and frame to Engineer's Specification bedded in epoxy mortar; include for step irons; all pvc pipes to fall away from building and all pits should not waterlog; pipes to be buried 750mm below ground level; include for backfilling to sides of chamber where necessary; all in accordance with M & E Engineers Drawing ME 1000 (C)					
A	Average depth not exceeding 1000mm	6	nr			
	Sundries					
B	Allow for sealing all incoming service ductwork to prevent ingress of damp, dirt and vermin	1	item			
C	Allow for clearance between Telecom ducts and ESB ducts and cables over 650 volts; of 300mm vertical clearance at crossings and 600mm lateral clearance in parallel trenches	1	item			
D	Allow for clearance between ESB ducts and cables and other service ducts; 150mm vertical clearance at crossings and 300mm lateral clearance in parallel trenches	1	item			
E	Provide for all necessary attendances on ESB to include liaising with ESB before, during and after installation of electrical services and providing and making available site data for their use	1	item			
F	The installation shall comply with ETCI Regulations	1	item			
G	The Contractor shall be responsible for the co-ordination of services	1	item			
H	The Contractor shall provide a Completion Certificate for the Public Lighting System	1	item			
J	All light columns to have a permanent label installed on the column. Labels to be agreed with ESB prior to installation	1	item			
	Notes					
K	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		Note			

(60) SITE SERVICES (MAINLY ELECTRICAL) - STREET LIGHTING (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 Semple McKillop Consulting Engineers. Note

B 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. Note

ALTERNATIVE RULES FOR THE MEASUREMENT OF ELECTRICAL SERVICES

(60) SITE SERVICES (MAINLY ELECTRICAL) - SITE LIGHTING

System

Site Lighting Services installation, testing and commissioning; complete; The objective of the system is to provide sufficient lighting for safe movement of people outdoors. This system shall comprise a combination of external amenity luminaires around the perimeter of the buildings and luminaires on root-mounted hinged columns associated with the proposed car-parks and avenues. Other areas of lighting include ground mounted bollard lighting in the courtyard area and as indicated on the contract drawings; All lighting columns shall be wired in XLPE/ SWA cables; all in accordance with the Electrical Engineers Specification Part 1, Section 12; Part 2; Part 3; Part 4, Section 3 and Drawing 2556--SMK-ZZ-SI-DR-E-6003

C Site Lighting Services 1 Item

Fittings

LED Column Mounted Luminaire c/w lamps and mounting kits/ fixing brackets; supply and installation (including wiring); complete; Lamps: 145w Luminaries; Mounting: Post top; include for all internal wiring and fittings; complete; all in accordance with the Electrical Engineers Specification Part 4, Section 3

D LED Column Mounted Luminaire c/w lamps and bracket (Ref: Z) 18 nr

To Collection €

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - STREET LIGHTING (Cont)					
	Lighting Column; supply and installation (including wiring) complete; Column: Octagonal galvanised steel tapered mid-hinged columns with gear door; Column Height: 6m from FFL; Column Finish: hot dipped galvanised inside and out, painted/powder coated to architects specification; Column to be hinged with 2nr gear doors; Cable Slot: 350mm below ground level; Compartment: welded in frame with recessed weather strip; Door: steel door secured with 2nr triangular headed steel bolts; Planting depth: 1m; c/w out reach bracket, door lock with keys; M8 x 30 brass earth studs; isolator and double pole connection cut-outs; include for all internal wiring and fittings; complete; all in accordance with the Electrical Engineers Specification Part 1, Section 12					
A	Lighting Columns	18	nr			
	Final Circuits (including all points terminations)					
	Final Circuits; installation, testing and commissioning; Complete; Final circuits shall be fed from the main/ sub-distribution boards; Circuits shall be wired with insulated XPLE/SWA cables; standards to Engineers Specification; in under ground ducts; Cable sizes are as follows: 3c x 10.0mm2 with a separate 10.0mm earth; all in strict accordance with the Electrical Engineers Specification Part 1, Section 12					
	Final Circuits - BD SL1					
B	Site Lighting; Single Phase; 10Amp MCB	6	nr			
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
C	Generally	1	Item			
	General					
	Testing and commissioning; all in accordance with the Electrical Engineers specification documents and drawings					
D	Testing and commissioning; complete	1	Item			
	Operating and maintenance manuals; all in accordance with the Electrical Engineers specification documents and drawings					
E	Operating and maintenance manuals; complete	1	nr			
	Working drawings; all in accordance with the Electrical Engineers specification documents and drawings					
F	Working drawings; complete	1	Item			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - STREET LIGHTING (Cont)					
	Co- ordination drawings; all in accordance with the Electrical Engineers specification documents and drawings					
A	Co- ordination drawings; complete	1	Item			
	As built drawings; all in accordance with the Electrical Engineers specification documents and drawings					
B	As built drawings; complete	1	Item			
	Identification plates, labels and the like; all in accordance with the Electrical Engineers specification documents and drawings					
C	Identification plates, labels and the like; complete	1	Item			

To Collection €

				€	c
(60) SITE SERVICES (MAINLY ELECTRICAL) - STREET LIGHTING (Cont)					
COLLECTION					
Page No. Siteworks/176					
Page No. Siteworks/177					
Page No. Siteworks/178					
Page No. Siteworks/179					
Page No. Siteworks/180					
Page No. Siteworks/181					
(60) SITE SERVICES (MAINLY ELECTRICAL) - STREET LIGHTING **Carried to Summary**					

(60) SITE SERVICES (MAINLY ELECTRICAL) - COMMS

SITE SERVICES (MAINLY ELECTRICAL) - COMMS

General Information

Information

A When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever. — note

B Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification — note

Builders work in connection with all installation

Excavation

Excavating trenches to receive 1nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations

C	Average depth 500 - 1000mm	195	m		

Excavating trenches to receive 2nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations

D	Average depth 500 - 1000mm	15	m		

Extra over excavating trenches irrespective of depth

Breaking up & Reinstating

E	Breaking out footpath; saw cutting surface; include for reinstating surfacing to match existing including T3 prem sub base material where necessary; fair jointing to fair edges; disposal of excavated material off site; include for replacing associated concrete kerbs; all to satisfaction of Engineers Specification & Drawings	97	m		

Disposal

F	Ground water	1	item		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - COMMS (Cont)					
A	Surface water	1	item			
	Sand bed and surround; to Engineer's Specification					
	Beds and Surrounds					
B	210 x 235mm; to 1nr 110mm duct	195	m			
C	495 x 235mm; to 2nr 110mm duct	15	m			
	PVC Red marker tape; "Heptape" or equivalent					
D	Continuous strip; laid during trench backfill; 100mm above pipework	209	m			
	PVC Yellow marker tape; "Heptape" or equivalent					
E	Continuous strip; laid during trench backfill; 300mm above pipework	209	m			
	Ductwork; Comms Duct					
	110mm dia.; include for draw-wire					
F	Laid in trenches	224	m			
	Chambers					
	Draw pit chamber; complete; excavating pits from stripped level 1000x1000x1000mm deep internally; dispose of surplus soil; grading bottom; earthwork support; open bottom pit filled with 50mm course gravel for drainage; RC3 concrete base on 50mm blinding grade gen 3; Concrete roof slab grade C25 c/w opening for cover and frame; 225mm thick Class B engineering brickwork in english bond; Walls: 1000mm high with 50mm rebate for removable cover; include for openings for ducts; Heavy duty cast iron cover and frame to Engineer's Specification bedded in epoxy mortar; include for step irons; all pvc pipes to fall away from building and all pits should not waterlog; pipes to be buried 750mm below ground level; include for backfilling to sides of chamber where necessary; all in accordance with M & E Engineers Drawing ME 1000 (C)					
G	Average depth not exceeding 1000mm	4	nr			
	Sundries					
H	Allow for sealing all incoming service ductwork to prevent ingress of damp, dirt and vermin	1	item			
J	Allow for clearance between Telecom ducts and EIR ducts and cables over 650 volts; of 300mm vertical clearance at crossings and 600mm lateral clearance in parallel trenches	1	item			
K	Allow for clearance between EIR ducts and cables and other service ducts; 150mm vertical clearance at crossings and 300mm lateral clearance in parallel trenches	1	item			
				To Collection €		

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - COMMS (Cont)					
A	Provide for all necessary attendances on EIR to include liaising with EIR before, during and after installation of electrical services and providing and making available site data for their use	1	item			
B	Provide markings/signage of EIR cables at locations as agreed with Local Engineering Officer and in accordance with EIR Specifications; as per Engineer's Drawing	1	item			
C	Provide all necessary attendances and builders work in association with disconnecting and removing existing underground EIR supply; complete	1	item			
	WORK OUTSIDE THE BOUNDARY OF THE SITE					
	Extra Over For: -					
D	A portion of the works in this section are outside the boundary of the site; see Architect's & Engineer's Drawings	1	item			
				To Collection €		

				€	c
(60) SITE SERVICES (MAINLY ELECTRICAL) - COMMS (Cont)					
COLLECTION					
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Page No. Siteworks/185					
(60) SITE SERVICES (MAINLY ELECTRICAL) - COMMS **Carried to Summary**					

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - ELECTRICAL VEHICLE CHARGER BASE					
	ELECTRICAL VEHICLE CHARGER BASE					
	EXCAVATION AND EARTHWORK					
	General Information					
	Information					
A	The contractor should consult with the Architect and must visit the site to ascertain the extent of the works involved under this section. No variations will be approved for works that ought to have been apparent to the contractor after a site inspection and review of the Architects drawings and specifications	1	item			
	Excavation					
	Excavation					
	To reduce levels					
B	Isolated pits (7nr)	2	m3			
	Working Space					
	Isolated pits: excavations (7nr)					
C	Depth not exceeding 2.00m; backfilling trenches with clause 808 hardcore	10	m2			
	Disposal					
	Water					
D	Surface	1	item			
E	Ground	1	item			
	Excavated material; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
F	Disposal Off-site	2	m3			
	Filling with hardcore to be obtained offsite; sub-base material shall comply with clause 808; depositing in 150mm layers maximum thickness; compacting; compliant with Annex E of SR 21, free from pyrite and macarsite as per Engineer's specification					
	To make up levels					
G	Average thickness not exceeding 250mm	1	m3			

(60) SITE SERVICES (MAINLY ELECTRICAL) - ELECTRICAL VEHICLE CHARGER BASE (Cont)

Surface treatments

Leveling and compacting; blinding with quarry dust

A	Horizontal; 50mm thick; to hardcore	4	m2			

CONCRETE WORK

In-situ Concrete

Concrete cubes for testing

Provide for making concrete cubes from freshly mixed concrete; transporting and testing cubes; all as per details in Engineer's Concrete Specification

B	Size 150 x 150 x 150mm	1	nr			

Grade C16/20 S3

Blinding

C	Generally; poured on or against earth or unblinded hardcore	1	m3			

In-situ Concrete; Reinforced

Grade C28/35

Beds

D	Generally; Reinforced	1	m3			

Sundries

Surface Finishes

Brushed finish to wet concrete

E	Grading to falls	4	m2			

Reinforcement

Fabric

Reference A393; 350mm side laps; 350mm end laps

F	Horizontal	4	m2			

To Collection €

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - ELECTRICAL VEHICLE CHARGER BASE (Cont)					
	Formwork					
	Formwork Generally					
	Edges of beds/slabs; finish to be as per Engineer's Specification					
A	Height or width not exceeding 250mm	21	m			
	Other Items; forming recesses in concrete so wires can feed up to the Electrical Vehicle charger; as per Engineer's Drawing					
B	Generally	7	nr			
	FITTINGS					
	Fittings Equipment and Furniture					
	EV CHARGER GUARDING; Stainless steel guarding; Manufacturer: Submit proposals; Product reference: Submit proposals; Material/ Finish/ Colour: 316 grade stainless steel; length: 750mm; Height above ground: 900mm; 50mm dia. stainless steel tubular rail to structural engineers details; shop painted to selected RAL colour; 60 x 60mm stainless steel vertical upright T section to structural engineers details; 60 x 60mm stainless steel T bar welded to upright to structural engineers details; shop painted to selected RAL colour; Method of setting guardings: Set guardings in holes: 300 x 300 x 300mm deep completely filled with C23/30 concrete; include for all excavation, disposal, backfilling and fixings etc; As per M&E Specification and Drawing					
	Fittings; EV Charger Guarding					
C	Generally	14	nr			

(60) SITE SERVICES (MAINLY ELECTRICAL) - ELECTRICAL VEHICLE CHARGER BASE (Cont)

COLLECTION

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(60) SITE SERVICES (MAINLY ELECTRICAL) - ELECTRICAL VEHICLE CHARGER BASE
Carried to Summary

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - EARTHING SYSTEM & LIGHTNING PROTECTION					
	EARTHING STSTEM & LIGHTNING PROTECTION SERVICES					
	General Information					
	Information					
A	When pricing the following items the Contractor's attention is drawn to the location of the site. The Contractor should also visit and check the site. No claims on the grounds of want of knowledge in respect of the above will be entertained whatsoever.		note			
B	Any un-authorised excavations below the required level shall be made up with concrete of the same composition as for drain beds at the Contractors own expense; all as per Architects Specification		note			
C	Tendering Contractor to note that all excavated material is to be disposed on-site and regraded / levelled. Contractor to include within the below rates for all works associated with disposal of the excavated material on-site as directed by the ER and all regrading / levelling works as directed. Contractor to determine if temporary spoil heaps will be required based on their own sequencing of the works - if temporary spoil heaps are required all costs associated with same are to be included within the rate.		item			
	Builders work in connection with all installation					
	Excavation					
D	Excavating trenches to receive 1nr duct not exceeding 250mm diameter, earthwork support to sides of trenches; include for excavating below ground water level; grading bottoms of excavations; backfilling with imported hardcore; disposal of surplus soil off site; All surplus materials to be disposed of off-site to a licenced waste disposal facility granted by the EPA under Section 40 of the Waste Management Act or by the Local Authority under the Waste Facility Permit Regulations					
E	Average depth not exceeding 1000mm	10	m			
	Sand bed and surround; to Engineer's Specification					
	Beds and Surrounds					
F	450 x 450mm; to 150mm diameter duct	10	m			
	PVC Red marker tape; "Heptape" or equivalent					
G	Continuous strip; laid during trench backfill; 100mm above pipework	10	m			
	PVC Yellow marker tape; "Heptape" or equivalent					
H	Continuous strip; laid during trench backfill; 300mm above pipework	10	m			

(60) SITE SERVICES (MAINLY ELECTRICAL) - EARTHING SYSTEM & LIGHTNING PROTECTION (Cont)

Ductwork; uPVC duct; to ESB Speciifcation; Red

150mm dia.; include for 10mm diameter draw-rope

A	Laid in trenches	10	m		

Extra over pipework runs for:

B	connection to earthing pits	10	nr		
C	long radius bends	10	nr		

Chambers

Lightning earth pits c/w integral test point; approx size 300 x 300 x 300mm deep; concrete manhole by Furse or equivalent; including rod to clamp tape plus test link, driving stud and earth rods; include all necessary excavations; dispose of surplus soil; grading bottom; earthwork support; concrete where necessary; formwork; opening for ducting; including heavy duty cover lid; all in strict accordane with M & E Engineer's Specification and Drawing

D	Generally	10	nr		

MECHANICAL INSTALLATIONS

System; Site services instalation; Lightning Protection Installation; 25x3mm lightning conductor tapes connected to earth pits (earth pits measured elsewhere); complete; as per Engineer's Specification and Drawing

Lightning Protection Installation

E	Generally	1	item		

Notes

F	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		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 Semple & McKillop Consulting Engineers.		Note		
H	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 Mechanical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist.		Note		

To Collection €

(60) SITE SERVICES (MAINLY ELECTRICAL) - EARTHING SYSTEM & LIGHTNING PROTECTION (Cont)

ALTERNATIVE RULES FOR THE MEASUREMENT OF MECHANICAL INSTALLATIONS

(60) SITE SERVICES (MAINLY ELECTRICAL) - SITE EARTHING & BONDING

System

Earthing and Bonding installation; testing and commissioning; The contractor shall undertake to effectively earth the whole of the electrical installation in accordance with the ETCI Regulations, I.S. 10101:2020. Main equipotential earth bonding should be provided from each of the following items, as a minimum, to the main earthing bar: Incoming Water Main, Incoming Gas Main, Metal drainage pipes, Structural Steelwork, Main Heating Pipework, Main Ventilation Ductwork, Lightning Protection System, Comms Rooms, Supplementary earth bonding shall be carried out on extraneous metal parts at the following locations: Metallic Wireways and Containment, Suspended Ceiling Grids, Wash Hand Basins, Showers, Sinks, WC's, Cleaners Sinks, Catering equipment, Metal worktops, Plantroom Pipework (e.g. across pumps, valves, vessels, etc.); all in strict accordance with the Electrical Engineers Specification Part 1, Section 37; Part 2; Part 3; Part 4 and Drawings 2556-SMK-LL-ZZ-DR-E-6150

A	Earthing and Bonding	1	Item		

Fittings

Earthing points c/w inspection box; earth electrodes in accordance with I.S 10101:2020; complete; all in strict accordance with the Electrical Engineers Specification Part 1, Section 37 and Drawings 2556-SMK-LL-ZZ-DR-E-6150

B	Earthing Points	5	nr		

Mains and Sub-mains cables

Earth conductor cable; supply and installation complete; Cable size 195mm2 LSF earth; mechanically protected throughtout; all in accordance with the Electrical Engineers Specification and Drawings 2556-SMK-LL-ZZ-DR-E-6150

C	From earth therminal bar to earth pits	1	Item		

Earth conductor cable; supply and installation complete; Cable size 16mm2 LSZH; all in accordance with the Electrical Engineers Specification and Drawings 2556-SMK-LL-ZZ-DR-E-6150

D	From EV mini pillar to earth pit	1	Item		

Earth conductor cable; supply and installation complete; in accordance with IS 10101:2020; all in accordance with the Electrical Engineers Specification and Drawings 2556-SMK-LL-ZZ-DR-E-6150

E	From Stand-by generator to earth pit	1	Item		

To Collection €

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - EARTHING SYSTEM & LIGHTNING PROTECTION (Cont)					
	General Earthing and Bonding					
	General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification					
A	Generally	1	Item			
	General					
	Testing and commissioning; all in accordance with Engineers Specification					
B	Testing and commissioning	1	Item			
	Operating and maintenance manuals; all in accordance with Engineers Specification					
C	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
D	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
E	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
F	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
G	Identification plates, labels and the like	1	Item			
	Notes					
H	The tendering contractors are referred to ARM 4 supplement 2, Agreed Alternative Rules for the Measurement of Services Installations (Issue 1, 2013), used in the production of this section of the pricing document.		Note			
J	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 Semple & McKillop Consulting Engineers.		Note			
				To Collection €		

(60) SITE SERVICES (MAINLY ELECTRICAL) - EARTHING SYSTEM & LIGHTNING PROTECTION (Cont)

A	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 Mechanical Specialist shall be responsible for the correct marking out of all attendances, and all other cutting to be performed by the Works Specialist.		Note		

ALTERNATIVE RULES FOR THE MEASUREMENT OF MECHANICAL INSTALLATIONS

(60) SITE SERVICES (MAINLY ELECTRICAL) - SITE LIGHTNING PROTECTION

System

Lightning Protection Installation; installation; testing and commissioning; complete; The contractor will supply, install, test and commission a level IV lightning protection system (through a specialist) in I.S EN 62305:2011. The system shall consist of a roof top air terminal network (bonded to all external metal part on or above roof level) connecting through sheathed copper down conductors (minimum size of 3mm x 25mm) to earth pits for each down conductor with all above ground elements coated in PVC to RAL colour of the architect's choice; all in strict accordance with the Electrical Engineers Specification Part 1, Section 34; Part 2; Part 3; Part 4 and Drawings 2556-SMK-ZZ-RF-DR-E-6503

B	Site Lightning Protection	1	Item		

Fittings

Down Conductors and Earthing points; 25x3mm down conductors from building terminating at ground level within inspection pit; 70 CSA PVC earth copper cable from inspection pit terminating at ground level in a set of earth rods; sureshot exothermic weld; RB205 copper-bond electrode system, CG270 earth rod coupling; RB205 copper-bond electrode system; complete; all in strict accordance with the Electrical Engineers Specification Part 1, Section 34 and Drawings 2556-SMK-ZZ-RF-DR-E-6503

C	Down Conductors & Earthing Points	13	nr		

General Earthing and Bonding

General Earthing and Bonding; Design parameters as defined within I.S 10101: 2020 regulations; all in strlct accordance with the Electrical Engineers Specification

D	Generally	1	Item		

General

Testing and commissioning; all in accordance with Engineers Specification

E	Testing and commissioning	1	Item		

To Collection €

					€	c
	(60) SITE SERVICES (MAINLY ELECTRICAL) - EARTHING SYSTEM & LIGHTNING PROTECTION (Cont)					
	Operating and maintenance manuals; all in accordance with Engineers Specification					
A	Operating and maintenance manuals	1	Item			
	Working drawings; all in accordance with Engineers Specification					
B	Working drawings	1	Item			
	Co-ordination drawings; all in accordance with Engineers Specification					
C	Co-ordination drawings	1	Item			
	As built drawings; all in accordance with Engineers Specification					
D	As built drawings	1	Item			
	Identification plates, labels and the like; all in accordance with Engineers Specification					
E	Identification plates, labels and the like	1	Item			
				To Collection €		

(60) SITE SERVICES (MAINLY ELECTRICAL) - EARTHING SYSTEM & LIGHTNING PROTECTION (Cont)

COLLECTION

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(60) SITE SERVICES (MAINLY ELECTRICAL) - EARTHING SYSTEM & LIGHTNING PROTECTION
Carried to Summary

					€	c
	(70) SITE FITTINGS					
	FITTINGS					
	Fittings Equipment and Furniture					
	Signage; Road Sign & Posts; signs to Engineer's Specification; fixing to steel post using fasteners to Engineer's specification; inculde for plastic cap at top of post; posts to be 88.9x5mm galvanised CHS x 4000mm long; mild steel with hot dip galvanised finish; galvanised steel secured by collar and bolts; set in 450mm x 450mm x 850mm deep concrete base; C20/25 concrete surround to sihn post; on lean-mix concrete to good ground; backfilling with Clause 804 hardcore; including all excavation of pits; disposal of surplus material off-site compacting and levelling to bottom of excavation; as per Engineer's Drawing C-004 and Specification					
	Fittings; Site Signage					
A	Stop sign (RUS 027); sign mounted on 1nr pole	1	nr			
B	Disabled Person Parking Bay sign (F204); sign mounted on 1nr pole	1	nr			
	UNCOVERED CYCLE STANDS; Manufacturer: "Omos" or equivalent, other Agrement certified supplier; Product reference: "Omos S71 Cycle Stand", stainless steel or equivalent; Material: 316 grade stainless steel with a brushed polished finish; Finish: Stainless steel; Colour: Polished; Size: Height 875mm, width 950mm, outside diameter 48mm, wall thickness 2.77mm; Fittings to be equally spaced and parallel and set in groups of four as shown; Method of fixing: The cycle stands will be "root fixed" to the ground - embedded into a concrete foundation, 300 mm below ground, instead of being surface-fixed by a base plate to concrete base; NOTE: Refer to landscape drawings for exact locations.The ground under and around the proposed cycle stands will be finished with paving as per the landscape drawings / engineers drawings; include for excavation and disposal for concrete base; concrete base 300x300x600 C28/35; inlcude for 225mm capping SR21 Annex - T0 Struc on Trace TG 40/40s Biaxial Extruded Polypropylene Geogrid on Terram; as per Architect's Drawings & Specification and Engineers Drawing C-062					
	Fittings; Bike Stands					
C	Generally	6	nr			
	Bollards; Manufacturer: Submit proposals; Product reference: Submit proposals; Material: Stainless Steel; Finish as delivered: As manufactured; Colour: None; Height above ground: 1100 mm; Special features: White reflective band, 150 mm high at top of bollard; Method of fixing: Root, 300 mm below ground, set in concrete base; include for concrete foundations, excavation, backfilling and fittings; As per Architects Specification and Engineers drawing					
	Fittings; Bollards					
D	Approx size: 1400mm high (1100mm above ground and 300mm below ground); 114mm diameter	7	nr			
				To Collection €		

				€	c
(70) SITE FITTINGS (Cont)					
COLLECTION					
Page No. Siteworks/198					
(70) SITE FITTINGS **Carried to Summary**					

					€	c
	(80) LANDSCAPING					
	EXCAVATION AND EARTHWORK					
	Filling with pea gravel to Raised Planters as drainage layer; profile shown in Architects Soft Lanscape Detail Drawing; deepest at treepit edges; compacting; as per Architects Soft Landscape Drawing and Specification					
	To make up levels					
A	Average thickness not exceeding 250mm	1	m3			
	Filling with granular fill material to be obtained off-site to Raised Planters; T2 Stone in compliance with IS EN 13242 and SR21 2014 & A1 2016 installed and compacted in layers in accordance with IS888:2016; depositing in 150mm layers maximum thickness; compacting					
	To make up levels					
B	Average thickness not exceeding 250mm	4	m3			
	Surface Treatments					
	Blinding filling; sand; compacting					
C	Generally; 50mm thick	12	m2			
	SURFACE PAVING, FENCING AND LANDSCAPING					
	Grassing and Planting					
	Topsoil					
	Obtained from on site; as per Landscape Architect's specification Ref. Q28; rate to include for system outline section of Q28, products section of Q28 and execution section of Q28 unless detailed in seperate measurement below					
D	Filling to a finished depth of 200mm; to grass areas	176	m2			
E	Filling to a finished depth of 450mm; to planting	216	m2			
F	Filling to a finished depth of 1000mm; to trees	9	m2			
				To Collection €		

					€	c
	(80) LANDSCAPING (Cont)					
	CULTIVATION; Compacted topsoil: Break up to full depth; Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm; Depth: 250mm; Timing: Within a few days before planting; Weather and ground conditions: Suitably dry; Surface: Leave regular and even; Levels: 25 mm above adjoining paving or kerbs and minimum 150 mm below dpc of adjoining buildings; Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 50 mm; Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate; As per Architects Landscape Specificaition Q31 375					
	Surface of top soil filling; to grassed and planting areas					
A	Depth: 250mm; generally	401	m2			
	GRADING; Topsoil condition: Reasonably dry and workable; Contours: Smooth and flowing, with falls for adequate drainage; Hollows and ridges: Not permitted; Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc; Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 150 mm; Give notice: If required levels cannot be achieved by movement of existing soil; As per Architects Landscape Specificaition Q30 260					
	Grading; to grassed and planting areas					
B	Generally	401	m2			
	GRADING SUBSOIL; General: Grade to smooth flowing contours to achieve specified finished levels of topsoil; Areas of thicker topsoil: Excavate locally; As per Architects Landscape Specificaition Q28 200					
	Grading subsoil; to grassed and planting areas					
C	Generally	401	m2			
	SUBSOIL SURFACE PREPARATION; General: Excavate and/ or place fill to required profiles and levels, as section D20; Loosening: Light and noncohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 300 mm; Stiff clay and cohesive subsoils: When ground conditions are reasonably dry, loosen thoroughly to a depth of 450 mm; Rock and chalk subgrades: Lightly scarify to promote free drainage; Stones: Immediately before spreading topsoil, remove stones larger than 75 mm; Remove debris and builders rubble; Note that much of the existing soil is fill material for a partially completed, previous development on site; As per Architects Landscape Specificaition Q28 250					
	Subsoil surface preparation; to grassed and planting areas					
D	Generally	401	m2			

(80) LANDSCAPING (Cont)

Seeding

GRASS SEED FOR ALL GRASSED AREAS; Supplier: Contractor's choice; Mixture reference: Submit proposals for high quality product / component appropriate to the use / location and fit for purpose; Application rate: 20-35 g/m2; SEED MIXTURE FOR ROAD VERGES - WILD FLOWER SEED; Supplier: Contractor's choice; Mixture reference: Submit proposals for high quality product / component appropriate to the use / location and fit for purpose; Origin (as defined in the National Plant Specification): Native Irish; Application rate: 5-10 g/m2; QUALITY OF SEEDFOR ALL GRASSED AND PLANTED AREAS; Freshness: Produced for the current growing season; Certification: Blue label certified varieties; Standard: EC purity and germination regulations; Official Seed Testing Station certificate of germination, purity and composition: Submit when requested; Samples of mixtures: Submit when requested; As per Architects Landscape Specificaition Q30 311, 312, 319

A	Generally	401	m2		

WEED CONTROL FOR INVASIVE NON-NATIVE WEEDS; Locations: All planting areas; General: Prevent weeds from seeding and perennial weeds from becoming established, by hoeing and cultivating. Kill off any regrowth with suitable systemic herbicide before mulching; As per Architects Landscape Specificaition Q31 305

B	Generally	3,957	m2		

FERTILIZER FOR ALL GRASSED AREAS; Types: Apply both: Superphosphate with a minimum of 18% water soluble phosphoric acid; A sulphate of ammonia with a minimum of 20% nitrogen; Application: Before final cultivation and three to five days before seeding/turfing; Coverage: Spread evenly, each type at 70 g/m2, in transverse directions; As per Architects Landscape Specificaition Q30 270

Fertilizer; to grassed and planting areas

C	Generally	401	m2		

FINAL CULTIVATION; Timing: After grading and fertilizing; Seed bed: Reduce to fine, firm tilth with good crumb structure; Depth: 25 mm; Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted; Remove surface stones/earth clods exceeding: General areas: 20 mm; Fine lawn areas: 10 mm; Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels; As per Architects Landscape Specificaition Q30 280

Final Cultivation; to grassed and planting areas

D	Generally	401	m2		

					€	c
	(80) LANDSCAPING (Cont)					
	Surface applications; MULCHING PLANTING BEDS; Material: Fine grade bark mulch; Purity: Free of pests, disease, fungus and weeds; Recycled content: Contractor's choice; Preparation: Clear all weeds. Water soil thoroughly; Coverage: 75 mm depth; Finished level of mulch: 30 mm below adjacent grassed or paved areas; As per Architects Landscape Specificaition Q31 485					
	Applying loose mulch to all shrub planting					
A	Generally	225	m2			
	Surface applications; MULCH MATTING/ GEOTEXTILE FABRIC TO SHRUB PLANTING; Manufacturer: Contractor's choice; Product reference: Submit proposals for high quality product / component appropriate to the use / location and fit for purpose; Type: Jute; Recycled content: Contractor's choice; Timing: Lay before planting; Watering: Water soil thoroughly before laying; Laying: In close contact with soil surface. Lap or butt joints as recommended by manufacturer, with no gaps; Planting: Cut neat slits or flaps. Refit closely around plant stems; Overlay: Mulching planting beds; As per Architects Landscape Specificaition Q31 385					
	Mipex Layer					
B	Generally	225	m2			
	Ground Covering Evergreen Low Shrubs; excavate to 480mm depth and backfill with 450mm multi-purpose grade topsoil; supply & plant the following shrub mix as set out in the drawings and in accordance with the spacing stated for each; include for all soil preparation, cultivation, manure, most peat; include for all excavation, disposal, backfilling, drainage; all in accordance with Landscape Architect's Specification					
	Shrub planting					
C	Generally	427	nr			
	Sensory Garden Planting; excavate to 480mm depth and backfill with 450mm multi-purpose grade topsoil; supply & plant the following shrub mix as set out in the drawings and in accordance with the spacing stated for each; include for all soil preparation, cultivation, manure, most peat; include for all excavation, disposal, backfilling, drainage; all in accordance with Landscape Architect's Specification					
	Sensory Garden Planting					
D	Generally	653	nr			
				To Collection €		

(80) LANDSCAPING (Cont)

Trees; supply & plant the following structure tree planting as set out on the drawings; TREE PITS; Sizes: 75 mm deeper than root system and wide enough to accommodate roots when fully spread; Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout; Pit bottoms: With slightly raised centre. Break up to a depth of 150 mm; Treatment: Soil ameliorant and well rotted animal manure and compost worked into pit bottoms; Pit sides: Scarify; Backfilling material: Tree backfilling material; Accessories: Root barrier; TREE PIT ROOT BARRIERS; Locations: To all new trees proposed on Architects landscape drawing; Manufacturer: "Greenleaf Arborsystem or equivalent approved, Agreement certified manufacturer; Product reference: "Reroot 1000" linear pavement protection for the trees proposed for the public pavements "Root Director Modular root protection system" for all trees proposed in the open space areas; Depth of top of root barrier below finished soil level: Flush; Installation: With sides vertical; TREE PIT ACCESSORIES Locations: All tree pits; Manufacturer: Ageement certified. Contractor's choice; Product reference: Submit proposals for high quality product / component appropriate to the use / location and fit for purpose; Type: Perforated plastics irrigation pipe, 50 mm diameter, in circle above and around sides of rootball, with plastics cap. "Greenleaf Arborsystem Root Rain Metro" or equivalent approved, irrigation system will be fitted to all new trees to facilitate watering during the first growing season and during any excessively dry periods thereafter;

TREE PIT DRAINAGE; Depth of excavation: Increase from specified size to allow for aggregate layer, with base slightly falling to outlet; Aggregate layer: Clean gravel or broken stone, with no fines, graded 40 to 20 mm; Depth: 200 mm; Drainage pipes: Type: Perforated plastics; Diameter: 80 mm; Position: Lay around perimeter of pit within aggregate layer; Discharge: Connect to soakaway or road gully. Refer to the architectural drawings; Geotextile filter; Manufacturer: Contractor's choice; Product reference: Submit proposals for high quality product / component appropriate to the use / location and fit for purpose; Position: Lay over aggregate before installing tree or backfill; Completed pits: Test for free drainage before planting; As per Landscape Architects Specification Q31 505, 510. 512, 515

Acer Pseudoplatanus / Sycamore; min. 3.5m high

A	Generally	5	nr		

Birch; multi-stem; min 3.5m high

B	Generally	4	nr		

Hedgegrows; excavate to 480mm depth and backfill with 450mm multi-purpose grade topsoil; supply & plant the following Hedgegrow mix as set out in the drawings and in accordance with the spacing stated for each; include for all soil preparation, cultivation, manure, most peat; include for all excavation, disposal, backfilling, drainage; all in accordance with Landscape Architect's Specification

Laurel Hedge; 1.2m high at 600mm centres

C	Generally	4	m		

To Collection €

					€	c
	(80) LANDSCAPING (Cont)					
	Laurel Hedge; 1.5-1.8m high at 600mm centres					
A	Generally	80	m			
	Sundries					
	FENCING SUPPORT FOR NEW HEDGES; Type: Timber post and general pattern wire mesh; Height: 600 mm; Timing: Before planting hedge; Support: Lightly secure hedge plants to fence wires at appropriate intervals; including for excavation for foundations; include for concrete foundations for posts; As per Landscape Architects Specification Q31 472					
B	Generally	84	m			
	STAKING FOR ALL TREES; Staking: Position first stake appropriate distance from tree on windward side and drive vertically at least 300 mm into bottom of pit before planting; Drive second stake similar distance from opposite side of tree; Backfilling: Consolidate material around stake; Height of stakes: Cut to approximately 900 mm above ground level or as appropriate for particular tree being supplied; Double staking to be used in all areas; Ties: Cushioned and adjustable ties; Tying: Secure tree firmly but not rigidly to stake with at least two ties within 25 mm of top of stake or to cross member f double staking; As per Landscape Architects Specification Q31 555					
C	Generally	9	nr			
	TREE GUARDS: Manufacturer: Agrement certified supplier; Product reference: submit proposals; Material: Steel tree guard, in ductile cast iron; Finish: Galvanised and polyester powder coated; Colour: neutral; Size: 450mm diameter or to suit 800 X 800 mm tree grille; Accessories/ Special requirements: The tree grille is to be slotted or installed into a galvanised steel support frame, the castings are to be secured by the tree guard and corner locating points; Method of fixing: Bolted to tree grille frame with 300mm hooked galvanised steel anchors as applicable; as per Landscape Architect's Specification Q50 260					
D	Generally	9	nr			
	Membrane to Engineer's Specification; Geotextile membrane to planters; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings					
E	Horizontal	23	m2			
	Membrane to Engineer's Specification; Waterproof liner to planters; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings					
F	Horizontal	12	m2			
G	Vertical	20	m2			

					€	c
	(80) LANDSCAPING (Cont)					
	Membrane to Engineer's Specification; Flocell drainage mat or equivalent to planters; include for all necessary laps and joints; to manufacturers instructions; as per Engineer's Specification & Drawings					
A	Horizontal	12	m2			
	Maintenance for defects liability period; as per Architect's Specification					
	MAINTENANCE; Duration: Carry out the operations in the following clauses from completion of planting until the end of the rectification period. Frequency of maintenance visits: Allow for monthly during growing season unless agreed otherwise in the agreed maintenance schedule.					
B	Generally	1	item			
	FAILURES OF PLANTING; Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/shrubs that have failed to thrive. Exclusions: Theft or malicious damage after completion. Rectification: Replace with equivalent plants/ trees/ shrubs. Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater. Timing of making good: In accordance with an agreed defects rectification programme.					
C	Generally	1	item			
	CLEANLINESS; Soil and arisings: Remove from hard surfaces and grassed areas. General: Leave the works in a clean tidy condition at completion and after any maintenance operations.					
D	Generally	1	item			
	PLANTING MAINTENANCE GENERALLY; Weed control: Maintain weed free area around each tree and shrub. Diameter (minimum): The larger of 1 m or the surface of original planting pit. Keep planting beds clear of weeds: By maintaining full thickness of mulch. Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch. Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools. Staking: Check condition of stakes, ties, guys and guards. Broken or missing items: Replace. Rubbing: Prevent. Ties: Adjust to accommodate growth. Damage to bark: Cut back neatly with sharp knife. Prevent further damage. Frequency of checks: Every three months. Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs. Trees: Spray crown when in leaf during warm weather. Timing: After dusk. Watering: Contractor's choice.					
E	Generally	1	item			

					€	c
	(80) LANDSCAPING (Cont)					
	PLANTING MAINTENANCE - FERTILIZER; Time of year: March or April. Fertilizer: Organic. Manufacturer: Contractor's choice. Product reference: Submit proposals. Application: Evenly spread, carefully incorporating below mulch materials. Application rate: To manufacturer's recommendations.					
A	Generally	1	item			
	PLANTING MAINTENANCE - PRUNING; General: Prune to promote healthy growth and natural shape. Dead, dying, diseased wood and suckers: Remove. Timing: As appropriate to the species. Trees: Favour a single central leading shoot. Arisings: Remove.					
B	Generally	1	item			
	MAINTENANCE INSTRUCTIONS; General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year: Provide a schedule of any ongoing maintenance problems experienced during the defects liability period					
C	Generally	1	item			
	FINAL MULCHING; Timing: At end of the maintenance period. Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary. Planting beds: Remulch. Depth (minimum): 50 mm. Trees: Remulch. Depth (minimum): 50 mm.					
D	Generally	1	item			
				To Collection €		

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(80) LANDSCAPING (Cont)					
COLLECTION					
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TOTAL AMOUNT CARRIED TO GENERAL SUMMARY					
Siteworks/1 - Siteworks/208.					

GENERAL SUMMARY

						€	
		GENERAL SUMMARY					
		Amount for:					
A		**PRELIMINARIES**					
B		**EXTENSION**					
C		**EXISTING BUILDING**					
D		**SITEWORKS**					
E		**Total (excluding VAT)**			**€**		
		Provide for:					
F		entering into a bond with an approved Insurance Company which will become bound jointly and severally with the Contractor in a sum equal to 12.5% of the contract sum; paying all premiums and expenses arising; complying with all conditions of the bond; lodging the bond with the Architect		Item			
		PROJECT SUPERVISOR					
G		Provide for all costs in respect of: The appointment of project supervisor for the Construction Stage. We agree to nominate a suitably qualified person to provide the required services and have included for all costs associated with the provision of such services to fulfill the function and perform on behalf of the Employer the duties of the Project Supervisor for the Construction Stage as set out in paragraphs 6 & 7 of the safety, Health and Welfare at Works Construction Regulations 2013; complying with the Conditions of the Collateral Agreement including any additional insurance costs **(Exclusive of Value Added Tax)**		Item			
		TOTAL AMOUNT OF TENDER (EXCLUDING VAT) FORWARD TO FORM OF TENDER			**€**		

APPENDIX A - VAT SCHEDULE

SCHEDULE OF WORKS ITEMS SUBJECT TO VAT AT RATES OTHER THAN SPECIAL BUILDING RATE (13.5%)					
	Notes				
	1. Please list separately the items included in the tender amount (including M&E Items) that are liable for VAT at rates other than the special building rate (13.5%) i.e. 23% to allow for the calculation of the Employer's total VAT outlay on the contract.	Note			
	2. 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.	Note			
	3. Where the cost of any items are VAT exempt or zero rated zero rated for VAT purposes the relevant items shall be itemised and the amount of the liability at this rate shall be clearly identified	Note			
	4. This schedule is for information purposes only and should not be carried forward to the General summary and will therefore not be included in the Tender amount.	Note			

Ref	Description	Unit	Amount Subject to VAT at rates other than 13.5% €	VAT Percentage Amount e.g. 23% %	Amount of VAT €
	Please See Below Example on How the Schedule is to be Filled Out (For information Purposes Only)	Note			
	The following example should not form any part of the Tenderers calculation	Note			
	Example				
	Light Fittings	Item	€10,000.00	23.00%	€2,300.00
	Works Items				
A					
B		Item			
C		Item			
D		Item			
E		Item			
F		Item			
G		Item			
H		Item			
I		Item			
J		Item			
K		Item			
L		Item			
M		Item			
N		Item			

Ref	Description	Unit	Amount Subject to VAT at rates other than 13.5% €	VAT Percentage Amount e.g. 23% %	Amount of VAT €
	Works Items				
A		Item			
B		Item			
C		Item			
D		Item			
E		Item			
F		Item			
G		Item			
H		Item			
I		Item			
J		Item			
K		Item			
L		Item			
M		Item			
N		Item			
O		Item			
P		Item			
Q		Item			
R		Item			
S		Item			
T		Item			
U		Item			
V		Item			

Ref	Description	Unit	Amount Subject to VAT at rates other than 13.5% €	VAT Percentage Amount e.g. 23% %	Amount of VAT €
	Works Items				
A		Item			
B		Item			
C		Item			
D		Item			
E		Item			
F		Item			
G		Item			
H		Item			
I		Item			
J		Item			
K		Item			
L		Item			
M		Item			
N		Item			
O		Item			
P		Item			
Q		Item			
R		Item			
S		Item			
T		Item			
U		Item			
V		Item			

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Appendix A – VAT Schedule

Please check that no page is missing or in duplicate.

Contractor's Name : .....

Address : .....

.....

Date : .....

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September 2026

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