

Notes

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- Lighting installation shall be carried out in accordance with Building Regulations, CIBSE Guides, and CIBSE Lighting Codes
- The electrical installation is to be carried out in accordance with BS7671 + Amendments
- Where specified, final circuit wiring shall be twin and earth LSF type cables on medium duty cable basket.
- TPN split load and split metered distribution boards are to be complete with Type 3 surge protection device. Lighting circuits shall be complete with type C RCBO breakers.
- A minimum of 25% electrical spare capacity and 20% spare out going ways shall be provided to all distribution boards unless otherwise stated. A minimum of 25% spare capacity shall be provided on cable containment.
- All distribution boards to be split metered lighting and power unless otherwise stated.
- Lighting installation shall be carried out in accordance with Building Regulations, CIBSE Guides, and CIBSE Lighting Codes
- All emergency illuminated signage is to comply with the requirements of BS5499 and project fire strategy.
- A bank of emergency lighting key switches are to be provided adjacent the local distribution board where not detailed within individual rooms.
- All external luminaires are to be controlled via a photocell and timeclock arrangement complete with override switch.
- All internal and external lighting products shall be those as manufactured by 'Dextra' or equal and approved.

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Lighting Lux Level Strategy	
Strategy	Lux Level
	100 Lux
	150 Lux
	200 Lux
	250 Lux
	300 Lux
	400 Lux
	500 Lux

Lighting Control Strategy	
Number	Control Method
1	Manual Control
2	Presence detection c/w local control
3	Retractive switch - On Automatic absence detention - Off

Light Fittings		
Image	Reference	Description
	A	600 x 600 Flat Panel LED recessed luminaire
	B	Recessed LED downlighter
	C	600 x 600 LED recessed IP54 luminaire
	D	Recessed LED downlighter IP44 rated
	F	Surface mounted (IP65 rated) LED linear luminaire
	G	Decorative pendant

Revisions	Date	Drawn	Chkd	Aprvd
P02 Revised Tender	20.09.18	SS	MM	MM
P01 Tender Issue	12.12.17	KLE	DH	MM



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Client

Birstall Parish Council

Project

Birstall Community Hall

Drawing Title

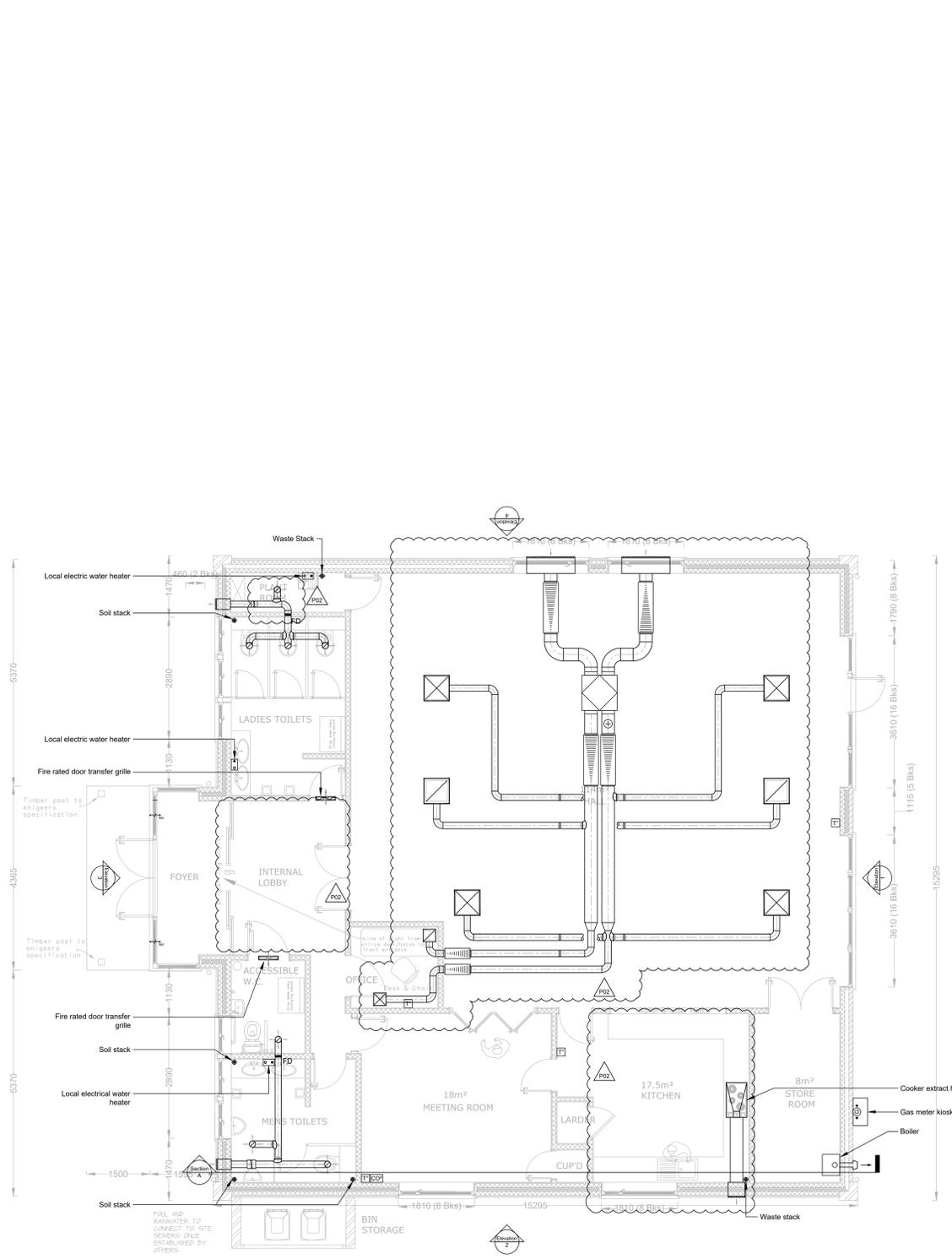
Proposed Lighting Strategy

Scale - unless otherwise stated Purpose of issue
1:50 @ A1 D2 - Issued for tender

Xref Hallam Fields Community Hall REV C 230817 (NR)

Drawing Number Rev
170062-BEC-XX-XX-DR-E-0100 P02

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- Domestic Water Notes**
- Water pipework shall be Mappex Copper unless specified otherwise.
 - Where specified, pipework shall be soldered Yorkshire Copper tube.
 - Where specified, pipework shall be plastic multi layer composite with crimped fittings.
 - Insulation shall be pre formed foil faced mineral wool unless specified otherwise.
 - All pipework shall be insulated in accordance with British Standards to minimise heat loss, heat gain, condensation/freezing depending on the nature/temperature of the medium being transported.
 - All external pipework to be trace heated, insulated and wrapped in PIB sheeting or aluminium cladding.
 - All valves to be covered using "Flexi-wrap" insulated jackets.
 - Pipe identification bands with direction of flow arrows shall be added to all pipe runs within the boiler room and all high level pipework within the rest of the building.
 - Water pipework below ground shall be blue MDPE with solvent welded joints. Protectaline type MDPE shall be used unless specifically instructed otherwise.
 - Gas pipework shall be Mappex Stainless Steel unless specified otherwise.
 - Where specified, gas pipework shall be soldered Yorkshire Copper tube.
 - Where specified, gas pipework shall be medium grade steel tube.
 - Gas pipework below ground shall be yellow MDPE with solvent welded joints.
 - No buried pipework shall be within 1m of building foundations.
 - All Safety Valves to discharges shall be piped to a foul drain connection via Tundish c/w Dry trap if trap is necessary.
 - All pipework passing through walls and floors is to be sleeved and fire stopped (BS476, 1 hour minimum), with sleeves flush to surfaces where exposed. Refer to fire strategy drawings for locations of compartment walls.
 - Pipework systems to be pressure tested to 1.5 times final working pressure as a minimum, or higher as required by other contract documentation or system requirements.
 - Auto air vents and drain points shall be installed at all system high/low points respectively.
 - All pipework systems to incorporate automatic airing/drainage by being installed to gradients to allow for natural airing/drainage.
 - Proprietary commercial grade metal hangers and brackets shall be used for all pipework.
 - Mechanical controls and associated power wiring and containment etc. shall be undertaken by the controls specialist as a sub-contractor to the mechanical contractor.
 - All pipework systems shall be flushed through, chlorinated and sample tested prior to final testing and commissioning.
 - All items of plant and equipment are to be installed with isolating valves and unions, located to enable access for maintenance and removal of plant and equipment.
 - Contractor to allow for specialist design & installation of pipework expansion including devices, hangers and anchors.
 - Thermostatic mixing valves to be TMV3 type.
 - Thermostatic mixing valves shall be provided on all basins.
 - Where TMVs are installed, the outlet pipework from the valve shall not exceed 1.0m in length in general building, and to be within 100mm of the outlet in case homes and medical buildings.
 - Isolation valves shall be provided on all outlets.
 - All appliance and sanitaryware shall be fitted with their own WRAS approved isolation.
 - System shall be fitted with all valves necessary to fully balance and commission. The contractor shall seek confirmation from his commissioning contractor that he is satisfied with the quantity and specification of all commission devices, prior to first fix.
 - All gas pipework routed through risers/ceiling voids to be suitably ventilated in accordance with current gas regulations.
- Heating Notes**
- Where specified, pipework shall be soldered Yorkshire Copper tube.
 - Where specified, pipework shall be plastic multi layer composite with crimped fittings.
 - Insulation shall be pre formed foil faced mineral wool unless specified otherwise.
 - All pipework shall be insulated in accordance with British Standards to minimise heat loss, heat gain, condensation/freezing depending on the nature/temperature of the medium being transported.
 - All external pipework to be trace heated, insulated and wrapped in PIB sheeting or aluminium cladding.
 - All valves to be covered using "Flexi-wrap" insulated jackets.
 - Pipe identification bands with direction of flow arrows shall be added to all pipe runs within the boiler room and all high level pipework within the rest of the building.
 - All Safety Valves to discharges shall be piped to a foul drain connection via Tundish c/w Dry trap if trap is necessary.
 - All pipework passing through walls and floors is to be sleeved and fire stopped (BS476, 1 hour minimum), with sleeves flush to surfaces where exposed. Refer to fire strategy drawings for locations of compartment walls.
 - Pipework systems to be pressure tested to 1.5 times final working pressure as a minimum, or higher as required by other contract documentation or system requirements.
 - Auto air vents and drain points shall be installed at all system high/low points respectively.
 - All pipework systems to incorporate automatic airing/drainage by being installed to gradients to allow for natural airing/drainage.
 - Proprietary commercial grade metal hangers and brackets shall be used for all pipework.
 - Mechanical controls and associated power wiring and containment etc. shall be undertaken by the controls specialist as a sub-contractor to the mechanical contractor.
 - All pipework systems shall be flushed through, heating water treated with chemical inhibitor, and sample tested prior to final testing and commissioning.
 - All items of plant and equipment are to be installed with isolating valves and unions, located to enable access for maintenance and removal of plant and equipment.
 - Contractor to allow for specialist design & installation of pipework expansion including devices, hangers and anchors.
 - The system design and operating temperatures shall be confirmed with the engineer but shall provisionally be 80/60, unless specified differently elsewhere.
 - The system cold fill pressure shall be confirmed with the engineer prior to commission.
 - System shall be fitted with all valves necessary to fully balance and commission. The contractor shall seek confirmation from his commissioning contractor that he is satisfied with the quantity and specification of all commission devices, prior to first fix.
 - The contractor shall ensure the main contractor marks out clearly & accurately any fixtures/fittings/walls etc. not yet installed, that need to be avoided with UFH pipework.
 - Hang the manifold at a minimum of 250mm from the finish floor level. Access to the manifold is essential.
 - Underfloor heating pipework should not run under any fixed appliances such as toilets or kitchen units unless specifically stated otherwise.
 - Pressure test of a minimum of 3 bar and a maximum of 6 bar must be applied to all the underfloor heating pipework prior to and during floor fixing.
- Drainage Notes**
- Sanitary plumbing installation shall be installed in accordance with BS EN 12056.5 and BS 8000 Part 13, Building Regulations, and local authority requirements.
 - All main soil & ventilation pipework shall be in PVC-U to BS 4544, as per "200-Solvent" range manufactured by Poly Pipe Terrain.
 - All pipework shall be acoustically insulated or alternative acoustic grade pipework utilised.
 - All horizontal soil & waste pipework material shall be in MuPVC to BS 5255 as per "200-Solvent" range manufactured by Poly Pipe Terrain.
 - Pipework exposed externally, within car parks, and retail units, cast iron.
 - Unless stated elsewhere, sizes of waste pipes from single sanitary fittings shall be as follows:
Sink - 400 MuPVC
WHD - 320 MuPVC
Shower - 400 MuPVC
WC - 1100 PVC-U
Washing machines/Dishwashers to be 400 MuPVC (by special trap to sink or trapped standpipes)
 - Unless specified elsewhere, traps to shower trays shall be belltop roddable.
 - All horizontal soil & waste pipework running at H/L in occupied areas shall be acoustically insulated or installed using Terrain Acoustic 0312.
 - All pipework passing through walls and floors is to be sleeved and fire stopped (BS476, 1 hour minimum), with sleeves flush to surfaces where exposed. Refer to fire strategy drawings for locations of compartment walls.
 - All pipework penetrating a fire wall or fire slab shall be fire stopped using a Terrain Firetrap fire collar.
 - Pipework systems to be pressure tested
 - Proprietary commercial grade hangers and brackets shall be used for all pipework.
 - Contractor to allow for specialist design & installation of pipework expansion including devices, hangers and anchors.
 - All 90° bends on wet sections of soil & waste pipework shall be either long radius or 2no. 45° short radius bends. 90° short radius bends are not acceptable except on ventilation pipework, horizontal small wastes and immediately behind WCs when connecting to them.
 - Access points to be provided at 1200mm AFFL (unless this height renders the access point inaccessible) on all floors to all vertical stacks and as shown on the drawings.
 - All access pipes and rodding eye access points to be located in accessible positions.
 - All stub stack air admittance valves shall be located above the spill over level of the highest connected appliance.
- Ventilation Notes**
- Ductwork shall be galvanised constrictor with bolted flanged connections, or galvanised spiral, as specified on the drawing, unless specified otherwise.
 - Where specified, ductwork shall be PVC circular or flat duct to suit the space available.
 - All ductwork shall be insulated in accordance with British Standards to minimise heat loss, heat gain, condensation/freezing depending on the nature/temperature of the medium being transported.
 - All external ductwork shall be, insulated and wrapped in PIB sheeting or aluminium cladding.
 - All condensate drains shall be piped to a foul drain connection via Tundish c/w Dry trap if trap is necessary.
 - All ductwork passing through walls and floors is to be fire stopped (1 hour minimum), with fire dampers as a minimum. Smoke dampers shall be installed in accordance with the fire strategy. Refer to fire strategy drawings for locations of compartment walls.
 - Ductwork systems to be pressure tested.
 - Duct identification labels with direction of flow arrows shall be added to all duct runs.
 - Proprietary commercial grade metal hangers and brackets shall be used for all ductwork.
 - All ductwork to be installed and conform to DW144 / DW142.
 - Access doors shall be provided in accordance with DW144 for cleaning and/or access to all fire and smoke dampers. This shall also include access doors in ceilings as necessary.
 - All grilles to be located centrally in ceiling tiles unless otherwise indicated.
 - All grilles shall be extruded aluminium colour to be confirmed by the engineer before ordering.
 - Grille boxes to be side or top entry to suit coordination with other services on site.
 - All grilles/diffusers shall be located centrally in ceiling unless otherwise indicated.
 - Maximum of 500mm of flexible ductwork to be used for final connections to grilles. Flexible duct shall be PVC. Where top entry grille boxes are used, ductwork should terminate with rigid downturn bend prior to the flexible connection.
 - All branches off main duct shall include shoe/boot connection and VCD.
 - All VCDs are to be multi-blade or iris type. Single blade VCDs are not permitted.
 - Doors shall be undercut by 20mm, unless prohibited by the fire strategy or any other reason. Should this be prohibited, the consultant shall be made aware by the contractor, so door transfer grilles or other means can be considered.
 - Mechanical controls and associated power wiring and containment etc. shall be undertaken by the controls specialist as a sub-contractor to the mechanical contractor.
 - System shall be fitted with all dampers necessary to fully balance and commission. The contractor shall seek confirmation from his commissioning contractor that he is satisfied with the quantity and specification of all commission devices, prior to first fix.
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Ventilation Legend

Symbol	Description
	Spiral drop/riser
	Natural ventilation
	Door transfer grille
	Circular extract air terminal
	Circular supply air terminal
	Square extract air terminal
	Square supply air terminal
	External louvre c/w plenum box
	Incandescent/Fusible link fire damper
	Volume control damper
	Inline duct fan
	Attenuator
	Thermostat
	CO2 Sensor
	PIR infra-red switch
	Boiler
	Gas meter
	Water heater
	Stub stack
	Extract hood
	Heat recovery unit
	Electric heater battery

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20/20/20 Revised Tender	XX/XX/18	BS	MM	MM
20/20/20 Tender Issue	12/12/17	KLE	NWJ	MM
Revisions	Date	Drawn	Checked	Approved



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Birstall Parish Council

Project: **Birstall Community Hall**

Drawing Title: **Proposed Mechanical Services**

Scale - unless otherwise stated	Purpose of Issue
1:50 @ A0	D2 - Issued for tender
Drawing Number: 170062-BEC-XX-XX-DR-M-0300 Rev: P02	
Drawing Number: 170062-BEC-XX-XX-DR-M-0300 Rev: P02	

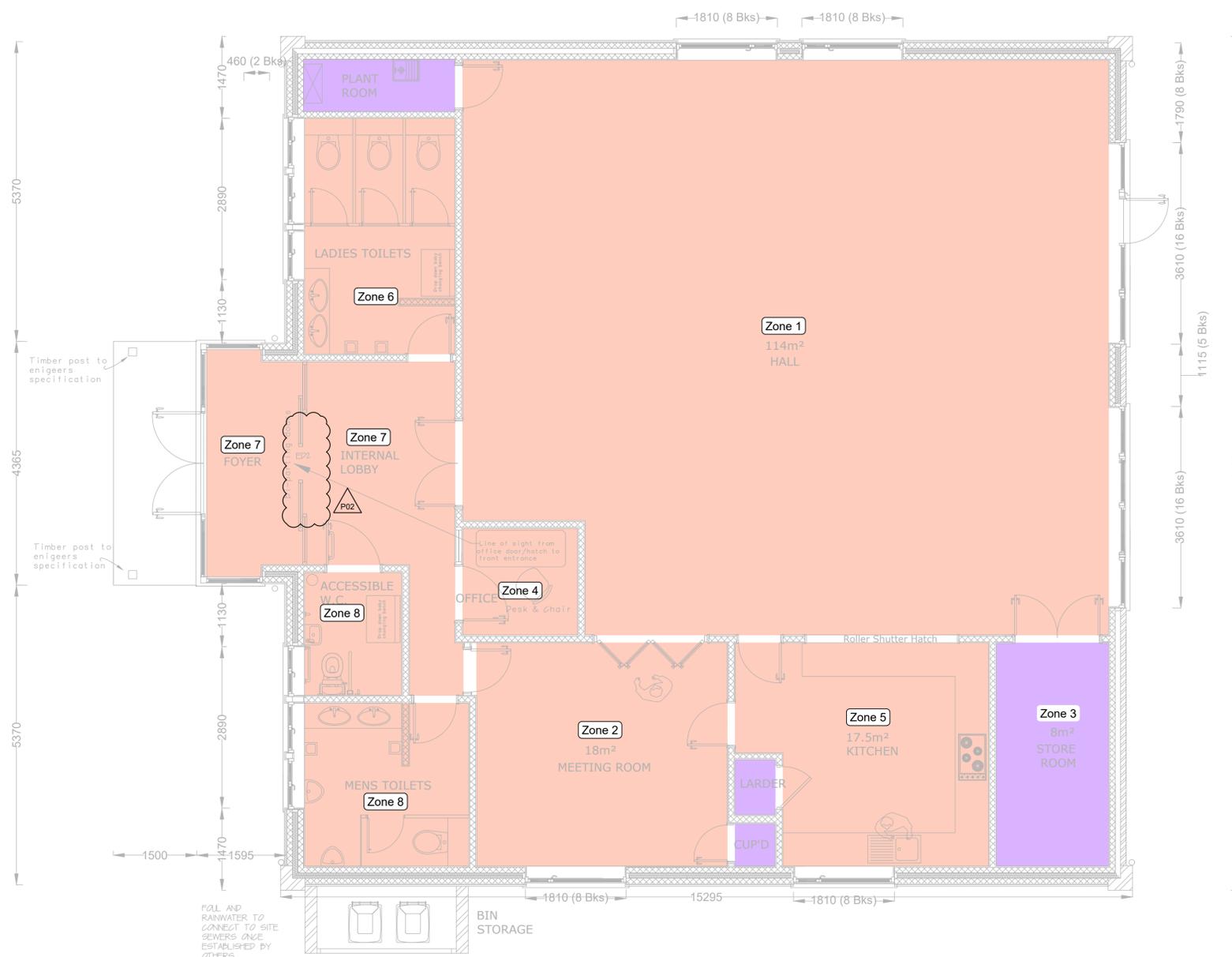
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Heating Strategy	
Colour	Heating
	Underfloor Heating
	No Heating

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P02	Revised Tender	20.09.18	SS	MM	MM
P01	Tender Issue	12.12.17	KLE	WJ	MM
Revisions		Date	Drawn	Chk'd	Apr'd



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Client

Birstall Parish Council

Project

Birstall Community Hall

Drawing Title

Proposed Heating Strategy

Scale - unless otherwise stated | Purpose of issue
1:50 @ A1 | D2 - Issued for tender

Xref
Hallam Fields Community Hall REV C 230817 (NR)

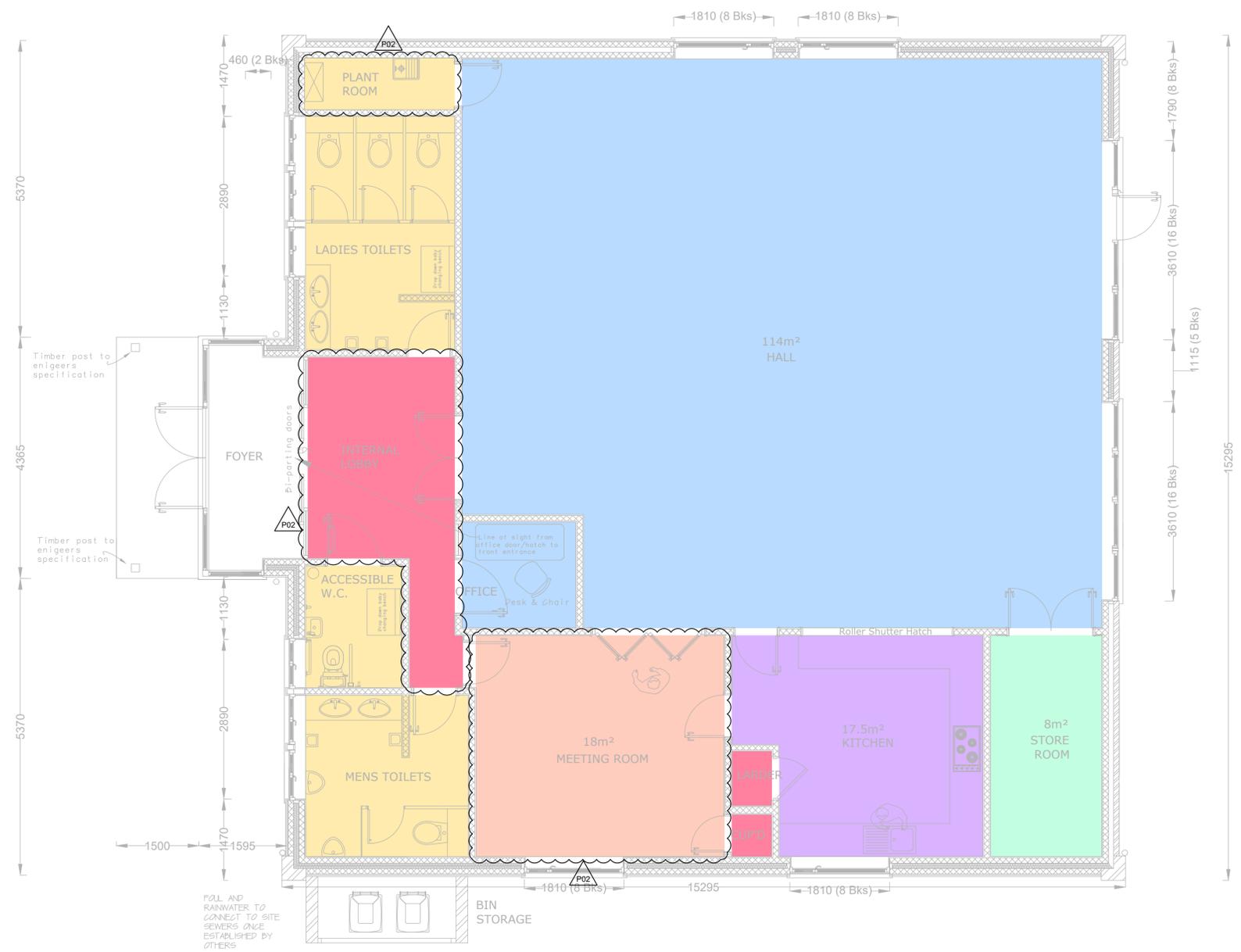
Drawing Number | Rev
170062-BEC-XX-XX-DR-M-0900 | P02

Ventilation Strategy	
Colour	Ventilation
	No Ventilation
	Natural Ventilation For Gas Pipework
	Natural Ventilation By Opening Windows
	Dirty/Toilet Extract System
	Supply And Extract MVHR
	Supply And Extract Via Dedicated Kitchen Ventilation Hood

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Revisions	Date	Drawn	Chkd	Apr'd
P02 Revised Tender	20.09.18	SS	MM	MM
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Client

Birstall Parish Council

Project

Birstall Community Hall

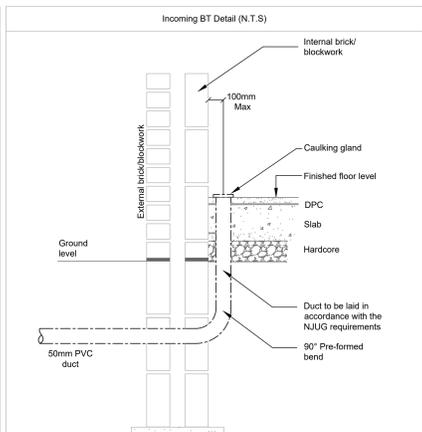
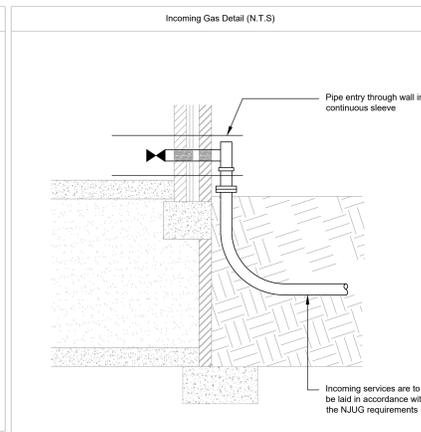
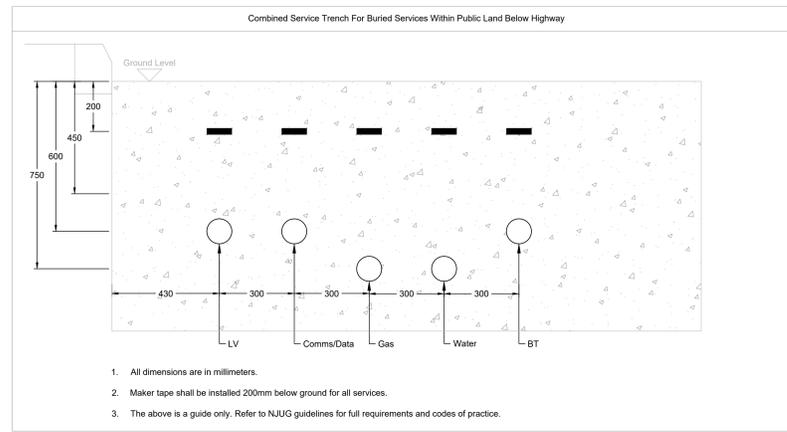
Drawing Title

Proposed Ventilation Strategy

Scale - unless otherwise stated Purpose of issue
1:50 @ A1 D2 - Issued for tender

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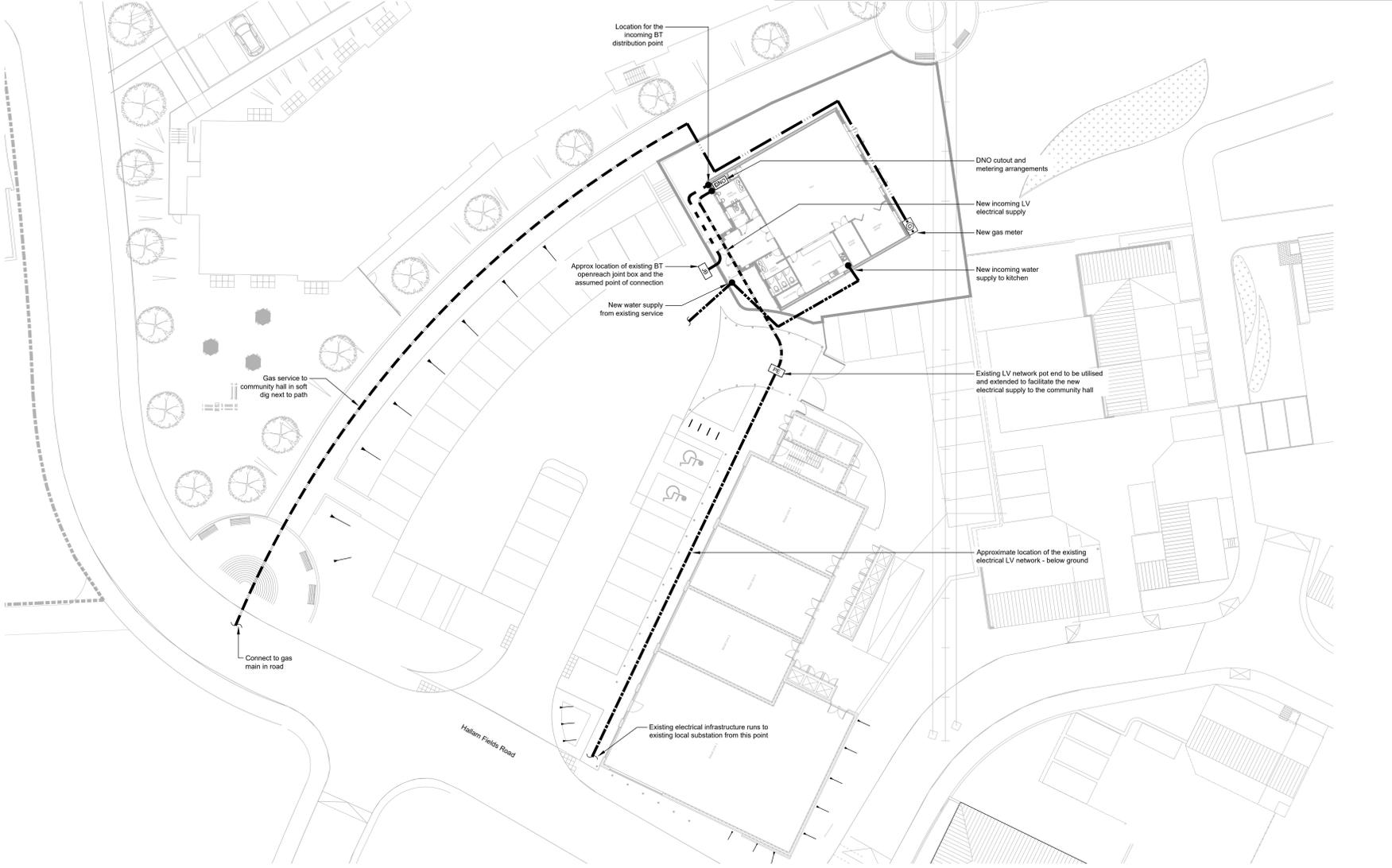
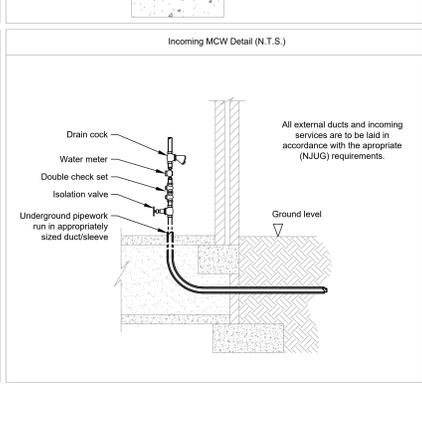
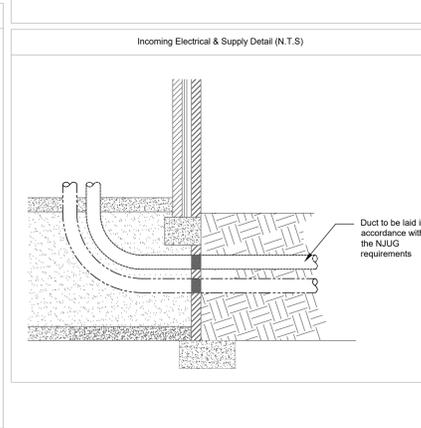
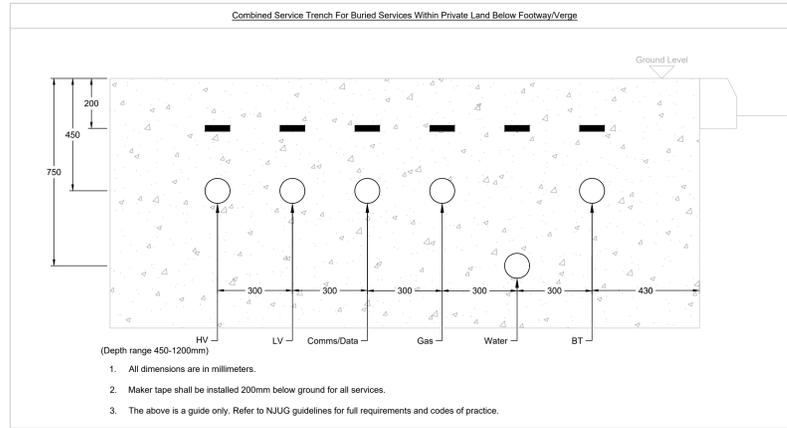
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170062-BEC-XX-XX-DR-M-0901 P02



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- Water pipework below ground shall be blue MDPE with solvent welded joints. Protectaline type MDPE shall be used unless specifically instructed otherwise.
- Gas pipework below ground shall be yellow MDPE with solvent welded joints.
- Incoming electricity cables shall be to DNO specification
- Private electricity cables shall be XLPE/SWA/LSF
- All external ducts and incoming services are to be laid in accordance with the NUJG requirements.
- The final routing of all external services, duct routes, cable draw pits etc. are to be determined by the main contractor, electrical contractor and mechanical contractor in accordance with the full requirements laid out by the relevant utility company and site conditions. Any deviations from the drawings shall be notified to and agreed with BEC prior to installation.
- All ducts shall be 150mm dia rigid duct installed complete with draw pit every 30m, draw wires and slow sweeping radius bends to facilitate installation of cables.
- All cable draw pits installed shall be capable of withstanding vehicular weight.
- The contractor shall ensure that all ducts are free from rubble and not subject to being crushed prior to back filling and making good.
- All underground services shall be a minimum of 3m away from any building foundation.



Incoming Services Legend

Symbol	Description
	Incoming natural gas pipework
	Incoming water pipework
	Incoming BT supply (duct to BT specification)
	Electrical infrastructure
	Existing electrical infrastructure
	DNO outout and metering arrangements
	Electrical pot end
	BT Openreach joint box
	Duct / pipe break
	Building entry point / riser
	Utility gas meter position c/w ventilated IP65 rated RGP housing

D22	Tender Issue	20.09.18	SE	MM	MM
P01	Tender Issue	12.12.17	KLE	WJ	MM
Revisions	Date	Drawn	Checked	Approved	

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Client: **Birstall Parish Council**

Project: **Birstall Community Hall**

Drawing Title: **Proposed Incoming Services**

Scale - unless otherwise stated: **1:20 @ A0** Purpose of issue: **D2 - Issued for tender**

Rev: **170062-BEC-XX-ZZ-DR-Z-100** Rev: **P02**

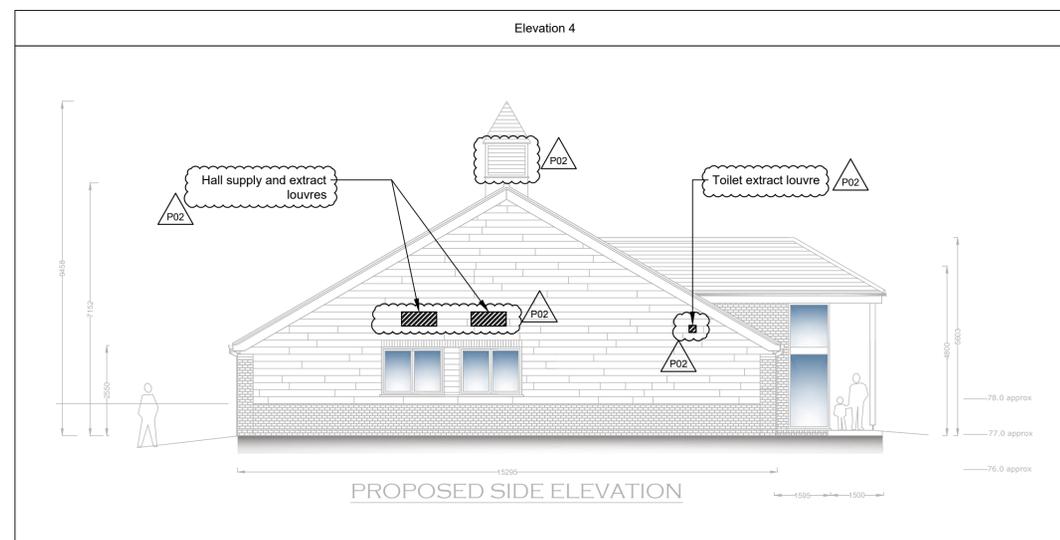
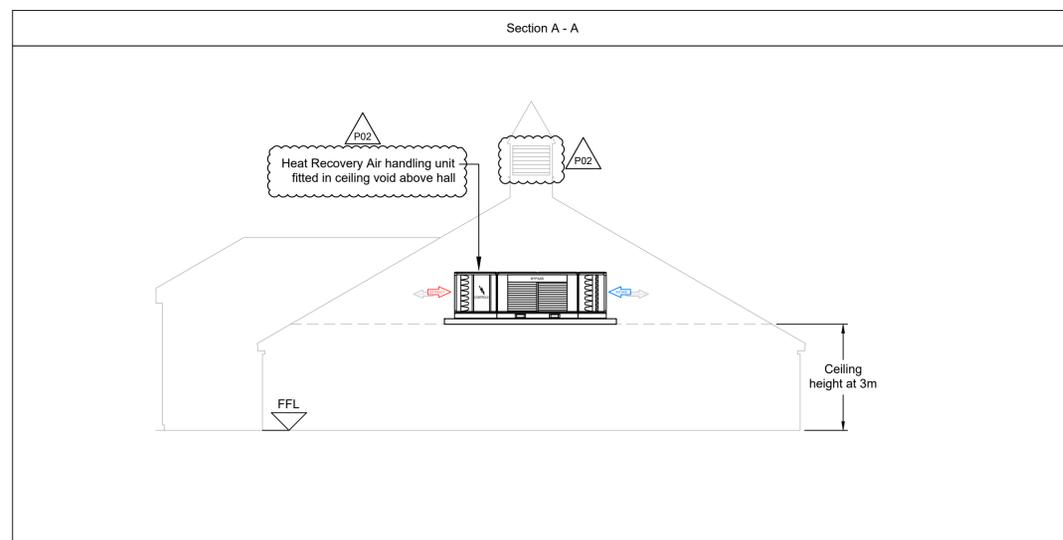
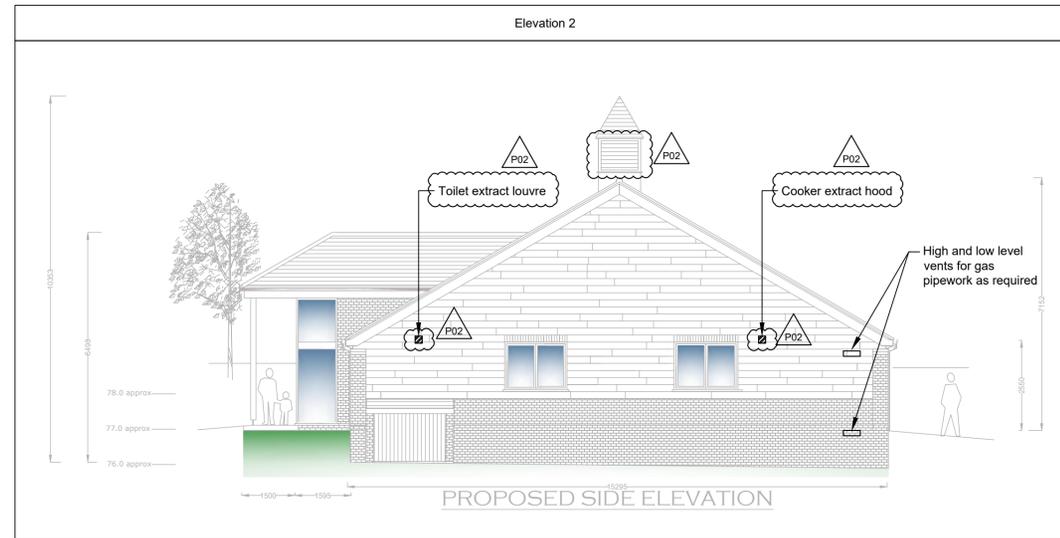
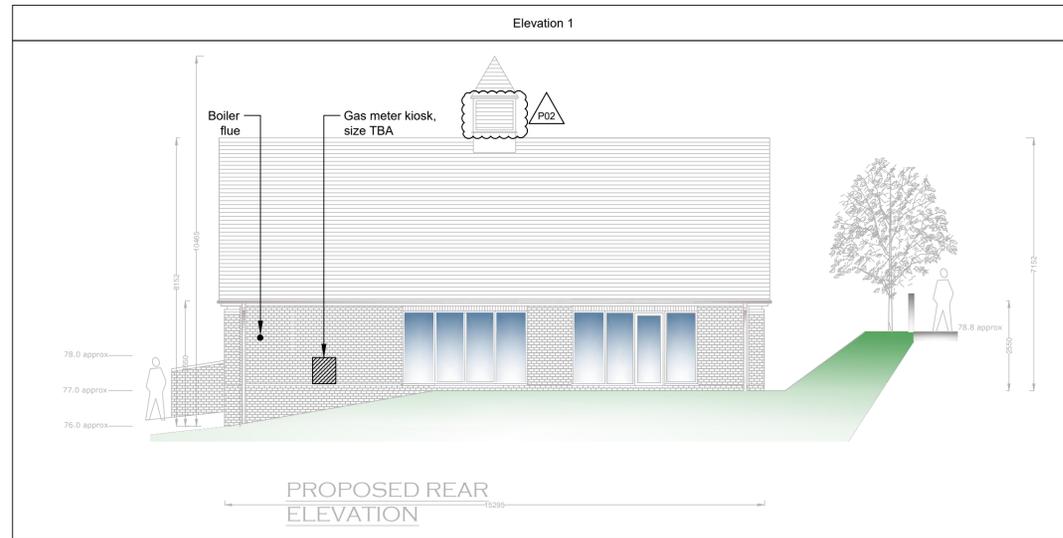
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Disclaimer

It is recognised that this drawing indicates details beyond that normally provided to define the performance requirements. However, the contractor is responsible for the mechanical and electrical systems design under the contract and any sizes or positions of equipment are only indicative. The contractor shall refer to the performance requirements set out in the tender documentation in order to complete the design and installation of the mechanical and electrical systems to meet these performance requirements.

Notes

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4. All design, installation, commissioning, handover, and operation, shall be undertaken as a minimum in accordance with current British Standards, European Standards, Building Regulations, CIBSE Guidance, BSRIA Guidance, and any industry standard practice guides for the services being undertaken.
5. Positions of equipment are indicative as these are design drawings only. Exact positions and final site coordination shall be determined on site by the contractor.
6. Allow for all containment, hangers, brackets, and Unistrut channel and supports etc to provide a complete installation. The design of this shall be by the installation contractor.
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P02	Revised Tender	20.09.18	SS	MM	MM
P01	Tender Issue	12.12.17	KLE	WJ	MM
Revisions		Date	Drawn	Chk'd	App'd

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Client

Birstall Parish Council

Project

Birstall Community Hall

Drawing Title

Elevations

Scale - unless otherwise stated Purpose of issue
1:100 @ A1 D2 - Issued for tender

Xref
Hallam Fields Community Hall REV C 230817 (NR)

Drawing Number Rev
170062-BEC-XX-ZZ-DR-Z-500 P02

DRAWING AND DOCUMENT ISSUE REGISTER



built environment consulting ltd

5 Redwing Court, Long Acre, Willow Farm Business Park
Castle Donington, Derby, DE74 2UH

CLIENT: Birstall Parish Council	
PROJECT: Birstall Community Hall	
JOB No: 170062	Sheet: 1

		DATE OF ISSUE									
DAY	12	20									
MONTH	12	09									
YEAR	17	18									

Doc No:	DOCUMENT TITLE	Scale	Revision															
170062-BEC-XX-XX-DR-E-0100	Proposed Lighting Strategy	1:50	P01	P02														
170062-BEC-XX-XX-DR-M-0300	Proposed Mechanical Services	1:50	P01	P02														
170062-BEC-XX-XX-DR-M-0900	Proposed Heating Strategy	1:50	P01	P02														
170062-BEC-XX-XX-DR-M-0901	Proposed Ventilation Strategy	1:50	P01	P02														
170062-BEC-XX-ZZ-DR-Z-100	Proposed Incoming Services	1:20	P01	P02														
170062-BEC-XX-ZZ-DR-Z-500	Elevations	1:100	P01	P02														
170062	Birstall Community Hall Building Services Performance Specification		T1	T2														

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Status of Drawing:	D2	D2																
Mode of Issue:	E	E																

Issue Status Key:	S0 – Initial Status or WIP S1 – Suitable for Co-ordination S2 – Suitable For Information S3 – Suitable for Review & Comment S4 – Suitable For Approval	D1 – Suitable For Costing D2 – Suitable For Tender D3 – Suitable For Contractor Design	A1 – Approved/Construction B1 – Partial Sign Off CR – As Built
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Mode of Issue:	E – Email	P – Paper	C – CD
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Issued By:	WJ
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