

SPECIFICATION

for
**WORKS TO IMPROVE
SURFACE WATER DRAINAGE**
from
North side of tower
at

**CHURCH OF ST NICHOLAS
Barton Le Clay**

BEDFORDSHIRE



Michael Dales Partnership Limited
95, Sharpenhoe Road,
LUTON,
Bedfordshire LU3 3PS

SPECIFICATION

For

WORKS TO BE DONE AND MATERIALS TO BE USED

in connection with the

WORKS TO IMPROVE THE EXISTING SURFACE WATER DRAINAGE

from north side of tower

St. Nicholas Church

Barton le Clay

Bedfordshire.

August 2012

1 PRELIMINARIES

The Employer is Church of St Nicholas PCC,
c/o The Revd. A Johnson,
The Rectory,
2 Manor Farm Close,
Barton-le-Clay,
MK45 4TB

1.1 The Architect & Principal Designer is:

Michael Dales Partnership Limited
95 Sharpenhoe Road,
Streatley,
LUTON,
Bedfordshire,
LU3 3PS

Telephone number 01582 881210

- 1.2 Works comprise the renewal of the existing surface water drainage from gully on north side of tower to new soakaway.
- 1.3 The works will be inspected by and are to be carried out to the satisfaction of the Architect.
- 1.4 The works to be carried out as shown detailed in this specification
- 1.5 The Contractor is advised to visit the site prior to the submission of his Tender to inspect the building, the means of access and the site conditions.
- 1.6 The Contractor will be required to ensure that all activities related to this building contract are strictly confined within the boundaries of the site and the area identified within the site.
- 1.7 Externally the Contractor is to make a compound using security fencing to protect the public from the works and the works from the public.

- 1.8 The Contractor shall ensure that the security of the works is maintained at all times during the works.
- 1.9 The Contractor shall allow in his tender for any inconvenience, uneconomic working. The Contractor should allow for shorter working days in relation to hot work and to setting times in relation to lime mortar and lime-wash.
- 1.10 The form of Contract under which the works are to be executed will be the JCT Minor Works Building Contract 2016.
- 1.11 Tenders are to remain open for acceptance for a period of not less than 90 days from the date fixed for the submission of tenders.
- 1.12 The following are the Clause numbers and headings of the Conditions of the Contract and the Contractor is to allow in his Tender for observing the full text of each Condition.

4th Recital & Schedule 2	Tender date shall be base date
4th Recital & Clause 4.2	Employer is not a contractor
5th Recital	CDM regulations The architect will be appointed Principal Designer
6th Recital	Framework Agreement is not applicable.
7th Recital & Schedule 3	Collaborative working applies. Health and safety shall apply. Cost savings and value improvement shall apply. Sustainable development and environmental considerations shall apply. Performance indicators shall not apply. Notification of disputes applies. Employer and Contractor to complete to show their respective nominees
Article 7	Article 7 and Schedule 1 shall apply.
Clause 1.1	CDM planning period shall commence 14 days prior to work commencing.
Clause 2.2	Will be completed to indicate that the works will be commenced and shall be completed by the dates shown on the Form of Tender.
Clause 2.8	Will be completed to show the sum of £200.00 per week.
Clause 2.10	Will be completed to show a rectification period of 12

	months
Clause 4.3	Will be completed to show 95%.
Clause 4.4	Will be completed to show 97.5%.
Clause 4.8.1	Shall be completed to show 3 months.
Clause 4.11 & Schedule 2	Shall be deleted (Fluctuations Option does not apply) Percentage addition shall be completed to show Nil.
Clause 5.3.2	Shall be completed to show that the contractor shall indemnify the Employer in the sum of not less than £5,000,000.00.
Clause 5.4A	Shall be deleted
Clause 5.4B	Shall apply
Clause 5.4C	Shall be deleted
Clause 5.4A.1 & 5.4B.1.2	Shall be completed to show 15%
Clause 7.2	Adjudicator or arbitrator shall be appointed by RIBA

The date of practical completion will be the date certified under clause 2.9

- 1.13 The Employer, Contractor and any Sub-Contractor shall produce evidence to the Architect to show that the insurances referred to in the contract have been taken out and are in force at all material times.

All existing structures, contents, also the works and unfixed materials and goods (except Contractor's sheds, plant, tools and equipment) shall be at the sole risk of the Employer as to the loss or damage by the perils listed in the Contract. The Employer shall maintain insurance against those risks, including any necessary demolition and removal of any debris, for the full reinstatement value concerned plus 15% for fees.

The Contractor must Indemnify the Employer against all liabilities, loss, claim, expense or proceedings whatsoever, in respect of damage to the Church arising out of the negligent use of blow lamps, lead burning torches, welding equipment and any other apparatus. The Contractor must also cause any sub-Contractor to maintain insurance against all liability of the aforesaid risks.

- 1.14 Tendering Procedure: Competitive tenders will be invited based upon the detailed drawings and this Specification. When considering the tenders submitted the Employer will take into account the dates quoted for commencement and completion of the works in addition to the tender sum.

The Employer does not bind themselves to accept the lowest or any Tender. No remuneration will be paid for the preparation of Tenders.

- 1.15 Programme. The contractor's suggested programme for the works is to be submitted with his tender and will be taken into account by the Employer when considering which tender to accept. The subsequently agreed programme will form part of the contract documents.

During the course of the Works the programme shall be regularly marked up to show the actual progress of works for inspection by the Architect.

Similarly within fourteen days after the signing of the Contract the Contractor shall submit to the Architect a priced copy of this Specification with each item priced to show the cost of the work described. This priced copy of the Specification will not be treated as a Bill of Quantities and will be used only for assessing the value of work in progress and the cost of any variations.

Two copies of any drawings (not counting any certified copy of the contract drawings) will be issued to the Contractor free of charge. Extra copies will be issued on request, but will be charged to the Contractor.

- 1.16 Do not scale from the drawings. All dimensions should be checked on site or with the Architect. Any significant discrepancies should be notified to the Architect.

- 1.17 The Contractor is required to present his Application for Payment in the following manner:

Spec Item	Detail	Cost in Priced Spec.	% complete	Valuation
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- 1.18 The Contractor will be required to provide proper on-site supervision of the Works throughout the whole period of the Contract by the employment of a Site Foreman, (or other suitable person). The Foreman shall not be removed from the site or replaced without the written consent of the Architect.

The Architect will make frequent inspections of the work in progress. The Contractor is to notify the Architect if he is to be off-site.

The words "supply", "provide", or "provide and fix", in this Specification are to be taken to assume that the Contractor will include all the labour and materials required to complete the operation described.

The work "approved" is to be taken to mean approved by the Architect.

The Contractor is to provide everything necessary in the way of materials, tools, plant and labour for the proper and complete execution of the Works involved in the Contract according to **the intent and meaning of the drawings and this Specification providing that this can be reasonably inferred from either.**

The absence of a description of work or materials or fittings or an Estimated Cost in the priced copy of this Specification submitted by the Contractor in compliance with Clause 1.15 shall not vitiate the requirements of this Clause.

- 1.19 The quality of materials and products to be used for the works shall not be less than described in the appropriate British or European Standard Specification.

Where work is shown or described to be in accordance with a Code of Practice the Contractor shall ensure that the recommendations of the Code of Practice are complied with in all respects.

Workmanship shall in all cases be in accordance with the best methods recognised throughout the trade.

- 1.20 Materials and work likely to deteriorate if left exposed must be kept undercover and/or protected.

Similarly the Contractor shall protect completed works to prevent damage by following trades.

- 1.21 The Contractor shall accept delivery of all materials to the site and shall ensure that they are of the quality and quantity specified, in proper condition at the time of delivery and properly stored until fixed.

- 1.22 Where appropriate the Contractor shall be responsible for serving the Notices on the Local Authority when work on site is commenced and at the appropriate times as the Works proceed and upon completion. Where appropriate the Contractor will be required to obtain a Notice of Satisfactory Completion of the Works from the Local Authority. Where appropriate the Contractor shall also be responsible for the service of any other Statutory Notices required as a result of him carrying out the Works. The Contractor shall pay all charges due in respect of same.

- 1.23 The Contractor may make use of the Employer's power supply.

- 1.24 The Contractor shall attend upon, cut away for and make good after all trades and domestic and Nominated Sub-Contractors.

- 1.25 The Contractor is to provide secure site office and storage accommodation and toilet facilities for the use of the site staff and operatives and is to pay all rates and charges due in respect of any temporary buildings erected for the Works.

- 1.26 Upon completion of the Works the Contractor shall leave the whole of the Works clean and in proper condition. The Contractor shall clear away all temporary buildings and re-instate any area of the site affected by same.

- 1.27 The Contractor shall be responsible for checking any dimensions on the site and shall advise the Architect of any discrepancies found.

- 1.28 **Include the sum of £500.00 for Contingencies to be used in whole or in part as directed by the Architect. The whole or any part of the Contingency sum not so used shall be deducted at the settlement of the Account.**

HEALTH AND SAFETY

- 1.29 The Contractor shall ensure that he, his employees, sub-contractors and visitors to the site at all times observe the relative standards and codes of practice for health and safety where building work is carried out.

In particular where work is carried out on scaffolding at high level industrial safety helmets to BS5240 are to be worn, masks are worn where dust is being created and ear defenders where noise is generated.

All visitors to the site are to be provided with safety helmets should they require them.

- 1.30 The Contractor shall allow for observing the full implications of the Employers health and safety policy together with current requirements for CDM Regulations and the Principal Designer's Pre Construction Health and Safety File. The Contractor shall be appointed as the Principal Contractor, and carry out all requirements in fulfilment of the role as defined under the regulations. NOTE: all CDM documentation must be completed before the issue of a Final Certificate.

The proposed works are not considered to be notifiable as they are likely to involve less than 500 man days. The contractor shall notify the principal designer should this situation change and the works become notifiable.

The contractor and the Employer shall allow for observing the full requirements of government Covid advice in place at the time of tendering the works. These will be reviewed when the works come to site.

FIRE PRECAUTIONS

- 1.31 Take all necessary precaution to prevent nuisance to public on and off site from smoke, dust, rubbish and other causes.

The contractors shall provide and maintain on site appropriate fire extinguishers for the duration of the works.

The Contractor is to take all reasonable measures to prevent loss or damage by fire. All workmen should be shown the location of fire extinguishers and are to be told where telephones can be found in the event of an emergency. Where work involving the use of blow-lamps, lead burning torches or any other flame producing apparatus it should be carried out under close supervision. 2 No. 2 gallon water type extinguishers should be kept in close proximity to the apparatus. All parts of the Church fabric where a heating process has been carried out must be given a final inspection two or three hours after work has ceased for the day. The Contractor should make due allowance within his tender for shortened working days where this applies.

- 1.32 **Smoking is prohibited on the site.**

The playing of radios during the working day will not be permitted except with the express permission of the Employer's representative. The Contractor, his sub-Contractors and operatives should bear in mind the purpose of the building and behave in an appropriate manner at all times.

Any electrical contractor shall have **N.I.C.E.I.C Approved Contractor Status**. Any temporary electrical wiring should comply with N.I.C.E.I.C. Regulations and should be disconnected at the end of each working day. All waste material should be removed from the site at the earliest opportunity. Where any fittings are specified and they arrive in

packaging the packaging should be removed outside the Church and disposed of. No bonfires or disposal of packaging or waste material should be carried out on site.

- 1.33 The storage of inflammable materials shall be outside the Church and well away from the building.

INSURANCE

- 1.34 Dependent upon the type and extent of the 'hot work' it may be prudent to notify Insurers of the work and seek their approval of safety precautions put in place.

PROTECTION

- 1.35 Every effort is to be made to prevent damage to existing building fabric, fences, walls, gates, paving, trees and shrubs and other features which are to remain in position during the execution of the works.

The Contractor shall provide and fix all and any necessary temporary casings, boards, sheets etc. to ensure this.

- 1.36 The Contractor shall take adequate measures to ensure that rainwater gutters, hoppers, downpipes and drains are not blocked or choked as a result of the works. Where appropriate the Contractor shall take such measures as necessary for diverting rainwater temporarily for the protection of the building and its contents.

AUTHORITY

- 1.37 All works are to have been approved by the Diocesan Advisory Board and have received a Faculty prior to work commencing on site. Where special or urgent circumstances occur the Contractor shall advise the architect who will enquire whether a licence may be required to proceed.

- 1.38 Where day work is carried out, each time-sheet and invoice is to be signed by the Foreman as correct and is to refer to the Architect's Instruction for the work. Day works only to be carried out with authority of Architect.

Completed day-work sheets will only be considered for acceptance if submitted within seven working days.

All additional works or variations shall be valued at rates comparable with those used in the tender process.

- 1.39 Where work is to be carried out and is to be concealed a minimum of 24 hours notice is to be given to the Architect in order that an opportunity for an inspection may occur.

THE WILDLIFE AND COUNTRYSIDE ACT 1981 AND CONSERVATION (NATURAL HABITATS ETC) REGULATIONS 1994

- 1.40 This Act gives very full protection to bats because of their special requirements for roosting. It is illegal not only to intentionally kill, injure or handle any bat, but also intentionally damage or destroy or obstruct access to any place that a bat uses for shelter or to disturb a bat whilst it is occupying such a place. In this context "damage" means make worse for a bat and so includes such operations as chemical treatment of timbers.

The Act provides defences so that building, maintenance or remedial operations can be carried out in places used by bats.

It is important that all contractors and subcontractors under this specification and contract notify the Bats Conservation Trust. Their Contact details are 0845 1300 228 email enquiries@bats.org.uk so they can decide if the building is inhabited by bats. Failure to comply with this Act could render the Contractor liable for heavy fines.

No work is to proceed without written confirmation from the Architect.

- 1.41 NOTE: No organochlorine woodworm killers are to be used where bats are in evidence. Synthetic pyrethroid insecticides such as permethrin and cypermethrin can be permitted if used by an approved timber treatment.

GENERAL PROCEDURES

- 1.42 The Contractor, sub-Contractors and all operatives must bear in mind that the Church will remain in use during the works and that the programme of works must be agreed with the church administrator who will acquaint the Foreman with any need to stop work during a service or burial.

The Contractor shall make due allowance within his tender for the inconvenience caused by stoppages in work to accommodate services etc.

- 1.43 Where materials and work are not fully specified they are to be carried out using materials fit for the purpose, in line with current standards and where ever possible match existing materials in type, texture, colour, size and quality.
- 1.44 Tenders are to remain open for acceptance for a period of not less than 90 days from the date fixed for the submission of tenders.

2 TRADE PRELIMINARIES AND PREAMBLES

2.1 EXCAVATOR AND CONCRETOR

- 2.1.1 Excavations to be kept dry at all times.
- 2.1.2 No excavated material is to be removed from the site without the consent of the Architect. Topsoil and other suitable material is to be retained for backfill. Redundant material is to be carted to a position in the churchyard to be determined by the Architect and agreed with the churchwardens.
- 2.1.3 Generally concrete mixes are to be as follows unless specified by Structural Engineer:

Grade:	Maximum	Minimum	Minimum Cube strength	
	Size	Cement	-----	-----
	Aggregate	Content	at 7 days	at 28 days

10	20mm	140 Kg/m ³	6.7 N/mm ²	10.0 N/mm ²
21	20mm	280 Kg/m ³	14.0 N/mm ²	21.0 N/mm ²

Grade 10 concrete shall only be used for blinding and filling and for drainage work as specified. Grade 21 concrete shall be used for any reinforced concrete work and for all foundations and floor slabs.

Concrete shall be mixed in a pan or drum type mixer.

Concrete shall be placed in its final position within 30 minutes of the addition of water to the mix.

Cement in concrete to be placed above ground shall be ordinary British Portland Cement to BS 12.

Cement in concrete to be placed below ground shall be sulphate resisting to BS 401.

Aggregates are to comply with BS 882 and 1201.

Water shall be clean and free from acids, vegetable and deleterious matter.

Admixes and/or additives shall not be used without the approval of the Architect.

Colouring additives may not be used without approval of the Architect.

Test cubes shall be taken and tested at the expense of the Contractor, in accordance with the requirements of

BS 1881. The results of the tests shall be passed to the Architect for information and record purposes

2.1.4 Where additional depth of excavation has to be carried out to achieve a good bottom the excavations shall be backfilled with grade 10 concrete up to the level of the designed foundations.

2.1.5 Turf lifting

- check site, CAT scan for services
- cut grass as short as is reasonably practicable
- Carefully lift turf. Ideally cut down as deep as is practical to retain top soil with root structure. At least 3 inches.
- store turfs either on nearest available hard surface or on polythene sheeting in agreed locations.
- store turfs 'brown to brown & green to green' in stacks no more than 800mm high with bottom turf green side down and top turf green side up

2.1.6 Trench excavation

- Strip top soil (of what remains) and store on site away from conservation areas and ideally on an area of hard standing.
- strip subsoil and store on site away from conservation areas and ideally on an area of hard standing..

- do not mix sub and top soils either in handling, storage or reinstatement.
- Provide hard standing for all mechanical diggers etc to prevent the grass and soft landscape being disturbed.

2.1.7 Reinstatement of turf after installation of pipework

- replace subsoil in maximum 200mm layers and lightly compact each layer before placing next layer - do not over compact
- replace subsoil to finished level 50mm above adjacent subsoil profile in trench
- replace topsoil in maximum 200mm layers and lightly compact each layer before placing next layer - do not over compact
- replace top soil to finished level 50mm above adjacent top soil profile in trench
- relay turf by hand so that finished level is 50mm above adjacent ground level - do not compact
- place sieved topsoil in turf joints

2.1.8 General works affecting turf

- do no work to turf or soils during excessively wet weather
- in very dry weather water both turf and soils stores

2.2 DRAINLAYER

2.2.1 The Clauses in EXCAVATOR AND CONCRETOR shall also apply to Drainage work where applicable.

The concretor shall allow in his price for excavation for grading and ramming the bottoms of drain trenches.

2.2.2 Surface water drains to be laid true to falls and in straight lines with Osma drainage goods or similar approved pipes and joints, of the diameters shown on the drawings, laid in accordance with the recommendations of the manufacturer on and surrounded with 150 pea shingle. Back inlet gullies to be set on and surrounded with 150 grade 10 concrete and to be fitted externally with galvanised gulley grids and internally with sealed screw down galvanised plates perforated as necessary for waste pipes. RWP's are to discharge over roddable gullies with galvanised gulley grids.

2.2.3 Inspection chambers on the surface water drains are to be Osma or similar approved installed to comply with Building Regulations and manufacturer's recommendations – or, 675 x 560 internal size, increased as necessary to accommodate number of branch drain connections, with 150 thick grade 21 concrete base, 225 thick walls in Class B Engineering bricks in cement mortar mix 1:3 with 150 thick grade 21 reinforced concrete cover slab with hole for inspection cover. Set on same 600 x 450 coated single seal inspection covers and frames of the appropriate weight.

Frames set in footpaths to be medium duty. Frames in grassed areas to be heavy duty. Frames to be set in base half round glazed channel with ranches as required. Form benching in bottom of chambers in grade 21 concrete properly finished smooth.

- 2.2.4 Soakaways are to be as described on the drawing but in general are to be constructed of honeycomb brickwork built up off 150 x 300 deep strip foundations. Brickwork to be wrapped in terram externally and back filled externally with gravel. Top of soakaway to be 100mm thick reinforced concrete cover slab with IC aperture cast within. Slab to be finished 200mm below surface of churchyard. Build up 215 brickwork from slab to ground level and supply and bed heavy duty galvanised frame and lid with flaunching. Back fill with top soil over soakaway. In addition a shallow gravel trench some 4m long 600 wide 300 deep with a turf topping is to be provided as an overflow from each soakaway.

2.3 **BRICKLAYER**

- 2.3.1 The Clauses in EXCAVATOR AND CONCRETOR shall also apply to BRICKLAYER where applicable.
- 2.3.2 Where specified, common bricks shall be sound, well burnt, flettons from an approved manufacturer to comply with BS 3921.
- 2.3.3 The mortar mix for brickwork below the damp proof course shall be cement: sand mix 1:3. The cement shall be sulphate resisting to BS 401.

All joints of brickwork are to be well flushed up and every horizontal course and every vertical joint must be grouted up solid.

2.4 **STONEMASON – none proposed**

2.5 **CARPENTER AND JOINER – none proposed**

2.6 **LEADWORK, ROOFING & GUTTERS – none proposed**

2.7 **TEMPORARY SERVICES – none proposed**

2.8 **PROTECTION**

- 2.8.1 Provide all necessary temporary fences, hoardings, screens, planked foot ways, guard rails as may be necessary for protecting the public, users of the building, and statutory bodies and to enable the satisfactory completion of the works.
- 2.8.2 Provide all necessary temporary protection to all parts of the building from damage by inclement weather.
- 2.8.3 In order to avoid delays due to cold weather the Contractor is to take the following precautions:
Store cement and lime in on raised dry platform.
Do not use frozen materials.

Chemical accelerators, retardants or anti-freeze additives are not to be used.
Keep finished work covered for at least three days after completion.

Provide boards to protect grass from becoming churned or rutted by vehicles.

Provide boxing in of headstones etc adjacent to works to avoid physical damage

2.8.4 ACCOMMODATION

The Contractor is to provide all necessary temporary sheds, offices, mess rooms etc. as required by site operatives and as required under Health & Safety Legislation. Huts are to be sited in positions agreed with the Architect and shall be removed from the site before the works are deemed to have been completed.

The Contractor is to make proper arrangement for sanitary accommodation for operatives and site visitors etc. If such facilities exist within the Church the Contractor may, with the permission of the Vicar, use these subject to the Contractor maintaining them in a clean and tidy condition at all times.

2.8.5 WATER and ELECTRICITY

The Contractor may use the Employer's electricity subject to agreement on connections with Church Warden, Vicar and Architect.

2.8.6 ARCHAEOLOGIST

The Employer shall appoint an archaeologist to attend during the excavation work. The archaeologist will have authority to suspend work if they wish to examine or record the contents of excavations or control the way in which the excavation proceeds. The contractor will need to accommodate the delays which may occur and record these in order that any additional costs may be ascertained.

The archaeologist will be required to submit post examination reports on the works.

3.0 SCHEDULE OF WORKS

3.1 GENERAL REQUIREMENTS

- 3.1 Provide and maintain protection to all soft surfaces of landscape to prevent them becoming churned up or rutted
- 3.2 Provide and maintain barriers to all excavations to all trenches and work areas to protect the public from wandering into work areas.
- 3.3 Provide and maintain boards over all excavations left unattended.
- 3.4 Provide and maintain warning signage.

3.5 When carrying out works, provide and maintain temporary pipework to direct water from down pipes away from the work zone to a position where it might soak away without nuisance.

3.6 Provide and maintain such messing facilities as appropriate for the operation.

(The contractor must provide his own toilet facilities and mess arrangements.)

3.7 ARCHEOLOGIST

The Employer shall appoint an archaeologist to attend upon the new works and excavations and to be on call if required during the excavation of existing drain runs.

The archaeologist shall have the authority to suspend or direct how the works proceed.

3.8 The contractor shall keep a clear record of any delays as a result of the archaeologist's work in order that any delays may be accurately costed. Notwithstanding, the contractor shall use his best endeavours to re-direct his work force to other areas on the site or off the site in order to mitigate the lost time and additional costs.

NOTE No excavations shall be carried out without the archaeologists or architect's permission to proceed.

3.9 Allow a provisional sum of ££750.00 for archaeological services.

4.00 EXCAVATOR AND DRAINLAYER

4.1. Tower North side

Carefully excavate adjacent to gulley by hand to establish the line of the existing drain.



Lift turf/paving along the route and set aside for relaying.

Excavate along line of existing drain for 5m distance from Gully.



To approx. here.!

NOTE : Gas and water services will cross this drain line.

Advise architect if line of drain heads for trees or identifiable grave position in order that drain run and or soakaway positions can be adjusted to mitigate problems of roots or archaeology.

Allow for supply laying new 100mm plastic drain on pea shingle. Drain to be kept as shallow as permitted by the topography to mitigate archaeology issues. backfill trench with excavated material as previously described.

Allow for excavating a soakaway with internal 1m sq and 1 m deep below invert. Assume invert of 400mm

NOTE Hand digging will be required when excavating.

Allow for constructing a new soakaway of honeycomb brickwork on a 150mm x 150 strip foundation. Allow for lining soakaway externally with Teram and for backfilling against Teram with shingle.

Allow for supply and fit of concrete cover with access chamber 150 below ground level. Supply and fix 215 brickwork to raise inspection lid to ground level. Supply and fix heavy duty galvanised IC frame and lid.

Back fill along drainage with pea shingle and previously excavated material. Relay turf slightly mounded to allow for settlement. Make good to any areas disturbed by the works.

4.2 Clear away and leave churchyard clean and tidy.