



EU funds
for Malta
2014-2020



Restoration Project St Paul's Anglican Pro-Cathedral

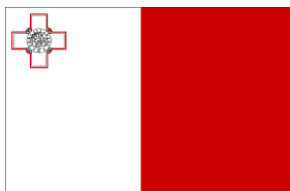
Negotiated Procedure

REFERENCE NUMBER: SPAPC.ERDF 004/2018

TENDER FOR THE RESTORATION OF THE EXTERNAL & INTERNAL FABRIC OF THE TOWER & SPIRE, & OTHER INVESTIGATIVE AND ANCILLARY WORKS

2nd September 2019 | 9.00 am.

Venue: The Princess Room at the Casino Maltese 247 Republic Street, Valletta



Operational Programme I – European Structural and Investment Funds 2014-2020
"Fostering a competitive and sustainable economy to meet our challenges"
Project may be part-financed by the European Regional Development Fund
Co-financing rate: 80% European Union; 20% St Paul's Anglican Pro-Cathedral Funds



Negotiated Procedure

- Today is the **official launch** of the negotiated procedure
- **Terms:**
 - Formation of JV / company cannot be changed
 - Price cannot be increased
- **Deadline** for submission is 1st October 2019 10.30 am
- **Clarifications** during today's meeting will be recorded and communicated
- **Clarifications** during the submission period are allowed. The time frame details are included in the Instructions to Tenderers Document.
- The **tender document** will be emailed today
- Extend the **bid bond** as per date set in the Instructions to Tenderers Document.

Some Practical Suggestions

- Make sure you submit everything. This will allow the evaluation board to clarify if needed. Not submitting a technical document will disqualify the bid. Keep in mind that the project is subject to audits since it is EU funded.
- Do not change or alter any documentation (Forms, BOQ)
- Allow sufficient time to ask a person from your team (different to the one who prepared the tender) to cross check with the list of submittals to make sure you submitted everything, that you submitted the correct form/document/literature, certificates and that if a signature is required it is actually included.

Method statements - General

All submittals shall be

- In clear and concise English language

Method statements shall be

- Site and project specific
- Not of a generic nature
- Provided with supplementary descriptions to clarify proposed methods if necessary (drawings and diagrams)

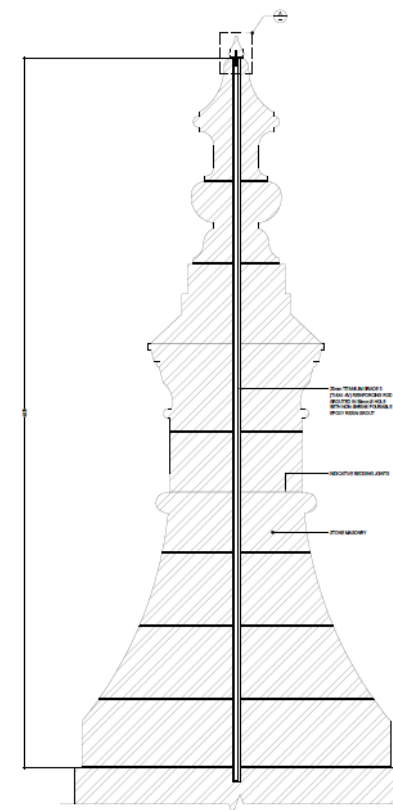
Method statements - Restoration

2.01 – Detailed method statements including

- specific materials and products to be employed
- clear focus on intervention methodology

2.02 - Method statement for the installation of the stone urns at the top of the tower including

- preparation and strengthening of the retained and replaced stone fabric supporting the urns
- lifting of the stone urns with protective measures
- installation of urns onto existing fabric



Method statements - Structural strengthening

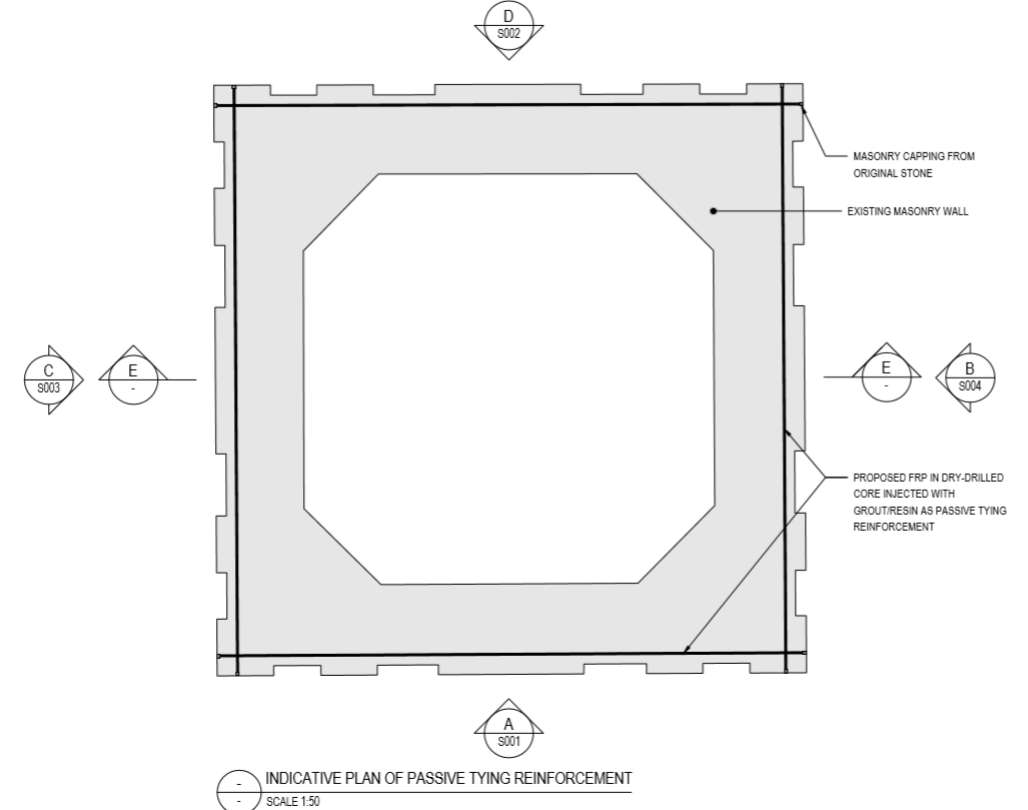
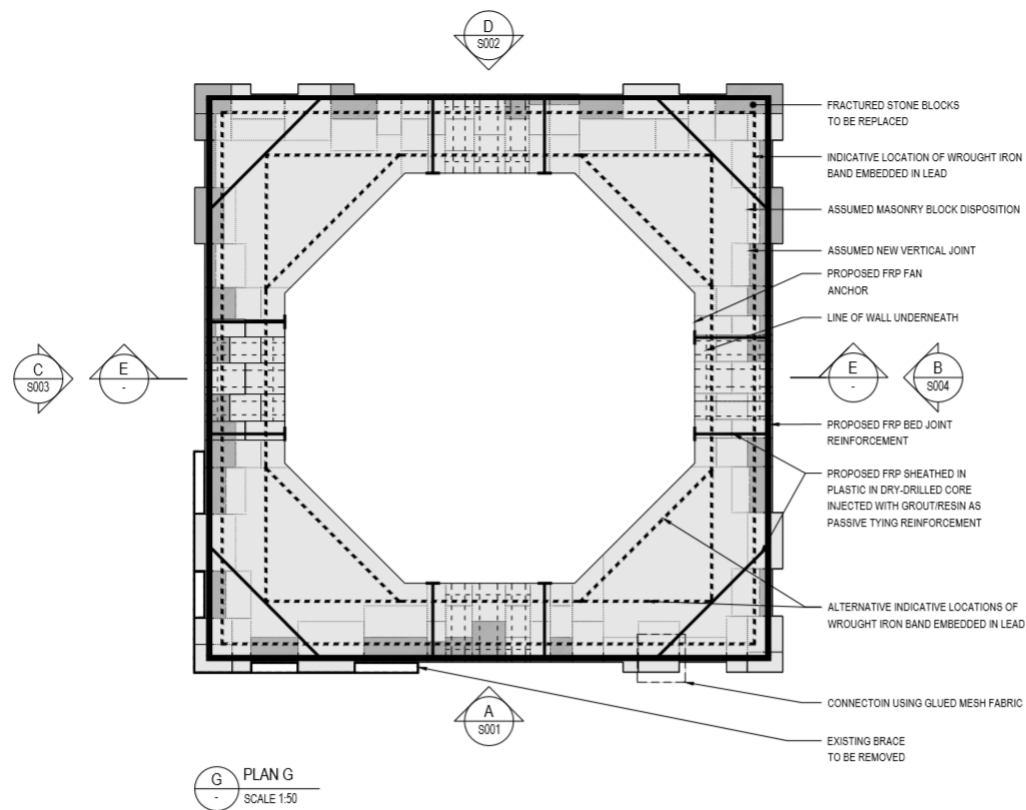
2.03 - Method statement for reinforced repointing including

- opening of joints
- cleaning of joints
- installation of the bed joint reinforcement in stages
- joining between the different sections
- joining with other passive tie reinforcement
- pointing and/or grouting as necessary

2.04 - Method statement for installation of passive tie reinforcement including

- dry drilling / coring long holes into masonry walls with compressed cold air cooling
- cleaning of holes
- insertion of reinforcement
- grouting of holes

Method statements - Structural strengthening



Method statements - Structural Health Monitoring System

2.05 - Method statement for the installation of the Structural Health Monitoring System

- Procedure of installation
- Integration with other trades
- Any special considerations to be taken

Method statements - Scaffolding

2.06 - Method statement and Risk Assessment for the erection and dismantling of the scaffolding structure

- Procedure
- Sequence of work
- Location of work
- Logistical issues
- Including works at the base

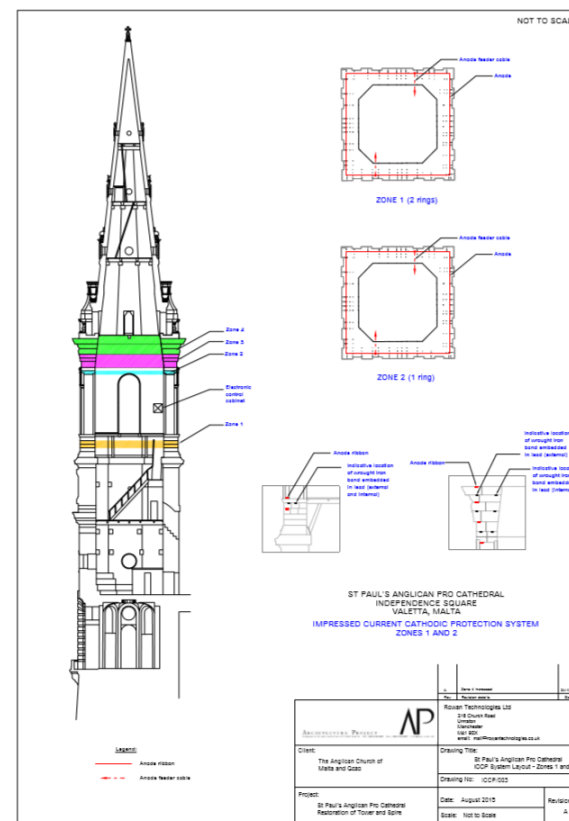
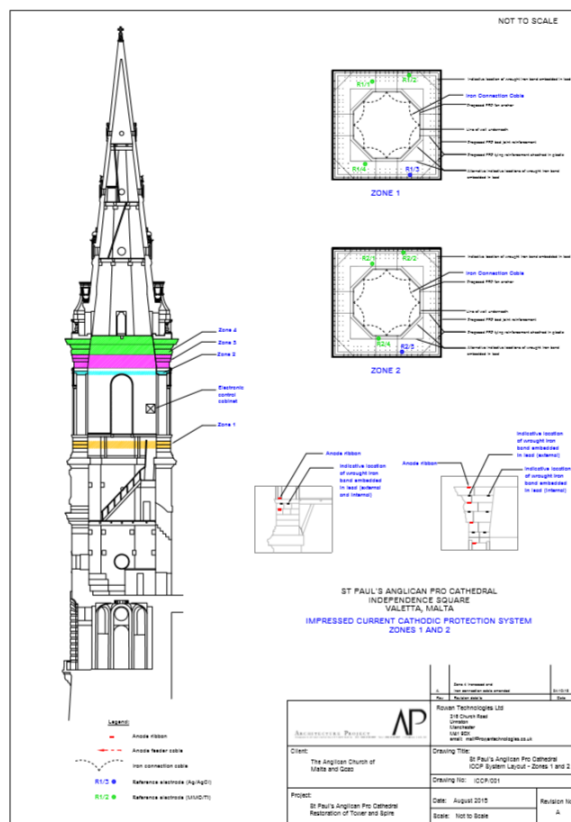
Method statements – Temporary structural bracing

2.07 - Method statement for the erection of the temporary lateral bracing around the tower including

- Sequence of work
- Logistical issues
- Integration with scaffolding
- Description of lateral jacking devices that will be used
- Shifting of jacking devices to permit works in specific areas taking into account restoration methodology

Method statements - Cathodic protection

2.08 - Method statements detailing the proposed procedures for installation and quality management for review and acceptance by the Engineer.



Method statements - M&E

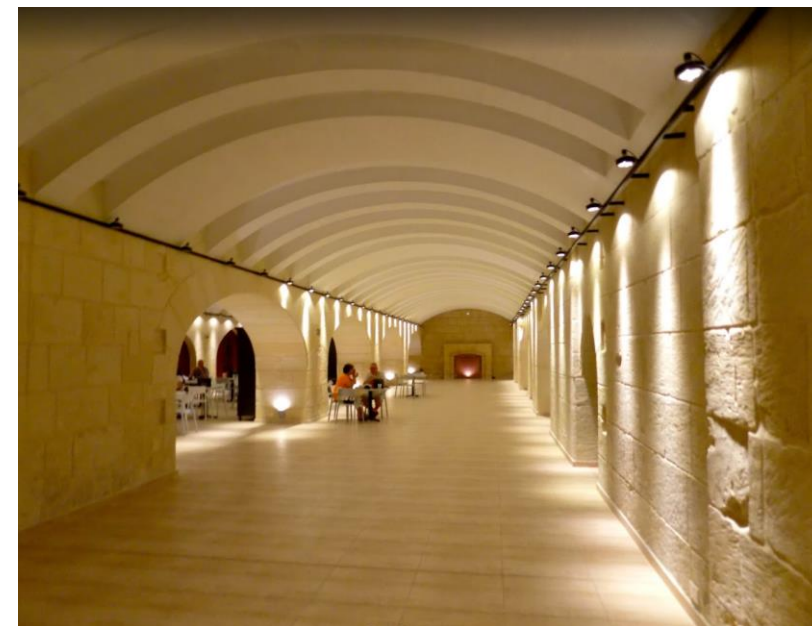
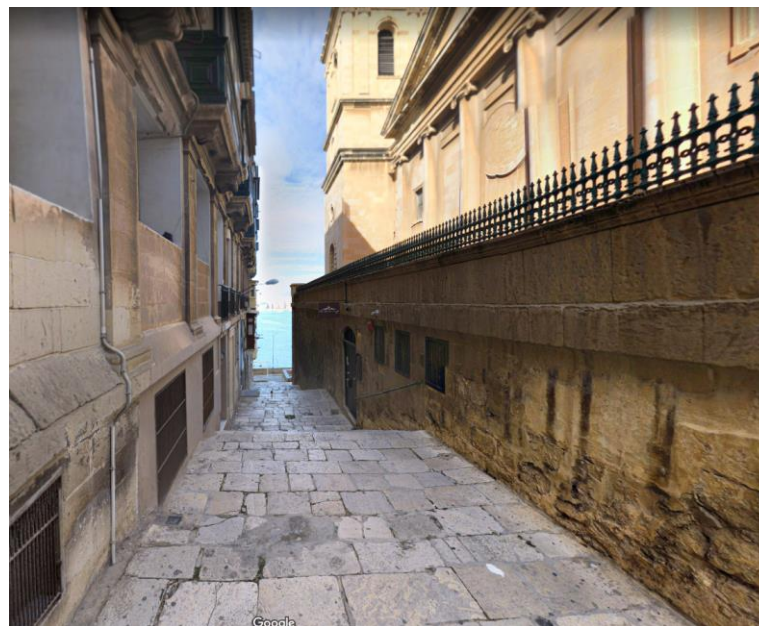
2.09 - Method statement for the installation of the MEP (Mechanical, Electrical & Plumbing) services including

- installation methodology for all components
- all relevant technical information

Method statements - Removal of Bells

2.10 - Method statement for the removal and reinstatement of bells from the bell tower including

- lifting plan with adequate protection to the bells and surrounding masonry fabric
- transportation methodology being proposed taking into account site configuration including all dislevels



Technical information - General

Proposed product to be indicated clearly on the submitted samples and literature.

Samples and technical literature should be

- clearly cross-referenced with number shown in Schedule of Tender Submittals
- product offered is clearly marked on the literature
- in clear and concise English language

Technical information - Restoration

- 3.01 - Manufacturer's technical literature, brochures, instructions for any proprietary materials or products that will be used in the Works.
- 3.02 - Technical literature and brochures for fire doors, including all accessories. Products should be fit for use in a Grade I scheduled building.
- 3.03 - Preliminary pigeon deterrent solution, including literature for any proprietary products that will be installed.

Technical information - Structural strengthening

3.04 - FRP Reinforcement Fabric (G2.1)

3.05 - FRP Pultruded Plate (G2.2)

3.06 - FRP Pultruded Rod (G2.3)

3.07 - Impregnating/laminating resin (G2.4)

3.08 - Grout for passive tie reinforcement (I2.2)

3.09 - Premixed natural hydraulic lime grout mix (I2.1)

- Products clearly indicated and specified
- Characteristics and dimensions compliant with specifications
- Compatibility with masonry substrate
- Consistency between product offered, specifications and method statement

Technical information - Structural Health Monitoring System

Description

- monitor any changes to the material and the geometrical properties of the tower and spire that may affect their structural integrity.
- Data is collected remotely
- Control of the collected data

The system consists of

- Data logger (analysis software and web interface)
- Displacement sensors
- Temperature sensors
- Humidity sensors
- Accelerometers
- All necessary cables and connections

Technical information - Structural Health Monitoring System

3.09 - Schematic layout of the proposed structural health monitoring system including

- type of sensors that will be used
- methods of connection
- outline of the features of the proposed software

3.10 - Technical literature for data logger (H2.1)

- Minimum no. of channels required
- Clarify if compatible with wireless and wired instrumentation
- Clarify if measuring and storing rhythm is adjustable

Technical information - Structural Health Monitoring System

3.11 - Technical literature for high resolution displacement sensors (H2.2)

3.12 - Technical literature for temperature sensors (H2.3)

3.13 - Technical literature for humidity sensors (H2.4)

3.14 - Technical literature for accelerometers (H2.5)

3.15 - Technical literature for wiring proposed

- Compliance with required specifications in terms of accuracy, resolution, recording frequency, operating range, working temperature range and protection rating
- Each part specifically designed for a SHM system, clearly indicated (brand) and specified

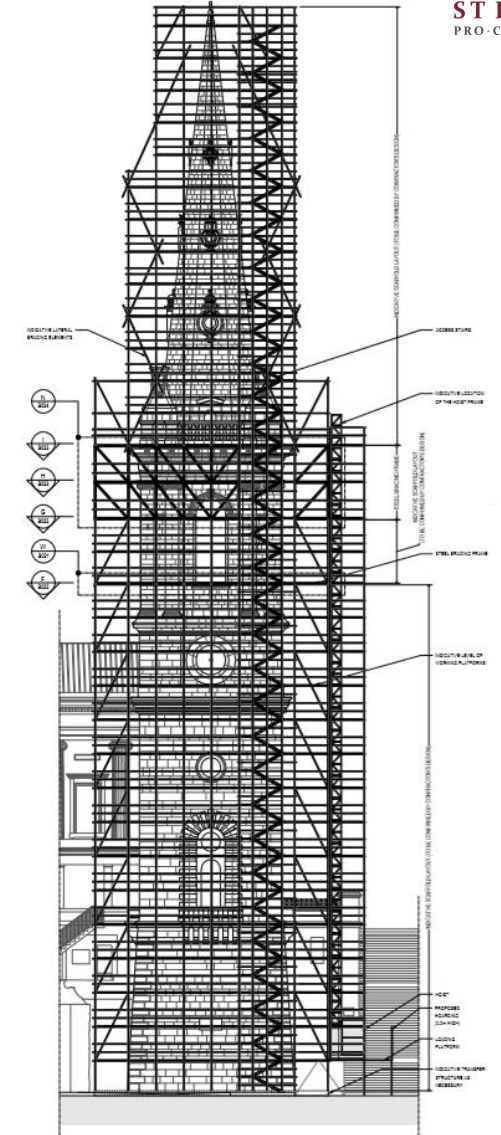
Technical information - Scaffolding

3.16 - Details of proposed scaffolding system including all fittings to be used

- connection type
- floor boarding type
- bracing system proposed

The design shall include

- External access
- **Internal access**
- Working/loading platform
- Access stairs



Technical information - Scaffolding

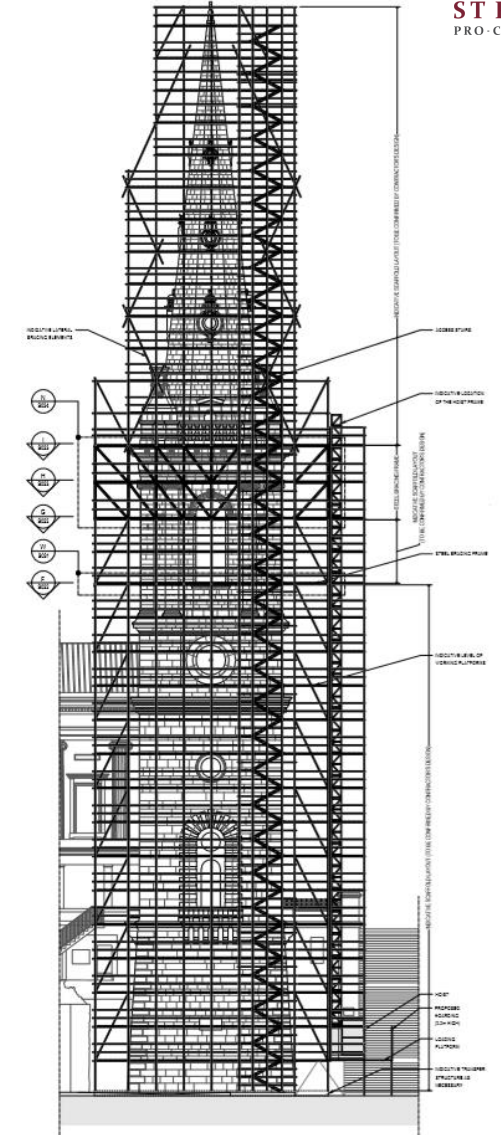
3.17 - Preliminary scaffolding design showing suitability of proposed scaffolding system

Design according to the following regulations/codes

- Eurocodes (Eurocode 1, 3 and any other relevant legislation)
- Local legislation (ex. H&S)

Preliminary design is required:

- Load takedown
- Member sizing
- Initial stability checks



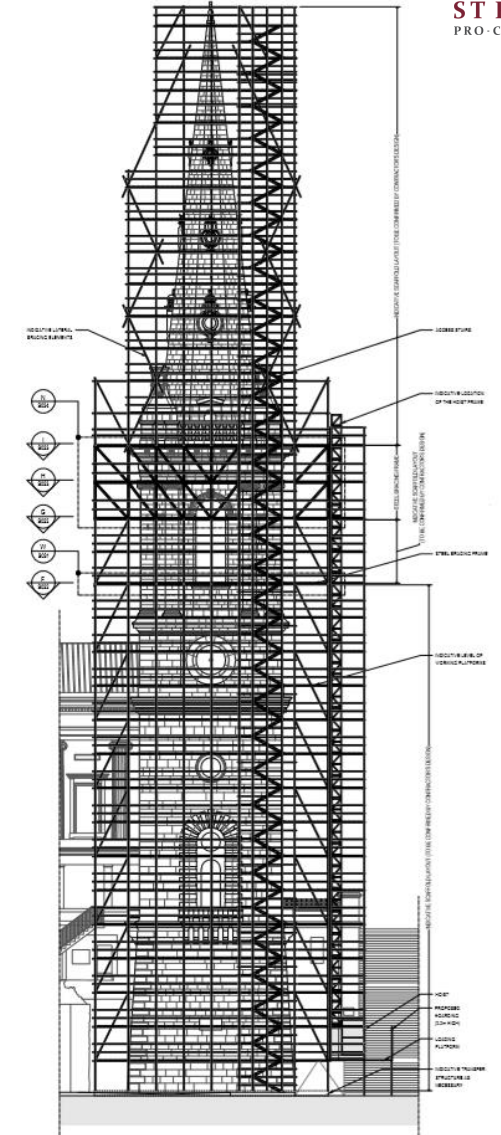
Technical information - Scaffolding

Load/Actions requirements:

- General actions (**including weight of temporary bracing frame**)
- Imposed actions
- Wind actions (wind speed 31m/s)
- All loads imparted from the construction hoist
- Actions during execution (stone replacement procedures, temporary bracing, drilling into the stone)
- Combination of the above actions

Structural calculation

- Lateral stability of the scaffold is being taken in account
- Say if the scaffold relies wholly or in part on the tower and spire for the lateral stability
- Calculations should be submitted together with the submission



Technical information - Scaffolding

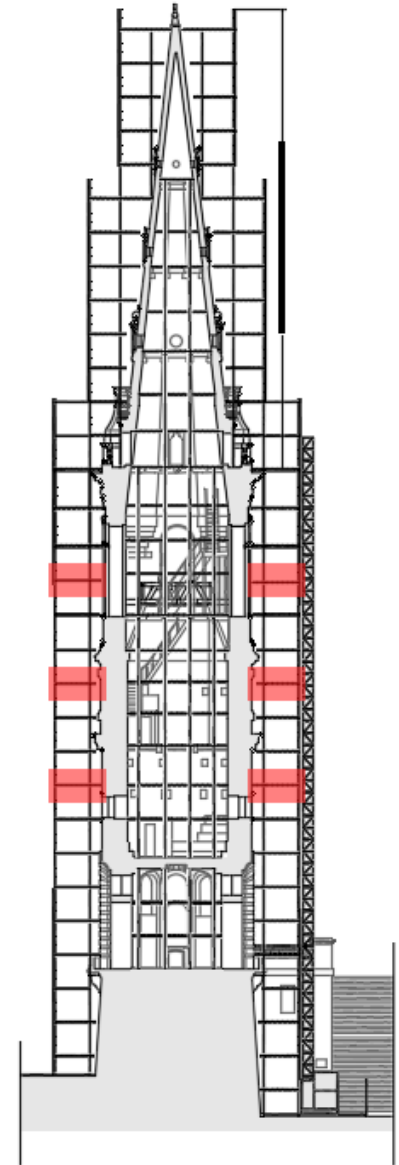
Design requirements

- Not less than three levels that can be used simultaneously - load class 6 in accordance with EN 12811-1:2003 (600kg/m²) - during the execution of the Works. Any decision that involves restriction in use of the scaffolding shall comply with the sequencing of the Works

Technical information - Scaffolding

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Technical information - Scaffolding

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- Minimum clear distance between the line of the standards closest to the tower and the line of standards further away from the tower shall be at least 2m
- Minimum headroom between working areas shall be 1.9m

Technical information - Scaffolding

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Technical information - Scaffolding

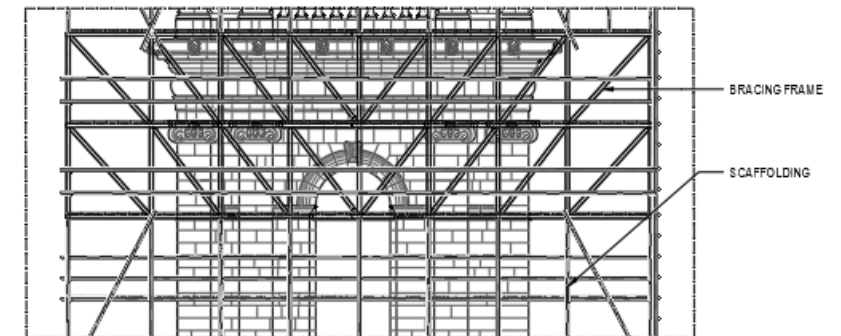
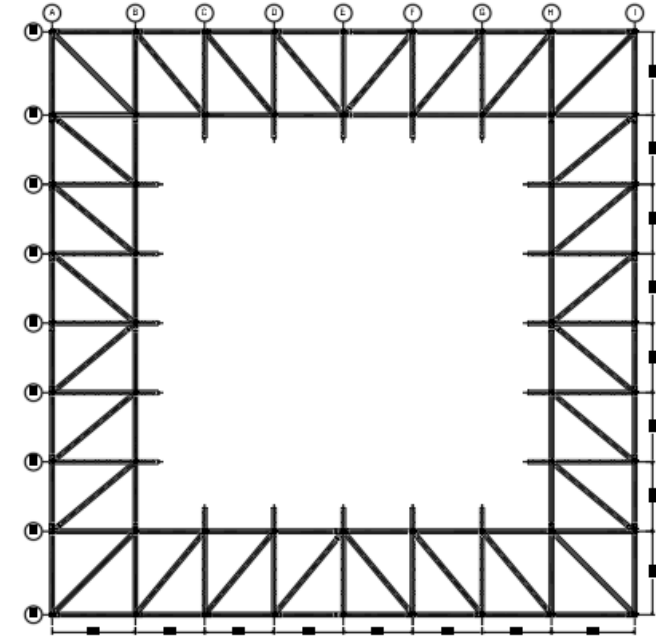
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- Minimum headroom between working areas shall be 1.9m
- The scaffold design should take in account the presence of proposed bracing frame. Moreover, it should match with the modularity of bracing frame. The connection between the bracing frame and the underlying and overlying scaffolding should be shown in the design proposal

Technical information - Scaffolding

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- The scaffold design should take in account the presence of proposed bracing frame. Moreover, it should match with the modularity of bracing frame. The connection between the bracing frame and the underlying and overlying scaffolding should be shown in the design proposal
- The design should take into consideration the transition between the square plan of the tower and the octagonal shape of the spire

Technical information - Scaffolding

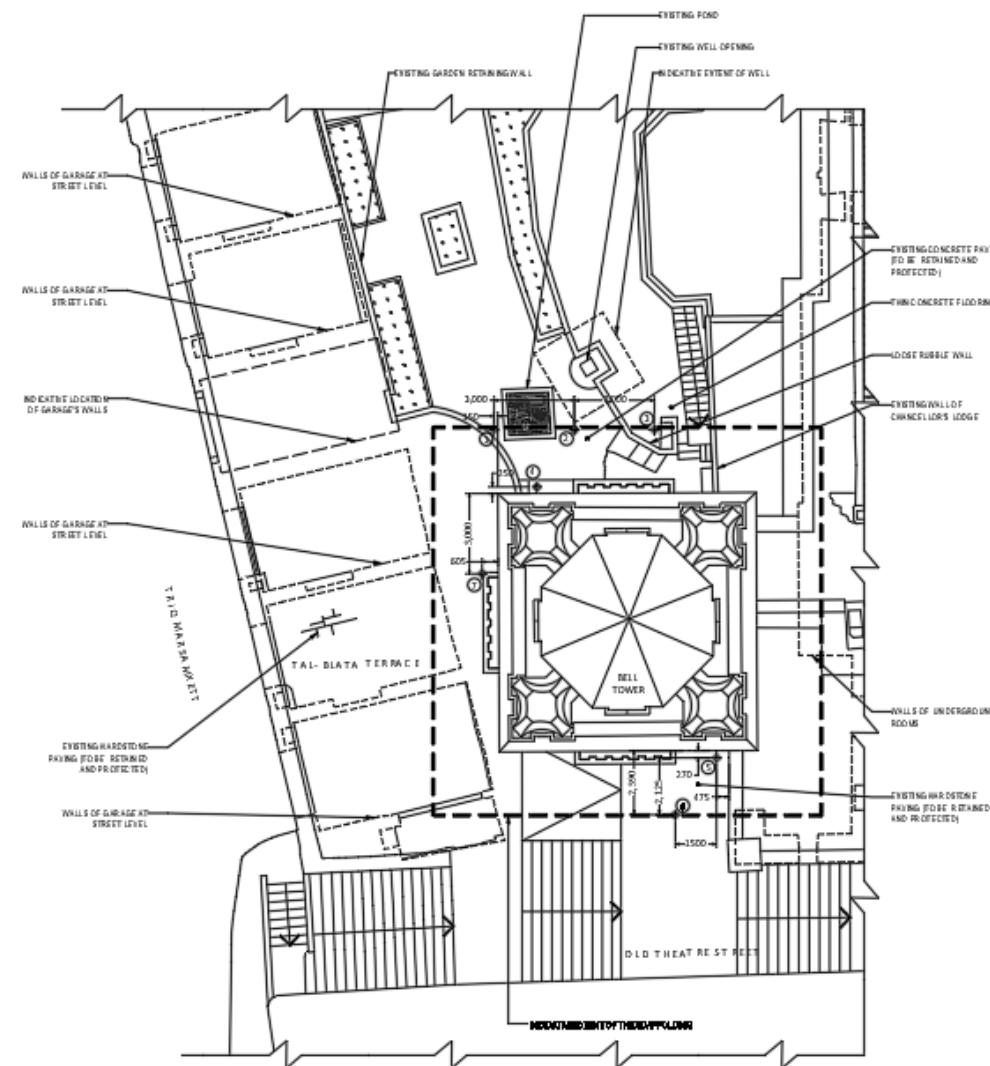
3.18 - Preliminary proposal for transfer structure over underlying underground voids

Technical information - Scaffolding

3.18 - Preliminary proposal for transfer structure over underlying underground voids

- Any necessary structure to take loads safely to the ground to be calculated after inspecting and evaluating the condition of the existing underlying structure

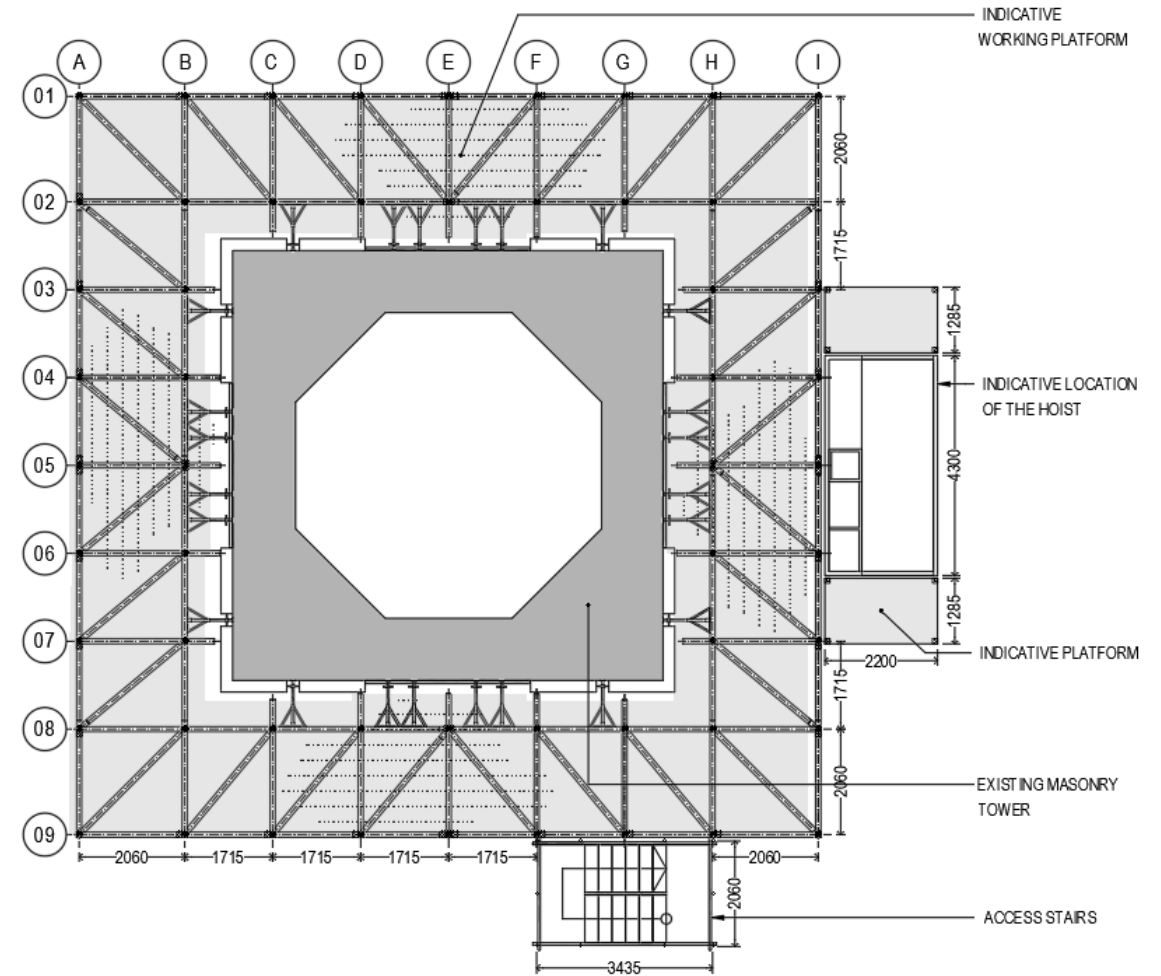
LOCATION N°	APROX. DEPTH TO ROCK FROM EXISTING FFL (m)	NOTE
1	Thick wall beneath top surface. Top part of masonry blocks alternate with loose material.	Depth from existing FFL to top face of the rock consists of made-up ground
2	5	
3	7.5	
4	5	
5	1.5	
6	2.5	
7	1.5	



Technical information - Scaffolding

3.19 - Details of proposed hoist

- 3000 kgs capacity Goods / Passenger Lift



Technical information - Temporary structural bracing

3.20 - Details of paint system including

- Manufacturer
- Name of each layer including thickness of each layer
- Technical literature for each layer

Technical information - Cathodic Protection

- 3.21 - Proposed variations or alternatives to the guideline ICCP design
 - 3.22 - Proposed ICCP Control system
 - 3.23 - Proposed impressed current anodes and anode ancillary items
 - 3.24 - Proposed reference electrodes and monitoring probes
 - 3.25 - Overall description of ICCP layout
 - 3.26 - Names of proposed sub-contractors, including electrical sub-contractors
 - 3.27 - Proposed suppliers (where possible)
 - 3.28 - Name and qualifications of the ICCP Engineer, who shall not be changed without agreement of the Engineer
- Design shall be specific for ferrous metal embedded in a masonry structure (Not a reinforced concrete structure)

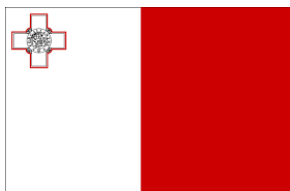
Technical information - M&E

3.29 - Full technical submittal including detailed brochures and specification documents for all installation components

Technical information - Lighting

3.30 - Full technical submittal including detailed brochures and specification documents for all installation components, and samples of proposed light fittings, cross-referenced with the BOQ items

THANK YOU



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