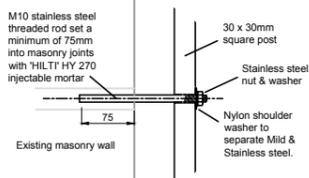


Location Plan

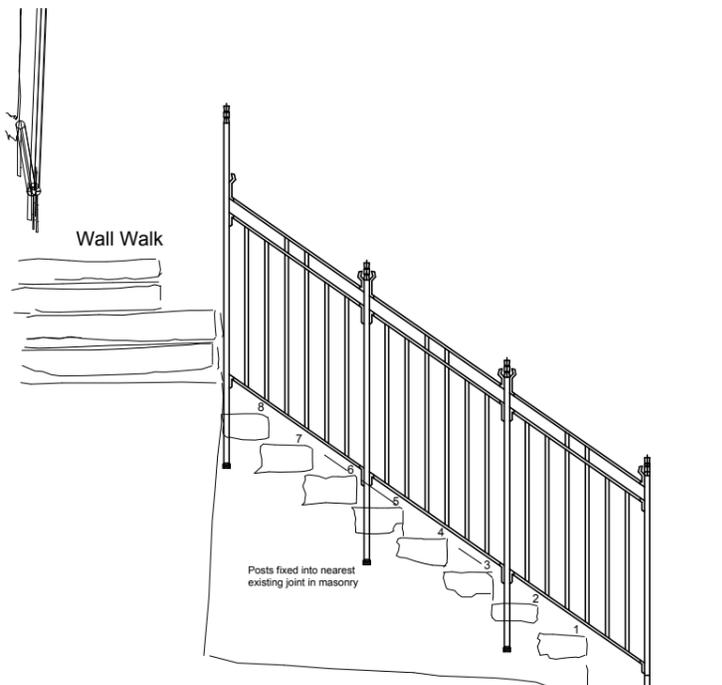


Detail of Additional Fixing into Masonry Joint 1:5

All fixings to be into joints in existing stonework. No fixings into stones.

Additional fixings into existing masonry joints (see left for fixing detail)

OPENINGS IN A PROTECTIVE BARRIER SHOULD PREVENT THE PASSAGE OF A 100 mm DIAMETER SPHERE. HOWEVER THE SPACE BETWEEN A RISE IN A STAIR AND THE LOWEST EDGE OF THE PROTECTIVE BARRIER MAY BE LARGER THAN 100 mm. PROVIDED THE LOWEST EDGE OF THE BARRIER IS NOT MORE THAN 50 mm ABOVE AND PARALLEL TO, THE PITCH LINE OF THE STAIR.

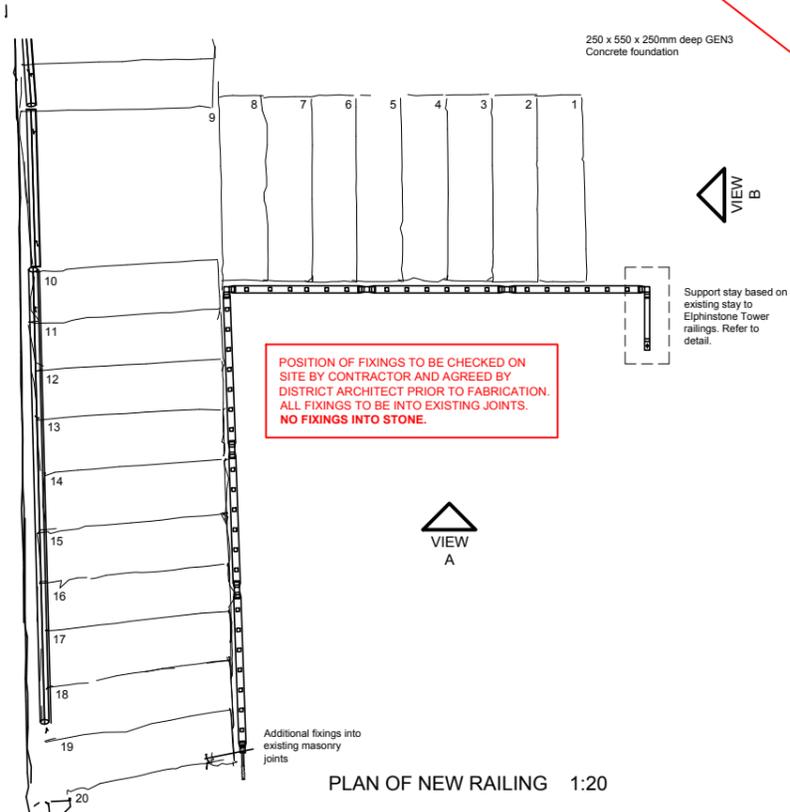


ELEVATION OF NEW RAILING VIEW A 1:20

Bottom post / stay to be core drilled into concrete foundation and resin fixed: 150mm embedment.

ELEVATION OF NEW RAILING VIEW B 1:20

Bottom post / stay to be core drilled into concrete foundation and resin fixed: 150mm embedment.



PLAN OF NEW RAILING 1:20

POSITION OF FIXINGS TO BE CHECKED ON SITE BY CONTRACTOR AND AGREED BY DISTRICT ARCHITECT PRIOR TO FABRICATION. ALL FIXINGS TO BE INTO EXISTING JOINTS. NO FIXINGS INTO STONE.

AN ARCHAEOLOGICAL WATCHING BRIEF WILL BE PROVIDED WHEN EXCAVATING FOR THE PAD FOUNDATION, UPON AGREEMENT OF A WRITTEN SCHEME OF INVESTIGATION

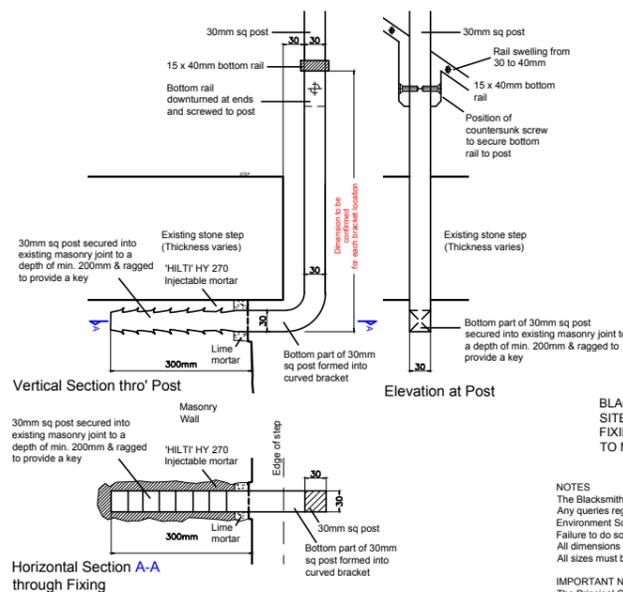
AN ARCHAEOLOGICAL WATCHING BRIEF WILL BE PROVIDED WHEN EXCAVATING FOR THE PAD FOUNDATION, UPON AGREEMENT OF A WRITTEN SCHEME OF INVESTIGATION



Existing view



Proposed view



Vertical Section thro' Post

Elevation at Post

Horizontal Section A-A through Fixing

Detail of Fixing into Masonry Joint at Posts 1:5

BLACKSMITH TO CHECK ALL DIMENSIONS ON SITE AND TO AGREE DESIGN & POSITION OF FIXINGS WITH DISTRICT ARCHITECT PRIOR TO MANUFACTURE OF RAILINGS

NOTES
The Blacksmith is to check all dimensions on site before commencing work. Any queries regarding design or detailing to be brought to the attention of Historic Environment Scotland District Architect prior to any fabrication of materials. Failure to do so may result in the condemning of any unapproved work. All dimensions are given in millimetres. Sizes must not be scaled off the drawing. All sizes must be checked on site by the Blacksmith.

IMPORTANT NOTES
The Principal Contractor and Blacksmith must take all necessary precautions to protect the historic masonry from damage for the duration of the Works. All fixings into masonry joints to be carried out by Historic Environment Scotland Masons. Fixing positions shown are indicative only (Position of fixings / uprights will be dependent upon position of suitable masonry joints). However, final position of fixings / uprights should be as close as possible to that shown and should be agreed by the District Architect.

SPECIFICATION
New railings to be either pure iron or mild steel to BS 4848: part 2, hot rolled from steel to be BS 4360 / hot dip galvanised to BS 729. Paint colour to be black MIO.

QUALITY OF WORK
NOTE FOR COSTING: Allow provisionally for a single panel to be made up to demonstrate quality of exemplary hand forging and finishing of the metalwork prior to application of painting finishes. The finished sample (unpainted) to be delivered to Stirling Castle for approval before commencing manufacture of remaining panels.

Hand Forge metalwork carefully and accurately to ensure compliance with design and performance required, using types and grades of metal appropriate for the purpose. Finished work must be free from distortion and cracks. Use proprietary products to manufacturers recommendations. Corners: only mitre junctions of identical sections. All components to be single pieces of metal rather than assemblies. Where joints are necessary they should be fire-welded. NO ELECTRIC ARC WELDING PERMITTED. Panels to be discreetly date stamped at intervals (to be agreed with Historic Environment Scotland District Architect)

CLEANING:
Remove all burrs and sharp arrisses which would be visible after fixing or a hazard to the user.

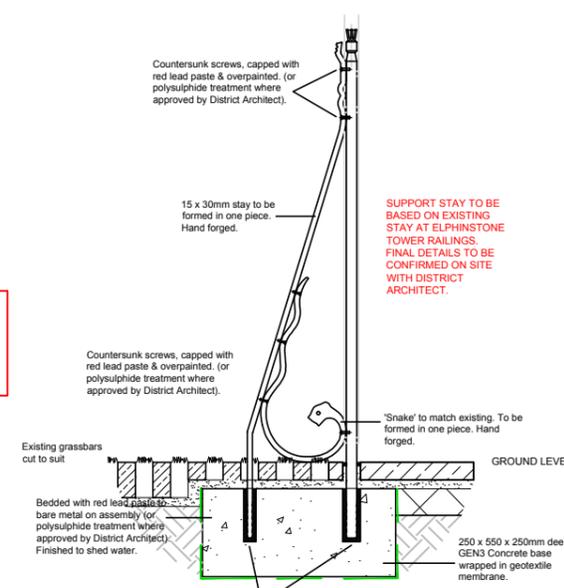
PREPARATION FOR PAINTING GALVANISED PURE IRON OR MILD STEEL:
Apply paint only after forging and traditional assembly is complete and all fixing holes have been formed. Remove all grease, sharp arrisses, etc. Make good all defects which would show after application of coatings and finish surfaces smooth.

PAINTING GALVANISED PURE IRON OR MILD STEEL RAILINGS -
The blacksmith should include for galvanising of the completed railings. Apply Micaceous Iron Oxide to galvanised finish, applied strictly in accordance with manufacturers instructions.

FIXINGS:
Position metalwork accurately, plumb, level and true to line. All metalwork and fixings that are shown to be submerged by earth on completion are to be coated in 2no. coats of bitumen paint.

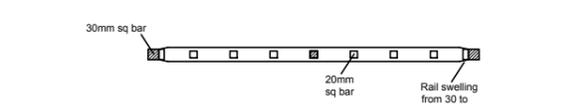
HEALTH & SAFETY
The Contractor must give particular attention to the assessment of risks and provide method statements for all insitu hot working etc.

Anchors to be tested for a 1kN pull out load using Hydrarajaws Ltd 'Portable Tension tester' or similar. Testing to the requirements of BS 7883 and BS EN795: 2005 'protection against falling from a height. Anchor devices - requirements and testing'



Elevation

Detail of Support Stay at Bottom Post 1:10



Horizontal Section thro Typical Panel 1:10

Residual Risks

1. Wall Walk and access steps have unprotected edges - Danger of fall from height
2. Restricted access to working area.
3. Adjacent areas may be open to the public during works.
4. Manual handling of heavy railing and stone (paving) elements.
5. Exposure to high winds due to location of site.
6. Risk of damage to underlying archaeology (for pad foundations).
7. Proximity of live services (for pad foundations).
8. Risk of damage to important historic fabric.

SMC	
MONUMENT STIRLING CASTLE	
PROJECT Queen Anne Gardens New Railings at Steps to Wall Walk	
PROJECT DRAWING NUMBER 348/291/U/91SMC	
SCALE 1:20 @ A1	Architect T Gaze
DATE May 2016	DRAWN BY IDC
ARCHIVE NUMBER	