Facilities Management
Planning and Design Section
PROJECT MANAGEMENT and DESIGN STANDARDS MANUAL

Section F **Building Discipline Guidelines**

THE UNIVERSITY OF WESTERN AUSTRALIA
PROJECT MANAGEMENT AND DESIGN GUIDELINES HANDBOOK

SECTION F: BUILDING DISCIPLINE GUIDELINES

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1.0 BRICKLAYER:

1.1 Tolerances:

- A sample panel of brickwork and block-work may be required to be erected in a protected area so as to be a reference panel throughout the construction, and must be approved in writing by the Architect.
- All structural masonry shall be built to the specified dimensions within the structural tolerances given in Table 11.1, AS 3700-1988.
- All perpends to be plumb throughout the whole of the work face within the tolerances of AS 3700, Clause 8.8.
- Cavity wall ties to be a minimum of 6mm 316 grade stainless steel with drip groove and spaced at no more than 600mm centres with extra ties at 150mm from joinery. Install extra row of wire ties at 2 courses from top of walls.
- Reinforced brick lintels to consist of 2 x 6mm stainless steel rods (external) or galvanised R6 rods (internal) with stirrups to each of the first two courses over openings with a bearing of 600mm to each side of opening.
- Bonding and tying in of intermediate walls is preferred to be by raking and not by block toothing. Wire ties at each course could be an alternative subject to the written approval of the Architect.
- Bricks and blocks showing obvious cracks, chips or staining are to be discarded. Bricks or blocks that are laid and found to be non compliant will be replaced at no cost, and to the approval of the Architect.

1.2 Cavities and Weepholes

- All double leaf construction either brick, block or stone is required to have a cavity clear of dags and excess spoil. The use of cavity battens will be required if the Project Manager or Senior Technical Officer (Building) identifies obstructed cavities during inspections.
- Weepholes are to be cleaned free of mortar droppings at completion of works.

1.3 Mortar

- Mortar mixing is to be batched by weight, DO NOT batch by shovels. This procedure will ensure that the specified mix proportions are maintained (AS 3700, Clause 2.2.3.1)
- Mortar not used by one hour from initial mixing is to be discarded and not retempered and reused.
- Air entraining agents (plasticisers) must receive written approval from the Architect before being used.

1.4 Joints

- Raked jointing to be tooled with a square section perspex or stainless steel jointer after raking.
- Rolled jointing to be tooled with a perspex or stainless steel jointer then brushed and re-rolled.
- Rolled jointing to be topped and tailed.
- Plain steel jointers are NOT to be used.
- Reveal joints to be either rolled or struck, NO raked reveals permitted.
- New works adjoining existing works to have bed joints and perpends matching in depth and profile.
- Where face work abuts a timber joinery section, allow to recess the frame straps to eliminate a step in the reveal line.

1.5 Brick and Block Cutting

- Set out brickwork to reduce cutting to a minimum and in the event of a closer being unavoidable, the closer is to be of a minimum 65mm in width.
- All brick and block cutting is to be by mechanical method, trowel or bolster cutting is unacceptable.

1.6 Cleaning

- Brick and block cleaning is to be by dry brushing and wet sponging with clean water.
- Written approval must be obtained from the Architect BEFORE any other method of cleaning is considered. Spirits of Salts (hydrochloric acid) must NOT be used.
- In the event of inclement weather ensure that the wall is adequately protected.

1.7 Safety and Cleanliness

- When works are to be carried out in occupied areas, mortar mixing is NOT to be carried out on brick paved areas or garden areas. Mixers are to be contained within a skip bin for mixing and cleaning.
- ALL spoil to be removed from site to the satisfaction of the Architect.
- Work areas are to be kept clear of debris at all times. Loose debris to be removed daily.
- Mortar boards or scaffold sections are not to be rested against any trees or shrubs.
- Electric mixers, brick cutting machines must display a current electricity conformity tag.

2.0 CARPENTER:

- Refer to Quality Assurance clause.

3.0 CEILING ACCESS WAYS:

- Any access pathway required to be constructed in a ceiling space is to receive written approval from Senior Technical Officer (Building).

4.0 PLANT ROOMS:

4.1 Doors:

- All doors are to be solid core and are to be fitted with Raven Seals or equivalent fitted.

4.2 Bunding:

- A 100mm high brick bunding shall be built across plant room side of the entry door and sealed against water leakage. The bunding shall be painted with black and yellow hazard stripes at a 45^{o} angle. The joint between the wall and the floor must be sealed with a waterproof sealant with a view to making the plant room as watertight as possible.

4.3 Plinth:

- All mechanical-electrical plant must be located on a plinth. See attached drawing 900GTEP in Appendix 10.

4.4 Painting:

- The floor, walls, ceilings and all over services are to be painted as per section D6 (Identification Colours) of the University's Mechanical Design Standards Manual.

4.5 Fire Rating:

- This will be at the Architects disgression.

5.0 CONCRETER:

- Concrete to footings to be screeded to ensure a level surface across the full width of the footing.
- Excess concrete to be removed from the work area before commencement of the next trade.
- Steps in footings to be formed plumb.

6.0 DEMOLITION:

- Prior to any demolition written permission is required from the Senior Technical Officer (Building).

7.0 PAINTER:

- All paints must be Dulux brand. Approval for an alternative brand can only be granted in writing by the Architect

8.0 QUALITY ASSURANCE:

- It is a requirement that all tradespersons on UWA works are to be skilled in the trade, licensed in Western Australia and have a

minimum of 5 years continuous recent experience. Proof of experience to be supplied when required by the Architect.

9.0 SITE MOBILISATION:

- Prior to any placement of site offices or amenities written permission must be obtained from the Senior Technical Officer (Building).

10.0 MECHANICAL PLANT ROOMS (Refurbished and New)

10.1 DOORS. All doors are to be solid core and are to be fitted with Raven seals or equivalent.

10.2 BUNDING. A 100 millimetre high brick Bunding shall be built across the plant room side of the entry door and sealed against water leakage. The Bunding shall be painted with black and yellow hazard stripes at a 45° angle.
The joint between all walls and the floor must be sealed with a waterproof sealant with a view to making the plant room as watertight as possible.

10.3 PLINTH. All mechanical-electrical plant must be located on a plinth. See attached drawing 900GTEP in Appendix 10.

10.4 PAINTING. The floor, walls, ceilings and all other services are to be painted as per section D6 in the Universities Design Standards Manual.

10.5 FIRE RATING. This will be at the Architects discretion.

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