5.5 Veneer – Stack Bond

Introduction

This section has been prepared to provide designers, territorial authorities and builders with some standard design details for block masonry veneer using stack bond laying format.

The scope of this section is limited to the masonry modules described in the Materials section below.

Standards

The veneer and supporting construction referred to in this section is to follow the requirements of New Zealand Building Code Section E2.AS1. The following standards are referenced in that section:

- NZS 3604 Timber Framed Buildings.
- NZS 4210 Masonry Construction: Materials and Workmanship

Additionally, the provisions of this section may be applied when used in conjunction with construction to NZS 4229, Concrete Masonry Buildings Not Requiring Specific Design.

If the scope of the proposed work is outside the limitations and requirements of the above then specific engineering design advice must be sought.

Materials

Masonry veneer shall comply with the following requirements:

- 90 mm maximum thickness, 70 mm minimum thickness.
- Length and height of units to be 390 mm and 190 mm respectively.
- May be either hollow or solid. Hollow blocks to be 10.01, Standard Whole.
- Shall be manufactured to the requirements of AS/NZS 4455.

Lattice mesh shall be Eagle Wire *Bricklock*, or equivalent, and comply with the following requirements:

- Comprise 2 parallel longitudinal steel rods of minimum 4 mm diameter, held apart approximately 55 mm on centre by welded cross wires of 2 mm diameter, at 200 mm centres.
- Steel shall have a minimum yield strength of 300 MPa and be hot dip galvanised to minimum 470 gm/m^2.
- Mesh to be supplied and installed in minimum 2 m length modules, lapped to detail shown in Figure 1 following.

Mortar shall be to the requirements of NZS 4210.

Veneer Construction

In addition to the requirements given in the Standards section above the stack bond veneer shall be constructed to the following requirements:

1. Studs in timber framed walls to be at 400 mm centres.
2. Wall ties, to the requirements of NZS 4210, are to be provided at 400 mm centres both vertically and horizontally.
3. Lattice mesh shall be laid continuously in horizontal courses at 800 mm maximum vertical centres, commencing no higher than the second course above the veneer base.
4. Lattice mesh shall also be laid in the course or courses directly above and below openings, extending a minimum 800 mm past the edge of the opening.
5. Lap joins in lattice mesh shall be made at mid-length of 390 mm block units and shall be staggered so that adjacent laps do not occur within the same vertical block stack.
6. Lattice mesh may be discontinued only at control joints.
7. Use purpose made 'L' formed lattice mesh at corner intersections.

Figure 1 (page 2), shows a typical details for stack bond veneer.

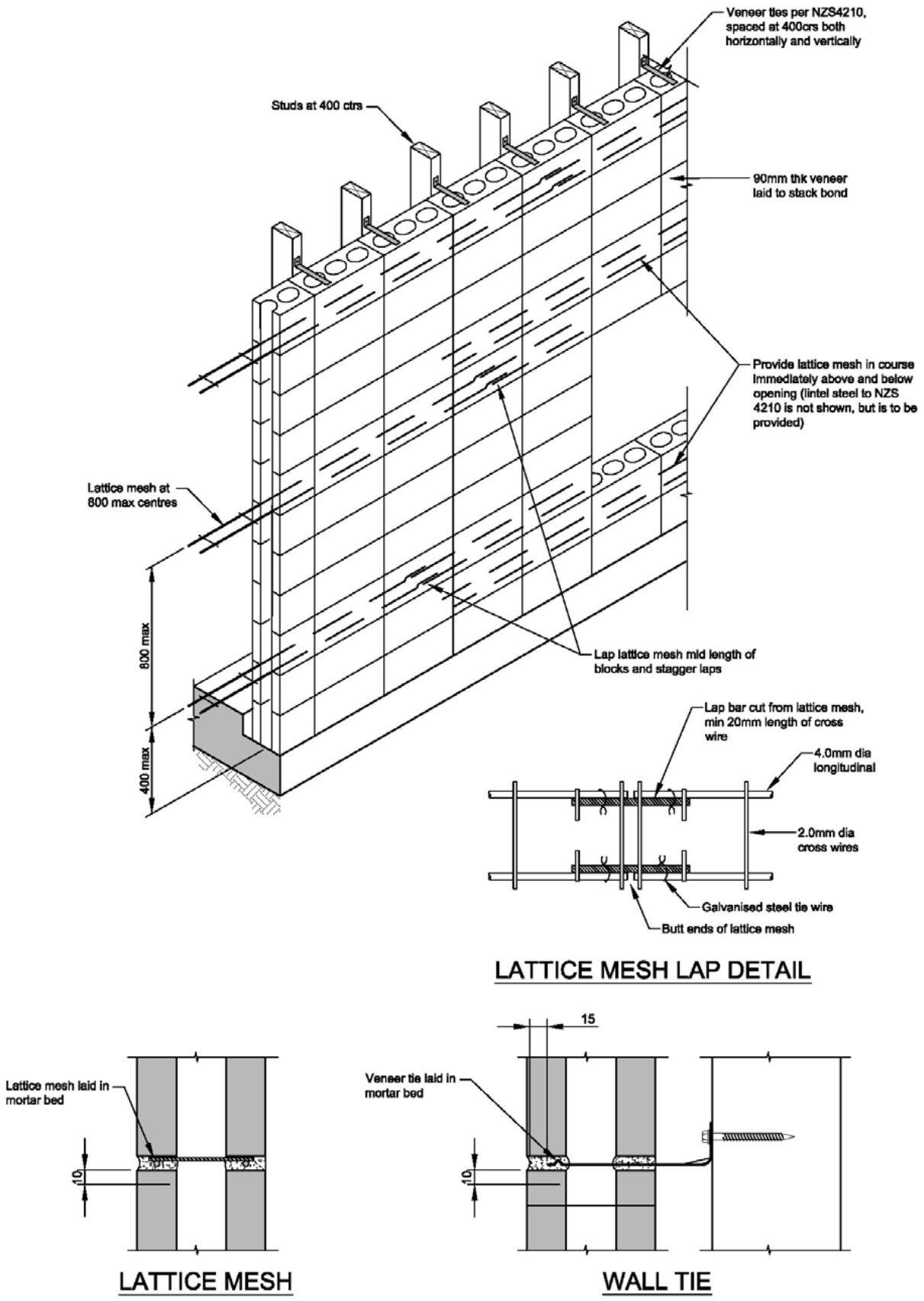

Figure 1: Stack Bond Veneer