



25x25x0.5 THK. LGS ANGLE

ECO STARWALL SANDWICHED PANEL

TYPICAL CONNECTION DETAILS SCALE

PLAN VIEW

TYPICAL CONNECTION DETAILS SCALE

DESIGN COMPLIANCE CODE

SECTION 4. TABLE 4.6 - CONCRETE WALL WITH VERTICAL REINFORCEMENTS.

4.1.4 SURFACES EXPOSED TO FIRE

THE SURFACES EXPOSED TO FIRE IN THE STANDARD TEST OF THE ELEMENT ARE AS FOLLOWS:

WALLS: ONE SIDE

TABLE 4.6 - CONCRETE WALLS WITH VERTICAL REINFORCEMENT

| NATURE OF CONSTRUCTION AND MATERIALS | | MINIMUM DIMENSIONS EXCLUDING ANY COMBUSTIBLE FINISH FOR A FIRE RESISTANCE OF: | | | | | |
|--|---------------------------------|---|------------------|-------------|--------------|-------------|------------|
| | | 0.5 H | 1 H | 1.5 H | 2 H | 3 H | 4 H |
| WALL WITH LESS THAN 0.4% REINFORCEMENT MADE FROM DENSE AGGREGATE | THICKNESS | 100mm | 150mm | 175mm | - | - | - |
| WALL WITH 0.4% TO 1.0% REINFORCEMENT MADE FROM DENSE AGGREGATE (CONCRETE DENSITY UP TO 2.4 t/m³) | THICKNESS COVER ³ | 100mm 25 | 120mm 25 | 140mm 25 | 160mm 25 | 200mm 25 | 240n 25 |
| WALL MADE FROM LIGHTWEIGHT AGGREGATE (CONCRETE DENSITY 1.2 t/m³) | THICKNESS COVER ³ | 100mm 10 | 100mm 20 | 115mm 20 | 130mm 25 | 160mm 25 | 190n 25 |
| WALL WITH OVER 1.0% REINFORCEMENT MADE FROM DENSE AGGREGATE. | THICKNESS COVER ³ | (see note) 15 | (see note) 15 | 100mm 25 | 100mm 25- | 150mm 25 | 180r 25 |

COVER IS EXPRESSED HERE AS COVER TO MAIN REINFORCEMENT (SEE 4.2.3). FOR PRACTICAL PURPOSES COVEI IS EXPRESSED AS NOMINAL COVER TO ALL REINFORCEMENT AND THESE TABULATED VALUES NEED TO BE DECRESED ACCORDINGLY. FOR CONCRETE OF DENSITIES BETWEEN 1.2 t/m^3 and 2.4 t/m^3 THE value of Wall Thickness May be INTERPOLATED NOTE. USE THE MINIMUM PRACTICAL DIMENSION BUT NOT LESS THAN 75mm

(2) CALCULATION OF STEEL REINFORCEMENT

CONSIDERING 1200mm RUN OF THE WALL WITH 2 LAYERS OF T16 BARS AT 300 mm C/C THE NUMBER OF BARS AVAILABLE = 10. AREA OF STEEL AS = 2011.43mm SQUARED. AREA OF CONCRETE AC = $150 \times 1200 = 180000$ mm SQUARED.

PERCENTAGE OF STEEL = AS / AC X 100 = 1.12%. REFERRING TO TABLE TO TABLE 4.6 ABOVE 2 HOUR FIRE RESISTANCE CAN BE PROVIDED USING A 100mm thick wall with 25mm COVER. THE WALL THICKNESS PROVIDED IS 150mm WITH 25mm COVER AND

WITH REINFORCEMENT PERCENTAGE IN EXCESS OF 1% THE FIRE RESISTANCE AVAILABLE IS 3 HOURS IN ACCORDANCE WITH TABLE 4.6

REV. DATE DESCRIPTION **REVISION**

PROJECT TITLE:



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DWG TITLE :

DWG NO.

ECO STARWALL SANDWICHED PANEL CONNECTION DETAILS (TYPICAL)

AS SHOW CHECKED : G.L.BANGAH DRAWN: W.H.ONG DATE : 22-01-16 DESIGNED :