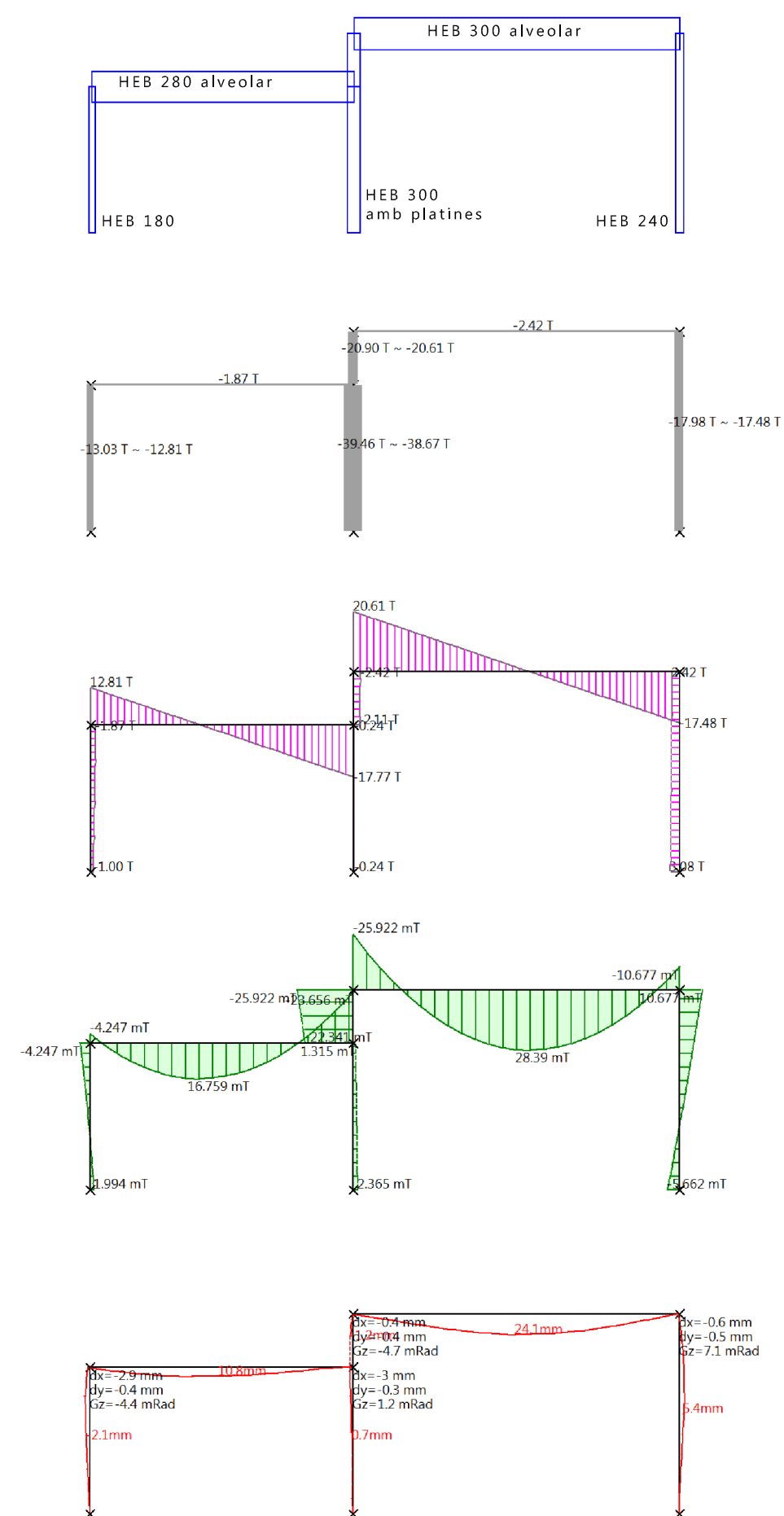


**PREDIMENSIONAT**

**FÒRMULES**  
 pilars  $\sigma^* > M^*/Wx + N^*/A$   
 jasseres  $\sigma^* > M^*/Wx + N^*/A$   
 $F_{max} < F_{adm} = L/400$

**DADES ACER**  
 $\sigma = 2600 \text{ kg/cm}^2$   
 $\sigma^* = 2600 / 1.1 = 2363 \text{ kg/cm}^2$   
 coef. de seguretat  $\gamma = 1.5$

**PÒRTIC A**



**JÀSSERA : HEB 300 ALVEOLAR**

$M_{max} = 25.92 \text{ Tm}$  (segons wineva)  
 $N = 2.42 \text{ T}$  (segons wineva)  
 $F_{max} = 24.05 \text{ mm}$  (segons wineva)

$Wx = 2373 \text{ cm}^3$  (segons proutuari)  
 $A = 64.8 \text{ cm}^2$  (segons proutuari)  
 $L = 9740 \text{ mm}$

$\sigma^* > M^* \cdot 10^5 / Wx + N^* \cdot 10^3 / A$   
 $2363 > 25.92 \cdot 1.5 \cdot 10^5 / 2373 + 2.42 \cdot 1.5 \cdot 10^3 / 64.8$   
 $2363 \text{ kg/cm}^2 > 1836.19 \text{ kg/cm}^2 \rightarrow \text{OK}$

$F_{max} < F_{adm} = L/400$   
 $24.05 \text{ mm} < 9740/400 \rightarrow 24.05 \text{ mm} < 24.35 \text{ mm} \rightarrow \text{OK}$

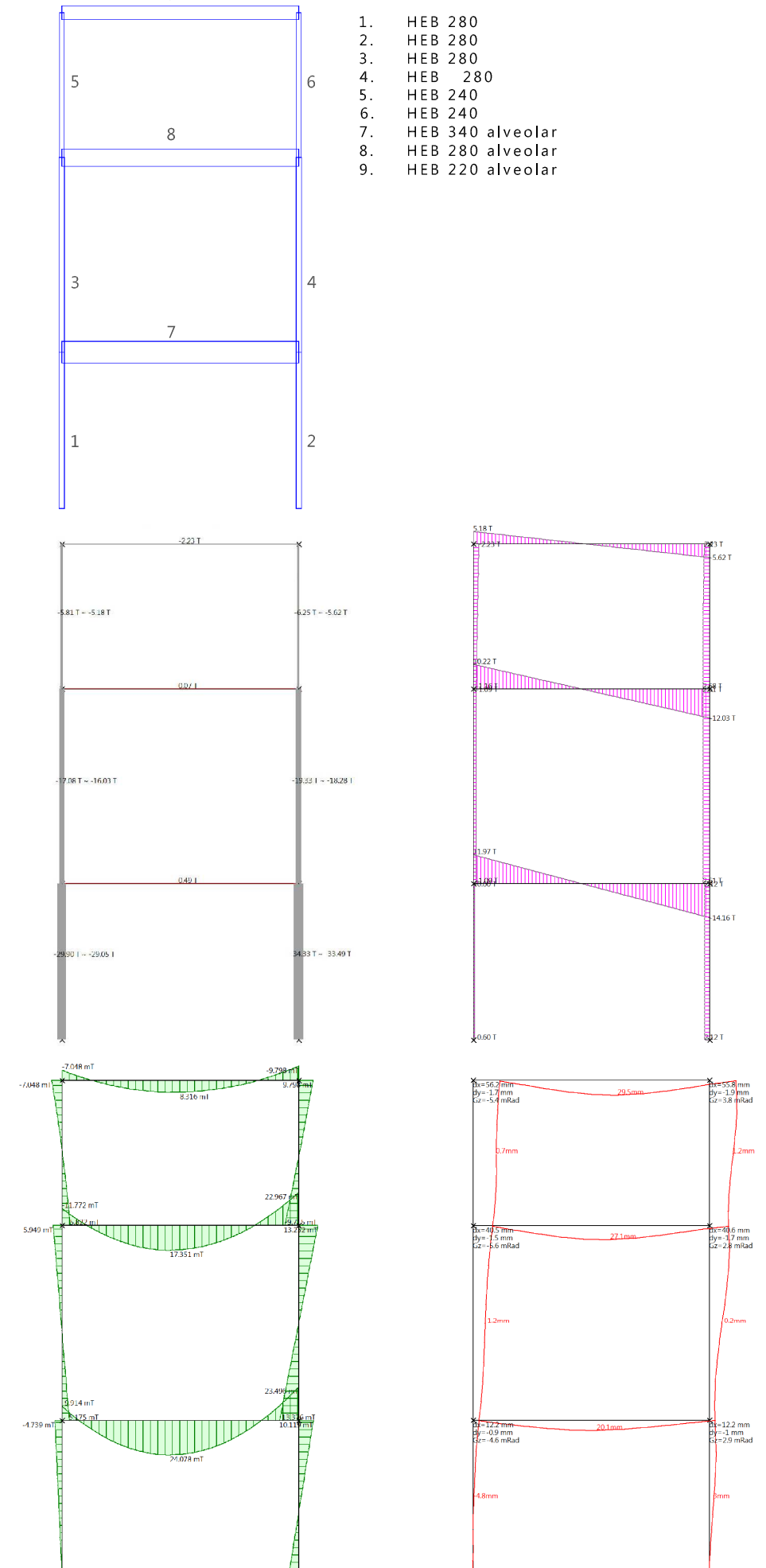
**PILAR : HEB 300 amb platinas**

$M_{max} = 25.92 \text{ Tm}$  (segons wineva)  
 $N = 20.90 \text{ T}$  (segons wineva)  
 $\beta = 1$  (segons wineva)  $\rightarrow W = 1.01$

$Wx = 2040 \text{ cm}^3$  (segons proutuari)  
 $A = 233 \text{ cm}^2$  (segons proutuari)

$\sigma^* > M^* \cdot 10^5 / Wx + N^* \cdot 10^3 \cdot w / A$   
 $2363 > 25.92 \cdot 1.5 \cdot 10^5 / 2040 + 20.90 \cdot 1.5 \cdot 10^3 \cdot 1.01 / 233$   
 $2363 \text{ kg/cm}^2 > 2041.78 \text{ kg/cm}^2 \rightarrow \text{OK}$

**PÒRTIC N**



**JÀSSERA : HEB 340 ALVEOLAR**

$M_{max} = 24.07 \text{ Tm}$  (segons wineva)  
 $N = 0.49 \text{ T}$  (segons wineva)  
 $F_{max} = 20.14 \text{ mm}$  (segons wineva)

$Wx = 3220 \text{ cm}^3$  (segons proutuari)  
 $A = 72.70 \text{ cm}^2$  (segons proutuari)  
 $L = 12400 \text{ mm}$

$\sigma^* > M^* \cdot 10^5 / Wx + N^* \cdot 10^3 / A$   
 $2363 > 24.07 \cdot 1.5 \cdot 10^5 / 3220 + 0.49 \cdot 1.5 \cdot 10^3 / 72.70$   
 $2363 \text{ kg/cm}^2 > 1131.38 \text{ kg/cm}^2 \rightarrow \text{OK}$

$F_{max} < F_{adm} = L/400$   
 $20.14 \text{ mm} < 12400/400 \rightarrow 20.14 \text{ mm} < 31 \text{ mm} \rightarrow \text{OK}$

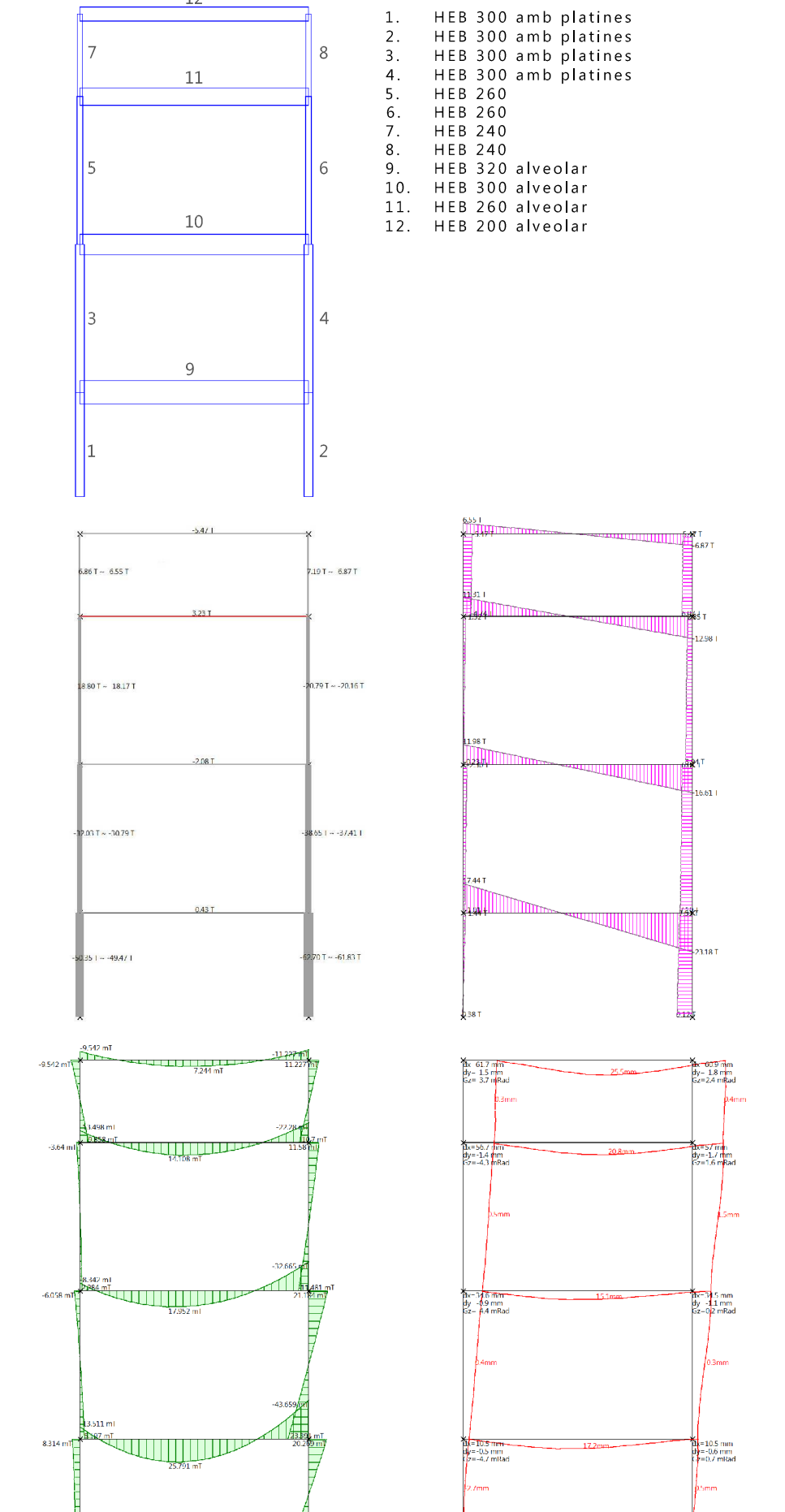
**PILAR : HEB 280**

$M_{max} = 13.37 \text{ Tm}$  (segons wineva)  
 $N = 19.33 \text{ T}$  (segons wineva)  
 $\beta = 1.06$  (segons wineva)  $\rightarrow W = 4.06$

$Wx = 1380 \text{ cm}^3$  (segons proutuari)  
 $A = 131 \text{ cm}^2$  (segons proutuari)

$\sigma^* > M^* \cdot 10^5 / Wx + N^* \cdot 10^3 \cdot w / A$   
 $2363 > 13.37 \cdot 1.5 \cdot 10^5 / 1380 + 19.33 \cdot 1.5 \cdot 10^3 \cdot 4.06 / 131$   
 $2363 \text{ kg/cm}^2 > 2351.88 \text{ kg/cm}^2 \rightarrow \text{OK}$

**PÒRTIC G**



**JÀSSERA : HEB 320 ALVEOLAR**

$M_{max} = 43.65 \text{ Tm}$  (segons wineva)  
 $N = 0.43 \text{ T}$  (segons wineva)  
 $F_{max} = 17.17 \text{ mm}$  (segons wineva)

$Wx = 2820 \text{ cm}^3$  (segons proutuari)  
 $A = 69.5 \text{ cm}^2$  (segons proutuari)  
 $L = 10510 \text{ mm}$

$\sigma^* > M^* \cdot 10^5 / Wx + N^* \cdot 10^3 / A$   
 $2363 > 43.65 \cdot 1.5 \cdot 10^5 / 2820 + 0.43 \cdot 1.5 \cdot 10^3 / 69.5$   
 $2363 \text{ kg/cm}^2 > 2331.09 \text{ kg/cm}^2 \rightarrow \text{OK}$

$F_{max} < F_{adm} = L/400$   
 $17.17 \text{ mm} < 10510/400 \rightarrow 17.17 \text{ mm} < 26.28 \text{ mm} \rightarrow \text{OK}$

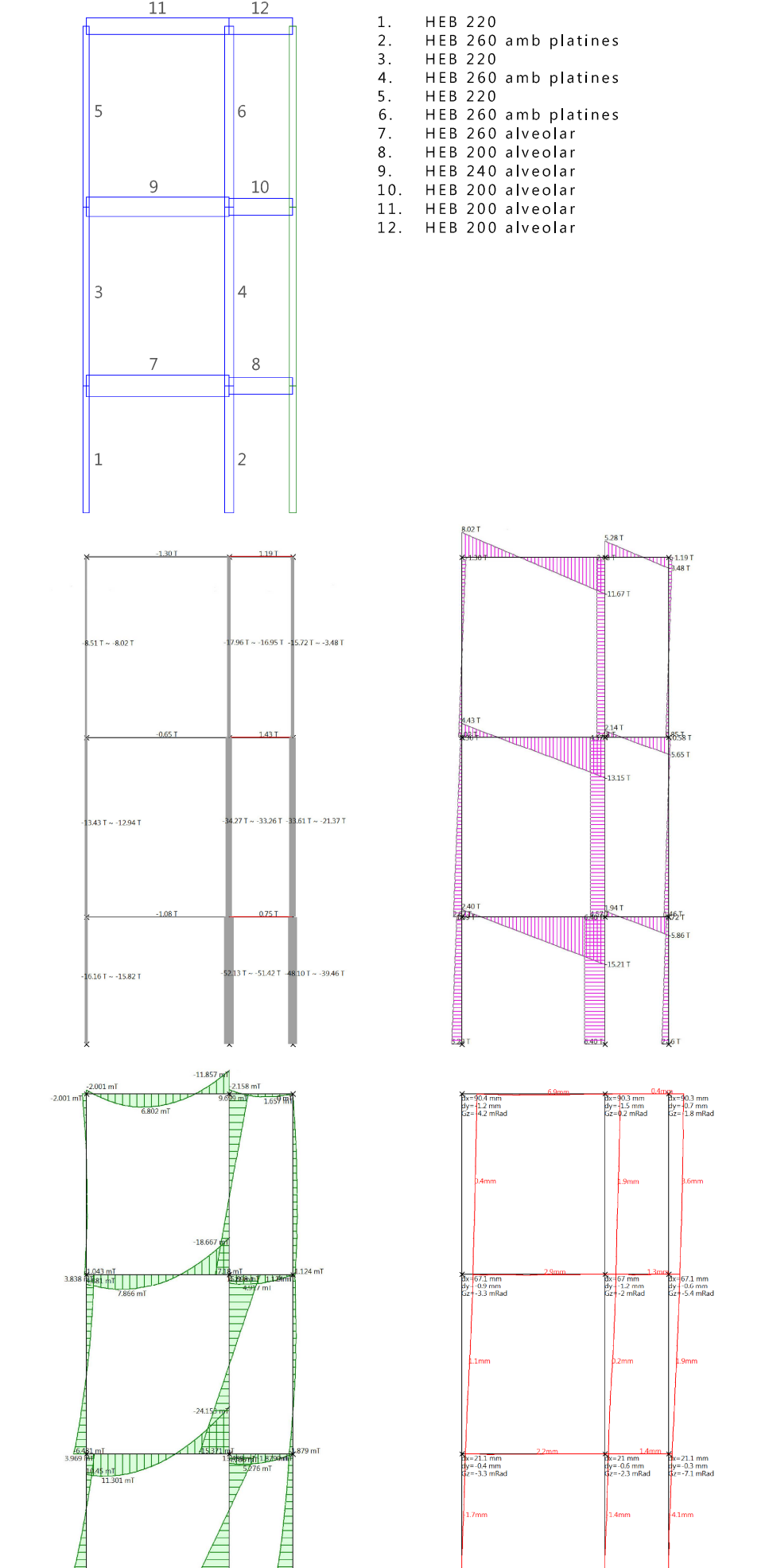
**PILAR : HEB 300 amb platinas**

$M_{max} = 23.39 \text{ Tm}$  (segons wineva)  
 $N = 38.64 \text{ T}$  (segons wineva)  
 $\beta = 1.03$  (segons wineva)  $\rightarrow W = 1.24$

$Wx = 2040 \text{ cm}^3$  (segons proutuari)  
 $A = 233 \text{ cm}^2$  (segons proutuari)

$\sigma^* > M^* \cdot 10^5 / Wx + N^* \cdot 10^3 \cdot w / A$   
 $2363 > 23.39 \cdot 1.5 \cdot 10^5 / 2040 + 38.64 \cdot 1.5 \cdot 10^3 \cdot 1.24 / 233$   
 $2363 \text{ kg/cm}^2 > 2028.31 \text{ kg/cm}^2 \rightarrow \text{OK}$

**PÒRTIC R**



**JÀSSERA : HEB 260 ALVEOLAR**

$M_{max} = 24.15 \text{ Tm}$  (segons wineva)  
 $N = 1.08 \text{ T}$  (segons wineva)  
 $F_{max} = 2.83 \text{ mm}$  (segons wineva)

$Wx = 1594 \text{ cm}^3$  (segons proutuari)  
 $A = 51.7 \text{ cm}^2$  (segons proutuari)  
 $L = 5400 \text{ mm}$

$\sigma^* > M^* \cdot 10^5 / Wx + N^* \cdot 10^3 / A$   
 $2363 > 24.15 \cdot 1.5 \cdot 10^5 / 1594 + 1.08 \cdot 1.5 \cdot 10^3 / 51.7$   
 $2363 \text{ kg/cm}^2 > 2303 \text{ kg/cm}^2 \rightarrow \text{OK}$

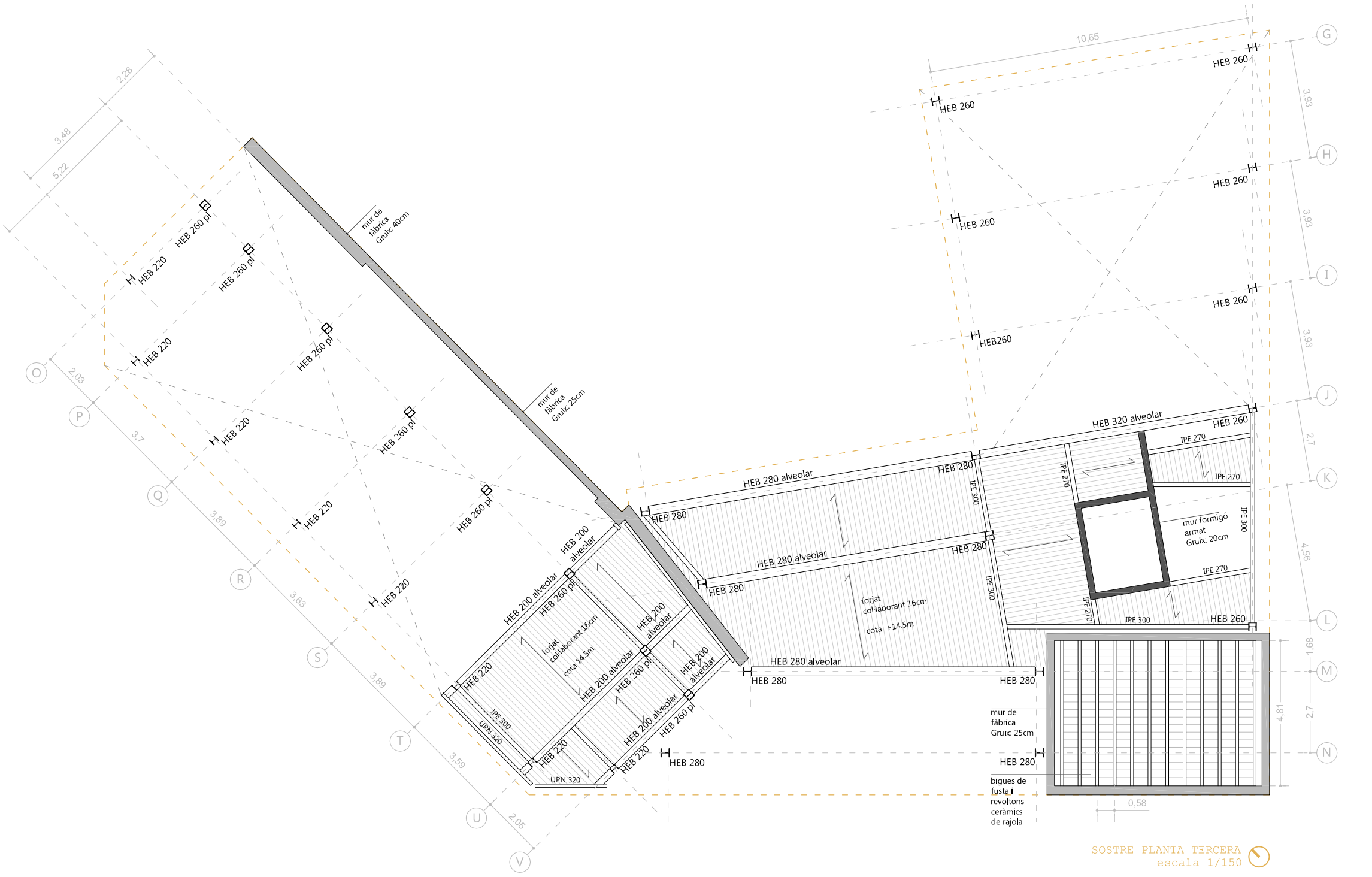
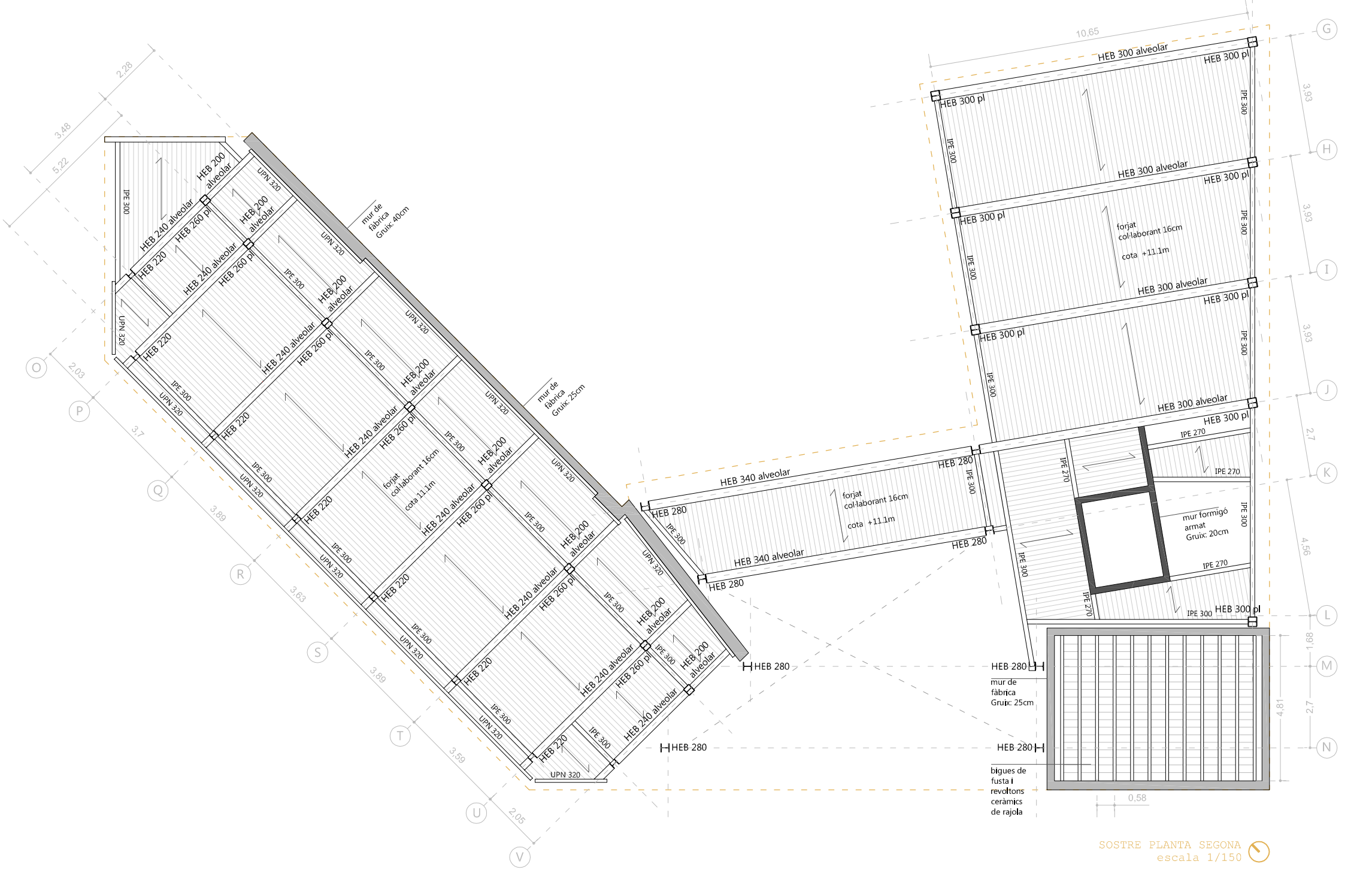
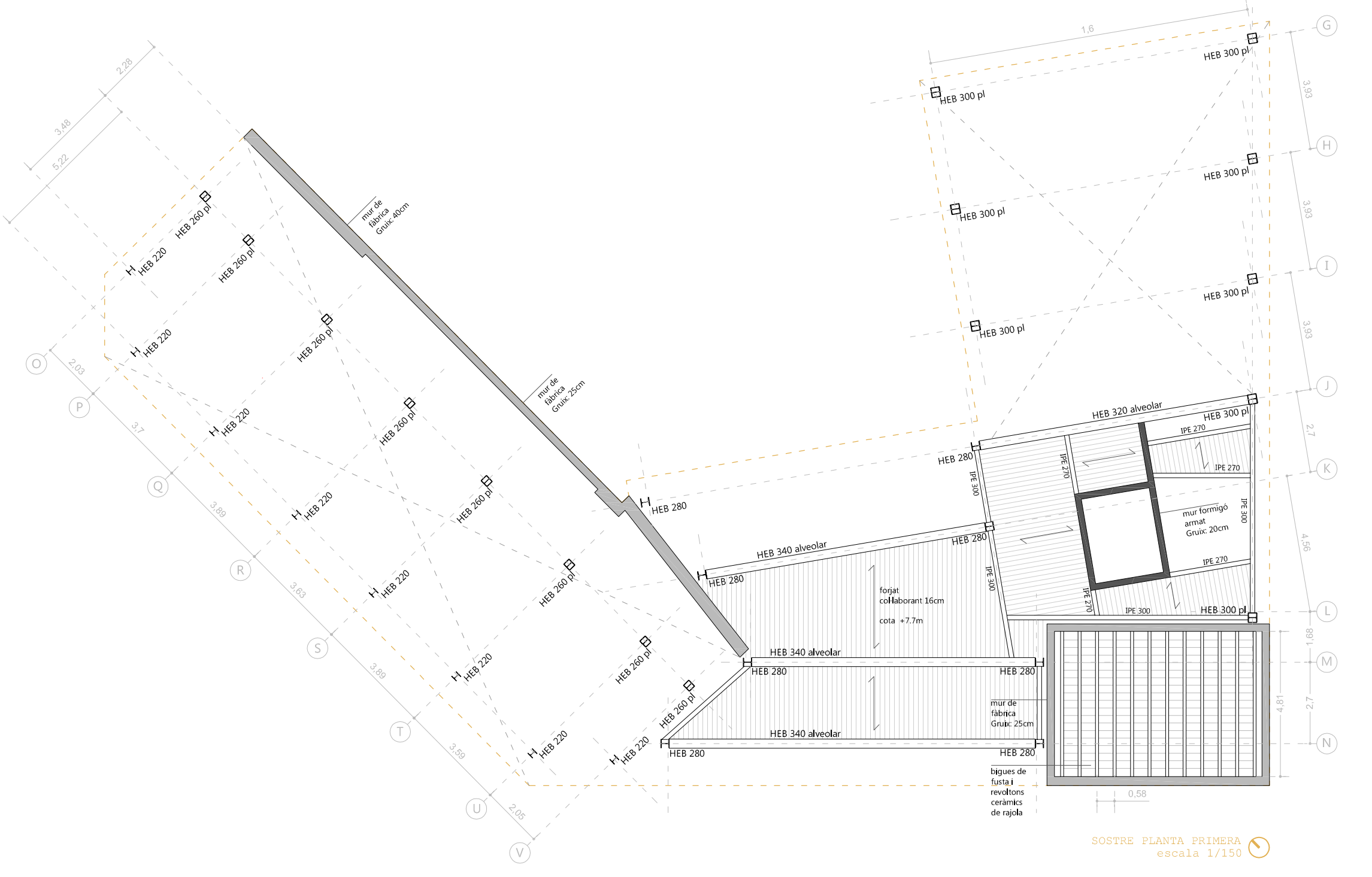
$F_{max} < F_{adm} = L/400$   
 $2.83 \text{ mm} < 5400/400 \rightarrow 2.83 \text{ mm} < 13.5 \text{ mm} \rightarrow \text{OK}$

**PILAR : HEB 260 amb platinas**

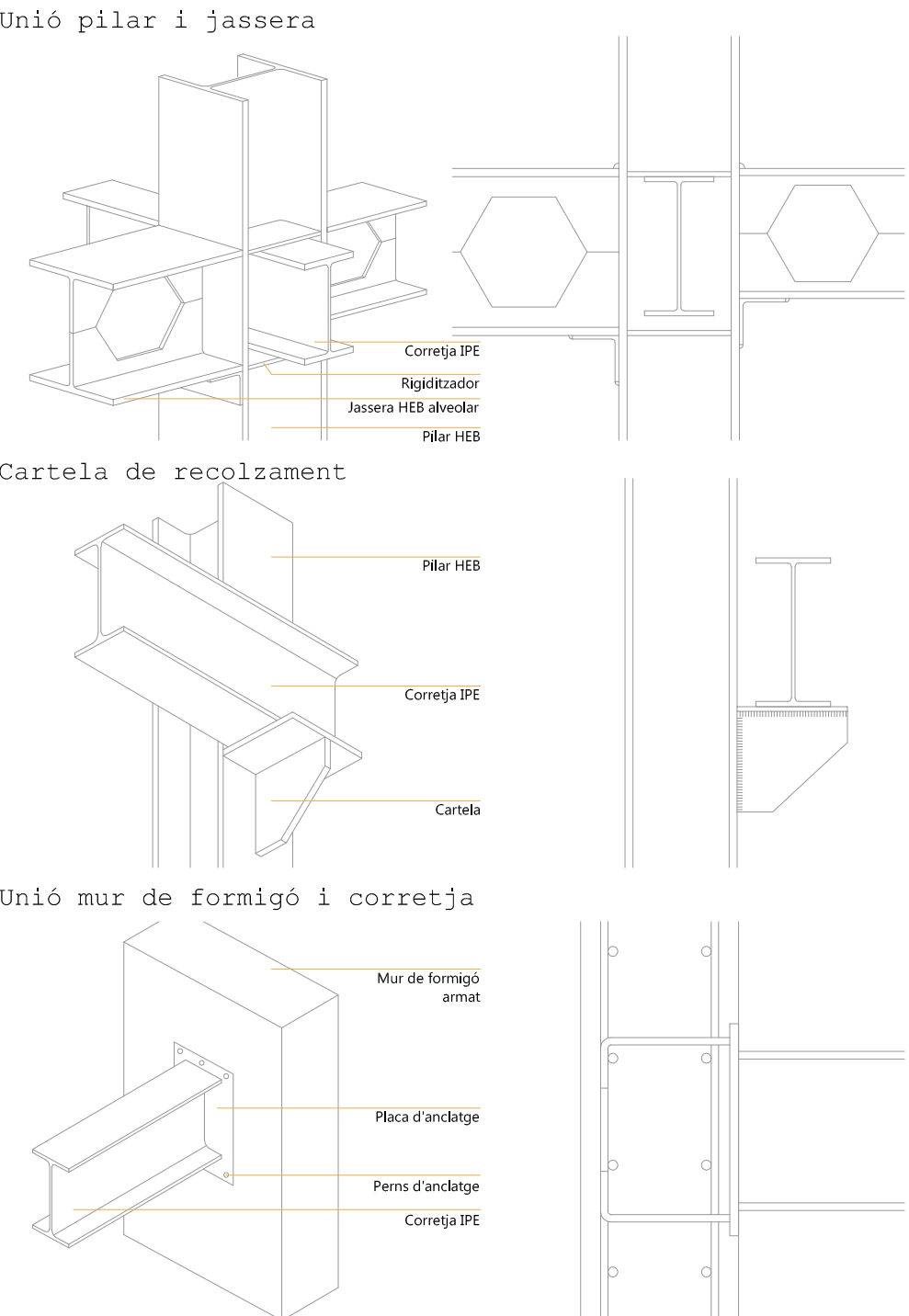
$M_{max} = 17.21 \text{ Tm}$  (segons wineva)  
 $N = 52.13 \text{ T}$  (segons wineva)  
 $\beta = 1.04$  (segons wineva)  $\rightarrow W = 1.13$

$Wx = 1410 \text{ cm}^3$  (segons proutuari)  
 $A = 190 \text{ cm}^2$  (segons proutuari)

$\sigma^* > M^* \cdot 10^5 / Wx + N^* \cdot 10^3 \cdot w / A$   
 $2363 > 17.21 \cdot 1.5 \cdot 10^5 / 1410 + 52.13 \cdot 1.5 \cdot 10^3 \cdot 1.13 / 190$   
 $2363 \text{ kg/cm}^2 > 2295.91 \text{ kg/cm}^2 \rightarrow \text{OK}$



**DETALLS ESTRUCTURA**



**DETALLS FONAMENTACIÓ**

