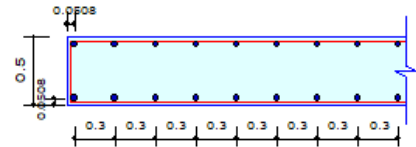


結果進行牆設計時,發現WALL ID 11 Y向及Z向Mc皆為0, 可是從牆彎矩圖來看My=0, Mz=272 t-m(Top), 175.7 t-m(Bot)。若在設計要考慮out-of-plane bending, 在哪可以調整?

### 1. Design Condition

Design Code : ACI318M-19  
 Wall ID : 11 (Wall Mark: wM0011)  
 Story : 1F (Height = 6 m)  
 Material Data :  $f_c = 4200$ ,  $f_y = 42000$ ,  $f_{ys} = 42000$  tonf/m<sup>2</sup>  
 Wall Dim. (Length\*Thk) : 10\*0.5 m  
 Vertical Rebar : D13 @300 (AsV = 0.00085 m<sup>2</sup>/m)

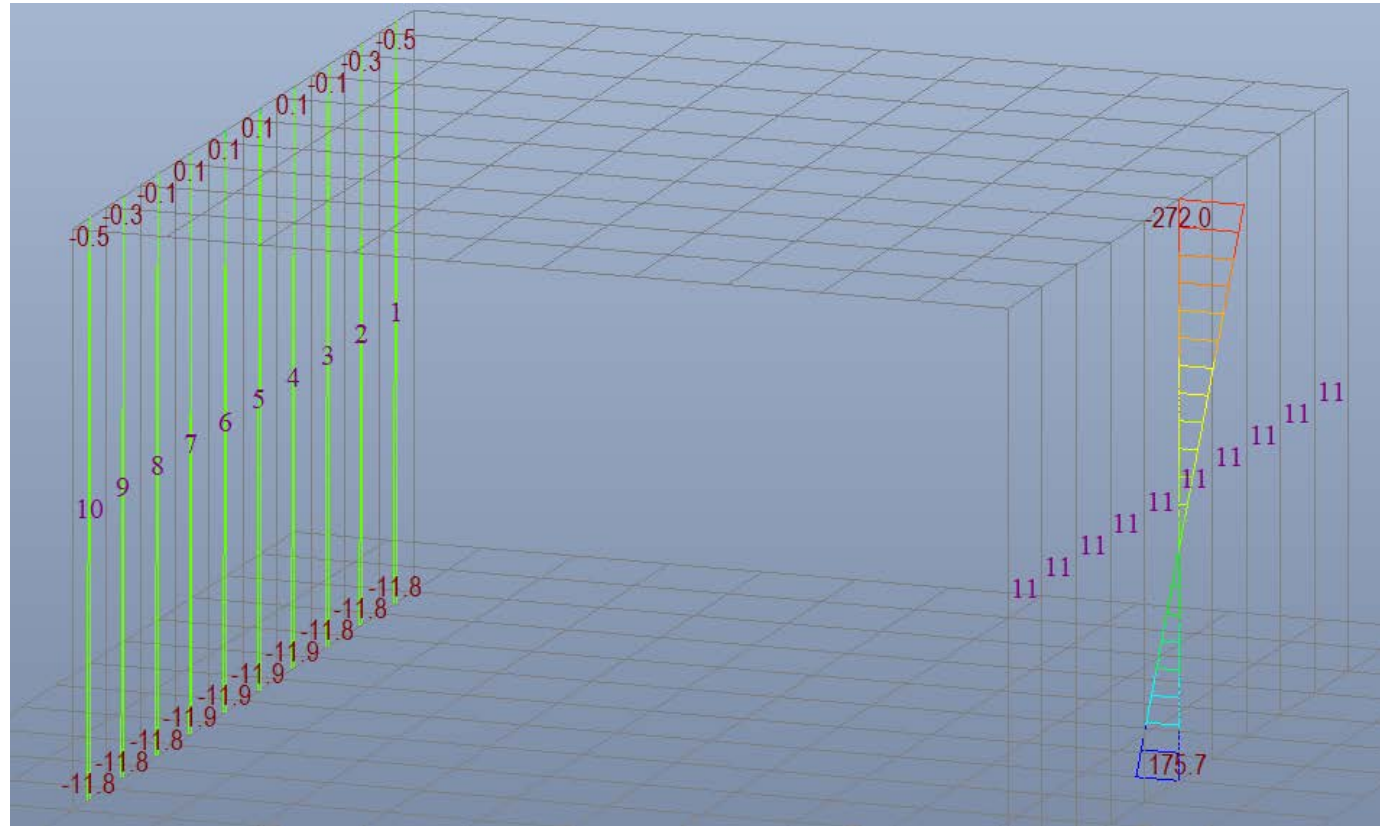
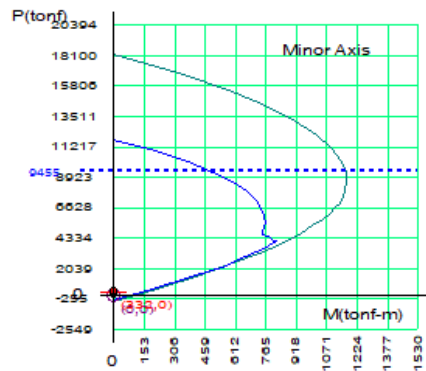
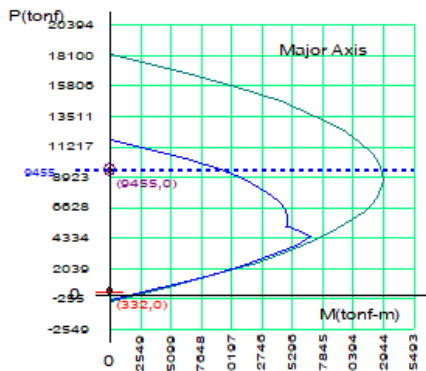
Unit System : tonf, m

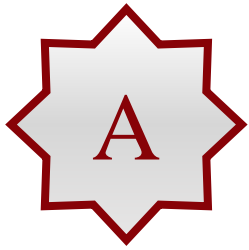


### 2. Axial and Moments Capacity

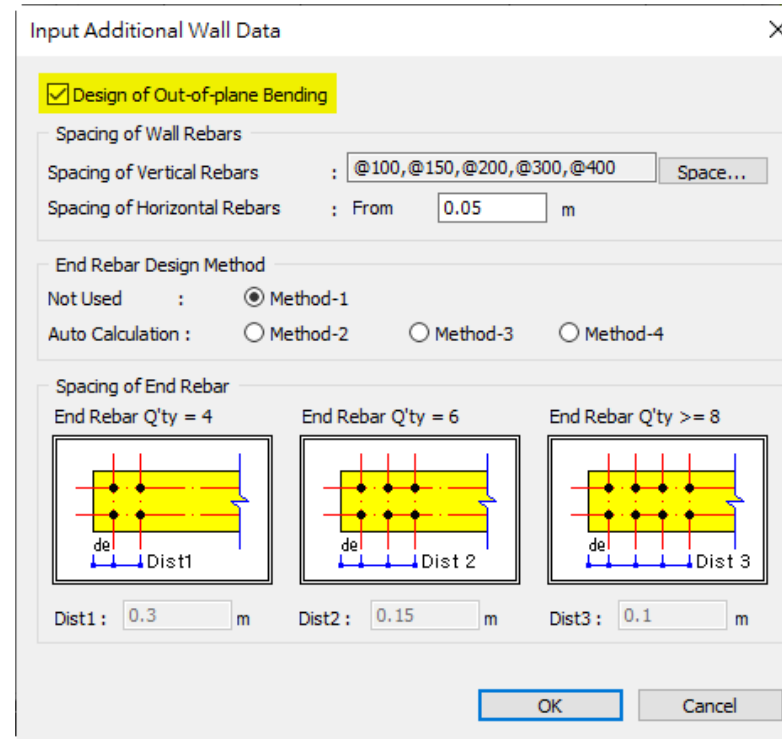
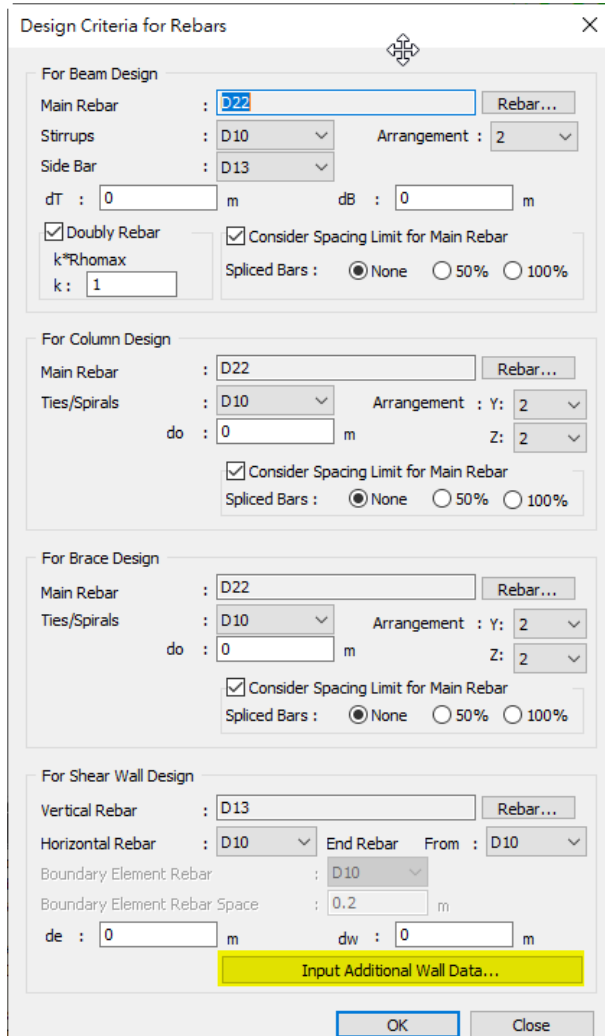
Concentric Max. Axial Load  $\phi P_n$ -max = 9454.58 tonf

	y (LCB : 1, POS : I)	z (LCB : 1, POS : I)
$P_u$ (tonf)	332.252	332.252
$\phi P_n$ (tonf)	9454.58	0.00000
$P_u / \phi P_n$	0.035 < 1.000 ..... O.K	0.000 < 1.000 ..... O.K
<b>Mc (tonf-m)</b>	<b>0.00000</b>	<b>0.00000</b>
$\phi M_n$ (tonf-m)	0.00000	0.00000
Mc / $\phi M_n$	0.000 < 1.000 ..... O.K	0.000 < 1.000 ..... O.K





設計結果Wall ID 11 Mcz 是0因爲您沒有考慮out-of-plane bending，請您在**Design Criteria for Rebars > For Shear Wall Design > Input Additional Wall Data ... > 勾選Design of Out-of-plane bending**（如下圖）



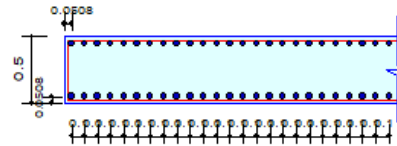


設定好 Design Out-of-Plane Bending 可以再做設計。現在Mcz已經顯示出價值。

### 1. Design Condition

Design Code : ACI318M-19  
 Wall ID : 11 (Wall Mark : wM0011)  
 Story : 1F (Height = 6 m)  
 Material Data :  $f_c = 4200$ ,  $f_y = 42000$ ,  $f_{ys} = 42000$  tonf/m<sup>2</sup>  
 Wall Dim. (Length\*Thk) : 10\*0.5 m  
 Vertical Rebar : D13 @100 (AsV = 0.00254 m<sup>2</sup>/m)

Unit System : tonf, m



### 2. Axial and Moments Capacity

Concentric Max. Axial Load  $\phi P_n\text{-max} = 9789.58$  tonf

	y (LCB : 1, POS : J)	z (LCB : 1, POS : J)
Pu (tonf)	231.452	231.452
$\phi P_n$ (tonf)	9789.58	230.694
Pu / $\phi P_n$	0.024 < 1.000 ..... O.K	1.003 > 1.000 ..... N.G
<b>M<sub>c</sub> (tonf-m)</b>	<b>0.00000</b>	<b>-271.96</b>
$\phi M_n$ (tonf-m)	0.00000	271.072
M <sub>c</sub> / $\phi M_n$	0.000 < 1.000 ..... O.K	1.003 > 1.000 ..... N.G

