PROJECT TITLE :

MIDAS	Company		Client	
	Author	Ing. Osvaldo Guzman Avila	File Name	P046-2024-MOD-001

```
--------------------------------------------------------------------------------------------
 midas Gen - RC-Mesh Flexural Wall Design    [ NSR-10 ]                      Gen 2024
============================================================================================


============================================================================================
    [[[*]]]   MESHED WALL DESIGN MAXIMUM RESULT DATA : DOMAIN 3-[1]. (Horizontal)
============================================================================================


 -. Information of Parameters.
    Elem No.  : 363
    LCB No.   :   7
    Materials :  fc  =     27.5790 MPa.
                 Fy  =    413.6856 MPa.
    Thickness :  t   = 250.0000 mm.

 -. Design Forces.
    Sig_x  =     -0.4282 MPa.
    Sig_y  =     -0.0543 MPa.
    Tau_xy =     -0.0754 MPa.

    Sig max =     -0.0543 MPa. (y-dir)
    Sig min =     -0.4282 MPa. (x-dir)
    Tau_xy  =     -0.0754 MPa.

 -. Required Reinforcement and Concrete stress.
    (Sig_min in Tension or Sig_max*Sig_min <= Tau_xy^2 --> Rebar Required!)
    ft_max  = |Tau_xy| - Sig_max =      0.1296 MPa. (y-dir)
    ft_min  = |Tau_xy| - Sig_min =      0.5036 MPa. (x-dir)

    f'tx    =      0.5036 MPa.
    f'ty    =      0.1296 MPa.
    Sig_c   = 2*|Tau_xy|         =      0.1507 MPa.

    rhoy_req =  0.0015
    rhox_req =  0.0025

 -. Tensile Strength provided by Reinforcement.
    b        = 1.0 mm.  (by Unit Length).
    Asx_Req  =       0.6250 mm^2/mm.  (     625.0000 mm^2/m.)
    Asy_Req  =       0.3750 mm^2/mm.  (     375.0000 mm^2/m.)
    Asx_use  =       0.6452 mm^2/mm.  (     645.1600 mm^2/m.)
    Asy_use  =       0.4301 mm^2/mm.  (     430.1067 mm^2/m.)
    ftnx     = Asx use/(b*t)*fy =      1.0676 MPa.
    ftny     = Asy_use/(b*t)*fy =      0.7117 MPa.

 -. Check the Ratio.
    Rein. Bar x :   (Hor.)
    Rein. Bar_y :   (Ver.)
    Rat_x   = f'tx/ftnx       =   0.472
    Rat_y   = f'ty/ftny       =   0.182
    Rat_c   = Sig_c/fc  =   0.005
    Rat     = Rat_x =   0.472  <  1.0  --->  O.K !
```