αναθεώρηση	α/α	ημερομηνία:	όνομα:	περιγραφή:

κύριος του έργου

ΔΗΜΟΣ ΠΑΛΑΙΟΥ ΦΑΛΗΡΟΥ
ΔΙΕΥΘΥΝΣΗ ΤΕΧΝΙΚΩΝ ΥΠΗΡΕΣΙΩΝ

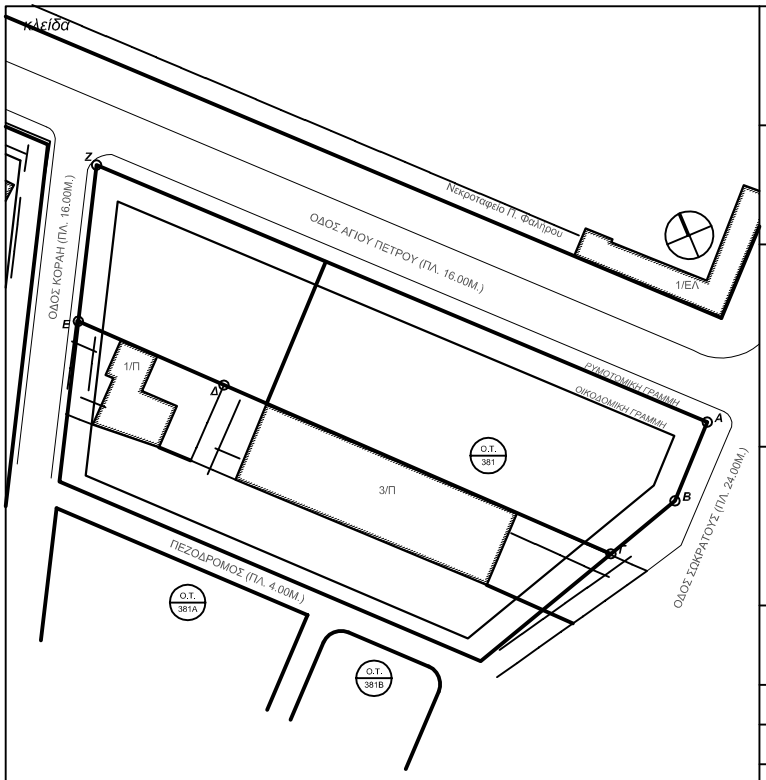
έργο

ΚΑΤΑΣΚΕΥΗ ΥΠΟΓΕΙΟΥ ΧΩΡΟΥ ΣΤΑΘΜΕΥΣΗΣ ΟΧΗΜΑΤΩΝ ΚΑΘΑΡΙΟΤΗΤΑΣ ΚΑΙ ΥΠΕΡΓΕΙΟΥ ΧΩΡΟΥ ΓΡΑΦΕΙΩΝ ΚΑΘΑΡΙΟΤΗΤΑΣ, ΧΩΡΟΥ ΠΡΑΣΙΝΟΥ, ΠΑΙΔΙΚΗΣ ΧΑΡΑΣ & ΓΗΠΕΔΟΥ ΜΠΑΣΚΕΤ

θέση

ΔΗΜΟΣ ΠΑΛΑΙΟΥ ΦΑΛΗΡΟΥ-Ο.Τ 381
ΕΠΙ ΤΩΝ ΟΔΩΝ ΣΩΚΡΑΤΟΥΣ, ΑΓΙΟΥ ΠΕΤΡΟΥ & ΚΟΡΑΗ

κλείδα



μελέτη

ΣΤΑΤΙΚΗ

φάση μελέτης

ΟΡΙΣΤΙΚΗ

τίτλος τεύχους

ΤΕΥΧΟΣ ΣΤΑΤΙΚΩΝ ΥΠΟΛΟΓΙΣΜΩΝ (2/2)

α/α τεύχους	*α/α αναθ.*
T 02B	0

ημερομηνία ΣΕΠΤΕΜΒΡΙΟΣ 2015	
κωδ. εντύπου:	
κωδ. Η/Υ:	*ελέγχθηκε:*
κωδ. έργου: 151494	*εγκρίθηκε:*

ομάδα μελέτης

ΑΡΧΙΤΕΚΤΟΝΙΚΗ ΜΕΛΕΤΗ

ΗΛΕΚΤΡΟΜΗΧΑΝΟΛΟΓΙΚΗ ΜΕΛΕΤΗ

ΣΤΑΤΙΚΗ ΜΕΛΕΤΗ & ΜΕΛΕΤΗ ΑΝΤΙΣΤΗΡΙΞΗΣ

υπογραφή - σφραγίδα μελετητή	*θεωρήθηκε*

```
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     107.7248  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.974  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.081

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 -. Information of Parameters.
   Elem No.  : 6668
   LCB No.   :  37+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =     100.7047  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.911  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.076

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[2], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 6753
   LCB No.   :  40+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
```

```
   M_Ed   =     117.4278  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.805  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.089

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Parameters.
   Elem No.  : 6748
   LCB No.   :  39+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      49.8612  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.640  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

=============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[3], Dir 1.
=============================================================================



 << TOP >>

 -. Information of Parameters.
   Elem No.  : 6790
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      61.7270  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.792  <  1.0  --->  O.K !
```

```
 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[4], Dir 1.
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 << TOP >>

 -. Information of Parameters.
    Elem No.  : 6873
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
    M_Ed   =     216.7130  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.995  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.164

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[5], Dir 1.
================================================================================


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 -. Information of Parameters.
    Elem No.  : 6938
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
    M_Ed   =     175.9364  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.914  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
```

```
   x/d         =    0.133

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 -. Information of Parameters.
   Elem No.  : 6937
   LCB No.   :  44+
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
   M_Ed   =      88.7352  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.802  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.067

===========================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[6], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 6967
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      95.7623  kN-m./m.
```

```
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.866  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.072

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 -. Information of Parameters.
   Elem No.  : 6974
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      59.0336  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.757  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[7], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7014
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      91.6666  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.829  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.069

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7028
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      51.5864  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.662  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[8], Dir 1.
==========================================================================



 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7044
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
```

```
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      34.1958  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.439  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[9], Dir 1.
=============================================================================


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 -. Information of Parameters.
    Elem No.  : 7112
    LCB No.   :  44+
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     240.2048  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.861  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.182

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[10], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7208
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0020 m^2/m.  (       0.0020 m^2/m.)
    M_Ed   =     273.3942  kN-m./m.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.979  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.207

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7207
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.6000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.5500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3255 kN.
    M_Rd     = Cc*(d-a/2)  =     175.4871  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      90.1131  kN-m./m.
    M_Rd   =     175.4871  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.514  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[11], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7235
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
```

```
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     128.1556  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.879  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.097

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7239
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      44.7134  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.574  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[12], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7260
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.
```

```
 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     120.3203  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.825  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.091

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7276
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      48.4806  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.622  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[14], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7283
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     141.5901  kN-m./m.
```

```
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.971  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.107

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7283
   LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      22.7207  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.291  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[14], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7378
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0024 m^2/m.  (       0.0024 m^2/m.)
   M_Ed   =     324.5123  kN-m./m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.782  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.245

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7345
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      95.9588  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.868  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.073

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[16], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7439
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     118.0002  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.809  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.089

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7439
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      16.3907  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.210  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[16], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7446
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     133.2617  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.914  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.101

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7450
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      46.0972  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.591  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[17], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7500
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      62.5386  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.802  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7480
   LCB No.   :  44+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      57.8550  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.742  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[18], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7516
   LCB No.   :  44+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
```

```
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      99.2004  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.897  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.075

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7518
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      38.2817  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.491  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[19], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7548
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

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--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0022 m^2/m.  (       0.0022 m^2/m.)
    M_Ed   =     297.2821  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.717  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.225

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7559
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.033 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4881 kN.
    M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @100
    As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
    M_Ed   =     160.7418  kN-m./m.
    M_Rd   =     162.8891  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.987  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.121

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[21], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7653
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0027 m^2/m.  (       0.0027 m^2/m.)
    M_Ed   =     374.9091  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.904  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.283

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7590
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
    M_Ed   =     164.1383  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.852  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.124

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[21], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7696
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
   As_req =       0.0014 m^2/m.  (       0.0014 m^2/m.)
   M_Ed   =     192.6725  kN-m./m.
   M_Rd   =     217.8420  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.884  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.146

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7705
   LCB No.   :  44+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      34.7647  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.446  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[1], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7717
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
```

```
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      89.6596  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.811  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.068

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7734
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      48.9135  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.628  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[2], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7741
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
```

```
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      35.4434  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.455  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7741
   LCB No.   :  37+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
   M_Ed   =      86.9649  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.786  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.066

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[3], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7784
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.039 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.5824 kN.
   M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @150
   As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
   M_Ed   =     177.1596  kN-m./m.
   M_Rd   =     192.5405  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.920  <  1.0  --->  O.K !
```

```
 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.134

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7774
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     120.6222  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.827  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.091

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[4], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7785
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0020 m^2/m.  (       0.0020 m^2/m.)
    M_Ed   =     278.1209  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.996  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.210

 << TOP >>
```

```
 -. Information of Parameters.
    Elem No.  : 7785
    LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      98.6973  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.893  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.075

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[5], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7807
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0017 m^2/m.  (       0.0017 m^2/m.)
    M_Ed   =     235.3392  kN-m./m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.843  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.178

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7835
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     116.3329  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.798  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.088

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[6], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7841
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     109.6027  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.991  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.083

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7841
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      28.2967  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.363  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[7], Dir 1.
===============================================================================


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7906
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.033 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4881 kN.
    M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @100
    As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
    M_Ed   =     162.1119  kN-m./m.
    M_Rd   =     162.8891  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.995  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.123

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7932
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      68.1835  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.875  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.052

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[8], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7974
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      58.1680  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.746  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7975
   LCB No.   :  38+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.033 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4881 kN.
   M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @100
   As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
   M_Ed   =     155.3400  kN-m./m.
   M_Rd   =     162.8891  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.954  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.117

============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[9], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8012
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
```

```
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      44.7776  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.574  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7994
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      90.9719  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.823  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.069

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[10], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8028
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

```
--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      54.5440  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.700  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8031
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
    M_Ed   =     173.7117  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.902  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.131

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[11], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8036
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     253.1922  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.907  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.191

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8046
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      94.2177  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.852  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.071

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[12], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8068
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      42.8162  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.549  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8059
   LCB No.   :  38+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.045 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6809 kN.
   M_Rd     = Cc*(d-a/2)  =     222.8485  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @200
   As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
   M_Ed   =     220.0967  kN-m./m.
   M_Rd   =     222.8485  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.988  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.166

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[13], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8091
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
```

```
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      37.3591  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.479  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8090
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      89.1603  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.806  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.067

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[14], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8148
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      39.0900  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.502  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8169
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =     101.7433  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.920  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.077

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[15], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8280
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     131.8269  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.904  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.100

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8290
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      22.3342  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.287  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[16], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8325
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      91.2964  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.826  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.069

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8320
   LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      22.3153  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.286  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[17], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8365
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
```

```
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     117.9203  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.808  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.089

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8380
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      56.8072  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.729  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[18], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8449
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      61.7510  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.792  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8447
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     138.6173  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.950  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.105

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[19], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8551
    LCB No.   :  39+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      63.0354  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.809  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8536
    LCB No.   :  39+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     121.2469  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.831  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.092

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[20], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8605
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
   M_Ed   =     128.9623  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.884  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.097

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8623
   LCB No.   :  40+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.016 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2440 kN.
   M_Rd     = Cc*(d-a/2)  =      83.4298  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @200
   As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
   M_Ed   =      79.6775  kN-m./m.
   M_Rd   =      83.4298  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.955  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.060

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[1], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8636
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
```

```
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      52.9646  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.680  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8632
    LCB No.   :  41+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      41.4806  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.532  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[3], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8657
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
```

```
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     107.1461  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.969  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.081

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8657
   LCB No.   :  37+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     104.7253  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.947  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.079

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[5], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8671
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      99.0267  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.896  <  1.0  --->  O.K !
```

```
 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.075

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8671
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     104.7123  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.947  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.079

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[4], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8685
    LCB No.   :  39+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      94.9033  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.858  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.072

 << TOP >>
```

```
 -. Information of Parameters.
    Elem No.  : 8689
    LCB No.   :  38+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     248.3057  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.890  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.188

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[5], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8704
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     106.8642  kN-m./m.
```

```
--------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.966  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.081

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8699
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      35.1470  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.451  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[6], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8710
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      53.5800  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.687  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8711
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      67.6244  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.868  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.051

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[7], Dir 1.
===============================================================================


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8715
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      46.5113  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.597  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8715
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      11.3931  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.146  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[9], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8725
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      91.0826  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.824  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.069

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8733
   LCB No.   :  37+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      48.0912  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.617  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[11], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8751
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
```

```
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      55.1083  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.707  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8747
   LCB No.   :  41+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      37.9998  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.488  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[10], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8815
   LCB No.   :  37+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

```
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     124.6158  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.854  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.094

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8815
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     116.7104  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.800  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.088

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[11], Dir 1.
===============================================================================


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8830
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      92.7642  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.839  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.070

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8830
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
    M_Ed   =     170.4753  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.885  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.129

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[12], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8866
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.8695 kN.
   M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @100
   As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
   M_Ed   =     223.9668  kN-m./m.
   M_Rd   =     279.1331  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.802  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.169

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8866
   LCB No.   :  37+

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     104.2506  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.943  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.079

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[13], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8871
   LCB No.   :  37+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.044 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
```

```
    As_req =       0.0014 m^2/m.  (       0.0014 m^2/m.)
    M_Ed   =     195.9782  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.900  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.148

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8871
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     252.1779  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.903  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.191

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[14], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8911
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     245.5225  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.880  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.186

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8904
    LCB No.   :  41+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      51.4697  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.660  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[1], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8936
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      29.6279  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.380  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8955
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     110.4916  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.999  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.084


============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[3], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9027
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.016 m.
```

```
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2440 kN.
    M_Rd     = Cc*(d-a/2)  =      83.4298  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @200
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      80.8580  kN-m./m.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =      83.4298  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.969  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.061

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9016
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.045 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6809 kN.
    M_Rd     = Cc*(d-a/2)  =     222.8485  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @200
    As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
    M_Ed   =     219.3066  kN-m./m.
    M_Rd   =     222.8485  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.984  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.166

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[4], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9053
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
```

```
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      75.1312  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.964  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.057

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9051
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.044 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
   As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
   M_Ed   =     200.7040  kN-m./m.
   M_Rd   =     217.8420  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.921  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.152

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[5], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9060
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      44.4818  kN-m./m.
```

```
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.571  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9063
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
   M_Ed   =      86.6021  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.783  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.065

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[6], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9129
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      45.5530  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.584  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048
```

```
 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9129
    LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
    M_Ed   =     216.6388  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.994  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.164

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[7], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9147
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      56.2565  kN-m./m.
```

```
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.722  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9153
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.033 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4881 kN.
   M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @100
   As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
   M_Ed   =     151.7056  kN-m./m.
   M_Rd   =     162.8891  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.931  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.115

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[1], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9195
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
    M_Ed   =     207.4903  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.952  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.157

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9225
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     121.3668  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.832  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.092

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[2], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9316
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.023 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3404 kN.
    M_Rd     = Cc*(d-a/2)  =     115.2873  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @100
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     113.9184  kN-m./m.
    M_Rd   =     115.2873  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.988  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.086

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9408
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     121.5354  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.833  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.092

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[3], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9441
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     115.7270  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.793  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.087

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9437
   LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.033 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4881 kN.
   M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @100
   As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
   M_Ed   =     158.5112  kN-m./m.
   M_Rd   =     162.8891  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.973  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.120

============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[4], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9470
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.023 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3404 kN.
   M_Rd     = Cc*(d-a/2)  =     115.2873  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @100
```

```
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     114.8662  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     115.2873  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.996  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.087

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9470
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
    M_Ed   =     204.1766  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.937  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.154

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[5], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9491
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      51.9733  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.667  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9487
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     107.5548  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.973  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.081

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[6], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9533
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      94.8863  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.858  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.072

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9498
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      51.5404  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.661  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[7], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9553
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
   M_Ed   =     119.4969  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.819  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.090

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9553
   LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
   M_Ed   =     141.5056  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.970  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.107

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[9], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9575
   LCB No.   :  40+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
```

```
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      96.4453  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.872  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.073

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9557
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      58.8275  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.755  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[9], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9593
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      99.4561  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.899  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.075

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9586
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.030 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4430 kN.
    M_Rd     = Cc*(d-a/2)  =     148.4984  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @150
    As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
    M_Ed   =     146.4591  kN-m./m.
    M_Rd   =     148.4984  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.986  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.111

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[10], Dir 1.
================================================================================
```

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 9608
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0009 m^2/m. (0.0009 m^2/m.)
M_Ed = 118.3838 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.812 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.089

<< TOP >>

-. Information of Parameters.
Elem No. : 9614
LCB No. : 37+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     127.0399  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.871  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.096

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[11], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9650
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.030 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4430 kN.
    M_Rd     = Cc*(d-a/2)  =     148.4984  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @150
    As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
    M_Ed   =     147.8810  kN-m./m.
    M_Rd   =     148.4984  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.996  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.112

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9650
    LCB No.   :  44+

--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.
```

```
 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     105.6522  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.955  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.080

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[12], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9673
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     104.5857  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.946  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.079

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9689
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0014 m^2/m.  (       0.0014 m^2/m.)
    M_Ed   =     198.0890  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
```

```
   RatM   = M_Ed / M_Rd =   0.909  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.150

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[13], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9706
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      94.5876  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.855  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.071

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9707
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.039 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.5824 kN.
   M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @150
   As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
   M_Ed   =     172.3270  kN-m./m.
   M_Rd   =     192.5405  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.895  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.130
```

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================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[15], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9711
    LCB No.   :  39+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     107.3978  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.971  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.081

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9709
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.
```

```
--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      75.7758  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.972  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.057

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[15], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9726
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     127.1204  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.871  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.096

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9721
    LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.
```

```
 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
    M_Ed   =     211.3163  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.970  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.160

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN FOUND-[2], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9753
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      87.5154  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.600  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.066

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9751
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.055 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8203 kN.
    M_Rd     = Cc*(d-a/2)  =     264.6790  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P22 @200
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     244.3665  kN-m./m.
    M_Rd   =     264.6790  kN-m./m.
```

```
   RatM   = M_Ed / M_Rd =   0.923  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.185

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN FOUND-[3], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9759
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      90.9971  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.624  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.069

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9757
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      39.4094  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.270  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048
```

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================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN SHEAR WALLS-[1], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 11759
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      52.3522  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.672  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 11759
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.
```

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0010 m^2/m. (0.0010 m^2/m.)
M_Ed = 135.8394 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.931 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.103

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[16], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 11679
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.015 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.2276 kN.
M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P10 @150
As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
M_Ed = 13.2434 kN-m./m.
M_Rd = 77.9456 kN-m./m.
RatM = M_Ed / M_Rd = 0.170 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.048

<< TOP >>

-. Information of Parameters.
Elem No. : 11678
LCB No. : 44+

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      65.2856  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.838  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.049

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[17], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 11693
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      59.5071  kN-m./m.
```

M_Rd = 77.9456 kN-m./m.
RatM = M_Ed / M_Rd = 0.763 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.048

<< TOP >>

-. Information of Parameters.
Elem No. : 11689
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.015 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.2276 kN.
M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P10 @150
As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
M_Ed = 49.7657 kN-m./m.
M_Rd = 77.9456 kN-m./m.
RatM = M_Ed / M_Rd = 0.638 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.048

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[18], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 11724
LCB No. : 38+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

midas Gen - RC-Slab Flexural Design [Eurocode2:04] Gen 2015

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.015 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.2276 kN.
M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P10 @150
As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
M_Ed = 32.0423 kN-m./m.
M_Rd = 77.9456 kN-m./m.

```
   RatM   = M_Ed / M_Rd =   0.411  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 11724
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      30.6546  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.393  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN SHEAR WALLS-[10], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 11883
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      61.9054  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.794  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048
```

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 << TOP >>

 -. Information of Parameters.
    Elem No.  : 11892
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      43.8971  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.563  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[1], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 6668
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     107.7248  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.974  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.081
```

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 << TOP >>

 -. Information of Parameters.
    Elem No.  : 6668
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =     100.7047  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.911  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.076

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[2], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 6753
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     117.4278  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.805  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.089
```

<< TOP >>

-. Information of Parameters.
Elem No. : 6748
LCB No. : 39+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.015 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.2276 kN.
M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P10 @150
As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
M_Ed = 49.8612 kN-m./m.
M_Rd = 77.9456 kN-m./m.
RatM = M_Ed / M_Rd = 0.640 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.048

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[5], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 6938
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.039 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.5824 kN.
M_Rd = Cc*(d-a/2) = 192.5405 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @150
As_req = 0.0013 m^2/m. (0.0013 m^2/m.)
M_Ed = 175.9364 kN-m./m.
M_Rd = 192.5405 kN-m./m.
RatM = M_Ed / M_Rd = 0.914 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.133

<< TOP >>

-. Information of Parameters.
Elem No. : 6937

```
    LCB No.   :  44+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      88.7352  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.802  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.067

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[6], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 6967
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      95.7623  kN-m./m.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.866  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.072

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 6974
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      59.0336  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.757  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[7], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7014
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      91.6666  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
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   RatM   = M_Ed / M_Rd =   0.829  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.069

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 -. Information of Parameters.
   Elem No.  : 7028
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      51.5864  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.662  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[8], Dir 1.
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 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7044
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      34.1958  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.439  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048
```

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================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[10], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7208
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0020 m^2/m.  (       0.0020 m^2/m.)
    M_Ed   =     273.3942  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.979  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.207

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7207
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.6000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.5500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3255 kN.
    M_Rd     = Cc*(d-a/2)  =     175.4871  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      90.1131  kN-m./m.
    M_Rd   =     175.4871  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.514  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[11], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7235
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     128.1556  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.879  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.097

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7239
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      44.7134  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.574  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[12], Dir 1.
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<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7260
LCB No. : 36+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0009 m^2/m. (0.0009 m^2/m.)
M_Ed = 120.3203 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.825 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.091

<< TOP >>

-. Information of Parameters.
Elem No. : 7276
LCB No. : 36+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.015 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.2276 kN.
M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P10 @150
As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
M_Ed = 48.4806 kN-m./m.
M_Rd = 77.9456 kN-m./m.
RatM = M_Ed / M_Rd = 0.622 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.048

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[14], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7283
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0010 m^2/m. (0.0010 m^2/m.)
M_Ed = 141.5901 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.971 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.107

<< TOP >>

-. Information of Parameters.
Elem No. : 7283
LCB No. : 43+

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--------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
======================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      22.7207  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.291  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[14], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7378
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0024 m^2/m.  (       0.0024 m^2/m.)
    M_Ed   =     324.5123  kN-m./m.
```

```
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.782  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.245

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7345
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      95.9588  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.868  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.073

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[16], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7439
   LCB No.   :  44+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     118.0002  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.809  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.089

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7439
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      16.3907  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.210  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[16], Dir 1.
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<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7446
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0010 m^2/m. (0.0010 m^2/m.)
M_Ed = 133.2617 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.914 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.101

<< TOP >>

-. Information of Parameters.
Elem No. : 7450
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.015 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.2276 kN.
M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

```
--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      46.0972  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.591  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[17], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7500
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      62.5386  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.802  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7480
    LCB No.   :  44+
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      57.8550  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.742  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[18], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7516
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      99.2004  kN-m./m.
```

```
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.897  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.075

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7518
   LCB No.   :  44+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      38.2817  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.491  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[19], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7548
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0022 m^2/m.  (       0.0022 m^2/m.)
    M_Ed   =     297.2821  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.717  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.225

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7559
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.033 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4881 kN.
    M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @100
    As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
    M_Ed   =     160.7418  kN-m./m.
    M_Rd   =     162.8891  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.987  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.121

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[21], Dir 1.
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<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7653
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.091 m.
eta = 0.900
Cc = eta*fcd*b*a = 1.3617 kN.
M_Rd = Cc*(d-a/2) = 414.7923 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P20 @100
As_req = 0.0027 m^2/m. (0.0027 m^2/m.)
M_Ed = 374.9091 kN-m./m.
M_Rd = 414.7923 kN-m./m.
RatM = M_Ed / M_Rd = 0.904 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.283

<< TOP >>

-. Information of Parameters.
Elem No. : 7590
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.039 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.5824 kN.
M_Rd = Cc*(d-a/2) = 192.5405 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @150
As_req = 0.0012 m^2/m. (0.0012 m^2/m.)
M_Ed = 164.1383 kN-m./m.
M_Rd = 192.5405 kN-m./m.
RatM = M_Ed / M_Rd = 0.852 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.124

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[21], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7696
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.044 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.6645 kN.
M_Rd = Cc*(d-a/2) = 217.8420 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P14 @100
As_req = 0.0014 m^2/m. (0.0014 m^2/m.)
M_Ed = 192.6725 kN-m./m.
M_Rd = 217.8420 kN-m./m.
RatM = M_Ed / M_Rd = 0.884 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.146

<< TOP >>

-. Information of Parameters.
Elem No. : 7705
LCB No. : 44+

```
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

-. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

-. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      34.7647  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.446  <  1.0  --->  O.K !

-. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[1], Dir 1.
================================================================================


 << BOTTOM >>

-. Information of Parameters.
   Elem No.  : 7717
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

-. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

-. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      89.6596  kN-m./m.
```

```
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.811  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.068

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7734
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      48.9135  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.628  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[2], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7741
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      35.4434  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.455  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7741
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      86.9649  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.786  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.066

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[3], Dir 1.
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<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7784
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.039 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.5824 kN.
M_Rd = Cc*(d-a/2) = 192.5405 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @150
As_req = 0.0013 m^2/m. (0.0013 m^2/m.)
M_Ed = 177.1596 kN-m./m.
M_Rd = 192.5405 kN-m./m.
RatM = M_Ed / M_Rd = 0.920 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.134

<< TOP >>

-. Information of Parameters.
Elem No. : 7774
LCB No. : 37+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0009 m^2/m. (0.0009 m^2/m.)
M_Ed = 120.6222 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.827 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.091

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[4], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7785
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.058 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.8695 kN.
M_Rd = Cc*(d-a/2) = 279.1331 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @100
As_req = 0.0020 m^2/m. (0.0020 m^2/m.)
M_Ed = 278.1209 kN-m./m.
M_Rd = 279.1331 kN-m./m.
RatM = M_Ed / M_Rd = 0.996 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.210

<< TOP >>

-. Information of Parameters.
Elem No. : 7785
LCB No. : 43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      98.6973  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.893  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.075

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[5], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7807
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0017 m^2/m.  (       0.0017 m^2/m.)
    M_Ed   =     235.3392  kN-m./m.
```

M_Rd = 279.1331 kN-m./m.
RatM = M_Ed / M_Rd = 0.843 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.178

<< TOP >>

-. Information of Parameters.
Elem No. : 7835
LCB No. : 38+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0008 m^2/m. (0.0008 m^2/m.)
M_Ed = 116.3329 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.798 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.088

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[6], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7841
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     109.6027  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.991  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.083

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7841
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      28.2967  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.363  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[7], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Parameters.
    Elem No.  : 7906
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.033 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4881 kN.
    M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @100
    As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
    M_Ed   =     162.1119  kN-m./m.
    M_Rd   =     162.8891  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.995  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.123

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7932
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      68.1835  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.875  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.052

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[8], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7974
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      58.1680  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.746  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7975
    LCB No.   :  38+
```

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--------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.033 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4881 kN.
    M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @100
    As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
    M_Ed   =     155.3400  kN-m./m.
    M_Rd   =     162.8891  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.954  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.117

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[9], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8012
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      44.7776  kN-m./m.
```

```
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.574  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7994
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      90.9719  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.823  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.069

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[10], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8028
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      54.5440  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.700  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8031
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
    M_Ed   =     173.7117  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.902  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.131

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[11], Dir 1.
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<< BOTTOM >>

-. Information of Parameters.
Elem No. : 8036
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.058 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.8695 kN.
M_Rd = Cc*(d-a/2) = 279.1331 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @100
As_req = 0.0018 m^2/m. (0.0018 m^2/m.)
M_Ed = 253.1922 kN-m./m.
M_Rd = 279.1331 kN-m./m.
RatM = M_Ed / M_Rd = 0.907 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.191

<< TOP >>

-. Information of Parameters.
Elem No. : 8046
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.022 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.3261 kN.
M_Rd = Cc*(d-a/2) = 110.5818 kN-m./m.

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      94.2177  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.852  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.071

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[12], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8068
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      42.8162  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.549  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8059
    LCB No.   :  38+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.045 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6809 kN.
    M_Rd     = Cc*(d-a/2)  =     222.8485  kN-m./m.
```

```
 -. Information of Moments and Result.
    Rein. Bar :  P20 @200
    As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
    M_Ed   =     220.0967  kN-m./m.
    M_Rd   =     222.8485  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.988  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.166

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[13], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8091
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      37.3591  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.479  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8090
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      89.1603  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
```

```
   RatM   = M_Ed / M_Rd =   0.806  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.067

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[14], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8148
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      39.0900  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.502  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8169
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =     101.7433  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.920  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.077
```

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================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[15], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8280
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     131.8269  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.904  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.100

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8290
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      22.3342  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.287  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[16], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8325
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      91.2964  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.826  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.069

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8320
    LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.
```

```
 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      22.3153  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.286  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[17], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8365
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     117.9203  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.808  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.089

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8380
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      56.8072  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
```

```
   RatM   = M_Ed / M_Rd =   0.729  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[18], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8449
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      61.7510  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.792  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8447
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
   M_Ed   =     138.6173  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.950  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.105
```

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================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[19], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8551
    LCB No.   :  39+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      63.0354  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.809  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8536
    LCB No.   :  39+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.
```

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0009 m^2/m. (0.0009 m^2/m.)
M_Ed = 121.2469 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.831 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.092

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[20], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 8605
LCB No. : 36+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0009 m^2/m. (0.0009 m^2/m.)
M_Ed = 128.9623 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.884 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.097

<< TOP >>

-. Information of Parameters.
Elem No. : 8623
LCB No. : 40+

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.016 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2440 kN.
    M_Rd     = Cc*(d-a/2)  =      83.4298  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @200
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      79.6775  kN-m./m.
    M_Rd   =      83.4298  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.955  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.060

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[1], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8636
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      52.9646  kN-m./m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.680  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8632
    LCB No.   :  41+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      41.4806  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.532  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[3], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8657
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     107.1461  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.969  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.081

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8657
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     104.7253  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.947  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.079

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[5], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8671
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      99.0267  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.896  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.075

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8671
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.
```

```
--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     104.7123  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.947  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.079

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[4], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8685
    LCB No.   :  39+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      94.9033  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.858  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.072

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8689
    LCB No.   :  38+
```

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------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
==========================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     248.3057  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.890  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.188

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[5], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8704
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     106.8642  kN-m./m.
```

M_Rd = 110.5818 kN-m./m.
RatM = M_Ed / M_Rd = 0.966 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.081

<< TOP >>

-. Information of Parameters.
Elem No. : 8699
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.015 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.2276 kN.
M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P10 @150
As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
M_Ed = 35.1470 kN-m./m.
M_Rd = 77.9456 kN-m./m.
RatM = M_Ed / M_Rd = 0.451 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.048

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[6], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 8710
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      53.5800  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.687  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8711
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      67.6244  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.868  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.051

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[7], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8715
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      46.5113  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.597  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8715
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      11.3931  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.146  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[9], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8725
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      91.0826  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.824  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.069

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8733
   LCB No.   :  37+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      48.0912  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.617  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[11], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8751
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
```

```
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      55.1083  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.707  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8747
    LCB No.   :  41+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      37.9998  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.488  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[10], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8815
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     124.6158  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.854  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.094

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8815
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     116.7104  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.800  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.088

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[11], Dir 1.
================================================================================


--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8830
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      92.7642  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.839  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.070

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8830
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
    M_Ed   =     170.4753  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.885  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.129

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[12], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8866
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.8695 kN.
   M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @100
   As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
   M_Ed   =     223.9668  kN-m./m.
   M_Rd   =     279.1331  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.802  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.169

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8866
   LCB No.   :  37+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     104.2506  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.943  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.079

============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[13], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8871
   LCB No.   :  37+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.044 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
```

```
    As_req =       0.0014 m^2/m.  (       0.0014 m^2/m.)
    M_Ed   =     195.9782  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.900  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.148

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8871
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     252.1779  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.903  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.191

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[14], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8911
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     245.5225  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.880  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.186

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8904
    LCB No.   :  41+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      51.4697  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.660  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[1], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8936
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      29.6279  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.380  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8955
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     110.4916  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.999  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.084


=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[3], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9027
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.016 m.
```

```
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2440 kN.
    M_Rd     = Cc*(d-a/2)  =      83.4298  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @200
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      80.8580  kN-m./m.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

    M_Rd   =      83.4298  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.969  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.061

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9016
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.045 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6809 kN.
    M_Rd     = Cc*(d-a/2)  =     222.8485  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @200
    As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
    M_Ed   =     219.3066  kN-m./m.
    M_Rd   =     222.8485  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.984  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.166

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[4], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9053
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
```

```
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      75.1312  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.964  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.057

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9051
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.044 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
   As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
   M_Ed   =     200.7040  kN-m./m.
   M_Rd   =     217.8420  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.921  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.152

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[5], Dir 1.
================================================================================

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9060
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      44.4818  kN-m./m.
```

```
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.571  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9063
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
   M_Ed   =      86.6021  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.783  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.065

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[6], Dir 1.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9129
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      45.5530  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.584  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048
```

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 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9129
    LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
    M_Ed   =     216.6388  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.994  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.164

===========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[7], Dir 1.
===========================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9147
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      56.2565  kN-m./m.
```

```
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.722  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9153
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.033 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4881 kN.
   M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @100
   As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
   M_Ed   =     151.7056  kN-m./m.
   M_Rd   =     162.8891  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.931  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.115

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[1], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9195
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
    M_Ed   =     207.4903  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.952  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.157

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9225
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     121.3668  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.832  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.092

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[2], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9316
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.023 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3404 kN.
    M_Rd     = Cc*(d-a/2)  =     115.2873  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @100
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     113.9184  kN-m./m.
    M_Rd   =     115.2873  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.988  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.086

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9408
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     121.5354  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.833  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.092

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[3], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9441
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     115.7270  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.793  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.087

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9437
   LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.033 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4881 kN.
   M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @100
   As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
   M_Ed   =     158.5112  kN-m./m.
   M_Rd   =     162.8891  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.973  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.120

============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[4], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9470
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.023 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3404 kN.
   M_Rd     = Cc*(d-a/2)  =     115.2873  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @100
```

```
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     114.8662  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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   M_Rd   =     115.2873  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.996  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.087

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9470
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.044 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
   As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
   M_Ed   =     204.1766  kN-m./m.
   M_Rd   =     217.8420  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.937  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.154

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[5], Dir 1.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9491
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      51.9733  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.667  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9487
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     107.5548  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.973  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.081

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[6], Dir 1.
================================================================================
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<< BOTTOM >>

-. Information of Parameters.
Elem No. : 9533
LCB No. : 36+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.022 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.3261 kN.
M_Rd = Cc*(d-a/2) = 110.5818 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P12 @150
As_req = 0.0007 m^2/m. (0.0007 m^2/m.)
M_Ed = 94.8863 kN-m./m.
M_Rd = 110.5818 kN-m./m.
RatM = M_Ed / M_Rd = 0.858 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.072

<< TOP >>

-. Information of Parameters.
Elem No. : 9498
LCB No. : 40+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.015 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.2276 kN.
M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P10 @150
As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
M_Ed = 51.5404 kN-m./m.
M_Rd = 77.9456 kN-m./m.
RatM = M_Ed / M_Rd = 0.661 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.048

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[7], Dir 1.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 9553
LCB No. : 43+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.029 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4348 kN.
M_Rd = Cc*(d-a/2) = 145.8673 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @200
As_req = 0.0009 m^2/m. (0.0009 m^2/m.)
M_Ed = 119.4969 kN-m./m.
M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.819 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.090

<< TOP >>

-. Information of Parameters.
Elem No. : 9553
LCB No. : 43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     141.5056  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.970  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.107

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[9], Dir 1.
==========================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9575
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      96.4453  kN-m./m.
```

```
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.872  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.073

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9557
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      58.8275  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.755  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[9], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9593
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      99.4561  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.899  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.075

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9586
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.030 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4430 kN.
    M_Rd     = Cc*(d-a/2)  =     148.4984  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @150
    As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
    M_Ed   =     146.4591  kN-m./m.
    M_Rd   =     148.4984  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.986  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.111

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[10], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Parameters.
    Elem No.  : 9608
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     118.3838  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.812  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.089

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9614
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     127.0399  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.871  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.096

==============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[11], Dir 1.
==============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9650
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.030 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.4430 kN.
   M_Rd     = Cc*(d-a/2)  =     148.4984  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @150
   As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
   M_Ed   =     147.8810  kN-m./m.
   M_Rd   =     148.4984  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.996  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.112

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9650
   LCB No.   :  44+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     105.6522  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.955  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.080

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[12], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9673
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
```

```
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     104.5857  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.946  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.079

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9689
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0014 m^2/m.  (       0.0014 m^2/m.)
    M_Ed   =     198.0890  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.909  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.150

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[13], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9706
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
```

```
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =      94.5876  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.855  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.071

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9707
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.039 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.5824 kN.
   M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @150
   As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
   M_Ed   =     172.3270  kN-m./m.
   M_Rd   =     192.5405  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.895  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.130

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[15], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9711
   LCB No.   :  39+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.022 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     107.3978  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.971  <  1.0  --->  O.K !
```

```
 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.081

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9709
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      75.7758  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.972  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.057

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[15], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9726
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     127.1204  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.871  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.096

 << TOP >>
```

```
 -. Information of Parameters.
    Elem No.  : 9721
    LCB No.   :  43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
======================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
    M_Ed   =     211.3163  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.970  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.160

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN FOUND-[2], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9753
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      87.5154  kN-m./m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.600  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.066

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9751
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.055 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8203 kN.
    M_Rd     = Cc*(d-a/2)  =     264.6790  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P22 @200
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     244.3665  kN-m./m.
    M_Rd   =     264.6790  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.923  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.185

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN FOUND-[3], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9759
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      90.9971  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
```

```
   RatM   = M_Ed / M_Rd =   0.624  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.069

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9757
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      39.4094  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.270  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN SHEAR WALLS-[1], Dir 1.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Parameters.
   Elem No.  : 11759
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      52.3522  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.672  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048
```

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 << TOP >>

 -. Information of Parameters.
    Elem No.  : 11759
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     135.8394  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.931  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.103

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[16], Dir 1.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 11679
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      13.2434  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.170  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 11678
    LCB No.   :  44+
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      65.2856  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.838  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.049

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[17], Dir 1.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 11693
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      59.5071  kN-m./m.
```

```
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.763  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 11689
   LCB No.   :  44+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      49.7657  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.638  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[18], Dir 1.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 11724
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

-. Information of Design.
   b = 0.0010 m. (by Code Unit Length).
   d = 0.3500 m.
   lambda = 0.800
   a = lambda * x = 0.015 m.
   eta = 0.900
   Cc = eta*fcd*b*a = 0.2276 kN.
   M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
   Rein. Bar : P10 @150
   As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
   M_Ed = 32.0423 kN-m./m.
   M_Rd = 77.9456 kN-m./m.
   RatM = M_Ed / M_Rd = 0.411 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
   x/d = 0.048

<< TOP >>

-. Information of Parameters.
   Elem No. : 11724
   LCB No. : 43+
   Materials : fck = 25000.0000 KPa.
   fcd = 16666.6667 KPa.
   fyk = 500000.0000 KPa.
   Thickness : 0.4000 m.
   Covering : dB = 0.0500 m.
   dT = 0.0500 m.

-. Information of Design.
   b = 0.0010 m. (by Code Unit Length).
   d = 0.3500 m.
   lambda = 0.800
   a = lambda * x = 0.015 m.
   eta = 0.900
   Cc = eta*fcd*b*a = 0.2276 kN.
   M_Rd = Cc*(d-a/2) = 77.9456 kN-m./m.

-. Information of Moments and Result.
   Rein. Bar : P10 @150
   As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
   M_Ed = 30.6546 kN-m./m.
   M_Rd = 77.9456 kN-m./m.
   RatM = M_Ed / M_Rd = 0.393 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
   x/d = 0.048

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN SHEAR WALLS-[10], Dir 1.

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<< BOTTOM >>

-. Information of Parameters.
   Elem No. : 11883
   LCB No. : 43+
   Materials : fck = 25000.0000 KPa.
   fcd = 16666.6667 KPa.
   fyk = 500000.0000 KPa.
   Thickness : 0.4000 m.
   Covering : dB = 0.0500 m.
   dT = 0.0500 m.

-. Information of Design.

```
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      61.9054  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.794  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 11892
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      43.8971  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.563  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048
```

ΔΙΕΥΘΥΝΣΗ 2

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[1], Dir 2.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 6674
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
    M_Ed   =     173.4396  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.901  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.131

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 6668
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     132.2999  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.907  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.100



==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[6], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 6981
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     243.5145  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.872  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.184

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 6989
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     105.2668  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.952  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.080

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[7], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7014
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0024 m^2/m.  (       0.0024 m^2/m.)
    M_Ed   =     333.5206  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.804  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.252

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7028
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
```

```
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3261 kN.
   M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P12 @150
   As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
   M_Ed   =     100.3508  kN-m./m.
   M_Rd   =     110.5818  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.907  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.076


================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[11], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7214
   LCB No.   :  44+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0025 m^2/m.  (       0.0025 m^2/m.)
   M_Ed   =     336.6486  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.812  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.254

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7229
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.
```

```
 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      55.8393  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.716  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

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    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[12], Dir 2.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Parameters.
    Elem No.  : 7258
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0017 m^2/m.  (       0.0017 m^2/m.)
    M_Ed   =     234.4763  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.840  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.177

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7268
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.
```

-. Information of Moments and Result.
Rein. Bar : P10 @150
As_req = 0.0005 m^2/m. (0.0005 m^2/m.)
M_Ed = 74.1117 kN-m./m.
M_Rd = 77.9456 kN-m./m.
RatM = M_Ed / M_Rd = 0.951 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.056

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[14], Dir 2.

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-. Information of Parameters.
Elem No. : 7283
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.091 m.
eta = 0.900
Cc = eta*fcd*b*a = 1.3617 kN.
M_Rd = Cc*(d-a/2) = 414.7923 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P20 @100
As_req = 0.0030 m^2/m. (0.0030 m^2/m.)
M_Ed = 411.9103 kN-m./m.
M_Rd = 414.7923 kN-m./m.
RatM = M_Ed / M_Rd = 0.993 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.311

<< TOP >>

-. Information of Parameters.
Elem No. : 7283
LCB No. : 43+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      42.6099  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.547  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[14], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7378
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0028 m^2/m.  (       0.0028 m^2/m.)
    M_Ed   =     379.7294  kN-m./m.
```

M_Rd = 414.7923 kN-m./m.
RatM = M_Ed / M_Rd = 0.915 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.287

<< TOP >>

-. Information of Parameters.
Elem No. : 7381
LCB No. : 38+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.033 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.4881 kN.
M_Rd = Cc*(d-a/2) = 162.8891 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P12 @100
As_req = 0.0011 m^2/m. (0.0011 m^2/m.)
M_Ed = 155.5405 kN-m./m.
M_Rd = 162.8891 kN-m./m.
RatM = M_Ed / M_Rd = 0.955 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.118

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[16], Dir 2.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 7439
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

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-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.058 m.
eta = 0.900
Cc = eta*fcd*b*a = 0.8695 kN.
M_Rd = Cc*(d-a/2) = 279.1331 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P16 @100
As_req = 0.0020 m^2/m. (0.0020 m^2/m.)
M_Ed = 270.2950 kN-m./m.
M_Rd = 279.1331 kN-m./m.

```
   RatM   = M_Ed / M_Rd =   0.968  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.204

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7439
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =       4.8370  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.062  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[16], Dir 2.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7446
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0026 m^2/m.  (       0.0026 m^2/m.)
   M_Ed   =     352.6352  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.850  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.267
```

```
 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7450
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0022 m^2/m.  (       0.0022 m^2/m.)
    M_Ed   =     297.1411  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.716  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.225

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[17], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7458
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     105.7925  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.957  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.080

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7498
    LCB No.   :  44+
```

```
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.058 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.8695 kN.
   M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @100
   As_req =       0.0020 m^2/m.  (       0.0020 m^2/m.)
   M_Ed   =     273.9235  kN-m./m.
   M_Rd   =     279.1331  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.981  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.207

================================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS1-[18], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7516
   LCB No.   :  44+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.058 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.8695 kN.
   M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @100
   As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
   M_Ed   =     225.6618  kN-m./m.
```

```
   M_Rd   =     279.1331  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.808  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.171

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7518
   LCB No.   :  44+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.039 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.5824 kN.
   M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @150
   As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
   M_Ed   =     166.5596  kN-m./m.
   M_Rd   =     192.5405  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.865  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.126



================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[1], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 7713
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.044 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
   As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
   M_Ed   =     202.8675  kN-m./m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.931  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.153

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7737
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =     101.8760  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.921  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.077

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[2], Dir 2.
==========================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7766
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =     102.6267  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.928  <  1.0  --->  O.K !
```

```
 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.078

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7755
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
    M_Ed   =     199.1345  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.914  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.151

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[3], Dir 2.
================================================================================


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7780
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
    M_Ed   =     181.5371  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.943  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.137

 << TOP >>
```

```
 -. Information of Parameters.
    Elem No.  : 7774
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.023 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3404 kN.
    M_Rd     = Cc*(d-a/2)  =     115.2873  kN-m./m.
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P10 @100
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     114.8297  kN-m./m.
    M_Rd   =     115.2873  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.996  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.087



=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[6], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7841
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0025 m^2/m.  (       0.0025 m^2/m.)
    M_Ed   =     342.5888  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.826  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.259

 << TOP >>
```

```
 -. Information of Parameters.
    Elem No.  : 7846
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =     101.4875  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.918  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.077


================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[8], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7969
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     119.6787  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.820  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.090

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 7978
    LCB No.   :  36+
```

```
--------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
======================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0020 m^2/m.  (       0.0020 m^2/m.)
    M_Ed   =     277.7918  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.995  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.210

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[9], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 7992
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     119.1730  kN-m./m.
```

```
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.817  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.090

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 7988
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.060 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.9023 kN.
   M_Rd     = Cc*(d-a/2)  =     288.6795  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @150
   As_req =       0.0020 m^2/m.  (       0.0020 m^2/m.)
   M_Ed   =     280.1601  kN-m./m.
   M_Rd   =     288.6795  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.970  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.212

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[10], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8030
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      95.9365  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.868  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.073

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8031
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     240.2281  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.861  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.182

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[11], Dir 2.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8036
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0023 m^2/m.  (       0.0023 m^2/m.)
    M_Ed   =     317.3434  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.765  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.240

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8035
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     121.5868  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.834  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.092

============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[12], Dir 2.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8068
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
   M_Ed   =     117.6853  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.807  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.089

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8059
   LCB No.   :  44+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0024 m^2/m.  (       0.0024 m^2/m.)
   M_Ed   =     334.9518  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.808  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.253



===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS2-[17], Dir 2.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8379
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.
```

```
 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0027 m^2/m.  (       0.0027 m^2/m.)
    M_Ed   =     365.6765  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.882  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.276

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8391
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      88.9735  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.805  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.067


=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[1], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8645
    LCB No.   :  41+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
```

```
    M_Ed   =      45.4913  kN-m./m.

-------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
=====================================================================================

    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.584  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8632
    LCB No.   :  41+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      36.3655  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.467  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[3], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8657
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     130.0759  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.892  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.098

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8657
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     121.0215  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.830  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.091

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[5], Dir 2.
===============================================================================


-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8671
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
    M_Ed   =     177.7778  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.923  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.134

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8671
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.033 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4881 kN.
    M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 -. Information of Moments and Result.
    Rein. Bar :  P12 @100
    As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
    M_Ed   =     156.6720  kN-m./m.
    M_Rd   =     162.8891  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.962  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.118

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[4], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8689
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
   M_Ed   =     120.6739  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.827  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.091

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8689
   LCB No.   :  43+

--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0024 m^2/m.  (       0.0024 m^2/m.)
   M_Ed   =     325.7805  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.785  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.246

============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[5], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8694
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =     77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
```

```
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      68.3639  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.877  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.052

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8704
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      14.5434  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.187  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[6], Dir 2.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8710
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      32.7376  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.420  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8710
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     104.3986  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.944  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.079

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[7], Dir 2.
===============================================================================


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8721
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     131.3704  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.901  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.099

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8715
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      19.1597  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.246  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[9], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8742
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.023 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.3404 kN.
   M_Rd     = Cc*(d-a/2)  =     115.2873  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @100
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     114.1718  kN-m./m.
   M_Rd   =     115.2873  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.990  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.086

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8733
   LCB No.   :  38+

--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      51.5200  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.661  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[11], Dir 2.
============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8747
   LCB No.   :  41+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
```

```
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      59.0624  kN-m./m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.758  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8747
    LCB No.   :  41+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      26.0593  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.334  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[10], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8761
    LCB No.   :  39+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.
```

```
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.060 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.9023 kN.
    M_Rd     = Cc*(d-a/2)  =     288.6795  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @150
    As_req =       0.0021 m^2/m.  (       0.0021 m^2/m.)
    M_Ed   =     287.6407  kN-m./m.
    M_Rd   =     288.6795  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.996  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.217

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8769
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0026 m^2/m.  (       0.0026 m^2/m.)
    M_Ed   =     362.7567  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.875  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.274

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[11], Dir 2.
===============================================================================


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8830
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     136.2741  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.934  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.103

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8848
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
    M_Ed   =     171.4392  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.890  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.130

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[12], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 8866
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
   As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
   M_Ed   =     213.3816  kN-m./m.
   M_Rd   =     217.8420  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.980  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.161

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8866
   LCB No.   :  37+

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
   M_Ed   =     122.4705  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.840  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.093

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS3-[13], Dir 2.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8871
   LCB No.   :  37+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.039 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.5824 kN.
   M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @150
```

```
   As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
   M_Ed   =     164.1210  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

   M_Rd   =     192.5405  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.852  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.124

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8871
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.039 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.5824 kN.
   M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @150
   As_req =       0.0013 m^2/m.  (       0.0013 m^2/m.)
   M_Ed   =     182.8327  kN-m./m.
   M_Rd   =     192.5405  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.950  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.138

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[1], Dir 2.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 8972
   LCB No.   :  42+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
```

```
   M_Ed   =     120.3207  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.825  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.091

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 8968
   LCB No.   :  36+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.
-------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
=====================================================================================


 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0022 m^2/m.  (       0.0022 m^2/m.)
   M_Ed   =     308.0646  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.743  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.233

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[2], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9009
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.023 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.3404 kN.
   M_Rd     = Cc*(d-a/2)  =     115.2873  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @100
   As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
   M_Ed   =     114.2529  kN-m./m.
   M_Rd   =     115.2873  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.991  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.086
```

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 << TOP >>

 -. Information of Parameters.
    Elem No.  : 8994
    LCB No.   :  43+
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0024 m^2/m.  (       0.0024 m^2/m.)
    M_Ed   =     334.3222  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.806  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.253

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[3], Dir 2.
===============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9023
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     124.1626  kN-m./m.
```

```
--------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
======================================================================================

    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.851  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.094

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9020
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0019 m^2/m.  (       0.0019 m^2/m.)
    M_Ed   =     259.1379  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.928  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.196

==========================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[4], Dir 2.
==========================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9044
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

--------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
======================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.016 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2440 kN.
    M_Rd     = Cc*(d-a/2)  =      83.4298  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @200
    As_req =       0.0006 m^2/m.  (       0.0006 m^2/m.)
    M_Ed   =      81.1393  kN-m./m.
    M_Rd   =      83.4298  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.973  <  1.0  --->  O.K !
```

```
 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.061

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9051
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0007 m^2/m.  (       0.0007 m^2/m.)
    M_Ed   =      95.1282  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.860  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.072

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[5], Dir 2.
================================================================================

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9074
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     104.1770  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.942  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.079

 << TOP >>
```

```
 -. Information of Parameters.
    Elem No.  : 9082
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.6645 kN.
    M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.
-------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
=====================================================================================


 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
    M_Ed   =     210.2556  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.965  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.159

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[6], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9103
    LCB No.   :  42+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.022 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.3261 kN.
    M_Rd     = Cc*(d-a/2)  =     110.5818  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P12 @150
    As_req =       0.0008 m^2/m.  (       0.0008 m^2/m.)
    M_Ed   =     106.0176  kN-m./m.
    M_Rd   =     110.5818  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.959  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.080

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9093
    LCB No.   :  42+
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
    M_Ed   =     224.9877  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.806  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.170

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN O-WALLS4-[7], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9162
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     118.6299  kN-m./m.
```

M_Rd = 145.8673 kN-m./m.
RatM = M_Ed / M_Rd = 0.813 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.090

<< TOP >>

-. Information of Parameters.
Elem No. : 9146
LCB No. : 36+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.091 m.
eta = 0.900
Cc = eta*fcd*b*a = 1.3617 kN.
M_Rd = Cc*(d-a/2) = 414.7923 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P20 @100
As_req = 0.0021 m^2/m. (0.0021 m^2/m.)
M_Ed = 291.5522 kN-m./m.
M_Rd = 414.7923 kN-m./m.
RatM = M_Ed / M_Rd = 0.703 < 1.0 ---> O.K !

-. Check ratio of neutral axis depth to effective depth.
x/d = 0.220

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[4], Dir 2.

<< BOTTOM >>

-. Information of Parameters.
Elem No. : 9447
LCB No. : 44+
Materials : fck = 25000.0000 KPa.
fcd = 16666.6667 KPa.
fyk = 500000.0000 KPa.
Thickness : 0.4000 m.
Covering : dB = 0.0500 m.
dT = 0.0500 m.

-. Information of Design.
b = 0.0010 m. (by Code Unit Length).
d = 0.3500 m.
lambda = 0.800
a = lambda * x = 0.091 m.
eta = 0.900
Cc = eta*fcd*b*a = 1.3617 kN.
M_Rd = Cc*(d-a/2) = 414.7923 kN-m./m.

-. Information of Moments and Result.
Rein. Bar : P20 @100
As_req = 0.0028 m^2/m. (0.0028 m^2/m.)
M_Ed = 380.6614 kN-m./m.

midas Gen - RC-Slab Flexural Design [Eurocode2:04] Gen 2015

M_Rd = 414.7923 kN-m./m.

```
   RatM   = M_Ed / M_Rd =   0.918  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.288

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 -. Information of Parameters.
   Elem No.  : 9470
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0030 m^2/m.  (       0.0030 m^2/m.)
   M_Ed   =     404.7545  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.976  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.306

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[5], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9491
   LCB No.   :  40+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.044 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
   As_req =       0.0014 m^2/m.  (       0.0014 m^2/m.)
   M_Ed   =     196.2684  kN-m./m.
   M_Rd   =     217.8420  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.901  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.148
```

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 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9487
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0023 m^2/m.  (       0.0023 m^2/m.)
    M_Ed   =     309.0563  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.745  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.234

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[6], Dir 2.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9526
    LCB No.   :  40+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0028 m^2/m.  (       0.0028 m^2/m.)
    M_Ed   =     384.8339  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.928  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.291

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9498
    LCB No.   :  40+
```

```
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.058 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.8695 kN.
   M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
   Rein. Bar :  P16 @100
   As_req =       0.0016 m^2/m.  (       0.0016 m^2/m.)
   M_Ed   =     223.0054  kN-m./m.
   M_Rd   =     279.1331  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.799  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.169

===============================================================================
   [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[9], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9577
   LCB No.   :  40+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0028 m^2/m.  (       0.0028 m^2/m.)
   M_Ed   =     383.6234  kN-m./m.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.925  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.290

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9558
   LCB No.   :  40+
   Materials :  fck =  25000.0000 KPa.
```

```
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.044 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P14 @100
   As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
   M_Ed   =     211.6454  kN-m./m.
   M_Rd   =     217.8420  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.972  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.160

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[9], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9593
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0027 m^2/m.  (       0.0027 m^2/m.)
   M_Ed   =     366.3693  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.883  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.277

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9586
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

```
 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     247.9600  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.888  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.187

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[10], Dir 2.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9608
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.091 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      1.3617 kN.
    M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P20 @100
    As_req =       0.0024 m^2/m.  (       0.0024 m^2/m.)
    M_Ed   =     325.1391  kN-m./m.
    M_Rd   =     414.7923  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.784  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.246

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9614
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.044 m.
    eta      =   0.900
```

```
   Cc       = eta*fcd*b*a =      0.6645 kN.
   M_Rd     = Cc*(d-a/2)  =     217.8420  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P14 @100
    As_req =       0.0015 m^2/m.  (       0.0015 m^2/m.)
    M_Ed   =     208.6065  kN-m./m.
    M_Rd   =     217.8420  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.958  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.158

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[11], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9650
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0017 m^2/m.  (       0.0017 m^2/m.)
    M_Ed   =     233.4129  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.836  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.176

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9670
    LCB No.   :  37+
```

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                   Gen 2015
================================================================================

    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0014 m^2/m.  (       0.0014 m^2/m.)
    M_Ed   =     186.9102  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.971  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.141

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[12], Dir 2.
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 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9676
    LCB No.   :  37+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
    M_Ed   =     143.2039  kN-m./m.
```

```
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.982  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.108

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9689
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0021 m^2/m.  (       0.0021 m^2/m.)
   M_Ed   =     291.8625  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.704  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.221

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[13], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9706
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

midas Gen - RC-Slab Flexural Design [Eurocode2:04] Gen 2015

```
 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
   M_Ed   =     135.9010  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
```

```
   RatM   = M_Ed / M_Rd =   0.932  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.103

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 9707
   LCB No.   :  41+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0010 m^2/m.  (       0.0010 m^2/m.)
   M_Ed   =     136.7640  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.938  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.103

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[15], Dir 2.
================================================================================


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 9714
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.091 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      1.3617 kN.
   M_Rd     = Cc*(d-a/2)  =     414.7923  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P20 @100
   As_req =       0.0025 m^2/m.  (       0.0025 m^2/m.)
   M_Ed   =     348.0965  kN-m./m.
   M_Rd   =     414.7923  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.839  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.263
```

```
 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9709
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0020 m^2/m.  (       0.0020 m^2/m.)
    M_Ed   =     267.6465  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.959  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.202


=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN FOUND-[2], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9753
    LCB No.   :  44+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      65.4658  kN-m./m.
-------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.449  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.049
```

```
 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9751
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.039 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.5824 kN.
    M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @150
    As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
    M_Ed   =     169.3778  kN-m./m.
    M_Rd   =     192.5405  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.880  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.128

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN FOUND-[3], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 9755
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

--------------------------------------------------------------------------------------------
 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
============================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      35.6532  kN-m./m.
    M_Rd   =     145.8673  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.244  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 9757
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
```

```
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.029 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4348 kN.
   M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @200
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      23.6315  kN-m./m.
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.162  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN SHEAR WALLS-[1], Dir 2.
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 11758
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.039 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.5824 kN.
   M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @150
   As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
   M_Ed   =     168.7906  kN-m./m.
   M_Rd   =     192.5405  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.877  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.128

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 11759
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

```
 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.058 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.8695 kN.
    M_Rd     = Cc*(d-a/2)  =     279.1331  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
    Rein. Bar :  P16 @100
    As_req =       0.0018 m^2/m.  (       0.0018 m^2/m.)
    M_Ed   =     247.5004  kN-m./m.
    M_Rd   =     279.1331  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.887  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.187

=============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[16], Dir 2.
=============================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 11682
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      36.5810  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.469  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 11679
    LCB No.   :  43+
```

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      34.3357  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.441  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[17], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 11689
    LCB No.   :  36+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.029 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.4348 kN.
    M_Rd     = Cc*(d-a/2)  =     145.8673  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P16 @200
    As_req =       0.0009 m^2/m.  (       0.0009 m^2/m.)
    M_Ed   =     120.3710  kN-m./m.
```

```
   M_Rd   =     145.8673  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.825  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.091

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 11689
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.015 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.2276 kN.
   M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P10 @150
   As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
   M_Ed   =      58.0618  kN-m./m.
   M_Rd   =      77.9456  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.745  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.048

================================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN IN-WALLS-[18], Dir 2.
================================================================================


 << BOTTOM >>

 -. Information of Parameters.
   Elem No.  : 11724
   LCB No.   :  38+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.
```

```
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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      64.8491  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.832  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.049

 << TOP >>

 -. Information of Parameters.
    Elem No.  : 11718
    LCB No.   :  38+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
    b        =   0.0010 m.  (by Code Unit Length).
    d        =   0.3500 m.
    lambda   =   0.800
    a        = lambda * x  =   0.015 m.
    eta      =   0.900
    Cc       = eta*fcd*b*a =      0.2276 kN.
    M_Rd     = Cc*(d-a/2)  =      77.9456  kN-m./m.

 -. Information of Moments and Result.
    Rein. Bar :  P10 @150
    As_req =       0.0005 m^2/m.  (       0.0005 m^2/m.)
    M_Ed   =      29.2901  kN-m./m.
    M_Rd   =      77.9456  kN-m./m.
    RatM   = M_Ed / M_Rd =   0.376  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
    x/d         =    0.048

===============================================================================
    [[[*]]]   SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN SHEAR WALLS-[10], Dir 2.
===============================================================================


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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
===========================================================================================


 << BOTTOM >>

 -. Information of Parameters.
    Elem No.  : 11883
    LCB No.   :  43+
    Materials :  fck =  25000.0000 KPa.
                 fcd =  16666.6667 KPa.
                 fyk = 500000.0000 KPa.
    Thickness :    0.4000 m.
    Covering  :  dB  =   0.0500 m.
                 dT  =   0.0500 m.

 -. Information of Design.
```

```
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.039 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.5824 kN.
   M_Rd     = Cc*(d-a/2)  =     192.5405  kN-m./m.

 -. Information of Moments and Result.
   Rein. Bar :  P16 @150
   As_req =       0.0012 m^2/m.  (       0.0012 m^2/m.)
   M_Ed   =     169.2492  kN-m./m.
   M_Rd   =     192.5405  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.879  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.128

 << TOP >>

 -. Information of Parameters.
   Elem No.  : 11892
   LCB No.   :  43+
   Materials :  fck =  25000.0000 KPa.
                fcd =  16666.6667 KPa.
                fyk = 500000.0000 KPa.
   Thickness :    0.4000 m.
   Covering  :  dB  =   0.0500 m.
                dT  =   0.0500 m.

 -. Information of Design.
   b        =   0.0010 m.  (by Code Unit Length).
   d        =   0.3500 m.
   lambda   =   0.800
   a        = lambda * x  =   0.033 m.
   eta      =   0.900
   Cc       = eta*fcd*b*a =      0.4881 kN.
   M_Rd     = Cc*(d-a/2)  =     162.8891  kN-m./m.

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 midas Gen - RC-Slab Flexural Design     [ Eurocode2:04 ]                    Gen 2015
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 -. Information of Moments and Result.
   Rein. Bar :  P12 @100
   As_req =       0.0011 m^2/m.  (       0.0011 m^2/m.)
   M_Ed   =     148.5328  kN-m./m.
   M_Rd   =     162.8891  kN-m./m.
   RatM   = M_Ed / M_Rd =   0.912  <  1.0  --->  O.K !

 -. Check ratio of neutral axis depth to effective depth.
   x/d         =    0.112
```

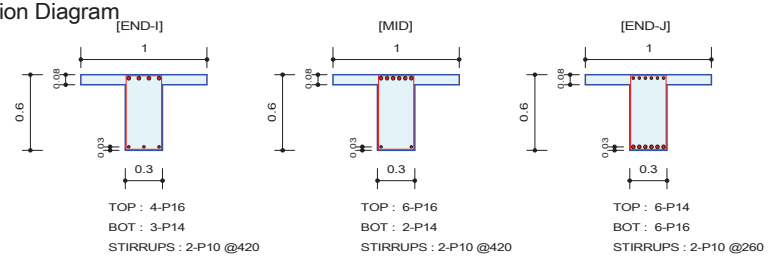
VI. ΔΙΑΣΤΑΣΙΟΛΟΓΗΣΗ ΔΟΚΩΝ, ΥΠΟΣΤΥΛΩΜΑΤΩΝ ΚΑΙ ΤΟΙΧΕΙΩΝ

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 15
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.4172 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	40-	40-
Moment (M_Ed)	123.54	181.48	133.41
Factored Strength (M_Rd)	189.71	279.37	218.04
Check Ratio (M_Ed/M_Rd)	0.6512	0.6496	0.6119
Neutral Axis (x/d)	0.0938	0.1719	0.0747
(+) Load Combination No.	44+	40+	43+
Moment (M_Ed)	95.11	71.64	264.26
Factored Strength (M_Rd)	114.60	78.32	288.03
Check Ratio (M_Ed/M_Rd)	0.8300	0.9147	0.9175
Neutral Axis (x/d)	0.0430	0.0428	0.0591
Required Rebar Top (As_top)	0.0005	0.0008	0.0006
Required Rebar Bot (As_bot)	0.0004	0.0003	0.0012

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	39+	40+	36-
Factored Shear Force (V_Ed)	57.07	77.72	132.56
Shear Strength by Conc.(V_Rdc)	74.29	85.04	85.04
Shear Strength by Rebar.(V_Rds)	83.91	83.91	135.54
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0006
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @260
Shear Ratio by Conc	0.7682	0.9139	1.5587
Shear Ratio by (V_Rds ; V_Rdmax)	0.6802	0.9263	0.9780
Check Ratio	0.7682	0.9139	0.9780

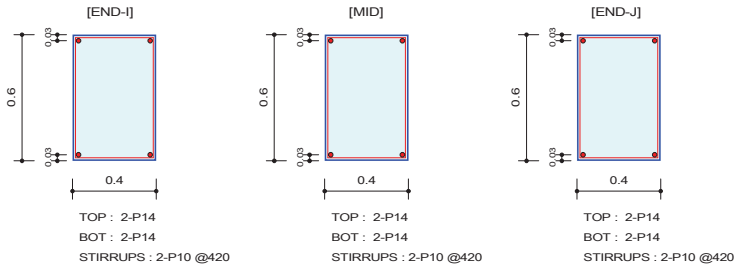
midas Gen RC Beam Design Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 9
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.93326 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	37-	37-	44-
Moment (M_Ed)	44.46	20.57	11.26
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.5935	0.2745	0.1503
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	44-	43+	43+
Moment (M_Ed)	0.00	46.52	68.69
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.6209	0.9168
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

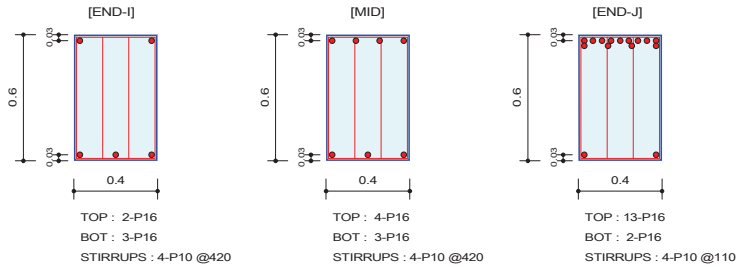
	END-I	MID	END-J
Load Combination No.	43-	37-	43-
Factored Shear Force (V_Ed)	53.43	55.23	47.32
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.6664	0.6888	0.5902
Shear Ratio by (V_Rds ; V_Rdmax)	0.6368	0.6582	0.5639
Check Ratio	0.6664	0.6888	0.5902

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 14
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 4.96915 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	40-	38-
Moment (M_Ed)	54.63	151.98	495.79
Factored Strength (M_Rd)	97.07	191.17	557.92
Check Ratio (M_Ed/M_Rd)	0.5629	0.7950	0.8886
Neutral Axis (x/d)	0.0540	0.0757	0.3242
(+) Load Combination No.	43+	43+	44-
Moment (M_Ed)	105.93	95.39	0.00
Factored Strength (M_Rd)	143.26	143.57	97.61
Check Ratio (M_Ed/M_Rd)	0.7394	0.6645	0.0000
Neutral Axis (x/d)	0.0674	0.0608	0.0729
Required Rebar Top (As_top)	0.0003	0.0006	0.0024
Required Rebar Bot (As_bot)	0.0004	0.0004	0.0003

4. Shear Capacity

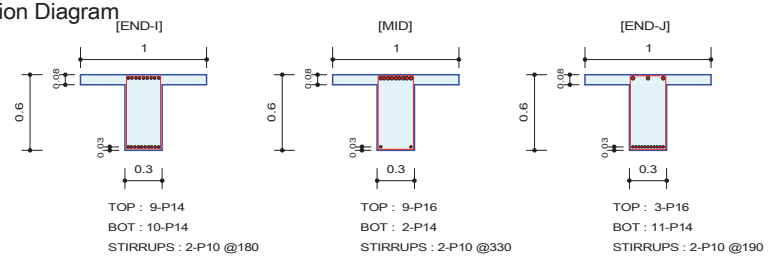
	END-I	MID	END-J
Load Combination No.	38+	28	38+
Factored Shear Force (V_Ed)	59.77	85.58	590.11
Shear Strength by Conc.(V_Rdc)	81.77	90.00	131.89
Shear Strength by Rebar.(V_Rds)	167.81	167.81	626.56
Required Shear Reinf. (Asw)	0.0007	0.0007	0.0027
Required Stirrups Spacing	4-P10 @420	4-P10 @420	4-P10 @110
Shear Ratio by Conc	0.7309	0.9509	4.4743
Shear Ratio by (V_Rds ; V_Rdmax)	0.3562	0.5100	0.9418
Check Ratio	0.7309	0.9509	0.9418

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 19
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3619 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	198.04	266.53	87.65
Factored Strength (M_Rd)	324.78	401.19	143.55
Check Ratio (M_Ed/M_Rd)	0.6098	0.6643	0.6106
Neutral Axis (x/d)	0.0869	0.2852	0.0590
(+) Load Combination No.	36+	43+	43+
Moment (M_Ed)	306.13	70.87	354.02
Factored Strength (M_Rd)	368.10	78.43	402.67
Check Ratio (M_Ed/M_Rd)	0.8317	0.9036	0.8792
Neutral Axis (x/d)	0.0645	0.0451	0.0791
Required Rebar Top (As_top)	0.0009	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0014	0.0003	0.0017

4. Shear Capacity

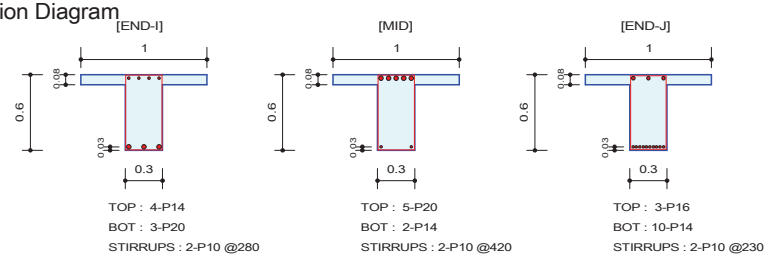
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	193.94	104.90	180.57
Shear Strength by Conc.(V_Rdc)	92.27	97.35	95.24
Shear Strength by Rebar.(V_Rds)	195.78	106.79	185.48
Required Shear Reinf. (Asw)	0.0009	0.0005	0.0008
Required Stirrups Spacing	2-P10 @180	2-P10 @330	2-P10 @190
Shear Ratio by Conc	2.1020	1.0775	1.8959
Shear Ratio by (V_Rds ; V_Rdmax)	0.9906	0.9823	0.9735
Check Ratio	0.9906	0.9823	0.9735

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 17
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3896 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	39-	44-
Moment (M_Ed)	96.47	238.03	80.36
Factored Strength (M_Rd)	145.51	354.55	143.38
Check Ratio (M_Ed/M_Rd)	0.6630	0.6714	0.5605
Neutral Axis (x/d)	0.0642	0.2422	0.0596
(+) Load Combination No.	36+	43+	43+
Moment (M_Ed)	213.29	60.21	315.48
Factored Strength (M_Rd)	228.24	78.35	366.70
Check Ratio (M_Ed/M_Rd)	0.9345	0.7685	0.8603
Neutral Axis (x/d)	0.0532	0.0444	0.0732
Required Rebar Top (As_top)	0.0004	0.0011	0.0003
Required Rebar Bot (As_bot)	0.0009	0.0003	0.0015

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	36+	36-	36-
Factored Shear Force (V_Ed)	123.99	69.61	151.65
Shear Strength by Conc.(V_Rdc)	78.32	92.86	92.27
Shear Strength by Rebar.(V_Rds)	125.86	83.91	153.22
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0007
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @230
Shear Ratio by Conc	1.5831	0.7497	1.6436
Shear Ratio by (V_Rds ; V_Rdmax)	0.9851	0.8297	0.9897
Check Ratio	0.9851	0.7497	0.9897

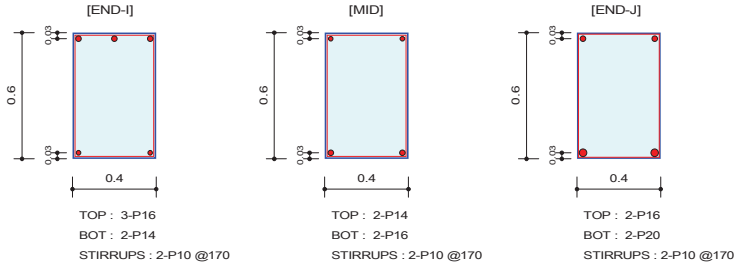
midas Gen RC Beam Design Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 11
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	43-	44-
Moment (M_Ed)	134.86	63.54	73.88
Factored Strength (M_Rd)	143.51	74.76	96.57
Check Ratio (M_Ed/M_Rd)	0.9397	0.8499	0.7650
Neutral Axis (x/d)	0.0698	0.0496	0.0538
(+) Load Combination No.	44+	43+	43+
Moment (M_Ed)	66.83	76.91	146.03
Factored Strength (M_Rd)	74.80	97.07	149.80
Check Ratio (M_Ed/M_Rd)	0.8935	0.7924	0.9748
Neutral Axis (x/d)	0.0503	0.0547	0.0693
Required Rebar Top (As_top)	0.0006	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0006

4. Shear Capacity

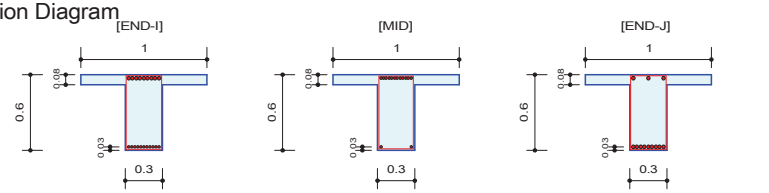
	END-I	MID	END-J
Load Combination No.	43-	43-	43-
Factored Shear Force (V_Ed)	204.83	202.73	198.53
Shear Strength by Conc.(V_Rdc)	81.77	80.17	82.88
Shear Strength by Rebar.(V_Rds)	207.30	207.30	207.30
Required Shear Reinf. (Asw)	0.0009	0.0009	0.0009
Required Stirrups Spacing	2-P10 @170	2-P10 @170	2-P10 @170
Shear Ratio by Conc	2.5050	2.5287	2.3953
Shear Ratio by (V_Rds ; V_Rdmax)	0.9881	0.9780	0.9577
Check Ratio	0.9881	0.9780	0.9577

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 20
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.348 m

2. Section Diagram



[END-I]
TOP : 9-P16
BOT : 11-P14
STIRRUPS : 2-P10 @150

[MID]
TOP : 12-P14
BOT : 2-P14
STIRRUPS : 2-P10 @340

[END-J]
TOP : 3-P16
BOT : 9-P16
STIRRUPS : 2-P10 @180

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	266.36	270.31	90.27
Factored Strength (M_Rd)	424.21	408.60	142.51
Check Ratio (M_Ed/M_Rd)	0.6279	0.6616	0.6334
Neutral Axis (x/d)	0.1025	0.2930	0.0585
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	341.49	71.73	368.34
Factored Strength (M_Rd)	403.63	78.69	431.26
Check Ratio (M_Ed/M_Rd)	0.8460	0.9116	0.8541
Neutral Axis (x/d)	0.0649	0.0453	0.0840
Required Rebar Top (As_top)	0.0012	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0016	0.0003	0.0018

4. Shear Capacity

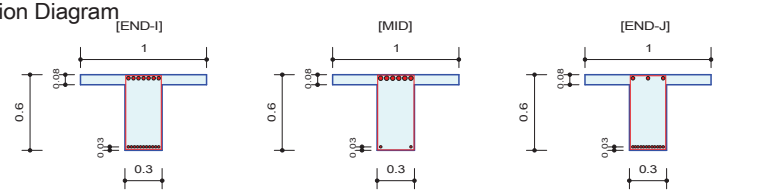
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	224.43	102.49	188.30
Shear Strength by Conc.(V_Rdc)	97.35	98.05	97.35
Shear Strength by Rebar.(V_Rds)	234.94	103.65	195.78
Required Shear Reinf. (Asw)	0.0010	0.0005	0.0008
Required Stirrups Spacing	2-P10 @150	2-P10 @340	2-P10 @180
Shear Ratio by Conc	2.3054	1.0454	1.9343
Shear Ratio by (V_Rds ; V_Rdmax)	0.9553	0.9888	0.9618
Check Ratio	0.9553	0.9888	0.9618

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 21
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3342 m

2. Section Diagram



[END-I]
TOP : 7-P16
BOT : 11-P14
STIRRUPS : 2-P10 @130

[MID]
TOP : 6-P20
BOT : 2-P14
STIRRUPS : 2-P10 @330

[END-J]
TOP : 3-P16
BOT : 12-P14
STIRRUPS : 2-P10 @180

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	213.92	277.60	91.67
Factored Strength (M_Rd)	329.28	415.38	142.52
Check Ratio (M_Ed/M_Rd)	0.6497	0.6683	0.6432
Neutral Axis (x/d)	0.0840	0.3008	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	349.38	71.28	380.17
Factored Strength (M_Rd)	402.64	78.53	436.85
Check Ratio (M_Ed/M_Rd)	0.8677	0.9077	0.8703
Neutral Axis (x/d)	0.0688	0.0453	0.0850
Required Rebar Top (As_top)	0.0009	0.0013	0.0004
Required Rebar Bot (As_bot)	0.0017	0.0003	0.0018

4. Shear Capacity

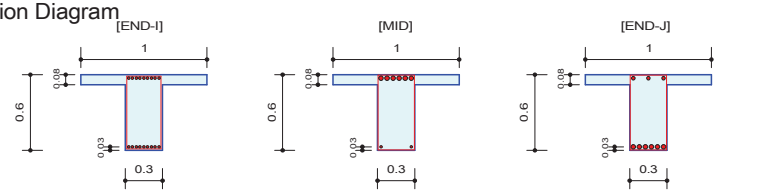
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	267.25	105.43	192.32
Shear Strength by Conc.(V_Rdc)	95.24	98.68	98.05
Shear Strength by Rebar.(V_Rds)	271.08	106.79	195.78
Required Shear Reinf. (Asw)	0.0012	0.0005	0.0009
Required Stirrups Spacing	2-P10 @130	2-P10 @330	2-P10 @180
Shear Ratio by Conc	2.8059	1.0684	1.9615
Shear Ratio by (V_Rds ; V_Rdmax)	0.9858	0.9873	0.9823
Check Ratio	0.9858	0.9873	0.9823

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 22
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3203 m

2. Section Diagram



[END-I]
TOP : 9-P14
BOT : 9-P14
STIRRUPS : 2-P10 @130

[MID]
TOP : 6-P20
BOT : 2-P14
STIRRUPS : 2-P10 @330

[END-J]
TOP : 3-P16
BOT : 6-P20
STIRRUPS : 2-P10 @180

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	199.39	277.43	92.36
Factored Strength (M_Rd)	325.97	415.38	143.10
Check Ratio (M_Ed/M_Rd)	0.6117	0.6679	0.6454
Neutral Axis (x/d)	0.0918	0.3008	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	298.51	70.08	386.69
Factored Strength (M_Rd)	330.08	78.53	447.90
Check Ratio (M_Ed/M_Rd)	0.9043	0.8924	0.8633
Neutral Axis (x/d)	0.0610	0.0453	0.0869
Required Rebar Top (As_top)	0.0009	0.0013	0.0004
Required Rebar Bot (As_bot)	0.0014	0.0003	0.0019

4. Shear Capacity

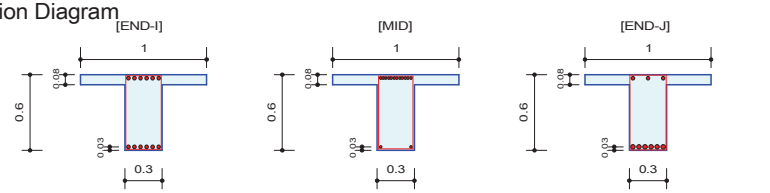
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	258.14	106.74	195.59
Shear Strength by Conc.(V_Rdc)	89.08	98.68	98.68
Shear Strength by Rebar.(V_Rds)	271.08	106.79	195.78
Required Shear Reinf. (Asw)	0.0012	0.0005	0.0009
Required Stirrups Spacing	2-P10 @130	2-P10 @330	2-P10 @180
Shear Ratio by Conc	2.8978	1.0817	1.9820
Shear Ratio by (V_Rds ; V_Rdmax)	0.9523	0.9995	0.9990
Check Ratio	0.9523	0.9995	0.9990

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 23
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3065 m

2. Section Diagram



[END-I]
TOP : 6-P16
BOT : 6-P16
STIRRUPS : 2-P10 @200

[MID]
TOP : 12-P14
BOT : 2-P14
STIRRUPS : 2-P10 @330

[END-J]
TOP : 3-P16
BOT : 6-P20
STIRRUPS : 2-P10 @180

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	183.71	272.42	92.56
Factored Strength (M_Rd)	284.33	408.60	143.10
Check Ratio (M_Ed/M_Rd)	0.6461	0.6667	0.6468
Neutral Axis (x/d)	0.0884	0.2930	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	259.98	69.00	382.89
Factored Strength (M_Rd)	288.81	78.69	447.90
Check Ratio (M_Ed/M_Rd)	0.9002	0.8769	0.8549
Neutral Axis (x/d)	0.0581	0.0453	0.0869
Required Rebar Top (As_top)	0.0008	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0012	0.0003	0.0019

4. Shear Capacity

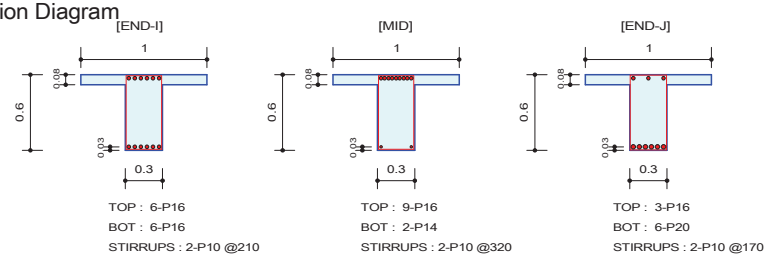
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	174.23	106.50	193.54
Shear Strength by Conc.(V_Rdc)	85.04	98.05	98.68
Shear Strength by Rebar.(V_Rds)	176.20	106.79	195.78
Required Shear Reinf. (Asw)	0.0008	0.0005	0.0009
Required Stirrups Spacing	2-P10 @200	2-P10 @330	2-P10 @180
Shear Ratio by Conc	2.0487	1.0862	1.9614
Shear Ratio by (V_Rds ; V_Rdmax)	0.9888	0.9973	0.9886
Check Ratio	0.9888	0.9973	0.9886

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 24
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2926 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	171.91	265.41	93.01
Factored Strength (M_Rd)	284.33	401.19	143.10
Check Ratio (M_Ed/M_Rd)	0.6046	0.6615	0.6500
Neutral Axis (x/d)	0.0884	0.2852	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	250.18	67.91	386.85
Factored Strength (M_Rd)	288.81	78.43	447.90
Check Ratio (M_Ed/M_Rd)	0.8662	0.8659	0.8637
Neutral Axis (x/d)	0.0581	0.0451	0.0869
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0011	0.0003	0.0019

4. Shear Capacity

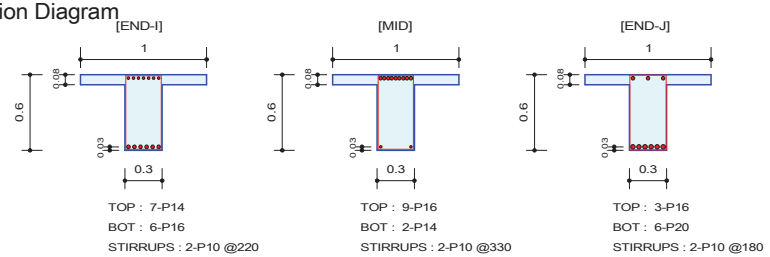
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	161.87	106.99	195.93
Shear Strength by Conc.(V_Rdc)	85.04	97.35	98.68
Shear Strength by Rebar.(V_Rds)	167.81	110.13	207.30
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @210	2-P10 @320	2-P10 @170
Shear Ratio by Conc	1.9034	1.0991	1.9855
Shear Ratio by (V_Rds ; V_Rdmax)	0.9646	0.9716	0.9452
Check Ratio	0.9646	0.9716	0.9452

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 25
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2788 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	164.80	259.74	93.42
Factored Strength (M_Rd)	253.29	401.19	143.10
Check Ratio (M_Ed/M_Rd)	0.6506	0.6474	0.6528
Neutral Axis (x/d)	0.0815	0.2852	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	246.23	67.38	383.62
Factored Strength (M_Rd)	289.34	78.43	447.90
Check Ratio (M_Ed/M_Rd)	0.8510	0.8591	0.8565
Neutral Axis (x/d)	0.0586	0.0451	0.0869
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0011	0.0003	0.0019

4. Shear Capacity

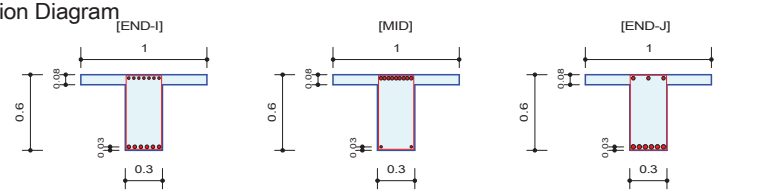
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	156.74	106.78	194.03
Shear Strength by Conc.(V_Rdc)	85.04	97.35	98.68
Shear Strength by Rebar.(V_Rds)	160.19	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8431	1.0969	1.9662
Shear Ratio by (V_Rds ; V_Rdmax)	0.9785	0.9999	0.9910
Check Ratio	0.9785	0.9999	0.9910

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 26
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2649 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	160.81	257.80	94.02
Factored Strength (M_Rd)	253.29	401.19	143.10
Check Ratio (M_Ed/M_Rd)	0.6349	0.6426	0.6570
Neutral Axis (x/d)	0.0815	0.2852	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	242.70	66.85	382.09
Factored Strength (M_Rd)	289.34	78.43	447.90
Check Ratio (M_Ed/M_Rd)	0.8388	0.8523	0.8531
Neutral Axis (x/d)	0.0586	0.0451	0.0869
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0011	0.0003	0.0018

4. Shear Capacity

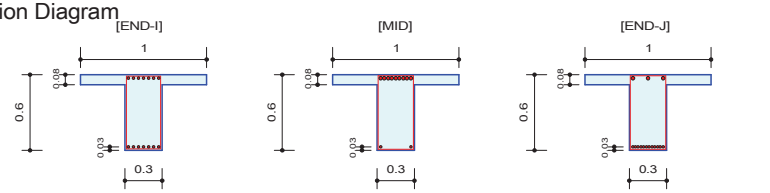
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	155.02	106.36	193.76
Shear Strength by Conc.(V_Rdc)	85.04	97.35	98.68
Shear Strength by Rebar.(V_Rds)	160.19	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8228	1.0925	1.9636
Shear Ratio by (V_Rds ; V_Rdmax)	0.9677	0.9960	0.9897
Check Ratio	0.9677	0.9960	0.9897

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 27
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2511 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	158.90	257.73	94.56
Factored Strength (M_Rd)	254.05	401.19	142.52
Check Ratio (M_Ed/M_Rd)	0.6255	0.6424	0.6635
Neutral Axis (x/d)	0.0854	0.2852	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	239.64	66.12	380.17
Factored Strength (M_Rd)	257.97	78.43	436.85
Check Ratio (M_Ed/M_Rd)	0.9289	0.8430	0.8702
Neutral Axis (x/d)	0.0557	0.0451	0.0850
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0011	0.0003	0.0018

4. Shear Capacity

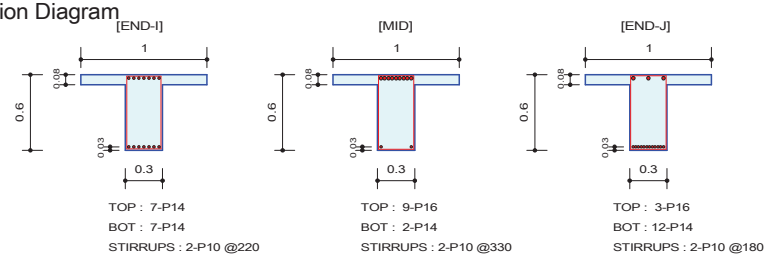
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	154.40	105.97	193.26
Shear Strength by Conc.(V_Rdc)	81.92	97.35	98.05
Shear Strength by Rebar.(V_Rds)	160.19	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8847	1.0885	1.9711
Shear Ratio by (V_Rds ; V_Rdmax)	0.9639	0.9923	0.9871
Check Ratio	0.9639	0.9923	0.9871

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 28
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2372 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	158.30	257.75	94.87
Factored Strength (M_Rd)	254.05	401.19	142.52
Check Ratio (M_Ed/M_Rd)	0.6231	0.6425	0.6657
Neutral Axis (x/d)	0.0854	0.2852	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	236.94	65.04	378.19
Factored Strength (M_Rd)	257.97	78.43	436.85
Check Ratio (M_Ed/M_Rd)	0.9185	0.8293	0.8657
Neutral Axis (x/d)	0.0557	0.0451	0.0850
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0011	0.0003	0.0018

4. Shear Capacity

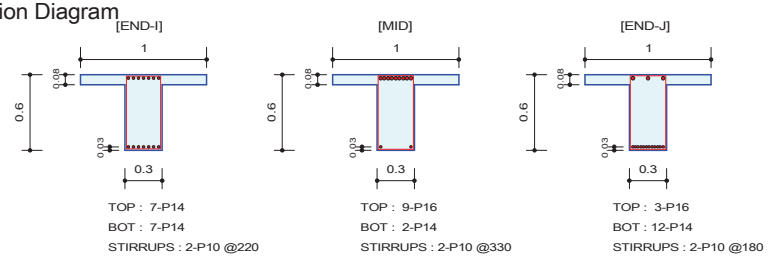
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	153.92	105.61	192.81
Shear Strength by Conc.(V_Rdc)	81.92	97.35	98.05
Shear Strength by Rebar.(V_Rds)	160.19	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8788	1.0849	1.9666
Shear Ratio by (V_Rds ; V_Rdmax)	0.9609	0.9890	0.9848
Check Ratio	0.9609	0.9890	0.9848

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 29
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2234 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	158.42	257.88	94.92
Factored Strength (M_Rd)	254.05	401.19	142.52
Check Ratio (M_Ed/M_Rd)	0.6236	0.6428	0.6660
Neutral Axis (x/d)	0.0854	0.2852	0.0583
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	234.43	63.57	376.23
Factored Strength (M_Rd)	257.97	78.43	436.85
Check Ratio (M_Ed/M_Rd)	0.9088	0.8106	0.8612
Neutral Axis (x/d)	0.0557	0.0451	0.0850
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0003	0.0018

4. Shear Capacity

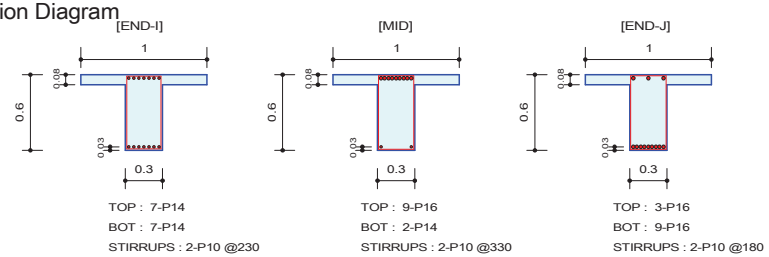
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	153.52	105.31	192.42
Shear Strength by Conc.(V_Rdc)	81.92	97.35	98.05
Shear Strength by Rebar.(V_Rds)	160.19	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8739	1.0818	1.9625
Shear Ratio by (V_Rds ; V_Rdmax)	0.9584	0.9862	0.9828
Check Ratio	0.9584	0.9862	0.9828

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 30
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2096 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	159.05	258.10	94.74
Factored Strength (M_Rd)	254.05	401.19	142.51
Check Ratio (M_Ed/M_Rd)	0.6260	0.6433	0.6648
Neutral Axis (x/d)	0.0854	0.2852	0.0585
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	231.87	61.78	374.18
Factored Strength (M_Rd)	257.97	78.43	431.26
Check Ratio (M_Ed/M_Rd)	0.8989	0.7877	0.8676
Neutral Axis (x/d)	0.0557	0.0451	0.0840
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0003	0.0018

4. Shear Capacity

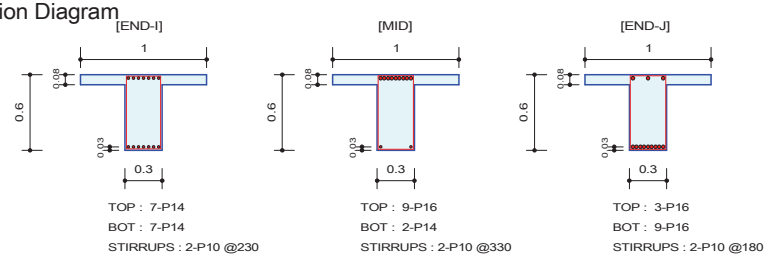
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	153.05	105.02	192.07
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	153.22	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @230	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8682	1.0788	1.9730
Shear Ratio by (V_Rds ; V_Rdmax)	0.9989	0.9834	0.9811
Check Ratio	0.9989	0.9834	0.9811

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 31
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1957 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	159.99	258.41	94.29
Factored Strength (M_Rd)	254.05	401.19	142.51
Check Ratio (M_Ed/M_Rd)	0.6298	0.6441	0.6616
Neutral Axis (x/d)	0.0854	0.2852	0.0585
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	229.39	59.67	371.97
Factored Strength (M_Rd)	257.97	78.43	431.26
Check Ratio (M_Ed/M_Rd)	0.8892	0.7608	0.8625
Neutral Axis (x/d)	0.0557	0.0451	0.0840
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0003	0.0018

4. Shear Capacity

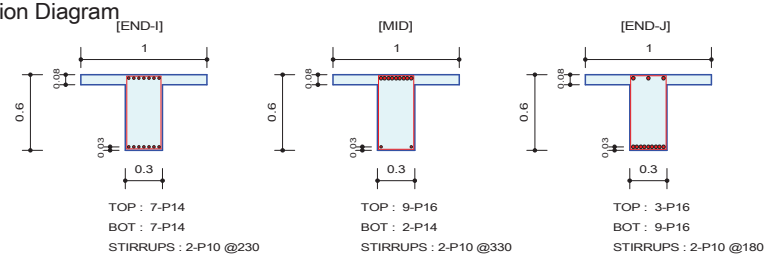
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	152.59	104.71	191.73
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	153.22	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @230	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8626	1.0756	1.9694
Shear Ratio by (V_Rds ; V_Rdmax)	0.9959	0.9805	0.9793
Check Ratio	0.9959	0.9805	0.9793

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 32
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1819 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	160.92	258.79	93.49
Factored Strength (M_Rd)	254.05	401.19	142.51
Check Ratio (M_Ed/M_Rd)	0.6334	0.6451	0.6561
Neutral Axis (x/d)	0.0854	0.2852	0.0585
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	227.04	57.17	369.87
Factored Strength (M_Rd)	257.97	78.43	431.26
Check Ratio (M_Ed/M_Rd)	0.8801	0.7290	0.8577
Neutral Axis (x/d)	0.0557	0.0451	0.0840
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0018

4. Shear Capacity

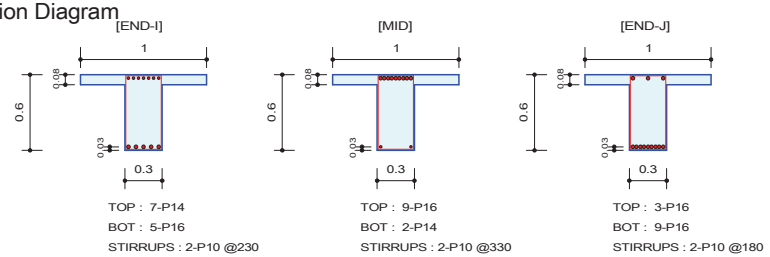
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	152.15	104.44	191.48
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	153.22	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @230	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8572	1.0728	1.9669
Shear Ratio by (V_Rds ; V_Rdmax)	0.9930	0.9780	0.9780
Check Ratio	0.9930	0.9780	0.9780

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 33
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.168 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	161.74	259.25	92.49
Factored Strength (M_Rd)	253.56	401.19	142.51
Check Ratio (M_Ed/M_Rd)	0.6379	0.6462	0.6490
Neutral Axis (x/d)	0.0879	0.2852	0.0585
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	225.09	54.37	368.09
Factored Strength (M_Rd)	241.49	78.43	431.26
Check Ratio (M_Ed/M_Rd)	0.9321	0.6932	0.8535
Neutral Axis (x/d)	0.0542	0.0451	0.0840
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0018

4. Shear Capacity

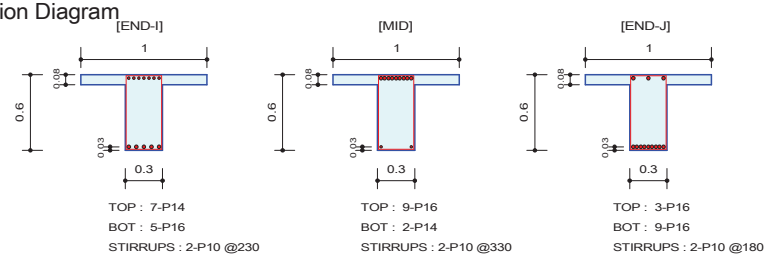
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	151.82	104.28	191.35
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	153.22	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @230	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8532	1.0712	1.9656
Shear Ratio by (V_Rds ; V_Rdmax)	0.9908	0.9765	0.9774
Check Ratio	0.9908	0.9765	0.9774

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 34
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1542 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	162.73	259.77	91.49
Factored Strength (M_Rd)	253.56	401.19	142.51
Check Ratio (M_Ed/M_Rd)	0.6418	0.6475	0.6420
Neutral Axis (x/d)	0.0879	0.2852	0.0585
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	223.82	51.45	367.71
Factored Strength (M_Rd)	241.49	78.43	431.26
Check Ratio (M_Ed/M_Rd)	0.9268	0.6559	0.8526
Neutral Axis (x/d)	0.0542	0.0451	0.0840
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0018

4. Shear Capacity

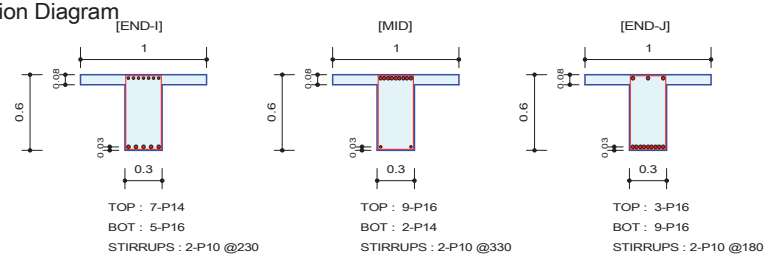
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	151.91	104.21	191.26
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	153.22	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @230	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8543	1.0705	1.9647
Shear Ratio by (V_Rds ; V_Rdmax)	0.9914	0.9758	0.9769
Check Ratio	0.9914	0.9758	0.9769

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 35
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1403 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	163.66	261.19	91.20
Factored Strength (M_Rd)	253.56	401.19	142.51
Check Ratio (M_Ed/M_Rd)	0.6454	0.6510	0.6400
Neutral Axis (x/d)	0.0879	0.2852	0.0585
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	224.67	48.55	368.51
Factored Strength (M_Rd)	241.49	78.43	431.26
Check Ratio (M_Ed/M_Rd)	0.9304	0.6190	0.8545
Neutral Axis (x/d)	0.0542	0.0451	0.0840
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0018

4. Shear Capacity

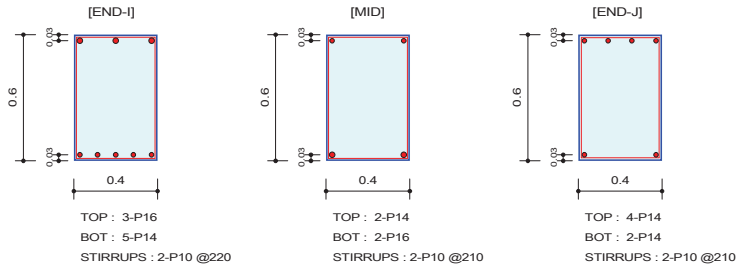
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	152.53	104.23	191.49
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	153.22	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @230	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8619	1.0707	1.9670
Shear Ratio by (V_Rds ; V_Rdmax)	0.9955	0.9761	0.9781
Check Ratio	0.9955	0.9761	0.9781

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 10
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.85856 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	43-	43-
Moment (M_Ed)	115.65	67.44	142.90
Factored Strength (M_Rd)	143.25	74.76	146.31
Check Ratio (M_Ed/M_Rd)	0.8073	0.9021	0.9766
Neutral Axis (x/d)	0.0610	0.0496	0.0708
(+) Load Combination No.	43+	43+	44+
Moment (M_Ed)	151.79	80.13	71.05
Factored Strength (M_Rd)	182.85	97.07	74.57
Check Ratio (M_Ed/M_Rd)	0.8301	0.8255	0.9529
Neutral Axis (x/d)	0.0735	0.0547	0.0503
Required Rebar Top (As_top)	0.0005	0.0003	0.0006
Required Rebar Bot (As_bot)	0.0006	0.0003	0.0003

4. Shear Capacity

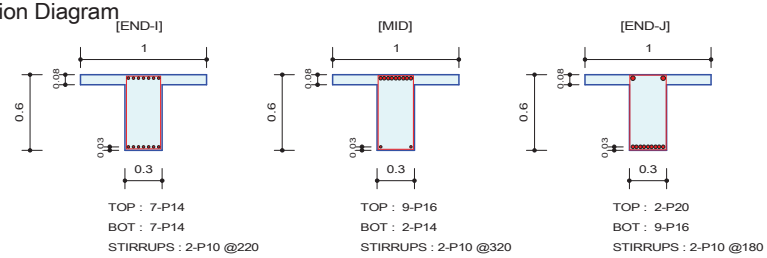
	END-I	MID	END-J
Load Combination No.	43+	43+	43+
Factored Shear Force (V_Ed)	155.64	161.21	164.00
Shear Strength by Conc.(V_Rdc)	88.71	80.17	82.35
Shear Strength by Rebar.(V_Rds)	160.19	167.81	167.81
Required Shear Reinf. (Asw)	0.0007	0.0007	0.0007
Required Stirrups Spacing	2-P10 @220	2-P10 @210	2-P10 @210
Shear Ratio by Conc	1.7544	2.0108	1.9914
Shear Ratio by (V_Rds ; V_Rdmax)	0.9716	0.9607	0.9773
Check Ratio	0.9716	0.9607	0.9773

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 37
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1126 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	164.18	266.36	99.52
Factored Strength (M_Rd)	254.05	401.19	149.62
Check Ratio (M_Ed/M_Rd)	0.6463	0.6639	0.6652
Neutral Axis (x/d)	0.0854	0.2852	0.0591
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	229.00	43.00	368.86
Factored Strength (M_Rd)	257.97	78.43	428.87
Check Ratio (M_Ed/M_Rd)	0.8877	0.5482	0.8601
Neutral Axis (x/d)	0.0557	0.0451	0.0830
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0018

4. Shear Capacity

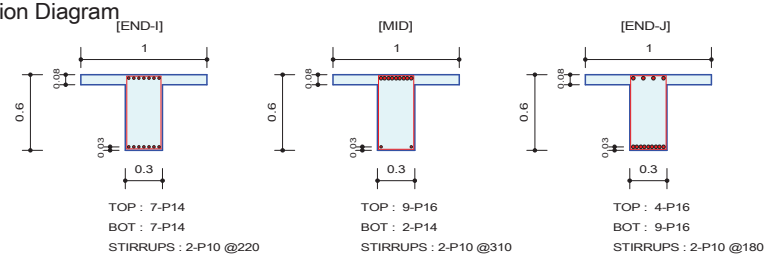
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	154.20	109.78	193.38
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	160.19	110.13	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @320	2-P10 @180
Shear Ratio by Conc	1.8823	1.1277	1.9864
Shear Ratio by (V_Rds ; V_Rdmax)	0.9627	0.9968	0.9877
Check Ratio	0.9627	0.9968	0.9877

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 38
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0988 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	164.15	268.60	123.64
Factored Strength (M_Rd)	254.05	401.19	189.71
Check Ratio (M_Ed/M_Rd)	0.6461	0.6695	0.6518
Neutral Axis (x/d)	0.0854	0.2852	0.0627
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	230.79	40.30	362.36
Factored Strength (M_Rd)	257.97	78.43	429.51
Check Ratio (M_Ed/M_Rd)	0.8947	0.5138	0.8436
Neutral Axis (x/d)	0.0557	0.0451	0.0796
Required Rebar Top (As_top)	0.0007	0.0012	0.0005
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0017

4. Shear Capacity

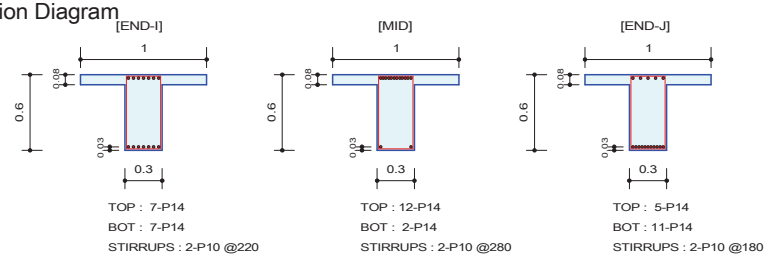
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	154.66	113.02	190.80
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	160.19	113.68	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @310	2-P10 @180
Shear Ratio by Conc	1.8879	1.1610	1.9600
Shear Ratio by (V_Rds ; V_Rdmax)	0.9655	0.9942	0.9746
Check Ratio	0.9655	0.9942	0.9746

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 39
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0849 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	164.04	270.15	110.28
Factored Strength (M_Rd)	254.05	408.60	182.70
Check Ratio (M_Ed/M_Rd)	0.6457	0.6612	0.6036
Neutral Axis (x/d)	0.0854	0.2930	0.0627
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	232.19	37.64	354.31
Factored Strength (M_Rd)	257.97	78.69	402.94
Check Ratio (M_Ed/M_Rd)	0.9001	0.4784	0.8793
Neutral Axis (x/d)	0.0557	0.0453	0.0762
Required Rebar Top (As_top)	0.0007	0.0012	0.0005
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0017

4. Shear Capacity

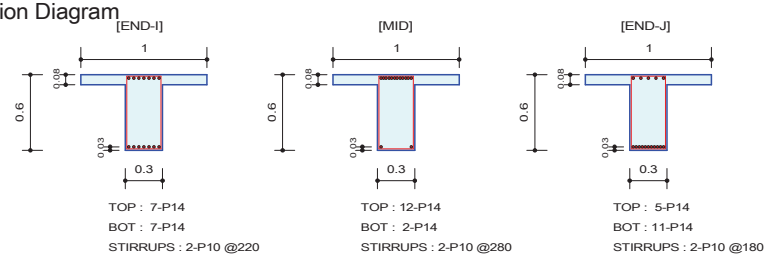
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	155.48	123.62	190.41
Shear Strength by Conc.(V_Rdc)	81.92	98.05	95.24
Shear Strength by Rebar.(V_Rds)	160.19	125.86	195.78
Required Shear Reinf. (Asw)	0.0007	0.0006	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @280	2-P10 @180
Shear Ratio by Conc	1.8979	1.2608	1.9991
Shear Ratio by (V_Rds ; V_Rdmax)	0.9706	0.9822	0.9725
Check Ratio	0.9706	0.9822	0.9725

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 40
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0711 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	163.97	273.96	106.91
Factored Strength (M_Rd)	254.05	408.60	182.70
Check Ratio (M_Ed/M_Rd)	0.6454	0.6705	0.5852
Neutral Axis (x/d)	0.0854	0.2930	0.0627
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	236.14	34.91	352.44
Factored Strength (M_Rd)	257.97	78.69	402.94
Check Ratio (M_Ed/M_Rd)	0.9154	0.4437	0.8747
Neutral Axis (x/d)	0.0557	0.0453	0.0762
Required Rebar Top (As_top)	0.0007	0.0012	0.0005
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0017

4. Shear Capacity

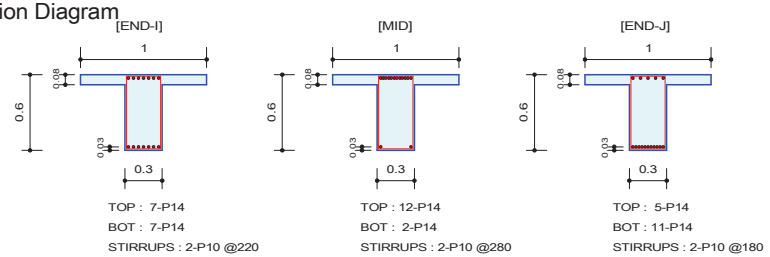
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	157.70	123.49	191.35
Shear Strength by Conc.(V_Rdc)	81.92	98.05	95.24
Shear Strength by Rebar.(V_Rds)	160.19	125.86	195.78
Required Shear Reinf. (Asw)	0.0007	0.0006	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @280	2-P10 @180
Shear Ratio by Conc	1.9250	1.2595	2.0090
Shear Ratio by (V_Rds ; V_Rdmax)	0.9845	0.9812	0.9773
Check Ratio	0.9845	0.9812	0.9773

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 41
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0572 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	163.40	275.30	108.27
Factored Strength (M_Rd)	254.05	408.60	182.70
Check Ratio (M_Ed/M_Rd)	0.6432	0.6738	0.5926
Neutral Axis (x/d)	0.0854	0.2930	0.0627
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	231.34	32.38	344.01
Factored Strength (M_Rd)	257.97	78.69	402.94
Check Ratio (M_Ed/M_Rd)	0.8968	0.4114	0.8538
Neutral Axis (x/d)	0.0557	0.0453	0.0762
Required Rebar Top (As_top)	0.0007	0.0013	0.0005
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0016

4. Shear Capacity

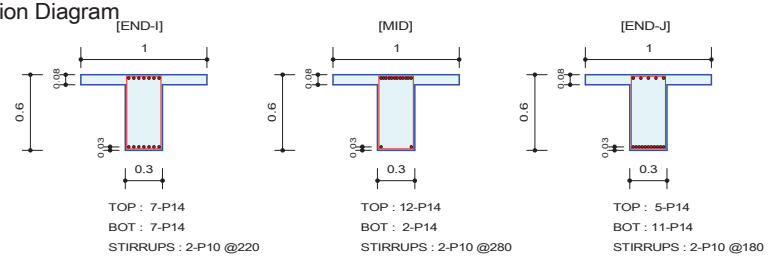
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	154.92	122.69	188.28
Shear Strength by Conc.(V_Rdc)	81.92	98.05	95.24
Shear Strength by Rebar.(V_Rds)	160.19	125.86	195.78
Required Shear Reinf. (Asw)	0.0007	0.0006	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @280	2-P10 @180
Shear Ratio by Conc	1.8911	1.2513	1.9768
Shear Ratio by (V_Rds ; V_Rdmax)	0.9671	0.9748	0.9617
Check Ratio	0.9671	0.9748	0.9617

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 42
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0434 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	163.50	275.79	109.91
Factored Strength (M_Rd)	254.05	408.60	182.70
Check Ratio (M_Ed/M_Rd)	0.6436	0.6750	0.6016
Neutral Axis (x/d)	0.0854	0.2930	0.0627
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	238.03	29.58	345.71
Factored Strength (M_Rd)	257.97	78.69	402.94
Check Ratio (M_Ed/M_Rd)	0.9227	0.3759	0.8580
Neutral Axis (x/d)	0.0557	0.0453	0.0762
Required Rebar Top (As_top)	0.0007	0.0013	0.0005
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0016

4. Shear Capacity

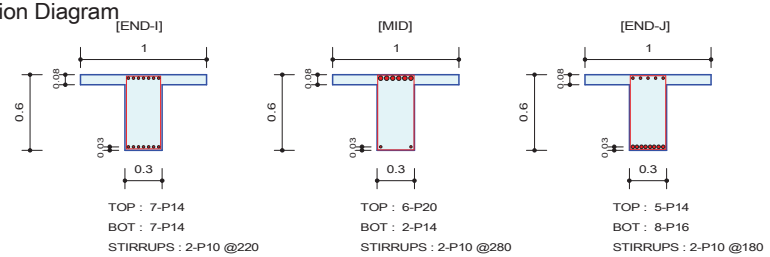
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	158.47	122.79	190.78
Shear Strength by Conc.(V_Rdc)	81.92	98.05	95.24
Shear Strength by Rebar.(V_Rds)	160.19	125.86	195.78
Required Shear Reinf. (Asw)	0.0007	0.0006	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @280	2-P10 @180
Shear Ratio by Conc	1.9344	1.2524	2.0031
Shear Ratio by (V_Rds ; V_Rdmax)	0.9893	0.9756	0.9745
Check Ratio	0.9893	0.9756	0.9745

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 43
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0295 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	162.96	276.15	111.24
Factored Strength (M_Rd)	254.05	415.38	182.00
Check Ratio (M_Ed/M_Rd)	0.6414	0.6648	0.6112
Neutral Axis (x/d)	0.0854	0.3008	0.0632
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	237.38	27.02	339.96
Factored Strength (M_Rd)	257.97	78.53	382.96
Check Ratio (M_Ed/M_Rd)	0.9202	0.3441	0.8877
Neutral Axis (x/d)	0.0557	0.0453	0.0732
Required Rebar Top (As_top)	0.0007	0.0013	0.0005
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0016

4. Shear Capacity

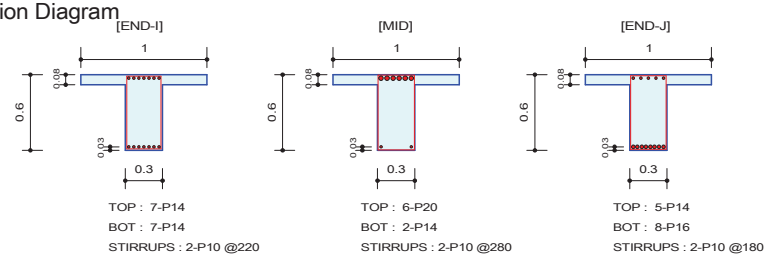
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	157.46	122.40	188.80
Shear Strength by Conc.(V_Rdc)	81.92	98.68	93.60
Shear Strength by Rebar.(V_Rds)	160.19	125.86	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @280	2-P10 @180
Shear Ratio by Conc	1.9221	1.2404	2.0170
Shear Ratio by (V_Rds ; V_Rdmax)	0.9830	0.9725	0.9643
Check Ratio	0.9830	0.9725	0.9643

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 44
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0157 m

2. Section Diagram



[END-I] TOP : 7-P14 BOT : 7-P14 STIRRUPS : 2-P10 @220
[MID] TOP : 6-P20 BOT : 2-P14 STIRRUPS : 2-P10 @280
[END-J] TOP : 5-P14 BOT : 8-P16 STIRRUPS : 2-P10 @180

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	162.39	276.18	113.00
Factored Strength (M_Rd)	254.05	415.38	182.00
Check Ratio (M_Ed/M_Rd)	0.6392	0.6649	0.6209
Neutral Axis (x/d)	0.0854	0.3008	0.0632
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	238.24	24.40	335.58
Factored Strength (M_Rd)	257.97	78.53	382.96
Check Ratio (M_Ed/M_Rd)	0.9235	0.3107	0.8763
Neutral Axis (x/d)	0.0557	0.0453	0.0732
Required Rebar Top (As_top)	0.0007	0.0013	0.0005
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0016

4. Shear Capacity

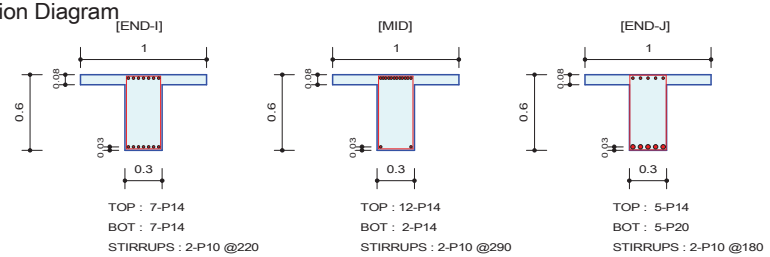
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	157.81	121.69	188.15
Shear Strength by Conc.(V_Rdc)	81.92	98.68	93.60
Shear Strength by Rebar.(V_Rds)	160.19	125.86	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @280	2-P10 @180
Shear Ratio by Conc	1.9263	1.2332	2.0101
Shear Ratio by (V_Rds ; V_Rdmax)	0.9851	0.9669	0.9610
Check Ratio	0.9851	0.9669	0.9610

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 45
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0019 m

2. Section Diagram



[END-I] TOP : 7-P14 BOT : 7-P14 STIRRUPS : 2-P10 @220
[MID] TOP : 12-P14 BOT : 2-P14 STIRRUPS : 2-P10 @290
[END-J] TOP : 5-P14 BOT : 5-P20 STIRRUPS : 2-P10 @180

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	161.72	275.88	114.51
Factored Strength (M_Rd)	254.05	408.60	181.79
Check Ratio (M_Ed/M_Rd)	0.6366	0.6752	0.6299
Neutral Axis (x/d)	0.0854	0.2930	0.0635
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	238.70	21.83	330.57
Factored Strength (M_Rd)	257.97	78.69	372.72
Check Ratio (M_Ed/M_Rd)	0.9253	0.2774	0.8869
Neutral Axis (x/d)	0.0557	0.0453	0.0718
Required Rebar Top (As_top)	0.0007	0.0013	0.0005
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0015

4. Shear Capacity

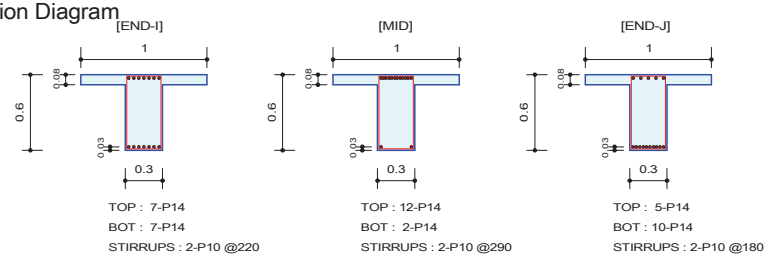
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	157.85	120.84	187.08
Shear Strength by Conc.(V_Rdc)	81.92	98.05	92.86
Shear Strength by Rebar.(V_Rds)	160.19	121.52	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @290	2-P10 @180
Shear Ratio by Conc	1.9268	1.2324	2.0146
Shear Ratio by (V_Rds ; V_Rdmax)	0.9854	0.9944	0.9555
Check Ratio	0.9854	0.9944	0.9555

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 46
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.988 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	160.90	274.93	115.46
Factored Strength (M_Rd)	254.05	408.60	182.01
Check Ratio (M_Ed/M_Rd)	0.6334	0.6729	0.6344
Neutral Axis (x/d)	0.0854	0.2930	0.0637
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	238.82	19.32	325.20
Factored Strength (M_Rd)	257.97	78.69	365.79
Check Ratio (M_Ed/M_Rd)	0.9258	0.2456	0.8890
Neutral Axis (x/d)	0.0557	0.0453	0.0708
Required Rebar Top (As_top)	0.0007	0.0012	0.0005
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0015

4. Shear Capacity

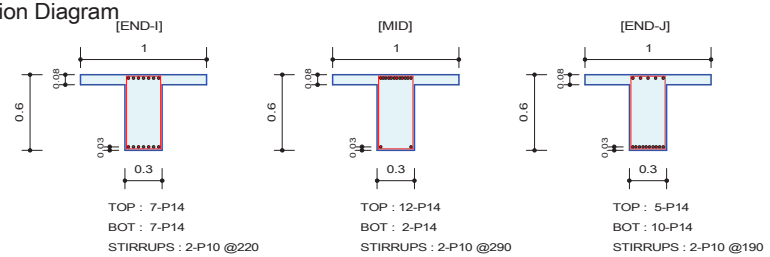
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	157.75	119.67	185.71
Shear Strength by Conc.(V_Rdc)	81.92	98.05	92.27
Shear Strength by Rebar.(V_Rds)	160.19	121.52	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @290	2-P10 @180
Shear Ratio by Conc	1.9256	1.2206	2.0128
Shear Ratio by (V_Rds ; V_Rdmax)	0.9848	0.9848	0.9485
Check Ratio	0.9848	0.9848	0.9485

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 47
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9742 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	159.90	272.98	115.54
Factored Strength (M_Rd)	254.05	408.60	182.01
Check Ratio (M_Ed/M_Rd)	0.6294	0.6681	0.6348
Neutral Axis (x/d)	0.0854	0.2930	0.0637
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	238.27	16.80	319.25
Factored Strength (M_Rd)	257.97	78.69	365.79
Check Ratio (M_Ed/M_Rd)	0.9236	0.2135	0.8728
Neutral Axis (x/d)	0.0557	0.0453	0.0708
Required Rebar Top (As_top)	0.0007	0.0012	0.0005
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0015

4. Shear Capacity

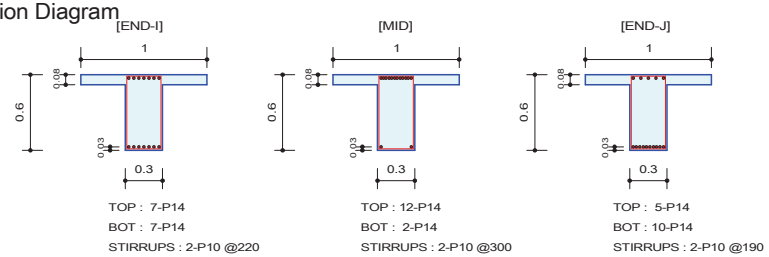
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	157.36	118.03	183.81
Shear Strength by Conc.(V_Rdc)	81.92	98.05	92.27
Shear Strength by Rebar.(V_Rds)	160.19	121.52	185.48
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @290	2-P10 @190
Shear Ratio by Conc	1.9209	1.2039	1.9922
Shear Ratio by (V_Rds ; V_Rdmax)	0.9824	0.9713	0.9910
Check Ratio	0.9824	0.9713	0.9910

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 48
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9603 m

2. Section Diagram



[END-I] TOP : 7-P14 BOT : 7-P14 STIRRUPS : 2-P10 @220
[MID] TOP : 12-P14 BOT : 2-P14 STIRRUPS : 2-P10 @300
[END-J] TOP : 5-P14 BOT : 10-P14 STIRRUPS : 2-P10 @190

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	158.44	269.89	114.40
Factored Strength (M_Rd)	254.05	408.60	182.01
Check Ratio (M_Ed/M_Rd)	0.6237	0.6605	0.6285
Neutral Axis (x/d)	0.0854	0.2930	0.0637
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	236.38	13.89	312.76
Factored Strength (M_Rd)	257.97	78.69	365.79
Check Ratio (M_Ed/M_Rd)	0.9163	0.1765	0.8550
Neutral Axis (x/d)	0.0557	0.0453	0.0708
Required Rebar Top (As_top)	0.0007	0.0012	0.0005
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0015

4. Shear Capacity

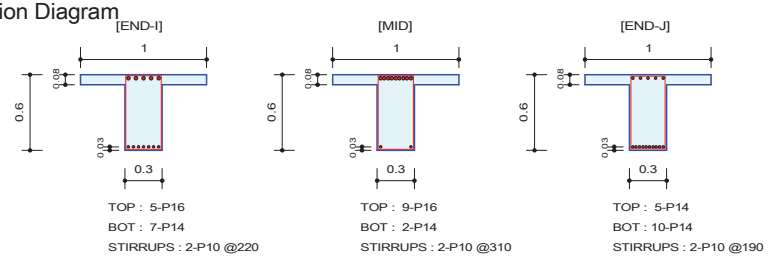
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	156.36	115.85	181.38
Shear Strength by Conc.(V_Rdc)	81.92	98.05	92.27
Shear Strength by Rebar.(V_Rds)	160.19	117.47	185.48
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @300	2-P10 @190
Shear Ratio by Conc	1.9086	1.1816	1.9658
Shear Ratio by (V_Rds ; V_Rdmax)	0.9761	0.9862	0.9779
Check Ratio	0.9761	0.9862	0.9779

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 49
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9465 m

2. Section Diagram



[END-I] TOP : 5-P16 BOT : 7-P14 STIRRUPS : 2-P10 @220
[MID] TOP : 9-P16 BOT : 2-P14 STIRRUPS : 2-P10 @310
[END-J] TOP : 5-P14 BOT : 10-P14 STIRRUPS : 2-P10 @190

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	155.74	265.51	112.10
Factored Strength (M_Rd)	237.29	401.19	182.01
Check Ratio (M_Ed/M_Rd)	0.6563	0.6618	0.6159
Neutral Axis (x/d)	0.0815	0.2852	0.0637
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	231.17	9.67	305.98
Factored Strength (M_Rd)	259.04	78.43	365.79
Check Ratio (M_Ed/M_Rd)	0.8924	0.1233	0.8365
Neutral Axis (x/d)	0.0559	0.0451	0.0708
Required Rebar Top (As_top)	0.0007	0.0012	0.0005
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0014

4. Shear Capacity

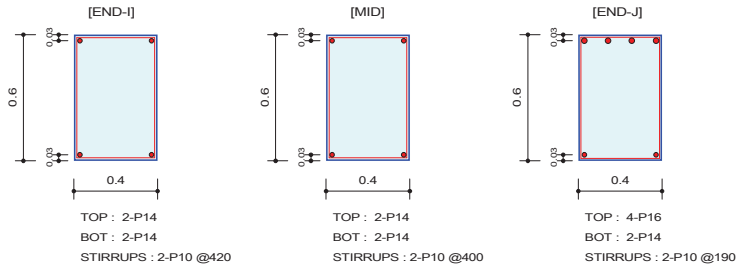
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	153.56	113.49	177.87
Shear Strength by Conc.(V_Rdc)	81.92	97.35	92.27
Shear Strength by Rebar.(V_Rds)	160.19	113.68	185.48
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @310	2-P10 @190
Shear Ratio by Conc	1.8744	1.1657	1.9278
Shear Ratio by (V_Rds ; V_Rdmax)	0.9586	0.9983	0.9590
Check Ratio	0.9586	0.9983	0.9590

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 12
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.26797 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	36-	36-
Moment (M_Ed)	66.83	67.27	185.41
Factored Strength (M_Rd)	74.92	74.92	190.88
Check Ratio (M_Ed/M_Rd)	0.8920	0.8979	0.9714
Neutral Axis (x/d)	0.0491	0.0491	0.0879
(+) Load Combination No.	43+	43+	44-
Moment (M_Ed)	17.89	23.23	0.00
Factored Strength (M_Rd)	74.92	74.92	75.13
Check Ratio (M_Ed/M_Rd)	0.2388	0.3101	0.0000
Neutral Axis (x/d)	0.0491	0.0491	0.0508
Required Rebar Top (As_top)	0.0003	0.0003	0.0008
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

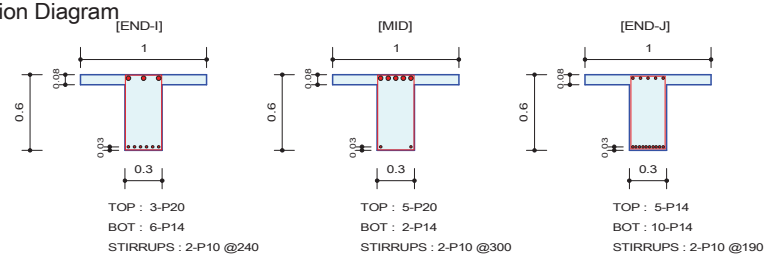
	END-I	MID	END-J
Load Combination No.	38-	36+	36+
Factored Shear Force (V_Ed)	42.68	87.84	177.18
Shear Strength by Conc.(V_Rdc)	80.17	80.17	90.00
Shear Strength by Rebar.(V_Rds)	83.91	88.10	185.48
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0008
Required Stirrups Spacing	2-P10 @420	2-P10 @400	2-P10 @190
Shear Ratio by Conc	0.5323	1.0956	1.9687
Shear Ratio by (V_Rds ; V_Rdmax)	0.5086	0.9970	0.9553
Check Ratio	0.5323	0.9970	0.9553

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 51
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9188 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	145.94	236.96	120.10
Factored Strength (M_Rd)	221.89	354.55	182.01
Check Ratio (M_Ed/M_Rd)	0.6577	0.6683	0.6599
Neutral Axis (x/d)	0.0825	0.2422	0.0637
(+) Load Combination No.	36+	44-	40+
Moment (M_Ed)	204.83	0.00	309.21
Factored Strength (M_Rd)	222.99	78.35	365.79
Check Ratio (M_Ed/M_Rd)	0.9186	0.0000	0.8453
Neutral Axis (x/d)	0.0526	0.0444	0.0708
Required Rebar Top (As_top)	0.0006	0.0011	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0014

4. Shear Capacity

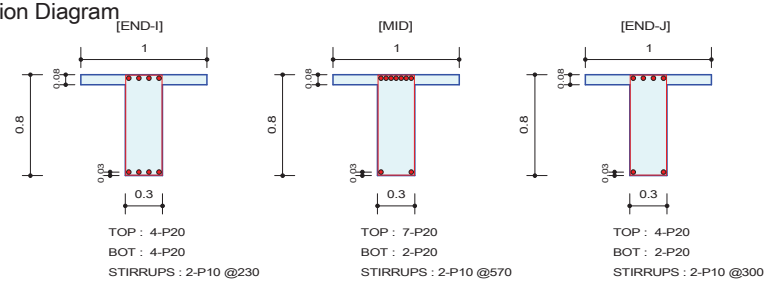
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	145.52	117.10	181.68
Shear Strength by Conc.(V_Rdc)	78.32	92.86	92.27
Shear Strength by Rebar.(V_Rds)	146.84	117.47	185.48
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @240	2-P10 @300	2-P10 @190
Shear Ratio by Conc	1.8579	1.2610	1.9691
Shear Ratio by (V_Rds ; V_Rdmax)	0.9910	0.9969	0.9795
Check Ratio	0.9910	0.9969	0.9795

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 56
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.8495 m

2. Section Diagram



[END-I] TOP : 4-P20 BOT : 4-P20 STIRRUPS : 2-P10 @230
[MID] TOP : 7-P20 BOT : 2-P20 STIRRUPS : 2-P10 @570
[END-J] TOP : 4-P20 BOT : 2-P20 STIRRUPS : 2-P10 @300

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	251.16	402.75	256.26
Factored Strength (M_Rd)	402.78	679.94	403.41
Check Ratio (M_Ed/M_Rd)	0.6236	0.5923	0.6352
Neutral Axis (x/d)	0.0659	0.2227	0.0957
(+) Load Combination No.	36+	44-	40+
Moment (M_Ed)	317.09	0.00	188.96
Factored Strength (M_Rd)	410.00	207.52	207.03
Check Ratio (M_Ed/M_Rd)	0.7734	0.0000	0.9127
Neutral Axis (x/d)	0.0437	0.0365	0.0353
Required Rebar Top (As_top)	0.0008	0.0013	0.0008
Required Rebar Bot (As_bot)	0.0010	0.0003	0.0006

4. Shear Capacity

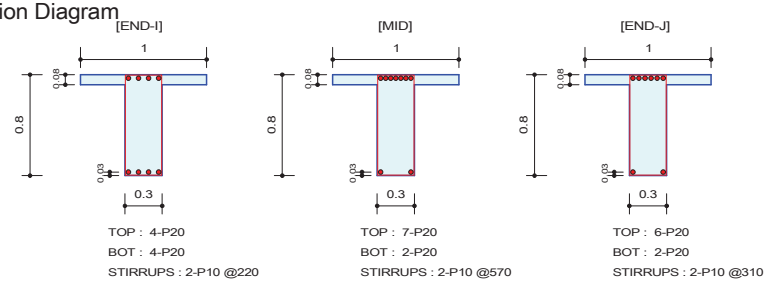
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	205.48	97.72	157.68
Shear Strength by Conc.(V_Rdc)	99.87	120.35	99.87
Shear Strength by Rebar.(V_Rds)	206.98	83.52	158.69
Required Shear Reinf. (Asw)	0.0007	0.0003	0.0005
Required Stirrups Spacing	2-P10 @230	2-P10 @570	2-P10 @300
Shear Ratio by Conc	2.0574	0.8119	1.5789
Shear Ratio by (V_Rds ; V_Rdmax)	0.9927	1.1700	0.9937
Check Ratio	0.9927	0.8119	0.9937

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 57
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.8357 m

2. Section Diagram



[END-I] TOP : 4-P20 BOT : 4-P20 STIRRUPS : 2-P10 @220
[MID] TOP : 7-P20 BOT : 2-P20 STIRRUPS : 2-P10 @570
[END-J] TOP : 6-P20 BOT : 2-P20 STIRRUPS : 2-P10 @310

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	229.09	437.58	331.02
Factored Strength (M_Rd)	402.78	679.94	591.88
Check Ratio (M_Ed/M_Rd)	0.5688	0.6436	0.5593
Neutral Axis (x/d)	0.0659	0.2227	0.1797
(+) Load Combination No.	36+	44-	40+
Moment (M_Ed)	361.08	0.00	106.61
Factored Strength (M_Rd)	410.00	207.52	207.37
Check Ratio (M_Ed/M_Rd)	0.8807	0.0000	0.5141
Neutral Axis (x/d)	0.0437	0.0365	0.0362
Required Rebar Top (As_top)	0.0007	0.0014	0.0011
Required Rebar Bot (As_bot)	0.0012	0.0003	0.0003

4. Shear Capacity

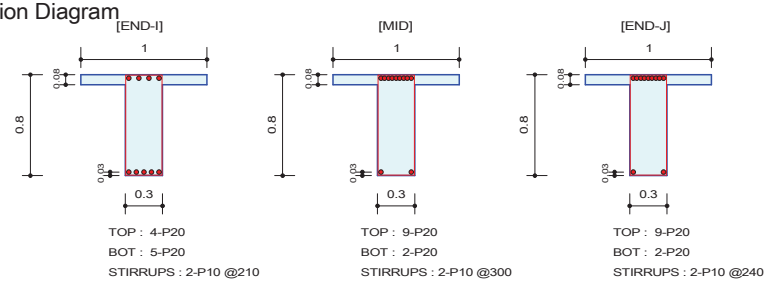
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	211.95	106.03	152.53
Shear Strength by Conc.(V_Rdc)	99.87	120.35	114.32
Shear Strength by Rebar.(V_Rds)	216.39	83.52	153.57
Required Shear Reinf. (Asw)	0.0007	0.0003	0.0005
Required Stirrups Spacing	2-P10 @220	2-P10 @570	2-P10 @310
Shear Ratio by Conc	2.1222	0.8810	1.3342
Shear Ratio by (V_Rds ; V_Rdmax)	0.9795	1.2695	0.9933
Check Ratio	0.9795	0.8810	0.9933

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 58
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.8219 m

2. Section Diagram



[END-I] TOP : 4-P20 BOT : 5-P20 STIRRUPS : 2-P10 @210
[MID] TOP : 9-P20 BOT : 2-P20 STIRRUPS : 2-P10 @300
[END-J] TOP : 9-P20 BOT : 2-P20 STIRRUPS : 2-P10 @240

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	211.11	539.77	539.77
Factored Strength (M_Rd)	405.33	844.88	844.88
Check Ratio (M_Ed/M_Rd)	0.5208	0.6389	0.6389
Neutral Axis (x/d)	0.0601	0.3125	0.3125
(+) Load Combination No.	36+	44-	40+
Moment (M_Ed)	397.06	0.00	114.41
Factored Strength (M_Rd)	512.04	208.45	208.45
Check Ratio (M_Ed/M_Rd)	0.7754	0.0000	0.5489
Neutral Axis (x/d)	0.0498	0.0370	0.0370
Required Rebar Top (As_top)	0.0007	0.0018	0.0018
Required Rebar Bot (As_bot)	0.0013	0.0003	0.0004

4. Shear Capacity

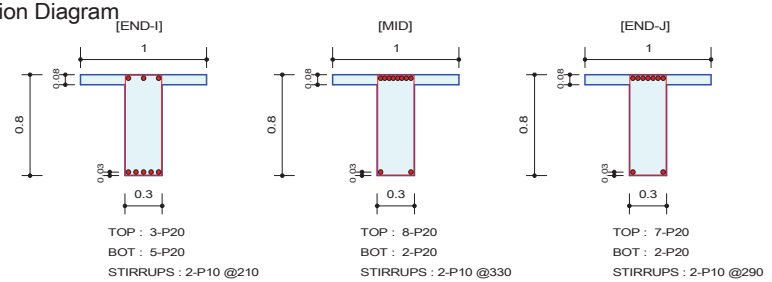
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	218.80	155.98	193.62
Shear Strength by Conc.(V_Rdc)	107.58	130.87	130.87
Shear Strength by Rebar.(V_Rds)	226.70	158.69	198.36
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0006
Required Stirrups Spacing	2-P10 @210	2-P10 @300	2-P10 @240
Shear Ratio by Conc	2.0338	1.1919	1.4795
Shear Ratio by (V_Rds ; V_Rdmax)	0.9652	0.9829	0.9761
Check Ratio	0.9652	0.9829	0.9761

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 59
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.808 m

2. Section Diagram



[END-I] TOP : 3-P20 BOT : 5-P20 STIRRUPS : 2-P10 @210
[MID] TOP : 8-P20 BOT : 2-P20 STIRRUPS : 2-P10 @330
[END-J] TOP : 7-P20 BOT : 2-P20 STIRRUPS : 2-P10 @290

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	200.11	449.48	407.88
Factored Strength (M_Rd)	303.64	764.27	679.94
Check Ratio (M_Ed/M_Rd)	0.6590	0.5881	0.5999
Neutral Axis (x/d)	0.0519	0.2676	0.2227
(+) Load Combination No.	36+	44-	40+
Moment (M_Ed)	422.07	0.00	17.52
Factored Strength (M_Rd)	509.72	207.65	207.52
Check Ratio (M_Ed/M_Rd)	0.8280	0.0000	0.0844
Neutral Axis (x/d)	0.0518	0.0367	0.0365
Required Rebar Top (As_top)	0.0006	0.0015	0.0013
Required Rebar Bot (As_bot)	0.0014	0.0003	0.0003

4. Shear Capacity

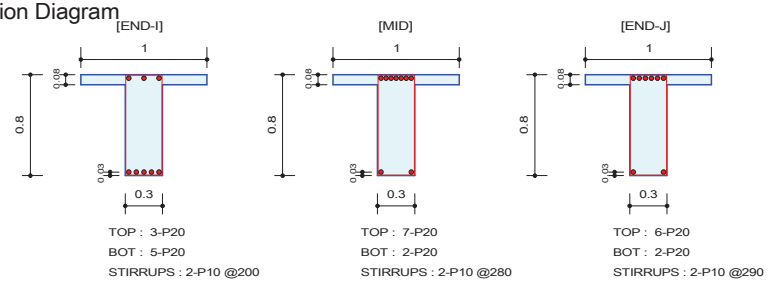
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	226.36	143.58	162.61
Shear Strength by Conc.(V_Rdc)	107.58	125.83	120.35
Shear Strength by Rebar.(V_Rds)	226.70	144.26	164.16
Required Shear Reinf. (Asw)	0.0008	0.0005	0.0005
Required Stirrups Spacing	2-P10 @210	2-P10 @330	2-P10 @290
Shear Ratio by Conc	2.1040	1.1411	1.3511
Shear Ratio by (V_Rds ; V_Rdmax)	0.9985	0.9953	0.9906
Check Ratio	0.9985	0.9953	0.9906

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 60
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7942 m

2. Section Diagram



[END-I] TOP : 3-P20 BOT : 5-P20 STIRRUPS : 2-P10 @200
[MID] TOP : 7-P20 BOT : 2-P20 STIRRUPS : 2-P10 @280
[END-J] TOP : 6-P20 BOT : 2-P20 STIRRUPS : 2-P10 @290

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	39-	36-
Moment (M_Ed)	197.56	429.88	365.50
Factored Strength (M_Rd)	303.64	679.94	591.88
Check Ratio (M_Ed/M_Rd)	0.6507	0.6322	0.6175
Neutral Axis (x/d)	0.0519	0.2227	0.1797
(+) Load Combination No.	36+	44-	44-
Moment (M_Ed)	427.92	0.00	0.00
Factored Strength (M_Rd)	509.72	207.52	207.37
Check Ratio (M_Ed/M_Rd)	0.8395	0.0000	0.0000
Neutral Axis (x/d)	0.0518	0.0365	0.0362
Required Rebar Top (As_top)	0.0006	0.0014	0.0012
Required Rebar Bot (As_bot)	0.0014	0.0003	0.0003

4. Shear Capacity

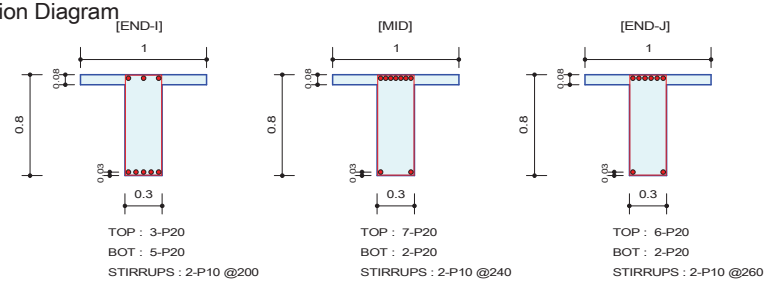
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	227.98	169.33	162.58
Shear Strength by Conc.(V_Rdc)	107.58	120.35	114.32
Shear Strength by Rebar.(V_Rds)	238.03	170.02	164.16
Required Shear Reinf. (Asw)	0.0008	0.0006	0.0005
Required Stirrups Spacing	2-P10 @200	2-P10 @280	2-P10 @290
Shear Ratio by Conc	2.1191	1.4069	1.4221
Shear Ratio by (V_Rds ; V_Rdmax)	0.9578	0.9959	0.9904
Check Ratio	0.9578	0.9959	0.9904

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 61
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7803 m

2. Section Diagram



[END-I] TOP : 3-P20 BOT : 5-P20 STIRRUPS : 2-P10 @200
[MID] TOP : 7-P20 BOT : 2-P20 STIRRUPS : 2-P10 @240
[END-J] TOP : 6-P20 BOT : 2-P20 STIRRUPS : 2-P10 @260

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	197.50	403.27	357.44
Factored Strength (M_Rd)	303.64	679.94	591.88
Check Ratio (M_Ed/M_Rd)	0.6504	0.5931	0.6039
Neutral Axis (x/d)	0.0519	0.2227	0.1797
(+) Load Combination No.	36+	44-	44-
Moment (M_Ed)	430.15	0.00	0.00
Factored Strength (M_Rd)	509.72	207.52	207.37
Check Ratio (M_Ed/M_Rd)	0.8439	0.0000	0.0000
Neutral Axis (x/d)	0.0518	0.0365	0.0362
Required Rebar Top (As_top)	0.0006	0.0013	0.0012
Required Rebar Bot (As_bot)	0.0014	0.0003	0.0003

4. Shear Capacity

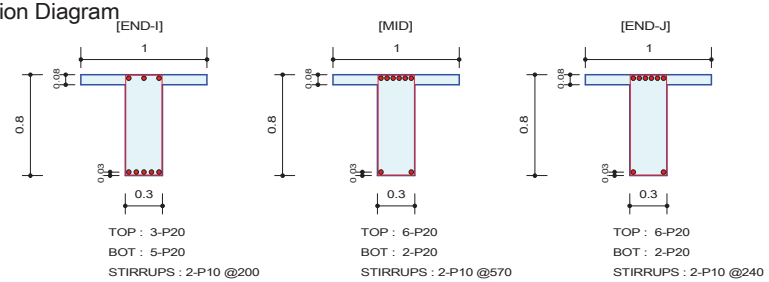
	END-I	MID	END-J
Load Combination No.	40+	39+	40-
Factored Shear Force (V_Ed)	231.27	197.14	179.06
Shear Strength by Conc.(V_Rdc)	107.58	120.35	114.32
Shear Strength by Rebar.(V_Rds)	238.03	198.36	183.10
Required Shear Reinf. (Asw)	0.0008	0.0007	0.0006
Required Stirrups Spacing	2-P10 @200	2-P10 @240	2-P10 @260
Shear Ratio by Conc	2.1496	1.6380	1.5662
Shear Ratio by (V_Rds ; V_Rdmax)	0.9716	0.9938	0.9779
Check Ratio	0.9716	0.9938	0.9779

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 62
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7665 m

2. Section Diagram



[END-I] TOP : 3-P20 BOT : 5-P20 STIRRUPS : 2-P10 @200
[MID] TOP : 6-P20 BOT : 2-P20 STIRRUPS : 2-P10 @570
[END-J] TOP : 6-P20 BOT : 2-P20 STIRRUPS : 2-P10 @240

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	179.57	364.06	333.75
Factored Strength (M_Rd)	303.64	591.88	591.88
Check Ratio (M_Ed/M_Rd)	0.5914	0.6151	0.5639
Neutral Axis (x/d)	0.0519	0.1797	0.1797
(+) Load Combination No.	40+	44-	44-
Moment (M_Ed)	409.32	0.00	0.00
Factored Strength (M_Rd)	509.72	207.37	207.37
Check Ratio (M_Ed/M_Rd)	0.8030	0.0000	0.0000
Neutral Axis (x/d)	0.0518	0.0362	0.0362
Required Rebar Top (As_top)	0.0006	0.0012	0.0011
Required Rebar Bot (As_bot)	0.0013	0.0003	0.0003

4. Shear Capacity

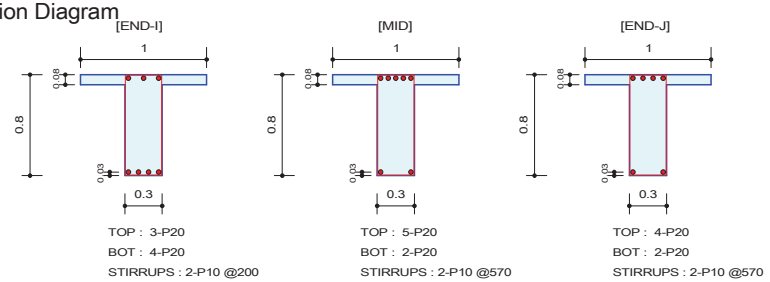
	END-I	MID	END-J
Load Combination No.	40+	40+	40-
Factored Shear Force (V_Ed)	228.59	107.27	195.05
Shear Strength by Conc.(V_Rdc)	107.58	114.32	114.32
Shear Strength by Rebar.(V_Rds)	238.03	83.52	198.36
Required Shear Reinf. (Asw)	0.0008	0.0003	0.0006
Required Stirrups Spacing	2-P10 @200	2-P10 @570	2-P10 @240
Shear Ratio by Conc	2.1248	0.9383	1.7061
Shear Ratio by (V_Rds ; V_Rdmax)	0.9603	1.2844	0.9833
Check Ratio	0.9603	0.9383	0.9833

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 63
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7526 m

2. Section Diagram



[END-I] TOP : 3-P20 BOT : 4-P20 STIRRUPS : 2-P10 @200
[MID] TOP : 5-P20 BOT : 2-P20 STIRRUPS : 2-P10 @570
[END-J] TOP : 4-P20 BOT : 2-P20 STIRRUPS : 2-P10 @570

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	147.29	309.64	262.87
Factored Strength (M_Rd)	303.67	500.09	403.41
Check Ratio (M_Ed/M_Rd)	0.4850	0.6192	0.6516
Neutral Axis (x/d)	0.0552	0.1348	0.0957
(+) Load Combination No.	40+	44-	44-
Moment (M_Ed)	368.53	0.00	0.00
Factored Strength (M_Rd)	409.32	208.04	207.03
Check Ratio (M_Ed/M_Rd)	0.9004	0.0000	0.0000
Neutral Axis (x/d)	0.0447	0.0358	0.0353
Required Rebar Top (As_top)	0.0005	0.0010	0.0008
Required Rebar Bot (As_bot)	0.0012	0.0003	0.0003

4. Shear Capacity

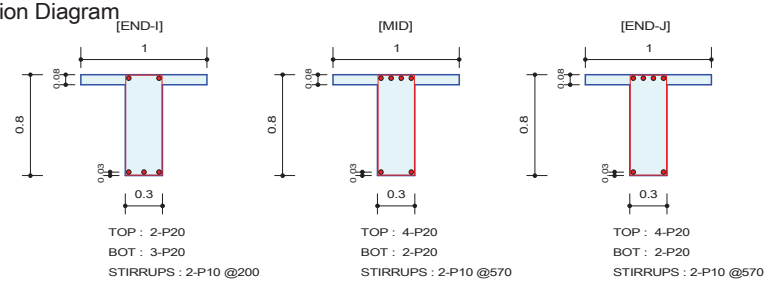
	END-I	MID	END-J
Load Combination No.	40+	40+	40-
Factored Shear Force (V_Ed)	234.14	97.59	94.22
Shear Strength by Conc.(V_Rdc)	99.87	107.58	99.87
Shear Strength by Rebar.(V_Rds)	238.03	83.52	83.52
Required Shear Reinf. (Asw)	0.0008	0.0003	0.0003
Required Stirrups Spacing	2-P10 @200	2-P10 @570	2-P10 @570
Shear Ratio by Conc	2.3444	0.9071	0.9434
Shear Ratio by (V_Rds ; V_Rdmax)	0.9837	1.1685	1.1281
Check Ratio	0.9837	0.9071	0.9434

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 64
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7388 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 2-P20	TOP : 4-P20	TOP : 4-P20
BOT : 3-P20	BOT : 2-P20	BOT : 2-P20
STIRRUPS : 2-P10 @200	STIRRUPS : 2-P10 @570	STIRRUPS : 2-P10 @570

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	109.77	243.51	204.65
Factored Strength (M_Rd)	203.02	403.41	403.41
Check Ratio (M_Ed/M_Rd)	0.5407	0.6036	0.5073
Neutral Axis (x/d)	0.0491	0.0957	0.0957
(+) Load Combination No.	40+	44-	44-
Moment (M_Ed)	282.74	0.00	0.00
Factored Strength (M_Rd)	308.71	207.03	207.03
Check Ratio (M_Ed/M_Rd)	0.9159	0.0000	0.0000
Neutral Axis (x/d)	0.0393	0.0353	0.0353
Required Rebar Top (As_top)	0.0004	0.0008	0.0006
Required Rebar Bot (As_bot)	0.0009	0.0003	0.0003

4. Shear Capacity

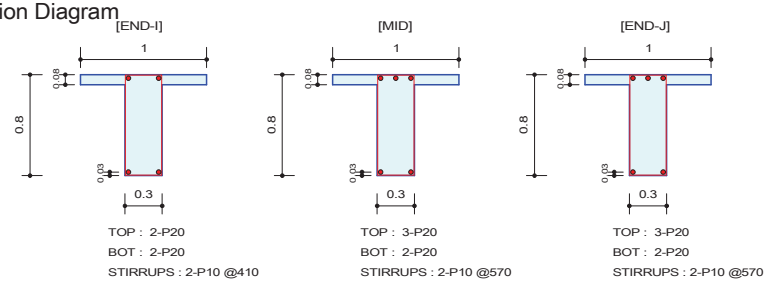
	END-I	MID	END-J
Load Combination No.	40+	40+	40-
Factored Shear Force (V_Ed)	232.00	86.50	73.32
Shear Strength by Conc.(V_Rdc)	90.74	99.87	99.87
Shear Strength by Rebar.(V_Rds)	238.03	83.52	83.52
Required Shear Reinf. (Asw)	0.0008	0.0003	0.0003
Required Stirrups Spacing	2-P10 @200	2-P10 @570	2-P10 @570
Shear Ratio by Conc	2.5567	0.8661	0.7341
Shear Ratio by (V_Rds ; V_Rdmax)	0.9747	1.0356	0.8779
Check Ratio	0.9747	0.8661	0.7341

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 65
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7249 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 2-P20	TOP : 3-P20	TOP : 3-P20
BOT : 2-P20	BOT : 2-P20	BOT : 2-P20
STIRRUPS : 2-P10 @410	STIRRUPS : 2-P10 @570	STIRRUPS : 2-P10 @570

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	69.84	153.91	139.81
Factored Strength (M_Rd)	202.96	304.02	304.02
Check Ratio (M_Ed/M_Rd)	0.3441	0.5063	0.4599
Neutral Axis (x/d)	0.0532	0.0713	0.0713
(+) Load Combination No.	40+	44-	44-
Moment (M_Ed)	174.77	0.00	0.00
Factored Strength (M_Rd)	207.25	206.96	206.96
Check Ratio (M_Ed/M_Rd)	0.8433	0.0000	0.0000
Neutral Axis (x/d)	0.0334	0.0345	0.0345
Required Rebar Top (As_top)	0.0004	0.0005	0.0004
Required Rebar Bot (As_bot)	0.0005	0.0003	0.0003

4. Shear Capacity

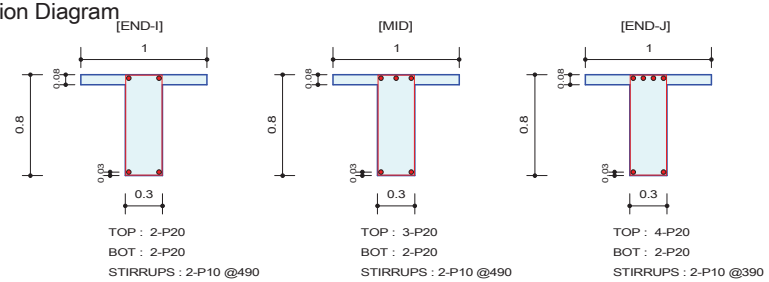
	END-I	MID	END-J
Load Combination No.	40+	40+	36-
Factored Shear Force (V_Ed)	115.44	59.01	49.54
Shear Strength by Conc.(V_Rdc)	79.27	90.74	90.74
Shear Strength by Rebar.(V_Rds)	116.11	83.52	83.52
Required Shear Reinf. (Asw)	0.0004	0.0003	0.0003
Required Stirrups Spacing	2-P10 @410	2-P10 @570	2-P10 @570
Shear Ratio by Conc	1.4563	0.6503	0.5460
Shear Ratio by (V_Rds ; V_Rdmax)	0.9942	0.7065	0.5932
Check Ratio	0.9942	0.6503	0.5460

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 66
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7111 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	40-	40-
Moment (M_Ed)	104.63	188.55	221.60
Factored Strength (M_Rd)	202.96	304.02	403.41
Check Ratio (M_Ed/M_Rd)	0.5155	0.6202	0.5493
Neutral Axis (x/d)	0.0532	0.0713	0.0957
(+) Load Combination No.	44+	44+	44+
Moment (M_Ed)	38.78	35.98	35.98
Factored Strength (M_Rd)	207.25	206.96	207.03
Check Ratio (M_Ed/M_Rd)	0.1871	0.1739	0.1738
Neutral Axis (x/d)	0.0334	0.0345	0.0353
Required Rebar Top (As_top)	0.0004	0.0006	0.0007
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

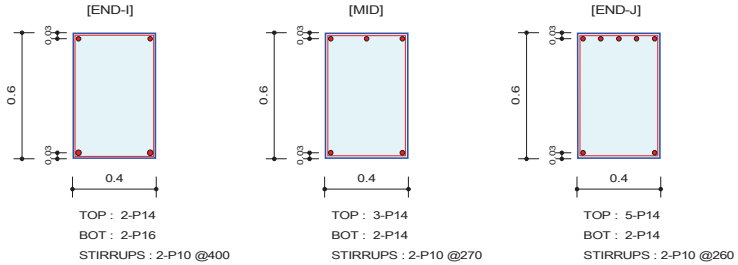
	END-I	MID	END-J
Load Combination No.	36-	36-	39+
Factored Shear Force (V_Ed)	96.27	96.27	120.65
Shear Strength by Conc.(V_Rdc)	79.27	90.74	99.87
Shear Strength by Rebar.(V_Rds)	97.16	97.16	122.07
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0004
Required Stirrups Spacing	2-P10 @490	2-P10 @490	2-P10 @390
Shear Ratio by Conc	1.2145	1.0610	1.2080
Shear Ratio by (V_Rds ; V_Rdmax)	0.9909	0.9909	0.9884
Check Ratio	0.9909	0.9909	0.9884

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 67
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 3.26 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	36-	39-
Moment (M_Ed)	16.00	103.34	157.48
Factored Strength (M_Rd)	74.76	111.00	182.54
Check Ratio (M_Ed/M_Rd)	0.2140	0.9310	0.8627
Neutral Axis (x/d)	0.0496	0.0586	0.0845
(+) Load Combination No.	43+	43+	44-
Moment (M_Ed)	93.52	18.93	0.00
Factored Strength (M_Rd)	97.07	74.67	74.67
Check Ratio (M_Ed/M_Rd)	0.9635	0.2536	0.0000
Neutral Axis (x/d)	0.0547	0.0498	0.0507
Required Rebar Top (As_top)	0.0003	0.0004	0.0007
Required Rebar Bot (As_bot)	0.0004	0.0003	0.0003

4. Shear Capacity

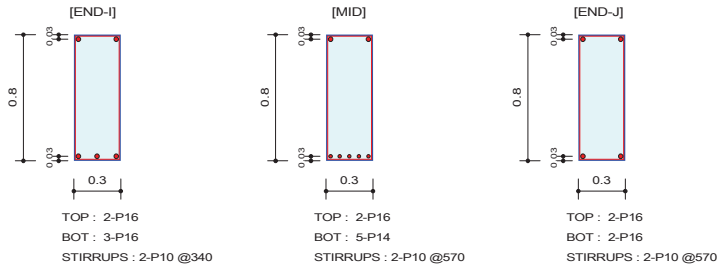
	END-I	MID	END-J
Load Combination No.	43+	39+	39+
Factored Shear Force (V_Ed)	85.96	127.35	130.75
Shear Strength by Conc.(V_Rdc)	80.17	80.17	88.71
Shear Strength by Rebar.(V_Rds)	88.10	130.52	135.54
Required Shear Reinf. (Asw)	0.0004	0.0006	0.0006
Required Stirrups Spacing	2-P10 @400	2-P10 @270	2-P10 @260
Shear Ratio by Conc	1.0722	1.5884	1.4739
Shear Ratio by (V_Rds ; V_Rdmax)	0.9757	0.9757	0.9647
Check Ratio	0.9757	0.9757	0.9647

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 68
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/80 (No : 24) Beam Span : 13.8 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	0.00	0.00
Factored Strength (M_Rd)	131.45	130.75	130.71
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0000
Neutral Axis (x/d)	0.0432	0.0424	0.0447
(+) Load Combination No.	40+	40+	36+
Moment (M_Ed)	174.92	209.93	53.62
Factored Strength (M_Rd)	195.96	248.06	130.71
Check Ratio (M_Ed/M_Rd)	0.8926	0.8463	0.4102
Neutral Axis (x/d)	0.0576	0.0698	0.0447
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0005	0.0007	0.0003

4. Shear Capacity

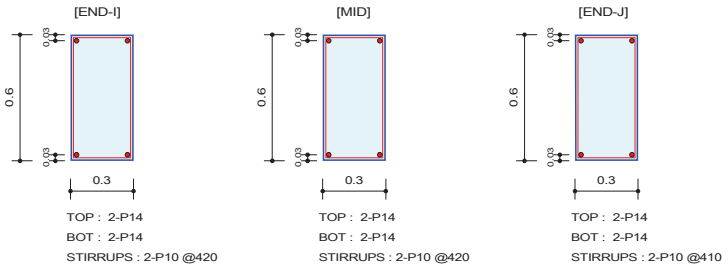
	END-I	MID	END-J
Load Combination No.	36+	39-	39+
Factored Shear Force (V_Ed)	137.95	48.24	31.40
Shear Strength by Conc.(V_Rdc)	78.20	84.84	74.98
Shear Strength by Rebar.(V_Rds)	140.02	83.52	83.52
Required Shear Reinf. (Asw)	0.0005	0.0003	0.0003
Required Stirrups Spacing	2-P10 @340	2-P10 @570	2-P10 @570
Shear Ratio by Conc	1.7640	0.5686	0.4188
Shear Ratio by (V_Rds ; V_Rdmax)	0.9852	0.5776	0.3760
Check Ratio	0.9852	0.5686	0.4188

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 82
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/60 (No : 20) Beam Span : 38.86 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	36-
Moment (M_Ed)	4.00	17.93	16.20
Factored Strength (M_Rd)	73.89	73.89	73.89
Check Ratio (M_Ed/M_Rd)	0.0541	0.2427	0.2193
Neutral Axis (x/d)	0.0547	0.0547	0.0547
(+) Load Combination No.	40+	40+	40+
Moment (M_Ed)	13.45	13.45	13.08
Factored Strength (M_Rd)	73.89	73.89	73.89
Check Ratio (M_Ed/M_Rd)	0.1820	0.1820	0.1771
Neutral Axis (x/d)	0.0547	0.0547	0.0547
Required Rebar Top (As_top)	0.0002	0.0002	0.0002
Required Rebar Bot (As_bot)	0.0002	0.0002	0.0002

4. Shear Capacity

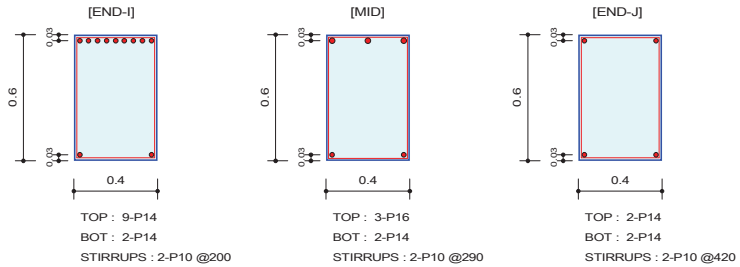
	END-I	MID	END-J
Load Combination No.	40+	40-	39-
Factored Shear Force (V_Ed)	9.47	20.31	85.41
Shear Strength by Conc.(V_Rdc)	60.13	60.13	60.13
Shear Strength by Rebar.(V_Rds)	83.91	83.91	85.95
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @410
Shear Ratio by Conc	0.1575	0.3377	1.4204
Shear Ratio by (V_Rds ; V_Rdmax)	0.1129	0.2420	0.9937
Check Ratio	0.1575	0.3377	0.9937

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 121
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	293.61	113.06	33.88
Factored Strength (M_Rd)	322.79	143.51	74.92
Check Ratio (M_Ed/M_Rd)	0.9096	0.7878	0.4523
Neutral Axis (x/d)	0.1543	0.0698	0.0491
(+) Load Combination No.	44-	40+	38+
Moment (M_Ed)	0.00	51.71	38.42
Factored Strength (M_Rd)	74.58	74.80	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.6913	0.5128
Neutral Axis (x/d)	0.0514	0.0503	0.0491
Required Rebar Top (As_top)	0.0013	0.0005	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

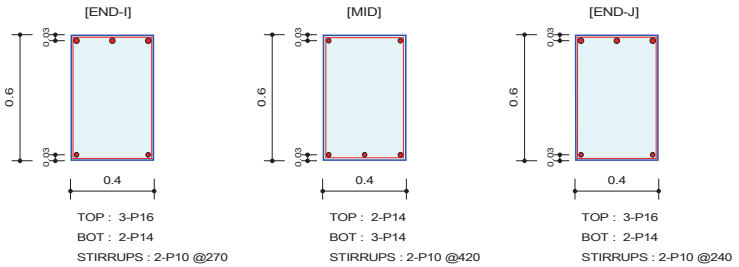
	END-I	MID	END-J
Load Combination No.	40-	40-	36+
Factored Shear Force (V_Ed)	168.59	121.18	61.44
Shear Strength by Conc.(V_Rdc)	107.91	81.77	80.17
Shear Strength by Rebar.(V_Rds)	176.20	121.52	83.91
Required Shear Reinf. (Asw)	0.0008	0.0005	0.0004
Required Stirrups Spacing	2-P10 @200	2-P10 @290	2-P10 @420
Shear Ratio by Conc	1.5622	1.4820	0.7664
Shear Ratio by (V_Rds ; V_Rdmax)	0.9568	0.9972	0.7323
Check Ratio	0.9568	0.9972	0.7664

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 122
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	43-	36-
Moment (M_Ed)	116.13	2.94	125.54
Factored Strength (M_Rd)	143.51	74.67	143.51
Check Ratio (M_Ed/M_Rd)	0.8092	0.0394	0.8748
Neutral Axis (x/d)	0.0698	0.0498	0.0698
(+) Load Combination No.	44+	40+	38+
Moment (M_Ed)	37.34	100.64	66.22
Factored Strength (M_Rd)	74.80	111.00	74.80
Check Ratio (M_Ed/M_Rd)	0.4993	0.9067	0.8854
Neutral Axis (x/d)	0.0503	0.0586	0.0503
Required Rebar Top (As_top)	0.0005	0.0003	0.0005
Required Rebar Bot (As_bot)	0.0003	0.0004	0.0003

4. Shear Capacity

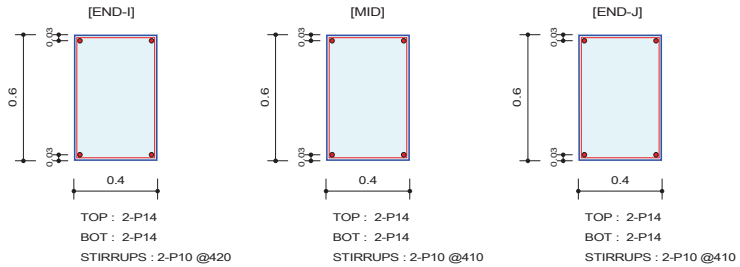
	END-I	MID	END-J
Load Combination No.	38-	40-	36+
Factored Shear Force (V_Ed)	128.87	83.56	144.04
Shear Strength by Conc.(V_Rdc)	81.77	80.17	81.77
Shear Strength by Rebar.(V_Rds)	130.52	83.91	146.84
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0006
Required Stirrups Spacing	2-P10 @270	2-P10 @420	2-P10 @240
Shear Ratio by Conc	1.5760	1.0422	1.7616
Shear Ratio by (V_Rds ; V_Rdmax)	0.9873	0.9959	0.9810
Check Ratio	0.9873	0.9959	0.9810

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 123
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.40001 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	43-	43-
Moment (M_Ed)	38.42	31.71	50.65
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.5128	0.4233	0.6760
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	43+	38+	38+
Moment (M_Ed)	30.55	30.07	51.10
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.4078	0.4014	0.6821
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

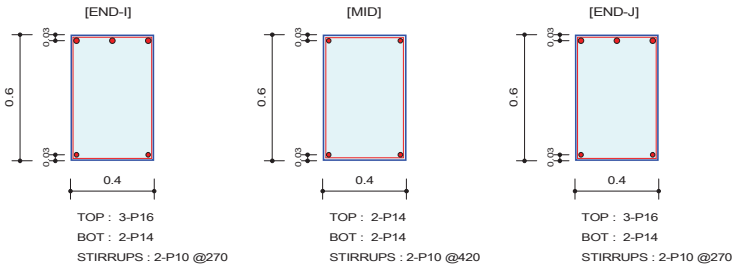
	END-I	MID	END-J
Load Combination No.	38-	38-	38-
Factored Shear Force (V_Ed)	68.85	85.61	85.56
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	85.95	85.95
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @410	2-P10 @410
Shear Ratio by Conc	0.8588	1.0678	1.0672
Shear Ratio by (V_Rds ; V_Rdmax)	0.8206	0.9960	0.9954
Check Ratio	0.8588	0.9960	0.9954

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 124
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	41-	36-
Moment (M_Ed)	130.04	6.78	132.19
Factored Strength (M_Rd)	143.51	74.92	143.51
Check Ratio (M_Ed/M_Rd)	0.9061	0.0905	0.9212
Neutral Axis (x/d)	0.0698	0.0491	0.0698
(+) Load Combination No.	36+	40+	38+
Moment (M_Ed)	20.03	72.24	27.96
Factored Strength (M_Rd)	74.80	74.92	74.80
Check Ratio (M_Ed/M_Rd)	0.2678	0.9643	0.3738
Neutral Axis (x/d)	0.0503	0.0491	0.0503
Required Rebar Top (As_top)	0.0006	0.0003	0.0006
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

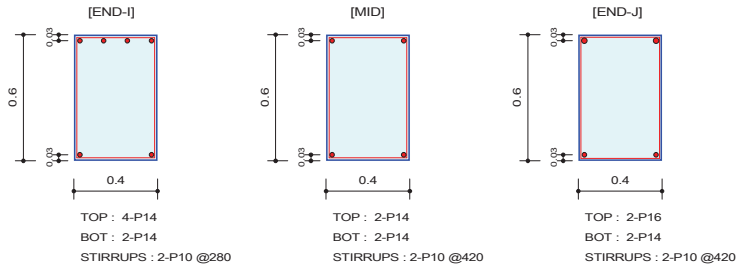
	END-I	MID	END-J
Load Combination No.	38-	36+	36+
Factored Shear Force (V_Ed)	128.39	79.70	127.62
Shear Strength by Conc.(V_Rdc)	81.77	80.17	81.77
Shear Strength by Rebar.(V_Rds)	130.52	83.91	130.52
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0006
Required Stirrups Spacing	2-P10 @270	2-P10 @420	2-P10 @270
Shear Ratio by Conc	1.5701	0.9940	1.5608
Shear Ratio by (V_Rds ; V_Rdmax)	0.9837	0.9498	0.9778
Check Ratio	0.9837	0.9940	0.9778

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 125
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	43-
Moment (M_Ed)	144.09	35.60	87.03
Factored Strength (M_Rd)	146.31	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.9848	0.4751	0.8966
Neutral Axis (x/d)	0.0708	0.0491	0.0547
(+) Load Combination No.	43+	40+	44+
Moment (M_Ed)	16.41	52.92	37.84
Factored Strength (M_Rd)	74.57	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.2201	0.7063	0.5062
Neutral Axis (x/d)	0.0503	0.0491	0.0496
Required Rebar Top (As_top)	0.0006	0.0003	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

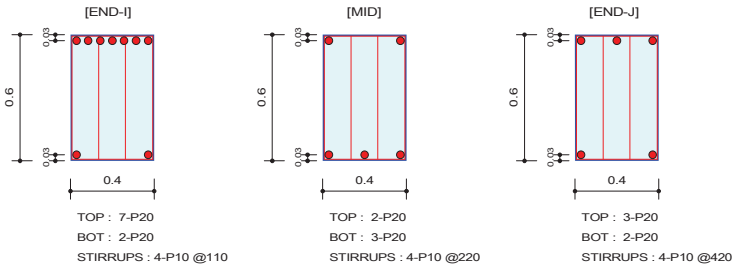
	END-I	MID	END-J
Load Combination No.	36-	36-	40+
Factored Shear Force (V_Ed)	123.72	76.61	50.65
Shear Strength by Conc.(V_Rdc)	82.35	80.17	80.17
Shear Strength by Rebar.(V_Rds)	125.86	83.91	83.91
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0004
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @420
Shear Ratio by Conc	1.5023	0.9555	0.6318
Shear Ratio by (V_Rds ; V_Rdmax)	0.9830	0.9130	0.6037
Check Ratio	0.9830	0.9555	0.6318

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 178
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	43-	43-
Moment (M_Ed)	460.50	85.54	181.18
Factored Strength (M_Rd)	500.82	149.75	223.61
Check Ratio (M_Ed/M_Rd)	0.9195	0.5712	0.8103
Neutral Axis (x/d)	0.2266	0.0607	0.0840
(+) Load Combination No.	43+	40+	44+
Moment (M_Ed)	106.62	199.27	97.78
Factored Strength (M_Rd)	149.10	223.61	149.75
Check Ratio (M_Ed/M_Rd)	0.7151	0.8912	0.6529
Neutral Axis (x/d)	0.0563	0.0840	0.0607
Required Rebar Top (As_top)	0.0022	0.0004	0.0008
Required Rebar Bot (As_bot)	0.0005	0.0009	0.0004

4. Shear Capacity

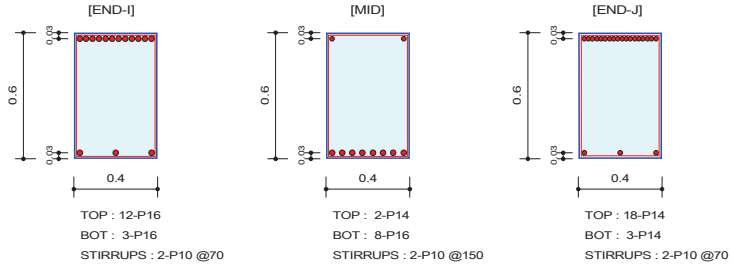
	END-I	MID	END-J
Load Combination No.	36-	40-	38+
Factored Shear Force (V_Ed)	611.46	314.61	92.62
Shear Strength by Conc.(V_Rdc)	125.84	94.88	94.88
Shear Strength by Rebar.(V_Rds)	640.74	320.37	167.81
Required Shear Reinf. (Asw)	0.0027	0.0014	0.0007
Required Stirrups Spacing	4-P10 @110	4-P10 @220	4-P10 @420
Shear Ratio by Conc	4.8589	3.3158	0.9762
Shear Ratio by (V_Rds ; V_Rdmax)	0.9543	0.9820	0.5519
Check Ratio	0.9543	0.9820	0.9762

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 179
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	43-	40-
Moment (M_Ed)	483.60	66.46	553.21
Factored Strength (M_Rd)	542.60	75.07	604.36
Check Ratio (M_Ed/M_Rd)	0.8913	0.8853	0.9154
Neutral Axis (x/d)	0.2617	0.0516	0.3320
(+) Load Combination No.	43+	39+	44+
Moment (M_Ed)	114.28	350.36	97.60
Factored Strength (M_Rd)	143.98	370.24	110.86
Check Ratio (M_Ed/M_Rd)	0.7937	0.9463	0.8804
Neutral Axis (x/d)	0.0557	0.1875	0.0536
Required Rebar Top (As_top)	0.0023	0.0003	0.0027
Required Rebar Bot (As_bot)	0.0005	0.0016	0.0004

4. Shear Capacity

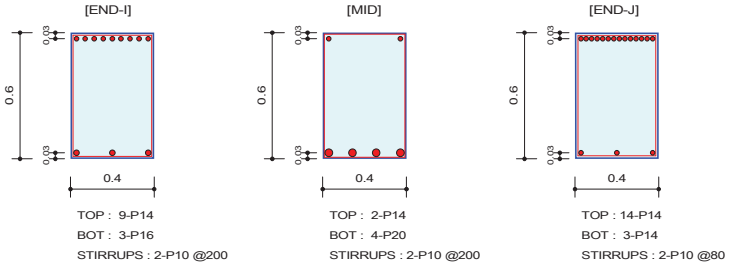
	END-I	MID	END-J
Load Combination No.	36-	36-	40+
Factored Shear Force (V_Ed)	444.03	224.16	491.37
Shear Strength by Conc.(V_Rdc)	129.80	113.39	135.96
Shear Strength by Rebar.(V_Rds)	503.44	234.94	503.44
Required Shear Reinf. (Asw)	0.0020	0.0010	0.0022
Required Stirrups Spacing	2-P10 @70	2-P10 @150	2-P10 @70
Shear Ratio by Conc	3.4208	1.9768	3.6140
Shear Ratio by (V_Rds ; V_Rdmax)	0.8820	0.9541	0.9760
Check Ratio	0.8820	0.9541	0.9760

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 180
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	43-	43-
Moment (M_Ed)	299.39	65.20	445.47
Factored Strength (M_Rd)	323.11	75.09	486.98
Check Ratio (M_Ed/M_Rd)	0.9266	0.8684	0.9148
Neutral Axis (x/d)	0.1211	0.0513	0.2422
(+) Load Combination No.	43+	36+	44+
Moment (M_Ed)	112.22	283.82	100.74
Factored Strength (M_Rd)	144.09	292.78	110.46
Check Ratio (M_Ed/M_Rd)	0.7788	0.9694	0.9120
Neutral Axis (x/d)	0.0577	0.1367	0.0539
Required Rebar Top (As_top)	0.0013	0.0003	0.0021
Required Rebar Bot (As_bot)	0.0005	0.0013	0.0004

4. Shear Capacity

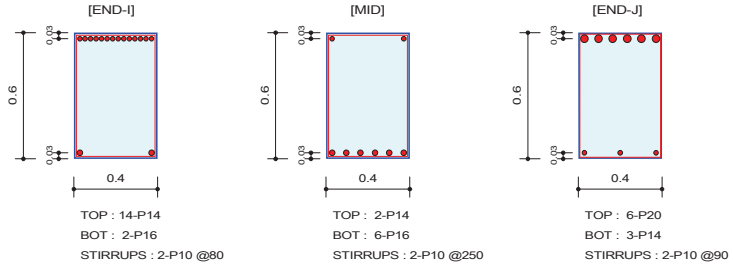
	END-I	MID	END-J
Load Combination No.	36-	39+	36+
Factored Shear Force (V_Ed)	174.92	172.29	400.39
Shear Strength by Conc.(V_Rdc)	107.91	104.43	125.04
Shear Strength by Rebar.(V_Rds)	176.20	176.20	440.51
Required Shear Reinf. (Asw)	0.0008	0.0008	0.0018
Required Stirrups Spacing	2-P10 @200	2-P10 @200	2-P10 @80
Shear Ratio by Conc	1.6209	1.6499	3.2022
Shear Ratio by (V_Rds ; V_Rdmax)	0.9927	0.9778	0.9089
Check Ratio	0.9927	0.9778	0.9089

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 181
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	44-	40-
Moment (M_Ed)	452.54	51.47	403.75
Factored Strength (M_Rd)	484.88	74.91	431.72
Check Ratio (M_Ed/M_Rd)	0.9333	0.6872	0.9352
Neutral Axis (x/d)	0.2500	0.0513	0.2051
(+) Load Combination No.	43+	36+	44+
Moment (M_Ed)	93.84	273.37	103.97
Factored Strength (M_Rd)	97.26	281.71	110.71
Check Ratio (M_Ed/M_Rd)	0.9649	0.9704	0.9391
Neutral Axis (x/d)	0.0531	0.1309	0.0541
Required Rebar Top (As_top)	0.0021	0.0003	0.0019
Required Rebar Bot (As_bot)	0.0004	0.0012	0.0004

4. Shear Capacity

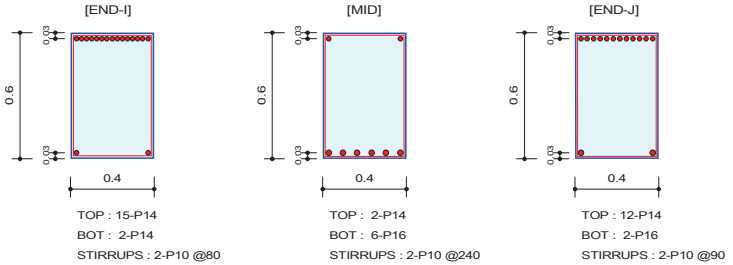
	END-I	MID	END-J
Load Combination No.	40-	40-	36+
Factored Shear Force (V_Ed)	407.59	140.55	357.33
Shear Strength by Conc.(V_Rdc)	125.04	103.02	119.54
Shear Strength by Rebar.(V_Rds)	440.51	140.96	391.57
Required Shear Reinf. (Asw)	0.0018	0.0006	0.0016
Required Stirrups Spacing	2-P10 @80	2-P10 @250	2-P10 @90
Shear Ratio by Conc	3.2598	1.3642	2.9892
Shear Ratio by (V_Rds ; V_Rdmax)	0.9253	0.9971	0.9126
Check Ratio	0.9253	0.9971	0.9126

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 182
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	44-	40-
Moment (M_Ed)	470.11	27.05	395.88
Factored Strength (M_Rd)	511.12	74.91	422.66
Check Ratio (M_Ed/M_Rd)	0.9198	0.3611	0.9366
Neutral Axis (x/d)	0.2852	0.0513	0.2070
(+) Load Combination No.	43+	36+	44+
Moment (M_Ed)	62.07	269.38	80.85
Factored Strength (M_Rd)	74.81	281.71	97.12
Check Ratio (M_Ed/M_Rd)	0.8297	0.9562	0.8325
Neutral Axis (x/d)	0.0518	0.1309	0.0532
Required Rebar Top (As_top)	0.0022	0.0003	0.0018
Required Rebar Bot (As_bot)	0.0003	0.0012	0.0003

4. Shear Capacity

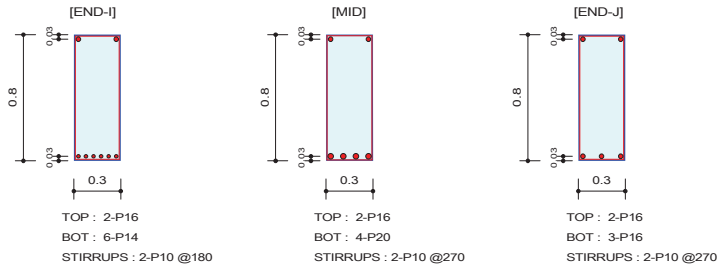
	END-I	MID	END-J
Load Combination No.	36-	36-	36+
Factored Shear Force (V_Ed)	431.25	141.17	359.36
Shear Strength by Conc.(V_Rdc)	127.95	103.02	118.77
Shear Strength by Rebar.(V_Rds)	440.51	146.84	391.57
Required Shear Reinf. (Asw)	0.0019	0.0006	0.0016
Required Stirrups Spacing	2-P10 @80	2-P10 @240	2-P10 @90
Shear Ratio by Conc	3.3705	1.3703	3.0256
Shear Ratio by (V_Rds ; V_Rdmax)	0.9790	0.9614	0.9178
Check Ratio	0.9790	0.9614	0.9178

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 183
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/80 (No : 24) Beam Span : 13.8 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	0.00	0.00
Factored Strength (M_Rd)	130.89	130.38	131.45
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0000
Neutral Axis (x/d)	0.0419	0.0411	0.0432
(+) Load Combination No.	40+	40+	36+
Moment (M_Ed)	273.62	379.07	157.97
Factored Strength (M_Rd)	295.86	401.16	195.96
Check Ratio (M_Ed/M_Rd)	0.9248	0.9449	0.8061
Neutral Axis (x/d)	0.0830	0.1211	0.0576
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0009	0.0012	0.0005

4. Shear Capacity

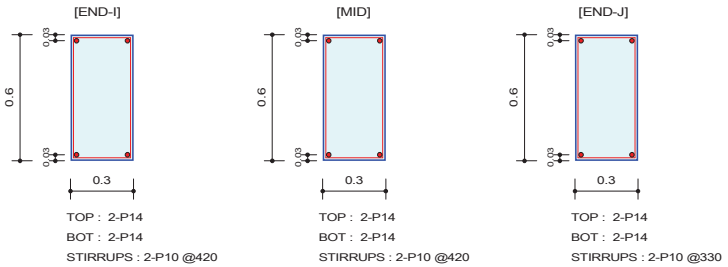
	END-I	MID	END-J
Load Combination No.	36+	40+	40+
Factored Shear Force (V_Ed)	254.32	176.15	176.15
Shear Strength by Conc.(V_Rdc)	90.16	99.87	78.20
Shear Strength by Rebar.(V_Rds)	264.48	176.32	176.32
Required Shear Reinf. (Asw)	0.0008	0.0006	0.0006
Required Stirrups Spacing	2-P10 @180	2-P10 @270	2-P10 @270
Shear Ratio by Conc	2.8209	1.7638	2.2525
Shear Ratio by (V_Rds ; V_Rdmax)	0.9616	0.9990	0.9990
Check Ratio	0.9616	0.9990	0.9990

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 197
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/60 (No : 20) Beam Span : 38.86 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	36-
Moment (M_Ed)	13.22	16.99	2.91
Factored Strength (M_Rd)	73.89	73.89	73.89
Check Ratio (M_Ed/M_Rd)	0.1789	0.2299	0.0394
Neutral Axis (x/d)	0.0547	0.0547	0.0547
(+) Load Combination No.	40+	40+	40+
Moment (M_Ed)	44.70	51.83	29.55
Factored Strength (M_Rd)	73.89	73.89	73.89
Check Ratio (M_Ed/M_Rd)	0.6049	0.7014	0.3999
Neutral Axis (x/d)	0.0547	0.0547	0.0547
Required Rebar Top (As_top)	0.0002	0.0002	0.0002
Required Rebar Bot (As_bot)	0.0002	0.0002	0.0002

4. Shear Capacity

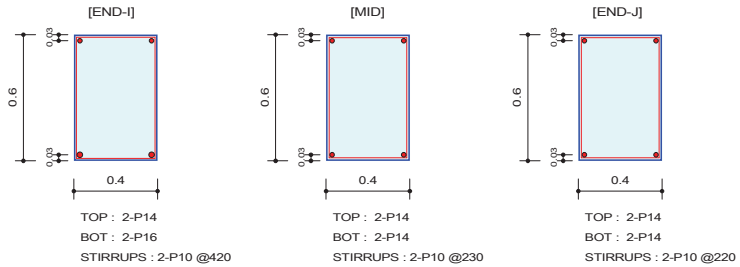
	END-I	MID	END-J
Load Combination No.	40+	40+	40-
Factored Shear Force (V_Ed)	47.92	40.45	105.06
Shear Strength by Conc.(V_Rdc)	60.13	60.13	60.13
Shear Strength by Rebar.(V_Rds)	83.91	83.91	106.79
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0005
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @330
Shear Ratio by Conc	0.7970	0.6728	1.7471
Shear Ratio by (V_Rds ; V_Rdmax)	0.5712	0.4821	0.9838
Check Ratio	0.7970	0.6728	0.9838

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 288
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 2.3 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	36-
Moment (M_Ed)	37.88	40.22	61.55
Factored Strength (M_Rd)	74.76	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.5067	0.5368	0.8216
Neutral Axis (x/d)	0.0496	0.0491	0.0491
(+) Load Combination No.	43+	38+	40+
Moment (M_Ed)	81.04	59.94	27.18
Factored Strength (M_Rd)	97.07	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.8349	0.8001	0.3627
Neutral Axis (x/d)	0.0547	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

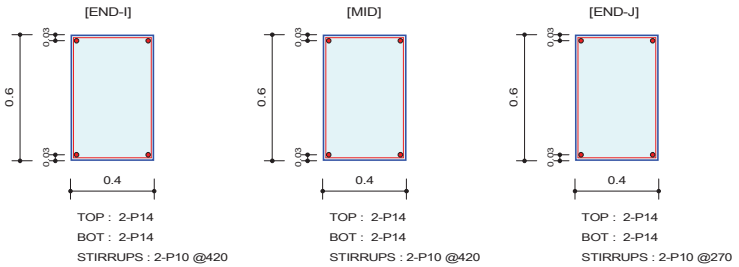
	END-I	MID	END-J
Load Combination No.	38+	40+	40+
Factored Shear Force (V_Ed)	78.32	149.21	153.87
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	153.22	160.19
Required Shear Reinf. (Asw)	0.0004	0.0007	0.0007
Required Stirrups Spacing	2-P10 @420	2-P10 @230	2-P10 @220
Shear Ratio by Conc	0.9769	1.8611	1.9192
Shear Ratio by (V_Rds ; V_Rdmax)	0.9335	0.9738	0.9606
Check Ratio	0.9769	0.9738	0.9606

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 289
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	43-	43-
Moment (M_Ed)	30.98	5.07	68.50
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.4135	0.0677	0.9143
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	40+	40+	40+
Moment (M_Ed)	11.39	25.96	18.02
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.1520	0.3465	0.2405
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

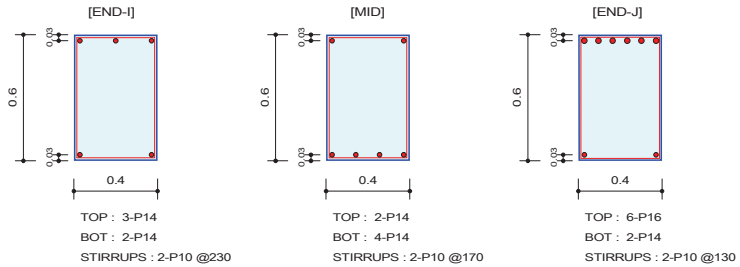
	END-I	MID	END-J
Load Combination No.	40-	40-	43+
Factored Shear Force (V_Ed)	59.83	42.22	128.39
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	130.52
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0006
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @270
Shear Ratio by Conc	0.7463	0.5266	1.6014
Shear Ratio by (V_Rds ; V_Rdmax)	0.7131	0.5032	0.9837
Check Ratio	0.7463	0.5266	0.9837

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 290
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	36-
Moment (M_Ed)	94.78	29.90	267.42
Factored Strength (M_Rd)	111.00	74.57	281.71
Check Ratio (M_Ed/M_Rd)	0.8538	0.4010	0.9493
Neutral Axis (x/d)	0.0586	0.0503	0.1309
(+) Load Combination No.	40+	40+	40+
Moment (M_Ed)	41.67	143.88	35.00
Factored Strength (M_Rd)	74.67	146.31	74.91
Check Ratio (M_Ed/M_Rd)	0.5581	0.9833	0.4672
Neutral Axis (x/d)	0.0498	0.0708	0.0513
Required Rebar Top (As_top)	0.0004	0.0003	0.0012
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0003

4. Shear Capacity

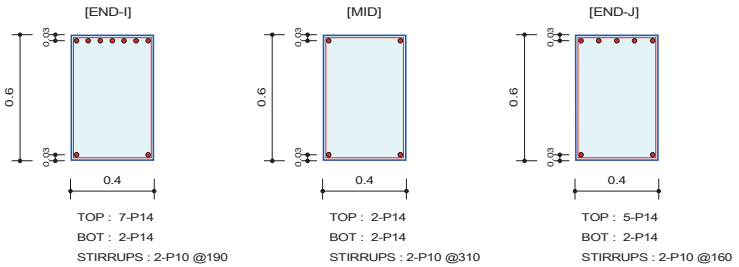
	END-I	MID	END-J
Load Combination No.	40-	36+	36+
Factored Shear Force (V_Ed)	150.29	197.20	270.09
Shear Strength by Conc.(V_Rdc)	80.17	82.35	103.02
Shear Strength by Rebar.(V_Rds)	153.22	207.30	271.08
Required Shear Reinf. (Asw)	0.0007	0.0009	0.0012
Required Stirrups Spacing	2-P10 @230	2-P10 @170	2-P10 @130
Shear Ratio by Conc	1.8745	2.3946	2.6217
Shear Ratio by (V_Rds ; V_Rdmax)	0.9808	0.9513	0.9963
Check Ratio	0.9808	0.9513	0.9963

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 292
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	235.59	59.49	157.70
Factored Strength (M_Rd)	252.93	74.92	182.54
Check Ratio (M_Ed/M_Rd)	0.9314	0.7941	0.8639
Neutral Axis (x/d)	0.1162	0.0491	0.0845
(+) Load Combination No.	44-	36+	40+
Moment (M_Ed)	0.00	68.48	29.16
Factored Strength (M_Rd)	74.99	74.92	74.67
Check Ratio (M_Ed/M_Rd)	0.0000	0.9140	0.3906
Neutral Axis (x/d)	0.0511	0.0491	0.0507
Required Rebar Top (As_top)	0.0010	0.0003	0.0007
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

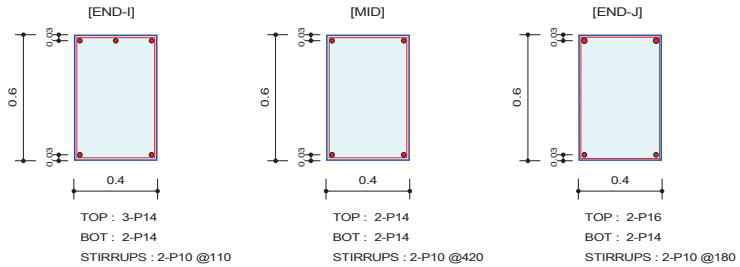
	END-I	MID	END-J
Load Combination No.	40-	40-	36+
Factored Shear Force (V_Ed)	178.05	111.28	211.80
Shear Strength by Conc.(V_Rdc)	99.24	80.17	88.71
Shear Strength by Rebar.(V_Rds)	185.48	113.68	220.26
Required Shear Reinf. (Asw)	0.0008	0.0005	0.0009
Required Stirrups Spacing	2-P10 @190	2-P10 @310	2-P10 @160
Shear Ratio by Conc	1.7941	1.3880	2.3875
Shear Ratio by (V_Rds ; V_Rdmax)	0.9600	0.9789	0.9616
Check Ratio	0.9600	0.9789	0.9616

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 294
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	39-
Moment (M_Ed)	99.92	0.00	92.57
Factored Strength (M_Rd)	111.00	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.9002	0.0000	0.9537
Neutral Axis (x/d)	0.0586	0.0491	0.0547
(+) Load Combination No.	38+	38+	39+
Moment (M_Ed)	30.62	30.62	13.15
Factored Strength (M_Rd)	74.67	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.4101	0.4087	0.1759
Neutral Axis (x/d)	0.0498	0.0491	0.0496
Required Rebar Top (As_top)	0.0004	0.0003	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

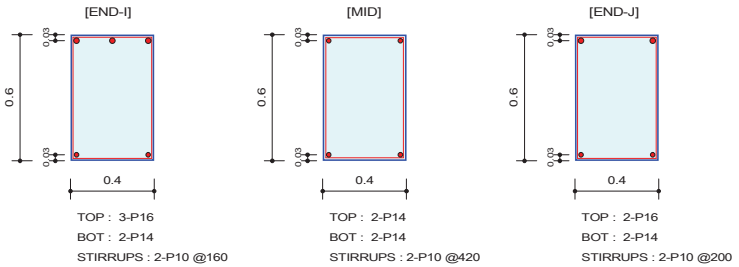
	END-I	MID	END-J
Load Combination No.	40-	36+	39+
Factored Shear Force (V_Ed)	309.28	14.67	193.21
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	320.37	83.91	195.78
Required Shear Reinf. (Asw)	0.0014	0.0004	0.0009
Required Stirrups Spacing	2-P10 @110	2-P10 @420	2-P10 @180
Shear Ratio by Conc	3.8576	0.1829	2.4099
Shear Ratio by (V_Rds ; V_Rdmax)	0.9654	0.1748	0.9869
Check Ratio	0.9654	0.1829	0.9869

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 295
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	44-	36-
Moment (M_Ed)	110.05	0.00	84.76
Factored Strength (M_Rd)	143.51	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.7669	0.0000	0.8732
Neutral Axis (x/d)	0.0698	0.0491	0.0547
(+) Load Combination No.	39+	39+	39+
Moment (M_Ed)	11.58	14.37	9.86
Factored Strength (M_Rd)	74.80	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.1548	0.1919	0.1319
Neutral Axis (x/d)	0.0503	0.0491	0.0496
Required Rebar Top (As_top)	0.0005	0.0003	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

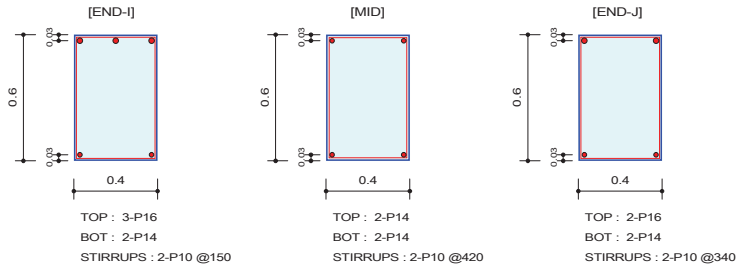
	END-I	MID	END-J
Load Combination No.	40-	38-	36+
Factored Shear Force (V_Ed)	214.86	9.41	175.39
Shear Strength by Conc.(V_Rdc)	81.77	80.17	80.17
Shear Strength by Rebar.(V_Rds)	220.26	83.91	176.20
Required Shear Reinf. (Asw)	0.0010	0.0004	0.0008
Required Stirrups Spacing	2-P10 @160	2-P10 @420	2-P10 @200
Shear Ratio by Conc	2.6276	0.1173	2.1876
Shear Ratio by (V_Rds ; V_Rdmax)	0.9755	0.1121	0.9954
Check Ratio	0.9755	0.1173	0.9954

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 296
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	44-	42-
Moment (M_Ed)	114.36	0.00	76.40
Factored Strength (M_Rd)	143.51	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.7969	0.0000	0.7871
Neutral Axis (x/d)	0.0698	0.0491	0.0547
(+) Load Combination No.	39+	39+	38+
Moment (M_Ed)	9.01	10.88	8.77
Factored Strength (M_Rd)	74.80	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.1205	0.1453	0.1174
Neutral Axis (x/d)	0.0503	0.0491	0.0496
Required Rebar Top (As_top)	0.0005	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

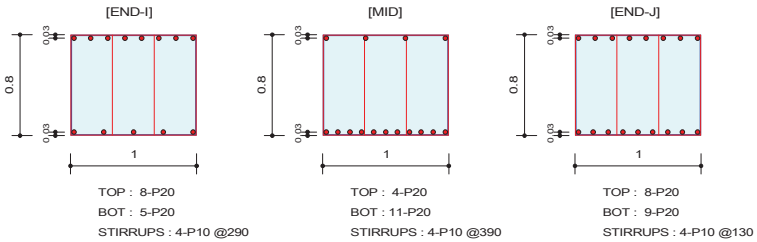
	END-I	MID	END-J
Load Combination No.	36-	42+	42+
Factored Shear Force (V_Ed)	225.51	9.20	102.27
Shear Strength by Conc.(V_Rdc)	81.77	80.17	80.17
Shear Strength by Rebar.(V_Rds)	234.94	83.91	103.65
Required Shear Reinf. (Asw)	0.0010	0.0004	0.0005
Required Stirrups Spacing	2-P10 @150	2-P10 @420	2-P10 @340
Shear Ratio by Conc	2.7579	0.1148	1.2755
Shear Ratio by (V_Rds ; V_Rdmax)	0.9599	0.1097	0.9866
Check Ratio	0.9599	0.1148	0.9866

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 297
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: EZ100/80 (No : 23) Beam Span : 12.8 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	44-	40-
Moment (M_Ed)	702.73	0.00	765.17
Factored Strength (M_Rd)	813.34	408.55	808.98
Check Ratio (M_Ed/M_Rd)	0.8640	0.0000	0.9459
Neutral Axis (x/d)	0.0654	0.0410	0.0547
(+) Load Combination No.	40+	40+	40+
Moment (M_Ed)	467.44	995.28	807.31
Factored Strength (M_Rd)	509.34	1107.66	910.34
Check Ratio (M_Ed/M_Rd)	0.9177	0.8985	0.8868
Neutral Axis (x/d)	0.0446	0.0967	0.0610
Required Rebar Top (As_top)	0.0022	0.0010	0.0024
Required Rebar Bot (As_bot)	0.0015	0.0032	0.0025

4. Shear Capacity

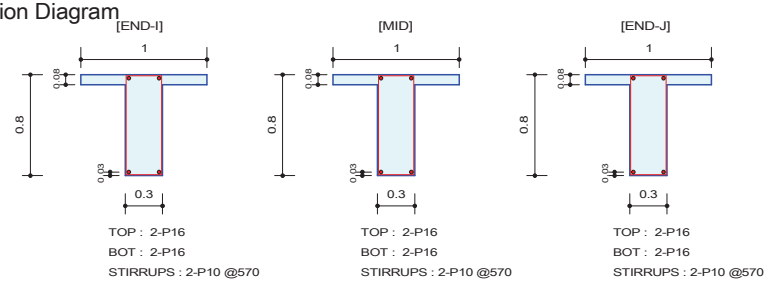
	END-I	MID	END-J
Load Combination No.	36-	36-	40+
Factored Shear Force (V_Ed)	323.81	286.19	680.70
Shear Strength by Conc.(V_Rdc)	280.78	312.23	292.03
Shear Strength by Rebar.(V_Rds)	328.32	244.13	732.40
Required Shear Reinf. (Asw)	0.0011	0.0008	0.0023
Required Stirrups Spacing	4-P10 @290	4-P10 @390	4-P10 @130
Shear Ratio by Conc	1.1533	0.9166	2.3310
Shear Ratio by (V_Rds ; V_Rdmax)	0.9863	1.1723	0.9294
Check Ratio	0.9863	0.9166	0.9294

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 310
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	44-	44-
Moment (M_Ed)	74.84	53.05	52.69
Factored Strength (M_Rd)	130.71	130.71	130.71
Check Ratio (M_Ed/M_Rd)	0.5726	0.4059	0.4031
Neutral Axis (x/d)	0.0447	0.0447	0.0447
(+) Load Combination No.	44-	43+	43+
Moment (M_Ed)	0.00	54.94	111.05
Factored Strength (M_Rd)	134.31	134.31	134.31
Check Ratio (M_Ed/M_Rd)	0.0000	0.4090	0.8269
Neutral Axis (x/d)	0.0278	0.0278	0.0278
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

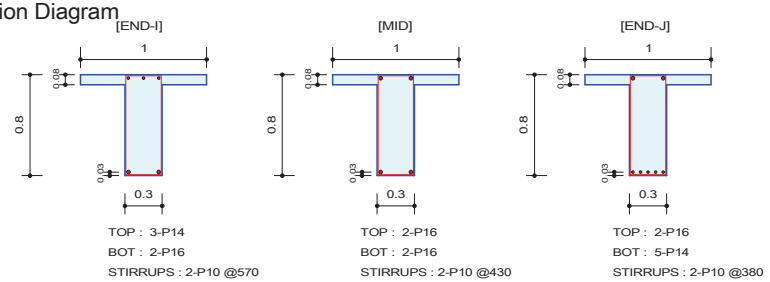
	END-I	MID	END-J
Load Combination No.	38-	38-	38-
Factored Shear Force (V_Ed)	28.89	48.69	68.05
Shear Strength by Conc.(V_Rdc)	74.98	74.98	74.98
Shear Strength by Rebar.(V_Rds)	83.52	83.52	83.52
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0003
Required Stirrups Spacing	2-P10 @570	2-P10 @570	2-P10 @570
Shear Ratio by Conc	0.3852	0.6494	0.9075
Shear Ratio by (V_Rds ; V_Rdmax)	0.3459	0.5830	0.8148
Check Ratio	0.3852	0.6494	0.9075

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 311
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	39-	44-
Moment (M_Ed)	92.67	80.24	25.42
Factored Strength (M_Rd)	150.66	130.71	130.75
Check Ratio (M_Ed/M_Rd)	0.6151	0.6139	0.1944
Neutral Axis (x/d)	0.0488	0.0447	0.0424
(+) Load Combination No.	44-	43+	40+
Moment (M_Ed)	0.00	93.65	207.32
Factored Strength (M_Rd)	134.96	134.31	253.21
Check Ratio (M_Ed/M_Rd)	0.0000	0.6973	0.8187
Neutral Axis (x/d)	0.0285	0.0278	0.0353
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0007

4. Shear Capacity

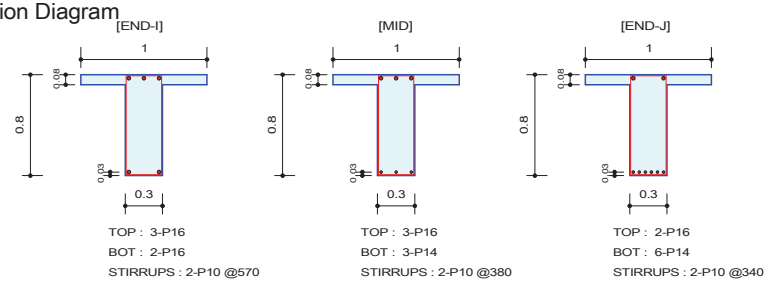
	END-I	MID	END-J
Load Combination No.	38-	40-	40-
Factored Shear Force (V_Ed)	37.91	110.26	123.54
Shear Strength by Conc.(V_Rdc)	74.98	74.98	84.84
Shear Strength by Rebar.(V_Rds)	83.52	110.71	125.28
Required Shear Reinf. (Asw)	0.0003	0.0004	0.0004
Required Stirrups Spacing	2-P10 @570	2-P10 @430	2-P10 @380
Shear Ratio by Conc	0.5056	1.4705	1.4561
Shear Ratio by (V_Rds ; V_Rdmax)	0.4540	0.9959	0.9861
Check Ratio	0.5056	0.9959	0.9861

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 312
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I] TOP : 3-P16 BOT : 2-P16 STIRRUPS : 2-P10 @570
[MID] TOP : 3-P16 BOT : 3-P14 STIRRUPS : 2-P10 @380
[END-J] TOP : 2-P16 BOT : 6-P14 STIRRUPS : 2-P10 @340

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	39-	44-
Moment (M_Ed)	128.68	103.42	0.00
Factored Strength (M_Rd)	195.96	195.19	130.89
Check Ratio (M_Ed/M_Rd)	0.6567	0.5298	0.0000
Neutral Axis (x/d)	0.0576	0.0557	0.0419
(+) Load Combination No.	44-	40+	40+
Moment (M_Ed)	0.00	140.71	288.61
Factored Strength (M_Rd)	135.12	154.42	302.93
Check Ratio (M_Ed/M_Rd)	0.0000	0.9112	0.9527
Neutral Axis (x/d)	0.0297	0.0306	0.0389
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0004	0.0009

4. Shear Capacity

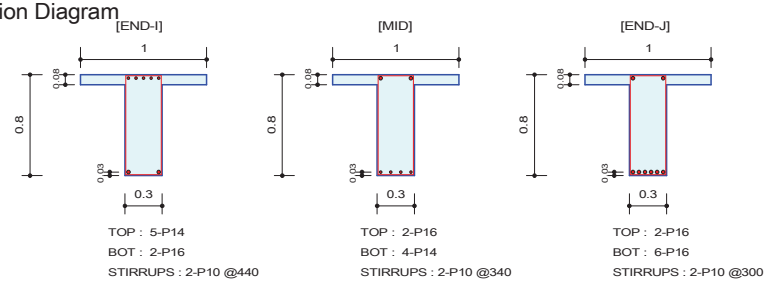
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	64.03	122.57	138.21
Shear Strength by Conc.(V_Rdc)	78.20	78.20	90.16
Shear Strength by Rebar.(V_Rds)	83.52	125.28	140.02
Required Shear Reinf. (Asw)	0.0003	0.0004	0.0005
Required Stirrups Spacing	2-P10 @570	2-P10 @380	2-P10 @340
Shear Ratio by Conc	0.8188	1.5674	1.5329
Shear Ratio by (V_Rds ; V_Rdmax)	0.7667	0.9784	0.9871
Check Ratio	0.8188	0.9784	0.9871

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 313
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I] TOP : 5-P14 BOT : 2-P16 STIRRUPS : 2-P10 @440
[MID] TOP : 2-P16 BOT : 4-P14 STIRRUPS : 2-P10 @340
[END-J] TOP : 2-P16 BOT : 6-P16 STIRRUPS : 2-P10 @300

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	39-	44-
Moment (M_Ed)	166.40	86.04	0.00
Factored Strength (M_Rd)	248.06	131.01	131.04
Check Ratio (M_Ed/M_Rd)	0.6708	0.6567	0.0000
Neutral Axis (x/d)	0.0698	0.0431	0.0413
(+) Load Combination No.	44-	40+	40+
Moment (M_Ed)	0.00	192.12	357.55
Factored Strength (M_Rd)	135.35	204.16	393.23
Check Ratio (M_Ed/M_Rd)	0.0000	0.9410	0.9093
Neutral Axis (x/d)	0.0308	0.0320	0.0464
Required Rebar Top (As_top)	0.0005	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0012

4. Shear Capacity

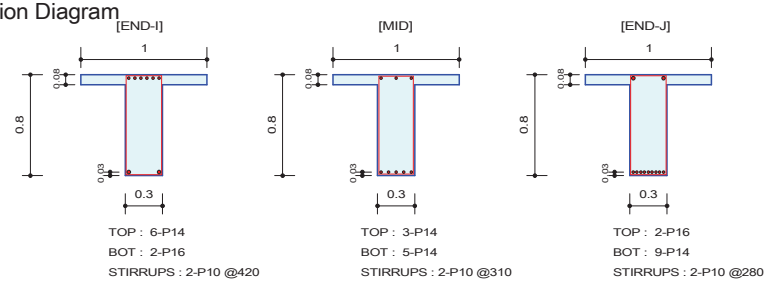
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	106.14	138.06	154.84
Shear Strength by Conc.(V_Rdc)	84.84	78.76	98.53
Shear Strength by Rebar.(V_Rds)	108.20	140.02	158.69
Required Shear Reinf. (Asw)	0.0004	0.0005	0.0005
Required Stirrups Spacing	2-P10 @440	2-P10 @340	2-P10 @300
Shear Ratio by Conc	1.2511	1.7529	1.5716
Shear Ratio by (V_Rds ; V_Rdmax)	0.9810	0.9860	0.9758
Check Ratio	0.9810	0.9860	0.9758

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 314
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I] TOP : 6-P14 BOT : 2-P16 STIRRUPS : 2-P10 @420
[MID] TOP : 3-P14 BOT : 5-P14 STIRRUPS : 2-P10 @310
[END-J] TOP : 2-P16 BOT : 9-P14 STIRRUPS : 2-P10 @280

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	44-	44-
Moment (M_Ed)	194.33	89.30	0.00
Factored Strength (M_Rd)	295.86	150.14	130.48
Check Ratio (M_Ed/M_Rd)	0.6568	0.5948	0.0000
Neutral Axis (x/d)	0.0830	0.0442	0.0410
(+) Load Combination No.	44-	40+	40+
Moment (M_Ed)	0.00	232.52	414.80
Factored Strength (M_Rd)	135.58	253.66	452.38
Check Ratio (M_Ed/M_Rd)	0.0000	0.9166	0.9169
Neutral Axis (x/d)	0.0316	0.0355	0.0522
Required Rebar Top (As_top)	0.0006	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0007	0.0014

4. Shear Capacity

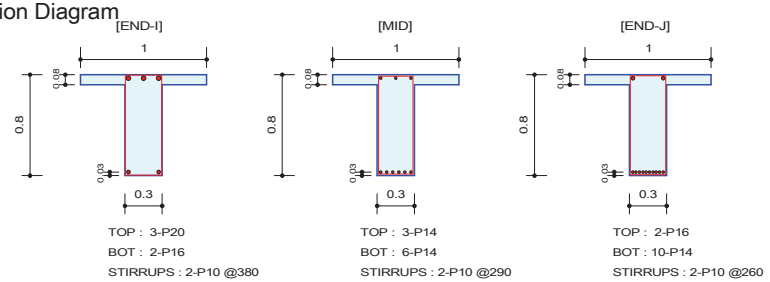
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	112.92	152.08	168.72
Shear Strength by Conc.(V_Rdc)	90.16	84.84	103.20
Shear Strength by Rebar.(V_Rds)	113.35	153.57	170.02
Required Shear Reinf. (Asw)	0.0004	0.0005	0.0006
Required Stirrups Spacing	2-P10 @420	2-P10 @310	2-P10 @280
Shear Ratio by Conc	1.2525	1.7926	1.6348
Shear Ratio by (V_Rds ; V_Rdmax)	0.9962	0.9903	0.9924
Check Ratio	0.9962	0.9903	0.9924

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 315
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I] TOP : 3-P20 BOT : 2-P16 STIRRUPS : 2-P10 @380
[MID] TOP : 3-P14 BOT : 6-P14 STIRRUPS : 2-P10 @290
[END-J] TOP : 2-P16 BOT : 10-P14 STIRRUPS : 2-P10 @260

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	44-
Moment (M_Ed)	200.21	95.12	0.00
Factored Strength (M_Rd)	302.43	150.79	130.54
Check Ratio (M_Ed/M_Rd)	0.6620	0.6308	0.0000
Neutral Axis (x/d)	0.0850	0.0435	0.0408
(+) Load Combination No.	43+	40+	40+
Moment (M_Ed)	1.29	261.50	454.34
Factored Strength (M_Rd)	135.05	302.92	502.57
Check Ratio (M_Ed/M_Rd)	0.0096	0.8633	0.9040
Neutral Axis (x/d)	0.0317	0.0389	0.0571
Required Rebar Top (As_top)	0.0006	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0008	0.0015

4. Shear Capacity

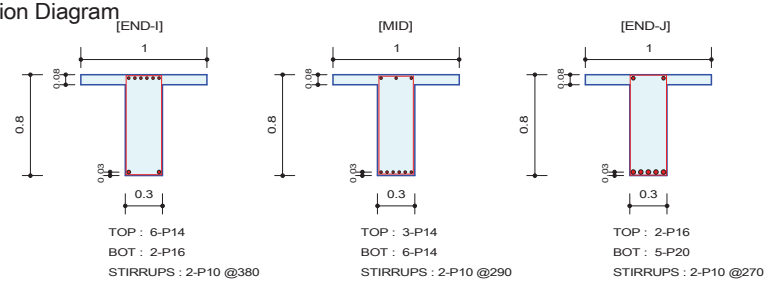
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	122.17	160.82	177.44
Shear Strength by Conc.(V_Rdc)	90.74	90.16	106.89
Shear Strength by Rebar.(V_Rds)	125.28	164.16	183.10
Required Shear Reinf. (Asw)	0.0004	0.0005	0.0006
Required Stirrups Spacing	2-P10 @380	2-P10 @290	2-P10 @260
Shear Ratio by Conc	1.3464	1.7837	1.6600
Shear Ratio by (V_Rds ; V_Rdmax)	0.9752	0.9796	0.9691
Check Ratio	0.9752	0.9796	0.9691

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 316
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 6-P14	TOP : 3-P14	TOP : 2-P16
BOT : 2-P16	BOT : 6-P14	BOT : 5-P20
STIRRUPS : 2-P10 @380	STIRRUPS : 2-P10 @290	STIRRUPS : 2-P10 @270

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	44-	44-
Moment (M_Ed)	185.77	94.87	0.00
Factored Strength (M_Rd)	295.86	150.79	131.23
Check Ratio (M_Ed/M_Rd)	0.6279	0.6292	0.0000
Neutral Axis (x/d)	0.0830	0.0435	0.0408
(+) Load Combination No.	43+	40+	40+
Moment (M_Ed)	10.59	276.89	467.44
Factored Strength (M_Rd)	135.58	302.92	507.45
Check Ratio (M_Ed/M_Rd)	0.0781	0.9141	0.9212
Neutral Axis (x/d)	0.0316	0.0389	0.0576
Required Rebar Top (As_top)	0.0006	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0009	0.0016

4. Shear Capacity

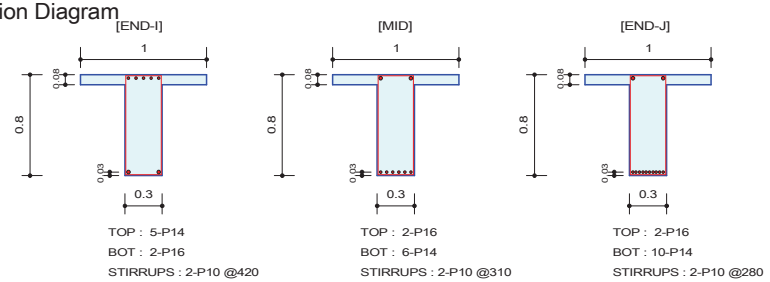
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	122.35	159.20	175.35
Shear Strength by Conc.(V_Rdc)	90.16	90.16	107.58
Shear Strength by Rebar.(V_Rds)	125.28	164.16	176.32
Required Shear Reinf. (Asw)	0.0004	0.0005	0.0006
Required Stirrups Spacing	2-P10 @380	2-P10 @290	2-P10 @270
Shear Ratio by Conc	1.3571	1.7658	1.6299
Shear Ratio by (V_Rds ; V_Rdmax)	0.9766	0.9698	0.9945
Check Ratio	0.9766	0.9698	0.9945

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 317
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 5-P14	TOP : 2-P16	TOP : 2-P16
BOT : 2-P16	BOT : 6-P14	BOT : 10-P14
STIRRUPS : 2-P10 @420	STIRRUPS : 2-P10 @310	STIRRUPS : 2-P10 @280

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	44-	44-
Moment (M_Ed)	150.86	87.21	0.00
Factored Strength (M_Rd)	248.06	130.89	130.54
Check Ratio (M_Ed/M_Rd)	0.6082	0.6663	0.0000
Neutral Axis (x/d)	0.0698	0.0419	0.0408
(+) Load Combination No.	43+	40+	40+
Moment (M_Ed)	24.31	282.54	459.71
Factored Strength (M_Rd)	135.35	302.93	502.57
Check Ratio (M_Ed/M_Rd)	0.1796	0.9327	0.9147
Neutral Axis (x/d)	0.0308	0.0389	0.0571
Required Rebar Top (As_top)	0.0005	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0009	0.0015

4. Shear Capacity

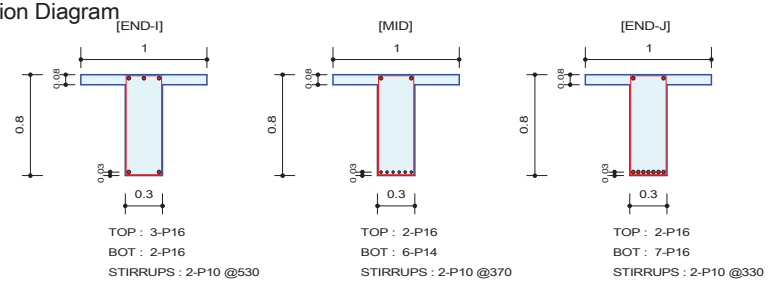
	END-I	MID	END-J
Load Combination No.	36-	36-	36-
Factored Shear Force (V_Ed)	111.98	149.67	166.27
Shear Strength by Conc.(V_Rdc)	84.84	90.16	106.89
Shear Strength by Rebar.(V_Rds)	113.35	153.57	170.02
Required Shear Reinf. (Asw)	0.0004	0.0005	0.0006
Required Stirrups Spacing	2-P10 @420	2-P10 @310	2-P10 @280
Shear Ratio by Conc	1.3199	1.6601	1.5555
Shear Ratio by (V_Rds ; V_Rdmax)	0.9880	0.9746	0.9779
Check Ratio	0.9880	0.9746	0.9779

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 318
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	107.65	70.31	0.00
Factored Strength (M_Rd)	195.96	130.89	131.01
Check Ratio (M_Ed/M_Rd)	0.5493	0.5372	0.0000
Neutral Axis (x/d)	0.0576	0.0419	0.0410
(+) Load Combination No.	43+	40+	36+
Moment (M_Ed)	45.16	270.45	422.50
Factored Strength (M_Rd)	135.12	302.93	457.52
Check Ratio (M_Ed/M_Rd)	0.3342	0.8928	0.9235
Neutral Axis (x/d)	0.0297	0.0389	0.0527
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0009	0.0014

4. Shear Capacity

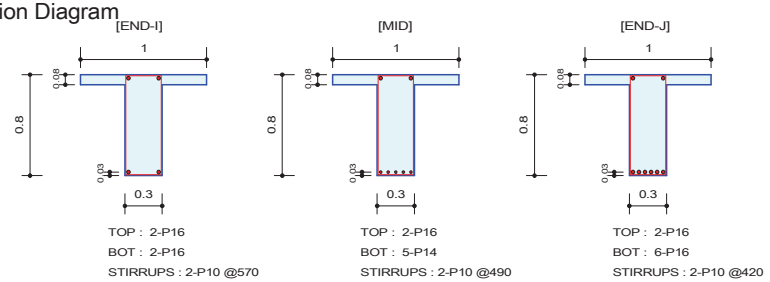
	END-I	MID	END-J
Load Combination No.	36-	36-	36-
Factored Shear Force (V_Ed)	88.98	127.59	144.19
Shear Strength by Conc.(V_Rdc)	78.20	90.16	103.72
Shear Strength by Rebar.(V_Rds)	89.82	128.67	144.26
Required Shear Reinf. (Asw)	0.0003	0.0004	0.0005
Required Stirrups Spacing	2-P10 @530	2-P10 @370	2-P10 @330
Shear Ratio by Conc	1.1378	1.4152	1.3901
Shear Ratio by (V_Rds ; V_Rdmax)	0.9906	0.9917	0.9995
Check Ratio	0.9906	0.9917	0.9995

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 319
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	57.99	42.18	0.00
Factored Strength (M_Rd)	130.71	130.75	131.04
Check Ratio (M_Ed/M_Rd)	0.4437	0.3226	0.0000
Neutral Axis (x/d)	0.0447	0.0424	0.0413
(+) Load Combination No.	40+	40+	36+
Moment (M_Ed)	80.70	242.16	360.57
Factored Strength (M_Rd)	134.31	253.21	393.23
Check Ratio (M_Ed/M_Rd)	0.6009	0.9564	0.9169
Neutral Axis (x/d)	0.0278	0.0353	0.0464
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0008	0.0012

4. Shear Capacity

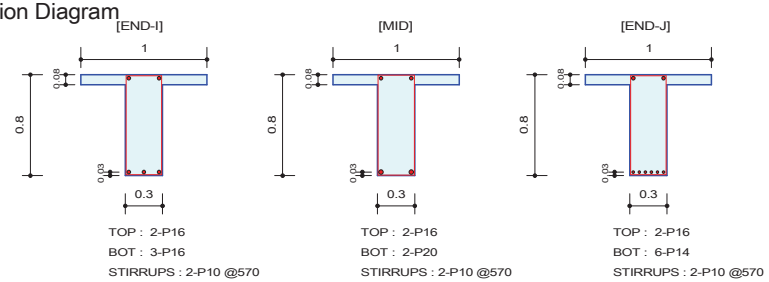
	END-I	MID	END-J
Load Combination No.	36-	36-	36-
Factored Shear Force (V_Ed)	58.70	95.75	112.36
Shear Strength by Conc.(V_Rdc)	74.98	84.84	98.53
Shear Strength by Rebar.(V_Rds)	83.52	97.16	113.35
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0004
Required Stirrups Spacing	2-P10 @570	2-P10 @490	2-P10 @420
Shear Ratio by Conc	0.7828	1.1285	1.1404
Shear Ratio by (V_Rds ; V_Rdmax)	0.7028	0.9855	0.9913
Check Ratio	0.7828	0.9855	0.9913

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 320
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I] TOP : 2-P16 BOT : 3-P16 STIRRUPS : 2-P10 @570
[MID] TOP : 2-P16 BOT : 2-P20 STIRRUPS : 2-P10 @570
[END-J] TOP : 2-P16 BOT : 6-P14 STIRRUPS : 2-P10 @570

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	1.83	5.82	0.00
Factored Strength (M_Rd)	131.45	130.49	130.89
Check Ratio (M_Ed/M_Rd)	0.0139	0.0446	0.0000
Neutral Axis (x/d)	0.0432	0.0430	0.0419
(+) Load Combination No.	40+	36+	36+
Moment (M_Ed)	153.63	199.50	268.80
Factored Strength (M_Rd)	200.33	207.96	302.93
Check Ratio (M_Ed/M_Rd)	0.7669	0.9593	0.8873
Neutral Axis (x/d)	0.0317	0.0322	0.0389
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0005	0.0006	0.0009

4. Shear Capacity

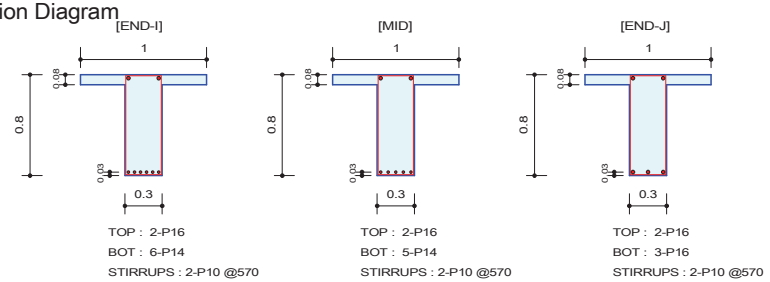
	END-I	MID	END-J
Load Combination No.	43-	36-	36-
Factored Shear Force (V_Ed)	20.63	51.95	69.03
Shear Strength by Conc.(V_Rdc)	78.20	79.27	90.16
Shear Strength by Rebar.(V_Rds)	83.52	83.52	83.52
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0003
Required Stirrups Spacing	2-P10 @570	2-P10 @570	2-P10 @570
Shear Ratio by Conc	0.2639	0.6554	0.7657
Shear Ratio by (V_Rds ; V_Rdmax)	0.2471	0.6221	0.8266
Check Ratio	0.2639	0.6554	0.7657

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 321
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I] TOP : 2-P16 BOT : 6-P14 STIRRUPS : 2-P10 @570
[MID] TOP : 2-P16 BOT : 5-P14 STIRRUPS : 2-P10 @570
[END-J] TOP : 2-P16 BOT : 3-P16 STIRRUPS : 2-P10 @570

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	22.79	51.12
Factored Strength (M_Rd)	130.89	130.75	131.45
Check Ratio (M_Ed/M_Rd)	0.0000	0.1743	0.3889
Neutral Axis (x/d)	0.0419	0.0424	0.0432
(+) Load Combination No.	40+	40+	43+
Moment (M_Ed)	274.44	239.01	179.42
Factored Strength (M_Rd)	302.93	253.21	200.33
Check Ratio (M_Ed/M_Rd)	0.9059	0.9439	0.8956
Neutral Axis (x/d)	0.0389	0.0353	0.0317
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0009	0.0008	0.0006

4. Shear Capacity

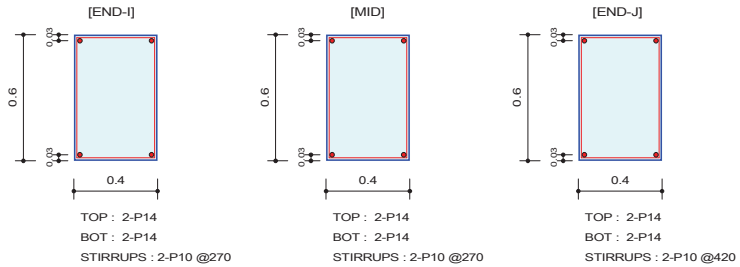
	END-I	MID	END-J
Load Combination No.	38+	38+	38+
Factored Shear Force (V_Ed)	41.18	47.15	39.14
Shear Strength by Conc.(V_Rdc)	90.16	84.84	78.20
Shear Strength by Rebar.(V_Rds)	83.52	83.52	83.52
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0003
Required Stirrups Spacing	2-P10 @570	2-P10 @570	2-P10 @570
Shear Ratio by Conc	0.4567	0.5558	0.5005
Shear Ratio by (V_Rds ; V_Rdmax)	0.4930	0.5646	0.4687
Check Ratio	0.4567	0.5558	0.5005

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 322
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	43-
Moment (M_Ed)	37.12	31.16	28.01
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.4955	0.4159	0.3739
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	37+	36+	44+
Moment (M_Ed)	10.30	66.88	21.59
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.1375	0.8927	0.2882
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

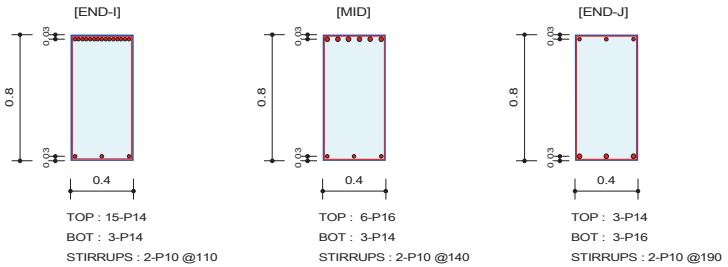
	END-I	MID	END-J
Load Combination No.	36-	36-	36-
Factored Shear Force (V_Ed)	129.20	129.20	60.20
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	130.52	130.52	83.91
Required Shear Reinf. (Asw)	0.0006	0.0006	0.0004
Required Stirrups Spacing	2-P10 @270	2-P10 @270	2-P10 @420
Shear Ratio by Conc	1.6116	1.6116	0.7509
Shear Ratio by (V_Rds ; V_Rdmax)	0.9899	0.9899	0.7174
Check Ratio	0.9899	0.9899	0.7509

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 323
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40x80 (No : 19) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	43-
Moment (M_Ed)	676.88	353.90	88.17
Factored Strength (M_Rd)	718.20	387.53	150.66
Check Ratio (M_Ed/M_Rd)	0.9425	0.9132	0.5853
Neutral Axis (x/d)	0.1953	0.0859	0.0417
(+) Load Combination No.	44-	44+	44+
Moment (M_Ed)	0.00	114.90	156.38
Factored Strength (M_Rd)	150.89	150.22	195.74
Check Ratio (M_Ed/M_Rd)	0.0000	0.7649	0.7989
Neutral Axis (x/d)	0.0399	0.0405	0.0491
Required Rebar Top (As_top)	0.0023	0.0011	0.0004
Required Rebar Bot (As_bot)	0.0004	0.0004	0.0005

4. Shear Capacity

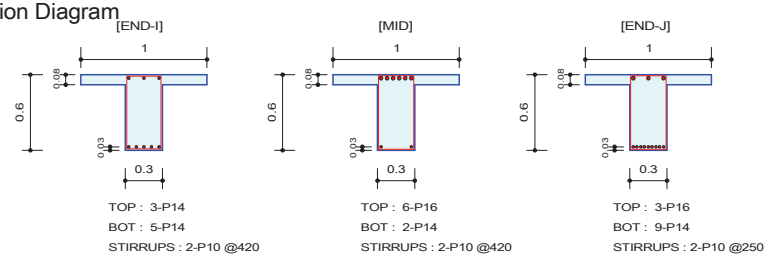
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	401.22	321.49	245.14
Shear Strength by Conc.(V_Rdc)	148.23	119.36	99.98
Shear Strength by Rebar.(V_Rds)	432.78	340.04	250.56
Required Shear Reinf. (Asw)	0.0013	0.0011	0.0008
Required Stirrups Spacing	2-P10 @110	2-P10 @140	2-P10 @190
Shear Ratio by Conc	2.7067	2.6935	2.4520
Shear Ratio by (V_Rds ; V_Rdmax)	0.9271	0.9454	0.9784
Check Ratio	0.9271	0.9454	0.9784

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 16
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.4034 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	36-	40-
Moment (M_Ed)	66.72	180.17	87.25
Factored Strength (M_Rd)	110.15	279.37	143.13
Check Ratio (M_Ed/M_Rd)	0.6057	0.6449	0.6096
Neutral Axis (x/d)	0.0597	0.1719	0.0603
(+) Load Combination No.	44+	44+	43+
Moment (M_Ed)	155.48	47.74	290.25
Factored Strength (M_Rd)	186.88	78.32	331.79
Check Ratio (M_Ed/M_Rd)	0.8320	0.6095	0.8748
Neutral Axis (x/d)	0.0480	0.0428	0.0679
Required Rebar Top (As_top)	0.0003	0.0008	0.0004
Required Rebar Bot (As_bot)	0.0007	0.0002	0.0013

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	36+	43-	36-
Factored Shear Force (V_Ed)	71.23	59.51	139.19
Shear Strength by Conc.(V_Rdc)	73.23	85.04	89.08
Shear Strength by Rebar.(V_Rds)	83.91	83.91	140.96
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0006
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @250
Shear Ratio by Conc	0.9726	0.6998	1.5625
Shear Ratio by (V_Rds ; V_Rdmax)	0.8489	0.7093	0.9874
Check Ratio	0.9726	0.6998	0.9874

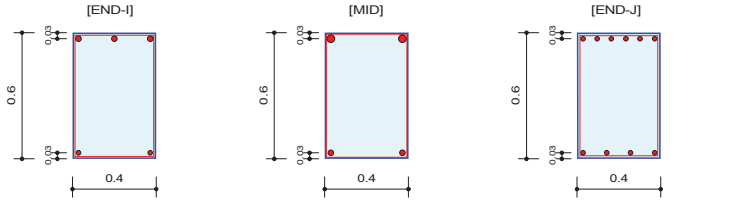
midas Gen RC Beam Design Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 328
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.85856 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	43-	43-
Moment (M_Ed)	127.38	147.36	214.44
Factored Strength (M_Rd)	143.51	149.80	218.73
Check Ratio (M_Ed/M_Rd)	0.8876	0.9837	0.9804
Neutral Axis (x/d)	0.0698	0.0693	0.0830
(+) Load Combination No.	43+	44+	44+
Moment (M_Ed)	46.09	77.05	142.61
Factored Strength (M_Rd)	74.80	96.57	146.40
Check Ratio (M_Ed/M_Rd)	0.6163	0.7979	0.9741
Neutral Axis (x/d)	0.0503	0.0538	0.0603
Required Rebar Top (As_top)	0.0005	0.0006	0.0009
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0006

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	44-	44-	43+
Factored Shear Force (V_Ed)	150.84	148.05	145.75
Shear Strength by Conc.(V_Rdc)	81.77	82.88	94.27
Shear Strength by Rebar.(V_Rds)	153.22	153.22	146.84
Required Shear Reinf. (Asw)	0.0007	0.0007	0.0007
Required Stirrups Spacing	2-P10 @230	2-P10 @230	2-P10 @240
Shear Ratio by Conc	1.8447	1.7863	1.5461
Shear Ratio by (V_Rds ; V_Rdmax)	0.9845	0.9663	0.9926
Check Ratio	0.9845	0.9663	0.9926

MIDAS	Company		Project Title	
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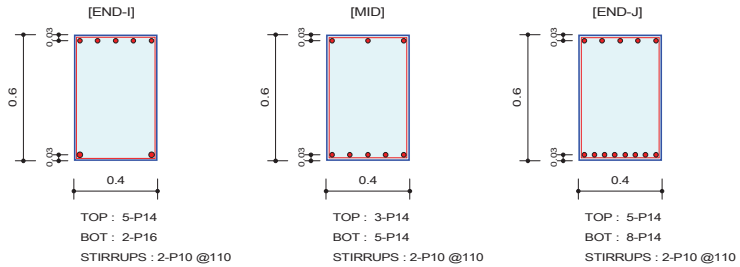
1. Design Information

Member Number: 329
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	44-	44-
Moment (M_Ed)	149.15	95.83	160.28
Factored Strength (M_Rd)	182.78	110.97	182.97
Check Ratio (M_Ed/M_Rd)	0.8160	0.8636	0.8760
Neutral Axis (x/d)	0.0801	0.0558	0.0630
(+) Load Combination No.	44+	43+	43+
Moment (M_Ed)	93.10	173.81	280.00
Factored Strength (M_Rd)	96.92	182.44	289.87
Check Ratio (M_Ed/M_Rd)	0.9606	0.9527	0.9659
Neutral Axis (x/d)	0.0537	0.0776	0.0977
Required Rebar Top (As_top)	0.0006	0.0004	0.0007
Required Rebar Bot (As_bot)	0.0004	0.0007	0.0012

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	43-	43-	43-
Factored Shear Force (V_Ed)	310.73	308.63	304.43
Shear Strength by Conc.(V_Rdc)	88.71	88.71	103.76
Shear Strength by Rebar.(V_Rds)	320.37	320.37	320.37
Required Shear Reinf. (Asw)	0.0014	0.0014	0.0014
Required Stirrups Spacing	2-P10 @110	2-P10 @110	2-P10 @110
Shear Ratio by Conc	3.5027	3.4790	2.9341
Shear Ratio by (V_Rds ; V_Rdmax)	0.9699	0.9634	0.9503
Check Ratio	0.9699	0.9634	0.9503

MIDAS	Company		Project Title	
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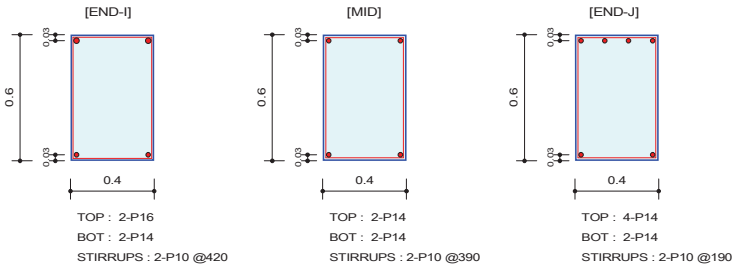
1. Design Information

Member Number: 330
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.26797 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	43-	36-
Moment (M_Ed)	74.96	29.82	144.62
Factored Strength (M_Rd)	97.07	74.92	146.31
Check Ratio (M_Ed/M_Rd)	0.7722	0.3981	0.9884
Neutral Axis (x/d)	0.0547	0.0491	0.0708
(+) Load Combination No.	36+	40+	38+
Moment (M_Ed)	19.34	51.92	2.50
Factored Strength (M_Rd)	74.76	74.92	74.57
Check Ratio (M_Ed/M_Rd)	0.2587	0.6930	0.0336
Neutral Axis (x/d)	0.0496	0.0491	0.0503
Required Rebar Top (As_top)	0.0003	0.0003	0.0006
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	40-	36+	36+
Factored Shear Force (V_Ed)	50.86	88.30	179.57
Shear Strength by Conc.(V_Rdc)	80.17	80.17	82.35
Shear Strength by Rebar.(V_Rds)	83.91	90.36	185.48
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0008
Required Stirrups Spacing	2-P10 @420	2-P10 @390	2-P10 @190
Shear Ratio by Conc	0.6344	1.1014	2.1804
Shear Ratio by (V_Rds ; V_Rdmax)	0.6061	0.9772	0.9681
Check Ratio	0.6344	0.9772	0.9681

MIDAS	Company		Project Title	
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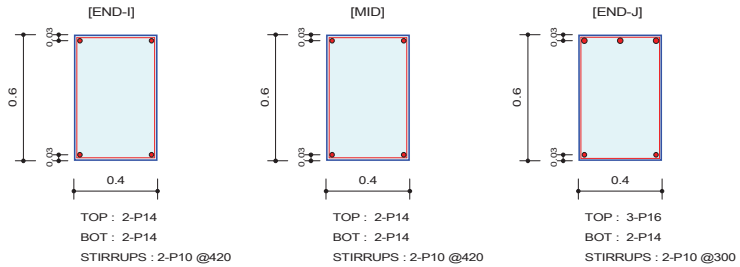
1. Design Information

Member Number: 331
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 4.83462 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	38-
Moment (M_Ed)	62.70	32.65	138.20
Factored Strength (M_Rd)	74.92	74.92	143.51
Check Ratio (M_Ed/M_Rd)	0.8368	0.4358	0.9630
Neutral Axis (x/d)	0.0491	0.0491	0.0698
(+) Load Combination No.	40+	40+	44-
Moment (M_Ed)	25.51	41.36	0.00
Factored Strength (M_Rd)	74.92	74.92	74.80
Check Ratio (M_Ed/M_Rd)	0.3405	0.5520	0.0000
Neutral Axis (x/d)	0.0491	0.0491	0.0503
Required Rebar Top (As_top)	0.0003	0.0003	0.0006
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	38-	40+	38+
Factored Shear Force (V_Ed)	23.36	70.00	116.62
Shear Strength by Conc.(V_Rdc)	80.17	80.17	81.77
Shear Strength by Rebar.(V_Rds)	83.91	83.91	117.47
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0005
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @300
Shear Ratio by Conc	0.2914	0.8731	1.4262
Shear Ratio by (V_Rds ; V_Rdmax)	0.2784	0.8343	0.9928
Check Ratio	0.2914	0.8731	0.9928

MIDAS	Company		Project Title	
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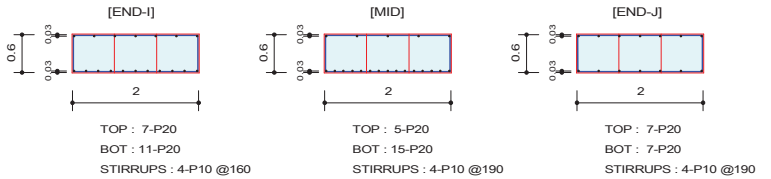
1. Design Information

Member Number: 332
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: EZ 200/60 (No : 22) Beam Span : 12.4368 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	43-
Moment (M_Ed)	489.31	0.00	493.41
Factored Strength (M_Rd)	527.70	382.42	527.67
Check Ratio (M_Ed/M_Rd)	0.9273	0.0000	0.9351
Neutral Axis (x/d)	0.0552	0.0511	0.0562
(+) Load Combination No.	40+	36+	39+
Moment (M_Ed)	780.73	1030.96	446.73
Factored Strength (M_Rd)	822.01	1115.98	527.67
Check Ratio (M_Ed/M_Rd)	0.9498	0.9238	0.8466
Neutral Axis (x/d)	0.0728	0.1016	0.0562
Required Rebar Top (As_top)	0.0021	0.0015	0.0021
Required Rebar Bot (As_bot)	0.0033	0.0044	0.0019

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	36-	36-	40+
Factored Shear Force (V_Ed)	433.95	307.25	341.73
Shear Strength by Conc.(V_Rdc)	427.80	474.40	400.87
Shear Strength by Rebar.(V_Rds)	440.51	370.96	370.96
Required Shear Reinf. (Asw)	0.0019	0.0016	0.0016
Required Stirrups Spacing	4-P10 @160	4-P10 @190	4-P10 @190
Shear Ratio by Conc	1.0144	0.6477	0.8525
Shear Ratio by (V_Rds ; V_Rdmax)	0.9851	0.8283	0.9212
Check Ratio	0.9851	0.6477	0.8525

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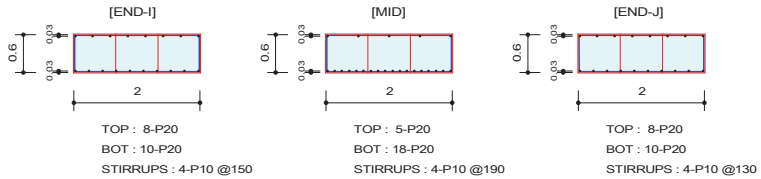
1. Design Information

Member Number: 333
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: EZ 200/60 (No : 22) Beam Span : 12.3551 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	40-
Moment (M_Ed)	559.42	0.00	590.27
Factored Strength (M_Rd)	603.54	381.45	603.54
Check Ratio (M_Ed/M_Rd)	0.9269	0.0000	0.9780
Neutral Axis (x/d)	0.0581	0.0513	0.0581
(+) Load Combination No.	40+	36+	36+
Moment (M_Ed)	714.39	1247.33	738.67
Factored Strength (M_Rd)	748.63	1319.73	748.63
Check Ratio (M_Ed/M_Rd)	0.9543	0.9451	0.9867
Neutral Axis (x/d)	0.0671	0.1211	0.0671
Required Rebar Top (As_top)	0.0024	0.0015	0.0025
Required Rebar Bot (As_bot)	0.0030	0.0054	0.0031

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	36-	36-	36+
Factored Shear Force (V_Ed)	440.75	292.75	526.45
Shear Strength by Conc.(V_Rdc)	414.42	504.12	414.42
Shear Strength by Rebar.(V_Rds)	469.88	370.96	542.17
Required Shear Reinf. (Asw)	0.0020	0.0016	0.0024
Required Stirrups Spacing	4-P10 @150	4-P10 @190	4-P10 @130
Shear Ratio by Conc	1.0635	0.5807	1.2703
Shear Ratio by (V_Rds ; V_Rdmax)	0.9380	0.7892	0.9710
Check Ratio	0.9380	0.5807	0.9710

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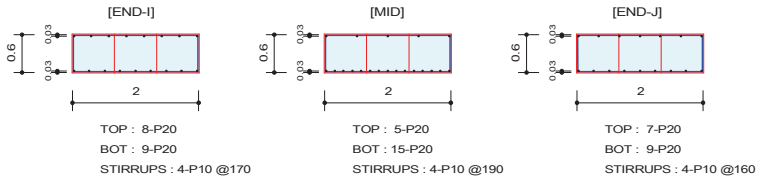
1. Design Information

Member Number: 334
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: EZ 200/60 (No : 22) Beam Span : 12.2734 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	40-
Moment (M_Ed)	537.51	0.00	487.50
Factored Strength (M_Rd)	604.45	382.42	529.73
Check Ratio (M_Ed/M_Rd)	0.8892	0.0000	0.9203
Neutral Axis (x/d)	0.0586	0.0511	0.0557
(+) Load Combination No.	40+	36+	36+
Moment (M_Ed)	649.05	1063.13	652.58
Factored Strength (M_Rd)	677.89	1115.98	677.95
Check Ratio (M_Ed/M_Rd)	0.9575	0.9526	0.9626
Neutral Axis (x/d)	0.0625	0.1016	0.0635
Required Rebar Top (As_top)	0.0023	0.0015	0.0021
Required Rebar Bot (As_bot)	0.0028	0.0046	0.0028

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	36-	36-	40+
Factored Shear Force (V_Ed)	413.77	263.31	439.18
Shear Strength by Conc.(V_Rdc)	400.87	474.40	400.87
Shear Strength by Rebar.(V_Rds)	414.60	370.96	440.51
Required Shear Reinf. (Asw)	0.0019	0.0016	0.0020
Required Stirrups Spacing	4-P10 @170	4-P10 @190	4-P10 @160
Shear Ratio by Conc	1.0322	0.5550	1.0956
Shear Ratio by (V_Rds ; V_Rdmax)	0.9980	0.7098	0.9970
Check Ratio	0.9980	0.5550	0.9970

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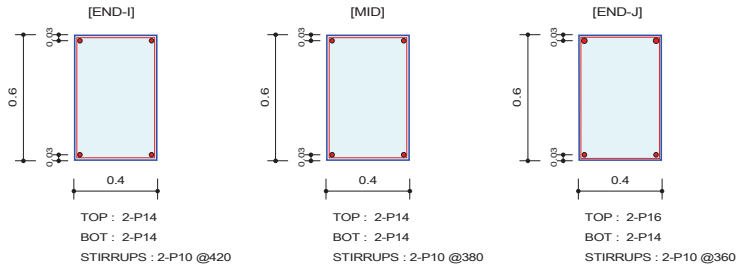
1. Design Information

Member Number: 335
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 3.26 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	38-	38-
Moment (M_Ed)	46.83	39.68	78.94
Factored Strength (M_Rd)	74.92	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.6251	0.5297	0.8133
Neutral Axis (x/d)	0.0491	0.0491	0.0547
(+) Load Combination No.	43+	38+	44+
Moment (M_Ed)	46.89	26.28	1.72
Factored Strength (M_Rd)	74.92	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.6259	0.3508	0.0230
Neutral Axis (x/d)	0.0491	0.0491	0.0496
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	38-	38+	38+
Factored Shear Force (V_Ed)	45.65	91.89	95.30
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	92.74	97.89
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @380	2-P10 @360
Shear Ratio by Conc	0.5693	1.1462	1.1887
Shear Ratio by (V_Rds ; V_Rdmax)	0.5440	0.9909	0.9736
Check Ratio	0.5693	0.9909	0.9736

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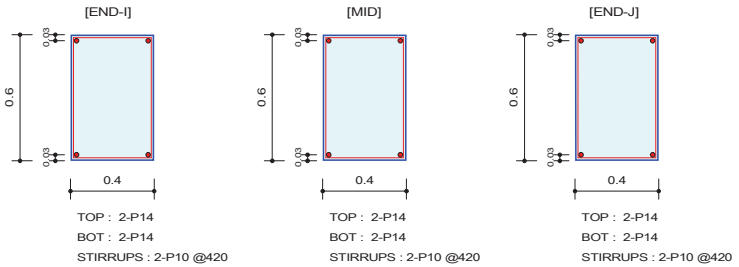
1. Design Information

Member Number: 336
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 0.209238 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	0.00	0.00
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0000
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	0.00	0.00
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0000
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	44-	44-	44-
Factored Shear Force (V_Ed)	0.00	0.00	0.00
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.0000	0.0000	0.0000
Shear Ratio by (V_Rds ; V_Rdmax)	0.0000	0.0000	0.0000
Check Ratio	0.0000	0.0000	0.0000

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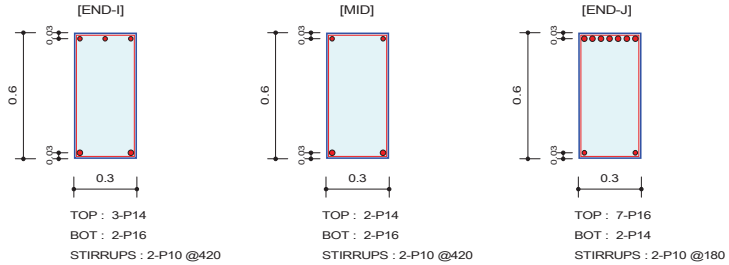
1. Design Information

Member Number: 337
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/60 (No : 20) Beam Span : 21.41 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 3-P14	TOP : 2-P14	TOP : 7-P16
BOT : 2-P16	BOT : 2-P16	BOT : 2-P14
STIRRUPS : 2-P10 @420	STIRRUPS : 2-P10 @420	STIRRUPS : 2-P10 @180

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	37-	39-
Moment (M_Ed)	99.93	22.94	303.19
Factored Strength (M_Rd)	110.24	74.27	321.50
Check Ratio (M_Ed/M_Rd)	0.9065	0.3088	0.9430
Neutral Axis (x/d)	0.0647	0.0544	0.2109
(+) Load Combination No.	38+	39+	38+
Moment (M_Ed)	80.70	92.17	14.01
Factored Strength (M_Rd)	95.91	96.20	74.28
Check Ratio (M_Ed/M_Rd)	0.8414	0.9581	0.1886
Neutral Axis (x/d)	0.0596	0.0620	0.0533
Required Rebar Top (As_top)	0.0004	0.0002	0.0014
Required Rebar Bot (As_bot)	0.0003	0.0004	0.0002

4. Shear Capacity

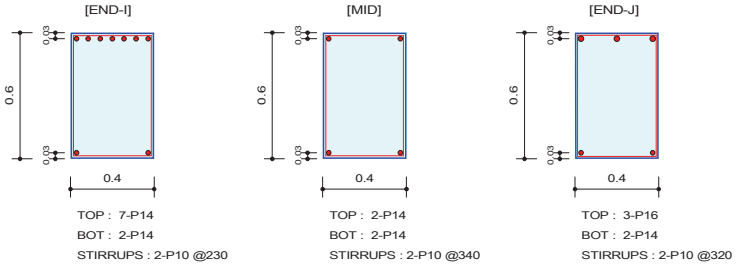
	END-I	MID	END-J
Load Combination No.	40-	44-	39+
Factored Shear Force (V_Ed)	32.38	26.02	193.03
Shear Strength by Conc.(V_Rdc)	61.77	60.13	89.53
Shear Strength by Rebar.(V_Rds)	83.91	83.91	195.78
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0009
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @180
Shear Ratio by Conc	0.5242	0.4327	2.1561
Shear Ratio by (V_Rds ; V_Rdmax)	0.3859	0.3101	0.9860
Check Ratio	0.5242	0.4327	0.9860

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 341
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 7-P14	TOP : 2-P14	TOP : 3-P16
BOT : 2-P14	BOT : 2-P14	BOT : 2-P14
STIRRUPS : 2-P10 @230	STIRRUPS : 2-P10 @340	STIRRUPS : 2-P10 @320

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	38-	44-
Moment (M_Ed)	234.80	71.67	124.05
Factored Strength (M_Rd)	252.93	74.92	143.51
Check Ratio (M_Ed/M_Rd)	0.9283	0.9566	0.8644
Neutral Axis (x/d)	0.1162	0.0491	0.0698
(+) Load Combination No.	44-	38+	43+
Moment (M_Ed)	0.00	51.51	43.98
Factored Strength (M_Rd)	74.99	74.92	74.80
Check Ratio (M_Ed/M_Rd)	0.0000	0.6875	0.5881
Neutral Axis (x/d)	0.0511	0.0491	0.0503
Required Rebar Top (As_top)	0.0010	0.0003	0.0005
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

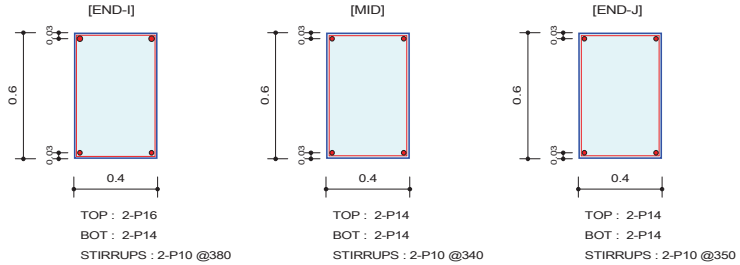
	END-I	MID	END-J
Load Combination No.	38-	38-	39+
Factored Shear Force (V_Ed)	148.92	103.20	106.88
Shear Strength by Conc.(V_Rdc)	99.24	80.17	81.77
Shear Strength by Rebar.(V_Rds)	153.22	103.65	110.13
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0005
Required Stirrups Spacing	2-P10 @230	2-P10 @340	2-P10 @320
Shear Ratio by Conc	1.5006	1.2873	1.3071
Shear Ratio by (V_Rds ; V_Rdmax)	0.9720	0.9957	0.9705
Check Ratio	0.9720	0.9957	0.9705

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 342
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.40001 m

2. Section Diagram



	[END-I]	[MID]	[END-J]
TOP	2-P16	2-P14	2-P14
BOT	2-P14	2-P14	2-P14
STIRRUPS	2-P10 @380	2-P10 @340	2-P10 @350

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	38-	38-
Moment (M_Ed)	82.84	59.90	27.82
Factored Strength (M_Rd)	97.07	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.8534	0.7996	0.3713
Neutral Axis (x/d)	0.0547	0.0491	0.0491
(+) Load Combination No.	43+	37+	37+
Moment (M_Ed)	12.14	18.40	43.02
Factored Strength (M_Rd)	74.76	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.1624	0.2456	0.5743
Neutral Axis (x/d)	0.0496	0.0491	0.0491
Required Rebar Top (As_top)	0.0004	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

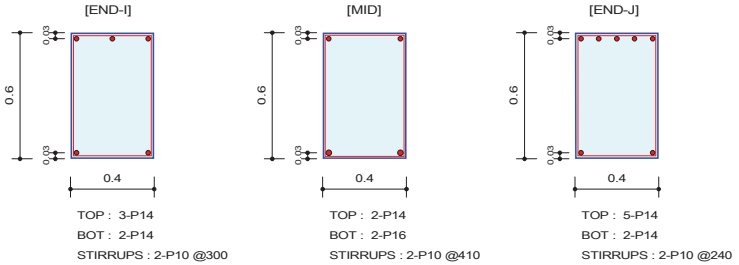
	END-I	MID	END-J
Load Combination No.	39-	37-	37-
Factored Shear Force (V_Ed)	90.84	101.58	99.55
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	92.74	103.65	100.69
Required Shear Reinf. (Asw)	0.0004	0.0005	0.0004
Required Stirrups Spacing	2-P10 @380	2-P10 @340	2-P10 @350
Shear Ratio by Conc	1.1330	1.2670	1.2417
Shear Ratio by (V_Rds ; V_Rdmax)	0.9795	0.9800	0.9887
Check Ratio	0.9795	0.9800	0.9887

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 343
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



	[END-I]	[MID]	[END-J]
TOP	3-P14	2-P14	5-P14
BOT	2-P14	2-P16	2-P14
STIRRUPS	2-P10 @300	2-P10 @410	2-P10 @240

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	41-	36-
Moment (M_Ed)	98.25	6.53	148.57
Factored Strength (M_Rd)	111.00	74.76	182.54
Check Ratio (M_Ed/M_Rd)	0.8851	0.0874	0.8139
Neutral Axis (x/d)	0.0586	0.0496	0.0845
(+) Load Combination No.	36+	40+	38+
Moment (M_Ed)	27.77	75.73	15.32
Factored Strength (M_Rd)	74.67	97.07	74.67
Check Ratio (M_Ed/M_Rd)	0.3719	0.7802	0.2052
Neutral Axis (x/d)	0.0498	0.0547	0.0507
Required Rebar Top (As_top)	0.0004	0.0003	0.0006
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

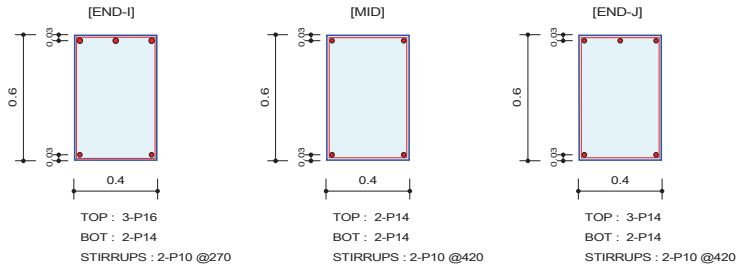
	END-I	MID	END-J
Load Combination No.	40-	36+	36+
Factored Shear Force (V_Ed)	115.35	85.09	143.56
Shear Strength by Conc.(V_Rdc)	80.17	80.17	88.71
Shear Strength by Rebar.(V_Rds)	117.47	85.95	146.84
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0006
Required Stirrups Spacing	2-P10 @300	2-P10 @410	2-P10 @240
Shear Ratio by Conc	1.4387	1.0614	1.6182
Shear Ratio by (V_Rds ; V_Rdmax)	0.9819	0.9900	0.9777
Check Ratio	0.9819	0.9900	0.9777

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 344
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	42-	38-
Moment (M_Ed)	135.94	32.89	101.02
Factored Strength (M_Rd)	143.51	74.92	111.00
Check Ratio (M_Ed/M_Rd)	0.9472	0.4390	0.9101
Neutral Axis (x/d)	0.0698	0.0491	0.0586
(+) Load Combination No.	38+	39+	44+
Moment (M_Ed)	20.72	53.63	31.60
Factored Strength (M_Rd)	74.80	74.92	74.67
Check Ratio (M_Ed/M_Rd)	0.2770	0.7158	0.4232
Neutral Axis (x/d)	0.0503	0.0491	0.0498
Required Rebar Top (As_top)	0.0006	0.0003	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

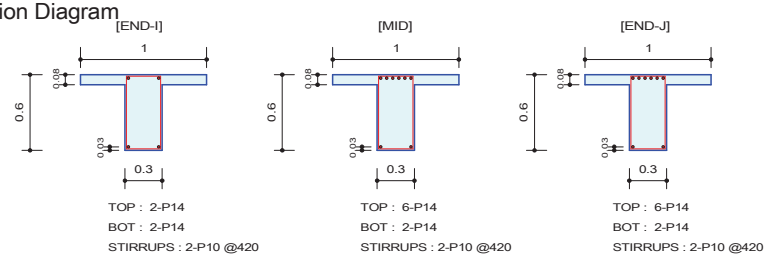
	END-I	MID	END-J
Load Combination No.	39-	39-	38+
Factored Shear Force (V_Ed)	126.60	76.40	60.97
Shear Strength by Conc.(V_Rdc)	81.77	80.17	80.17
Shear Strength by Rebar.(V_Rds)	130.52	83.91	83.91
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0004
Required Stirrups Spacing	2-P10 @270	2-P10 @420	2-P10 @420
Shear Ratio by Conc	1.5482	0.9530	0.7604
Shear Ratio by (V_Rds ; V_Rdmax)	0.9699	0.9106	0.7266
Check Ratio	0.9699	0.9530	0.7604

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 347
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.4929 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	39-	39-
Moment (M_Ed)	25.62	142.20	129.68
Factored Strength (M_Rd)	73.89	215.89	215.89
Check Ratio (M_Ed/M_Rd)	0.3468	0.6586	0.6007
Neutral Axis (x/d)	0.0547	0.1230	0.1230
(+) Load Combination No.	44+	44+	43+
Moment (M_Ed)	59.91	47.79	50.10
Factored Strength (M_Rd)	77.36	78.61	78.61
Check Ratio (M_Ed/M_Rd)	0.7745	0.6080	0.6373
Neutral Axis (x/d)	0.0336	0.0412	0.0412
Required Rebar Top (As_top)	0.0003	0.0006	0.0006
Required Rebar Bot (As_bot)	0.0003	0.0002	0.0002

4. Shear Capacity

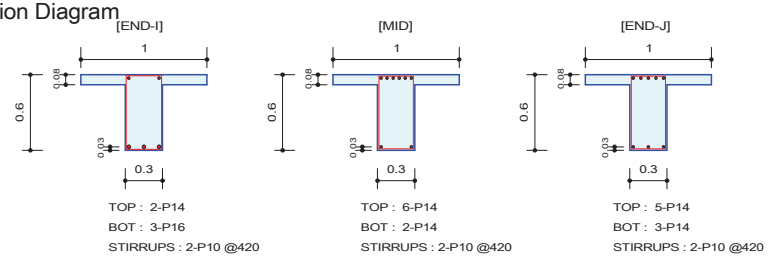
	END-I	MID	END-J
Load Combination No.	40-	39+	40-
Factored Shear Force (V_Ed)	22.18	51.36	61.93
Shear Strength by Conc.(V_Rdc)	60.13	77.82	77.82
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.3688	0.6600	0.7959
Shear Ratio by (V_Rds ; V_Rdmax)	0.2643	0.6121	0.7381
Check Ratio	0.3688	0.6600	0.7959

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 348
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.4783 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	39-	39-
Moment (M_Ed)	41.99	127.39	117.64
Factored Strength (M_Rd)	74.20	215.89	181.88
Check Ratio (M_Ed/M_Rd)	0.5660	0.5900	0.6468
Neutral Axis (x/d)	0.0540	0.1230	0.0903
(+) Load Combination No.	44+	44+	43+
Moment (M_Ed)	117.25	12.45	103.29
Factored Strength (M_Rd)	147.48	78.61	114.43
Check Ratio (M_Ed/M_Rd)	0.7950	0.1584	0.9027
Neutral Axis (x/d)	0.0417	0.0412	0.0427
Required Rebar Top (As_top)	0.0003	0.0005	0.0005
Required Rebar Bot (As_bot)	0.0005	0.0002	0.0004

4. Shear Capacity

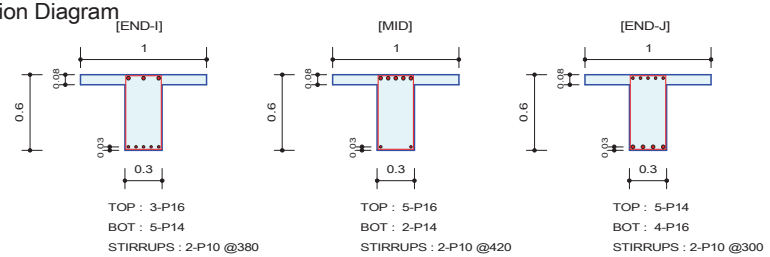
	END-I	MID	END-J
Load Combination No.	36+	43-	40-
Factored Shear Force (V_Ed)	48.90	37.94	79.66
Shear Strength by Conc.(V_Rdc)	67.50	77.82	73.23
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.7245	0.4875	1.0878
Shear Ratio by (V_Rds ; V_Rdmax)	0.5828	0.4522	0.9494
Check Ratio	0.7245	0.4875	0.9494

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 349
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.4637 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	36-	39-
Moment (M_Ed)	92.06	150.73	114.48
Factored Strength (M_Rd)	143.12	233.88	182.66
Check Ratio (M_Ed/M_Rd)	0.6432	0.6445	0.6267
Neutral Axis (x/d)	0.0676	0.1348	0.0762
(+) Load Combination No.	44+	44-	43+
Moment (M_Ed)	166.77	0.00	178.66
Factored Strength (M_Rd)	187.39	78.80	194.94
Check Ratio (M_Ed/M_Rd)	0.8900	0.0000	0.9165
Neutral Axis (x/d)	0.0486	0.0417	0.0498
Required Rebar Top (As_top)	0.0004	0.0006	0.0005
Required Rebar Bot (As_bot)	0.0007	0.0002	0.0008

4. Shear Capacity

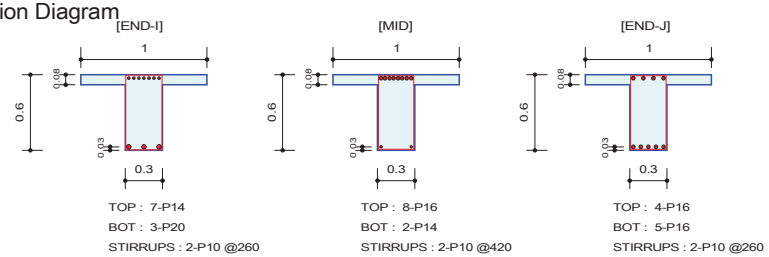
	END-I	MID	END-J
Load Combination No.	39+	43-	40-
Factored Shear Force (V_Ed)	90.89	49.11	117.37
Shear Strength by Conc.(V_Rdc)	73.23	80.03	74.29
Shear Strength by Rebar.(V_Rds)	92.74	83.91	117.47
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0005
Required Stirrups Spacing	2-P10 @380	2-P10 @420	2-P10 @300
Shear Ratio by Conc	1.2411	0.6137	1.5799
Shear Ratio by (V_Rds ; V_Rdmax)	0.9801	0.5854	0.9992
Check Ratio	0.9801	0.6137	0.9992

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 350
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.4098 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	39-
Moment (M_Ed)	163.11	238.78	123.63
Factored Strength (M_Rd)	254.99	362.11	190.25
Check Ratio (M_Ed/M_Rd)	0.6397	0.6594	0.6498
Neutral Axis (x/d)	0.0908	0.2500	0.0732
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	211.38	0.00	224.59
Factored Strength (M_Rd)	227.31	78.78	243.15
Check Ratio (M_Ed/M_Rd)	0.9299	0.0000	0.9237
Neutral Axis (x/d)	0.0530	0.0445	0.0547
Required Rebar Top (As_top)	0.0007	0.0011	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0010

4. Shear Capacity

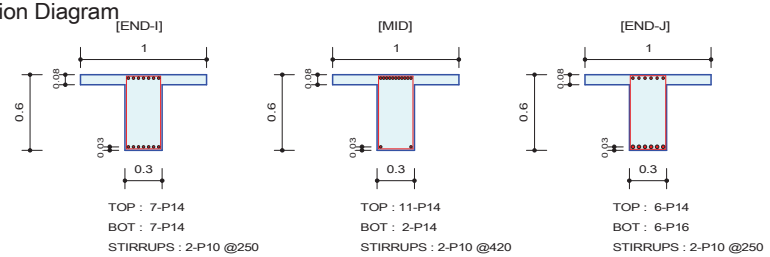
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	134.56	72.28	131.29
Shear Strength by Conc.(V_Rdc)	81.92	93.60	80.03
Shear Strength by Rebar.(V_Rds)	135.54	83.91	135.54
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0006
Required Stirrups Spacing	2-P10 @260	2-P10 @420	2-P10 @260
Shear Ratio by Conc	1.6425	0.7722	1.6406
Shear Ratio by (V_Rds ; V_Rdmax)	0.9928	0.8615	0.9687
Check Ratio	0.9928	0.7722	0.9687

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 351
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3959 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	39-
Moment (M_Ed)	162.86	255.02	142.62
Factored Strength (M_Rd)	254.05	379.02	218.04
Check Ratio (M_Ed/M_Rd)	0.6411	0.6728	0.6541
Neutral Axis (x/d)	0.0854	0.2656	0.0747
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	228.43	0.00	243.51
Factored Strength (M_Rd)	257.97	78.65	288.03
Check Ratio (M_Ed/M_Rd)	0.8855	0.0000	0.8454
Neutral Axis (x/d)	0.0557	0.0448	0.0591
Required Rebar Top (As_top)	0.0007	0.0011	0.0006
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0011

4. Shear Capacity

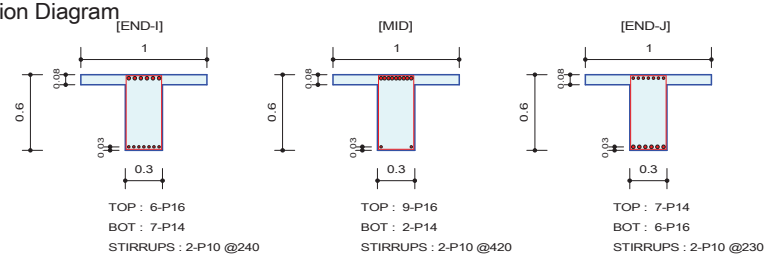
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	135.72	90.98	139.76
Shear Strength by Conc.(V_Rdc)	81.92	95.24	85.04
Shear Strength by Rebar.(V_Rds)	140.96	83.91	140.96
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0006
Required Stirrups Spacing	2-P10 @250	2-P10 @420	2-P10 @250
Shear Ratio by Conc	1.6567	0.9552	1.6434
Shear Ratio by (V_Rds ; V_Rdmax)	0.9628	1.0843	0.9915
Check Ratio	0.9628	0.9552	0.9915

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 352
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3821 m

2. Section Diagram



[END-I] TOP : 6-P16 BOT : 7-P14 STIRRUPS : 2-P10 @240
[MID] TOP : 9-P16 BOT : 2-P14 STIRRUPS : 2-P10 @420
[END-J] TOP : 7-P14 BOT : 6-P16 STIRRUPS : 2-P10 @230

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	168.71	269.58	165.59
Factored Strength (M_Rd)	282.71	401.19	253.29
Check Ratio (M_Ed/M_Rd)	0.5968	0.6719	0.6538
Neutral Axis (x/d)	0.0928	0.2852	0.0815
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	236.88	0.00	256.83
Factored Strength (M_Rd)	259.15	78.43	289.34
Check Ratio (M_Ed/M_Rd)	0.9140	0.0000	0.8876
Neutral Axis (x/d)	0.0555	0.0451	0.0586
Required Rebar Top (As_top)	0.0007	0.0012	0.0007
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0012

4. Shear Capacity

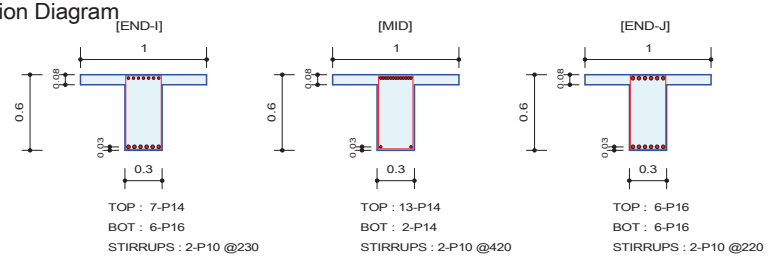
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	146.75	96.14	152.95
Shear Strength by Conc.(V_Rdc)	85.04	97.35	85.04
Shear Strength by Rebar.(V_Rds)	146.84	83.91	153.22
Required Shear Reinf. (Asw)	0.0007	0.0004	0.0007
Required Stirrups Spacing	2-P10 @240	2-P10 @420	2-P10 @230
Shear Ratio by Conc	1.7256	0.9876	1.7985
Shear Ratio by (V_Rds ; V_Rdmax)	0.9994	1.1458	0.9982
Check Ratio	0.9994	0.9876	0.9982

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 353
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3281 m

2. Section Diagram



[END-I] TOP : 7-P14 BOT : 6-P16 STIRRUPS : 2-P10 @230
[MID] TOP : 13-P14 BOT : 2-P14 STIRRUPS : 2-P10 @420
[END-J] TOP : 6-P16 BOT : 6-P16 STIRRUPS : 2-P10 @220

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	167.51	280.35	176.90
Factored Strength (M_Rd)	253.29	437.28	284.33
Check Ratio (M_Ed/M_Rd)	0.6613	0.6411	0.6222
Neutral Axis (x/d)	0.0815	0.3242	0.0884
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	250.81	0.00	256.17
Factored Strength (M_Rd)	289.34	78.51	288.81
Check Ratio (M_Ed/M_Rd)	0.8668	0.0000	0.8870
Neutral Axis (x/d)	0.0586	0.0457	0.0581
Required Rebar Top (As_top)	0.0007	0.0013	0.0008
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0012

4. Shear Capacity

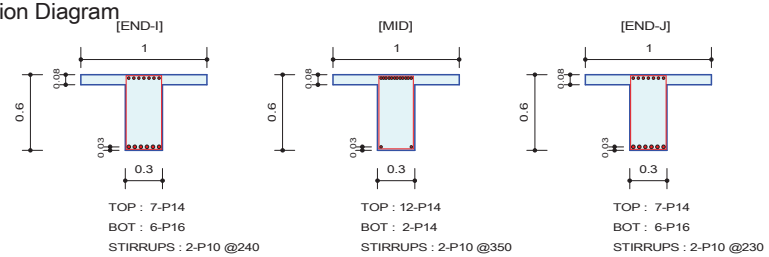
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	152.52	98.79	157.79
Shear Strength by Conc.(V_Rdc)	85.04	100.70	85.04
Shear Strength by Rebar.(V_Rds)	153.22	83.91	160.19
Required Shear Reinf. (Asw)	0.0007	0.0004	0.0007
Required Stirrups Spacing	2-P10 @230	2-P10 @420	2-P10 @220
Shear Ratio by Conc	1.7934	0.9811	1.8554
Shear Ratio by (V_Rds ; V_Rdmax)	0.9954	1.1774	0.9850
Check Ratio	0.9954	0.9811	0.9850

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 354
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3142 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	161.55	273.30	166.34
Factored Strength (M_Rd)	253.29	408.60	253.29
Check Ratio (M_Ed/M_Rd)	0.6378	0.6689	0.6567
Neutral Axis (x/d)	0.0815	0.2930	0.0815
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	249.54	0.00	251.58
Factored Strength (M_Rd)	289.34	78.69	289.34
Check Ratio (M_Ed/M_Rd)	0.8624	0.0000	0.8695
Neutral Axis (x/d)	0.0586	0.0453	0.0586
Required Rebar Top (As_top)	0.0007	0.0012	0.0007
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0011

4. Shear Capacity

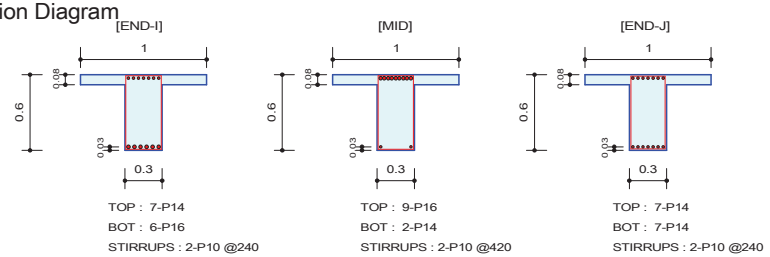
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	144.33	100.22	151.60
Shear Strength by Conc.(V_Rdc)	85.04	98.05	85.04
Shear Strength by Rebar.(V_Rds)	146.84	100.69	153.22
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0007
Required Stirrups Spacing	2-P10 @240	2-P10 @350	2-P10 @230
Shear Ratio by Conc	1.6971	1.0221	1.7826
Shear Ratio by (V_Rds ; V_Rdmax)	0.9829	0.9953	0.9894
Check Ratio	0.9829	0.9953	0.9894

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 355
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3004 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	158.79	267.39	161.68
Factored Strength (M_Rd)	253.29	401.19	254.05
Check Ratio (M_Ed/M_Rd)	0.6269	0.6665	0.6364
Neutral Axis (x/d)	0.0815	0.2852	0.0854
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	243.77	0.00	235.75
Factored Strength (M_Rd)	289.34	78.43	257.97
Check Ratio (M_Ed/M_Rd)	0.8425	0.0000	0.9139
Neutral Axis (x/d)	0.0586	0.0451	0.0557
Required Rebar Top (As_top)	0.0007	0.0012	0.0007
Required Rebar Bot (As_bot)	0.0011	0.0002	0.0011

4. Shear Capacity

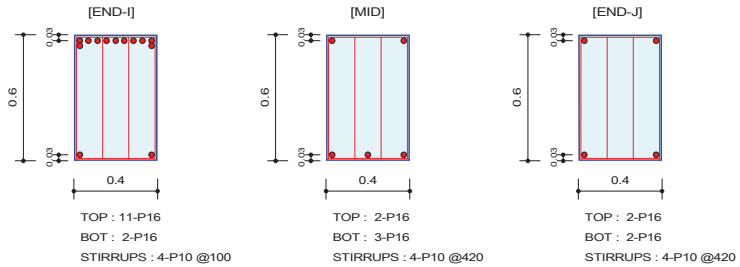
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	146.33	89.00	146.31
Shear Strength by Conc.(V_Rdc)	85.04	97.35	81.92
Shear Strength by Rebar.(V_Rds)	146.84	83.91	146.84
Required Shear Reinf. (Asw)	0.0007	0.0004	0.0007
Required Stirrups Spacing	2-P10 @240	2-P10 @420	2-P10 @240
Shear Ratio by Conc	1.7206	0.9142	1.7859
Shear Ratio by (V_Rds ; V_Rdmax)	0.9965	1.0607	0.9964
Check Ratio	0.9965	0.9142	0.9964

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 356
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	43-
Moment (M_Ed)	451.38	29.57	82.76
Factored Strength (M_Rd)	488.54	97.07	96.81
Check Ratio (M_Ed/M_Rd)	0.9239	0.3046	0.8548
Neutral Axis (x/d)	0.2617	0.0540	0.0543
(+) Load Combination No.	43+	39+	39+
Moment (M_Ed)	48.40	132.91	80.95
Factored Strength (M_Rd)	97.20	143.26	96.81
Check Ratio (M_Ed/M_Rd)	0.4979	0.9278	0.8361
Neutral Axis (x/d)	0.0648	0.0674	0.0543
Required Rebar Top (As_top)	0.0022	0.0003	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0003

4. Shear Capacity

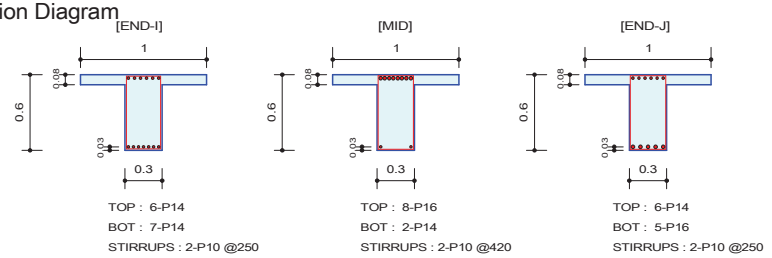
	END-I	MID	END-J
Load Combination No.	39-	32	38+
Factored Shear Force (V_Ed)	644.08	80.36	76.78
Shear Strength by Conc.(V_Rdc)	125.30	81.77	80.17
Shear Strength by Rebar.(V_Rds)	695.60	167.81	167.81
Required Shear Reinf. (Asw)	0.0029	0.0007	0.0007
Required Stirrups Spacing	4-P10 @100	4-P10 @420	4-P10 @420
Shear Ratio by Conc	5.1404	0.9828	0.9576
Shear Ratio by (V_Rds ; V_Rdmax)	0.9259	0.4789	0.4575
Check Ratio	0.9259	0.9828	0.9576

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 357
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2464 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	140.41	240.22	143.03
Factored Strength (M_Rd)	216.96	362.11	217.63
Check Ratio (M_Ed/M_Rd)	0.6472	0.6634	0.6572
Neutral Axis (x/d)	0.0771	0.2500	0.0791
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	235.02	0.00	220.64
Factored Strength (M_Rd)	259.69	78.78	242.34
Check Ratio (M_Ed/M_Rd)	0.9050	0.0000	0.9105
Neutral Axis (x/d)	0.0562	0.0445	0.0544
Required Rebar Top (As_top)	0.0006	0.0011	0.0006
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0010

4. Shear Capacity

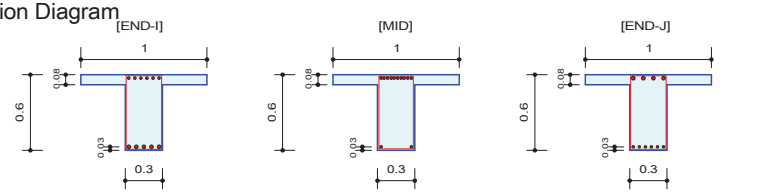
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	139.00	73.94	140.42
Shear Strength by Conc.(V_Rdc)	81.92	93.60	80.03
Shear Strength by Rebar.(V_Rds)	140.96	83.91	140.96
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0006
Required Stirrups Spacing	2-P10 @250	2-P10 @420	2-P10 @250
Shear Ratio by Conc	1.6967	0.7899	1.7546
Shear Ratio by (V_Rds ; V_Rdmax)	0.9861	0.8812	0.9961
Check Ratio	0.9861	0.7899	0.9961

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 358
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2318 m

2. Section Diagram



[END-I]
TOP : 6-P14
BOT : 5-P16
STIRRUPS : 2-P10 @280

[MID]
TOP : 10-P14
BOT : 2-P14
STIRRUPS : 2-P10 @420

[END-J]
TOP : 4-P16
BOT : 6-P14
STIRRUPS : 2-P10 @280

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	36-
Moment (M_Ed)	126.64	220.95	125.07
Factored Strength (M_Rd)	217.63	348.54	190.18
Check Ratio (M_Ed/M_Rd)	0.5819	0.6339	0.6576
Neutral Axis (x/d)	0.0791	0.2344	0.0750
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	218.24	0.00	195.37
Factored Strength (M_Rd)	242.34	78.65	223.01
Check Ratio (M_Ed/M_Rd)	0.9006	0.0000	0.8761
Neutral Axis (x/d)	0.0544	0.0443	0.0526
Required Rebar Top (As_top)	0.0005	0.0010	0.0005
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0009

4. Shear Capacity

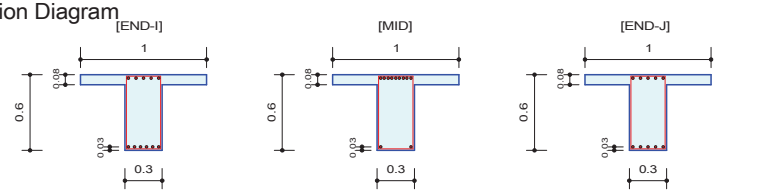
	END-I	MID	END-J
Load Combination No.	36+	36-	36-
Factored Shear Force (V_Ed)	123.87	67.37	124.13
Shear Strength by Conc.(V_Rdc)	80.03	92.27	77.82
Shear Strength by Rebar.(V_Rds)	125.86	83.91	125.86
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0006
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @280
Shear Ratio by Conc	1.5478	0.7302	1.5950
Shear Ratio by (V_Rds ; V_Rdmax)	0.9842	0.8029	0.9862
Check Ratio	0.9842	0.7302	0.9862

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 359
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2172 m

2. Section Diagram



[END-I]
TOP : 5-P14
BOT : 6-P14
STIRRUPS : 2-P10 @310

[MID]
TOP : 9-P14
BOT : 2-P14
STIRRUPS : 2-P10 @420

[END-J]
TOP : 5-P14
BOT : 5-P14
STIRRUPS : 2-P10 @320

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	36-
Moment (M_Ed)	116.29	196.08	109.17
Factored Strength (M_Rd)	182.37	317.17	182.73
Check Ratio (M_Ed/M_Rd)	0.6377	0.6182	0.5974
Neutral Axis (x/d)	0.0732	0.2070	0.0771
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	193.14	0.00	158.32
Factored Strength (M_Rd)	223.01	78.94	187.30
Check Ratio (M_Ed/M_Rd)	0.8661	0.0000	0.8453
Neutral Axis (x/d)	0.0526	0.0437	0.0491
Required Rebar Top (As_top)	0.0005	0.0009	0.0005
Required Rebar Bot (As_bot)	0.0008	0.0002	0.0007

4. Shear Capacity

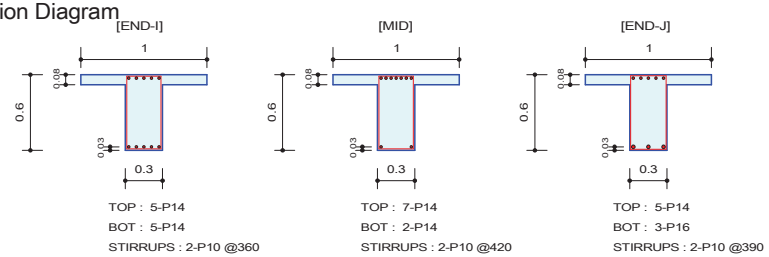
	END-I	MID	END-J
Load Combination No.	36+	36-	36-
Factored Shear Force (V_Ed)	110.84	51.93	107.56
Shear Strength by Conc.(V_Rdc)	77.82	89.08	73.23
Shear Strength by Rebar.(V_Rds)	113.68	83.91	110.13
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @310	2-P10 @420	2-P10 @320
Shear Ratio by Conc	1.4243	0.5829	1.4687
Shear Ratio by (V_Rds ; V_Rdmax)	0.9750	0.6189	0.9766
Check Ratio	0.9750	0.5829	0.9766

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 360
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.2027 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	36-
Moment (M_Ed)	110.54	161.97	102.95
Factored Strength (M_Rd)	182.73	251.74	182.28
Check Ratio (M_Ed/M_Rd)	0.6049	0.6434	0.5648
Neutral Axis (x/d)	0.0771	0.1484	0.0830
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	166.80	0.00	120.00
Factored Strength (M_Rd)	187.30	78.60	148.27
Check Ratio (M_Ed/M_Rd)	0.8906	0.0000	0.8093
Neutral Axis (x/d)	0.0491	0.0422	0.0455
Required Rebar Top (As_top)	0.0005	0.0007	0.0004
Required Rebar Bot (As_bot)	0.0007	0.0002	0.0005

4. Shear Capacity

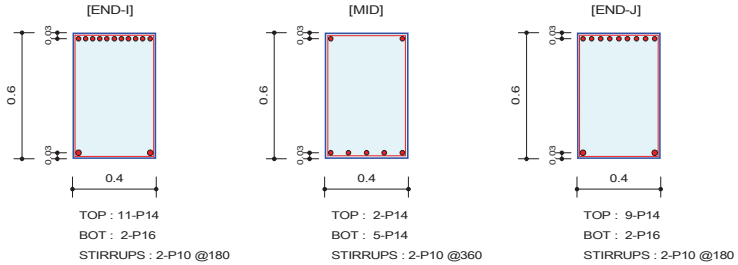
	END-I	MID	END-J
Load Combination No.	36+	40-	36-
Factored Shear Force (V_Ed)	96.70	49.76	88.27
Shear Strength by Conc.(V_Rdc)	73.23	81.92	73.23
Shear Strength by Rebar.(V_Rds)	97.89	83.91	90.36
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @360	2-P10 @420	2-P10 @390
Shear Ratio by Conc	1.3205	0.6074	1.2054
Shear Ratio by (V_Rds ; V_Rdmax)	0.9879	0.5930	0.9769
Check Ratio	0.9879	0.6074	0.9769

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 364
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	40-
Moment (M_Ed)	362.11	34.89	310.48
Factored Strength (M_Rd)	390.54	74.67	324.28
Check Ratio (M_Ed/M_Rd)	0.9272	0.4673	0.9574
Neutral Axis (x/d)	0.1855	0.0507	0.1426
(+) Load Combination No.	43+	39+	44+
Moment (M_Ed)	94.63	174.06	89.48
Factored Strength (M_Rd)	96.54	182.54	96.77
Check Ratio (M_Ed/M_Rd)	0.9801	0.9535	0.9246
Neutral Axis (x/d)	0.0532	0.0845	0.0533
Required Rebar Top (As_top)	0.0016	0.0003	0.0014
Required Rebar Bot (As_bot)	0.0004	0.0007	0.0004

4. Shear Capacity

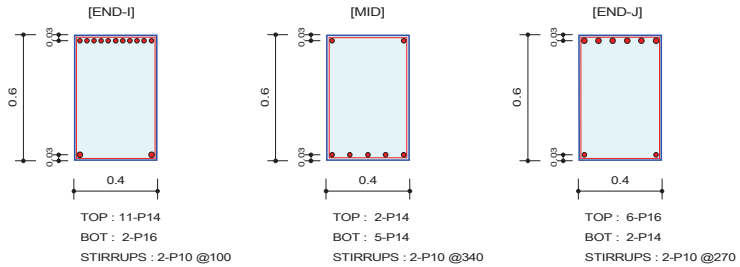
	END-I	MID	END-J
Load Combination No.	39-	39-	40+
Factored Shear Force (V_Ed)	192.62	97.15	194.75
Shear Strength by Conc.(V_Rdc)	115.38	88.71	107.91
Shear Strength by Rebar.(V_Rds)	195.78	97.89	195.78
Required Shear Reinf. (Asw)	0.0009	0.0004	0.0009
Required Stirrups Spacing	2-P10 @180	2-P10 @360	2-P10 @180
Shear Ratio by Conc	1.6694	1.0951	1.8047
Shear Ratio by (V_Rds ; V_Rdmax)	0.9838	0.9924	0.9947
Check Ratio	0.9838	0.9924	0.9947

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 365
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	40-
Moment (M_Ed)	366.43	43.47	260.19
Factored Strength (M_Rd)	390.54	74.67	281.71
Check Ratio (M_Ed/M_Rd)	0.9383	0.5822	0.9236
Neutral Axis (x/d)	0.1855	0.0507	0.1309
(+) Load Combination No.	43+	39+	44+
Moment (M_Ed)	89.97	158.42	69.06
Factored Strength (M_Rd)	96.54	182.54	74.91
Check Ratio (M_Ed/M_Rd)	0.9319	0.8678	0.9219
Neutral Axis (x/d)	0.0532	0.0845	0.0513
Required Rebar Top (As_top)	0.0017	0.0003	0.0011
Required Rebar Bot (As_bot)	0.0004	0.0007	0.0003

4. Shear Capacity

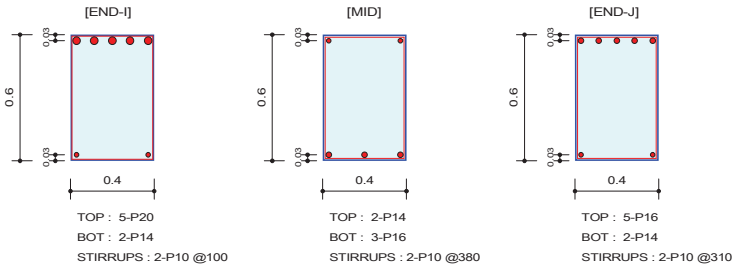
	END-I	MID	END-J
Load Combination No.	40-	39-	40+
Factored Shear Force (V_Ed)	338.29	103.00	127.28
Shear Strength by Conc.(V_Rdc)	115.38	88.71	103.02
Shear Strength by Rebar.(V_Rds)	352.41	103.65	130.52
Required Shear Reinf. (Asw)	0.0015	0.0005	0.0006
Required Stirrups Spacing	2-P10 @100	2-P10 @340	2-P10 @270
Shear Ratio by Conc	2.9320	1.1611	1.2354
Shear Ratio by (V_Rds ; V_Rdmax)	0.9599	0.9937	0.9751
Check Ratio	0.9599	0.9937	0.9751

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 366
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	40-
Moment (M_Ed)	343.92	19.23	220.07
Factored Strength (M_Rd)	362.22	74.80	236.81
Check Ratio (M_Ed/M_Rd)	0.9495	0.2571	0.9293
Neutral Axis (x/d)	0.1816	0.0503	0.1084
(+) Load Combination No.	43+	39+	44+
Moment (M_Ed)	58.09	137.63	49.48
Factored Strength (M_Rd)	74.54	143.51	74.65
Check Ratio (M_Ed/M_Rd)	0.7793	0.9591	0.6628
Neutral Axis (x/d)	0.0515	0.0698	0.0510
Required Rebar Top (As_top)	0.0015	0.0003	0.0009
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0003

4. Shear Capacity

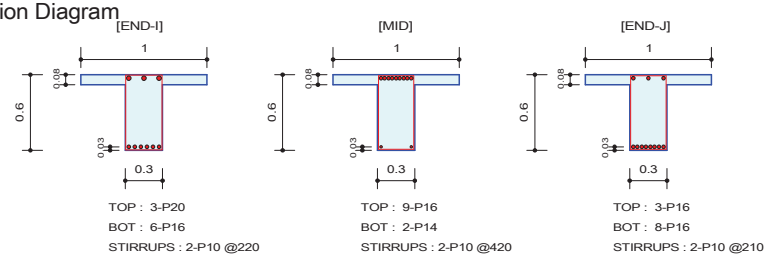
	END-I	MID	END-J
Load Combination No.	39-	39-	40+
Factored Shear Force (V_Ed)	328.27	92.29	110.54
Shear Strength by Conc.(V_Rdc)	112.49	81.77	96.95
Shear Strength by Rebar.(V_Rds)	352.41	92.74	113.68
Required Shear Reinf. (Asw)	0.0015	0.0004	0.0005
Required Stirrups Spacing	2-P10 @100	2-P10 @380	2-P10 @310
Shear Ratio by Conc	2.9181	1.1286	1.1402
Shear Ratio by (V_Rds ; V_Rdmax)	0.9315	0.9951	0.9724
Check Ratio	0.9315	0.9951	0.9724

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 18
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.3757 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	146.69	269.23	83.81
Factored Strength (M_Rd)	222.05	401.19	142.60
Check Ratio (M_Ed/M_Rd)	0.6606	0.6711	0.5877
Neutral Axis (x/d)	0.0754	0.2852	0.0592
(+) Load Combination No.	36+	43+	43+
Moment (M_Ed)	266.16	67.94	339.30
Factored Strength (M_Rd)	288.77	78.43	381.93
Check Ratio (M_Ed/M_Rd)	0.9217	0.8662	0.8884
Neutral Axis (x/d)	0.0591	0.0451	0.0757
Required Rebar Top (As_top)	0.0006	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0012	0.0003	0.0016

4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	36+	36-	36-
Factored Shear Force (V_Ed)	159.50	84.91	167.66
Shear Strength by Conc.(V_Rdc)	85.04	97.35	93.60
Shear Strength by Rebar.(V_Rds)	160.19	83.91	167.81
Required Shear Reinf. (Asw)	0.0007	0.0004	0.0008
Required Stirrups Spacing	2-P10 @220	2-P10 @420	2-P10 @210
Shear Ratio by Conc	1.8755	0.8722	1.7912
Shear Ratio by (V_Rds ; V_Rdmax)	0.9957	1.0120	0.9991
Check Ratio	0.9957	0.8722	0.9991

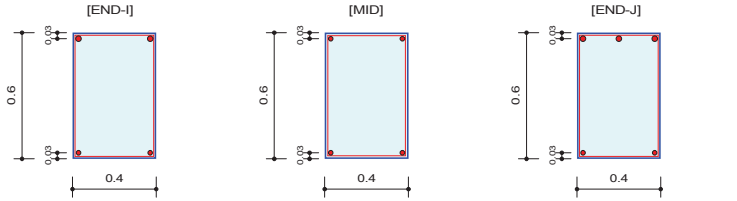
midas Gen RC Beam Design Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 379
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	43-	43-
Moment (M_Ed)	92.37	51.55	110.57
Factored Strength (M_Rd)	97.07	74.92	143.51
Check Ratio (M_Ed/M_Rd)	0.9516	0.6881	0.7705
Neutral Axis (x/d)	0.0547	0.0491	0.0698
(+) Load Combination No.	43+	40+	36+
Moment (M_Ed)	18.96	30.35	2.44
Factored Strength (M_Rd)	74.76	74.92	74.80
Check Ratio (M_Ed/M_Rd)	0.2536	0.4051	0.0327
Neutral Axis (x/d)	0.0496	0.0491	0.0503
Required Rebar Top (As_top)	0.0004	0.0003	0.0005
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

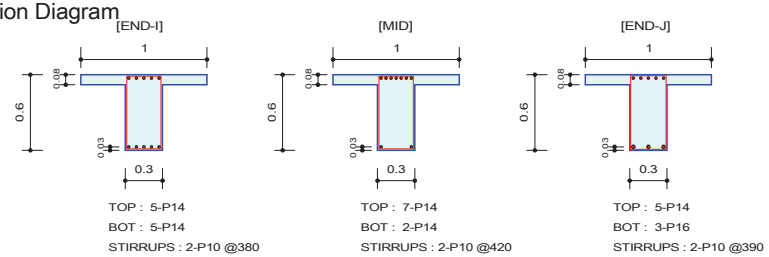
	END-I	MID	END-J
Load Combination No.	39-	43+	40+
Factored Shear Force (V_Ed)	62.53	46.70	49.09
Shear Strength by Conc.(V_Rdc)	80.17	80.17	81.77
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.7800	0.5825	0.6004
Shear Ratio by (V_Rds ; V_Rdmax)	0.7453	0.5566	0.5851
Check Ratio	0.7800	0.5825	0.6004

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 380
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1768 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	105.81	158.39	103.53
Factored Strength (M_Rd)	182.73	251.74	182.28
Check Ratio (M_Ed/M_Rd)	0.5791	0.6292	0.5680
Neutral Axis (x/d)	0.0771	0.1484	0.0830
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	162.48	0.00	119.70
Factored Strength (M_Rd)	187.30	78.60	148.27
Check Ratio (M_Ed/M_Rd)	0.8675	0.0000	0.8073
Neutral Axis (x/d)	0.0491	0.0422	0.0455
Required Rebar Top (As_top)	0.0004	0.0007	0.0004
Required Rebar Bot (As_bot)	0.0007	0.0002	0.0005

4. Shear Capacity

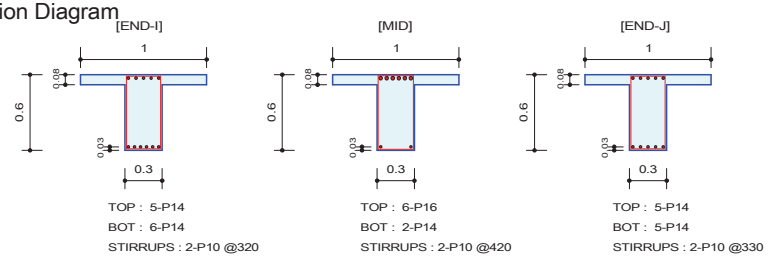
	END-I	MID	END-J
Load Combination No.	40+	36+	40-
Factored Shear Force (V_Ed)	91.04	53.50	89.50
Shear Strength by Conc.(V_Rdc)	73.23	81.92	73.23
Shear Strength by Rebar.(V_Rds)	92.74	83.91	90.36
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @380	2-P10 @420	2-P10 @390
Shear Ratio by Conc	1.2432	0.6531	1.2221
Shear Ratio by (V_Rds ; V_Rdmax)	0.9817	0.6376	0.9904
Check Ratio	0.9817	0.6531	0.9904

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 381
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1627 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	105.67	184.14	112.17
Factored Strength (M_Rd)	182.37	279.37	182.73
Check Ratio (M_Ed/M_Rd)	0.5794	0.6591	0.6138
Neutral Axis (x/d)	0.0732	0.1719	0.0771
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	192.99	0.00	151.51
Factored Strength (M_Rd)	223.01	78.32	187.30
Check Ratio (M_Ed/M_Rd)	0.8654	0.0000	0.8089
Neutral Axis (x/d)	0.0526	0.0428	0.0491
Required Rebar Top (As_top)	0.0004	0.0008	0.0005
Required Rebar Bot (As_bot)	0.0008	0.0002	0.0006

4. Shear Capacity

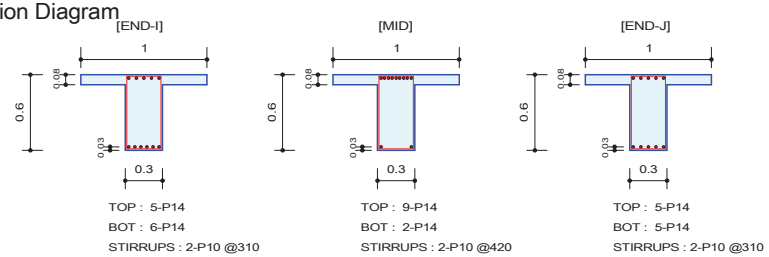
	END-I	MID	END-J
Load Combination No.	40+	40+	40-
Factored Shear Force (V_Ed)	108.16	51.13	106.67
Shear Strength by Conc.(V_Rdc)	77.82	85.04	73.23
Shear Strength by Rebar.(V_Rds)	110.13	83.91	106.79
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @320	2-P10 @420	2-P10 @330
Shear Ratio by Conc	1.3899	0.6013	1.4566
Shear Ratio by (V_Rds ; V_Rdmax)	0.9821	0.6094	0.9989
Check Ratio	0.9821	0.6013	0.9989

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 382
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1486 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	109.19	199.10	119.55
Factored Strength (M_Rd)	182.37	317.17	182.73
Check Ratio (M_Ed/M_Rd)	0.5987	0.6277	0.6542
Neutral Axis (x/d)	0.0732	0.2070	0.0771
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	202.06	0.00	163.33
Factored Strength (M_Rd)	223.01	78.94	187.30
Check Ratio (M_Ed/M_Rd)	0.9060	0.0000	0.8720
Neutral Axis (x/d)	0.0526	0.0437	0.0491
Required Rebar Top (As_top)	0.0005	0.0009	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0007

4. Shear Capacity

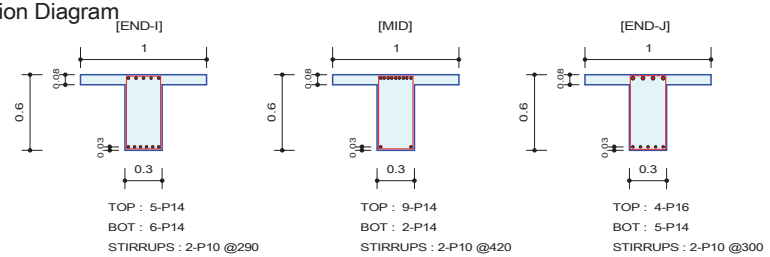
	END-I	MID	END-J
Load Combination No.	39+	39+	40-
Factored Shear Force (V_Ed)	112.74	58.35	111.33
Shear Strength by Conc.(V_Rdc)	77.82	89.08	73.23
Shear Strength by Rebar.(V_Rds)	113.68	83.91	113.68
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @310	2-P10 @420	2-P10 @310
Shear Ratio by Conc	1.4488	0.6551	1.5203
Shear Ratio by (V_Rds ; V_Rdmax)	0.9917	0.6955	0.9794
Check Ratio	0.9917	0.6551	0.9794

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 383
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1344 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	112.95	208.22	124.86
Factored Strength (M_Rd)	182.37	317.17	190.02
Check Ratio (M_Ed/M_Rd)	0.6193	0.6565	0.6571
Neutral Axis (x/d)	0.0732	0.2070	0.0791
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	209.27	0.00	171.73
Factored Strength (M_Rd)	223.01	78.94	186.36
Check Ratio (M_Ed/M_Rd)	0.9384	0.0000	0.9214
Neutral Axis (x/d)	0.0526	0.0437	0.0491
Required Rebar Top (As_top)	0.0005	0.0009	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0007

4. Shear Capacity

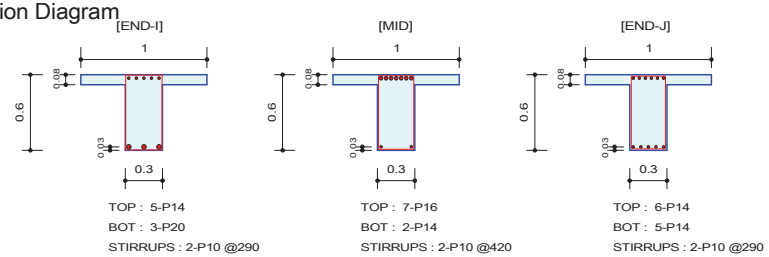
	END-I	MID	END-J
Load Combination No.	39+	39+	40-
Factored Shear Force (V_Ed)	117.50	63.52	115.63
Shear Strength by Conc.(V_Rdc)	77.82	89.08	74.29
Shear Strength by Rebar.(V_Rds)	121.52	83.91	117.47
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @290	2-P10 @420	2-P10 @300
Shear Ratio by Conc	1.5100	0.7130	1.5564
Shear Ratio by (V_Rds ; V_Rdmax)	0.9670	0.7570	0.9844
Check Ratio	0.9670	0.7130	0.9844

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 384
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1203 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	39-	44-
Moment (M_Ed)	115.64	214.31	128.13
Factored Strength (M_Rd)	181.81	321.50	216.90
Check Ratio (M_Ed/M_Rd)	0.6361	0.6666	0.5907
Neutral Axis (x/d)	0.0728	0.2109	0.0869
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	212.60	0.00	175.72
Factored Strength (M_Rd)	226.55	78.47	187.37
Check Ratio (M_Ed/M_Rd)	0.9384	0.0000	0.9378
Neutral Axis (x/d)	0.0530	0.0438	0.0494
Required Rebar Top (As_top)	0.0005	0.0009	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

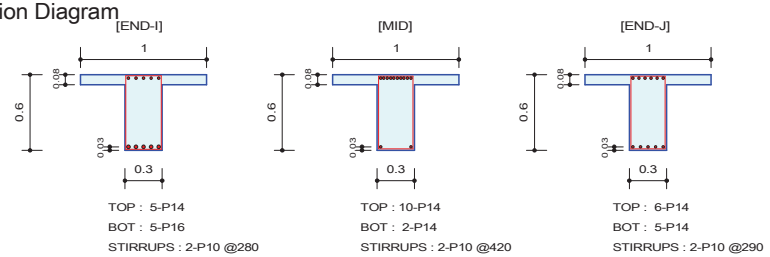
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	120.26	66.68	118.01
Shear Strength by Conc.(V_Rdc)	78.32	89.53	77.82
Shear Strength by Rebar.(V_Rds)	121.52	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @290	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5354	0.7448	1.5164
Shear Ratio by (V_Rds ; V_Rdmax)	0.9896	0.7947	0.9711
Check Ratio	0.9896	0.7448	0.9711

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 385
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1062 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	44-
Moment (M_Ed)	117.35	218.34	129.88
Factored Strength (M_Rd)	182.89	348.54	216.90
Check Ratio (M_Ed/M_Rd)	0.6416	0.6264	0.5988
Neutral Axis (x/d)	0.0718	0.2344	0.0869
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	214.06	0.00	177.20
Factored Strength (M_Rd)	242.67	78.65	187.37
Check Ratio (M_Ed/M_Rd)	0.8821	0.0000	0.9457
Neutral Axis (x/d)	0.0547	0.0443	0.0494
Required Rebar Top (As_top)	0.0005	0.0010	0.0006
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

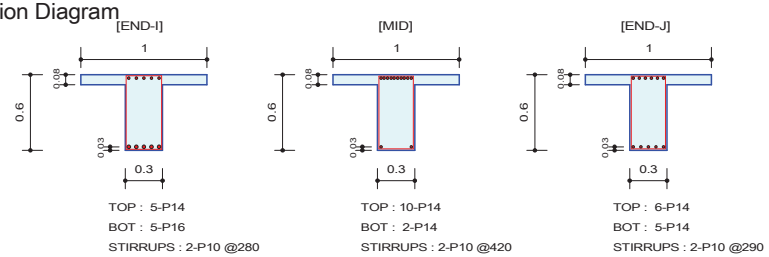
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	121.84	68.48	119.26
Shear Strength by Conc.(V_Rdc)	80.03	92.27	77.82
Shear Strength by Rebar.(V_Rds)	125.86	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5224	0.7422	1.5325
Shear Ratio by (V_Rds ; V_Rdmax)	0.9681	0.8162	0.9814
Check Ratio	0.9681	0.7422	0.9814

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 386
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0921 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	44-
Moment (M_Ed)	118.35	220.62	130.59
Factored Strength (M_Rd)	182.89	348.54	216.90
Check Ratio (M_Ed/M_Rd)	0.6471	0.6330	0.6021
Neutral Axis (x/d)	0.0718	0.2344	0.0869
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	214.17	0.00	177.18
Factored Strength (M_Rd)	242.67	78.65	187.37
Check Ratio (M_Ed/M_Rd)	0.8826	0.0000	0.9456
Neutral Axis (x/d)	0.0547	0.0443	0.0494
Required Rebar Top (As_top)	0.0005	0.0010	0.0006
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

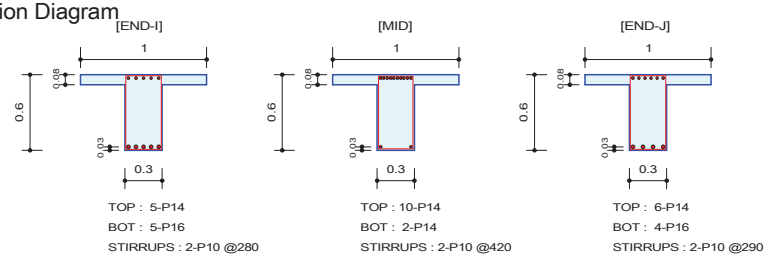
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	122.45	69.46	119.63
Shear Strength by Conc.(V_Rdc)	80.03	92.27	77.82
Shear Strength by Rebar.(V_Rds)	125.86	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5301	0.7528	1.5373
Shear Ratio by (V_Rds ; V_Rdmax)	0.9729	0.8278	0.9845
Check Ratio	0.9729	0.7528	0.9845

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 387
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.078 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	44-
Moment (M_Ed)	118.95	221.63	130.67
Factored Strength (M_Rd)	182.89	348.54	218.39
Check Ratio (M_Ed/M_Rd)	0.6504	0.6359	0.5983
Neutral Axis (x/d)	0.0718	0.2344	0.0859
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	214.39	0.00	177.66
Factored Strength (M_Rd)	242.67	78.65	194.45
Check Ratio (M_Ed/M_Rd)	0.8835	0.0000	0.9137
Neutral Axis (x/d)	0.0547	0.0443	0.0500
Required Rebar Top (As_top)	0.0005	0.0010	0.0006
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

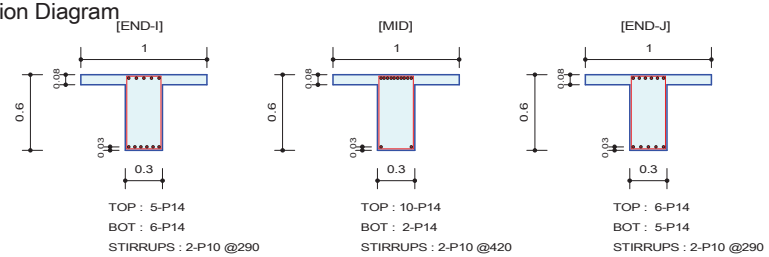
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	123.68	69.78	120.62
Shear Strength by Conc.(V_Rdc)	80.03	92.27	77.82
Shear Strength by Rebar.(V_Rds)	125.86	83.91	121.52
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0005
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5454	0.7563	1.5500
Shear Ratio by (V_Rds ; V_Rdmax)	0.9827	0.8317	0.9926
Check Ratio	0.9827	0.7563	0.9926

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 388
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0639 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	44-
Moment (M_Ed)	118.77	221.82	130.09
Factored Strength (M_Rd)	182.37	348.54	216.90
Check Ratio (M_Ed/M_Rd)	0.6513	0.6364	0.5998
Neutral Axis (x/d)	0.0732	0.2344	0.0869
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	209.51	0.00	172.25
Factored Strength (M_Rd)	223.01	78.65	187.37
Check Ratio (M_Ed/M_Rd)	0.9394	0.0000	0.9193
Neutral Axis (x/d)	0.0526	0.0443	0.0494
Required Rebar Top (As_top)	0.0005	0.0010	0.0006
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0007

4. Shear Capacity

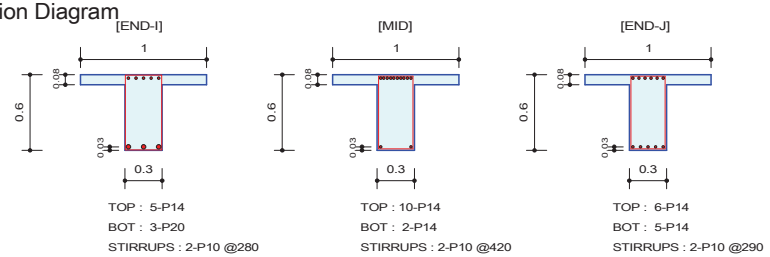
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	120.80	69.23	117.84
Shear Strength by Conc.(V_Rdc)	77.82	92.27	77.82
Shear Strength by Rebar.(V_Rds)	121.52	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @290	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5523	0.7503	1.5143
Shear Ratio by (V_Rds ; V_Rdmax)	0.9941	0.8250	0.9697
Check Ratio	0.9941	0.7503	0.9697

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 389
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0498 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	119.04	221.51	129.54
Factored Strength (M_Rd)	181.81	348.54	216.90
Check Ratio (M_Ed/M_Rd)	0.6548	0.6355	0.5972
Neutral Axis (x/d)	0.0728	0.2344	0.0869
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	211.69	0.00	176.61
Factored Strength (M_Rd)	226.55	78.65	187.37
Check Ratio (M_Ed/M_Rd)	0.9344	0.0000	0.9425
Neutral Axis (x/d)	0.0530	0.0443	0.0494
Required Rebar Top (As_top)	0.0005	0.0010	0.0006
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

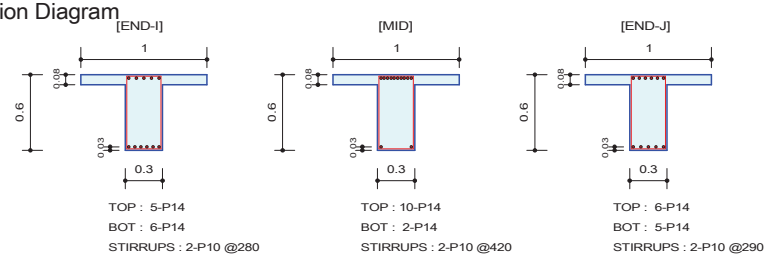
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	123.35	69.82	120.26
Shear Strength by Conc.(V_Rdc)	78.32	92.27	77.82
Shear Strength by Rebar.(V_Rds)	125.86	83.91	121.52
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0005
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5749	0.7568	1.5454
Shear Ratio by (V_Rds ; V_Rdmax)	0.9801	0.8322	0.9897
Check Ratio	0.9801	0.7568	0.9897

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 390
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0357 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	118.76	220.77	128.59
Factored Strength (M_Rd)	182.37	348.54	216.90
Check Ratio (M_Ed/M_Rd)	0.6512	0.6334	0.5929
Neutral Axis (x/d)	0.0732	0.2344	0.0869
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	208.84	0.00	175.40
Factored Strength (M_Rd)	223.01	78.65	187.37
Check Ratio (M_Ed/M_Rd)	0.9365	0.0000	0.9361
Neutral Axis (x/d)	0.0526	0.0443	0.0494
Required Rebar Top (As_top)	0.0005	0.0010	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

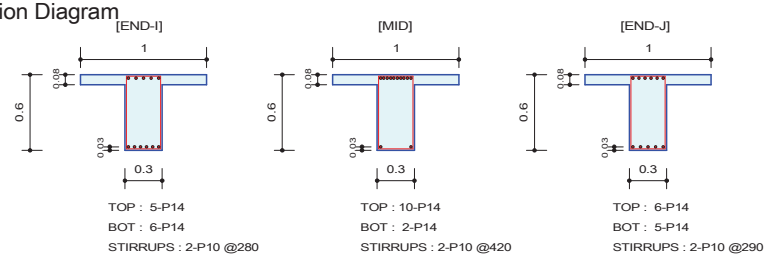
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	122.00	69.69	119.05
Shear Strength by Conc.(V_Rdc)	77.82	92.27	77.82
Shear Strength by Rebar.(V_Rds)	125.86	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5678	0.7553	1.5298
Shear Ratio by (V_Rds ; V_Rdmax)	0.9693	0.8305	0.9796
Check Ratio	0.9693	0.7553	0.9796

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 391
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0216 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	118.53	219.55	127.29
Factored Strength (M_Rd)	182.37	348.54	216.90
Check Ratio (M_Ed/M_Rd)	0.6499	0.6299	0.5868
Neutral Axis (x/d)	0.0732	0.2344	0.0869
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	206.39	0.00	175.77
Factored Strength (M_Rd)	223.01	78.65	187.37
Check Ratio (M_Ed/M_Rd)	0.9255	0.0000	0.9381
Neutral Axis (x/d)	0.0526	0.0443	0.0494
Required Rebar Top (As_top)	0.0005	0.0010	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

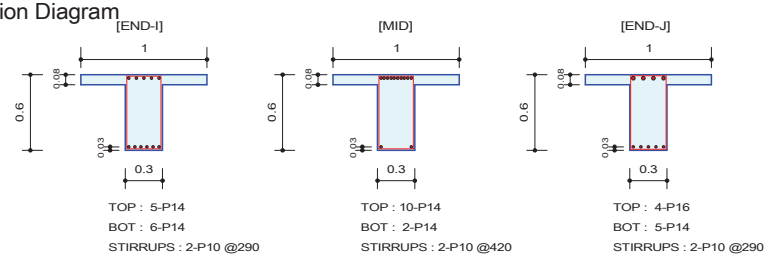
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	121.60	69.27	118.89
Shear Strength by Conc.(V_Rdc)	77.82	92.27	77.82
Shear Strength by Rebar.(V_Rds)	125.86	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @280	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5626	0.7508	1.5277
Shear Ratio by (V_Rds ; V_Rdmax)	0.9662	0.8255	0.9783
Check Ratio	0.9662	0.7508	0.9783

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 392
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.0075 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	118.32	217.88	125.41
Factored Strength (M_Rd)	182.37	348.54	190.02
Check Ratio (M_Ed/M_Rd)	0.6488	0.6251	0.6600
Neutral Axis (x/d)	0.0732	0.2344	0.0791
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	203.07	0.00	176.19
Factored Strength (M_Rd)	223.01	78.65	186.36
Check Ratio (M_Ed/M_Rd)	0.9106	0.0000	0.9454
Neutral Axis (x/d)	0.0526	0.0443	0.0491
Required Rebar Top (As_top)	0.0005	0.0010	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

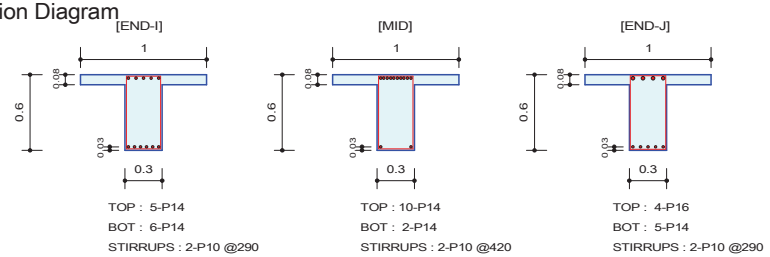
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	120.79	68.70	118.46
Shear Strength by Conc.(V_Rdc)	77.82	92.27	74.29
Shear Strength by Rebar.(V_Rds)	121.52	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @290	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5522	0.7446	1.5945
Shear Ratio by (V_Rds ; V_Rdmax)	0.9940	0.8188	0.9748
Check Ratio	0.9940	0.7446	0.9748

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 393
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9934 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	118.23	215.72	122.79
Factored Strength (M_Rd)	182.37	348.54	190.02
Check Ratio (M_Ed/M_Rd)	0.6483	0.6189	0.6462
Neutral Axis (x/d)	0.0732	0.2344	0.0791
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	199.07	0.00	176.73
Factored Strength (M_Rd)	223.01	78.65	186.36
Check Ratio (M_Ed/M_Rd)	0.8926	0.0000	0.9483
Neutral Axis (x/d)	0.0526	0.0443	0.0491
Required Rebar Top (As_top)	0.0005	0.0010	0.0005
Required Rebar Bot (As_bot)	0.0009	0.0002	0.0008

4. Shear Capacity

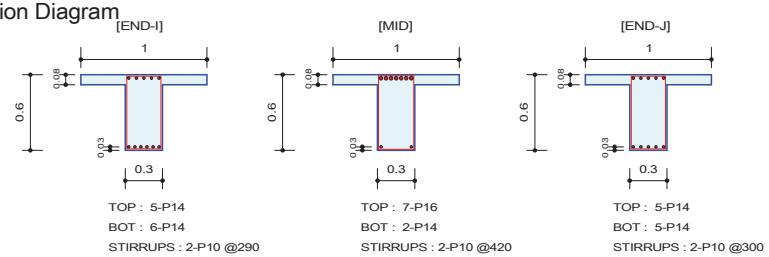
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	119.88	67.97	117.82
Shear Strength by Conc.(V_Rdc)	77.82	92.27	74.29
Shear Strength by Rebar.(V_Rds)	121.52	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @290	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5405	0.7367	1.5859
Shear Ratio by (V_Rds ; V_Rdmax)	0.9865	0.8100	0.9696
Check Ratio	0.9865	0.7367	0.9696

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 394
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9793 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	118.38	213.04	119.21
Factored Strength (M_Rd)	182.37	321.50	182.73
Check Ratio (M_Ed/M_Rd)	0.6492	0.6626	0.6524
Neutral Axis (x/d)	0.0732	0.2109	0.0771
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	194.39	0.00	177.27
Factored Strength (M_Rd)	223.01	78.47	187.30
Check Ratio (M_Ed/M_Rd)	0.8716	0.0000	0.9465
Neutral Axis (x/d)	0.0526	0.0438	0.0491
Required Rebar Top (As_top)	0.0005	0.0009	0.0005
Required Rebar Bot (As_bot)	0.0008	0.0002	0.0008

4. Shear Capacity

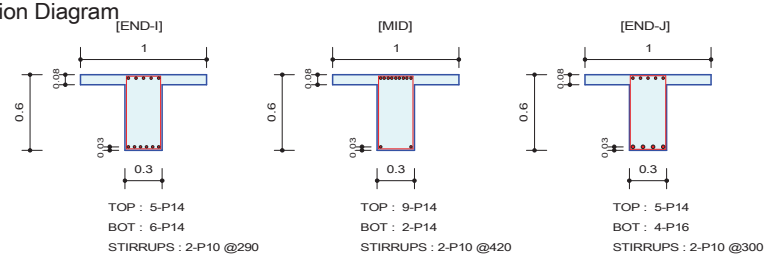
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	118.90	67.15	116.84
Shear Strength by Conc.(V_Rdc)	77.82	89.53	73.23
Shear Strength by Rebar.(V_Rds)	121.52	83.91	117.47
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @290	2-P10 @420	2-P10 @300
Shear Ratio by Conc	1.5279	0.7500	1.5955
Shear Ratio by (V_Rds ; V_Rdmax)	0.9784	0.8003	0.9946
Check Ratio	0.9784	0.7500	0.9946

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 395
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9652 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	118.76	210.03	114.52
Factored Strength (M_Rd)	182.37	317.17	182.66
Check Ratio (M_Ed/M_Rd)	0.6512	0.6622	0.6270
Neutral Axis (x/d)	0.0732	0.2070	0.0762
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	189.03	0.00	178.20
Factored Strength (M_Rd)	223.01	78.94	194.94
Check Ratio (M_Ed/M_Rd)	0.8476	0.0000	0.9142
Neutral Axis (x/d)	0.0526	0.0437	0.0498
Required Rebar Top (As_top)	0.0005	0.0009	0.0005
Required Rebar Bot (As_bot)	0.0008	0.0002	0.0008

4. Shear Capacity

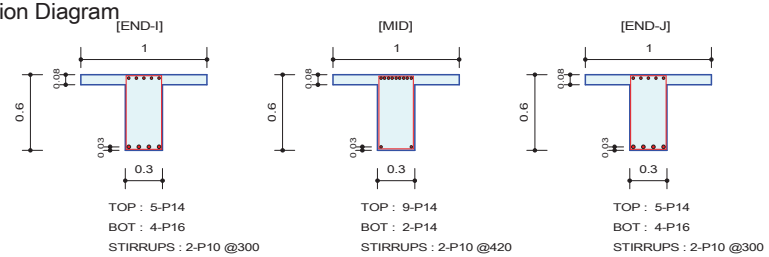
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	117.86	66.23	115.55
Shear Strength by Conc.(V_Rdc)	77.82	89.08	74.29
Shear Strength by Rebar.(V_Rds)	121.52	83.91	117.47
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @290	2-P10 @420	2-P10 @300
Shear Ratio by Conc	1.5145	0.7434	1.5553
Shear Ratio by (V_Rds ; V_Rdmax)	0.9698	0.7893	0.9837
Check Ratio	0.9698	0.7434	0.9837

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 396
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9511 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	119.07	207.14	109.12
Factored Strength (M_Rd)	182.66	317.17	182.66
Check Ratio (M_Ed/M_Rd)	0.6519	0.6531	0.5974
Neutral Axis (x/d)	0.0762	0.2070	0.0762
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	182.54	0.00	180.54
Factored Strength (M_Rd)	194.94	78.94	194.94
Check Ratio (M_Ed/M_Rd)	0.9364	0.0000	0.9261
Neutral Axis (x/d)	0.0498	0.0437	0.0498
Required Rebar Top (As_top)	0.0005	0.0009	0.0005
Required Rebar Bot (As_bot)	0.0008	0.0002	0.0008

4. Shear Capacity

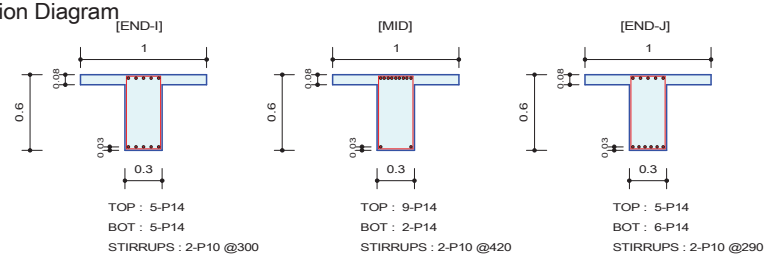
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	116.28	65.04	113.82
Shear Strength by Conc.(V_Rdc)	74.29	89.08	74.29
Shear Strength by Rebar.(V_Rds)	117.47	83.91	117.47
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @300	2-P10 @420	2-P10 @300
Shear Ratio by Conc	1.5652	0.7301	1.5320
Shear Ratio by (V_Rds ; V_Rdmax)	0.9899	0.7751	0.9689
Check Ratio	0.9899	0.7301	0.9689

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 397
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.937 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	119.72	203.79	106.17
Factored Strength (M_Rd)	182.73	317.17	182.37
Check Ratio (M_Ed/M_Rd)	0.6552	0.6425	0.5822
Neutral Axis (x/d)	0.0771	0.2070	0.0732
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	177.01	0.00	194.25
Factored Strength (M_Rd)	187.30	78.94	223.01
Check Ratio (M_Ed/M_Rd)	0.9451	0.0000	0.8710
Neutral Axis (x/d)	0.0491	0.0437	0.0526
Required Rebar Top (As_top)	0.0005	0.0009	0.0005
Required Rebar Bot (As_bot)	0.0008	0.0002	0.0008

4. Shear Capacity

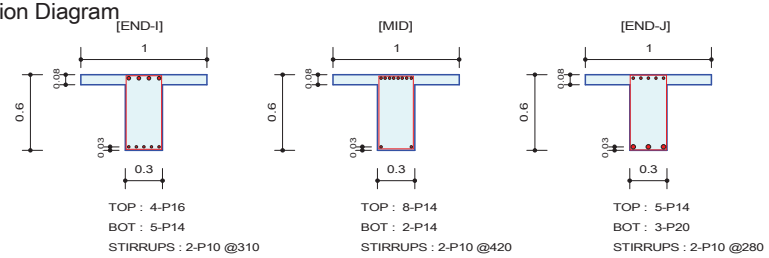
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	116.05	63.19	117.80
Shear Strength by Conc.(V_Rdc)	73.23	89.08	77.82
Shear Strength by Rebar.(V_Rds)	117.47	83.91	121.52
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @300	2-P10 @420	2-P10 @290
Shear Ratio by Conc	1.5847	0.7093	1.5137
Shear Ratio by (V_Rds ; V_Rdmax)	0.9879	0.7530	0.9694
Check Ratio	0.9879	0.7093	0.9694

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 398
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9229 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	124.12	190.10	114.04
Factored Strength (M_Rd)	190.02	284.90	181.81
Check Ratio (M_Ed/M_Rd)	0.6532	0.6672	0.6273
Neutral Axis (x/d)	0.0791	0.1777	0.0728
(+) Load Combination No.	44+	44-	40+
Moment (M_Ed)	162.66	0.00	210.01
Factored Strength (M_Rd)	186.36	78.22	226.55
Check Ratio (M_Ed/M_Rd)	0.8728	0.0000	0.9270
Neutral Axis (x/d)	0.0491	0.0430	0.0530
Required Rebar Top (As_top)	0.0005	0.0008	0.0005
Required Rebar Bot (As_bot)	0.0007	0.0002	0.0009

4. Shear Capacity

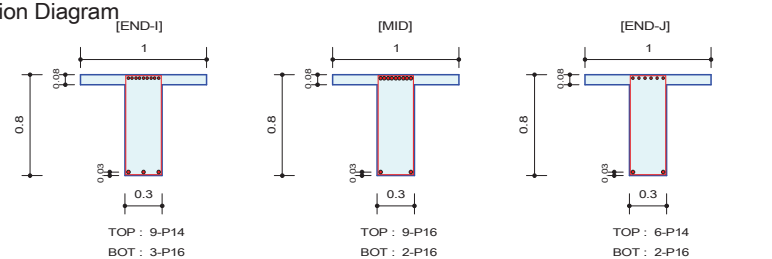
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	113.64	68.67	123.09
Shear Strength by Conc.(V_Rdc)	74.29	85.65	78.32
Shear Strength by Rebar.(V_Rds)	113.68	83.91	125.86
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0006
Required Stirrups Spacing	2-P10 @310	2-P10 @420	2-P10 @280
Shear Ratio by Conc	1.5296	0.8017	1.5715
Shear Ratio by (V_Rds ; V_Rdmax)	0.9996	0.8184	0.9780
Check Ratio	0.9996	0.8017	0.9780

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 402
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.8664 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	267.44	367.74	194.49
Factored Strength (M_Rd)	444.16	562.33	295.86
Check Ratio (M_Ed/M_Rd)	0.6021	0.6540	0.6574
Neutral Axis (x/d)	0.1133	0.1992	0.0830
(+) Load Combination No.	44+	44-	38+
Moment (M_Ed)	186.32	0.00	119.53
Factored Strength (M_Rd)	200.00	135.42	135.58
Check Ratio (M_Ed/M_Rd)	0.9316	0.0000	0.8816
Neutral Axis (x/d)	0.0353	0.0342	0.0316
Required Rebar Top (As_top)	0.0008	0.0012	0.0006
Required Rebar Bot (As_bot)	0.0006	0.0003	0.0004

4. Shear Capacity

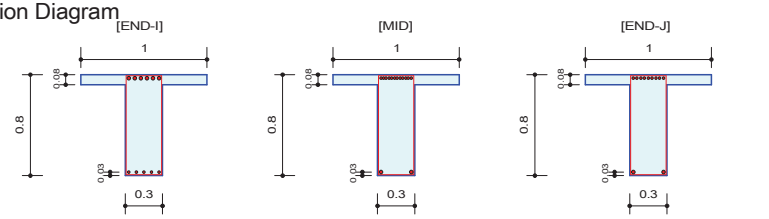
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	161.89	105.50	105.50
Shear Strength by Conc.(V_Rdc)	103.20	112.79	90.16
Shear Strength by Rebar.(V_Rds)	164.16	83.52	105.79
Required Shear Reinf. (Asw)	0.0005	0.0003	0.0004
Required Stirrups Spacing	2-P10 @290	2-P10 @570	2-P10 @450
Shear Ratio by Conc	1.5686	0.9354	1.1702
Shear Ratio by (V_Rds ; V_Rdmax)	0.9862	1.2632	0.9973
Check Ratio	0.9862	0.9354	0.9973

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 403
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.8523 m

2. Section Diagram



[END-I] TOP : 6-P16 BOT : 5-P14 STIRRUPS : 2-P10 @270
[MID] TOP : 12-P14 BOT : 2-P16 STIRRUPS : 2-P10 @570
[END-J] TOP : 9-P14 BOT : 2-P16 STIRRUPS : 2-P10 @380

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	254.56	380.78	270.44
Factored Strength (M_Rd)	388.09	573.26	440.08
Check Ratio (M_Ed/M_Rd)	0.6559	0.6642	0.6145
Neutral Axis (x/d)	0.0820	0.2051	0.1406
(+) Load Combination No.	36+	44-	38+
Moment (M_Ed)	224.70	0.00	58.62
Factored Strength (M_Rd)	254.74	135.01	135.50
Check Ratio (M_Ed/M_Rd)	0.8821	0.0000	0.4326
Neutral Axis (x/d)	0.0370	0.0342	0.0332
Required Rebar Top (As_top)	0.0008	0.0012	0.0009
Required Rebar Bot (As_bot)	0.0007	0.0003	0.0003

4. Shear Capacity

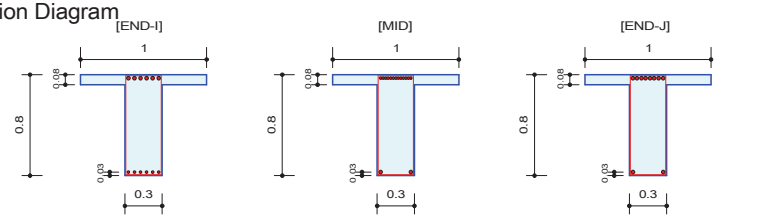
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	173.22	72.17	122.75
Shear Strength by Conc.(V_Rdc)	98.53	113.59	103.20
Shear Strength by Rebar.(V_Rds)	176.32	83.52	125.28
Required Shear Reinf. (Asw)	0.0006	0.0003	0.0004
Required Stirrups Spacing	2-P10 @270	2-P10 @570	2-P10 @380
Shear Ratio by Conc	1.7581	0.6353	1.1894
Shear Ratio by (V_Rds ; V_Rdmax)	0.9824	0.8641	0.9798
Check Ratio	0.9824	0.6353	0.9798

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 404
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.8382 m

2. Section Diagram



[END-I] TOP : 6-P16 BOT : 6-P14 STIRRUPS : 2-P10 @250
[MID] TOP : 13-P14 BOT : 2-P16 STIRRUPS : 2-P10 @570
[END-J] TOP : 8-P16 BOT : 2-P16 STIRRUPS : 2-P10 @420

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	238.80	410.80	332.00
Factored Strength (M_Rd)	386.77	615.86	505.09
Check Ratio (M_Ed/M_Rd)	0.6174	0.6670	0.6573
Neutral Axis (x/d)	0.0742	0.2266	0.1719
(+) Load Combination No.	36+	44-	44-
Moment (M_Ed)	279.30	0.00	0.00
Factored Strength (M_Rd)	302.71	135.52	135.79
Check Ratio (M_Ed/M_Rd)	0.9227	0.0000	0.0000
Neutral Axis (x/d)	0.0389	0.0345	0.0338
Required Rebar Top (As_top)	0.0008	0.0013	0.0011
Required Rebar Bot (As_bot)	0.0009	0.0003	0.0003

4. Shear Capacity

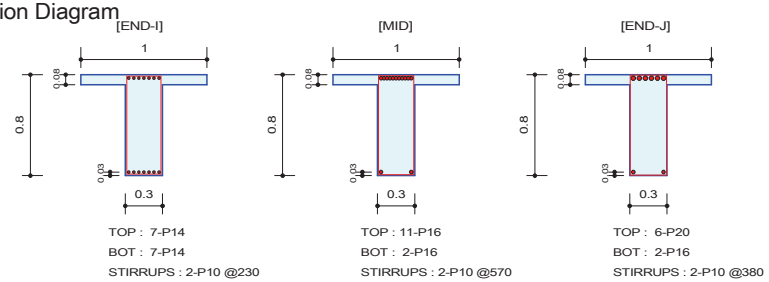
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	185.77	85.70	113.18
Shear Strength by Conc.(V_Rdc)	98.53	116.66	108.44
Shear Strength by Rebar.(V_Rds)	190.42	83.52	113.35
Required Shear Reinf. (Asw)	0.0006	0.0003	0.0004
Required Stirrups Spacing	2-P10 @250	2-P10 @570	2-P10 @420
Shear Ratio by Conc	1.8854	0.7346	1.0436
Shear Ratio by (V_Rds ; V_Rdmax)	0.9756	1.0261	0.9985
Check Ratio	0.9756	0.7346	0.9985

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 405
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.8241 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	222.34	448.26	386.46
Factored Strength (M_Rd)	347.21	672.24	583.30
Check Ratio (M_Ed/M_Rd)	0.6404	0.6668	0.6625
Neutral Axis (x/d)	0.0632	0.2559	0.2109
(+) Load Combination No.	36+	44-	44-
Moment (M_Ed)	333.37	0.00	0.00
Factored Strength (M_Rd)	351.90	135.25	136.11
Check Ratio (M_Ed/M_Rd)	0.9473	0.0000	0.0000
Neutral Axis (x/d)	0.0413	0.0348	0.0343
Required Rebar Top (As_top)	0.0007	0.0015	0.0013
Required Rebar Bot (As_bot)	0.0011	0.0003	0.0003

4. Shear Capacity

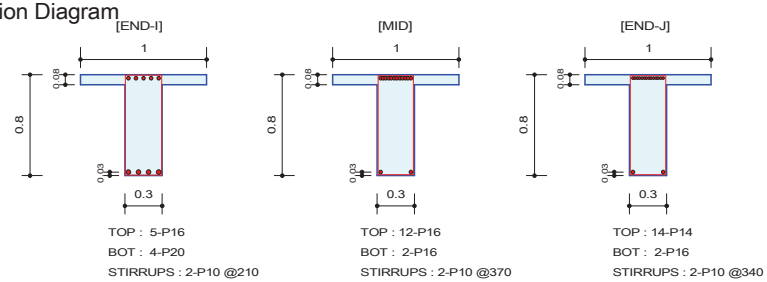
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	204.88	106.86	122.37
Shear Strength by Conc.(V_Rdc)	94.91	120.59	114.32
Shear Strength by Rebar.(V_Rds)	206.98	83.52	125.28
Required Shear Reinf. (Asw)	0.0007	0.0003	0.0004
Required Stirrups Spacing	2-P10 @230	2-P10 @570	2-P10 @380
Shear Ratio by Conc	2.1586	0.8862	1.0703
Shear Ratio by (V_Rds ; V_Rdmax)	0.9898	1.2795	0.9767
Check Ratio	0.9898	0.8862	0.9767

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 406
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.81 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	39-	39-
Moment (M_Ed)	211.72	478.76	425.43
Factored Strength (M_Rd)	323.80	724.91	657.57
Check Ratio (M_Ed/M_Rd)	0.6538	0.6604	0.6470
Neutral Axis (x/d)	0.0571	0.2852	0.2480
(+) Load Combination No.	36+	44-	44-
Moment (M_Ed)	379.62	0.00	0.00
Factored Strength (M_Rd)	409.14	135.92	135.97
Check Ratio (M_Ed/M_Rd)	0.9279	0.0000	0.0000
Neutral Axis (x/d)	0.0444	0.0351	0.0348
Required Rebar Top (As_top)	0.0007	0.0016	0.0014
Required Rebar Bot (As_bot)	0.0012	0.0003	0.0003

4. Shear Capacity

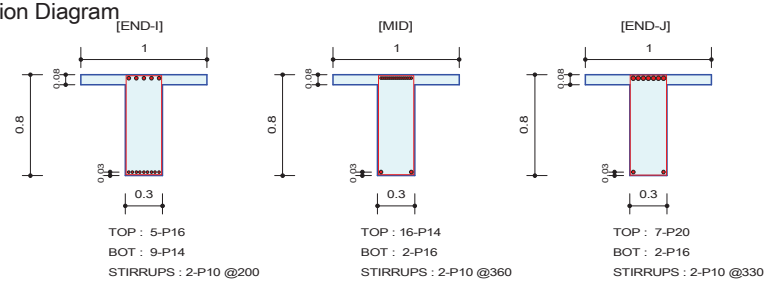
	END-I	MID	END-J
Load Combination No.	36+	36+	40-
Factored Shear Force (V_Ed)	224.53	125.52	137.43
Shear Strength by Conc.(V_Rdc)	99.87	124.14	119.58
Shear Strength by Rebar.(V_Rds)	226.70	128.67	140.02
Required Shear Reinf. (Asw)	0.0007	0.0004	0.0005
Required Stirrups Spacing	2-P10 @210	2-P10 @370	2-P10 @340
Shear Ratio by Conc	2.2482	1.0111	1.1492
Shear Ratio by (V_Rds ; V_Rdmax)	0.9904	0.9755	0.9815
Check Ratio	0.9904	0.9755	0.9815

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 407
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7959 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	39-	39-
Moment (M_Ed)	209.77	494.16	440.72
Factored Strength (M_Rd)	324.65	738.28	668.78
Check Ratio (M_Ed/M_Rd)	0.6461	0.6693	0.6590
Neutral Axis (x/d)	0.0554	0.2930	0.2539
(+) Load Combination No.	36+	44-	44-
Moment (M_Ed)	401.53	0.00	0.00
Factored Strength (M_Rd)	451.51	135.88	136.05
Check Ratio (M_Ed/M_Rd)	0.8893	0.0000	0.0000
Neutral Axis (x/d)	0.0469	0.0352	0.0348
Required Rebar Top (As_top)	0.0007	0.0017	0.0015
Required Rebar Bot (As_bot)	0.0013	0.0003	0.0003

4. Shear Capacity

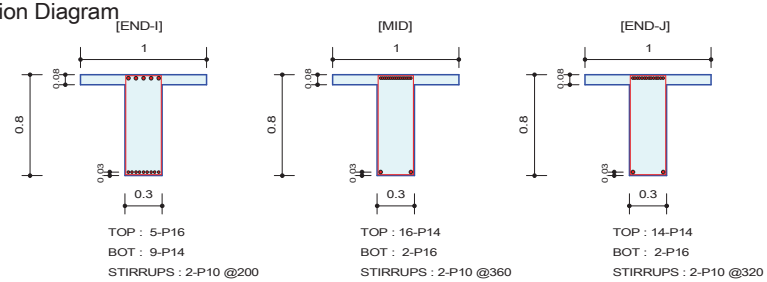
	END-I	MID	END-J
Load Combination No.	36+	39+	40-
Factored Shear Force (V_Ed)	230.15	131.02	142.44
Shear Strength by Conc.(V_Rdc)	103.20	125.02	120.35
Shear Strength by Rebar.(V_Rds)	238.03	132.24	144.26
Required Shear Reinf. (Asw)	0.0008	0.0004	0.0005
Required Stirrups Spacing	2-P10 @200	2-P10 @360	2-P10 @330
Shear Ratio by Conc	2.2300	1.0479	1.1835
Shear Ratio by (V_Rds ; V_Rdmax)	0.9669	0.9908	0.9874
Check Ratio	0.9669	0.9908	0.9874

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 408
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7818 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	206.54	490.08	433.11
Factored Strength (M_Rd)	324.65	738.28	657.57
Check Ratio (M_Ed/M_Rd)	0.6362	0.6638	0.6587
Neutral Axis (x/d)	0.0554	0.2930	0.2480
(+) Load Combination No.	36+	44-	44-
Moment (M_Ed)	412.85	0.00	0.00
Factored Strength (M_Rd)	451.51	135.88	135.97
Check Ratio (M_Ed/M_Rd)	0.9144	0.0000	0.0000
Neutral Axis (x/d)	0.0469	0.0352	0.0348
Required Rebar Top (As_top)	0.0006	0.0016	0.0014
Required Rebar Bot (As_bot)	0.0014	0.0003	0.0003

4. Shear Capacity

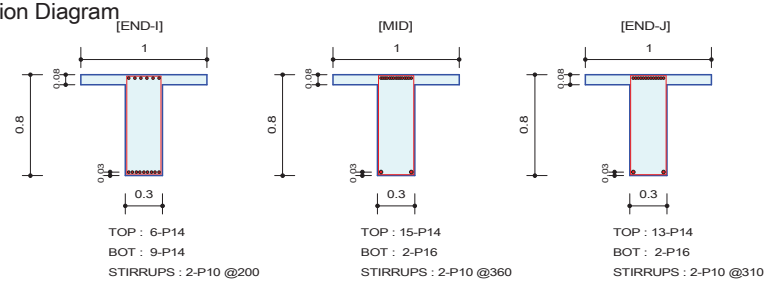
	END-I	MID	END-J
Load Combination No.	39+	39+	40-
Factored Shear Force (V_Ed)	235.18	131.87	148.09
Shear Strength by Conc.(V_Rdc)	103.20	125.02	119.58
Shear Strength by Rebar.(V_Rds)	238.03	132.24	148.77
Required Shear Reinf. (Asw)	0.0008	0.0004	0.0005
Required Stirrups Spacing	2-P10 @200	2-P10 @360	2-P10 @320
Shear Ratio by Conc	2.2788	1.0547	1.2384
Shear Ratio by (V_Rds ; V_Rdmax)	0.9880	0.9972	0.9954
Check Ratio	0.9880	0.9972	0.9954

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 409
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7677 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	196.44	462.36	402.97
Factored Strength (M_Rd)	298.82	698.37	615.86
Check Ratio (M_Ed/M_Rd)	0.6574	0.6621	0.6543
Neutral Axis (x/d)	0.0532	0.2695	0.2266
(+) Load Combination No.	39+	44-	44-
Moment (M_Ed)	394.28	0.00	0.00
Factored Strength (M_Rd)	452.24	136.16	135.52
Check Ratio (M_Ed/M_Rd)	0.8718	0.0000	0.0000
Neutral Axis (x/d)	0.0474	0.0350	0.0345
Required Rebar Top (As_top)	0.0006	0.0015	0.0013
Required Rebar Bot (As_bot)	0.0013	0.0003	0.0003

4. Shear Capacity

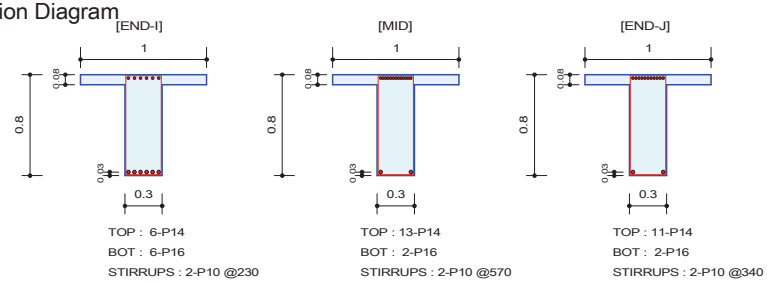
	END-I	MID	END-J
Load Combination No.	40+	40+	40-
Factored Shear Force (V_Ed)	229.42	128.90	152.82
Shear Strength by Conc.(V_Rdc)	103.20	122.36	116.66
Shear Strength by Rebar.(V_Rds)	238.03	132.24	153.57
Required Shear Reinf. (Asw)	0.0008	0.0004	0.0005
Required Stirrups Spacing	2-P10 @200	2-P10 @360	2-P10 @310
Shear Ratio by Conc	2.2230	1.0535	1.3100
Shear Ratio by (V_Rds ; V_Rdmax)	0.9638	0.9748	0.9952
Check Ratio	0.9638	0.9748	0.9952

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 410
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7536 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	182.40	407.91	346.31
Factored Strength (M_Rd)	296.68	615.86	529.77
Check Ratio (M_Ed/M_Rd)	0.6148	0.6623	0.6537
Neutral Axis (x/d)	0.0552	0.2266	0.1836
(+) Load Combination No.	39+	44-	44-
Moment (M_Ed)	345.33	0.00	0.00
Factored Strength (M_Rd)	393.47	135.52	135.82
Check Ratio (M_Ed/M_Rd)	0.8776	0.0000	0.0000
Neutral Axis (x/d)	0.0438	0.0345	0.0340
Required Rebar Top (As_top)	0.0006	0.0013	0.0011
Required Rebar Bot (As_bot)	0.0011	0.0003	0.0003

4. Shear Capacity

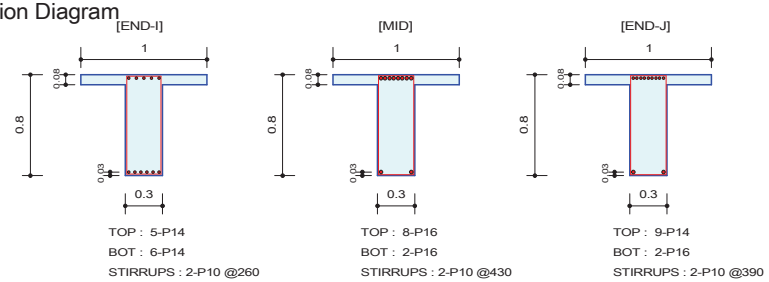
	END-I	MID	END-J
Load Combination No.	40+	40+	36-
Factored Shear Force (V_Ed)	204.79	112.89	138.73
Shear Strength by Conc.(V_Rdc)	98.53	116.66	110.34
Shear Strength by Rebar.(V_Rds)	206.98	83.52	140.02
Required Shear Reinf. (Asw)	0.0007	0.0003	0.0005
Required Stirrups Spacing	2-P10 @230	2-P10 @570	2-P10 @340
Shear Ratio by Conc	2.0784	0.9677	1.2573
Shear Ratio by (V_Rds ; V_Rdmax)	0.9894	1.3517	0.9908
Check Ratio	0.9894	0.9677	0.9908

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 411
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7395 m

2. Section Diagram



[END-I] TOP : 5-P14 BOT : 6-P14 STIRRUPS : 2-P10 @260
[MID] TOP : 8-P16 BOT : 2-P16 STIRRUPS : 2-P10 @430
[END-J] TOP : 9-P14 BOT : 2-P16 STIRRUPS : 2-P10 @390

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	142.14	331.33	276.77
Factored Strength (M_Rd)	248.92	505.09	440.08
Check Ratio (M_Ed/M_Rd)	0.5710	0.6560	0.6289
Neutral Axis (x/d)	0.0542	0.1719	0.1406
(+) Load Combination No.	40+	44-	44+
Moment (M_Ed)	271.61	0.00	26.20
Factored Strength (M_Rd)	302.83	135.79	135.50
Check Ratio (M_Ed/M_Rd)	0.8969	0.0000	0.1934
Neutral Axis (x/d)	0.0389	0.0338	0.0332
Required Rebar Top (As_top)	0.0004	0.0011	0.0009
Required Rebar Bot (As_bot)	0.0009	0.0003	0.0003

4. Shear Capacity

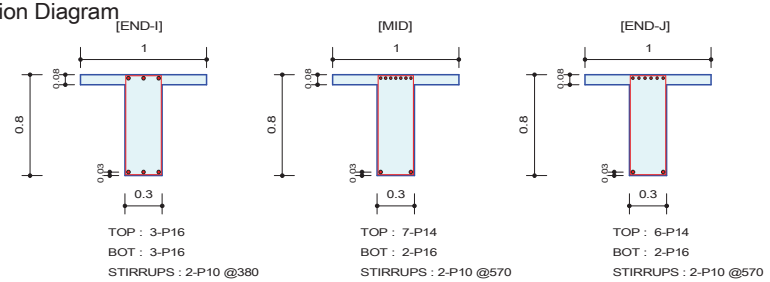
	END-I	MID	END-J
Load Combination No.	40+	40+	36-
Factored Shear Force (V_Ed)	179.56	109.76	119.08
Shear Strength by Conc.(V_Rdc)	90.16	108.44	103.20
Shear Strength by Rebar.(V_Rds)	183.10	110.71	122.07
Required Shear Reinf. (Asw)	0.0006	0.0004	0.0004
Required Stirrups Spacing	2-P10 @260	2-P10 @430	2-P10 @390
Shear Ratio by Conc	1.9916	1.0121	1.1538
Shear Ratio by (V_Rds ; V_Rdmax)	0.9806	0.9914	0.9755
Check Ratio	0.9806	0.9914	0.9755

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 412
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7254 m

2. Section Diagram



[END-I] TOP : 3-P16 BOT : 3-P16 STIRRUPS : 2-P10 @380
[MID] TOP : 7-P14 BOT : 2-P16 STIRRUPS : 2-P10 @570
[END-J] TOP : 6-P14 BOT : 2-P16 STIRRUPS : 2-P10 @570

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	108.49	217.01	184.01
Factored Strength (M_Rd)	194.94	345.71	295.86
Check Ratio (M_Ed/M_Rd)	0.5565	0.6277	0.6219
Neutral Axis (x/d)	0.0525	0.0986	0.0830
(+) Load Combination No.	40+	44-	44+
Moment (M_Ed)	157.69	0.00	32.35
Factored Strength (M_Rd)	200.23	134.79	135.58
Check Ratio (M_Ed/M_Rd)	0.7875	0.0000	0.2386
Neutral Axis (x/d)	0.0330	0.0322	0.0316
Required Rebar Top (As_top)	0.0004	0.0007	0.0006
Required Rebar Bot (As_bot)	0.0005	0.0003	0.0003

4. Shear Capacity

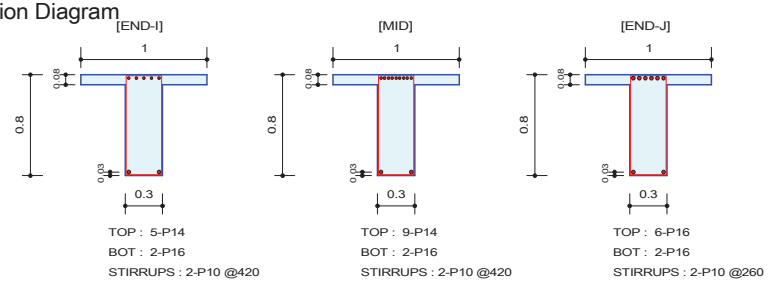
	END-I	MID	END-J
Load Combination No.	40+	40+	36-
Factored Shear Force (V_Ed)	124.62	63.53	89.20
Shear Strength by Conc.(V_Rdc)	78.20	94.91	90.16
Shear Strength by Rebar.(V_Rds)	125.28	83.52	83.52
Required Shear Reinf. (Asw)	0.0004	0.0003	0.0003
Required Stirrups Spacing	2-P10 @380	2-P10 @570	2-P10 @570
Shear Ratio by Conc	1.5935	0.6693	0.9894
Shear Ratio by (V_Rds ; V_Rdmax)	0.9947	0.7606	1.0680
Check Ratio	0.9947	0.6693	0.9894

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 413
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.7113 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	40-	39-
Moment (M_Ed)	138.20	279.40	235.95
Factored Strength (M_Rd)	248.06	440.08	386.01
Check Ratio (M_Ed/M_Rd)	0.5571	0.6349	0.6113
Neutral Axis (x/d)	0.0698	0.1406	0.1152
(+) Load Combination No.	43+	44+	44+
Moment (M_Ed)	22.37	36.37	36.37
Factored Strength (M_Rd)	135.35	135.50	135.96
Check Ratio (M_Ed/M_Rd)	0.1653	0.2684	0.2675
Neutral Axis (x/d)	0.0308	0.0332	0.0327
Required Rebar Top (As_top)	0.0004	0.0009	0.0007
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

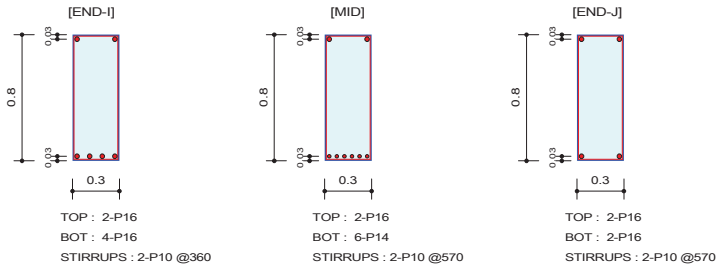
	END-I	MID	END-J
Load Combination No.	39-	39-	39+
Factored Shear Force (V_Ed)	112.01	112.01	176.73
Shear Strength by Conc.(V_Rdc)	84.84	103.20	98.53
Shear Strength by Rebar.(V_Rds)	113.35	113.35	183.10
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0006
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @260
Shear Ratio by Conc	1.3203	1.0853	1.7937
Shear Ratio by (V_Rds ; V_Rdmax)	0.9882	0.9882	0.9652
Check Ratio	0.9882	0.9882	0.9652

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 414
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/80 (No : 24) Beam Span : 13.8 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	0.30	0.30
Factored Strength (M_Rd)	130.77	130.89	130.71
Check Ratio (M_Ed/M_Rd)	0.0000	0.0023	0.0023
Neutral Axis (x/d)	0.0422	0.0419	0.0447
(+) Load Combination No.	40+	40+	36+
Moment (M_Ed)	246.85	275.49	14.36
Factored Strength (M_Rd)	259.29	295.86	130.71
Check Ratio (M_Ed/M_Rd)	0.9521	0.9311	0.1098
Neutral Axis (x/d)	0.0728	0.0830	0.0447
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0008	0.0009	0.0003

4. Shear Capacity

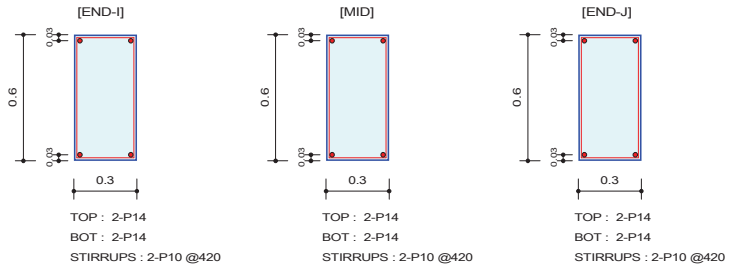
	END-I	MID	END-J
Load Combination No.	39+	40+	40+
Factored Shear Force (V_Ed)	130.52	45.78	45.78
Shear Strength by Conc.(V_Rdc)	86.07	90.16	74.98
Shear Strength by Rebar.(V_Rds)	132.24	83.52	83.52
Required Shear Reinf. (Asw)	0.0004	0.0003	0.0003
Required Stirrups Spacing	2-P10 @360	2-P10 @570	2-P10 @570
Shear Ratio by Conc	1.5164	0.5077	0.6105
Shear Ratio by (V_Rds ; V_Rdmax)	0.9870	0.5481	0.5481
Check Ratio	0.9870	0.5077	0.6105

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 428
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/60 (No : 20) Beam Span : 21.05 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	2.32	2.32	0.00
Factored Strength (M_Rd)	73.89	73.89	73.89
Check Ratio (M_Ed/M_Rd)	0.0314	0.0314	0.0000
Neutral Axis (x/d)	0.0547	0.0547	0.0547
(+) Load Combination No.	40+	36+	36+
Moment (M_Ed)	2.17	14.65	14.65
Factored Strength (M_Rd)	73.89	73.89	73.89
Check Ratio (M_Ed/M_Rd)	0.0294	0.1983	0.1983
Neutral Axis (x/d)	0.0547	0.0547	0.0547
Required Rebar Top (As_top)	0.0002	0.0002	0.0002
Required Rebar Bot (As_bot)	0.0002	0.0002	0.0002

4. Shear Capacity

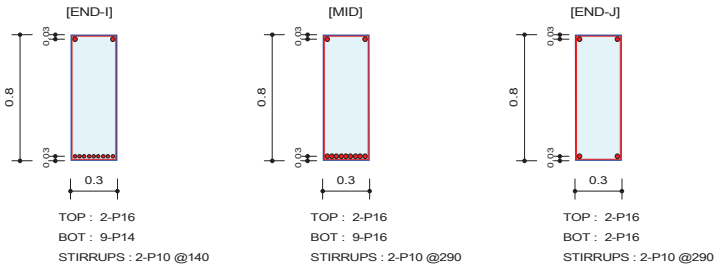
	END-I	MID	END-J
Load Combination No.	40+	38-	43-
Factored Shear Force (V_Ed)	17.90	2.82	55.86
Shear Strength by Conc.(V_Rdc)	60.13	60.13	60.13
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.2976	0.0468	0.9289
Shear Ratio by (V_Rds ; V_Rdmax)	0.2133	0.0336	0.6657
Check Ratio	0.2976	0.0468	0.9289

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 483
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/80 (No : 24) Beam Span : 13.8 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	0.00	0.00
Factored Strength (M_Rd)	130.48	130.77	130.71
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0000
Neutral Axis (x/d)	0.0410	0.0405	0.0447
(+) Load Combination No.	40+	40+	36+
Moment (M_Ed)	410.61	522.61	76.33
Factored Strength (M_Rd)	440.08	562.33	130.71
Check Ratio (M_Ed/M_Rd)	0.9330	0.9294	0.5840
Neutral Axis (x/d)	0.1406	0.1992	0.0447
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0013	0.0018	0.0003

4. Shear Capacity

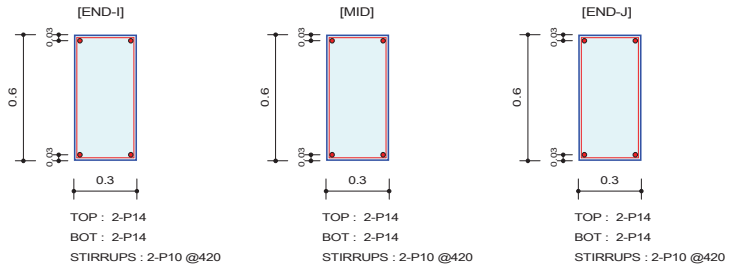
	END-I	MID	END-J
Load Combination No.	36+	40+	40+
Factored Shear Force (V_Ed)	339.50	162.08	162.08
Shear Strength by Conc.(V_Rdc)	103.20	112.79	74.98
Shear Strength by Rebar.(V_Rds)	340.04	164.16	164.16
Required Shear Reinf. (Asw)	0.0011	0.0005	0.0005
Required Stirrups Spacing	2-P10 @140	2-P10 @290	2-P10 @290
Shear Ratio by Conc	3.2895	1.4371	2.1616
Shear Ratio by (V_Rds ; V_Rdmax)	0.9984	0.9873	0.9873
Check Ratio	0.9984	0.9873	0.9873

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 497
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/60 (No : 20) Beam Span : 21.05 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	43-	44-
Moment (M_Ed)	0.44	0.44	0.00
Factored Strength (M_Rd)	73.89	73.89	73.89
Check Ratio (M_Ed/M_Rd)	0.0059	0.0059	0.0000
Neutral Axis (x/d)	0.0547	0.0547	0.0547
(+) Load Combination No.	40+	36+	36+
Moment (M_Ed)	5.36	17.03	17.03
Factored Strength (M_Rd)	73.89	73.89	73.89
Check Ratio (M_Ed/M_Rd)	0.0725	0.2305	0.2305
Neutral Axis (x/d)	0.0547	0.0547	0.0547
Required Rebar Top (As_top)	0.0002	0.0002	0.0002
Required Rebar Bot (As_bot)	0.0002	0.0002	0.0002

4. Shear Capacity

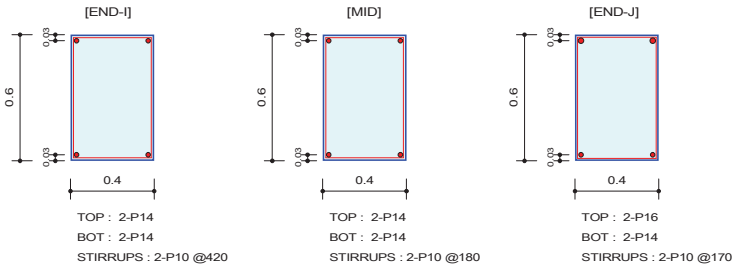
	END-I	MID	END-J
Load Combination No.	40+	38-	43-
Factored Shear Force (V_Ed)	56.28	4.99	45.96
Shear Strength by Conc.(V_Rdc)	60.13	60.13	60.13
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.9360	0.0830	0.7644
Shear Ratio by (V_Rds ; V_Rdmax)	0.6708	0.0595	0.5478
Check Ratio	0.9360	0.0830	0.7644

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 552
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 2.3 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	40-	38-
Moment (M_Ed)	52.48	30.84	84.74
Factored Strength (M_Rd)	74.92	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.7005	0.4116	0.8730
Neutral Axis (x/d)	0.0491	0.0491	0.0547
(+) Load Combination No.	43+	40+	39+
Moment (M_Ed)	46.40	65.99	35.04
Factored Strength (M_Rd)	74.92	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.6193	0.8808	0.4687
Neutral Axis (x/d)	0.0491	0.0491	0.0496
Required Rebar Top (As_top)	0.0003	0.0003	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

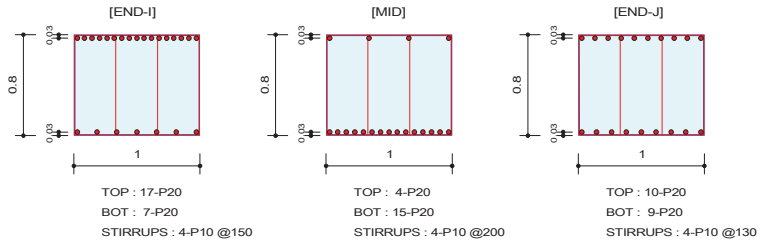
	END-I	MID	END-J
Load Combination No.	44-	38+	38+
Factored Shear Force (V_Ed)	50.75	191.32	195.98
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	195.78	207.30
Required Shear Reinf. (Asw)	0.0004	0.0009	0.0009
Required Stirrups Spacing	2-P10 @420	2-P10 @180	2-P10 @170
Shear Ratio by Conc	0.6330	2.3864	2.4445
Shear Ratio by (V_Rds ; V_Rdmax)	0.6048	0.9772	0.9454
Check Ratio	0.6330	0.9772	0.9454

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 553
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: EZ100/80 (No : 23) Beam Span : 12.8 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	44-	40-
Moment (M_Ed)	1534.04	0.00	897.22
Factored Strength (M_Rd)	1700.54	409.48	1008.94
Check Ratio (M_Ed/M_Rd)	0.9021	0.0000	0.8893
Neutral Axis (x/d)	0.1348	0.0405	0.0630
(+) Load Combination No.	40+	40+	40+
Moment (M_Ed)	607.37	1362.83	857.22
Factored Strength (M_Rd)	708.18	1491.52	913.23
Check Ratio (M_Ed/M_Rd)	0.8576	0.9137	0.9387
Neutral Axis (x/d)	0.0448	0.1465	0.0569
Required Rebar Top (As_top)	0.0051	0.0010	0.0028
Required Rebar Bot (As_bot)	0.0019	0.0045	0.0027

4. Shear Capacity

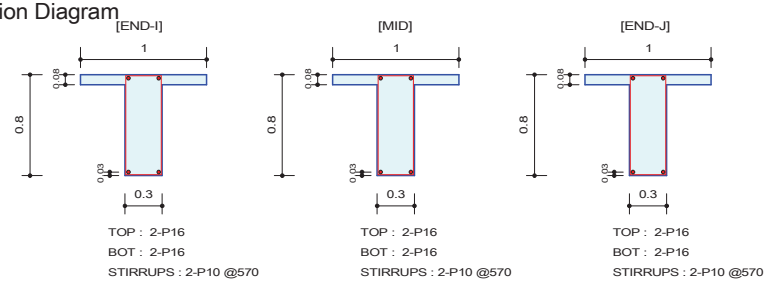
	END-I	MID	END-J
Load Combination No.	36-	36-	40+
Factored Shear Force (V_Ed)	606.31	469.57	728.73
Shear Strength by Conc.(V_Rdc)	360.99	346.23	302.46
Shear Strength by Rebar.(V_Rds)	634.75	476.06	732.40
Required Shear Reinf. (Asw)	0.0020	0.0016	0.0024
Required Stirrups Spacing	4-P10 @150	4-P10 @200	4-P10 @130
Shear Ratio by Conc	1.6796	1.3562	2.4093
Shear Ratio by (V_Rds ; V_Rdmax)	0.9552	0.9864	0.9950
Check Ratio	0.9552	0.9864	0.9950

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 566
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	37-	39-	39-
Moment (M_Ed)	30.98	44.55	44.55
Factored Strength (M_Rd)	130.71	130.71	130.71
Check Ratio (M_Ed/M_Rd)	0.2370	0.3408	0.3408
Neutral Axis (x/d)	0.0447	0.0447	0.0447
(+) Load Combination No.	44+	43+	43+
Moment (M_Ed)	0.16	8.00	33.40
Factored Strength (M_Rd)	134.31	134.31	134.31
Check Ratio (M_Ed/M_Rd)	0.0012	0.0596	0.2487
Neutral Axis (x/d)	0.0278	0.0278	0.0278
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

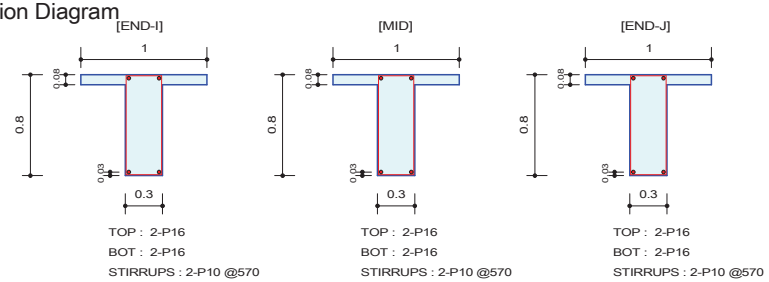
	END-I	MID	END-J
Load Combination No.	36+	36+	43-
Factored Shear Force (V_Ed)	16.24	18.92	26.19
Shear Strength by Conc.(V_Rdc)	74.98	74.98	74.98
Shear Strength by Rebar.(V_Rds)	83.52	83.52	83.52
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0003
Required Stirrups Spacing	2-P10 @570	2-P10 @570	2-P10 @570
Shear Ratio by Conc	0.2166	0.2523	0.3493
Shear Ratio by (V_Rds ; V_Rdmax)	0.1945	0.2265	0.3136
Check Ratio	0.2166	0.2523	0.3493

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 567
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	39-	44-
Moment (M_Ed)	40.26	40.26	0.00
Factored Strength (M_Rd)	130.71	130.71	130.71
Check Ratio (M_Ed/M_Rd)	0.3080	0.3080	0.0000
Neutral Axis (x/d)	0.0447	0.0447	0.0447
(+) Load Combination No.	44-	43+	43+
Moment (M_Ed)	0.00	49.12	112.17
Factored Strength (M_Rd)	134.31	134.31	134.31
Check Ratio (M_Ed/M_Rd)	0.0000	0.3658	0.8352
Neutral Axis (x/d)	0.0278	0.0278	0.0278
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0004

4. Shear Capacity

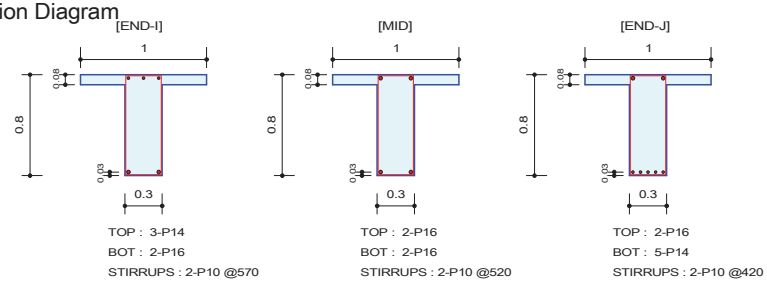
	END-I	MID	END-J
Load Combination No.	36+	38-	40-
Factored Shear Force (V_Ed)	20.58	50.64	71.81
Shear Strength by Conc.(V_Rdc)	74.98	74.98	74.98
Shear Strength by Rebar.(V_Rds)	83.52	83.52	83.52
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0003
Required Stirrups Spacing	2-P10 @570	2-P10 @570	2-P10 @570
Shear Ratio by Conc	0.2745	0.6754	0.9577
Shear Ratio by (V_Rds ; V_Rdmax)	0.2465	0.6064	0.8598
Check Ratio	0.2745	0.6754	0.9577

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 568
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	40-	44-
Moment (M_Ed)	97.91	67.18	0.00
Factored Strength (M_Rd)	150.66	130.71	130.75
Check Ratio (M_Ed/M_Rd)	0.6499	0.5140	0.0000
Neutral Axis (x/d)	0.0488	0.0447	0.0424
(+) Load Combination No.	44-	43+	40+
Moment (M_Ed)	0.00	88.34	202.22
Factored Strength (M_Rd)	134.96	134.31	253.21
Check Ratio (M_Ed/M_Rd)	0.0000	0.6578	0.7986
Neutral Axis (x/d)	0.0285	0.0278	0.0353
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0006

4. Shear Capacity

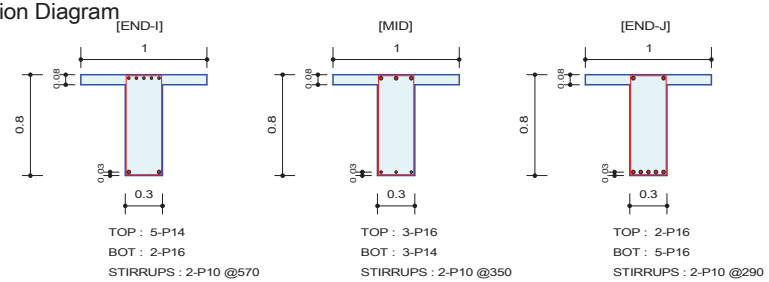
	END-I	MID	END-J
Load Combination No.	38-	40-	40-
Factored Shear Force (V_Ed)	45.50	90.04	112.14
Shear Strength by Conc.(V_Rdc)	74.98	74.98	84.84
Shear Strength by Rebar.(V_Rds)	83.52	91.55	113.35
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0004
Required Stirrups Spacing	2-P10 @570	2-P10 @520	2-P10 @420
Shear Ratio by Conc	0.6068	1.2008	1.3218
Shear Ratio by (V_Rds ; V_Rdmax)	0.5448	0.9835	0.9894
Check Ratio	0.6068	0.9835	0.9894

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 569
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	157.72	103.00	0.00
Factored Strength (M_Rd)	248.06	195.19	130.41
Check Ratio (M_Ed/M_Rd)	0.6358	0.5277	0.0000
Neutral Axis (x/d)	0.0698	0.0557	0.0416
(+) Load Combination No.	44-	40+	40+
Moment (M_Ed)	0.00	127.96	300.17
Factored Strength (M_Rd)	135.35	154.42	329.35
Check Ratio (M_Ed/M_Rd)	0.0000	0.8287	0.9114
Neutral Axis (x/d)	0.0308	0.0306	0.0410
Required Rebar Top (As_top)	0.0005	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0004	0.0010

4. Shear Capacity

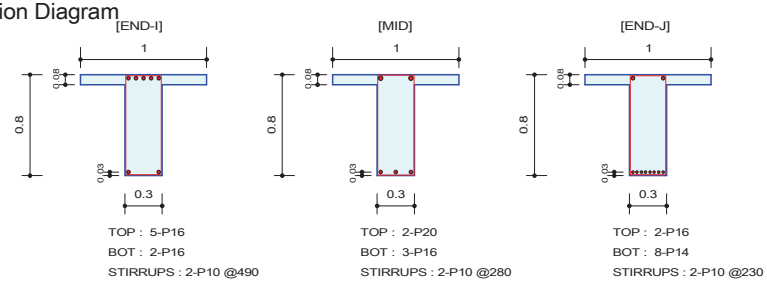
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	73.88	132.27	161.41
Shear Strength by Conc.(V_Rdc)	84.84	78.20	92.72
Shear Strength by Rebar.(V_Rds)	83.52	136.02	164.16
Required Shear Reinf. (Asw)	0.0003	0.0004	0.0005
Required Stirrups Spacing	2-P10 @570	2-P10 @350	2-P10 @290
Shear Ratio by Conc	0.8707	1.6914	1.7408
Shear Ratio by (V_Rds ; V_Rdmax)	0.8845	0.9724	0.9832
Check Ratio	0.8707	0.9724	0.9832

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 570
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	39-	44-
Moment (M_Ed)	208.32	134.19	0.00
Factored Strength (M_Rd)	321.51	202.98	130.76
Check Ratio (M_Ed/M_Rd)	0.6479	0.6611	0.0000
Neutral Axis (x/d)	0.0908	0.0537	0.0412
(+) Load Combination No.	44-	40+	40+
Moment (M_Ed)	0.00	160.12	374.23
Factored Strength (M_Rd)	135.16	200.24	401.53
Check Ratio (M_Ed/M_Rd)	0.0000	0.7997	0.9320
Neutral Axis (x/d)	0.0320	0.0331	0.0471
Required Rebar Top (As_top)	0.0007	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0005	0.0012

4. Shear Capacity

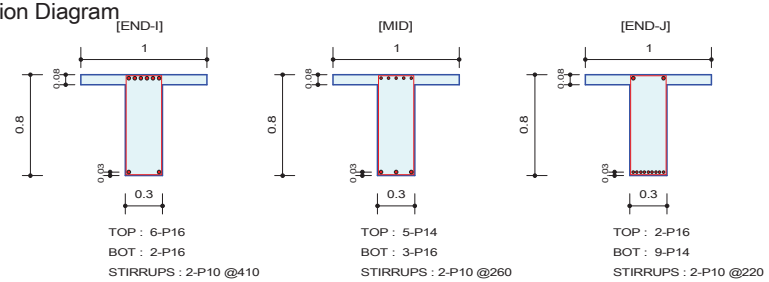
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	97.06	165.38	199.66
Shear Strength by Conc.(V_Rdc)	92.72	79.27	99.23
Shear Strength by Rebar.(V_Rds)	97.16	170.02	206.98
Required Shear Reinf. (Asw)	0.0003	0.0005	0.0007
Required Stirrups Spacing	2-P10 @490	2-P10 @280	2-P10 @230
Shear Ratio by Conc	1.0468	2.0864	2.0120
Shear Ratio by (V_Rds ; V_Rdmax)	0.9990	0.9727	0.9646
Check Ratio	0.9990	0.9727	0.9646

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 571
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	39-	44-
Moment (M_Ed)	250.01	152.45	0.00
Factored Strength (M_Rd)	386.01	249.43	130.48
Check Ratio (M_Ed/M_Rd)	0.6477	0.6112	0.0000
Neutral Axis (x/d)	0.1152	0.0615	0.0410
(+) Load Combination No.	44-	40+	40+
Moment (M_Ed)	0.00	183.16	414.50
Factored Strength (M_Rd)	135.96	200.37	452.38
Check Ratio (M_Ed/M_Rd)	0.0000	0.9141	0.9163
Neutral Axis (x/d)	0.0327	0.0337	0.0522
Required Rebar Top (As_top)	0.0008	0.0005	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0014

4. Shear Capacity

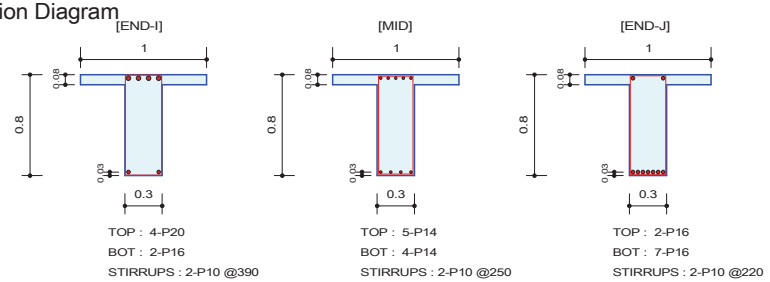
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	115.83	181.76	214.36
Shear Strength by Conc.(V_Rdc)	98.53	84.84	103.20
Shear Strength by Rebar.(V_Rds)	116.11	183.10	216.39
Required Shear Reinf. (Asw)	0.0004	0.0006	0.0007
Required Stirrups Spacing	2-P10 @410	2-P10 @260	2-P10 @220
Shear Ratio by Conc	1.1756	2.1423	2.0770
Shear Ratio by (V_Rds ; V_Rdmax)	0.9976	0.9927	0.9906
Check Ratio	0.9976	0.9927	0.9906

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 572
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	39-	44-
Moment (M_Ed)	261.50	154.71	0.00
Factored Strength (M_Rd)	401.16	249.02	131.01
Check Ratio (M_Ed/M_Rd)	0.6519	0.6213	0.0000
Neutral Axis (x/d)	0.1211	0.0610	0.0410
(+) Load Combination No.	44-	40+	40+
Moment (M_Ed)	0.00	192.14	424.76
Factored Strength (M_Rd)	134.84	204.27	457.52
Check Ratio (M_Ed/M_Rd)	0.0000	0.9406	0.9284
Neutral Axis (x/d)	0.0328	0.0339	0.0527
Required Rebar Top (As_top)	0.0008	0.0005	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0014

4. Shear Capacity

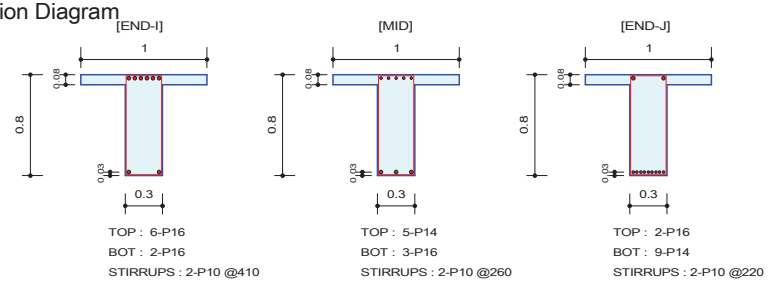
	END-I	MID	END-J
Load Combination No.	40-	40-	39-
Factored Shear Force (V_Ed)	121.61	184.26	215.02
Shear Strength by Conc.(V_Rdc)	99.87	84.84	103.72
Shear Strength by Rebar.(V_Rds)	122.07	190.42	216.39
Required Shear Reinf. (Asw)	0.0004	0.0006	0.0007
Required Stirrups Spacing	2-P10 @390	2-P10 @250	2-P10 @220
Shear Ratio by Conc	1.2176	2.1718	2.0730
Shear Ratio by (V_Rds ; V_Rdmax)	0.9962	0.9676	0.9937
Check Ratio	0.9962	0.9676	0.9937

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 573
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 6-P16	TOP : 5-P14	TOP : 2-P16
BOT : 2-P16	BOT : 3-P16	BOT : 9-P14
STIRRUPS : 2-P10 @410	STIRRUPS : 2-P10 @260	STIRRUPS : 2-P10 @220

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	44-
Moment (M_Ed)	238.67	138.65	0.00
Factored Strength (M_Rd)	386.01	249.43	130.48
Check Ratio (M_Ed/M_Rd)	0.6183	0.5558	0.0000
Neutral Axis (x/d)	0.1152	0.0615	0.0410
(+) Load Combination No.	44-	40+	40+
Moment (M_Ed)	0.00	191.21	413.76
Factored Strength (M_Rd)	135.96	200.37	452.38
Check Ratio (M_Ed/M_Rd)	0.0000	0.9543	0.9146
Neutral Axis (x/d)	0.0327	0.0337	0.0522
Required Rebar Top (As_top)	0.0008	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0014

4. Shear Capacity

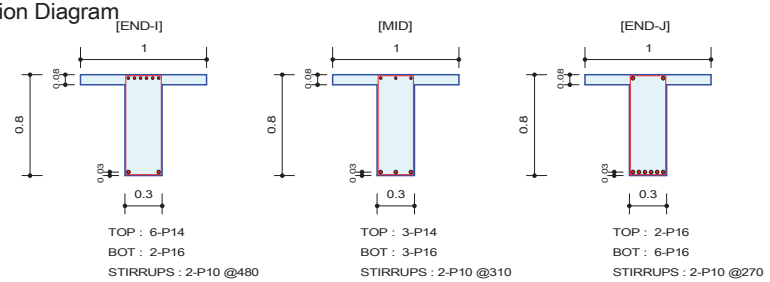
	END-I	MID	END-J
Load Combination No.	36-	36-	36-
Factored Shear Force (V_Ed)	115.06	176.38	207.25
Shear Strength by Conc.(V_Rdc)	98.53	84.84	103.20
Shear Strength by Rebar.(V_Rds)	116.11	183.10	216.39
Required Shear Reinf. (Asw)	0.0004	0.0006	0.0007
Required Stirrups Spacing	2-P10 @410	2-P10 @260	2-P10 @220
Shear Ratio by Conc	1.1678	2.0789	2.0082
Shear Ratio by (V_Rds ; V_Rdmax)	0.9909	0.9633	0.9578
Check Ratio	0.9909	0.9633	0.9578

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 574
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 6-P14	TOP : 3-P14	TOP : 2-P16
BOT : 2-P16	BOT : 3-P16	BOT : 6-P16
STIRRUPS : 2-P10 @480	STIRRUPS : 2-P10 @310	STIRRUPS : 2-P10 @270

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	44-
Moment (M_Ed)	188.81	99.96	0.00
Factored Strength (M_Rd)	295.86	150.10	131.04
Check Ratio (M_Ed/M_Rd)	0.6382	0.6659	0.0000
Neutral Axis (x/d)	0.0830	0.0454	0.0413
(+) Load Combination No.	44-	40+	36+
Moment (M_Ed)	0.00	181.40	368.03
Factored Strength (M_Rd)	135.58	199.43	393.23
Check Ratio (M_Ed/M_Rd)	0.0000	0.9096	0.9359
Neutral Axis (x/d)	0.0316	0.0321	0.0464
Required Rebar Top (As_top)	0.0006	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0012

4. Shear Capacity

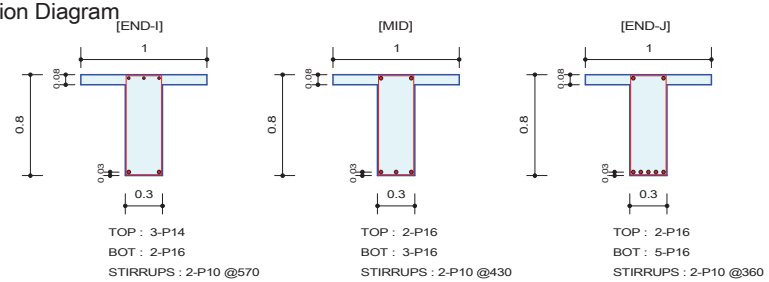
	END-I	MID	END-J
Load Combination No.	36-	36-	36-
Factored Shear Force (V_Ed)	98.87	149.26	174.39
Shear Strength by Conc.(V_Rdc)	90.16	78.20	98.53
Shear Strength by Rebar.(V_Rds)	99.18	153.57	176.32
Required Shear Reinf. (Asw)	0.0003	0.0005	0.0006
Required Stirrups Spacing	2-P10 @480	2-P10 @310	2-P10 @270
Shear Ratio by Conc	1.0966	1.9086	1.7700
Shear Ratio by (V_Rds ; V_Rdmax)	0.9968	0.9719	0.9891
Check Ratio	0.9968	0.9719	0.9891

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 575
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	44-
Moment (M_Ed)	99.03	39.18	0.00
Factored Strength (M_Rd)	150.66	131.45	130.41
Check Ratio (M_Ed/M_Rd)	0.6573	0.2980	0.0000
Neutral Axis (x/d)	0.0488	0.0432	0.0416
(+) Load Combination No.	43+	40+	36+
Moment (M_Ed)	1.88	161.42	298.64
Factored Strength (M_Rd)	134.96	200.33	329.35
Check Ratio (M_Ed/M_Rd)	0.0139	0.8058	0.9067
Neutral Axis (x/d)	0.0285	0.0317	0.0410
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0005	0.0010

4. Shear Capacity

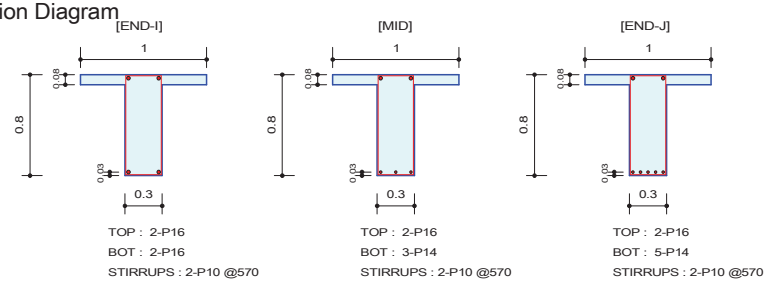
	END-I	MID	END-J
Load Combination No.	36-	36-	36-
Factored Shear Force (V_Ed)	67.86	108.85	129.25
Shear Strength by Conc.(V_Rdc)	74.98	78.20	92.72
Shear Strength by Rebar.(V_Rds)	83.52	110.71	132.24
Required Shear Reinf. (Asw)	0.0003	0.0004	0.0004
Required Stirrups Spacing	2-P10 @570	2-P10 @430	2-P10 @360
Shear Ratio by Conc	0.9050	1.3919	1.3940
Shear Ratio by (V_Rds ; V_Rdmax)	0.8125	0.9832	0.9774
Check Ratio	0.9050	0.9832	0.9774

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 576
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	3.89	0.00	0.00
Factored Strength (M_Rd)	130.71	131.26	130.75
Check Ratio (M_Ed/M_Rd)	0.0298	0.0000	0.0000
Neutral Axis (x/d)	0.0447	0.0442	0.0424
(+) Load Combination No.	38+	43+	36+
Moment (M_Ed)	65.52	130.98	212.30
Factored Strength (M_Rd)	134.31	153.86	253.21
Check Ratio (M_Ed/M_Rd)	0.4878	0.8513	0.8384
Neutral Axis (x/d)	0.0278	0.0289	0.0353
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0004	0.0007

4. Shear Capacity

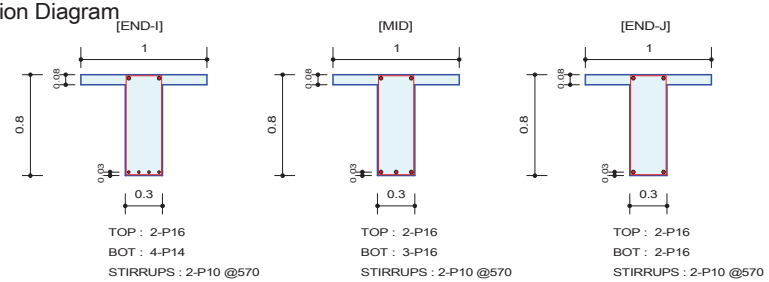
	END-I	MID	END-J
Load Combination No.	44-	36-	36-
Factored Shear Force (V_Ed)	23.06	59.57	80.23
Shear Strength by Conc.(V_Rdc)	74.98	74.98	84.84
Shear Strength by Rebar.(V_Rds)	83.52	83.52	83.52
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0003
Required Stirrups Spacing	2-P10 @570	2-P10 @570	2-P10 @570
Shear Ratio by Conc	0.3076	0.7945	0.9457
Shear Ratio by (V_Rds ; V_Rdmax)	0.2761	0.7133	0.9607
Check Ratio	0.3076	0.7945	0.9457

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 577
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 4.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	0.00	0.00
Factored Strength (M_Rd)	131.01	131.45	130.71
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0000
Neutral Axis (x/d)	0.0431	0.0432	0.0447
(+) Load Combination No.	38+	38+	43+
Moment (M_Ed)	192.95	171.33	115.03
Factored Strength (M_Rd)	204.16	200.33	134.31
Check Ratio (M_Ed/M_Rd)	0.9451	0.8552	0.8565
Neutral Axis (x/d)	0.0320	0.0317	0.0278
Required Rebar Top (As_top)	0.0004	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0006	0.0005	0.0004

4. Shear Capacity

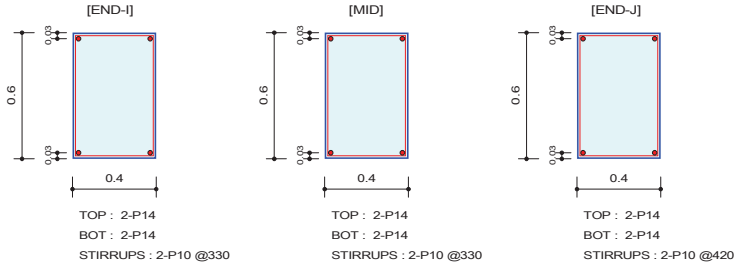
	END-I	MID	END-J
Load Combination No.	38+	38+	38+
Factored Shear Force (V_Ed)	37.63	43.12	37.66
Shear Strength by Conc.(V_Rdc)	78.76	78.20	74.98
Shear Strength by Rebar.(V_Rds)	83.52	83.52	83.52
Required Shear Reinf. (Asw)	0.0003	0.0003	0.0003
Required Stirrups Spacing	2-P10 @570	2-P10 @570	2-P10 @570
Shear Ratio by Conc	0.4778	0.5515	0.5023
Shear Ratio by (V_Rds ; V_Rdmax)	0.4506	0.5163	0.4509
Check Ratio	0.4778	0.5515	0.5023

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 578
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	36-	43-
Moment (M_Ed)	19.87	21.12	39.25
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.2652	0.2819	0.5239
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	43+	39+	36+
Moment (M_Ed)	10.45	71.26	20.07
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.1395	0.9512	0.2679
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

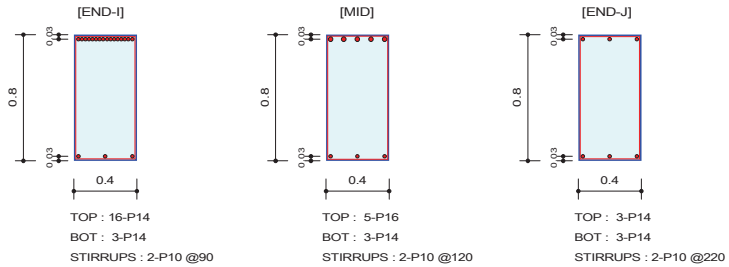
	END-I	MID	END-J
Load Combination No.	36-	36-	36-
Factored Shear Force (V_Ed)	106.31	106.31	42.19
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	106.79	106.79	83.91
Required Shear Reinf. (Asw)	0.0005	0.0005	0.0004
Required Stirrups Spacing	2-P10 @330	2-P10 @330	2-P10 @420
Shear Ratio by Conc	1.3261	1.3261	0.5262
Shear Ratio by (V_Rds ; V_Rdmax)	0.9955	0.9955	0.5028
Check Ratio	0.9955	0.9955	0.5262

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 579
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40x80 (No : 19) Beam Span : 5.4 m

2. Section Diagram



[END-I] TOP : 16-P14 BOT : 3-P14 STIRRUPS : 2-P10 @90
[MID] TOP : 5-P16 BOT : 3-P14 STIRRUPS : 2-P10 @120
[END-J] TOP : 3-P14 BOT : 3-P14 STIRRUPS : 2-P10 @220

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	43-
Moment (M_Ed)	712.15	316.76	68.83
Factored Strength (M_Rd)	761.28	324.17	150.87
Check Ratio (M_Ed/M_Rd)	0.9355	0.9771	0.4562
Neutral Axis (x/d)	0.2129	0.0718	0.0424
(+) Load Combination No.	44-	40+	38+
Moment (M_Ed)	0.00	80.23	14.12
Factored Strength (M_Rd)	150.58	150.87	150.87
Check Ratio (M_Ed/M_Rd)	0.0000	0.5318	0.0936
Neutral Axis (x/d)	0.0398	0.0408	0.0424
Required Rebar Top (As_top)	0.0024	0.0010	0.0004
Required Rebar Bot (As_bot)	0.0004	0.0004	0.0004

4. Shear Capacity

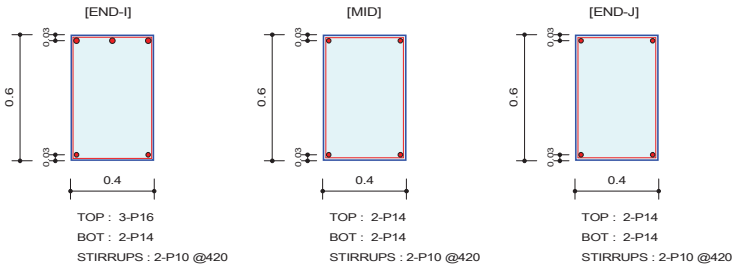
	END-I	MID	END-J
Load Combination No.	40-	40-	40-
Factored Shear Force (V_Ed)	524.20	387.77	215.51
Shear Strength by Conc.(V_Rdc)	151.46	112.32	99.98
Shear Strength by Rebar.(V_Rds)	528.96	396.72	216.39
Required Shear Reinf. (Asw)	0.0017	0.0013	0.0007
Required Stirrups Spacing	2-P10 @90	2-P10 @120	2-P10 @220
Shear Ratio by Conc	3.4611	3.4524	2.1556
Shear Ratio by (V_Rds ; V_Rdmax)	0.9910	0.9775	0.9959
Check Ratio	0.9910	0.9775	0.9959

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 613
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 2.9 m

2. Section Diagram



[END-I] TOP : 3-P16 BOT : 2-P14 STIRRUPS : 2-P10 @420
[MID] TOP : 2-P14 BOT : 2-P14 STIRRUPS : 2-P10 @420
[END-J] TOP : 2-P14 BOT : 2-P14 STIRRUPS : 2-P10 @420

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	40-
Moment (M_Ed)	111.49	69.91	11.27
Factored Strength (M_Rd)	143.51	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.7769	0.9331	0.1504
Neutral Axis (x/d)	0.0698	0.0491	0.0491
(+) Load Combination No.	44-	44-	40+
Moment (M_Ed)	0.00	0.00	0.21
Factored Strength (M_Rd)	74.80	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0028
Neutral Axis (x/d)	0.0503	0.0491	0.0491
Required Rebar Top (As_top)	0.0005	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

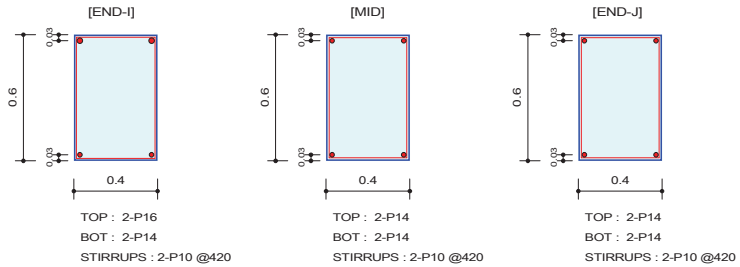
	END-I	MID	END-J
Load Combination No.	39-	39-	40-
Factored Shear Force (V_Ed)	60.81	54.94	18.77
Shear Strength by Conc.(V_Rdc)	81.77	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.7437	0.6852	0.2341
Shear Ratio by (V_Rds ; V_Rdmax)	0.7247	0.6547	0.2237
Check Ratio	0.7437	0.6852	0.2341

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 614
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6005 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	38-	39-
Moment (M_Ed)	81.49	14.56	40.04
Factored Strength (M_Rd)	97.07	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.8396	0.1943	0.5344
Neutral Axis (x/d)	0.0547	0.0491	0.0491
(+) Load Combination No.	44-	38+	38+
Moment (M_Ed)	0.00	29.49	18.99
Factored Strength (M_Rd)	74.76	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.3936	0.2535
Neutral Axis (x/d)	0.0496	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

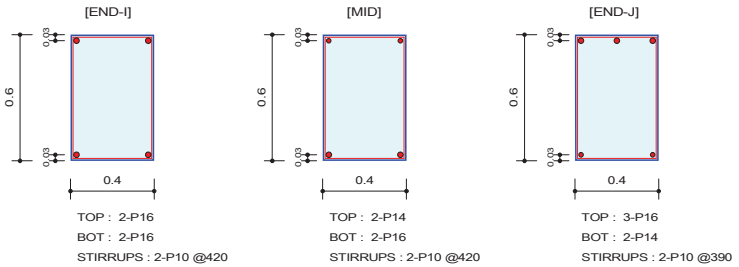
	END-I	MID	END-J
Load Combination No.	38-	38-	39+
Factored Shear Force (V_Ed)	63.73	44.66	39.82
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.7949	0.5571	0.4967
Shear Ratio by (V_Rds ; V_Rdmax)	0.7595	0.5323	0.4746
Check Ratio	0.7949	0.5571	0.4967

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 615
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6005 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	37-	37-
Moment (M_Ed)	92.37	14.74	112.12
Factored Strength (M_Rd)	96.81	74.76	143.51
Check Ratio (M_Ed/M_Rd)	0.9542	0.1971	0.7813
Neutral Axis (x/d)	0.0543	0.0496	0.0698
(+) Load Combination No.	37+	37+	38+
Moment (M_Ed)	76.24	79.67	17.47
Factored Strength (M_Rd)	96.81	97.07	74.80
Check Ratio (M_Ed/M_Rd)	0.7875	0.8207	0.2336
Neutral Axis (x/d)	0.0543	0.0547	0.0503
Required Rebar Top (As_top)	0.0004	0.0003	0.0005
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

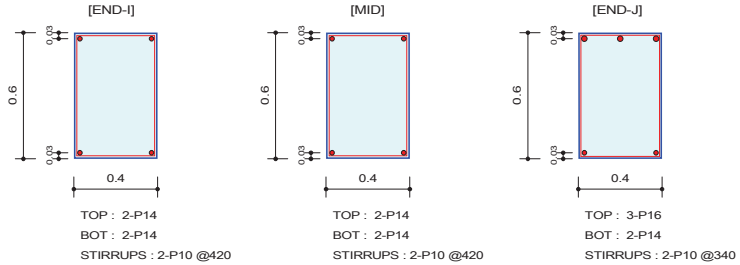
	END-I	MID	END-J
Load Combination No.	38-	37+	37+
Factored Shear Force (V_Ed)	82.22	67.74	89.25
Shear Strength by Conc.(V_Rdc)	80.17	80.17	81.77
Shear Strength by Rebar.(V_Rds)	83.91	83.91	90.36
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @390
Shear Ratio by Conc	1.0255	0.8449	1.0915
Shear Ratio by (V_Rds ; V_Rdmax)	0.9799	0.8073	0.9877
Check Ratio	0.9799	0.8449	0.9877

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 616
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.19326 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	43-	43-
Moment (M_Ed)	20.04	47.94	119.49
Factored Strength (M_Rd)	74.92	74.92	143.51
Check Ratio (M_Ed/M_Rd)	0.2675	0.6399	0.8326
Neutral Axis (x/d)	0.0491	0.0491	0.0698
(+) Load Combination No.	43+	43+	44-
Moment (M_Ed)	34.24	39.84	0.00
Factored Strength (M_Rd)	74.92	74.92	74.80
Check Ratio (M_Ed/M_Rd)	0.4570	0.5318	0.0000
Neutral Axis (x/d)	0.0491	0.0491	0.0503
Required Rebar Top (As_top)	0.0003	0.0003	0.0005
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

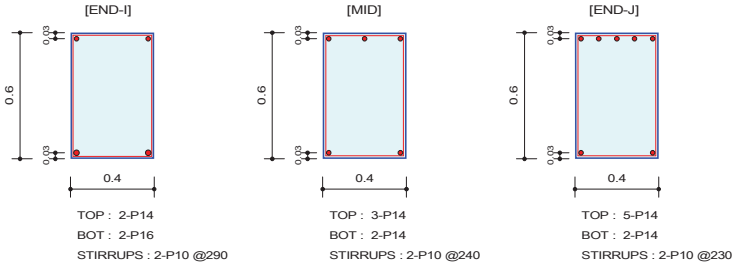
	END-I	MID	END-J
Load Combination No.	44+	43+	43+
Factored Shear Force (V_Ed)	34.46	71.22	101.28
Shear Strength by Conc.(V_Rdc)	80.17	80.17	81.77
Shear Strength by Rebar.(V_Rds)	83.91	83.91	103.65
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0005
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @340
Shear Ratio by Conc	0.4298	0.8883	1.2386
Shear Ratio by (V_Rds ; V_Rdmax)	0.4107	0.8488	0.9772
Check Ratio	0.4298	0.8883	0.9772

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 617
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.85856 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	43-	43-
Moment (M_Ed)	18.44	99.81	167.98
Factored Strength (M_Rd)	74.76	111.00	182.54
Check Ratio (M_Ed/M_Rd)	0.2466	0.8992	0.9202
Neutral Axis (x/d)	0.0496	0.0586	0.0845
(+) Load Combination No.	43+	44+	44+
Moment (M_Ed)	79.89	30.94	42.28
Factored Strength (M_Rd)	97.07	74.67	74.67
Check Ratio (M_Ed/M_Rd)	0.8231	0.4143	0.5662
Neutral Axis (x/d)	0.0547	0.0498	0.0507
Required Rebar Top (As_top)	0.0003	0.0004	0.0007
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

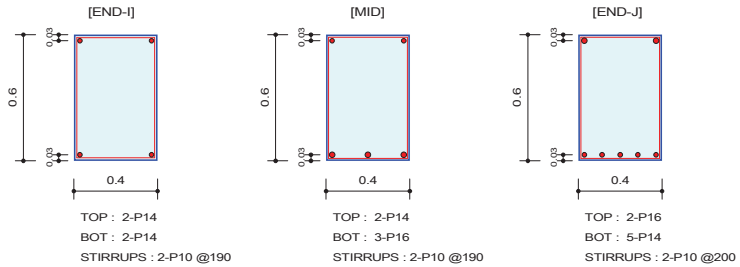
	END-I	MID	END-J
Load Combination No.	43+	43+	43+
Factored Shear Force (V_Ed)	118.66	145.31	148.10
Shear Strength by Conc.(V_Rdc)	80.17	80.17	88.71
Shear Strength by Rebar.(V_Rds)	121.52	146.84	153.22
Required Shear Reinf. (Asw)	0.0005	0.0007	0.0007
Required Stirrups Spacing	2-P10 @290	2-P10 @240	2-P10 @230
Shear Ratio by Conc	1.4800	1.8124	1.6694
Shear Ratio by (V_Rds ; V_Rdmax)	0.9764	0.9896	0.9666
Check Ratio	0.9764	0.9896	0.9666

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 618
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	44-	44-
Moment (M_Ed)	71.28	60.90	81.71
Factored Strength (M_Rd)	74.92	74.80	96.92
Check Ratio (M_Ed/M_Rd)	0.9515	0.8142	0.8431
Neutral Axis (x/d)	0.0491	0.0503	0.0537
(+) Load Combination No.	44-	43+	43+
Moment (M_Ed)	0.00	114.33	174.73
Factored Strength (M_Rd)	74.92	143.51	182.78
Check Ratio (M_Ed/M_Rd)	0.0000	0.7967	0.9560
Neutral Axis (x/d)	0.0491	0.0698	0.0801
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0005	0.0007

4. Shear Capacity

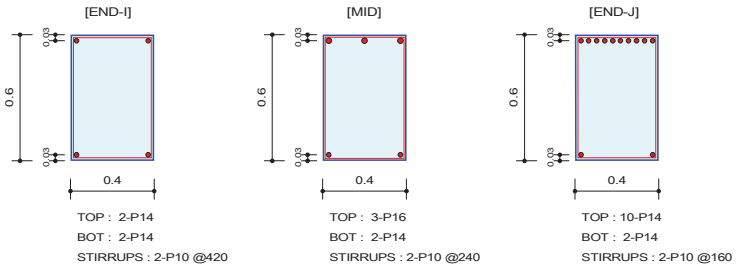
	END-I	MID	END-J
Load Combination No.	43-	43-	43-
Factored Shear Force (V_Ed)	179.93	177.83	173.63
Shear Strength by Conc.(V_Rdc)	80.17	81.77	88.71
Shear Strength by Rebar.(V_Rds)	185.48	185.48	176.20
Required Shear Reinf. (Asw)	0.0008	0.0008	0.0008
Required Stirrups Spacing	2-P10 @190	2-P10 @190	2-P10 @200
Shear Ratio by Conc	2.2442	2.1747	1.9572
Shear Ratio by (V_Rds ; V_Rdmax)	0.9701	0.9587	0.9854
Check Ratio	0.9701	0.9587	0.9854

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 619
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.04386 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	40-	39-
Moment (M_Ed)	16.96	133.13	336.22
Factored Strength (M_Rd)	74.92	143.51	355.86
Check Ratio (M_Ed/M_Rd)	0.2264	0.9277	0.9448
Neutral Axis (x/d)	0.0491	0.0698	0.1758
(+) Load Combination No.	43+	43+	44-
Moment (M_Ed)	54.95	54.28	0.00
Factored Strength (M_Rd)	74.92	74.80	74.79
Check Ratio (M_Ed/M_Rd)	0.7335	0.7257	0.0000
Neutral Axis (x/d)	0.0491	0.0503	0.0515
Required Rebar Top (As_top)	0.0003	0.0006	0.0015
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

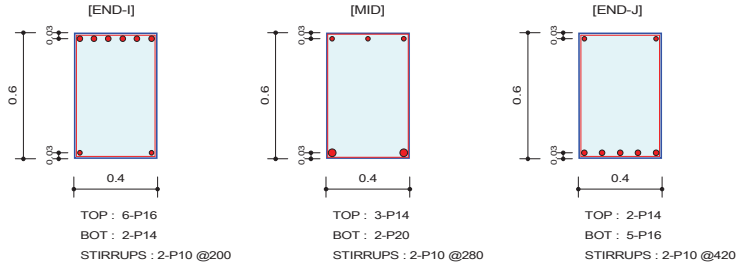
	END-I	MID	END-J
Load Combination No.	40-	39+	39+
Factored Shear Force (V_Ed)	39.51	146.30	217.46
Shear Strength by Conc.(V_Rdc)	80.17	81.77	111.77
Shear Strength by Rebar.(V_Rds)	83.91	146.84	220.26
Required Shear Reinf. (Asw)	0.0004	0.0007	0.0010
Required Stirrups Spacing	2-P10 @420	2-P10 @240	2-P10 @160
Shear Ratio by Conc	0.4928	1.7891	1.9456
Shear Ratio by (V_Rds ; V_Rdmax)	0.4708	0.9963	0.9873
Check Ratio	0.4928	0.9963	0.9873

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 620
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 4.96915 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	44-
Moment (M_Ed)	260.50	94.87	0.00
Factored Strength (M_Rd)	281.71	111.37	74.65
Check Ratio (M_Ed/M_Rd)	0.9247	0.8519	0.0000
Neutral Axis (x/d)	0.1309	0.0564	0.0510
(+) Load Combination No.	44-	39+	44+
Moment (M_Ed)	0.00	147.62	224.81
Factored Strength (M_Rd)	74.91	149.47	236.81
Check Ratio (M_Ed/M_Rd)	0.0000	0.9877	0.9493
Neutral Axis (x/d)	0.0513	0.0679	0.1084
Required Rebar Top (As_top)	0.0011	0.0004	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0010

4. Shear Capacity

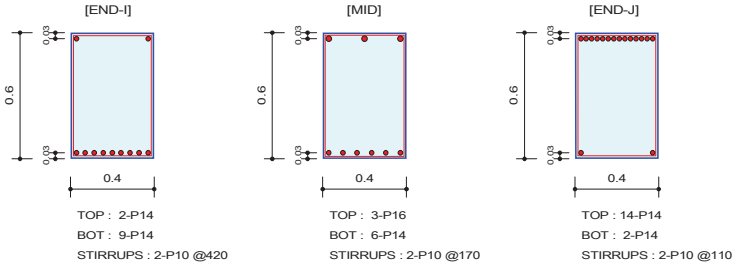
	END-I	MID	END-J
Load Combination No.	40-	40-	44-
Factored Shear Force (V_Ed)	171.16	125.66	84.80
Shear Strength by Conc.(V_Rdc)	103.02	82.88	96.95
Shear Strength by Rebar.(V_Rds)	176.20	125.86	83.91
Required Shear Reinf. (Asw)	0.0008	0.0006	0.0004
Required Stirrups Spacing	2-P10 @200	2-P10 @280	2-P10 @420
Shear Ratio by Conc	1.6613	1.5160	0.8747
Shear Ratio by (V_Rds ; V_Rdmax)	0.9713	0.9984	1.0106
Check Ratio	0.9713	0.9984	0.8747

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 624
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	39-	39-
Moment (M_Ed)	0.00	129.52	444.27
Factored Strength (M_Rd)	74.58	143.94	481.41
Check Ratio (M_Ed/M_Rd)	0.0000	0.8998	0.9229
Neutral Axis (x/d)	0.0514	0.0599	0.2656
(+) Load Combination No.	37+	37+	44-
Moment (M_Ed)	292.78	214.54	0.00
Factored Strength (M_Rd)	322.79	218.68	75.15
Check Ratio (M_Ed/M_Rd)	0.9070	0.9811	0.0000
Neutral Axis (x/d)	0.1543	0.0835	0.0518
Required Rebar Top (As_top)	0.0003	0.0006	0.0021
Required Rebar Bot (As_bot)	0.0013	0.0009	0.0003

4. Shear Capacity

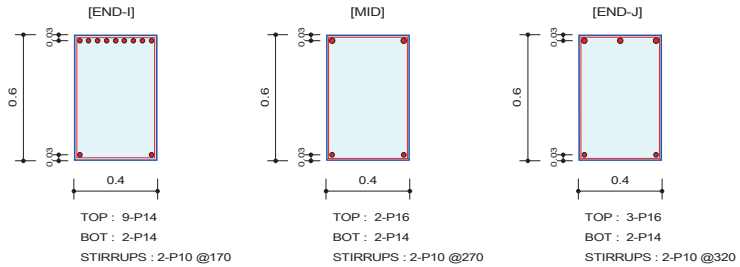
	END-I	MID	END-J
Load Combination No.	37+	39+	39+
Factored Shear Force (V_Ed)	77.17	201.05	297.21
Shear Strength by Conc.(V_Rdc)	107.91	94.27	125.04
Shear Strength by Rebar.(V_Rds)	83.91	207.30	320.37
Required Shear Reinf. (Asw)	0.0004	0.0009	0.0013
Required Stirrups Spacing	2-P10 @420	2-P10 @170	2-P10 @110
Shear Ratio by Conc	0.7152	2.1326	2.3769
Shear Ratio by (V_Rds ; V_Rdmax)	0.9198	0.9698	0.9277
Check Ratio	0.7152	0.9698	0.9277

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 625
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	38-	44-
Moment (M_Ed)	291.42	83.92	134.68
Factored Strength (M_Rd)	322.79	97.07	143.51
Check Ratio (M_Ed/M_Rd)	0.9028	0.8645	0.9385
Neutral Axis (x/d)	0.1543	0.0547	0.0698
(+) Load Combination No.	44-	38+	43+
Moment (M_Ed)	0.00	46.91	34.22
Factored Strength (M_Rd)	74.58	74.76	74.80
Check Ratio (M_Ed/M_Rd)	0.0000	0.6275	0.4576
Neutral Axis (x/d)	0.0514	0.0496	0.0503
Required Rebar Top (As_top)	0.0013	0.0004	0.0006
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

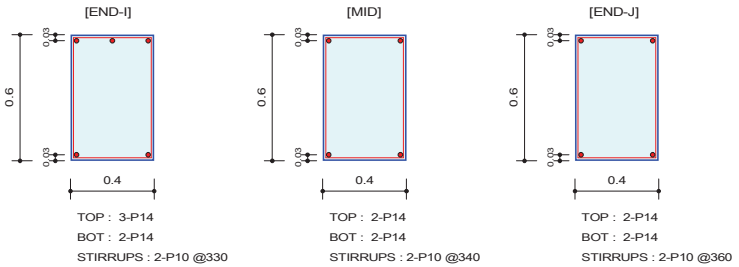
	END-I	MID	END-J
Load Combination No.	40-	40-	39+
Factored Shear Force (V_Ed)	200.52	126.67	109.64
Shear Strength by Conc.(V_Rdc)	107.91	80.17	81.77
Shear Strength by Rebar.(V_Rds)	207.30	130.52	110.13
Required Shear Reinf. (Asw)	0.0009	0.0006	0.0005
Required Stirrups Spacing	2-P10 @170	2-P10 @270	2-P10 @320
Shear Ratio by Conc	1.8582	1.5799	1.3408
Shear Ratio by (V_Rds ; V_Rdmax)	0.9673	0.9705	0.9956
Check Ratio	0.9673	0.9705	0.9956

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 626
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.40001 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	38-	38-
Moment (M_Ed)	104.24	72.02	23.97
Factored Strength (M_Rd)	111.00	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.9391	0.9613	0.3200
Neutral Axis (x/d)	0.0586	0.0491	0.0491
(+) Load Combination No.	44-	44+	44+
Moment (M_Ed)	0.00	2.64	26.91
Factored Strength (M_Rd)	74.67	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.0352	0.3592
Neutral Axis (x/d)	0.0498	0.0491	0.0491
Required Rebar Top (As_top)	0.0004	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

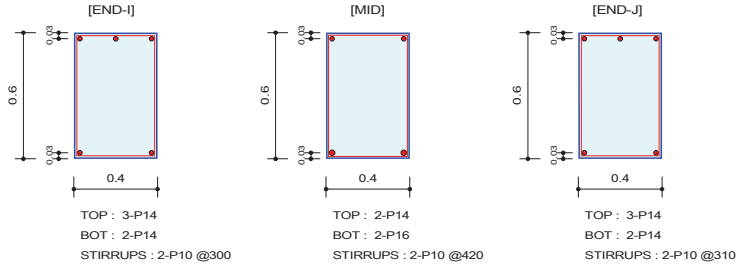
	END-I	MID	END-J
Load Combination No.	44-	44-	44-
Factored Shear Force (V_Ed)	105.63	103.53	97.86
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	106.79	103.65	97.89
Required Shear Reinf. (Asw)	0.0005	0.0005	0.0004
Required Stirrups Spacing	2-P10 @330	2-P10 @340	2-P10 @360
Shear Ratio by Conc	1.3175	1.2913	1.2206
Shear Ratio by (V_Rds ; V_Rdmax)	0.9891	0.9988	0.9997
Check Ratio	0.9891	0.9988	0.9997

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 627
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	44-	36-
Moment (M_Ed)	106.17	0.00	102.50
Factored Strength (M_Rd)	111.00	74.76	111.00
Check Ratio (M_Ed/M_Rd)	0.9565	0.0000	0.9234
Neutral Axis (x/d)	0.0586	0.0496	0.0586
(+) Load Combination No.	43+	39+	38+
Moment (M_Ed)	31.64	89.44	27.52
Factored Strength (M_Rd)	74.67	97.07	74.67
Check Ratio (M_Ed/M_Rd)	0.4237	0.9215	0.3685
Neutral Axis (x/d)	0.0498	0.0547	0.0498
Required Rebar Top (As_top)	0.0005	0.0003	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0004	0.0003

4. Shear Capacity

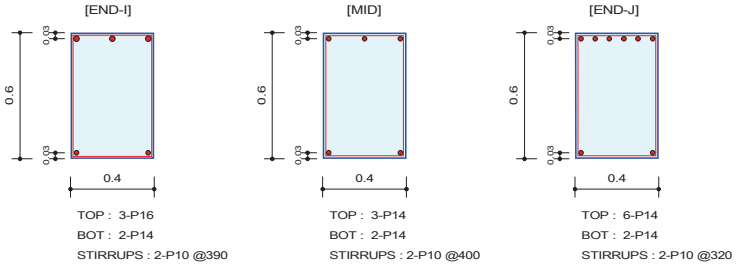
	END-I	MID	END-J
Load Combination No.	39-	36-	36+
Factored Shear Force (V_Ed)	114.00	79.05	113.46
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	117.47	83.91	113.68
Required Shear Reinf. (Asw)	0.0005	0.0004	0.0005
Required Stirrups Spacing	2-P10 @300	2-P10 @420	2-P10 @310
Shear Ratio by Conc	1.4219	0.9860	1.4152
Shear Ratio by (V_Rds ; V_Rdmax)	0.9705	0.9421	0.9981
Check Ratio	0.9705	0.9860	0.9981

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 628
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	37-	38-	38-
Moment (M_Ed)	114.81	97.07	212.88
Factored Strength (M_Rd)	143.51	111.00	217.86
Check Ratio (M_Ed/M_Rd)	0.8000	0.8745	0.9771
Neutral Axis (x/d)	0.0698	0.0586	0.0996
(+) Load Combination No.	38+	38+	37+
Moment (M_Ed)	24.26	24.30	4.59
Factored Strength (M_Rd)	74.80	74.67	74.55
Check Ratio (M_Ed/M_Rd)	0.3244	0.3255	0.0615
Neutral Axis (x/d)	0.0503	0.0498	0.0509
Required Rebar Top (As_top)	0.0005	0.0004	0.0009
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

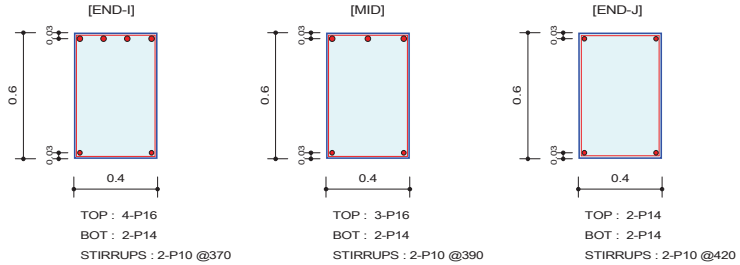
	END-I	MID	END-J
Load Combination No.	37-	38+	38+
Factored Shear Force (V_Ed)	89.94	87.43	108.27
Shear Strength by Conc.(V_Rdc)	81.77	80.17	94.27
Shear Strength by Rebar.(V_Rds)	90.36	88.10	110.13
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0005
Required Stirrups Spacing	2-P10 @390	2-P10 @400	2-P10 @320
Shear Ratio by Conc	1.0999	1.0905	1.1485
Shear Ratio by (V_Rds ; V_Rdmax)	0.9954	0.9924	0.9831
Check Ratio	0.9954	0.9924	0.9831

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 629
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 2.85 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	39-	39-
Moment (M_Ed)	183.21	131.16	27.76
Factored Strength (M_Rd)	190.88	143.51	74.92
Check Ratio (M_Ed/M_Rd)	0.9598	0.9140	0.3705
Neutral Axis (x/d)	0.0879	0.0698	0.0491
(+) Load Combination No.	44-	44-	39+
Moment (M_Ed)	0.00	0.00	1.60
Factored Strength (M_Rd)	75.13	74.80	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0214
Neutral Axis (x/d)	0.0508	0.0503	0.0491
Required Rebar Top (As_top)	0.0008	0.0006	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

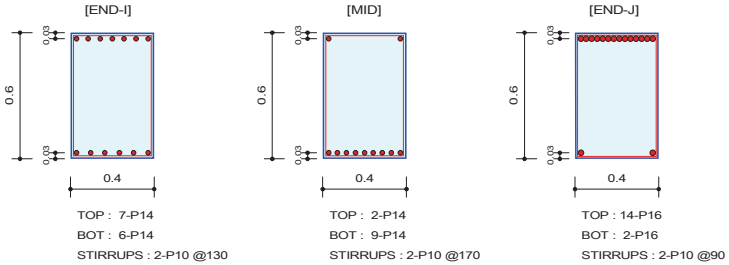
	END-I	MID	END-J
Load Combination No.	39-	39-	39-
Factored Shear Force (V_Ed)	94.80	90.25	44.09
Shear Strength by Conc.(V_Rdc)	90.00	81.77	80.17
Shear Strength by Rebar.(V_Rds)	95.25	90.36	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @370	2-P10 @390	2-P10 @420
Shear Ratio by Conc	1.0534	1.1037	0.5499
Shear Ratio by (V_Rds ; V_Rdmax)	0.9954	0.9988	0.5255
Check Ratio	0.9954	0.9988	0.5499

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 636
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	43-	40-
Moment (M_Ed)	237.02	18.12	560.94
Factored Strength (M_Rd)	254.34	74.58	608.80
Check Ratio (M_Ed/M_Rd)	0.9319	0.2429	0.9214
Neutral Axis (x/d)	0.0820	0.0514	0.3438
(+) Load Combination No.	40+	39+	37+
Moment (M_Ed)	192.45	295.97	85.22
Factored Strength (M_Rd)	219.79	322.79	96.82
Check Ratio (M_Ed/M_Rd)	0.8756	0.9169	0.8801
Neutral Axis (x/d)	0.0718	0.1543	0.0530
Required Rebar Top (As_top)	0.0010	0.0003	0.0028
Required Rebar Bot (As_bot)	0.0008	0.0013	0.0004

4. Shear Capacity

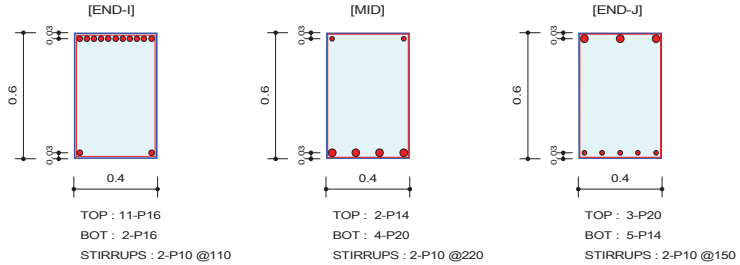
	END-I	MID	END-J
Load Combination No.	39-	40+	40+
Factored Shear Force (V_Ed)	255.29	202.60	369.54
Shear Strength by Conc.(V_Rdc)	99.24	107.91	136.65
Shear Strength by Rebar.(V_Rds)	271.08	207.30	391.57
Required Shear Reinf. (Asw)	0.0011	0.0009	0.0017
Required Stirrups Spacing	2-P10 @130	2-P10 @170	2-P10 @90
Shear Ratio by Conc	2.5724	1.8774	2.7043
Shear Ratio by (V_Rds ; V_Rdmax)	0.9417	0.9773	0.9437
Check Ratio	0.9417	0.9773	0.9437

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 637
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 11-P16	TOP : 2-P14	TOP : 3-P20
BOT : 2-P16	BOT : 4-P20	BOT : 5-P14
STIRRUPS : 2-P10 @110	STIRRUPS : 2-P10 @220	STIRRUPS : 2-P10 @150

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	43-
Moment (M_Ed)	465.50	0.00	216.60
Factored Strength (M_Rd)	495.71	75.09	223.20
Check Ratio (M_Ed/M_Rd)	0.9391	0.0000	0.9704
Neutral Axis (x/d)	0.2578	0.0513	0.0791
(+) Load Combination No.	43+	39+	39+
Moment (M_Ed)	82.57	280.74	180.33
Factored Strength (M_Rd)	96.39	292.78	183.09
Check Ratio (M_Ed/M_Rd)	0.8567	0.9589	0.9849
Neutral Axis (x/d)	0.0530	0.1367	0.0674
Required Rebar Top (As_top)	0.0022	0.0003	0.0009
Required Rebar Bot (As_bot)	0.0004	0.0012	0.0008

4. Shear Capacity

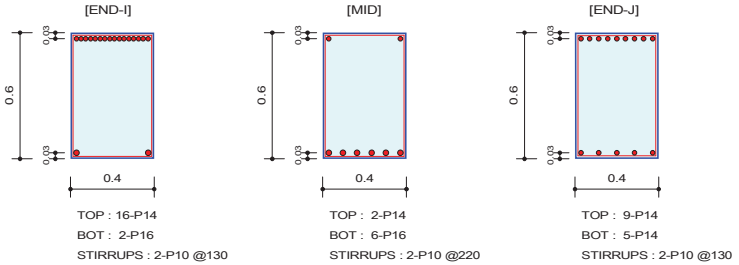
	END-I	MID	END-J
Load Combination No.	39-	39-	40+
Factored Shear Force (V_Ed)	317.25	155.81	220.82
Shear Strength by Conc.(V_Rdc)	126.09	104.43	94.88
Shear Strength by Rebar.(V_Rds)	320.37	160.19	234.94
Required Shear Reinf. (Asw)	0.0014	0.0007	0.0010
Required Stirrups Spacing	2-P10 @110	2-P10 @220	2-P10 @150
Shear Ratio by Conc	2.5160	1.4921	2.3273
Shear Ratio by (V_Rds ; V_Rdmax)	0.9902	0.9727	0.9399
Check Ratio	0.9902	0.9727	0.9399

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 638
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 16-P14	TOP : 2-P14	TOP : 9-P14
BOT : 2-P16	BOT : 6-P16	BOT : 5-P14
STIRRUPS : 2-P10 @130	STIRRUPS : 2-P10 @220	STIRRUPS : 2-P10 @130

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	38-
Moment (M_Ed)	500.93	34.75	290.53
Factored Strength (M_Rd)	544.42	74.91	325.30
Check Ratio (M_Ed/M_Rd)	0.9201	0.4639	0.8931
Neutral Axis (x/d)	0.2969	0.0513	0.1094
(+) Load Combination No.	43+	39+	39+
Moment (M_Ed)	89.27	271.38	169.51
Factored Strength (M_Rd)	97.12	281.71	182.96
Check Ratio (M_Ed/M_Rd)	0.9192	0.9633	0.9265
Neutral Axis (x/d)	0.0530	0.1309	0.0619
Required Rebar Top (As_top)	0.0024	0.0003	0.0013
Required Rebar Bot (As_bot)	0.0004	0.0012	0.0007

4. Shear Capacity

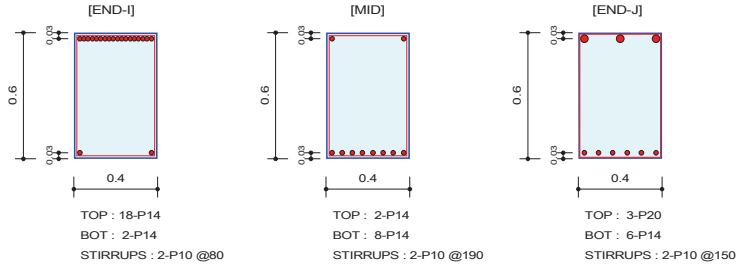
	END-I	MID	END-J
Load Combination No.	39-	39-	40+
Factored Shear Force (V_Ed)	261.21	157.57	265.86
Shear Strength by Conc.(V_Rdc)	130.73	103.02	107.91
Shear Strength by Rebar.(V_Rds)	271.08	160.19	271.08
Required Shear Reinf. (Asw)	0.0012	0.0007	0.0012
Required Stirrups Spacing	2-P10 @130	2-P10 @220	2-P10 @130
Shear Ratio by Conc	1.9981	1.5295	2.4636
Shear Ratio by (V_Rds ; V_Rdmax)	0.9636	0.9837	0.9807
Check Ratio	0.9636	0.9837	0.9807

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 639
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 18-P14	TOP : 2-P14	TOP : 3-P20
BOT : 2-P14	BOT : 8-P14	BOT : 6-P14
STIRRUPS : 2-P10 @80	STIRRUPS : 2-P10 @190	STIRRUPS : 2-P10 @150

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	38-
Moment (M_Ed)	554.71	56.38	216.02
Factored Strength (M_Rd)	596.21	74.65	222.87
Check Ratio (M_Ed/M_Rd)	0.9304	0.7552	0.9693
Neutral Axis (x/d)	0.3516	0.0513	0.0752
(+) Load Combination No.	43+	39+	39+
Moment (M_Ed)	70.94	279.68	191.19
Factored Strength (M_Rd)	74.87	287.27	219.88
Check Ratio (M_Ed/M_Rd)	0.9474	0.9735	0.8695
Neutral Axis (x/d)	0.0520	0.1338	0.0742
Required Rebar Top (As_top)	0.0027	0.0003	0.0009
Required Rebar Bot (As_bot)	0.0003	0.0012	0.0008

4. Shear Capacity

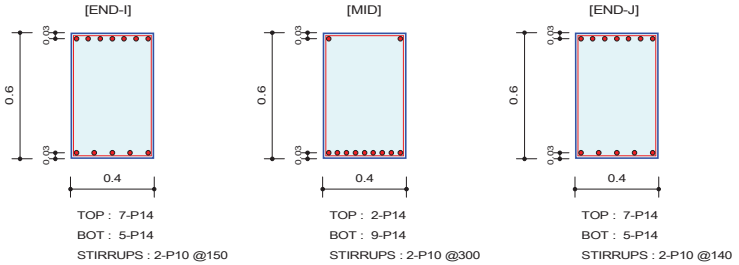
	END-I	MID	END-J
Load Combination No.	39-	39-	40+
Factored Shear Force (V_Ed)	427.41	181.31	232.64
Shear Strength by Conc.(V_Rdc)	135.96	103.76	94.88
Shear Strength by Rebar.(V_Rds)	440.51	185.48	234.94
Required Shear Reinf. (Asw)	0.0019	0.0008	0.0010
Required Stirrups Spacing	2-P10 @80	2-P10 @190	2-P10 @150
Shear Ratio by Conc	3.1436	1.7474	2.4519
Shear Ratio by (V_Rds ; V_Rdmax)	0.9703	0.9775	0.9902
Check Ratio	0.9703	0.9775	0.9902

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 640
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 7-P14	TOP : 2-P14	TOP : 7-P14
BOT : 5-P14	BOT : 9-P14	BOT : 5-P14
STIRRUPS : 2-P10 @150	STIRRUPS : 2-P10 @300	STIRRUPS : 2-P10 @140

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	38-
Moment (M_Ed)	242.41	0.00	247.58
Factored Strength (M_Rd)	255.02	74.58	255.02
Check Ratio (M_Ed/M_Rd)	0.9506	0.0000	0.9708
Neutral Axis (x/d)	0.0874	0.0514	0.0874
(+) Load Combination No.	39+	39+	39+
Moment (M_Ed)	149.08	306.33	177.32
Factored Strength (M_Rd)	183.54	322.79	183.54
Check Ratio (M_Ed/M_Rd)	0.8123	0.9490	0.9661
Neutral Axis (x/d)	0.0645	0.1543	0.0645
Required Rebar Top (As_top)	0.0011	0.0003	0.0011
Required Rebar Bot (As_bot)	0.0006	0.0014	0.0008

4. Shear Capacity

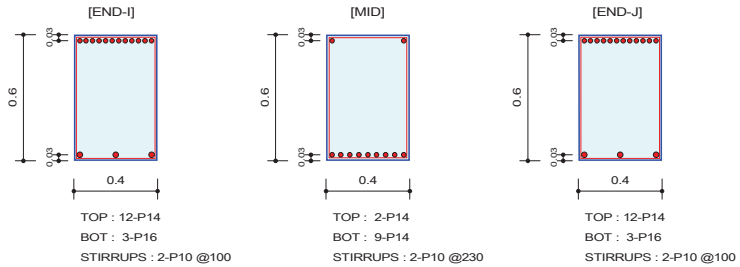
	END-I	MID	END-J
Load Combination No.	39-	39-	40+
Factored Shear Force (V_Ed)	231.27	117.21	243.38
Shear Strength by Conc.(V_Rdc)	99.24	107.91	99.24
Shear Strength by Rebar.(V_Rds)	234.94	117.47	251.72
Required Shear Reinf. (Asw)	0.0010	0.0005	0.0011
Required Stirrups Spacing	2-P10 @150	2-P10 @300	2-P10 @140
Shear Ratio by Conc	2.3304	1.0861	2.4524
Shear Ratio by (V_Rds ; V_Rdmax)	0.9844	0.9978	0.9669
Check Ratio	0.9844	0.9978	0.9669

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 641
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 9.46 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	40-
Moment (M_Ed)	397.43	0.00	394.58
Factored Strength (M_Rd)	427.62	74.58	427.62
Check Ratio (M_Ed/M_Rd)	0.9294	0.0000	0.9227
Neutral Axis (x/d)	0.1797	0.0514	0.1797
(+) Load Combination No.	39+	39+	37+
Moment (M_Ed)	116.77	311.02	141.31
Factored Strength (M_Rd)	143.76	322.79	143.76
Check Ratio (M_Ed/M_Rd)	0.8122	0.9636	0.9830
Neutral Axis (x/d)	0.0565	0.1543	0.0565
Required Rebar Top (As_top)	0.0018	0.0003	0.0018
Required Rebar Bot (As_bot)	0.0005	0.0014	0.0006

4. Shear Capacity

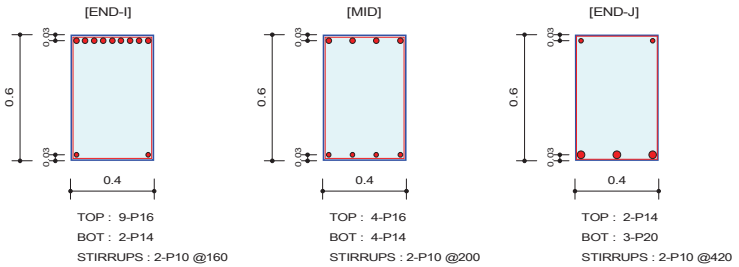
	END-I	MID	END-J
Load Combination No.	39-	39-	40+
Factored Shear Force (V_Ed)	347.37	150.13	345.05
Shear Strength by Conc.(V_Rdc)	118.77	107.91	118.77
Shear Strength by Rebar.(V_Rds)	352.41	153.22	352.41
Required Shear Reinf. (Asw)	0.0016	0.0007	0.0015
Required Stirrups Spacing	2-P10 @100	2-P10 @230	2-P10 @100
Shear Ratio by Conc	2.9246	1.3912	2.9051
Shear Ratio by (V_Rds ; V_Rdmax)	0.9857	0.9798	0.9791
Check Ratio	0.9857	0.9798	0.9791

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 649
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	38-	44-
Moment (M_Ed)	382.02	184.72	0.00
Factored Strength (M_Rd)	412.01	190.71	74.86
Check Ratio (M_Ed/M_Rd)	0.9272	0.9686	0.0000
Neutral Axis (x/d)	0.2148	0.0752	0.0510
(+) Load Combination No.	44-	40+	38+
Moment (M_Ed)	0.00	143.10	218.13
Factored Strength (M_Rd)	74.90	146.47	222.16
Check Ratio (M_Ed/M_Rd)	0.0000	0.9770	0.9819
Neutral Axis (x/d)	0.0517	0.0613	0.1016
Required Rebar Top (As_top)	0.0017	0.0008	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0006	0.0009

4. Shear Capacity

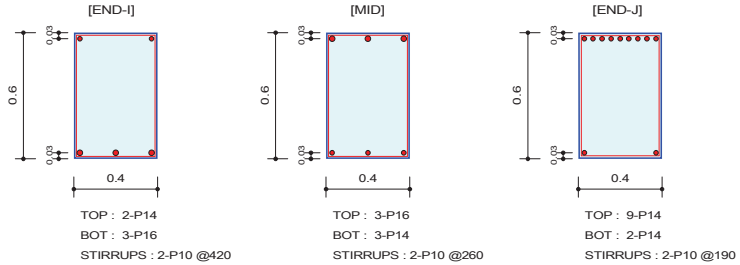
	END-I	MID	END-J
Load Combination No.	38-	38-	38-
Factored Shear Force (V_Ed)	219.65	168.32	67.68
Shear Strength by Conc.(V_Rdc)	117.93	90.00	94.88
Shear Strength by Rebar.(V_Rds)	220.26	176.20	83.91
Required Shear Reinf. (Asw)	0.0010	0.0008	0.0004
Required Stirrups Spacing	2-P10 @160	2-P10 @200	2-P10 @420
Shear Ratio by Conc	1.8625	1.8703	0.7133
Shear Ratio by (V_Rds ; V_Rdmax)	0.9973	0.9553	0.8066
Check Ratio	0.9973	0.9553	0.7133

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 650
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	39-	39-
Moment (M_Ed)	0.00	116.74	291.88
Factored Strength (M_Rd)	74.80	144.08	322.79
Check Ratio (M_Ed/M_Rd)	0.0000	0.8103	0.9042
Neutral Axis (x/d)	0.0503	0.0664	0.1543
(+) Load Combination No.	39+	36+	44-
Moment (M_Ed)	135.60	107.06	0.00
Factored Strength (M_Rd)	143.51	110.74	74.58
Check Ratio (M_Ed/M_Rd)	0.9449	0.9668	0.0000
Neutral Axis (x/d)	0.0698	0.0564	0.0514
Required Rebar Top (As_top)	0.0003	0.0005	0.0013
Required Rebar Bot (As_bot)	0.0006	0.0005	0.0003

4. Shear Capacity

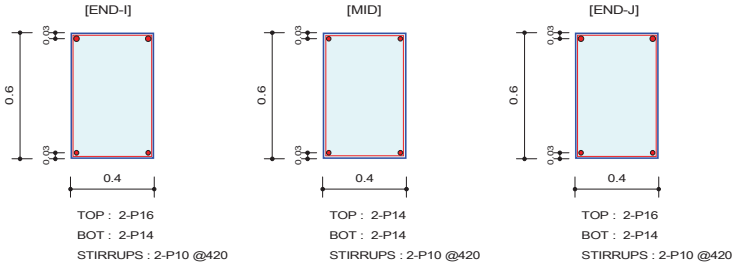
	END-I	MID	END-J
Load Combination No.	39+	39+	39+
Factored Shear Force (V_Ed)	30.89	130.89	179.00
Shear Strength by Conc.(V_Rdc)	81.77	81.77	107.91
Shear Strength by Rebar.(V_Rds)	83.91	135.54	185.48
Required Shear Reinf. (Asw)	0.0004	0.0006	0.0008
Required Stirrups Spacing	2-P10 @420	2-P10 @260	2-P10 @190
Shear Ratio by Conc	0.3777	1.6007	1.6588
Shear Ratio by (V_Rds ; V_Rdmax)	0.3681	0.9657	0.9651
Check Ratio	0.3777	0.9657	0.9651

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 651
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	42-	40-
Moment (M_Ed)	86.20	23.27	80.69
Factored Strength (M_Rd)	97.07	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.8880	0.3106	0.8313
Neutral Axis (x/d)	0.0547	0.0491	0.0547
(+) Load Combination No.	41+	37+	42+
Moment (M_Ed)	2.45	31.62	3.48
Factored Strength (M_Rd)	74.76	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.0328	0.4221	0.0465
Neutral Axis (x/d)	0.0496	0.0491	0.0496
Required Rebar Top (As_top)	0.0004	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

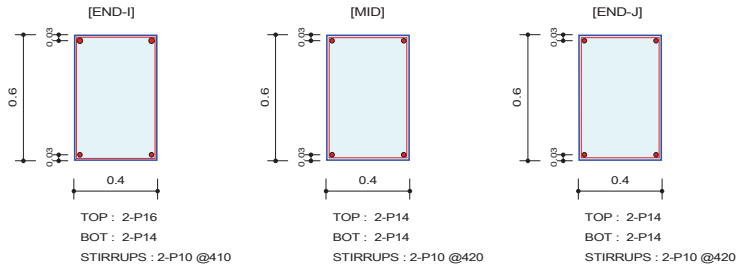
	END-I	MID	END-J
Load Combination No.	39-	39-	36+
Factored Shear Force (V_Ed)	73.93	50.98	71.16
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.9222	0.6359	0.8876
Shear Ratio by (V_Rds ; V_Rdmax)	0.8811	0.6076	0.8481
Check Ratio	0.9222	0.6359	0.8876

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 652
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.6 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	37-	43-	38-
Moment (M_Ed)	94.58	9.83	71.93
Factored Strength (M_Rd)	97.07	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.9744	0.1312	0.9601
Neutral Axis (x/d)	0.0547	0.0491	0.0491
(+) Load Combination No.	44+	40+	37+
Moment (M_Ed)	12.85	50.44	21.55
Factored Strength (M_Rd)	74.76	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.1718	0.6732	0.2876
Neutral Axis (x/d)	0.0496	0.0491	0.0491
Required Rebar Top (As_top)	0.0004	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

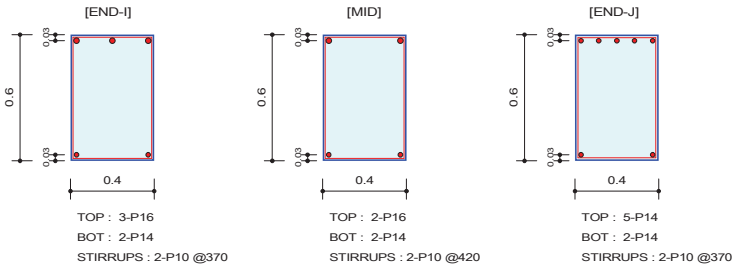
	END-I	MID	END-J
Load Combination No.	39-	39-	40+
Factored Shear Force (V_Ed)	85.47	57.16	79.11
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	85.95	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @410	2-P10 @420	2-P10 @420
Shear Ratio by Conc	1.0660	0.7130	0.9867
Shear Ratio by (V_Rds ; V_Rdmax)	0.9944	0.6813	0.9428
Check Ratio	0.9944	0.7130	0.9867

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 653
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	37-	38-	38-
Moment (M_Ed)	117.36	80.29	180.50
Factored Strength (M_Rd)	143.51	97.07	182.54
Check Ratio (M_Ed/M_Rd)	0.8178	0.8272	0.9888
Neutral Axis (x/d)	0.0698	0.0547	0.0845
(+) Load Combination No.	38+	37+	37+
Moment (M_Ed)	12.62	35.37	24.25
Factored Strength (M_Rd)	74.80	74.76	74.67
Check Ratio (M_Ed/M_Rd)	0.1687	0.4731	0.3248
Neutral Axis (x/d)	0.0503	0.0496	0.0507
Required Rebar Top (As_top)	0.0005	0.0003	0.0008
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

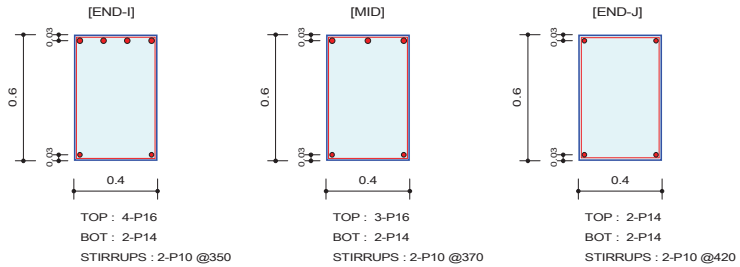
	END-I	MID	END-J
Load Combination No.	37-	38+	38+
Factored Shear Force (V_Ed)	95.15	76.13	93.13
Shear Strength by Conc.(V_Rdc)	81.77	80.17	88.71
Shear Strength by Rebar.(V_Rds)	95.25	83.91	95.25
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @370	2-P10 @420	2-P10 @370
Shear Ratio by Conc	1.1637	0.9495	1.0498
Shear Ratio by (V_Rds ; V_Rdmax)	0.9990	0.9073	0.9778
Check Ratio	0.9990	0.9495	0.9778

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 654
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 2.85 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	39-	39-
Moment (M_Ed)	186.95	132.90	28.14
Factored Strength (M_Rd)	190.88	143.51	74.92
Check Ratio (M_Ed/M_Rd)	0.9794	0.9261	0.3756
Neutral Axis (x/d)	0.0879	0.0698	0.0491
(+) Load Combination No.	44-	44-	36+
Moment (M_Ed)	0.00	0.00	1.52
Factored Strength (M_Rd)	75.13	74.80	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0203
Neutral Axis (x/d)	0.0508	0.0503	0.0491
Required Rebar Top (As_top)	0.0008	0.0006	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

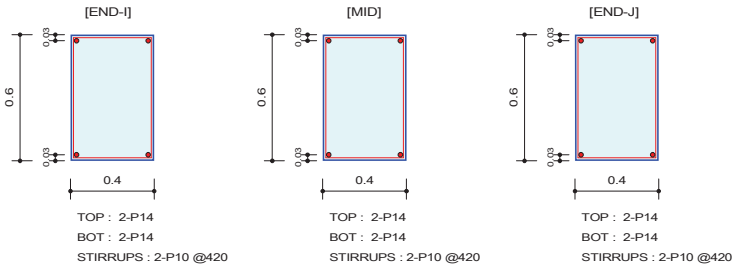
	END-I	MID	END-J
Load Combination No.	39-	39-	39-
Factored Shear Force (V_Ed)	98.36	93.80	44.49
Shear Strength by Conc.(V_Rdc)	90.00	81.77	80.17
Shear Strength by Rebar.(V_Rds)	100.69	95.25	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @350	2-P10 @370	2-P10 @420
Shear Ratio by Conc	1.0929	1.1471	0.5550
Shear Ratio by (V_Rds ; V_Rdmax)	0.9768	0.9848	0.5303
Check Ratio	0.9768	0.9848	0.5550

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 655
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 2.3 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	40-	40-
Moment (M_Ed)	3.98	36.10	59.64
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0532	0.4819	0.7961
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	39+	44-	44-
Moment (M_Ed)	4.00	0.00	0.00
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0535	0.0000	0.0000
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

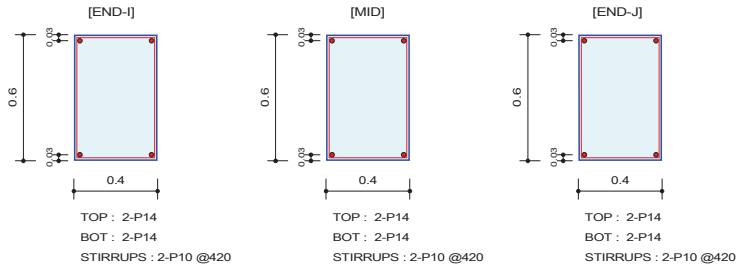
	END-I	MID	END-J
Load Combination No.	40+	40+	40+
Factored Shear Force (V_Ed)	15.65	38.61	43.27
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.1952	0.4816	0.5397
Shear Ratio by (V_Rds ; V_Rdmax)	0.1865	0.4602	0.5157
Check Ratio	0.1952	0.4816	0.5397

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 656
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	44-	44-
Moment (M_Ed)	51.17	0.00	0.00
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.6830	0.0000	0.0000
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	37+	39+	39+
Moment (M_Ed)	25.69	64.18	53.87
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.3429	0.8567	0.7190
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

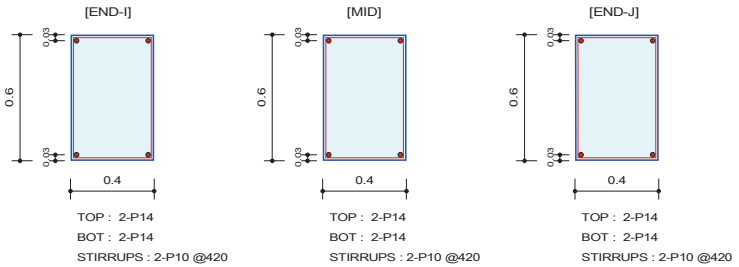
	END-I	MID	END-J
Load Combination No.	39-	40-	39+
Factored Shear Force (V_Ed)	59.47	43.53	35.41
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.7417	0.5430	0.4417
Shear Ratio by (V_Rds ; V_Rdmax)	0.7087	0.5188	0.4221
Check Ratio	0.7417	0.5430	0.4417

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 664
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.93326 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	10.14	38.73	56.56
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.1353	0.5170	0.7549
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	43+	43+	43+
Moment (M_Ed)	8.99	19.81	22.46
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.1200	0.2645	0.2998
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

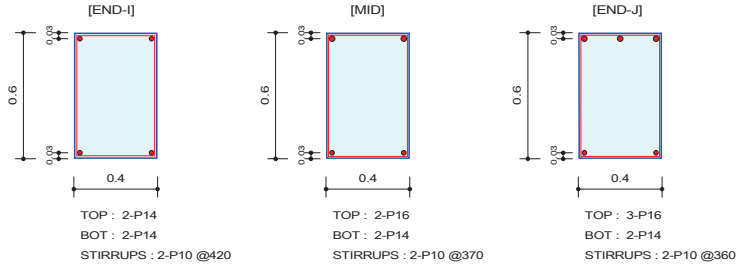
	END-I	MID	END-J
Load Combination No.	44+	44+	44+
Factored Shear Force (V_Ed)	22.83	35.42	38.32
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.2847	0.4418	0.4780
Shear Ratio by (V_Rds ; V_Rdmax)	0.2721	0.4222	0.4567
Check Ratio	0.2847	0.4418	0.4780

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 665
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.85856 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 2-P14	TOP : 2-P16	TOP : 3-P16
BOT : 2-P14	BOT : 2-P14	BOT : 2-P14
STIRRUPS : 2-P10 @420	STIRRUPS : 2-P10 @370	STIRRUPS : 2-P10 @360

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	43-	43-
Moment (M_Ed)	11.96	74.12	117.91
Factored Strength (M_Rd)	74.92	97.07	143.51
Check Ratio (M_Ed/M_Rd)	0.1596	0.7636	0.8216
Neutral Axis (x/d)	0.0491	0.0547	0.0698
(+) Load Combination No.	43+	44+	44+
Moment (M_Ed)	35.44	26.28	36.64
Factored Strength (M_Rd)	74.92	74.76	74.80
Check Ratio (M_Ed/M_Rd)	0.4731	0.3515	0.4899
Neutral Axis (x/d)	0.0491	0.0496	0.0503
Required Rebar Top (As_top)	0.0003	0.0003	0.0005
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

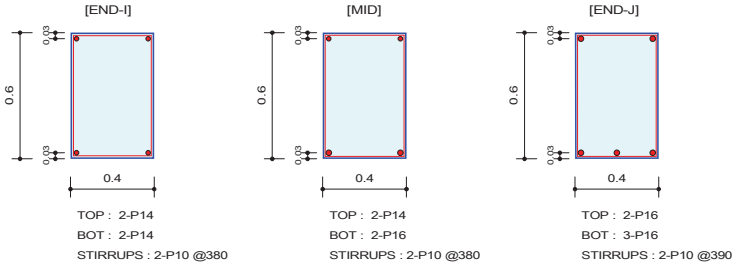
	END-I	MID	END-J
Load Combination No.	43+	43+	43+
Factored Shear Force (V_Ed)	71.06	92.85	95.63
Shear Strength by Conc.(V_Rdc)	80.17	80.17	81.77
Shear Strength by Rebar.(V_Rds)	83.91	95.25	97.89
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @370	2-P10 @360
Shear Ratio by Conc	0.8864	1.1581	1.1696
Shear Ratio by (V_Rds ; V_Rdmax)	0.8470	0.9748	0.9769
Check Ratio	0.8864	0.9748	0.9769

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 666
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.4 m

2. Section Diagram



[END-I]	[MID]	[END-J]
TOP : 2-P14	TOP : 2-P14	TOP : 2-P16
BOT : 2-P14	BOT : 2-P16	BOT : 3-P16
STIRRUPS : 2-P10 @380	STIRRUPS : 2-P10 @380	STIRRUPS : 2-P10 @390

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	44-
Moment (M_Ed)	7.85	51.25	75.25
Factored Strength (M_Rd)	74.92	74.76	97.07
Check Ratio (M_Ed/M_Rd)	0.1048	0.6855	0.7752
Neutral Axis (x/d)	0.0491	0.0496	0.0540
(+) Load Combination No.	43+	43+	43+
Moment (M_Ed)	27.24	93.94	125.00
Factored Strength (M_Rd)	74.92	97.07	143.26
Check Ratio (M_Ed/M_Rd)	0.3636	0.9678	0.8725
Neutral Axis (x/d)	0.0491	0.0547	0.0674
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0004	0.0005

4. Shear Capacity

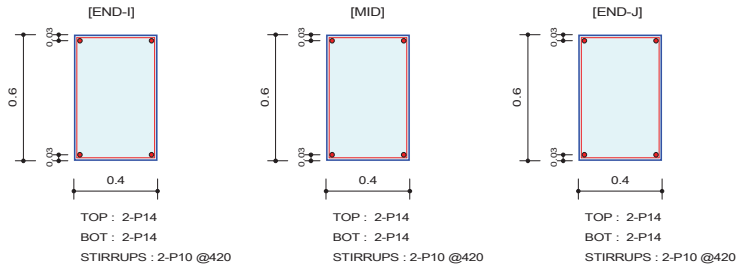
	END-I	MID	END-J
Load Combination No.	43-	43-	43-
Factored Shear Force (V_Ed)	91.25	91.90	89.80
Shear Strength by Conc.(V_Rdc)	80.17	80.17	81.77
Shear Strength by Rebar.(V_Rds)	92.74	92.74	90.36
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @380	2-P10 @380	2-P10 @390
Shear Ratio by Conc	1.1382	1.1462	1.0982
Shear Ratio by (V_Rds ; V_Rdmax)	0.9840	0.9909	0.9938
Check Ratio	0.9840	0.9909	0.9938

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 667
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 3.26 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	43-	43-
Moment (M_Ed)	52.26	28.54	47.46
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.6976	0.3810	0.6335
Neutral Axis (x/d)	0.0491	0.0491	0.0491
(+) Load Combination No.	43+	44+	44+
Moment (M_Ed)	23.32	50.45	62.63
Factored Strength (M_Rd)	74.92	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.3113	0.6734	0.8359
Neutral Axis (x/d)	0.0491	0.0491	0.0491
Required Rebar Top (As_top)	0.0003	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

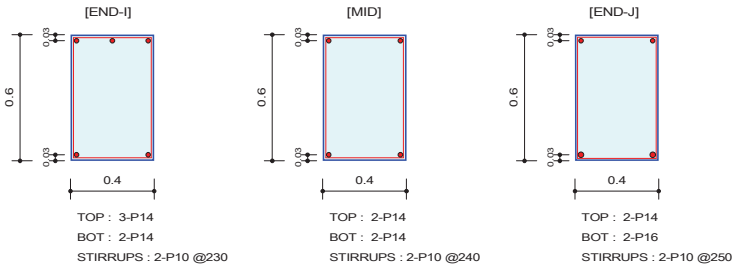
	END-I	MID	END-J
Load Combination No.	44-	43+	43+
Factored Shear Force (V_Ed)	51.36	50.74	52.93
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.6406	0.6329	0.6602
Shear Ratio by (V_Rds ; V_Rdmax)	0.6121	0.6047	0.6308
Check Ratio	0.6406	0.6329	0.6602

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 668
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.40001 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	38-	44-
Moment (M_Ed)	97.57	45.79	0.00
Factored Strength (M_Rd)	111.00	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.8790	0.6112	0.0000
Neutral Axis (x/d)	0.0586	0.0491	0.0496
(+) Load Combination No.	44-	38+	38+
Moment (M_Ed)	0.00	41.98	76.62
Factored Strength (M_Rd)	74.67	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.0000	0.5603	0.7894
Neutral Axis (x/d)	0.0498	0.0491	0.0547
Required Rebar Top (As_top)	0.0004	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

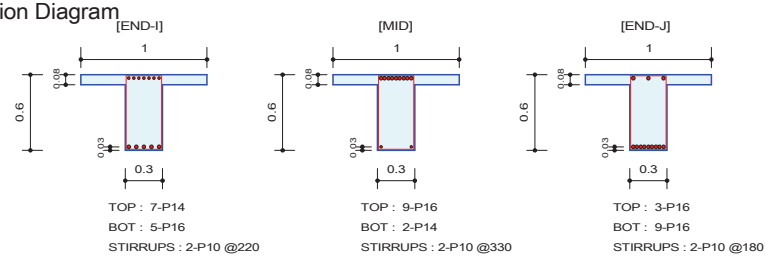
	END-I	MID	END-J
Load Combination No.	38-	38-	38-
Factored Shear Force (V_Ed)	149.36	146.53	139.60
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	153.22	146.84	140.96
Required Shear Reinf. (Asw)	0.0007	0.0007	0.0006
Required Stirrups Spacing	2-P10 @230	2-P10 @240	2-P10 @250
Shear Ratio by Conc	1.8630	1.8276	1.7412
Shear Ratio by (V_Rds ; V_Rdmax)	0.9748	0.9979	0.9903
Check Ratio	0.9748	0.9979	0.9903

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 36
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 12.1265 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	36-
Moment (M_Ed)	164.08	263.53	95.37
Factored Strength (M_Rd)	253.56	401.19	142.51
Check Ratio (M_Ed/M_Rd)	0.6471	0.6569	0.6692
Neutral Axis (x/d)	0.0879	0.2852	0.0585
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	226.46	45.73	369.88
Factored Strength (M_Rd)	241.49	78.43	431.26
Check Ratio (M_Ed/M_Rd)	0.9378	0.5831	0.8577
Neutral Axis (x/d)	0.0542	0.0451	0.0840
Required Rebar Top (As_top)	0.0007	0.0012	0.0004
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0018

4. Shear Capacity

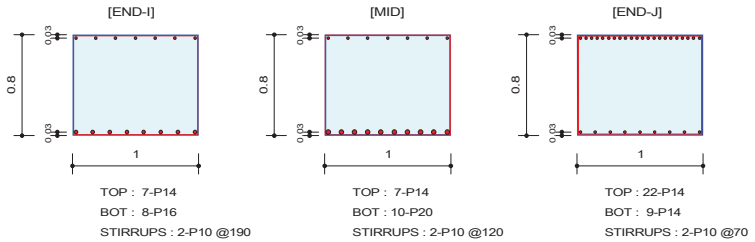
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	153.44	106.06	193.02
Shear Strength by Conc.(V_Rdc)	81.92	97.35	97.35
Shear Strength by Rebar.(V_Rds)	160.19	106.79	195.78
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0009
Required Stirrups Spacing	2-P10 @220	2-P10 @330	2-P10 @180
Shear Ratio by Conc	1.8730	1.0895	1.9827
Shear Ratio by (V_Rds ; V_Rdmax)	0.9579	0.9932	0.9859
Check Ratio	0.9579	0.9932	0.9859

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 12089
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: EZ100/80 (No : 23) Beam Span : 13.8974 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	36-	44-	40-
Moment (M_Ed)	285.51	0.00	1048.02
Factored Strength (M_Rd)	354.04	352.36	1084.74
Check Ratio (M_Ed/M_Rd)	0.8064	0.0000	0.9661
Neutral Axis (x/d)	0.0408	0.0400	0.0908
(+) Load Combination No.	40+	36+	36+
Moment (M_Ed)	500.51	979.93	435.93
Factored Strength (M_Rd)	521.62	1007.15	453.07
Check Ratio (M_Ed/M_Rd)	0.9595	0.9730	0.9622
Neutral Axis (x/d)	0.0515	0.0918	0.0420
Required Rebar Top (As_top)	0.0010	0.0010	0.0034
Required Rebar Bot (As_bot)	0.0016	0.0031	0.0014

4. Shear Capacity

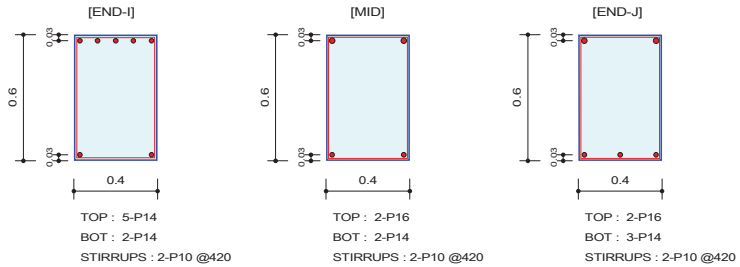
	END-I	MID	END-J
Load Combination No.	36-	40+	40+
Factored Shear Force (V_Ed)	140.20	388.27	643.80
Shear Strength by Conc.(V_Rdc)	249.94	302.46	310.23
Shear Strength by Rebar.(V_Rds)	250.56	396.72	680.09
Required Shear Reinf. (Asw)	0.0008	0.0013	0.0021
Required Stirrups Spacing	2-P10 @190	2-P10 @120	2-P10 @70
Shear Ratio by Conc	0.5609	1.2837	2.0752
Shear Ratio by (V_Rds ; V_Rdmax)	0.5596	0.9787	0.9466
Check Ratio	0.5609	0.9787	0.9466

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 12092
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	43-
Moment (M_Ed)	172.84	90.12	89.98
Factored Strength (M_Rd)	182.54	97.07	96.93
Check Ratio (M_Ed/M_Rd)	0.9468	0.9285	0.9283
Neutral Axis (x/d)	0.0845	0.0547	0.0542
(+) Load Combination No.	43+	44+	44+
Moment (M_Ed)	22.07	49.07	102.91
Factored Strength (M_Rd)	74.67	74.76	110.69
Check Ratio (M_Ed/M_Rd)	0.2956	0.6564	0.9297
Neutral Axis (x/d)	0.0507	0.0496	0.0576
Required Rebar Top (As_top)	0.0007	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0004

4. Shear Capacity

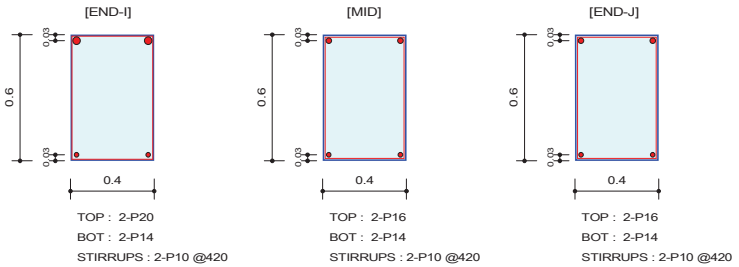
	END-I	MID	END-J
Load Combination No.	44-	44-	44-
Factored Shear Force (V_Ed)	70.55	63.12	48.27
Shear Strength by Conc.(V_Rdc)	88.71	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.7953	0.7873	0.6021
Shear Ratio by (V_Rds ; V_Rdmax)	0.8408	0.7523	0.5753
Check Ratio	0.7953	0.7873	0.6021

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 12093
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	43-
Moment (M_Ed)	146.74	84.18	94.27
Factored Strength (M_Rd)	149.09	97.07	97.07
Check Ratio (M_Ed/M_Rd)	0.9843	0.8672	0.9712
Neutral Axis (x/d)	0.0718	0.0547	0.0547
(+) Load Combination No.	43+	44+	44+
Moment (M_Ed)	12.82	13.96	48.40
Factored Strength (M_Rd)	74.76	74.76	74.76
Check Ratio (M_Ed/M_Rd)	0.1715	0.1867	0.6474
Neutral Axis (x/d)	0.0504	0.0496	0.0496
Required Rebar Top (As_top)	0.0006	0.0004	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

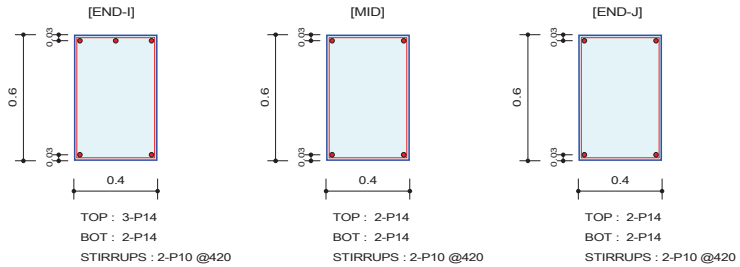
	END-I	MID	END-J
Load Combination No.	44-	44-	43+
Factored Shear Force (V_Ed)	54.27	46.85	36.48
Shear Strength by Conc.(V_Rdc)	82.88	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.6548	0.5843	0.4550
Shear Ratio by (V_Rds ; V_Rdmax)	0.6468	0.5583	0.4348
Check Ratio	0.6548	0.5843	0.4550

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 12094
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	36-	43-
Moment (M_Ed)	96.70	60.67	70.93
Factored Strength (M_Rd)	111.00	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.8711	0.8099	0.9468
Neutral Axis (x/d)	0.0586	0.0491	0.0491
(+) Load Combination No.	44-	44-	44-
Moment (M_Ed)	0.00	0.00	0.00
Factored Strength (M_Rd)	74.67	74.92	74.92
Check Ratio (M_Ed/M_Rd)	0.0000	0.0000	0.0000
Neutral Axis (x/d)	0.0498	0.0491	0.0491
Required Rebar Top (As_top)	0.0004	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

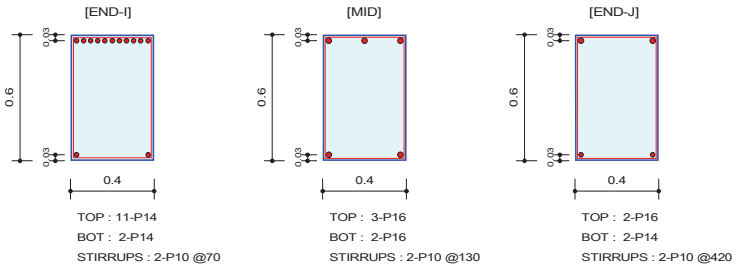
	END-I	MID	END-J
Load Combination No.	39-	44-	43+
Factored Shear Force (V_Ed)	34.59	26.14	27.01
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.4314	0.3260	0.3369
Shear Ratio by (V_Rds ; V_Rdmax)	0.4122	0.3115	0.3219
Check Ratio	0.4314	0.3260	0.3369

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 12095
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 5.4 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	40-	43-
Moment (M_Ed)	369.00	123.36	84.38
Factored Strength (M_Rd)	388.25	143.26	97.07
Check Ratio (M_Ed/M_Rd)	0.9504	0.8611	0.8693
Neutral Axis (x/d)	0.1992	0.0674	0.0547
(+) Load Combination No.	44-	40+	44+
Moment (M_Ed)	0.00	75.32	70.31
Factored Strength (M_Rd)	74.84	97.07	74.76
Check Ratio (M_Ed/M_Rd)	0.0000	0.7759	0.9405
Neutral Axis (x/d)	0.0516	0.0540	0.0496
Required Rebar Top (As_top)	0.0017	0.0005	0.0004
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0003

4. Shear Capacity

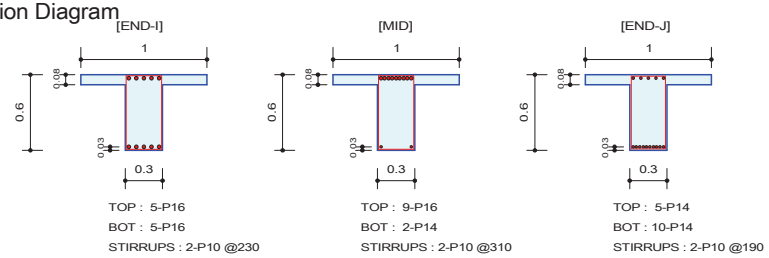
	END-I	MID	END-J
Load Combination No.	40-	40-	40+
Factored Shear Force (V_Ed)	444.93	255.15	57.44
Shear Strength by Conc.(V_Rdc)	115.38	81.77	80.17
Shear Strength by Rebar.(V_Rds)	503.44	271.08	83.91
Required Shear Reinf. (Asw)	0.0020	0.0011	0.0004
Required Stirrups Spacing	2-P10 @70	2-P10 @130	2-P10 @420
Shear Ratio by Conc	3.8562	3.1204	0.7165
Shear Ratio by (V_Rds ; V_Rdmax)	0.8838	0.9412	0.6846
Check Ratio	0.8838	0.9412	0.7165

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 50
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB60+SL (No : 21) Beam Span : 11.9326 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	151.35	258.12	111.31
Factored Strength (M_Rd)	236.27	401.19	182.01
Check Ratio (M_Ed/M_Rd)	0.6406	0.6434	0.6116
Neutral Axis (x/d)	0.0835	0.2852	0.0637
(+) Load Combination No.	36+	43+	40+
Moment (M_Ed)	224.02	1.53	307.31
Factored Strength (M_Rd)	242.02	78.43	365.79
Check Ratio (M_Ed/M_Rd)	0.9256	0.0195	0.8401
Neutral Axis (x/d)	0.0543	0.0451	0.0708
Required Rebar Top (As_top)	0.0006	0.0012	0.0005
Required Rebar Bot (As_bot)	0.0010	0.0002	0.0014

4. Shear Capacity

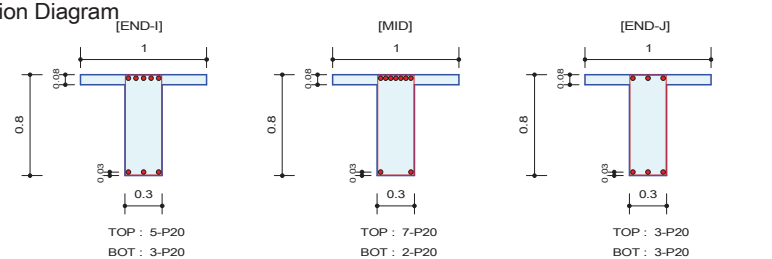
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	150.71	112.04	178.66
Shear Strength by Conc.(V_Rdc)	80.03	97.35	92.27
Shear Strength by Rebar.(V_Rds)	153.22	113.68	185.48
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0008
Required Stirrups Spacing	2-P10 @230	2-P10 @310	2-P10 @190
Shear Ratio by Conc	1.8832	1.1509	1.9364
Shear Ratio by (V_Rds ; V_Rdmax)	0.9836	0.9856	0.9632
Check Ratio	0.9836	0.9856	0.9632

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 55
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB80+SL (No : 25) Beam Span : 12.8634 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	40-	36-	36-
Moment (M_Ed)	270.01	402.76	197.77
Factored Strength (M_Rd)	504.22	679.94	302.46
Check Ratio (M_Ed/M_Rd)	0.5355	0.5923	0.6539
Neutral Axis (x/d)	0.0977	0.2227	0.0605
(+) Load Combination No.	36+	44-	40+
Moment (M_Ed)	265.33	0.00	247.75
Factored Strength (M_Rd)	309.55	207.52	310.14
Check Ratio (M_Ed/M_Rd)	0.8571	0.0000	0.7988
Neutral Axis (x/d)	0.0392	0.0365	0.0393
Required Rebar Top (As_top)	0.0009	0.0013	0.0006
Required Rebar Bot (As_bot)	0.0008	0.0003	0.0008

4. Shear Capacity

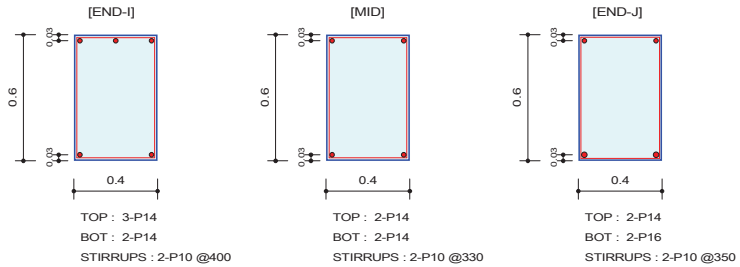
	END-I	MID	END-J
Load Combination No.	36+	40-	40-
Factored Shear Force (V_Ed)	202.76	155.84	155.84
Shear Strength by Conc.(V_Rdc)	107.58	120.35	90.74
Shear Strength by Rebar.(V_Rds)	206.98	158.69	158.69
Required Shear Reinf. (Asw)	0.0007	0.0005	0.0005
Required Stirrups Spacing	2-P10 @230	2-P10 @300	2-P10 @300
Shear Ratio by Conc	1.8847	1.2948	1.7174
Shear Ratio by (V_Rds ; V_Rdmax)	0.9796	0.9820	0.9820
Check Ratio	0.9796	0.9820	0.9820

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 327
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 1.93326 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	43-	43-	44-
Moment (M_Ed)	99.03	57.88	23.04
Factored Strength (M_Rd)	111.00	74.92	74.76
Check Ratio (M_Ed/M_Rd)	0.8921	0.7726	0.3081
Neutral Axis (x/d)	0.0586	0.0491	0.0496
(+) Load Combination No.	44-	43+	43+
Moment (M_Ed)	0.00	35.17	82.65
Factored Strength (M_Rd)	74.67	74.92	97.07
Check Ratio (M_Ed/M_Rd)	0.0000	0.4694	0.8515
Neutral Axis (x/d)	0.0498	0.0491	0.0547
Required Rebar Top (As_top)	0.0004	0.0003	0.0003
Required Rebar Bot (As_bot)	0.0003	0.0003	0.0004

4. Shear Capacity

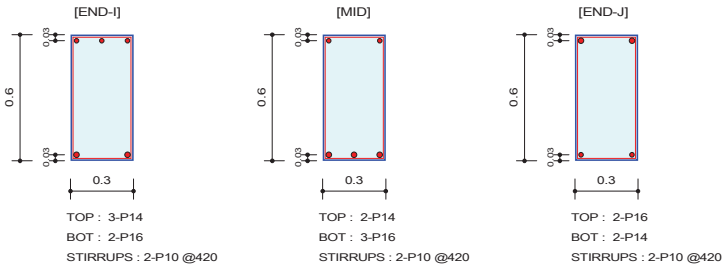
	END-I	MID	END-J
Load Combination No.	43-	43-	43-
Factored Shear Force (V_Ed)	86.75	105.62	99.81
Shear Strength by Conc.(V_Rdc)	80.17	80.17	80.17
Shear Strength by Rebar.(V_Rds)	88.10	106.79	100.69
Required Shear Reinf. (Asw)	0.0004	0.0005	0.0004
Required Stirrups Spacing	2-P10 @400	2-P10 @330	2-P10 @350
Shear Ratio by Conc	1.0821	1.3174	1.2449
Shear Ratio by (V_Rds ; V_Rdmax)	0.9847	0.9890	0.9913
Check Ratio	0.9847	0.9890	0.9913

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 367
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: RIB30/60 (No : 20) Beam Span : 21.41 m

2. Section Diagram



3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	38-	40-	39-
Moment (M_Ed)	105.13	35.12	89.93
Factored Strength (M_Rd)	110.24	74.20	96.20
Check Ratio (M_Ed/M_Rd)	0.9536	0.4734	0.9348
Neutral Axis (x/d)	0.0647	0.0540	0.0620
(+) Load Combination No.	38+	39+	44-
Moment (M_Ed)	85.72	135.91	0.00
Factored Strength (M_Rd)	95.91	143.10	74.27
Check Ratio (M_Ed/M_Rd)	0.8937	0.9497	0.0000
Neutral Axis (x/d)	0.0596	0.0825	0.0544
Required Rebar Top (As_top)	0.0004	0.0002	0.0004
Required Rebar Bot (As_bot)	0.0004	0.0006	0.0002

4. Shear Capacity

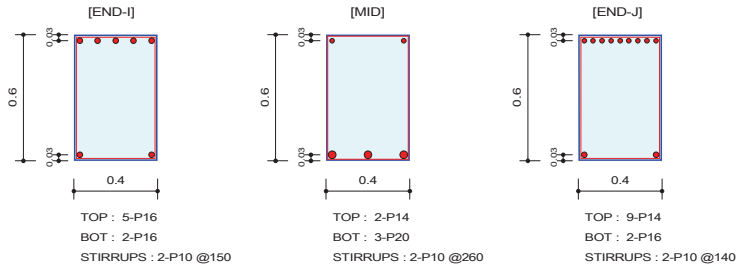
	END-I	MID	END-J
Load Combination No.	40-	40-	44+
Factored Shear Force (V_Ed)	34.51	50.93	31.96
Shear Strength by Conc.(V_Rdc)	61.77	67.50	60.13
Shear Strength by Rebar.(V_Rds)	83.91	83.91	83.91
Required Shear Reinf. (Asw)	0.0004	0.0004	0.0004
Required Stirrups Spacing	2-P10 @420	2-P10 @420	2-P10 @420
Shear Ratio by Conc	0.5587	0.7546	0.5314
Shear Ratio by (V_Rds ; V_Rdmax)	0.4113	0.6070	0.3808
Check Ratio	0.5587	0.7546	0.5314

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 377
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: B40/60 (No : 3) Beam Span : 8.5 m

2. Section Diagram



[END-I] TOP : 5-P16 BOT : 2-P16 STIRRUPS : 2-P10 @150
[MID] TOP : 2-P14 BOT : 3-P20 STIRRUPS : 2-P10 @260
[END-J] TOP : 9-P14 BOT : 2-P16 STIRRUPS : 2-P10 @140

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	39-	44-	39-
Moment (M_Ed)	223.45	0.00	304.62
Factored Strength (M_Rd)	236.11	74.86	324.28
Check Ratio (M_Ed/M_Rd)	0.9464	0.0000	0.9393
Neutral Axis (x/d)	0.1006	0.0510	0.1426
(+) Load Combination No.	40+	39+	40+
Moment (M_Ed)	72.81	216.46	86.15
Factored Strength (M_Rd)	96.60	222.16	96.77
Check Ratio (M_Ed/M_Rd)	0.7537	0.9744	0.8902
Neutral Axis (x/d)	0.0535	0.1016	0.0533
Required Rebar Top (As_top)	0.0010	0.0003	0.0014
Required Rebar Bot (As_bot)	0.0003	0.0009	0.0004

4. Shear Capacity

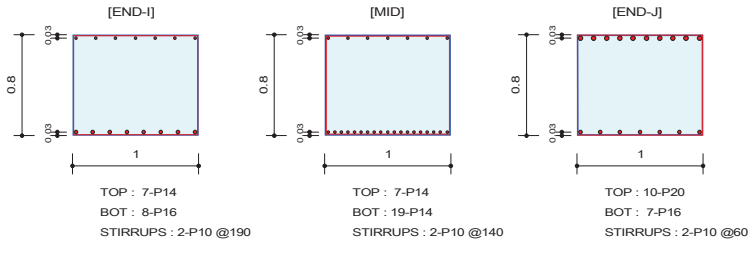
	END-I	MID	END-J
Load Combination No.	39-	40-	39+
Factored Shear Force (V_Ed)	223.43	134.05	235.00
Shear Strength by Conc.(V_Rdc)	96.95	94.88	107.91
Shear Strength by Rebar.(V_Rds)	234.94	135.54	251.72
Required Shear Reinf. (Asw)	0.0010	0.0006	0.0011
Required Stirrups Spacing	2-P10 @150	2-P10 @260	2-P10 @140
Shear Ratio by Conc	2.3046	1.4128	2.1777
Shear Ratio by (V_Rds ; V_Rdmax)	0.9510	0.9890	0.9336
Check Ratio	0.9510	0.9890	0.9336

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Member Number: 12086
Design Code : Eurocode2:04 Unit System : kN, m
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Section Property: EZ100/80 (No : 23) Beam Span : 13.8974 m

2. Section Diagram



[END-I] TOP : 7-P14 BOT : 8-P16 STIRRUPS : 2-P10 @190
[MID] TOP : 7-P14 BOT : 19-P14 STIRRUPS : 2-P10 @140
[END-J] TOP : 10-P20 BOT : 7-P16 STIRRUPS : 2-P10 @60

3. Bending Moment Capacity

	END-I	MID	END-J
(-) Load Combination No.	44-	44-	40-
Moment (M_Ed)	196.13	0.00	976.22
Factored Strength (M_Rd)	354.04	352.26	1009.41
Check Ratio (M_Ed/M_Rd)	0.5540	0.0000	0.9671
Neutral Axis (x/d)	0.0408	0.0400	0.0835
(+) Load Combination No.	40+	36+	36+
Moment (M_Ed)	503.24	904.31	442.13
Factored Strength (M_Rd)	521.62	937.86	459.64
Check Ratio (M_Ed/M_Rd)	0.9648	0.9642	0.9619
Neutral Axis (x/d)	0.0515	0.0850	0.0424
Required Rebar Top (As_top)	0.0010	0.0010	0.0031
Required Rebar Bot (As_bot)	0.0016	0.0029	0.0014

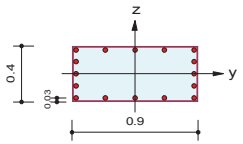
4. Shear Capacity

	END-I	MID	END-J
Load Combination No.	44+	40+	40+
Factored Shear Force (V_Ed)	77.57	317.44	712.89
Shear Strength by Conc.(V_Rdc)	249.94	295.43	302.46
Shear Strength by Rebar.(V_Rds)	250.56	340.04	793.43
Required Shear Reinf. (Asw)	0.0008	0.0011	0.0024
Required Stirrups Spacing	2-P10 @190	2-P10 @140	2-P10 @60
Shear Ratio by Conc	0.3103	1.0745	2.3569
Shear Ratio by (V_Rds ; V_Rdmax)	0.3096	0.9335	0.8985
Check Ratio	0.3103	0.9335	0.8985

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 1
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.87 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 16 - 5 - P18 Ast = 0.004064 m^2 (Rhost = 0.011)



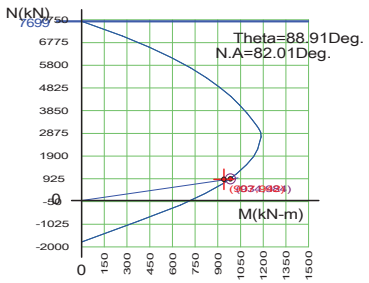
2. Applied Loads

Load Combination : 43- AT (I) Point
N_Ed = 907.174 kN M_Edy = 17.1221 kN-m M_Edz = 942.300 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 942.455 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 7699.22 kN		
Axial Load Ratio	N_Ed/N_Rd	= 907.174 / 933.817	= 0.971 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 942.455 / 984.005	= 0.958 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 17.1221 / 18.7038	= 0.915 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 942.300 / 983.827	= 0.958 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
7699.22	0.00
6600.43	447.05
5704.46	721.83
4865.34	914.78
4094.32	1046.00
3441.00	1132.29
3053.24	1175.88
2744.09	1187.56
2218.50	1165.62
1542.18	1091.94
740.92	937.56
-196.36	653.52
-1766.96	0.00

5. Shear Force Capacity Check

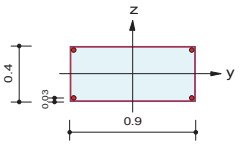
Applied Shear Strength	V_Ed	= 404.684 kN (Load Combination : 43-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 404.684 / 282.534 = 1.432
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 404.684 / 413.759 = 0.978
Shear Ratio	V_Ed/V_Rd	= 0.978 < 1.000 ..... O.K

(Asw-H_req = 0.00119 m^2/m, 2-P10 @130)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 2
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.87 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.002)



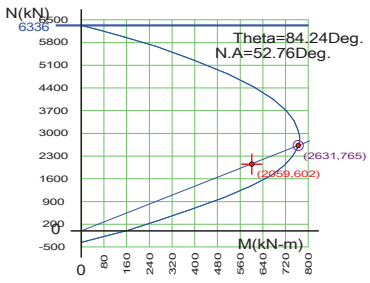
2. Applied Loads

Load Combination : 43- AT (I) Point
N_Ed = 2059.01 kN M_Edy = 58.6718 kN-m M_Edz = 599.458 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 602.322 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6336.17 kN		
Axial Load Ratio	N_Ed/N_Rd	= 2059.01 / 2630.90	= 0.783 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 602.322 / 765.278	= 0.787 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 58.6718 / 76.7595	= 0.764 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 599.458 / 761.418	= 0.787 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6336.17	0.00
5983.65	153.34
5284.06	392.97
4438.97	609.35
3712.90	722.25
3138.33	764.43
2816.83	771.20
2541.70	760.92
2031.05	717.97
1392.76	599.40
652.62	387.39
27.79	165.91
-349.57	0.00

5. Shear Force Capacity Check

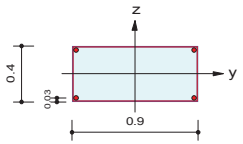
Applied Shear Strength	V_Ed	= 190.331 kN (Load Combination : 43-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 190.331 / 283.591 = 0.671
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 190.331 / 283.098 = 0.672
Shear Ratio	V_Ed/V_Rd	= 0.671 < 1.000 ..... O.K

(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 3
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.34 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.002)



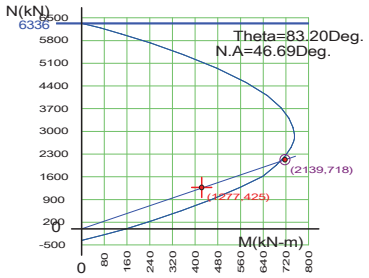
2. Applied Loads

Load Combination : 43- AT (I) Point
N_Ed = 1277.20 kN M_Edy = 51.6984 kN-m M_Edz = 421.588 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 424.746 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6336.17 kN		
Axial Load Ratio	N_Ed/N_Rd	= 1277.20 / 2139.31	= 0.597 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 424.746 / 717.755	= 0.592 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 51.6984 / 84.9749	= 0.608 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 421.588 / 712.707	= 0.592 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6336.17	0.00
6011.52	141.79
5372.46	359.19
4517.82	581.30
3745.04	702.86
3134.84	745.92
2795.22	751.46
2504.95	738.69
1966.61	687.95
1278.86	558.65
561.76	352.62
8.31	157.69
-349.57	0.00

5. Shear Force Capacity Check

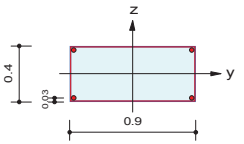
Applied Shear Strength	V_Ed	= 133.534 kN (Load Combination : 43-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 133.534 / 283.591 = 0.471
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 133.534 / 283.098 = 0.472
Shear Ratio	V_Ed/V_Rd	= 0.471 < 1.000 ..... O.K

(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 4
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.87 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.002)



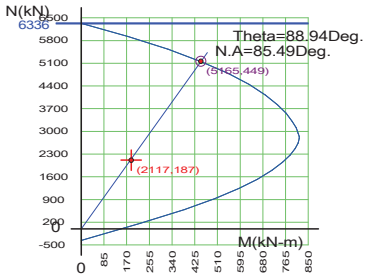
2. Applied Loads

Load Combination : 36- AT (J) Point
N_Ed = 2117.43 kN M_Edy = 3.39903 kN-m M_Edz = 187.335 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 187.366 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6336.17 kN		
Axial Load Ratio	N_Ed/N_Rd	= 2117.43 / 5164.80	= 0.410 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 187.366 / 448.746	= 0.418 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 3.39903 / 8.28677	= 0.410 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 187.335 / 448.669	= 0.418 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6336.17	0.00
5538.57	326.66
4798.38	550.43
4135.47	690.47
3564.23	768.56
3112.43	805.17
2859.87	817.10
2651.77	812.48
2283.73	783.09
1807.13	714.85
1242.75	589.99
593.11	386.59
-349.57	0.00

5. Shear Force Capacity Check

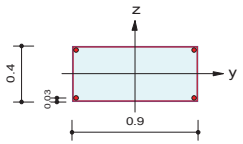
Applied Shear Strength	V_Ed	= 90.3042 kN (Load Combination : 26)
Shear Ratio by Conc	V_Ed/V_Rdc	= 90.3042 / 272.200 = 0.332
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 90.3042 / 283.098 = 0.319
Shear Ratio	V_Ed/V_Rd	= 0.332 < 1.000 ..... O.K

(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 5
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.87 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P22 Ast = 0.00152 m^2 (Rhost = 0.004)



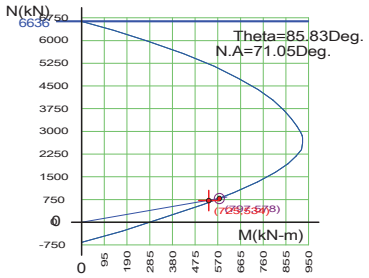
2. Applied Loads

Load Combination : 44+ AT (I) Point
N_Ed = 725.310 kN M_Edy = 39.2049 kN-m M_Edz = 532.631 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 534.072 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6635.54 kN		
Axial Load Ratio	N_Ed/N_Rd	= 725.310 / 796.519	= 0.911 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 534.072 / 578.297	= 0.924 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 39.2049 / 42.0467	= 0.932 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 532.631 / 576.766	= 0.923 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6635.54	0.00
6008.79	270.57
5157.33	555.60
4386.81	738.99
3715.26	846.56
3177.17	902.66
2872.86	924.57
2621.87	926.37
2191.07	898.76
1658.30	811.97
988.50	639.15
153.20	344.06
-660.87	0.00

5. Shear Force Capacity Check

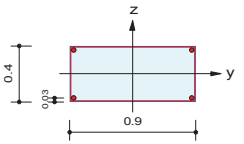
Applied Shear Strength	V_Ed	= 22.2427 kN (Load Combination : 41+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 22.2427 / 224.651 = 0.099
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 22.2427 / 108.932 = 0.204
Shear Ratio	V_Ed/V_Rd	= 0.099 < 1.000 ..... O.K

(Asw-H_req = 0.00072 m^2/m, 2-P10 @210)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 6
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.87 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.002)



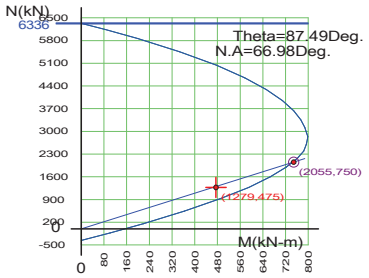
2. Applied Loads

Load Combination : 44+ AT (I) Point
N_Ed = 1279.29 kN M_Edy = 20.8672 kN-m M_Edz = 474.749 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 475.207 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6336.17 kN		
Axial Load Ratio	N_Ed/N_Rd	= 1279.29 / 2055.19	= 0.622 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 475.207 / 749.514	= 0.634 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 20.8672 / 32.8577	= 0.635 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 474.749 / 748.794	= 0.634 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6336.17	0.00
5870.34	199.34
5048.00	476.60
4291.68	653.95
3642.06	748.65
3130.19	788.62
2844.98	798.87
2600.73	794.33
2162.53	762.13
1607.10	667.13
935.45	491.82
168.11	220.33
-349.57	0.00

5. Shear Force Capacity Check

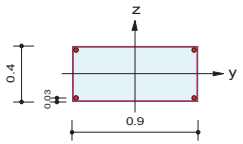
Applied Shear Strength	V_Ed	= 214.974 kN (Load Combination : 43-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 214.974 / 283.591 = 0.758
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 214.974 / 283.098 = 0.759
Shear Ratio	V_Ed/V_Rd	= 0.758 < 1.000 ..... O.K

(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 7
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.87 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.002)



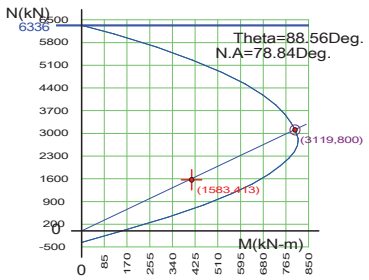
2. Applied Loads

Load Combination : 43+ AT (J) Point
N_Ed = 1582.73 kN M_Edy = 10.6655 kN-m M_Edz = 412.749 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 412.887 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6336.17 kN		
Axial Load Ratio	N_Ed/N_Rd	= 1582.73 / 3119.23	= 0.507 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 412.887 / 800.226	= 0.516 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 10.6655 / 20.1052	= 0.530 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 412.749 / 799.974	= 0.516 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6336.17	0.00
5660.88	281.65
4884.32	526.77
4189.51	679.03
3591.52	762.54
3119.23	800.23
2855.55	811.59
2628.99	809.59
2242.26	777.22
1742.45	701.70
1149.21	563.27
428.42	323.24
-349.57	0.00

5. Shear Force Capacity Check

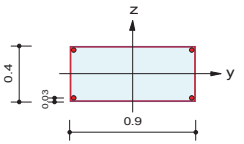
Applied Shear Strength	V_Ed	= 192.137 kN (Load Combination : 43-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 192.137 / 283.591 = 0.678
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 192.137 / 283.098 = 0.679
Shear Ratio	V_Ed/V_Rd	= 0.678 < 1.000 ..... O.K

(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 8
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.87 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.002)



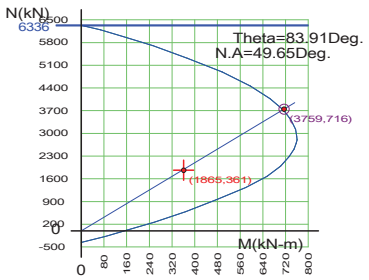
2. Applied Loads

Load Combination : 43+ AT (J) Point
N_Ed = 1864.83 kN M_Edy = 40.0799 kN-m M_Edz = 358.723 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 360.956 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6336.17 kN		
Axial Load Ratio	N_Ed/N_Rd	= 1864.83 / 3759.33	= 0.496 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 360.956 / 716.087	= 0.504 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 40.0799 / 75.9821	= 0.527 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 358.723 / 712.044	= 0.504 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6336.17	0.00
5998.81	147.08
5332.65	374.55
4477.66	595.95
3729.94	713.50
3136.62	755.57
2806.25	761.73
2523.71	750.24
1999.50	703.50
1336.81	579.80
603.51	368.67
17.05	161.40
-349.57	0.00

5. Shear Force Capacity Check

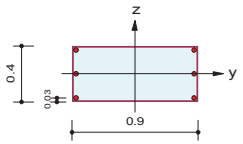
Applied Shear Strength	V_Ed	= 155.618 kN (Load Combination : 43-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 155.618 / 283.591 = 0.549
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 155.618 / 283.098 = 0.550
Shear Ratio	V_Ed/V_Rd	= 0.549 < 1.000 ..... O.K

(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 324
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.88 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 6 - 3 - P22 Ast = 0.00228 m^2 (Rhost = 0.006)



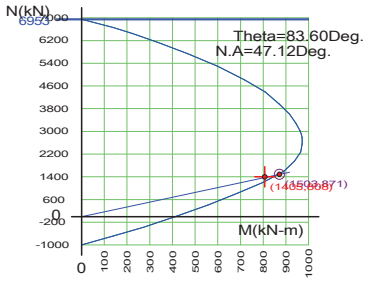
2. Applied Loads

Load Combination : 44- AT (J) Point
N_Ed = 1404.62 kN M_Edy = 87.5457 kN-m M_Edz = 802.884 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 807.642 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6953.30 kN		
Axial Load Ratio	N_Ed/N_Rd	= 1404.62 / 1502.87	= 0.935 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 807.642 / 871.463	= 0.927 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 87.5457 / 97.1817	= 0.901 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 802.884 / 866.028	= 0.927 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6953.30	0.00
6454.33	224.26
5752.32	467.85
4827.71	719.90
3977.20	871.99
3285.14	944.84
2890.77	970.35
2558.75	971.76
1958.68	939.34
1220.61	802.02
410.43	557.14
-365.68	272.61
-991.30	0.00

5. Shear Force Capacity Check

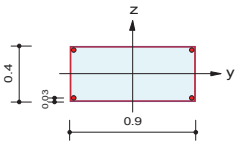
Applied Shear Strength	V_Ed	= 335.549 kN (Load Combination : 44+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 335.549 / 298.534 = 1.124
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 335.549 / 336.179 = 0.998
Shear Ratio	V_Ed/V_Rd	= 0.998 < 1.000 ..... O.K

(Asw-H_req = 0.00099 m^2/m, 2-P10 @160)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 325
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.35 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.002)



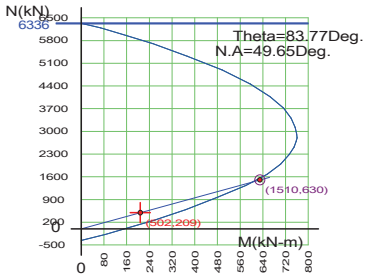
2. Applied Loads

Load Combination : 44+ AT (I) Point
N_Ed = 501.655 kN M_Edy = 23.2635 kN-m M_Edz = 207.999 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 209.296 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6336.17 kN		
Axial Load Ratio	N_Ed/N_Rd	= 501.655 / 1510.07	= 0.332 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 209.296 / 630.197	= 0.332 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 23.2635 / 68.3858	= 0.340 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 207.999 / 626.475	= 0.332 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6336.17	0.00
5998.82	147.07
5332.70	374.53
4477.71	595.93
3729.96	713.49
3136.62	755.56
2806.23	761.72
2523.68	750.23
1999.46	703.48
1336.74	579.77
603.45	368.64
17.04	161.40
-349.57	0.00

5. Shear Force Capacity Check

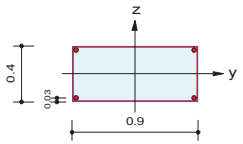
Applied Shear Strength	V_Ed	= 92.3074 kN (Load Combination : 44+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 92.3074 / 182.331 = 0.506
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 92.3074 / 283.098 = 0.326
Shear Ratio	V_Ed/V_Rd	= 0.506 < 1.000 ..... O.K

(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 326
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 4.88 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.002)



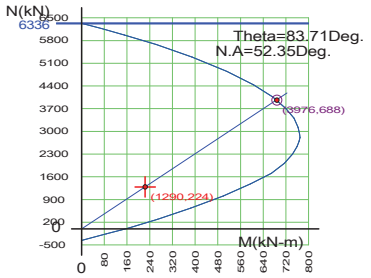
2. Applied Loads

Load Combination : 39+ AT (I) Point
N_Ed = 1289.76 kN M_Edy = 24.3620 kN-m M_Edz = 223.059 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 224.385 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6336.17 kN		
Axial Load Ratio	N_Ed/N_Rd	= 1289.76 / 3976.09	= 0.324 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 224.385 / 688.242	= 0.326 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 24.3620 / 75.4444	= 0.323 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 223.059 / 684.095	= 0.326 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6336.17	0.00
5985.73	152.49
5290.80	390.43
4443.80	607.72
3715.19	721.25
3138.11	763.35
2815.51	770.04
2539.45	759.61
2027.11	716.19
1385.76	596.99
645.91	384.84
26.30	165.29
-349.57	0.00

5. Shear Force Capacity Check

Applied Shear Strength	V_Ed	= 76.7472 kN (Load Combination : 44+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 76.7472 / 240.463 = 0.319
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 76.7472 / 283.098 = 0.271
Shear Ratio	V_Ed/V_Rd	= 0.319 < 1.000 ..... O.K

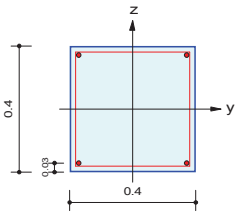
(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

midas Gen RC Column Design Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 581
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x40 (No : 1)
Rebar Pattern : 4 - 2 - P16 Ast = 0.000804 m^2 (Rhost = 0.005)



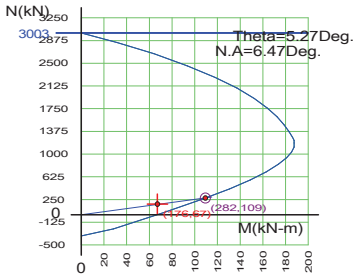
2. Applied Loads

Load Combination : 37- AT (J) Point
N_Ed = 175.829 kN M_Edy = 66.9025 kN-m M_Edz = 6.02229 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 67.1730 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 3002.83 kN		
Axial Load Ratio	N_Ed/N_Rd	= 175.829 / 281.648	= 0.624 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 67.1730 / 109.436	= 0.614 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 66.9025 / 108.974	= 0.614 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 6.02229 / 10.0441	= 0.600 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
3002.83	0.00
2659.75	64.07
2274.87	118.03
1924.83	152.58
1617.09	172.80
1367.84	183.48
1225.45	187.81
1118.14	187.78
943.28	181.06
716.61	163.42
432.25	130.98
35.91	72.45
-349.57	0.00

5. Shear Force Capacity Check

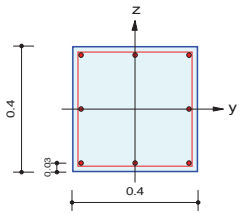
Applied Shear Strength	V_Ed	= 39.9954 kN (Load Combination : 37+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 39.9954 / 83.3057 = 0.480
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 39.9954 / 120.398 = 0.332
Shear Ratio	V_Ed/V_Rd	= 0.480 < 1.000 ..... O.K

(Asw-H_req = 0.00082 m^2/m, 2-P10 @190)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 582
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x40 (No : 1)
Rebar Pattern : 8 - 3 - P22 Ast = 0.00304 m^2 (Rhost = 0.019)



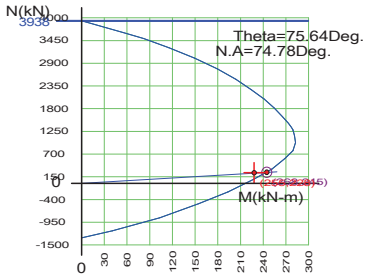
2. Applied Loads

Load Combination : 40+ AT (J) Point
N_Ed = 254.870 kN M_Edy = 55.3049 kN-m M_Edz = 221.225 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 228.033 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 3937.74 kN		
Axial Load Ratio	N_Ed/N_Rd	= 254.870 / 268.263	= 0.950 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 228.033 / 245.227	= 0.930 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 55.3049 / 60.8276	= 0.909 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 221.225 / 237.563	= 0.931 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
3937.74	0.00
3500.80	82.54
3024.35	149.92
2514.23	204.04
2037.87	241.50
1616.49	265.60
1359.70	277.84
1157.88	281.88
797.11	279.81
345.77	252.21
-205.61	193.41
-834.08	103.77
-1321.74	0.00

5. Shear Force Capacity Check

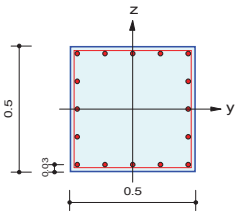
Applied Shear Strength	V_Ed	= 133.108 kN (Load Combination : 40+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 133.108 / 126.278 = 1.054
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 133.108 / 134.563 = 0.989
Shear Ratio	V_Ed/V_Rd	= 0.989 < 1.000 ..... O.K

(Asw-H_req = 0.00092 m^2/m, 2-P10 @170)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 589
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C50x50 (No : 6)
Rebar Pattern : 16 - 5 - P22 Ast = 0.00608 m^2 (Rhost = 0.024)



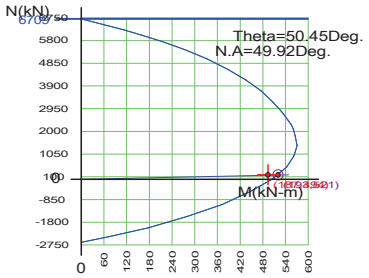
2. Applied Loads

Load Combination : 37+ AT (I) Point
N_Ed = 186.868 kN M_Edy = 318.245 kN-m M_Edz = 378.252 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 494.323 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6708.81 kN		
Axial Load Ratio	N_Ed/N_Rd	= 186.868 / 192.535	= 0.971 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 494.323 / 520.694	= 0.949 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 318.245 / 331.564	= 0.960 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 378.252 / 401.481	= 0.942 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6708.81	0.00
6049.51	159.14
5435.30	274.23
4617.61	387.70
3691.73	476.07
2807.46	531.40
2273.40	556.29
1813.27	566.35
996.64	563.41
8.35	504.09
-1041.96	372.38
-2013.28	178.66
-2643.48	0.00

5. Shear Force Capacity Check

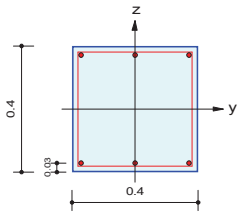
Applied Shear Strength	V_Ed	= 266.231 kN (Load Combination : 44+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 266.231 / 165.603 = 1.608
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 266.231 / 290.583 = 0.916
Shear Ratio	V_Ed/V_Rd	= 0.916 < 1.000 ..... O.K

(Asw-H_req = 0.00145 m^2/m, 2-P10 @100)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 590
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x40 (No : 1)
Rebar Pattern : 6 - 2 - P22 Ast = 0.00228 m^2 (Rhost = 0.014)



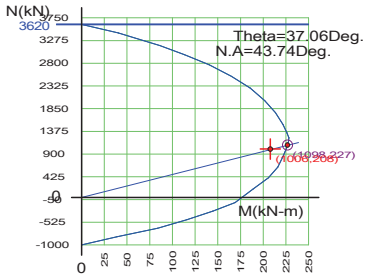
2. Applied Loads

Load Combination : 37- AT (J) Point
N_Ed = 1006.45 kN M_Edy = 165.927 kN-m M_Edz = 125.648 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 208.132 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 3619.97 kN		
Axial Load Ratio	N_Ed/N_Rd	= 1006.45 / 1098.43	= 0.916 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 208.132 / 227.073	= 0.917 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 165.927 / 181.197	= 0.916 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 125.648 / 136.856	= 0.918 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
3619.97	0.00
3324.55	61.09
2986.46	113.82
2535.55	165.05
2024.53	202.01
1533.02	221.78
1243.48	228.82
1029.25	225.93
634.52	216.65
172.30	189.12
-288.16	144.73
-642.56	83.92
-991.30	0.00

5. Shear Force Capacity Check

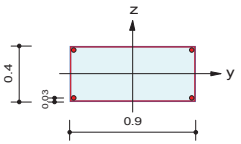
Applied Shear Strength	V_Ed	= 96.0501 kN (Load Combination : 37+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 96.0501 / 156.602 = 0.613
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 96.0501 / 95.3152 = 1.008
Shear Ratio	V_Ed/V_Rd	= 0.657 < 1.000 ..... O.K

(Asw-H_req = 0.00066 m^2/m, 2-P10 @240)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 592
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P22 Ast = 0.00152 m^2 (Rhost = 0.004)



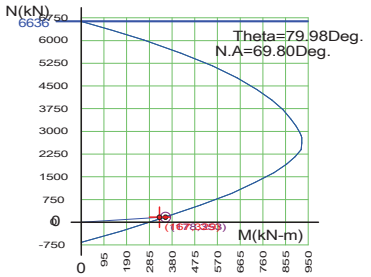
2. Applied Loads

Load Combination : 44- AT (J) Point
N_Ed = 166.695 kN M_Edy = 58.3690 kN-m M_Edz = 323.587 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 328.809 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6635.54 kN		
Axial Load Ratio	N_Ed/N_Rd	= 166.695 / 177.514	= 0.939 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 328.809 / 353.254	= 0.931 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 58.3690 / 61.4907	= 0.949 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 323.587 / 347.862	= 0.930 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6635.54	0.00
6030.49	261.86
5175.83	549.68
4398.83	735.75
3721.88	844.49
3179.66	900.78
2873.13	922.54
2620.35	924.02
2182.51	897.03
1639.91	806.51
962.32	629.98
122.95	332.16
-660.87	0.00

5. Shear Force Capacity Check

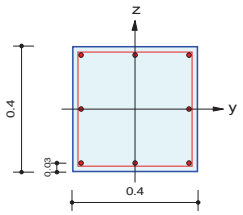
Applied Shear Strength	V_Ed	= 52.6971 kN (Load Combination : 37-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 52.6971 / 202.051 = 0.261
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 52.6971 / 108.932 = 0.484
Shear Ratio	V_Ed/V_Rd	= 0.261 < 1.000 ..... O.K

(Asw-H_req = 0.00072 m^2/m, 2-P10 @210)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 593
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x40 (No : 1)
Rebar Pattern : 8 - 3 - P22 Ast = 0.00304 m^2 (Rhost = 0.019)



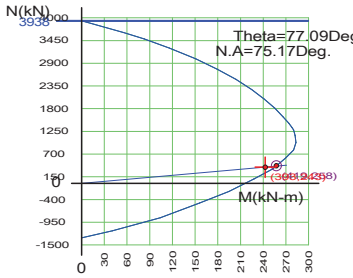
2. Applied Loads

Load Combination : 40- AT (J) Point
N_Ed = 392.994 kN M_Edy = 52.2378 kN-m M_Edz = 237.550 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 243.226 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 3937.74 kN		
Axial Load Ratio	N_Ed/N_Rd	= 392.994 / 418.976	= 0.938 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 243.226 / 257.507	= 0.945 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 52.2378 / 57.5407	= 0.908 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 237.550 / 250.996	= 0.946 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
3937.74	0.00
3497.69	83.05
3017.71	150.69
2509.37	204.51
2034.44	241.86
1615.78	266.19
1359.65	278.48
1158.37	282.61
799.77	280.59
354.05	253.11
-196.10	194.89
-828.75	104.56
-1321.74	0.00

5. Shear Force Capacity Check

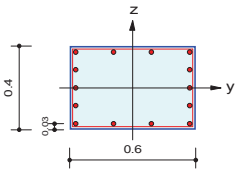
Applied Shear Strength	V_Ed	= 117.091 kN (Load Combination : 40+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 117.091 / 144.839 = 0.808
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 117.091 / 95.3152 = 1.228
Shear Ratio	V_Ed/V_Rd	= 0.858 < 1.000 ..... O.K

(Asw-H_req = 0.00066 m^2/m, 2-P10 @240)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 594
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x60 (No : 7)
Rebar Pattern : 14 - 5 - P20 Ast = 0.004396 m^2 (Rhost = 0.018)



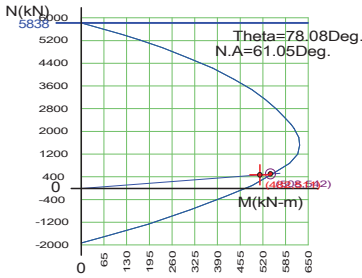
2. Applied Loads

Load Combination : 39+ AT (J) Point
N_Ed = 481.906 kN M_Edy = 105.086 kN-m M_Edz = 500.475 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 511.388 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 5838.04 kN		
Axial Load Ratio	N_Ed/N_Rd	= 481.906 / 508.274	= 0.948 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 511.388 / 541.995	= 0.944 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 105.086 / 111.912	= 0.939 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 500.475 / 530.315	= 0.944 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
5838.04	0.00
5228.21	168.39
4610.76	304.86
3846.71	438.37
3129.15	528.02
2501.49	583.27
2123.31	609.85
1795.09	622.95
1212.41	620.96
536.51	551.71
-291.05	413.77
-1256.18	193.50
-1911.30	0.00

5. Shear Force Capacity Check

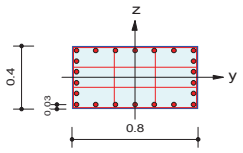
Applied Shear Strength	V_Ed	= 218.794 kN (Load Combination : 40+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 218.794 / 203.863 = 1.073
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 218.794 / 220.255 = 0.993
Shear Ratio	V_Ed/V_Rd	= 0.993 < 1.000 ..... O.K

(Asw-H_req = 0.00098 m^2/m, 2-P10 @160)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 601
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x80 (No : 10)
Rebar Pattern : 22 - 6 - P22 Ast = 0.00836 m^2 (Rhost = 0.026)



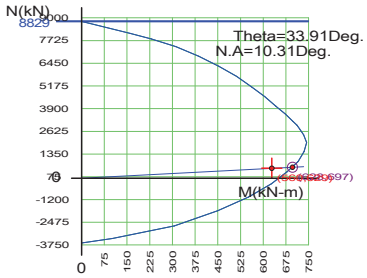
2. Applied Loads

Load Combination : 38- AT (J) Point
N_Ed = 559.917 kN M_Edy = 527.244 kN-m M_Edz = 342.396 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 628.666 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 8828.78 kN		
Axial Load Ratio	N_Ed/N_Rd	= 559.917 / 627.546	= 0.892 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 628.666 / 697.102	= 0.902 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 527.244 / 578.564	= 0.911 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 342.396 / 388.863	= 0.881 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
8828.78	0.00
7810.07	231.15
6869.17	388.27
5717.19	512.05
4593.42	605.24
3595.62	674.45
2982.13	713.15
2449.43	734.31
1499.90	735.26
363.66	679.79
-1031.02	553.12
-2654.86	307.04
-3634.78	0.00

5. Shear Force Capacity Check

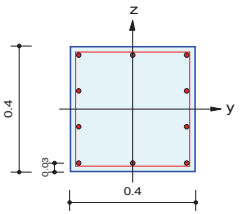
Applied Shear Strength	V_Ed	= 304.943 kN (Load Combination : 38+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 304.943 / 285.596 = 1.068
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 304.943 / 305.009 = 1.000
Shear Ratio	V_Ed/V_Rd	= 1.000 < 1.000 ..... O.K

(Asw-H_req = 0.00211 m^2/m, 4-P10 @150)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 602
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x40 (No : 1)
Rebar Pattern : 10 - 4 - P22 Ast = 0.0038 m^2 (Rhost = 0.024)



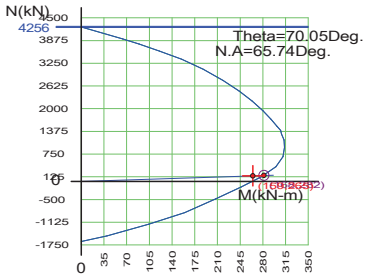
2. Applied Loads

Load Combination : 38+ AT (J) Point
N_Ed = 159.061 kN M_Edy = 90.1231 kN-m M_Edz = 249.329 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 265.117 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 4255.51 kN		
Axial Load Ratio	N_Ed/N_Rd	= 159.061 / 167.770	= 0.948 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 265.117 / 281.696	= 0.941 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 90.1231 / 96.1334	= 0.937 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 249.329 / 264.784	= 0.942 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
4255.51	0.00
3786.95	89.57
3361.56	155.26
2786.04	218.63
2216.37	264.02
1712.88	293.13
1403.45	307.54
1152.72	312.84
690.46	311.76
136.88	278.34
-474.39	206.91
-1179.18	104.71
-1652.17	0.00

5. Shear Force Capacity Check

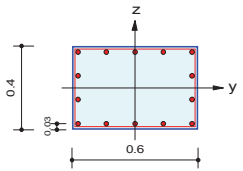
Applied Shear Strength	V_Ed	= 137.961 kN (Load Combination : 38-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 137.961 / 123.208 = 1.120
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 137.961 / 142.973 = 0.965
Shear Ratio	V_Ed/V_Rd	= 0.965 < 1.000 ..... O.K

(Asw-H_req = 0.00095 m^2/m, 2-P10 @160)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 603
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x60 (No : 7)
Rebar Pattern : 14 - 4 - P20 Ast = 0.004396 m^2 (Rhost = 0.018)



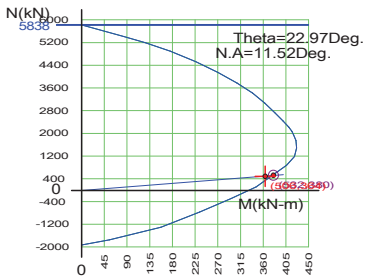
2. Applied Loads

Load Combination : 40- AT (J) Point
N_Ed = 506.203 kN M_Edy = 335.420 kN-m M_Edz = 142.596 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 364.472 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 5838.04 kN		
Axial Load Ratio	N_Ed/N_Rd	= 506.203 / 532.237	= 0.951 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 364.472 / 380.472	= 0.958 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 335.420 / 350.309	= 0.957 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 142.596 / 148.468	= 0.960 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
5838.04	0.00
5211.08	126.13
4539.28	226.90
3784.53	308.19
3075.48	363.82
2453.12	399.72
2075.49	417.81
1757.24	425.46
1198.45	422.14
547.20	380.87
-283.07	297.40
-1292.21	157.55
-1911.30	0.00

5. Shear Force Capacity Check

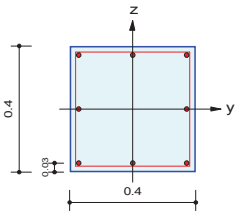
Applied Shear Strength	V_Ed	= 173.076 kN (Load Combination : 43+)
Shear Ratio by Conc	V_Ed/V_Rdc	= 173.076 / 187.682 = 0.922
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 173.076 / 95.3152 = 1.816
Shear Ratio	V_Ed/V_Rd	= 0.954 < 1.000 ..... O.K

(Asw-H_req = 0.00126 m^2/m, 2-P10 @120)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 604
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x40 (No : 1)
Rebar Pattern : 8 - 3 - P22 Ast = 0.00304 m^2 (Rhost = 0.019)



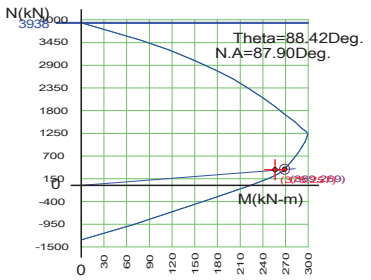
2. Applied Loads

Load Combination : 38- AT (J) Point
N_Ed = 374.701 kN M_Edy = 7.07371 kN-m M_Edz = 256.507 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 256.604 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 3937.74 kN		
Axial Load Ratio	N_Ed/N_Rd	= 374.701 / 389.180	= 0.963 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 256.604 / 269.154	= 0.953 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 7.07371 / 7.41923	= 0.953 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 256.507 / 269.051	= 0.953 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
3937.74	0.00
3269.26	117.10
2801.49	176.76
2346.19	221.57
1913.16	255.85
1532.39	282.09
1299.84	297.25
1158.94	298.66
924.89	291.97
577.74	277.82
189.04	251.83
-301.14	176.72
-1321.74	0.00

5. Shear Force Capacity Check

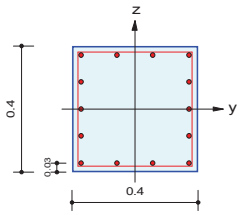
Applied Shear Strength	V_Ed	= 134.870 kN (Load Combination : 38-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 134.870 / 142.905 = 0.944
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 134.870 / 95.3152 = 1.415
Shear Ratio	V_Ed/V_Rd	= 0.943 < 1.000 ..... O.K

(Asw-H_req = 0.00093 m^2/m, 2-P10 @160)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 605
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x40 (No : 1)
Rebar Pattern : 14 - 5 - P18 Ast = 0.003556 m^2 (Rhost = 0.022)



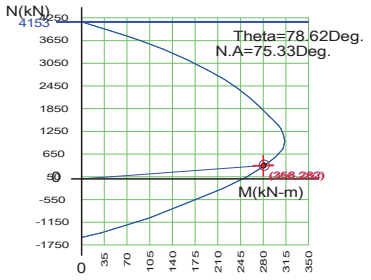
2. Applied Loads

Load Combination : 38+ AT (J) Point
N_Ed = 356.392 kN M_Edy = 53.2836 kN-m M_Edz = 274.992 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 280.107 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 4153.49 kN		
Axial Load Ratio	N_Ed/N_Rd	= 356.392 / 358.392	= 0.994 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 280.107 / 282.096	= 0.993 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 53.2836 / 55.6826	= 0.957 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 274.992 / 276.545	= 0.994 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
4153.49	0.00
3652.38	91.24
3154.82	162.61
2628.06	220.24
2123.47	261.08
1676.02	289.25
1401.30	304.23
1175.79	311.67
788.52	310.48
342.76	280.82
-244.72	218.53
-1031.61	104.12
-1546.09	0.00

5. Shear Force Capacity Check

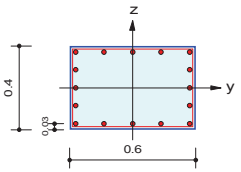
Applied Shear Strength	V_Ed	= 141.846 kN	(Load Combination : 21)
Shear Ratio by Conc	V_Ed/V_Rdc	= 141.846 / 145.279 = 0.976	
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 141.846 / 108.932 = 1.302	
Shear Ratio	V_Ed/V_Rd	= 0.993 < 1.000 ..... O.K	

(Asw-H_req = 0.00098 m^2/m, 2-P10 @160)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 606
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 3.9 m
Section Property: C40x60 (No : 7)
Rebar Pattern : 16 - 5 - P18 Ast = 0.004064 m^2 (Rhost = 0.017)



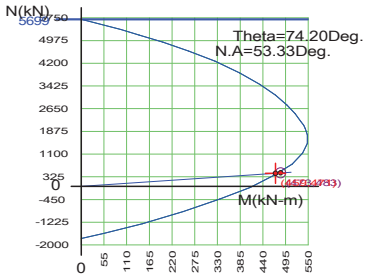
2. Applied Loads

Load Combination : 39+ AT (J) Point
N_Ed = 458.649 kN M_Edy = 128.356 kN-m M_Edz = 453.495 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 471.310 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 5699.22 kN		
Axial Load Ratio	N_Ed/N_Rd	= 458.649 / 473.150	= 0.969 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 471.310 / 483.396	= 0.975 < 1.000 ..... O.K
	M_Edy/M_Rdy	= 128.356 / 131.626	= 0.975 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 453.495 / 465.130	= 0.975 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
5699.22	0.00
5175.33	141.30
4625.57	261.11
3877.65	384.19
3125.53	471.27
2480.39	518.93
2097.67	539.56
1762.81	548.54
1139.94	537.71
381.20	467.45
-423.56	336.79
-1263.60	148.97
-1766.96	0.00

5. Shear Force Capacity Check

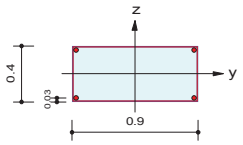
Applied Shear Strength	V_Ed	= 217.618 kN	(Load Combination : 38-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 217.618 / 197.954 = 1.099	
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 217.618 / 220.255 = 0.988	
Shear Ratio	V_Ed/V_Rd	= 0.988 < 1.000 ..... O.K	

(Asw-H_req = 0.00098 m^2/m, 2-P10 @160)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04 UNIT SYSTEMkN, m
Member Number 663
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Column Height : 2.8 m
Section Property: C40x90 (No : 2)
Rebar Pattern : 4 - 2 - P22 Ast = 0.00152 m^2 (Rhost = 0.004)



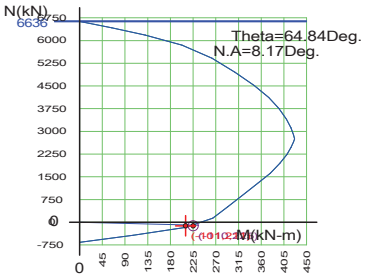
2. Applied Loads

Load Combination : 38+ AT (I) Point
N_Ed = -101.39 kN M_Edy = -87.911 kN-m M_Edz = 191.488 kN-m
M_Ed = SQRT(M_Edy^2+ M_Edz^2) = 210.703 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load	N_Rdmax = 6635.54 kN		
Axial Load Ratio	N_Ed/N_Rd	= -101.39 / -110.26	= 0.919 < 1.000 ..... O.K
Moment Ratio	M_Ed/M_Rd	= 210.703 / 225.061	= 0.936 < 1.000 ..... O.K
	M_Edy/M_Rdy	= -87.911 / 95.6707	= 0.919 < 1.000 ..... O.K
	M_Edz/M_Rdz	= 191.488 / 203.715	= 0.940 < 1.000 ..... O.K

4. M-N Interaction Diagram



N_Rd(kN)	M_Rd(kN-m)
6635.54	0.00
6191.27	130.82
5420.31	262.39
4531.85	346.38
3751.50	395.97
3121.72	419.29
2765.25	426.92
2482.34	419.93
1950.39	397.45
1291.27	353.90
523.61	294.66
-156.34	210.19
-660.87	0.00

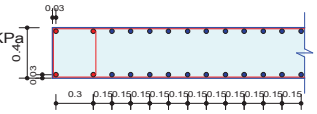
5. Shear Force Capacity Check

Applied Shear Strength	V_Ed	= 69.1723 kN (Load Combination : 38-)
Shear Ratio by Conc	V_Ed/V_Rdc	= 69.1723 / 0.00000 = 0.000
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 69.1723 / 108.932 = 0.635
Shear Ratio	V_Ed/V_Rd	= 0.635 < 1.000 ..... O.K
		(Asw-H_req = 0.00072 m^2/m, 2-P10 @210)

	Company		Project Title	
MIDAS	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 13 (Wall Mark : wM0013)
Story : B1R (Height = 3.9 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 3.26*0.4 m
Vertical Rebar : P10 @150 (AsV = 0.00105 m^2/m)
End Rebar : 4-P16 @300



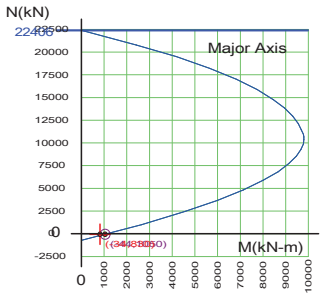
2. Applied Loads

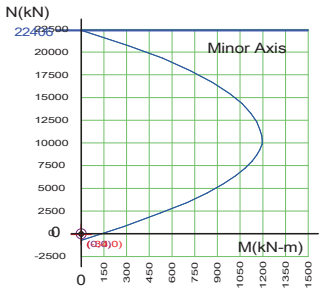
Load Combination : 27
N_Ed = -34.319 kN
M_Edy = -830.02, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 22405.7 kN
Major Axis
Design Axial Load Strength N_Rdy = -43.826 kN
Axial Ratio N_Ed/N_Rdy = 0.783 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 1050.14 kN-m
Moment Ratio M_Edy/M_Rdy = 0.790 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





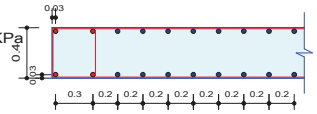
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 117.374 kN (Load Combination : 25)
Shear Ratio by Conc V_Ed/V_Rdc = 117.374 / 336.542 = 0.3488
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 117.374 / 413.442 = 0.284
Shear Ratio V_Ed/V_Rd = 0.349 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

	Company		Project Title	
MIDAS	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 12 (Wall Mark : wM0012)
Story : B1R (Height = 3.9 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 4.19999*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



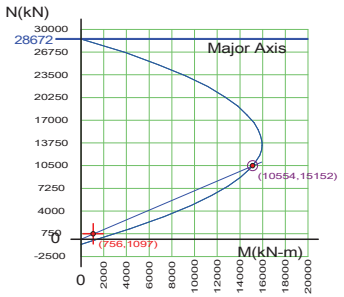
2. Applied Loads

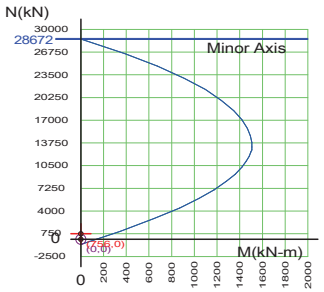
Load Combination : 25
N_Ed = 755.920 kN
M_Edy = 1096.96, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 28672.3 kN
Major Axis
Design Axial Load Strength N_Rdy = 10553.9 kN
Axial Ratio N_Ed/N_Rdy = 0.072 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 15151.6 kN-m
Moment Ratio M_Edy/M_Rdy = 0.072 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





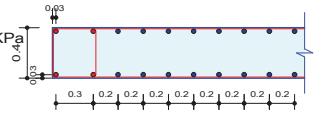
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 369.719 kN (Load Combination : 24)
Shear Ratio by Conc V_Ed/V_Rdc = 369.719 / 428.235 = 0.8634
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 369.719 / 532.655 = 0.694
Shear Ratio V_Ed/V_Rd = 0.863 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 14 (Wall Mark : wM0014)
Story : B1R (Height = 3.9 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 2.14999*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



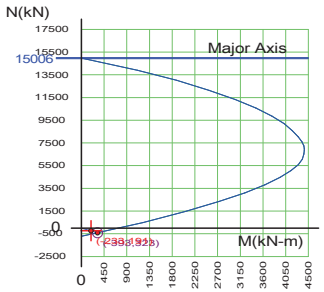
2. Applied Loads

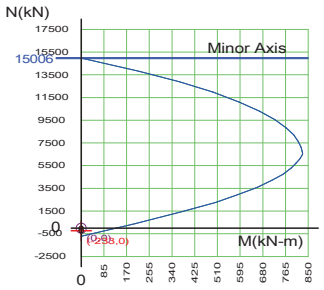
Load Combination : 26
N_Ed = -233.16 kN
M_Edy = 190.872, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 15005.6 kN
Major Axis
Design Axial Load Strength N_Rdy = -393.07 kN
Axial Ratio N_Ed/N_Rdy = 0.593 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 322.642 kN-m
Moment Ratio M_Edy/M_Rdy = 0.592 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





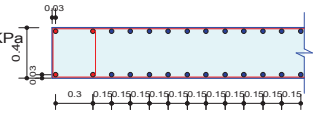
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 65.9258 kN (Load Combination : 19)
Shear Ratio by Conc V_Ed/V_Rdc = 65.9258 / 199.698 = 0.3301
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 65.9258 / 272.668 = 0.242
Shear Ratio V_Ed/V_Rd = 0.330 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 15 (Wall Mark : wM0015)
Story : B1R (Height = 3.9 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 2.05001*0.4 m
Vertical Rebar : P10 @150 (AsV = 0.00105 m^2/m)
End Rebar : 4-P16 @300



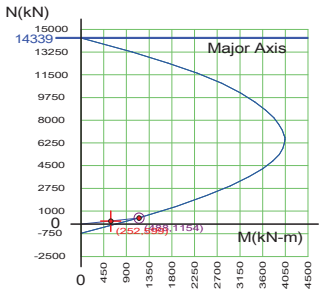
2. Applied Loads

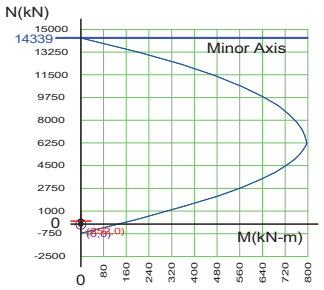
Load Combination : 20
N_Ed = 251.772 kN
M_Edy = 598.838, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 14339.0 kN
Major Axis
Design Axial Load Strength N_Rdy = 487.866 kN
Axial Ratio N_Ed/N_Rdy = 0.516 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 1153.59 kN-m
Moment Ratio M_Edy/M_Rdy = 0.519 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





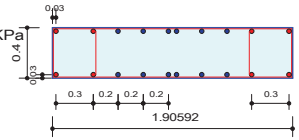
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 278.535 kN (Load Combination : 20)
Shear Ratio by Conc V_Ed/V_Rdc = 278.535 / 217.380 = 1.2813
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 278.535 / 281.653 = 0.989
Shear Ratio V_Ed/V_Rd = 0.989 < 1.000 ..... O.K
(Asw-H_req = 0.00043 m^2/m, P10 @360)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 16 (Wall Mark : wM0016)
Story : B1R (Height = 3.9 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 1.90592*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



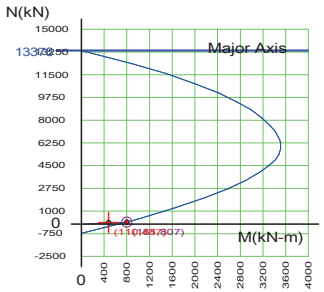
2. Applied Loads

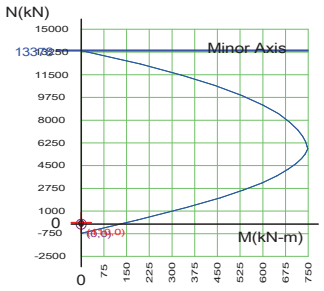
Load Combination : 21
N_Ed = 109.628 kN
M_Edy = 487.418, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 13378.4 kN
Major Axis
Design Axial Load Strength N_Rdy = 181.397 kN
Axial Ratio N_Ed/N_Rdy = 0.604 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 807.475 kN-m
Moment Ratio M_Edy/M_Rdy = 0.604 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





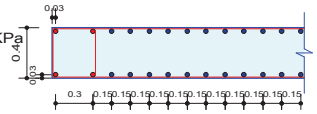
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 236.352 kN (Load Combination : 21)
Shear Ratio by Conc V_Ed/V_Rdc = 236.352 / 198.341 = 1.1916
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 236.352 / 241.713 = 0.978
Shear Ratio V_Ed/V_Rd = 0.978 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 17 (Wall Mark : wM0017)
Story : B1R (Height = 3.9 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 2.05019*0.4 m
Vertical Rebar : P10 @150 (AsV = 0.00105 m^2/m)
End Rebar : 4-P16 @300



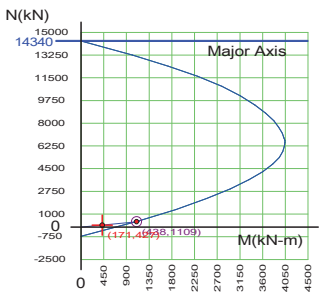
2. Applied Loads

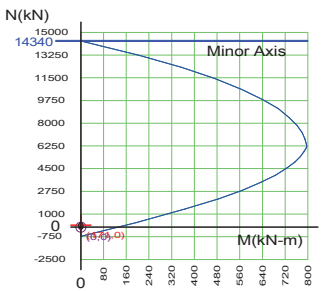
Load Combination : 20
N_Ed = 170.817 kN
M_Edy = 427.227, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 14340.3 kN
Major Axis
Design Axial Load Strength N_Rdy = 438.246 kN
Axial Ratio N_Ed/N_Rdy = 0.390 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 1108.88 kN-m
Moment Ratio M_Edy/M_Rdy = 0.385 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





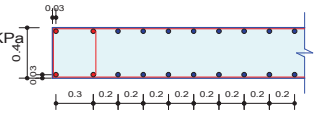
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 184.929 kN (Load Combination : 20)
Shear Ratio by Conc V_Ed/V_Rdc = 184.929 / 207.675 = 0.8905
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 184.929 / 260.011 = 0.711
Shear Ratio V_Ed/V_Rd = 0.890 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 1 (Wall Mark : wM0001)
Story : B1L (Height = 3.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 4.07*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



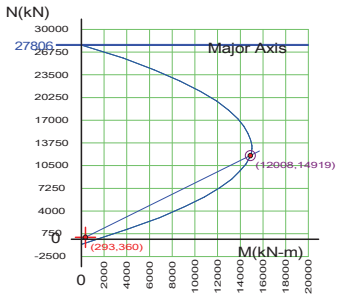
2. Applied Loads

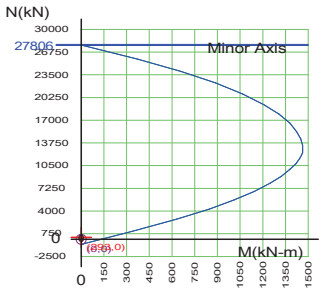
Load Combination : 24
N_Ed = 292.560 kN
M_Edy = 359.583, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 27805.7 kN
Major Axis
Design Axial Load Strength N_Rdy = 12008.4 kN
Axial Ratio N_Ed/N_Rdy = 0.024 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 14918.8 kN-m
Moment Ratio M_Edy/M_Rdy = 0.024 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





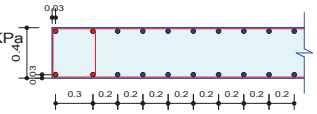
5. Shear Force Capacity Check

Applied Shear Strength	V_Ed	= 109.189 kN (Load Combination : 24)
Shear Ratio by Conc	V_Ed/V_Rdc	= 109.189 / 352.810 = 0.3095
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 109.189 / 516.169 = 0.212
Shear Ratio	V_Ed/V_Rd	= 0.309 < 1.000 ..... O.K
		(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 2 (Wall Mark : wM0002)
Story : B1L (Height = 3.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 5.4*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



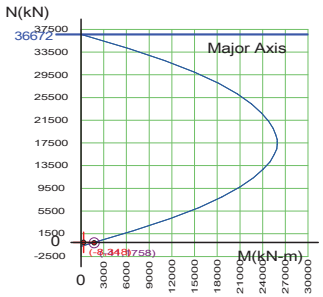
2. Applied Loads

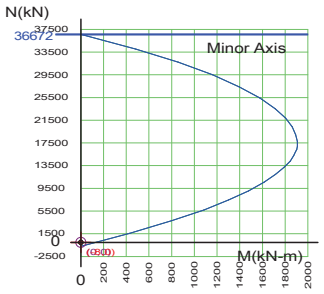
Load Combination : 21
N_Ed = -8.0849 kN
M_Edy = 347.760, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 36672.3 kN
Major Axis
Design Axial Load Strength N_Rdy = -41.434 kN
Axial Ratio N_Ed/N_Rdy = 0.195 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 1757.67 kN-m
Moment Ratio M_Edy/M_Rdy = 0.198 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





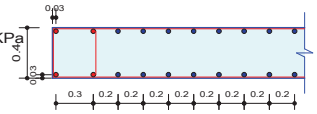
5. Shear Force Capacity Check

Applied Shear Strength	V_Ed	= 253.314 kN (Load Combination : 21)
Shear Ratio by Conc	V_Ed/V_Rdc	= 253.314 / 437.347 = 0.5792
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 253.314 / 684.843 = 0.370
Shear Ratio	V_Ed/V_Rd	= 0.579 < 1.000 ..... O.K
		(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 3 (Wall Mark : wM0003)
Story : B1L (Height = 3.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 4.07*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



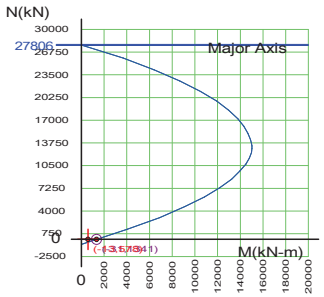
2. Applied Loads

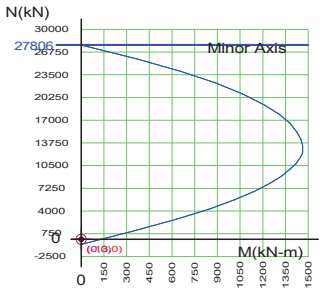
Load Combination : 21
N_Ed = -13.231 kN
M_Edy = 578.407, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 27805.7 kN
Major Axis
Design Axial Load Strength N_Rdy = -31.148 kN
Axial Ratio N_Ed/N_Rdy = 0.425 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 1340.77 kN-m
Moment Ratio M_Edy/M_Rdy = 0.431 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





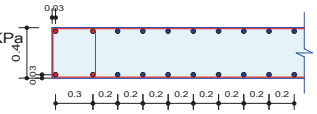
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 296.257 kN (Load Combination : 23)
Shear Ratio by Conc V_Ed/V_Rdc = 296.257 / 328.410 = 0.9021
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 296.257 / 516.169 = 0.574
Shear Ratio V_Ed/V_Rd = 0.902 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 4 (Wall Mark : wM0004)
Story : B1L (Height = 3.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 2.3*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



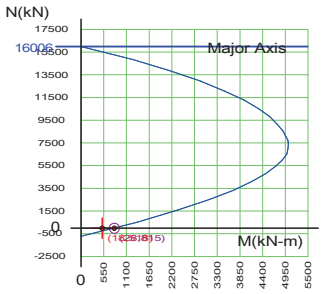
2. Applied Loads

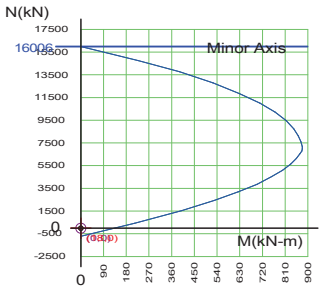
Load Combination : 21
N_Ed = 17.5680 kN
M_Edy = 518.116, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 16005.7 kN
Major Axis
Design Axial Load Strength N_Rdy = 28.0853 kN
Axial Ratio N_Ed/N_Rdy = 0.626 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 814.851 kN-m
Moment Ratio M_Edy/M_Rdy = 0.636 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





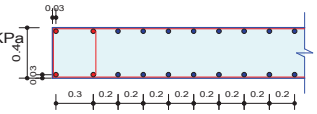
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 201.414 kN (Load Combination : 20)
Shear Ratio by Conc V_Ed/V_Rdc = 201.414 / 210.906 = 0.9550
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 201.414 / 291.692 = 0.691
Shear Ratio V_Ed/V_Rd = 0.955 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 5 (Wall Mark : wM0005)
Story : B1L (Height = 3.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 3.37*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



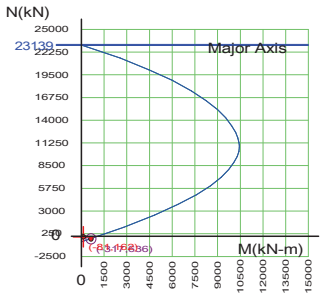
2. Applied Loads

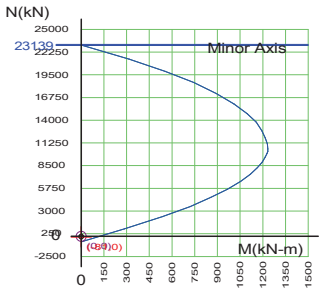
Load Combination : 20
N_Ed = -80.506 kN
M_Edy = 161.609, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 23139.0 kN
Major Axis
Design Axial Load Strength N_Rdy = -316.52 kN
Axial Ratio N_Ed/N_Rdy = 0.254 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 636.187 kN-m
Moment Ratio M_Edy/M_Rdy = 0.254 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





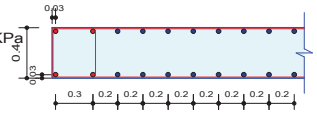
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 289.678 kN (Load Combination : 21)
Shear Ratio by Conc V_Ed/V_Rdc = 289.678 / 299.049 = 0.9687
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 289.678 / 427.393 = 0.678
Shear Ratio V_Ed/V_Rd = 0.969 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 6 (Wall Mark : wM0006)
Story : 1F (Height = 2.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 4.19999*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



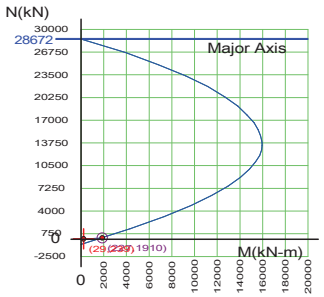
2. Applied Loads

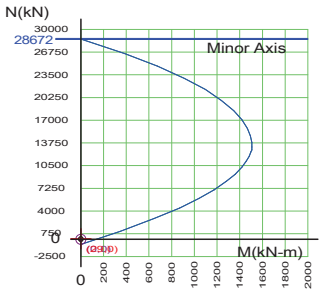
Load Combination : 26
N_Ed = 28.6739 kN
M_Edy = 239.257, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 28672.3 kN
Major Axis
Design Axial Load Strength N_Rdy = 227.462 kN
Axial Ratio N_Ed/N_Rdy = 0.126 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 1910.38 kN-m
Moment Ratio M_Edy/M_Rdy = 0.125 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





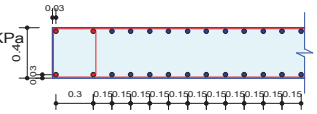
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 40.5212 kN (Load Combination : 20)
Shear Ratio by Conc V_Ed/V_Rdc = 40.5212 / 344.483 = 0.1176
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 40.5212 / 532.655 = 0.076
Shear Ratio V_Ed/V_Rd = 0.118 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 7 (Wall Mark : wM0007)
Story : 1F (Height = 2.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 3.26*0.4 m
Vertical Rebar : P10 @150 (AsV = 0.00105 m^2/m)
End Rebar : 4-P16 @300



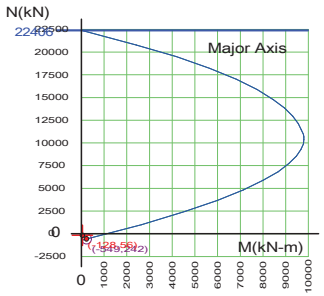
2. Applied Loads

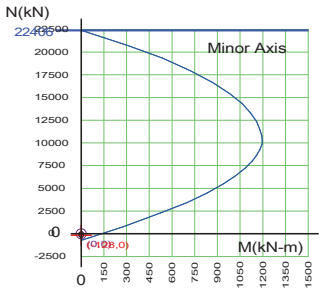
Load Combination : 27
N_Ed = -128.32 kN
M_Edy = -56.490, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 22405.7 kN
Major Axis
Design Axial Load Strength N_Rdy = -549.11 kN
Axial Ratio N_Ed/N_Rdy = 0.234 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 242.413 kN-m
Moment Ratio M_Edy/M_Rdy = 0.233 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





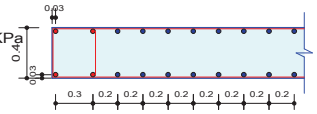
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 85.3645 kN (Load Combination : 26)
Shear Ratio by Conc V_Ed/V_Rdc = 85.3645 / 319.765 = 0.2670
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 85.3645 / 413.442 = 0.206
Shear Ratio V_Ed/V_Rd = 0.267 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 8 (Wall Mark : wM0008)
Story : 1F (Height = 2.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 2.14999*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



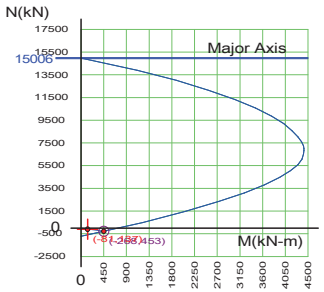
2. Applied Loads

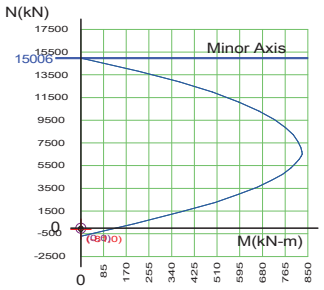
Load Combination : 26
N_Ed = -80.549 kN
M_Edy = 137.492, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 15005.6 kN
Major Axis
Design Axial Load Strength N_Rdy = -268.03 kN
Axial Ratio N_Ed/N_Rdy = 0.301 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 453.494 kN-m
Moment Ratio M_Edy/M_Rdy = 0.303 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





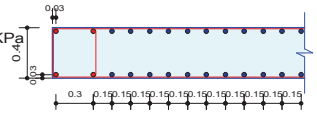
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 128.798 kN (Load Combination : 20)
Shear Ratio by Conc V_Ed/V_Rdc = 128.798 / 191.289 = 0.6733
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 128.798 / 272.668 = 0.472
Shear Ratio V_Ed/V_Rd = 0.673 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 9 (Wall Mark : wM0009)
Story : 1F (Height = 2.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 2.05001*0.4 m
Vertical Rebar : P10 @150 (AsV = 0.00105 m^2/m)
End Rebar : 4-P16 @300



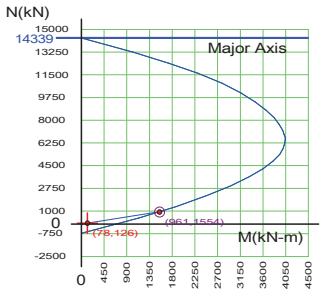
2. Applied Loads

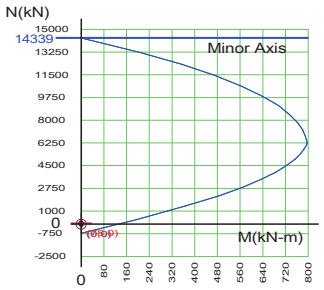
Load Combination : 21
N_Ed = 78.2600 kN
M_Edy = 125.838, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 14339.0 kN
Major Axis
Design Axial Load Strength N_Rdy = 960.672 kN
Axial Ratio N_Ed/N_Rdy = 0.081 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 1553.78 kN-m
Moment Ratio M_Edy/M_Rdy = 0.081 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





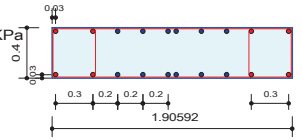
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 104.139 kN (Load Combination : 21)
Shear Ratio by Conc V_Ed/V_Rdc = 104.139 / 196.559 = 0.5298
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 104.139 / 259.987 = 0.401
Shear Ratio V_Ed/V_Rd = 0.530 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 10 (Wall Mark : wM0010)
Story : 1F (Height = 2.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 1.90592*0.4 m
Vertical Rebar : P10 @200 (AsV = 0.00079 m^2/m)
End Rebar : 4-P16 @300



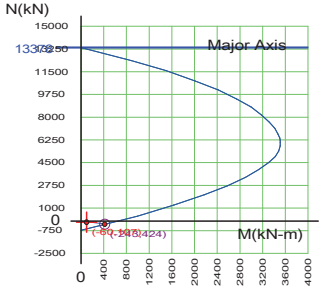
2. Applied Loads

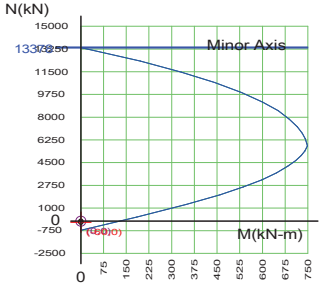
Load Combination : 20
N_Ed = -59.723 kN
M_Edy = 106.617, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 13378.4 kN
Major Axis
Design Axial Load Strength N_Rdy = -242.56 kN
Axial Ratio N_Ed/N_Rdy = 0.246 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 424.388 kN-m
Moment Ratio M_Edy/M_Rdy = 0.251 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





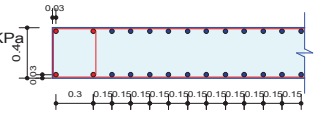
5. Shear Force Capacity Check

Applied Shear Strength V_Ed = 93.0904 kN (Load Combination : 20)
Shear Ratio by Conc V_Ed/V_Rdc = 93.0904 / 174.622 = 0.5331
Shear Ratio by (V_Rds ; V_Rdmax) V_Ed/V_Rds = 93.0904 / 241.713 = 0.385
Shear Ratio V_Ed/V_Rd = 0.533 < 1.000 ..... O.K
(Asw-H_req = 0.00040 m^2/m, P10 @390)

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Condition

Design Code : Eurocode2:04
Unit System : kN, m
Wall ID : 11 (Wall Mark : wM0011)
Story : 1F (Height = 2.8 m)
Material Data : fck = 25000, fyk = 500000, fyw = 500000 KPa
Wall Dim. (Length*Thk) : 2.05019*0.4 m
Vertical Rebar : P10 @150 (AsV = 0.00105 m^2/m)
End Rebar : 4-P16 @300



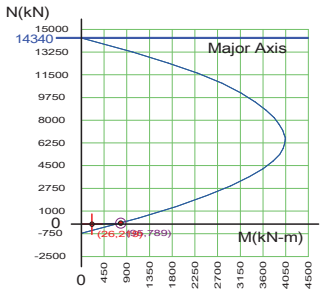
2. Applied Loads

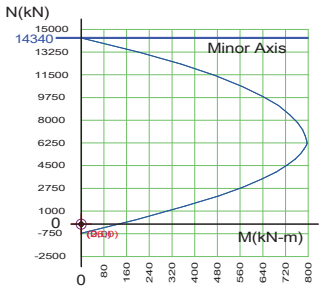
Load Combination : 21
N_Ed = 26.4569 kN
M_Edy = 218.534, M_Edz = 0.00000 kN-m

3. Axial Forces and Moments Capacity Check

Concentric Max. Axial Load N_Rdmax = 14340.3 kN
Major Axis
Design Axial Load Strength N_Rdy = 95.1667 kN
Axial Ratio N_Ed/N_Rdy = 0.278 < 1.000 ..... O.K
Design Moment Strength M_Rdy = 788.909 kN-m
Moment Ratio M_Edy/M_Rdy = 0.277 < 1.000 ..... O.K
Minor Axis
Design Axial Load Strength N_Rdz
Axial Ratio N_Ed/N_Rdz = 0.000 < 1.000 ..... O.K
Design Moment Strength M_Rdz
Moment Ratio M_Edz/M_Rdz = 0.000 < 1.000 ..... O.K

4. M-N Interaction Diagram





5. Shear Force Capacity Check

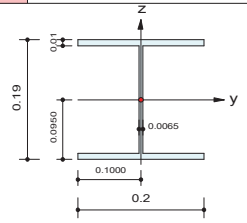
Applied Shear Strength	V_Ed	= 101.118 kN (Load Combination : 21)
Shear Ratio by Conc	V_Ed/V_Rdc	= 101.118 / 190.351 = 0.5312
Shear Ratio by (V_Rds ; V_Rdmax)	V_Ed/V_Rds	= 101.118 / 260.011 = 0.389
Shear Ratio	V_Ed/V_Rd	= 0.531 < 1.000 ..... O.K
		(Asw-H_req = 0.00040 m^2/m, P10 @390)

VIII. ΔΙΑΣΤΑΣΙΟΛΟΓΗΣΗ ΜΕΤΑΛΛΙΚΟΥ ΦΟΡΕΑ

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 587
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : HEA200 (No:50)
(Rolled : HEA200).
Member Length : 3.90000



2. Member Forces

Axial Force Fxx = -47.908 (LCB: 20, POS:J)
Bending Moments My = 33.3091, Mz = -6.1521
End Moments Myi = -30.255, Myj = 33.3091 (for Lb)
Myi = -30.255, Myj = 33.3091 (for Ly)
Mzi = 6.64469, Mzj = -6.1521 (for Lz)
Shear Forces Fyy = 5.66699 (LCB: 26, POS:I)
Fzz = -17.179 (LCB: 20, POS:I)

Depth	0.19000	Web Thick	0.00650
Top F Width	0.20000	Top F Thick	0.01000
Bot.F Width	0.20000	Bot.F Thick	0.01000
Area	0.00538	Asz	0.00124
Qyb	0.03130	Qzb	0.00500
Iyy	0.00004	Izz	0.00001
Ybar	0.10000	Zbar	0.09500
Wely	0.00039	Welz	0.00013
ry	0.08280	rz	0.04980

3. Design Parameters

Unbraced Lengths Ly = 3.90000, Lz = 3.90000, Lb = 3.90000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 0.85, Cmz = 0.85, CmLT = 1.00

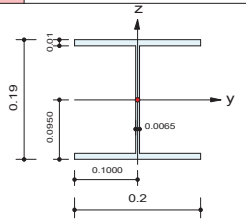
4. Checking Results

Slenderness Ratio
KL/r = 78.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 47.91/1264.30 = 0.038 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 33.309/101.050 = 0.330 < 1.000 ..... O.K
M_Edz/M_Rdz = 6.1521/47.4220 = 0.130 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.497 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.010 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.070 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 588
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : HEA200 (No:50)
(Rolled : HEA200).
Member Length : 3.90000



2. Member Forces

Axial Force Fxx = -95.427 (LCB: 19, POS:J)
Bending Moments My = -10.734, Mz = -12.249
End Moments Myi = 9.37052, Myj = -10.734 (for Lb)
Myi = 9.37052, Myj = -10.734 (for Ly)
Mzi = 11.4768, Mzj = -12.249 (for Lz)
Shear Forces Fyy = 6.86977 (LCB: 26, POS:I)
Fzz = 5.43372 (LCB: 19, POS:I)

Depth	0.19000	Web Thick	0.00650
Top F Width	0.20000	Top F Thick	0.01000
Bot.F Width	0.20000	Bot.F Thick	0.01000
Area	0.00538	Asz	0.00124
Qyb	0.03130	Qzb	0.00500
Iyy	0.00004	Izz	0.00001
Ybar	0.10000	Zbar	0.09500
Wely	0.00039	Welz	0.00013
ry	0.08280	rz	0.04980

3. Design Parameters

Unbraced Lengths Ly = 3.90000, Lz = 3.90000, Lb = 3.90000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 0.85, Cmz = 0.85, CmLT = 1.00

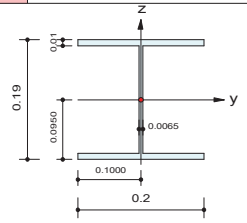
4. Checking Results

Slenderness Ratio
KL/r = 78.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 95.427/810.282 = 0.118 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 10.734/101.050 = 0.106 < 1.000 ..... O.K
M_Edz/M_Rdz = 12.2488/47.4220 = 0.258 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.440 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.012 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.022 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 595
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : HEA200 (No:50)
(Rolled : HEA200).
Member Length : 3.90000



2. Member Forces

Axial Force Fxx = -76.720 (LCB: 20, POS:J)
Bending Moments My = 42.7788, Mz = 5.76359
End Moments Myi = -34.819, Myj = 42.7788 (for Lb)
Myi = -34.819, Myj = 42.7788 (for Ly)
Mzi = -6.1072, Mzj = 5.76359 (for Lz)
Shear Forces Fyy = -5.1644 (LCB: 25, POS:I)
Fzz = -20.972 (LCB: 20, POS:I)

Depth	0.19000	Web Thick	0.00650
Top F Width	0.20000	Top F Thick	0.01000
Bot.F Width	0.20000	Bot.F Thick	0.01000
Area	0.00538	Asz	0.00124
Qyb	0.03130	Qzb	0.00500
Iyy	0.00004	Izz	0.00001
Ybar	0.10000	Zbar	0.09500
Wely	0.00039	Welz	0.00013
ry	0.08280	rz	0.04980

3. Design Parameters

Unbraced Lengths Ly = 3.90000, Lz = 3.90000, Lb = 3.90000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 0.85, Cmz = 0.85, CmLT = 1.00

4. Checking Results

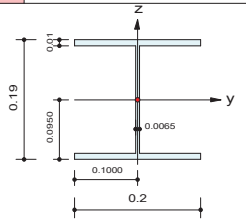
Slenderness Ratio
KL/r = 78.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 76.720/810.282 = 0.095 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 42.779/101.050 = 0.423 < 1.000 ..... O.K
M_Edz/M_Rdz = 5.7636/47.4220 = 0.122 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.606 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.009 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.086 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 596
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : HEA200 (No:50)
(Rolled : HEA200).
Member Length : 3.90000



2. Member Forces

Axial Force Fxx = -180.37 (LCB: 20, POS:I)
Bending Moments My = -11.378, Mz = -6.3267
End Moments Myi = -11.378, Myj = 7.49056 (for Lb)
Myi = -11.378, Myj = 7.49056 (for Ly)
Mzi = -6.3267, Mzj = 6.14672 (for Lz)
Shear Forces Fyy = -5.1703 (LCB: 25, POS:I)
Fzz = 5.35377 (LCB: 19, POS:I)

Depth	0.19000	Web Thick	0.00650
Top F Width	0.20000	Top F Thick	0.01000
Bot.F Width	0.20000	Bot.F Thick	0.01000
Area	0.00538	Asz	0.00124
Qyb	0.03130	Qzb	0.00500
Iyy	0.00004	Izz	0.00001
Ybar	0.10000	Zbar	0.09500
Wely	0.00039	Welz	0.00013
ry	0.08280	rz	0.04980

3. Design Parameters

Unbraced Lengths Ly = 3.90000, Lz = 3.90000, Lb = 3.90000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 0.85, Cmz = 0.85, CmLT = 1.00

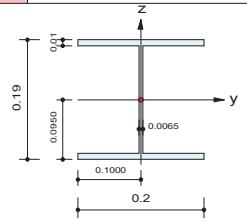
4. Checking Results

Slenderness Ratio
KL/r = 78.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 180.370/810.282 = 0.223 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 11.378/101.050 = 0.113 < 1.000 ..... O.K
M_Edz/M_Rdz = 6.3267/47.4220 = 0.133 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.407 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.009 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.022 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 597
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : HEA200 (No:50)
(Rolled : HEA200).
Member Length : 3.90000



2. Member Forces

Axial Force Fxx = -90.241 (LCB: 20, POS:J)
Bending Moments My = 44.2671, Mz = 14.3712
End Moments Myi = -35.089, Myj = 44.2671 (for Lb)
Myi = -35.089, Myj = 44.2671 (for Ly)
Mzi = -15.808, Mzj = 14.3712 (for Lz)
Shear Forces Fyy = -8.1566 (LCB: 20, POS:I)
Fzz = -21.448 (LCB: 20, POS:I)

Depth	0.19000	Web Thick	0.00650
Top F Width	0.20000	Top F Thick	0.01000
Bot.F Width	0.20000	Bot.F Thick	0.01000
Area	0.00538	Asz	0.00124
Qyb	0.03130	Qzb	0.00500
Iyy	0.00004	Izz	0.00001
Ybar	0.10000	Zbar	0.09500
Wely	0.00039	Welz	0.00013
ry	0.08280	rz	0.04980

3. Design Parameters

Unbraced Lengths Ly = 3.90000, Lz = 3.90000, Lb = 3.90000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 0.85, Cmz = 0.85, CmLT = 1.00

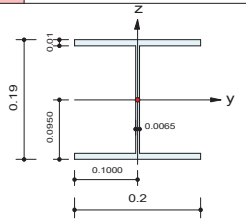
4. Checking Results

Slenderness Ratio
KL/r = 78.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 90.241/810.282 = 0.111 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 44.267/101.050 = 0.438 < 1.000 ..... O.K
M_Edz/M_Rdz = 14.3712/47.4220 = 0.303 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.812 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.014 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.088 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 598
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : HEA200 (No:50)
(Rolled : HEA200).
Member Length : 3.90000



2. Member Forces

Axial Force Fxx = -214.41 (LCB: 20, POS:I)
Bending Moments My = -11.194, Mz = -17.257
End Moments Myi = -11.194, Myj = 7.13693 (for Lb)
Myi = -11.194, Myj = 7.13693 (for Ly)
Mzi = -17.257, Mzj = 15.7826 (for Lz)
Shear Forces Fyy = -8.9297 (LCB: 20, POS:I)
Fzz = 5.20821 (LCB: 19, POS:I)

Depth	0.19000	Web Thick	0.00650
Top F Width	0.20000	Top F Thick	0.01000
Bot.F Width	0.20000	Bot.F Thick	0.01000
Area	0.00538	Asz	0.00124
Qyb	0.03130	Qzb	0.00500
Iyy	0.00004	Izz	0.00001
Ybar	0.10000	Zbar	0.09500
Wely	0.00039	Welz	0.00013
ry	0.08280	rz	0.04980

3. Design Parameters

Unbraced Lengths Ly = 3.90000, Lz = 3.90000, Lb = 3.90000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 0.85, Cmz = 0.85, CmLT = 1.00

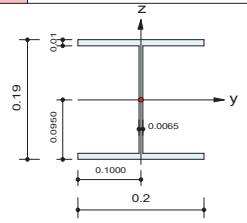
4. Checking Results

Slenderness Ratio
KL/r = 78.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 214.414/810.282 = 0.265 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 11.194/101.050 = 0.111 < 1.000 ..... O.K
M_Edz/M_Rdz = 17.2572/47.4220 = 0.364 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.676 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.015 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.021 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 600
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : HEA200 (No:50)
(Rolled : HEA200).
Member Length : 3.90000



2. Member Forces

Axial Force Fxx = -93.093 (LCB: 20, POS:J)
Bending Moments My = 5.96639, Mz = 21.0329
End Moments Myi = -11.014, Myj = 5.96639 (for Lb)
Myi = -11.014, Myj = 5.96639 (for Ly)
Mzi = -18.027, Mzj = 21.0329 (for Lz)
Shear Forces Fyy = -10.557 (LCB: 20, POS:I)
Fzz = 5.00241 (LCB: 19, POS:I)

Depth	0.19000	Web Thick	0.00650
Top F Width	0.20000	Top F Thick	0.01000
Bot.F Width	0.20000	Bot.F Thick	0.01000
Area	0.00538	Asz	0.00124
Qyb	0.03130	Qzb	0.00500
Iyy	0.00004	Izz	0.00001
Ybar	0.10000	Zbar	0.09500
Wely	0.00039	Welz	0.00013
ry	0.08280	rz	0.04980

3. Design Parameters

Unbraced Lengths Ly = 3.90000, Lz = 3.90000, Lb = 3.90000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 0.85, Cmz = 0.85, CmLT = 1.00

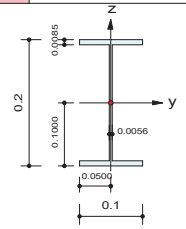
4. Checking Results

Slenderness Ratio
KL/r = 78.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 93.093/810.282 = 0.115 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 5.966/101.050 = 0.059 < 1.000 ..... O.K
M_Edz/M_Rdz = 21.0329/47.4220 = 0.444 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.576 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.018 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.020 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 622
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 5.60000



2. Member Forces

Axial Force Fxx = 113.955 (LCB: 20, POS:I)
Bending Moments My = -26.092, Mz = -0.3503
End Moments Myi = -26.092, Myj = -6.3762 (for Lb)
Myi = -26.092, Myj = -15.670 (for Ly)
Mzi = -0.3503, Mzj = 0.29053 (for Lz)
Shear Forces Fyy = -1.0593 (LCB: 20, POS:I)
Fzz = -32.677 (LCB: 20, POS:I)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 5.60000, Lz = 0.70000, Lb = 0.70000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

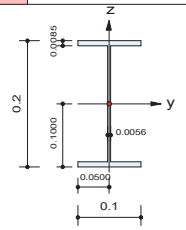
4. Checking Results

Slenderness Ratio
KL/r = 68.0 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 113.955/669.750 = 0.170 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 26.0916/51.7000 = 0.505 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.3503/10.3247 = 0.034 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.709 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.004 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.172 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 623
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 5.60000



2. Member Forces

Axial Force Fxx = 77.7853 (LCB: 19, POS:J)
Bending Moments My = -21.293, Mz = -2.5376
End Moments Myi = -10.059, Myj = -21.293 (for Lb)
Myi = -14.442, Myj = -21.293 (for Ly)
Mzi = 2.40031, Mzj = -2.5376 (for Lz)
Shear Forces Fyy = 10.9730 (LCB: 19, POS:J)
Fzz = 26.2541 (LCB: 21, POS:J)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 5.60000, Lz = 0.70000, Lb = 0.70000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

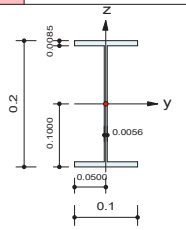
Slenderness Ratio
KL/r = 68.0 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 77.785/669.750 = 0.116 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 21.2929/51.7000 = 0.412 < 1.000 ..... O.K
M_Edz/M_Rdz = 2.5376/10.3247 = 0.246 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.774 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.044 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.138 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 630
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = 153.845 (LCB: 19, POS:1/2)
Bending Moments My = 6.46945, Mz = -0.0553
End Moments Myi = 3.24087, Myj = 6.36400 (for Lb)
Myi = -5.1058, Myj = -0.6904 (for Ly)
Mzi = -0.0049, Mzj = 0.01473 (for Lz)
Shear Forces Fyy = -0.6570 (LCB: 20, POS:3/4)
Fzz = -11.797 (LCB: 21, POS:I)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

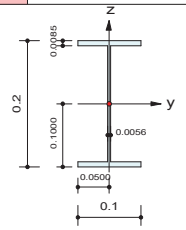
4. Checking Results

Slenderness Ratio
KL/r = 38.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 153.845/669.750 = 0.230 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 6.4695/51.7000 = 0.125 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.0553/10.3247 = 0.005 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.360 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.003 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.062 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 631
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = 155.678 (LCB: 19, POS:1/2)
Bending Moments My = 10.0147, Mz = 0.04581
End Moments Myi = 7.86515, Myj = 10.0147 (for Lb)
Myi = -5.5552, Myj = -7.1994 (for Ly)
Mzi = 0.05004, Mzj = -0.0475 (for Lz)
Shear Forces Fyy = 0.18414 (LCB: 19, POS:I)
Fzz = 21.7764 (LCB: 22, POS:J)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

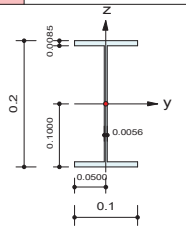
4. Checking Results

Slenderness Ratio
KL/r = 38.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 155.678/669.750 = 0.232 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 10.0147/51.7000 = 0.194 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.0458/10.3247 = 0.004 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.431 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.001 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.115 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 632
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 5.60000



2. Member Forces

Axial Force Fxx = 147.105 (LCB: 19, POS:J)
Bending Moments My = -27.257, Mz = 0.00000
End Moments Myi = -7.4797, Myj = -27.257 (for Lb)
Myi = -15.796, Myj = -27.257 (for Ly)
Mzi = -0.0013, Mzj = 0.00000 (for Lz)
Shear Forces Fyy = -0.0898 (LCB: 20, POS:I)
Fzz = -40.669 (LCB: 20, POS:I)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 5.60000, Lz = 0.70000, Lb = 0.70000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

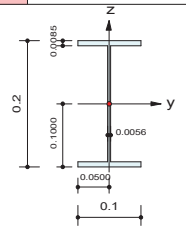
4. Checking Results

Slenderness Ratio
KL/r = 68.0 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 147.105/669.750 = 0.220 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 27.2571/51.7000 = 0.527 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.0000/10.3247 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, (Rcom+Rbend)] = 0.747 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.214 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 633
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 5.60000



2. Member Forces

Axial Force Fxx = 144.989 (LCB: 20, POS:I)
Bending Moments My = -25.675, Mz = 0.01393
End Moments Myi = -25.675, Myj = -7.5155 (for Lb)
Myi = -25.675, Myj = -11.457 (for Ly)
Mzi = 0.01393, Mzj = -0.0168 (for Lz)
Shear Forces Fyy = 0.41232 (LCB: 20, POS:J)
Fzz = -30.696 (LCB: 22, POS:I)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 5.60000, Lz = 0.70000, Lb = 0.70000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

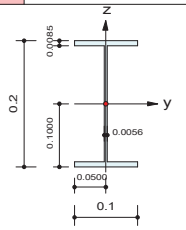
4. Checking Results

Slenderness Ratio
KL/r = 68.0 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 144.989/669.750 = 0.216 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 25.6747/51.7000 = 0.497 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.0139/10.3247 = 0.001 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.714 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.002 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.161 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 634
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = 152.290 (LCB: 20, POS:J)
Bending Moments My = -9.3817, Mz = 0.18502
End Moments Myi = -0.9289, Myj = -9.3817 (for Lb)
Myi = 4.37455, Myj = -9.3817 (for Ly)
Mzi = -0.1964, Mzj = 0.18502 (for Lz)
Shear Forces Fyy = -0.5542 (LCB: 20, POS:J)
Fzz = 15.0362 (LCB: 21, POS:J)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

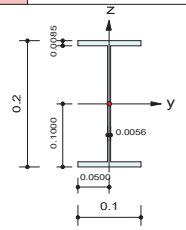
4. Checking Results

Slenderness Ratio
KL/r = 38.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 152.290/669.750 = 0.227 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 9.3817/51.7000 = 0.181 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.1850/10.3247 = 0.018 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.427 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.002 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.079 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 635
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = 159.056 (LCB: 20, POS:J)
Bending Moments My = -18.200, Mz = 0.03083
End Moments Myi = 2.09979, Myj = -18.200 (for Lb)
Myi = -3.9125, Myj = -18.200 (for Ly)
Mzi = -0.0331, Mzj = 0.03083 (for Lz)
Shear Forces Fyy = -0.0934 (LCB: 20, POS:J)
Fzz = 31.7145 (LCB: 22, POS:J)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

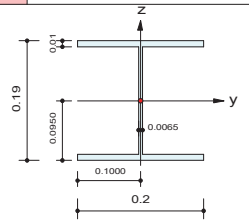
4. Checking Results

Slenderness Ratio
KL/r = 38.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 159.056/669.750 = 0.237 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 18.2004/51.7000 = 0.352 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.0308/10.3247 = 0.003 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.593 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.167 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 599
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : HEA200 (No:50)
(Rolled : HEA200).
Member Length : 3.90000



2. Member Forces

Axial Force Fxx = -48.304 (LCB: 20, POS:J)
Bending Moments My = 30.0006, Mz = 15.7744
End Moments Myi = -26.497, Myj = 30.0006 (for Lb)
Myi = -26.497, Myj = 30.0006 (for Ly)
Mzi = -14.945, Mzj = 15.7744 (for Lz)
Shear Forces Fyy = -8.3027 (LCB: 20, POS:I)
Fzz = -15.270 (LCB: 20, POS:I)

Depth	0.19000	Web Thick	0.00650
Top F Width	0.20000	Top F Thick	0.01000
Bot.F Width	0.20000	Bot.F Thick	0.01000
Area	0.00538	Asz	0.00124
Qyb	0.03130	Qzb	0.00500
Iyy	0.00004	Izz	0.00001
Ybar	0.10000	Zbar	0.09500
Wely	0.00039	Welz	0.00013
ry	0.08280	rz	0.04980

3. Design Parameters

Unbraced Lengths Ly = 3.90000, Lz = 3.90000, Lb = 3.90000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 0.85, Cmz = 0.85, CmLT = 1.00

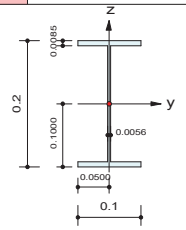
4. Checking Results

Slenderness Ratio
KL/r = 78.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 48.30/1264.30 = 0.038 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 30.001/101.050 = 0.297 < 1.000 ..... O.K
M_Edz/M_Rdz = 15.7744/47.4220 = 0.333 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.668 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.014 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.062 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 643
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 5.60000



2. Member Forces

Axial Force Fxx = 147.468 (LCB: 19, POS:J)
Bending Moments My = -30.897, Mz = 0.00005
End Moments Myi = -8.4826, Myj = -30.897 (for Lb)
Myi = -16.456, Myj = -30.897 (for Ly)
Mzi = 0.00069, Mzj = 0.00005 (for Lz)
Shear Forces Fyy = 0.11602 (LCB: 20, POS:I)
Fzz = -42.456 (LCB: 20, POS:I)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 5.60000, Lz = 0.70000, Lb = 0.70000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

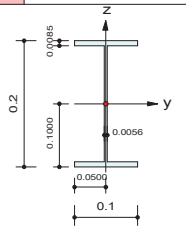
4. Checking Results

Slenderness Ratio
KL/r = 68.0 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 147.468/669.750 = 0.220 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 30.8967/51.7000 = 0.598 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.0001/10.3247 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.818 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.223 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 644
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 5.60000



2. Member Forces

Axial Force Fxx = 145.656 (LCB: 20, POS:I)
Bending Moments My = -29.077, Mz = 0.00519
End Moments Myi = -29.077, Myj = -8.4813 (for Lb)
Myi = -29.077, Myj = -13.552 (for Ly)
Mzi = 0.00519, Mzj = -0.0032 (for Lz)
Shear Forces Fyy = -0.4665 (LCB: 19, POS:J)
Fzz = -35.200 (LCB: 22, POS:I)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 5.60000, Lz = 0.70000, Lb = 0.70000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

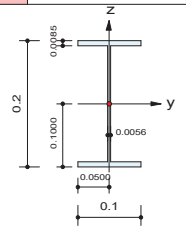
4. Checking Results

Slenderness Ratio
KL/r = 68.0 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 145.656/669.750 = 0.217 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 29.0770/51.7000 = 0.562 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.0052/10.3247 = 0.001 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.780 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.002 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.185 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 645
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = 123.701 (LCB: 20, POS:J)
Bending Moments My = -11.553, Mz = 0.12833
End Moments Myi = -0.8480, Myj = -11.553 (for Lb)
Myi = 2.52952, Myj = -11.553 (for Ly)
Mzi = -0.1495, Mzj = 0.12833 (for Lz)
Shear Forces Fyy = 0.64476 (LCB: 20, POS:I)
Fzz = 16.1692 (LCB: 22, POS:J)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

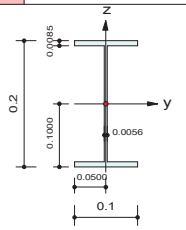
Slenderness Ratio
KL/r = 38.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 123.701/669.750 = 0.185 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 11.5526/51.7000 = 0.223 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.1283/10.3247 = 0.012 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.421 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.003 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.085 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 646
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = 133.526 (LCB: 20, POS:J)
Bending Moments My = -11.811, Mz = 0.06470
End Moments Myi = 4.75768, Myj = -11.811 (for Lb)
Myi = -7.3692, Myj = -11.811 (for Ly)
Mzi = -0.0579, Mzj = 0.06470 (for Lz)
Shear Forces Fyy = -0.1781 (LCB: 20, POS:3/4)
Fzz = 24.8362 (LCB: 22, POS:J)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

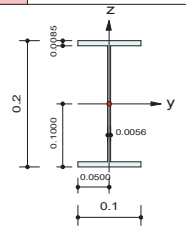
4. Checking Results

Slenderness Ratio
KL/r = 38.3 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 133.526/669.750 = 0.199 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 11.8106/51.7000 = 0.228 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.0647/10.3247 = 0.006 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.434 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.001 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.131 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 647
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 5.60000



2. Member Forces

Axial Force Fxx = 156.681 (LCB: 19, POS:J)
Bending Moments My = -22.241, Mz = 0.26467
End Moments Myi = -8.5267, Myj = -22.241 (for Lb)
Myi = -12.708, Myj = -22.241 (for Ly)
Mzi = -0.2594, Mzj = 0.26467 (for Lz)
Shear Forces Fyy = 1.04175 (LCB: 20, POS:I)
Fzz = -29.093 (LCB: 20, POS:I)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 5.60000, Lz = 0.70000, Lb = 0.70000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

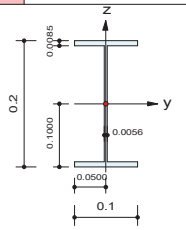
4. Checking Results

Slenderness Ratio
KL/r = 68.0 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 156.681/669.750 = 0.234 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 22.2411/51.7000 = 0.430 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.2647/10.3247 = 0.026 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.690 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.004 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.153 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 648
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE200 (No:51)
(Rolled : IPE200).
Member Length : 5.60000



2. Member Forces

Axial Force Fxx = 100.188 (LCB: 19, POS:J)
Bending Moments My = -20.343, Mz = 3.97097
End Moments Myi = -12.610, Myj = -20.343 (for Lb)
Myi = -13.999, Myj = -20.343 (for Ly)
Mzi = -3.8532, Mzj = 3.97097 (for Lz)
Shear Forces Fyy = -26.391 (LCB: 20, POS:J)
Fzz = 25.8227 (LCB: 19, POS:J)

Depth	0.20000	Web Thick	0.00560
Top F Width	0.10000	Top F Thick	0.00850
Bot.F Width	0.10000	Bot.F Thick	0.00850
Area	0.00285	Asz	0.00112
Qyb	0.01872	Qzb	0.00125
Iyy	0.00002	Izz	0.00000
Ybar	0.05000	Zbar	0.10000
Wely	0.00019	Welz	0.00003
ry	0.08230	rz	0.02282

3. Design Parameters

Unbraced Lengths Ly = 5.60000, Lz = 0.70000, Lb = 0.70000
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

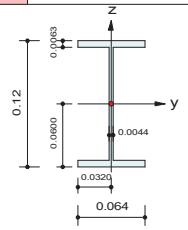
4. Checking Results

Slenderness Ratio
KL/r = 68.0 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/Nt_Rd = 100.188/669.750 = 0.150 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 20.3432/51.7000 = 0.393 < 1.000 ..... O.K
M_Edz/M_Rdz = 3.9710/10.3247 = 0.385 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend)] = 0.928 < 1.000 ..... O.K
Shear Resistance
V_Edy/Vy_Rd = 0.107 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.136 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12125
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -2.4198 (LCB: 20, POS:1/2)
Bending Moments My = 1.08225, Mz = -0.0005
End Moments Myi = 0.75972, Myj = 1.08225 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0011, Mzj = 0.00076 (for Lz)
Shear Forces Fyy = -0.0087 (LCB: 23, POS:I)
Fzz = 1.05426 (LCB: 21, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

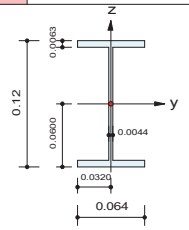
Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 2.420/310.200 = 0.008 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 1.0822/14.2880 = 0.076 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00047/3.15422 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.090 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.012 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12126
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -2.1439 (LCB: 20, POS:1/2)
Bending Moments My = 0.86755, Mz = -0.0018
End Moments Myi = 0.67741, Myj = 0.86755 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = 0.00005, Mzj = -0.0014 (for Lz)
Shear Forces Fyy = -0.0082 (LCB: 24, POS:J)
Fzz = -0.9548 (LCB: 21, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

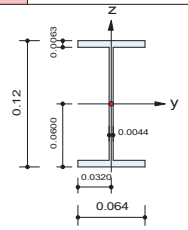
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 2.144/310.200 = 0.007 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.8676/14.2880 = 0.061 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00177/3.15422 = 0.001 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.073 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.011 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12127
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -1.6012 (LCB: 20, POS:1/2)
Bending Moments My = 0.77735, Mz = 0.00070
End Moments Myi = 0.40569, Myj = 0.77087 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0008, Mzj = -0.0002 (for Lz)
Shear Forces Fyy = -0.0085 (LCB: 24, POS:J)
Fzz = 0.61619 (LCB: 20, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

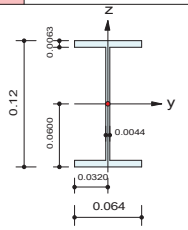
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 1.601/310.200 = 0.005 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.7773/14.2880 = 0.054 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00070/3.15422 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.064 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.007 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12128
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -0.1011 (LCB: 21, POS:3/4)
Bending Moments My = 0.94101, Mz = 0.00100
End Moments Myi = 0.85860, Myj = 0.80419 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = 0.00111, Mzj = -0.0011 (for Lz)
Shear Forces Fyy = -0.0086 (LCB: 23, POS:I)
Fzz = 1.25258 (LCB: 18, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

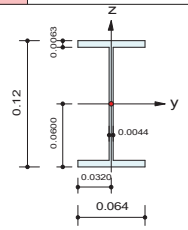
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 28)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 0.101/310.200 = 0.000 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.9410/14.2880 = 0.066 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00100/3.15422 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.071 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.015 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12129
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -0.3605 (LCB: 21, POS:1/2)
Bending Moments My = 0.79923, Mz = -0.0005
End Moments Myi = 0.64601, Myj = 0.63053 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0001, Mzj = -0.0002 (for Lz)
Shear Forces Fyy = -0.0082 (LCB: 24, POS:J)
Fzz = -1.0720 (LCB: 18, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

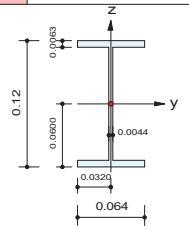
Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 0.360/310.200 = 0.001 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.7992/14.2880 = 0.056 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00051/3.15422 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.061 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.013 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12130
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -0.0055 (LCB: 18, POS:1/2)
Bending Moments My = 0.56270, Mz = -0.0002
End Moments Myi = 0.40510, Myj = 0.55824 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0003, Mzj = 0.00029 (for Lz)
Shear Forces Fyy = -0.0089 (LCB: 24, POS:J)
Fzz = -0.5521 (LCB: 18, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

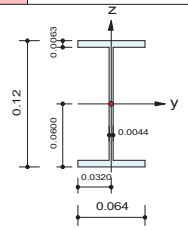
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 0.005/310.200 = 0.000 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.5627/14.2880 = 0.039 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00024/3.15422 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.042 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.006 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12131
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -0.3030 (LCB: 21, POS:1/2)
Bending Moments My = 1.20098, Mz = 0.00216
End Moments Myi = 0.88660, Myj = 1.20098 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = 0.00385, Mzj = -0.0034 (for Lz)
Shear Forces Fyy = 0.02042 (LCB: 19, POS:I)
Fzz = 1.11757 (LCB: 22, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

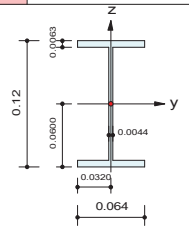
Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 0.303/310.200 = 0.001 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 1.2010/14.2880 = 0.084 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00216/3.15422 = 0.001 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.091 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.013 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12132
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -0.1084 (LCB: 21, POS:1/2)
Bending Moments My = 0.87190, Mz = -0.0006
End Moments Myi = 0.84402, Myj = 0.30527 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0006, Mzj = 0.00035 (for Lz)
Shear Forces Fyy = -0.0085 (LCB: 24, POS:J)
Fzz = -0.9718 (LCB: 22, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

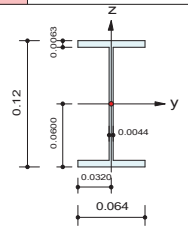
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 0.108/310.200 = 0.000 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.8719/14.2880 = 0.061 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00062/3.15422 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.066 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.011 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12133
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -0.0351 (LCB: 21, POS:1/2)
Bending Moments My = 0.90095, Mz = -0.0034
End Moments Myi = 0.38774, Myj = 0.88685 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0021, Mzj = 0.00236 (for Lz)
Shear Forces Fyy = -0.0200 (LCB: 19, POS:J)
Fzz = 0.86980 (LCB: 21, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

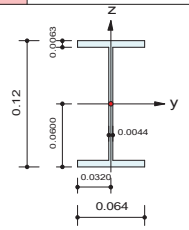
Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 0.035/310.200 = 0.000 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.9010/14.2880 = 0.063 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00340/3.15422 = 0.001 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.068 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.010 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12134
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -0.9228 (LCB: 22, POS:1/2)
Bending Moments My = 1.15634, Mz = 0.01012
End Moments Myi = 0.86187, Myj = 1.15598 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = 0.01023, Mzj = -0.0104 (for Lz)
Shear Forces Fyy = 0.04272 (LCB: 19, POS:1/2)
Fzz = 1.15218 (LCB: 21, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

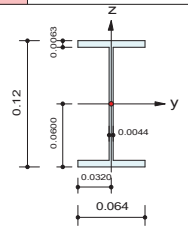
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 0.923/310.200 = 0.003 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 1.1563/14.2880 = 0.081 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.01012/3.15422 = 0.003 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.092 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.013 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12135
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -2.9315 (LCB: 20, POS:1/2)
Bending Moments My = 0.83602, Mz = -0.0032
End Moments Myi = 0.80701, Myj = 0.29639 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0032, Mzj = 0.00313 (for Lz)
Shear Forces Fyy = -0.0215 (LCB: 20, POS:3/4)
Fzz = -1.0713 (LCB: 21, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

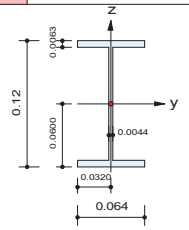
Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 2.931/310.200 = 0.009 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.8360/14.2880 = 0.059 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00318/3.15422 = 0.001 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.074 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.013 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12136
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -0.4725 (LCB: 22, POS:1/2)
Bending Moments My = 0.82038, Mz = -0.0102
End Moments Myi = 0.35816, Myj = 0.80940 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0106, Mzj = 0.01028 (for Lz)
Shear Forces Fyy = -0.0419 (LCB: 20, POS:1/4)
Fzz = 0.82598 (LCB: 22, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

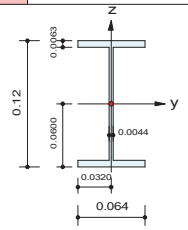
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 0.472/310.200 = 0.002 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.8204/14.2880 = 0.057 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.01020/3.15422 = 0.003 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.065 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.010 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12137
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -7.4817 (LCB: 19, POS:3/4)
Bending Moments My = 0.90551, Mz = 0.01305
End Moments Myi = 0.70343, Myj = 0.73292 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = 0.02018, Mzj = -0.0208 (for Lz)
Shear Forces Fyy = 0.07286 (LCB: 19, POS:1/4)
Fzz = 1.28686 (LCB: 22, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

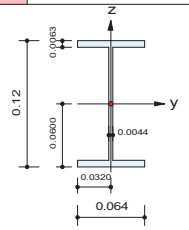
Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 7.482/310.200 = 0.024 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.9055/14.2880 = 0.063 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.01305/3.15422 = 0.004 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.099 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.001 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.015 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12138
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -10.599 (LCB: 19, POS:1/2)
Bending Moments My = 0.92560, Mz = -0.0030
End Moments Myi = 0.75312, Myj = 0.74843 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = 0.00214, Mzj = -0.0024 (for Lz)
Shear Forces Fyy = -0.0211 (LCB: 20, POS:3/4)
Fzz = -1.2948 (LCB: 21, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

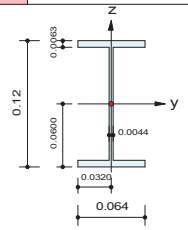
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 10.599/310.200 = 0.034 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.9256/14.2880 = 0.065 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00300/3.15422 = 0.001 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.110 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.015 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12139
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -4.2095 (LCB: 19, POS:1/4)
Bending Moments My = 0.39741, Mz = -0.0201
End Moments Myi = 0.39741, Myj = 0.44293 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0201, Mzj = 0.01912 (for Lz)
Shear Forces Fyy = -0.0685 (LCB: 20, POS:3/4)
Fzz = -0.6258 (LCB: 21, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

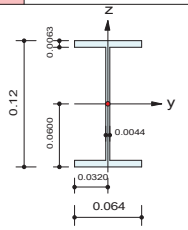
Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 4.209/310.200 = 0.014 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.3974/14.2880 = 0.028 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.02008/3.15422 = 0.006 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.050 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.001 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.007 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12140
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -23.055 (LCB: 19, POS:3/4)
Bending Moments My = 0.84517, Mz = 0.00157
End Moments Myi = 0.49324, Myj = 0.64320 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = 0.01097, Mzj = -0.0104 (for Lz)
Shear Forces Fyy = 0.10740 (LCB: 20, POS:1/4)
Fzz = 1.21470 (LCB: 22, POS:J)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

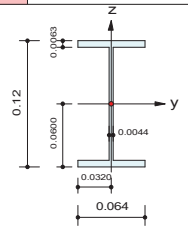
4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 23.055/310.200 = 0.074 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.8452/14.2880 = 0.059 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00157/3.15422 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.152 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.001 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.014 < 1.000 ..... O.K

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12141
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -25.957 (LCB: 19, POS:1/2)
Bending Moments My = 1.04232, Mz = -0.0013
End Moments Myi = 0.84306, Myj = 0.84538 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0003, Mzj = -0.0007 (for Lz)
Shear Forces Fyy = -0.0081 (LCB: 23, POS:I)
Fzz = -1.4528 (LCB: 21, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

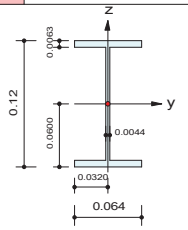
Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 25.957/310.200 = 0.084 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 1.0423/14.2880 = 0.073 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.00129/3.15422 = 0.000 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.178 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.000 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.017 < 1.000 ..... O.K

midas Gen Steel Checking Result

MIDAS	Company		Project Title	
	Author	LIONTOS AND ASSOC.	File Name	C:\...\Desktop\model\151494 R1.mgb

1. Design Information

Design Code : Eurocode3:05
Unit System : kN, m
Member No : 12142
Material : S235 (No:2)
(Fy = 235000, Es = 210000000)
Section Name : IPE120 (No:8)
(Rolled : IPE120).
Member Length : 3.15333



2. Member Forces

Axial Force Fxx = -17.701 (LCB: 19, POS:1/4)
Bending Moments My = 0.33002, Mz = -0.0103
End Moments Myi = 0.33002, Myj = 0.17546 (for Lb)
Myi = 0.00000, Myj = 0.00000 (for Ly)
Mzi = -0.0103, Mzj = 0.00985 (for Lz)
Shear Forces Fyy = -0.0995 (LCB: 20, POS:3/4)
Fzz = -0.6226 (LCB: 19, POS:I)

Depth	0.12000	Web Thick	0.00440
Top F Width	0.06400	Top F Thick	0.00630
Bot.F Width	0.06400	Bot.F Thick	0.00630
Area	0.00132	Asz	0.00053
Qyb	0.00665	Qzb	0.00051
Iyy	0.00000	Izz	0.00000
Ybar	0.03200	Zbar	0.06000
Wely	0.00005	Welz	0.00001
ry	0.04894	rz	0.01469

3. Design Parameters

Unbraced Lengths Ly = 3.15333, Lz = 0.78833, Lb = 0.78833
Effective Length Factors Ky = 1.00, Kz = 1.00
Equivalent Uniform Moment Factors Cmy = 1.00, Cmz = 1.00, CmLT = 1.00

4. Checking Results

Slenderness Ratio
KL/r = 64.4 < 200.0 (LCB: 34)..... O.K
Axial Resistance
N_Ed/MIN[Nc_Rd, Nb_Rd] = 17.701/310.200 = 0.057 < 1.000 ..... O.K
Bending Resistance
M_Edy/M_Rdy = 0.3300/14.2880 = 0.023 < 1.000 ..... O.K
M_Edz/M_Rdz = 0.01031/3.15422 = 0.003 < 1.000 ..... O.K
Combined Resistance
RNRd = MAX[M_Edy/Mny_Rd, M_Edz/Mnz_Rd]
Rmax1 = (M_Edy/Mny_Rd)^Alpha + (M_Edz/Mnz_Rd)^Beta
Rcom = N_Ed/(A*fy/Gamma_M0), Rbend = M_Edy/My_Rd + M_Edz/Mz_Rd
Rc_LT1 = N_Ed/(Xiy*A*fy/Gamma_M1)
Rb_LT1 = (kyy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (kyz*Msdz)/(Wplz*fy/Gamma_M1)
Rc_LT2 = N_Ed/(Xiz*A*fy/Gamma_M1)
Rb_LT2 = (Kzy*M_Edy)/(Xi_LT*Wply*fy/Gamma_M1) + (Kzz*Msdz)/(Wplz*fy/Gamma_M1)
Rmax = MAX[RNRd, Rmax1, (Rcom+Rbend), MAX(Rc_LT1+Rb_LT1, Rc_LT2+Rb_LT2)] = 0.094 < 1.000 .. O.K
Shear Resistance
V_Edy/Vy_Rd = 0.001 < 1.000 ..... O.K
V_Edz/Vz_Rd = 0.007 < 1.000 ..... O.K

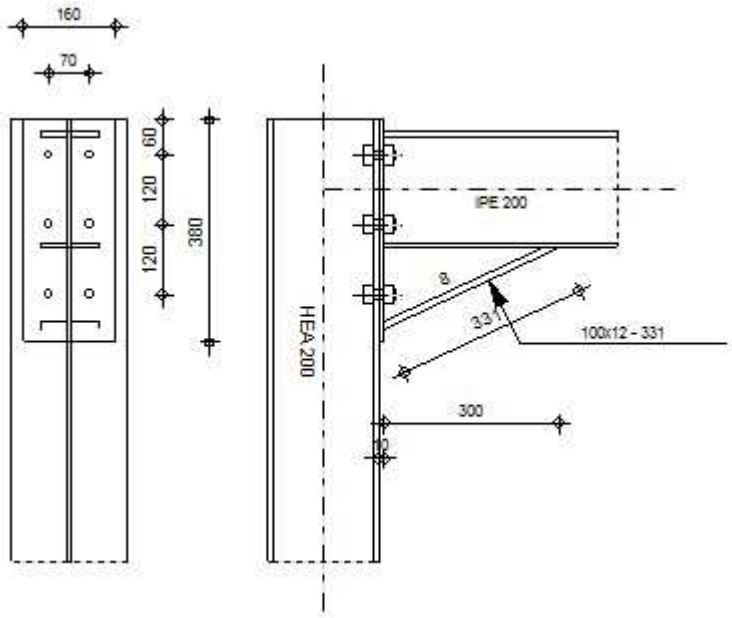
Autodesk Robot Structural Analysis Professional 2016

ΣΧΕΔΙΑΣΜΟΣ ΠΑΚΤΩΜΕΝΗΣ ΣΥΝΔΕΣΗΣ ΔΟΚΟΥ-ΥΠΟΣΤΥΛΩΜΑΤΟΣ

EN 1993-1-8:2005/AC:2009

OK

ΛΟΓΟΣ **0.77**



ΓΕΝΙΚΟ

ΣΥΝΔΕΣΗ no.: 1
Όνομα σύνδεσης: Frame knee

ΓΕΩΜΕΤΡΙΑ

ΥΠΟΣΤΥΛΩΜΑ

ΔΙΑΤΟΜΗ: HEA 200

a =	-90.0	[Deg]	ΓΩΝΙΑ ΚΛΙΣΗΣ
h_c =	190	[mm]	ΥΨΟΣ ΔΙΑΤΟΜΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
b_{fc} =	200	[mm]	ΠΛΑΤΟΣ ΔΙΑΤΟΜΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
t_{wc} =	7	[mm]	ΠΑΧΟΣ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
t_{fc} =	10	[mm]	ΠΑΧΟΣ ΠΕΛΜΑΤΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
r_c =	18	[mm]	ΑΚΤΙΝΑ ΣΥΝΑΡΜΟΓΗΣ ΔΙΑΤΟΜΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
A_c =	53.83	[cm^2]	ΔΙΑΣΤΑΥΡΟΥΜΕΝΗ ΠΕΡΙΟΧΗ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
I_{xc} =	3692.15	[cm^4]	ΡΟΠΕΣ ΑΔΡΑΝΕΙΑΣ ΤΗΣ ΔΙΑΤΟΜΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ

ΥΛΙΚΟ S235

f_{yc} =	235.00	[MPa]	ΑΝΤΟΧΗ

ΔΟΚΟΣ

ΔΙΑΤΟΜΗ: IPE 200

a =	0.0	[Deg]	ΓΩΝΙΑ ΚΛΙΣΗΣ
h_b =	200	[mm]	ΥΨΟΣ ΤΟΜΗΣ ΔΟΚΑΡΙΟΥ
b_f =	100	[mm]	ΠΛΑΤΟΣ ΤΟΜΗΣ ΔΟΚΑΡΙΟΥ
t_{wb} =	6	[mm]	ΠΑΧΟΣ ΤΟΥ ΚΟΡΜΟΥ ΔΟΚΑΡΙΟΥ
t_{fb} =	9	[mm]	ΠΑΧΟΣ ΠΕΛΜΑΤΟΣ ΔΟΚΑΡΙΟΥ
r_b =	12	[mm]	ΑΚΤΙΝΑ ΣΥΝΑΡΜΟΓΗΣ ΔΙΑΤΟΜΗΣ ΔΟΚΑΡΙΟΥ
r_b =	12	[mm]	ΑΚΤΙΝΑ ΣΥΝΑΡΜΟΓΗΣ ΔΙΑΤΟΜΗΣ ΔΟΚΑΡΙΟΥ
A_b =	28.48	[cm^2]	ΔΙΑΣΤΑΥΡΟΥΜΕΝΗ ΠΕΡΙΟΧΗ

a = 0.0 [Deg] ΓΩΝΙΑ ΚΛΙΣΗΣ
I_{xb} = 1943.17 [cm^4] ΡΟΠΕΣ ΑΔΡΑΝΕΙΑΣ ΤΗΣ ΔΙΑΤΟΜΗΣ ΤΟΥ ΔΟΚΑΡΙΟΥ
ΥΛΙΚΟ S235
f_{yb} = 235.00 [MPa] ΑΝΤΟΧΗ

ΚΟΧΛΙΕΣ

The shear plane passes through the UNTHREADED portion of the bolt.
d = 16 [mm] ΔΙΑΜΕΤΡΟΣ ΚΟΧΛΙΑ
ΠΟΙΟΤΗΤΑ = 8.8 ΚΑΤΗΓΟΡΙΑ ΚΟΧΛΙΩΝ
F_{tRd} = 90.43 [kN] Εφελκυστική αντοχή κοχλία
n_h = 2 ΑΡΙΘΜΟΣ ΚΟΧΛΙΩΝ ΥΠΟΣΤΥΛΩΜΑΤΩΝ
n_v = 3 ΑΡΙΘΜΟΣ ΣΕΙΡΩΝ ΚΟΧΛΙΩΝ
h_1 = 60 [mm] Απόσταση μεταξύ πρώτου κοχλία και άνω άκρου λεπίδας σύνδεσης
ΟΡΙΖΟΝΤΙΑ ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ e_i = 70 [mm]
ΚΑΤΑΚΟΡΥΦΗ ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ p_i = 120;120 [mm]

ΠΛΑΚΑ

h_p = 380 [mm] ΥΨΟΣ ΛΕΠΙΔΑΣ
b_p = 160 [mm] ΠΛΑΤΟΣ ΛΕΠΙΔΑΣ
t_p = 10 [mm] ΠΑΧΟΣ ΛΕΠΙΔΑΣ
ΥΛΙΚΟ S235
f_{yp} = 235.00 [MPa] ΑΝΤΟΧΗ

ΚΑΤΩ ΕΝΙΣΧΥΣΗ

w_d = 100 [mm] ΠΛΑΤΟΣ ΛΕΠΙΔΑΣ
t_{fd} = 12 [mm] ΠΑΧΟΣ ΠΕΛΜΑΤΟΣ
h_d = 140 [mm] ΥΨΟΣ ΛΕΠΙΔΑΣ
t_{wd} = 8 [mm] ΠΑΧΟΣ ΚΟΡΜΟΥ
l_d = 300 [mm] ΜΗΚΟΣ ΛΕΠΙΔΑΣ
a = 25.0 [Deg] ΓΩΝΙΑ ΚΛΙΣΗΣ
ΥΛΙΚΟ Def
f_{ybu} = 235.00 [MPa] ΑΝΤΟΧΗ

ΣΥΓΚΟΛΛΗΣΕΙΣ ΕΞΩΡΑΦΗΣ

a_w = 5 [mm] ΣΥΓΚΟΛΛΗΣΗ ΚΟΡΜΟΥ
a_f = 8 [mm] ΚΟΛΛΗΣΗ ΠΕΛΜΑΤΟΣ
a_{fd} = 5 [mm] ΟΡΙΖΟΝΤΙΑ ΣΥΓΚΟΛΛΗΣΗ

ΣΥΝΤΕΛΕΣΤΕΣ ΥΛΙΚΟΥ

g_{M0} =	1.00	ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	[2.2]
g_{M1} =	1.00	ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	[2.2]
g_{M2} =	1.25	ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	[2.2]
g_{M3} =	1.25	ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	[2.2]

ΦΟΡΤΙΑ

ΟΡΙΑΚΗ ΚΑΤΑΣΤΑΣΗ ΑΣΤΟΧΙΑΣ
ΠΕΡΙΠΤΩΣΗ: ΥΠΟΛΟΓΙΣΜΟΙ ΑΠΟ ΧΡΗΣΤΗ.
$M_{b1,Ed}$ = 15.80 [kN*m] ΡΟΠΗ ΚΑΜΨΗΣ ΣΤΟ ΔΕΞΙ ΔΟΚΑΡΙ
$V_{b1,Ed}$ = 23.90 [kN] ΔΥΝΑΜΗ ΔΙΑΤΜΗΣΗΣ ΣΤΟ ΔΕΞΙ ΔΟΚΑΡΙ
$N_{b1,Ed}$ = 150.38 [kN] ΑΞΟΝΙΚΗ ΔΥΝΑΜΗ ΣΤΟ ΔΕΞΙ ΔΟΚΑΡΙ
$M_{c2,Ed}$ = 37.90 [kN*m] ΡΟΠΗ ΚΑΜΨΗΣ ΣΤΟ ΥΠΟΣΤΥΛΩΜΑ ΑΝΩΤΑΤΗΣ ΣΤΑΘΜΗΣ
$V_{c2,Ed}$ = 19.00 [kN] ΔΥΝΑΜΗ ΔΙΑΤΜΗΣΗΣ ΣΤΟ ΥΠΟΣΤΥΛΩΜΑ ΑΝΩΤΑΤΗΣ ΣΤΑΘΜΗΣ
$N_{c2,Ed}$ = -125.80 [kN] ΑΞΟΝΙΚΗ ΔΥΝΑΜΗ ΣΤΟ ΥΠΟΣΤΥΛΩΜΑ ΑΝΩΤΑΤΗΣ ΣΤΑΘΜΗΣ

ΑΠΟΤΕΛΕΣΜΑΤΑ

ΑΝΤΟΧΕΣ ΔΟΚΑΡΙΟΥ

ΕΦΕΛΚΥΣΜΟΣ

A_b = 28.48 [cm^2] ΠΕΡΙΟΧΗ EN1993-1-1:[6.2.3]

$N_{tb,Rd} = A_b f_{yb} / g_{M0}$

$N_{tb,Rd}$ = 669.38 [kN] ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΔΙΑΤΟΜΗΣ ΣΕ ΕΦΕΛΚΥΣΜΟ EN1993-1-1:[6.2.3]

ΔΙΑΤΜΗΣΗ

A_{vb} = 25.20 [cm^2] ΠΕΡΙΟΧΗ ΔΙΑΤΜΗΣΗΣ EN1993-1-1:[6.2.6.(3)]

$V_{cb,Rd} = A_{vb} (f_{yb} / Ö3) / g_{M0}$

$V_{cb,Rd}$ = 341.91 [kN] ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΔΙΑΤΟΜΗΣ ΣΕ ΔΙΑΤΜΗΣΗ EN1993-1-1:[6.2.6.(2)]

$V_{b1,Ed} / V_{cb,Rd} \le 1,0$ 0.07 < 1.00 ΕΠΑΛΗΘΕΥΕΤΑΙ (0.07)

ΚΑΜΨΗ - ΠΛΑΣΤΙΚΗ ΡΟΠΗ(ΧΩΡΙΣ ΕΝΙΣΧΥΣΕΙΣ)

W_{plb} = 220.66 [cm^3] ΠΛΑΣΤΙΚΗ ΔΙΑΤΟΜΗ modulus EN1993-1-1:[6.2.5.(2)]

$M_{b,pl,Rd} = W_{plb} f_{yb} / g_{M0}$

$M_{b,pl,Rd}$ = 51.85 [kN*m] ΠΛΑΣΤΙΚΗ ΑΝΤΟΧΗ ΔΙΑΤΟΜΗΣ ΣΕ ΚΑΜΨΗ (ΧΩΡΙΣ ΕΝΙΣΧΥΣΕΙΣ) EN1993-1-1:[6.2.5.(2)]

ΚΑΜΨΗ ΣΤΗΝ ΕΠΙΦΑΝΕΙΑ ΕΠΑΦΗΣ ΜΕ ΠΛΑΚΑ Η'ΣΕ ΣΥΝΔΕΔΕΜΕΝΟ ΜΕΛΟΣ

W_{pl} = 490.13 [cm^3] ΠΛΑΣΤΙΚΗ ΔΙΑΤΟΜΗ modulus EN1993-1-1:[6.2.5]

$M_{cb,Rd} = W_{pl} f_{yb} / g_{M0}$

$M_{cb,Rd}$ = 115.18 [kN*m] ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΔΙΑΤΟΜΗΣ ΣΕ ΚΑΜΨΗ EN1993-1-1:[6.2.5]

ΠΕΛΜΑ-ΚΟΡΜΟΣ ΘΛΙΨΗ

$M_{cb,Rd}$ = 115.18 [kN*m] ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΔΙΑΤΟΜΗΣ ΣΕ ΚΑΜΨΗ EN1993-1-1:[6.2.5]

h_f = 329 [mm] ΚΕΝΤΡΟΒΑΡΙΚΗ ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΤΩΝ ΠΕΛΜΑΤΩΝ [6.2.6.7.(1)]

$F_{c,fb,Rd} = M_{cb,Rd} / h_f$

$F_{c,fb,Rd}$ = 349.95 [kN] ΑΝΤΟΧΗ ΘΛΙΒΟΜΕΝΟΥ ΠΕΛΜΑΤΟΣ ΚΑΙ ΚΟΡΜΟΥ [6.2.6.7.(1)]

ΚΟΡΜΟΣ Η ΕΛΑΣΜΑ ΠΕΛΜΑΤΟΣ - ΘΛΙΨΗ - ΣΤΑΘΜΗ ΚΑΤΩ ΠΕΛΜΑΤΟΣ ΔΟΚΑΡΙΟΥ

ΦΕΡΩΝ:

b = 0.0 [Deg] ΓΩΝΙΑ ΜΕΤΑΞΥ ΜΠΡΟΣΤΙΝΗΣ ΠΛΑΚΑΣ ΚΑΙ ΔΟΚΑΡΙΟΥ

g = 25.0 [Deg] ΕΠΙΚΛΙΣΗ ΟΡΙΖΟΝΤΙΟΥ ΕΛΑΣΜΑΤΟΣ ΣΥΝΔΕΣΗΣ

$b_{eff,c,wb}$ = 154 [mm] ΕΝΕΡΓΟ ΠΛΑΤΟΣ ΤΟΥ ΚΟΡΜΟΥ ΓΙΑ ΘΛΙΨΗ [6.2.6.2.(1)]

A_{vb} = 14.00 [cm^2] ΠΕΡΙΟΧΗ ΔΙΑΤΜΗΣΗΣ EN1993-1-1:[6.2.6.(3)]

w = 0.82 ΜΕΙΩΤΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΑΛΛΗΛΕΠΙΔΡΑΣΗ ΜΕ ΔΙΑΤΜΗΣΗ [6.2.6.2.(1)]

$s_{com,Ed}$ = 11.85 [MPa] ΜΕΓΙΣΤΟΣ ΘΛΙΠΤΙΚΗ ΤΑΣΗ ΣΤΟ ΚΟΡΜΟ [6.2.6.2.(2)]

k_{wc} = 1.00 ΜΕΙΩΤΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΕΞΑΡΤΩΜΕΝΟΣ ΑΠΟ ΘΛΙΠΤΙΚΕΣ ΤΑΣΕΙΣ [6.2.6.2.(2)]

$F_{c,wb,Rd1} = [w k_{wc} b_{eff,c,wb} t_{wb} f_{yb} / g_{M0}] \cos(g) / \sin(g - b)$

$F_{c,wb,Rd1}$ = 354.62 [kN] ΑΝΤΟΧΗ ΚΟΡΜΟΥ ΔΟΚΑΡΙΟΥ [6.2.6.2.(1)]

ΛΥΓΙΣΜΟΣ:

d_{wb} = 159 [mm] ΥΨΟΣ ΚΟΡΜΟΥ ΥΠΟ ΘΛΙΨΗ [6.2.6.2.(1)]

l_p = 0.87 ΛΥΓΗΡΟΤΗΤΑ ΠΛΑΚΑΣ ΜΕΛΟΥΣ [6.2.6.2.(1)]

r = 0.89 ΜΕΙΩΤΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΛΥΓΙΣΜΟ ΜΕΛΟΥΣ [6.2.6.2.(1)]

$F_{c,wb,Rd2} = [w k_{wc} r b_{eff,c,wb} t_{wb} f_{yb} / g_{M1}] \cos(g) / \sin(g - b)$

$F_{c,wb,Rd2}$ = 313.96 [kN] ΑΝΤΟΧΗ ΚΟΡΜΟΥ ΔΟΚΑΡΙΟΥ [6.2.6.2.(1)]

ΤΕΛΙΚΗ ΑΝΤΟΧΗ:

$F_{c,wb,Rd,low} = Min (F_{c,wb,Rd1} , F_{c,wb,Rd2})$

$F_{c,wb,Rd,low}$ = 313.96 [kN] ΑΝΤΟΧΗ ΚΟΡΜΟΥ ΔΟΚΑΡΙΟΥ [6.2.6.2.(1)]

ΑΝΤΟΧΕΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ

ΚΟΡΜΟΣ - ΔΙΑΤΜΗΣΗ

$M_{b1,Ed}$ = 15.80 [kN*m] ΡΟΠΗ ΚΑΜΨΗΣ (ΔΕΞΙ ΔΟΚΑΡΙ) [5.3.(3)]

$M_{b2,Ed}$ = 0.00 [kN*m] ΡΟΠΗ ΚΑΜΨΗΣ (ΑΡΙΣΤΕΡΟ ΔΟΚΑΡΙ) [5.3.(3)]

$V_{c1,Ed}$ = 0.00 [kN] ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ (ΥΠΟΣΤΥΛΩΜΑ ΒΑΣΗΣ) [5.3.(3)]

$V_{c2,Ed}$ = 19.00 [kN] ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ (ΑΝΩΤΕΡΟ ΥΠΟΣΤΥΛΩΜΑ) [5.3.(3)]

z = 233 [mm] ΜΟΧΛΟΒΡΑΧΙΟΝΑΣ [6.2.5]

$V_{wp,Ed} = (M_{b1,Ed} - M_{b2,Ed}) / z - (V_{c1,Ed} - V_{c2,Ed}) / 2$

$V_{wp,Ed}$ = 77.20 [kN] ΔΥΝΑΜΗ ΔΙΑΤΜΗΣΗΣ ΠΟΥ ΕΦΑΡΜΟΖΕΤΑΙ ΣΕ ΚΟΡΜΟ [5.3.(3)]

A_{vs} = 18.08 [cm^2] ΠΕΡΙΟΧΗ ΔΙΑΤΜΗΣΗΣ ΤΟΥ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ EN1993-1-1:[6.2.6.(3)]

A_{vc} = 18.08 [cm^2] ΠΕΡΙΟΧΗ ΔΙΑΤΜΗΣΗΣ EN1993-1-1:[6.2.6.(3)]

$V_{wp,Rd} = 0.9*(f_{y,wc}*A_{vc}+f_{y,wp}*A_{vp}+f_{ys}*A_{vd}) / (Ö3\ g_{M0})$

$V_{wp,Rd}$ = 220.79 [kN] ΑΝΤΟΧΗ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ ΣΕ ΔΙΑΤΜΗΣΗ [6.2.6.1]

$V_{wp,Ed} / V_{wp,Rd} \le 1,0$ 0.35 < 1.00 ΕΠΑΛΗΘΕΥΕΤΑΙ (0.35)

ΚΟΡΜΟΣ- ΕΓΚΑΡΣΙΑ ΘΛΙΨΗ - ΣΤΑΘΜΗ ΑΝΩ ΠΕΛΜΑΤΟΣ ΔΟΚΑΡΙΟΥ

ΦΕΡΩΝ:

t_{wc} = 7 [mm] ΕΝΕΡΓΟ ΠΑΧΟΣ ΤΟΥ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ [6.2.6.2.(6)]

$b_{eff,c,wc}$ = 196 [mm] ΕΝΕΡΓΟ ΠΛΑΤΟΣ ΤΟΥ ΚΟΡΜΟΥ ΓΙΑ ΘΛΙΨΗ [6.2.6.2.(1)]

A_{vc} = 18.08 [cm^2] ΠΕΡΙΟΧΗ ΔΙΑΤΜΗΣΗΣ EN1993-1-1:[6.2.6.(3)]

w = 0.78 ΜΕΙΩΤΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΑΛΛΗΛΕΠΙΔΡΑΣΗ ΜΕ ΔΙΑΤΜΗΣΗ [6.2.6.2.(1)]

$s_{com,Ed}$ = 92.14 [MPa] ΜΕΓΙΣΤΟΣ ΘΛΙΠΤΙΚΗ ΤΑΣΗ ΣΤΟ ΚΟΡΜΟ [6.2.6.2.(2)]

k_{wc} = 1.00 ΜΕΙΩΤΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΕΞΑΡΤΩΜΕΝΟΣ ΑΠΟ ΘΛΙΠΤΙΚΕΣ ΤΑΣΕΙΣ [6.2.6.2.(2)]

$F_{c,wc,Rd1} = w\ k_{wc}\ b_{eff,c,wbc}\ t_{wc}\ f_{yc} / g_{M0}$

$F_{c,wc,Rd1}$ = 233.31 [kN] ΑΝΤΟΧΗ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ [6.2.6.2.(1)]

ΛΥΓΙΣΜΟΣ:

d_{wc} = 134 [mm] ΥΨΟΣ ΚΟΡΜΟΥ ΥΠΟ ΘΛΙΨΗ [6.2.6.2.(1)]

l_p = 0.78 ΛΥΓΗΡΟΤΗΤΑ ΠΛΑΚΑΣ ΜΕΛΟΥΣ [6.2.6.2.(1)]

r = 0.96 ΜΕΙΩΤΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΛΥΓΙΣΜΟ ΜΕΛΟΥΣ [6.2.6.2.(1)]

$F_{c,wb,Rd2} = w\ k_{wc}\ r\ b_{eff,c,wc}\ t_{wc}\ f_{yc} / g_{M1}$

$F_{c,wc,Rd2}$ = 222.96 [kN] ΑΝΤΟΧΗ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ [6.2.6.2.(1)]

ΤΕΛΙΚΗ ΑΝΤΟΧΗ:

$F_{c,wc,Rd,low} = Min (F_{c,wc,Rd1} , F_{c,wc,Rd2})$

$F_{c,wc,Rd}$ = 222.96 [kN] ΑΝΤΟΧΗ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ [6.2.6.2.(1)]

ΓΕΩΜΕΤΡΙΚΕΣ ΠΑΡΑΜΕΤΡΟΙ ΣΥΝΔΕΣΗΣ

ΕΝΕΡΓΑ ΜΗΚΗ ΚΑΙ ΠΑΡΑΜΕΤΡΟΙ-ΥΠΟΣΤΥΛΩΜΑ ΠΕΛΜΑΤΟΣ

Nr	m	m_x	e	e_x	p	$l_{eff,cp}$	$l_{eff,nc}$	$l_{eff,1}$	$l_{eff,2}$	$l_{eff,cp,g}$	$l_{eff,nc,g}$	$l_{eff,1,g}$	$l_{eff,2,g}$
1	17	-	65	-	120	109	135	109	135	175	120	120	120
2	17	-	65	-	120	109	151	109	151	240	120	120	120
3	17	-	65	-	120	109	151	109	151	175	135	135	135

ΠΑΡΑΜΕΤΡΟΙ ΚΑΙ ΕΝΕΡΓΑ ΜΗΚΗ-ΜΠΡΟΣΤΙΝΟ ΕΛΑΣΜΑ ΣΥΝΔΕΣΗΣ

Nr	m	m_x	e	e_x	p	$l_{eff,cp}$	$l_{eff,nc}$	$l_{eff,1}$	$l_{eff,2}$	$l_{eff,cp,g}$	$l_{eff,nc,g}$	$l_{eff,1,g}$	$l_{eff,2,g}$
1	27	-	45	-	120	167	193	167	193	203	171	171	171
2	27	-	45	-	120	167	162	162	162	240	120	120	120
3	27	-	45	-	120	167	171	167	171	203	150	150	150

m – ΑΠΟΣΤΑΣΗ ΚΟΧΛΙΑ ΑΠΟ ΤΟΝ ΚΟΡΜΟ

m_x – ΑΠΟΣΤΑΣΗ ΚΟΧΛΙΑ ΑΠΟ ΤΟ ΠΕΛΜΑ ΔΟΚΑΡΙΟΥ

e – ΑΠΟΣΤΑΣΗ ΚΟΧΛΙΑ ΑΠΟ ΤΗΝ ΑΚΡΑΙΑ ΑΚΜΗ

e_x – ΑΠΟΣΤΑΣΗ ΚΟΧΛΙΑ ΑΠΟ ΤΗΝ ΟΡΙΖΟΝΤΙΑ ΕΞΩ ΑΚΜΗ

p – ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΚΟΧΛΙΩΝ

$l_{eff,cp}$ – ΕΝΕΡΓΟ ΜΗΚΟΣ ΕΝΟΣ ΚΟΧΛΙΑ ΣΤΗΝ ΚΥΚΛΙΚΗ ΜΟΡΦΗ ΑΣΤΟΧΙΑΣ

$l_{eff,nc}$ – ΕΝΕΡΓΟ ΜΗΚΟΣ ΕΝΟΣ ΚΟΧΛΙΑ ΣΤΗΝ ΜΗ ΚΥΚΛΙΚΗ ΜΟΡΦΗ ΑΣΤΟΧΙΑΣ

$l_{eff,1}$ – ΕΝΕΡΓΟ ΜΗΚΟΣ ΕΝΟΣ ΚΟΧΛΙΑ ΓΙΑ mode 1

$l_{eff,2}$ – ΕΝΕΡΓΟ ΜΗΚΟΣ ΕΝΟΣ ΚΟΧΛΙΑ ΓΙΑ mode 2

$l_{eff,cp,g}$ – ΕΝΕΡΓΟ ΜΗΚΟΣ ΟΜΑΔΟΣ ΚΟΧΛΙΩΝ ΣΤΗΝ ΚΥΚΛΙΚΗ ΜΟΡΦΗ ΑΣΤΟΧΙΑΣ

$l_{eff,nc,g}$ – ΕΝΕΡΓΟ ΜΗΚΟΣ ΟΜΑΔΟΣ ΚΟΧΛΙΩΝ ΣΤΗΝ ΜΗ ΚΥΚΛΙΚΗ ΜΟΡΦΗ ΑΣΤΟΧΙΑΣ

$l_{eff,1,g}$ – ΕΝΕΡΓΟ ΜΗΚΟΣ ΟΜΑΔΟΣ ΚΟΧΛΙΩΝ ΓΙΑ mode 1

$l_{eff,2,g}$ – ΕΝΕΡΓΟ ΜΗΚΟΣ ΟΜΑΔΟΣ ΚΟΧΛΙΩΝ ΓΙΑ mode 2

ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΕΦΕΛΚΥΣΜΟ

$F_{t,Rd}$ = 90.43 [kN] ΑΝΤΟΧΗ ΚΟΧΛΙΑ ΓΙΑ ΕΦΕΛΚΥΣΜΟ [ΠΙΝΑΚΑΣ 3.4]

$B_{p,Rd}$ = 130.29 [kN] Διατρητική διατμητική αντοχή κοχλία [ΠΙΝΑΚΑΣ 3.4]

$F_{t,fc,Rd}$ – ΑΝΤΟΧΗ ΣΕ ΚΑΜΨΗ ΠΕΛΜΑΤΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ

$F_{t,wc,Rd}$ – ΑΝΤΟΧΗ ΣΕ ΚΑΜΨΗ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ

$F_{t,ep,Rd}$ – ΑΝΤΟΧΗ ΣΕ ΚΑΜΨΗ ΜΕΤΩΠΙΚΗΣ ΠΛΑΚΑΣ

$F_{t,wb,Rd}$ – ΑΝΤΟΧΗ ΚΟΡΜΟΥ ΣΕ ΕΦΕΛΚΥΣΜΟ

$F_{t,fc,Rd} = Min (F_{T,1,fc,Rd} , F_{T,2,fc,Rd} , F_{T,3,fc,Rd})$ [6.2.6.4] , [Tab.6.2]

$F_{t,wc,Rd} = w\ b_{eff,t,wc}\ t_{wc}\ f_{yc} / g_{M0}$ [6.2.6.3.(1)]

$F_{t,ep,Rd} = Min (F_{T,1,ep,Rd} , F_{T,2,ep,Rd} , F_{T,3,ep,Rd})$ [6.2.6.5] , [Tab.6.2]

$F_{t,wb,Rd} = b_{eff,t,wb}\ t_{wb}\ f_{yb} / g_{M0}$ [6.2.6.8.(1)]

ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ No. 1

$F_{t1,Rd,comp}$ - ΤΥΠΟΣ	$F_{t1,Rd,comp}$	ΣΥΝΙΣΤΩΣΑ
$F_{t1,Rd} = Min (F_{t1,Rd,comp})$	138.38	ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ
$F_{t,fc,Rd(1)} = 141.21$	141.21	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ
$F_{t,wc,Rd(1)} = 152.03$	152.03	Column ΚΟΡΜΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ
$F_{t,ep,Rd(1)} = 138.38$	138.38	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ
$F_{t,wb,Rd(1)} = 219.48$	219.48	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ
$B_{p,Rd} = 260.58$	260.58	Κοχλίες λόγω της διάτρησης από διάτμηση

ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ No. 2

$F_{t2,Rd,comp}$ - ΤΥΠΟΣ	$F_{t2,Rd,comp}$	ΣΥΝΙΣΤΩΣΑ
$F_{t2,Rd} = Min (F_{t2,Rd,comp})$	119.62	ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ
$F_{t,fc,Rd(2)} = 145.82$	145.82	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ
$F_{t,wc,Rd(2)} = 152.03$	152.03	Column ΚΟΡΜΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ
$F_{t,ep,Rd(2)} = 132.44$	132.44	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ
$F_{t,wb,Rd(2)} = 213.75$	213.75	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ
$B_{p,Rd} = 260.58$	260.58	Κοχλίες λόγω της διάτρησης από διάτμηση
$F_{t,fc,Rd(2+1)} - \sum_1^1 F_{tj,Rd} = 273.20 - 138.38$	134.82	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wc,Rd(2+1)} - \sum_1^1 F_{tj,Rd} = 261.34 - 138.38$	122.97	ΚΟΡΜΟΣ ΥΠΟΣΤΗΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ - ΓΚΡΟΥΠ
$F_{t,ep,Rd(2+1)} - \sum_1^1 F_{tj,Rd} = 257.99 - 138.38$	119.62	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wb,Rd(2+1)} - \sum_1^1 F_{tj,Rd} = 383.48 - 138.38$	245.11	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ-ΓΚΡΟΥΠ

ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ No. 3

$F_{t3,Rd,comp}$ - ΤΥΠΟΣ	$F_{t3,Rd,comp}$	ΣΥΝΙΣΤΩΣΑ
$F_{t3,Rd} = Min (F_{t3,Rd,comp})$	54.47	ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ
$F_{t,fc,Rd(3)} = 145.82$	145.82	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ
$F_{t,wc,Rd(3)} = 152.03$	152.03	Column ΚΟΡΜΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ
$F_{t,ep,Rd(3)} = 134.08$	134.08	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ
$F_{t,wb,Rd(3)} = 219.48$	219.48	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ
$B_{p,Rd} = 260.58$	260.58	Κοχλίες λόγω της διάτρησης από διάτμηση
$F_{t,fc,Rd(3+2)} - \sum_2^2 F_{tj,Rd} = 277.81 - 119.62$	158.20	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wc,Rd(3+2)} - \sum_2^2 F_{tj,Rd} = 269.44 - 119.62$	149.82	ΚΟΡΜΟΣ ΥΠΟΣΤΗΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ - ΓΚΡΟΥΠ
$F_{t,fc,Rd(3+2+1)} - \sum_2^1 F_{tj,Rd} = 414.41 - 257.99$	156.42	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wc,Rd(3+2+1)} - \sum_2^1 F_{tj,Rd} = 312.46 - 257.99$	54.47	ΚΟΡΜΟΣ ΥΠΟΣΤΗΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ - ΓΚΡΟΥΠ
$F_{t,ep,Rd(3+2)} - \sum_2^2 F_{tj,Rd} = 238.67 - 119.62$	119.05	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wb,Rd(3+2)} - \sum_2^2 F_{tj,Rd} = 354.76 - 119.62$	235.14	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ-ΓΚΡΟΥΠ
$F_{t,ep,Rd(3+2+1)} - \sum_2^1 F_{tj,Rd} = 388.20 - 257.99$	130.21	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wb,Rd(3+2+1)} - \sum_2^1 F_{tj,Rd} = 580.32 - 257.99$	322.33	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ-ΓΚΡΟΥΠ

ΣΥΓΚΕΝΤΡΩΤΙΚΟΣ ΠΙΝΑΚΑΣ ΔΥΝΑΜΕΩΝ

Nr	h_j	$F_{tj,Rd}$	$F_{t,fc,Rd}$	$F_{t,wc,Rd}$	$F_{t,ep,Rd}$	$F_{t,wb,Rd}$	$F_{t,Rd}$	$B_{p,Rd}$
1	293	138.38	141.21	152.03	138.38	219.48	180.86	260.58
2	173	119.62	145.82	152.03	132.44	213.75	180.86	260.58
3	53	54.47	145.82	152.03	134.08	219.48	180.86	260.58

ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΕΦΕΛΚΥΣΜΟ $N_{j,Rd}$

$N_{j,Rd} = \sum F_{tj,Rd}$

$N_{j,Rd} =$ 312.46 [kN] ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΕΦΕΛΚΥΣΜΟ [6.2]

$N_{b1,Ed} / N_{j,Rd} \le 1,0$	0.48 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.48)

ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΚΑΜΨΗ

ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ No. 1

$F_{t1,Rd,comp}$ - ΤΥΠΟΣ	$F_{t1,Rd,comp}$	ΣΥΝΙΣΤΩΣΑ

$F_{t1,Rd,comp}$ - ΤΥΠΟΣ	$F_{t1,Rd,comp}$	ΣΥΝΙΣΤΩΣΑ
$F_{t1,Rd} = Min (F_{t1,Rd,comp})$	138.38	ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ
$F_{t,fc,Rd(1)} = 141.21$	141.21	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ
$F_{t,wc,Rd(1)} = 152.03$	152.03	Column ΚΟΡΜΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ
$F_{t,ep,Rd(1)} = 138.38$	138.38	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ
$F_{t,wb,Rd(1)} = 219.48$	219.48	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ
$B_{p,Rd} = 260.58$	260.58	Κοχλίες λόγω της διάτρησης από διάτμηση
$V_{wp,Rd}/b = 220.79$	220.79	ΚΟΡΜΟΣ - ΔΙΑΤΜΗΣΗ
$F_{c,wc,Rd} = 222.96$	222.96	ΥΠΟΣΤΥΛΩΜΑ ΚΟΡΜΟΥ-ΘΛΙΨΗ
$F_{c,fb,Rd} = 349.95$	349.95	ΠΕΛΜΑ ΔΟΚΑΡΙΟΥ - ΘΛΙΨΗ
$F_{c,wb,Rd} = 313.96$	313.96	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ - ΘΛΙΨΗ

ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ No. 2

$F_{t2,Rd,comp}$ - ΤΥΠΟΣ	$F_{t2,Rd,comp}$	ΣΥΝΙΣΤΩΣΑ
$F_{t2,Rd} = Min (F_{t2,Rd,comp})$	82.41	ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ
$F_{t,fc,Rd(2)} = 145.82$	145.82	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ
$F_{t,wc,Rd(2)} = 152.03$	152.03	Column ΚΟΡΜΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ
$F_{t,ep,Rd(2)} = 132.44$	132.44	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ
$F_{t,wb,Rd(2)} = 213.75$	213.75	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ
$B_{p,Rd} = 260.58$	260.58	Κοχλίες λόγω της διάτρησης από διάτμηση
$V_{wp,Rd}/b - \sum_1^1 F_{ti,Rd} = 220.79 - 138.38$	82.41	ΚΟΡΜΟΣ - ΔΙΑΤΜΗΣΗ
$F_{c,wc,Rd} - \sum_1^1 F_{tj,Rd} = 222.96 - 138.38$	84.59	ΥΠΟΣΤΥΛΩΜΑ ΚΟΡΜΟΥ-ΘΛΙΨΗ
$F_{c,fb,Rd} - \sum_1^1 F_{tj,Rd} = 349.95 - 138.38$	211.58	ΠΕΛΜΑ ΔΟΚΑΡΙΟΥ - ΘΛΙΨΗ
$F_{c,wb,Rd} - \sum_1^1 F_{tj,Rd} = 313.96 - 138.38$	175.58	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ - ΘΛΙΨΗ
$F_{t,fc,Rd(2+1)} - \sum_1^1 F_{tj,Rd} = 273.20 - 138.38$	134.82	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wc,Rd(2+1)} - \sum_1^1 F_{tj,Rd} = 261.34 - 138.38$	122.97	ΚΟΡΜΟΣ ΥΠΟΣΤΗΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ - ΓΚΡΟΥΠ
$F_{t,ep,Rd(2+1)} - \sum_1^1 F_{tj,Rd} = 257.99 - 138.38$	119.62	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wb,Rd(2+1)} - \sum_1^1 F_{tj,Rd} = 383.48 - 138.38$	245.11	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ-ΓΚΡΟΥΠ

ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ No. 3

$F_{t3,Rd,comp}$ - ΤΥΠΟΣ	$F_{t3,Rd,comp}$	ΣΥΝΙΣΤΩΣΑ
$F_{t3,Rd} = Min (F_{t3,Rd,comp})$	0.00	ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ
$F_{t,fc,Rd(3)} = 145.82$	145.82	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ
$F_{t,wc,Rd(3)} = 152.03$	152.03	Column ΚΟΡΜΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ
$F_{t,ep,Rd(3)} = 134.08$	134.08	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ
$F_{t,wb,Rd(3)} = 219.48$	219.48	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ
$B_{p,Rd} = 260.58$	260.58	Κοχλίες λόγω της διάτρησης από διάτμηση
$V_{wp,Rd}/b - \sum_1^2 F_{ti,Rd} = 220.79 - 220.79$	0.00	ΚΟΡΜΟΣ - ΔΙΑΤΜΗΣΗ
$F_{c,wc,Rd} - \sum_1^2 F_{tj,Rd} = 222.96 - 220.79$	2.17	ΥΠΟΣΤΥΛΩΜΑ ΚΟΡΜΟΥ-ΘΛΙΨΗ
$F_{c,fb,Rd} - \sum_1^2 F_{tj,Rd} = 349.95 - 220.79$	129.16	ΠΕΛΜΑ ΔΟΚΑΡΙΟΥ - ΘΛΙΨΗ
$F_{c,wb,Rd} - \sum_1^2 F_{tj,Rd} = 313.96 - 220.79$	93.17	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ - ΘΛΙΨΗ
$F_{t,fc,Rd(3+2)} - \sum_2^2 F_{tj,Rd} = 277.81 - 82.41$	195.40	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wc,Rd(3+2)} - \sum_2^2 F_{tj,Rd} = 269.44 - 82.41$	187.02	ΚΟΡΜΟΣ ΥΠΟΣΤΗΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ - ΓΚΡΟΥΠ
$F_{t,fc,Rd(3+2+1)} - \sum_2^1 F_{tj,Rd} = 414.41 - 220.79$	193.62	ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wc,Rd(3+2+1)} - \sum_2^1 F_{tj,Rd} = 312.46 - 220.79$	91.67	ΚΟΡΜΟΣ ΥΠΟΣΤΗΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ - ΓΚΡΟΥΠ
$F_{t,ep,Rd(3+2)} - \sum_2^2 F_{tj,Rd} = 238.67 - 82.41$	156.25	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wb,Rd(3+2)} - \sum_2^2 F_{tj,Rd} = 354.76 - 82.41$	272.35	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ-ΓΚΡΟΥΠ
$F_{t,ep,Rd(3+2+1)} - \sum_2^1 F_{tj,Rd} = 388.20 - 220.79$	167.41	ΜΠΡΟΣΤΙΝΗ ΠΛΑΚΑ-ΤΑΣΗ-ΓΚΡΟΥΠ
$F_{t,wb,Rd(3+2+1)} - \sum_2^1 F_{tj,Rd} = 580.32 - 220.79$	359.53	ΚΟΡΜΟΣ ΔΟΚΑΡΙΟΥ-ΕΦΕΛΚΥΣΜΟΣ-ΓΚΡΟΥΠ

ΣΥΓΚΕΝΤΡΩΤΙΚΟΣ ΠΙΝΑΚΑΣ ΔΥΝΑΜΕΩΝ

Nr	h_j	$F_{tj,Rd}$	$F_{t,fc,Rd}$	$F_{t,wc,Rd}$	$F_{t,ep,Rd}$	$F_{t,wb,Rd}$	$F_{t,Rd}$	$B_{p,Rd}$
1	293	138.38	141.21	152.03	138.38	219.48	180.86	260.58
2	173	82.41	145.82	152.03	132.44	213.75	180.86	260.58
3	53	-	145.82	152.03	134.08	219.48	180.86	260.58

ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΚΑΜΨΗ $M_{j,Rd}$

$M_{j,Rd} = \sum h_j F_{tj,Rd}$

$M_{j,Rd}$ =	54.89	[kN*m]	ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΚΑΜΨΗ		[6.2]
$M_{b1,Ed} / M_{j,Rd} \le 1,0$			0.29 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.29)

ΕΠΑΛΗΘΕΥΣΗ M+N ΑΛΛΗΕΠΙΔΡΑΣΗΣ

$M_{b1,Ed} / M_{j,Rd} + N_{b1,Ed} / N_{j,Rd} \le 1$					[6.2.5.1.(3)]
$M_{b1,Ed} / M_{j,Rd} + N_{b1,Ed} / N_{j,Rd}$			0.77 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.77)

ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΔΙΑΤΜΗΣΗ

a_v =	0.60		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{v,Rd}$	[ΠΙΝΑΚΑΣ 3.4]
$F_{v,Rd}$ =	77.21	[kN]	ΑΝΤΟΧΗ ΣΕ ΔΙΑΤΜΗΣΗ ΕΝΟΣ ΚΟΧΛΙΑ	[ΠΙΝΑΚΑΣ 3.4]
$F_{t,Rd,max}$ =	90.43	[kN]	ΑΝΤΟΧΗ ΣΕ ΕΦΕΛΚΥΣΜΟ ΕΝΟΣ ΚΟΧΛΙΑ	[ΠΙΝΑΚΑΣ 3.4]
$F_{b,Rd,int}$ =	115.20	[kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΔΙΑΜΕΣΟΥ ΚΟΧΛΙΑ	[ΠΙΝΑΚΑΣ 3.4]
$F_{b,Rd,ext}$ =	115.20	[kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΠΙΟ ΑΠΟΜΑΚΡΥΣΜΕΝΟΥ ΚΟΧΛΙΑ	[ΠΙΝΑΚΑΣ 3.4]

Nr	$F_{tj,Rd,N}$	$F_{tj,Ed,N}$	$F_{tj,Rd,M}$	$F_{tj,Ed,M}$	$F_{tj,Ed}$	$F_{vj,Rd}$
1	138.38	66.60	138.38	39.83	106.43	89.51
2	119.62	57.57	82.41	23.72	81.29	104.84
3	54.47	26.21	0.00	0.00	26.21	138.43

$F_{tj,Rd,N}$ – ΑΝΤΟΧΗ ΓΡΑΜΜΗΣ ΚΟΧΛΙΩΝ ΓΙΑ ΑΠΛΟ ΕΦΕΛΚΥΣΜΟ
$F_{tj,Ed,N}$ – ΔΥΝΑΜΗ ΛΟΓΩ ΑΞΟΝΙΚΗΣ ΔΥΝΑΜΗΣ ΣΕ ΣΕΙΡΑ ΚΟΧΛΙΩΝ
$F_{tj,Rd,M}$ – ΑΝΤΟΧΗ ΓΡΑΜΜΗΣ ΚΟΧΛΙΩΝ ΓΙΑ ΑΠΛΗ ΚΑΜΨΗ
$F_{tj,Ed,M}$ – ΔΥΝΑΜΗ ΛΟΓΩ ΡΟΠΗΣ ΣΕ ΣΕΙΡΑ ΚΟΧΛΙΩΝ
$F_{tj,Ed}$ – ΜΕΓΙΣΤΟΣ ΕΦΕΛΚΥΣΜΟΣ ΣΕ ΣΕΙΡΑ ΚΟΧΛΙΩΝ
$F_{vj,Rd}$ – ΜΕΙΩΜΕΝΗ ΑΝΤΟΧΗ ΣΕΙΡΑΣ ΚΟΧΛΙΩΝ

$F_{tj,Ed,N} = N_{j,Ed} F_{tj,Rd,N} / N_{j,Rd}$
$F_{tj,Ed,M} = M_{j,Ed} F_{tj,Rd,M} / M_{j,Rd}$
$F_{tj,Ed} = F_{tj,Ed,N} + F_{tj,Ed,M}$
$F_{vj,Rd} = \text{Min} (n_h F_{v,Ed} (1 - F_{tj,Ed}/ (1.4 n_h F_{t,Rd,max}), n_h F_{v,Rd} , n_h F_{b,Rd}))$

$V_{j,Rd} = n_h \sum_1^n F_{vj,Rd}$					[ΠΙΝΑΚΑΣ 3.4]
$V_{j,Rd}$ =	332.78	[kN]	ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΔΙΑΤΜΗΣΗ		[ΠΙΝΑΚΑΣ 3.4]
$V_{b1,Ed} / V_{j,Rd} \le 1,0$			0.07 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.07)

ΑΝΤΟΧΗ ΣΥΓΚΟΛΛΗΣΗΣ

A_w =	68.96	[cm^2]	ΕΜΒΑΔΟ ΟΛΩΝ ΤΩΝ ΣΥΓΚΟΛΛΗΣΕΩΝ		[4.5.3.2(2)]
A_{wy} =	40.38	[cm^2]	ΕΜΒΑΔΟ ΟΡΙΖΟΝΤΙΩΝ ΣΥΓΚΟΛΛΗΣΕΩΝ		[4.5.3.2(2)]
A_{wz} =	28.58	[cm^2]	ΕΜΒΑΔΟ ΚΑΘΕΤΩΝ ΣΥΓΚΟΛΛΗΣΕΩΝ		[4.5.3.2(2)]
I_{wy} =	10219.01	[cm^4]	ΡΟΠΗ ΑΔΡΑΝΕΙΑΣ ΤΗΣ ΣΥΓΟΛΛΗΣΗΣ ΜΕ ΣΕΒΑΣΜΟ ΤΟΥ ΟΡΙΖΟΝΤΙΟΥ ΑΞΟΝΑ		[4.5.3.2(5)]
$s_{\wedge max}=t_{\wedge max}$ =	27.04	[MPa]	ΟΡΘΗ ΤΑΣΗ ΣΕ ΜΙΑ ΚΟΛΛΗΣΗ		[4.5.3.2(5)]
$s_\wedge=t_\wedge$ =	26.33	[MPa]	ΤΑΣΗ ΣΕ ΜΙΑ ΚΑΘΕΤΗ ΣΥΓΚΟΛΛΗΣΗ		[4.5.3.2(5)]
t_{II} =	8.36	[MPa]	ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ		[4.5.3.2(5)]
b_w =	0.80		ΣΥΝΤΕΛΕΣΤΗΣ ΣΥΣΧΕΤΙΣΗΣ		[4.5.3.2(7)]
$Ö[s_{\wedge max}^2 + 3*(t_{\wedge max}^2)] \le f_u/(b_w*g_{M2})$			54.07 < 360.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.15)
$Ö[s_\wedge^2 + 3*(t_\wedge^2+t_{II}^2)] \le f_u/(b_w*g_{M2})$			54.62 < 360.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.15)
$s_\wedge \le 0.9*f_u/g_{M2}$			27.04 < 259.20	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.10)

ΑΚΑΜΨΙΑ ΣΥΝΔΕΣΗΣ

Η ΑΞΟΝΙΚΗ ΔΥΝΑΜΗ ΣΤΟ ΔΟΚΑΡΙ ΥΠΕΡΒΑΙΝΕΙ ΤΟ 5% ΤΗΣ $N_{pl,Rd}$ ΑΝΤΟΧΗΣ. ΣΥΜΦΩΝΑ ΜΕ ΤΟ ΑΡΘΡΟ 6.3.1.(4), Η ΑΚΑΜΨΙΑ ΤΗΣ ΣΥΝΔΕΣΗΣ ΔΕΝ ΜΠΟΡΕΙ ΝΑ ΥΠΟΛΟΓΙΣΤΕΙ.

ΠΙΟ ΑΔΥΝΑΜΟ ΤΜΗΜΑ:

ΚΟΡΜΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ - ΕΦΕΛΚΥΣΜΟΣ

Η ΣΥΝΔΕΣΗ ΕΙΝΑΙ ΣΥΜΦΩΝΗ ΜΕ ΤΟΝ ΚΑΝΟΝΙΣΜΟ ΛΟΓΟΣ 0.77

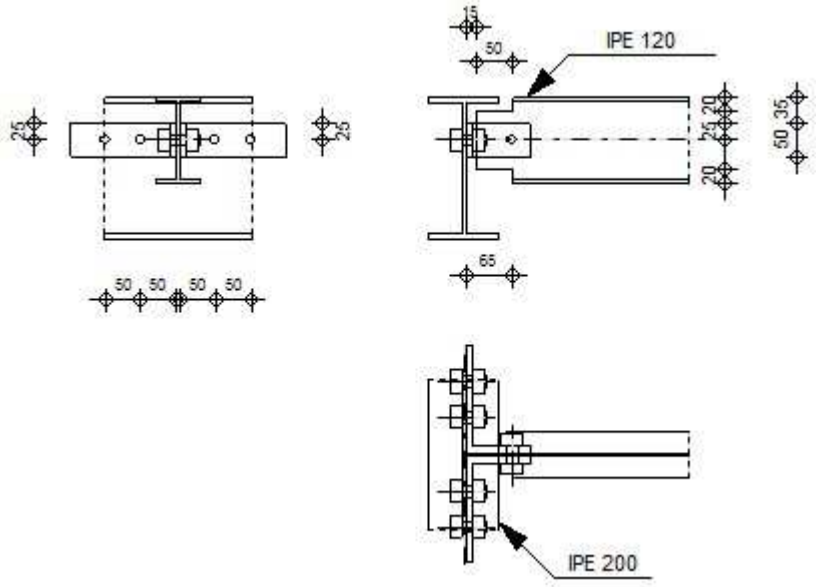
Autodesk Robot Structural Analysis Professional 2016

ΥΠΟΛΟΓΙΣΜΟΣ ΣΥΝΔΕΣΗΣ ΔΟΚΟΣ - ΔΟΚΟΣ (ΚΟΡΜΟΣ)

EN 1993-1-8:2005/AC:2009

OK

ΛΟΓΟΣ
0.43



ΓΕΝΙΚΟ

ΣΥΝΔΕΣΗ no.: 2
Όνομα σύνδεσης: Beam-beam (web)

ΓΕΩΜΕΤΡΙΑ

ΚΥΡΙΟ ΔΟΚΑΡΙ

ΔΙΑΤΟΜΗ: IPE 200

a =	-90.0	[Deg]	ΓΩΝΙΑ ΚΛΙΣΗΣ
h_g =	200	[mm]	ΥΨΟΣ ΚΥΡΙΟΥ ΔΟΚΑΡΙΟΥ
b_{fg} =	100	[mm]	ΠΛΑΤΟΣ ΠΕΛΜΑΤΟΣ ΚΥΡΙΟΥ ΔΟΚΑΡΙΟΥ
t_{wg} =	6	[mm]	ΠΑΧΟΣ ΚΟΡΜΟΥ ΚΥΡΙΟΥ ΔΟΚΑΡΙΟΥ
t_{fg} =	9	[mm]	ΠΑΧΟΣ ΠΕΛΜΑΤΟΣ ΚΥΡΙΟΥ ΔΟΚΑΡΙΟΥ
r_g =	12	[mm]	ΑΚΤΙΝΑ ΣΥΝΑΡΜΟΓΗΣ ΚΟΡΜΟΥ ΚΥΡΙΟΥ ΔΟΚΑΡΙΟΥ
A_p =	28.48	[cm^2]	ΔΙΑΣΤΑΥΡΟΥΜΕΝΗ ΠΕΡΙΟΧΗ ΚΥΡΙΟΥ ΔΟΚΑΡΙΟΥ
I_{yp} =	1943.17	[cm^4]	ΡΟΠΕΣ ΑΔΡΑΝΕΙΑΣ ΤΗΣ ΔΙΑΤΟΜΗΣ ΤΟΥ ΚΥΡΙΟΥ ΔΟΚΑΡΙΟΥ

ΥΛΙΚΟ S235

f_{yg} =	235.00	[MPa]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ
f_{ug} =	360.00	[MPa]	ΕΦΕΛΚΥΣΤΙΚΗ ΑΝΤΟΧΗ

ΔΟΚΟΣ

ΔΙΑΤΟΜΗ: IPE 120

a =	0.0	[Deg]	ΓΩΝΙΑ ΚΛΙΣΗΣ
h_b =	120	[mm]	ΥΨΟΣ ΤΟΜΗΣ ΔΟΚΑΡΙΟΥ
b_b =	64	[mm]	ΠΛΑΤΟΣ ΤΟΜΗΣ ΔΟΚΑΡΙΟΥ
t_{wb} =	4	[mm]	ΠΑΧΟΣ ΤΟΥ ΚΟΡΜΟΥ ΔΟΚΑΡΙΟΥ
t_{fb} =	6	[mm]	ΠΑΧΟΣ ΠΕΛΜΑΤΟΣ ΔΟΚΑΡΙΟΥ
r_b =	7	[mm]	ΑΚΤΙΝΑ ΣΥΝΑΡΜΟΓΗΣ ΔΙΑΤΟΜΗΣ ΔΟΚΑΡΙΟΥ
A_b =	13.21	[cm^2]	ΔΙΑΣΤΑΥΡΟΥΜΕΝΗ ΠΕΡΙΟΧΗ
I_{yb} =	317.75	[cm^4]	ΡΟΠΕΣ ΑΔΡΑΝΕΙΑΣ ΤΗΣ ΔΙΑΤΟΜΗΣ ΤΟΥ ΔΟΚΑΡΙΟΥ

ΥΛΙΚΟ S235

f_{yb} =	235.00	[MPa]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ
f_{ub} =	360.00	[MPa]	ΕΦΕΛΚΥΣΤΙΚΗ ΑΝΤΟΧΗ

ΤΟΜΗ ΔΟΚΑΡΙΟΥ

h_1 =	20	[mm]	ΑΝΩ ΑΠΟΤΜΗΣΗ
h_2 =	20	[mm]	ΚΑΤΩ ΑΠΟΤΜΗΣΗ
l =	50	[mm]	ΜΗΚΟΣ ΑΠΟΤΜΗΣΗΣ

ΓΩΝΙΑΚΟ

ΔΙΑΤΟΜΗ: CAI 150x90x10

h_k =	150	[mm]	ΜΗΚΟΣ ΓΩΝΙΑΚΟΥ
b_k =	90	[mm]	ΠΛΑΤΟΣ ΓΩΝΙΑΚΟΥ
t_{fk} =	10	[mm]	ΠΑΧΟΣ ΠΕΛΜΑΤΟΣ ΓΩΝΙΑΚΟΥ
r_k =	12	[mm]	ΑΚΤΙΝΑ ΣΥΝΑΡΜΟΓΗΣ ΓΩΝΙΑΚΟΥ ΜΕ ΚΟΡΜΟ
l_k =	50	[mm]	ΜΗΚΟΣ ΓΩΝΙΑΚΟΥ

ΥΛΙΚΟ S235

f_{yk} =	235.00	[MPa]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ
f_{uk} =	360.00	[MPa]	ΕΦΕΛΚΥΣΤΙΚΗ ΑΝΤΟΧΗ

ΚΟΧΛΙΕΣ

ΚΟΧΛΙΕΣ ΠΟΥ ΕΝΩΝΟΥΝ ΤΗΝ ΚΥΡΙΑ ΔΟΚΟ ΜΕ ΤΟ ΕΛΑΣΜΑ ΤΥΠΟΥ L

The shear plane passes through the UNTHREADED portion of the bolt.

ΠΟΙΟΤΗΤΑ =	8.8		ΚΑΤΗΓΟΡΙΑ ΚΟΧΛΙΩΝ
d =	16	[mm]	ΔΙΑΜΕΤΡΟΣ ΚΟΧΛΙΑ
d_0 =	18	[mm]	Διάμετρος οπής κοχλία
A_s =	1.57	[cm^2]	ΕΝΕΡΓΗ ΠΕΡΙΟΧΗ ΔΙΑΤΟΜΗΣ ΚΟΧΛΙΑ
A_v =	2.01	[cm^2]	ΠΕΡΙΟΧΗ ΤΟΜΗΣ ΚΟΧΛΙΩΝ
f_{ub} =	800.00	[MPa]	ΕΦΕΛΚΥΣΤΙΚΗ ΑΝΤΟΧΗ
k =	2		ΑΡΙΘΜΟΣ ΚΟΧΛΙΩΝ ΥΠΟΣΤΥΛΩΜΑΤΩΝ
w =	1		ΑΡΙΘΜΟΣ ΣΕΙΡΩΝ ΚΟΧΛΙΩΝ
e_1 =	25	[mm]	ΣΤΑΘΜΗ ΠΡΩΤΟΥ ΚΟΧΛΙΑ
p_2 =	50	[mm]	ΟΡΙΖΟΝΤΙΑ ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ

ΚΟΧΛΙΕΣ ΠΟΥ ΕΝΩΝΟΥΝ ΤΟ ΔΟΚΑΡΙ ΜΕ ΤΟ ΕΛΑΣΜΑ ΤΥΠΟΥ L

The shear plane passes through the UNTHREADED portion of the bolt.

ΠΟΙΟΤΗΤΑ =	8.8		ΚΑΤΗΓΟΡΙΑ ΚΟΧΛΙΩΝ
d =	16	[mm]	ΔΙΑΜΕΤΡΟΣ ΚΟΧΛΙΑ
d_0 =	18	[mm]	Διάμετρος οπής κοχλία
A_s =	1.57	[cm^2]	ΕΝΕΡΓΗ ΠΕΡΙΟΧΗ ΔΙΑΤΟΜΗΣ ΚΟΧΛΙΑ
A_v =	2.01	[cm^2]	ΠΕΡΙΟΧΗ ΤΟΜΗΣ ΚΟΧΛΙΩΝ
f_{ub} =	800.00	[MPa]	ΕΦΕΛΚΥΣΤΙΚΗ ΑΝΤΟΧΗ
k =	1		ΑΡΙΘΜΟΣ ΚΟΧΛΙΩΝ ΥΠΟΣΤΥΛΩΜΑΤΩΝ
w =	1		ΑΡΙΘΜΟΣ ΣΕΙΡΩΝ ΚΟΧΛΙΩΝ
e_1 =	25	[mm]	ΣΤΑΘΜΗ ΠΡΩΤΟΥ ΚΟΧΛΙΑ

ΣΥΝΤΕΛΕΣΤΕΣ ΥΛΙΚΟΥ

g_{M0} =	1.00	ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	[2.2]
g_{M2} =	1.25	ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	[2.2]

ΦΟΡΤΙΑ

ΠΕΡΙΠΤΩΣΗ: ΥΠΟΛΟΓΙΣΜΟΙ ΑΠΟ ΧΡΗΣΤΗ.

$N_{b,Ed}$ =	20.00	[kN]	ΑΞΟΝΙΚΗ ΔΥΝΑΜΗ

$N_{b,Ed}$ =	20.00	[kN]	ΑΞΟΝΙΚΗ ΔΥΝΑΜΗ
$V_{b,Ed}$ =	17.00	[kN]	ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ
$M_{b,Ed}$ =	0.00	[kN*m]	ΚΑΜΠΤΙΚΗ ΡΟΠΗ

ΑΠΟΤΕΛΕΣΜΑΤΑ

ΚΟΧΛΙΕΣ ΠΟΥ ΕΝΩΝΟΥΝ ΤΗΝ ΚΥΡΙΑ ΔΟΚΟ ΜΕ ΤΟ ΕΛΑΣΜΑ ΤΥΠΟΥ L

ΙΚΑΝΟΤΗΤΑ ΚΟΧΛΙΑ

$F_{v,Rd}$ =	77.21	[kN]	Shear bolt resistance in the unthreaded portion of a bolt	$F_{v,Rd}= 0.6*f_{ub}*A_v*m/g_{M2}$
$F_{t,Rd}$ =	90.43	[kN]	ΑΝΤΟΧΗ ΣΕ ΕΦΕΛΚΥΣΜΟ ΕΝΟΣ ΚΟΧΛΙΑ	$F_{t,Rd}= 0.9*f_u*A_s/g_{M2}$

ΑΝΤΟΧΗ ΚΟΧΛΙΑ ΣΤΟΝ ΚΟΡΜΟ ΤΗΣ ΚΥΡΙΑΣ ΔΟΚΟΥ

Διεύθυνση x

k_{1x} =	2.50		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$	k_{1x} = min[2.8*(e_1/d_0)-1.7, 2.5]
k_{1x} > 0.0			2.50 > 0.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	
a_{bx} =	0.68		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$	a_{bx}=min[e_2/(3*d_0), p_2/(3*d_0)-0.25, f_{ub}/f_u, 1]
a_{bx} > 0.0			0.68 > 0.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	
$F_{b,Rd1x}$ =	43.61	[kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΟΣ ΚΟΧΛΙΑ	$F_{b,Rd1x}=k_{1x}*a_{bx}*f_u*d*t_i/g_{M2}$

Διεύθυνση z

k_{1z} =	2.19		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$	k_{1z}=min[2.8*(e_2/d_0)-1.7, 1.4*(p_2/d_0)-1.7, 2.5]
k_{1z} > 0.0			2.19 > 0.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	
a_{bz} =	1.00		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$	a_{bz}=min[e_1/(3*d_0), f_{ub}/f_u, 1]
a_{bz} > 0.0			1.00 > 0.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	
$F_{b,Rd1z}$ =	56.48	[kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΟΣ ΚΟΧΛΙΑ	$F_{b,Rd1z}=k_{1z}*a_{bz}*f_u*d*t_i/g_{M2}$

ΑΝΤΟΧΗ ΚΟΧΛΙΑ ΣΤΟ ΓΩΝΙΑΚΟ

Διεύθυνση x

k_{1x} =	2.19		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$	k_{1x}=min[2.8*(e_1/d_0)-1.7, 2.5]
k_{1x} > 0.0			2.19 > 0.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	
a_{bx} =	0.68		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$	a_{bx}=min[e_2/(3*d_0), p_2/(3*d_0)-0.25, f_{ub}/f_u, 1]
a_{bx} > 0.0			0.68 > 0.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	
$F_{b,Rd2x}$ =	68.18	[kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΟΣ ΚΟΧΛΙΑ	$F_{b,Rd2x}=k_{1x}*a_{bx}*f_u*d*t_i/g_{M2}$

Διεύθυνση z

k_{1z} =	2.19		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$	k_{1z}=min[2.8*(e_2/d_0)-1.7, 1.4*(p_2/d_0)-1.7, 2.5]
k_{1z} > 0.0			2.19 > 0.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	
a_{bz} =	0.46		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$	a_{bz}=min[e_1/(3*d_0), f_{ub}/f_u, 1]
a_{bz} > 0.0			0.46 > 0.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	
$F_{b,Rd2z}$ =	46.70	[kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΟΣ ΚΟΧΛΙΑ	$F_{b,Rd2z}=k_{1z}*a_{bz}*f_u*d*t_i/g_{M2}$

ΔΥΝΑΜΕΙΣ ΚΟΧΛΙΩΝ ΣΤΗΝ ΚΥΡΙΑ ΔΟΚΟ - ΣΥΝΔΕΣΗ ΓΩΝΙΑΚΟΥ

ΔΙΑΤΜΗΣΗ ΚΟΧΛΙΑ

e =	77	[mm]	ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΤΟΥ ΚΕΝΤΡΟΥ ΒΑΡΟΥΣ ΤΗΣ ΟΜΑΔΟΣ ΤΩΝ ΚΟΧΛΙΩΝ ΚΑΙ ΤΟΥ ΚΕΝΤΡΟΥ ΤΟΥ ΚΟΡΜΟΥ ΤΗΣ ΔΟΚΟΥ	
M_0 =	0.66	[kN*m]	ΠΡΑΓΜΑΤΙΚΗ ΡΟΠΗ ΚΑΜΨΗΣ	$M_0=0.5*V_{b,Ed}*e$
F_{Vz} =	4.25	[kN]	ΣΥΝΙΣΤΩΣΑ ΔΥΝΑΜΗ ΣΕ ΚΟΧΛΙΑ ΛΟΓΩ ΤΗΣ ΕΠΙΔΡΑΣΗΣ ΤΗΣ ΔΥΝΑΜΗΣ ΔΙΑΤΜΗΣΗΣ	$F_{Vz}=0.5*\|V_{b,Ed}\|/n$
F_{Mx} =	0.00	[kN]	ΣΥΝΙΣΤΩΣΑ ΔΥΝΑΜΗ ΣΕ ΚΟΧΛΙΑ ΛΟΓΩ ΤΗΣ ΕΠΙΔΡΑΣΗΣ ΡΟΠΗΣ	$F_{Mx}=\|M_0\|*z_i/\sum z_i^2$
$F_{x,Ed}$ =	0.00	[kN]	Συνολική σχεδιαστική δύναμη κοχλία στη διεύθυνση y	$F_{x,Ed} = F_{Nx} + F_{Mx}$
$F_{z,Ed}$ =	17.37	[kN]	Συνολική σχεδιαστική δύναμη κοχλία στη διεύθυνση z	$F_{z,Ed} = F_{Vz} + F_{Mz}$
F_{Ed} =	17.37	[kN]	ΠΡΟΚΥΠΤΟΥΣΑ ΔΙΑΤΜΗΣΗ ΣΕ ΚΟΧΛΙΑ	$F_{Ed} = Ö(F_{x,Ed}^2 + F_{z,Ed}^2)$
F_{Rdx} =	43.61	[kN]	Ενεργός αντοχή σχεδιασμού κοχλία στη διεύθυνση x	F_{Rdx}=min(F_{bRd1x}, F_{bRd2x})
F_{Rdz}	46.	[kN]	Ενεργός αντοχή σχεδιασμού κοχλία στη διεύθυνση z	F_{Rdz}=min(F_{bRd1z},

e =	77 [mm]	ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΤΟΥ ΚΕΝΤΡΟΥ ΒΑΡΟΥΣ ΤΗΣ ΟΜΑΔΟΣ ΤΩΝ ΚΟΧΛΙΩΝ ΚΑΙ ΤΟΥ ΚΕΝΤΡΟΥ ΤΟΥ ΚΟΡΜΟΥ ΤΗΣ ΔΟΚΟΥ		
=	70			F_{bRd2z})
$\|F_{x,Ed}\| \le F_{Rdx}$		$\|0.00\| < 43.61$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.00)
$\|F_{z,Ed}\| \le F_{Rdz}$		$\|17.37\| < 46.70$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.37)
$F_{Ed} \le F_{v,Rd}$		$17.37 < 77.21$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.23)

ΕΦΕΛΚΥΣΜΟΣ ΚΟΧΛΙΑ

e =	68 [mm]	ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΤΟΥ ΚΕΝΤΡΟΥ ΒΑΡΟΥΣ ΤΗΣ ΟΜΑΔΟΣ ΤΩΝ ΚΟΧΛΙΩΝ ΚΑΙ ΤΟΥ ΚΕΝΤΡΟΥ ΤΟΥ ΚΟΡΜΟΥ ΤΗΣ ΚΥΡΙΑΣ ΔΟΚΟΥ		
M_{0t} =	0.58 [kN*m]	ΠΡΑΓΜΑΤΙΚΗ ΡΟΠΗ ΚΑΜΨΗΣ		$M_{0t}=0.5*V_{b,Ed}*e$
$F_{t,Ed}$ =	5.00 [kN]	ΕΦΕΛΚΥΣΤΙΚΗ ΔΥΝΑΜΗ ΣΤΟΝ ΑΚΡΙΑΝΟ ΚΟΧΛΙΑ		$F_{t,Ed}=M_{0t}*z_{max}/\sum z_i^2 + 0.5*N_{b2,Ed}/n$
$F_{t,Ed} \le F_{t,Rd}$		$5.00 < 90.43$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.06)

ΤΑΥΤΟΧΡΟΝΗ ΔΡΑΣΗ ΜΙΑΣ ΕΛΑΣΤΙΚΗΣ ΔΥΝΑΜΗΣ ΚΑΙ ΜΙΑΣ ΔΥΝΑΜΗΣ ΘΡΑΥΣΕΩΣ ΣΕ ΚΟΧΛΙΑ

$F_{v,Ed}$ =	17.37 [kN]	ΠΡΟΚΥΠΤΟΥΣΑ ΔΙΑΤΜΗΣΗ ΣΕ ΚΟΧΛΙΑ		$F_{v,Ed} = ¦[F_{x,Ed}^2 + F_{z,Ed}^2]$
$F_{v,Ed}/F_{v,Rd} + F_{t,Ed}/(1.4*F_{t,Rd}) \le 1.0$		$0.26 < 1.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.26)

ΚΟΧΛΙΕΣ ΠΟΥ ΕΝΩΝΟΥΝ ΤΟ ΔΟΚΑΡΙ ΜΕ ΤΟ ΕΛΑΣΜΑ ΤΥΠΟΥ L

ΙΚΑΝΟΤΗΤΑ ΚΟΧΛΙΑ

$F_{v,Rd}$ =	154.42 [kN]	Shear bolt resistance in the unthreaded portion of a bolt		$F_{v,Rd}= 0.6*f_{ub}*A_v*m/g_{M2}$

ΑΝΤΟΧΗ ΚΟΧΛΙΑ ΣΤΗ ΔΟΚΟ

Διεύθυνση x

k_{1x} =	2.50	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$		k_{1x} = min[2.8*(e_1/d_0)-1.7, 2.5]
$k_{1x} > 0.0$		$2.50 > 0.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	
a_{bx} =	0.93	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$		a_{bx}=min[e_2/(3*d_0), f_{ub}/f_u, 1]
$a_{bx} > 0.0$		$0.93 > 0.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	
$F_{b,Rd1x}$ =	46.93 [kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΟΣ ΚΟΧΛΙΑ		$F_{b,Rd1x}=k_{1x}*a_{bx}*f_u*d*t_i/g_{M2}$

Διεύθυνση z

k_{1z} =	2.50	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$		k_{1z}=min[2.8*(e_2/d_0)-1.7, 2.5]
$k_{1z} > 0.0$		$2.50 > 0.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	
a_{bz} =	1.00	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$		a_{bz}=min[e_1/(3*d_0), f_{ub}/f_u, 1]
$a_{bz} > 0.0$		$1.00 > 0.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	
$F_{b,Rd1z}$ =	50.69 [kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΟΣ ΚΟΧΛΙΑ		$F_{b,Rd1z}=k_{1z}*a_{bz}*f_u*d*t_i/g_{M2}$

ΑΝΤΟΧΗ ΚΟΧΛΙΑ ΣΤΟ ΓΩΝΙΑΚΟ

Διεύθυνση x

k_{1x} =	2.19	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$		k_{1x}=min[2.8*(e_1/d_0)-1.7, 2.5]
$k_{1x} > 0.0$		$2.19 > 0.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	
a_{bx} =	0.46	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$		a_{bx}=min[e_2/(3*d_0), f_{ub}/f_u, 1]
$a_{bx} > 0.0$		$0.46 > 0.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	
$F_{b,Rd2x}$ =	93.39 [kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΟΣ ΚΟΧΛΙΑ		$F_{b,Rd2x}=k_{1x}*a_{bx}*f_u*d*t_i/g_{M2}$

Διεύθυνση z

k_{1z} =	2.19	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$		k_{1z}=min[2.8*(e_2/d_0)-1.7, 2.5]
$k_{1z} > 0.0$		$2.19 > 0.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	
a_{bz} =	0.46	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΤΟΝ ΥΠΟΛΟΓΙΣΜΟ ΤΗΣ $F_{b,Rd}$		a_{bz}=min[e_1/(3*d_0), f_{ub}/f_u, 1]
$a_{bz} > 0.0$		$0.46 > 0.00$	ΕΠΑΛΗΘΕΥΕΤΑΙ	
$F_{b,Rd2z}$ =	93.39 [kN]	ΦΕΡΟΥΣΑ ΑΝΤΟΧΗ ΕΝΟΣ ΚΟΧΛΙΑ		$F_{b,Rd2z}=k_{1z}*a_{bz}*f_u*d*t_i/g_{M2}$

ΔΥΝΑΜΕΙΣ ΚΟΧΛΙΩΝ ΣΤΟ ΓΩΝΙΑΚΟ - ΣΥΝΔΕΣΗ ΔΟΚΟΥ

ΔΙΑΤΜΗΣΗ ΚΟΧΛΙΑ

e =	68 [mm]	ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΤΟΥ ΚΕΝΤΡΟΥ ΒΑΡΟΥΣ ΤΗΣ ΟΜΑΔΟΣ ΤΩΝ ΚΟΧΛΙΩΝ ΚΑΙ ΤΟΥ ΚΕΝΤΡΟΥ ΤΟΥ ΚΟΡΜΟΥ ΤΗΣ ΚΥΡΙΑΣ ΔΟΚΟΥ		
M_0 =	1.15 [kN*m]	ΠΡΑΓΜΑΤΙΚΗ ΡΟΠΗ ΚΑΜΨΗΣ		$M_0=M_{b,Ed}+V_{b,Ed}*e$
F_{Nx} =	20.00 [kN]	ΣΥΝΙΣΤΩΣΑ ΔΥΝΑΜΗ ΣΕ ΚΟΧΛΙΑ ΛΟΓΩ ΤΗΣ ΕΠΙΔΡΑΣΗΣ ΑΞΟΝΙΚΗΣ ΔΥΝΑΜΗΣ		$F_{Nx}=\|N_{b,Ed}\|/n$

e =	68	[mm]	ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΤΟΥ ΚΕΝΤΡΟΥ ΒΑΡΟΥΣ ΤΗΣ ΟΜΑΔΟΣ ΤΩΝ ΚΟΧΛΙΩΝ ΚΑΙ ΤΟΥ ΚΕΝΤΡΟΥ ΤΟΥ ΚΟΡΜΟΥ ΤΗΣ ΚΥΡΙΑΣ ΔΟΚΟΥ	
F_{Vz} =	17.00	[kN]	ΣΥΝΙΣΤΩΣΑ ΔΥΝΑΜΗ ΣΕ ΚΟΧΛΙΑ ΛΟΓΩ ΤΗΣ ΕΠΙΔΡΑΣΗΣ ΤΗΣ ΔΥΝΑΜΗΣ ΔΙΑΤΜΗΣΗΣ	$F_{Vz}=\|V_{b,Ed}\|/n$
F_{Mx} =	0.00	[kN]	Component force in a bolt due to influence of the moment on the x direction	$F_{Mx}=\|M_0\|*z_i/\sum(x_i^2+z_i^2)$
F_{Mz} =	0.00	[kN]	ΣΥΝΙΣΤΩΣΑ ΔΥΝΑΜΗ ΣΕ ΚΟΧΛΙΑ ΛΟΓΩ ΤΗΣ ΕΠΙΔΡΑΣΗΣ ΡΟΠΗΣ ΣΤΗΝ Z ΔΙΕΥΘΥΝΣΗ	$F_{Mz}=\|M_0\|*x_i/\sum(x_i^2+z_i^2)$
$F_{x,Ed}$ =	20.00	[kN]	Συνολική σχεδιαστική δύναμη κοχλία στη διεύθυνση y	$F_{x,Ed} = F_{Nx} + F_{Mx}$
$F_{z,Ed}$ =	17.00	[kN]	Συνολική σχεδιαστική δύναμη κοχλία στη διεύθυνση z	$F_{z,Ed} = F_{Vz} + F_{Mz}$
F_{Ed} =	26.25	[kN]	ΠΡΟΚΥΠΤΟΥΣΑ ΔΙΑΤΜΗΣΗ ΣΕ ΚΟΧΛΙΑ	$F_{Ed} = Ö(F_{x,Ed}^2 + F_{z,Ed}^2)$
F_{Rdx} =	46.93	[kN]	Ενεργός αντοχή σχεδιασμού κοχλία στη διεύθυνση x	$F_{Rdx}=\min(F_{bRd1x}, F_{bRd2x})$
F_{Rdz} =	50.69	[kN]	Ενεργός αντοχή σχεδιασμού κοχλία στη διεύθυνση z	$F_{Rdz}=\min(F_{bRd1z}, F_{bRd2z})$

$\|F_{x,Ed}\| \le F_{Rdx}$	$\|20.00\| < 46.93$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.43)
$\|F_{z,Ed}\| \le F_{Rdz}$	$\|17.00\| < 50.69$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.34)
$F_{Ed} \le F_{v,Rd}$	$26.25 < 154.42$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.17)

Έ<u>ΛΕΓΧΟΣ ΔΙΑΤΟΜΗΣ ΣΕ ΑΠΟΤΜΗΣΗ</u>

ΓΩΝΙΑΚΟ

A_{nt} =	1.60	[cm^2]	ΚΑΘΑΡΟ ΕΜΒΑΔΟ ΔΙΑΤΟΜΗΣ ΥΠΟ ΕΦΕΛΚΥΣΜΟ	
A_{nv} =	1.60	[cm^2]	ΕΜΒΑΔΟ ΔΙΑΤΟΜΗΣ ΣΕ ΔΙΑΤΜΗΣΗ	
V_{effRd} =	44.75	[kN]	ΜΕΙΩΜΕΝΗ ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΔΙΑΤΟΜΗΣ ΜΕ ΟΠΕΣ	$V_{effRd}=0.5*f_u*A_{nt}/g_{M2} + (1/Ö3)*f_y*A_{nv}/g_{M0}$

$\|0.5*V_{b,Ed}\| \le V_{effRd}$	$\|8.50\| < 44.75$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.19)

ΔΟΚΟΣ

A_{nt} =	1.80	[cm^2]	ΚΑΘΑΡΟ ΕΜΒΑΔΟ ΔΙΑΤΟΜΗΣ ΥΠΟ ΕΦΕΛΚΥΣΜΟ	
A_{nv} =	1.36	[cm^2]	ΕΜΒΑΔΟ ΔΙΑΤΟΜΗΣ ΣΕ ΔΙΑΤΜΗΣΗ	
V_{effRd} =	44.48	[kN]	ΜΕΙΩΜΕΝΗ ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΔΙΑΤΟΜΗΣ ΜΕ ΟΠΕΣ	$V_{effRd}=0.5*f_u*A_{nt}/g_{M2} + (1/Ö3)*f_y*A_{nv}/g_{M0}$

$\|V_{b,Ed}\| \le V_{effRd}$	$\|17.00\| < 44.48$	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.38)

Η ΣΥΝΔΕΣΗ ΕΙΝΑΙ ΣΥΜΦΩΝΗ ΜΕ ΤΟΝ ΚΑΝΟΝΙΣΜΟ ΛΟΓΟΣ 0.43

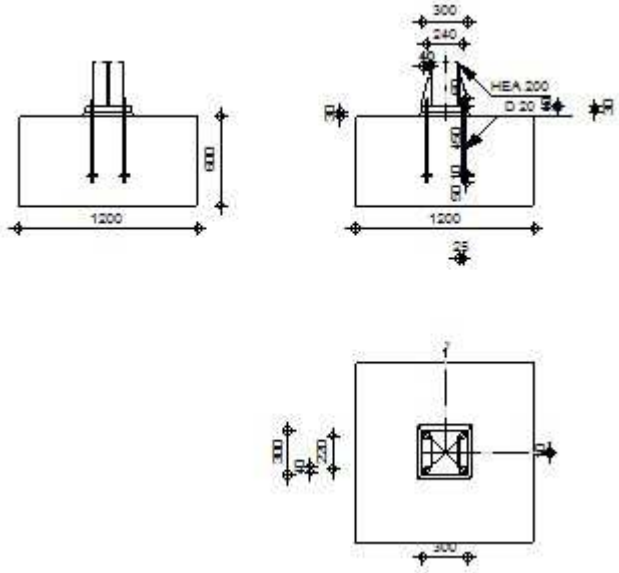
Autodesk Robot Structural Analysis Professional 2016

ΣΧΕΔΙΑΣΜΟΣ ΠΑΚΤΩΣΗΣ ΒΑΣΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ

Eurocode 3: EN 1993-1-8:2005/AC:2009 + CEB Design Guide: Design of fastenings in concrete

OK

ΛΟΓΟΣ **0.92**



ΓΕΝΙΚΟ

ΣΥΝΔΕΣΗ no.: 3
Όνομα σύνδεσης: Fixed column base

ΓΕΩΜΕΤΡΙΑ

ΥΠΟΣΤΥΛΩΜΑ

ΔΙΑΤΟΜΗ: HEA 200

L_c =	3.90	[m]	ΜΗΚΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
a =	0.0	[Deg]	ΓΩΝΙΑ ΚΛΙΣΗΣ
h_c =	190	[mm]	ΥΨΟΣ ΔΙΑΤΟΜΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
b_{fc} =	200	[mm]	ΠΛΑΤΟΣ ΔΙΑΤΟΜΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
t_{wc} =	7	[mm]	ΠΑΧΟΣ ΚΟΡΜΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
t_{fc} =	10	[mm]	ΠΑΧΟΣ ΠΕΛΜΑΤΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
r_c =	18	[mm]	ΑΚΤΙΝΑ ΣΥΝΑΡΜΟΓΗΣ ΔΙΑΤΟΜΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
A_c =	53.83	[cm^2]	ΔΙΑΣΤΑΥΡΟΥΜΕΝΗ ΠΕΡΙΟΧΗ ΥΠΟΣΤΥΛΩΜΑΤΟΣ
I_{yc} =	3692.15	[cm^4]	ΡΟΠΕΣ ΑΔΡΑΝΕΙΑΣ ΤΗΣ ΔΙΑΤΟΜΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ

ΥΛΙΚΟ S235

f_{yc} =	235.00	[MPa]	ΑΝΤΟΧΗ
f_{uc} =	360.00	[MPa]	ΤΑΣΗ ΔΙΑΡΡΟΗΣ ΕΝΟΣ ΥΛΙΚΟΥ

ΒΑΣΗ ΥΠΟΣΤΥΛΩΜΑΤΟΣ

l_{pd} =	300	[mm]	ΜΗΚΟΣ
b_{pd} =	300	[mm]	ΠΛΑΤΟΣ
t_{pd} =	30	[mm]	ΠΑΧΟΣ

ΥΛΙΚΟ S235

f_{ypd} =	235.00	[MPa]	ΑΝΤΟΧΗ
f_{upd} =	360.00	[MPa]	ΤΑΣΗ ΔΙΑΡΡΟΗΣ ΕΝΟΣ ΥΛΙΚΟΥ

ΑΓΚΥΡΩΣΗ

The shear plane passes through the UNTHREADED portion of the bolt.

ΠΟΙΟΤΗΤΑ = 8.8 ΚΑΤΗΓΟΡΙΑ ΑΓΚΥΡΩΣΗΣ

f_{yb} = 640.00 [MPa] ΤΑΣΗ ΔΙΑΡΡΟΗΣ ΤΟΥ ΥΛΙΚΟΥ ΤΟΥ ΑΓΚΥΡΙΟΥ

f_{ub} = 800.00 [MPa] ΕΦΕΛΚΥΣΤΙΚΗ ΑΝΤΟΧΗ ΤΟΥ ΥΛΙΚΟΥ ΤΟΥ ΑΓΚΥΡΙΟΥ

d = 20 [mm] ΔΙΑΜΕΤΡΟΣ ΚΟΧΛΙΑ

A_s = 2.45 [cm^2] ΕΝΕΡΓΗ ΠΕΡΙΟΧΗ ΔΙΑΤΟΜΗΣ ΚΟΧΛΙΑ

A_v = 3.14 [cm^2] ΠΕΡΙΟΧΗ ΤΟΜΗΣ ΚΟΧΛΙΩΝ

n_H = 2 ΑΡΙΘΜΟΣ ΚΟΧΛΙΩΝ ΥΠΟΣΤΥΛΩΜΑΤΩΝ

n_V = 2 ΑΡΙΘΜΟΣ ΣΕΙΡΩΝ ΚΟΧΛΙΩΝ

ΟΡΙΖΟΝΤΙΑ ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ e_{Hi} = 240 [mm]

ΚΑΤΑΚΟΡΥΦΗ ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ e_{Vi} = 220 [mm]

ΔΙΑΣΤΑΣΕΙΣ ΑΓΚΥΡΙΩΝ

L_1 = 60 [mm]

L_2 = 450 [mm]

L_3 = 50 [mm]

ΠΛΑΚΑ ΑΓΚΥΡΩΣΗΣ

d = 60 [mm] ΔΙΑΜΕΤΡΟΣ

t_p = 10 [mm] ΠΑΧΟΣ

ΥΛΙΚΟ S235

f_y = 235.00 [MPa] ΑΝΤΟΧΗ

ΔΑΚΤΥΛΙΟΣ

l_{wd} = 40 [mm] ΜΗΚΟΣ

b_{wd} = 40 [mm] ΠΛΑΤΟΣ

t_{wd} = 10 [mm] ΠΑΧΟΣ

ΕΝΙΣΧΥΣΗ

l_s = 300 [mm] ΜΗΚΟΣ

h_s = 190 [mm] ΥΨΟΣ

t_s = 10 [mm] ΠΑΧΟΣ

d_1 = 20 [mm] ΤΟΜΗ

d_2 = 20 [mm] ΤΟΜΗ

ΣΥΝΤΕΛΕΣΤΕΣ ΥΛΙΚΟΥ

g_{M0} = 1.00 ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ

g_{M2} = 1.25 ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ

g_C = 1.50 ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ

ΒΑΣΗ ΥΠΟΣΤΥΛΩΜΑΤΟΣ ΑΠΟ ΣΚΥΡΟΔΕΜΑ

L = 1200 [mm] ΜΗΚΟΣ ΠΕΔΙΛΟΥ

B = 1200 [mm] ΠΛΑΤΟΣ ΠΕΔΙΛΟΥ

H = 600 [mm] ΥΨΟΣ ΠΕΔΙΛΟΥ

ΣΚΥΡΟΔΕΜΑ

ΠΟΙΟΤΗΤΑ C25/30

f_{ck} = 25.00 [MPa] ΑΝΤΟΧΗ ΣΕ ΘΛΙΨΗ

ΣΤΡΩΣΗ ΤΣΙΜΕΝΤΕΝΕΜΑΤΟΣ

t_g = 30 [mm] ΠΑΧΟΣ ΤΗΣ ΕΠΙΦΑΝΕΙΑΚΗΣ ΣΤΡΩΣΗΣ (ΤΣΙΜΕΝΤΕΝΕΜΑ)

$f_{ck,g}$ = 12.00 [MPa] ΑΝΤΟΧΗ ΣΕ ΘΛΙΨΗ

$C_{f,d}$ = 0.30 ΣΥΝΤΕΛΕΣΤΗΣ ΤΡΙΒΗΣ ΜΕΤΑΞΥ ΤΗΣ ΠΛΑΚΑΣ ΕΔΡΑΣΕΩΣ ΚΑΙ ΤΟΥ ΣΚΥΡΟΔΕΜΑΤΟΣ

ΚΟΛΛΗΣΕΙΣ

a_p = 6 [mm] ΠΛΑΚΑ ΠΕΔΙΛΟΥ ΤΗΣ ΒΑΣΗΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ

a_s = 4 [mm] ΕΝΙΣΧΥΣΕΙΣ

ΦΟΡΤΙΑ

ΠΕΡΙΠΤΩΣΗ: ΥΠΟΛΟΓΙΣΜΟΙ ΑΠΟ ΧΡΗΣΤΗ.

$N_{j,Ed}$ =	-310.48	[kN]	ΑΞΟΝΙΚΗ ΔΥΝΑΜΗ
$V_{j,Ed,y}$ =	3.12	[kN]	ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ
$V_{j,Ed,z}$ =	-8.61	[kN]	ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ
$M_{j,Ed,y}$ =	-16.39	[kN*m]	ΚΑΜΠΤΙΚΗ ΡΟΠΗ
$M_{j,Ed,z}$ =	5.36	[kN*m]	ΚΑΜΠΤΙΚΗ ΡΟΠΗ

ΑΠΟΤΕΛΕΣΜΑΤΑ

ΘΛΙΒΟΜΕΝΗ ΖΩΝΗ

ΘΛΙΨΗ ΣΤΟ ΣΚΥΡΟΔΕΜΑ

f_{cd} =	16.67	[MPa]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΣΕ ΘΛΙΨΗ	EN 1992-1:[3.1.6.(1)]
f_j =	33.33	[MPa]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΥΠΟ ΤΗΝ ΠΛΑΚΑ ΒΑΣΕΩΣ	[6.2.5.(7)]

$c = t_p Ö(f_{yp}/(3*f_j*g_{M0}))$

c =	46	[mm]	ΕΠΙΠΡΟΣΘΕΤΟ ΠΛΑΤΟΣ ΤΗΣ ΖΩΝΗΣ ΘΛΙΠΤΙΚΗΣ ΑΝΤΟΧΗΣ	[6.2.5.(4)]
b_{eff} =	102	[mm]	ΕΝΕΡΓΟ ΠΛΑΤΟΣ ΤΗΣ ΘΛΙΠΤΙΚΗΣ ΖΩΝΗΣ ΑΝΤΟΧΗΣ ΚΑΤΩ ΑΠΟ ΤΟ ΠΕΛΜΑ	[6.2.5.(3)]
l_{eff} =	292	[mm]	ΕΝΕΡΓΟ ΜΗΚΟΣ ΤΗΣ ΘΛΙΠΤΙΚΗΣ ΖΩΝΗΣ ΑΝΤΟΧΗΣ ΚΑΤΩ ΑΠΟ ΤΟ ΠΕΛΜΑ	[6.2.5.(3)]
A_{c0} =	297.75	[cm^2]	ΕΠΙΦΑΝΕΙΑ ΤΗΣ ΣΥΝΔΕΣΗΣ ΜΕΤΑΞΥ ΤΗΣ ΠΛΑΚΑΣ ΒΑΣΕΩΣ ΚΑΙ ΤΗΣ ΘΕΜΕΛΙΩΣΗΣ	EN 1992-1:[6.7.(3)]
A_{c1} =	2679.79	[cm^2]	ΜΕΓΙΣΤΗ ΕΠΙΦΑΝΕΙΑ ΣΧΕΔΙΑΣΜΟΥ ΤΗΣ ΚΑΤΑΝΟΜΗΣ ΦΟΡΤΙΟΥ	EN 1992-1:[6.7.(3)]

$F_{rdu} = A_{c0}*f_{cd}*Ö(A_{c1}/A_{c0}) \le 3*A_{c0}*f_{cd}$

F_{rdu} =	1488.77	[kN]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΤΟΥ ΣΚΥΡΟΔΕΜΑΤΟΣ	EN 1992-1:[6.7.(3)]
b_j =	0.67		ΘΛΙΠΤΙΚΟΣ ΜΕΙΩΤΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ	[6.2.5.(7)]

$f_{jd} = b_j*F_{rdu}/(b_{eff}*l_{eff})$

f_{jd} =	33.33	[MPa]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ	[6.2.5.(7)]
$A_{c,n}$ =	690.72	[cm^2]	ΕΠΙΦΑΝΕΙΑ ΑΝΤΟΧΗΣ ΣΕ ΘΛΙΨΗ	[6.2.8.2.(1)]
$A_{c,y}$ =	306.94	[cm^2]	ΕΠΙΦΑΝΕΙΑ ΑΝΤΟΧΗΣ ΓΙΑ ΡΟΠΗ My	[6.2.8.3.(1)]
$A_{c,z}$ =	297.75	[cm^2]	ΕΠΙΦΑΝΕΙΑ ΑΝΤΟΧΗΣ ΓΙΑ ΡΟΠΗ Mz	[6.2.8.3.(1)]

$F_{c,Rd,i} = A_{C,i}*f_{jd}$

$F_{c,Rd,n}$ =	2302.40	[kN]	ΑΝΤΟΧΗ ΣΚΥΡΟΔΕΜΑΤΟΣ ΣΕ ΘΛΙΨΗ	[6.2.8.2.(1)]
$F_{c,Rd,y}$ =	1023.14	[kN]	ΑΝΤΟΧΗ ΣΚΥΡΟΔΕΜΑΤΟΣ ΣΕ ΚΑΜΨΗ My	[6.2.8.3.(1)]
$F_{c,Rd,z}$ =	992.51	[kN]	ΑΝΤΟΧΗ ΣΚΥΡΟΔΕΜΑΤΟΣ ΓΙΑ ΚΑΜΨΗ Mz	[6.2.8.3.(1)]

ΠΕΛΜΑ ΚΑΙ ΚΟΡΜΟΣ ΥΠΟΣΤΥΛΩΜΑΤΟΣ ΣΕ ΘΛΙΨΗ

CL =	1.00		ΚΑΤΗΓΟΡΙΑ ΔΙΑΤΟΜΗΣ	EN 1993-1-1:[5.5.2]
$W_{pl,y}$ =	564.27	[cm^3]	ΠΛΑΣΤΙΚΗ ΔΙΑΤΟΜΗ modulus	EN1993-1-1:[6.2.5.(2)]
$M_{c,Rd,y}$ =	132.60	[kN*m]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΔΙΑΤΟΜΗΣ ΣΕ ΚΑΜΨΗ	EN1993-1-1:[6.2.5]
$h_{f,y}$ =	183	[mm]	ΚΕΝΤΡΟΒΑΡΙΚΗ ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΤΩΝ ΠΕΛΜΑΤΩΝ	[6.2.6.7.(1)]

$F_{c,fc,Rd,y} = M_{c,Rd,y} / h_{f,y}$

$F_{c,fc,Rd,y}$ =	723.33	[kN]	ΑΝΤΟΧΗ ΘΛΙΒΟΜΕΝΟΥ ΠΕΛΜΑΤΟΣ ΚΑΙ ΚΟΡΜΟΥ	[6.2.6.7.(1)]
$W_{pl,z}$ =	206.57	[cm^3]	ΠΛΑΣΤΙΚΗ ΔΙΑΤΟΜΗ modulus	EN1993-1-1:[6.2.5.(2)]
$M_{c,Rd,z}$ =	48.54	[kN*m]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΔΙΑΤΟΜΗΣ ΣΕ ΚΑΜΨΗ	EN1993-1-1:[6.2.5]
$h_{f,z}$ =	146	[mm]	ΚΕΝΤΡΟΒΑΡΙΚΗ ΑΠΟΣΤΑΣΗ ΜΕΤΑΞΥ ΤΩΝ ΠΕΛΜΑΤΩΝ	[6.2.6.7.(1)]

$F_{c,fc,Rd,z} = M_{c,Rd,z} / h_{f,z}$

$F_{c,fc,Rd,z}$ =	332.52	[kN]	ΑΝΤΟΧΗ ΘΛΙΒΟΜΕΝΟΥ ΠΕΛΜΑΤΟΣ ΚΑΙ ΚΟΡΜΟΥ	[6.2.6.7.(1)]

ΑΝΤΟΧΗ ΤΗΣ ΘΕΜΕΛΙΩΣΗΣ ΣΤΗ ΘΛΙΒΟΜΕΝΗ ΖΩΝΗ

$N_{j,Rd} = F_{c,Rd,n}$

$N_{j,Rd}$ =	2302.40	[kN]	ΑΝΤΟΧΗ ΤΗΣ ΘΕΜΕΛΙΩΣΗΣ ΣΕ ΑΞΟΝΙΚΗ ΘΛΙΨΗ	[6.2.8.2.(1)]

$F_{C,Rd,y} = \min(F_{c,Rd,y},F_{c,fc,Rd,y})$

$F_{C,Rd,y}$ =	723.33	[kN]	ΑΝΤΟΧΗ ΤΗΣ ΘΕΜΕΛΙΩΣΗΣ ΣΤΗΝ ΘΛΙΒΟΜΕΝΗ ΖΩΝΗ	[6.2.8.3]

$F_{C,Rd,z} = \min(F_{c,Rd,z},F_{c,fc,Rd,z})$

$F_{C,Rd,z}$ =	332.52	[kN]	ΑΝΤΟΧΗ ΤΗΣ ΘΕΜΕΛΙΩΣΗΣ ΣΤΗΝ ΘΛΙΒΟΜΕΝΗ ΖΩΝΗ	[6.2.8.3]

ΕΛΕΓΧΟΣ ΑΝΤΟΧΗΣ ΣΥΝΔΕΣΗΣ

$N_{j,Ed} / N_{j,Rd} \leq 1,0$ (6.24)			0.13 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.13)
e_y =	53	[mm]	ΕΚΚΕΝΤΡΟΤΗΤΑ ΑΞΟΝΙΚΗΣ ΔΥΝΑΜΗΣ		[6.2.8.3]
$z_{c,y}$ =	92	[mm]	ΜΟΧΛΟΒΡΑΧΙΟΝΑΣ $F_{C,Rd,y}$		[6.2.8.1.(2)]
$z_{t,y}$ =	120	[mm]	ΜΟΧΛΟΒΡΑΧΙΟΝΑΣ $F_{T,Rd,y}$		[6.2.8.1.(3)]
$M_{j,Rd,y}$ =	48.46	[kN*m]	ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΚΑΜΨΗ		[6.2.8.3]
$M_{j,Ed,y} / M_{j,Rd,y} \leq 1,0$ (6.23)			0.34 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.34)
e_z =	17	[mm]	ΕΚΚΕΝΤΡΟΤΗΤΑ ΑΞΟΝΙΚΗΣ ΔΥΝΑΜΗΣ		[6.2.8.3]
$z_{c,z}$ =	73	[mm]	ΜΟΧΛΟΒΡΑΧΙΟΝΑΣ $F_{C,Rd,z}$		[6.2.8.1.(2)]
$z_{t,z}$ =	110	[mm]	ΜΟΧΛΟΒΡΑΧΙΟΝΑΣ $F_{T,Rd,z}$		[6.2.8.1.(3)]
$M_{j,Rd,z}$ =	9.29	[kN*m]	ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΚΑΜΨΗ		[6.2.8.3]
$M_{j,Ed,z} / M_{j,Rd,z} \leq 1,0$ (6.23)			0.58 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.58)
$M_{j,Ed,y} / M_{j,Rd,y} + M_{j,Ed,z} / M_{j,Rd,z} \leq 1,0$			0.92 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.92)

ΔΙΑΤΜΗΣΗ

ΠΙΕΣΗ ΑΓΚΥΡΙΟΥ ΣΤΗ ΠΛΑΚΑ ΕΔΡΑΣΕΩΣ

ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ $V_{j,Ed,y}$

$a_{d,y}$ =	0.61	ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΛΑΜΒΑΝΕΙ ΥΠΟΨΗ ΤΗ ΘΕΣΗ ΤΟΥ ΚΟΧΛΙΑ - ΣΤΗ ΔΙΕΥΘΥΝΣΗ ΤΗΣ ΔΙΑΤΜΗΣΗΣ	[ΠΙΝΑΚΑΣ 3.4]
$a_{b,y}$ =	0.61	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΥΠΟΛΟΓΙΣΜΟ ΑΝΤΟΧΗΣ $F_{1,vb,Rd}$	[ΠΙΝΑΚΑΣ 3.4]
$k_{1,y}$ =	2.12	ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΛΑΜΒΑΝΕΙ ΥΠΟΨΗ ΤΗ ΘΕΣΗ ΤΟΥ ΚΟΧΛΙΑ - ΚΑΘΕΤΑ ΣΤΗΝ ΔΙΕΥΘΥΝΣΗ ΤΗΣ ΔΙΑΤΜΗΣΗΣ	[ΠΙΝΑΚΑΣ 3.4]

$F_{1,vb,Rd,y} = k_{1,y}*a_{b,y}*f_{up}*d*t_p / g_{M2}$

$F_{1,vb,Rd,y}$ = 221.83 [kN] ΑΝΤΟΧΗ ΑΓΚΥΡΙΟΥ ΓΙΑ ΠΙΕΣΗ ΣΤΗΝ ΠΛΑΚΑ ΕΔΡΑΣΕΩΣ [6.2.2.(7)]

ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ $V_{j,Ed,z}$

$a_{d,z}$ =	0.45	ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΛΑΜΒΑΝΕΙ ΥΠΟΨΗ ΤΗ ΘΕΣΗ ΤΟΥ ΚΟΧΛΙΑ - ΣΤΗ ΔΙΕΥΘΥΝΣΗ ΤΗΣ ΔΙΑΤΜΗΣΗΣ	[ΠΙΝΑΚΑΣ 3.4]
$a_{b,z}$ =	0.45	ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΥΠΟΛΟΓΙΣΜΟ ΑΝΤΟΧΗΣ $F_{1,vb,Rd}$	[ΠΙΝΑΚΑΣ 3.4]
$k_{1,z}$ =	2.50	ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΛΑΜΒΑΝΕΙ ΥΠΟΨΗ ΤΗ ΘΕΣΗ ΤΟΥ ΚΟΧΛΙΑ - ΚΑΘΕΤΑ ΣΤΗΝ ΔΙΕΥΘΥΝΣΗ ΤΗΣ ΔΙΑΤΜΗΣΗΣ	[ΠΙΝΑΚΑΣ 3.4]

$F_{1,vb,Rd,z} = k_{1,z}*a_{b,z}*f_{up}*d*t_p / g_{M2}$

$F_{1,vb,Rd,z}$ = 196.36 [kN] ΑΝΤΟΧΗ ΑΓΚΥΡΙΟΥ ΓΙΑ ΠΙΕΣΗ ΣΤΗΝ ΠΛΑΚΑ ΕΔΡΑΣΕΩΣ [6.2.2.(7)]

ΔΙΑΤΜΗΣΗ ΑΓΚΥΡΙΟΥ

a_b =	0.25		ΣΥΝΤΕΛΕΣΤΗΣ ΓΙΑ ΥΠΟΛΟΓΙΣΜΟ ΑΝΤΟΧΗΣ $F_{2,vb,Rd}$	[6.2.2.(7)]
A_{vb} =	3.14	[cm^2]	ΠΕΡΙΟΧΗ ΤΟΜΗΣ ΚΟΧΛΙΩΝ	[6.2.2.(7)]
f_{ub} =	800.00	[MPa]	ΕΦΕΛΚΥΣΤΙΚΗ ΑΝΤΟΧΗ ΤΟΥ ΥΛΙΚΟΥ ΤΟΥ ΑΓΚΥΡΙΟΥ	[6.2.2.(7)]
g_{M2} =	1.25		ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	[6.2.2.(7)]

$F_{2,vb,Rd} = a_b*f_{ub}*A_{vb}/g_{M2}$

$F_{2,vb,Rd}$ = 49.86 [kN] ΔΙΑΤΜΗΤΙΚΗ ΑΝΤΟΧΗ ΕΝΟΣ ΑΓΚΥΡΙΟΥ - ΧΩΡΙΣ ΑΓΚΙΣΤΡΟ [6.2.2.(7)]

a_M =	2.00	ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΗΝ ΣΥΝΔΕΣΗ ΕΝΟΣ ΑΓΚΥΡΙΟΥ ΣΤΗ ΘΕΜΕΛΙΩΣΗ	CEB [9.3.2.2]
$M_{Rk,s}$ =	0.75 [kN*m]	ΧΑΡΑΚΤΗΡΙΣΤΙΚΗ ΚΑΜΠΤΙΚΗ ΑΝΤΟΧΗ ΕΝΟΣ ΑΓΚΥΡΙΟΥ	CEB [9.3.2.2]
l_{sm} =	55 [mm]	ΜΗΚΟΣ ΑΓΚΙΣΤΡΟΥ	CEB [9.3.2.2]
g_{Ms} =	1.20	ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	CEB [3.2.3.2]

$F_{v,Rd,sm} = a_M*M_{Rk,s}/(l_{sm}*g_{Ms})$

$F_{v,Rd,sm}$ = 22.85 [kN] ΔΙΑΤΜΗΤΙΚΗ ΑΝΤΟΧΗ ΕΝΟΣ ΑΓΚΥΡΙΟΥ - ΜΕ ΑΓΚΙΣΤΡΟ CEB [9.3.1]

ΑΣΤΟΧΙΑ ΑΠΟΚΟΛΛΗΣΗΣ ΣΚΥΡΟΔΕΜΑΤΟΣ

$N_{Rk,c}$ =	216.44	[kN]	ΑΝΤΟΧΗ ΣΧΕΔΙΑΣΜΟΥ ΣΕ ΑΝΥΨΩΣΗ	CEB [9.2.4]
k_3 =	2.00		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΟ ΜΗΚΟΣ ΑΓΚΥΡΩΣΗΣ	CEB [9.3.3]
g_{Mc} =	2.16		ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	CEB [3.2.3.1]

$F_{v,Rd,cp} = k_3*N_{Rk,c}/g_{Mc}$

$F_{v,Rd,cp}$ = 200.41 [kN] ΑΝΤΟΧΗ ΣΚΥΡΟΔΕΜΑΤΟΣ ΓΙΑ ΑΠΟΚΟΛΛΗΣΗ CEB [9.3.1]

ΑΣΤΟΧΙΑ ΑΚΡΗΣ ΣΚΥΡΟΔΕΜΑΤΟΣ

ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ $V_{j,Ed,y}$

$V_{Rk,c,y}^{0}$ = 858.57	[kN]	ΧΑΡΑΚΤΗΡΙΣΤΙΚΗ ΑΝΤΟΧΗ ΑΓΚΥΡΙΟΥ	CEB [9.3.4.(a)]
$y_{A,V,y}$ = 0.53		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΧΕΤΙΖΕΤΑΙ ΜΕ ΤΗΝ ΑΠΟΣΤΑΣΗ ΤΩΝ ΑΓΚΥΡΙΩΝ ΚΑΙ ΤΗΝ ΑΠΟΣΤΑΣΗ ΑΠΟ ΤΗΝ ΑΚΜΗ	CEB [9.3.4]
$y_{h,V,y}$ = 1.07		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΟ ΠΑΧΟΣ ΤΗΣ ΘΕΜΕΛΙΩΣΗΣ	CEB [9.3.4.(c)]
$y_{s,V,y}$ = 0.90		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΗΝ ΕΠΙΡΡΟΗ ΤΩΝ ΑΚΜΩΝ ΠΟΥ ΕΙΝΑΙ ΠΑΡΑΛΛΗΛΕΣ ΣΤΗΝ ΔΙΕΥΘΥΝΣΗ ΤΗΣ ΔΙΑΤΜΗΤΙΚΗΣ ΔΥΝΑΜΗΣ	CEB [9.3.4.(d)]
$y_{ec,V,y}$ = 1.00		ΣΥΝΤΕΛΕΣΤΗΣ Ο ΟΠΟΙΟΣ ΛΑΜΒΑΝΕΙ ΥΠΟΨΗ ΤΟ ΦΑΙΝΟΜΕΝΟ ΟΜΑΔΑΣ ΟΤΑΝ ΑΣΚΟΥΝΤΑΙ ΔΙΑΦΟΡΕΤΙΚΑ ΔΙΑΤΜΗΤΙΚΑ ΦΟΡΤΙΑ ΣΕ ΚΑΘΕ ΜΕΜΟΝΩΜΕΝΟ ΑΓΚΥΡΙΟ ΣΤΗΝ ΟΜΑΔΑ	CEB [9.3.4.(e)]
$y_{a,V,y}$ = 1.00		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΗΝ ΓΩΝΙΑ ΥΠΟ ΤΗΝ ΟΠΟΙΑ ΕΠΙΒΑΛΛΕΤΑΙ Η ΔΙΑΤΜΗΣΗ	CEB [9.3.4.(f)]
$y_{ucr,V,y}$ = 1.00		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΟΝ ΤΥΠΟ ΤΟΥ ΟΠΛΙΣΜΟΥ ΠΟΥ ΧΡΗΣΙΜΟΠΟΙΕΤΑΙ ΣΤΙΣ ΑΚΡΕΣ	CEB [9.3.4.(g)]
g_{Mc} = 2.16		ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	CEB [3.2.3.1]

$F_{v,Rd,c,y} = V_{Rk,c,y}^{0} * y_{A,V,y} * y_{h,V,y} * y_{s,V,y} * y_{ec,V,y} * y_{a,V,y} * y_{ucr,V,y} / g_{Mc}$

$F_{v,Rd,c,y}$ = 203.14	[kN]	ΑΝΤΟΧΗ ΣΚΥΡΟΔΕΜΑΤΟΣ ΓΙΑ ΑΣΤΟΧΙΑ ΑΚΜΗΣ	CEB [9.3.1]

ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ $V_{j,Ed,z}$

$V_{Rk,c,z}^{0}$ = 832.42	[kN]	ΧΑΡΑΚΤΗΡΙΣΤΙΚΗ ΑΝΤΟΧΗ ΑΓΚΥΡΙΟΥ	CEB [9.3.4.(a)]
$y_{A,V,z}$ = 0.57		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΧΕΤΙΖΕΤΑΙ ΜΕ ΤΗΝ ΑΠΟΣΤΑΣΗ ΤΩΝ ΑΓΚΥΡΙΩΝ ΚΑΙ ΤΗΝ ΑΠΟΣΤΑΣΗ ΑΠΟ ΤΗΝ ΑΚΜΗ	CEB [9.3.4]
$y_{h,V,z}$ = 1.06		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΟ ΠΑΧΟΣ ΤΗΣ ΘΕΜΕΛΙΩΣΗΣ	CEB [9.3.4.(c)]
$y_{s,V,z}$ = 0.90		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΗΝ ΕΠΙΡΡΟΗ ΤΩΝ ΑΚΜΩΝ ΠΟΥ ΕΙΝΑΙ ΠΑΡΑΛΛΗΛΕΣ ΣΤΗΝ ΔΙΕΥΘΥΝΣΗ ΤΗΣ ΔΙΑΤΜΗΤΙΚΗΣ ΔΥΝΑΜΗΣ	CEB [9.3.4.(d)]
$y_{ec,V,z}$ = 1.00		ΣΥΝΤΕΛΕΣΤΗΣ Ο ΟΠΟΙΟΣ ΛΑΜΒΑΝΕΙ ΥΠΟΨΗ ΤΟ ΦΑΙΝΟΜΕΝΟ ΟΜΑΔΑΣ ΟΤΑΝ ΑΣΚΟΥΝΤΑΙ ΔΙΑΦΟΡΕΤΙΚΑ ΔΙΑΤΜΗΤΙΚΑ ΦΟΡΤΙΑ ΣΕ ΚΑΘΕ ΜΕΜΟΝΩΜΕΝΟ ΑΓΚΥΡΙΟ ΣΤΗΝ ΟΜΑΔΑ	CEB [9.3.4.(e)]
$y_{a,V,z}$ = 1.00		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΗΝ ΓΩΝΙΑ ΥΠΟ ΤΗΝ ΟΠΟΙΑ ΕΠΙΒΑΛΛΕΤΑΙ Η ΔΙΑΤΜΗΣΗ	CEB [9.3.4.(f)]
$y_{ucr,V,z}$ = 1.00		ΣΥΝΤΕΛΕΣΤΗΣ ΠΟΥ ΣΥΝΔΕΕΤΑΙ ΜΕ ΤΟΝ ΤΥΠΟ ΤΟΥ ΟΠΛΙΣΜΟΥ ΠΟΥ ΧΡΗΣΙΜΟΠΟΙΕΤΑΙ ΣΤΙΣ ΑΚΡΕΣ	CEB [9.3.4.(g)]
g_{Mc} = 2.16		ΜΕΡΙΚΟΣ ΣΥΝΤΕΛΕΣΤΗΣ ΑΣΦΑΛΕΙΑΣ	CEB [3.2.3.1]

$F_{v,Rd,c,z} = V_{Rk,c,z}^{0} * y_{A,V,z} * y_{h,V,z} * y_{s,V,z} * y_{ec,V,z} * y_{a,V,z} * y_{ucr,V,z} / g_{Mc}$

$F_{v,Rd,c,z}$ = 210.00	[kN]	ΑΝΤΟΧΗ ΣΚΥΡΟΔΕΜΑΤΟΣ ΓΙΑ ΑΣΤΟΧΙΑ ΑΚΜΗΣ	CEB [9.3.1]

ΑΝΤΟΧΗ ΔΙΑΧΩΡΙΣΜΟΥ

$C_{f,d}$ = 0.30		ΣΥΝΤΕΛΕΣΤΗΣ ΤΡΙΒΗΣ ΜΕΤΑΞΥ ΤΗΣ ΠΛΑΚΑΣ ΕΔΡΑΣΕΩΣ ΚΑΙ ΤΟΥ ΣΚΥΡΟΔΕΜΑΤΟΣ	[6.2.2.(6)]
$N_{c,Ed}$ = 310.48	[kN]	ΘΛΙΠΤΙΚΗ ΔΥΝΑΜΗ	[6.2.2.(6)]

$F_{f,Rd} = C_{f,d} * N_{c,Ed}$

$F_{f,Rd}$ = 93.14	[kN]	ΑΝΤΟΧΗ ΣΕ ΟΛΙΣΘΗΣΗ	[6.2.2.(6)]

ΕΛΕΓΧΟΣ ΣΕ ΔΙΑΤΜΗΣΗ

$V_{j,Rd,y} = n_b * \min(F_{1,vb,Rd,y}, F_{2,vb,Rd}, F_{v,Rd,sm}, F_{v,Rd,cp}, F_{v,Rd,c,y}) + F_{f,Rd}$

$V_{j,Rd,y}$ = 184.54	[kN]	ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΔΙΑΤΜΗΣΗ	CEB [9.3.1]
$V_{j,Ed,y} / V_{j,Rd,y} \le 1,0$		0.02 < 1.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.02)

$V_{j,Rd,z} = n_b * \min(F_{1,vb,Rd,z}, F_{2,vb,Rd}, F_{v,Rd,sm}, F_{v,Rd,cp}, F_{v,Rd,c,z}) + F_{f,Rd}$

$V_{j,Rd,z}$ = 184.54	[kN]	ΑΝΤΟΧΗ ΣΥΝΔΕΣΗΣ ΣΕ ΔΙΑΤΜΗΣΗ	CEB [9.3.1]
$V_{j,Ed,z} / V_{j,Rd,z} \le 1,0$		0.05 < 1.00 ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.05)

$V_{j,Ed,y} / V_{j,Rd,y} + V_{j,Ed,z} / V_{j,Rd,z} \le 1,0$	0.06 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ (0.06)

ΕΛΕΓΧΟΣ ΕΝΙΣΧΥΣΕΩΝ

ΕΝΙΣΧΥΣΗ ΠΑΡΑΛΛΗΛΗ ΣΤΟΝ ΚΟΡΜΟ (ΚΑΤΑ ΜΗΚΟΣ ΤΗΣ ΕΠΕΚΤΑΣΗΣ ΤΟΥ ΚΟΡΜΟΥ ΤΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ)

M_1 =	1.53	[kN*m]	ΚΑΜΠΤΙΚΗ ΡΟΠΗ ΔΡΩΣΑ ΣΕ ΜΙΑ ΕΝΙΣΧΥΣΗ
Q_1 =	55.65	[kN]	ΔΙΑΤΜΗΤΙΚΗ ΔΥΝΑΜΗ ΔΡΩΣΑ ΣΕ ΜΙΑ ΕΝΙΣΧΥΣΗ
z_s =	40	[mm]	ΘΕΣΗ ΤΟΥ ΟΥΔΕΤΕΡΟΥ ΑΞΟΝΑ (ΑΠΟ ΤΗΝ ΒΑΣΗ ΤΗΣ ΠΛΑΚΑΣ)
I_s =	2406.19	[cm^4]	ΡΟΠΗ ΑΔΡΑΝΕΙΑΣ ΜΙΑΣ ΕΝΙΣΧΥΣΗΣ

s_d =	0.61	[MPa]	ΟΡΘΗ ΤΑΣΗ ΣΤΗΝ ΕΠΙΦΑΝΕΙΑ ΕΠΑΦΗΣ ΜΕΤΑΞΥ ΕΝΙΣΧΥΣΗΣ ΚΑΙ ΠΛΑΚΑΣ	EN 1993-1-1:[6.2.1.(5)]
s_g =	11.47	[MPa]	ΟΡΘΗ ΤΑΣΗ ΣΤΙΣ ΑΝΩ ΙΝΕΣ	EN 1993-1-1:[6.2.1.(5)]
t =	29.29	[MPa]	ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ ΣΕ ΜΙΑ ΕΝΙΣΧΥΣΗ	EN 1993-1-1:[6.2.1.(5)]
s_z =	50.74	[MPa]	ΙΣΟΔΥΝΑΜΗ ΤΑΣΗ ΣΤΗΝ ΕΠΙΦΑΝΕΙΑ ΕΠΑΦΗΣ ΜΕΤΑΞΥ ΕΝΙΣΧΥΣΗΣ ΚΑΙ ΠΛΑΚΑΣ	EN 1993-1-1:[6.2.1.(5)]

$\max (s_g, t / (0.58), s_z) / (f_{yp}/g_{M0}) \le 1.0$ (6.1)	0.22 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ (0.22)

ΚΟΛΛΗΣΕΙΣ ΜΕΤΑΞΥ ΤΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ ΚΑΙ ΤΗΣ ΠΛΑΚΑΣ ΒΑΣΗΣ

$s_{\wedge}$ =	67.01	[MPa]	ΟΡΘΗ ΤΑΣΗ ΣΕ ΜΙΑ ΚΟΛΛΗΣΗ	[4.5.3.(7)]
$t_{\wedge}$ =	67.01	[MPa]	ΚΑΘΕΤΗ ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ	[4.5.3.(7)]
t_{yII} =	0.66	[MPa]	ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ ΠΑΡΑΛΛΗΛΗ ΣΤΟ $V_{j,Ed,y}$	[4.5.3.(7)]
t_{zII} =	-2.95	[MPa]	ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ ΠΑΡΑΛΛΗΛΗ ΣΤΟ $V_{j,Ed,z}$	[4.5.3.(7)]
b_W =	0.80		ΣΥΝΤΕΛΕΣΤΗΣ ΕΞΑΡΤΩΜΕΝΟΣ ΑΠΟ ΤΗΝ ΑΝΤΙΣΤΑΣΗ	[4.5.3.(7)]

$s_{\wedge} / (0.9*f_u/g_{M2}) \le 1.0$ (4.1)	0.26 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.26)
$Ö(s_{\wedge}^2 + 3.0 (t_{yII}^2 + t_{\wedge}^2)) / (f_u/(b_W*g_{M2})) \le 1.0$ (4.1)	0.37 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.37)
$Ö(s_{\wedge}^2 + 3.0 (t_{zII}^2 + t_{\wedge}^2)) / (f_u/(b_W*g_{M2})) \le 1.0$ (4.1)	0.22 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.22)

ΚΑΤΑΚΟΡΥΦΕΣ ΚΟΛΛΗΣΕΙΣ ΕΝΙΣΧΥΣΕΩΝ

ΕΝΙΣΧΥΣΗ ΠΑΡΑΛΛΗΛΗ ΣΤΟΝ ΚΟΡΜΟ (ΚΑΤΑ ΜΗΚΟΣ ΤΗΣ ΕΠΕΚΤΑΣΗΣ ΤΟΥ ΚΟΡΜΟΥ ΤΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ)

$s_{\wedge}$ =	22.48	[MPa]	ΟΡΘΗ ΤΑΣΗ ΣΕ ΜΙΑ ΚΟΛΛΗΣΗ	[4.5.3.(7)]
$t_{\wedge}$ =	22.48	[MPa]	ΚΑΘΕΤΗ ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ	[4.5.3.(7)]
t_{II} =	36.61	[MPa]	ΠΑΡΑΛΛΗΛΗ ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ	[4.5.3.(7)]
s_z =	77.74	[MPa]	ΟΛΙΚΗ ΙΣΟΔΥΝΑΜΗ ΤΑΣΗ	[4.5.3.(7)]
b_W =	0.80		ΣΥΝΤΕΛΕΣΤΗΣ ΕΞΑΡΤΩΜΕΝΟΣ ΑΠΟ ΤΗΝ ΑΝΤΙΣΤΑΣΗ	[4.5.3.(7)]

$\max (s_{\wedge}, t_{II} * Ö3, s_z) / (f_u/(b_W*g_{M2})) \le 1.0$ (4.1)	0.22 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.22)

ΕΓΚΑΡΣΙΕΣ ΚΟΛΛΗΣΕΙΣ ΕΝΙΣΧΥΣΕΩΝ

ΕΝΙΣΧΥΣΗ ΠΑΡΑΛΛΗΛΗ ΣΤΟΝ ΚΟΡΜΟ (ΚΑΤΑ ΜΗΚΟΣ ΤΗΣ ΕΠΕΚΤΑΣΗΣ ΤΟΥ ΚΟΡΜΟΥ ΤΟΥ ΥΠΟΣΤΥΛΩΜΑΤΟΣ)

$s_{\wedge}$ =	89.43	[MPa]	ΟΡΘΗ ΤΑΣΗ ΣΕ ΜΙΑ ΚΟΛΛΗΣΗ	[4.5.3.(7)]
$t_{\wedge}$ =	89.43	[MPa]	ΚΑΘΕΤΗ ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ	[4.5.3.(7)]
t_{II} =	47.58	[MPa]	ΠΑΡΑΛΛΗΛΗ ΕΦΑΠΤΟΜΕΝΙΚΗ ΤΑΣΗ	[4.5.3.(7)]
s_z =	196.94	[MPa]	ΟΛΙΚΗ ΙΣΟΔΥΝΑΜΗ ΤΑΣΗ	[4.5.3.(7)]
b_W =	0.80		ΣΥΝΤΕΛΕΣΤΗΣ ΕΞΑΡΤΩΜΕΝΟΣ ΑΠΟ ΤΗΝ ΑΝΤΙΣΤΑΣΗ	[4.5.3.(7)]

$\max (s_{\wedge}, t_{II} * Ö3, s_z) / (f_u/(b_W*g_{M2})) \le 1.0$ (4.1)	0.55 < 1.00	ΕΠΑΛΗΘΕΥΕΤΑΙ	(0.55)

ΑΚΑΜΨΙΑ ΣΥΝΔΕΣΗΣ

ΚΑΜΠΤΙΚΗ ΡΟΠΗ $M_{j,Ed,y}$

b_{eff} =	102	[mm]	ΕΝΕΡΓΟ ΠΛΑΤΟΣ ΤΗΣ ΘΛΙΠΤΙΚΗΣ ΖΩΝΗΣ ΑΝΤΟΧΗΣ ΚΑΤΩ ΑΠΟ ΤΟ ΠΕΛΜΑ	[6.2.5.(3)]
l_{eff} =	292	[mm]	ΕΝΕΡΓΟ ΜΗΚΟΣ ΤΗΣ ΘΛΙΠΤΙΚΗΣ ΖΩΝΗΣ ΑΝΤΟΧΗΣ ΚΑΤΩ ΑΠΟ ΤΟ ΠΕΛΜΑ	[6.2.5.(3)]

$k_{13,y} = E_c*Ö(b_{eff}*l_{eff})/(1.275*E)$

$k_{13,y}$ =	20	[mm]	ΣΥΝΤΕΛΕΣΤΗΣ ΑΚΑΜΨΙΑΣ ΘΛΙΒΟΜΕΝΟΥ ΣΚΥΡΟΔΕΜΑΤΟΣ	[ΠΙΝΑΚΑΣ 6.11]
l_{eff} =	150	[mm]	ΕΝΕΡΓΟ ΜΗΚΟΣ ΕΝΟΣ ΚΟΧΛΙΑ ΓΙΑ mode 2	[6.2.6.5]

l_{eff} = 150 [mm] ΕΝΕΡΓΟ ΜΗΚΟΣ ΕΝΟΣ ΚΟΧΛΙΑ ΓΙΑ mode 2 [6.2.6.5]
m = 100 [mm] ΑΠΟΣΤΑΣΗ ΚΟΧΛΙΑ ΑΠΟ ΤΗΝ ΕΝΙΣΧΥΜΕΝΗ ΑΚΡΗ [6.2.6.5]
$k_{15,y} = 0.850*l_{eff}*t_p^3/(m^3)$
$k_{15,y}$ = 3 [mm] ΣΥΝΤΕΛΕΣΤΗΣ ΑΚΑΜΨΙΑΣ ΤΗΣ ΠΛΑΚΑΣ ΕΔΡΑΣΗΣ ΥΠΟΒΑΛΛΟΜΕΝΗ ΣΕ ΚΑΜΨΗ [ΠΙΝΑΚΑΣ 6.11]
L_b = 240 [mm] ΕΝΕΡΓΟ ΜΗΚΟΣ ΑΓΚΥΡΩΣΕΩΣ [ΠΙΝΑΚΑΣ 6.11]
$k_{16,y} = 1.6*A_b/L_b$
$k_{16,y}$ = 2 [mm] ΣΥΝΤΕΛΕΣΤΗΣ ΑΚΑΜΨΙΑΣ ΑΓΚΥΡΙΟΥ ΥΠΟ ΕΦΕΛΚΥΣΜΟ [ΠΙΝΑΚΑΣ 6.11]
$l_{0,y}$ = 0.50 ΛΥΓΗΡΟΤΗΤΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ [5.2.2.5.(2)]
$S_{j,ini,y}$ = 70499.05 [kN*m] ΑΡΧΙΚΗ ΑΚΑΜΨΙΑ ΣΤΡΕΨΗΣ [ΠΙΝΑΚΑΣ 6.12]
$S_{j,rig,y}$ = 59642.42 [kN*m] ΑΚΑΜΨΙΑ ΣΤΑΘΕΡΗΣ ΣΥΝΔΕΣΗΣ [5.2.2.5]
$S_{j,ini,y}$ Β $S_{j,rig,y}$ ΣΤΑΘΕΡΗ [5.2.2.5.(2)]

ΚΑΜΠΤΙΚΗ ΡΟΠΗ $M_{j,Ed,z}$

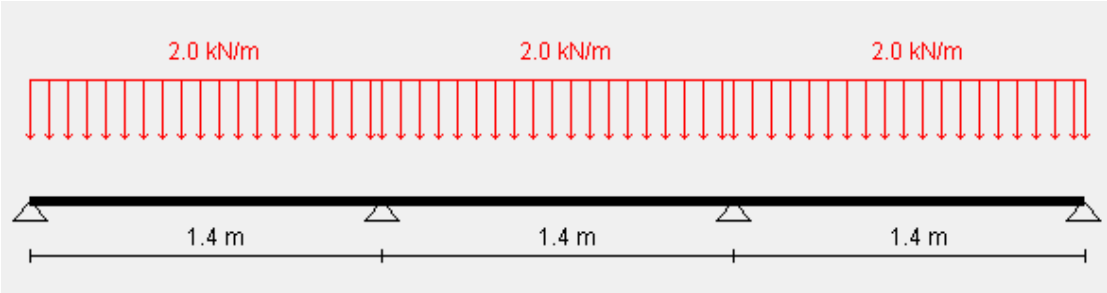
$k_{13,z} = E_c*Ö(A_{c,z})/(1.275*E)$
$k_{13,z}$ = 20 [mm] ΣΥΝΤΕΛΕΣΤΗΣ ΑΚΑΜΨΙΑΣ ΘΛΙΒΟΜΕΝΟΥ ΣΚΥΡΟΔΕΜΑΤΟΣ [ΠΙΝΑΚΑΣ 6.11]
l_{eff} = 150 [mm] ΕΝΕΡΓΟ ΜΗΚΟΣ ΕΝΟΣ ΚΟΧΛΙΑ ΓΙΑ mode 2 [6.2.6.5]
m = 100 [mm] ΑΠΟΣΤΑΣΗ ΚΟΧΛΙΑ ΑΠΟ ΤΗΝ ΕΝΙΣΧΥΜΕΝΗ ΑΚΡΗ [6.2.6.5]
$k_{15,z} = 0.850*l_{eff}*t_p^3/(m^3)$
$k_{15,z}$ = 3 [mm] ΣΥΝΤΕΛΕΣΤΗΣ ΑΚΑΜΨΙΑΣ ΤΗΣ ΠΛΑΚΑΣ ΕΔΡΑΣΗΣ ΥΠΟΒΑΛΛΟΜΕΝΗ ΣΕ ΚΑΜΨΗ [ΠΙΝΑΚΑΣ 6.11]
L_b = 240 [mm] ΕΝΕΡΓΟ ΜΗΚΟΣ ΑΓΚΥΡΩΣΕΩΣ [ΠΙΝΑΚΑΣ 6.11]
$k_{16,z} = 1.6*A_b/L_b$
$k_{16,z}$ = 2 [mm] ΣΥΝΤΕΛΕΣΤΗΣ ΑΚΑΜΨΙΑΣ ΑΓΚΥΡΙΟΥ ΥΠΟ ΕΦΕΛΚΥΣΜΟ [ΠΙΝΑΚΑΣ 6.11]
$l_{0,z}$ = 0.83 ΛΥΓΗΡΟΤΗΤΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ [5.2.2.5.(2)]
$S_{j,ini,z}$ = 44708.65 [kN*m] ΑΡΧΙΚΗ ΑΚΑΜΨΙΑ ΣΤΡΕΨΗΣ [6.3.1.(4)]
$S_{j,rig,z}$ = 21573.62 [kN*m] ΑΚΑΜΨΙΑ ΣΤΑΘΕΡΗΣ ΣΥΝΔΕΣΗΣ [5.2.2.5]
$S_{j,ini,z}$ Β $S_{j,rig,z}$ ΣΤΑΘΕΡΗ [5.2.2.5.(2)]

ΠΙΟ ΑΔΥΝΑΜΟ ΤΜΗΜΑ:

ΠΕΛΜΑ ΥΠΟΣΤΥΛΩΜΑΤΟΣ - ΘΛΙΨΗ

Η ΣΥΝΔΕΣΗ ΕΙΝΑΙ ΣΥΜΦΩΝΗ ΜΕ ΤΟΝ ΚΑΝΟΝΙΣΜΟ ΛΟΓΟΣ 0.92

1. ΓΕΩΜΕΤΡΙΑ ΦΟΡΕΑ



2. ΦΟΡΤΙΑ

Μόνιμα : 2.45 kN/m²
Πρόσθετα μόνιμα : 3 kN/m²

Ωφέλιμα φορτία : q kN/m²

Φάτνωμα 1	q = 2
Φάτνωμα 2	q = 2
Φάτνωμα 3	q = 2

ΣΥΝΤΕΛΕΣΤΕΣ ΑΣΦΑΛΕΙΑΣ ΦΟΡΤΙΩΝ

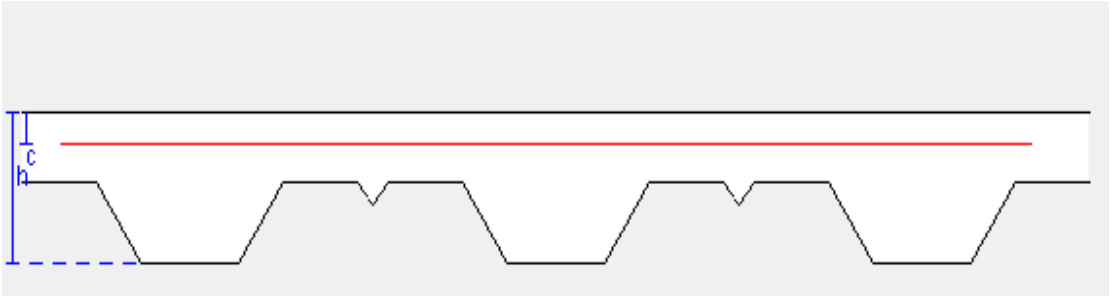
Συντελεστής ασφαλείας μονίμων δράσεων: $\gamma_G = 1.35$
Συντελεστής ασφαλείας μεταβλητών δράσεων: $\gamma_Q = 1.5$

3. ΓΕΝΙΚΑ ΣΤΟΙΧΕΙΑ

Πάχος χαλυβδοφύλλου t = 0.75 mm
Ποιότητα χάλυβα χαλυβδόφυλλου Fe320G
Πάχος πλακας h = 0.14 m
Ποιότητα σκυροδέματος C25/30
Ποιότητα χάλυβα οπλισμού S500s
Επικάλυψη οπλισμού c = 0.03 m
Εμβαδόν οπλισμού As = 2.513 cm ² / m
Οπλισμός Φ 8 mm ανά d = 20 cm

4. ΣΥΝΤΕΛΕΣΤΕΣ ΑΣΦΑΛΕΙΑΣ ΥΛΙΚΩΝ

$\gamma_{M1} = 1.10$
$\gamma_c = 1.5$
$\gamma_s = 1.15$



5. ΓΕΩΜΕΤΡΙΚΑ ΚΑΙ ΑΔΡΑΝΕΙΑΚΑ ΧΑΡΑΚΤΗΡΙΣΤΙΚΑ

Στην φάση κατασκευής EJ = 231.000
Στην φάση λειτουργίας EJ = 2792.972

6. ΠΕΙΡΑΜΑΤΙΚΑ ΠΡΟΣΔΙΟΡΙΣΜΕΝΟΙ ΣΥΝΤΕΛΕΣΤΕΣ

m = 90.83
k = 0.0144

7. ΡΟΠΕΣ ΚΑΙ ΤΕΜΝΟΥΣΕΣ ΑΝΤΟΧΗΣ

i) Χαλυβδόφυλλο

Θετικές ροπές αντοχής σχεδιασμού $M^{+}_{Rd,S}$ (kNm)

Φάτνωμα 1	6.33
Φάτνωμα 2	6.33
Φάτνωμα 3	6.33

Αρνητικές ροπές αντοχής σχεδιασμού $M^{-}_{Rd,S}$ (kNm)

Στήριξη 1	4.89
Στήριξη 2	4.89

ii) Σύμμικτη διατομή

Θετική ροπή αντοχής M^{+}_{plRd} = 22.54 kNm

Αρνητική ροπή αντοχής M^{-}_{plRd} = 10.50 kNm

Τέμνουσα αντοχής V_{Rd} = 27.32 kN

Διαμήκης τέμνουσα αντοχής V_{lRd} (kN)

Φάτνωμα 1	28.10
Φάτνωμα 2	31.48
Φάτνωμα 3	28.10

8. ΚΑΝΟΝΙΣΜΟΙ

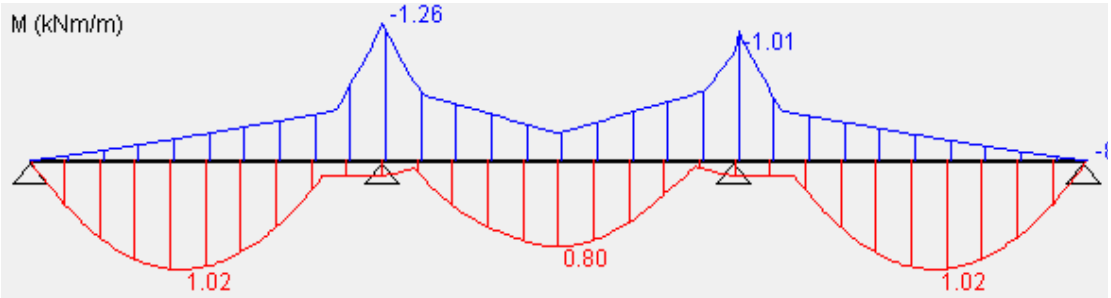
- Eurocode 3: Design of Steel Structures - Part 1.3:
  General rules - supplementary rules for cold formed thin gauge members and sheeting (ENV 1993-1-3:1996)

- Eurocode 4: Design of composite steel and concrete structures - Part 1-1:
  General rules and rules for buildings (ENV 1994-1-1:1992)

- ΕΚΩΣ 2000: Ελληνικός κανονισμός ωπλισμένου σκυροδέματος 2000

9. ΕΛΕΓΧΟΙ ΣΤΗΝ ΦΑΣΗ ΚΑΤΑΣΚΕΥΗΣ

i) Έλεγχος καμπτικής αντοχής



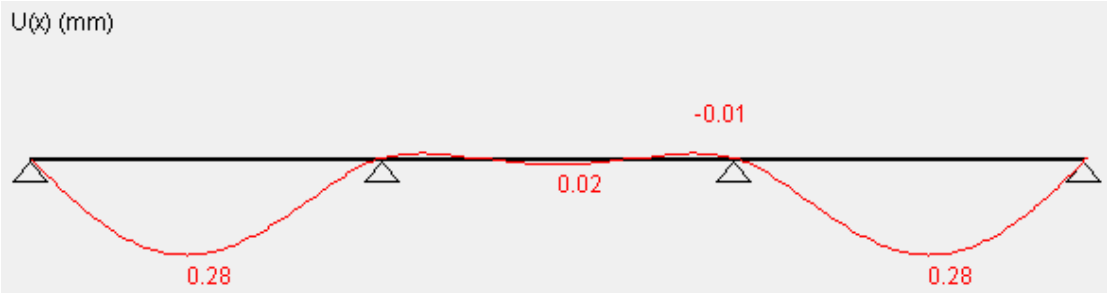
Συνδυασμός φόρτισης : $\gamma_G G_p + (\gamma_G G_c + \gamma_Q 0.75) + \gamma_Q Q_{\sigma\kappa\upsilon\rho o\delta\acute{\epsilon}\tau\eta\sigma\eta\varsigma}$

Όπου το φορτίο $Q_{\sigma\kappa\upsilon\rho o\delta\acute{\epsilon}\tau\eta\sigma\eta\varsigma}$ είναι ένα φορτίο 0.75 kN το οποίο εφαρμόζεται σε μία περιοχή 3m X 3m (σε κάτοψη) και λαμβάνεται υπ' όψη στους υπολογισμούς η δυσμενέστερη θέση του στον φορέα.
Το ίδιον βάρος του σκυροδέματος μαζί με το φορτίο 0.75 kN εφαρμόζεται ή μονο στα ανοίγματα όπου εφαρμόζεται το φορτίο σκυροδέτησης ή σε όλο τον φορέα έτσι ώστε να προκύπτει η δυσμενέστερη εντατική κατάσταση.

Ο έλεγχος των ροπών κάμψης ικανοποιείται!

Ο συντελεστής εκμετάλλευσης της διατομής σε καμπτική ροπή είναι: 0.25 < 1.00

ii) Έλεγχος βελών κάμψης



Συνδυασμός φόρτισης : g

Όρια: l/180 ή 20mm

Ο έλεγχος των βελών κάμψης ικανοποιείται!

Ο συντελεστής εκμετάλλευσης της διατομής σε βέλος κάμψης είναι: 0.03 < 1.00

10. ΕΛΕΓΧΟΙ ΣΤΗΝ ΦΑΣΗ ΛΕΙΤΟΥΡΓΙΑΣ

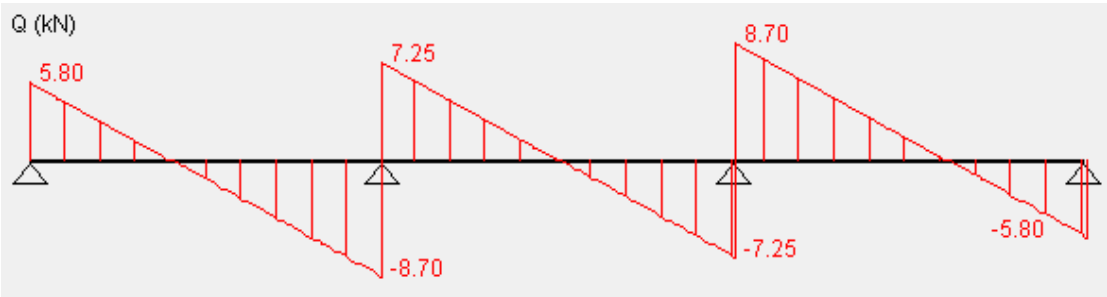
i) Έλεγχος καμπτικής αντοχής

Συνδυασμός φόρτισης : $\gamma_G (g + g_{πρ.μόνιμα}) + \gamma_Q q$

Ο έλεγχος των ροπών κάμψης ικανοποιείται!

Ο συντελεστής εκμετάλλευσης της διατομής σε καμπτική ροπή είναι: 0.19 < 1.00

ii) Έλεγχος έναντι εγκάρσιας και διαμήκους διάτμησης



Συνδυασμός φόρτισης : $\gamma_G (g + g_{πρ.μόνιμα}) + \gamma_Q q$

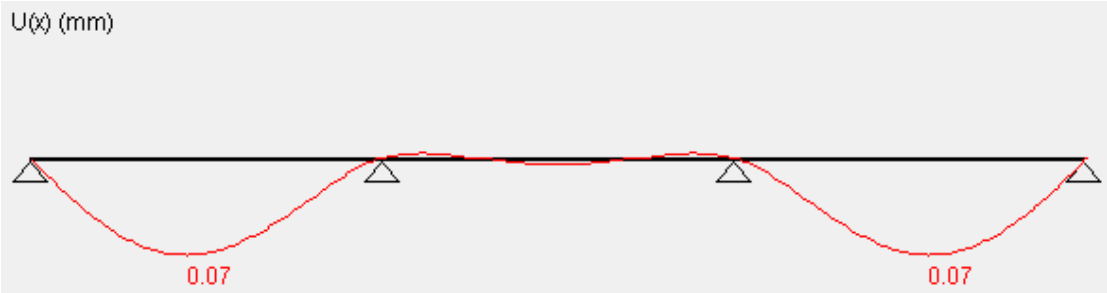
Ο έλεγχος έναντι εγκάρσιας διάτμησης ικανοποιείται!

Ο συντελεστής εκμετάλλευσης της διατομής σε εγκάρσια διάτμηση είναι: 0.31 < 1.00

Ο έλεγχος έναντι διαμήκους διάτμηση ικανοποιείται!

Ο συντελεστής εκμετάλλευσης της διατομής σε διαμήκη διάτμηση είναι: 0.30 < 1.00

iii) Έλεγχος βελών κάμψης



Συνδιασμός φόρτισης : g + q

Όρια: l/250

Ο έλεγχος των βελών κάμψης ικανοποιείται!

Ο συντελεστής εκμετάλλευσης της διατομής σε βέλος κάμψης είναι: 0.01 < 1.00

Το πρόγραμμα SYMDECK DESIGNER αναπτύχθηκε στο Τμήμα Πολιτικών Μηχανικών του Πανεπιστημίου Θεσσαλίας στα πλαίσια του Ερευνητικού προγράμματος «ΠΡΟΣΔΙΟΡΙΣΜΟΣ ΦΟΡΤΙΩΝ ΣΧΕΔΙΑΣΜΟΥ ΣΥΜΜΙΚΤΩΝ ΠΛΑΚΩΝ ΜΕ ΚΥΜΑΤΟΕΙΔΗ ΧΑΛΥΒΔΟΦΥΛΛΑ» για λογαριασμό της εταιρείας Α. Καλπίνης – Ν. Σίμος ΑΕΒΕ.

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Preliminary Design Note

DATA

General parameters — **COMPOSITE BEAM**

Main span — **L = 4.000 m**

Intermediate beam

Width on the left	L_1 =	1.400 m	Max. participating width	L_1 =	0.700 m
Width on the right	L_2 =	1.400 m	Max. participating width	L_2 =	0.700 m

Slab

Slab with profiled sheeting — Total thickness = 14.00 cm

Profiled steel sheeting "" , perpendicular to the beam - pre-punched sheetings
(h = 73.0 mm ; e = 187.5 mm ; b_1 = 50.0 mm ; b_2 = 95.5 mm ; t = 0.8 mm ;
f_y = 320 N/mm^2 ; M = 0.00 kg/m^2)

Section — **IPE 120 - S235 JR/J0/J2**

h_t =	120.0 mm		A =	13.21 cm^2
b_f =	64.0 mm		A_v =	6.31 cm^2
t_w =	4.4 mm		I_y =	317.75 cm^4
t_f =	6.3 mm		I_z =	27.67 cm^4
r =	7.0 mm		I_t =	1.74 cm^4
			I_w =	889.59 cm^6
			$W_{el.y}$ =	52.96 cm^3
			$W_{pl.y}$ =	60.73 cm^3

Materials

Steel

E = 210000 N/mm^2
ρ = 7850 kg/m^3

Steel grade S235 JR/J0/J2 - Reduction of fy with thickness according to EC3

Databases 2015_01

Flanges	f_{yf} =	235 N/mm^2
Web	f_{yw} =	235 N/mm^2
Section	f_y =	235 N/mm^2
	ε =	1.000

Concrete slab C25/30

	f_{ck} =	25 N/mm^2
	E_{cm} =	31476 N/mm^2
Modular ratio for LONG TERM	C_{eq} =	23.86
Modular ratio for SHORT TERM	C_{eq} =	6.67
Shrinkage (R) - Long term	ε =	300.10^{-6}
Density of the concrete (slab)	ρ =	25.00 kN/m^3
Reinforcement steel	f_{yk} =	500 N/mm^2

Connection — **Connectors**

ϕ = 16.0 mm
h = 120.0 mm
f_y = 235.0 N/mm^2
f_u = 360.0 N/mm^2

Main span — L = 4.000 m e = 0.188 m n = 1 row(s)

Total number of connectors : 21

Lateral restraint of the beam - The beam is laterally restrained at supports

Propping in the construction stage — Full propping

No calculation is carried out in the construction stage.

Loads

Permanent loads	Dead weight of the profile	0.10 kN/m
	Dead weight of the slab (2.38 kN/m^2)	3.33 kN/m
Span	Surface load = 3.00 kN/m^2	
Live load case n° 1 (ψ_0 = 0.70)		
Span	Surface load = 2.00 kN/m^2	

Partial Factors

Permanent loads	$\gamma_{G.sup}$ = 1.35	Structural steel	γ_{M0} = 1.00
	$\gamma_{G.inf}$ = 1.00	Structural steel (instabilities)	γ_{M1} = 1.00

Live loads	γ_Q	= 1.50	Concrete	γ_c	= 1.50
			Reinforcement bars	γ_s	= 1.15
			Connectors	γ_v	= 1.25
			Shear resistance of the steel sheeting	γ_{ap}	= 1.10

Combinations of actions

ULS combination(s) 1.35 G + 1.50 Q_1

SLS combination(s) G + R + Q_1

FINAL stage

Participating width

on left support	0.750 m
L / 4 (= 1.000 m)	1.000 m
3 L / 4 (= 3.000 m)	1.000 m
on right support	0.750 m

Moments of inertia ...at mid-span

Long-term	2913 cm^4
Short-term	3913 cm^4

Resistance of the connectors P_{Rd} = 20.81 kN

Verification of the degree of connection

Minimum degree of connection = 0.400

F_{Steel} = 310.44 kN

$F_{Concrete}$ = 949.17 kN

Degree of connection = 0.737 > 0.400

The degree of connection is calculated for the section with maximum bending moment

Plastic resistance with partial connection

Plastic shear force resistance $V_{pl.Rd}$ = 85.55 kN (η = 1.20)

No risk of shear buckling ($h_w / t_w < 72\ \varepsilon / \eta$)

ULS combination : 1.35 G + 1.50 Q_1

Support reactions $R_{V\,1}$ = 29.01 kN

$R_{V\,2}$ = 29.01 kN

Calculation of the transverse reinforcement ratio of slab : A_t > 0.54 cm^2/m

$A_t + A_b$ > 1.66 cm^2/m

$M_{Ed,max}(+)$ =	29.01 kN.m	$M_{Ed,max}(-)$ =	0.00 kN.m	Γ_M =	0.698 (x = 1.400 m)
$V_{Ed,max}$ =	-29.01 kN			Γ_V =	0.339 (x = 0.000 m)

Γ_{MV} = 0.698 (x = 1.400 m)

Γ_{Vh} = 0.220

Longitudinal shear resistance of the slab - Transverse reinforcing bars

Minimum transverse reinforcement ratio : $\rho_{w,min}$ = 0.08 %
(EN 1994-1-1 §6.6.6.3 & EN 1992-1-1 §9.2.2(5))

Reinforcement ratio (EN 1992-1-1 §6.2.4) : A_t > 0.54 cm^2/m

$A_t + A_b$ > 1.66 cm^2/m

Note: this result is provided as an indication.
Calculations must be performed in order to take into account specific conceptual details.
Note particularly that the calculations do not include the design of the slab.

Plastic moment in span	**$M_{pl.Rd}$ =**	**48.71 kN.m**
Maximum criterion for bending resistance	**$\Gamma_{M.max}$ =**	**0.698**
Maximum criterion for shear force resistance	**$\Gamma_{V.max}$ =**	**0.339**
Maximum criterion for bending moment - shear force interaction	**$\Gamma_{MV.max}$ =**	**0.698**
Maximum criterion for longitudinal shear force resistance of slab	**$\Gamma_{Vh.max}$ =**	**0.220**

Serviceability Limit States

Deflections per load case

Case 'Dead weight' v_{max} = 1.9 mm (L / 2130)

Case 'Other permanent loads' v_{max} = 2.3 mm (L / 1741)

Case 'Q_1' v_{max} = 1.1 mm (L / 3514)

Case 'Shrinkage (R) - Long term' v_{max} = 3.3 mm (L / 1205)

Deflections per combination

Combination SLS ' G + R + Q_1' v_{max} = 8.6 mm (L / 463)

Estimation of the first natural frequency

G + 0.00 Q_1 : 10.08 Hz

G + 0.10 Q_1 : 9.90 Hz

G + 0.20 Q_1 : 9.73 Hz

G + 0.30 Q_1 : 9.57 Hz

G + 0.40 Q_1 : 9.41 Hz

G + 0.50 Q_1 : 9.27 Hz

G + 0.60 Q_1 : 9.13 Hz

G + 0.70 Q_1 : 8.99 Hz

G + 0.80 Q_1 : 8.86 Hz

G + 0.90 Q_1 : 8.74 Hz

G + 1.00 Q_1 : 8.62 Hz

Resistance criteria satisfied in the FINAL stage

WARNING !

This software facilitates the preliminary engineering studies with respect to steel constructions. Based on calculation methods complying with the principles of the applied standards, this software enables to make a certain number of verifications in view of evaluating a solution for a pre-design. It does not enable to analyse all situations and to make in an exhaustive way all relevant calculations needed for a study of execution which requires in every case the advice of an external Engineering Office.

Given the complexity of the calculation methods, this software is only intended for professional users active in the sector of steel constructions (who are fully aware of the possibilities, limits and its adequacy thereof for specific practical cases). The user shall 1use the software under his own responsibility and at his own risks.

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