



genesisplus+

2018



# WINDLOADINGS

## Module 8: Simple Windloadings

### **LEVEL: INTERMEDIATE**

Genesis Release 18

## VERY IMPORTANT WARNING

**FOR ESTIMATING PURPOSES ONLY WE HAVE ADDED A WINDLOADING MODULE. THIS IS AS A DEMONSTRATION ONLY AND MUST ONLY BE USED AS A ROUGH GUIDE FOR WORKING OUT THE SIZES OF THE MULLIONS AND TRANSOMS ON THE FRAME BUILD MACRO ONLY, IT WILL SHOW YOU THE ACHIEVABLE IXX OF THE MULLIONS OR TRANSOMS. (AS SHOWN BELOW)**

THE MODULE DOES NOT LOOK AT THE DESIGN OF THE FRAME AT ANY STAGE AND WILL NOT TAKE INTO ACCOUNT ANY CHANGES THAT YOU MAY MAKE TO THE FRAME AFTERWARDS.

WE HAVE ADDED AN INTERACTION FOR THE FRAMING SYSTEMS COMAR 6 AND COMAR 6 EFT AT PRESENT WHICH AFTER THE WINDLOADING MACRO HAS BEEN RUN WILL SHOW YOU THE RELEVANT IXX OR IYY VALUES THAT THE CALCULATION HAS WORKED OUT. ALONG WITH THIS; UNDER THE DESCRIPTION OF EACH OF THE MULLIONS AND TRANSOMS ON THE FRAME BUILD MACRO ONLY, IT WILL SHOW YOU THE ACHIEVABLE IXX OF THE MULLIONS OR TRANSOMS. (AS SHOWN BELOW)

THIS SOFTWARE WILL NOT WORK OUT EACH MULLION AND TRANSOM AS A SEPERATE ENTITY AND WILL CHANGE ALL OF THE MULLIONS OR TRANSOMS BASED ON YOUR CHOICE AS USUAL.

NO OTHER INTERACTION ON ANY WINDOWS, DOORS OR FRAMING WILL OCCUR DUE TO THIS DEMONSTRATION MODULE.

WINDLOADINGS ARE AVAILABLE FROM THE TECHNICAL DEPARTMENT VIA THE NORMAL EMAIL ADDRESS OF [TECHNICAL@PARKSIDEGROUP.CO.UK](mailto:TECHNICAL@PARKSIDEGROUP.CO.UK)

The screenshot shows the 'EFT TSH Curtain Wall - Framing' window. It contains several input fields and dropdown menus for configuring a curtain wall frame. The 'Frame Width' is set to 1000, 'Frame Height' to 1000, and 'Lightcode' to 1. The 'Columns' and 'Rows' are both set to 1. The 'Frame Quantity' is 1, and the 'Frame Description' is 'New Frame'. The 'Transom Fixing' is set to 'Spring'. The 'Mullion Clamp Plate' is 'Glass Joint 2175', and the 'Transom Clamp Plate' is '2163 (1252) Single 6'. The 'Rail Capping Type' is '1201 13mm Cover Cap', and the 'Thermal Break/Isolator' is '2197'. The 'Head Profile' is '1164 105mm Head - IYY - 25.5', and the 'Cill Profile' is '1164 105mm Cill - IYY - 25.5'. The 'Left Profile' is '1072 105mm Jamb - IXX - 167.6', and the 'Right Profile' is '1072 105mm Mullion - IXX - 167.6'. The 'Iyy Req' is 2.76, and the 'Ixx Req' is 694.7. The 'Head Closer' is '1345 Closer', and the 'Cill Closer Type' is '1345 Closer'. The 'Left Closer Type' is '1345 Closer', and the 'Right Closer Type' is '1345 Closer'. The 'Item Comments' field is empty. At the bottom, there is a note: 'PLEASE NOTE THAT THE IXX AND IYY VALUES INDICATED ABOVE ARE CALCULATED AND ARE DEPENDENT ON THE CORRECT WINDLOAD AND TIE BACK/MAXIMUM UNSUPPORTED INFORMATION BEING ENTERED USING THE WINDLOADING MACRO. ALL STRUCTURAL CALCS NEED TO BE CHECKED BY A STRUCTURAL ENGINEER. THESE VALUES CAN ONLY BE USED AS A ROUGH GUIDE FOR ESTIMATING PURPOSES ONLY. THE VALUES SHOWN ARE BASED ON THE INFORMATION ORIGINALLY ENTERED AND WILL NOT INDICATE ANY FAILURE ON THE SCREEN'.

Field	Value
Frame Width	1000
Frame Height	1000
Lightcode	1
Columns	1
Rows	1
Frame Quantity	1
Frame Description	New Frame
Transom Fixing	Spring
Mullion Clamp Plate	Glass Joint 2175
Transom Clamp Plate	2163 (1252) Single 6
Rail Capping Type	1201 13mm Cover Cap
Thermal Break/Isolator	2197
Head Profile	1164 105mm Head - IYY - 25.5
Cill Profile	1164 105mm Cill - IYY - 25.5
Left Profile	1072 105mm Jamb - IXX - 167.6
Right Profile	1072 105mm Mullion - IXX - 167.6
Iyy Req	2.76
Ixx Req	694.7
Head Closer	1345 Closer
Cill Closer Type	1345 Closer
Left Closer Type	1345 Closer
Right Closer Type	1345 Closer

PLEASE NOTE THAT THE IXX AND IYY VALUES INDICATED ABOVE ARE CALCULATED AND ARE DEPENDENT ON THE CORRECT WINDLOAD AND TIE BACK/MAXIMUM UNSUPPORTED INFORMATION BEING ENTERED USING THE WINDLOADING MACRO. ALL STRUCTURAL CALCS NEED TO BE CHECKED BY A STRUCTURAL ENGINEER. THESE VALUES CAN ONLY BE USED AS A ROUGH GUIDE FOR ESTIMATING PURPOSES ONLY. THE VALUES SHOWN ARE BASED ON THE INFORMATION ORIGINALLY ENTERED AND WILL NOT INDICATE ANY FAILURE ON THE SCREEN

## DEMO STRUCTURAL CALS FOR COMAR 6 AND COMAR 6EFT

FIRST OF ALL WE WILL DESIGN A COMAR 6EFT FRAME SCREEN.

CLICK ON THE FIRST BUTTON TO START A NEW QUOTE



THE FOLLOWING SCREEN WILL APPEAR, THE RIGHT HAND SIDE IS FOR THE MAIN SETUP FOR THE WINDLOADING ELEMENT. **THIS WILL NOT CHECK SCREENS NOT INCLUDED IN THIS DEMO. NO SCREENS WILL BE AUTOMATICALLY CHECKED BY APPLYING THIS MACRO.**

Create a New Project

Project Title:

Demo for Structural Calcs

SH

Job Reference:

Customer Name

[CUS::DEFAULT]

Search

Finish/Colour:

[COL:COMAR:POWDER (POWD

Search

Glazing:

[FIL:COMAR:28.0MM UNIT]

Search

Price Group

[PGR:COMAR:USERDEFINED]

Search

Labour:

No labour

Labour Template

Search

☒ Add Optimised Extrusion Full Bar Roundup waste

☒ Add Optimised waste cost onto each item price

Quote Comments

Preliminary Windload/Structural Calcs (Only for Aluminium Curtain Wall)

Town/City

Worst Case

Building Height

2

Map1

Distance To Sea

0.1

Map2


Distance Inside Town

0.1

Net Pressure Co

1.4

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OK

WE NEED TO CHOOSE THE TOWN TO START WITH. ALL OF THE DETAILS ARE IMPORTANT AS THEY AFFECT THE PASCAL RATING OF THE OVERALL CALCULATION.  
DROP DOWN THE TOWN BOX TO CHOOSE YOUR NEAREST TOWN TO THE SITE.

Preliminary Windload/Structural Calcs (DEMO ONLY)

Town/City

Building Height


Distance To Sea

Distance Inside Town

Net Pressure Co

Map1

Map2



NOW CHOOSE THE OVERALL HEIGHT OF THE BUILDING, IT MAY BE SOMETIMES THAT YOU ARE PRODUCING A QUOTE WHICH HAS ELEMENTS FROM DIFFERENT BUILDING, THIS CAN BE CHANGED ON AN ITEM BY ITEM BASIS LATER ON.

Preliminary Windload/Structural Calcs (DEMO ONLY)

Town/City

Building Height


Distance To Sea

Distance Inside Town

Net Pressure Co

Map1

Map2



THE NEXT TWO DROP DOWN BOXES WILL REQUIRE A MAP TO FIND OUT HOW FAR THE SITE IS FROM THE SEA AND IN TOWN. IT IS VERY IMPORTANT THAT THIS INFORMATION IS ENTERED CORRECTLY AS A VERY EXPOSED SITE BY THE SEA AND AWAY FROM A TOWN WILL GIVE A HIGHER RESULT FROM A SITE SURROUNDED BY HIGH BUILDINGS.

Preliminary Windload/Structural Calcs (DEMO ONLY)

Town/City

Building Height


Distance To Sea

Distance Inside Town

Net Pressure Co


Map1

Map2

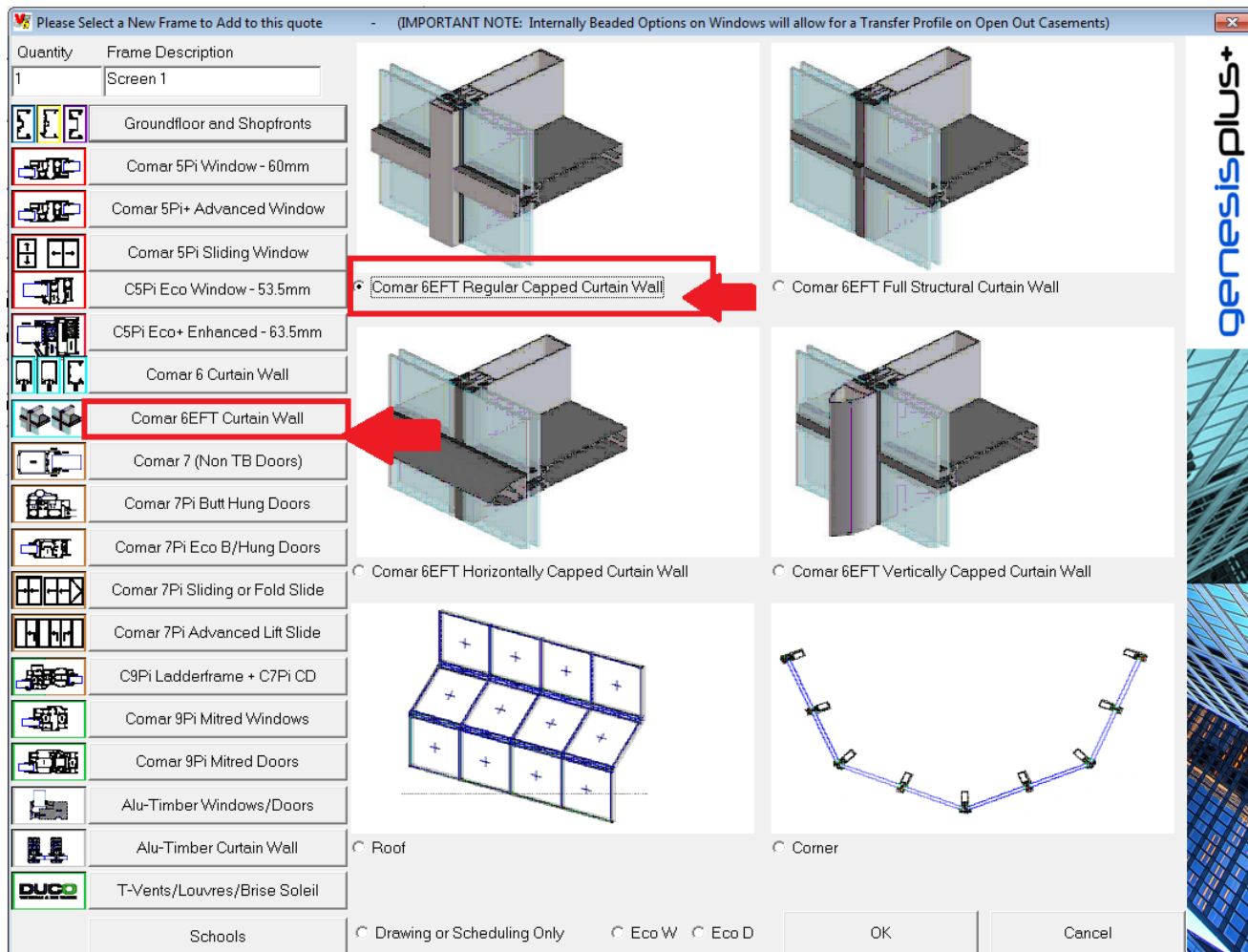


TO HELP WITH THIS I HAVE ADDED TWO MAP LINKS, THE FIRST ONE IS TO GOOGLE EARTH AND WILL REQUIRE YOU TO DOWNLOAD AND INSTALL THE SOFTWARE BEFORE YOU CAN USE IT. THE SECOND ONE IS A NOKIA SITE THAT WE USE INHOUSE, THIS ALLOWS YOU TO PHYSICALLY MEASURE THE DISTANCES YOURSELF. IF YOU HAVE YOUR OWN PREFERENCE THEN PLEASE CONTACT ME AND I CAN POINT THE LINKS TO A DIFFERENT PLACE FOR YOU.

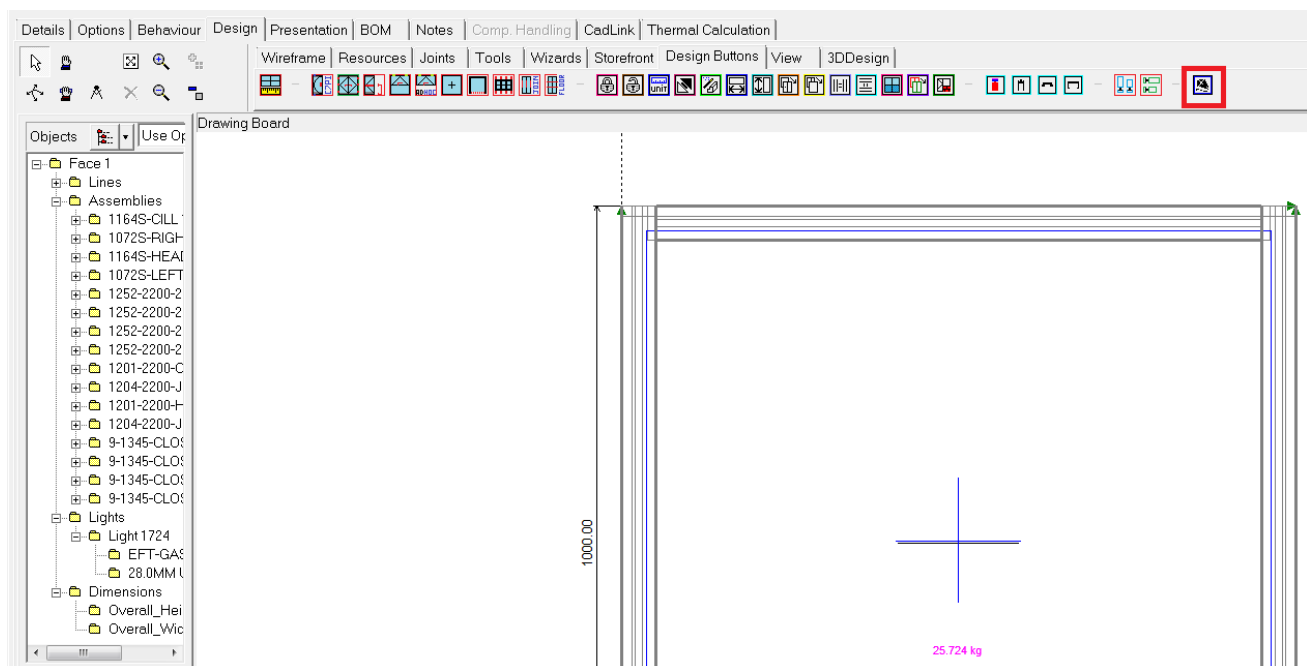
Preliminary Windload/Structural Calcs (DEMO ONLY)

Town/City	<input type="text" value="Basildon, Essex"/>	
Building Height	<input type="text" value="10"/>	<div>Map1</div> <div>Map2</div> 
Distance To Sea	<input type="text" value="80"/>	
Distance Inside Town	<input type="text" value="0.9"/>	
Net Pressure Co	<input type="text" value="1.4"/>	

NOW CLICK ONTO THE FRAMING BUTTON AND ADD A COMAR 6EFT FULLY CAPPED FRAME AND THEN CLICK OK.



WHEN DEVELOPING THIS DEMO IT MADE MORE SENSE TO KNOW BEFOREHAND IF THE FRAMING SYSTEM THAT I WANT TO USE WOULD ACHIEVE THE RESULT PRIOR TO BUILDING THE FRAME SO I HAVE ADDED THE WINDLOADING BUTTON FIRST.



CLICK ONTO THE WINDLOADING BUTTON






THE FOLLOWING BOX SHOULD COME UP, THE FIRST STAGE HAS ALREADY BEEN DEFAULTED FROM WHEN YOU FIRST STARTED THE QUOTE, THIS CAN BE CHANGED AT THIS STAGE ON AN ITEM BY ITEM BASIS.

THE OTHER INFORMATION REQUIRES THAT YOU HAVE KNOWLEDGE OF THE FRAME BEFOREHAND AND WILL NOT LOOK AT THE FRAME AT ALL.

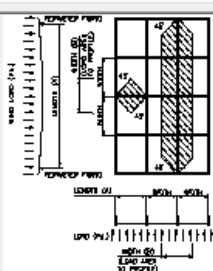
**IF YOU CHANGE THE DESIGN OF THE FRAME AFTER THIS MACRO HAS BEEN RUN, THE SOFTWARE WILL NOT PRODUCE ANY ERRORS OR ADVISE YOU OF FAILURE.**

Windload/Structural Calcs - Demo for Estimating purposes only.

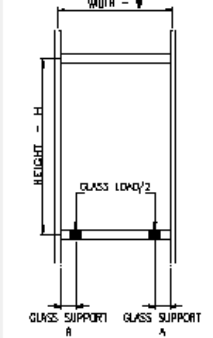
City	Basildon, Essex		
Direction Factor (Sd)	1	Building Height	10
Seasonal Factor (Ss)	1	Distance To Sea	80
Probability Factor (Sp)	1	Distance Inside	0.9
Net Pressure Co	1.4	Total WindLoad	1130



Max.Unsupported Span	Mullion (Left)	1000	Mullion (Right)	1000
Space between Mullions		1000		1000
Combined lxx	2.7			



Transom Length	1000	Inner Pane	6
Transom Spacing Above	1000	Spacer	0
Transom Spacing Below	1000	Outer Pane	6
Mullion Centres	1000	Glass Weight	30
TransomCentres	1000		
Combined lxx	1.68	Combined lyy	1.04

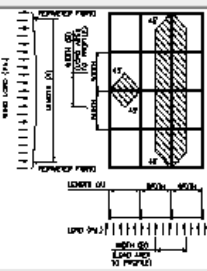


Calculate Exit

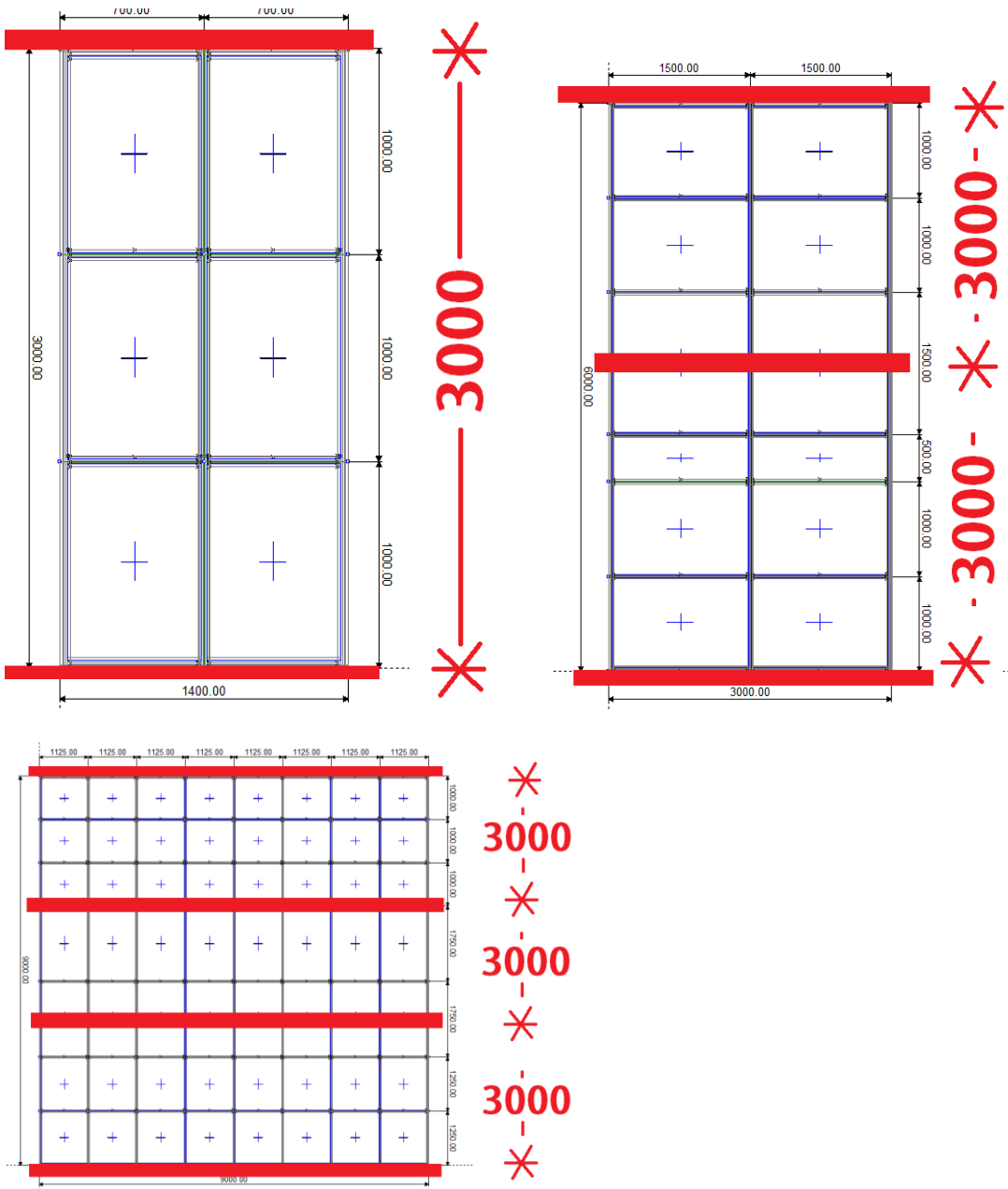
PLEASE NOTE THAT THE IXX AND IYY VALUES INDICATED ABOVE ARE CALCULATED AND ARE DEPENDENT ON THE CORRECT WINDLOAD AND TIE BACK/MAXIMUM UNSUPPORTED INFORMATION BEING ENTERED USING THE WINDLOADING MACRO. ALL STRUCTURAL CALCS NEED TO BE CHECKED BY A STRUCTURAL ENGINEER. THESE VALUES CAN ONLY BE USED AS A ROUGH GUIDE FOR ESTIMATING PURPOSES ONLY. THE VALUES SHOWN ARE BASED ON THE INFORMATION ORIGINALLY ENTERED AND WILL NOT INDICATE ANY FAILURE ON THE SCREEN

THE FIRST THING TO LOOK AT WOULD BE THE MAX UNSUPPORTED CALCS. I HAVE ADDED 3000MM. LOOK AT THE SECOND DIAGRAM BELOW TO SEE HOW THIS IS WORKED OUT. NORMALLY WE USE THE MOST SEVERE OPTION AND PUT THIS IN THE LEFT AND THE RIGHT MULLION.

	Mullion (Left)	Mullion (Right)
Max.Unsupported Span	3000	3000
Space between Mullions	1000	1000
Combined lxx	108.5	



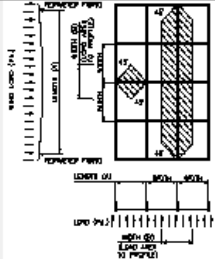
BASICALLY THIS IS THE MAXIMUM UNSUPPORTED LENGTH OF A BAR WHERE IT ISNT TIED BACK FULLY TO THE STRUCTURE. SOMETIMES YOU MAY HAVE THE SITUATION THAT SOME MULLIONS ARE TIED BACK AT DIFFERENT LENGTHS.



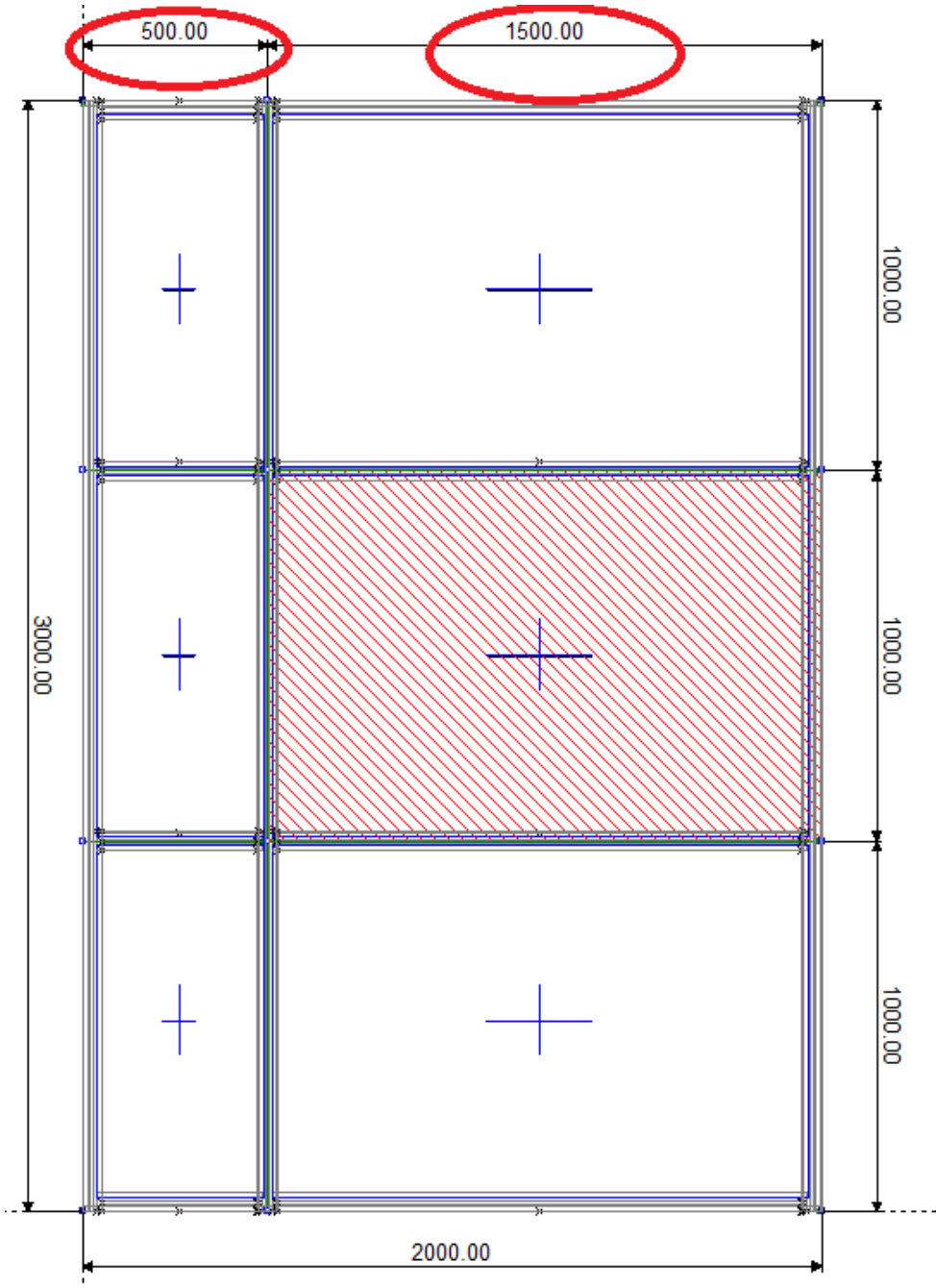


THE NEXT PART IS THE SPACING BETWEEN THE MULLIONS. YOU SHOULD ALWAYS CHOOSE THE WORSE MULLION WITH THE MAXIMUM MULLION SPACING ON EITHER THE LEFT OR THE RIGHT SIZE. IN MOST CASES THIS WILL BE EQUAL, BUT IN THE SECOND DIAGRAM SHOWN BELOW IT IS ODD AND HAS BEEN ADJUSTED AS SO. THIS WILL EFFECT THE OVERALL IXX AND IYY IN THE CALCULATION.

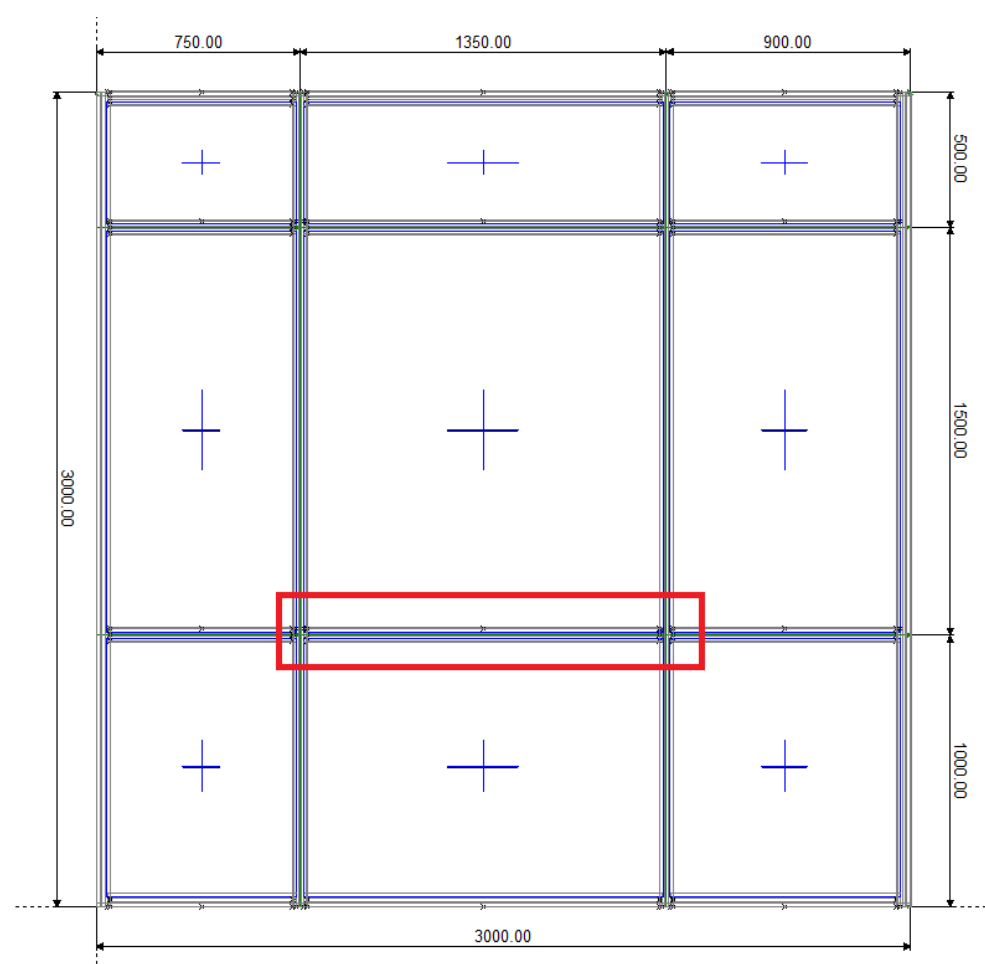
	Mullion (Left)	Mullion (Right)
Max.Unsupported Span	<input type="text" value="3000"/>	<input type="text" value="3000"/>
Space between Mullions	<input type="text" value="500"/>	<input type="text" value="1500"/>
Combined Ixx	<input type="text" value="104.9"/>	



Technical drawing of a window frame showing mullion spacing and dimensions. The drawing includes a plan view and a section view. The plan view shows a rectangular frame with a central mullion and two side mullions. The section view shows the frame's profile with dimensions for height and width. The drawing is labeled with 'MULLION (Left)' and 'MULLION (Right)' and includes a scale bar.



THE NEXT PART IS THE TRANSOM. WE WILL BE LOOKING AT THE TRANSOM BELOW WHICH IS THE LONGEST TRANSOM AND THE BIGGEST PIECE OF GLASS.



- LOOKING AT THIS PART OF THE SCREEN WE HAVE THE FOLLOWING.
- 1) TRANSOM LENGTH, THIS IS GENERALLY THE DISTANCE BETWEEN THE TWO MULLIONS THAT THE TRANSOM IS GOING BETWEEN.
  - 2) TRANSOM SPACING ABOVE, THIS IS THE DISTANCE BETWEEN THE TRANSOM THAT WE ARE CHECKING AND THE TRANSOM ABOVE IT.
  - 3) TRANSOM SPACING BELOW, THIS IS THE DISTANCE BETWEEN THE TRANSOM THAT WE ARE CHECKING AND THE TRANSOM BELOW IT.
  - 4) THE GLAZING ELEMENT IS USED FOR THE WIEGHT OF THE GLASS AND WILL NEED TO BE MANUALLY CHANGED, THE SOFTWARE WILL NOT DO THIS FOR YOU EVEN IF YOU HAVE SPECIFIED THE GLAZING EARLIER..

Transom Length	<input type="text" value="1350"/>	Inner Pane	<input type="text" value="6"/>
Transom Spacing Above	<input type="text" value="1500"/>	Spacer	<input type="text" value="16"/>
Transom Spacing Below	<input type="text" value="1000"/>	Outer Pane	<input type="text" value="6"/>
Mullion Centres	<input type="text" value="1350"/>	Glass Weight	<input type="text" value="30"/>
TransomCentres	<input type="text" value="1500"/>		
Combined lxx	<input type="text" value="7.5"/>	Combined lyy	<input type="text" value="3.21"/>
<input type="button" value="Calculate"/>		<input type="button" value="Exit"/>	


Diagram illustrating the transom layout with dimensions:

- WIDTH - W
- HEIGHT - H
- GLASS LENGTH/2
- GLASS SUPPORT A

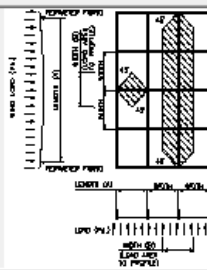
ONCE YOU HAVE COMPLETED THIS, CLICK CALCULATE AND THEN EXIT.

Windload/Structural Calcs - Demo for Estimating purposes only.

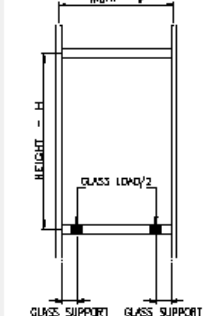
City	Basildon, Essex		
Direction Factor (Sd)	1	Building Height	10
Seasonal Factor (Ss)	1	Distance To Sea	80
Probability Factor (Sp)	1	Distance Inside	0.9
Net Pressure Co	1.4	Total WindLoad	1130



	Mullion (Left)	Mullion (Right)
Max.Unsupported Span	3000	3000
Space between Mullions	1350	900
Combined lxx	119.8	



Transom Length	1350	Inner Pane	6
Transom Spacing Above	1500	Spacer	16
Transom Spacing Below	1000	Outer Pane	6
Mullion Centres	1350	Glass Weight	30
TransomCentres	1500		
Combined lxx	7.5	Combined lyy	3.21



Calculate Exit

PLEASE NOTE THAT THE lxx AND lyy VALUES INDICATED ABOVE ARE CALCULATED AND ARE DEPENDENT ON THE CORRECT WINDLOAD AND TIE BACK/MAXIMUM UNSUPPORTED INFORMATION BEING ENTERED USING THE WINDLOADING MACRO. ALL STRUCTURAL CALCS NEED TO BE CHECKED BY A STRUCTURAL ENGINEER. THESE VALUES CAN ONLY BE USED AS A ROUGH GUIDE FOR ESTIMATING PURPOSES ONLY. THE VALUES SHOWN ARE BASED ON THE INFORMATION ORIGINALLY ENTERED AND WILL NOT INDICATE ANY FAILURE ON THE SCREEN

ONCE WE HAVE DONE THIS WE CAN NOW CLICK ONTO THE FRAME BUILD BUTTON



THE SOFTWARE WILL SAVE THE INFORMATION THAT WE JUST CALCULATED AGAINST THIS FRAME. HOWEVER WE BUILD THIS FRAME FROM NOW ON DOES NOT EFFECT WHAT THE

**WINDLOADING WILL SAY AND NO MORE INTERACTION WILL OCCUR IF WE DO NOT STICK TO THE DESIGN THAT WE WORKED TOO.**  
**WHEN THE FRAMING MACRO STARTS YOU WILL NOTICE THAT IT HAS TAKEN THE COMBINED IXX FOR THE MULLION AND THE COMBINED IYY FOR THE TRANSOM**

EFT RCW Curtain Wall - Framing With Demo Windload Calcs

Frame Width  
3000

Frame Height  
3000

Lightcode  
1

Columns  
1

Rows  
1

Frame Quantity  
1

Frame Description  
New Frame

Transom Fixing  
Spring

Mullion Clamp Plate  
2162 (1252) Single 4

Transom Clamp Plate  
2162 (1252) Single 4

Mullion Capping Type  
1204 20mm Cover Cap

Rail Capping Type  
1201 13mm Cover Cap

Thermal Break/Isolator  
2200

Item Comments

Head Profile  
1164 105mm Head - IYY - 25.5

Cill Profile  
1164 105mm Cill - IYY - 25.5

Left Profile  
1072 105mm Jamb - IXX - 167.6

Right Profile  
1072 105mm Jamb - IXX - 167.6

Transom Profile  
1164 105mm Transom - IYY - 25.5

Mullion Profile  
1072 105mm Mullion - IXX - 167.6

Iyy Req  
7.5

Iyy Req  
7.5

Ixx Req  
119.8

Ixx Req  
119.8

Iyy Req  
7.5

Ixx Req  
119.8

Head Closer  
1345 Closer

Cill Closer Type  
1345 Closer

Left Closer Type  
1345 Closer

Right Closer Type  
1345 Closer

PLEASE NOTE THAT THE IXX AND IYY VALUES INDICATED ABOVE ARE CALCULATED AND ARE DEPENDENT ON THE CORRECT WINDLOAD AND TIE BACK/MAXIMUM UNSUPPORTED INFORMATION BEING ENTERED USING THE WINDLOADING MACRO. ALL STRUCTURAL CALCS NEED TO BE CHECKED BY A STRUCTURAL ENGINEER. THESE VALUES CAN ONLY BE USED AS A ROUGH GUIDE FOR ESTIMATING PURPOSES ONLY. THE VALUES SHOWN ARE BASED ON THE INFORMATION ORIGINALLY ENTERED AND WILL NOT INDICATE ANY FAILURE ON THE SCREEN

**WHEN YOU NOW CHOOSE YOUR MULLIONS AND TRANSOMS, THE IXX OR IYY HAS BEEN ADDED AS A COMMENT TO MAKE IT QUICKER FOR YOU TO CHOOSE WHICH SECTION ACHIEVES OR SURPASSES THE REQUIRED VALUE.**

Left Profile

Ixx Req 252.6

1072 105mm Jamb - IXX - 167.6

1070 85mm Jamb - IXX - 108.8

1072 105mm Jamb - IXX - 167.6

1069 115mm (New) HS Jamb - IXX - 249.1

1073 125mm Jamb - IXX - 277

1074 135mm Jamb - IXX - 266.6

1076 150mm Jamb - IXX - 403.1

1075 150mm (New) HS Jamb - IXX - 523.0

1077 175mm (New) HS Jamb - IXX - 665.6

1085 175mm (New) HS Jamb - IXX - 766.0

1078 180mm Jamb - IXX - 642.2

1080 195mm Jamb - IXX - 852.6

1082 210mm Jamb - IXX - 1084.8

1087 225mm(Special Order POA)- IXX - 1423.30

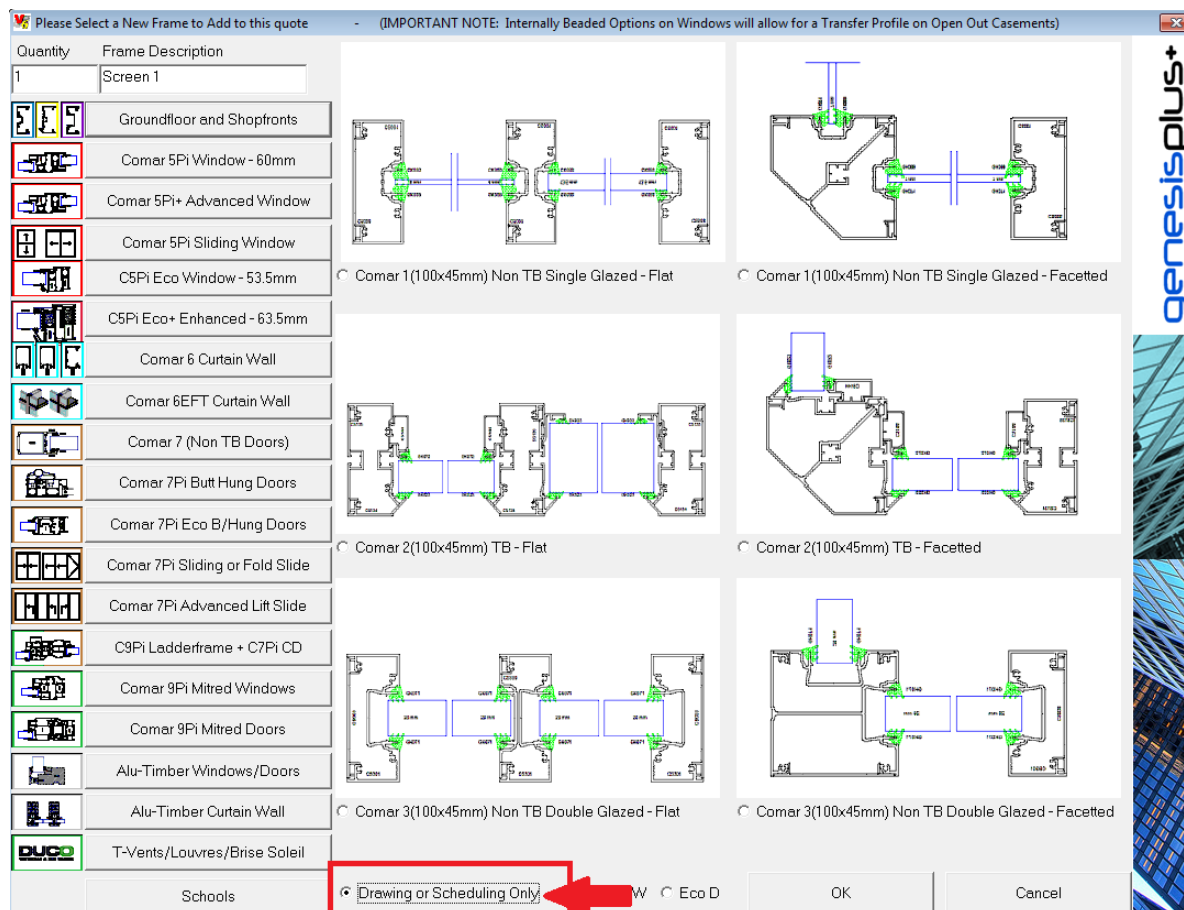
1090 275mm(Special Order POA)- IXX - 2293.00

1095 300mm(Special Order POA)- IXX - 3598.00

## PRELIMINARY STRUCTURAL CALS

THIS CAN BE USED IF YOU JUST WANT TO PRODUCE A DRAWING AND WORK OUT AN IXX OR IYY VALUE ON A UNSPECIFIED SYSTEM..

WHEN YOU ADD A FRAME THERE IS AN OPTION FOR DRAWING OR SCHEDULING ONLY



AS THIS IS FOR DRAWING PURPOSES ONLY IT DOESNT MATTER THAT WE ARE BUILDING THE FRAME FIRST SO THE FOLLOWING BUTTON WILL AUTOMATICALLY COME UP. ALSO ACCESIBLE BY CLICKING ON THE FOLLOWING BUTTON.



UNLIKE ALL OTHER FRAME BUILD BUTTONS CLICKING ON THIS AGAIN WILL MAKE THE FRAME START FROM SCRATCH AND REMOVE ANY CHANGES SO ONLY USE THIS ONCE.

CHANGE THE FIGURES AS SHOWN BELOW. AS AN EXAMPLE WE WILL BUILT A CURTAIN WALL SCREEN BUT WITH AN UNSPECIFIED SYSTEM.

Build Unspecified Frame for Drawing Only

Frame Width

6000

Frame Height

6000

Lightcode

666666

Columns

6

Rows

6

Frame Quantity

1

Frame Description

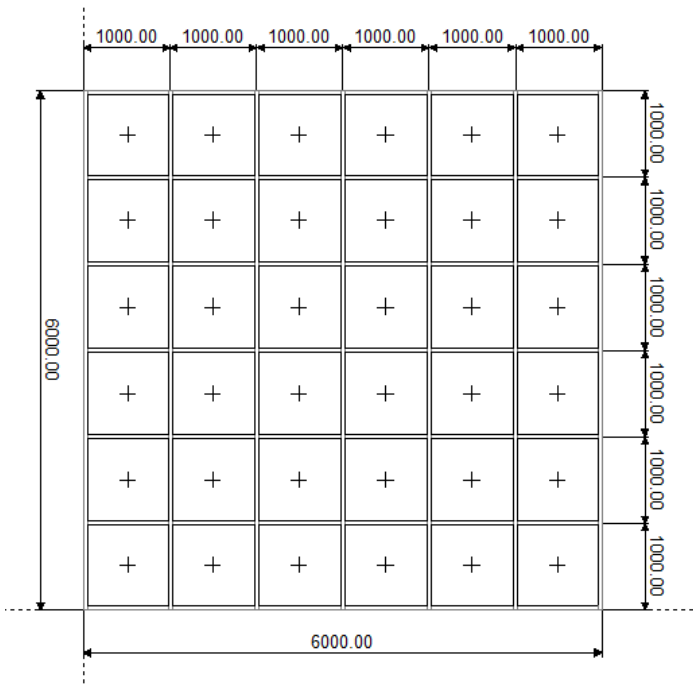
Drawing Square Cut

Item Comments

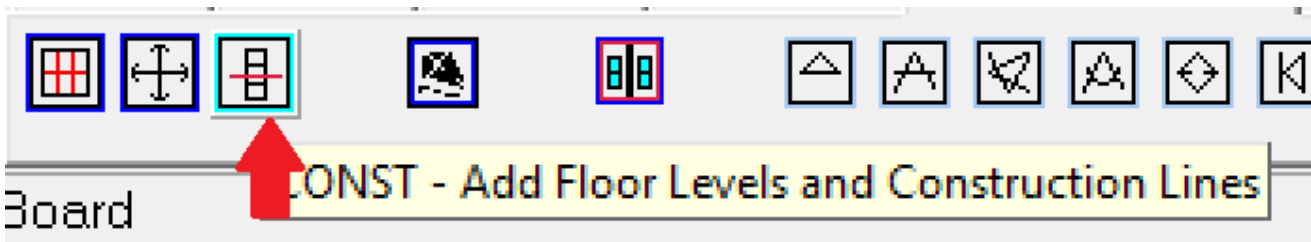
Create

Cancel

WE WILL END UP WITH A SCREEN 6000MM X 6000MM WITH 6 COLUMNS AND 6 ROWS.



AS A VISUAL REFERENCE FOR THE DRAWING ONLY WE WILL ADD SOME TIE BACK POSITIONS IN.  
CLICK ONTO THE FOLLOWING BUTTON.



CHOOSE TWO CONSTRUCTION LINES AND THEN CHANGE THE DISTANCES AS REQUIRED (FROM FLOOR LEVEL)

Add Construction line to Frame

ConstructionLine Joint: 2

Floor 1: 2000

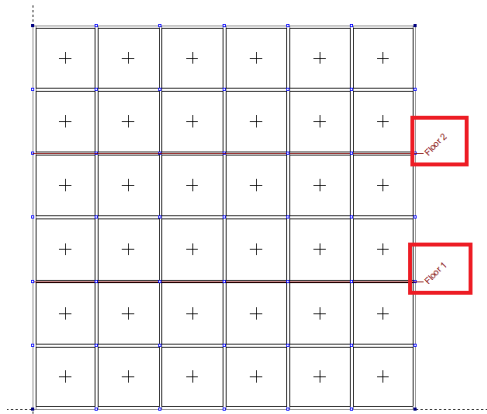
Floor 2: 4000

Height/mm: 6000

OK

Cancel

THE FLOORS WILL SHOW ON THE DRAWINGS. THIS WILL NOT AFFECT ANYTHING TO DO WITH THE WINDLOADING MACRO AND THIS IS FOR DRAWING PURPOSES ONLY.



AS A VISUAL REFERENCE FOR THE DRAWING ONLY WE WILL ADD SOME TIE BACK POSITIONS NOW CLICK ONTO THE WINDLOADING BUTTON



FROM NOW ON EVERYTHING IS THE SAME AS THE ABOVE. BUT WE ARE NOT CHOOSING A SYSTEM, IT IS FOR A VISUAL REFERENCE AND DRAWING ONLY.

**WELL DONE, YOU HAVE COMPLETED THE WINDLOAD MANUAL**