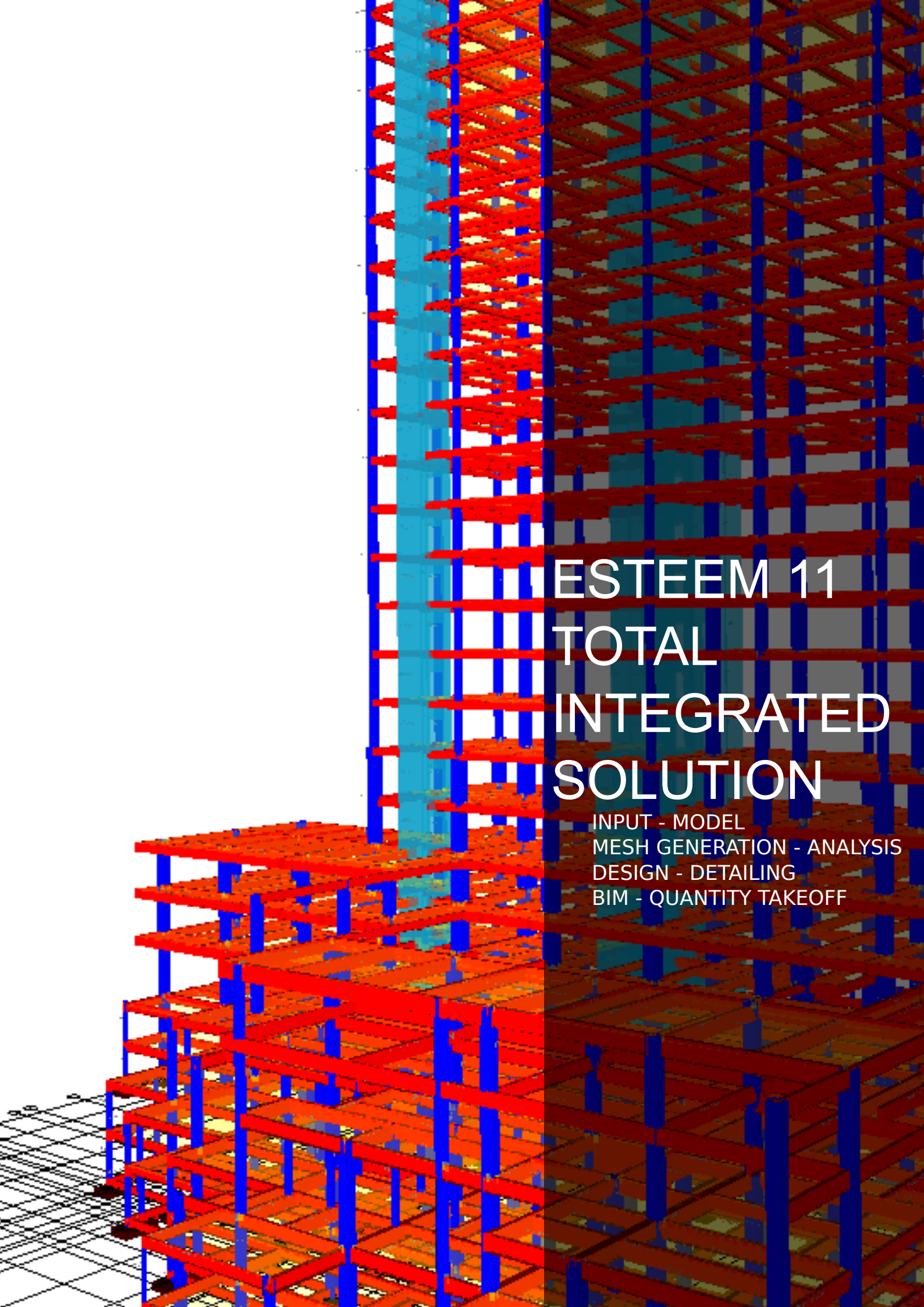
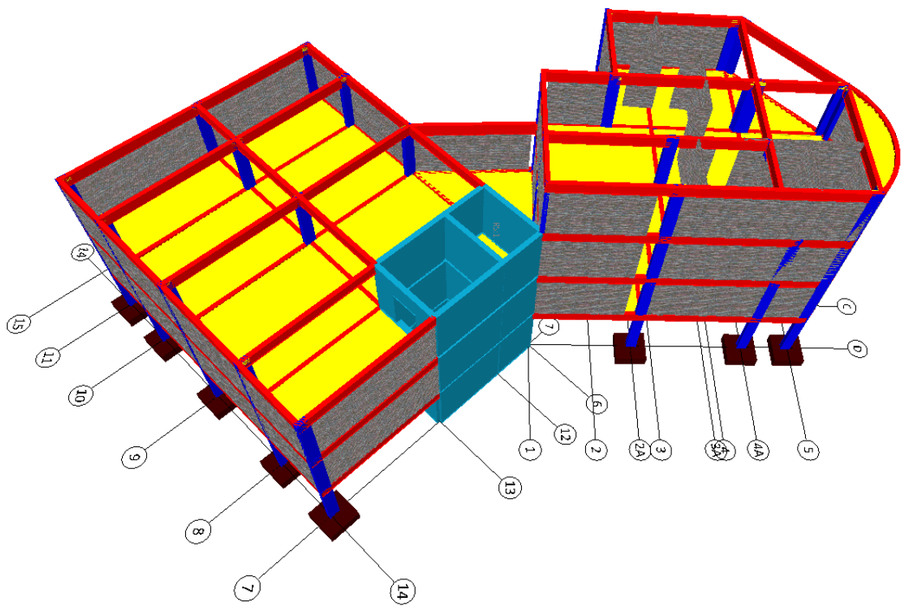
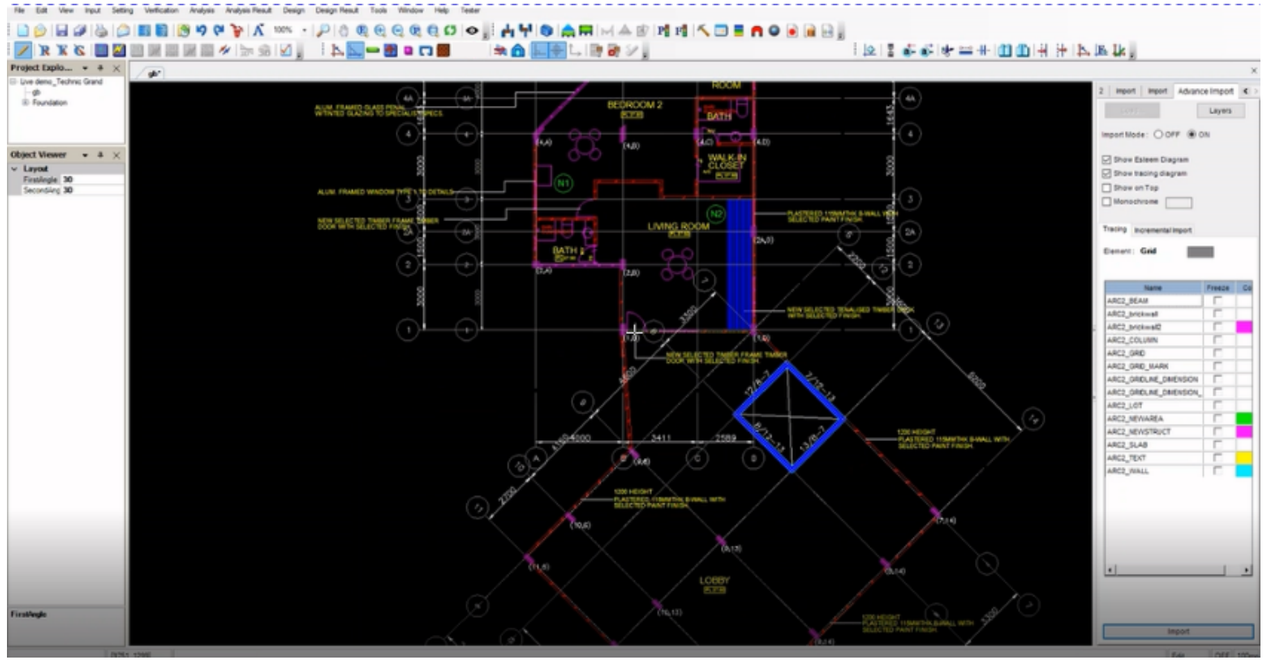


ESTEEM 11 TOTAL INTEGRATED SOLUTION

INPUT - MODEL
MESH GENERATION - ANALYSIS
DESIGN - DETAILING
BIM - QUANTITY TAKEOFF



Esteem 3D model view from Input



Import dwg/dxf 2d drawings and use them as a tracing background and to auto assign dwg entities as input objects in Esteem 11

INPUT & MODEL

- 2D Key plan, Elevation Input and 3D Model view
- Input Grid(G), Slab(S), Beam(B), Column(C), Wall(W), Brick-wall(K) object and set custom properties such as material, size, element drop
  Note: Grid, Slab, Beam, Column, Wall, Brick-wall object will be abbreviated as G, S, B, C, W and K respectively
- Toggle input object Slab(S), Beam(B), Column(C), Wall(W), Brick-wall(K), Loadings(L) and All input objects using short-cut key of S, B, C, W, K, L and A respectively
- Grid bounded objects, input objects of S, B, C and W are bound to grids
- Break or merge structural objects of B, S and W at intersecting grids
- Auto generation of input objects slab(bound by B and W), beam(between C) and column(at G or B intersection) under respective input mode
- Command-driven icon to change or delete of same type of input data(G, S, B, C, W and K) selected by individual click or window drag-select
- Highlighting of input data(G, S, B, C, W) connected to selected grids and group delete them all with ‘Delete’ key
- Input point(P), uniform distributed line(U), general-variable line(V), area(E), patch(H) and brick-wall(R) loads to respective objects of slab(P,U,E,R,H), beam(P,U,V,R), column(P) and wall(P,V)

INPUT & MODEL

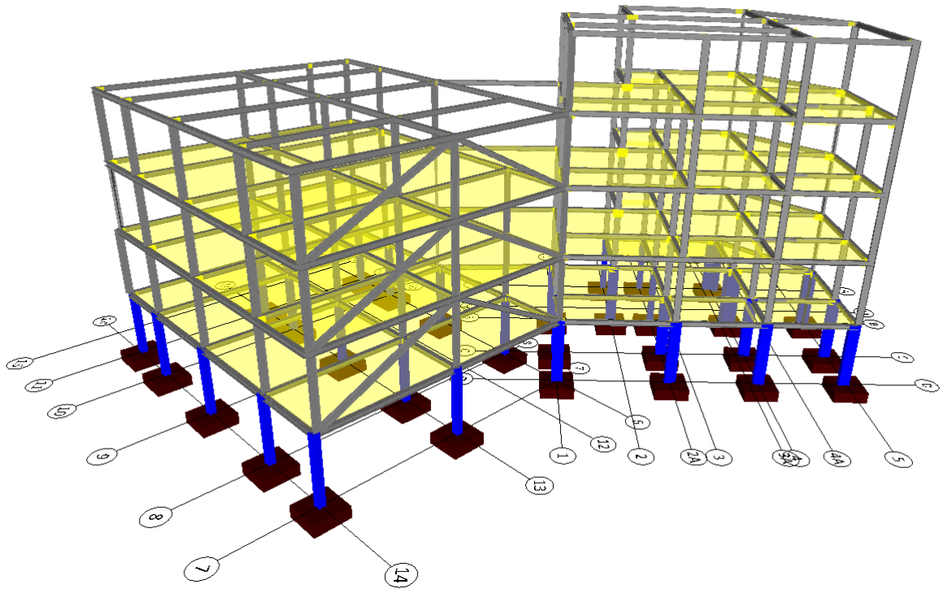
- Input circular(I), rectangular(T) and polygonal(O) openings to respective objects of slab(I, T, O), beam(I, T), column(I, T, O), wall(T)
- Import key plan from another Esteem project
- Copy existing key plan to multiple other floors
- Overlay key plan object(S, B, C, W) using short-cut key of S, B, C, W(Ctrl+Shift+) and lower(Ctrl+) to toggle for upper and lower floors respectively on current key plan input
- Import dwg/dxf 2D drawing files as a tracing background
- Auto assign entities in dwg layers as Grid, Beam, Column, Slab, Wall, Brick-wall object

ESTEEM 11 NEW FEATURES

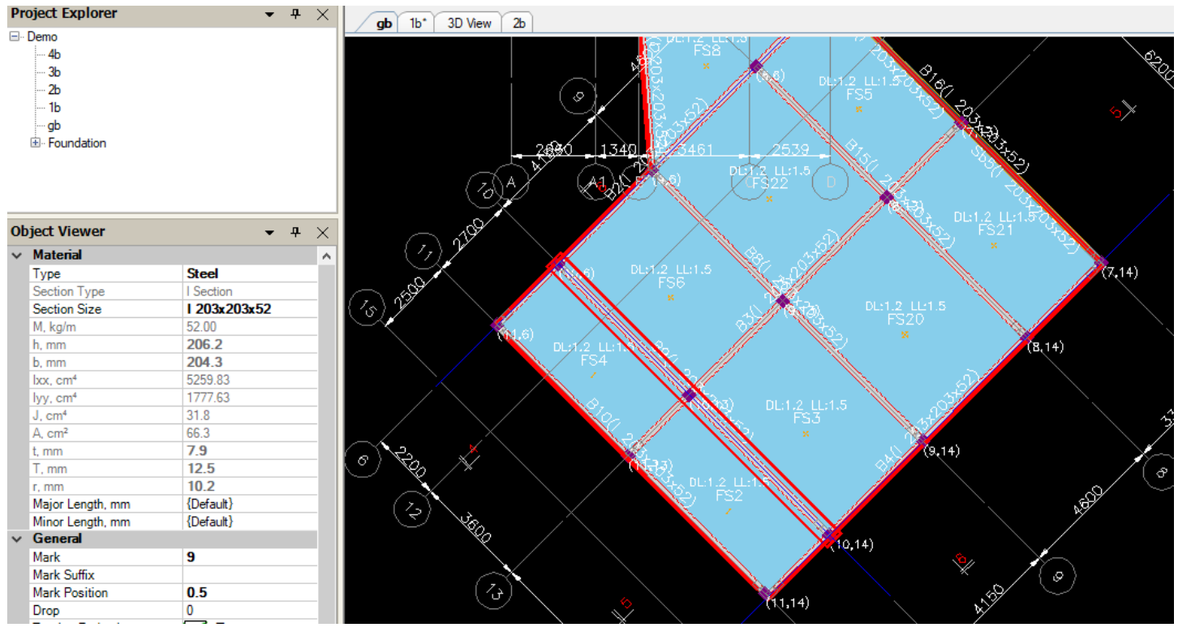
- Import dwg/dxf 2d drawings and use them as a tracing background and to auto assign dwg entities as input objects
- Import, trace and auto assign dwg entities in one-screen tracing and input
- Auto change to object input mode by double-clicking it when its(G, S, B, C, W) object shape appear

MATERIAL

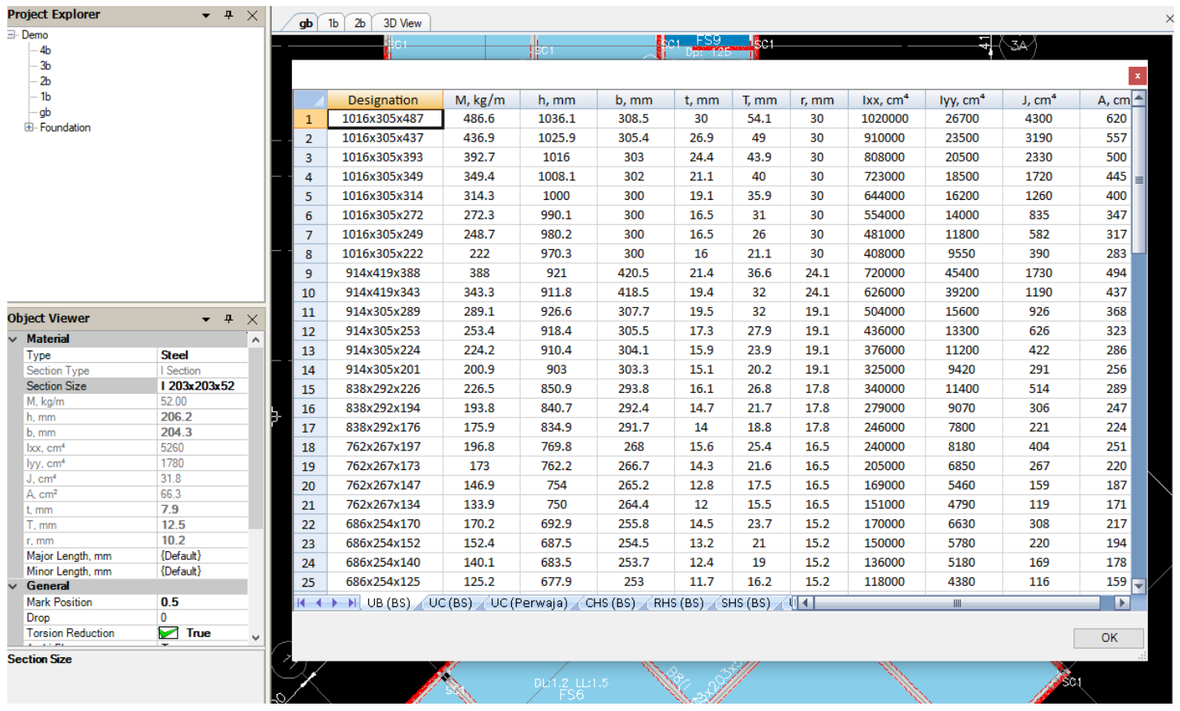
- Reinforced Concrete for Beam, Slab, Wall, Column
- Steel Section for Beam and Column Member



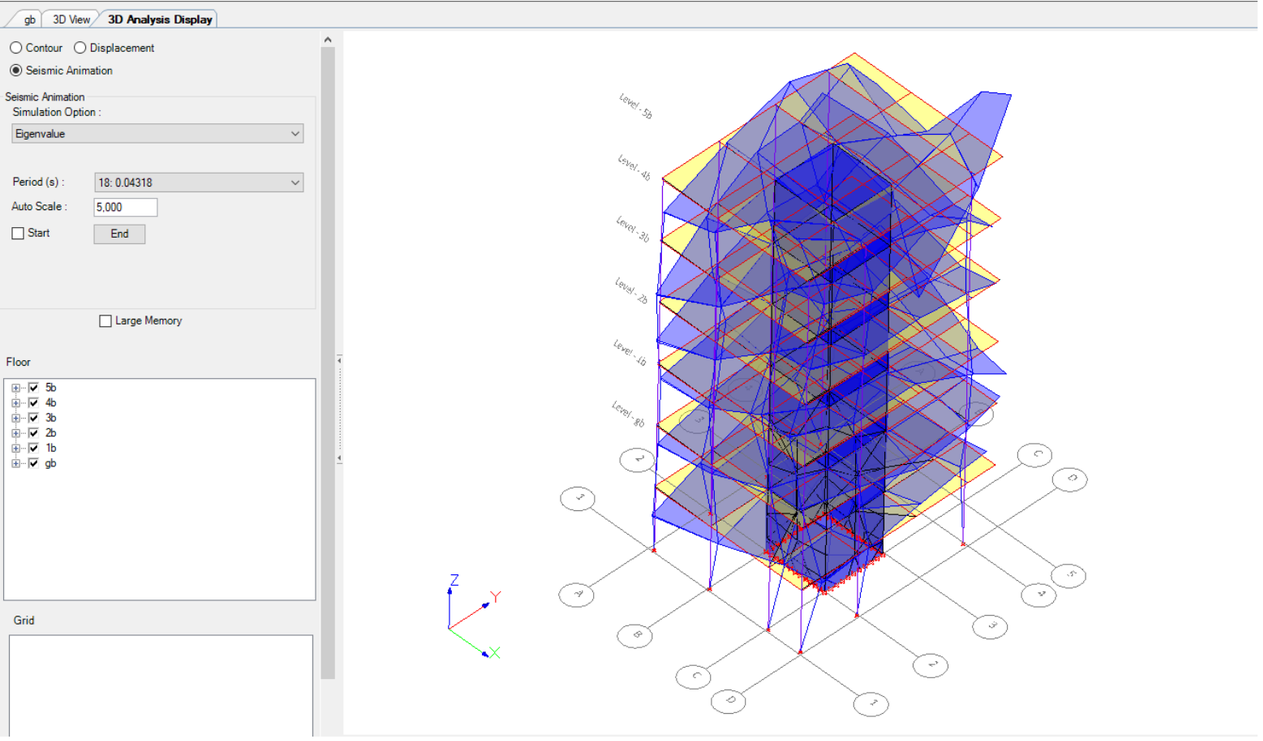
3D Esteem Model View with Steel Section Members



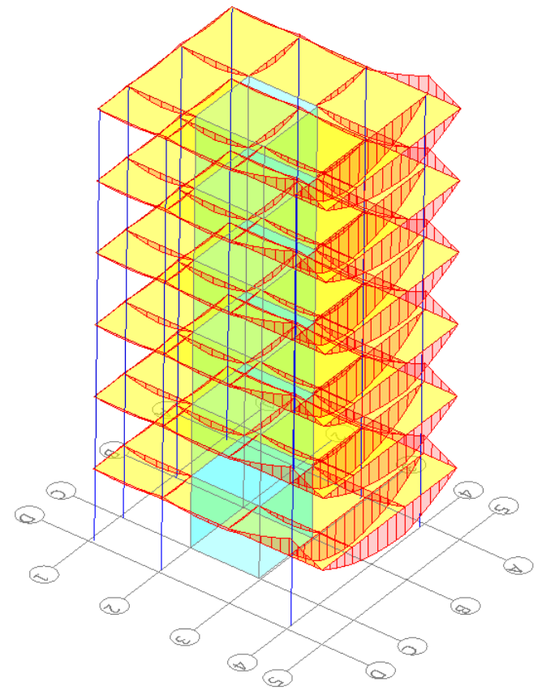
Steel input for beam



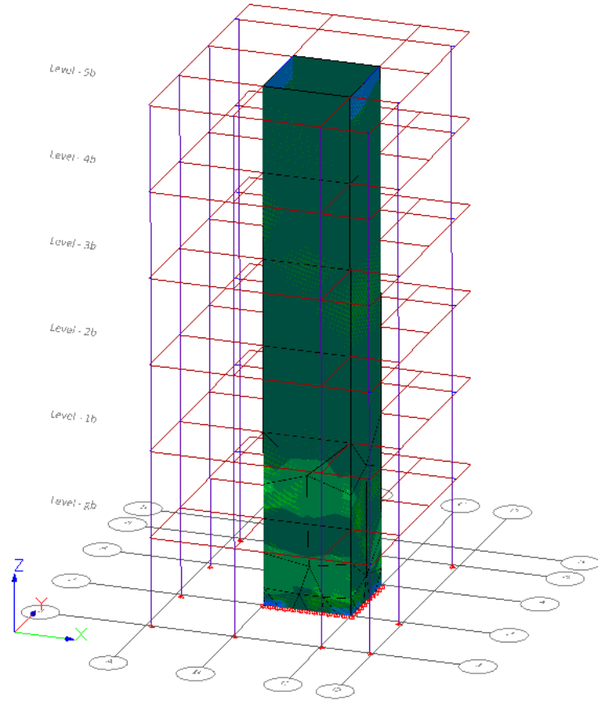
Choose from list of standard steel section sizes. Steel section size can also be user defined



Seismic simulation



Beam moment diagram



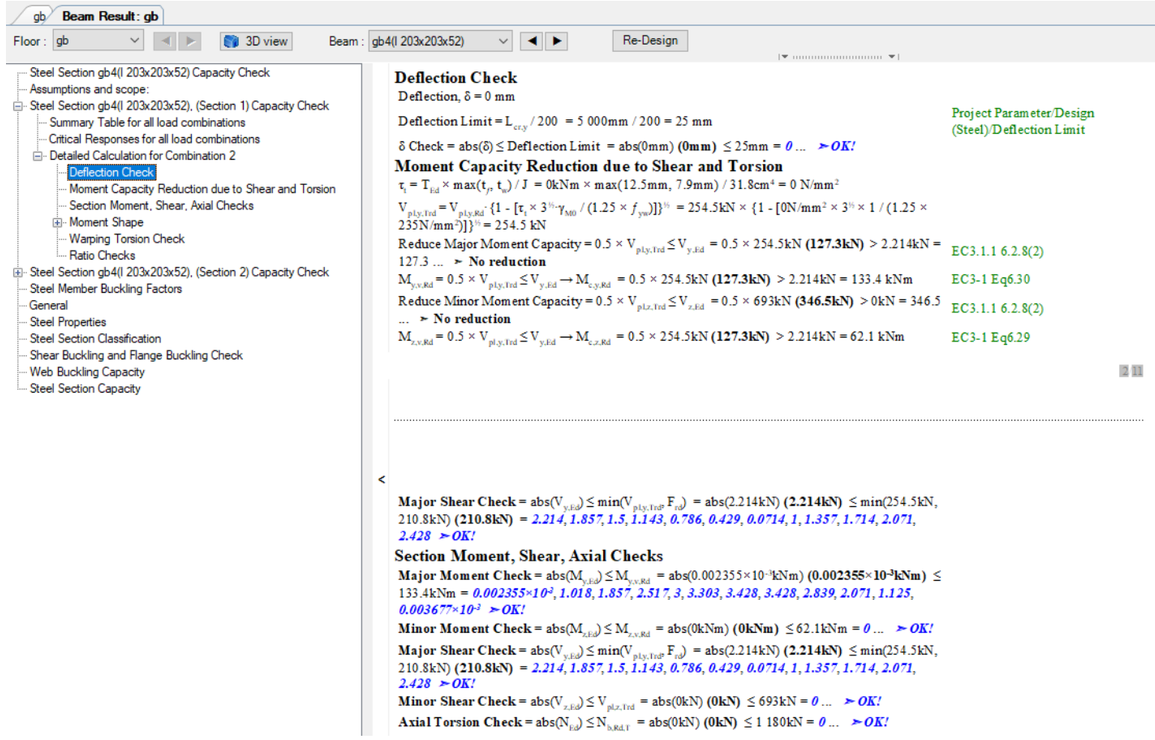
RC Shear Wall moment contour

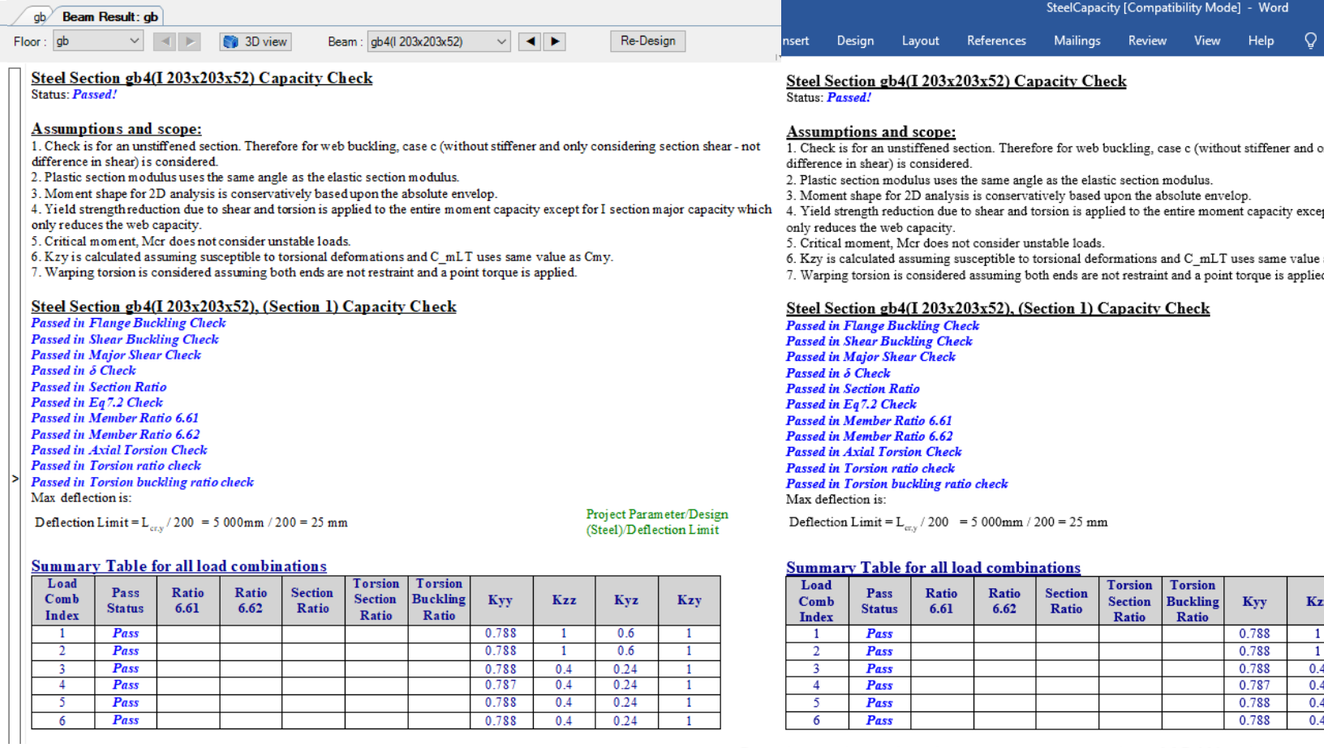
AUTO MESH GENERATION & 3D ANALYSIS

- Auto mesh generation of model and Finite Element Analysis
- Reinforced concrete and steel section analysis
- Meshing and Analysis for Floor Key Plan in sub-frame(2D)
- Meshing and Analysis for All Floor Key Plans in Full 3D Model(3D)
- Beam pattern loading analysis in 2D
- Wind and Notional Load Analysis in 3D
- Ritz or Eigenvalue Seismic Dynamic Analysis in 3D
- Seismic Modal Response Spectrum (EC8, EC8 Malaysia & Singapore or User Defined)
- Seismic Animation in 3D Analysis Display
- P-Delta Analysis
- Stage Construction Analysis
- Moment, shear, torsion, displacement, loading, forces diagram for Beam and Column
- Moment, shear, displacement, top and bottom steel area contour in X and Y direction for Floor Slab in 2D
- Moment, shear, diaphragm stress, displacement, top and bottom steel area contour in X and Y direction for Transfer Floor Slab and Wall in 3D

ESTEEM 11 NEW FEATURES

- Faster Beam Free Nodes Checking for Meshing
- Simplified MRSA biaxial load combination feature which reduce seismic design to only 8 biaxial envelope combinations.





Steel section deflection check calculation report

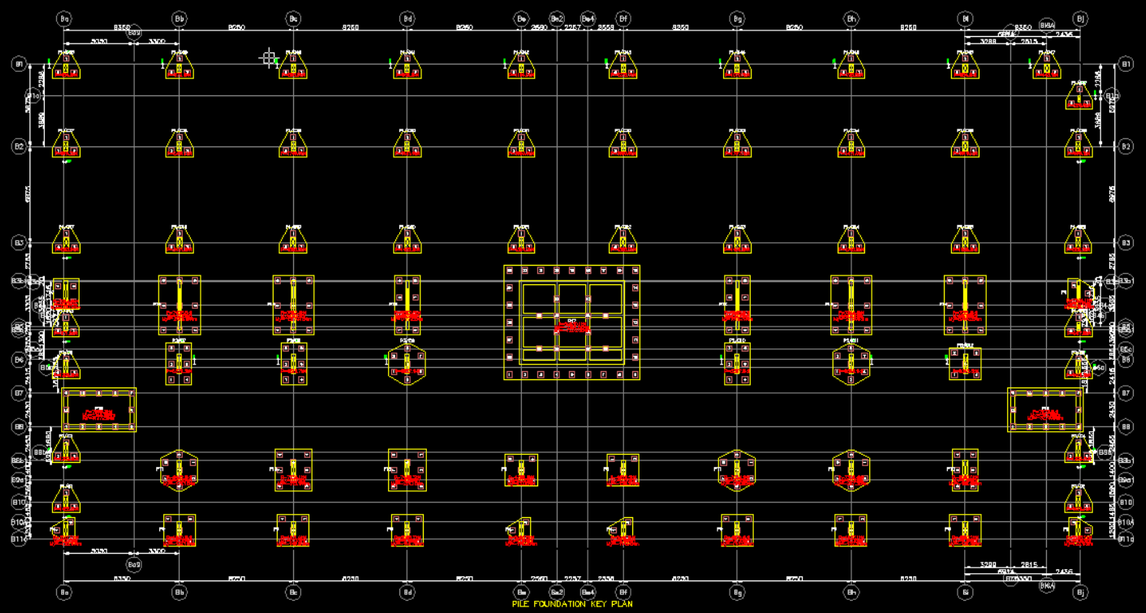
Steel section check report exported to MS Word

DESIGN

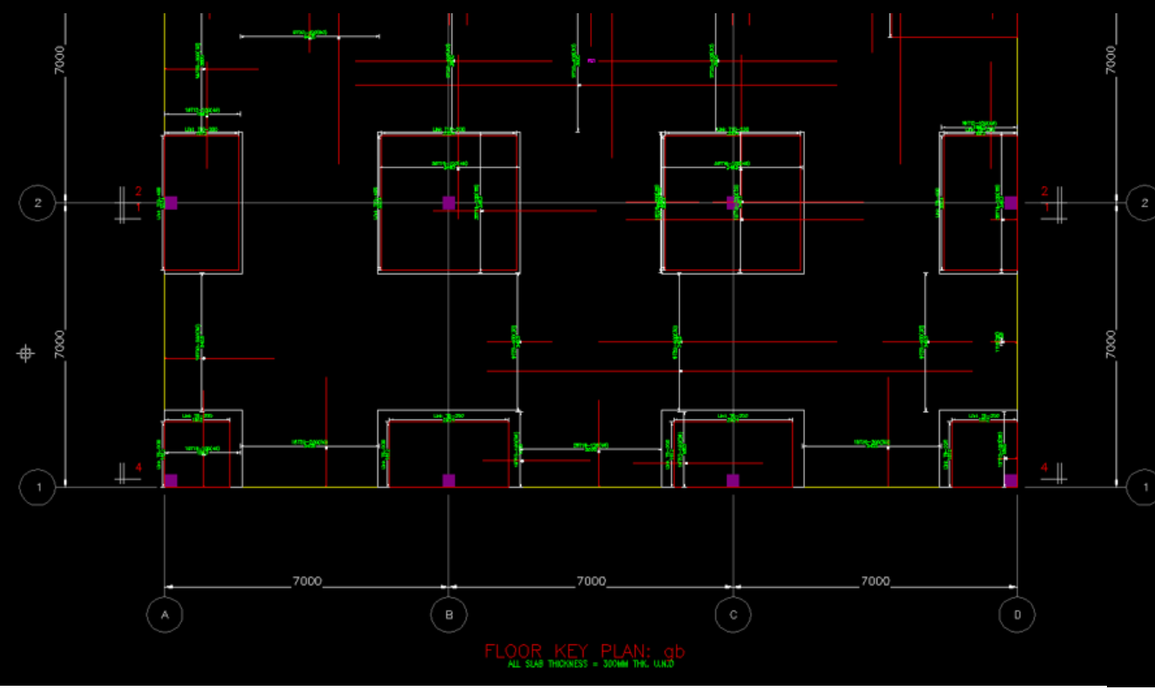
- Complying to BS8110 and EC2 Code of Practices
- Full Design for Slab, Beam, Column and Wall
- Reinforced Concrete Design
- Steel Member Design Check
- Conventional, Stage Construction, P-Delta, Seismic Design
- Foundation Design for Pile and Pad
- Design Calculation Report
- Export out Design Calculation Report to Rich Text Format file to be viewed in MS Word

ESTEEM 11 NEW FEATURES

- Steel Member Design Check from Class 1 to Class 4 complying to EC3
- Slab Displacement contour based on non-reduced sub-frame stiffness
- Slab design based on band-width contour cut
- Pile offset from edge of core wall to increase capacity of foundation
- Column and wall design based on FE end restraint
- Column and Wall Design with Reduced Subframe Moment
- Slab design based on band-width contour cut
- Wall framing beam design is made obsolete and unnecessary for RC Wall
- Multi-section beam deflection checking using weighed effective depth
- Beam end/inner span deflection check is based on its fixity to RC Wall end
- Auto fix Beam End Release on RC Wall
- Flat Slab Design



Foundation design detailing with pile offset feature



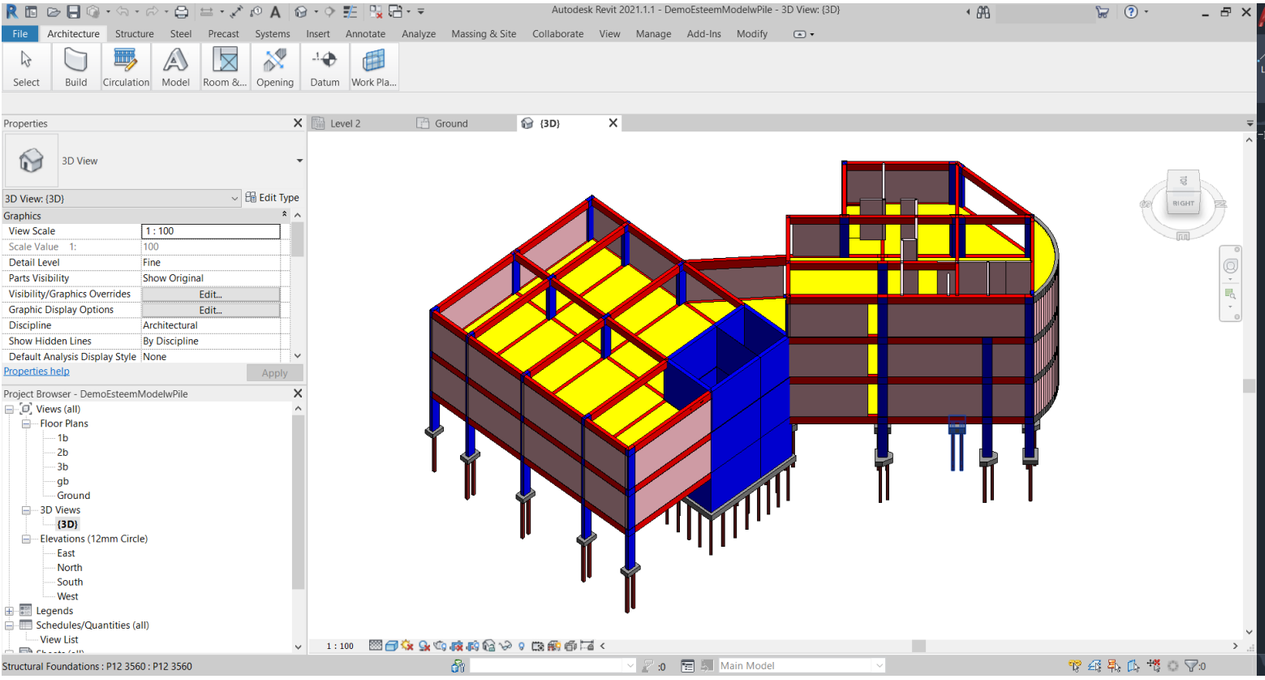
Flat Slab Detailing

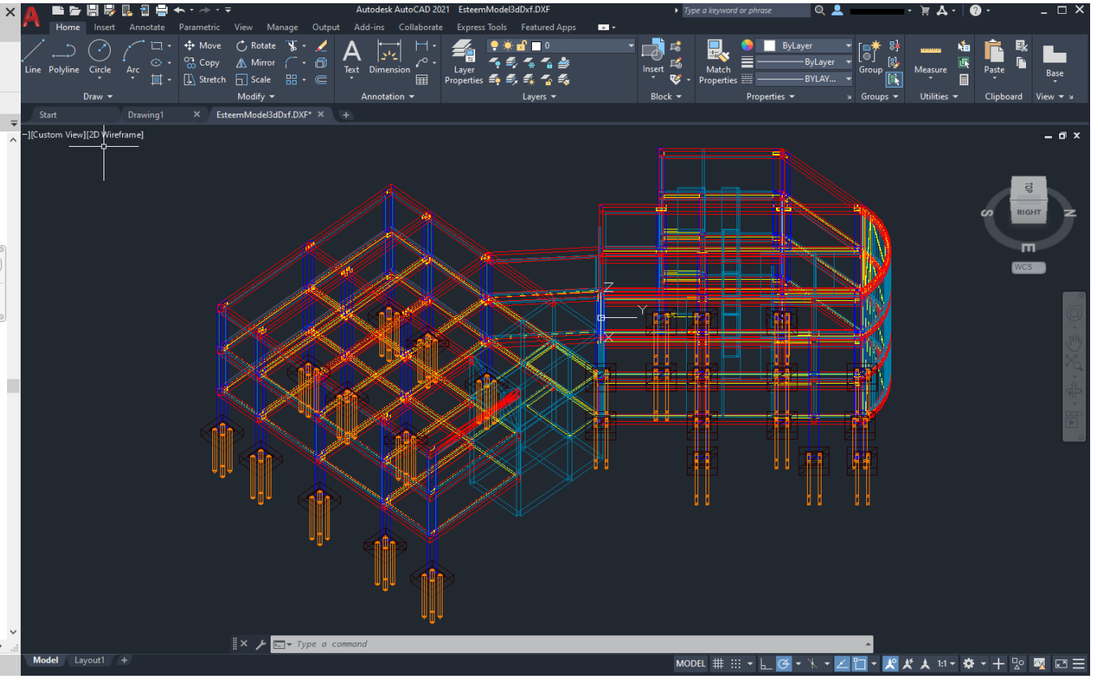
DETAILING

- Auto-Drafting Design Detailing to meet Design Requirements
- Auto arrange beam and slab detailing cuts to fit imported Title Block drawing
- Detailing Schedule Table for RC Wall and Pile & Pad Foundation
- Export out 2D detailing to DXF or DWG file

ESTEEM 11 NEW FEATURES

- Wall link detailing is added in schedule table and needed for every vertical rebar if it is >= 2%
- Column & Wall mark plan in detailing schedule table
- Option to show only support/necessary grids for 'cleaner' grids and dimensions in detailing plan
- Flat Slab Detailing





Autodesk Revit import of IFC2x3 model exported from Esteem 11

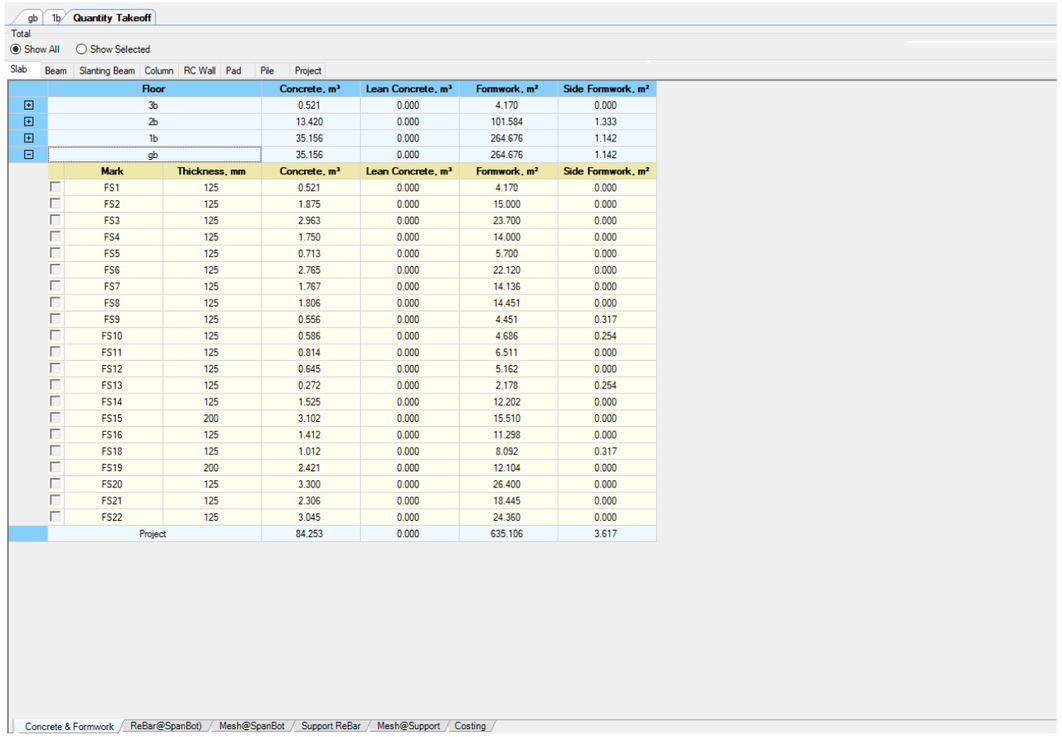
Autocad import of 3D DXF model exported from Esteem 11

BIM INTEROPERABILITY

• Export Esteem Floor key plans to dxf, dwg formats
(Latest Autodesk 2021-2023 dxf/dwg compatibility)
• Import dxf/dwg key plans into Esteem to be used as tracing or auto assign drawing entities as Esteem input object in dwg
• Export Esteem 3D models to IFC2x3, 3D DXF
• Esteem RC physical model BIM interoperability with Autodesk Revit
(Latest Revit 2021-2023 compatibility)
• Export Esteem model to Esteem Viewer which is a free software from Esteem to only view floor key plans and 3D model
• Backward and Forward Compatibility of Esteem project files

ESTEEM 11 NEW FEATURES

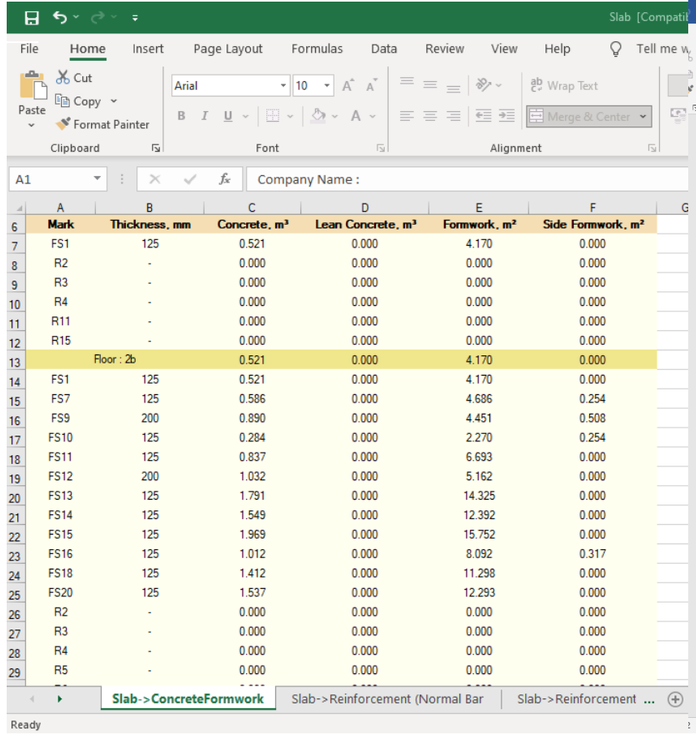
• IFC2x3 geometric export of Esteem model including pile and pad foundation
• Autodesk Revit 2021/2022/2023 and add-in link to provide import/export compatibility of RC structure model
• Autocad 2021/2022/2023 import and export compatible for dwg/dxf files
• Forward Compatibility:- Older software versions from Esteem 11 onwards can open Esteem model created by newer software versions



Floor	Concrete, m³	Lean Concrete, m³	Formwork, m²	Side Formwork, m²
3b	0.521	0.000	4.170	0.000
2b	13.420	0.000	101.584	1.333
1b	35.156	0.000	264.676	1.142
gb	35.156	0.000	264.676	1.142

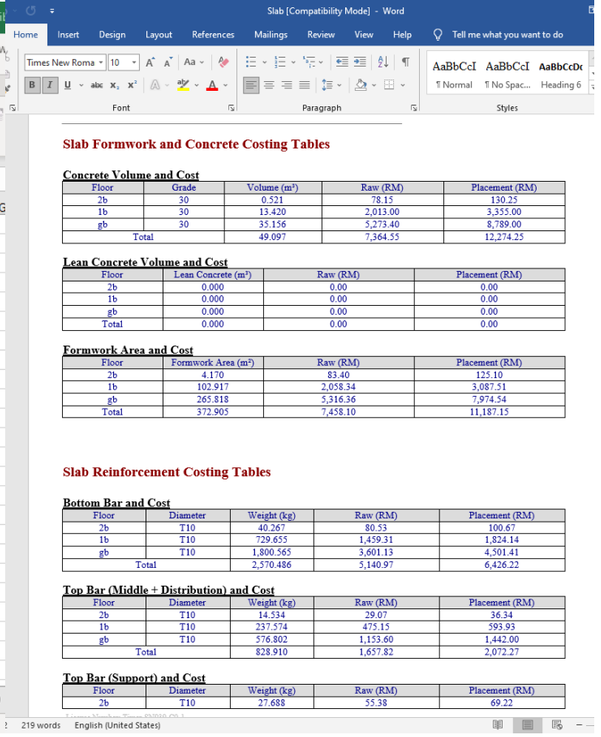
Mark	Thickness, mm	Concrete, m³	Lean Concrete, m³	Formwork, m²	Side Formwork, m²
FS1	125	0.521	0.000	4.170	0.000
FS2	125	1.875	0.000	15.000	0.000
FS3	125	2.963	0.000	23.700	0.000
FS4	125	1.750	0.000	14.000	0.000
FS5	125	0.713	0.000	5.700	0.000
FS6	125	2.765	0.000	22.120	0.000
FS7	125	1.767	0.000	14.136	0.000
FS8	125	1.806	0.000	14.451	0.000
FS9	125	0.556	0.000	4.451	0.317
FS10	125	0.586	0.000	4.686	0.254
FS11	125	0.814	0.000	6.511	0.000
FS12	125	0.645	0.000	5.162	0.000
FS13	125	0.272	0.000	2.178	0.254
FS14	125	1.525	0.000	12.202	0.000
FS15	200	3.102	0.000	15.510	0.000
FS16	125	1.412	0.000	11.298	0.000
FS18	125	1.012	0.000	8.092	0.317
FS19	200	2.421	0.000	12.104	0.000
FS20	125	3.300	0.000	26.400	0.000
FS21	125	2.306	0.000	18.445	0.000
FS22	125	3.045	0.000	24.360	0.000
Project		84.253	0.000	635.106	3.617

Slab Concrete Foamwork Quantity Take-off



Mark	Thickness, mm	Concrete, m³	Lean Concrete, m³	Formwork, m²	Side Formwork, m²
FS1	125	0.521	0.000	4.170	0.000
R2	-	0.000	0.000	0.000	0.000
R3	-	0.000	0.000	0.000	0.000
R4	-	0.000	0.000	0.000	0.000
R11	-	0.000	0.000	0.000	0.000
R15	-	0.000	0.000	0.000	0.000
Floor : 2b		0.521	0.000	4.170	0.000
FS1	125	0.521	0.000	4.170	0.000
FS7	125	0.586	0.000	4.686	0.254
FS9	200	0.890	0.000	4.451	0.508
FS10	125	0.284	0.000	2.270	0.254
FS11	125	0.837	0.000	6.693	0.000
FS12	200	1.032	0.000	5.162	0.000
FS13	125	1.791	0.000	14.325	0.000
FS14	125	1.549	0.000	12.392	0.000
FS15	125	1.969	0.000	15.752	0.000
FS16	125	1.012	0.000	8.092	0.317
FS18	125	1.412	0.000	11.298	0.000
FS20	125	1.537	0.000	12.293	0.000
R2	-	0.000	0.000	0.000	0.000
R3	-	0.000	0.000	0.000	0.000
R4	-	0.000	0.000	0.000	0.000
R5	-	0.000	0.000	0.000	0.000

Slab Concrete Foamwork Export to MS Excel



Concrete Volume and Cost

Floor	Grade	Volume (m³)	Raw (RM)	Placement (RM)
2b	30	0.521	78.15	130.25
1b	30	13.420	2,013.00	3,355.00
gb	30	35.156	5,273.40	8,789.00
Total		49.097	7,364.55	12,274.25

Lean Concrete Volume and Cost

Floor	Lean Concrete (m³)	Raw (RM)	Placement (RM)
2b	0.000	0.00	0.00
1b	0.000	0.00	0.00
gb	0.000	0.00	0.00
Total	0.000	0.00	0.00

Formwork Area and Cost

Floor	Formwork Area (m²)	Raw (RM)	Placement (RM)
2b	4.170	83.40	125.10
1b	102.917	2,058.34	3,087.51
gb	265.818	5,316.36	7,974.54
Total	372.905	7,458.10	11,187.15

Bottom Bar and Cost

Floor	Diameter	Weight (kg)	Raw (RM)	Placement (RM)
2b	T10	40.267	80.53	100.67
1b	T10	729.655	1,459.31	1,824.14
gb	T10	1,800.565	3,601.13	4,501.41
Total		2,570.486	5,140.97	6,426.22

Top Bar (Middle + Distribution) and Cost

Floor	Diameter	Weight (kg)	Raw (RM)	Placement (RM)
2b	T10	14.534	29.07	36.34
1b	T10	237.574	475.15	593.93
gb	T10	576.802	1,153.60	1,442.00
Total		828.910	1,657.82	2,072.27

Top Bar (Support) and Cost

Floor	Diameter	Weight (kg)	Raw (RM)	Placement (RM)
2b	T10	27.688	55.38	69.22

Slab Costing Export to Word

QUANTITY TAKE-OFF

- Quantity take-off for Concrete & Foam-work, Steel Rebar, Mesh and Costing results for Slab, Beam, Column, Wall and Footing
- Export quantity take-off results to MS Word and Excel

ABOUT

ESTEEM INNOVATION SDN BHD was founded in 1994 with the goal of creating a total integrated solution and user friendly software for structural design consultants to model, analyze and design reinforced concrete buildings with all its detailing fully generated to meet design requirements such as the code of practices, safety, and economical design

Founded and based in Malaysia, **ESTEEM SOFTWARE** has over 3,200 copies of license in Malaysia and is being used heavily by many local Malaysia private engineering firms, government organizations and universities to aid in the design of real construction projects locally.

ESTEEM SOFTWARE is also being used in overseas market such as Singapore, Brunei, Sri Lanka, Qatar, Australia for the design of real construction projects overseas.

AWARDS & RECOGNITIONS

1. "Merit in Best Industrial Applications" in MSC-Asia Pacific ICT Award 2010
2. ”Best of Industrial Applications” in MSC-Asia Pacific ICT Award 2005
3. “Best Engineering Award” at the 7th International Conference on Concrete Technology in Developing Countries (7th ICCT, October 5-8, 2004)

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