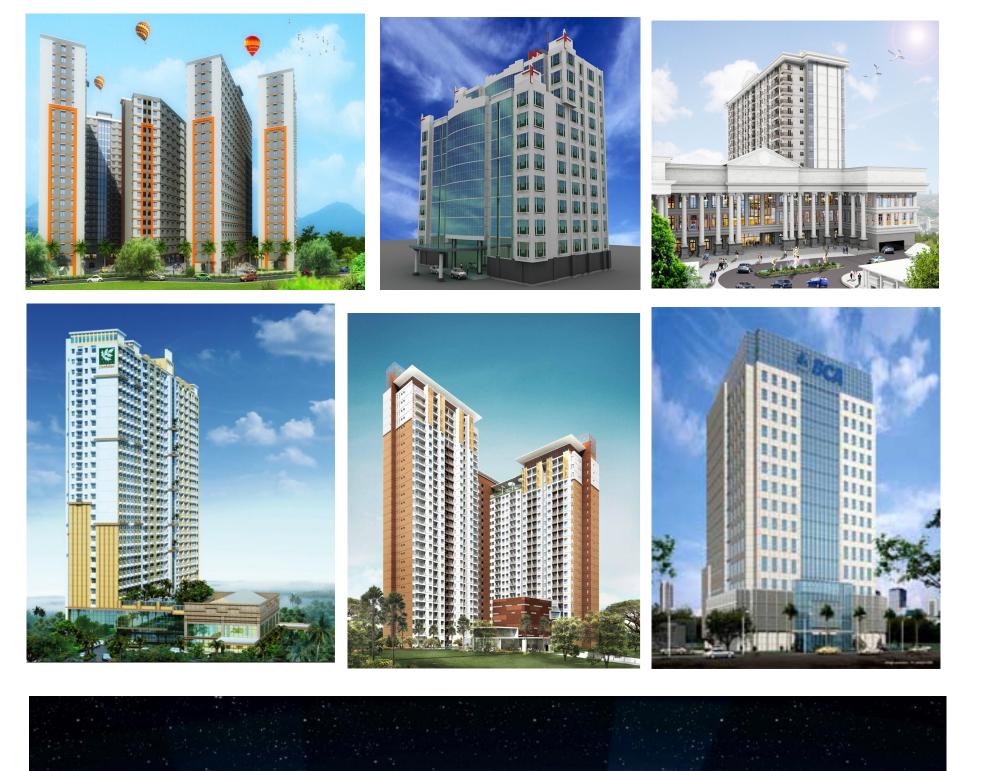
Engineering Software Research Center

Jl. Situ Aksan 29, Bandung 40221, Tel: (62)-21-6003595, Mobile: (62)-81-22348247 Homepage: <u>www.esrcen.com</u> E-mail: <u>esrc.nathan@gmail.com</u>

SANSPRO V.4.98(since 1989)

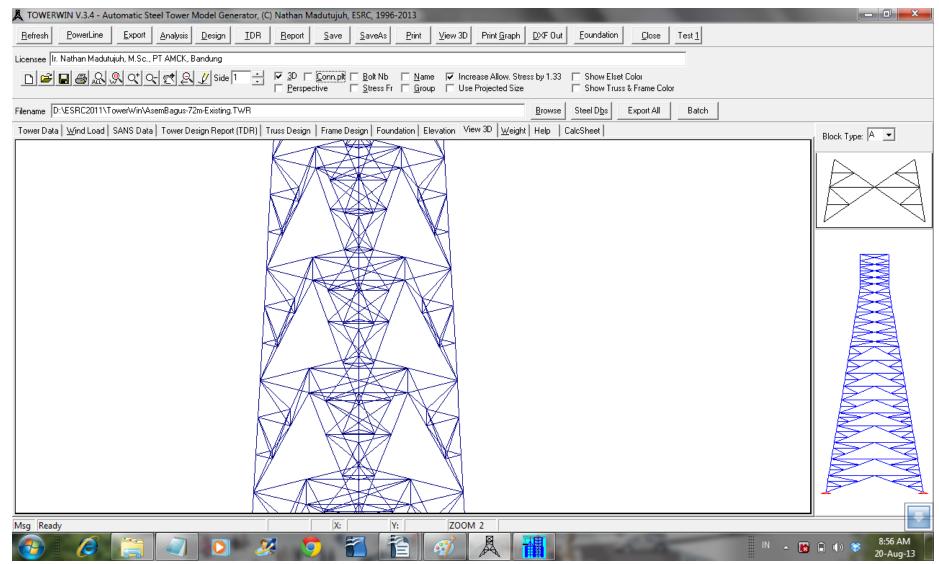
Integrated Structural Modeling, Analysis, Design, Drawing and Cost Calculation

Sample Projects



ESRC Other Products

TOWERWIN – Steel Tower Structures

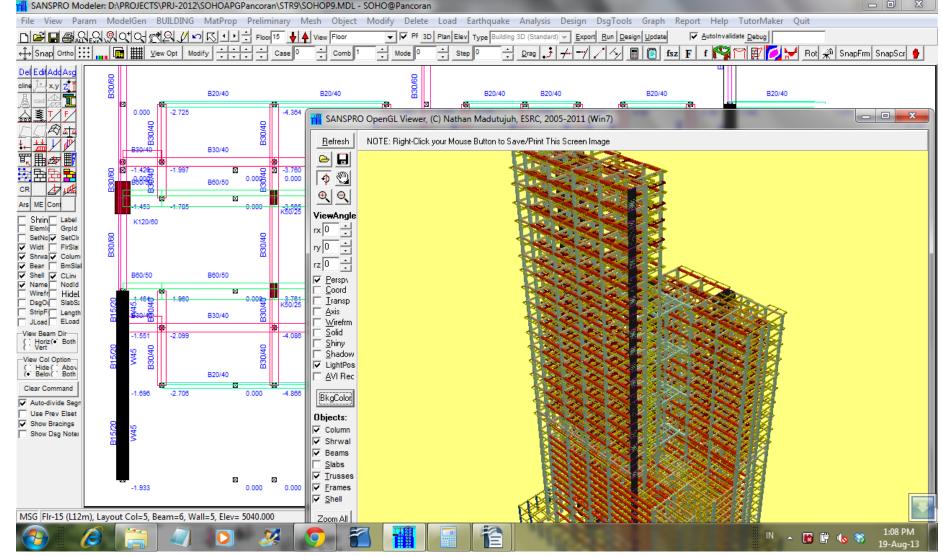


NROOF – Light Steel Roof Truss Design

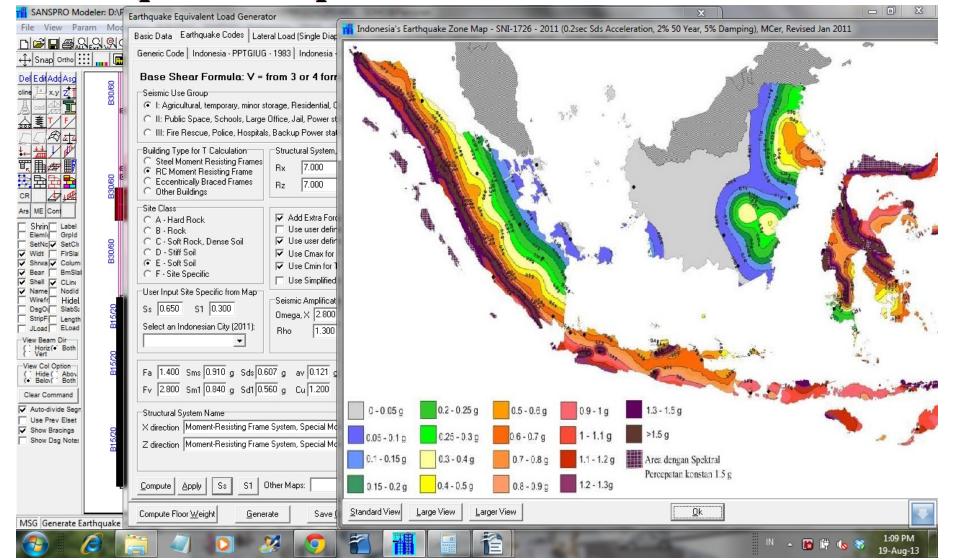
NROOF - Cold-form	ned Steel	/ Light Steel Roof	Design S	System,	(C) Na	than Ma	dutujuh, ESRC, 2004-2009	_ 7 🔀
Read Model Save Mo	odel <u>A</u>	pply Parameters	General	e Model	De	sign One	Instant Save DXF Save Report Print Graph Read Database New CF Section Quit	
Licensee: Ir. Nathan M	adutujuh,	M.Sc, ESRC, Band	lung				Filename Test1-T3.DAT	
Main Menu 🛛 Parameter 🗍	Roof Layou	(User-defined) Trus	s Model F	Report F	abrication	/ Cutting l	ist Debug Detail Member Calculation	
Truss Index								
3	N	o. Section Name	L (m)	frmax	Bolt	W(kg)	Design Parameters :	
Isoscale Show Coord Show Disp	1	C75x38x8x0.75 C75x38x8x0.75 C75x38x8x0.75 C75x38x8x0.75	1.000 1.000 1.000	0.729 0.076 0.047	2D5 2D5 2D5	1.005 1.005 1.005	Design Code = AISI DSM (ASD) Roof Layout = Rect	

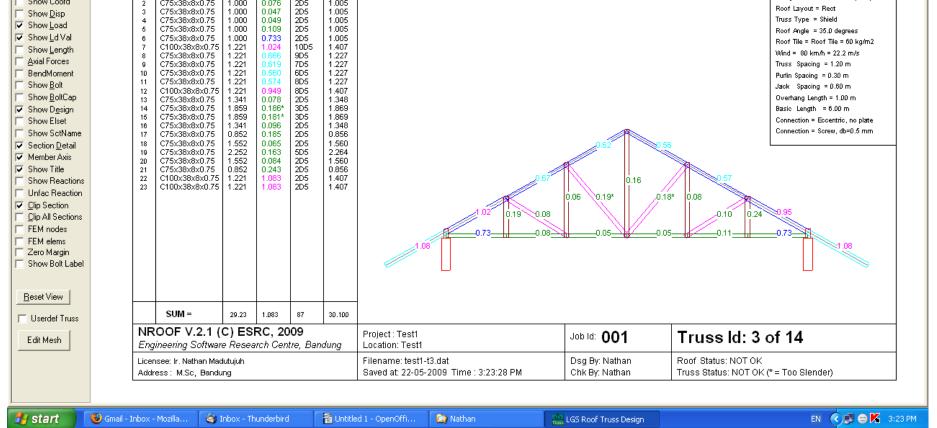


Visual Modeling - What you see is what you get

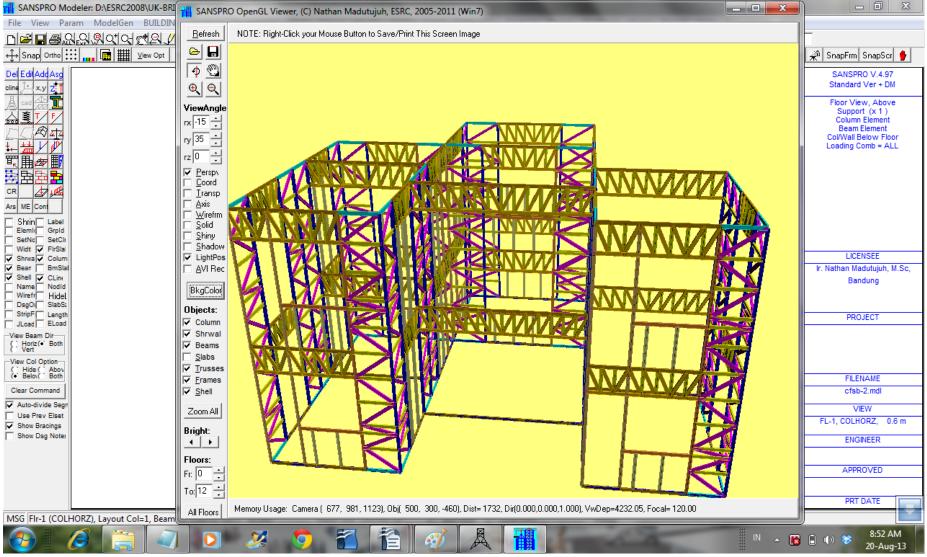


Earthquake Map 2012

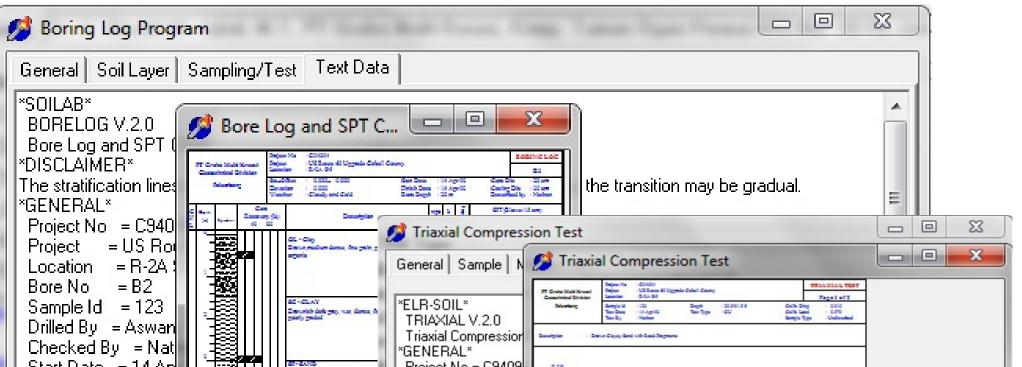




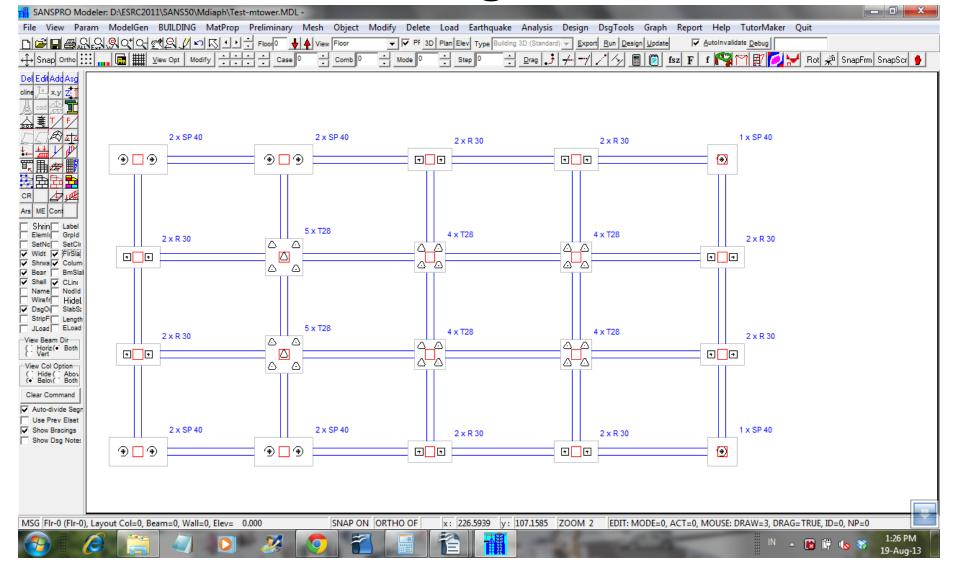
CFSB – Cold Formed Steel Building



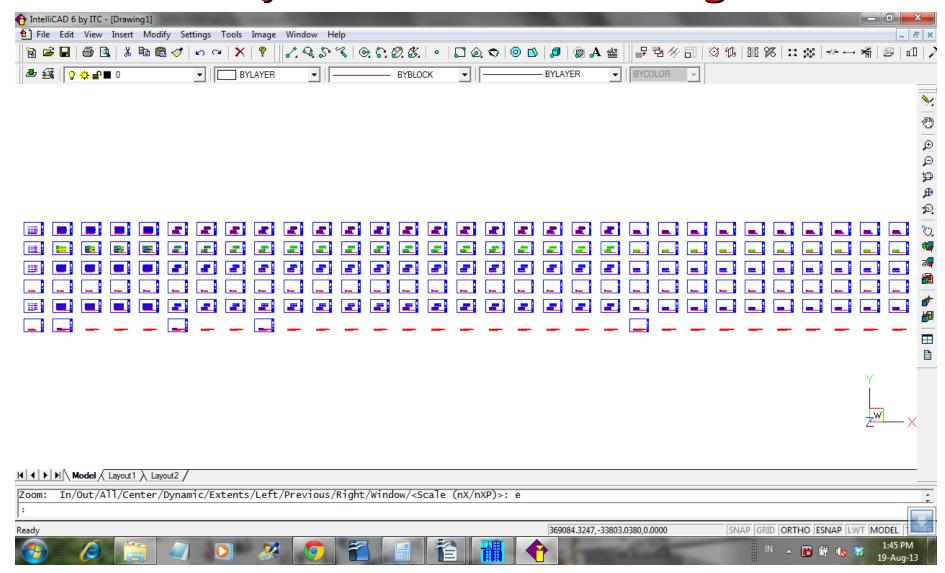
SOILAB - Soil Laboratory Data Processing



Pile Foundation Drawing

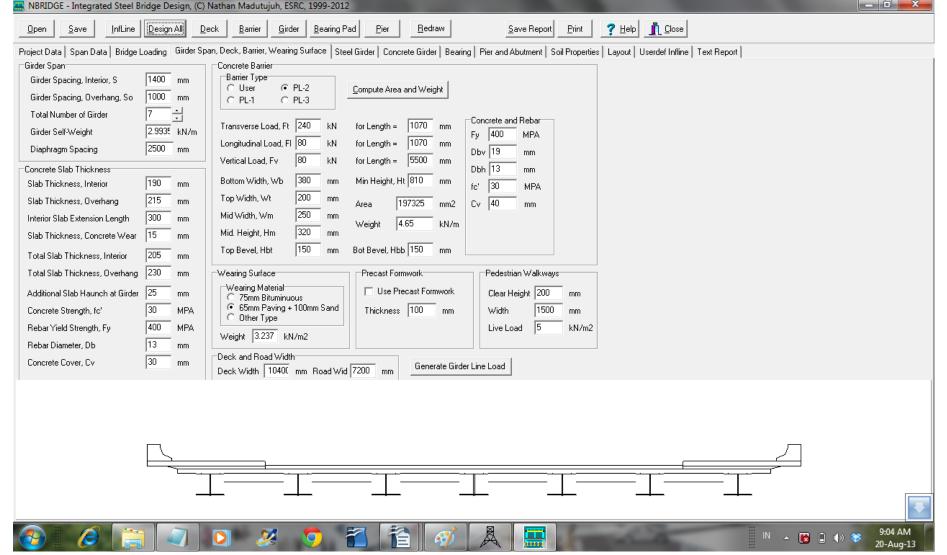


Generated layout and detail drawing at CAD

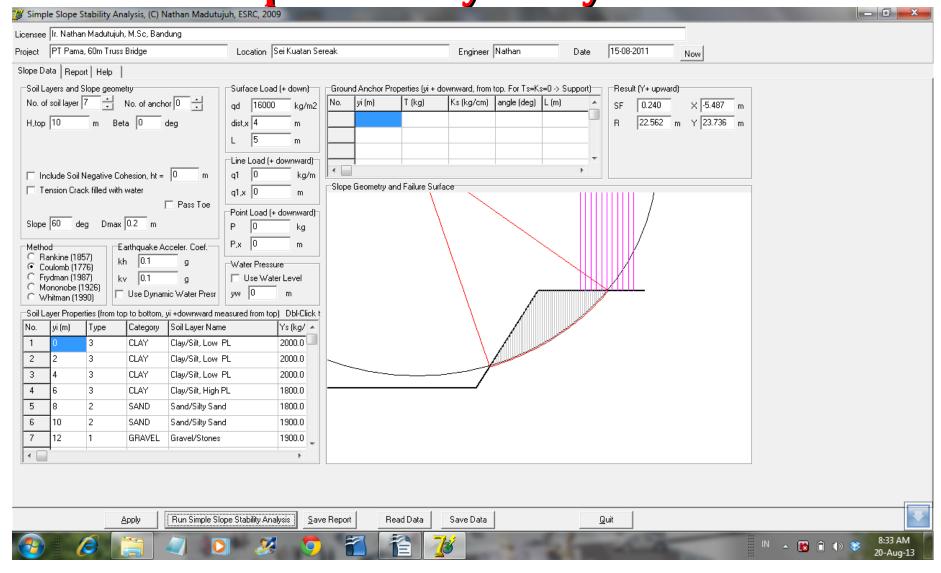


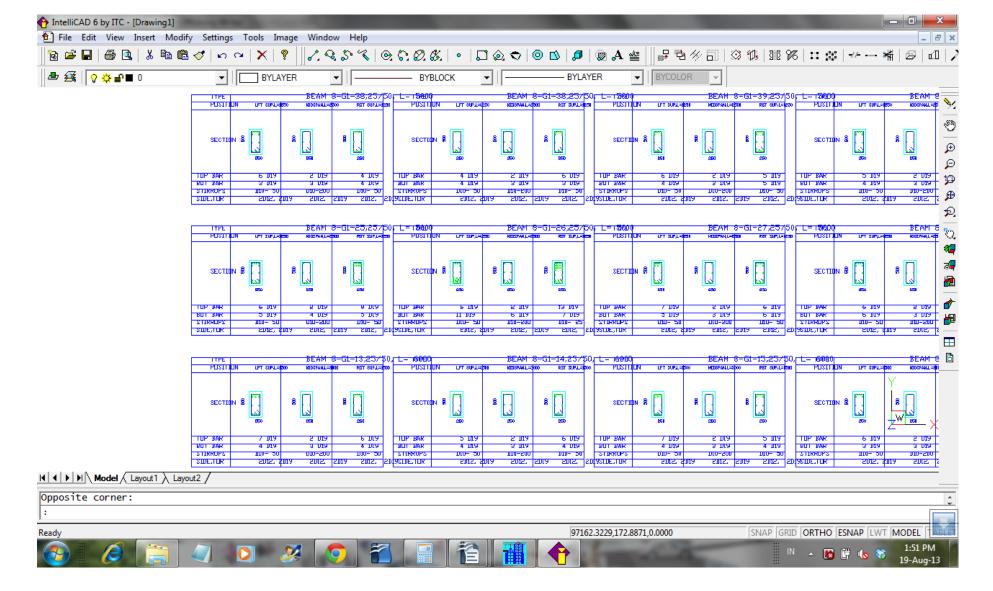
Start Date = 14 Ap Finish Date = 14 Ap Weather Cond = Closed Blow Height = 15 c Top Soil Hgt = 0.5'' Water Depth = 4.1 Coord Type = 1 Surface Elev = 0.000 Offset = 0.000 Bore Depth = 20.00 Casing Dia = 30.00 Core Dia = 20.00 Paper Height = 1.0 Print Save Print Setup Print Setup	Project = US Roul Location = R-2A S Depth = 20.0-21. Sample Id = 123 Test By = Nathan Test Date = 14 Apr Disturbed = 0 Test Type = CU Unit Type = 1 Mark Flag = 1 Pore Flag = 1 Tangent = 6 Calibration for Displa Calibration for Load Graph Scaling for D Graph Scaling for State
	<u>G</u> raph <u>Print</u> <u>S</u> etup Print <u>All</u> <u>Portrait</u> <u>Prev</u> <u>N</u> ext <u>Close</u>

NBRIDGE – Steel Composite Bridge Design



NSLOPE – Slope Stability Analysis





Volume and Cost Calculation

View Param ModelGen BUILDING MatProp Prelim	nary Mesh Object Modify Delete Load Earthquake Analysis Design DsgTools Graph Report Help TutorMaker Quit	
≝∎릘ฌฌฒ๙๙๙ฃฃๅ๛๙ฃฃ÷ฅ๛	1 🕂 🖓 View Floor 💌 🗭 PF 3D Plan Elev Type Building 3D (Standard) 💌 Export Run Design Update 🔽 AutoInvalidate Debug	_
	Case 0 - Comb 0 - Mode 0 - Step 0 - Drag J/ / / / 🗐 🕘 fsz F f 🚱 🏹 📝 💋 📈 Rd	ot 💭 SnapFrm SnapScr 🍦
		SANSPRO V.4.97
		SANSPRO V.4.97 Standard Ver + DM
	📊 Volume and Cost Calculation for Concrete Building	Floor View, Above
	Data Result	Support (x 1)
		Column Element Beam Element
		Floor Slab
	USING ADDITIONAL VOLUME AND COST	Col/Wall Below Floor Main Rebar
		Loading Comb = ALL
	Description Concrete (m3) Rebar (kg) Formwork (m2)	
	Pilecap/Raft 0.0 0.0 0.0	
ME Cont	Tie Beam 0.0 0.0 0.0	
hrin Label	Staircases 0.0 0.0 0.0 Others 0.0 0.0 0.0	
emla GrpId	Others 0.0 0.0 0.0	
idt 🔽 FirSlal		LICENSEE
anwa 🗸 Columi ean 🖉 BmSlat	SUMMARY 2 (INCLUDED ADDITIONAL VOLUME) :	In Nathan Madutuiuh, M.So
nell 🔽 CLine	Total Building Cost = 720599908.6	Bandung
ame Nodid irefr Hidel	Total Concrete Volume = 232.5 m3	
sgOl SlabSi	Total Rebar Weight = 37673.1 kg	
tripF Length .oad ELoad	Total Formwork Area = 2208.5 m2	PROJECT
Beam Dir	Average Rebar Density = 162.01 kg / m3 (Normal Range: 100 - 200 kg/m3)	
Horiz (• Both		
Col Option	Total Building Cost = 720599908.6	
Hide C Abov Belov Both	Fixed Cost 8pct = 57647992.7 SubTotal = 778247901.3	FILENAME
ar Command	V.A.T. 10pct = 77824790.1	test-mtower.mdl
ito-divide Segn	Contractor Fee (7.0%) = 54477353.1	VIEW
se Prev Elset	Total Price = 910550044.5	FL-1, Fir-1, 4.0 m
Iow Bracings	NOTE: Volume and Cost Report was stored at D:\ESRC2011\SANS50\Mdiaph\Test-mtower.BVC	
	· · · · · · · · · · · · · · · · · · ·	ENGINEER
	۲ (۱۳) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (۲۰۰۰) (
	Compute Print Save Ok Example Unit Cost	APPROVED
		PRT DATE
Capacity Design, Phase III, Column below floor 1	SNAP ON ORTHO OF x: 1843.6488 y: 1700.0004 Ready	· · · · · · · · · · · · · · · · · · ·

SANS program will give engineers more time to design better, stronger, safer, and more economical structures !

REBARVOL – Rebar Detailing and Cutting Plan

Slab Pil	leca	Bear	n	Co	lum	n	S	nea	rwa	all	Ld,	Ld	n ar	nd S	plic	e Le	ngt	h	 			 									 																					 			
	-							Ċ	lbm		9		n	d	v		2		Horr	13	3	n	db	ans h	10		m	d		10							7		Boun	ndar	ry s L L L L B I - M V H E B M E	Zolu Coi Rei Sto gpcm d, m d, v d, n d, v d, h Sar i tem Vert Ioni Soun fid i Ind i	ncret bar W eel H (st) (st) (st) Bendi	ce Vo Neigh Ratio 13.4 raigh raigh raigh ing S +spl +spl +spl +spl +spl stin stin stin stin stin	44 cm 44 cm 44 cm 44 cm 44 cm 44 cm 44 cm 45 cm 46 cm 47	e m, = = dul	: 9 : 1 spcv 0. 0.	6.72 90.(47.4 = 94 n 64 n 64 n 4 4 4 4 4 6 6 6	20 m 6 kg 4 kg 20 n (D n (D n (D n (D	3 /m3 .00 (19 mu 13 mu 13 mu 13 mu 9 3 3 3 0 0 0 0 0	cm, m) m) 	164 166 117 65 40 0	0.00	_).
2			-	Ē					•	C		D			C	•	C	•	2		[C	•		>	•	[]		0	•	E	•	1	•	-	1		7				•							_						[

SPECIAL PURPOSE SOFTWARE DESIGN

ESRC provides special purpose software design for the following fields:

- Building Industry
- Prefab Industry
- Factory Automation
- Data Acquisition and Testing
- CAD and Graphical User Interface Software
- Knowledge Based Software