

Table of Contents

			Page	Last Updated
	Web Pages		7	
	End User License Agreement		11	
Foundation Design Group				
1	1	PAD.XLS	Pad Footing Design Based on ACI 318-08	12 12-9-11
2	2	EccentricFooting.XLS	Eccentric Footing Design Based on ACI 318-08	16 12/27/2011
3	3	StudBearingWallFooting.XLS	Footing Design for Stud Bearing Wall Based on IBC 09 / ACI 318-08	19 12-9-11
4	4	WallFooting.XLS	Footing Design of Shear Wall Based on ACI 318-08	21 12-9-11
5	5	BraceGradeBeam.XLS	Grade Beam Design for Brace Frame Based on ACI 318-08	23 12-9-11
6	6	MRF-GradeBeam.XLS	Grade Beam Design for Moment Resisting Frame Based on ACI 318-08	27 12-9-11
7	7	CombinedFooting.XLS	Combined Footing Design Based on ACI 318-08	31 12-9-11
			Seismic Design for Combined Footing, Based on ACI 318-08	35
8	8	GradeBeam.XLS	Two Pads with Steel Grade Beam Design Based on ACI 318-08 & AISC 360-05	36 12-9-11
			Two Pads with Concrete Grade Beam Design Based on ACI 318-08	38
9	9	ConcreteRetainingWall.XLS	Concrete Retaining Wall with Water Design Based on ACI 318-08	40 12/26/2011
			Concrete Retaining Wall without Water Design Based on ACI 318-08	43
10	10	RetainingWall-DSA-OSHDPD.XLS	Retaining Wall Design Based on CBC 10 Chapter A	46 12-9-11
11	11	MasonryRetainingWall.XLS	Masonry Retaining / Fence Wall Design Based on TMS 402-08 & ACI 318-08	49 12-9-11
12	12	Masonry-Concrete-RetainingWall.XLS	Retaining Wall Design, for Masonry Top & Concrete Bot, Based on TMS 402 & ACI 318	52 12-9-11
13	13	RestrainedRetainingWall.XLS	Restrained Retaining Masonry Wall Design Based on TMS 402 & ACI 318	55 12-9-11
			Restrained Retaining Concrete Wall Design Based on ACI 318	58
14	14	Flagpole.XLS	Flagpole Footing Design Based on Chapter 18 of IBC & CBC	61 12-9-11
15	15	DeepFooting.XLS	Deep Footing Design Based on ACI 318-08	62 12-9-11
16	16	IrregularFootingSoilPressure.XLS	Soil Pressure Determination for Irregular Footing	66 12-9-11
17	17	BoundarySpringGenerator.XLS	Mat Boundary Spring Generator	67 12-9-11
18	18	PlainConcreteFooting.XLS	Plain Concrete Footing Design Based on ACI 318-08	68 12-9-11
19	19	ConventionalSlabOnGrade.XLS	Design of Conventional Slabs on Expansive Soil Grade Based on ACI 360	69 12-9-11
			Design of Conventional Slabs on Compressible Soil Grade Based on ACI 360	71
20	20	PT-SlabOnGround.XLS	Design of PT Slabs on Expansive Soil Based on PTI 3rd Edition	73 12-9-11
			Design of PT Slabs on Compressible Soil Based on PTI 3rd Edition	76
21	21	ConcretePier.XLS	Concrete Pier (Isolated Deep Foundation) Design Based on ACI 318-08	78 12-9-11
22	22	ConcretePile.XLS	Drilled Cast-in-place Pile Design Based on ACI 318-08	80 12-9-11
23	23	PileCaps.XLS	Pile Cap Design for 3-Piles Pattern Based on ACI 318-08	82 12-9-11
			Pile Cap Design for 4-Piles Pattern Based on ACI 318-08	84
			Pile Cap Design for 2-Piles Pattern Based on ACI 318-08	86
24	24	PileCapBalancedLoads.XLS	Determination of Pile Cap Balanced Loads and Reactions	88 12-9-11
25	25	CompositeElementDurability.XLS	Composite Element Design Based on AISC 360-05 & ACI 318-08	88.1 12-9-11
26	26	FootingAtPiping.XLS	Design of Footing at Piping Based on ACI 318-08	89 12-9-11
27	27	CircularFooting.XLS	Circular Footing Design Based on ACI 318-08	91 12-9-11
28	28	TankFooting.XLS	Tank Footing Design Based on ACI 318-08	94 12-9-11
29	29	BasementConcreteWall.XLS	Basement Concrete Wall Design Based on ACI 318-08	97 12-9-11
30	30	BasementMasonryWall.XLS	Basement Masonry Wall Design Based on TMS 402-08	99 12-9-11
31	31	TemporaryFootingforRectangularTank.XLS	Temporary Tank Footing Design Based on ACI 318-08	101 12-9-11
32	32	UnderGroundWell.XLS	Under Ground Well Design Based on ACI 350-06 & ACI 318-08	102 12-9-11
33	33	BasementColumn.XLS	Basement Column Supporting Lateral Resisting Frame Based on ACI 318-08	106 12-9-11
34	34	FixedMomentCondition.XLS	Fixed Moment Condition Design Based on ACI 318-08	110 12-9-11
35	35	FloodWay.XLS	Concrete Floodway Design Based on ACI 350-06 & ACI 318-08	111 12-9-11
36	36	FreeStandingWall.XLS	Free Standing Masonry Wall Design Based on TMS 402-08 & ACI 318-08	113 12-9-11
			Free Standing Concrete Wall Design Based on TMS 402-08 & ACI 318-08	116
37	37	LateralEarthPressure.XLS	Lateral Earth Pressure of Rigid Wall Based on AASHTO 17th & 2009 IBC	116.1 12-9-11
38	38	Shoring.XLS	Sheet Pile Wall Design Based on IBC 09 / CBC 10 / ACI 318-08	116.2 12-9-11
Concrete Design Group				
39	1	SMRF-ACI.XLS	Seismic Beam Design for Special Moment Resisting Frame Based on ACI 318-08	119 12-9-11
			Seismic Column Design for Special Moment Resisting Frame Based on ACI 318-08	121
			Seismic Joint Design for Special Moment Resisting Frame Based on ACI 318-08	123
40	2	SpecialShearWall-IBC.XLS	Special Reinforced Concrete Shear Wall Design Based on ACI 318-08 / IBC 09	124 12-9-11
41	3	OrdinaryShearWall.XLS	Ordinary Concrete Shear Wall Design Based on ACI 318-08	126 12-9-11
42	4	SpecialShearWall-CBC.XLS	Special Concrete Shear Wall Design Based on ACI 318-05 / CBC 10 Chapter A	127 12-9-11
43	5	ExistingShearWall.XLS	Verify Existing Concrete Shear Wall Based on ASCE 41-06 / CBC 10 / IBC 09	129 12-9-11
44	6	TiltupPanel.XLS	Tilt-up Panel Design based on ACI 318-08	131 12/25/2011
45	7	WallPier.XLS	Wall Pier Design Based on IBC 09	132 12-9-11
46	8	Slab.XLS	Concrete Slab Perpendicular Flexure & Shear Capacity Based on ACI 318-08	133 12-9-11
47	9	VoidedSectionCapacity.XLS	Voided Section Design Based on ACI 318-08	133.1 12-9-11
48	10	DiaphragmShear.XLS	Concrete Diaphragm in-plane Shear Design Based on ACI 318-08	134 12-9-11
49	11	AnchorageToConcrete.XLS	Base Plate and Group Anchors Design Based on ACI 318-08 & AISC 360-05 - Case 1	135 12/16/2011
			Base Plate and Group Anchors Design Based on ACI 318-08 & AISC 360-05 - Case 2	139
			Base Plate and Group Anchors Design Based on ACI 318-08 & AISC 360-05 - Case 3	140
			Base Plate and Group Anchors Design Based on ACI 318-08 & AISC 360-05 - Case 4	142
			Base Plate and Group Anchors Design Based on ACI 318-08 & AISC 360-05 - Case 5	144
50	12	ConcreteBeam.XLS	Concrete Beam Design, for New or Existing, Based on ACI 318-08	145 2/20/2012

Table of Contents

			Page	Last Updated
51	13	BeamPenetration.XLS		
		Design for Concrete Beam with Penetration Based on ACI 318-08	147	12-9-11
52	14	DeepBeam.XLS		
		Deep Beam Design Based on ACI 318-08	148	12-9-11
53	15	Punching.XLS		
		Slab Punching Design Based on ACI 318-08 - Rectangular Column	149	12-9-11
		Slab Punching Design Based on ACI 318-08 - Circular Column	150	
54	16	CouplingBeam.XLS		
		Coupling Beam Design Based on ACI 318-08 - IBC	151	12-9-11
		Coupling Beam Design Based on ACI 318-08 - CBC	152	
55	17	ConcreteColumn.XLS		
		Concrete Column Design Based on ACI 318-08	153	12-9-11
		Magnified Moment Calculation	154	
		Bresler Method	155	
56	18	CircularColumn.XLS		
		Circular Column Design Based on ACI 318-08	156	12-9-11
		Magnified Moment Calculation	157	
57	19	SuperCompositeColumn.XLS		
		Super Composite Column Design Based on AISC 360-05 & ACI 318-08	157.1	12-9-11
58	20	ColumnSupportingDiscontinuous.XLS		
		Column Supporting Discontinuous System Based on ASCE 7-05 & ACI 318-08	158	12-9-11
59	21	Corbel.XLS		
		Corbel Design Based on IBC 09 / ACI 318-08 - IBC	160	12-9-11
		Corbel Design Based on IBC 09 / ACI 318-08 - CBC	161	
60	22	DevelopmentSpliceConcrete.XLS		
		Development of Reinforcement Based on ACI 318-08	162	12-9-11
		Splice of Reinforcement Based on ACI 318-08	163	
		Tables	164	
61	23	Friction.XLS		
		Shear Friction Reinforcing Design Based on ACI 318-08 - Case 1	167	12-9-11
		Shear Friction Reinforcing Design Based on ACI 318-08 - Case 2	168	
62	24	PT-ConcreteFloor.XLS		
		Design of Post-Tensioned Concrete Floor Based on ACI 318-08 - Five or more spans	169	12-9-11
		Design of Post-Tensioned Concrete Floor Based on ACI 318-08 - Four spans	171	
		Design of Post-Tensioned Concrete Floor Based on ACI 318-08 - Three spans	173	
		Design of Post-Tensioned Concrete Floor Based on ACI 318-08 - Two spans	175	
63	25	EquipmentMounting.XLS		
		Design for Equipment Anchorage Based on IBC 09 / CBC 10 Chapter A - Bottom	177	12-9-11
		- Bottom & Wall	178	
		- Wall	179	
64	26	SuspendedAnchorage.XLS		
		Suspended Anchorage to Concrete Based on IBC 09 / CBC 10	180	12-9-11
65	27	ConcretePool.XLS		
		Concrete Pool Design Based on ACI 318-08	181	12-9-11
66	28	TwoWaySlab.XLS		
		Two-Way Slab Design Based on ACI 318-08 using Finite Element Method - Middle	183	12-9-11
		- Edge Span	185	
67	29	VoidedBiaxialSlabs.XLS		
		Voided Two-Way Slab Design Based on ACI 318-08	187.1	12-9-11
68	30	PipeConcreteColumn.XLS		
		Pipe Concrete Column Design Based on ACI 318-08	187	12-9-11
69	31	AnchorageToPedestal.XLS		
		Anchorage to Pedestal Design Based on ACI 318-08 & AISC 360-05	188	12-9-11
70	32	PlateShellElement.XLS		
		Plate/Shell Element Design Based on ACI 318-08	191	12-9-11
71	33	TransferDiaphragm-Concrete.XLS		
		Concrete Diaphragm Design for a Discontinuity of Type 4 out-of-plane offset irregularity	191.1	12-9-11
72	34	Silo-Chimney-Tower.XLS		
		Concrete Silo / Chimney / Tower Design Based on ASCE 7-05, ACI 318-08 & ACI 313-97	191.2	12-9-11
Bridge Design Group				
73	1	Bridge-ConcreteGirder.XLS		
		Prestressed Girder Design for Bridge Based on AASHTO 17th & ACI 318-08	192	12-9-11
74	2	Bridge-BoxSection.XLS		
		Design for Prestressed Box Section Based on AASHTO 17th Edition & ACI 318-08	195	12-9-11
75	3	Bridge-ConcreteColumn.XLS		
		Bridge Column Design Based on AASHTO 17th & ACI 318-08	197	12-9-11
76	4	ConcreteTunnel.XLS		
		Concrete Tunnel Design Based on AASHTO-17th & ACI 318-08	200	12-3-11
77	5	DoubleTee.XLS		
		Prestressed Double Tee Design Based on AASHTO 17th Edition & ACI 318-08	200.1	12-9-11
78	6	BoxCulvert.XLS		
		Concrete Box Culvert Design Based on AASHTO 17th Edition & ACI 318-08	200.4	12-9-11
Masonry Design Group				
79	1	MasonryShearWall-IBC.XLS		
		Masonry Shear Wall Design Based on TMS 402-08 / 2009 IBC (both ASD and SD)	201	1/11/2012
80	2	MasonryShearWall-CBC.XLS		
		Masonry Shear Wall Design Based on 2010 CBC Chapter A (both ASD and SD)	203	1/11/2012
81	3	MasonryBearingWall-CBC.XLS		
		Allowable Design of Masonry Bearing Wall Based on CBC 10 Chapter A	205	12-9-11
		Strength Design of Masonry Bearing Wall Based on CBC 10 Chapter A	207	
82	4	MasonryBearingWall-IBC.XLS		
		Allowable Design of Masonry Bearing Wall Based on TMS 402-08 / IBC 09	209	12-9-11
		Strength Design of Masonry Bearing Wall Based on TMS 402-08 / IBC 09	211	
83	5	GirderAtWall.XLS		
		Design for Girder at Masonry Wall Based on TMS 402-08	213	12-9-11
84	6	MasonryBeam.XLS		
		Masonry Beam Design Based on TMS 402-08	215	12-9-11
		Masonry Beam Design Based on UBC	216	
85	7	MasonryColumn-CBC.XLS		
		Masonry Column Design Based on CBC 10 Chapter A - Uncracked	217	12-9-11
		Masonry Column Design Based on CBC 10 Chapter A - Cracked	218	
86	8	MasonryColumn-IBC.XLS		
		Masonry Column Design Based on TMS 402-08 / IBC 09 - Uncracked	220	12-9-11
		Masonry Column Design Based on TMS 402-08 / IBC 09 - Cracked	221	
87	9	BendingPostAtTopWall.XLS		
		Design for Bending Post at Top of Wall, Based on TMS 402-08	223	12-9-11
88	10	AnchorageToMasonry.XLS		
		Fastener Anchorage Design in Masonry Based on TMS 402-08 / IBC 09 - Case 1	224	12-9-11
		Fastener Anchorage Design in Masonry Based on TMS 402-08 / IBC 09 - Case 2	225	
		Fastener Anchorage Design in Masonry Based on TMS 402-08 / IBC 09 - Case 3	226	
		Fastener Anchorage Design in Masonry Based on TMS 402-08 / IBC 09 - Case 4	227	
89	11	HorizontalBendingWall.XLS		
		Masonry Wall Design at Horizontal Bending Based on TMS 402-08	228	12-9-11
90	12	DevelopmentSpliceMasonry.XLS		
		Development & Splice of Reinforcement in Masonry Based on CBC-ASD	229	12-9-11
		Development & Splice of Reinforcement in Masonry Based on CBC-SD	230	
		Development & Splice of Reinforcement in Masonry Based on TMS 402	231	
		Tables	232	
91	13	Elevator-DSA-OSHDPD.XLS		
		Elevator Masonry Wall Design Based on CBC Chapter A	233	12-9-11

Table of Contents

			Page	Last Updated	
92	14	BearingWallOpening.XLS	Design of Masonry Bearing Wall with Opening Based on TMS 402-08	234	12-9-11
93	15	FlushWallPilaster-CBC.XLS	Masonry Flush Wall Pilaster Design Based on CBC 10 Chapter A - Uncracked	235	12-9-11
			Masonry Flush Wall Pilaster Design Based on CBC 10 Chapter A - Cracked	236	
94	16	FlushWallPilaster-IBC.XLS	Masonry Flush Wall Pilaster Design Based on TMS 402-08 / IBC 09 - Uncracked	238	12-9-11
			Masonry Flush Wall Pilaster Design Based on TMS 402-08 / IBC 09 - Cracked	240	
95	17	BeamToWall.XLS	Beam to Wall Anchorage Design Based on TMS 402-08 / IBC 09	241	12-9-11
96	18	CollectorToWall.XLS	Collector to Wall Connection Design Based on TMS 402-08 / IBC 09	242	12-9-11
Wood Design Group					
97	1	WoodJoist.XLS	Wood Joist Design Based on NDS 05 / NDS 01, ICC PFC-4354 & PFC-5803	243	12-9-11
98	2	DoubleJoist.XLS	Double Joist Design for Equipment Based on NDS 05, ICC PFC-4354 & PFC-5803	245	12-9-11
99	3	WoodBeam.XLS	Wood Beam Design Base on NDS 2005	247	12/26/2011
			Chord	248	
100	4	GreenCompositeWall.XLS	Composite Strong Wall Design Based on ACI 318-08, AISI S100-2007 & ER-4943P	248.1	12-9-11
101	5	WoodColumn.XLS	Wood Post, Wall Stud, or King Stud Design Based on NDS 2005	249	12/26/2011
102	6	WoodShearWall.XLS	Shear Wall Design Based on IBC 09 / CBC 10 / NDS 05	250	12-9-11
103	7	WoodDiaphragm.XLS	Wood Diaphragm Design Based on NDS 2005	251	12-9-11
104	8	Subdiaphragm.XLS	Subdiaphragm Design Based on ASCE 7-05	252	12-9-11
			Subdiaphragm Design Based on UBC	253	
105	9	TopPlateConnection.XLS	Top Plate Connection Design Based on NDS 2005	254	12-9-11
106	10	WoodBoltConnection.XLS	Bolt Connection Design Based on NDS 2005 - Case 1	255	12-9-11
			Bolt Connection Design Based on NDS 2005 - Case 2	256	
107	11	ShearWallOpening.XLS	Wood Shear Wall with an Opening Based on IBC 09 / CBC 10 / NDS 05	257	1/5/2012
108	12	PerforatedShearWall.XLS	Perforated Shear Wall Design Based on IBC 09 / CBC 10 / NDS 05	259	12/27/2011
109	13	ToeNail.XLS	Toe-Nail Connection Design Based on NDS 2005	261	12-9-11
110	14	Diaphragm-Ledger-CMUWall.XLS	Connection Design for Wall & Diaphragm Based on IBC 09 / CBC 10 for DFL	263	12-9-11
			Connection Design for Wall & Diaphragm Based on IBC 09 / CBC 10 for SP	264	
111	15	DragForces.XLS	Drag / Collector Force Diagram Generator	266	12-9-11
112	16	CantileverBeam.XLS	Wood Beam Design Base on NDS 2005	267	12-9-11
113	17	LagScrewsConnection.XLS	Lag Screw Connection Design Based on NDS 2005	269	12-9-11
114	18	Truss-Wood.XLS	Wood Truss Design Based on NDS 2005	270	12-9-11
115	19	WoodTables.XLS	Tables for Wood Post Design Based on NDS 2005 - Column	272	12-9-11
			Tables for Wood Post Design Based on NDS 2005 - Beam	273	
116	20	EquipmentAnchorage.XLS	Equipment Anchorage to Wood Roof Based on NDS 05 / IBC 09 / CBC 10	274	12-9-11
117	21	TransferDiaphragm-Wood.XLS	Wood Diaphragm Design for a Discontinuity of Type 4 out-of-plane offset irregularity	274.1	12-9-11
Steel Design Group					
118	1	MetalStuds.XLS	Metal Member Design Based on AISI S100-2007 & ICBO ER-4943P - Joist	275	12-9-11
			Metal Member Design Based on AISI S100-2007 & ICBO ER-4943P - Beam	277	
			Metal Member Design Based on AISI S100-2007 & ICBO ER-4943P - Wall	279	
			Metal Member Design Based on AISI S100-2007 & ICBO ER-4943P - Column	281	
			Metal Member Design Based on AISI S100-2007 & ICBO ER-4943P - Brace	283	
			Metal Member Design Based on AISI S100-2007 & ICBO ER-4943P - Connection	284	
119	2	MetalShearWall.XLS	Metal Shear Wall Design Based on AISI S100-2007, ER-5762 & ER-4943P	285	12-9-11
120	3	MetalShearWallOpening.XLS	Metal Shear Wall with an Opening Based on AISI S100-2007, ER-5762 & ER-4943P	286	12-9-11
121	4	Metal-Z-Purlins.XLS	Metal Z-Purlins Design Based on AISI S100-2007	288	1/12/2012
122	5	OCBF-IBC.XLS	Ordinary Concentrically Braced Frames Based on IBC 09 & AISC 341-05 - HSS	290	12-9-11
			Ordinary Concentrically Braced Frames Based on IBC 09 & AISC 341-05 - WF	292	
123	6	OCBF-CBC.XLS	Ordinary Concentrically Braced Frames Based on CBC 10 & AISC 341-05 - HSS	293	12-9-11
			Ordinary Concentrically Braced Frames Based on CBC 10 & AISC 341-05 - WF	295	
124	7	SCBF-Perpendicular.XLS	Bracing Connection Design, with Perpendicular Gusset, Based on CBC/IBC & AISC	296	12-9-11
125	8	SCBF-Parallel.XLS	Seismic Design for Special Concentrically Braced Frames - Brace	302	12-9-11
			Seismic Design for Special Concentrically Braced Frames - Beam	304	
			Seismic Design for Special Concentrically Braced Frames - WF Column	306	
			Seismic Design for Special Concentrically Braced Frames - HSS Column	307	
126	9	BRBF.XLS	Buckling-Restrained Braced Frames Based on AISC 360-05 & AISC 341-05 - Brace	308	12-9-11
			Buckling-Restrained Braced Frames Based on AISC 360-05 & AISC 341-05 - Beam	309	
			Buckling-Restrained Braced Frames Based on AISC 360-05 & AISC 341-05 - Column	311	
127	10	SPSW.XLS	Seismic Design for Special Plate Shear Wall Based on AISC 341-05 & AISC 360-05	313	12-9-11
128	11	EBF-IBC.XLS	Seismic Design for Eccentrically Braced Frames Based on IBC & AISC 341 - Link	315	12-9-11
			Seismic Design for Eccentrically Braced Frames Based on IBC & AISC 341 - Brace	316	
			Seismic Design for Eccentrically Braced Frames Based on IBC & AISC 341 - Beam	317	
			Seismic Design for Eccentrically Braced Frames Based on IBC & AISC 341 - Column	319	
129	12	EBF-CBC.XLS	Seismic Design for Eccentrically Braced Frames Based on CBC & AISC 341 - Link	320	12-9-11
			Seismic Design for Eccentrically Braced Frames Based on CBC & AISC 341 - Brace	322	
			Seismic Design for Eccentrically Braced Frames Based on CBC & AISC 341 - Beam	323	
			Seismic Design for Eccentrically Braced Frames Based on CBC & AISC 341 - Column	325	
130	13	OMRF-IBC.XLS	Intermediate/Ordinary Moment Resisting Frames Based on IBC 09	326	12-9-11
131	14	OMRF-CBC.XLS	Intermediate/Ordinary Moment Resisting Frames Based on CBC 10	328	12-9-11
132	15	SMRF-IBC.XLS	Special Moment Resisting Frames Based on IBC 09, AISC 341-05 & 358-05	330	12-9-11
133	16	SMRF-CBC.XLS	Seismic Design for Special Moment Resisting Frames Based on CBC 10	332	12-9-11

Table of Contents

			Page	Last Updated	
134	17	RectangularSection.XLS	Rectangular Section Member Design Based on AISC 360-05	335	12-9-11
135	18	TripleW-Shapes.XLS	Simply Supported Member of Triple W-Shapes Design Based on AISC 360-05	336	12-9-11
136	19	BeamGravity.XLS	Steel Gravity Beam Design Based on AISC Manual 13th Edition (AISC 360-05)	338	12-9-11
			Steel Gravity Beam Design Based on AISC Manual 9th Edition	340	
137	20	BeamWithTorsion.XLS	WF Simply Supported Beam Design with Torsional Loading Based on AISC 360-05	342	12-9-11
			WF Simply Supported Beam Design with Torsional Loading Based on AISC 9th	344	
138	21	HSS-Torsion.XLS	HSS (Tube, Pipe) Member Design with Torsional Loading Based on AISC 360-05	346	12/11/2011
139	22	PlateGirder.XLS	Plate Girder Design Based on AISC Manual 13th Edition (AISC 360-05)	347	12-9-11
			Plate Girder Design Based on AISC Manual 9th Edition	352	
140	23	WebTaperedGirder.XLS	Web Tapered Girder Design Based on AISC-ASD 9th, Appendix F - Case 1	356	12-9-11
			Web Tapered Girder Design Based on AISC-ASD 9th, Appendix F - Case 2	358	
141	24	CompositeFloorBeam.XLS	Composite Beam Design Based on AISC Manual 9th - Verco	360	12-9-11
			Composite Beam Design Based on AISC Manual 9th - ASD	362	
142	25	CompositeFloorBeamWithCantilever.XLS	Composite Beam Design Based on AISC 360-05 / IBC 09 / CBC 10	364	12-9-11
143	26	CompositeFloorGirder.XLS	Composite Girder Design Based on AISC 360-05 / IBC 09 / CBC 10	367	12-9-11
144	27	BasePlate.XLS	Base Plate Design Based on AISC Manual 13th Edition (AISC 360-05) - WF	369	12-9-11
			Base Plate Design Based on AISC Manual 13th Edition (AISC 360-05) - Tube	370	
			Base Plate Design Based on AISC Manual 13th Edition (AISC 360-05) - Pipe	371	
145	28	BeamConnection.XLS	Beam Connection Design Based on AISC Manual 13th - Conventional	372	12-9-11
			Beam Connection Design Based on AISC Manual 13th - Extended	373	
146	29	DragConnection.XLS	Drag Connection Based on AISC 360-05 & AISC 341-05	374	12-9-11
147	30	BraceConnection.XLS	Typical Bracing Connection Capacity Based on AISC 360-05 - at Corner	375	12-9-11
			Typical Bracing Connection Capacity Based on AISC 360-05 - at Middle of Beam	377	
148	31	GussetGeometry.XLS	Gusset Plate Dimensions Generator - at Corner	379	12-9-11
			Gusset Plate Dimensions Generator - at Middle of Beam	380	
149	32	WF-Opening.XLS	Check Capacity of WF Beam at Opening Based on AISC 360-05	381	12-9-11
150	33	BoltsConnection.XLS	Bolts Connection Design Based on AISC Manual 13th Edition - Case 1	382	12-9-11
			Bolts Connection Design Based on AISC Manual 13th Edition - Case 2	383	
151	34	WeldConnection.XLS	Weld Connection Design Based on AISC 360-05 - Case 1	384	12-9-11
			Weld Connection Design Based on AISC 360-05 - Case 2	385	
152	35	RoofDeck.XLS	Design of 1 1/2" Type "B" Roof Deck Based on ICBO ER-2078P	386	12-9-11
153	36	FloorDeck.XLS	Depressed Floor Deck Capacity (Non-Composite)	387	12-9-11
154	37	BSEP-SMF.XLS	Bolted Stiffened End Plate for SMF Based on AISC 341-05, 358-05, 360-05 - 8-Bolted	388	12-9-11
			4-Bolted Stiffened End Plate for SMF	390	
			4-Bolted Unstiffened End Plate for SMF	392	
155	38	SteelStair.XLS	Steel Stair Design Based on AISC 360-05	394	12-9-11
			Steel Stair Design Based on AISC Manual 9th Edition	396	
156	39	WebTaperedFrame.XLS	Web Tapered Frame Design Based on AISC-ASD 9th, Appendix F	398	12-9-11
157	40	CantileverFrame.XLS	Web-Tapered Cantilever Frame Design Based on AISC-ASD 9th, Appendix F	401	12-9-11
158	41	SteelColumn.XLS	Steel Column Design Based on AISC Manual 13th Edition (AISC 360-05) - HSS	404	12-9-11
			Steel Column Design Based on AISC Manual 13th Edition (AISC 360-05) - WF	405	
159	42	ExteriorMetalStudWall.XLS	Exterior Metal Stud Wall Design Based on AISI S100-2007 & ER-4943P - Curtain	406	12-9-11
			Exterior Metal Stud Wall Design Based on AISI S100-2007 & ER-4943P - Opening	407	
160	43	CantileverColumn.XLS	Cantilever Column & Footing Design Based on AISC 360, ACI 318, and IBC 1807.3	411	12-9-11
161	44	DragForcesforBraceFrame.XLS	Drag / Collector Forces for Brace Frame	412	12-9-11
162	45	Truss-Metal.XLS	Light Gage Truss Design Based on AISI S100-2007 & ER-4943P	413	12-9-11
163	46	EnhancedSteelBeam.XLS	Enhanced Steel Beam Design Based on AISC 13th (AISC 360-05)	415	12-9-11
164	47	EnhancedCompositeBeam.XLS	Enhanced Composite Beam Design Based on AISC 360-05 / IBC 09 / CBC 10	418	12-9-11
165	48	CompositeCollectorBeam.XLS	Composite Collector Beam with Seismic Loads Based on CBC 10 / IBC 09	421	12-9-11
166	49	HSS-WF-Capacity.XLS	Tube, Pipe, or WF Member Capacity Based on AISC 360-05	424	12-9-11
167	50	ChannelCapacity.XLS	Channel Steel Member Capacity Based on AISC 360-05	425	12-9-11
168	51	AngleCapacity.XLS	Angle Steel Member Capacity Based on AISC 360-05	426	12/24/2011
169	52	ColumnAboveBeam.XLS	Connection Design for Column above Beam, Based on AISC Manual & AISC 360-05	427	12-9-11
170	53	MomentAcrossGirder.XLS	Design for Fully Restrained Moment Connection across Girder Based on AISC 360-05	428	12-9-11
171	54	BeamSplice.XLS	Beam Bolted Splice Design Based on AISC Manual 13th Edition (AISC 360-05)	430	12-9-11
172	55	FilledCompositeColumn.XLS	Filled Composite Column Design Based on AISC 360-05 & ACI 318-08	430.1	12-9-11
173	56	CellularBeam.XLS	Cellular Beam Design Based on AISC 360-05	430.2	12-9-11
174	57	DoubleAngleCapacity.XLS	Double Angle Capacity Based on AISC 360-05	430.3	12-9-11
175	58	T-ShapeCapacity.XLS	T-Shape Member Capacity Based on AISC 360-05	430.4	12-9-11
Lateral Analysis Group					
176	1	Wind-ASCE7-10.XLS	Wind Analysis Based on ASCE 7-2010 ($\leq 60^\circ-0''$)	431	1/5/2012
			Wind Analysis Based on ASCE 7-2010 ($> 60^\circ-0''$)	433	
177	2	Wind-IR16-7.XLS	Wind Analysis for Enclosed Building, Based on DSA IR 16-7 (SEAOC)	436	12-9-11
178	3	Seismic-IBC09.XLS	Seismic Analysis Based on IBC 09 / CBC 10	438	12-9-11
			CBC 2010 Chapter A	440	
			Redundancy Factor	441	
			Spectrum	442	
179	4	Seismic-SingleFamilyDwellings.XLS	Seismic Analysis for Family Dwellings Based on IBC 09 / CBC 10 - 3 Story	443	12/27/2011
			Seismic Analysis for Family Dwellings Based on IBC 09 / CBC 10 - 2 Story	444	
			Seismic Analysis for Family Dwellings Based on IBC 09 / CBC 10 - 1 Story	445	

Table of Contents

			Page	Last Updated	
180	5	WallLateralForce-IBC.XLS	Lateral Force for One-Story Wall Based on IBC 09	446	12-9-11
			Lateral Force for One-Story Wall Based on IBC 03	447	
			Lateral Force for One-Story Wall Based on IBC 00	448	
181	6	WallLateralForce-CBC.XLS	Lateral Force for One-Story Wall Based on CBC Chapter A	449	12-9-11
			Lateral Force for One-Story Wall Based on UBC	450	
182	7	Handrail.XLS	Handrail Design Based on AISC 360-05 & ACI 318-05 - Case 1	451	12-9-11
			Handrail Design Based on AISC 360-05 & ACI 318-05 - Case 1	452	
183	8	Sign.XLS	Sign Design Based on AISC 360-05, ACI 318-08, and IBC 1807.3 - Case 1	453	12-9-11
			Sign Design Based on AISC 360-05, ACI 318-08, and IBC 1807.3 - Case 2	454	
184	9	SignWind.XLS	Wind Analysis for Freestanding Wall & Sign Based on ASCE 7-05	455	12-9-11
185	10	Snow.XLS	Snow Load Analysis Based on ASCE 7-2010	456	12-9-11
			Snow Load Analysis Based on IBC 09 / CBC 10	457	
			Snow Load Analysis Based on UBC	459	
186	11	LiveLoad.XLS	Live Load Reduction Based on ASCE 7-2010	460	12-9-11
			Live Load Reduction Based on IBC 09 / CBC 10	461	
			Live Load Reduction Based on CBC 01	462	
187	12	FlexibleDiaphragmOpening.XLS	Flexible Diaphragm with an Opening Analysis	463	12-9-11
188	13	LateralFrameFormulas.XLS	Lateral Frame Formulas - Case 1	465	12-9-11
			Lateral Frame Formulas - Case 2	466	
			Lateral Frame Formulas - Case 3	467	
			Lateral Frame Formulas - Case 4	468	
189	14	RigidDiaphragm.XLS	Rotation Analysis of Rigid Diaphragm Based on IBC 09 / CBC 10	469	12-9-11
190	15	FlexibleDiaphragm.XLS	Flexible Diaphragm Analysis	474	12-9-11
191	16	OpenStructureWind.XLS	Wind Analysis for Open Structure (Solar Panels) Based on ASCE 7-05	479	12-9-11
			Wind Analysis for Open Structure (Solar Panels) Based on UBC	481	
192	17	ShadeStructureWind.XLS	Wind Analysis for Shade Open Structure Based on ASCE 7-05 / IBC 09	482	12-9-11
			Wind Analysis for Shade Open Structure Based on UBC	484	
193	18	RoofScreenWind.XLS	Wind Load on Roof Screen Based on IBC 09 / ASCE 7-05	485	12-9-11
			Wind Load on Roof Screen Based on UBC	486	
194	19	AxialRoofDeck.XLS	Axial Capacity of 1 1/2" Type "B" Roof Deck Based on ICBO ER-2078P	487	12-9-11
195	20	Seismic-2012IBC.XLS	Seismic Analysis Based on ASCE 7-2010	488	12/23/2011
			CBC Chapter A	490	
			Redundancy Factor	491	
			Spectrum	492	
196	21	Wind-ASCE7-05.XLS	Wind Analysis Based on ASCE 7-05, Including Roof Solar Panel Loads (≤ 60'-0")	493	12-9-11
			Wind Analysis Based on ASCE 7-05, Including Roof Solar Panel Loads (> 60'-0")	495	
197	22	ShearWall-NewOpening.XLS	Relative Rigidity Determination for Shear Wall with New Opening	498	12-9-11
198	23	ShearWallRigidity.XLS	Rigidity for Shear Wall & Shear Wall with Opening Using Finite Element Method	499	12-9-11
199	24	ShearWallForces.XLS	Shear Wall Analysis for Shear Wall with Opening Using Finite Element Method	501	12-9-11
200	25	DiscontinuousShearWall.XLS	Discontinuous Shear Wall Analysis Using Finite Element Method	503	12-9-11
201	26	TwoStoryMomentFrame.XLS	Two Story Moment Frame Analysis using Finite Element Method	504	12-9-11
202	27	X-BracedFrame.XLS	X-Braced Frame Analysis using Finite Element Method	505	12-9-11
203	28	WindGirtDeflection.XLS	Wind Girt Deflection Analysis of Wood, Metal Stud, and/or Steel Tube	506	12-9-11
204	29	DeformationCompatibility.XLS	Column Deformation Compatibility Design using Finite Element Method	507	12-9-11
205	30	InteriorWallLateralForce.XLS	Interior Wall Lateral Forces Based on IBC 09 / CBC 10 - Full Height	508	12-9-11
			Interior Wall Lateral Forces Based on IBC 09 / CBC 10 - Cantilever	509	
			Interior Wall Lateral Forces Based on IBC 09 / CBC 10 - Half Height	510	
206	31	StorageRacks.XLS	Lateral Loads of Storage Racks Based on ASCE 7-05	510.1	12-9-11
207	32	Wind-Alternate.XLS	Wind Analysis for Alternate All-Heights Method, Based on ASCE 7-05 / IBC 09 / CBC 10	510.3	12-9-11
208	33	CeilingSeismic.XLS	Suspended Ceiling Seismic Loads Based on ASCE 7-10	510.5	12-9-11
Aluminum Design Group					
209	1	Aluminum-I-WF-Capacity.XLS	Aluminum I or WF Member Capacity Based on Aluminum Design Manual 2005 (AA ADM-IA)	511	12-9-11
210	2	Aluminum-RT-Capacity.XLS	Aluminum RT Member Capacity Based on Aluminum Design Manual 2005 (AA ADM-IA)	515	12-9-11
211	3	Aluminum-C-CS-Capacity.XLS	Aluminum C or CS Member Capacity Based on Aluminum Design Manual 2005 (AA ADM-IA)	518	12/12/2011
212	4	Aluminum-PIPE-Capacity.XLS	Aluminum PIPE Member Capacity Based on Aluminum Design Manual 2005 (AA ADM-IA)	522	12-9-11
Unit Conversions					
213		UnitConversion.XLS	Unit Conversions between U.S. Customary System & Metric System	524	12/30/2011
		Index		525	