Archetype Model Supplement

Archetype: **F4-REF**

Story 4 — beam properties (top): 3686, 5293, 0.039, 0.048, 0.10 (each bay)

Story 4	Col 1	Col 2	Col 3	Col 4
My,exp (k-in) =	4838	4955	4955	4838
Mc/My =	1.194	1.193	1.193	1.194
Θcap,pl (rad) =	0.082	0.082	0.082	0.082
Θpc (rad) =	0.100	0.100	0.100	0.100

Beam properties (Story 4 / Story 3 interface): 3686, 5293, 0.039, 0.048, 0.10 (each bay)

Story 3	Col 1	Col 2	Col 3	Col 4
My,exp (k-in) =	5109	6441	6441	5109
Mc/My =	1.193	1.192	1.192	1.193
Θcap,pl (rad) =	0.081	0.082	0.082	0.081
Θpc (rad) =	0.100	0.100	0.100	0.100

Beam properties (Story 3 / Story 2 interface): 6844, 7902, 0.046, 0.050, 0.10 (each bay)

Story 2	Col 1	Col 2	Col 3	Col 4
My,exp (k-in) =	8314	12970	12970	8314
Mc/My =	1.192	1.191	1.191	1.192
Θcap,pl (rad) =	0.072	0.075	0.075	0.072
Θpc (rad) =	0.100	0.100	0.100	0.100

Beam properties (Story 2 / Story 1 interface):
$M_{y,pos,exp}$ (k-in) = 5776, $M_{y,n,slab,exp}$ (k-in) = 7891, $(\Theta_{cap,pl})_{pos}$ (rad) = 0.040, $(\Theta_{cap,pl})_{neg}$ (rad) = 0.047, Θ_{pc} (rad) = 0.10 (each bay)

Story 1	Col 1	Col 2	Col 3	Col 4
My,exp (k-in) =	11432	13482	13482	11432
Mc/My =	1.191	1.190	1.190	1.191
Θcap,pl (rad) =	0.074	0.074	0.074	0.074
Θpc (rad) =	0.100	0.100	0.100	0.100

Archetype: **F4-S125**

Beam labels (top, Story 4 level), repeated for each bay:
3686 / 5265 / 0.040 / 0.048 / 0.10

Story 4

	Col 1	Col 2	Col 3	Col 4
My,exp (k-in) =	9090	9229	9229	9090
Mc/My =	1.194	1.194	1.194	1.194
Θcap,pl (rad) =	0.086	0.086	0.086	0.086
Θpc (rad) =	0.100	0.100	0.100	0.100

Beam labels (Story 3 level), repeated for each bay:
3715 / 6069 / 0.039 / 0.050 / 0.10

Story 3

	Col 1	Col 2	Col 3	Col 4
My,exp (k-in) =	9466	9795	9795	9466
Mc/My =	1.193	1.193	1.193	1.193
Θcap,pl (rad) =	0.085	0.085	0.085	0.085
Θpc (rad) =	0.100	0.100	0.100	0.100

Beam labels (Story 2 level), repeated for each bay:
7948 / 10014 / 0.051 / 0.057 / 0.10

Story 2

	Col 1	Col 2	Col 3	Col 4
My,exp (k-in) =	9827	13105	13105	9827
Mc/My =	1.193	1.192	1.192	1.193
Θcap,pl (rad) =	0.083	0.084	0.084	0.083
Θpc (rad) =	0.100	0.100	0.100	0.100

Beam labels (Story 1 level), repeated for each bay:
$M_{y,pos,exp}$ (k-in) = 6839
$M_{y,n,slab,exp}$ (k-in) = 8954
$(\Theta_{cap,pl})_{pos}$ (rad) = 0.045
$(\Theta_{cap,pl})_{neg}$ (rad) = 0.052
Θ_{pc} (rad) = 0.10

Story 1

	Col 1	Col 2	Col 3	Col 4
My,exp (k-in) =	14308	13637	13637	14308
Mc/My =	1.192	1.191	1.191	1.192
Θcap,pl (rad) =	0.086	0.083	0.083	0.086
Θpc (rad) =	0.100	0.100	0.100	0.100

Archetype: **F4-S150**

Design Drift

Story 4 — Beam header: 24, 24, 0.007, 0.005, 0.003, 5.0

	Col 1	Col 2	Col 3	Col 4
h (in) =	30	30	30	30
b (in) =	30	30	30	30
ρ_{tot} =	0.010	0.010	0.010	0.010
ρ_{sh} =	0.010	0.010	0.010	0.010
s (in) =	2.0	2.0	2.0	2.0

δ_4 = **1.0%**

Beam header: 24, 24, 0.010, 0.006, 0.004, 4.5

Story 3

	Col 1	Col 2	Col 3	Col 4
h (in) =	30	30	30	30
b (in) =	30	30	30	30
ρ_{tot} =	0.010	0.010	0.010	0.010
ρ_{sh} =	0.010	0.010	0.010	0.010
s (in) =	2.0	2.0	2.0	2.0

δ_3 = **1.3%**

Beam header: 30, 24, 0.009, 0.007, 0.005, 3.5

Story 2

	Col 1	Col 2	Col 3	Col 4
h (in) =	30	30	30	30
b (in) =	30	30	30	30
ρ_{tot} =	0.010	0.017	0.017	0.010
ρ_{sh} =	0.010	0.010	0.010	0.010
s (in) =	2.5	2.5	2.5	2.5

δ_2 = **1.3%**

Beam header: h (in) = 30, b (in) = 24, ρ_{top} = 0.008, ρ_{Bottom} = 0.006, ρ_{sh} = 0.004, s (in) = 4.0

Story 1

	Col 1	Col 2	Col 3	Col 4
h (in) =	30	30	30	30
b (in) =	30	30	30	30
ρ_{tot} =	0.019	0.017	0.017	0.019
ρ_{sh} =	0.010	0.010	0.010	0.010
s (in) =	2.5	2.5	2.5	2.5

δ_1 = **0.8%**

Archetype: **F4-D150**

Beam properties (top of frame, above Story 4), each bay: 24, 24, 0.007, 0.005, 0.003, 5.0

Story 4 — Design Drift $\delta_4 = 1.0\%$

	Column 1	Column 2	Column 3	Column 4
h (in) =	30	30	30	30
b (in) =	24	24	24	24
ρ_{tot} =	0.011	0.011	0.011	0.011
ρ_{sh} =	0.010	0.010	0.010	0.010
s (in) =	2.5	2.5	2.5	2.5

Beam properties (between Story 4 and Story 3), each bay: 24, 24, 0.007, 0.005, 0.003, 5.0

Story 3 — Design Drift $\delta_3 = 1.3\%$

	Column 1	Column 2	Column 3	Column 4
h (in) =	30	30	30	30
b (in) =	24	24	24	24
ρ_{tot} =	0.011	0.011	0.011	0.011
ρ_{sh} =	0.010	0.010	0.010	0.010
s (in) =	2.5	2.5	2.5	2.5

Beam properties (between Story 3 and Story 2), each bay: 30, 24, 0.007, 0.005, 0.004, 4.5

Story 2 — Design Drift $\delta_2 = 1.3\%$

	Column 1	Column 2	Column 3	Column 4
h (in) =	30	30	30	30
b (in) =	24	24	24	24
ρ_{tot} =	0.011	0.017	0.017	0.011
ρ_{sh} =	0.009	0.009	0.009	0.009
s (in) =	3.5	3.5	3.5	3.5

Beam properties (between Story 2 and Story 1), each bay: h (in) = 30, b (in) = 24, ρ_{top} = 0.007, ρ_{Bottom} = 0.005, ρ_{sh} = 0.003, s (in) = 5.0

Story 1 — Design Drift $\delta_1 = 0.9\%$

	Column 1	Column 2	Column 3	Column 4
h (in) =	30	30	30	30
b (in) =	24	24	24	24
ρ_{tot} =	0.015	0.017	0.017	0.015
ρ_{sh} =	0.009	0.009	0.009	0.009
s (in) =	3.5	3.5	3.5	3.5

Archetype: **F4-D100**

Beam properties (top of each story): h = 36, b = 24, ρ_top = 0.006, ρ_Bottom = 0.004, ρ_sh = 0.003, s = 5.0

Story 4

	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	36	36	36	36	
b (in) =	24	24	24	24	
ρ_{tot} =	0.011	0.011	0.011	0.011	δ_4 = **0.5%**
ρ_{sh} =	0.010	0.010	0.010	0.010	
s (in) =	2.5	2.5	2.5	2.5	

Story 3

	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	36	36	36	36	
b (in) =	24	24	24	24	
ρ_{tot} =	0.011	0.011	0.011	0.011	δ_3 = **0.8%**
ρ_{sh} =	0.010	0.010	0.010	0.010	
s (in) =	2.5	2.5	2.5	2.5	

Story 2

	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	36	36	36	36	
b (in) =	24	24	24	24	
ρ_{tot} =	0.011	0.011	0.011	0.011	δ_2 = **1.0%**
ρ_{sh} =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Story 1

	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	36	36	36	36	
b (in) =	24	24	24	24	
ρ_{tot} =	0.013	0.011	0.011	0.013	δ_1 = **0.7%**
ρ_{sh} =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Beam labels (between columns, Story 1 level): h (in) = 36, b (in) = 24, ρ_{top} = 0.006, ρ_{Bottom} = 0.004, ρ_{sh} = 0.003, s (in) = 5.0

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Archetype: **F4-S150-D100**

Design Drift

Story 4 (beam header: 36, 24, 0.006, 0.004, 0.003, 5.0)

	Col 1	Col 2	Col 3	Col 4
h (in) =	36	36	36	36
b (in) =	24	24	24	24
ρ_{tot} =	0.011	0.011	0.011	0.011
ρ_{sh} =	0.010	0.010	0.010	0.010
s (in) =	2.5	2.5	2.5	2.5

δ_4 = **0.5%**

Story 3 (beam header: 36, 24, 0.006, 0.004, 0.003, 5.0)

	Col 1	Col 2	Col 3	Col 4
h (in) =	36	36	36	36
b (in) =	24	24	24	24
ρ_{tot} =	0.011	0.011	0.011	0.011
ρ_{sh} =	0.010	0.010	0.010	0.010
s (in) =	2.5	2.5	2.5	2.5

δ_3 = **0.8%**

Story 2 (beam header: 36, 24, 0.007, 0.005, 0.004, 4.0)

	Col 1	Col 2	Col 3	Col 4
h (in) =	36	36	36	36
b (in) =	24	24	24	24
ρ_{tot} =	0.011	0.015	0.015	0.011
ρ_{sh} =	0.009	0.009	0.009	0.009
s (in) =	3.5	3.5	3.5	3.5

δ_2 = **1.0%**

Story 1 (beam header: h (in) = 36, b (in) = 24, ρ_{top} = 0.007, ρ_{Bottom} = 0.005, ρ_{sh} = 0.004, s (in) = 4.0)

	Col 1	Col 2	Col 3	Col 4
h (in) =	36	36	36	36
b (in) =	24	24	24	24
ρ_{tot} =	0.018	0.018	0.018	0.018
ρ_{sh} =	0.009	0.009	0.009	0.009
s (in) =	3.5	3.5	3.5	3.5

δ_1 = **0.7%**

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Archetype: F8-REF

Beam properties (listed as h (in), b (in), ρ_{top}, ρ_{Bottom}, ρ_{sh}, s (in)) above each story, for each of the three bays:

Location	h (in)	b (in)	ρ_{top}	ρ_{Bottom}	ρ_{sh}	s (in)
Above Story 8	30	24	0.007	0.004	0.003	6.0
Story 8 / 7	30	24	0.007	0.004	0.003	5.5
Story 7 / 6	30	24	0.007	0.004	0.003	5.5
Story 6 / 5	30	24	0.007	0.005	0.003	5.0
Story 5 / 4	36	24	0.006	0.004	0.003	5.0
Story 4 / 3	36	24	0.006	0.004	0.004	4.5
Story 3 / 2	36	24	0.006	0.004	0.004	4.5
Story 2 / 1	36	24	0.006	0.004	0.004	4.5

Column properties per story (four column lines), with Design Drift:

Story	Property	Col 1	Col 2	Col 3	Col 4	Design Drift
Story 8	h (in) =	30	30	30	30	δ_8 = 0.6%
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.011	0.011	0.011	
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 7	h (in) =	30	30	30	30	δ_7 = 0.9%
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.011	0.011	0.011	
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 6	h (in) =	30	30	30	30	δ_6 = 1.2%
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.011	0.011	0.011	
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 5	h (in) =	30	30	30	30	δ_5 = 1.3%
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 4	h (in) =	30	30	30	30	δ_4 = 1.2%
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 3	h (in) =	30	30	30	30	δ_3 = 1.2%
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 2	h (in) =	30	30	30	30	δ_2 = 1.2%
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 1	h (in) =	30	30	30	30	δ_1 = 0.8%
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.015	0.015	0.015	0.015	
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	

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Archetype: **F8-S125**

Beam (top, above Story 8): 30 / 24 / 0.007 / 0.004 / 0.003 / 6.0

Story 8	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	30	30	30	30	
b (in) =	24	24	24	24	
ρ$_{tot}$ =	0.011	0.011	0.011	0.011	δ$_8$ = 0.6%
ρ$_{sh}$ =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Beam: 30 / 24 / 0.007 / 0.004 / 0.003 / 5.5

Story 7	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	30	30	30	30	
b (in) =	24	24	24	24	
ρ$_{tot}$ =	0.011	0.011	0.011	0.011	δ$_7$ = 0.9%
ρ$_{sh}$ =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Beam: 30 / 24 / 0.007 / 0.005 / 0.003 / 5.0

Story 6	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	30	30	30	30	
b (in) =	24	24	24	24	
ρ$_{tot}$ =	0.011	0.013	0.013	0.011	δ$_6$ = 1.3%
ρ$_{sh}$ =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Beam: 30 / 24 / 0.007 / 0.005 / 0.004 / 4.5

Story 5	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	30	30	30	30	
b (in) =	24	24	24	24	
ρ$_{tot}$ =	0.011	0.013	0.013	0.011	δ$_5$ = 1.4%
ρ$_{sh}$ =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Beam: 36 / 24 / 0.007 / 0.005 / 0.004 / 4.0

Story 4	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	36	36	36	36	
b (in) =	24	24	24	24	
ρ$_{tot}$ =	0.011	0.015	0.015	0.011	δ$_4$ = 1.1%
ρ$_{sh}$ =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Beam: 36 / 24 / 0.007 / 0.005 / 0.004 / 4.0

Story 3	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	36	36	36	36	
b (in) =	24	24	24	24	
ρ$_{tot}$ =	0.011	0.015	0.015	0.011	δ$_3$ = 1.1%
ρ$_{sh}$ =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Beam: 36 / 24 / 0.007 / 0.005 / 0.004 / 4.0

Story 2	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	36	36	36	36	
b (in) =	24	24	24	24	
ρ$_{tot}$ =	0.011	0.015	0.015	0.011	δ$_2$ = 1.1%
ρ$_{sh}$ =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Beam (Story 1 level): h (in) = 36, b (in) = 24, ρ$_{Top}$ = 0.006, ρ$_{Bottom}$ = 0.005, ρ$_{sh}$ = 0.004, s (in) = 4.5

Story 1	Col 1	Col 2	Col 3	Col 4	Design Drift
h (in) =	36	36	36	36	
b (in) =	24	24	24	24	
ρ$_{tot}$ =	0.016	0.015	0.015	0.016	δ$_1$ = 0.7%
ρ$_{sh}$ =	0.009	0.009	0.009	0.009	
s (in) =	3.5	3.5	3.5	3.5	

Archetype: **F8-S150**

Beam properties (labels): h (in) $= 36$, b (in) $= 24$, $\rho_{top} = 0.007$, $\rho_{Bottom} = 0.005$, $\rho_{sh} = 0.004$, s (in) $= 4.0$

Beams (at each level, identical across the three bays):

Level	h (in)	b (in)	ρ_{top}	ρ_{Bottom}	ρ_{sh}	s (in)
Roof (above Story 8)	30	24	0.007	0.004	0.003	6.0
Story 8 / 7	30	24	0.007	0.004	0.003	5.5
Story 7 / 6	30	24	0.007	0.005	0.004	4.5
Story 6 / 5	30	24	0.008	0.006	0.004	4.0
Story 5 / 4	36	24	0.008	0.006	0.005	3.5
Story 4 / 3	36	24	0.008	0.006	0.005	3.5
Story 3 / 2	36	24	0.008	0.006	0.005	3.5
Story 2 / 1	36	24	0.007	0.005	0.004	4.0

Columns (four column lines per story): $\rho_{sh} = 0.009$ and s (in) $= 3.5$ for all columns.

Story	h (in)	b (in)	ρ_{tot} Col 1	ρ_{tot} Col 2	ρ_{tot} Col 3	ρ_{tot} Col 4	Design Drift
Story 8	30	24	0.011	0.013	0.013	0.011	$\delta_8 = 0.6\%$
Story 7	30	24	0.011	0.013	0.013	0.011	$\delta_7 = 0.9\%$
Story 6	30	24	0.011	0.013	0.013	0.011	$\delta_6 = 1.3\%$
Story 5	36	24	0.011	0.015	0.015	0.011	$\delta_5 = 1.2\%$
Story 4	36	24	0.011	0.015	0.015	0.011	$\delta_4 = 1.1\%$
Story 3	36	24	0.011	0.015	0.015	0.011	$\delta_3 = 1.2\%$
Story 2	36	24	0.011	0.015	0.015	0.011	$\delta_2 = 1.1\%$
Story 1	36	24	0.020	0.015	0.015	0.020	$\delta_1 = 0.7\%$

Archetype: **F8-D150**

Beam data (top, above Story 8), three bays: h=30, b=24, ρtop=0.007, ρbottom=0.004, ρsh=0.003, s=6.0

Story 8 — Columns (h (in), b (in), ρtot, ρsh, s (in)):
- Col 1: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 2: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 3: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 4: 30 / 24 / 0.011 / 0.009 / 3.5
- Design Drift: $\delta_8 = 0.6\%$

Beam data (between Story 8 and 7): 30, 24, 0.007, 0.004, 0.003, 5.5

Story 7:
- Col 1: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 2: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 3: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 4: 30 / 24 / 0.011 / 0.009 / 3.5
- Design Drift: $\delta_7 = 0.9\%$

Beam data (between Story 7 and 6): 30, 24, 0.007, 0.004, 0.003, 5.5

Story 6:
- Col 1: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 2: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 3: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 4: 30 / 24 / 0.011 / 0.009 / 3.5
- Design Drift: $\delta_6 = 1.2\%$

Beam data (between Story 6 and 5): 30, 24, 0.007, 0.005, 0.003, 5.0

Story 5:
- Col 1: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 2: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 3: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 4: 30 / 24 / 0.011 / 0.009 / 3.5
- Design Drift: $\delta_5 = 1.3\%$

Beam data (between Story 5 and 4): 36, 24, 0.006, 0.004, 0.003, 5.0

Story 4:
- Col 1: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 2: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 3: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 4: 30 / 24 / 0.011 / 0.009 / 3.5
- Design Drift: $\delta_4 = 1.2\%$

Beam data (between Story 4 and 3): 36, 24, 0.006, 0.004, 0.004, 4.5

Story 3:
- Col 1: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 2: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 3: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 4: 30 / 24 / 0.011 / 0.009 / 3.5
- Design Drift: $\delta_3 = 1.2\%$

Beam data (between Story 3 and 2): 36, 24, 0.006, 0.004, 0.004, 4.5

Story 2:
- Col 1: 30 / 24 / 0.011 / 0.009 / 3.5
- Col 2: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 3: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 4: 30 / 24 / 0.011 / 0.009 / 3.5
- Design Drift: $\delta_2 = 1.2\%$

Beam data (between Story 2 and 1): h (in) = 36, b (in) = 24, ρtop = 0.006, ρbottom = 0.004, ρsh = 0.004, s (in) = 4.5

Story 1:
- Col 1: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 2: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 3: 30 / 24 / 0.015 / 0.009 / 3.5
- Col 4: 30 / 24 / 0.015 / 0.009 / 3.5
- Design Drift: $\delta_1 = 0.8\%$

Archetype: **F8-D100**

Design Drift

Column data (left to right: Column line 1, 2, 3, 4):

Story		Col 1	Col 2	Col 3	Col 4	Design Drift
Story 8	h (in) =	30	30	30	30	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.011	0.011	0.011	δ_8 = 0.6%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 7	h (in) =	30	30	30	30	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.011	0.011	0.011	δ_7 = 0.9%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 6	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	δ_6 = 0.9%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 5	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	δ_5 = 1.0%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 4	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	δ_4 = 0.9%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 3	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	δ_3 = 1.0%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 2	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.015	0.015	0.011	δ_2 = 1.0%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 1	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.013	0.015	0.015	0.013	δ_1 = 0.6%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	

Beam data (vertical labels, identical across the three bays):

Location	h (in)	b (in)	ρ_{top}	ρ_{Bottom}	ρ_{sh}	s (in)
Roof (above Story 8)	30	24	0.007	0.004	0.003	6.0
Floor 8	30	24	0.007	0.004	0.003	5.5
Floor 7	36	24	0.006	0.004	0.003	5.0
Floor 6	36	24	0.006	0.004	0.003	5.0
Floor 5	42	24	0.006	0.004	0.004	4.0
Floor 4	42	24	0.006	0.004	0.004	4.0
Floor 3	42	24	0.006	0.004	0.004	4.0
Floor 2	42	24	0.006	0.004	0.004	4.0

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Archetype: **F8-S150-D100**

Story		Column 1	Column 2	Column 3	Column 4	Design Drift
Story 8	h (in) =	30	30	30	30	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.011	0.011	0.011	δ_8 = 0.6%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 7	h (in) =	30	30	30	30	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.011	0.011	0.011	δ_7 = 0.9%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 6	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.016	0.016	0.011	δ_6 = 0.9%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 5	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.016	0.016	0.011	δ_5 = 1.0%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 4	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.011	0.016	0.016	0.011	δ_4 = 0.9%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 3	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.013	0.016	0.016	0.013	δ_3 = 1.0%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 2	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.013	0.016	0.016	0.013	δ_2 = 1.0%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	
Story 1	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.020	0.016	0.016	0.020	δ_1 = 0.6%
	ρ_{sh} =	0.009	0.009	0.009	0.009	
	s (in) =	3.5	3.5	3.5	3.5	

Beam properties (between stories):

Above Story 8: h = 30, b = 24, ρ_{top} = 0.007, ρ_{bottom} = 0.004, ρ_{sh} = 0.003, s = 6.0

Between Story 8/7: h = 30, b = 24, 0.007, 0.004, 0.003, s = 5.5

Between Story 7/6: h = 36, b = 24, 0.006, 0.004, 0.004, s = 4.5

Between Story 6/5: h = 36, b = 24, 0.007, 0.005, 0.004, s = 4.0

Between Story 5/4: h = 42, b = 24, 0.006, 0.005, 0.005, s = 3.5

Between Story 4/3: h = 42, b = 24, 0.006, 0.005, 0.005, s = 3.5

Between Story 3/2: h = 42, b = 24, 0.006, 0.006, 0.005, s = 3.5

Between Story 2/1: h (in) = 42, b (in) = 24, ρ_{top} = 0.006, ρ_{Bottom} = 0.005, ρ_{sh} = 0.005, s (in) = 3.5

Archetype: **F12-REF**

Column data per story (four column lines, left to right):

Story	Col 1 (h, b, ρ_tot, ρ_sh, s)	Col 2 (h, b, ρ_tot, ρ_sh, s)	Col 3 (h, b, ρ_tot, ρ_sh, s)	Col 4 (h, b, ρ_tot, ρ_sh, s)	Design Drift
Story 12	30, 24, 0.0109, 0.0070, 3.5	30, 24, 0.0109, 0.0093, 3.5	30, 24, 0.0109, 0.0093, 3.5	30, 24, 0.0109, 0.0070, 3.5	δ_{12} = 0.7%
Story 11	30, 24, 0.0109, 0.0070, 3.5	30, 24, 0.0109, 0.0093, 3.5	30, 24, 0.0109, 0.0093, 3.5	30, 24, 0.0109, 0.0070, 3.5	δ_{11} = 1.1%
Story 10	30, 24, 0.0109, 0.0070, 3.5	30, 24, 0.0131, 0.0093, 3.5	30, 24, 0.0131, 0.0093, 3.5	30, 24, 0.0109, 0.0070, 3.5	δ_{10} = 1.4%
Story 9	30, 24, 0.0109, 0.0070, 3.5	30, 24, 0.0131, 0.0093, 3.5	30, 24, 0.0131, 0.0093, 3.5	30, 24, 0.0109, 0.0070, 3.5	δ_{9} = 1.5%
Story 8	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{8} = 1.3%
Story 7	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{7} = 1.4%
Story 6	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{6} = 1.5%
Story 5	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{5} = 1.5%
Story 4	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{4} = 1.5%
Story 3	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{3} = 1.5%
Story 2	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{2} = 1.4%
Story 1	36, 24, 0.0182, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0127, 0.0093, 3.5	36, 24, 0.0182, 0.0093, 3.5	δ_{1} = 0.8%

Beam data (three bays per floor level; rotated labels h (in), b (in), ρ_{xp}, ρ_{bottom}, ρ_{sh}, s (in)):

Floor level	Bay 1	Bay 2	Bay 3
Roof (above Story 12)	30, 24, 0.007, 0.004, 0.003, 6.0	30, 24, 0.007, 0.004, 0.003, 6.0	30, 24, 0.007, 0.004, 0.003, 6.0
Above Story 11	30, 24, 0.007, 0.004, 0.003, 5.5	30, 24, 0.007, 0.004, 0.003, 5.5	30, 24, 0.007, 0.004, 0.003, 5.5
Above Story 10	30, 24, 0.007, 0.004, 0.003, 4.0	30, 24, 0.007, 0.004, 0.003, 4.0	30, 24, 0.007, 0.004, 0.003, 4.0
Above Story 9	30, 24, 0.007, 0.005, 0.004, 4.5	30, 24, 0.007, 0.005, 0.004, 4.5	30, 24, 0.007, 0.005, 0.004, 4.5
Above Story 8	36, 24, 0.006, 0.004, 0.004, 4.5	36, 24, 0.006, 0.004, 0.004, 4.5	36, 24, 0.006, 0.004, 0.004, 4.5
Above Story 7	36, 24, 0.006, 0.005, 0.004, 4.5	36, 24, 0.006, 0.005, 0.004, 4.5	36, 24, 0.006, 0.005, 0.004, 4.5
Above Story 6	36, 24, 0.007, 0.005, 0.004, 4.0	36, 24, 0.007, 0.005, 0.004, 4.0	36, 24, 0.007, 0.005, 0.004, 4.0
Above Story 5	36, 24, 0.007, 0.005, 0.004, 4.0	36, 24, 0.007, 0.005, 0.004, 4.0	36, 24, 0.007, 0.005, 0.004, 4.0
Above Story 4	36, 24, 0.008, 0.006, 0.005, 3.5	36, 24, 0.008, 0.006, 0.005, 3.5	36, 24, 0.008, 0.006, 0.005, 3.5
Above Story 3	36, 24, 0.008, 0.006, 0.005, 3.5	36, 24, 0.008, 0.006, 0.005, 3.5	36, 24, 0.008, 0.006, 0.005, 3.5
Above Story 2	36, 24, 0.007, 0.005, 0.004, 4.0	36, 24, 0.007, 0.005, 0.004, 4.0	36, 24, 0.007, 0.005, 0.004, 4.0
Above Story 1	h (in) = 36, b (in) = 24, ρ_{xp} = 0.006, ρ_{bottom} = 0.004, ρ_{sh} = 0.004, s (in) = 4.5	h (in) = 36, b (in) = 24, ρ_{xp} = 0.006, ρ_{bottom} = 0.004, ρ_{sh} = 0.004, s (in) = 4.5	h (in) = 36, b (in) = 24, ρ_{xp} = 0.006, ρ_{bottom} = 0.004, ρ_{sh} = 0.004, s (in) = 4.5

Archetype: **F12-S125**

Column reinforcement (each story, four column lines):

Story	Column 1	Column 2	Column 3	Column 4	Design Drift
Story 12	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	δ_{12} = 0.5%
Story 11	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	δ_{11} = 0.7%
Story 10	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	δ_{10} = 0.9%
Story 9	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	δ_{9} = 1.0%
Story 8	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	δ_{8} = 1.0%
Story 7	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0109, ρ_{sh}=0.0070, s=3.5	δ_{7} = 1.0%
Story 6	h=36, b=24, ρ_{tot}=0.0127, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0127, ρ_{sh}=0.0070, s=3.5	δ_{6} = 1.1%
Story 5	h=36, b=24, ρ_{tot}=0.0127, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0127, ρ_{sh}=0.0070, s=3.5	δ_{5} = 1.1%
Story 4	h=36, b=24, ρ_{tot}=0.0127, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0127, ρ_{sh}=0.0070, s=3.5	δ_{4} = 1.1%
Story 3	h=36, b=24, ρ_{tot}=0.0145, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0145, ρ_{sh}=0.0070, s=3.5	δ_{3} = 1.1%
Story 2	h=36, b=24, ρ_{tot}=0.0145, ρ_{sh}=0.0070, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0145, ρ_{sh}=0.0070, s=3.5	δ_{2} = 1.0%
Story 1	h=36, b=24, ρ_{tot}=0.0218, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0164, ρ_{sh}=0.0093, s=3.5	h=36, b=24, ρ_{tot}=0.0218, ρ_{sh}=0.0093, s=3.5	δ_{1} = 0.7%

Beam reinforcement (rotated labels, between story levels) — per bay: h, b, ρ_{top}, ρ_{bottom}, ρ_{sh}, s:

- Roof / above Story 12: 36, 24, 0.006, 0.004, 0.003, 5.0
- Story 11–12: 36, 24, 0.006, 0.004, 0.003, 5.0
- Story 10–11: 36, 24, 0.006, 0.004, 0.003, 3.5
- Story 9–10: 36, 24, 0.006, 0.004, 0.004, 4.5
- Story 8–9: 36, 24, 0.006, 0.004, 0.004, 4.0
- Story 7–8: 42, 24, 0.006, 0.004, 0.004, 4.0
- Story 6–7: 42, 24, 0.006, 0.005, 0.005, 3.5
- Story 5–6: 42, 24, 0.006, 0.005, 0.005, 3.5
- Story 4–5: 42, 24, 0.006, 0.005, 0.005, 3.5
- Story 3–4: 42, 24, 0.006, 0.005, 0.005, 3.5
- Story 2–3: 42, 24, 0.006, 0.005, 0.005, 3.5
- Story 1–2: h (in) = 42, b (in) = 24, ρ_{top} = 0.006, ρ_{bottom} = 0.004, ρ_{sh} = 0.004, s (in) = 4.0

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Archetype: **F12-S150**

Column data (per story, 4 columns left-to-right): h (in), b (in), ρ_{tot}, ρ_{sh}, s (in). Design Drift δ at right.

Story	Col 1 ($h,b,\rho_{tot},\rho_{sh},s$)	Col 2	Col 3	Col 4	Design Drift
Story 12	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0109, 0.0093, 3.5	36, 24, 0.0109, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{12} = 0.5%
Story 11	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0109, 0.0093, 3.5	36, 24, 0.0109, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{11} = 0.7%
Story 10	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0145, 0.0093, 3.5	36, 24, 0.0145, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{10} = 0.9%
Story 9	36, 24, 0.0109, 0.0070, 3.5	36, 24, 0.0145, 0.0093, 3.5	36, 24, 0.0145, 0.0093, 3.5	36, 24, 0.0109, 0.0070, 3.5	δ_{9} = 1.0%
Story 8	36, 24, 0.0127, 0.0070, 3.5	36, 24, 0.0200, 0.0093, 3.5	36, 24, 0.0200, 0.0093, 3.5	36, 24, 0.0127, 0.0070, 3.5	δ_{8} = 1.0%
Story 7	36, 24, 0.0127, 0.0070, 3.5	36, 24, 0.0200, 0.0093, 3.5	36, 24, 0.0200, 0.0093, 3.5	36, 24, 0.0127, 0.0070, 3.5	δ_{7} = 1.0%
Story 6	36, 30, 0.0116, 0.0079, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0116, 0.0079, 2.5	δ_{6} = 0.9%
Story 5	36, 30, 0.0116, 0.0079, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0116, 0.0079, 2.5	δ_{5} = 1.0%
Story 4	36, 30, 0.0116, 0.0079, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0116, 0.0079, 2.5	δ_{4} = 1.0%
Story 3	36, 30, 0.0131, 0.0079, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0131, 0.0079, 2.5	δ_{3} = 1.0%
Story 2	36, 30, 0.0131, 0.0079, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0131, 0.0079, 2.5	δ_{2} = 0.9%
Story 1	36, 30, 0.0204, 0.0105, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0160, 0.0105, 2.5	36, 30, 0.0204, 0.0105, 2.5	δ_{1} = 0.6%

Beam data (rotated labels between stories): h (in), b (in), ρ_{top}, ρ_{bottom}, ρ_{sh}, s (in).

Level	h	b	ρ_{top}	ρ_{bottom}	ρ_{sh}	s
above Story 12	36	24	0.006	0.004	0.003	5.0
12–11	36	24	0.006	0.004	0.003	5.0
11–10	36	24	0.006	0.004	0.003	3.0
10–9	36	24	0.006	0.005	0.004	4.5
9–8	42	24	0.006	0.005	0.005	3.5
8–7	42	24	0.006	0.005	0.005	3.5
7–6	42	30	0.006	0.005	0.004	3.5
6–5	42	30	0.006	0.005	0.004	3.5
5–4	42	30	0.006	0.005	0.004	3.0
4–3	42	30	0.006	0.005	0.004	3.0
3–2	42	30	0.006	0.005	0.004	3.0
2–1	42	30	0.006	0.005	0.004	3.5

Archetype: **F12-D150**

Column properties (four columns per story):

Story	h (in)	b (in)	Col 1 ρtot / ρsh	Col 2 ρtot / ρsh	Col 3 ρtot / ρsh	Col 4 ρtot / ρsh	s (in)	Design Drift
Story 12	36	24	0.0109 / 0.0070	0.0109 / 0.0093	0.0109 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{12} = 0.7\%$
Story 11	36	24	0.0109 / 0.0070	0.0109 / 0.0093	0.0109 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{11} = 1.0\%$
Story 10	36	24	0.0109 / 0.0070	0.0109 / 0.0093	0.0109 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{10} = 1.2\%$
Story 9	36	24	0.0109 / 0.0070	0.0109 / 0.0093	0.0109 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{9} = 1.3\%$
Story 8	36	24	0.0109 / 0.0070	0.0109 / 0.0093	0.0109 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{8} = 1.3\%$
Story 7	36	24	0.0109 / 0.0070	0.0164 / 0.0093	0.0164 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{7} = 1.2\%$
Story 6	36	24	0.0109 / 0.0070	0.0164 / 0.0093	0.0164 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{6} = 1.1\%$
Story 5	36	24	0.0109 / 0.0070	0.0164 / 0.0093	0.0164 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{5} = 1.1\%$
Story 4	36	24	0.0109 / 0.0070	0.0164 / 0.0093	0.0164 / 0.0093	0.0109 / 0.0070	3.5	$\delta_{4} = 1.1\%$
Story 3	36	24	0.0127 / 0.0070	0.0164 / 0.0093	0.0164 / 0.0093	0.0127 / 0.0070	3.5	$\delta_{3} = 1.1\%$
Story 2	36	24	0.0127 / 0.0070	0.0164 / 0.0093	0.0164 / 0.0093	0.0127 / 0.0070	3.5	$\delta_{2} = 1.0\%$
Story 1	36	24	0.0164 / 0.0093	0.0164 / 0.0093	0.0164 / 0.0093	0.0164 / 0.0093	3.5	$\delta_{1} = 0.7\%$

Beam properties (above each story level, identical across the three bays):

Level	h	b	ρ_{top}	ρ_{bottom}	ρ_{sh}	s
above Story 12	30	24	0.007	0.004	0.003	5.5
above Story 11	30	24	0.007	0.004	0.003	5.0
above Story 10	30	24	0.007	0.004	0.003	4.0
above Story 9	30	24	0.007	0.005	0.003	5.0
above Story 8	36	24	0.006	0.004	0.004	4.5
above Story 7	36	24	0.006	0.004	0.004	4.5
above Story 6	42	24	0.006	0.004	0.004	4.0
above Story 5	42	24	0.006	0.004	0.004	4.0
above Story 4	42	24	0.006	0.004	0.004	4.0
above Story 3	42	24	0.006	0.004	0.004	4.0
above Story 2	42	24	0.006	0.004	0.004	4.0
above Story 1	42	24	0.006	0.004	0.004	4.0

Legend:
h (in) = 42, b (in) = 24, ρ_{top} = 0.006, ρ_{bottom} = 0.004, ρ_{sh} = 0.004, s (in) = 4.0

Archetype: **F12-D100**

Story	Parameter	Column 1	Column 2	Column 3	Column 4	Design Drift
Story 12	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.0109	0.0109	0.0109	0.0109	δ_{12} = 0.5%
	ρ_{sh} =	0.0070	0.0093	0.0093	0.0070	
	s (in) =	3.5	3.5	3.5	3.5	
Story 11	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.0109	0.0109	0.0109	0.0109	δ_{11} = 0.7%
	ρ_{sh} =	0.0070	0.0093	0.0093	0.0070	
	s (in) =	3.5	3.5	3.5	3.5	
Story 10	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.0109	0.0145	0.0145	0.0109	δ_{10} = 0.9%
	ρ_{sh} =	0.0070	0.0093	0.0093	0.0070	
	s (in) =	3.5	3.5	3.5	3.5	
Story 9	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.0109	0.0145	0.0145	0.0109	δ_{9} = 1.0%
	ρ_{sh} =	0.0070	0.0093	0.0093	0.0070	
	s (in) =	3.5	3.5	3.5	3.5	
Story 8	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{8} = 0.8%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 7	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{7} = 0.8%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 6	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{6} = 0.9%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 5	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{5} = 0.9%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 4	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{4} = 0.9%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 3	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{3} = 0.9%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 2	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{2} = 0.8%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 1	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{1} = 0.5%
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	

Beam properties (typical between stories):
- Stories 12–10 beams: h = 36, b = 24, ρ_{top} = 0.006, ρ_{bottom} = 0.004, ρ_{sh} = 0.003, s = 5.0 (upper) / 3.5 (lower)
- Stories 9–2 beams: h = 42, b = 30, ρ_{top} = 0.006, ρ_{bottom} = 0.004, ρ_{sh} = 0.004, s = 3.5

Beam legend (Story 1 level):
- h (in) = 42
- b (in) = 30
- ρ_{top} = 0.006
- ρ_{bottom} = 0.004
- ρ_{sh} = 0.004
- s (in) = 3.5

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Archetype: **F12-S150-D100**

Beam legend (rotated text at base of Story 1):
h (in) = 42, b (in) = 30, ρ_{top} = 0.006, ρ_{Bottom} = 0.004, ρ_{sh} = 0.004, s (in) = 3.5

Story	Parameter	Column 1	Column 2	Column 3	Column 4	Design Drift
Story 12	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.0109	0.0109	0.0109	0.0109	δ_{12} = 0.5%
	ρ_{sh} =	0.0070	0.0093	0.0093	0.0070	
	s (in) =	3.5	3.5	3.5	3.5	
Story 11	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.0109	0.0109	0.0109	0.0109	δ_{11} = 0.7%
	ρ_{sh} =	0.0070	0.0093	0.0093	0.0070	
	s (in) =	3.5	3.5	3.5	3.5	
Story 10	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.0109	0.0164	0.0164	0.0109	δ_{10} = 0.9%
	ρ_{sh} =	0.0070	0.0093	0.0093	0.0070	
	s (in) =	3.5	3.5	3.5	3.5	
Story 9	h (in) =	36	36	36	36	
	b (in) =	24	24	24	24	
	ρ_{tot} =	0.0109	0.0164	0.0164	0.0109	δ_{9} = 1.0%
	ρ_{sh} =	0.0070	0.0093	0.0093	0.0070	
	s (in) =	3.5	3.5	3.5	3.5	
Story 8	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{8} = 0.8%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 7	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{7} = 0.8%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 6	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{6} = 0.9%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 5	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{5} = 0.9%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 4	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{4} = 0.9%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 3	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{3} = 0.9%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 2	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	δ_{2} = 0.8%
	ρ_{sh} =	0.0079	0.0105	0.0105	0.0079	
	s (in) =	2.5	2.5	2.5	2.5	
Story 1	h (in) =	42	42	42	42	
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0187	0.0112	0.0112	0.0187	δ_{1} = 0.5%
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	

Beam parameter bands (rotated text, between stories — h, b, ρ_{top}, ρ_{bottom}, ρ_{sh}, s):
- Above Story 12: 36, 24, 0.006, 0.004, 0.003, 5.0
- Above Story 11: 36, 24, 0.006, 0.004, 0.003, 5.0
- Above Story 10: 36, 24, 0.006, 0.004, 0.003, 3.5
- Above Story 9: 36, 24, 0.006, 0.005, 0.004, 4.5
- Above Story 8: 42, 30, 0.006, 0.004, 0.004, 3.5
- Above Story 7: 42, 30, 0.006, 0.005, 0.004, 3.5
- Above Story 6: 42, 30, 0.006, 0.005, 0.004, 3.5
- Above Story 5: 42, 30, 0.006, 0.005, 0.004, 3.5
- Above Story 4: 42, 30, 0.006, 0.005, 0.004, 3.0
- Above Story 3: 42, 30, 0.006, 0.005, 0.004, 3.0
- Above Story 2: 42, 30, 0.006, 0.005, 0.004, 3.5

Archetype: **F20-REF**

Archetype: **F20-S125**

Beam reinforcement parameters per story (four bay locations), with column (vertical) section data noted between bays. Variables: h (in), b (in), ρ_{bt}, ρ_{sh}, s (in).

Story	h	b	ρ_{bt} (1)	ρ_{bt} (2)	ρ_{bt} (3)	ρ_{bt} (4)	ρ_{sh}	s	Design Drift
Story 20	36	30	0.0102	0.0116	0.0116	0.0102	0.0105	2.5	$\delta_{20} = 0.7\%$
Story 19	36	30	0.0102	0.0116	0.0116	0.0102	0.0105	2.5	$\delta_{19} = 0.9\%$
Story 18	36	30	0.0102	0.0116	0.0116	0.0102	0.0105	2.5	$\delta_{18} = 1.2\%$
Story 17	36	30	0.0102	0.0116	0.0116	0.0102	0.0105	2.5	$\delta_{17} = 1.4\%$
Story 16	36	30	0.0102	0.0145	0.0145	0.0102	0.0105	2.5	$\delta_{16} = 1.5\%$
Story 15	36	30	0.0102	0.0175	0.0175	0.0102	0.0105	2.5	$\delta_{15} = 1.7\%$
Story 14	42	30	0.0112	0.0150	0.0150	0.0112	0.0105	2.5	$\delta_{14} = 1.7\%$
Story 13	42	30	0.0112	0.0150	0.0150	0.0112	0.0105	2.5	$\delta_{13} = 1.6\%$
Story 12	42	30	0.0112	0.0150	0.0150	0.0112	0.0105	2.5	$\delta_{12} = 1.5\%$
Story 11	42	30	0.0112	0.0150	0.0150	0.0112	0.0105	2.5	$\delta_{11} = 1.5\%$
Story 10	42	30	0.0125	0.0150	0.0150	0.0125	0.0105	2.5	$\delta_{10} = 1.5\%$
Story 9	42	30	0.0125	0.0150	0.0150	0.0125	0.0105	2.5	$\delta_{9} = 1.5\%$
Story 8	42	36	0.0125	0.0135	0.0135	0.0125	0.0109	2.0	$\delta_{8} = 1.5\%$
Story 7	42	36	0.0125	0.0135	0.0135	0.0125	0.0109	2.0	$\delta_{7} = 1.5\%$
Story 6	42	36	0.0145	0.0135	0.0135	0.0145	0.0109	2.0	$\delta_{6} = 1.4\%$
Story 5	42	36	0.0145	0.0135	0.0135	0.0145	0.0109	2.0	$\delta_{5} = 1.4\%$
Story 4	42	36	0.0145	0.0135	0.0135	0.0145	0.0109	2.0	$\delta_{4} = 1.4\%$
Story 3	42	36	0.0156	0.0135	0.0135	0.0156	0.0109	2.0	$\delta_{3} = 1.3\%$
Story 2	42	42	0.0142	0.0116	0.0116	0.0142	0.0117	2.0	$\delta_{2} = 1.0\%$
Story 1	42	42	0.0223	0.0125	0.0125	0.0223	0.0117	2.0	$\delta_{1} = 0.6\%$

Column (vertical) section data at base, Story 1: h (in) = 42, b (in) = 36, ρ_{lc} = 0.005, ρ_{sh} = 0.004, s (in) = 3.0.

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Archetype: **F20-S150**

Design Drift

Story	h (in)	b (in)	ρ_{tot}	ρ_{sh}	s (in)	Design Drift
Story 20	36	36	0.0109	0.0109	2.0	$\delta_{20} = 0.6\%$
Story 19	36	36	0.0109	0.0109	2.0	$\delta_{19} = 0.8\%$
Story 18	36	36	0.0109	0.0109	2.0	$\delta_{18} = 1.0\%$
Story 17	36	36	0.0109	0.0109	2.0	$\delta_{17} = 1.2\%$
Story 16	36	36	0.0109	0.0109	2.0	$\delta_{16} = 1.4\%$
Story 15	36	36	0.0109	0.0109	2.0	$\delta_{15} = 1.5\%$
Story 14	42	36	0.0104	0.0109	2.0	$\delta_{14} = 1.5\%$
Story 13	42	36	0.0104	0.0109	2.0	$\delta_{13} = 1.5\%$
Story 12	42	36	0.0104	0.0109	2.0	$\delta_{12} = 1.4\%$
Story 11	42	36	0.0125	0.0109	2.0	$\delta_{11} = 1.4\%$
Story 10	42	36	0.0125	0.0109	2.0	$\delta_{10} = 1.4\%$
Story 9	42	36	0.0156	0.0109	2.0	$\delta_{9} = 1.3\%$
Story 8	42	36	0.0156	0.0109	2.0	$\delta_{8} = 1.1\%$
Story 7	42	36	0.0156	0.0109	2.0	$\delta_{7} = 1.1\%$
Story 6	42	36	0.0156	0.0109	2.0	$\delta_{6} = 1.0\%$
Story 5	48	48	0.0138	0.0102	2.0	$\delta_{5} = 0.8\%$
Story 4	48	48	0.0138	0.0102	2.0	$\delta_{4} = 0.8\%$
Story 3	48	48	0.0138	0.0102	2.0	$\delta_{3} = 0.8\%$
Story 2	48	48	0.0138	0.0102	2.0	$\delta_{2} = 0.7\%$
Story 1	48	48	0.0206	0.0123	2.0	$\delta_{1} = 0.4\%$

Archetype: **F20-D150**

Story	Parameter	Column 1	Column 2	Column 3	Column 4	Design Drift
Story 20	h (in) =	36	36	36	36	δ_{20} = 0.8%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0102	0.0116	0.0116	0.0102	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 19	h (in) =	36	36	36	36	δ_{19} = 1.0%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0102	0.0116	0.0116	0.0102	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 18	h (in) =	36	36	36	36	δ_{18} = 1.2%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0102	0.0116	0.0116	0.0102	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 17	h (in) =	36	36	36	36	δ_{17} = 1.3%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0102	0.0116	0.0116	0.0102	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 16	h (in) =	42	42	42	42	δ_{16} = 1.2%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 15	h (in) =	42	42	42	42	δ_{15} = 1.3%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 14	h (in) =	42	42	42	42	δ_{14} = 1.3%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0112	0.0112	0.0112	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 13	h (in) =	42	42	42	42	δ_{13} = 1.3%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0137	0.0137	0.0112	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 12	h (in) =	42	42	42	42	δ_{12} = 1.2%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0137	0.0137	0.0112	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 11	h (in) =	42	42	42	42	δ_{11} = 1.2%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0137	0.0137	0.0112	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 10	h (in) =	42	42	42	42	δ_{10} = 1.3%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0137	0.0137	0.0112	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 9	h (in) =	42	42	42	42	δ_{9} = 1.3%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0112	0.0137	0.0137	0.0112	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 8	h (in) =	42	42	42	42	δ_{8} = 1.2%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0125	0.0150	0.0150	0.0125	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 7	h (in) =	42	42	42	42	δ_{7} = 1.2%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0125	0.0150	0.0150	0.0125	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 6	h (in) =	42	42	42	42	δ_{6} = 1.2%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0137	0.0150	0.0150	0.0137	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 5	h (in) =	42	42	42	42	δ_{5} = 1.2%
	b (in) =	30	30	30	30	
	ρ_{tot} =	0.0137	0.0150	0.0150	0.0137	
	ρ_{sh} =	0.0105	0.0105	0.0105	0.0105	
	s (in) =	2.5	2.5	2.5	2.5	
Story 4	h (in) =	42	42	42	42	δ_{4} = 1.1%
	b (in) =	36	36	36	36	
	ρ_{tot} =	0.0125	0.0125	0.0125	0.0125	
	ρ_{sh} =	0.0109	0.0109	0.0109	0.0109	
	s (in) =	2.0	2.0	2.0	2.0	
Story 3	h (in) =	42	42	42	42	δ_{3} = 1.0%
	b (in) =	36	36	36	36	
	ρ_{tot} =	0.0125	0.0125	0.0125	0.0125	
	ρ_{sh} =	0.0109	0.0109	0.0109	0.0109	
	s (in) =	2.0	2.0	2.0	2.0	
Story 2	h (in) =	42	42	42	42	δ_{2} = 0.9%
	b (in) =	36	36	36	36	
	ρ_{tot} =	0.0152	0.0125	0.0125	0.0152	
	ρ_{sh} =	0.0109	0.0109	0.0109	0.0109	
	s (in) =	2.0	2.0	2.0	2.0	
Story 1	h (in) =	42	42	42	42	δ_{1} = 0.5%
	b (in) =	36	36	36	36	
	ρ_{tot} =	0.0179	0.0125	0.0125	0.0179	
	ρ_{sh} =	0.0109	0.0109	0.0109	0.0109	
	s (in) =	2.0	2.0	2.0	2.0	

Legend: h (in) = ; b (in) = ; ρ_{tot} = ; ρ_{sh} = ; s (in) =

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Archetype: **F20-D100**

Column data per story (four column lines; each column reports: h (in), b (in), ρ_{tot}, ρ_{sh}, s (in)). Values are identical across the four column lines unless noted.

Story	h (in)	b (in)	ρ_{tot}	ρ_{sh}	s (in)	Design Drift
Story 20	48	36	0.0109	0.0109	2.0	δ_{20} = 0.5%
Story 19	48	36	0.0109	0.0109	2.0	δ_{19} = 0.6%
Story 18	48	36	0.0109	0.0109	2.0	δ_{18} = 0.7%
Story 17	48	36	0.0109	0.0109	2.0	δ_{17} = 0.8%
Story 16	48	36	0.0109	0.0109	2.0	δ_{16} = 0.8%
Story 15	48	36	0.0109	0.0109	2.0	δ_{15} = 0.9%
Story 14	48	36	0.0109	0.0109	2.0	δ_{14} = 0.9%
Story 13	48	36	0.0109	0.0109	2.0	δ_{13} = 0.9%
Story 12	48	36	0.0109	0.0109	2.0	δ_{12} = 0.9%
Story 11	48	36	0.0109	0.0109	2.0	δ_{11} = 0.9%
Story 10	48	36	0.0109	0.0109	2.0	δ_{10} = 0.9%
Story 9	48	36	0.0109	0.0109	2.0	δ_{9} = 0.9%
Story 8	48	36	0.0109	0.0109	2.0	δ_{8} = 0.9%
Story 7	48	36	0.0109	0.0109	2.0	δ_{7} = 0.9%
Story 6	48	36	0.0109	0.0109	2.0	δ_{6} = 0.8%
Story 5	48	36	0.0109	0.0109	2.0	δ_{5} = 0.8%
Story 4	48	36	0.0109	0.0109	2.0	δ_{4} = 0.8%
Story 3	48	36	0.0109	0.0109	2.0	δ_{3} = 0.7%
Story 2	48	36	0.0131 (first column line), 0.0109 (others)	0.0109	2.0	δ_{2} = 0.7%
Story 1	48	36	0.0154 (first column line), 0.0109 (others)	0.0109	2.0	δ_{1} = 0.4%

Beam data (rotated labels between column lines; reported as: h (in), b (in), ρ_{top}, ρ_{bot}, ρ_{sh}, s (in)):

- Stories 20–18: 42, 30, 0.006, 0.004, 0.004, 3.5
- Stories 17–13: 48, 30, 0.006, 0.004, 0.004, 3.0
- Stories 12–1: 54, 30, 0.006, 0.004, 0.004, 3.0

Beam legend (Story 1): h (in) = 54, b (in) = 30, $\rho_{beam\,top}$ = 0.006, ρ_{bot} = 0.004, ρ_{sh} = 0.004, s (in) = 3.0

Archetype: **F20-S150-D100**