

UPLIFT CONNECTIONS- 130MPH WINDS EXP. "B"						
CONNECTION	FRAMING SPACING (in.)	ROOF SPAN (ft.)	U	L	5	NUM. OF 8d COM. NAILS OR 10d BOX NAILS IN EA. END OF 1-1/4"x20 GA. STRAP
ROOF ASSEMBLY TO WALL ASSEMBLY	16" O.C.	17	386	246	109R	4
WALL ASSEMBLY TO WALL ASSEMBLY	16" O.C.	17	386	246	109R	4
WALL ASSEMBLY TO FOUNDATION	16" O.C.	17	170	185	436	4

THERMAL COMPONENT CRITERIA (U-FACTOR AND R-VALUE)				
MINIMUM INSULATION R-VALUE				
MAX. GLAZING U-FACTOR	CEILING WALLS	FLOORS	BASEMENT WALLS	CRAWL SPACE WALLS
.75	R-25	R-13	R-11	R-5

WALL SHEATH. OR CLAD. REQ. FOR WIND LOAD-EXP. B

SHEATHING LOCATION	STUD SPAC.	MAX. NAIL SPAC. FOR 8d COM. NAILS (INCHES, O.C.)	E	F
INTERIOR ZONE	12" O.C.	6	6	12
	16" O.C.	6	6	12
	24" O.C.	6	6	12
PERIMETER EDGE ZONE	12" O.C.	6	6	12
	16" O.C.	6	6	12
	24" O.C.	6	6	12

WINDBORNE DEBRIS PROTECTION FASTENING SCHEDULE FOR WOOD STRUCTURAL PANELS			
FASTENER TYPE	FASTENER SPACING		
	PANEL SPAN ≤ 4 FOOT	4 FOOT PANEL SPAN ≤ 6 FOOT	6 FOOT PANEL SPAN ≤ 8 FOOT
2-1/2" x 48 WOOD SCREWS	16"	12"	9"
2-1/2" x 48 WOOD SCREWS	16"	16"	12"

WINDOWS IN BUILDINGS LOCATED IN WIND BORNE DEBRIS REGIONS SHALL HAVE GLAZED WINDOW OPENINGS PROTECTED BY WINDBORNE DEBRIS PROTECTION. WINDBORNE DEBRIS PROTECTION IN ONE AND TWO STORY BUILDINGS, PANELS SHALL BE PERMITTED FOR 10' SPAN FROM THE CENTER OF THE WINDOW WITH A MINIMUM OVERLAP OF 6".

HEADER NAILING SCHEDULE			
DESCRIPTION	NUM. OF COM. NAILS	NUM. OF BOX NAILS	SPACING
HEAD TO HEAD (FACE NAILING)	8d	10d	6" O.C. EDGES 12" O.C. FIELD

NOTE: ALL HEADERS SHALL HAVE SOLID BLOCKING.

ROOF UNDERLAMENT APPLICATION

FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (17 PERCENT SLOPE) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZ. (33 PERCENT SLOPE), UNDERLAMENT SHALL BE TWO LAYERS APPLIED IN THE FOLLOWING MANNER:

APPLY A 1/8 INCH STRIP OF UNDERLAMENT FELT PARALLEL WITH AND STARTING AT THE EAVES, FASTENED SUFFICIENTLY TO HOLD IN PLACE. STARTING AT THE EAVE, APPLY 36 INCH WIDE SHEETS OF UNDERLAMENT, OVERLAPPING SUCCESSIVE SHEETS 19 INCHES, AND FASTENED SUFFICIENTLY TO HOLD IN PLACE.

FOR ROOF SLOPES OF FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33 PERCENT SLOPE) OR GREATER, UNDERLAMENT SHALL BE ONE LAYER APPLIED IN THE FOLLOWING MANNER:

UNDERLAMENT SHALL BE APPLIED SHINGLE FASHION, PARALLEL TO AND STARTING FROM THE EAVE AND LAPPED 2 INCHES, FASTENED SUFFICIENTLY TO HOLD IN PLACE. END LAPS SHALL BE OFFSET BY 6 FEET.

SHINGLE APPLICATION/FASTENING

ASPHALT STRIP SHINGLES SHALL HAVE A MINIMUM OF SIX FASTENERS PER SHINGLE WHERE THE ROOF IS IN ONE OF THE FOLLOWING CATEGORIES:

- THE BASIC WIND SPEED IS 120 MPH OR GREATER AND THE EAVE IS 20 FEET OR HIGHER ABOVE GRADE.
- THE BASIC WIND SPEED IS 120 MPH OR GREATER.
- SPECIAL WIND ZONES.

UPLIFT CONNECTIONS

ROOF ASSEMBLY TO WALL ASSEMBLY:

UPLIFT CONNECTIONS SHALL BE FROM RAFTER OR TRUSS TO WALL STUD. WHEN RAFTERS OR TRUSSES ARE NOT LOCATED AT THE WALL STUD LOCATION, STUDS SHALL BE ADDED TO THE WALL PLATE AND THE WALL TOP PLATE SHALL BE ATTACHED TO THE WALL STUD WITH UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE.

WALL ASSEMBLY TO WALL ASSEMBLY:

STORY TO STORY UPLIFT CONNECTIONS FROM UPPER STORY WALL STUD TO LOWER STORY WALL STUD. WHEN UPPER STORY WALL STUDS ARE NOT LOCATED DIRECTLY ABOVE LOWER WALL STUDS, STUDS SHALL BE ADDED TO THE WALL PLATE AND THE WALL TOP PLATE SHALL BE ATTACHED TO THE WALL STUD WITH UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE.

WALL ASSEMBLY TO FOUNDATION:

FIRST FLOOR WALL STUDS SHALL BE CONNECTED TO THE FOUNDATION, SILL PLATE, OR BOTTOM PLATE. A MINIMUM OF A 1-1/4" x 20 GA. ASTM A653 GRADE 33 STEEL STRAP SHALL BE NAILED TO THE WALL STUDS AND HAVE A MINIMUM EMBEDMENT OF 7 INCHES IN CONCRETE FOUNDATIONS AND SLABS ON GRADE. 1 1/2 INCHES IN MASONRY BLOCK FOUNDATIONS, OR BE LAPED UNDER THE BOTTOM PLATE. 3 INCH WOOD STUDS SHALL BE ADDED TO THE WALL PLATE AND ANCHOR BOLTS EMBEDDED IN OR IN CONTACT WITH SLAB ON GRADE OR MASONRY BLOCK FOUNDATIONS SHALL BE HOT-DIPPED GALV. STEEL AFTER FABRICATION. OR WANCH. FROM G 165 OR 2450 GALV. STL. CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE.

JACK STUD REQUIREMENTS-FOR INTERIOR LOADBEARING WALLS

HEADER SPAN (ft.)	ROOF SPAN (ft.)				
	12 FEET	5"	6.5"	3"	4.5"
2	1	1	1	1	1
4	1	1	1	1	1
6	1	1	1	1	1
8	1	1	1	1	1
10	1	1	1	1	1
12	1	1	1	1	1
14	2	1	1	1	1
16	2	1	1	1	1
2	1	1	1	1	1
4	1	1	1	1	1
6	2	1	1	1	1
8	2	1	1	1	1
10	2	1	1	1	1
12	3	2	1	1	1
14	3	2	1	1	1
16	4	3	2	1	1

SILL or BOTTOM PLATE TO FND. CONNECTIONS RESISTING UPLIFT LOADS- 130MPH WINDS EXP. "B"

BOTTOM PLATE TO FND. ANCHOR BOLT CONNECTION RESISTING UPLIFT LOADS	FOUNDATION SUPPORTING		MAX. ANCHOR BOLT SPACING (in.)	
	1-3 STOREYS	28	Ø END ZONES	INTERIOR ZONES
				33

SILL or BOTTOM PLATE TO FND. CONNECTIONS RESISTING SHEAR LOADS- 130MPH WINDS EXP. "B"

BOTTOM PLATE TO FND. ANCHOR BOLT CONNECTION RESISTING SHEAR LOADS	FOUNDATION SUPPORTING		MAX. ANCHOR BOLT SPACING (in.)	
	1-3 STOREYS	30	5/8" ANCH. BOLTS	5/8" ANCH. BOLTS
				45

HEADER SPANS-FOR INT. LOADBEARING WALLS

HEADER SUPPORTING	BLDG. WIDTH (ft.)		
	12	24	36
(2)2x4S	4'-4"	5'-11"	2'-6"
(2)2x6S	6'-5"	4'-6"	3'-6"
(2)2x8S	8'-11"	5'-9"	4'-6"
(2)2x10S	11'-6"	8'-11"	5'-9"
(2)2x12S	14'-4"	11'-6"	8'-11"
(2)2x14S	17'-6"	14'-4"	11'-6"
(2)2x16S	20'-6"	17'-6"	14'-4"
(2)2x18S	23'-6"	20'-6"	17'-6"
(2)2x20S	26'-6"	23'-6"	20'-6"
(2)2x22S	29'-6"	26'-6"	23'-6"
(2)2x24S	32'-6"	29'-6"	26'-6"
(2)2x26S	35'-6"	32'-6"	29'-6"
(2)2x28S	38'-6"	35'-6"	32'-6"
(2)2x30S	41'-6"	38'-6"	35'-6"
(2)2x32S	44'-6"	41'-6"	38'-6"
(2)2x34S	47'-6"	44'-6"	41'-6"
(2)2x36S	50'-6"	47'-6"	44'-6"
(2)2x38S	53'-6"	50'-6"	47'-6"
(2)2x40S	56'-6"	53'-6"	50'-6"
(2)2x42S	59'-6"	56'-6"	53'-6"
(2)2x44S	62'-6"	59'-6"	56'-6"
(2)2x46S	65'-6"	62'-6"	59'-6"
(2)2x48S	68'-6"	65'-6"	62'-6"
(2)2x50S	71'-6"	68'-6"	65'-6"
(2)2x52S	74'-6"	71'-6"	68'-6"
(2)2x54S	77'-6"	74'-6"	71'-6"
(2)2x56S	80'-6"	77'-6"	74'-6"
(2)2x58S	83'-6"	80'-6"	77'-6"
(2)2x60S	86'-6"	83'-6"	80'-6"
(2)2x62S	89'-6"	86'-6"	83'-6"
(2)2x64S	92'-6"	89'-6"	86'-6"
(2)2x66S	95'-6"	92'-6"	89'-6"
(2)2x68S	98'-6"	95'-6"	92'-6"
(2)2x70S	101'-6"	98'-6"	95'-6"
(2)2x72S	104'-6"	101'-6"	98'-6"
(2)2x74S	107'-6"	104'-6"	101'-6"
(2)2x76S	110'-6"	107'-6"	104'-6"
(2)2x78S	113'-6"	110'-6"	107'-6"
(2)2x80S	116'-6"	113'-6"	110'-6"
(2)2x82S	119'-6"	116'-6"	113'-6"
(2)2x84S	122'-6"	119'-6"	116'-6"
(2)2x86S	125'-6"	122'-6"	119'-6"
(2)2x88S	128'-6"	125'-6"	122'-6"
(2)2x90S	131'-6"	128'-6"	125'-6"
(2)2x92S	134'-6"	131'-6"	128'-6"
(2)2x94S	137'-6"	134'-6"	131'-6"
(2)2x96S	140'-6"	137'-6"	134'-6"
(2)2x98S	143'-6"	140'-6"	137'-6"
(2)2x100S	146'-6"	143'-6"	140'-6"
(2)2x102S	149'-6"	146'-6"	143'-6"
(2)2x104S	152'-6"	149'-6"	146'-6"
(2)2x106S	155'-6"	152'-6"	149'-6"
(2)2x108S	158'-6"	155'-6"	152'-6"
(2)2x110S	161'-6"	158'-6"	155'-6"
(2)2x112S	164'-6"	161'-6"	158'-6"
(2)2x114S	167'-6"	164'-6"	161'-6"
(2)2x116S	170'-6"	167'-6"	164'-6"
(2)2x118S	173'-6"	170'-6"	167'-6"
(2)2x120S	176'-6"	173'-6"	170'-6"

* MAX. SPAN EXCEEDS 16' (SPANS LIM. TO 16')

ROOF SHEATH. OR CLAD. REQ. FOR WIND LOAD-EXP. B

SHEATHING LOCATION	RAFTER/TRUSS SPAC.	MAX. NAIL SPAC. FOR 8d COM. NAILS (INCHES, O.C.)	E	F
INTERIOR ZONE	12" O.C.	6	6	12
	16" O.C.	6	6	12
	24" O.C.	6	6	12
PERIMETER EDGE ZONE	12" O.C.	6	6	12
	16" O.C.	6	6	12
	24" O.C.	6	6	12

130 MPH WINDS-EXPOSURE "B" (17'F)

HEADER SPANS-EXPOSURE B FOR EXTERIOR LOADBEARING WALLS

HEADER SIZE	SPAN	NO. FULL HGT. STUDS REQ. AT EA. END
(2)2x4S	4'-7"	2
(2)2x6S	5'-6"	3
(2)2x8S	6'-11"	3
(2)2x10S	8'-0"	3
(2)2x12S	9'-11"	3
(2)2x14S	11'-0"	3
(2)2x16S	12'-5"	3
(2)2x18S	14'-0"	3
(2)2x20S	15'-6"	3
(2)2x22S	17'-0"	3
(2)2x24S	18'-6"	3
(2)2x26S	20'-0"	3
(2)2x28S	21'-6"	3
(2)2x30S	23'-0"	3
(2)2x32S	24'-6"	3
(2)2x34S	26'-0"	3
(2)2x36S	27'-6"	3
(2)2x38S	29'-0"	3
(2)2x40S	30'-6"	3
(2)2x42S	32'-0"	3
(2)2x44S	33'-6"	3
(2)2x46S	35'-0"	3
(2)2x48S	36'-6"	3
(2)2x50S	38'-0"	3
(2)2x52S	39'-6"	3
(2)2x54S	41'-0"	3
(2)2x56S	42'-6"	3
(2)2x58S	44'-0"	3
(2)2x60S	45'-6"	3
(2)2x62S	47'-0"	3
(2)2x64S	48'-6"	3
(2)2x66S	50'-0"	3
(2)2x68S	51'-6"	3
(2)2x70S	53'-0"	3
(2)2x72S	54'-6"	3
(2)2x74S	56'-0"	3
(2)2x76S	57'-6"	3
(2)2x78S	59'-0"	3
(2)2x80S	60'-6"	3
(2)2x82S	62'-0"	3
(2)2x84S	63'-6"	3
(2)2x86S	65'-0"	3
(2)2x88S	66'-6"	3
(2)2x90S	68'-0"	3
(2)2x92S	69'-6"	3
(2)2x94S	71'-0"	3
(2)2x96S	72'-6"	3
(2)2x98S	74'-0"	3
(2)2x100S	75'-6"	3
(2)2x102S	77'-0"	3
(2)2x104S	78'-6"	3
(2)2x106S	80'-0"	3
(2)2x108S	81'-6"	3
(2)2x110S	83'-0"	3
(2)2x112S	84'-6"	3
(2)2x114S	86'-0"	3
(2)2x116S	87'-6"	3
(2)2x118S	89'-0"	3
(2)2x120S	90'-6"	3

NOTE: WIDTH IS MEASURED PERPENDICULAR TO THE RIDGE FOR WIDTHS BETWEEN 12'-0" AND 14'-0". THOSE SHOWN SPANS ARE PERMITTED TO BE INTERPOLATED. 2. ALL HEADERS SHALL HAVE SOLID BLOCKING.

JACK STUD REQ.-EXP. B FOR EXT. LOADBEARING WALLS

HEADER SUPPORTING	HEADER WIDTH		NO. JACK STUDS REQ.	
	3"	4.5"	5"	6.5"
2	1	1	1	1
4	1	1	1	1
6	2	1	2	2
8	2	2	2	2
10	3	2	2	2
12	3	2	2	2
14	4	3	3	2
16	4	3	3	2
18	5	4	4	3
20	5	4	4	3
22	6	5	5	4
24	6	5	5	4
26	7	6	6	5
28	7	6	6	5
30	8	7	7	6
32	8	7	7	6
34	9	8	8	7
36	9	8	8	7
38	10	9	9	8
40	10	9	9	8
42	11	10	10	9
44	11	10	10	9
46	12	11	11	10
48	12	11	11	10
50	13	12	12	11
52	13	12	12	11
54	14	13	13	12
56	14	13	13	12
58	15	14	14	13
60	15	14	14	13
62	16	15		