

UPLIFT CONNECTIONS-1.30 MPH WINDS EXP. "B"						
CONNECTION	FRAMING SPACING (in.)	ROOF SPAN (ft.)	U	L	S	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)

MAX GLAZING U-FACTOR	MINIMUM INSULATION R-VALUE		
	CEILINGS	WALLS	FLOORS
.75	R-26	R-13	R-11
			BASEMENT WALLS
			R-5
			CRAWL SPACE WALLS
			R-5

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

SHEATHING LOCATION	STUD SPC.	E		F	
		MAX. NAIL SPC. FOR 8d COM. NAILS (INCHES O.C.)	MAX. NAIL SPC. FOR 10d BOX NAILS (INCHES O.C.)	MAX. NAIL SPC. FOR 8d COM. NAILS (INCHES O.C.)	MAX. NAIL SPC. FOR 10d BOX NAILS (INCHES O.C.)
INTERIOR ZONE	12" O.C.	6	6	12	12
	16" O.C.	6	6	12	12
	24" O.C.	6	6	12	12
PERIMETER EDGE ZONE	12" O.C.	6	6	12	12
	16" O.C.	6	6	12	12
	24" O.C.	6	6	12	12

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 3/8 INCH WIDE SHEETS OF UNDERLAMENT, OVERLAPPING SUCCESSIVE SHEETS 1/8 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:

1. THE BASIC WIND SPEED IS 110 MPH OR GREATER AND THE EAVES IS 20 FEET OR HIGHER ABOVE GRADE
2. THE BASIC WIND SPEED IS 120 MPH OR GREATER
3. 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 DIRECTLY ABOVE STUDS, RAFTERS SHALL BE ATTACHED 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. UPPER STORY WALL STUDS ARE NOT LOCATED DIRECTLY ABOVE LOWER WALL STUDS. THE STUDS SHALL BE ATTACHED TO A COMMON MEMBER IN THE FLOOR ASSEMBLY BY 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 A663 GRADE 33 STEEL STRAP SHALL BE NAILED TO THE WALL STUDS AND HAVE A MINIMUM EMBEDMENT OF 7 INCHES IN CONCRETE FOUNDATION. SECOND FLOOR WALL STUDS SHALL BE CONNECTED TO FOUNDATIONS, OR BE LAPPED UNDER THE BOTTOM PLATE. 3 INCH SQUARE WASHERS SHALL BE USED ON THE ANCHOR BOLTS AND ANCHOR BOLT SPACINGS SHALL NOT EXCEED THE REQUIREMENTS. STEEL STRAPS EMBEDDED IN OR IN CONTACT WITH SLAB-ON-GRADE OR MASONRY BLOCK FOUNDATIONS SHALL BE HOT-DIPPED GALV. STEEL STRAPS EMBEDDED IN OR IN CONTACT WITH CONCRETE FOUNDATIONS SHALL BE IN ACCORDANCE WITH TABLE.

WINDBORNE DEBRIS PROTECTION FASTENING SCHEDULE FOR WOOD STRUCTURAL PANES

FASTENER TYPE	FASTENER SPACING		
	4 FOOT PANEL SPAN	6 FOOT PANEL SPAN	8 FOOT PANEL SPAN
2-1/2" x 8" WOOD SCREWS	16"	12"	9"
2-1/2" x 8" WOOD SCREWS	16"	16"	12"

WINDBORNE DEBRIS LOCATED IN WIND BORE AREAS SHALL HAVE EMBEDDED OPENINGS PROTECTED FROM WINDBORNE DEBRIS. WOOD STRUCTURAL PANES WITH A MIN. THICKNESS OF 7/8" AND A MAX. SPAN OF 8 FEET SHALL BE PERMITTED FOR PROTECTION FROM WINDBORNE DEBRIS. WOOD STRUCTURAL PANES WITH A THICKNESS OF 7/8" AND A MAX. SPAN OF 8 FEET SHALL BE PERMITTED FOR PROTECTION FROM WINDBORNE DEBRIS. WOOD STRUCTURAL PANES WITH A THICKNESS OF 7/8" AND A MAX. SPAN OF 8 FEET SHALL BE PERMITTED FOR PROTECTION FROM WINDBORNE DEBRIS. WOOD STRUCTURAL PANES WITH A THICKNESS OF 7/8" AND A MAX. SPAN OF 8 FEET SHALL BE PERMITTED FOR PROTECTION FROM WINDBORNE DEBRIS. WOOD STRUCTURAL PANES WITH A THICKNESS OF 7/8" AND A MAX. SPAN OF 8 FEET SHALL BE PERMITTED FOR PROTECTION FROM WINDBORNE DEBRIS.

HEADER NAILING SCHEDULE

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

NOTE: ALL HEADERS SHALL HAVE SOLID BLOKING

DESIGN CRITERIA:

THE CONSTRUCTION FOR SFD RESIDENCE WHERE BASIC WIND SPEED IS 130 MPH PER HOUR IS DESIGNED IN ACCORDANCE WITH AND PAPER ASSOCIATION (ASPPA) WOOD FRAME CONSTRUCTION MANUAL FOR ONE AND TWO FAMILY DWELLINGS (WFCM) 2001 EDITION AS WELL AS THE INTERNATIONAL RESIDENTIAL CODE (IRC) 2009 EDITION

HOLDDOWNS

HOLDDOWNS ARE REQUIRED AT THE END OF EACH SEGMENTED SHEARWALL SEGMENT OR AT EACH END OF A PERFORATED SHEARWALL WHEN FULL HEIGHT SHEARWALL SEGMENTS MEET AT A CORNER. A SINGLE HOLDDOWN SHALL BE PERMITTED TO BE USED TO RESIST THE OVERTURNING FORCES IN BOTH DIRECTIONS WHEN THE CORNER FRAMING IN THE ADJOINING WALLS IS FASTENED TOGETHER TO TRANSFER THE UPLIFT LOAD. SEE CORNER HOLDDOWN DETAIL.

JACK STUD REQUIREMENTS-FOR INTERIOR LOADBEARING WALLS

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

SILL or BOTTOM PLATE TO FND. CONNECTIONS RESISTING UPLIFT LOADS-1.30 MPH WINDS EXP. "B"

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

SILL or BOTTOM PLATE TO FND. CONNECTIONS RESISTING SHEAR LOADS-1.30 MPH WINDS EXP. "B"

BOTTOM PLATE TO FND. ANCHOR BOLT CONNECTION RESISTING SHEAR LOADS	FOUNDATION SUPPORTING	MAX. ANCHOR BOLT SPACING (in.)	
		1/2" ANCH. BOLTS	5/8" ANCH. BOLTS
	1-3 STORES	30	45

HEADER SPANS-FOR INT. LOADBEARING WALLS

HEADER SUPPORTING	SIZE	BLDG. WIDTH (ft.)		
		12	24	36
	2x4S	4'-4"	3'-11"	2'-6"
	2x6S	6'-9"	4'-8"	3'-8"
	2x8S	9'-1"	5'-9"	4'-8"
	2x10S	11'-6"	8'-1"	6'-7"
	2x12S	10'-2"	7'-2"	5'-10"
	3x4S	14'-4"	10'-2"	8'-3"
	4x4S	11'-6"	8'-3"	6'-9"
	4x6S	14'-4"	10'-1"	8'-3"
	4x8S	14'-4"	10'-1"	8'-3"
	4x10S	2'-10"	2'-1"	1'-8"
	4x12S	4'-2"	3'-11"	2'-8"
	6x6S	5'-2"	4'-9"	3'-3"
	6x8S	7'-8"	5'-6"	3'-11"
	6x10S	8'-8"	5'-6"	4'-0"
	6x12S	8'-1"	6'-0"	4'-0"
	8x8S	9'-2"	6'-8"	5'-8"
	8x10S	9'-2"	6'-8"	5'-8"
	8x12S	10'-0"	6'-0"	6'-7"

NOTE: ALL HEADERS SHALL HAVE SOLID BLOKING

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

SHEATHING LOCATION	RAFTER/ TRUSS SPC.	E		F	
		MAX. NAIL SPC. FOR 8d COM. NAILS (INCHES O.C.)	MAX. NAIL SPC. FOR 10d BOX NAILS (INCHES O.C.)	MAX. NAIL SPC. FOR 8d COM. NAILS (INCHES O.C.)	MAX. NAIL SPC. FOR 10d BOX NAILS (INCHES O.C.)
INTERIOR ZONE	12" O.C.	6	6	12	12
	16" O.C.	6	6	12	12
	24" O.C.	6	6	12	12
PERIMETER EDGE ZONE	12" O.C.	6	6	12	12
	16" O.C.	6	6	12	12
	24" O.C.	6	6	12	12

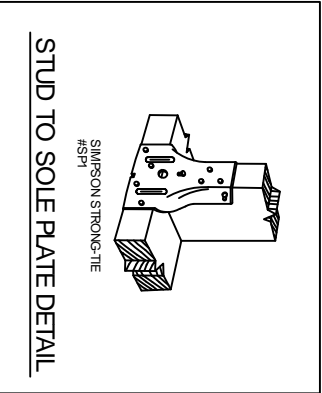
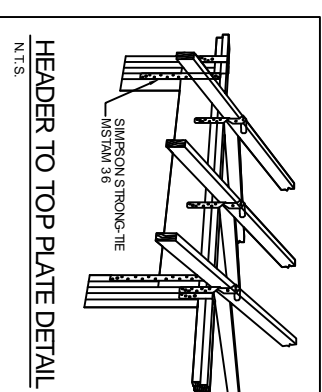
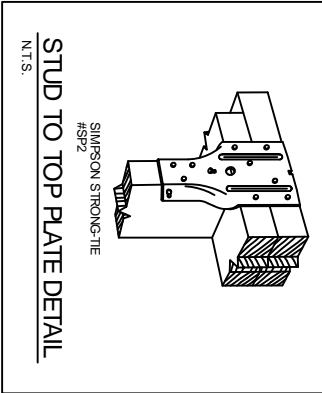
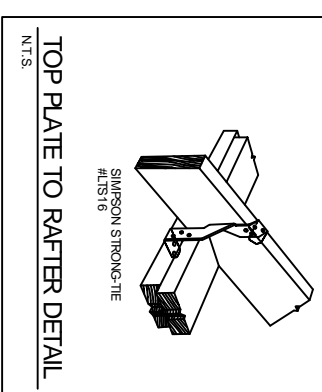
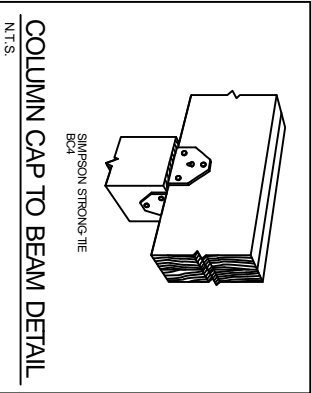
HEADER SPANS-EXPOSURE B FOR EXTERIOR LOADBEARING WALLS

HEADER SIZE	SPAN	NO. FULL HGT. STUDS REQ. AT EA. END
2x4S	4'-2"	2
2x6S	6'-6"	2
2x8S	6'-0"	3
2x10S	6'-6"	3
2x12S	7'-1"	3
3x4S	7'-5"	3
3x6S	8'-3"	3
3x8S	8'-7"	3
3x10S	9'-6"	3
3x12S	10'-0"	4

NOTE: 1. BLDG. WIDTH IS MEASURED PERPENDICULAR TO THE RIDGE FOR WIDTHS BETWEEN THOSE SHOWN. SPANS ARE PERMITTED TO BE INTERPOLATED. 2. ALL HEADERS SHALL HAVE SOLID BLOKING.

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

HEADER SUPPORTING	HEADER SPAN (ft.)	HEADER WIDTH				
		3' 4.5"	5'	6.5'	8'	10'
ROOF AND CEILING	2	1	1	1	1	1
	4	1	1	1	1	1
	6	2	2	2	2	2
	8	2	2	2	2	2
	10	3	3	3	3	3
	12	3	3	3	3	3
	14	4	4	4	4	4
	16	4	4	4	4	4
	2	1	1	1	1	1
	4	2	2	2	2	2
	6	3	3	3	3	3
	8	3	3	3	3	3
	10	4	4	4	4	4
	12	4	4	4	4	4
	14	5	5	5	5	5
	16	5	5	5	5	5



NOTES & DETAILS

SCALE: AS NOTED

JOB#:

DATE: 09-02-10

SHEET