UPLIFT CONNECTIONS-130MPH 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	BASEMENT WALLS	CRAWL SPACE WALLS
.75	R-26	R-13	R-11	R-5	R-5

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" #6 WOOD SCREWS	16"	12"	9"
2-1/2" #8 WOOD SCREWS	16"	16"	12"

WINDOWS IN BUILDINGS LOCATED IN WIND BORNE DEBRIS REGIONS SHALL HAVE GLAZED OPENINGS PROTECTED FROM WINDBORNE DEBRIS. WOOD STRUCTURAL PANELS WITH A MIN. THICKNESS OF 7/16" AND A MAX. SPAN OF 8 FEET SHALL BE PERMITTED FOR OPENING PROTECTION IN ONE AND TWO STORY BUILDINGS. PANELS SHALL BE PRECUT TO COVER THE GLAZED OPENINGS WITH ATTACHMENT HARDWARE PROVIDED.

JACK STUD REQUIREMENTS-FOR INTERIOR LOADBEARING WALLS

HEADER SUPPORTING	HEADER SPAN (ft.)	ROOF SPAN (ft.)											
		12 FEET				24 FEET				36 FEET			
		3"	4.5"	5"	6.5"	3"	4.5"	5"	6.5"	3"	4.5"	5"	6.5"
		NO. JACK STUDS REQ.											
ROOF AND CEILING	2	1	1	1	1	1	1	1	1	1	1	1	1
	4	1	1	1	1	1	1	1	1	1	1	1	1
	6	1	1	1	1	1	1	1	1	2	1	1	1
	8	1	1	1	1	2	1	1	1	2	2	2	1
	10	1	1	1	1	2	2	1	1	3	2	2	2
	12	1	1	1	1	2	2	2	1	3	2	2	2
	14	2	1	1	1	3	2	2	2	4	3	3	2
	16	2	1	1	1	3	2	2	2	4	3	3	2
ROOF, CEILING, AND 1 CENTER BEARING FLR.	2	1	1	1	1	1	1	1	1	2	1	1	1
	4	1	1	1	1	2	1	1	1	3	2	2	2
	6	2	1	1	1	3	2	2	2	4	3	3	2
	8	2	2	1	1	3	2	2	2	5	3	3	3
	10	2	2	2	1	4	3	3	2	6	4	4	3
	12	3	2	2	2	5	3	3	3	7	5	4	4
	14	3	2	2	2	5	4	3	3	8	5	5	4
	16	4	3	2	2	6	4	4	3	9	6	5	5
HEADER WIDTH-3" (2-2x), 4.5" (3-2x), 5", 6.5" (4-2x) EACH W/ 1/2" PLYWD. SPACER BETWEEN													

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

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

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

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

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

SHEATHING LOCATION	STUD SPAC.	E	F
		MAX. NAIL SPAC. FOR 8d COM. NAILS OR 10d BOX NAILS (INCHES, O.C.)	
INTERIOR ZONE	12" O.C.	6	12
	16" O.C.	6	12
	24" O.C.	6	12
PERIMETER EDGE ZONE	12" O.C.	6	12
	16" O.C.	6	12
	24" O.C.	6	12
130 MPH WINDS-EXPOSURE "B" (TYP.)			

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 BLOCKING

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

SHEATHING LOCATION	RAFTER/ TRUSS SPAC.	E	F
		MAX. NAIL SPAC. FOR 8d COM. NAILS OR 10d BOX NAILS (INCHES, O.C.)	
INTERIOR ZONE	12" O.C.	6	12
	16" O.C.	6	12
	24" O.C.	6	12
PERIMETER EDGE ZONE	12" O.C.	6	6
	16" O.C.	6	6
	24" O.C.	6	6
130 MPH WINDS-EXPOSURE "B" (TYP.)			

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

HEADER SUPPORTING	HEADER SPAN (ft.)	HEADER WIDTH			
		3"	4.5"	5"	6.5"
		NO. JACK STUDS REQ.			
ROOF AND CEILING	2	1	1	1	1
	4	1	1	1	1
	6	2	1	1	2
	8	2	2	2	2
	10	3	2	2	2
	12	3	2	2	2
	14	4	3	2	2
	16	4	3	3	2
ROOF, CEILING, AND 1 CENTER BEARING FLR.	2	1	1	1	1
	4	2	1	1	1
	6	2	2	2	1
	8	3	2	2	3
	10	4	3	2	2
	12	4	3	3	2
	14	5	3	3	3
	16	5	4	3	3
HEADER WIDTH-3" (2-2x), 4.5" (3-2x), 5", 6.5" (4-2x) EACH W/ 1/2" PLYWD. SPACER BETWEEN					

HEADER SPANS-FOR INT. LOADBEARING WALLS

HEADER SUPPORTING	SIZE	BLDG. WIDTH (ft.)		
		12	24	36
		SPANS (ft-in.)		
ONE FLOOR (CENTER BEARING)	(2)2x4'S	4'-4"	3'-1"	2'-6"
	(2)2x6'S	6'-5"	4'-6"	3'-8"
	(2)2x8'S	8'-1"	5'-9"	4'-8"
	(2)2x10'S	9'-11"	7'-0"	5'-9"
	(2)2x12'S	11'-6"	8'-1"	6'-7"
	(3)2x8'S	10'-2"	7'-2"	5'-10"
	(3)2x10'S	12'-5"	8'-9"	7'-2"
	(3)2x12'S	14'-4"	10'-2"	8'-3"
	(4)2x8'S	11'-6"	8'-3"	6'-9"
	(4)2x10'S	14'-4"	10'-1"	8'-3"
	(4)2x12'S	*	11'-9"	9'-7"
2 FLOORS ONLY (CENTER BEARING)	(2)2x4'S	2'-10"	2'-1"	1'-8"
	(2)2x6'S	4'-2"	3'-1"	2'-6"
	(2)2x8'S	5'-4"	3'-11"	3'-3"
	(2)2x10'S	6'-6"	4'-9"	3'-11"
	(2)2x12'S	7'-6"	5'-6"	4'-7"
	(3)2x8'S	6'-8"	4'-10"	4'-0"
	(3)2x10'S	8'-1"	6'-0"	4'-11"
	(3)2x12'S	9'-5"	6'-11"	5'-9"
	(4)2x8'S	7'-8"	5'-8"	4'-8"
	(4)2x10'S	9'-4"	6'-10"	5'-8"
	(4)2x12'S	10'-10"	8'-0"	6'-7"
* MAX. SPAN EXCEEDS 16' (SPANS LIM. TO 16')				

NOTE:
ALL HEADERS SHALL HAVE SOLID BLOCKING

HEADER SPANS-EXPOSURE B FOR EXTERIOR LOADBEARING WALLS

HEADER SIZE	SPAN	NO. FULL HGT. STUDS REQ. AT EA. END
(2)2x4'S	4'-7"	2
(2)2x6'S	5'-6"	2
(2)2x8'S	6'-1"	3
(2)2x10'S	6'-8"	3
(2)2x12'S	7'-1"	3
(3)2x8'S	7'-5"	3
(3)2x10'S	8'-3"	3
(3)2x12'S	8'-8"	3
(4)2x8'S	8'-7"	3
(4)2x10'S	9'-6"	3
(4)2x12'S	10'-0"	4
130 MPH WINDS-EXPOSURE "B" (TYP.) EACH W/ 1/2" PLYWD. SPACER BETWEEN		

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 BLOCKING.

ROOF UNDERLAYMENT 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), UNDERLAYMENT SHALL BE TWO LAYERS APPLIED IN THE FOLLOWING MANNER:

APPLY A 19 INCH STRIP OF UNDERLAYMENT FELT PARALLEL WITH AND STARTING AT THE EAVES, FASTENED SUFFICIENTLY TO HOLD IN PLACE. STARTING AT THE EAVE, APPLY 36 INCH WIDE SHEETS OF UNDERLAYMENT, 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, UNDERLAYMENT SHALL BE ONE LAYER APPLIED IN THE FOLLOWING MANNER:

UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION, PARELLEL 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 EAVE 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:

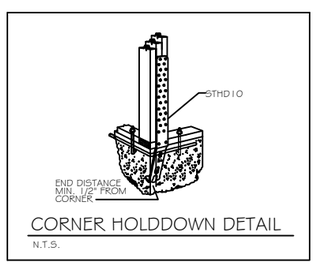
UPLIFT CONNECTIONS SHALL BE FROM RAFTER OR TRUSS TO WALL STUD. WHEN RAFTERS OR TRUSSES ARE NOT LOCATED DIRECTLY ABOVE STUDS, RAFTERS SHALL BE ATTACHED TO THE WALL PLATE AND THE WALL TOP PLATE SHALL BE ATTACHED TO THE WALL STUD WITH UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE.

WALL ASSEMBLY TO WALL ASSEMBLY:

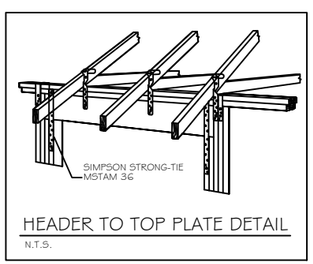
STORY TO STORY UPLIFT CONNECTIONS FROM UPPER STORY WALL STUD TO LOWER STORY WALL STUD. WHEN UPPER STORY WALL STUDS ARE NOT LOCATED DIRECTLY ABOVE LOWER WALL STUDS, THE STUDS SHALL BE ATTACHED TO A COMMON MEMBER IN THE FLOOR ASSEMBLY BY UPLIFT CONNECTIONS. UPLIFT CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE.

WALL ASSEMBLY TO FOUNDATION:

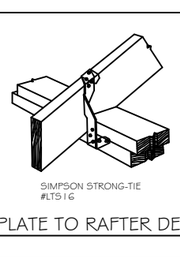
FIRST FLOOR WALL STUDS SHALL BE CONNECTED TO THE FOUNDATION, SILL, PLATE, OR BOTTOM PLATE. A MINIMUM OF A 1-1/4" x 20 GA. ASTM A653 GRADE 33 STEEL STRAP SHALL BE NAILED TO THE WALL STUDS AND HAVE A MINIMUM EMBEDMENT OF 7 INCHES IN CONCRETE FOUNDATIONS AND SLABS-ON-GRADE, 15 INCHES IN MASONRY BLOCK FOUNDATIONS, 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. AFTER FABRICATION, OR MANUF. FROM G185 OR Z450 GALV. STL. CONNECTIONS SHALL BE IN ACCORDANCE WITH TABLE.



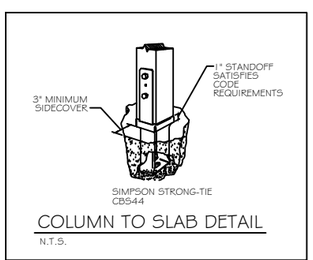
CORNER HOLDDOWN DETAIL
N.T.S.



HEADER TO TOP PLATE DETAIL
N.T.S.



TOP PLATE TO RAFTER DETAIL
N.T.S.



COLUMN TO SLAB DETAIL
N.T.S.

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.

STRUCTURAL NOTES

DESIGN LOADS:
WIND: 130 MPH
FLOOR: 40 PSF LIVE LOAD
ROOFS: 20 PSF LIVE LOAD

WIND DESIGN CRITERIA:
METHOD 2-ANALYTICAL METHOD PROCEDURE FOR ASCE 7-05

DESIGNED FOR: ENCLOSED BUILDING
WIND VELOCITY: 130 MPH (3 SECOND GUST)

TERRAIN EXPOSURE CATEGORY: B
GUST EFFECT FACTOR: 0.85
INTERNAL PRESSURE: +/- 0.18
BUILDING CATEGORY: III
IMPORTANCE FACTOR: 1.15

WALL PRESURE FOR COMPONENT AND CLADDING: (130 MPH)

INTERIOR ZONES (ZONE 4)

EFFECTIVE AREA (FT|)	DESIGN PRESSURE (PSF)	
10	+35.3	-38.2
20	+33.7	-36.7
50	+31.6	-34.6
100	+30.0	-33.0

END ZONES (ZONE 5): WITHIN 6 F.T. OF CORNERS

10	+35.3	-47.2
20	+33.7	-44.0
50	+31.6	-39.8
100	+30.0	-36.7

ROOF PRESSURE FOR COMPONENT AND CLADDING: (130MPH)

ZONE	DESIGN PRESSURE (PSF)
1	+20.3/-32.3
2	+20.3/-68.1
3	+20.3/-68.1

NOTE:
ALL EXTERIOR DOORS AND WINDOWS SHALL BE DESIGNED AND INSTALLED TO WITHSTAND DESIGN WIND LOADS BASED ON ASCE 7-05

SITE PREPAPATION:
1. SEE FOUNDATION PLANS BY COAST POST-TENSIONED SYSTEMS FOR REQUIREMENTS

CONCRETE:
1. SEE FOUNDATION PLANS BY COAST POST-TENSIONED SYSTEMS FOR REQUIREMENTS

TIMBER:
1. STRUCTUAL TIMBER EXCEPT STUDS SHALL BE #2 SOUTHERN YELLOW PINE (19% MAX. MOISTURE CONTENT). WOOD AGAINST MASONRY OR IN WET-USE ENVIRONMENTS TO BE PRESSURE TREATED.
2. EXTERIOR AND SHEAR STUD WALLS TO HAVE SOLID BLOCKING AT SHEATHING JOINTS
3. STUDS TO BE #2 SPRUCE, PINE, OR FIR @ 16" O.C.
4. PLYWOOD/OSB SHEATHING SHALL BE APA RATED (PRP-108). ALL PANELS WHICH HAVE ANY EDGE OR SURFACE PERMANENTLY EXPOSED TO WEATHER SHALL BE CLASSIFIED EXTERIOR.

ROOF SHEATHING: 7/16" APA RATED SHEATHING W/ 8d THREADED NAILS @ 3" O.C. EDGE AND 12" O.C. INTERIOR SPACING.

WALL SHEATHING: 7/16" APA RATED SHEATHING W/ 8d THREADED NAILS @ 3" O.C. EDGE AND 12" O.C. INTERIOR SPACING.

5. STRUCTUAL ADHESIVES:
SIMPSON SET
CONTRACTOR SHALL FOLLOW ALL INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS EXPLICITLY.
6. FABRICATED STRUCTUAL MEMBERS INCLUDING TRUSSES SHALL BE DESIGNED AND CERTIFIED BY A LOUISIANA ENGINEER. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION
7. ROOF TRUSS ANCHORS: ALL TRUSSES OTHER THAN GRIDERS SHALL BE ANCHORED W/ SIMPSON H10 (MINIMUM). WHERE TRUSS MANUFACTURER'S UPLIFT REQUIREMENTS EXCEED 850 LBS, CONSULT ARCHITECT OR TRUSS MANUFACTURER FOR OPTIONAL ANCHORS. ALL TRUSS ANCHORS SHALL BE INSTALLED ON EXTERIOR FACE OF WALL.

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MWFRS
NOTES

REV:

SCALE: AS NOTED

JOB#:

DATE: 07-15-10

SHEET
A-2
OF