## TABLE S601.7 - UPLIFT CONNECTIONS - 140 MPH WINDS EXP "C"

WFCM 2015 TABLE 3.2 & A3.4

| CONNECTION | FRAMING SPACING (INCHES) | ROOF SPAN (FEET) | UPLIFT | ROOF SPAN (FT) | FRAMING SPACING (INCHES) | NUMBER OF 8d COMMON NAILS OR 10d BOX NAILS IN EACH END OF 1-1/4"x20 GAGE STRAP |
|---|---|---|---|---|---|---|
| ROOF ASSEMBLY TO WALL ASSEMBLY; WALL ASSEMBLY TO WALL ASSEMBLY; WALL ASSEMBLY TO FOUNDATION | | | | 24 | 16" | 4 |
| | | | | 24 | 24" | 6 |

## TABLE S601.8 - SILL OR BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING UPLIFT LOADS - 140 MPH WIND EXP "C"

WFCM 2015 TABLE 3.2C

| BOTTOM PLATE TO FOUNDATION ANCHOR BOLT CONNECTION RESISTING | FOUNDATION SUPPORTING | MAXIMUM ANCHOR BOLT SPACING (INCHES) | |
|---|---|---|---|
| | | 8' END ZONES | INTERIOR ZONES |
| UPLIFT LOADS | 1 - 3 STORIES | 30 INCHES ON CENTER | 35 INCHES ON CENTER |

NOTE: A MINIMUM OF ONE ANCHOR BOLT SHALL BE PROVIDED WITHIN 6 TO 12 INCHES OF EACH END OF EACH PLATE

## TABLE S601.9 - BOTTOM PLATE TO FOUNDATION CONNECTIONS RESISTING SHEAR & LATERAL LOADS - ALL WINDS & ALL EXPOSURES

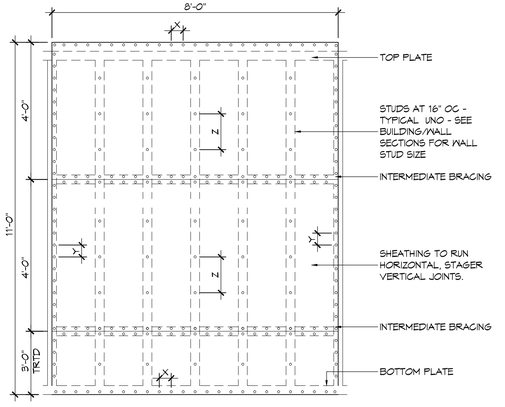
WFCM 2015 TABLE 3.2B

| ANCHOR BOLT DIAMETER (IN) | 1/2" Φ ANCHOR BOLT | 5/8" Φ ANCHOR BOLT |
|---|---|---|
| MAXIMUM ANCHOR BOLT SPACING (INCHES) | 31 INCHES | 48 INCHES |

## TABLE S601.10 - FULL HEIGHT STUD REQUIREMENT FOR HEADERS OR WINDOW SILL PLATES IN EXTERIOR WALLS EXPOSURE B & C

WFCM 2015 TABLE 3.23C

| | WALL SPACING (INCHES) | | |
|---|---|---|---|
| | 12" O.C. | 16" O.C. | 24" O.C. |
| HEADER SPAN (FEET) | NUMBER OF FULL HEIGHT STUD REQUIRED AT EACH END OF THE HEADER | | |
| 2 | 1 | 1 | 1 |
| 4 | 2 | 2 | 1 |
| 6 | 3 | 3 | 2 |
| 8 | 4 | 3 | 2 |




NAIL SPACING
X = 4" OC
Y = 4" OC
Z = 12" OC

X = PLATE EDGE NAIL SPACING
Y = LONG EDGE NAIL SPACING
Z = FIELD NAIL SPACING

INTERIOR SHEATHING
1/2"PLYWOOD EACH FACE STAGGERED 48" OC. W/8d NAILS @4"O.C. FASTENING @ PANEL EDGES 8d NAILS @12" O.C. FASTENING @ INTERMEDIATE MEMBERS.

EXTERIOR SHEATHING
1/2"PLYWOOD EACH FACE STAGGERED 48" OC. W/8d NAILS @4"O.C. FASTENING @ PANEL EDGES 8d NAILS @12" O.C. FASTENING @ INTERMEDIATE MEMBERS.

(H) SHEAR WALL EXTERIOR SHEATHING NAILING PATTERN

## TABLE S601.5 - JACK STUD REQ - INT LOADBEARING WALLS

| HEADER SUPPORTING | HEADER SPAN (FT) | ROOF SPAN (FEET) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12 FEET | | | | 24 FEET | | | | 36 FEET | | | |
| | | HEADER WIDTH | | | | | | | | | | | |
| | | 3" | 4.5" | 5" | 6.5" | 3" | 4.5" | 5" | 6.5" | 3" | 4.5" | 5" | 6" |
| | | NUMBER OF JACK STUDS REQUIRED AT EACH END OF THE HEADER | | | | | | | | | | | |
| ONE FLOOR ONLY (CENTER BEARING) | 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 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 4 | 3 | 3 | 2 |
| TWO FLOORS (CENTER BEARING) | 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 | 2 | 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 | 6 | 4 | 4 | 3 | 8 | 5 | 5 | 4 |
| | 16 | 4 | 3 | 2 | 2 | 6 | 4 | 4 | 3 | 9 | 6 | 6 | 5 |

HEADER WIDTH - 3" (2-2x), 4.5" (3-2x), 5", 6.5" (4-2x) EACH W/ 1/2" PLYWOOD SPACER BETWEEN

## TABLE S601.6 - JACK STUD REQ - EXTERIOR LOADBEARING WALLS

WFCM 2015 TABLE 3.22F

| | | ROOF LIVE LOAD 20 PSF | | | | ROOF LIVE LOAD 30 PSF | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 3" | 4.5" | 5" | 6.5" | 3" | 4.5" | 5" | 6.5" |
| | | NUMBER OF JACK STUDS REQUIRED | | | | | | | |
| ROOF AND CEILING | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| | 8 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 |
| | 10 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| | 12 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| | 14 | 4 | 3 | 2 | 2 | 4 | 3 | 2 | 2 |
| | 16 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 2 |
| ROOF, CEILING, AND ONE CENTER BEARING FLOOR | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 4 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| | 6 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 2 |
| | 8 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 |
| | 10 | 4 | 3 | 2 | 2 | 4 | 3 | 3 | 2 |
| | 12 | 4 | 3 | 3 | 2 | 5 | 3 | 3 | 3 |
| | 14 | 5 | 4 | 3 | 3 | 5 | 4 | 3 | 3 |
| | 16 | 6 | 4 | 4 | 3 | 6 | 4 | 4 | 3 |

HEADER WIDTH - 3" (2-2x), 4.5" (3-2x), 5", 6.5" (4-2x) EACH W/ 1/2" PLYWOOD SPACER BETWEEN

## TABLE S601.3 - NAILING SCHEDULE WFCM 2015 TABLE 3.1

| DESCRIPTION | NUMBER OF COMMON NAILS | NUMBER OF BOX NAILS | SPACING |
|---|---|---|---|
| HEADER TO HEADER (FACE NAILED) | 16d | 16d | 16" OC EDGES |

## TABLE S601.4 - BUILDING ENVELOPE REQUIREMENTS

| OPAQUE ELEMENTS | | ASSEMBLY MAXIMUM | INSULATION MIN. R-VALUE |
|---|---|---|---|
| ROOFS | INSULATION ENTIRELY ABOVE DECK | U-0.048 | R-20.0 c.i. |
| | METAL BUILDING | U-0.065 | R-19 |
| | ATTIC AND OTHER | U-0.027 | R-38 |
| WALLS, ABOVE GRADE | MASS | U-0.151 | R-5.7 c.i. |
| | METAL BUILDING | U-0.113 | R-13.0 |
| | STEEL-FRAMED | U-0.124 | R-13.0 |
| | WOOD-FRAMED AND OTHER | U-0.089 | R-13.0 |
| FLOORS | MASS | U-0.107 | R6-3 c.i. |
| | STEEL JOIST | U-0.052 | R-19.0 |
| | WOOD FRAMED AND OTHER | U-0.051 | R-19.0 |
| SLAB-ON-GRADE | UN-HEATED | F-0.730 | NR |
| OPAQUE DOORS | SWINGING | U-0.700 | NR |
| | NON-SWINGING | U-1.450 | NR |

## TABLE S601.4 - BUILDING ENVELOPE REQUIREMENTS

| OPAQUE ELEMENTS | | ASSEMBLY MAXIMUM | INSULATION MIN. R-VALUE |
|---|---|---|---|
| ROOFS | INSULATION ENTIRELY ABOVE DECK | U-0.048 | R-20.0 c.i. |
| | METAL BUILDING | U-0.065 | R-19 |
| | ATTIC AND OTHER | U-0.027 | R-38 |
| WALLS, ABOVE GRADE | MASS | U-0.151 | R-5.7 c.i. |
| | METAL BUILDING | U-0.113 | R-13.0 |
| | STEEL-FRAMED | U-0.124 | R-13.0 |
| | WOOD-FRAMED AND OTHER | U-0.089 | R-13.0 |
| FLOORS | MASS | U-0.107 | R6-3 c.i. |
| | STEEL JOIST | U-0.052 | R-19.0 |
| | WOOD FRAMED AND OTHER | U-0.051 | R-19.0 |
| SLAB-ON-GRADE | UN-HEATED | F-0.730 | NR |
| OPAQUE DOORS | SWINGING | U-0.700 | NR |
| | NON-SWINGING | U-1.450 | NR |

## ROOF UNDERLAYMENT NOTES

1. FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (17-PERCENT SLOPE) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (33-PERCENT SLOPE) UNDERLAYMENT SHALL BE TWO LAYERS APPLIED IN THE FOLLOWING MANNER:
   a. 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.
2. 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.
   a. UNDERLAYMENT 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 NOTES

1. ASPHALT STRIP SHINGLES SHALL HAVE A MINIMUM OF SIX FASTENERS PER SHINGLE WHERE THE ROOF IS IN ONE OF THE FOLLOWING CATEGORIES:
   a. THE BASIC WIND SPEED IS 110 MPH OR GREATER AND THE EAVE IS 20 FEET OR HIGHER ABOVE GRADE.
   b. THE BASIC WIND SPEED IS 120 MPH OR GREATER.
   c. SPECIAL WIND ZONES.

## METAL ROOF APPLICATION & FASTENING NOTES

1. INSTALL METAL ROOF PER MANUFACTURES RECOMMENDATIONS FOR 150MPH WIND SPEED.

## GENERAL UPLIFT CONNECTION NOTES

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 S601.10.

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 S601.11.

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 S601.12.

## TABLE S601.1 - ROOF SHEATHING ATTACHMENT REQUIREMENT - WIND LOAD EXP "C"

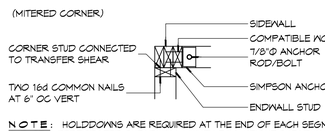
| SHEATHING LOCATION | RAFTER / TRUSS SPACING | E | F |
|---|---|---|---|
| | | MAX NAIL SPACING FOR 8d COMMON NAILS OR 10d BOX NAILS (INCHES OC) | |
| INTERIOR ZONE | 12" OC | 6 | 12 |
| | 16" OC | 6 | 12 |
| | 24" OC | 6 | 12 |
| PERIMETER EDGE ZONE | 12" OC | 6 | 6 |
| | 16" OC | 4 | 4 |
| | 24" OC | 3 | 3 |

150 MPH WIND - EXPOSURE "C" TYPICAL
E = NAIL SPACING AT PANEL EDGES, INCHES.
F = NAIL SPACING AT INTERMEDIATE SUPPORTS IN THE PANEL FIELD, INCHES.

## TABLE S601.1 - WALL SHEATHING AND CLADDING REQUIREMENT - WIND LOAD EXP "C"

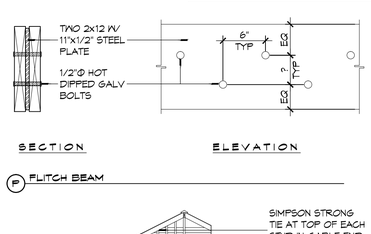
| SHEATHING LOCATION | RAFTER / TRUSS SPACING | E | F |
|---|---|---|---|
| | | MAX NAIL SPACING FOR 8d COMMON NAILS OR 10d BOX NAILS (INCHES OC) | |
| INTERIOR ZONE | 12" OC | 6 | 12 |
| | 16" OC | 6 | 12 |
| | 24" OC | 6 | 6 |
| PERIMETER EDGE ZONE | 12" OC | 6 | 12 |
| | 16" OC | 6 | 12 |
| | 24" OC | 6 | 6 |

150 MPH WIND - EXPOSURE "C" TYPICAL
E = NAIL SPACING AT PANEL EDGES, INCHES.
F = NAIL SPACING AT INTERMEDIATE SUPPORTS IN THE PANEL FIELD, INCHES.




NOTE: HOLDDOWNS ARE REQUIRED AT THE END OF EACH SEGMENTED SHEARWALL SEGMENT OR AT THE 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.

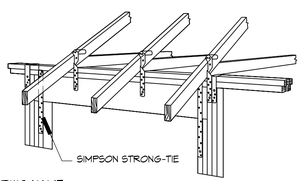
(G) CORNER HOLDDOWN



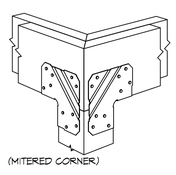

(F) FLITCH BEAM



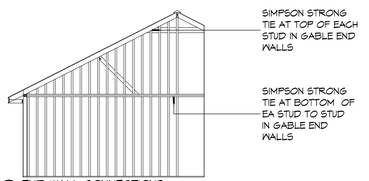
(K) SIMPSON MSTAM36



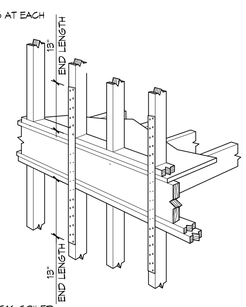

(N) DWG NAME



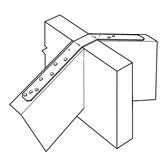

(M) POST TO BEAM




(L) END WALL CONNECTIONS




(J) NOT USED

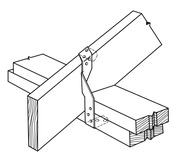


SIMPSON STRONG-TIE

AT ALL RIDGE CONNECTIONS

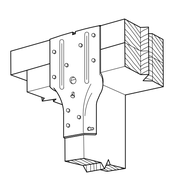
(H) FLOOR TO FLOOR

(G) RIDGE BEAM/BOARD



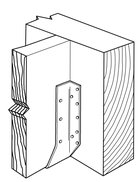
SIMPSON STRONG-TIE

(F) TOP PLATE TO RAFTER



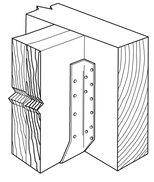
SIMPSON STRONG-TIE

(E) STUD TO TOP PLATE



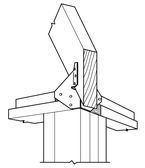
SIMPSON STRONG-TIE

(D) FLOOR JOIST



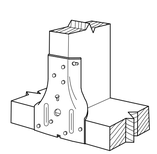
SIMPSON STRONG-TIE

(C) DBL FLOOR JOIST



SIMPSON STRONG-TIE

(B) HIP RAFTER



SIMPSON STRONG-TIE

(A) STUD TO SILL PLATE

1 / S601 | S601 TYPICAL CONNECTION DETAILS

SCALE: NTS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| # | DESCRIPTION | DATE |
|---|---|---|
| | REVISIONS | |

SEAL:

STAIR ADDITION
CROSSGATES ATHLETIC CLUB
200 NORTH MILITARY ROAD
SLIDELL, LA.

JOB No: 23-27 | DATE: 10-27-17
DRAWN BY: JTL | CHECKED BY:


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SHEET TITLE:
TYPICAL CONNECTION DETAILS, SCHEDULES, AND NOTES

DRAWING NUMBER:
S601

SHEET No: 6 of 8


FILE NAME: J:\1 - COMMERCIAL\23-27 - Cross Gates Athletic Club\Drawings\Current Drawings\S601 - 1st and Second Floor Plan.dwg, 10/27/2017 11:42:49 AM, Wednesday, November 15, 2017 2:05:57 PM, DWG