



ICC-ES Evaluation Report

ESR-5079

Issued July 2023

This report is subject to renewal July 2024.

DIVISION: 06 00 00—WOOD, PLASTICS, AND COMPOSITES
Section: 06 05 23—Wood, Plastic, and Composite Fastenings

REPORT HOLDER:

CLARKDIETRICH® BUILDING SYSTEMS

EVALUATION SUBJECT:

CLARKDIETRICH® ANGLES, CLIPS AND HURRICANE TIES

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, and 2012 *International Building Code*® (IBC)
- 2021, 2018, 2015, and 2012 *International Residential Code*® (IRC)

Property evaluated:

Structural

2.0 USES

The ClarkDietrich® angles, clips, and hurricane ties described in this report are used as wood framing connectors in accordance with Section 2304.10.4 of the 2021 IBC and Section 2304.10.3 of the 2018, 2015 and 2012 IBC. The connectors may also be used in structures regulated under the IRC when an engineered design is submitted in accordance with Section R301.1.3 of the IRC.

3.0 DESCRIPTION

3.1 General:

The ClarkDietrich® angles, clips, and hurricane ties described in this report are formed from various gauges of steels and have prepunched holes for the installation of nails or wood screws into the face of the supporting and supported wood and wood-base framing members, including, but not limited to, header, beam, wall plate, wood truss, or ledger.

3.1.1 CDCA Angles: The CDCA angles are formed from No. 12 gauge galvanized steel, and can be installed by using wood screws. See Table 1 for angle dimensions, required fasteners, and allowable loads; and Figure 1 for drawings of the angles and the typical installations.

3.1.2 CDFA Angles: The CDFA angles are formed from No. 18 and No. 12 gauge galvanized steel and can be installed with nails or wood screws. See Tables 2A through

2C for the angle dimensions, required nails or wood screws, and allowable loads; and Figures 2A and 2B for drawings of CDFA angles and the typical installations.

3.1.3 CDGC Gusset Angles: The CDGC gusset angles are formed from No. 18 gauge galvanized steel. See Table 3 for angle dimensions, required fasteners, and allowable loads; and Figure 3 for drawings of the gusset angles and the typical installations.

3.1.4 CDHT Hurricane Ties: The CDHT hurricane ties are formed from No. 18 and 16 gauge galvanized steels. See Table 4 for required fasteners and allowable loads; and Figure 4 for drawings of the hurricane ties, dimensions of hurricane ties, and the typical installations.

3.1.5 CD6LS and CD6TS Utility Clips: The CD6LS and CD6TS utility clips are formed from No. 14 gauge galvanized steel. See Table 5 for clip dimensions, required fasteners, and allowable loads; and Figure 5 for drawings of the clips and the typical installations.

3.2 Materials:

3.2.1 Steel: All products described in this report, are manufactured from galvanized steel complying with ASTM A1003, ST50H with a minimum yield strength, F_y , of 50,000 psi (345 MPa) and a minimum tensile strength, F_u , of 65,000 psi (448 MPa). Minimum base-steel thicknesses for the products in this report are as follows:

DESIGN THICKNESS, Inch (gauge)	MINIMUM BASE-METAL THICKNESS, (inch)
0.1017 (12)	0.0966
0.0713 (14)	0.0677
0.0566 (16)	0.0538
0.0451 (18)	0.0428

For SI: 1 inch = 25.4 mm.

The products described in this report have a minimum G90 galvanization in accordance with ASTM A653/A653M. The lumber treater or this report holder (ClarkDietrich® Building Systems) should be contacted for recommendations on minimum corrosion resistance of steel connectors in contact with the specific proprietary preservative treated or fire retardant lumber.

3.2.2 Wood: Wood members with which the angles, clips, and hurricane ties are used must be either sawn lumber, structural glued laminated timber or other engineered lumber having a minimum specific gravity of 0.50 (minimum equivalent specific gravity of 0.50 for engineered lumber),

and having a maximum moisture content of 19 percent (16 percent for structural glued laminated timber and engineered lumber) except as noted in Section 4.1. The thickness of the supporting wood member (headers, beams, wall plates or ledgers) and the supported wood members (joists or wood trusses) must be equal to or greater than the length of the fasteners specified in the tables in this report, or as required by wood member design, whichever is greater.

3.2.3 Fasteners: Fastener types and sizes required for use with the ClarkDietrich® angles, clips and hurricane ties described in this report are specified in this section and Tables 1 through 5. Nails used for connectors described in this report must be bright or hot-dipped galvanized carbon steel nails complying with material requirements, physical properties, tolerances, workmanship, protective coating and finishes, and packaging requirements specified in ASTM F1667; and must have lengths, diameters and bending yield strengths, F_{yb} , as shown in the following table:

NAIL DESIGNATION	DIAMETER (inch)	LENGTH (inches)	MINIMUM REQUIRED F_{yb} (psi)
8d x 1½	0.131	1.5	100,000
8d common	0.131	2.5	100,000
10d x 1½	0.148	1.5	90,000
10d x 2½	0.148	2.5	90,000
10d common	0.148	3.0	90,000

For **SI**: 1 inch = 25.4 mm; 1 psi = 6,895 Pa.

Alternatively, nails of other materials or finishes may be used when the nails are evaluated in an ICC-ES evaluation report as having bending yield strength and withdrawal capacity equal to or better than those of a bright carbon steel of the same nominal diameter.

Wood screws used for installation of products described in this report shall be evaluated in an ICC-ES evaluation report, as applicable.

Fasteners used in contact with preservative treated or fire retardant treated lumber must comply with 2021 IBC Section 2304.10.6, 2018 and 2015 IBC Section 2304.10.5, 2012 IBC Section 2304.9.5 and IRC Section R317.3, as applicable. The lumber treater or this report holder (ClarkDietrich® Building System) should be contacted for recommendations on minimum corrosion resistance of fasteners and connection capacities of fasteners used with the specific proprietary preservative treated or fire retardant treated lumber.

4.0 DESIGN AND INSTALLATION

4.1 Design:

The tabulated allowable loads shown in this report are based on allowable stress design (ASD) and include the load duration factor, C_D , corresponding with the applicable loads in accordance with the NDS.

Tabulated allowable loads apply to products connected to wood used under dry conditions and where sustained temperatures are 100°F (37.8°C) or less. When products are installed to wood having a moisture content greater than 19 percent (16 percent for engineered wood products), or where wet service is expected, the allowable loads must be adjusted by the wet service factor, C_M , specified in the NDS. When connectors are installed in wood that will experience sustained exposure to temperatures exceeding 100°F (37.8°C), the allowable loads in this report must be adjusted by the temperature factor, C_t , specified in the NDS.

Connected wood members must be analyzed for load-carrying capacity at the connection in accordance with the NDS.

4.2 Installation:

Installation of the ClarkDietrich® angles, clips, and hurricane ties must be in accordance with this evaluation report and the manufacturer's published installation instructions. In the event of a conflict between this report and the manufacturer's published installation instructions, the most restrictive governs.

5.0 CONDITIONS OF USE

The ClarkDietrich® angles, clips, and hurricane ties for wood-framed construction described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The angles, clips, and hurricane ties must be manufactured, identified and installed in accordance with this report and the manufacturer's published installation instructions. A copy of the instructions must be available at the jobsite at all times during installation. In the event of conflict between this report and the ClarkDietrich® published installation instructions, the more restrictive governs.
- 5.2 Calculations showing compliance with this report must be submitted to the code official. The calculations must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.3 Adjustment factors noted in Section 4.1 and the applicable codes must be considered, where applicable.
- 5.4 Connected wood members and fasteners must comply, respectively, with Sections 3.2.2 and 3.2.3 of this report.
- 5.5 Use of angles, clips, and hurricane ties with preservative treated or fire retardant treated lumber must be in accordance with Section 3.2.1 of this report. Use of fasteners with preservative treated or fire retardant treated lumber must be in accordance with Section 3.2.3 of this report.
- 5.6 The angles, clips, and hurricane ties described in this report are manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Joist Hangers and Similar Devices (AC13), dated October 2018 (editorially revised December 2020).

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5079) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 In addition, angles, clips and hurricane ties described in this report are identified with a die-stamped label, indicating the model number and the ICC-ES evaluation report number ESR-5079.
- 7.3 The report holder's contact information is as follows:

CLARKDIETRICH® BUILDING SYSTEMS
9050 CENTRE POINTE DRIVE, #400
WEST CHESTER, OHIO 45069
(888) 437-3244
www.clarkdietrich.com

TABLE 1—CDCA DIMENSIONS, FASTENER SCHEDULING AND ALLOWABLE LOADS^{1,2,3,4}

CDBS ID	STEEL GAUGE	DIMENSIONS ⁵			FASTENER SCHEDULING				LOAD ⁷ DIR.	ALLOWABLE LOADS (lbf)			
		L1	L2	W	Header		Joist			C _D = 1.0	C _D = 1.15	C _D = 1.25	C _D = 1.6
		(inch)			Qty	Type ⁶	Qty	Type ⁶					
CDCA23G	12	2 ⁷ / ₆₄	2 ⁷ / ₆₄	3	2	WS15	2	WS15	F ₁	425	425	425	425
CDCA24G	12	2 ⁷ / ₆₄	2 ⁷ / ₆₄	4	3	WS15	3	WS15	F ₁	425	425	425	425
CDCA26G	12	2 ⁷ / ₆₄	2 ⁷ / ₆₄	6	4	WS15	4	WS15	F ₁	615	616	615	615
CDCA28G	12	2 ⁷ / ₆₄	2 ⁷ / ₆₄	8	5	WS15	5	WS15	F ₁	765	765	765	765
CDCA210G	12	2 ⁷ / ₆₄	2 ⁷ / ₆₄	10	6	WS15	6	WS15	F ₁	795	795	795	795

For SI: 1 inch = 25.4 mm, 1 lb = 4.45 N.

¹The tabulated allowable loads are for a single angle. If a single angle is installed on each end of a supported member, the angles must be installed on opposite sides of the supported member, or wood blocking must be installed to prevent rotation.

²The tabulated allowable loads have been adjusted for the load duration factors, C_D, as shown, in accordance with the NDS. The tabulated allowable loads do not apply to loads of other load durations, and are not allowed to be adjusted for other load durations. See Sections 4.1 and 4.2 for additional design and installation requirements.

³The tabulated allowable loads are for installations on wood members complying with Section 3.2.2 of this report.

⁴The tabulated allowable uplift loads have been increased for wind and seismic loading with no further increase is allowed. The tabulated allowable uplift loads must be reduced when other load duration govern.

⁵See Figure 1 for hanger dimension definitions of W, L1, and L2.

⁶WS15 Wood Screws (ESR-2761) are 1/4-inch-diameter by 1 1/2 inches long and shipped with CDCA angles.

⁷F₁ is the vertical load.

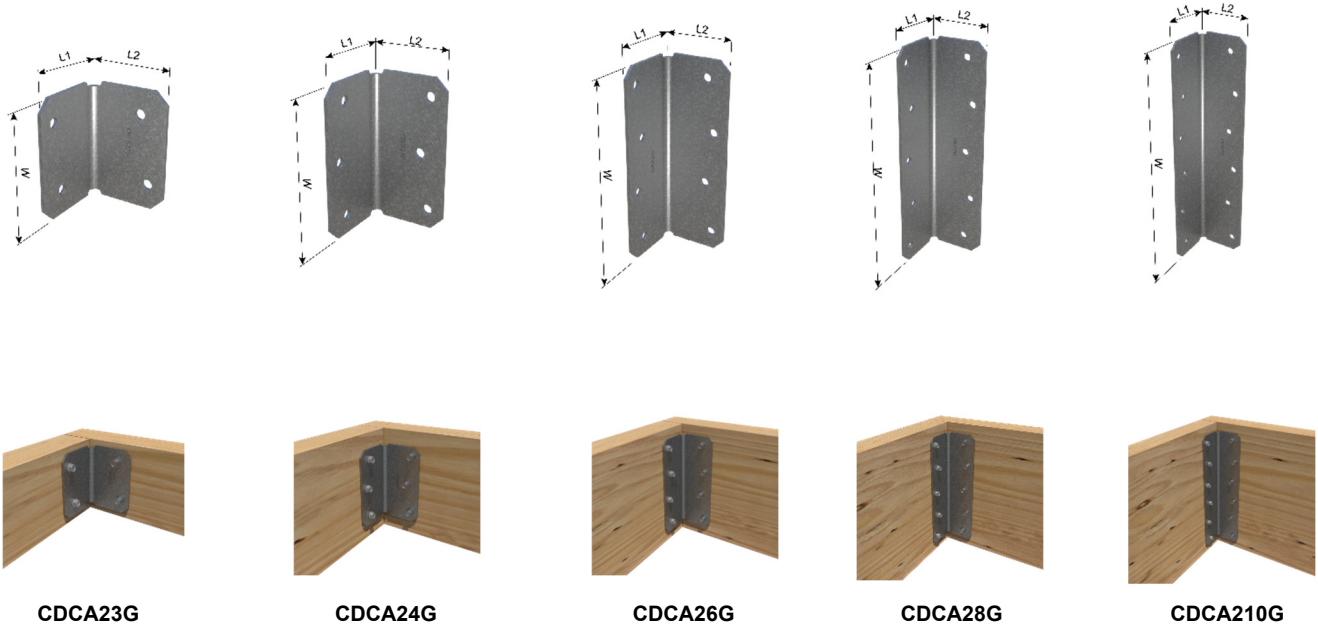


FIGURE 1—CDCA ANGLES AND TYPICAL INSTALLATIONS

TABLE 2A—CDFA DIMENSIONS, FASTENER SCHEDULING AND ALLOWABLE LOADS^{1,2}

CDBS ID	STEEL GAUGE	QTY ⁵	DIMENSIONS ³			FASTENERS SCHEDULING			LOAD ⁶ DIR.	ALLOWABLE LOAD (lbf)			
			W	L1	L2	Type ⁴	Joist	Header		C _D = 1.00	C _D = 1.15	C _D = 1.25	C _D = 1.60
			(Inch)				Qty	Qty					
CDFA1	18	2	1 ⁹ / ₁₆	4 ¹ / ₂	1 ⁹ / ₁₆	10d x 1 ¹ / ₂	14	14	F ₁	1,495	1,495	1,495	1,495
CDFA1	18	1	1 ⁹ / ₁₆	4 ¹ / ₁₂	1 ⁹ / ₁₆	10d x 1 ¹ / ₂	7	7	F ₁	750	750	750	750
CDFA2	18	2	1 ⁹ / ₁₆	2 ³ / ₈	1 ⁹ / ₁₆	10d x 1 ¹ / ₂	8	8	F ₁	800	800	800	800
CDFA2	18	1	1 ⁹ / ₁₆	2 ³ / ₈	1 ⁹ / ₁₆	10d x 1 ¹ / ₂	4	4	F ₁	400	400	400	400

Note: For SI: 1 in. = 25.4 mm, 1 lb. = 4.45 N

¹The tabulated allowable loads have been adjusted for the load duration factors, C_D, as shown, in accordance with the NDS. The tabulated allowable loads do not apply to loads of other load durations, and are not allowed to be adjusted for other load durations. See Sections 4.1 and 4.2 for additional design and installation requirements.

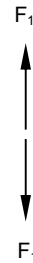
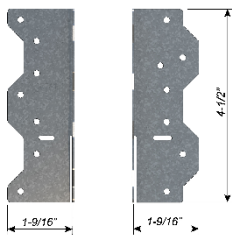
²The tabulated allowable loads are for installations on wood members complying with Section 3.2.2 of this report.

³See Figure 2 for angle dimensions.

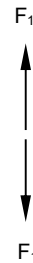
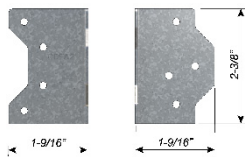
⁴Refer to Section 3.2.3 of this report for nail sizes and the required minimum physical properties.

⁵Number of hangers required for the connections: “2” = one on each side of the joist. “1” = one on one side of the joist. If a single angle is installed on each end of a supported member, the angles must be installed on opposite sides of the supported member, or wood blocking must be installed to prevent rotation.

⁶F₁ is the vertical load.



CDFA1



CDFA2

FIGURE 2A—CDFA ANGLES AND TYPICAL INSTALLATIONS

TABLE 2B—CDFA DIMENSIONS, FASTENER SCHEDULING AND ALLOWABLE LOADS^{1,2}

CDBS ID	CONNECTION		STEEL GAUGE	DIMENSIONS ³			FASTENERS SCHEDULING			LOAD ⁶ DIR.	ALLOWABLE LOAD (lbf)			
				W	L1	L2	Type ⁵	Plate	Stud		C _D = 1.00	C _D = 1.15	C _D = 1.25	C _D = 1.60
	(Inch)			Qty	Qty									
CDFA21	1	S-to-P	18	1 ³ / ₈	2 ¹ / ₁₆	1 ³⁷ / ₆₄	10d x 1 ¹ / ₂	2	2	F ₁	200	200	200	200
										F ₂	110	110	110	110
CDFA23	1	S-to-P	18	2 ³ / ₄	2 ¹ / ₁₆	1 ³⁷ / ₆₄	10d x 1 ¹ / ₂	4	4	F ₁	395	395	395	395
										F ₂	210	210	210	210
CDFA33	1	C-to-B	12	1 ¹ / ₂	3 ⁷ / ₃₂	1 ¹ / ₂	10d x 3.0	4	4	F ₁	580	580	580	580
										F ₂	255	255	255	255
CDFA44	1	C-to-B	12	1 ³ / ₁₆	4 ¹⁵ / ₃₂	4 ¹⁵ / ₃₂	10d x 3.0	4	4	F ₁	500	500	500	500
										F ₂	260	260	260	260
CDFA66	1	C-to-B	12	1 ¹ / ₅	6	6	10d x 3.0	3	3	F ₁	445	445	445	445
										F ₂	160	160	160	160
CDFA88	1	C-to-B	12	2	8 ¹ / ₈	8 ¹ / ₈	10d x 3.0	4	4	F ₁	490	490	490	490
										F ₂	180	180	180	180

Note: For SI: 1 in. = 25.4 mm, 1 lb. = 4.45 N

¹The tabulated allowable loads have been adjusted for the load duration factors, C_D, as shown, in accordance with the NDS. The tabulated allowable loads do not apply to loads of other load durations, and are not allowed to be adjusted for other load durations. See Sections 4.1 and 4.2 for additional design and installation requirements.

²The tabulated allowable loads are for installations on wood members complying with Section 3.2.2 of this report.

³See Figure 2B for hanger dimension definitions of W, L1, and L2.

⁴Connection Type: S-to-P = Stud-to-Plate, C-to-B = Column-to-Beam.

⁵Refer to Section 3.2.3 of this report for nail actual sizes and the required minimum physical properties. R_{HF}

⁶F₁ is the load parallel to the plate and F₂ is the load perpendicular to the plate.

TABLE 2C—CDFA DIMENSIONS, FASTENER SCHEDULING AND ALLOWABLE LOADS^{1,2}

CDBS ID	CONNECTION		STEEL GAUGE	DIMENSIONS ³			FASTENERS SCHEDULING			LOAD ⁶ DIR.	ALLOWABLE LOAD (lbf)			
				W	L1	L2	Type ⁵	Plate	Stud		C _D = 1.00	C _D = 1.15	C _D = 1.25	C _D = 1.60
	(Inch)			Qty	Qty									
CDFA21	1	S-to-P	18	1 ³ / ₈	2 ¹ / ₁₆	1 ³⁷ / ₆₄	#9-15 x 1 ¹ / ₂	2	2	F ₁	350	350	350	350
										F ₂	230	230	230	230
CDFA23	1	S-to-P	18	2 ³ / ₄	2 ¹ / ₁₆	1 ³⁷ / ₆₄	#9-15 x 1 ¹ / ₂	4	4	F ₁	545	545	545	545
										F ₂	420	420	420	420
CDFA33	1	C-to-B	12	1 ¹ / ₂	3 ⁷ / ₃₂	3 ¹ / ₁₆	#9-15 x 3.0	4	4	F ₁	530	530	530	530
										F ₂	290	290	290	290
CDFA44	1	C-to-B	12	1 ³ / ₁₆	4 ¹⁵ / ₃₂	4 ¹⁵ / ₃₂	#9-15 x 3.0	4	4	F ₁	420	420	420	420
										F ₂	260	260	260	260
CDFA66	1	C-to-B	12	1 ¹ / ₅	6	6	#9-15 x 3.0	3	3	F ₁	265	265	265	265
										F ₂	170	170	170	170
CDFA88	1	C-to-B	12	2	8 ¹ / ₈	8 ¹ / ₈	#9-15 x 3.0	4	4	F ₁	345	345	345	345
										F ₂	250	250	250	250

Note: For SI: 1 in. = 25.4 mm, 1 lb. = 4.45 N

¹The tabulated allowable loads have been adjusted for the load duration factors, C_D, as shown, in accordance with the NDS. The tabulated allowable loads do not apply to loads of other load durations, and are not allowed to be adjusted for other load durations. See Sections 4.1 and 4.2 for additional design and installation requirements.

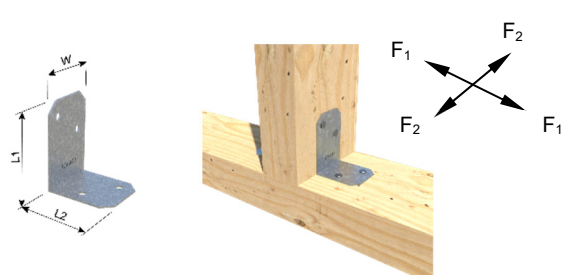
²The tabulated allowable loads are for installations on wood members complying with Section 3.2.2 of this report.

³See Figure 2B for hanger dimension definitions of W, L1, and L2.

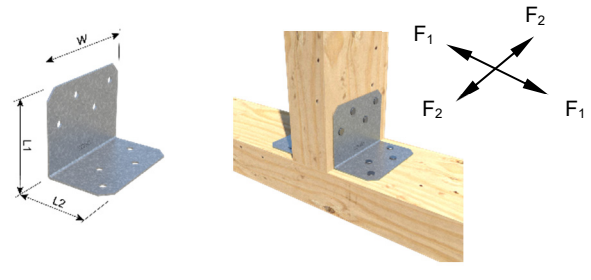
⁴Connection Type: S-to-P = Stud-to-Plate, C-to-B = Column-to-Beam.

⁵ITW Buildex Trugrip metal-to-wood screws. Refer to www.itwbuildex.com for the required physical properties.

⁶F₁ is the load parallel to the beam and F₂ is the load perpendicular to the beam.



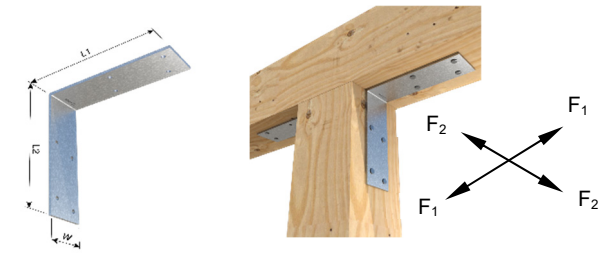
CDFA21



CDFA23



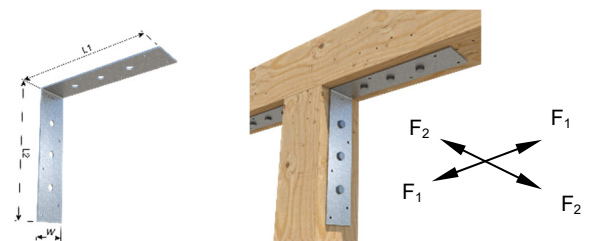
CDFA33



CDFA44



CDFA66



CDFA88

FIGURE 2B—CDFA ANGLES AND TYPICAL INSTALLATIONS

TABLE 3—CDGC GUSSET CLIP DIMENSION, FASTENER SCHEDULING AND ALLOWABLE LOADS^{1,2,3}

CDBS ID	STEEL GAUGE	DIMENSIONS ⁴			FASTENER SCHEDULING				LOAD ⁷ DIR.	ALLOWABLE LOADS (lbf)			
		H	LEG1	LEG2	Header		Joist			C _D = 1.0	C _D = 1.15	C _D = 1.25	C _D = 1.6
		(inch)			Qty	Type ⁵	Qty	Type ⁶					
CDGC1	18	2 ²⁵ / ₃₂	1 ¹ / ₆₄	1 ¹ / ₆₄	2	10d x 1 ¹ / ₂	2	10d x 1 ¹ / ₂	F ₁	235	235	235	235
									F ₂	275	275	275	275
CDGC2	18	3 ⁵ / ₁₆	1 ¹⁹ / ₆₄	1 ¹⁹ / ₆₄	3	10d x 1 ¹ / ₂	3	10d x 1 ¹ / ₂	F ₁	320	320	320	320
									F ₂	400	400	400	400

For SI: 1 inch = 25.4 mm, 1 lb = 4.45 N.

¹The tabulated allowable loads are for a single angle.

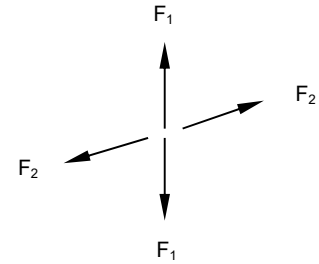
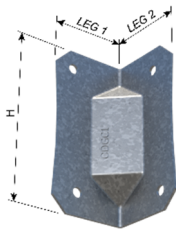
²The tabulated allowable loads been adjusted for the load duration factors, C_D, as shown, in accordance with the NDS. The tabulated allowable loads do not apply to loads of other load durations, and are not allowed to be adjusted for other load durations. See Sections 4.1 and 4.2 for additional design and installation requirements.

³The tabulated allowable loads are for installations on wood members complying with Section 3.2.1 of this report.

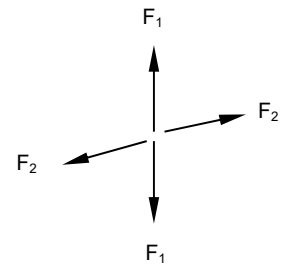
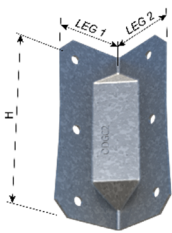
⁴See Figure 3 for dimension definitions of W, L1, and L2.

⁵Refer to Section 3.2.3 of this report for nail actual sizes and the required minimum physical properties.

⁶F₁ is the vertical download and F₂ is the load parallel to the header.



CDGC1



CDGC2

FIGURE 3—CDGC GUSSETT ANGLES AND TYPICAL INSTALLATIONS

TABLE 4— CDHT HURRICANE TIE FASTENER SCHEDULING AND ALLOWABLE LOADS^{1,2,3}

CDBS ID	STEEL GAUGE	FASTENERS SCHEDULING				LOAD ⁶ DIR.	ALLOWABLE LOAD (lbf)			
		Type ⁴	Stud	Plate	Truss		C _D = 1.00	C _D = 1.15	C _D = 1.25	C _D = 1.60
			Qty	Qty	Qty					
CDHT1	16	8d x 2.5	1	3	6	F ₁	285	330	360	460
	16	8d x 2.5	1	3	6	F ₂	285	330	360	405
	16	8d x 2.5	1	3	6	Uplift	285	330	360	460
CDHT10A	18	10d x 1.5	—	9	8	F ₁	535	535	535	535
	18	10d x 1.5	—	9	8	F ₂	220	220	220	220
	18	10d x 1.5	—	9	8	Uplift	635	635	635	635
CDHT10A-2	18	10d x 1.5	—	9	10	F ₁	575	575	575	575
	18	10d x 1.5	—	9	10	F ₂	360	360	360	360
	18	10d x 1.5	—	9	10	Uplift	785	785	785	785
CDHT10S	18	8d x 1.5	8	8	8	F ₁	550	550	550	550
	18	8d x 1.5	8	8	8	F ₂	210	210	210	210
	18	8d x 1.5	8	8	8	Uplift	740	775	775	775
CDHT2.5A	18	8d x 2.5	—	5	5	F ₁	380	380	380	380
		#9-15 x 2.5 ⁵	—	5	5		450	450	450	450
	18	8d x 2.5	—	5	5	F ₂	295	295	295	295
		#9-15 x 2.5 ⁵	—	5	5		395	395	395	395
	18	8d x 2.5	—	5	5	Uplift	445	445	445	445
		#9-15 x 2.5 ⁵	—	5	5		450	450	450	450
CDHT2.5T	18	8d x 2.5	—	5	5	F ₁	280	280	280	280
	18	8d x 2.5	—	5	5	F ₂	290	290	290	290
	18	8d x 2.5	—	5	5	Uplift	465	465	465	465
CDHT2A	18	8d x 2.5	2	5	5	F ₁	245	245	245	245
	18	8d x 2.5	2	5	5	F ₂	110	110	110	110
	18	8d x 2.5	2	5	5	Uplift	430	430	430	430
CDHT3	18	8d x 2.5	4	—	4	F ₁	150	150	150	150
	18	8d x 2.5	4	—	4	F ₂	170	170	170	170
	18	8d x 2.5	4	—	4	Uplift	380	380	380	380
CDHT6	18	8d x 2.5	1	7	7	F ₁	425	425	425	425
	18	8d x 2.5	1	7	7	F ₂	380	380	380	380
	18	8d x 2.5	1	7	7	Uplift	735	735	735	735
CDHT8	18	8d x 2.5	—	5	5	F ₁	290	290	290	290
	18	8d x 2.5	—	5	5	F ₂	150	150	150	150
	18	8d x 2.5	—	5	5	Uplift	480	480	480	480

Note: For SI: 1 in. = 25.4 mm, 1 lb. = 4.45 N

¹The tabulated allowable loads have been adjusted for the load duration factors, C_D, as shown, in accordance with the NDS. The tabulated allowable loads do not apply to loads of other load durations, and are not allowed to be adjusted for other load durations. See Sections 4.1 and 4.2 for additional design and installation requirements.

²The tabulated allowable loads are for installations on wood members complying with Section 3.2.1 of this report. Wood members must also have a reference compressive perpendicular to grain design value, F_{c-perp}, of 625 psi (4.31 MPa) or greater.

³See Figure 4 for product dimensions.

⁴Refer to Section 3.2.3 of this report for nail sizes and the required minimum physical properties.

⁵ITW Buildex Trugrip metal-to-wood screws. Refer to www.itwbuildex.com for the required physical properties.

⁶F₁ is the load parallel to truss or joist and F₂ is the load perpendicular to truss or joist.

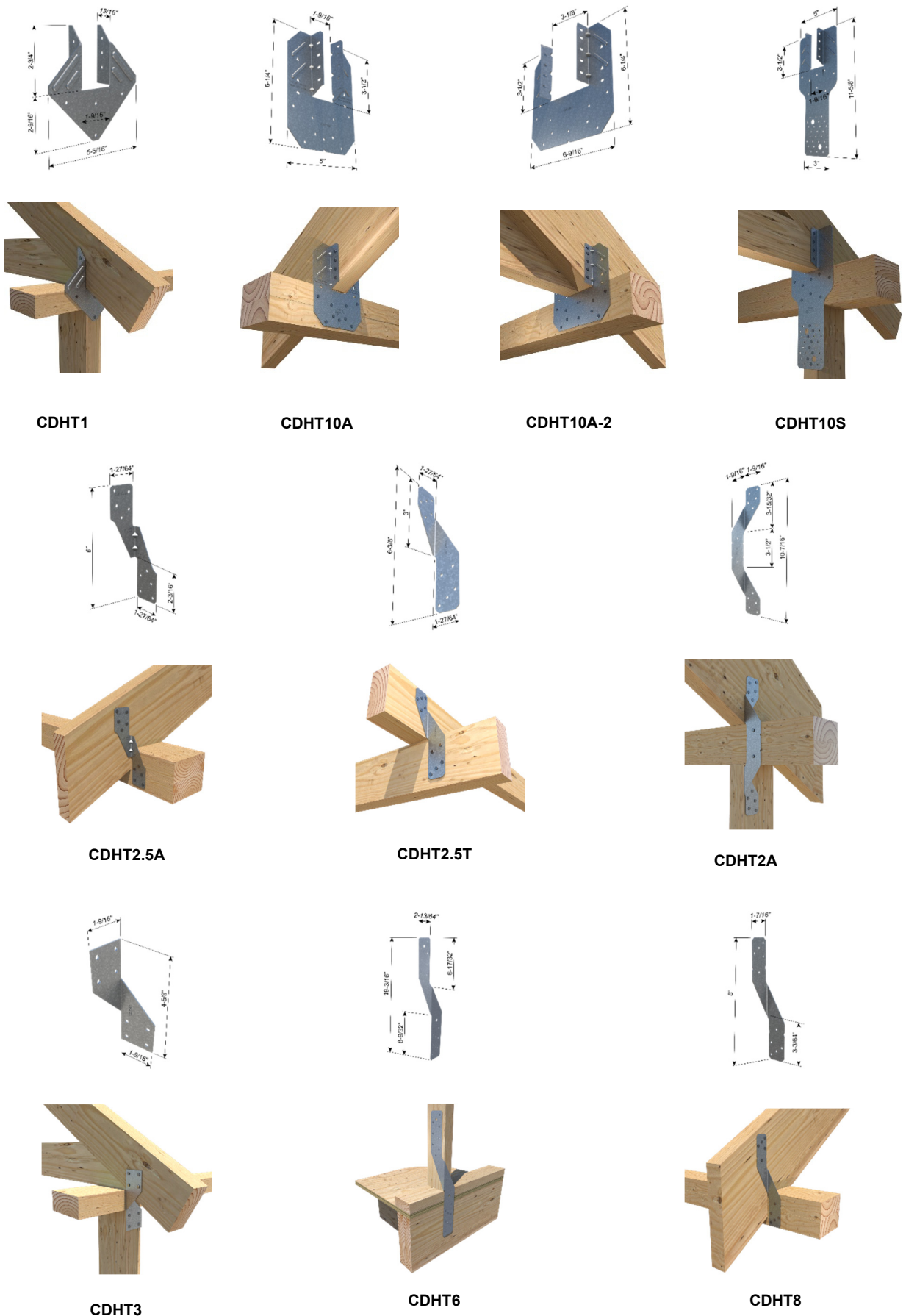


FIGURE 4—HURRICANE TIES AND TYPICAL INSTALLATIONS

TABLE 5— UTILITY CLIP DIMENSIONS, FASTENER SCHEDULING AND ALLOWABLE LOADS^{1,2,3}

CDBS ID	STEEL GAUGE	DIMENSIONS ⁴			FASTENER SCHEDULING				LOAD ⁶ DIR.	ALLOWABLE LOADS (lbf)			
		H	L	W	Post		Beam			C _D = 1.0	C _D = 1.15	C _D = 1.25	C _D = 1.6
		(inch)			Qty	Type ⁵	Qty	Type ⁵					
CD6LS	14	6	6	1½	4	10d x 2½	6	10d x 2½	F ₁	240	240	240	240
									Uplift	425	425	425	425
CD6TS	14	5	6	1½	4	10d x 2½	4	10d x 2½	F ₁	280	280	280	280
									Uplift	370	370	370	370

For SI: 1 inch = 25.4 mm, 1 lb = 4.45 N.

¹The tabulated allowable loads are for a single clip.

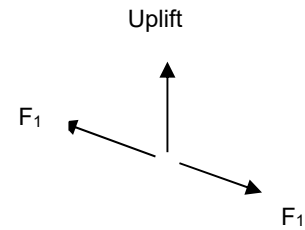
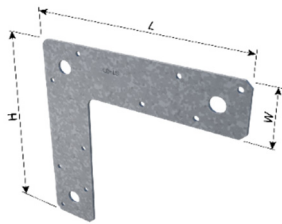
²The tabulated allowable loads have been adjusted for the load duration factors, C_D, as shown, in accordance with the NDS. The tabulated allowable loads do not apply to loads of other load durations, and are not allowed to be adjusted for other load durations. See Sections 4.1 and 4.2 for additional design and installation requirements.

³The tabulated allowable loads are for installations on wood members complying with Section 3.2.1 of this report.

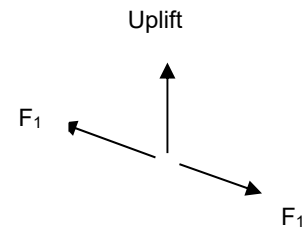
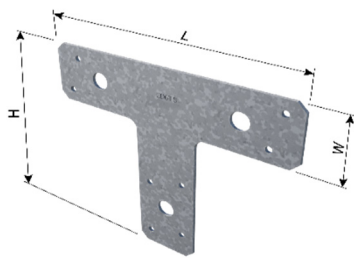
⁴See Figure 5 for product dimension definitions.

⁵Refer to Section 3.2.3 of this report for nail actual sizes and the required minimum physical properties.

⁶F₁ is the load parallel to the beam.



CD6LS



CD6TS

FIGURE 5—UTILITY CLIPS AND TYPICAL INSTALLATIONS