

HIGH WIND RESISTANT CONSTRUCTION

Values for Douglas Fir-Larch and Southern Pine

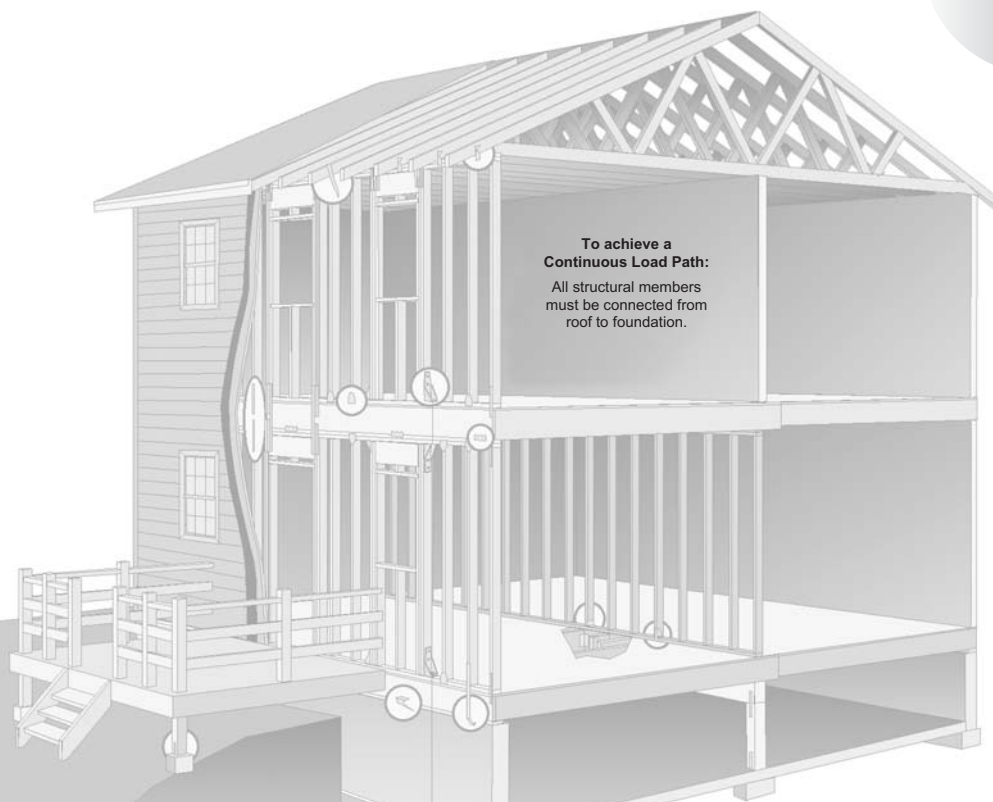
Continuous Load Path

Research and field investigations have proven wood frame buildings fail at connection points.

Wood buildings can survive high wind loads when structurally rated and tested lumber connectors are used to develop a continuous load path, effectively transferring loads from roof to foundation.

This brochure illustrates a variety of structurally-rated products manufactured by **USP Structural Connectors**[®], which will aid the designer in achieving continuous load paths. See USP's **Full Line Catalog** or appropriate code evaluation reports for nail schedules, installations, and product limitations.

The product names and descriptions in the gray boxes next to the illustrations correspond with our CAD Library **High Wind Illustration** file names, available on our Web Site:
www.USPconnectors.com/cad



To achieve a
Continuous Load Path:
All structural members
must be connected from
roof to foundation.

Register on-line at **Web Site Watch** and automatically receive product updates through your e-mail — **www.USPconnectors.com**

USP supplies quality products to build Stronger Safer Structures



Customer Service:
Burnsville, MN
Phone: 1-800-328-5934
Fax: 1-507-364-8762

Manufacturing:
Montgomery, MN • Livermore, CA
Largo, FL • North Wilkesboro, NC
Rancho Cucamonga, CA • Thornhill, Ontario

Warehouses:
Houston, TX
Lumberton, NJ

www.USPconnectors.com

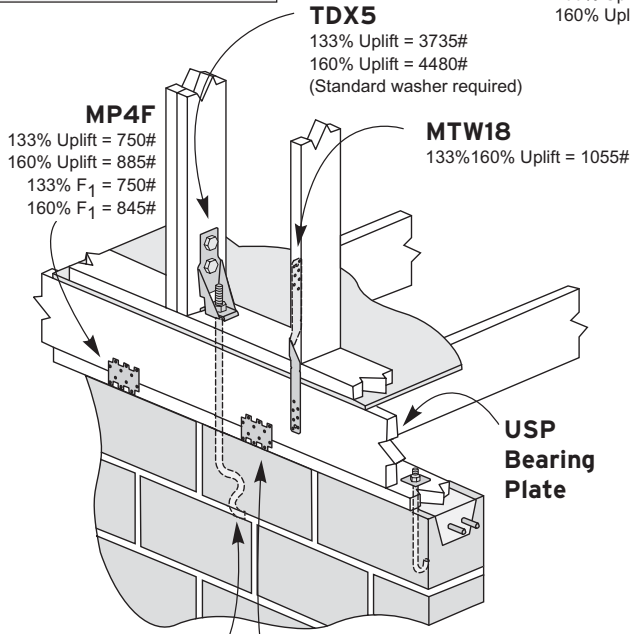
Information valid until December 31, 2006.

A GIBRALTAIR INDUSTRIES COMPANY 

USP704(2)-061

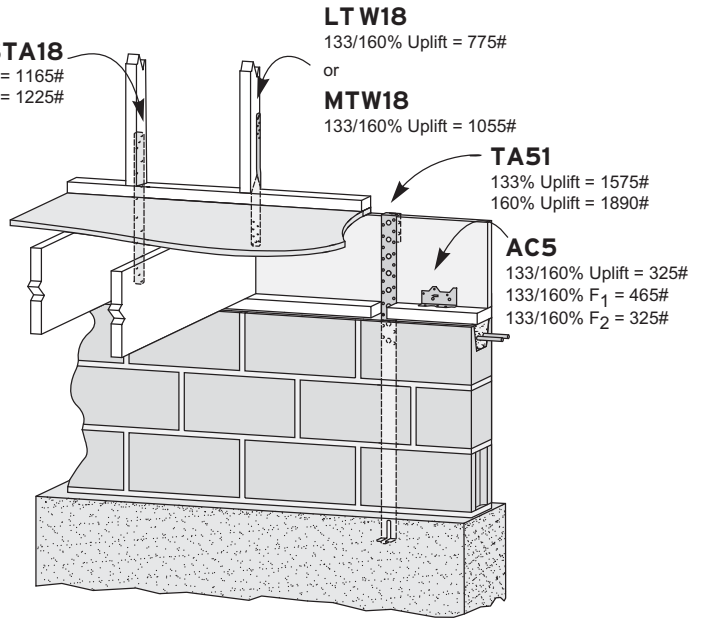
FOUNDATION CONNECTIONS

Block Foundation to First Floor

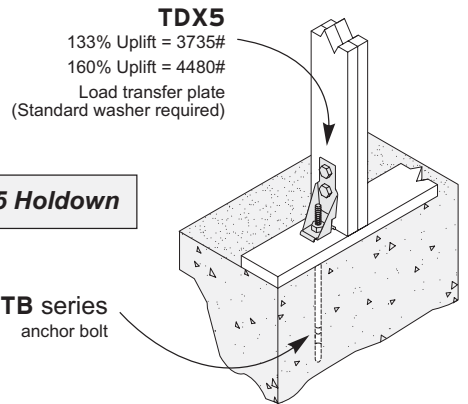


USP STB series anchor bolt

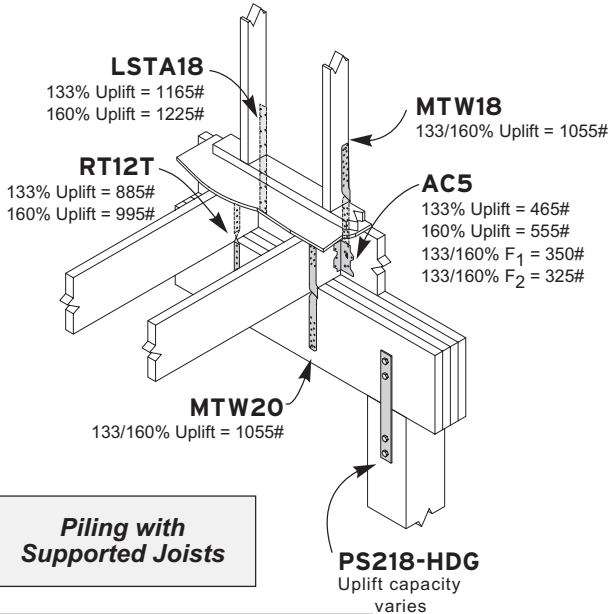
MP4F
133% Uplift = 750#
160% Uplift = 885#
133% F₁ = 750#
160% F₁ = 845#



Stemwall to First Floor



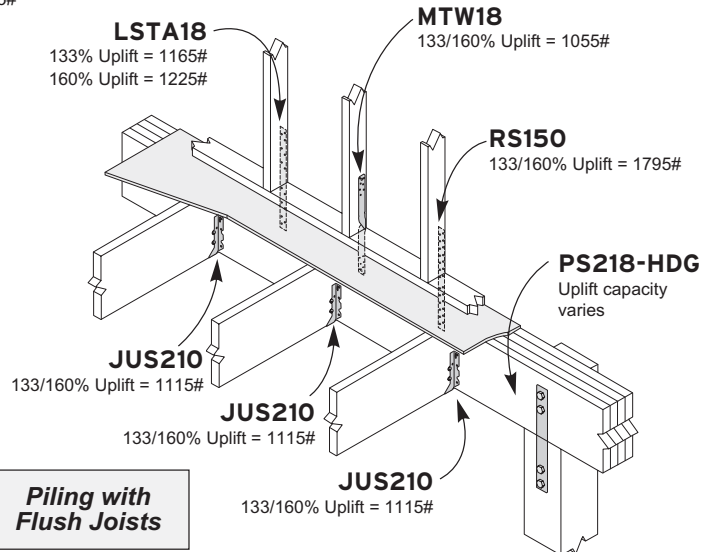
TDX5 Holddown



Piling with Supported Joists

DF-L / SP values are based on 2001 NDS® calculation criteria. See chart below for Spruce-Pine-Fir or Hem Fir adjustment factors.

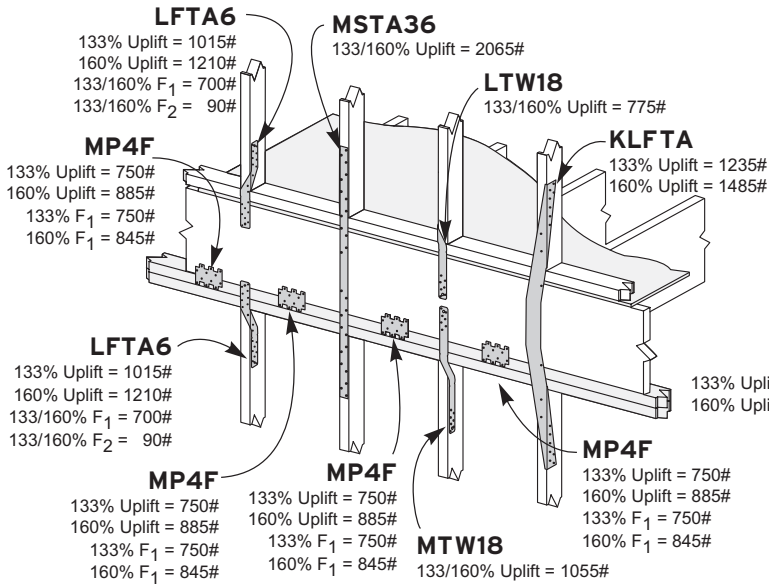
Allowable Load Adjustment Factor		
Wood Species	Specific Gravity	Adj. Factor
Hem Fir (N)	0.46	0.88
Spruce-Pine-Fir (S-P-F)	0.42	0.86



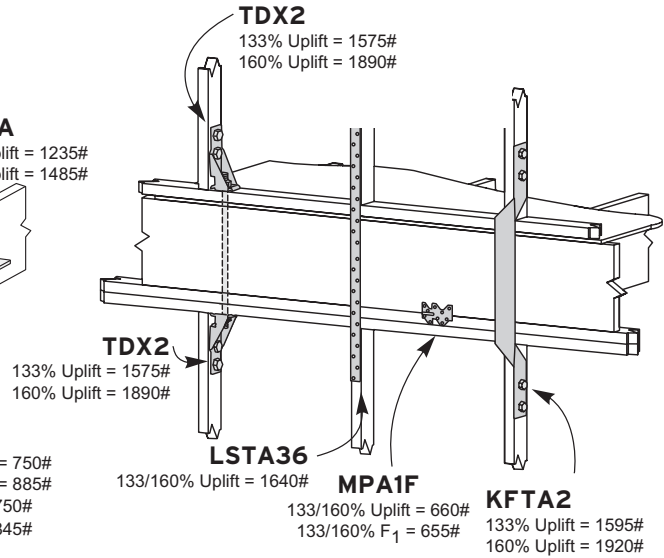
Piling with Flush Joists

MULTI-STORY CONNECTIONS

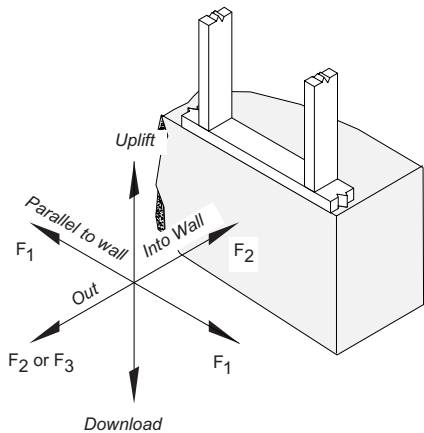
**First Floor to Second Floor Studs
(Nailed)**



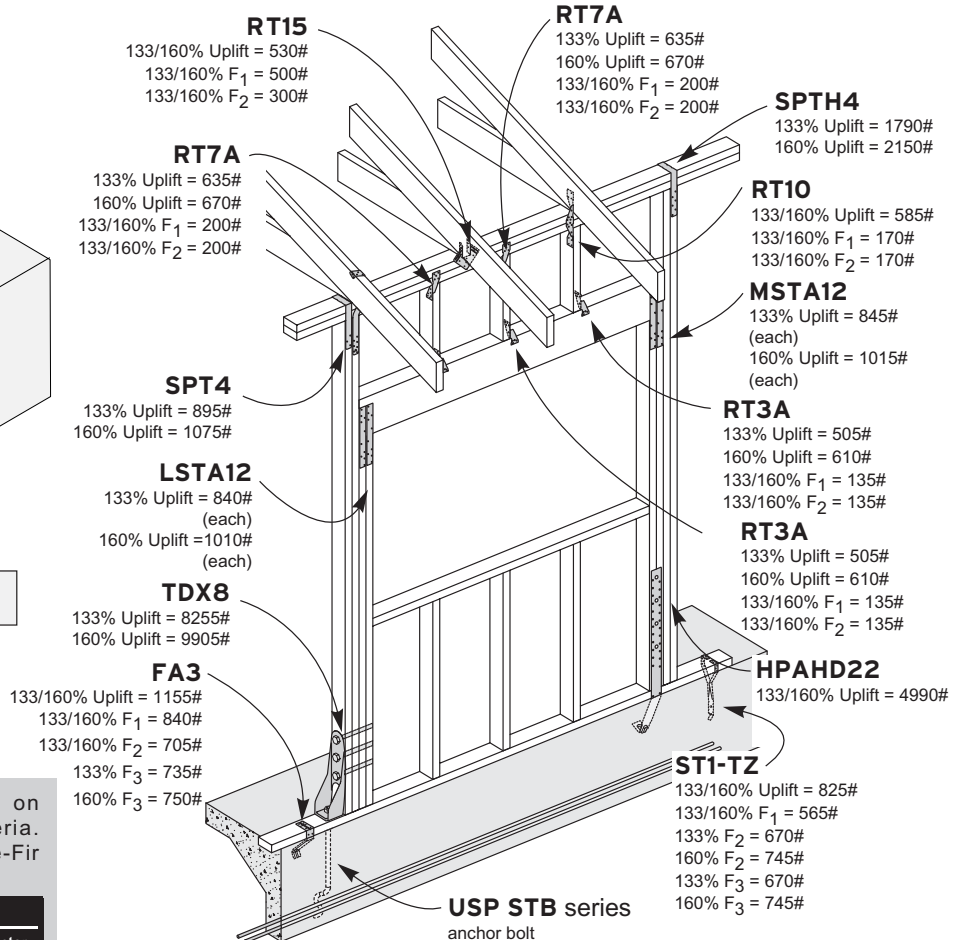
**First Floor to Second Floor Studs
(Bolted)**



WINDOW AND DOOR OPENINGS



Window/Door Opening

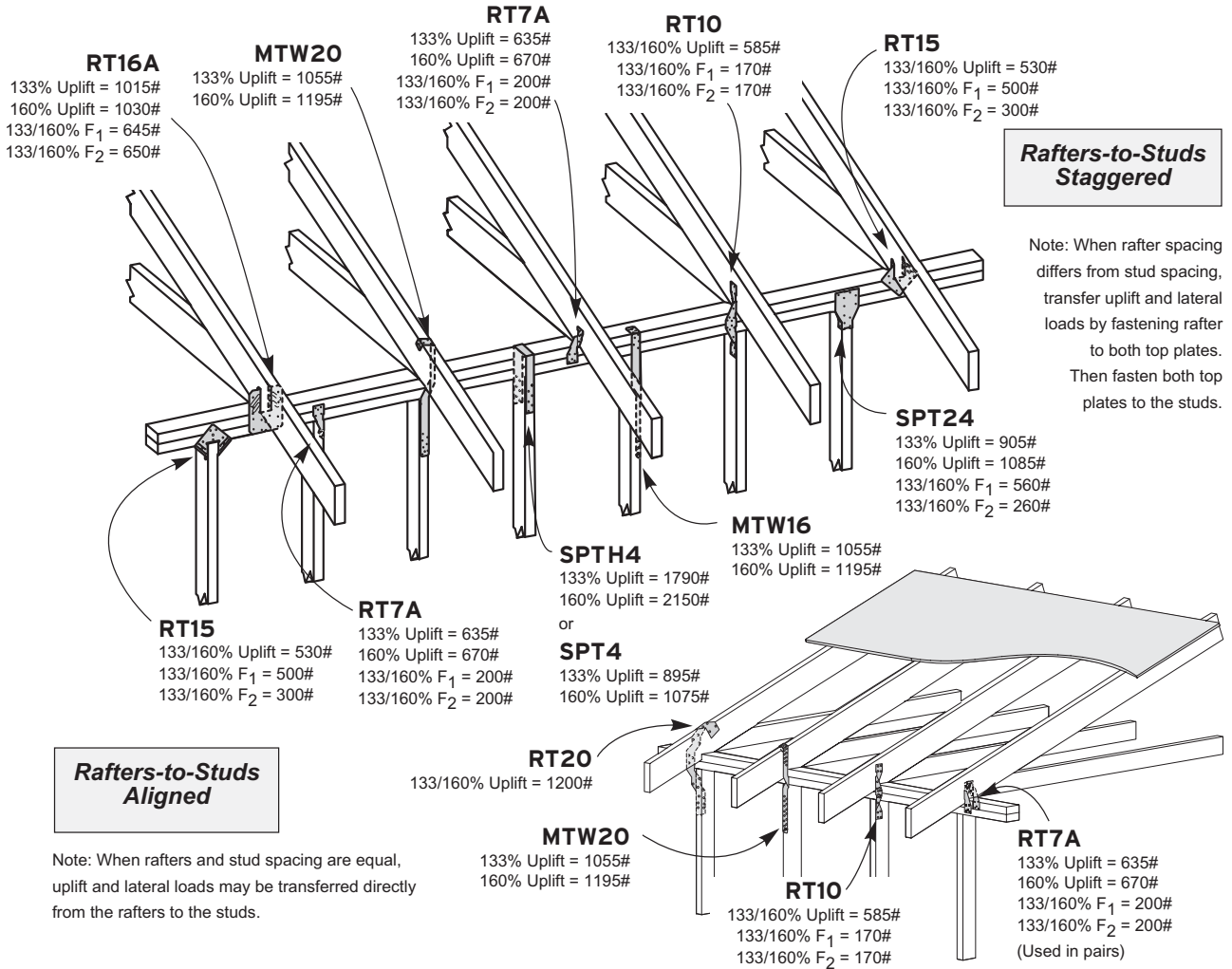


DF-L / SP values are based on 2001 NDS® calculation criteria. See chart below for Spruce-Pine-Fir or Hem Fir adjustment factors.

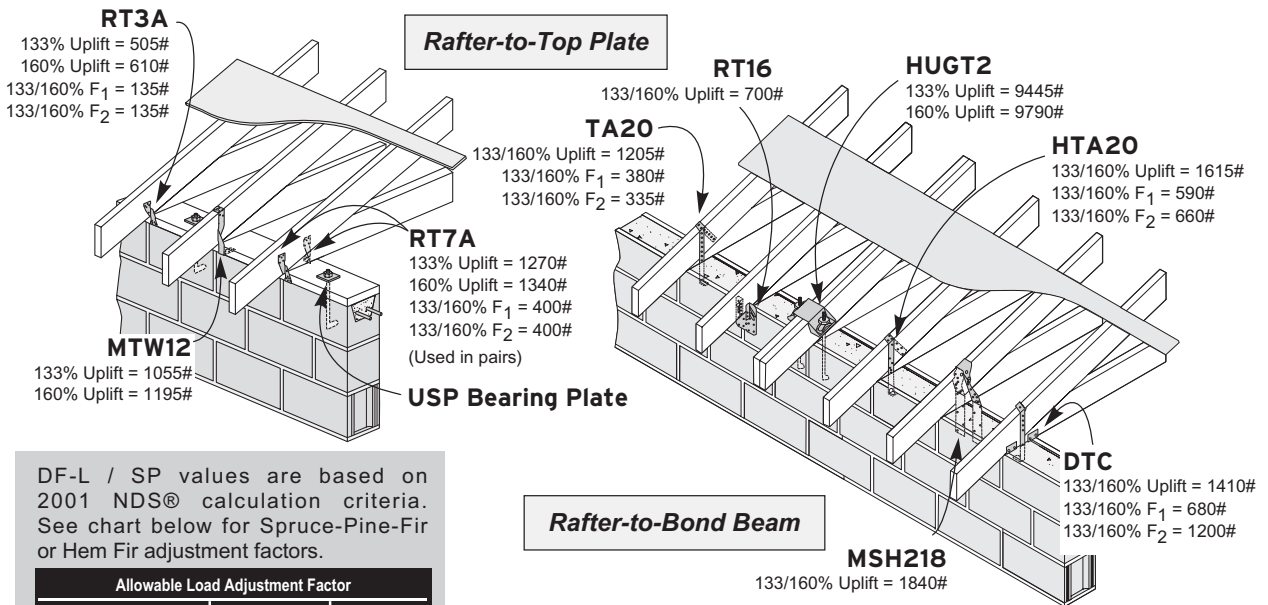
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Note: See USP's *Full Line Catalog* or appropriate code evaluation reports for fastener schedules, installation, and product limitations.

RAFTER AND TRUSS CONNECTIONS



MASONRY WALLS TO RAFTER OR TRUSS



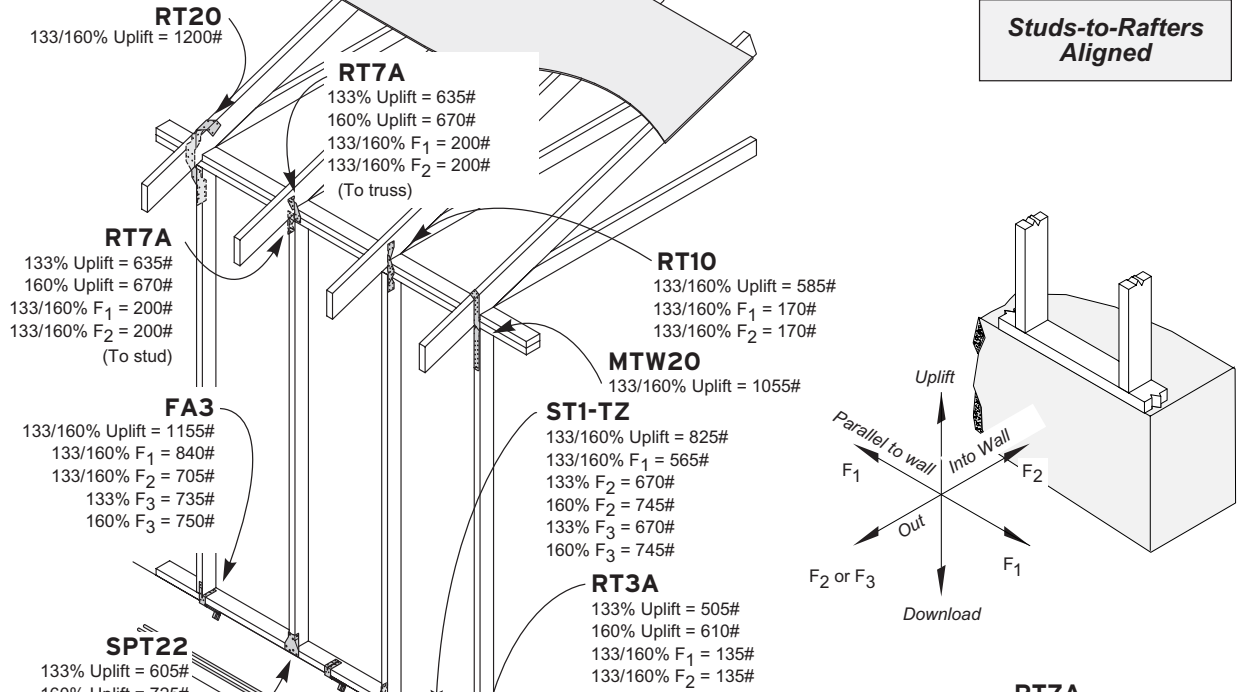
DF-L / SP values are based on 2001 NDS® calculation criteria. See chart below for Spruce-Pine-Fir or Hem Fir adjustment factors.

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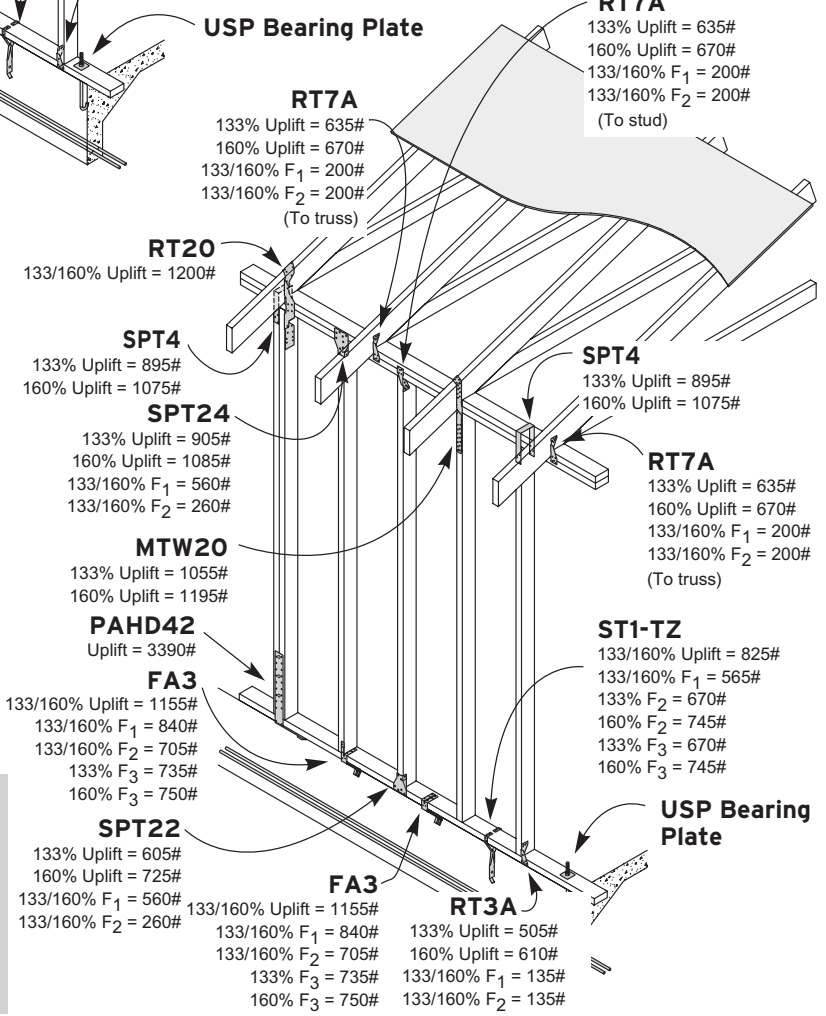
For fastener schedules, installation, and load information to masonry walls refer to USP's **Masonry Application Technical Bulletins:**
www.USPconnectors.com/masonry.htm

SINGLE-STORY WOOD FRAME

**Studs-to-Rafters
Aligned**



**Studs-to-Rafters
Staggered**



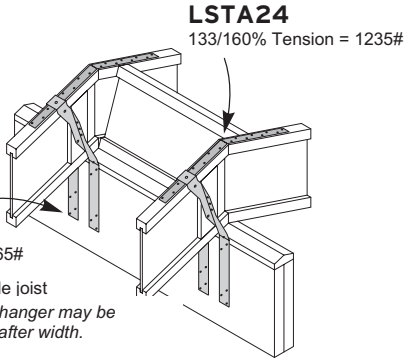
DF-L / SP values are based on 2001 NDS® calculation criteria. See chart below for Spruce-Pine-Fir or Hem Fir adjustment factors.

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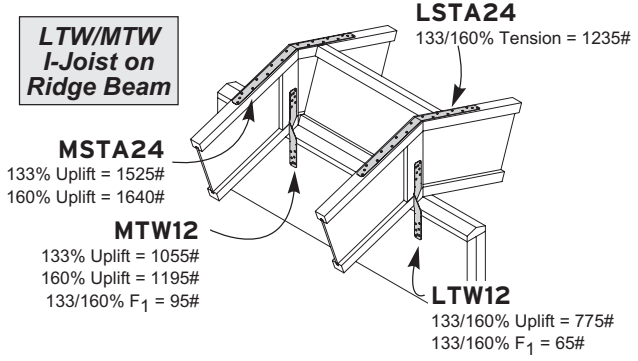
RAFTER TO PLATE OR RIDGE

High End Connections - I-Joists on Structural Ridge Beams

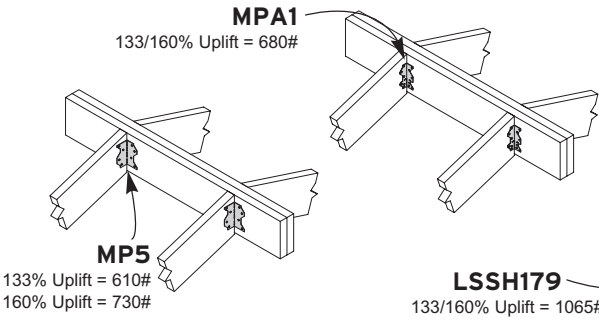
MSH1722
I-Joist Rafter Tiedown



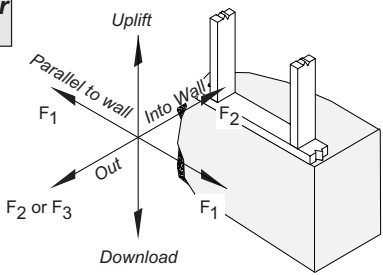
LTW/MTW
I-Joist on Ridge Beam



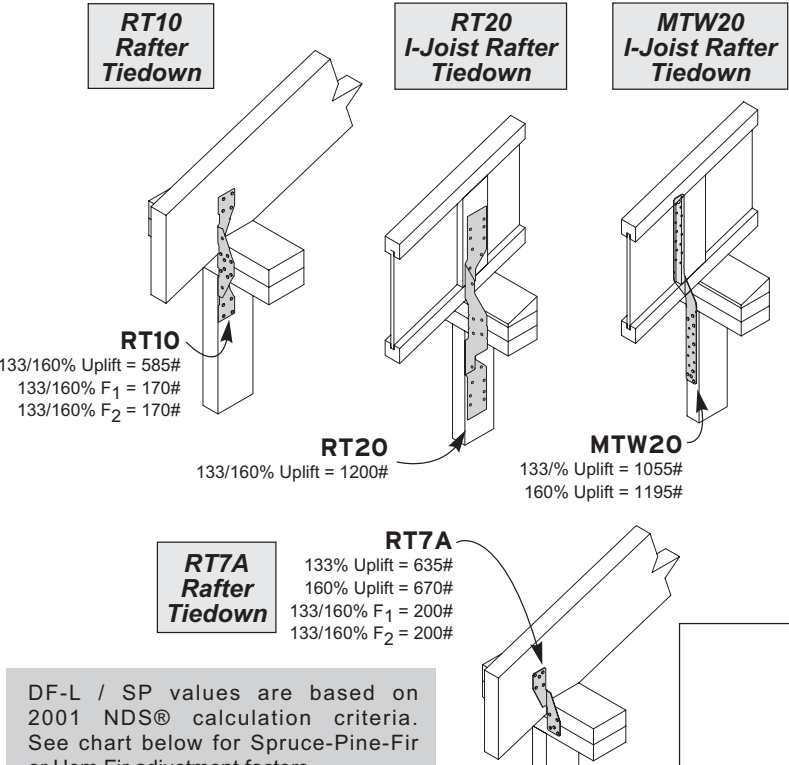
High End Connections - Rafter into Flush Structural Ridge Beam



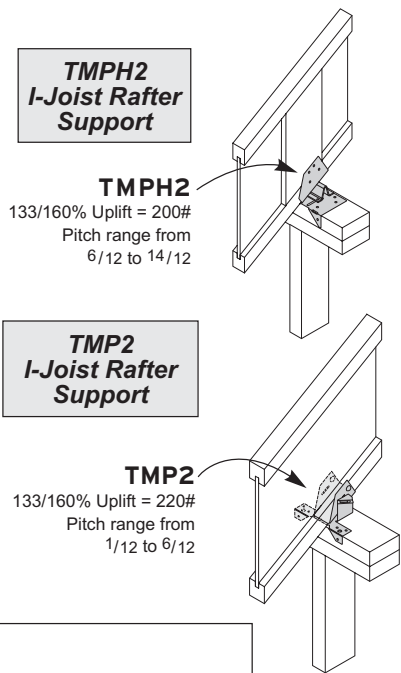
LSSH179
I-Joist Rafter Support



Rafter on Stud Wall



I-Joists on Stud Wall



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Your Local USP Dealer/Distributor