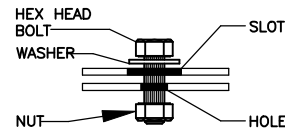
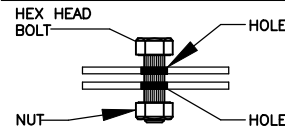


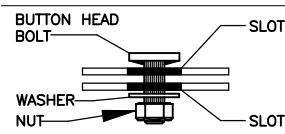
SLOT TO SLOT CONNECTIONS
WASHERS REQUIRED ON BOTH SIDES OF MATERIAL IF SLOTS ARE ON BOTH SIDES. (EXCEPTION: SEE DETAIL AT RIGHT FOR LAPPED ZEE MEMBERS)



SLOT TO HOLE CONNECTIONS
ONE WASHER REQUIRED ON SLOTTED SIDE ONLY.



HOLE TO HOLE CONNECTIONS
NO WASHERS REQUIRED WHEN SLOTS ARE NOT USED.

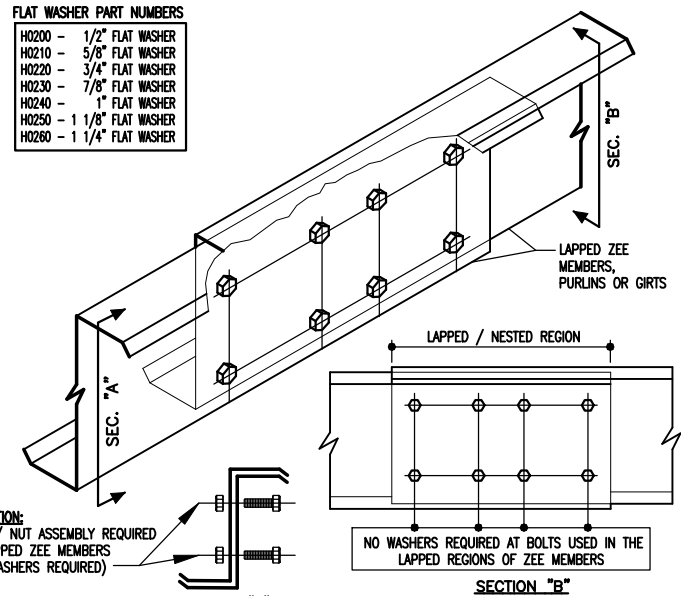


SLOT TO SLOT CONNECTIONS
WASHER REQUIRED AT NUT SIDE ONLY FOR BUTTON HEAD BOLTS. (BUTTON HEAD BOLTS HAVE MATERIAL GRABBING FINS UNDER THE HEAD, A WASHER IS NOT NEEDED ON BOLT HEAD SIDE).

WASHER REQUIREMENTS ERECTOR NOTE
(UNLESS NOTED OTHERWISE ON DRAWINGS)

FLAT WASHER PART NUMBERS

H0200	- 1/2" FLAT WASHER
H0210	- 5/8" FLAT WASHER
H0220	- 3/4" FLAT WASHER
H0230	- 7/8" FLAT WASHER
H0240	- 1" FLAT WASHER
H0250	- 1 1/8" FLAT WASHER
H0260	- 1 1/4" FLAT WASHER



EXCEPTION:
BOLT / NUT ASSEMBLY REQUIRED
AT LAPPED ZEE MEMBERS
(NO WASHERS REQUIRED)

NO WASHERS REQUIRED AT BOLTS USED IN THE
LAPPED REGIONS OF ZEE MEMBERS

NAA0030

TYPICAL FIELD WELD REQUIREMENTS ERECTOR NOTE:

(UNLESS NOTED OTHERWISE ON DRAWINGS)

ALL FIELD WELDING MUST BE PERFORMED BY AWS/CWB CERTIFIED WELDERS WHO ARE QUALIFIED FOR THE WELDING PROCESSES AND POSITIONS INDICATED.

ALL WORK MUST BE COMPLETED AND INSPECTED IN ACCORDANCE WITH THE APPLICABLE AWS/CWB SPECIFICATIONS.

WELD ELECTRODES USED FOR THE SMAW (OR STICK) WELD PROCESS MUST BE 70 KSI/483 MPa MATERIAL AND LOW HYDROGEN CONTENT.

GALVANIZED STEEL FIELD WELDING RECOMMENDATIONS

PREPARATION OF WELD AREA

AWS D-19.0, WELDING ZINC COATED STEEL, CALLS FOR WELDS TO BE MADE ON STEEL THAT IS FREE OF ZINC IN THE AREA TO BE WELDED. FOR GALVANIZED STRUCTURAL COMPONENTS, THE ZINC COATING SHOULD BE REMOVED AT LEAST ONE TO FOUR INCHES (2.5-10 cm) FROM EITHER SIDE OF THE INTENDED WELD ZONE AND ON BOTH SIDES OF THE WORKPIECE. GRINDING BACK THE ZINC COATING IS THE PREFERRED AND MOST COMMON METHOD; BURNING THE ZINC AWAY OR PUSHING BACK THE MOLTEN ZINC FROM THE WELD AREA ARE ALSO EFFECTIVE.

TOUCH-UP OF WELD AREA

WELDING ON GALVANIZED SURFACES DESTROYS THE ZINC COATING ON AND AROUND THE WELD AREA. RESTORATION OF THE AREA WILL BE PERFORMED IN ACCORDANCE WITH ASTM A 780, STANDARD PRACTICE FOR REPAIR OF DAMAGED AND UNCOATED AREAS OF HOT-DIP GALVANIZED COATINGS, WHICH SPECIFIES THE USE OF PAINTS CONTAINING ZINC DUST, ZINC-BASED SOLDERS OR SPRAYED ZINC. ALL TOUCHUP AND REPAIR METHODS ARE CAPABLE OF BUILDING A PROTECTIVE LAYER TO THE THICKNESS REQUIRED BY ASTM A 780.

SAFETY & HEALTH

WHEN WELDING DIRECTLY ON GALVANIZED STEEL IS UNAVOIDABLE, OSHA PERMISSIBLE EXPOSURE LIMITS (PELS) MAY BE EXCEEDED AND EVERY PRECAUTION, INCLUDING HIGH-VELOCITY CIRCULATING FANS WITH FILTERS, AIR RESPIRATORS AND FUME-EXTRACTION SYSTEMS SUGGESTED BY AWS, SHOULD BE EMPLOYED. FUMES FROM WELDING GALVANIZED STEEL CAN CONTAIN ZINC, IRON, AND LEAD. FUME COMPOSITION TYPICALLY DEPENDS ON THE COMPOSITION OF THE MATERIALS USED, AS WELL AS THE HEAT APPLIED BY THE PARTICULAR WELDING PROCESS. IN ANY EVENT, GOOD VENTILATION MINIMIZES THE AMOUNT OF EXPOSURE TO FUMES.

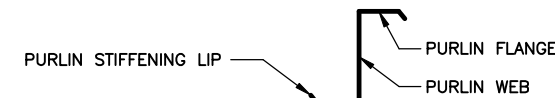
PRIOR TO WELDING ON ANY METAL, CONSULT ANSI/ASC Z-49.1, SAFETY IN WELDING, CUTTING AND ALLIED PROCESSES, WHICH CONTAINS INFORMATION ON THE PROTECTION OF PERSONNEL AND THE GENERAL AREA, VENTILATION AND FIRE PREVENTION.

INFORMATION COURTESY OF AMERICAN GALVANIZERS ASSOCIATION

TYPICAL FIELD WELD REQUIREMENTS

NAA0040

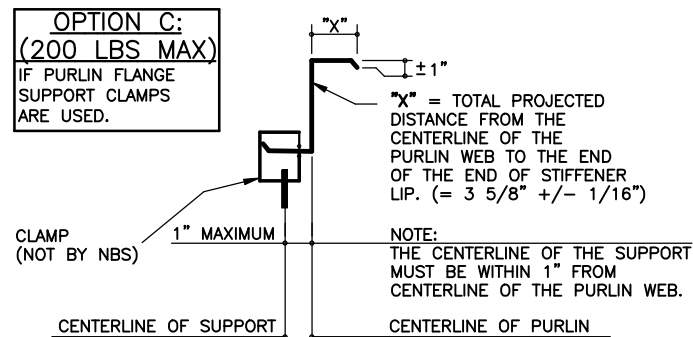
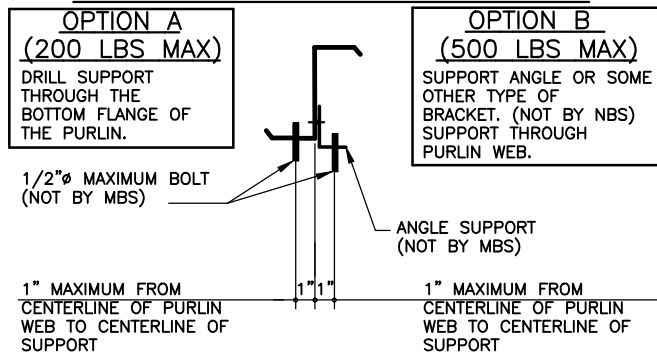
COLLATERAL DEAD LOADS, UNLESS OTHERWISE NOTED, ARE ASSUMED TO BE UNIFORMLY DISTRIBUTED. WHEN SUSPENDED SPRINKLER SYSTEMS, LIGHTING, HVAC EQUIPMENT, CEILINGS, ETC. ARE SUSPENDED FROM ROOF MEMBERS, CONSULT ENGINEER OF RECORD IF THESE CONCENTRATED LOADS EXCEED 500 POUNDS (USING THE WEB MOUNT DETAIL) OR 200 POUNDS (USING THE FLANGE MOUNT DETAIL), OR IF INDIVIDUAL MEMBERS ARE LOADED SIGNIFICANTLY MORE THAN OTHERS.



GENERAL RESTRICTION:

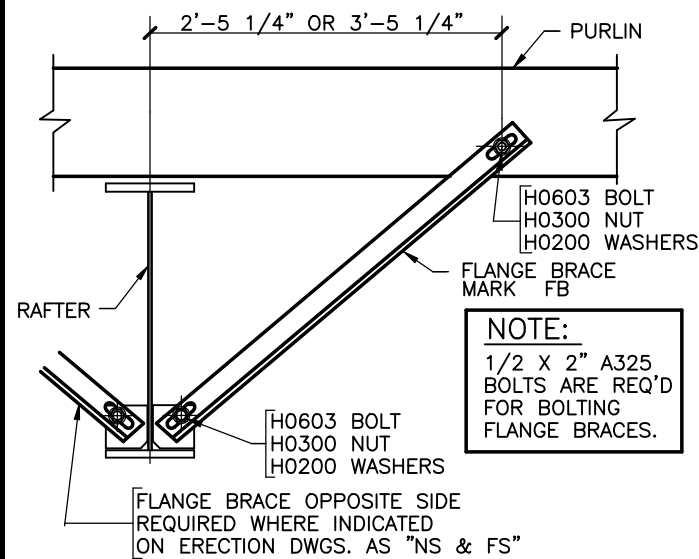
UNDER NO CIRCUMSTANCES CAN THE PURLIN STIFFENING LIP BE FIELD MODIFIED FROM THE FACTORY SUPPLIED CONDITION. ALSO DO NOT HANG ANYTHING FROM PURLIN STIFFENING LIP.

OPTIONS FOR SUPPORT ATTACHMENTS



PURLIN SUPPORT METHODS

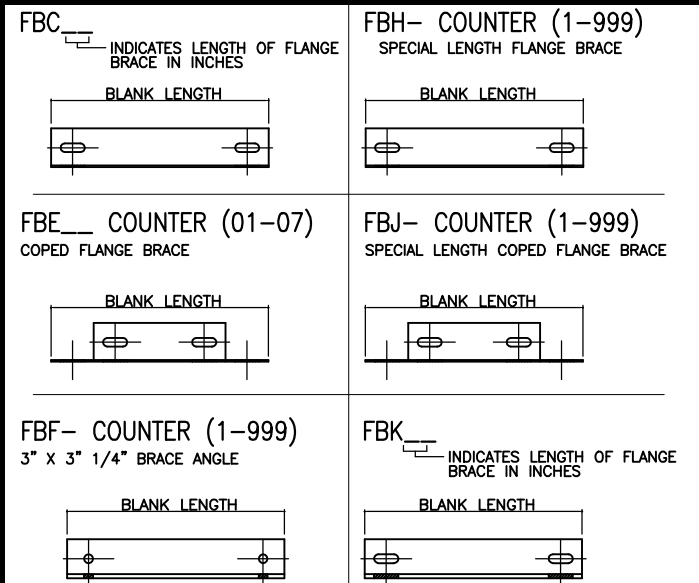
NBD0130



TYP FLANGE BRACE @ PURLIN & RAFTER

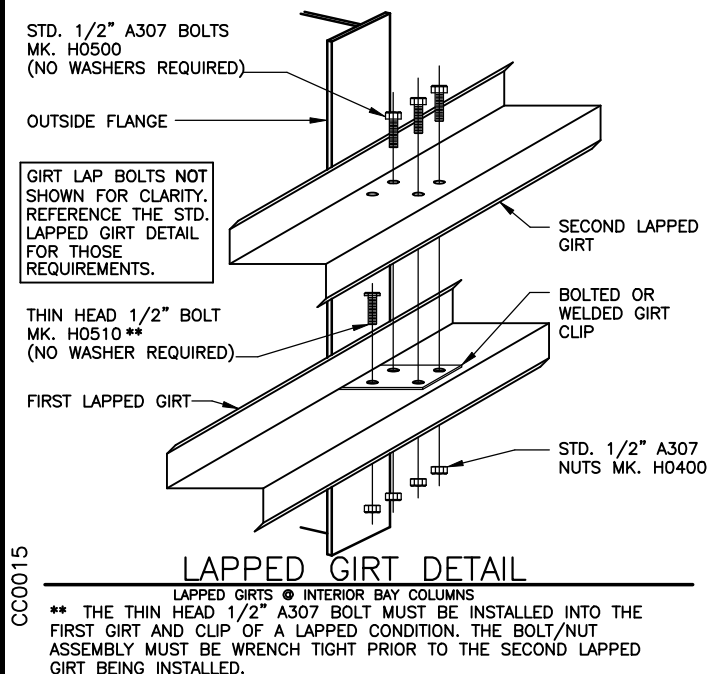
NOTE: SEE PLANS AND ELEVATIONS FOR FLANGE BRACE PART MARKS

NAG0010



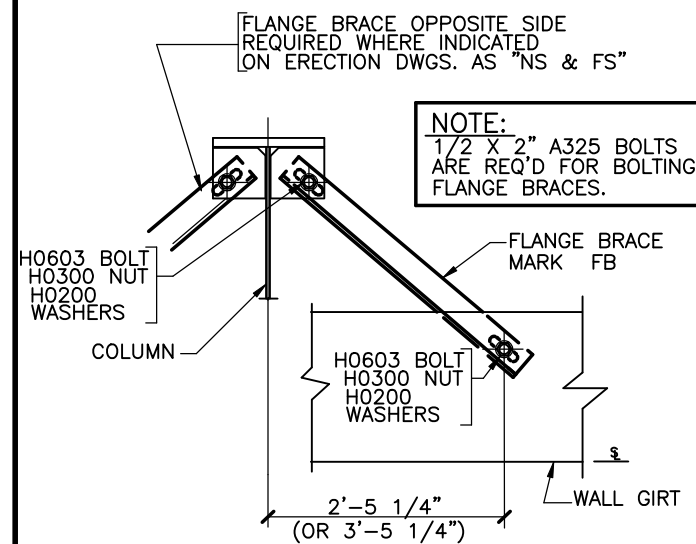
FLANGE BRACE MARK NUMBERS

NAG0003



LAPPED GIRTS @ INTERIOR BAY COLUMNS

** THE THIN HEAD 1/2" A307 BOLT MUST BE INSTALLED INTO THE FIRST GIRTS AND CLIP OF A LAPPED CONDITION. THE BOLT/NUT ASSEMBLY MUST BE WRENCH TIGHT PRIOR TO THE SECOND LAPPED GIRTS BEING INSTALLED.



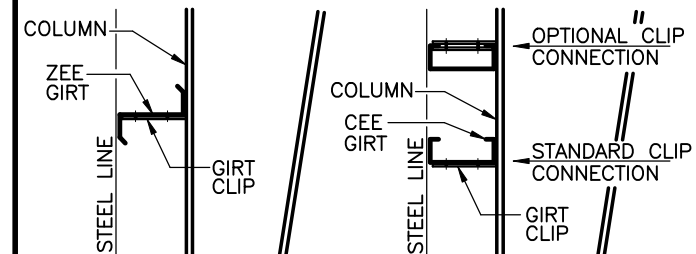
TYP FLANGE BRACE @ BU COL & GIRT

NOTE: SEE PLANS AND ELEVATIONS FOR FLANGE BRACE PART MARKS

NAG0030

ERECTOR NOTE: UNLESS SPECIFICALLY NOTED OTHERWISE, STANDARD ZEE GIRTS ORIENTATION IS TO HAVE THE GIRTS TOED DOWN AT THE STEEL LINE AS SHOWN IN THE DETAIL BELOW.

UNLESS SPECIFICALLY NOTED OTHERWISE, STANDARD CEE GIRTS ORIENTATION IS TO HAVE THE GIRTS TOED UP AS SHOWN IN THE DETAIL BELOW. STANDARD CLIP ATTACHMENT IS BELOW THE GIRTS, HOWEVER SOME DETAILS REQUIRE THAT THE CLIP BE ABOVE THE GIRTS. (REFER TO THE GIRTS DETAILS ON THE ERECTION DRAWINGS FOR REQUIREMENTS) BOTH CLIP ATTACHMENTS ARE SHOWN IN THE DETAIL BELOW.



ZEE GIRTS ORIENTATION

CEE GIRTS ORIENTATION

STANDARD GIRTS ORIENTATION DETAIL

NOTE: BYPASS GIRTS CONDITION IS SHOWN FOR REFERENCE ONLY. YOUR PROJECT MAY HAVE FLUSH OR INSET GIRTS.

DATE	01/25/2023	DATE	01/26/2023
REV	01	REV	01
BY	RHW	BY	RHW
CHECKED	CDC	CHECKED	CDC
ISSUED	MBS	ISSUED	MBS
Anchor Bolts for Construction		Anchor Bolts for Construction	
Building Department Review		Building Department Review	

Eugene Building Department

WILCO HAY STORAGE - EUGENE

WALEEN CONSTRUCTION, LLC

REGISTERED PROFESSIONAL ENGINEER
97085PE
MAR. 9 2024
WING HONG LO

PROJECT NAME: WILCO HAY STORAGE - EUGENE, OR 97402

CUSTOMER NAME: WALEEN CONSTRUCTION, LLC

TUALATIN, OR 97062

JOB NUMBER: N2300014A

SHEET TITLE: N2300014A

EXPIRATION DATE: 12-31-2024

03/10/23

Reviewed for Code Compliance - 08/18/2023 3:34:08 PM

Permit Number - 23-01679-01