

STRUCTURAL STEEL GENERAL NOTES

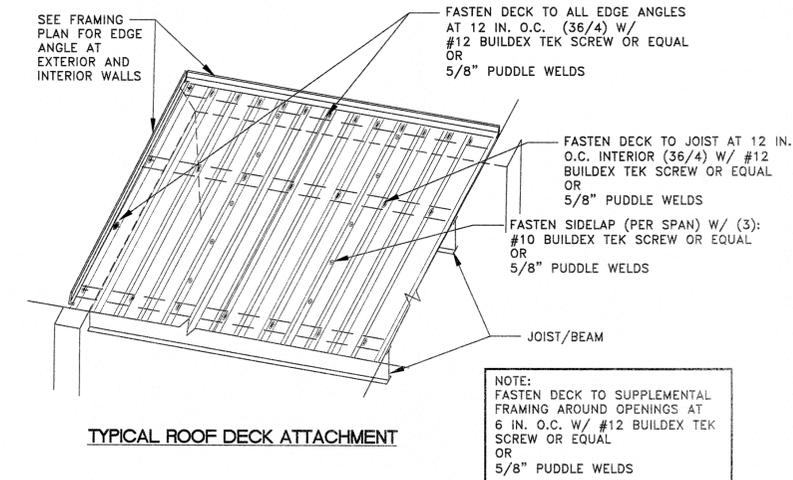
- WIDE FLANGE STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A992, ALL OTHER STRUCTURAL STEEL SHAPES AND PLATES SHALL CONFORM TO ASTM A36. ALL TUBE STEEL SHALL CONFORM TO ASTM A500 GRADE B. WORKMANSHIP AND FABRICATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC SPECIFICATIONS. ALL WELDING SHALL CONFORM TO THE LATEST AWS AND AISC SPECIFICATIONS. CONNECTIONS SHALL BE BOLTED OR WELDED IN ACCORDANCE WITH THE LATEST AISC SPECIFICATIONS. MINIMUM BOLT SIZE 3/4 INCH DIAMETER. MINIMUM CONNECTION SHALL BE TWO BOLTS OR THE EQUIVALENT WELDED CONNECTION. SEE SPECIFICATIONS FOR CONNECTION DESIGN REQUIREMENTS. ALL STEEL SHALL BE PRIMED IN THE SHOP AND RECEIVE FINISHED COATS OF PAINT IN ACCORDANCE WITH THE SPECIFICATIONS. STEEL ENCASED IN CONCRETE OR MASONRY SHALL BE FINISH COATED WITH COAL TAR EPOXY IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO ENCASEING. AREAS OF STEEL THAT ARE TO BE COVERED BY LATER CONSTRUCTION (I.E. METAL DECK OVER A BEAM'S TOP FLANGE) SHALL BE PAINTED PRIOR TO THE APPLICATION OF THE LATER CONSTRUCTION (I.E. BEAM'S TOP FLANGE PAINTED BEFORE METAL DECK APPLIED). FIELD PAINT BOLTS AND ABRASIONS. WHERE GALVANIZING IS INDICATED ON THE DRAWINGS GALVANIZING SHALL BE HOT DIPPED IN ACCORDANCE WITH ASTM A123. ALL FIELD WELDS AREAS ON GALVANIZED OR PAINTED STEEL SHALL BE CLEANED AND FIELD PAINT WITH PRIMER AND PAINT. SEE SPECIFICATION.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENTLY ADOPTED INTERNATIONAL BUILDING CODE - NJ EDITION.
- ERECTION DRAWINGS PREPARED BY FABRICATOR SHALL REPEAT IN A PROMINENT MANNER ALL FIELD NOTES & FIELD WELD DETAILS SHOWN ON DRAWINGS. ERECTION DRAWINGS SHALL SPECIFY ERECTION SEQUENCES WHEN APPLICABLE & ALL OTHER ERECTION REQUIREMENTS AS DEVELOPED BY FABRICATOR.
- ALL STRUCTURAL STEEL COMPONENTS SHALL BE FABRICATED & SHOP ASSEMBLED TO THE MAXIMUM EXTENT POSSIBLE CONSISTENT WITH SHIPPING CONSIDERATIONS. ISOLATED PLATFORM FRAMING AND STAIRS SHALL BE SHOP ASSEMBLED & SHIPPED AS ONE COMPLETE ASSEMBLY (UNLESS OTHERWISE NOTED ON THE DRAWINGS). HANDRAILING SHALL BE FULLY SHOP ASSEMBLED TO THE MAXIMUM EXTENT POSSIBLE AND SHIPPED IN SECTIONS FOR FIELD BOLTING OF THE POSTS TO SUPPORT STEEL. STAIR TREADS SHALL BE SHOP ASSEMBLED TO THE STRINGERS & SHIPPED AS ONE COMPLETE ASSEMBLY.
- PROJECTING CORNERS, BURRS & SHARP EDGES SHALL BE GROUND SMOOTH.
- HIGH STRENGTH BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 8 OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS. SNUG TIGHT BOLTS MAY ONLY BE USED IF SPECIFICALLY INDICATED ON DWGS.
- PROVIDE MASONRY ANCHORS SPACED AS DETAILED ON ALL PERIMETER STEEL ADJACENT TO MASONRY WALL (BEAMS AND COLUMNS).
- CONNECTOR ANGLES SHALL HAVE A MINIMUM THICKNESS OF 3/8 INCH. ALL DOUBLE ANGLE BRACING SHALL HAVE FILLER PLATES PROVIDED IN ACCORDANCE WITH AISC SECTION E4.
- ALL EMBEDDED STEEL SHALL BE GALVANIZED (UNLESS NOTED AS STAINLESS STEEL).
- ANY ALUMINUM IN CONTACT WITH DISSIMILAR MATERIALS (CONCRETE, STEEL OR MASONRY) SHALL HAVE THE CONTACT SURFACE COATED WITH A BITUMINOUS PAINT.

JOISTS:

- ALL STEEL JOISTS SHALL CONFORM TO SJI STANDARDS AND SPECIFICATIONS. SECURE JOISTS TO BEAMS AND WALLS AS SHOWN ON THE DETAILS. ALL JOISTS SHALL HAVE TOP AND BOTTOM CHORDS FABRICATED FROM HOT ROLLED STEEL ANGLES OR TEES WITH MINIMUM THICKNESS OF 3/16". JOIST MANUFACTURER SHALL VERIFY JOIST & BRIDGING ARE ADEQUATE FOR LOADS (INCLUDING UPLIFT) SHOWN ON THE DRAWINGS.
- BRIDGING ON STEEL JOISTS SHALL BE FRAMED INTO PERIMETER WALLS. JOIST MANUFACTURER TO VERIFY ADEQUACY OF JOISTS FOR DRIFT AND UPLIFT LOADS INDICATED ON THE DRAWINGS.
- SEE STRUCT. DRAWINGS FOR LOCATION AND LENGTH OF TOP AND BOTTOM CHORD EXTENSIONS. NO CONCENTRATED LOADS SHALL BE APPLIED TO STEEL JOISTS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. BEFORE INSTALLING PIPES, ELECTRICAL DEVICES, ETC. THAT ARE TO BE SUPPORTED BY STEEL JOISTS, THE SUBCONTRACTOR MUST SUBMIT PLANS INDICATING METHOD AND LOCATION OF INSTALLATION.
- LIGHTING & EQUIPMENT WEIGHING LESS THAN 50 POUNDS MAY BE HUNG FROM JOISTS WITHOUT PRIOR APPROVAL PROVIDED A JOIST REINFORCING ANGLE IS ADDED WHEREVER SUPPORT IS MORE THAN 2" FROM JOIST PANEL POINT. SEE TYPICAL JOIST REINFORCEMENT FOR HANGERS NOT AT JOIST PANEL POINTS DETAIL ON THIS DRAWING.

ROOF DECK:

- STEEL DECK SHALL BE 1 1/2" 20 GAUGE TYPE B GALVANIZED. DECK SHALL BE ATTACHED TO SUPPORTING MEMBERS AND ADJOINING STEEL DECK SHEET BY MEANS OF SCREWS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND ERECTION LAYOUTS. END JOINTS SHALL BE OF THE OVERLAPPING TYPE WITH A TWO INCH (2") MINIMUM LAP AND SHALL OCCUR OVER A SUPPORT. THE DECK SHALL BE FASTENED TO STRUCTURAL SUPPORTS BY SCREWS.
- ALL STRUCTURAL STEEL SHALL BE PERMANENTLY CONNECTED BEFORE DECK IS INSTALLED. DECK UNITS SHALL BE CONTINUOUS FOR AT LEAST THREE (3) SPANS.
- DECKING THAT CALLED OUT ON THE DRAWINGS OR IN THE SPECIFICATION TO BE PAINTED SHALL HAVE THE UNDERSIDE SHOP PRIMED (NO CHROMATE WASH) AND FINISH PAINTED. SEE SPECIFICATIONS FOR PAINT.
- DECK IS TO HAVE LAPS INSTALLED SHINGLE FASHION (WATER WILL RUN ONTO AND NOT UNDER THE NEXT LOWER PANEL).



TYPICAL ROOF DECK ATTACHMENT

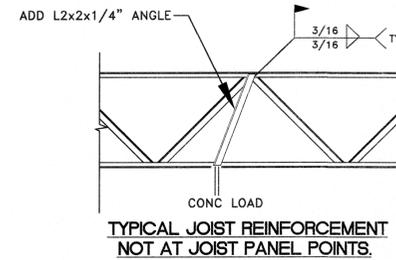
MATERIAL THICKNESS OF THICKER PART JOINED (INCHES)	MINIMUM ^a SIZE OF FILLET WELD (INCHES)
TO 1/4 INCLUSIVE	1/8
OVER 1/4 TO 1/2	3/16
OVER 1/2 TO 3/4	1/4
OVER 3/4	5/16

^a LEG DIMENSION OF FILLET WELDS

^b USE OF SMALLER SIZE WELD REQUIRES PREHEAT IN ACCORDANCE WITH AWS D1.1

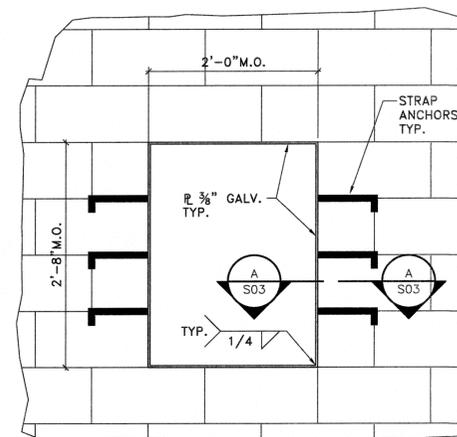
NOMINAL BOLT DIAMETER (INCHES)	AT SHEARED EDGES	AT ROLLED EDGES OF PLATES, SHAPES OR BARS GAS CUT OR SAW CUT EDGES
1/2	7/8	3/4
5/8	1 1/8	7/8
3/4	1 1/4	1 1/8
7/8	1 1/2	1 1/8
1	1 3/4	1 1/4
1 1/8	2	1 1/2
1 1/4	2 1/4	1 5/8
OVER 1 1/4	3	1 3/4

MINIMUM BOLT EDGE DISTANCES
CENTER OF HOLE TO EDGE - INCHES



NOTE:

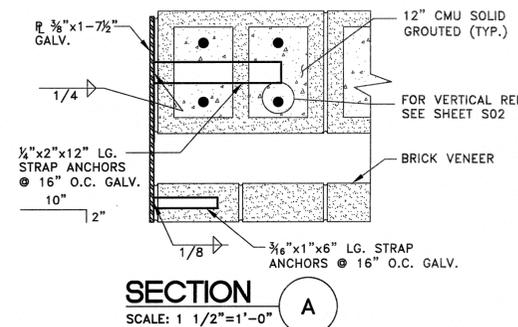
- WHERE CONCENTRATED LOADS BTWN PANEL POINTS EXCEED 100 LBS.
- NO CONCENTRATED LOAD EXCEEDING 100 LBS SHALL NOT BE ATTACHED TO JOIST EXCEPT WHERE SHOWN ON JOIST LOAD DIAGRAM.



TYPICAL GRIT SCREW OPENING REINFORCEMENT

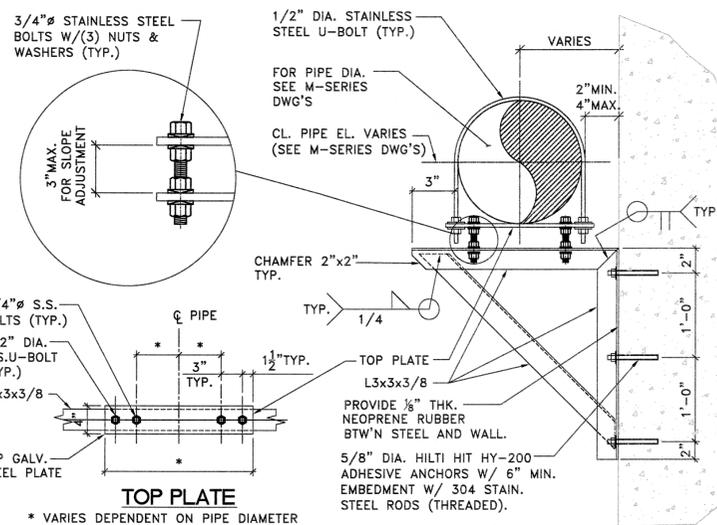
SCALE: N.T.S.

NOTE: TYPICAL 2 LOCATIONS.



SECTION A

SCALE: 1 1/2" = 1'-0"



TYP. HORIZ. ODOR CONTROL PIPE SUPPORTS

SCALE: N.T.S.

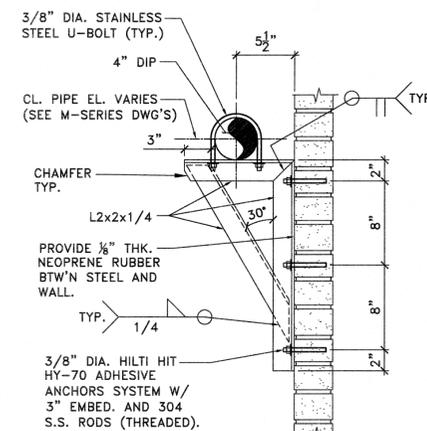
NOTE: MAXIMUM PIPE SUPPORT SPACING 10 FEET.

PIPE SIZE (in.)	ROD SIZE (in.)
1/2	3/8
3/4	3/8
1	3/8
1 1/4	3/8
1 1/2	3/8
2	3/8
2 1/2	1/2
3	1/2
3 1/2	1/2
4	3/8
5	5/8
6	3/4

NOTES

- ALL BOLTS & NUTS TO BE STAINLESS STEEL.
- SUPPORT TO BE PLACED AT PANEL POINT (DIAGONAL) OF JOIST OR ADDITIONAL JOIST MEMBER TO BE ADDED PER GENERAL NOTE SHEET.

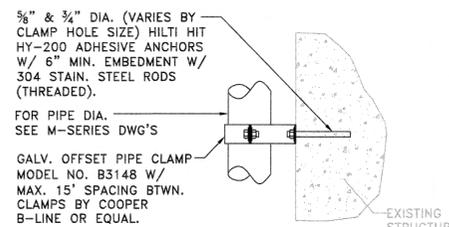
TYPICAL PIPE HANGER DETAIL



TYP. OUTSIDE BUILDING PIPE SUPPORTS

SCALE: N.T.S.

- NOTE:
- MAXIMUM PIPE SUPPORT SPACING 4 FEET.
 - BRACKET SHALL BE INSTALLED WITH MINIMUM 8" EDGE DISTANCE.



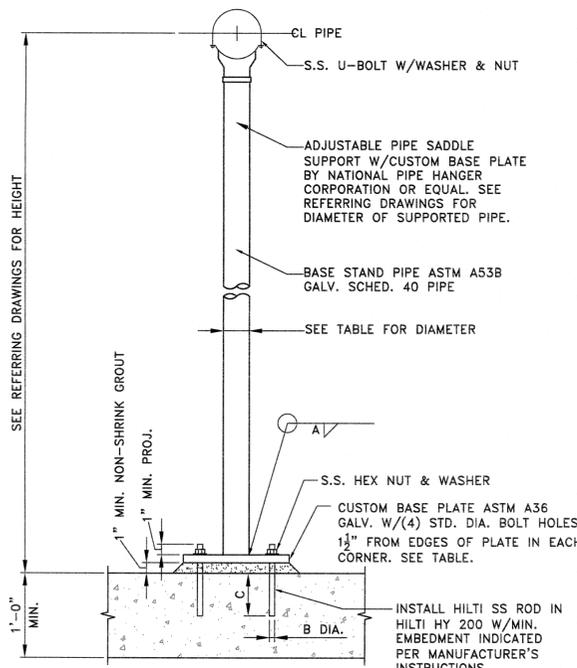
TYP. VERTICAL PIPE SUPPORTS

SCALE: N.T.S.

- NOTE:
- MAXIMUM PIPE SUPPORT SPACING 15 FEET.

GENERAL PIPE SUPPORTS NOTES:

- PIPE SUPPORTS FOR ALL PIPING SHALL BE PROVIDED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND DESIGNED BY A N.J. LICENSED PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR. SUPPORTS SPECIFICALLY SHOWN ON THE PLANS SHALL BE PROVIDED IN ADDITION TO ANY REQUIRED BY THE PIPE HANGER/SUPPORT DESIGN.
- ALL EXTERIOR PIPE SUPPORT SHALL BE HOT-DIPPED GALVANIZED.



TYPICAL PIPE SUPPORT

N.T.S.

NOTE: FINISH GALVANIZED (NO CHROMATE WASH). PAINT ENTIRE ASSEMBLY (EXCEPT S.S.) IN ACCORDANCE WITH SPECIFICATIONS.

PIPE SUPPORT TABLE					
PIPE SUPPORT TYPE	BASE STAND PIPE O.D. (IN.)	CUSTOM BASE PLATE W x L x THK	MIN. WELD SIZE A (IN)	HILTI ROD DIA. B (IN)	ROD EMBEDMENT C (IN)
A	2.5	8" x 8" x 1/2"	3/16	1/2	4 1/2
B	4	10" x 10" x 3/4"	1/4	1/2	4 1/2
C	6	12" x 12" x 1"	1/4	3/4	6 3/4

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GRIT CHAMBER UPGRADE
STEEL GENERAL NOTES AND DETAILS
 SCALE: AS NOTED

CLIENT: **WOODBIDGE TOWNSHIP**
 PROJECT LOCATION: **WOODBIDGE TOWNSHIP MIDDLESEX COUNTY NEW JERSEY**
 PROJECT NO.: **B-0726-0023-000**
 CONTRACT NO.: **1230**
 DATE: **APRIL 2017**
 DESIGNED BY: **PG**
 DRAWN BY: **PG**
 CHECKED BY:
 DEPT. HEAD:
 SHEET: **S03**
 FILE NO.:

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