

Design Assumptions for
Nebraska Base Drawing NE100-40-006
Metal Base Metal Pipe Support for
15", 18", 21" and 24" Diameter Pipe Barrels

Revised: 12/04 Replaces: 5001-13

Metal Base Metal Pipe Support for 15", 18", 21" & 24" Diameter Pipe Barrels

Recommended for sites where topography or remoteness makes it impractical to pour concrete as a base.

Rust Preventative - The following types are considered equal to the specified type:

Zinc coated as per specification, or
Paint System C of paint specification.

Instructions for
Nebraska Base Drawing NE100-40-006
Metal Base Metal Pipe Support for 15", 18", 21" and 24"
Diameter Pipe Barrels

Fill in the following data fields to automatically fill in the necessary data fields on the drawing.

Title block

Title line(s)

Subtitle line

County, State

Sheet number of

Who / When

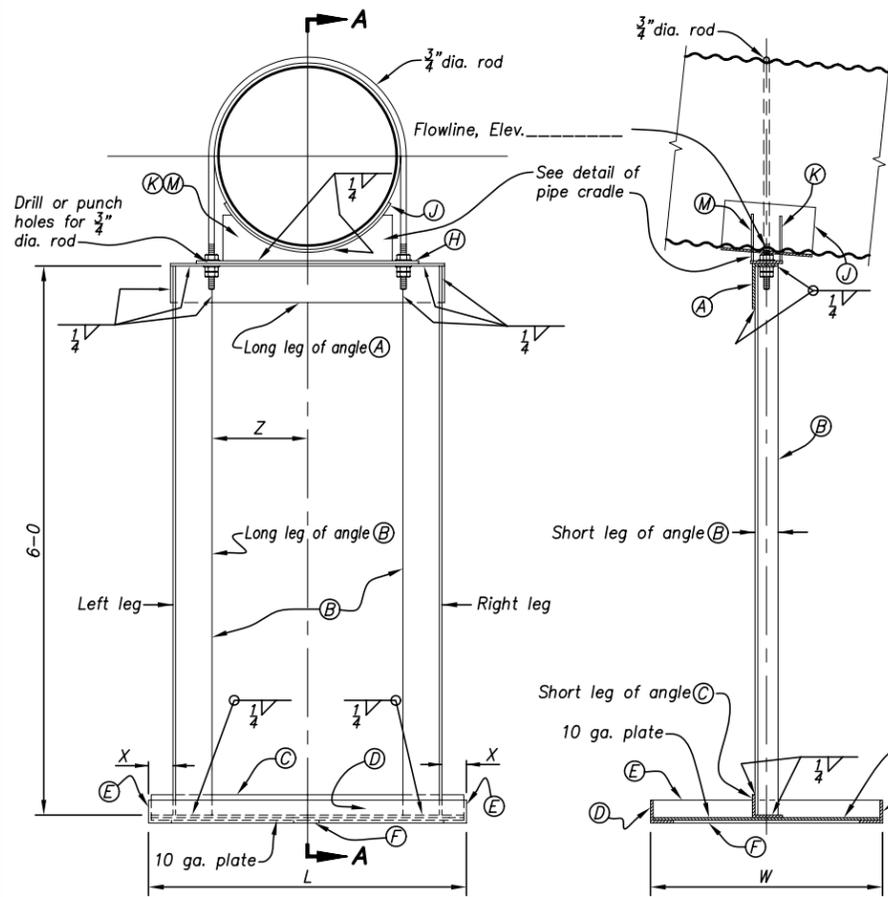
Designed

Drawn

Checked

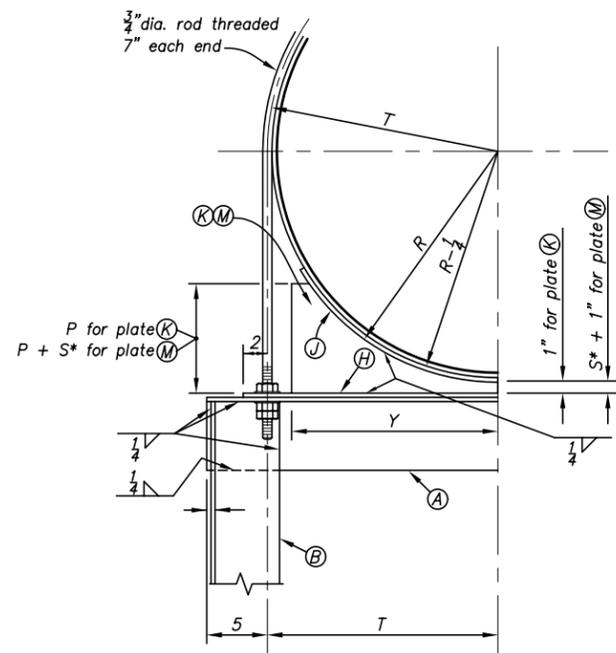
Enter directly on drawing

Left click on yellow boxes on drawing to mark with X as required item.
Left click blue data fields to enter required information.

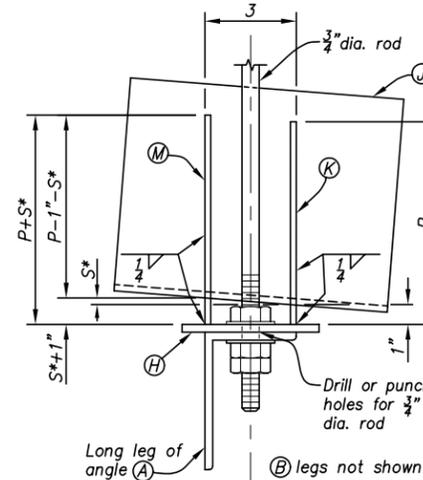


FRONT ELEVATION
Looking Upstream

SECTION A-A



DETAIL OF PIPE CRADLE FOR 15" THRU 24" DIA. PIPE



DETAILED END ELEVATION OF PIPE CRADLE

DESIGNERS NOTES:

1. When steel pipe is used, all major component parts shall be of steel. When aluminum alloy pipe is used, all major component parts shall be aluminum alloy.
2. Aluminum alloy will not be used in soils that have a pH greater than 9 or less than 4, or where rapid corrosion of similar metal is known to have occurred.
3. Steel rods, nuts and washers may be used with aluminum alloy only when properly insulated with two (2) thicknesses of 12 mil. (minimum) plastic tape.

NOTES:

1. All rods, nut and washers to be galvanized.
2. All angles and sheets to be securely welded as shown on the plans in accordance with specifications.
3. All welds and heat affected areas on galvanized metal to be treated in accordance with specifications.
4. When materials used are not galvanized, all parts shall be painted according to paint system "C" of paint specifications.
5. The R-1/4 (See detail of pipe cradle) must be adequate for the outside diameter of the pipe, which must include the thickness of the coating.
- *6. Increase the vertical dimensions of plate (M) by the dimension "S" to place the pipe cradle on the same grade as the outlet pipe (as shown on detailed end plan of pipe cradle). The value of "S" changes with pipe grade according to the following table. Pipe grade to be used as box marked with an X in table.

MATERIAL LIST

MARK	DESCRIPTION	15" DIA. BARREL		18" DIA. BARREL		21" DIA. BARREL		24" DIA. BARREL	
		NO. REQD.	LENGTH						
A	5 x 3 x 5/16 ANGLE	1	2-3	1	2-6	---	---	---	---
A	5 x 3 x 3/8 ANGLE	---	---	---	---	1	2-9	1	3-0
B	5 x 3 x 5/16 ANGLE	2	6-0	2	6-0	---	---	---	---
B	5 x 3 x 3/8 ANGLE	---	---	---	---	2	6-0	2	6-0
C	4 x 3 x 1/4 ANGLE	1	3-0	1	3-0	1	3-6	1	3-6
D	3 x 3 x 1/4 ANGLE	2	3-0 1/2	2	3-0 1/2	2	3-6 1/2	2	3-6 1/2
E	3 x 3 x 1/4 ANGLE	2	2-0 1/2	2	2-0 1/2	2	2-6 1/2	2	2-6 1/2
F	BAR 3 x 1/4	1	1-6 1/2	1	1-6 1/2	1	2-0 1/2	1	2-0 1/2
H	4 x 1/4" PLATE	1	1-9	1	2-0	1	2-3	1	2-6
J	12 x 1/4 PLATE	1	1-3	1	1-6	1	1-9	1	2-0
K	1/4" PLATE PER DETAIL	1	---	1	---	1	---	1	---
M	1/4" PLATE PER DETAIL	1	---	1	---	1	---	1	---
**	3/4" DIA. ROD	1	4-9	1	5-3	1	6-0	1	6-6
	10 GA. PLATE (1 REQD.)	3-0 x 2-0		3-0 x 2-0		3-6 x 2-6		3-6 x 2-6	

** INCLUDING 6 NUTS AND 4 WASHERS. INCREASE LENGTH OF 3/4" DIA. ROD, AS REQUIRED, WHEN HELICAL PIPE IS USED.

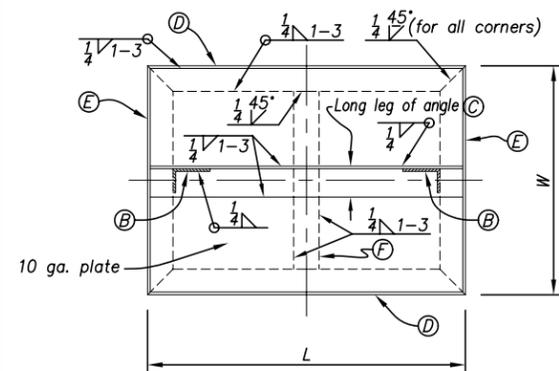
3/4" DIA. ROD=1.5 LBS. PER FT.
3/8" DIA. ROD=0.376 LBS. PER FT.
(ALUMINUM ALLOY=1/3 WEIGHT OF STEEL)

DIMENSIONS

DIM.	PIPE BARREL DIAMETER			
	15"	18"	21"	24"
L	3-0 1/2	3-0 1/2	3-6 1/2	3-6 1/2
P	0-3 3/4	0-4 1/2	0-5 1/4	0-6
R	0-8 3/8	0-9 7/8	0-11 3/8	1-0 7/8
T	0-8 1/2	0-10	0-11 1/2	1-1
W	2-0 1/2	2-0 1/2	2-6 1/2	2-6 1/2
X	0-4 3/4	0-3 1/4	0-4 3/4	0-3 1/4
Y	0-6 1/2	0-8	0-9 1/2	0-11
Z	0-8 1/4	0-9 3/4	0-11 1/4	1-0 3/4

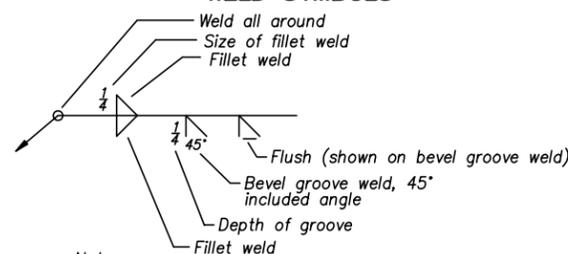
"S" DIM. TABLE

X Box for grade of pipe	
PIPE GRADE (%)	* S (INCHES)
0	0
1	1/32
2	1/16
3	3/32
4	1/8
5	5/32
6	3/16
7	7/32



PLAN OF METAL BASE PIPE SUPPORT FOR 15" THRU 24" DIA. PIPE BARRELS DETAIL K

WELD SYMBOLS



Note:
Weld symbol above line indicates weld is on opposite side of joint to which arrow points.
Weld symbol below line indicates weld is on side of joint to which arrow points.

TABLE OF QUANTITIES

ITEM	UNIT (STEEL)	PIPE BARREL DIAMETER			
		15"	18"	21"	24"
STR. SHAPES	LBS.	210.1	217.2	261.9	269.5
GALV. 10 GA. PLATE	LBS.	34.7	34.7	50.6	50.6
**3/4" DIA. ROD	LBS.	7.1	7.9	9.0	9.8
TOTAL WEIGHT	LBS.	251.9	259.8	321.5	329.9

REQUIREMENT TABLE

<input checked="" type="checkbox"/> X In box indicates details which apply to structure
SUPPORT(S) REQUIRED _____
DETAIL K (BARREL DIA.) <input type="checkbox"/> 15" <input type="checkbox"/> 18" <input type="checkbox"/> 21" <input type="checkbox"/> 24"
TYPE METAL <input type="checkbox"/> STEEL <input type="checkbox"/> ALUMINUM ALLOY

METAL BASE METAL PIPE SUPPORT FOR 15", 18", 21" AND 24" DIAMETER PIPE BARRELS

Date _____
Designed _____
Drawn _____
Checked _____
Approved _____



File No. _____

CAD Dwg.
NE100-40-006.dwg

Sheet _____ of _____