

Diagram illustrating the Plan view of a column and beam assembly, showing dimensions and reinforcement details.

Dimensions:

- Overall Width: 22'-0"
- Overall Height: 8'-0"
- Column Width: 11'-0"
- Column Height: 6'-0"
- Beam Width: 11'-0"
- Beam Height: 4'-0"
- Clearance (ALL SIDES): 2'-0"
- Keyway Width: 3'-4"
- Keyway Depth: 3'-4"
- Beam Length: 21'-0"
- Column Length: 21'-0"
- Beam End Lap: 1'-4" MIN. LAP
- Beam End Lap: 1'-2" MIN. LAP
- Beam End Lap: 2'-10"
- Beam End Lap: 2'-10"
- Beam End Lap: 1'-2"
- Beam End Lap: 4'-0"
- Beam End Lap: 8'-0"

Reinforcement Details:

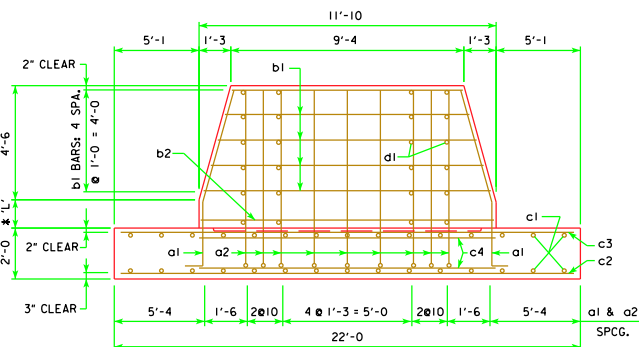
- KEYWAY FORMED BY NOMINAL BEVELED 2 x 8
- 2 CLEAR (ALL SIDES)
- c2, c3
- a1
- a2 (VERT.)
- b1 (HORIZ.)
- c1
- 7 SPA. @ 1'-0" = 7'-0" BOTTOM c2 BARS
- 7 SPA. @ 1'-0" = 7'-0" TOP c-3 BARS
- 21'-0" BOTTOM c1 BARS @ 14 SPA. @ 1'-6" = 21'-0"
- 21'-0" TOP c1 BARS @ 14 SPA. @ 1'-6" = 21'-0"

PLAN

(ANCHOR BOLT ASSEMBLIES NOT SHOWN.)

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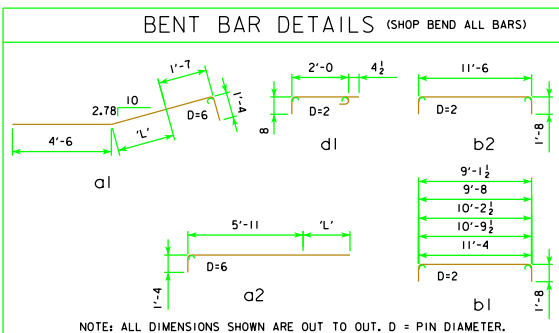
(ANCHOR BOLT ASSEMBLIES NOT SHOWN.)



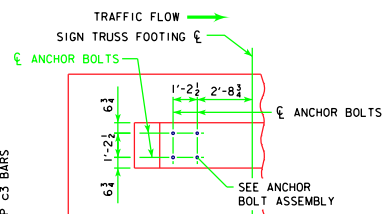
SIDE ELEVATION

(ANCHOR BOLT ASSEMBLIES NOT SHOWN.)

* 'L' SHALL NOT EXCEED 6'-0"



NOTE: ALL DIMENSIONS SHOWN ARE OUT TO OUT. D = PIN DIAMETER.



ANCHOR BOLT PLACEMENT DETAILS

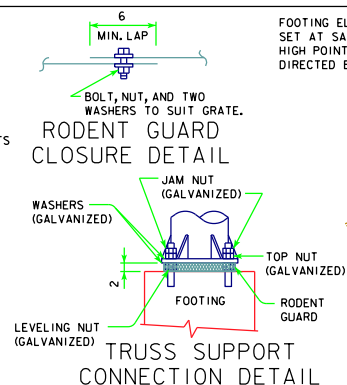
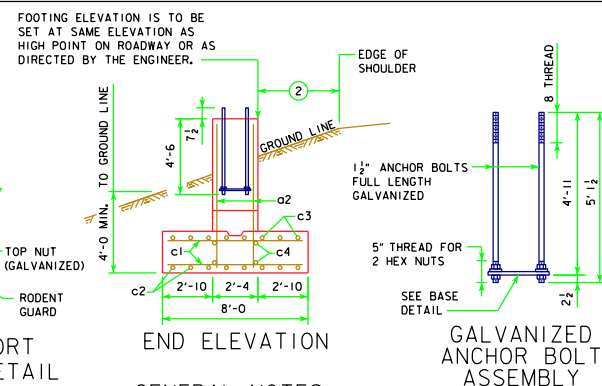


Diagram illustrating the GALVANIZED BASE DETAIL with dimensions and material specifications:

- Top dimension: $1'-2\frac{1}{2}"$
- Right dimension: $2\frac{1}{4}"$
- Left dimension: $5\frac{5}{8}" \times 4" \times 1'-6\frac{1}{2}"$ GALVANIZED (2 REQUIRED)
- Bottom dimension: $5\frac{5}{8}" \times 4" \times 1'-7"$ GALVANIZED (2 REQUIRED)
- Bottom dimension: $1\frac{1}{8}"$ HOLES (4 REQUIRED)
- Right dimension: $1'-2\frac{1}{2}"$
- Right dimension: $2"$
- Right dimension: $\frac{1}{4}"$ TYP



GENERAL NOTES:

STRUCTURAL CONCRETE, CLASS C, SHALL BE USED FOR THE FOOTING.

EXCAVATION FOR FOOTING SHALL BE TO NEAT LINES AND CONCRETE SHALL BE PLACED AGAINST THE UNDISTURBED MATERIAL. ALL EXCAVATION FOR THE FOOTING SHALL BE DISPOSED OF IN THE AREA ADJACENT TO THE FOOTING AND SHAPED TO NORMAL GROUND CONTOUR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. MAXIMUM DESIGN BEARING CAPACITY IS 1.0 TONS PER SQUARE FOOT.

THE REQUIREMENTS PER FOOTING ARE TWO ANCHOR BOLT ASSEMBLIES INCLUDING SHIMS, NUTS (5 PER BOLT) AND WASHERS. REFER TO HARDWARE CLASSIFICATION TABLE FOR MATERIALS AND GALVANIZING REQUIREMENTS.

A RODENT GUARD SHALL BE PLACED BETWEEN THE CONCRETE FOOTING AND THE BASE PLATE, SEE MATERIALS I.M. 443.01.

PRICE BID FOR CONTRACT ITEMS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO CONSTRUCT OVERHEAD SIGN FOOTING AS DETAILED HEREON. THE COST OF FURNISHING AND INSTALLING ANCHOR BOLT ASSEMBLIES, AND RODENT GUARDS ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR STRUCTURAL CONCRETE. CONTRACT ITEMS FOR OVERHEAD SIGN FOOTING CONSTRUCTION ARE:

CONSTRUCTION ARE:
EPOXY COATED REINFORCING STEEL, POUNDS
STRUCTURAL CONCRETE (MISCELLANEOUS), CUBIC YARDS
EXCAVATION, CUBIC YARDS OF CLASS SPECIFIED

ALL ANCHOR BOLT MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF
IOWA DOT MATERIALS IM 453.08.

② SEE FOOTING TABULATION.

CONCRETE PLACEMENT QUANTITIES (ONE FOOTING)		
ITEM	'L' = 0	EACH 1'-0" OF 'L'
WALL	4.12	1.02
FOOTING	13.04	
TOTAL (C.Y.)	17.16	1.02

REINFORCING BAR LIST - EPOXY COATED								
(ONE FOOTING)								
SIZE	SHAPE	'L' = 0				EACH 1'-0" OF 'L'		
		NO.	LENGTH	WEIGHT	SPACING	NO.	LENGTH	WEIGHT
a1	8 	8	7'-5	158	SEE DETAIL	8	1'-0" (A)	21
a2	8 	18	7'-3	348	SEE DETAIL	18	1'-0" (A)	48
b1	4 	10	Varies	91	1'-0	---	---	---
b2	4 	---	---	---	---	2 (B)	14'-10	20
c1	6 	30	7'-6	338	1'-6	---	---	---
c2	8 	8	21'-6	459	1'-0	---	---	---
c3	6 	8	21'-6	258	1'-0	---	---	---
c4	4 	4	11'-10	32	SEE DETAIL	---	---	---
d1	4 	20	3'-0 1/2	41	SEE DETAIL	4 (C)	3'-0 1/2	8
TOTAL 1725 lbs								TOTAL 97 lbs

(A) ADDITIONAL LENGTH TO BAR ϕ_1 OR ϕ_2 FOR 'L' > 0 (C) FOUR IN EACH '0' OF 'L'.

(B) TWO IN EACH 1'-0 OF 'L'.

05-10 LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation <i>Highway Division</i>	
		STANDARD DESIGN ALUMINUM OVERHEAD SIGN TRUSS WITH GALVANIZED STEEL SUPPORTS FEBRUARY, 2006	
		FOOTING DETAILS	STO15-06