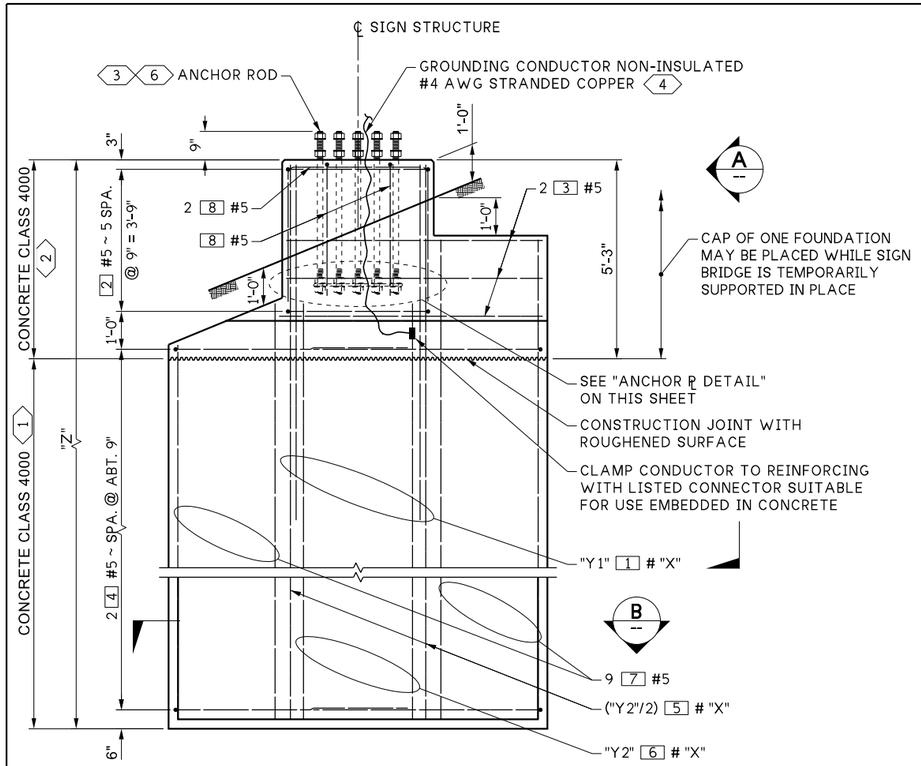
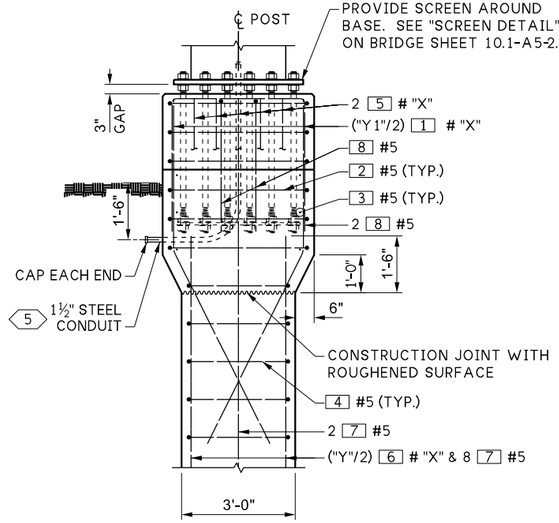
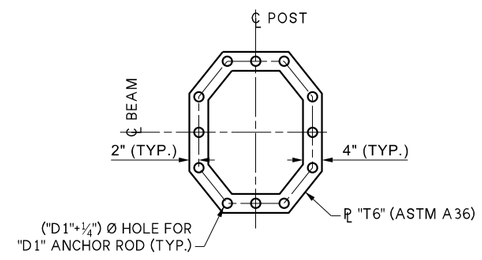


ELEVATION

THE FOUNDATION DEPTH "Z" IS BASED ON AN ALLOWABLE LATERAL BEARING PRESSURE OF _____.

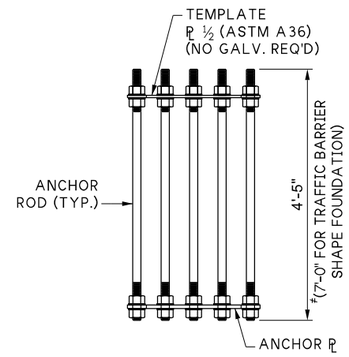


VIEW A



ANCHOR ℙ DETAIL

SEE SIGN STRUCTURE BASE PLATE FOR ANCHOR ROD PATTERN.
6

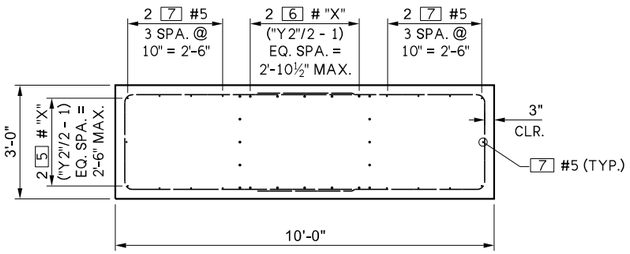


ANCHOR ROD ARRAY

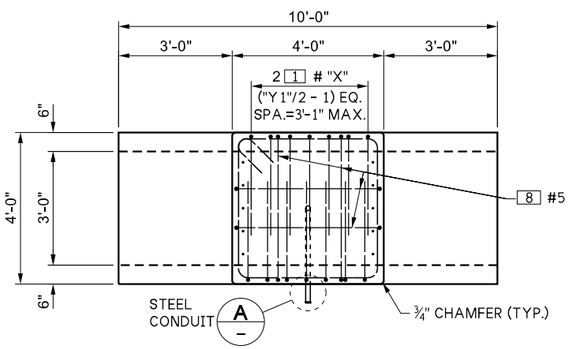
SHIP THE ANCHOR ROD ARRAY ASSEMBLY AS A COMPLETE UNIT.

KEY NOTES:

1. USE CONCRETE CLASS 4000P AND TREMIE IF WATER IS PRESENT IN THE EXCAVATION. PLACE CONCRETE DIRECTLY AGAINST SOIL.
2. BACKFILL/ COMPACTION REQUIREMENTS. SEE STD. SPEC. 2-09.3(1)E COMPACTION ITEM 1.
3. "D1"Ø x 4'-5" LONG THREADED ROD WITH 2 WASHERS AND 4 HEAVY HEX NUTS (TYP.). THREAD EACH END 9". GALVANIZE EXPOSED ANCHOR ROD END FOR 1'-0" MIN.
4. PROVIDE 3'-0" MIN. SLACK. ROUTE CONDUCTOR TO GROUND WIRE TERMINAL SHOWN IN DETAIL 1 ON SHEETS 10.1-A1-2, 10.1-A2-2, OR 10.1-A3-2.
5. TO BE INSTALLED WHERE DIRECTED BY THE ENGINEER.
6. USE A TEMPLATE TO LOCATE AND SECURE RODS IN PLACE DURING FOUNDATION INSTALLATION. FOR DETAILS, SEE ANCHOR ROD ARRAY ON THIS SHEET.



SECTION B



PLAN

ANCHOR BOLTS NOT SHOWN

TYPE 2 FOUNDATION TABLE*

STRUCTURE TYPE	SPAN LENGTH ("S")	* DEPTH ("Z")	REINFORCEMENT SIZE ("X")	REINFORCEMENT SPACING ("Y1")	REINFORCEMENT SPACING ("Y2")
CANTILEVER SIGN	LESS THAN 20'-0"	7'-3"	9	8	4
	20'-0" TO 30'-0"	9'-6"	9	12	8
	30'-0" TO 35'-0"	11'-0"	9	16	12
SIGN BRIDGE	LESS THAN 60'-0"	9'-0"	9	12	8
	60'-0" TO 90'-0"	11'-0"	9	16	12
	90'-0" TO 120'-0"	12'-9"	11	14	10
	120'-0" TO 180'-0"	13'-6"	11	16	14

* SHAFT DEPTH "Z" IS BASED ON ALLOWABLE LATERAL BEARING PRESSURE OF 2500 PSF OR MORE.

TYPE 3 FOUNDATION TABLE*

STRUCTURE TYPE	SPAN LENGTH ("S")	** DEPTH ("Z")	REINFORCEMENT SIZE ("X")	REINFORCEMENT SPACING ("Y1")	REINFORCEMENT SPACING ("Y2")
CANTILEVER SIGN	LESS THAN 20'-0"	11'-0"	9	8	4
	20'-0" TO 30'-0"	13'-9"	9	12	8
	30'-0" TO 35'-0"	15'-6"	9	12	8
SIGN BRIDGE	LESS THAN 60'-0"	12'-9"	9	16	12
	60'-0" TO 90'-0"	15'-6"	9	16	12
	90'-0" TO 120'-0"	17'-9"	11	14	10
	120'-0" TO 180'-0"	19'-6"	11	16	14

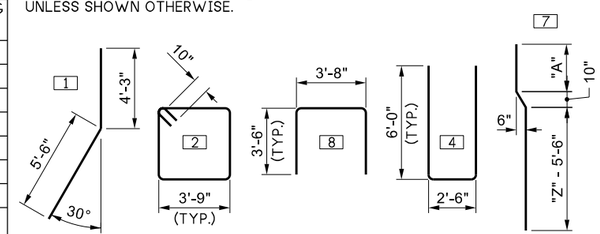
** SHAFT DEPTH "Z" IS BASED ON ALLOWABLE LATERAL BEARING PRESSURE BETWEEN 1500 PSF AND 2499 PSF.

BENDING DIAGRAM

MARK	LOCATION	SIZE	NO. REQ'D.	LENGTH	
1	CAP VERTICAL	"X"	"Y1"	9'-8"	
2	CAP HOOPS	5	6	16'-0"	
3	CAP HORIZONTAL	5	6	"A"	
4	FOUNDATION HOOPS	5	16	15'-5"	STR.
5	FOUNDATION VERTICAL	"X"	"Y2"	"Z" - 6"	
6	FOUNDATION VERTICAL	"X"	"Y2"	"Z" = 4'-0"	
7	FOUNDATION VERTICAL	5	18	"A"	STR.
8	CAP TOP	5	4	10'-4"	STR.

NOTE:
CONCRETE COVER SHALL BE 1½" UNLESS SHOWN OTHERWISE.

"A" ~ DETERMINE FROM PLANS



FILE NAME	10.1-A4-3_Monotube Sign Structures Fnd Types 2 & 3.dgn		
BRIDGE DES. ENG.			
BRIDGE PROJ. ENG.			
SUPERVISOR			
DESIGNED BY			
CHECKED BY			
ENTERED BY			
PRELIM. PLAN BY			
ARCH. / SPEC.	REVISION	DATE	BY

REGION NO. 10 | STATE WASH
JOB NUMBER
CONTRACT NO.

WSDOT
PRELIMINARY PLAN
NOT FOR CONSTRUCTION

SEE CERTIFICATION SHEET DATE STAMP BOX

SEE CERTIFICATION SHEET DATE STAMP BOX

STANDARD MONOTUBE SIGN STRUCTURES

MONOTUBE SIGN STRUCTURES FOUNDATION TYPES 2 AND 3

PLAN REF NO

SHEET OF SHEETS

10.1-A4-3