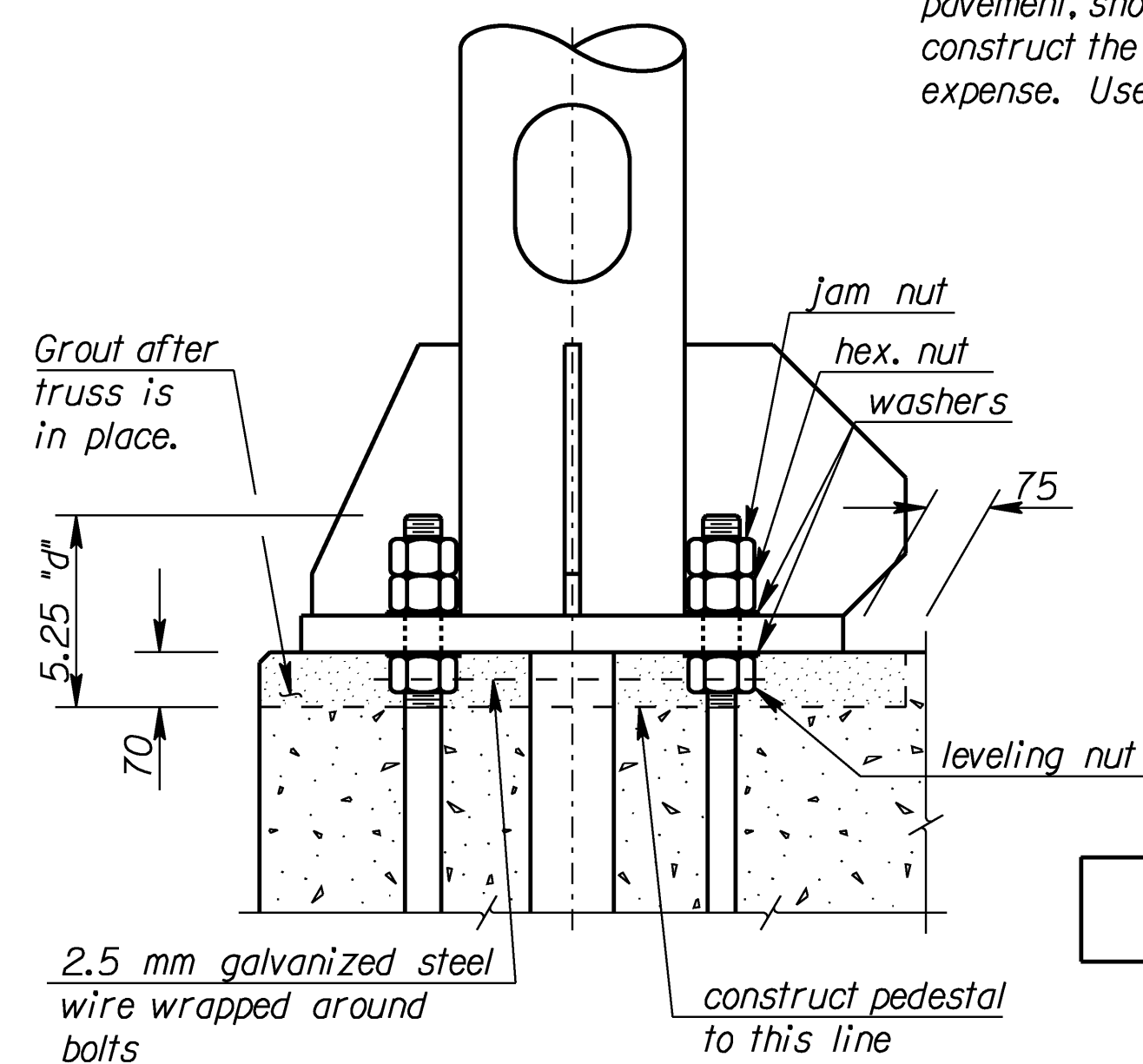


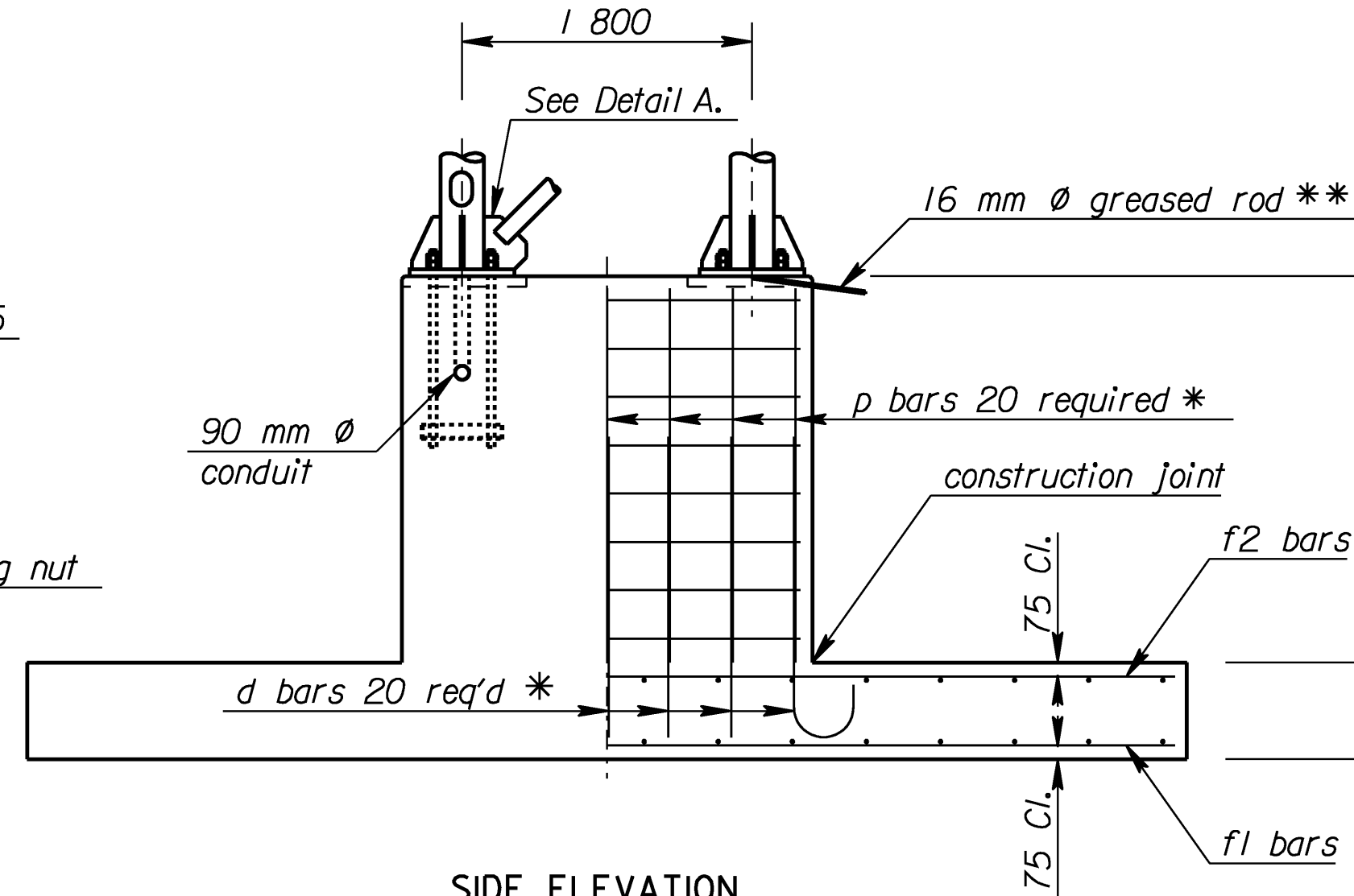
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	54-87 K-8258-01	2005	173	223

NOTE: Restore any existing facilities, (i.e., curb and gutter, guard fence, pavement, shoulders, etc.), whose removal is required in order to construct the footing, to their original condition at no additional expense. Use sawed joints when removing any existing concrete.

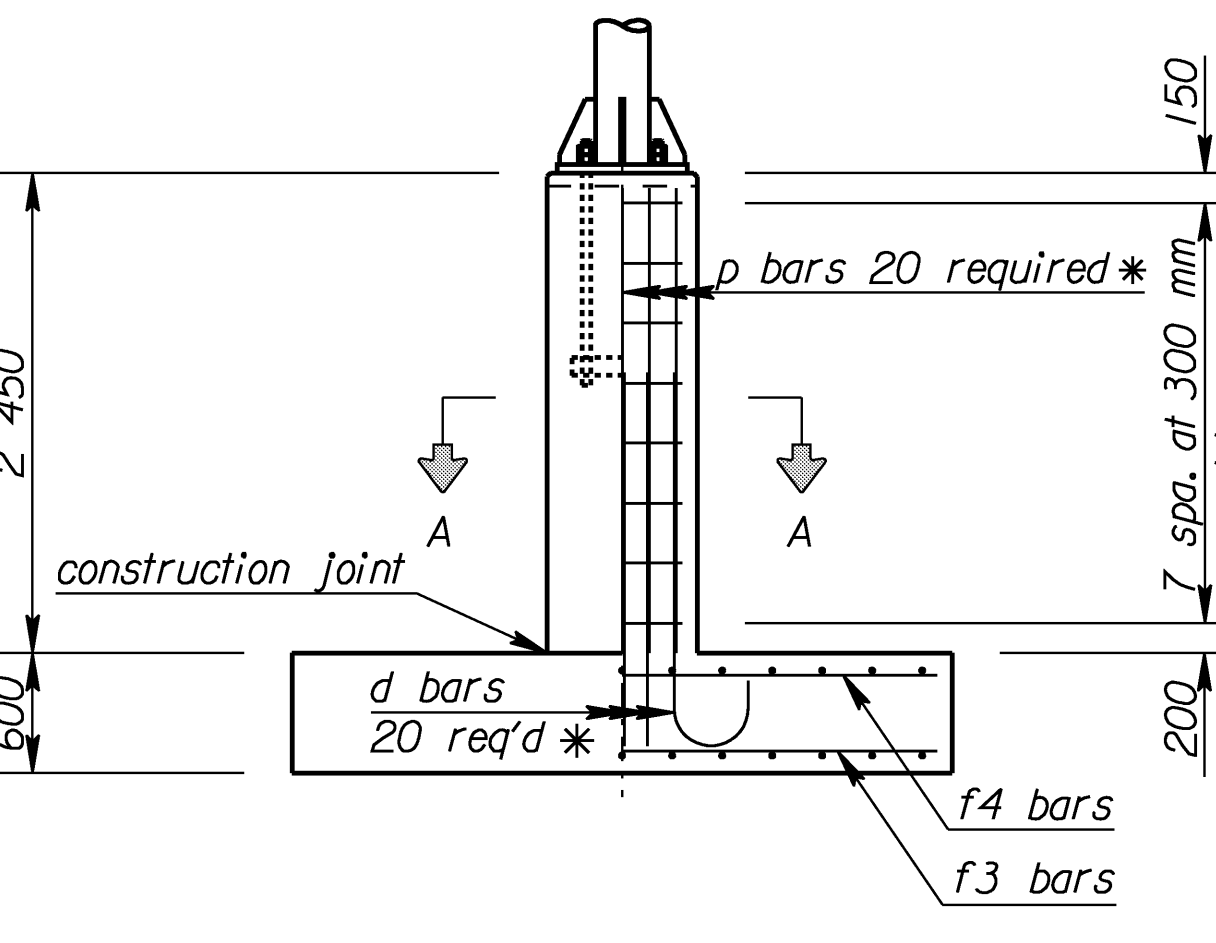
** Note: Place a 16 mm diameter greased rod in the grout at the support to form a drain. Remove the rod after the grout has taken set.



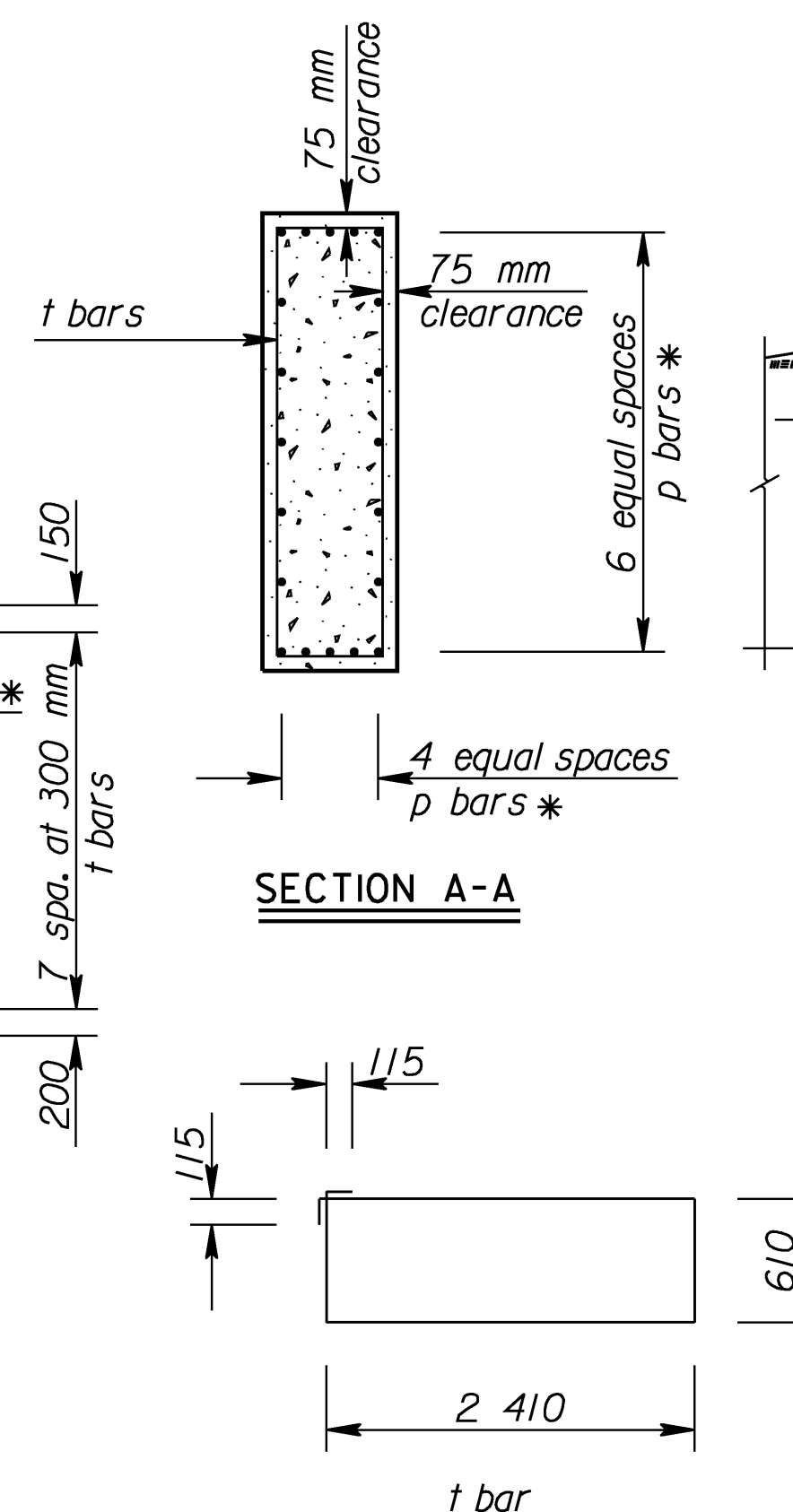
DETAIL A



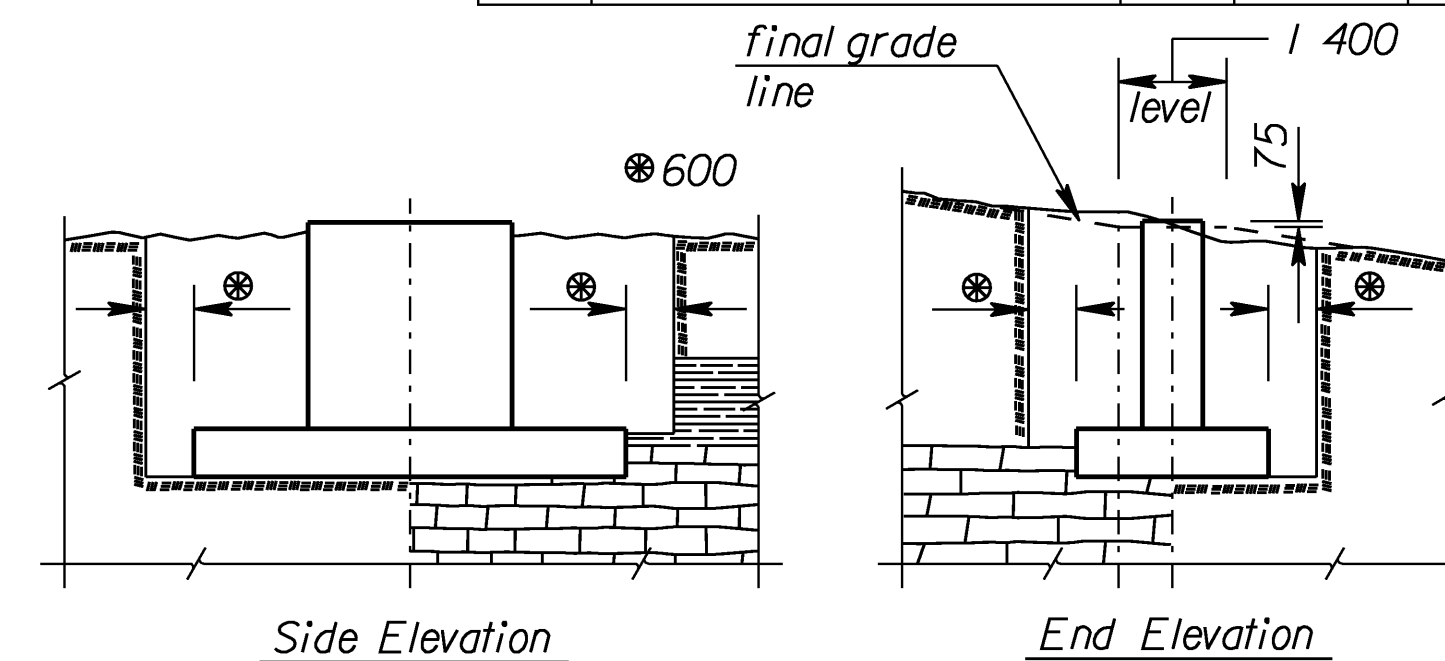
SIDE ELEVATION



END ELEVATION



SECTION A-A



TYPICAL EXCAVATION DETAILS

GENERAL NOTES

LOADING: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 1994 Edition.

CONCRETE: Use Grade 25 (AE) Concrete throughout. Bevel all exposed edges with a 20 mm triangular molding.

CURING AND ERECTING: Cure the concrete a minimum of 4 days. Do not erect the sign structure before 15 days have passed, unless flexural beam tests indicate that the concrete has attained sufficient strength.

UNIT STRESSES: $f_c=8$ MPa; $f_c'=20$ MPa; $f_s=140$ MPa

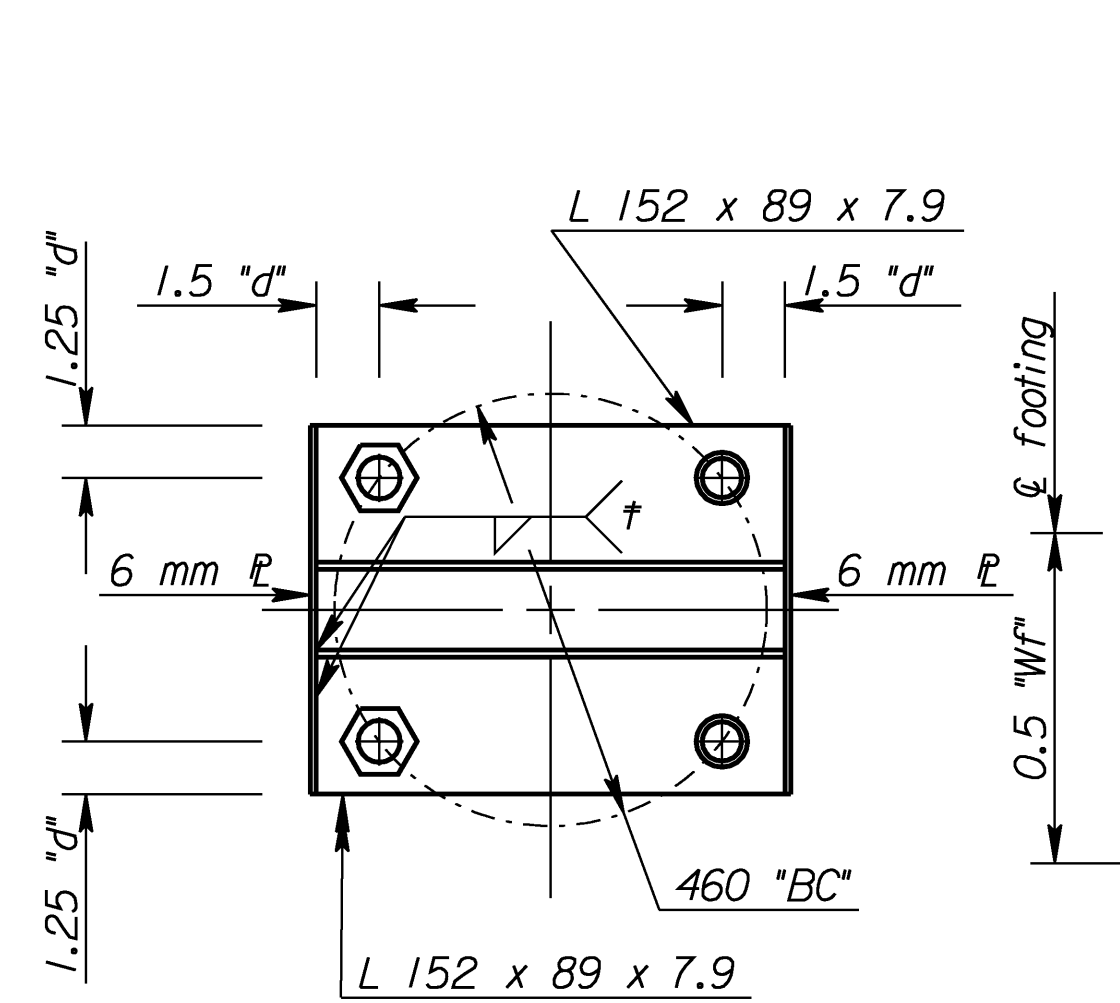
REINFORCING: All dimensions relative to reinforcing steel are to center line of bar unless otherwise noted. Use steel which conforms to ASTM A615M Grade 300 or 420.

EXCAVATION: When rock or hard shale is encountered, excavate to neat lines all excavation below the top of this material or the top of the footing, whichever is lower. See excavation details.

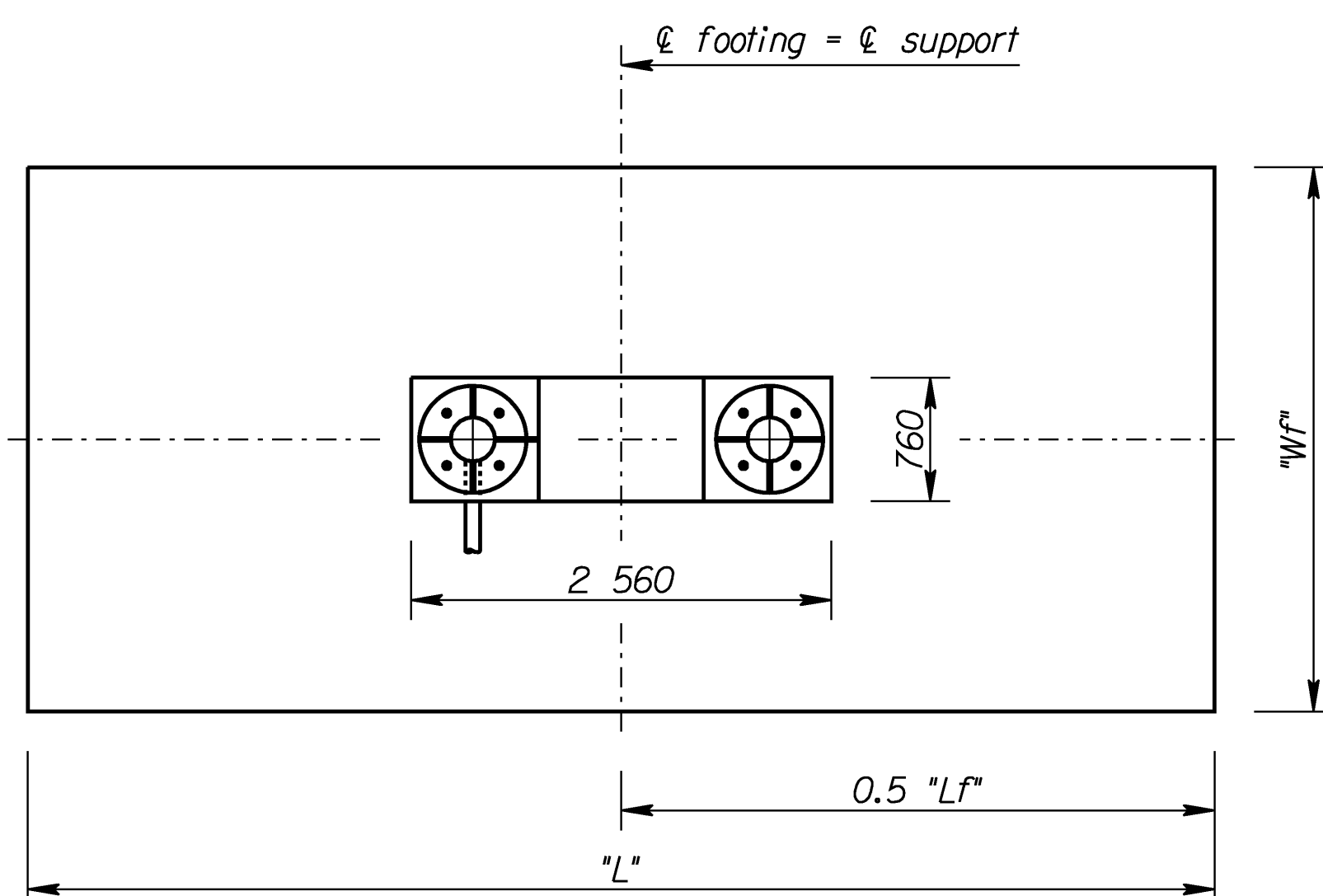
BACKFILL: Place backfill material in 300 mm lifts and compact each lift thoroughly before placing the next lift.

ANCHOR BOLT ASSEMBLY: Use anchor bolts which conform to the "Standard Specifications for State Road and Bridge Construction" Subsection 1613 and are Type II. Use angles and plates which conform to ASTM A709M. Weld in accordance with the "Standard Specifications for State Road and Bridge Construction" and the latest edition of the American Welding Society Specifications.

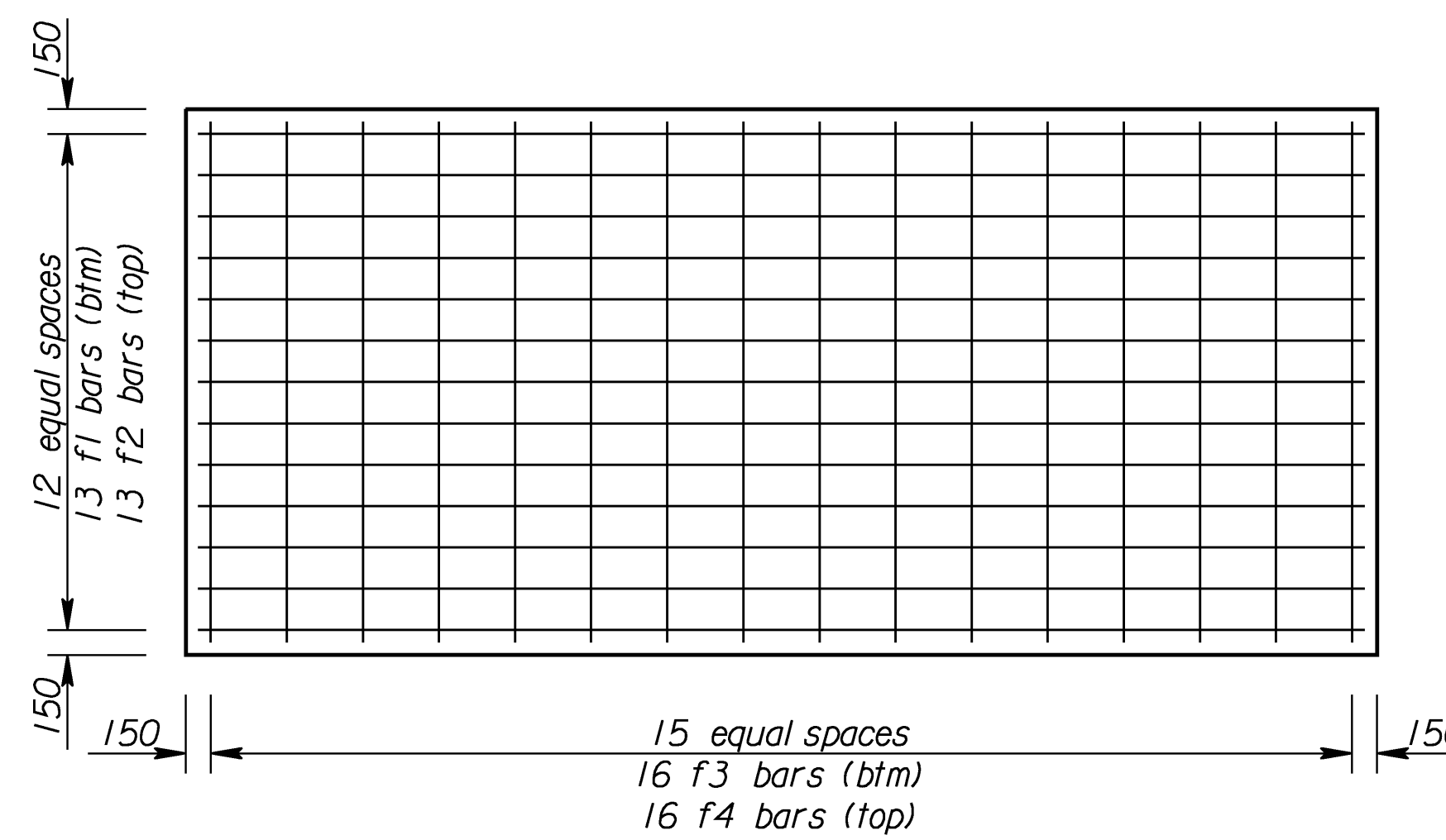
PAYMENT: Include the cost of all material and labor needed to construct its footing in the unit price bid for each "Span Type Overhead Sign Structure".



SECTION B-B



FOOTING PLAN

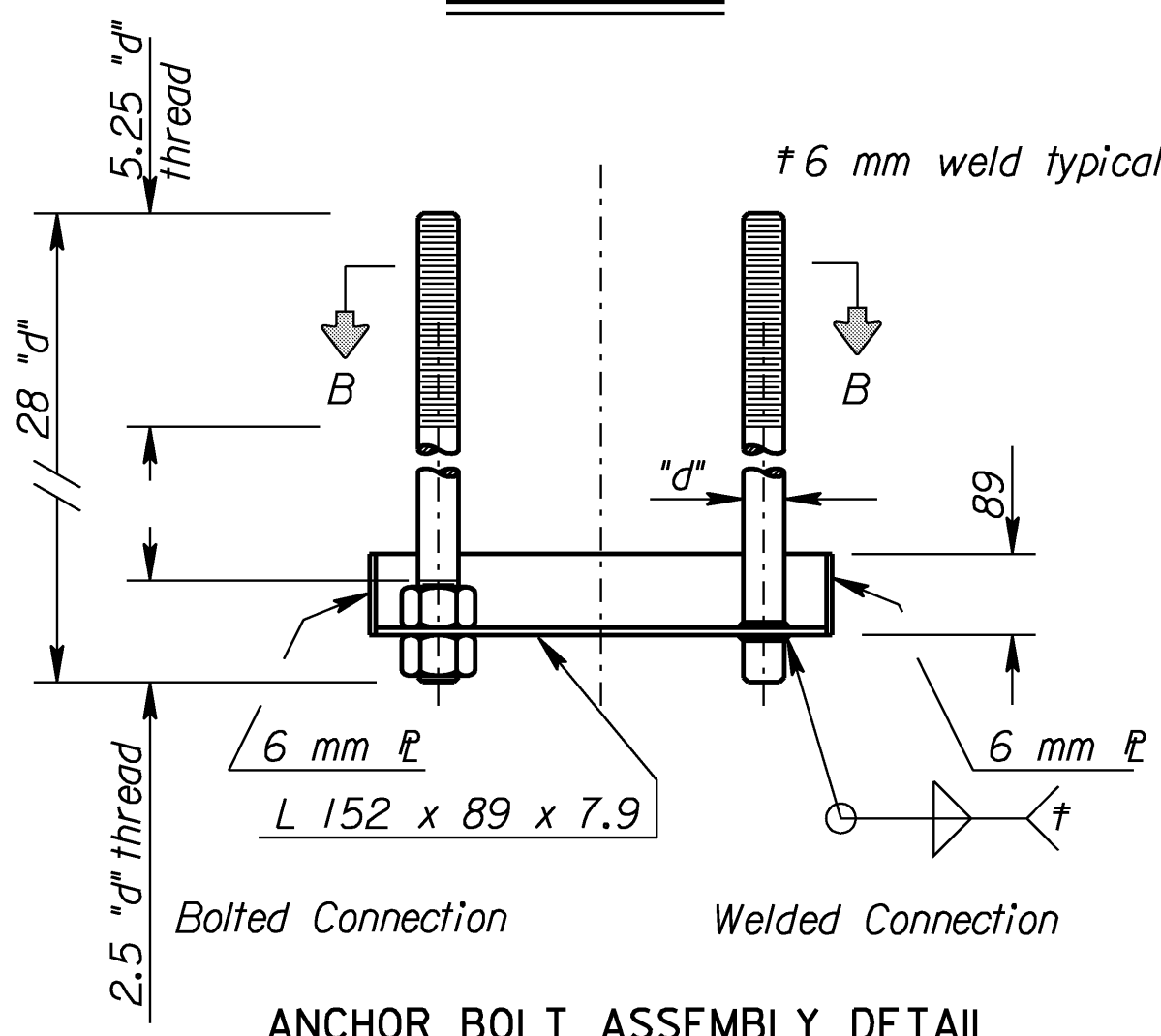


FOOTING PLAN

(Showing reinforcing steel)

BENDING DIAGRAMS

All dimensions are out to out of bars.



ANCHOR BOLT ASSEMBLY DETAIL

See end support framing plan sheet for anchor bolt "d".

See "Construction Layout" sheet for Footing Type.

* Note: Contractor may combine d and p bars into one bar.

FOOTING TYPE	DIMENSIONS		BILL OF REINFORCING STEEL												SUMMARY OF QUANTITIES				
	Lf	Wf	20 d bars *	13 f1 bars	13 f2 bars	16 f3 bars	16 f4 bars	20 p bars *	8 t bars	Class III Excavation	Gr.25(AE) Concrete	Reinforcing Steel							
			Size	Length	Size	Length	Size	Length	Size	Length	Size	Length	Size	Length	Size	Length	cu. m. **	cu. m.	kg.
A	4 600	2 100	19	1 370		4 450		4 450		1 950		1 950	19				55	10.6	390
B	4 900	2 250	19	1 370	13	4 750	13	4 750		2 100		2 100	19				60	11.4	400
C	5 200	2 400	22	1 470		5 050		5 050		2 250		2 250	22				67	12.3	480
D	5 500	2 500	22	1 470		5 350		5 350	13	2 350	13	2 350	22				71	13.0	490
E	5 800	2 650	25	1 660	16	5 650	16	5 650		2 500		2 500	25	2 375	13	6 270	77	14.0	670
F	6 100	2 800	25	1 660	19	5 950	19	5 950		2 650		2 650	25				84	15.0	790
G	6 400	2 950	29	1 930		6 250		6 250	16	2 800	16	2 800	29				91	16.1	980
H	6 700	3 100	29	1 930	22	6 550	22	6 550		2 950		2 950	29				98	17.3	1 150
I	7 000	3 250	32	2 210		6 850		6 850	19	3 100	19	3 100	32				106	18.5	1 400
J	7 300	3 400	36	2 560	25	7 150	25	7 150		3 250		3 250	36				113	19.8	1 800

Size	A	J	L
19	220	160	1 150
22	250	180	1 220
25	280	200	1 380
29	400	300	1 530
32	430	340	1 780
36	480	360	2 080

NO.	DATE	REVISIONS	BY	APP'D
1	3/20/02	Concrete from Class to Grade	SMB	KFH

KANSAS DEPARTMENT OF TRANSPORTATION
STANDARD STRUCTURAL SIGN SUPPORTS
SPAN TYPE OVERHEAD
OPTIONAL SPREAD FOOTING DETAILS
SL151A-02 SI SEDGWICK CO.

** Approximate Excavation for loose material

Std. Base File: sl151asi.dgn - Plot 2
Plotted By: bond
File: F:\Working\825801\SL_Structures\SL-825801-151asi.dgn
Plot Date: 6/29/2005