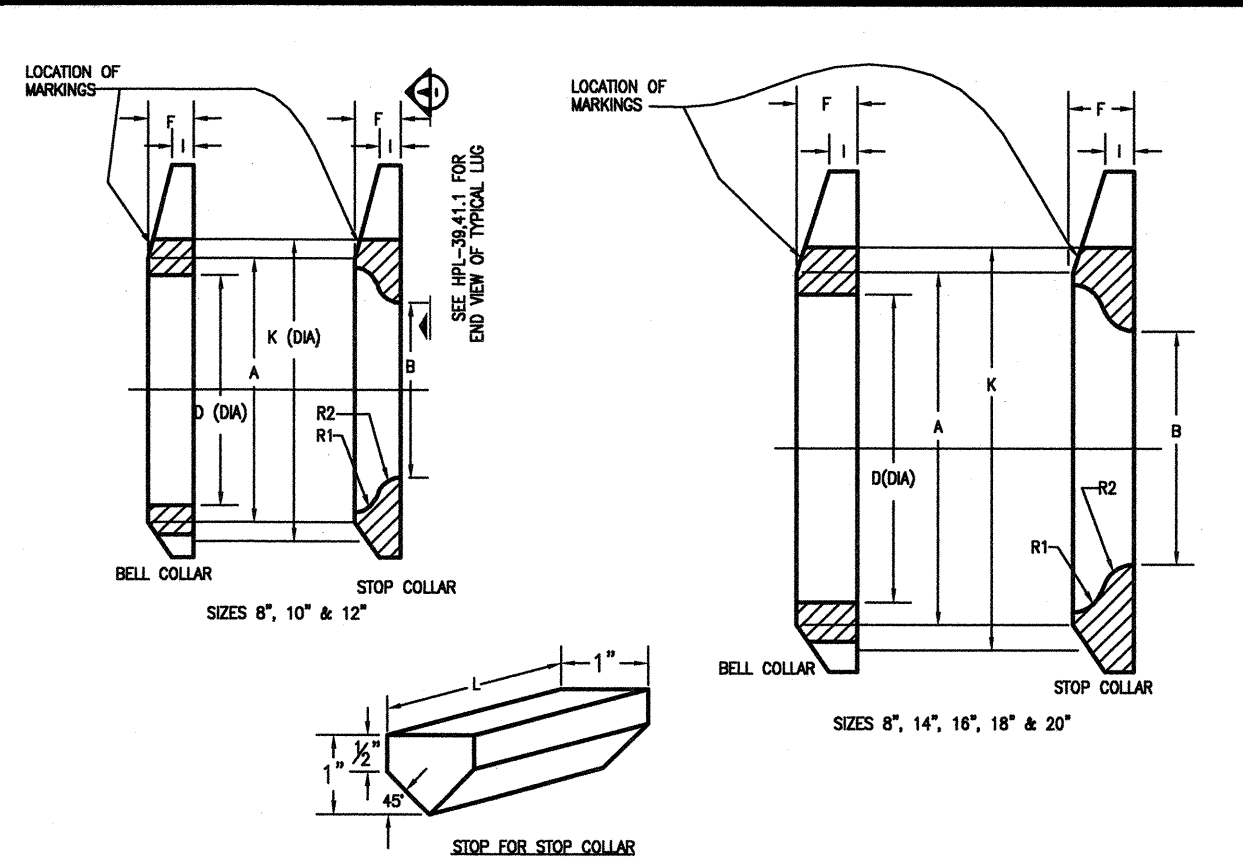


EXCAVATION AS SHOWN 10.16 CU.YDS - PER 1FT EXTRA DEPTH 1.37 CU.YD  
CONCRETE AS SHOWN 2.84 CU.YDS - PER 1FT EXTRA DEPTH .34 CU.YD  
REINFORCING STEEL 294 LBS  
PAVING 37.01 SQ FT  
FIGURES FOR EXCAVATION AND PAVING ALLOW 6"  
ALL AROUND HORIZONTAL MEASUREMENTS.  
SCALE: NONE

ORIGINAL DWG 08/25/37  
APPROVED BY JOHN J. CASEY  
CITY ENGINEER

CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS-BUREAU OF ENGINEERING SFFD AWSS STANDARD DETAILS - 12" VALVE VAULT		
BY: DEM/VW	APP'D _____ MANAGER, GES DIVISION	DATE: _____
CH'D: MBS	APP'D _____ CHIEF, BUREAU OF ENGINEERING	REVISION: 0
		DETAIL: HPL-5512.2

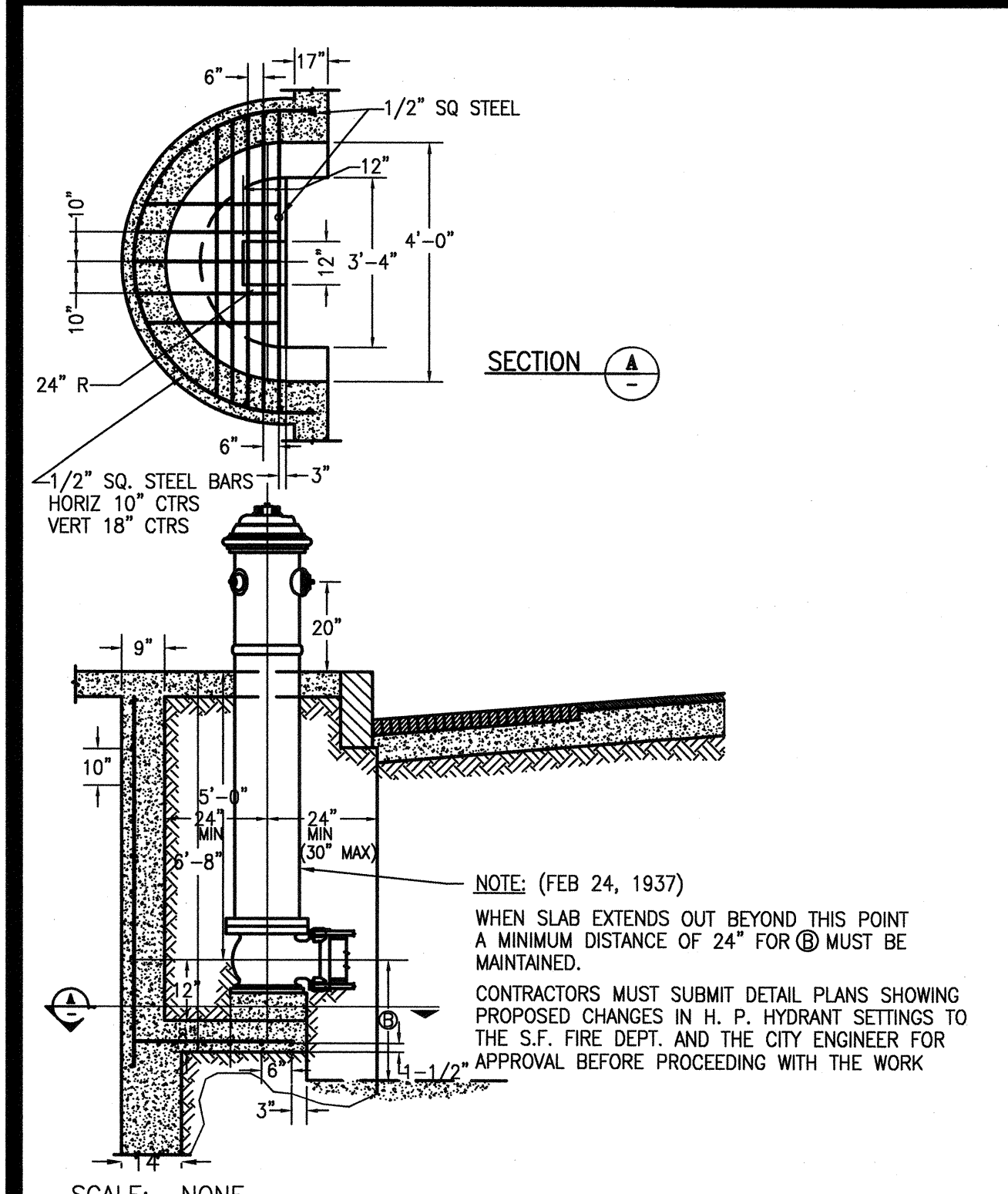


NOMINAL SIZE	DIMENSIONS FOR AWSS BELL AND STOP COLLARS & STOP (INCHES)										NO. OF STOPS
	A	B	D (DIA)	E	F	I	K (DIA)	R1	R2	L	
8	11-1/2	9.37	9.30	1-1/2	1-3/4	3/4	14-3/8	6	6	3.5	4
10	14	11.42	11.35	1-7/8	2.0	7/8	16-7/8	6	6	3.5	4
12	16-1/2	13.52	13.45	2-1/4	2-1/2	1.0	19-3/8	6	6	3.5	4
14	18-1/2	15.65	15.55	2-3/8	2-3/4	1-1/8	22	8	8	3.5	6
16	20-1/2	17.84	17.65	2-5/8	3-1/8	1-1/4	24-5/8	8	8	4.5	6
18	23	20.00	19.75	3	3-3/8	1-3/8	27	8	8	4.5	9
20	24-1/2	22.10	21.85	3-1/8	3-1/2	1-1/2	29-3/4	8	8	4.5	9

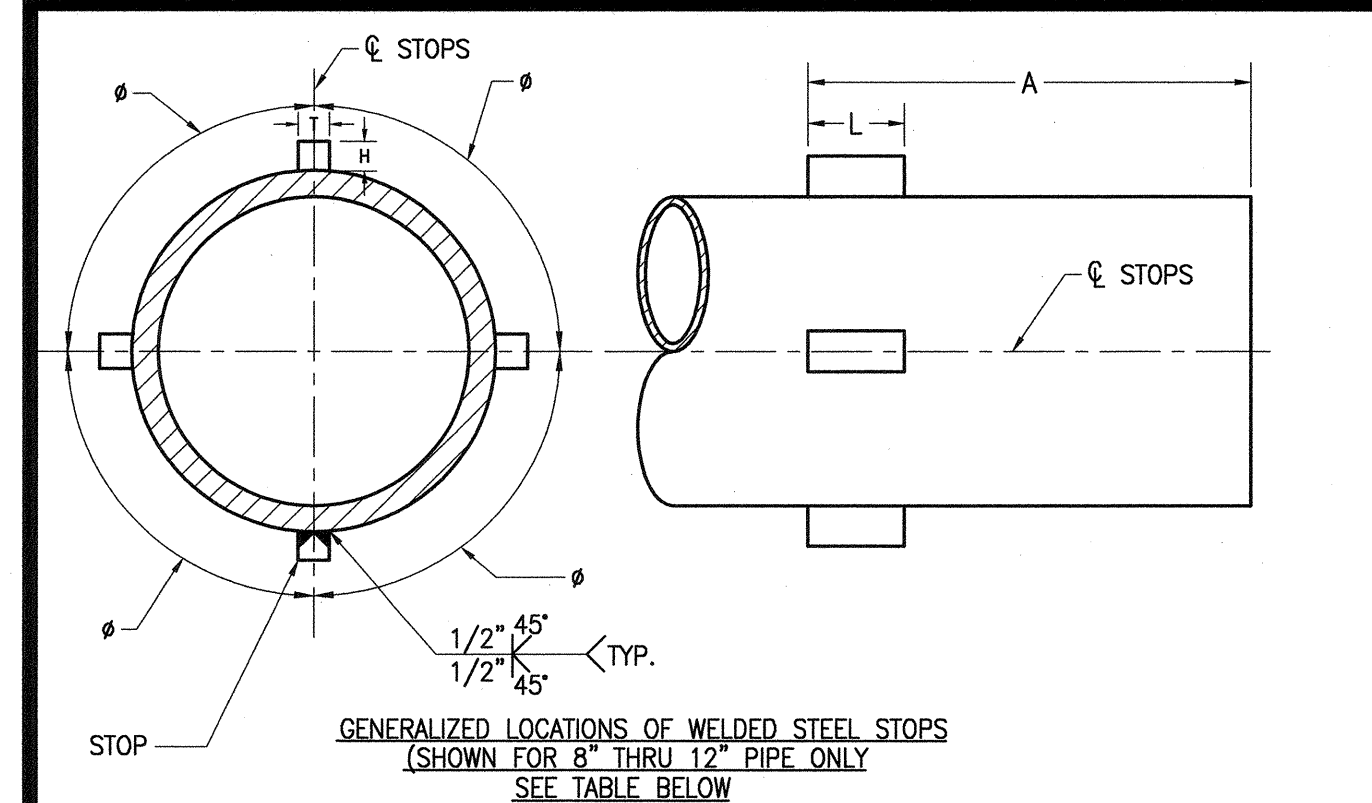
NOTE:  
1. DIMENSIONS D, B, R1 AND R2 SHALL HAVE +0.00 TOLERANCES, ALL OTHER DIMENSIONS SHALL HAVE ±0.06 TOLERANCE.

SCALE: NONE

CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS-BUREAU OF ENGINEERING AWSS PIPE COLLARS & STOPS		
BY: DEM/VW	APP'D _____ MANAGER, GES DIVISION	DATE: 3/07/2005
CH'D: MBS	APP'D _____ CHIEF, BUREAU OF ENGINEERING	REVISION: 0
		DETAIL: HPL-39.414



CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS-BUREAU OF ENGINEERING AREAWAY SETTING FOR H.P. HYDRANT		
BY: DEM/VW	APP'D _____ MANAGER, GES DIVISION	DATE: 8/17/2004
CH'D: MBS	APP'D _____ CHIEF, BUREAU OF ENGINEERING	REVISION: 0
		DETAIL: HPL-5142.1



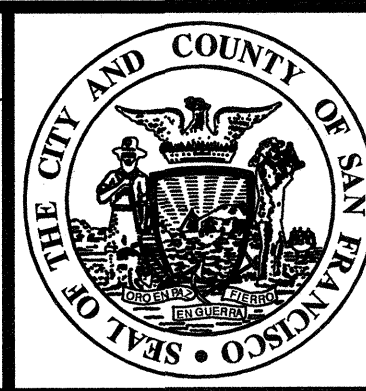
NOMINAL PIPE SIZE IN.	NUMBER OF STOPS	ANGLE BETWEEN STOPS DEG. Ø	HEIGHT IN.	WIDTH IN.	LENGTH IN.	DISTANCE FROM PIPE END, IN.
8	4	90	1	1	3.5	12
10	4	90	1	1	3.5	13.5
12	4	90	1	1	3.5	15
14	6	60	1	1	3.5	16.5
16	6	60	1	1	4.5	18
18	9	40	1.5	1	4.5	19.5
20	9	40	1.5	1	4.5	21

NOTES:  
1. COLLAR STOP MATERIAL SHALL BE MILD STEEL & WELDING ROD SHALL BE NI-ROD 55.  
2. AREAS TO BE WELDED SHALL BE THOROUGHLY CLEANED & FREE OF PAINT, RUST OR SCALE BEFORE STOPS ARE WELDED ONTO PIPE.  
3. THE WELDED STOPS & ADJACENT AREAS SHALL BE SANDBLASTED & COATED AS PER THE SPECIFICATIONS.  
4. THE PIPE COLLARS SHALL BE SLID ONTO THE PIPE PRIOR TO WELDING OF THE COLLAR STOPS.  
5. THE CONTRACTOR SHALL USE A STOP COLLAR OR OTHER POSITIONING DEVICE ON THE PIPE TO ENSURE THAT THE COLLAR STOPS ARE POSITIONED SO AS TO HAVE UNIFORM CONTACT WITH THE STOP COLLAR.  
6. STEEL STOPS SHALL BE BEVELED PRIOR TO WELDING.

CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS-BUREAU OF ENGINEERING WELDS STEEL COLLAR STOPS FOR DUCTILE IRON PIPE		
BY: DEM	APP'D _____ MANAGER, GES DIVISION	DATE: 3/10/2005
CH'D: MBS	APP'D _____ CHIEF, BUREAU OF ENGINEERING	REVISION: 1 OF 1
		DETAIL: HPL-A-5975.1

NO.	DATE	DESCRIPTION	BY	APP.
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				

REFERENCE INFORMATION  
& FILE NO. OF SURVEYS



**BUREAU OF ENGINEERING**  
**DEPARTMENT OF PUBLIC WORKS**  
**CITY AND COUNTY OF SAN FRANCISCO**

DESIGNED: DATE:	APPROVED
DRAWN: DATE:	SECTION MANAGER DATE:
NL 11/10	DEPUTY BUREAU MANAGER DATE:
CHECKED: DATE:	BUREAU MANAGER DATE:
MBS 11/10	

SCALE:
NONE
SHEET OF SHEETS
4 OF 10

CITY AND COUNTY OF SAN FRANCISCO  
AUXILIARY WATER SUPPLY SYSTEM  
AWSS STANDARD DRAWING IV

SPECIFICATION NO.
DRAWING NO. AWSS 4
FILE NO.
REV. NO. 0