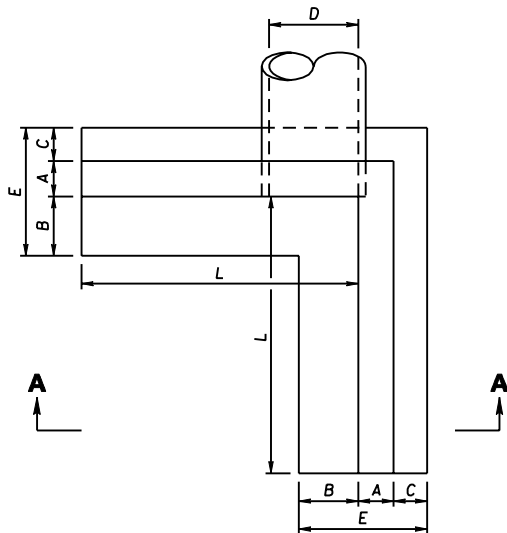
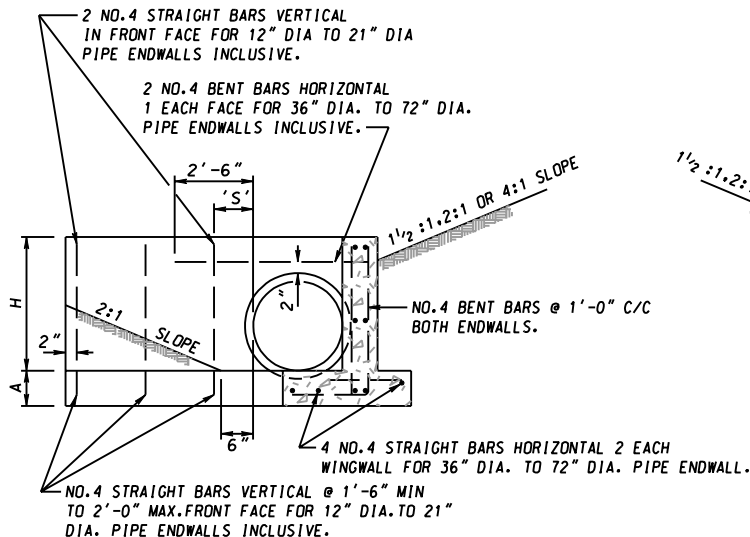




PLAN

QUANTITIES FOR ESTIMATING PURPOSES ONLY

OPENING		DIMENSIONS						QUANTITIES	
D	AREA	A	B	C	E	H	L	CONC.	STEEL
INCHES	SO.FT							C. Y.	LBS.
12	0.79	9"	6"	6"	1'-9"	1'-9"	3'-6"	0.76	55
15	1.23	9"	6"	6"	1'-9"	2'-0"	4'-3"	0.99	61
18	1.77	9"	6"	6"	1'-9"	2'-3"	5'-0"	1.17	68
21	2.40	9"	6"	6"	1'-9"	2'-6"	5'-9"	1.38	77
24	3.14	9"	14"	6"	2'-5"	2'-9"	6'-6"	1.84	106
27	3.98	9"	14"	6"	2'-5"	3'-0"	7'-3"	2.11	115
30	4.91	9"	14"	6"	2'-5"	3'-6"	8'-0"	2.57	140
33	5.94	9"	14"	6"	2'-5"	3'-9"	8'-9"	2.92	148
36	7.07	12"	16"	10"	3'-2"	4'-0"	9'-6"	4.99	235
42	9.62	12"	16"	10"	3'-2"	4'-6"	11'-0"	6.12	303
48	12.57	12"	16"	10"	3'-2"	5'-0"	12'-6"	7.34	341
54	15.90	12"	20"	12"	3'-8"	5'-6"	14'-0"	9.17	438
60	19.64	12"	20"	12"	3'-8"	6'-0"	15'-6"	10.86	496
72	28.27	12"	20"	12"	3'-8"	7'-0"	17'-0"	12.69	597



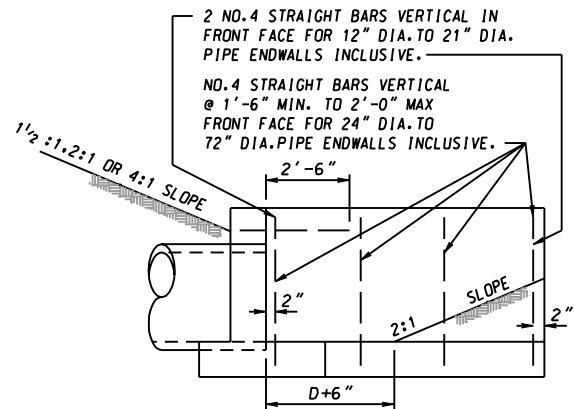
SECTION A-A

'S' DISTANCES

4" FOR 12" DIA. TO 21" DIA. PIPES INCLUSIVE.
6" FOR 24" DIA. TO 36" DIA. PIPES INCLUSIVE.
8" FOR 42" DIA. TO 72" DIA. PIPES INCLUSIVE.

GENERAL NOTES

SPECIFICATIONS: LATEST S.H.A
CONCRETE SHALL BE MIX NO.2
REINFORCING: DEFORMED STEEL BARS - NO.4
CHAMFER: ALL EXPOSED EDGES 1"x 1" OR AS DIRECTED.

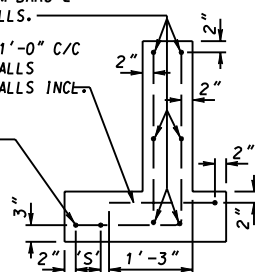


END VIEW

NO.4 STRAIGHT BARS HORIZONTAL @ 1'-7" MAX C/C
BOTH FACES-LAP 1'-3" TOP & BOTTOM BARS @
CORNER- BOTH WINGWALLS-ALL ENDWALLS.

NO.4 STRAIGHT BARS HORIZONTAL @ 1'-0" C/C
BOTH SIDES OF OPENING BOTH WINGWALLS
FOR 36" DIA. TO 72" DIA. PIPE ENDWALLS INCL.

2 NO.4 STRAIGHT BARS HORIZONTAL
1 EACH WINGWALL- ALL ENDWALLS.



DISPOSITION OF BARS DETAIL

SPECIFICATION 305	CATEGORY CODE ITEMS										
APPROVED <i>Kirk G. McCall</i> DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT											
SHA State Highway Administration	<table> <tr> <td>APPROVAL • SHA REVISIONS</td><td>APPROVAL • FEDERAL HIGHWAY ADMINISTRATION</td></tr> <tr> <td>APPROVAL 8-28-86</td><td>APPROVAL 12-12-86</td></tr> <tr> <td>REVISED 10-1-01</td><td>REVISED</td></tr> <tr> <td>REVISED</td><td>REVISED</td></tr> <tr> <td>REVISED</td><td>REVISED</td></tr> </table>	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	APPROVAL 8-28-86	APPROVAL 12-12-86	REVISED 10-1-01	REVISED	REVISED	REVISED	REVISED	REVISED
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REVISED	REVISED										

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD TYPE E ENDWALL
METAL OR CONCRETE ROUND PIPE

STANDARD NO. MD 356.01