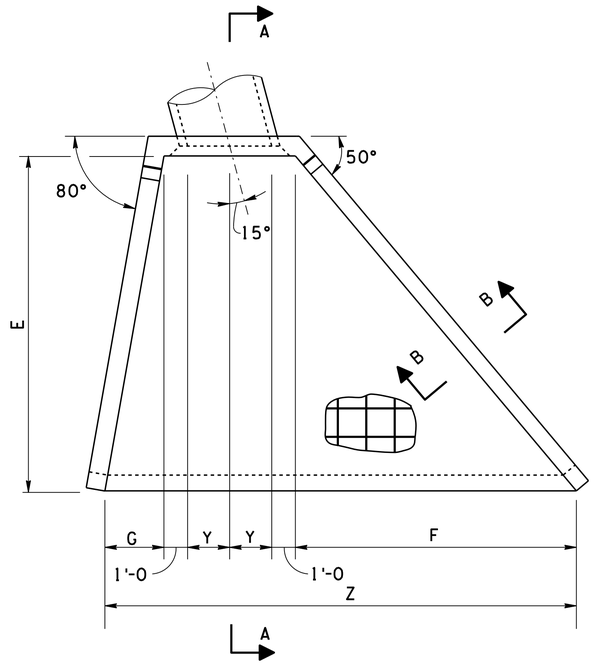
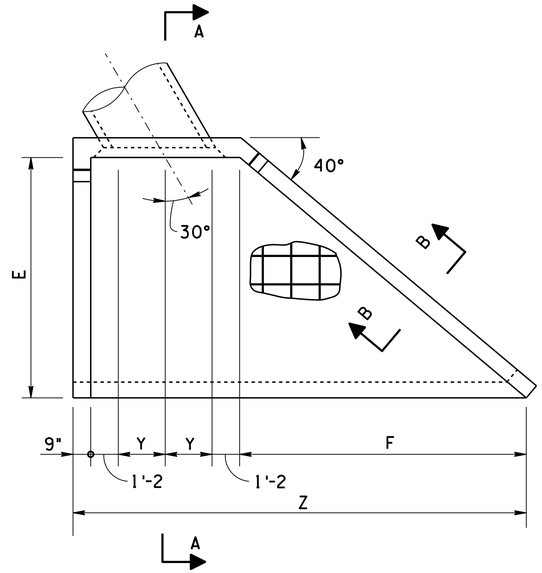
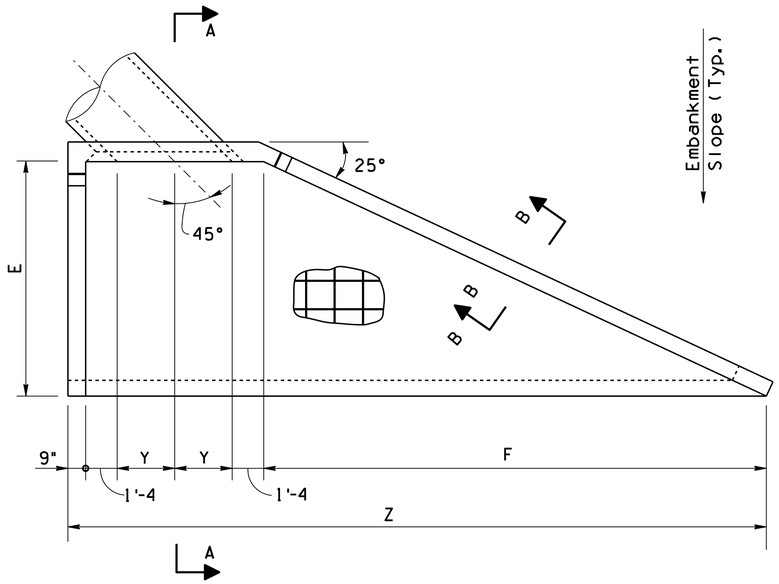


PLAN - 15° SKEW



PLAN - 30° SKEW



PLAN - 45° SKEW

	D	H	15° Skew						Conc. C.Y.	Reinf. Lbs.	30° Skew					Conc. C.Y.	Reinf. Lbs.	45° Skew					Conc. C.Y.	Reinf. Lbs.
			Dimensions								Dimensions							Dimensions						
			E	F	G	X	Y	Z			E	F	X	Y	Z			E	F	X	Y	Z		
2:1 Slope	48"	6'-2	8'-2	6'-10 1/4	1'-5 1/4	1'-7	2'-0 7/8	14'-5 1/4	6.6	450	6'-9	8'-0 1/2	2'-3	2'-3 3/4	15'-9	6.8	425	6'-4	13'-7	2'-6	2'-10	22'-8	8.7	520
	54"	6'-8	9'-0	7'-6 5/8	1'-7	1'-8	2'-4	15'-9 5/8	7.5	540	7'-6	8'-11 1/4	2'-5	2'-7 1/8	17'-2 1/2	7.8	515	7'-0	15'-0 1/8	2'-8	3'-2 1/8	24'-9 3/8	9.7	635
	60"	7'-2	9'-10	8'-3	1'-8 3/4	1'-9	2'-7	17'-1 3/4	8.5	625	8'-3	9'-10	2'-6	2'-10 5/8	18'-8 1/4	8.9	605	7'-8	16'-5 1/4	2'-10	3'-6 3/8	26'-11	11.3	755
	66"	7'-8	10'-8	8'-11 3/8	1'-10 5/8	1'-10	2'-10 1/8	18'-6 1/4	9.7	715	9'-0	10'-8 3/4	2'-8	3'-2 1/8	20'-2	10.0	700	8'-4	17'-10 1/2	3'-0	3'-10 5/8	29'-0 3/4	12.8	870
	72"	8'-2	11'-6	9'-7 3/4	2'-0 1/2	1'-11	3'-1 1/4	19'-10 3/4	10.6	800	9'-9	11'-7 3/8	2'-9	3'-5 5/8	21'-7 5/8	11.2	790	9'-0	19'-3 3/8	3'-2	4'-2 7/8	31'-2 3/8	14.3	985
	78"	8'-8	12'-4	10'-4 1/8	2'-4 1/4	2'-0	3'-4 3/8	21'-5 1/8	11.8	890	10'-6	12'-6 1/8	2'-11	3'-9	23'-1 1/8	12.4	880	9'-8	20'-8 3/4	3'-4	4'-7 1/8	33'-4	15.9	1105
	84"	9'-2	13'-2	11'-0 5/8	2'-3 7/8	2'-1	3'-7 1/2	22'-7 1/2	13.0	975	11'-3	13'-4 7/8	3'-0	4'-0 1/2	24'-6 7/8	13.7	970	10'-4	22'-1 7/8	3'-6	4'-11 3/8	35'-5 5/8	17.5	1220
4:1 Slope	48"	6'-2	14'-3	11'-11 1/2	2'-6 1/8	2'-4	2'-0 7/8	20'-7 3/8	11.7	770	11'-0	13'-1 1/4	3'-3	2'-3 3/4	20'-9 3/4	11.0	680	10'-6	22'-6 1/4	3'-3	2'-10	31'-7 1/4	15.5	915
	54"	6'-8	15'-6	13'-0 1/8	2'-8 3/4	2'-6	2'-4	22'-4 1/8	13.4	930	12'-0	14'-3 5/8	3'-6	2'-7 1/8	22'-6 7/8	12.6	815	11'-3	24'-1 1/2	3'-7	3'-2 1/8	33'-10 3/4	16.5	1085
	60"	7'-2	16'-9	14'-0 5/8	2'-11 1/2	2'-9	2'-7	24'-2 1/8	15.2	1085	13'-0	15'-5 7/8	3'-9	2'-10 5/8	24'-4 1/8	14.3	955	12'-0	25'-8 3/4	3'-11	3'-6 3/8	36'-2 1/2	18.5	1255
	66"	7'-8	18'-0	15'-1 1/4	3'-2 1/8	2'-11	2'-10 1/8	25'-11 5/8	17.2	1245	14'-0	16'-8 1/4	4'-0	3'-2 1/8	26'-1 1/2	16.2	1090	12'-9	27'-4 1/8	4'-3	3'-10 5/8	38'-6 3/8	20.7	1425
	72"	8'-2	19'-3	16'-1 7/8	3'-4 3/4	3'-1	3'-1 1/4	27'-9 1/8	19.2	1400	15'-0	17'-10 1/2	4'-3	3'-5 5/8	27'-10 3/4	18.1	1225	13'-6	28'-11 3/8	4'-6	4'-2 7/8	40'-10 1/8	22.8	1595
	78"	8'-8	20'-6	17'-2 3/8	3'-7 3/8	3'-4	3'-4 3/8	29'-6 1/2	21.5	1560	16'-0	19'-0 7/8	4'-6	3'-9	29'-7 7/8	20.1	1365	14'-3	30'-6 3/4	4'-10	4'-7 1/8	43'-2	25.2	1765
	84"	9'-2	21'-9	18'-3	3'-10	3'-6	3'-7 1/2	31'-4	23.7	1715	17'-0	20'-3 1/8	4'-9	4'-0 1/2	31'-5 1/8	22.3	1500	15'-0	32'-2	5'-2	4'-11 3/8	45'-5 1/2	27.7	1935
6:1 Slope	48"	6'-2	18'-0	15'-1 1/4	3'-2 1/8	3'-3	2'-0 7/8	24'-5 1/8	16.1	1040	13'-0	15'-5 7/8	3'-9	2'-3 3/4	23'-2 3/8	13.4	820	12'-0	25'-8 3/4	4'-0	2'-10	34'-9 3/4	17.5	1150
	54"	6'-8	19'-6	16'-4 3/8	3'-5 1/4	3'-5	2'-4	26'-5 5/8	18.4	1250	14'-4	17'-1	4'-1	2'-7 1/8	25'-4 1/4	15.9	1000	13'-0	27'-10 1/2	4'-4	3'-2 1/8	37'-7 3/4	20.1	1370
	60"	7'-2	21'-0	17'-7 1/2	3'-8 3/8	3'-8	2'-7	28'-5 7/8	20.9	1455	15'-8	18'-8	4'-4	2'-10 5/8	27'-6 1/4	18.0	1185	14'-0	30'-0 1/4	4'-8	3'-6 3/8	40'-6	22.8	1585
	66"	7'-8	22'-6	18'-10 1/2	3'-11 5/8	3'-10	2'-10 1/8	30'-6 3/8	23.5	1665	17'-0	20'-3 1/8	4'-8	3'-2 1/8	29'-8 3/8	20.6	1370	15'-0	32'-2	5'-0	3'-10 5/8	43'-4 1/4	25.7	1805
	72"	8'-2	24'-0	20'-1 5/8	4'-2 3/4	4'-1	3'-1 1/4	32'-6 7/8	26.3	1870	18'-4	21'-10 1/8	4'-11	3'-5 5/8	31'-10 3/8	23.2	1550	16'-0	34'-3 3/4	5'-4	4'-2 7/8	46'-2 1/2	28.7	2025
	78"	8'-8	25'-6	21'-4 3/4	4'-6	4'-3	3'-4 3/8	34'-7 1/2	29.2	2080	19'-8	23'-5 1/4	5'-3	3'-9	34'-0 1/4	26.1	1730	17'-0	36'-5 1/2	5'-8	4'-7 1/8	49'-0 3/4	31.9	2240
	84"	9'-2	27'-0	22'-7 7/8	4'-9 1/8	4'-6	3'-7 1/2	36'-8	31.2	2285	21'-0	25'-0 3/8	5'-6	4'-0 1/2	36'-2 3/8	29.0	1915	18'-0	38'-7 1/4	6'-0	4'-11 3/8	51'-11	35.3	2460

Note to Designer:
The information presented in this Standard Detail has been prepared in accordance with recognized engineering principles and is for general use for specific application without consideration of its suitability and verification and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	Original Issue	SJUH.	7-12
2			
3			
4			

NOTE:
For Wingwall Elevation, Detail A, and Section A-A and B-B see Dwg.(3 of 5).

NOTE:
For General Notes, Dimensions, Quantities and additional Details, see SD 6.30 (1 to 3 & 5).

DESIGN APPROVED: Shafi U. Hasan

APPROVED FOR DISTRIBUTION: Jean A. Nehme

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
BRIDGE GROUP STRUCTURE DETAIL

PIPE CULVERT HEADWALLS
SKEWED INLET AND OUTLET
48" to 84" PIPES

ROUTE	PROJECT NO.	FA NO.	DRAWING NO.
			SD 6.30 (4 of 5)
LOCATION			SHEET NO. OF

21-JAN-2016 15:20 G:\Bridge\CADD\Standards\SD_Sheets\SD 6 Drainage Stuctures\SD 6.30 Series\SD630-1 to 5\sd630-4_1916.dgn