

INLET CALCULATIONS

ISWM Figure 3.5
n = 0.016

COMPUTATION SHEET NO. IV-1 FOR DETERMINING CAPACITY OF CURB OPENING INLETS AND DROP INLET IN SUMPS

AREA No.	AREA (acres)	RUNOFF COEFF "c"	CONC. TIME (min)	100-YEAR INTENSITY (in/hr)	GUTTER SLOPE S _o FT/FT	CROWN SLOPE OF PVMT FT/FT	Incoming 100 year Carryover FLOW (CFS) ^a	100-YEAR GUTTER FLOW Q _o C.F.S.	DEPTH OF GUTTER FLOW Y _o FT.	SPREAD OF FLOW Y _o FT.	DEPTH OF DEPRESSION ^a FT.	DEPTH OF FLOW OPENING Y FT.	CAPACITY OF INLET PER FOOT LENGTH Q/L C.F.C./FT.	LENGTH OF INLET OPENING L OR P FT.	CAPACITY OF INLET Q C.F.S *	PERCENT Q100 CAPTURED BY INLET	NOTES
1c	1d	1e	1f	1g	2	3	22	4	5	6	7	8	9	10	12	13	
C-3	0.735	0.90	10	9.80	0.007	0.030	0.00	6.48	0.41	13.53	0.33	0.74	0.94	10	9.37	100%	Curb Inlet
C-4	1.632	0.90	10	9.80	0.040	0.017	0.00	14.39	0.69	39.70	0.33	1.02	1.18	10	11.80	100%	Curb Inlet
C-6	0.996	0.90	10	9.80	0.010	0.010	0.00	8.78	0.50	49.70	0.33	0.83	1.02	10	10.21	100%	Curb Inlet
C-7	0.854	0.90	10	9.80	0.010	0.010	0.00	7.53	0.45	44.86	0.33	0.78	0.98	10	9.77	100%	Curb Inlet
C-9	0.302	0.90	10	9.80	0.007	0.010	0.00	2.66	0.22	22.43	0.33	0.55	0.74	10	7.42	100%	Curb Inlet
C-11	0.204	0.90	10	9.80	0.007	0.030	0.00	1.80	0.17	5.83	0.33	0.50	0.68	10	6.76	100%	Curb Inlet
C-12	0.940	0.90	10	9.80	0.014	0.008	0.00	8.29	0.48	60.53	0.33	0.81	1.00	10	10.04	100%	Curb Inlet
C-13	2.328	0.90	10	9.80	0.010	0.019	0.00	20.53	0.57	29.24	0.33	0.90	1.08	20	21.63	100%	Curb Inlet
C-14	0.267	0.90	10	9.80	0.010	0.010	0.00	2.35	0.26	25.77	1.33	1.59	1.55	10	15.55	100%	Curb Inlet
C-15	0.584	0.90	10	9.80	0.010	0.010	0.00	5.15	0.29	28.67	2.33	2.62	2.07	10	20.68	100%	Curb Inlet
C-17	0.180	0.90	10	9.80	0.010	0.015	0.00	1.59	0.25	16.79	3.33	3.58	2.45	10	24.54	100%	Curb Inlet

50% CLOGGING FACTOR ACCOUNTED FOR

ISWM Figure 3.5

n = 0.016

DESIGN POINT H COMPUTATION SHEET NO. IV-1 FOR DETERMINING CAPACITY OF CURB OPENING INLETS AND DROP INLET IN SUMPS

AREA No.	AREA (acres)	RUNOFF COEFF "c"	CONC. TIME (min)	100-YEAR INTENSITY (in/hr)	GUTTER SLOPE S _o FT/FT	CROWN SLOPE OF PVMT FT/FT	100-YEAR GUTTER FLOW Q _o C.F.S.	DEPTH OF GUTTER FLOW Y _o FT.	SPREAD OF FLOW Y _o FT.	DEPTH OF DEPRESSION ^a FT.	DEPTH OF FLOW OPENING Y FT.	CAPACITY OF INLET PER FOOT LENGTH Q/L C.F.C./FT.	LENGTH OF INLET OPENING L OR P FT.	CAPACITY OF INLET Q C.F.S *	PERCENT Q100 CAPTURED BY INLET	NOTES
1c	1d	1e	1f	1g	2	3	4	5	6	7	8	9	10	12	13	
H-1	0.215	0.90	10	9.80	0.005	0.021	1.90	0.15	7.01	0.33	0.48	0.64	14	8.93	100%	Curb Inlet
H-2	1.283	0.90	10	9.80	0.005	0.020	11.32	0.48	23.77	0.33	0.81	1.00	14	14.05	100%	Curb Inlet
H-3	0.293	0.90	10	9.80	0.004	0.020	2.58	0.23	11.34	0.33	0.56	0.74	9.5	7.07	100%	Curb Inlet
H-4	0.390	0.90	10	9.80	0.004	0.020	3.44	0.27	13.72	0.33	0.60	0.80	9.5	7.60	100%	Curb Inlet

50% CLOGGING FACTOR ACCOUNTED FOR

ISWM Figure 3.5

n = 0.016

DESIGN POINT G COMPUTATION SHEET NO. IV-1 FOR DETERMINING CAPACITY OF CURB OPENING INLETS AND DROP INLET IN SUMPS

AREA No.	AREA (acres)	RUNOFF COEFF "c"	CONC. TIME (min)	100-YEAR INTENSITY (in/hr)	GUTTER SLOPE S _o FT/FT	CROWN SLOPE OF PVMT FT/FT	100-YEAR GUTTER FLOW Q _o C.F.S.	DEPTH OF GUTTER FLOW Y _o FT.	SPREAD OF FLOW Y _o FT.	DEPTH OF DEPRESSION ^a FT.	DEPTH OF FLOW OPENING Y FT.	CAPACITY OF INLET PER FOOT LENGTH Q/L C.F.C./FT.	LENGTH OF INLET OPENING L OR P FT.	CAPACITY OF INLET Q C.F.S *	PERCENT Q100 CAPTURED BY INLET	NOTES
1c	1d	1e	1f	1g	2	3	4	5	6	7	8	9	10	12	13	
G-1	0.618	0.90	10	9.80	0.030	0.020	5.45	0.37	18.94	0.33	0.70	0.90	9.5	8.60	100%	Curb Inlet
G-2	0.169	0.90	10	9.80	0.006	0.019	1.49	0.16	8.10	0.33	0.49	0.65	9.5	6.22	100%	Curb Inlet
G-3	0.168	0.90	10	9.80	0.003	0.020	1.48	0.12	6.07	0.33	0.45	0.61	14	8.48	100%	Curb Inlet
G-4	0.394	0.90	10	9.80	0.008	0.024	3.48	0.22	8.99	0.33	0.55	0.73	14	10.26	100%	Curb Inlet
G-5	0.259	0.90	10	9.80	0.003	0.020	2.28	0.21	10.45	0.33	0.54	0.72	9.5	6.86	100%	Curb Inlet

ISWM Figure 3.7

DESIGN POINT G COMPUTATION SHEET NO. IV-1 FOR DETERMINING CAPACITY OF CURB OPENING INLETS AND DROP INLET IN SUMPS

Area No.	Area (acres)	Runoff Coeff. "c"	Conc. Time (min)	Slope		Flow "Y _o "** (ft)	Flow "T" ** (ft)	Cross Slope "Se" (ft/ft)	Street Section	Manning's coefficient "n"	5-year Intensity		5-year Carryover		100-year Intensity		100-year Carryover		Right-of-Way Capacity (cfs)	Design Storm *** (ft)	Length Required "L" (ft)	Actual Provided Length "L" (ft)	Efficiency L/L _r	Inlet Capacity "Q _i " (cfs)	5-year Carryover Flow "q" (cfs)	100-year Carryover Flow "q" (cfs)	COMMENTS		
				"S"	"S _x "						Intensity	Runoff	Intensity	Runoff	Intensity	Runoff													
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
G-3	0.188	0.90	10	0.030	0.020	0.05	0.14	6.92	0.022	Crown	0.016	5.85	0.99	0.00	0.99	9.22	1.56	0.00	1.56	-	100-year	7.51	14	1.87	1.00	6.88	0.00	0.00	Curb Inlet
G-4	0.416	0.90	10	0.030	0.020	0.05	0.19	9.32	0.021	Crown	0.016	5.85	2.19	0.00	2.19	9.22	3.45	0.00	3.45	-	100-year	10.82	9.5	0.88	0.98	2.54	0.00	0.92	Curb Inlet
G-5	0.320	0.90	10	0.030	0.020	0.05	0.17	8.44	0.021	Crown	0.016	5.85	1.69	0.00	1.69	9.22	2.66	0.00	2.66	-	100-year	9.61	9.5	0.99	1.00	2.58	0.00	0.07	Curb Inlet
G-6	0.402	0.90	10	0.030	0.020	0.05	0.18	9.20	0.021	Crown	0.016	5.85	2.12	0.00	2.12	9.22	3.34	0.00	3.34	-	100-year	10.65	9.5	0.89	0.98	2.54	0.00	0.80	Curb Inlet

ISWM Figure 3.7

DESIGN POINT H COMPUTATION SHEET NO. IV-1 FOR DETERMINING CAPACITY OF CURB OPENING INLETS AND DROP INLET IN SUMPS

Area No.	Area (acres)	Runoff Coeff. "c"	Conc. Time (min)	Slope		Flow "Y _o "** (ft)	Flow "T" ** (ft)	Cross Slope "Se" (ft/ft)	Street Section	Manning's coefficient "n"	5-year Intensity		5-year Carryover		100-year Intensity		100-year Carryover		Right-of-Way Capacity (cfs)	Design Storm *** (ft)	Length Required "L" (ft)	Actual Provided Length "L" (ft)	Efficiency L/L _r	Inlet Capacity "Q _i " (cfs)	5-year Carryover Flow "q" (cfs)	100-year Carryover Flow "q" (cfs)	COMMENTS		
				"S"	"S _x "						Intensity	Runoff	Intensity	Runoff	Intensity	Runoff													
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
H-1	0.326	0.90	10	0.030	0.020	0.05	0.17	8.50	0.021	Crown	0.016	5.85	1.72	0.00	1.72	9.22	2.71	0.00	2.71	-	100-year	9.70	9.5	0.98	1.00	2.58	0.00	0.13	CURB INLET
H-2	0.149	0.90	10	0.030	0.020	0.05	0.13	6.34	0.023	Crown	0.016	5.85	0.79	0.00	0.79	9.22	1.24	0.00	1.24	-	100-year	6.70	9.5	1.42	1.00	2.84	0.00	0.00	CURB INLET
H-3	0.152	0.90	10	0.030	0.020	0.05	0.13	6.39	0.022	Crown	0.016	5.85	0.80	0.00	0.80	9.22	1.26	0.00	1.26	-	100-year	6.77	14	2.07	1.00	7.12	0.00	0.00	CURB INLET
H-4	0.386	0.90	10	0.030	0.020	0.05	0.18	9.06	0.021	Crown	0.016	5.85	2.03	0.00	2.03	9.22	3.20	0.00	3.20	-	100-year	10.46	14	1.34	1.00	6.41	0.00	0.00	CURB INLET
H-5	0.237	0.90	10	0.030	0.020	0.05	0.15	7.54	0.021	Crown	0.016	5.85	1.25	0.00	1.25	9.22	1.97	0.00	1.97	-	100-year	8.37	9.5	1.13	1.00	2.66	0.00	0.00	CURB INLET
H-6	0.400	0.90	10	0.030	0.020	0.05	0.18	9.18	0.021	Crown	0.016	5.85	2.11	0.00	2.11	9.22	3.32	0.00	3.32	-	100-year	10.63	10	0.94	0.99	2.87	0.00	0.45	CURB INLET
H-7	0.512	0.90	10	0.030	0.020	0.05	0.20	10.07	0.021	Crown	0.016	5.85	2.70	0.00	2.70	9.22	4.25	0.00	4.25	-	100-year	11.86	9.5	0.80	0.95	2.51	0.19	1.74	CURB INLET
H-8	0.653	0.90	10	0.030	0.020	0.05	0.22	11.03	0.020	Crown	0.016	5.85	3.44	0.00	3.44	9.22	5.42	0.00	5.42	-	100-year	13.19	14	1.06	1.00	6.25	0.00	0.00	CURB INLET

AS-BUILT

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INLET CALCULATIONS

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C-06.09