

WinStorm (STORM DRAIN DESIGN)

Version 3.05, Jan. 25, 2002
Run @ 5/22/2008 2:33:47 PM

PROJECT NAME : SYSTEM E INLETS
JOB NUMBER :
PROJECT DESCRIPTION :
ANALYSYS FREQUENCY : 100 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR ANALYSYS FREQUENCY of: 100 Years

Runoff Computation for Design Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
E-1	0.9	0.36	10.00	10.00	9.80	0.000	3.175
E-2	0.9	0.41	10.00	10.00	9.80	0.000	3.616
E-3	0.9	0.41	10.00	10.00	9.80	0.000	3.616
E-4	0.813	0.82	10.00	10.00	9.80	0.000	6.558
	0.9	0.69	Pavement				
	0.35	0.13	Undeveloped				
E-5	0.771	0.81	10.00	10.00	9.80	0.000	6.111
	0.9	0.62	Pavement				
	0.35	0.19	Undeveloped				
E-6	0.9	0.64	10.00	10.00	9.80	0.000	5.645
E-7	0.9	0.75	10.00	10.00	9.80	0.000	6.580
E-8	0.9	0.47	10.00	10.00	9.80	0.000	4.172
E-9	0.9	0.66	10.00	10.00	9.80	0.000	5.821
E-10	0.9	0.31	10.00	10.00	9.80	0.000	2.734
E-11	0.9	0.42	10.00	10.00	9.80	0.000	3.704
E-12	0.9	0.42	10.00	10.00	9.80	0.000	3.704
E-13	0.9	0.41	10.00	10.00	9.80	0.000	3.616
E-14	0.9	0.36	10.00	10.00	9.80	0.000	3.175
OSE1	0.35	5.96	10.00	10.00	8.33	0.000	17.376
E-15	0.9	0.31	10.00	10.00	9.80	0.000	2.743
E-17	0.9	0.54	10.00	10.00	9.80	0.000	4.763
E-18	0.9	0.41	10.00	10.00	9.80	0.000	3.616
E-19	0.9	0.51	10.00	10.00	9.80	0.000	4.498
E-20	0.9	0.41	10.00	10.00	9.80	0.000	3.616
E-21	0.9	0.41	10.00	10.00	9.80	0.000	3.616
E-16	0.9	0.39	10.00	10.00	9.80	0.000	3.440
OSE2	0.9	4.31	10.00	10.00	9.80	0.000	38.014
OSE3	0.9	4.48	10.00	10.00	9.80	0.000	39.514
OSE4	0.9	4.97	10.00	10.00	9.80	0.000	43.835
OSE5	0.9	4.89	10.00	10.00	9.80	0.000	43.130
OSE6	0.9	11.55	10.00	10.00	9.80	0.000	101.871
OSE7	0.9	2.51	10.00	10.00	9.80	0.000	22.138
OSE8	0.9	3.61	10.00	10.00	9.80	0.000	31.840
OSE9	0.9	0.93	10.00	10.00	9.80	0.000	8.203

On Grade Inlet Configuration Data

Inlet ID	Inlet Type	Inlet Length (ft)	Slopes Long (%)	Slopes Trans (%)	Gutter n	Gutter Depr. (ft)	Grate Width (ft)	Grate Type	Pond Width Allowed (ft)	Critic Elev. (ft)
E-15	Curb	10.00	2.00	1.00	0.016	0.25	n/a	n/a	14.00	2.50
E-16	Curb	10.00	0.95	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-17	Curb	15.00	2.20	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-18	Curb	15.00	2.20	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-19	Curb	15.00	2.20	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-20	Curb	15.00	2.20	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-21	Curb	15.00	1.24	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-1	Curb	10.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-2	Curb	10.00	0.51	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-3	Curb	10.00	0.51	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-4	Curb	15.00	1.24	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-5	Curb	15.00	1.24	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-7	Curb	15.00	2.00	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-8	Curb	15.00	2.00	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-10	Curb	15.00	0.92	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-11	Curb	15.00	1.24	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-12	Curb	10.00	0.51	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-13	Curb	10.00	0.51	2.00	0.016	0.25	n/a	n/a	14.00	2.50
E-14	Curb	10.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	2.50

COMPUTATION SHEETS

- TIME OF CONCENTRATION IS DETERMINED ACCORDING TO CITY OF ROCKWALL CRITERIA.

On Grade Inlets Computation Data.

Inlet ID	Inlet Type	Total Q (cfs)	Intercept Capacity (cfs)	Q Bypass Allow (cfs)	Q Bypass Actual (cfs)	To Inlet ID	Required Length (ft)	Actual Length (ft)	Ponded Width (ft)
E-15	Curb	2.743	2.407	0.000	0.336	E-8	14.52	10.00	14.20
E-16	Curb	3.646	3.435	0.000	0.211	E-6	12.58	10.00	11.80
E-17	Curb	4.941	4.735	0.000	0.206	E-16	18.10	15.00	11.30
E-18	Curb	3.618	3.616	0.000	0.002	E-10	15.23	15.00	10.05
E-19	Curb	4.826	4.648	0.000	0.179	E-17	17.86	15.00	11.20
E-20	Curb	3.616	3.614	0.000	0.002	E-18	15.22	15.00	10.05
E-21	Curb	3.616	3.616	0.000	0.000	E-20	13.32	15.00	11.20
E-1	Curb	3.175	3.175	0.000	0.000	E-2	10.06	10.00	12.65
E-2	Curb	3.617	3.577	0.000	0.040	E-3	10.89	10.00	13.25
E-3	Curb	3.656	3.611	0.000	0.045	E-4	10.95	10.00	13.30
E-4	Curb	6.603	6.240	0.000	0.363	E-5	18.74	15.00	14.05
E-5	Curb	6.475	6.147	0.000	0.328	E-19	18.53	15.00	13.95
E-7	Curb	6.580	5.913	0.000	0.666	E-6	20.84	15.00	12.85
E-8	Curb	4.508	4.424	0.000	0.084	E-9	16.84	15.00	11.15
E-10	Curb	2.736	2.736	0.000	0.000	E-9	10.66	15.00	10.70
E-11	Curb	3.763	3.763	0.000	0.000	E-21	13.64	15.00	11.40
E-12	Curb	3.744	3.686	0.000	0.058	E-11	11.10	10.00	13.40
E-13	Curb	3.617	3.577	0.000	0.040	E-12	10.89	10.00	13.25
E-14	Curb	3.175	3.175	0.000	0.000	E-13	10.06	10.00	12.65

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Inlet Length/Perim. (ft)	Grate Area (sf)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	Gutter Depr. (ft)	Depth Allowed (ft)	Critic Elev. (ft)		
E-6	Curb	15.00	n/a	0.20	2.00	0.20	2.00	0.016	2.00	0.42	2.50
E-9	Curb	15.00	n/a	0.20	2.00	0.20	2.00	0.016	2.00	0.42	2.50
OSE1	Curb	20.00	n/a	0.50	2.00	0.50	2.00	0.016	2.00	0.42	2.50



Sag Inlets Computation Data.

Inlet ID	Inlet Type	Inlet Length (ft)	Grate Perim Area (ft) (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Ponded Right (ft)
E-6	Curb	15.00	n/a	6.522	11.503	0.285	15.20	15.20
E-9	Curb	15.00	n/a	5.905	11.503	0.267	14.65	14.65
OSE1	Curb	20.00	n/a	17.376	20.438	0.359	18.45	18.45

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NORMAL TERMINATION OF WINSTORM.
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RECORD DRAWING
This drawing is a compilation of the original sealed engineering drawing and modifications by addenda, change orders and information furnished by the contractor. Information shown that was provided by the contractor and others not associated with the design engineer cannot be verified for accuracy or completeness. Original sealed drawing is on file at the office of AECOM USA Group, Inc., TBPE REG. NO. F-3082

ORIGINAL DRAWING SEALED & SIGNED BY
T.H. Gaertner, P.E.
TX NO. 37124

I		WINSTORM OUTPUT		THG	5/22/08
NO.	REVISION			BY	DATE
 City of Rockwall, Texas					
205 BYPASS PHASE 3					
HYDRAULIC DATA SYSTEM E INLETS					
		TCB INC. WWW.TCB.AECOM.COM 17300 DALLAS PARKWAY, SUITE 1010 DALLAS, TEXAS 75248			
Unit	PW-DAL-FW	Scale	Horz: AS SHOWN Vert: AS SHOWN	Date	11/23/2009
Designed	Checked	TCB		Project No.	60004153
Drawn	Approved	TCB		Sheet	70 of 215

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 11/23/2009