

PROJECT NAME : Rockwall 205 Bypass - Section I
JOB NUMBER :
PROJECT DESCRIPTION : System B Inlets
ANALYSIS FREQUENCY : 25 Years
MEASUREMENT UNITS: ENGLISH

COMPUTATION SHEETS

- INLETS WERE PLACED TO MEET THE CITY OF ROCKWALL PONDED WIDTH CRITERIA FOR THE 25-YR STORM EVENT. INLETS WERE SIZED TO CAPTURE THE 100-YR STORM.

OUTPUT FOR ANALYSIS FREQUENCY of: 25 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)
B-1	0.832	0.81	10.00	10.00	8.25	0.000	5.561
	0.9	0.71	Pavement				
	0.35	0.10	Undeveloped				
B-2	0.9	0.30	10.00	10.00	6.70	0.000	1.809
	0.9	0.30	Pavement				
B-4	0.9	0.79	10.00	10.00	8.25	0.000	5.866
B-5	0.9	0.56	10.00	10.00	8.25	0.000	4.158
OSB2	0.35	2.32	20.00	20.00	6.70	0.000	5.436
B-7	0.503	1.44	10.00	10.00	8.25	0.000	5.973
	0.9	0.40	Pavement				
	0.35	1.04	Undeveloped				
B-9	0.9	0.39	10.00	10.00	8.25	0.000	2.896
B-8	0.666	0.47	10.00	10.00	8.25	0.000	2.582
	0.9	0.27	Pavement				
	0.35	0.20	Undeveloped				
B-10	0.9	0.41	10.00	10.00	8.25	0.000	3.044
B-11	0.9	0.11	10.00	10.00	8.25	0.000	0.817
Lum-1	0.5	1.16	10.00	10.00	9.80	0.000	5.684
Lum-2	0.5	1.45	10.00	10.00	9.80	0.000	7.105
B-12	0.571	1.02	10.00	10.00	8.25	0.000	4.807
	0.96	0.37	Pavement				
	0.35	0.65	Undeveloped				

On Grade Inlet Configuration Data

Inlet ID	Inlet Type	Inlet Length (ft)	Slopes Long (%)	Trans (%)	Gutter n	Depr. (ft)	Grate Width (ft)	Type	Pond Allowed (ft)	Width (ft)	Critic Elev. (ft)
B-1	Curb	15.00	1.00	2.00	0.016	0.25	n/a	n/a	14.00	1.00	
B-2	Curb	10.00	0.51	2.00	0.016	0.25	n/a	n/a	14.00	1.00	
B-4	Curb	15.00	1.00	2.00	0.016	0.25	n/a	n/a	14.00	529.85	
B-5	Curb	15.00	0.51	2.00	0.016	0.25	n/a	n/a	14.00	1.00	
B-7	Curb	15.00	1.18	2.00	0.016	0.25	n/a	n/a	25.00	2.50	
B-9	Curb	10.00	1.18	2.00	0.016	0.25	n/a	n/a	25.00	2.50	
B-11	Curb	5.00	0.77	2.00	0.016	0.25	n/a	n/a	25.00	2.50	
B-12	Curb	15.00	1.76	2.00	0.016	0.25	n/a	n/a	25.00	2.50	

On Grade Inlets Computation Data.

Inlet ID	Inlet Type	Total Q (cfs)	Intercept Capacity (cfs)	Q Allow (cfs)	Bypass Actual (cfs)	To Inlet ID	Required Length (ft)	Actual Length (ft)	Ponded Width (ft)
B-1	Curb	5.561	5.511	0.000	0.050	B-12	16.18	15.00	13.70
B-2	Curb	1.914	1.914	0.000	0.000	0	7.62	10.00	10.45
B-4	Curb	5.866	5.770	0.000	0.095	B-5	16.69	15.00	14.00
B-5	Curb	4.253	4.253	0.000	0.000	0	11.94	15.00	14.05
B-7	Curb	5.973	5.793	0.000	0.180	B-8	17.50	15.00	13.65
B-9	Curb	2.896	2.811	0.000	0.085	B-10	11.64	10.00	10.40
B-11	Curb	0.817	0.810	0.000	0.006	0	5.36	5.00	7.00
B-12	Curb	4.857	4.752	0.000	0.105	B-2	17.03	15.00	11.70

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/Perim. (ft)	Grate Area (sf)	Left-Slope Long (%)	Slope Trans (%)	Right-Slope Long (%)	Slope Trans (%)	Gutter n	DeprW (ft)	Depth Allowed (ft)	Critic Elev. (ft)
OSB2	Curb	20.00	n/a	1.00	1.00	1.00	1.00	0.010	1.50	1.50	535.50
B-8	Curb	15.00	n/a	0.10	2.00	0.10	2.00	0.016	2.00	0.50	2.50
B-10	Curb	15.00	n/a	0.10	2.00	0.10	2.00	0.016	2.00	0.50	2.50

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Grate Perim (ft)	Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Right (ft)	Width (ft)
OSB2	Curb	20.00	n/a	n/a	5.436	95.916	0.221	13.50	13.50	
B-8	Curb	15.00	n/a	n/a	2.762	15.125	0.161	12.55	12.55	
B-10	Curb	15.00	n/a	n/a	3.129	15.125	0.175	13.15	13.15	


=====END=====

NORMAL TERMINATION OF WINSTORM.

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

P:\1328\60004153-205Bypass\CADD\Sheets\Phase 4-120-00 to 141-00\Record Drawing 10_7_05\026_02\Hydraul\cdata-01.dgn 11/11/2005

1		WINSTORM OUTPUT	THG 5/12/08
NO.	REVISION	BY	DATE
 City of Rockwall, Texas			
205 BYPASS PHASE 4			
HYDRAULIC DATA SYSTEM B INLETS			
1 OF 2			
TCB AECOM		<small>TCB INC. 17300 DALLAS PARKWAY, SUITE 1010 DALLAS, TEXAS 75248</small>	
Unit	PW-DAL-FW	Scale	Horz: AS SHOWN Vert: AS SHOWN
Designed	SB	Checked	TCB
Drawn	FG	Approved	TCB
Date	11/11/2009	Project No.	60004153
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