

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

=====

OUTPUT FOR ANALYSYS 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	0.9	0.99	10.00	10.00	8.25	0.000	7.362
B-4	0.9	0.67	10.00	10.00	8.25	0.000	5.007
B-11	0.9	0.65	10.00	10.00	8.25	0.000	4.840
B-13	0.654	0.85	10.00	10.00	8.25	0.000	4.580
	0.9	0.47	Pavement				
	0.35	0.38	Undeveloped				
B-15	0.568	0.70	10.00	10.00	8.25	0.000	3.258
	0.9	0.28	Pavement				
	0.35	0.42	Undeveloped				
B-2	0.501	1.31	20.00	20.00	6.70	0.000	4.384
	0.9	0.36	Pavement				
	0.35	0.95	Undeveloped				
B-3	0.408	2.62	20.00	20.00	6.70	0.000	7.156
	0.9	0.28	Pavement				
	0.35	2.34	Undeveloped				
B-5	0.9	0.56	10.00	10.00	8.25	0.000	4.133
B-6	0.9	0.51	10.00	10.00	8.25	0.000	3.822
B-12	0.9	0.63	10.00	10.00	8.25	0.000	4.673
B-14	0.9	0.63	10.00	10.00	8.25	0.000	4.688
B-9	0.9	0.52	10.00	10.00	8.25	0.000	3.857
B-10	0.9	0.46	10.00	10.00	8.25	0.000	3.435
OSB1	0.35	23.13	20.00	20.00	6.70	0.000	54.240

On Grade Inlet Configuration Data

Inlet ID	Inlet Type	Inlet Length (ft)	Slopes Long Trans (%)	Gutter n	Gutter Depr. (ft)	Grate Width (ft)	Grate Type	Pond Width Allowed (ft)	Critic Elev. (ft)
B-1	Curb	15.00	1.60	2.00	0.016	0.25	n/a	14.00	545.51
B-4	Curb	15.00	0.98	2.00	0.016	0.25	n/a	14.00	538.44
B-11	Curb	15.00	1.26	2.00	0.016	0.25	n/a	14.00	532.56
B-13	Curb	10.00	0.76	2.00	0.016	0.25	n/a	14.00	529.85
B-15	Curb	15.00	2.78	2.00	0.016	0.25	n/a	14.00	526.31
B-2	Curb	15.00	1.60	2.00	0.016	0.25	n/a	14.00	552.87
B-3	Curb	10.00	1.60	2.00	0.016	0.25	n/a	14.00	549.67
B-5	Curb	10.00	1.60	2.00	0.016	0.25	n/a	14.00	543.27
B-6	Curb	15.00	0.98	2.00	0.016	0.25	n/a	14.00	538.44
B-12	Curb	15.00	1.26	2.00	0.016	0.25	n/a	14.00	532.56
B-14	Curb	15.00	0.76	2.00	0.016	0.25	n/a	14.00	528.75

On Grade Inlets Computation Data.

Inlet ID	Inlet Type	Total Q (cfs)	Intercept Capacity (cfs)	Q Allow (cfs)	Q Bypass Actual (cfs)	To Inlet ID	Required Length (ft)	Actual Length (ft)	Ponded Width (ft)
B-1	Curb	7.362	6.571	0.000	0.791	B-4	21.12	15.00	13.95
B-4	Curb	5.799	5.720	0.000	0.079	B-11	16.51	15.00	14.00
B-11	Curb	4.918	4.890	0.000	0.028	B-13	15.91	15.00	12.55
B-13	Curb	4.609	4.177	0.000	0.432	B-15	13.67	10.00	13.45
B-15	Curb	3.690	3.653	0.000	0.038	B-17	16.27	15.00	9.70
B-2	Curb	4.384	4.366	0.000	0.018	B-3	15.75	15.00	11.50
B-3	Curb	7.174	4.970	0.000	2.204	B-5	20.80	10.00	13.80
B-5	Curb	6.338	4.619	0.000	1.718	B-6	19.39	10.00	13.20
B-6	Curb	5.540	5.497	0.000	0.043	B-9	16.08	15.00	13.75
B-12	Curb	4.673	4.665	0.000	0.008	B-14	15.45	15.00	12.30
B-14	Curb	4.696	4.696	0.000	0.000	B-16	13.82	15.00	13.55

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Length/Perim. (ft)	Grate Area (sf)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	Depth DeprW (ft)	Allowed (ft)	Critic Elev. (ft)		
B-9	Curb	15.00	n/a	0.20	1.90	0.20	1.90	0.016	2.00	0.50	536.64
B-10	Curb	15.00	n/a	0.20	2.00	0.20	2.00	0.016	2.00	0.50	536.36
OSB1	Curb	20.00	n/a	1.00	1.00	1.00	1.00	0.010	1.50	1.50	535.50

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Grate Perim Area (ft) (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Right (ft)	Width (ft)
B-9	Curb	15.00	n/a	3.900	15.125	0.203	12.00	13.74	
B-10	Curb	15.00	n/a	3.435	15.125	0.186	10.35	13.25	
OSB1	Curb	20.00	n/a	54.240	95.916	1.026	32.10	32.10	

=====

NORMAL TERMINATION OF WINSTORM.

COMPUTATION SHEETS

- THIS OUTPUT FILE SHOWS RESULTS FOR ROCKWALL'S 25-YR DISCHARGE CONDITIONS TO SIZE AND PLACE INLETS.

- ALL COMPUTATIONS ARE BASED ON EXISTING WATERSHED CONDITIONS.

- MAXIMUM ALLOWABLE PONDED WIDTH USED FOR DESIGN IS 14' PER CITY OF ROCKWALL VARIANCE.



P:\4328\50004153-205Bypass\CADD\Sheets\Section I-140-00-To-FM52\Record Drawing 10_7_09\077_084_Hydrauil\caddra-01_08.dgn 11/17/2009

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

Matthew L. Abbe, P.E.
TX NO. 92715

NO.				REVISION				BY		DATE	
 City of Rockwall, Texas											
205 BYPASS SECTION 1											
HYDRAULIC DATA SYSTEM B INLETS - 25 YR FLOWS											
6 OF 8											
				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	11/11/2009					
Designed	SRR/SDB	Checked	TCB		Project No.	60004153					
Drawn	FG	Approved	TCB		Sheet	82 of 217					