

STORM SEWER DESIGN CALCULATION TABLE (100-yr Return Frequency)

LINE NO. STA.	STRUC. NO. (to)	TARGET SLOPE (%)	PRE COVER (ft)	US estimate (ft)	PREINVERTS US set (ft)	DS estimate (ft)	UPSTREAM STRUCTURES 1 2 3	LOCAL LOCAL C A C/A C/A	LOCAL LOCAL TOTAL TIME (min)	TOTAL TIME (min)	100-YR A Q (cfs)	PRE MAIN DRAIN SLOPE (%)	MANHOLE CAP VELOCITY (fps)	DES VELOCITY (fps)	FLOW DEPTH (ft)	PRE FLOW TIME (min)	
																	US estimate (ft)
15	10+00.00	15-1	100%	102.50	0.00	103.00											
15	12+38.48	15-2	2.80%	103.00	15.82	1015.88											
15	12+88.28	15-3	2.00%	102.70	6.83	1018.92											
16	10+00.00	16-1	1.00%	105.23	0.00	1013.23											
16	11+40.70	16-2	1.00%	102.00	9.35	1014.94											
16	11+77.36	16-3	1.00%	107.83	1.38	1015.20											
17	10+00.00	17-1	1.00%	104.00	7.50	1030.00											
17	11+17.04	17-2	5.00%	104.00	1.65	1035.85											
18	10+00.00	18-1	1.00%	103.00	9.50	1022.00											
18	12+64.00	18-2	1.00%	103.00	9.88	1024.64											
19	10+00.00	19-1	1.00%	99.00	13.34	973.66											
19	10+78.13	19-2	1.00%	99.00	16.73	975.27											
19	11+33.80	19-3	1.00%	99.00	11.17	977.33											

INLET DESIGN TABLE (100-yr Return Frequency)

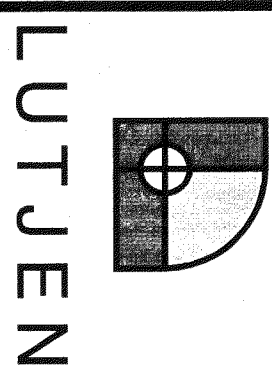
LINE NO. STA.	STRUC. NO.	OVERBLAN LEN (ft)	SLOPE (%)	FLOW TIME (min)	GUTTER LEN (ft)	SLOPE (%)	VELOCITY (fps)	TIME (min)	INLET TIME (min)	K <sub>s</sub>	C <sub>d</sub>	100-YR I (in/hr)	A (Ac)	Q (cfs)	US BYPASS FLOW (cfs)	TOTAL STREET SLOPE (%)	STREET SLOPE (%)	CG-1 CAP (cfs)	INLET LEN (ft)	INLET CAP (cfs)	80% CAP (cfs)	BYPASS DS (cfs)	
																							100-YR A Q (cfs)
15	10+00.00	15-1																					
15	12+38.48	15-2	49	2.0%	0.30	8.00																	
15	12+88.28	15-3	38	2.0%	0.30	7.05																	
16	10+00.00	16-1																					
16	11+40.70	16-2	38	2.0%	0.30	7.05																	
16	11+77.36	16-3	38	2.0%	0.30	7.05																	
17	10+00.00	17-1																					
17	11+17.04	17-2																					
18	10+00.00	18-1																					
18	12+64.00	18-2																					
19	10+00.00	19-1																					
19	10+78.13	19-2																					
19	11+33.80	19-3																					

BASED ON TRAPEZOIDAL TIME CALCULATION FROM SECTION 5602.5 B  
GUTTER CAPACITIES BASED ON MAXIMUM ALLOWABLE SPREAD.

DATE	P.E. SIGNATURE	DESCRIPTION
10-01-07	R.J.S.	Prepared for Review.
11-16-07	R.J.S.	Issued for bid
12-07-07	R.J.S.	Revised Tables
02-13-08	R.J.S.	Revised Line 16

**DRAINAGE TABLES**  
**CENTERPOINT-KCS INTERMODAL CENTER**

Reviewed By: B.A.C.  
Designed By: R.J.S.  
Drawn By: J.W.W.  
Lutjen Project No.: 07166



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