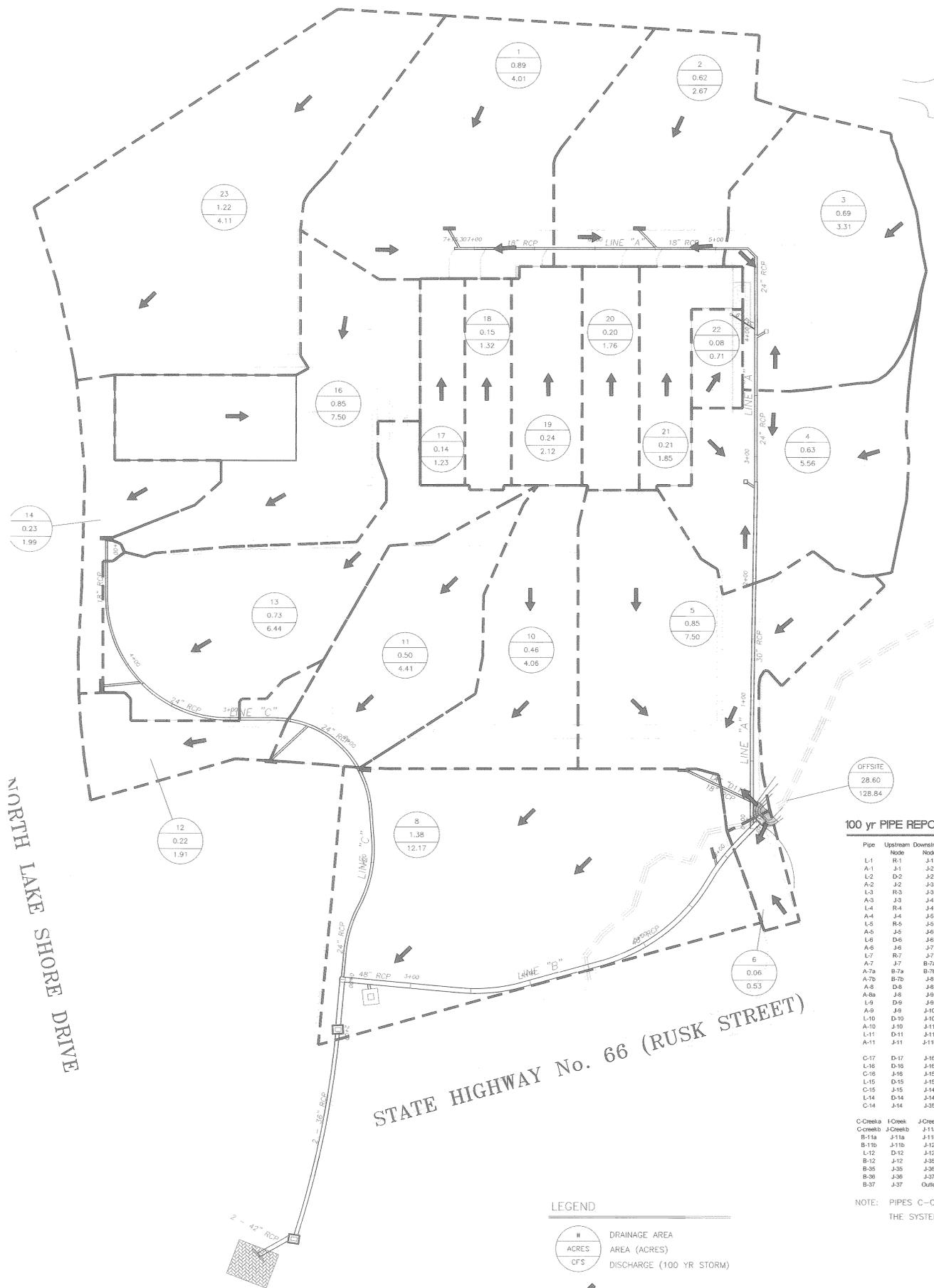


A ST.



NORTH LAKE SHORE DRIVE

STATE HIGHWAY No. 66 (RUSK STREET)

**WALMART SITE**  
 Rockwall, Texas - State Hwy 66 and N. Lakeshore Drive  
 Storm Sewer System (Proposed) Design Discharges  
 Distribution by Outfall Location

100 Year

Developed Discharge to Line A

Drainage Area	Design Storm Frequency (yr)	Area (ac)	Runoff Coefficient (C)	Intensity (in/hr) at Tc = 10 min	Discharge (cfs)
1	100	0.89	0.46	9.8	4.01
2	100	0.62	0.44	9.8	2.67
3	100	0.69	0.49	9.8	3.31
4	100	0.63	0.50	9.8	5.56
5	100	0.85	0.50	9.8	7.50
17	100	0.14	0.90	9.8	1.23
18	100	0.15	0.90	9.8	1.32
19	100	0.24	0.90	9.8	2.12
20	100	0.20	0.90	9.8	1.76
21	100	0.21	0.90	9.8	1.85
22	100	0.08	0.90	9.8	0.71
Total Discharge =					32.05

Developed Discharge to Line C

Drainage Area	Design Storm Frequency (yr)	Area (ac)	Runoff Coefficient (C)	Intensity (in/hr) at Tc = 10 min	Discharge (cfs)
10	100	0.46	0.90	9.8	4.06
11	100	0.75	0.90	9.8	4.41
13	100	0.73	0.90	9.8	6.44
16	100	0.85	0.90	9.8	7.50
Total Discharge					22.40

Developed Discharge to Line B (Upstream of Line C)

Drainage Area	Design Storm Frequency (yr)	Area (ac)	Runoff Coefficient (C)	Intensity (in/hr) at Tc = 10 min	Discharge (cfs)
Line A	100	4.7	N/A	N/A	32.05
6	100	0.05	0.90	9.8	0.53
Offsite*	100	28.60	0.53	8.5	128.84
Total Discharge =					161.42

Total Discharge to Ditch South of State Hwy 66

Drainage Area	Design Storm Frequency (yr)	Area (ac)	Runoff Coefficient (C)	Intensity (in/hr) at Tc = 10 min	Discharge (cfs)
8	100	1.38	0.90	9.8	12.17
Line A	100	4.7	N/A	N/A	32.05
6	100	0.05	0.90	9.8	0.53
Offsite	100	28.6	N/A	N/A	128.84
Line C	100	2.54	N/A	N/A	22.40
Total Discharge					196.00

Developed Discharge to North Lakeshore Drive

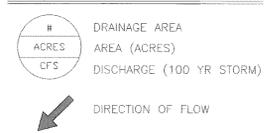
Drainage Area	Design Storm Frequency (yr)	Area (ac)	Runoff Coefficient (C)	Intensity (in/hr) at Tc = 10 min	Discharge (cfs)
12	100	0.22	0.90	9.8	1.94
14	100	0.23	0.90	9.8	2.03
23	100	1.22	0.35	9.8	4.16
Total Discharge					8.15

100 yr PIPE REPORT

Pipe Node	Upstream Node	Downstream Node	Inlet Area (ac)	Inlet C Coeff	Inlet CA (ac)	Total CA (ac)	System Intensity (in/hr)	Discharge (cfs)	Length (ft)	Constructed Slope (ft/ft)	Section (R/R)	Size (in)	Capacity (cfs)	Upstream Invert (ft)	Downstream Invert (ft)	Upstream Ground (ft)	Downstream Ground (ft)	HGL (ft)	Cover (ft)	Description	
L-1	R-1	J-1	0.14	0.90	0.13	0.13	9.80	1.23	25.00	0.0050	8 inch	0.010	1.22	488.95	488.80	492.00	491.40	490.48	2.38	1.93	490.33
L-1	J-1	J-2	N/A	N/A	N/A	0.13	9.80	1.23	4.33	0.0048	18 inch	0.013	7.14	487.55	487.03	491.40	491.40	490.33	2.85	2.87	490.33
L-2	D-2	J-2	0.99	0.48	0.41	0.41	9.80	4.01	17.30	0.0098	18 inch	0.013	10.41	487.20	487.03	491.20	491.40	490.35	2.50	2.87	490.33
L-2	J-2	J-3	N/A	N/A	N/A	0.54	9.80	5.25	21.07	0.0080	18 inch	0.013	8.14	487.03	486.90	491.40	491.55	490.33	2.87	3.15	490.27
L-3	R-3	J-3	0.15	0.90	0.14	0.14	9.80	1.32	25.00	0.0048	8 inch	0.010	2.53	488.60	487.73	492.00	491.55	490.45	2.73	3.15	490.27
A-3	J-3	J-4	N/A	N/A	N/A	0.67	9.80	6.57	51.00	0.0059	18 inch	0.013	8.06	488.30	488.60	491.55	492.15	490.27	3.15	4.05	490.07
L-4	R-4	J-4	0.24	0.90	0.22	0.22	9.80	2.12	15.00	0.0047	8 inch	0.010	3.99	488.40	487.43	492.00	492.15	490.35	2.93	4.05	490.07
A-4	J-4	J-5	N/A	N/A	N/A	0.89	9.80	8.69	66.00	0.0061	18 inch	0.013	8.18	488.60	488.21	492.15	491.70	490.07	4.05	4.00	489.62
L-5	R-5	J-5	0.20	0.90	0.18	0.18	9.80	1.76	15.00	0.0047	8 inch	0.010	3.99	488.00	487.03	492.00	491.70	489.81	3.33	4.00	489.62
A-5	J-5	J-6	N/A	N/A	N/A	1.07	9.80	10.45	24.67	0.0061	18 inch	0.013	8.19	488.21	488.06	491.70	491.40	489.92	4.00	3.85	489.38
L-6	D-6	J-6	0.52	0.44	0.27	0.27	9.80	2.87	20.85	0.0064	18 inch	0.013	26.61	487.30	488.06	491.30	491.40	489.38	2.50	3.84	489.38
A-6	J-6	J-7	N/A	N/A	N/A	1.34	9.80	13.12	5.33	0.0055	18 inch	0.013	7.88	486.06	486.03	491.40	491.50	489.92	4.00	3.85	489.38
L-7	R-7	J-7	0.21	0.90	0.19	0.19	9.80	1.85	15.00	0.0053	8 inch	0.010	3.95	487.80	488.85	492.50	491.50	489.51	4.00	3.98	489.30
A-7	J-7	B-7a	N/A	N/A	N/A	1.53	9.80	14.98	69.97	0.0060	18 inch	0.013	8.14	488.03	485.61	491.50	492.10	489.30	3.98	5.00	487.95
A-7a	B-7a	B-7b	N/A	N/A	N/A	1.53	9.80	14.98	9.48	0.0053	18 inch	0.013	7.63	485.61	485.55	492.10	492.00	487.99	5.00	4.95	487.70
A-7b	B-7b	J-8	N/A	N/A	N/A	1.53	9.80	14.98	60.16	0.0060	24 inch	0.013	15.97	485.05	484.75	492.00	491.00	487.70	4.95	4.25	487.44
A-8	D-8	J-8	0.88	0.90	0.07	0.07	9.80	0.71	24.29	0.0058	8 inch	0.010	1.19	488.20	486.06	487.98	489.00	487.48	1.11	4.27	487.44
A-8a	J-8	J-9	N/A	N/A	N/A	1.60	9.80	15.66	6.04	0.0053	24 inch	0.013	20.58	484.75	484.70	491.00	491.00	487.44	4.25	4.30	487.42
L-9	D-9	J-9	0.69	0.48	0.34	0.34	9.80	3.31	10.00	0.0060	18 inch	0.013	44.56	487.00	485.20	491.00	491.00	487.70	2.50	4.30	487.42
A-9	J-9	J-10	N/A	N/A	N/A	1.94	9.80	19.00	123.45	0.0051	24 inch	0.013	16.16	484.70	484.07	491.00	490.00	487.42	4.30	3.93	486.57
L-10	D-10	J-10	0.83	0.90	0.57	0.57	9.80	5.56	10.00	0.0061	18 inch	0.013	38.73	486.00	484.57	490.00	490.00	486.91	2.50	3.93	486.57
A-10	J-10	J-11	N/A	N/A	N/A	2.51	9.80	24.55	257.30	0.0052	30 inch	0.013	29.71	483.57	482.25	490.00	490.00	486.57	3.90	5.25	485.68
L-11	D-11	J-11	0.85	0.90	0.77	0.77	9.80	7.50	53.21	0.0047	18 inch	0.013	7.20	483.50	482.25	487.70	490.00	485.95	2.70	5.25	485.68
A-11	J-11	J-11a	N/A	N/A	N/A	3.27	9.80	32.95	36.41	0.0027	30 inch	0.013	71.49	482.25	482.15	490.00	490.00	485.68	5.25	5.02	485.47
C-17	D-17	J-16	0.95	0.90	0.77	0.77	9.80	7.50	124.65	0.0050	18 inch	0.013	7.41	474.80	473.88	478.00	480.00	476.85	2.50	4.52	476.20
L-18	D-18	J-16	0.73	0.90	0.66	0.66	9.80	6.44	31.92	0.0050	18 inch	0.013	16.18	475.00	473.58	478.00	480.00	476.20	2.50	4.52	476.20
C-18	J-16	J-15	N/A	N/A	N/A	1.42	9.80	13.84	145.17	0.0085	24 inch	0.013	20.82	473.48	472.75	480.00	480.00	476.20	4.02	5.25	475.65
L-15	D-15	J-15	0.50	0.90	0.45	0.45	9.80	4.41	41.31	0.0081	18 inch	0.013	25.32	475.65	473.25	478.00	480.00	476.46	2.50	5.25	475.65
C-15	J-15	J-14	N/A	N/A	N/A	1.87	9.80	18.35	62.27	0.0050	24 inch	0.013	15.98	472.75	472.44	480.00	480.00	475.65	5.25	10.58	475.25
L-14	D-14	J-14	0.46	0.90	0.41	0.41	9.80	4.08	7.94	0.0196	18 inch	0.013	10.73	480.15	472.94	484.15	485.00	480.92	2.50	10.58	475.25
C-14	J-14	J-35	N/A	N/A	N/A	2.29	9.80	22.40	209.38	0.0049	24 inch	0.013	15.62	472.44	471.41	485.00	477.00	475.25	10.58	3.59	473.09
C-Creek	J-Creek	J-Creekb	28.60	0.53	15.16	15.16	8.50	128.84	47.80	0.0418	5 x 5 ft	0.013	378.27	488.00	486.00	488.00	488.00	490.76			487.65
C-Creekb	J-Creekb	J-11a	N/A	N/A	N/A	15.16	8.50	128.84	26.70	0.1124	5 x 5 ft	0.013	1111.48	488.00	483.00	488.00	488.00	486.00			486.41
B-11a	J-11a	J-11b	N/A	N/A	N/A	15.16	8.50	128.84	39.85	0.0296	48 inch	0.013	247.17	483.00	481.82	489.00	489.00	486.41	2.00	3.85	485.47
B-11b	J-11b	J-12	N/A	N/A	N/A	15.42	9.80	150.89	21.66	0.0090	48 inch	0.013	248.82	481.82	481.17	489.00	489.00	486.41	3.85	3.84	484.82
L-12	D-12	J-12	0.05	0.90	0.05	0.05	9.80	0.53	11.88	0.0867	18 inch	0.013	30.93	484.70	483.67	488.50	488.50	484.97	2.30	3.58	484.82
B-12	J-12	J-35	N/A	N/A	N/A	18.48	9.80	181.42	300.01	0.0296	48 inch	0.013	247.28	481.17	470.50	488.75	477.00	484.82	3.58	2.50	472.85
B-35	J-35	J-36	1.38	0.90	1.24	22.01	9.80	198.00	150.18	0.0030	30 inch	0.013	73.02	464.71	464.28	476.00	476.00	472.82	9.29	8.74	469.87
B-36	J-36	J-37	N/A	N/A	N/A	22.01	9.80	198.00	64.54	0.0029	30 inch	0.013	143.45	464.28	464.07	476.00	476.00	475.00	6.74	5.93	465.54
B-37	J-37	Outlet	N/A	N/A	N/A	22.01	9.80	196.00	23.07	0.0030	60 inch	0.013	143.45	464.07	464.00	475.00	475.00	465.54	5.93		465.42

NOTE: PIPES C-CREEKA AND C-CREEKB WERE USED AS "PHANTOM" REACHES THAT COLLECT OFF-SITE RUNOFF AND ROUTE IT INTO THE SYSTEM. THEY ARE NOT PROPOSED TO BE CONSTRUCTED.

LEGEND



No.	Date	Revisions
1	12/12/01	CITY COMMENTS

Scale: 1" = 50'  
 Designed by: FRB  
 Drawn by: TDK  
 Checked by: JRH  
 Date: FEBRUARY 13, 2002  
 Project No. 06781010

**Kimley-Horn and Associates, Inc.**  
 12700 Park Central Drive, Suite 1800  
 Dallas, Texas 75221  
 Tel. No. (972) 770-1300  
 Fax No. (972) 239-3820

**WAL-MART ROCKWALL, TX**  
**STORE #3530-00, NewNM**  
**S.H. 66 & N. LAKE SHORE DR. SITE**

**DRAINAGE AREA MAP**

No.	Date	Revisions
1	12/12/01	CITY COMMENTS