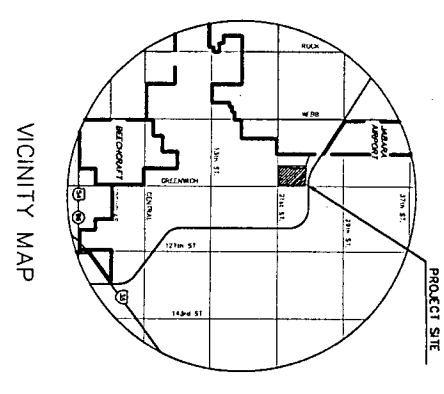
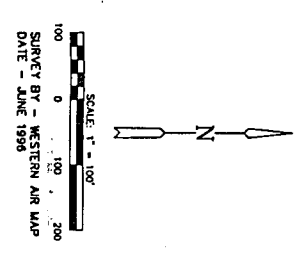
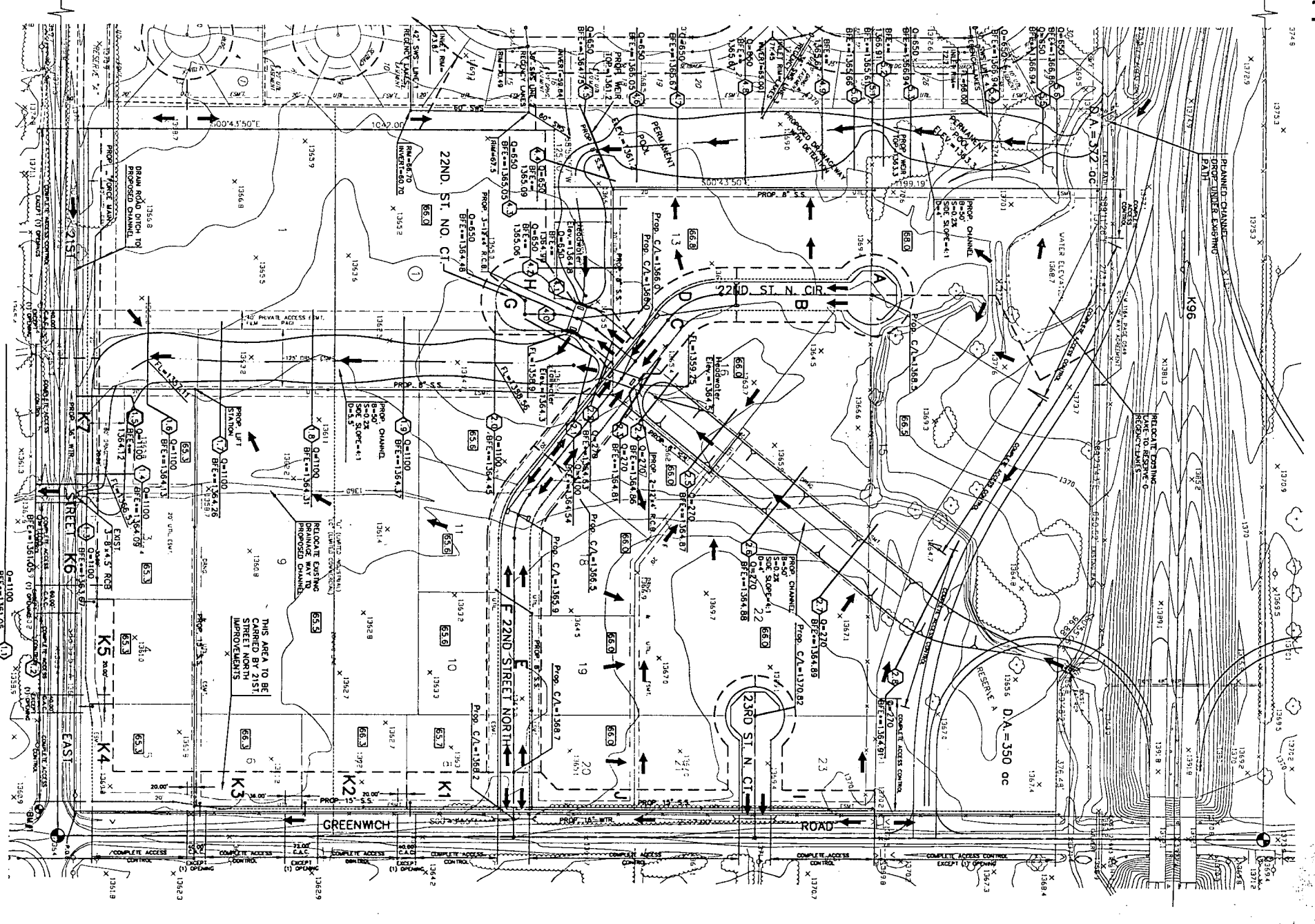


DRAINAGE ANALYSIS SUMMARY
GREENWICH BUSINESS PARK

Area ID**	Area ac	Accum. Area ac	C5	C100	T5 min	T100 min	I5 in/hr	I100 in/hr	O5		O100		Inlet Size ft	Pipe Size in	Min Slope %	COMMENTS
									cs	ds	cs	ds				
A	0.59		0.68	0.80	23	17	3.73	7.00	1.50	3.30	5	15	0.3			5 yr. Design
B	0.59		0.68	0.80	23	17	3.73	7.00	1.50	3.30	5	15	0.3			5 yr. Design
A+B	1.18		0.68	0.80	23	17	3.73	7.00	2.99	6.61		15	0.3			5 yr. Design
C	0.69		0.68	0.80	18	15	4.20	7.37	1.97	4.07	5	15	0.3			100 yr. Design, Sump
D	0.74		0.68	0.80	18	15	4.20	7.37	2.11	4.36	5	15	0.3			100 yr. Design, Sump
E	0.95		0.68	0.80	20	15	4.00	7.37	2.58	5.60	5	15	0.3			5 yr. Design, Sump - Bypass over High Point
F	1.00		0.68	0.80	20	15	4.00	7.37	2.72	5.90	5	15	0.3			5 yr. Design, Sump - Bypass over High Point
E+F	1.95		0.68	0.80	20	15	4.00	7.37	5.30	11.50		18	0.3			5 yr. Design, Sump - Bypass over High Point
G	0.42		0.68	0.80	15	15	4.56	7.37	1.30	2.48	5	15	0.3			100 yr. Design, Sump
H	0.46		0.68	0.80	15	15	4.56	7.37	1.43	2.71	5	15	0.3			100 yr. Design, Sump
I	1.04		0.68	0.80	15	15	4.56	7.37	3.22	6.13		18	0.3			100 yr. Design, Cross Road Pipe
J	1.76		0.68	0.80	23	18	3.73	7.37	4.46	10.38		24	0.5			100 yr. Design, Cross Road Pipe
I+J	2.80		0.68	0.80	23	18	3.73	7.37	7.10	16.51		24	0.5			100 yr. Design, Cross Road Pipe
K1	0.70		0.68	0.80	15	15	4.56	7.37	2.17	4.13	5	15	0.3			5 yr. design, Parking lot runoff, to be installed during site development
I+J+K1	3.50		0.68	0.80	23	18	3.73	7.37	8.88	20.64		30	0.5			100 yr. design, ditch pipe to be installed during site development
K2	0.70		0.68	0.80	15	15	4.56	7.37	2.17	4.13	5	15	0.3			5 yr. design, Parking lot runoff, to be installed during site development
I+J+K1+K2	4.20		0.68	0.80	23	18	3.73	7.37	10.65	24.76		30	0.5			100 yr. design, ditch pipe to be installed during site development
K3	0.70		0.68	0.80	15	15	4.56	7.37	2.17	4.13	5	15	0.3			5 yr. design, Parking lot runoff, to be installed during site development
I+J+K1+K2+K3	4.90		0.68	0.80	23	18	3.73	7.37	12.43	28.89		30	0.5			100 yr. design, ditch pipe to be installed during site development
K4	1.23		0.68	0.80	15	15	4.56	7.37	3.81	7.25	5	15	0.3			5 yr. design, Parking lot runoff, to be installed during site development
K5	0.60		0.68	0.80	15	15	4.56	7.37	1.86	3.54	5	15	0.3			5 yr. design, Parking lot runoff, to be installed during site development
K6	0.40		0.68	0.80	15	15	4.56	7.37	1.24	2.36	5	15	0.3			5 yr. design, Parking lot runoff, to be installed during site development
K7	0.50		0.68	0.80	15	15	4.56	7.37	1.55	2.95	5	15	0.3			5 yr. design, Parking lot runoff, to be installed during site development



BENCHMARKS
 BM#1 GREENWICH AND 21ST ST. N. CITY OF WICHITA, KS SOUTH AND 26 WEST GREENWICH AND 22ND ST. CITY OF WICHITA, KS
 BM#2 11TH AND 17TH - CITY OF WICHITA, KS
 BM#3 12TH AND 18TH - WICHO

NOTES
 ZONING LIMITED COMMERCIAL - LC
 LOT LUMINA PADS AS INDICATED ON SURVEY PLAN.
 RESERVE A IS FOR HIGHWAY, LANDSCAPING, OPEN AND SPACED DISCLOSED TO THE PUBLIC.
 SOIL TYPE 0
 MATCH EXISTING R.E.B. SIZE AT 21ST STREET PER SURVEY COUNTY PUBLIC WORKS.
 THE AREAS X1 TO X7 TO 21ST STREET PROJECT.
 MAIN CHANGING DIMENSIONS BASED ON MAIN SURVEY NORTH OF 4-28 (DOWN ST. AC. FT. 20 AC. FT. AT 4-28 51A, -480, 19 AC. FT. AT 4-28 51A, -483).

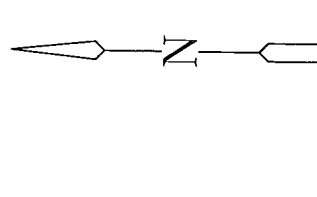
LEGEND
 LOT LUMINA PADS INDICATED BY NUMBER
 LOT LUMINA PADS AS INDICATED ON SURVEY PLAN
 METRIC DIMENSIONS FROM LOT CORNER WITH SURVEY INSTRUMENT
 LOCAL SURVEY INSTRUMENT OR LOT CORNER
 FLOW DIRECTION ARROW
 * B.T.'S ARE RESERVED

OWNER: RITCHE ASSOCIATES INC.
 BLDG. 1000
 WICHITA, KS 67226

GREENWICH BUSINESS PARK ADDITION
 FLOOR PLAN MODIFICATIONS
 PREPARED BY: [Signature]
 CHECKED BY: [Signature]
 DATE: 10/27/88

**DRAINAGE ANALYSIS SUMMARY
GREENWICH BUSINESS PARK**

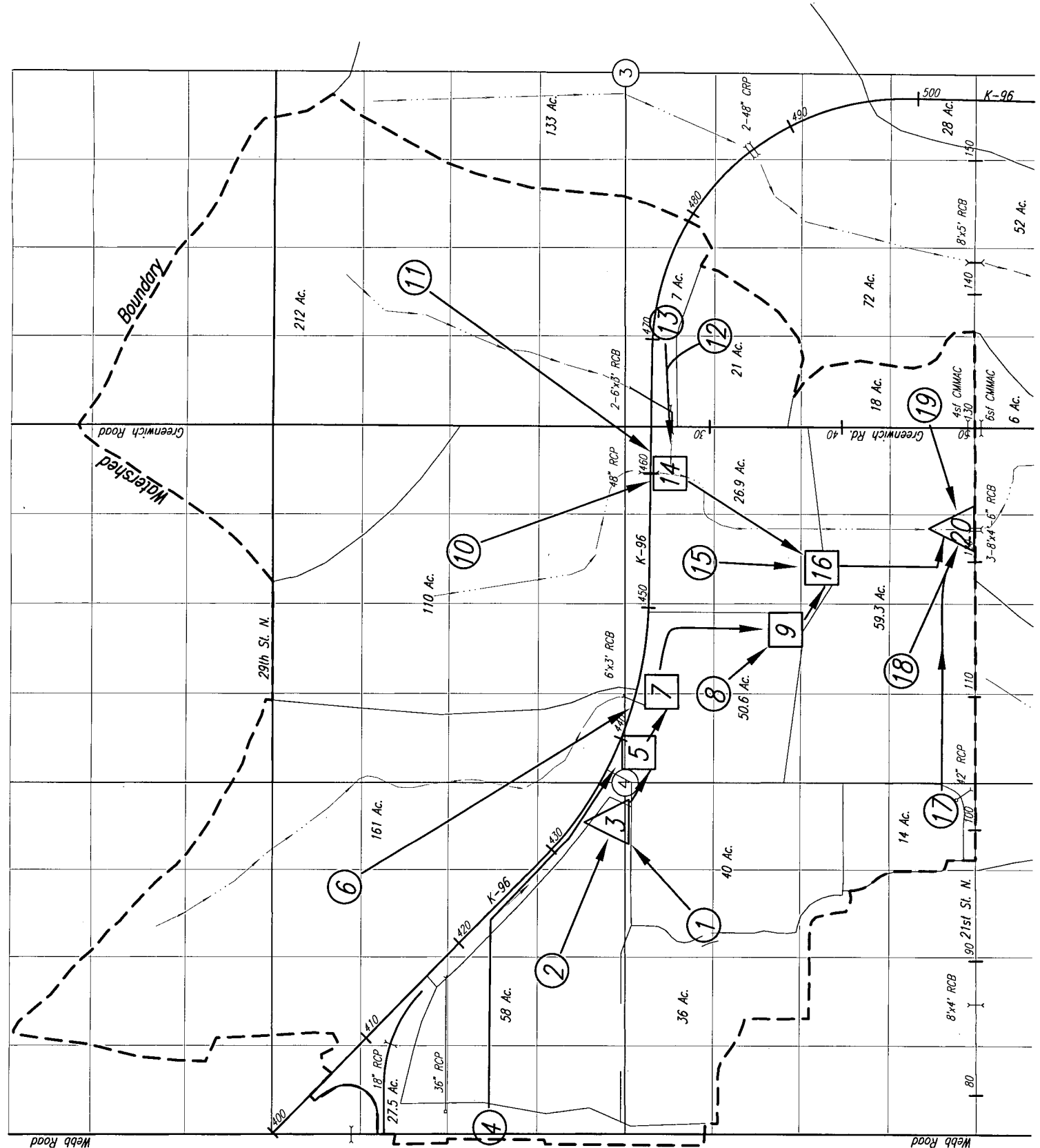
Area ID**	Area ac	Accum. Area ac	C5	C100	Tc5 min	Tc100 min	I5 in/hr	I100 in/hr	Q5 cfs	Q100 cfs	Inlet Size ft	Pipe Size in	Min Slope %	COMMENTS
A	1.98		0.68	0.80	23	17	3.73	7.00	5.02	11.09	10	15	0.6	5 yr. Design
B	2.63		0.68	0.80	23	17	3.73	7.00	6.67	14.73	10			5 yr. Design
A+B		4.61	0.68	0.80	23	17	3.73	7.00	11.69	25.82		24	0.3	5 yr Design
C	1.13		0.68	0.80	18	15	4.20	7.37	3.23	6.66	10			100 yr Design, Sump
D	1.66		0.68	0.80	18	15	4.20	7.37	4.74	9.79	10			100 yr Design, Sump
E	1.82		0.68	0.80	20	15	4.00	7.37	4.95	10.73	10	24	0.3	100 yr Design, Sump
F	1.96		0.68	0.80	20	15	4.00	7.37	5.33	11.56	5			100 yr Design, Sump
E+F		3.78	0.68	0.80	20	15	4.00	7.37	10.28	22.29		30	0.3	100 yr Design
G	0.42		0.68	0.80	15	15	4.56	7.37	1.30	2.48	5			100 yr Design, Sump
H	0.46		0.68	0.80	15	15	4.56	7.37	1.43	2.71	5			100 yr Design, Sump
I	1.68		0.68	0.80	15	15	4.56	7.37	5.21	9.91		24	0.3	100 yr Design, Cross Road Pipe
J	3.53		0.68	0.80	23	18	3.73	7.37	8.95	20.81				
I+J		5.21	0.68	0.80	23	18	3.73	7.37	13.21	30.72		30	0.6	100 yr Design, Cross Road Pipe



LEGEND

- 11 Basin for Runoff Calculations
- 14 HYDROGRAPH Combine Node
- 3 Combine w/Possible Retention Routing

**21st. Street & Greenwich Stormwater Analysis
Penn State Runoff Model Summary
(With Compensating Storage North of K-96)**



Basin ID	K-96 Design Q cfs	Curr. Stg. cfs	PSRM Q ₁₀₀ cfs	Storage ac ft	Q ₁₀₀ Out cfs	Peak Time min.
3	402	13.8	788	13.8	367	225
6	122	5.5	235	20	106	295
10	87	4.5	255	16	73	295
11	232	1.4	329	16	179	275
8			135		634	235
14			269		269	270
15			70		70	210
16			937		937	235
18			240		240	210
19			72		72	205
20			1097		1097	235

Basin ID	Description
1	Talgrass East (portion)
2	Kansas Surgery and Recovery Center
3	Detention Basin for 1 and 2
4	Webb Rd. and Part of K-96 ramp
5	Combine 3 and 4
6	Part of Jabara Airport
7	Combine 5 and 6
8	North Part of Regency Lakes
9	Combine 7 and 8
10	Proposed Soccer Field Area
11	Agricultural
12	Undeveloped (to 13)
13	Undeveloped
14	Combine 10, 11, and 13
15	North Half Greenwich Business Park
16	Combine 9, 14, and 15
17	Talgrass East (portion) to 18
18	South Half Regency Lakes and Greenwich Business Park
19	Proposed Warren Theater
20	Combine at 21st. St. Culvert

GREENWICH BUSINESS PARK
PROJECT NAME

WATERSHED MAP & MODEL DIAGRAM
SHEET TITLE

WEST FORK FOURMILE CREEK @ 21ST. ST.

MID-KANSAS ENGINEERING
CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316.268.4900

7/20
DESIGN BY: _____
CHECKED BY: _____
DATE: NOVEMBER 1996
DRAWN BY: _____
PROJECT NO. _____
SHEET NO. _____