

Pebblebrook Addition

Final Drainage plan

RESIDENTIAL LOT

Drainage Criteria for Design -

C_{100} Runoff Factor = 0.40 Grassed Backyard
 C_L Runoff Factor = 0.50 Frontyard (streets & roofs)
 C_{100} Runoff Factor = 0.50 Grassed Backyard
 C_L Runoff Factor = 0.60 Frontyard (streets & roofs)

I_L = 38% W.H.R. @ 5 min. T.C.
 I_{100} = 7% W.H.R. @ 5 min. T.C.

Bypass Conditions - collect the two year runoff
 Sump Conditions - collect the 100 year runoff
 RCP used in all designs.

22-141 50 SHEETS
22-142 100 SHEETS
22-143 150 SHEETS
22-144 200 SHEETS

PEBBLEBROOK ADDITION
 DRAINAGE ROUTING FOR STORM WATER SUMP.

AREA #	DA AC	C_2	R_2 FPS	C_{100}	Q_{100} CFS
A	1.14	0.40	2.7	.50	6.4
B	1.21	0.50	2.3	.60	5.3
C	1.44	0.50	2.8	.6	6.6
D	2.10	0.40	3.2	.5	7.7
E	2.75	0.50	3.3	.6	12.1
F	0.90	0.50	1.7	.6	4.0
G	2.60	0.50	4.4	.6	11.8
H	0.80	0.50	1.5	.6	3.5
I	1.60	0.40	2.4	.5	5.9
J	0.90	0.50	1.7	.6	4.0
K	1.60	0.50	3.0	.6	7.1
L	0.40	0.50	1.7	.6	4.0
M	0.60	0.50	1.1	.6	2.6
N	0.85	0.40	1.3	.5	3.1
O	1.20	0.50	2.3	.6	5.3
P	1.60	0.50	3.0	.6	7.1
Q	2.30	0.40	3.6	.5	8.4
R	1.00	0.50	1.9	.6	4.4
S	1.30	0.50	2.4	.6	5.7
T	0.90	0.50	1.7	.6	4.0

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AREA #	DA AC	C_2	R_2 FPS	C_{100}	Q_{100} CFS
U	2.7	0.40	4.1	0.5	9.9
V	1.5	0.50	2.4	0.6	6.6
W	1.8	0.50	3.4	0.6	8.0
X	2.6	0.40	4.0	0.5	9.6
Y	2.0	0.50	3.8	0.6	8.8
Z	3.3	0.50	4.3	0.6	11.6

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STORM WATER ROUTING

RCP M=0.013

#	NO. OF	SIZE	PIPE	SLOPE	NOTES
1	1.8+1.8	15"	0.6%	Bypass	Downs Drop
2	3.0	15"	0.5%	Sump	Downs Drop
3	2.4+3.6	18"	0.5%	Bypass	Type 1A DOWNS
4	2.4	24"	1.4%	Sump	Type 1A DOWNS
5	3.4	30"	0.6%	Sump	Type 1A DOWNS
6					OUTFALL STRUCTURE WITH RCP.
7	6.3	15"	0.4%	Bypass	6-30" TYPE 1A D.
8	6.3+3.8	18"	0.2%	Bypass	15-30" TYPE 1A D.
9	10.1	18"	0.2%	Bypass	
10	4.6+1.8	15"	0.40%	Sump	
11	4.6+10.1	24"	0.76%		
12	11.7+6.3	30"	0.50%	Bypass	
13	2.4	15"	0.50%	Bypass	
14	3.4+2.9	18"	0.50%	Bypass	
15	4.6+1.8	15"	0.60%		
16	4.6+1.8	15"	0.50%	Sump	100 YR.
17	7.5+4.4	18"	0.60%	Sump	100 YR. DISCONNECT RCP.
18	OUTFALL	42"	RCP TO OUTFALL		

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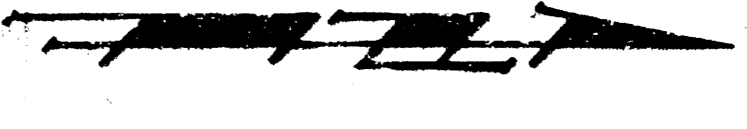
NO. OF PIPE SLOPE NOTES

20	7.7	15"	1.4%	Sump
21	17.9	24"	0.60%	Bypass
22	17.9+14	24"	1.25%	Bypass
23	25.3+13	30"	0.70%	Sump
24	5.3	15"	0.60%	Sump
25	CONNECTION INTO EXISTING SYSTEM - CENTER OF HILLY.			

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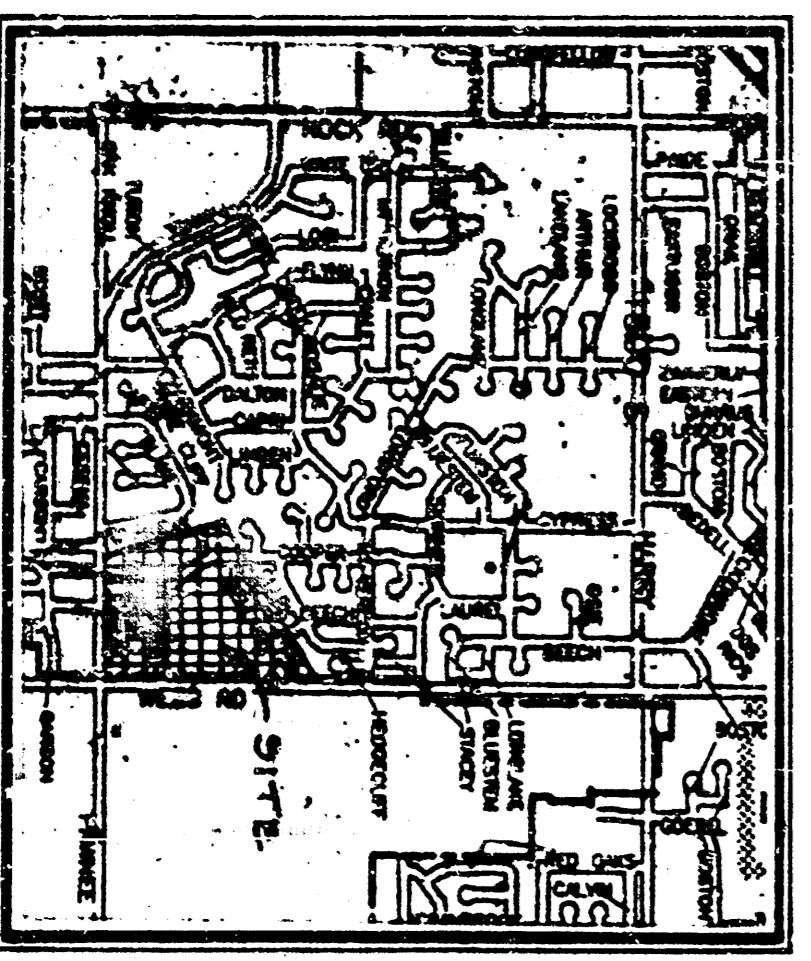
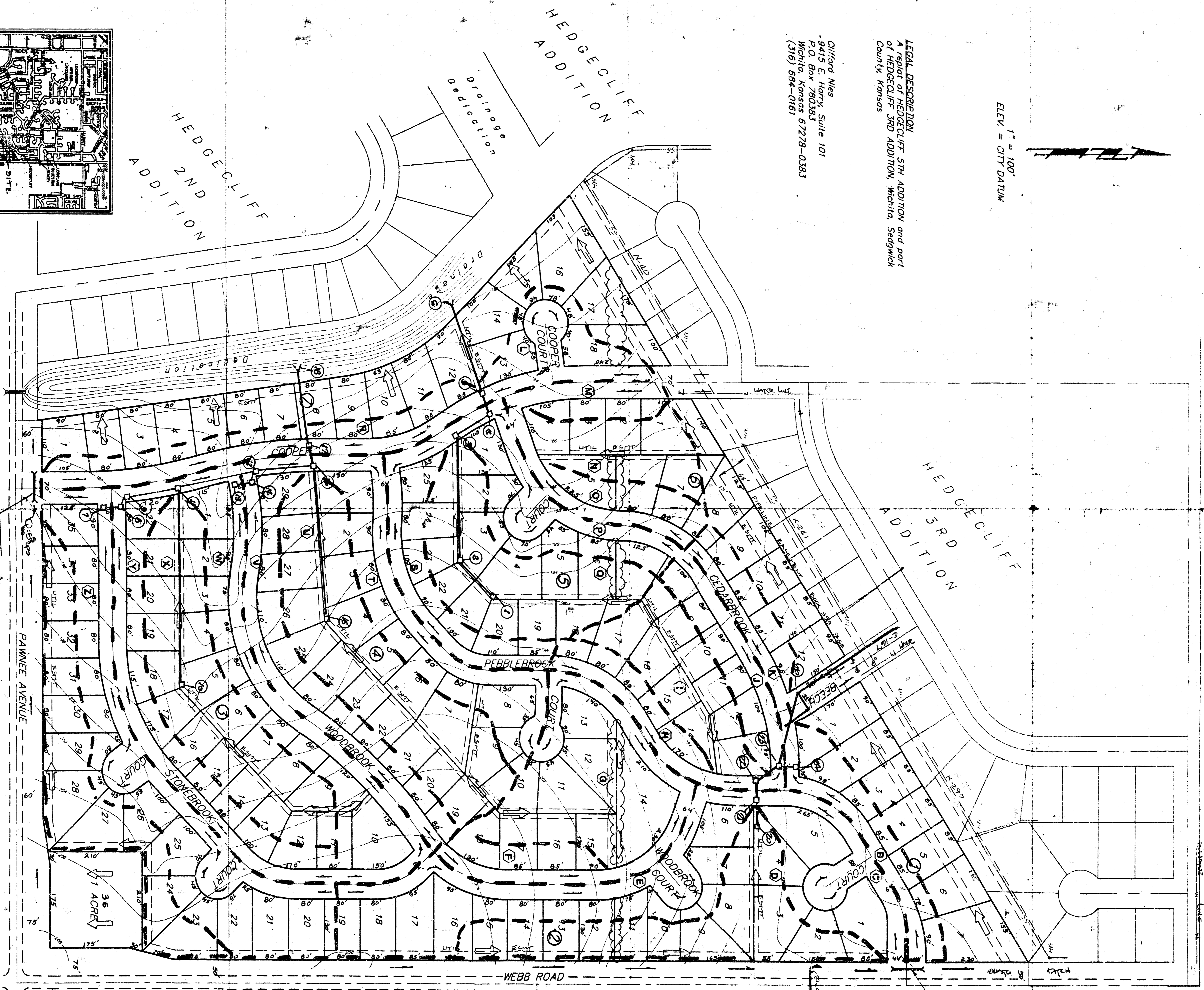
**PRELIMINARY PLAN
PEBBLEBROOK ADDITION
WICHITA, SEDGWICK COUNTY, KANSAS**

1" = 100'
ELEV. = CITY DATUM




LEGAL DESCRIPTION
A REPLIC OF HEDGECLIFF 5TH ADDITION and part
of HEDGECLIFF 3RD ADDITION, WICHITA, SEDGWICK
COUNTY, KANSAS

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DRAINAGE PLAN

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