

DRAINAGE PLAN
BUFFALO PINES
Wichita, Sedgwick County, Kansas

NOTES

- The onsite soils are primarily Clime silty clay and Irwin silty clay loam, which are Group D soils. A Soil Map will be provided in supplementary information with the Final Plat.
- The overflow spillway for the Watershed will remain undisturbed during construction activities. All work inside the Watershed Dam Easement must be submitted to the Middle Walnut Watershed District for review prior to construction beginning.
- Flood Plain Permits will be obtained prior to any fill being placed in the flood plain and a LOMR-F will be obtained before any Building Permits are issued.
- Any fill placed inside the Watershed District Easement must be obtained from inside the easement to ensure no reduction in storage. The Watershed District has requested that 1.5 CY of material be removed for every yard of fill placed.
- A cross-lot drainage agreement and temporary construction easements for swales will be obtained prior to construction.

Basin Design Summary					
Basin Name	Area (acres)	Curve Number	Impervious (%)	Tc (min)	Lag (min)
Existing Offsite Northwest	19.0	88	3.7	43.9	26.4
Developed Offsite Northwest	19.0	88	3.7	43.9	26.4
Existing Offsite North	107.5	87	16.3	53.8	32.3
Developed Offsite North	107.5	87	16.3	53.8	32.3
Existing Offsite South	744.6	87	6.5	75.2	45.1
Developed Offsite South	744.6	87	6.5	75.2	45.1
Existing Northwest	13.0	88	4.6	15.0	9.0
Developed Northwest Undetained	13.0	88	96.0	15.0	9.0
Existing Northeast	25.5	86	3.5	40.9	24.5
Developed North Central	13.1	88	30.0	17.9	10.7
Developed Northeast	9.6	88	35.0 60.0	29.0	17.4
Existing East	7.1	86	0.0	22.1	13.2
Developed East	7.0	88	35.0 60.0	15.0	9.0
Developed Southeast	35.6	88	35.0 47.5	15.0	9.0
Existing Southwest	8.9	88	0.0	30.6	18.3
Existing Southeast	48.3	88	0.0	17.0	10.2
Developed West	22.8	88	35.0	17.1	10.3

Pond Summary												
Design Storm	Existing Reservoir (Existing)			Existing Reservoir (Developed)			North Pond			South Pond		
	Max WS (Elev)	Volume Stored (ac-ft)	Max Discharge (cfs)	Max WS (Elev)	Volume Stored (ac-ft)	Max Discharge (cfs)	Max WS (Elev)	Volume Stored (ac-ft)	Max Discharge (cfs)	Max WS (Elev)	Volume Stored (ac-ft)	Max Discharge (cfs)
1 Year	1328.2	79.1	28.0	1328.2	81.1	28.0	1333.0	1.0	7.7	1340.2	1.5	17.4
2 Year	1329.0	102.3	31.8	1328.9	104.4	31.7	1333.2	1.2	9.0	1340.7	1.8	21.6
5 Year	1330.1	145.3	37.8	1330.1	147.7	37.7	1333.5	1.6	11.1	1341.3	2.3	31.8
10 Year	1331.0	182.5	53.0	1331.0	185.8	49.0	1333.8	1.9	13.0	1341.8	2.7	42.2
25 Year	1331.4	201.1	195.1	1331.4	204.4	189.5	1334.2	2.4	16.1	1342.5	3.3	52.2
50 Year	1331.9	222.2	356.0	1331.9	225.3	347.5	1334.5	2.8	18.9	1343.1	3.8	59.4
100 Year	1332.3	240.8	654.8	1332.3	244.3	636.7	1334.9	3.2	21.8	1343.7	4.3	67.0

Existing vs Developed Runoff Summary															
Design Storm	North & Northwest Offsite (cfs)	South Offsite (cfs)	Existing Northwest (cfs)	Developed Northwest (Undetained) (cfs)	Existing Northeast (cfs)	Developed North Central (cfs)	Developed Northeast (cfs)	Existing East (cfs)	Developed East (cfs)	Existing Southeast (cfs)	Developed Southeast (cfs)	Existing Southwest (cfs)	Developed West (cfs)	Existing Site Total (cfs)	Developed Site Total (cfs)
1 Year	144.9	590.9	6.8	8.5	30.3	31.6	22.1 24.5	12.4	17.4 18.6	71.7	87.5 91.4	13.3	56.0	186.4	176.2 177.7
2 Year	180.2	757.2	8.5	10.0	38.5	38.5	27.0 29.3	15.7	20.8 22.3	89.8	106.2 110.0	16.6	68.0	234.0	219.5 220.9
5 Year	242.2	1055.4	11.4	12.7	52.8	50.6	35.5 37.8	21.5	27.2 28.6	121.6	138.9 142.5	22.5	88.9	318.4	296.0 297.4
10 Year	296.7	1320.3	13.9	15.1	65.5	61.1	43.0 45.1	26.7	32.7 34.1	149.4	167.4 170.8	27.7	107.2	391.9	362.2 363.6
25 Year	374.2	1700.7	17.4	18.4	83.6	76.0	53.6 55.6	34.0	40.6 41.9	188.8	207.7 210.9	35.0	133.0	494.7	455.4 456.6
50 Year	439.1	2021.2	20.4	21.1	98.7	88.4	62.4 64.3	40.1	47.2 48.4	221.7	241.5 244.4	41.1	154.6	579.3	532.3 533.4
100 Year	506.7	2356.5	23.5	24.0	114.5	101.4	71.7 73.5	46.5	54.4 55.2	256.0	276.6 279.4	47.4	177.2	757.0	711.2 714.7



© 2022 GARVER, LLC
THIS DOCUMENT, ALONG WITH THE IDEAS AND DESIGNS CONVEYED HEREIN, SHALL BE CONSIDERED INSTRUMENTS OF PROFESSIONAL SERVICE AND ARE PROPERTY OF GARVER, LLC. ANY USE, REPRODUCTION, OR DISTRIBUTION OF THIS DOCUMENT, ALONG WITH THE IDEAS AND DESIGNS CONTAINED HEREIN, IS PROHIBITED UNLESS AUTHORIZED IN WRITING BY GARVER, LLC OR EXPLICITLY ALLOWED IN THE GOVERNING PROFESSIONAL SERVICES AGREEMENT FOR THIS WORK.

1995 Midfield Road
Wichita, Kansas 67209



REVISED 7-22-2026



BY	KWL				
DESCRIPTION	Revised Impervious Area %				
DATE	7-22-2026				
REV.	1				



CITY OF WICHITA
WICHITA, KANSAS

DRAINAGE PLAN

JOB NO.: 22S04030
DATE: MAY 2023
DESIGNED BY: CDJ
DRAWN BY: CDJ

BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER
C1.1

SHEET NUMBER