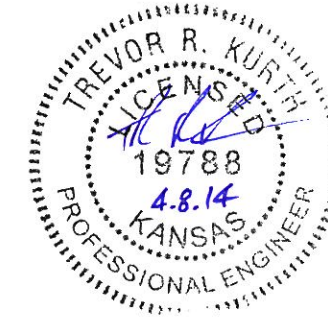


DRAINAGE PLAN

RIDGE 400 3RD ADDITION

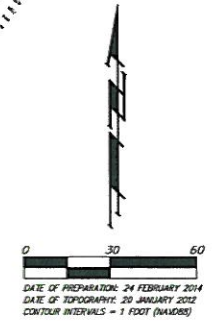
WICHITA, SEDGWICK COUNTY, KANSAS



OWNER/DEVELOPER:
 FREDDY'S LAND, LLC
 ATTN: SCOTT REDLER
 260 N. ROCK ROAD
 SUITE 200
 WICHITA, KS 67206-2285
 PH: (316) 260-8282

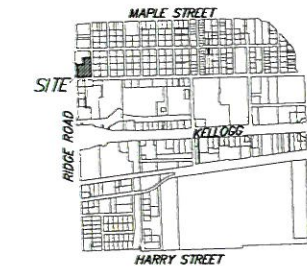
LEGAL DESCRIPTION:
 ALL OF LOTS 2, 3, 4, 5, AND 6,
 BLOCK H, WESTERLEA VILLAGE,
 WICHITA, SEDGWICK COUNTY, KANSAS.

BENCHMARK:
 CHISELED SQUARE ON TOP OF CURB,
 NORTH SIDE OF TAFT AVE., 157.6' E. &
 8.6' S. OF THE SW CORNER OF LOT 1,
 BLOCK A, RIDGE 400 3RD ADD.
 ELEV. = 1324.73 NAVD88



= #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
 = 1/2" IRON PIPE (FOUND)
 = 1" IRON PIPE (FOUND)
 = 3/4" IRON PIPE (FOUND)

(M) = MEASURED
 (WV) = FLATTED INFO. PER
 WESTERLEA VILLAGE
 (CWV) = CALCULATED PER FLATTED INFO.
 PER WESTERLEA VILLAGE
 (RA) = FLATTED INFO. PER
 RIDGE 400 2ND ADDITION



VICINITY MAP
 SEC. 27, T27S, R1W

1

NORTH DEVELOPED	
DA = 0.55 acres	
Impervious = 90%	
C = 0.90	
Q ₂ = 2.0 cfs	
Q ₅ = 2.3 cfs	
Q ₁₀ = 2.6 cfs	
Q ₁₀₀ = 3.6 cfs	

2

MAIN SITE TO WEST	
DA = 1.8 acres	
Impervious = 90%	
C = 0.90	
Q ₂ = 6.2 cfs	
Q ₅ = 7.4 cfs	
Q ₁₀ = 8.5 cfs	
Q ₁₀₀ = 12 cfs	

3

SOUTH TO TAFT	
DA = 0.36 acres	
Impervious = 90%	
C = 0.90	
Q ₂ = 1.2 cfs	
Q ₅ = 1.4 cfs	
Q ₁₀ = 1.7 cfs	
Q ₁₀₀ = 2.3 cfs	

TOTAL SITE	
AREA = 2.7 acres	
EXISTING* C = 0.63	DEVELOPED C = 0.90
Q ₂ = 6.5 cfs	Q ₂ = 9.8 cfs
Q ₅ = 7.8 cfs	Q ₅ = 11 cfs
Q ₁₀ = 8.9 cfs	Q ₁₀ = 13 cfs
Q ₁₀₀ = 13 cfs	Q ₁₀₀ = 19 cfs

*This is a re-development site that was previously covered by residential single family homes with associated drives and out buildings. Site features Soil Type C and is, as of this plan, razed.

NOTE: This site is a redevelopment area and will provide detention in the parking lot (or equivalent) upon site development. Site will connect to the 18" SWS and continue to drain to the west and into the Ridge Road ROW storm water sewer. Due to the site being less than 3 acres downstream channel protection will not be provided. Water Quality will be required upon site development and we expect a water quality unit for treatment.

Table 4-13 Volumetric Runoff Coefficients by Land Use and Hydrologic Soil Group

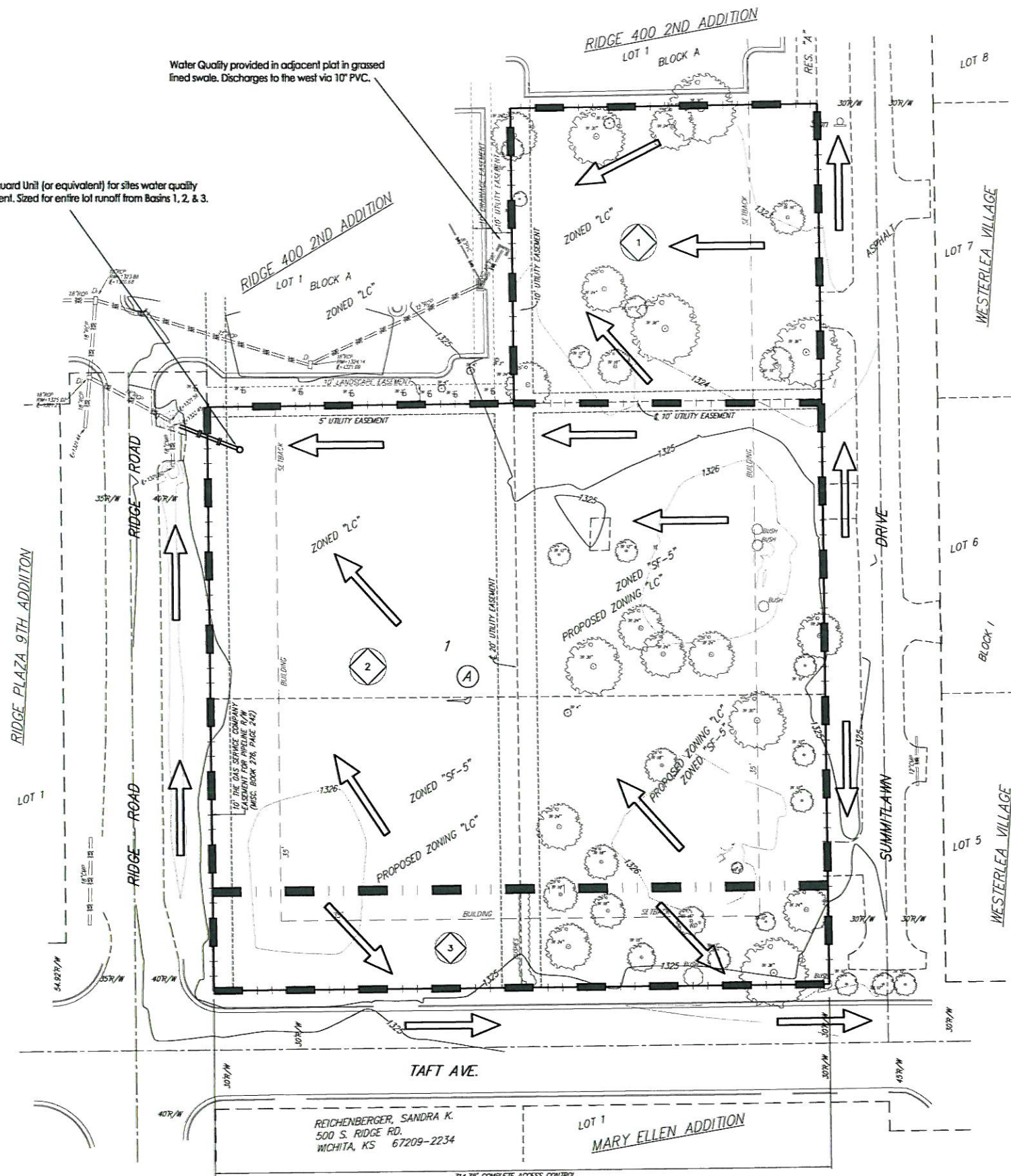
Land Use	Hydrologic Soil Group				Land Use	Hydrologic Soil Group			
	A	B	C	D		A	B	C	D
Undisturbed	0.02	0.03	0.04	0.04	Undisturbed	0.50	0.71	0.80	0.84
Turf or Disturbed Soils	0.15	0.20	0.22	0.25	Turf or Disturbed Soils	0.71	0.80	0.84	0.88
Impervious Cover	0.95	0.95	0.95	0.95	Impervious Cover	0.90	0.90	0.90	0.90

Basin #	Weighted Volumetric Runoff Coef. (R _v) (eq. 4-34)								WQ, in ³		
	Undist	Dist	Red Imp	New Imp	Total Area	U	D	Redev I		I	R _v
Basin 01	0	17,700	31,317	77,523	117,000	0.030	0.025	0.030	0.025	0.042	7,000

Water Quality Peak Flow POINT X	
sq 4-2E	
Q _p = q ₁ * A * Q ₁₀₀ * F _p	
CN ₂ = 90 Table 4-2	
ISI _P = 0.13	
T _c = 13 min	
q ₁ = 650 Figure 4E	
A = 117,000 ft ²	
Q ₁₀₀ = 1332 cfs	
F _p = 0.642 Eq. 4-24	
P = 1.2 Saturated Soil	
Q ₁₀₀ = 0.779847 * 1332 * 1.2	
F _p = 1.00 Table 4-10	
Q _p = 644 cfs	

Water Quality provided in adjacent plot in grassed lined swale. Discharges to the west via 10" PVC.

Hydroguard Unit (or equivalent) for sites water quality treatment. Sized for entire lot runoff from Basins 1, 2, & 3.



REICHENBERGER, SANDRA K.
 500 S. RIDGE RD.
 WICHITA, KS 67209-2234

LOT 1
 MARY ELLEN ADDITION

314.38' COMPLETE ACCESS CONTROL

NOTES: There is no FEMA SFHA located on this property as of this date per FEMA FIRM Panel 345 of 700, for Wichita, Sedgwick County, Kansas, effective February 2, 2007.

DRAINAGE PLAN

RIDGE 400 3RD ADDITION

01 APR 2014



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