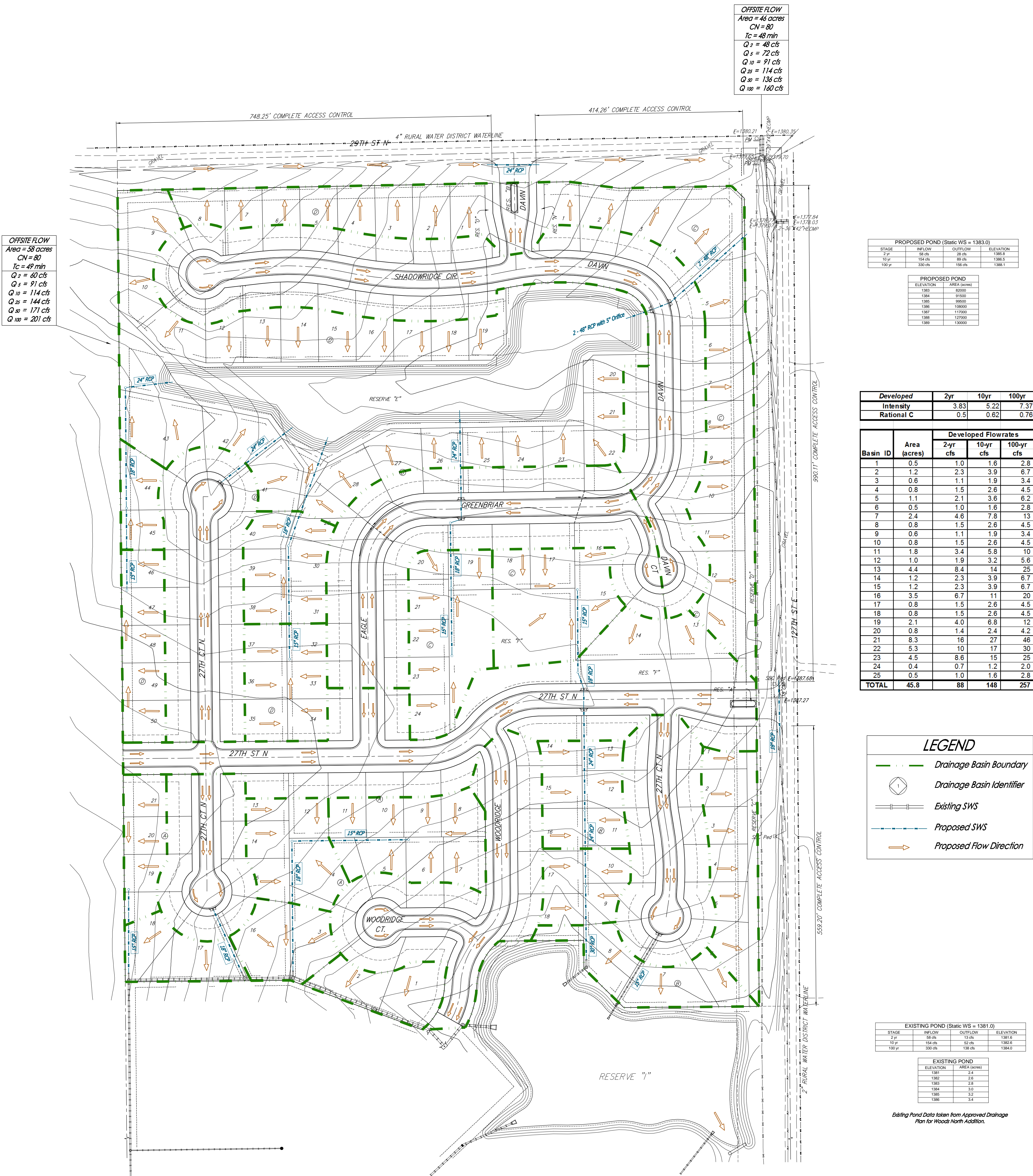


DRAINAGE PLAN

WOODS NORTH 3RD ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS



OFFSITE FLOW
 Area = 46 acres
 CN = 80
 Tc = 48 min
 Q₂ = 48 cfs
 Q₅ = 72 cfs
 Q₁₀ = 91 cfs
 Q₂₅ = 114 cfs
 Q₅₀ = 136 cfs
 Q₁₀₀ = 160 cfs

OFFSITE FLOW
 Area = 58 acres
 CN = 80
 Tc = 49 min
 Q₂ = 60 cfs
 Q₅ = 91 cfs
 Q₁₀ = 114 cfs
 Q₂₅ = 144 cfs
 Q₅₀ = 171 cfs
 Q₁₀₀ = 201 cfs

PROPOSED POND (Static WS = 1383.0)

STAGE	INFLOW	OUTFLOW	ELEVATION
2 yr	54 cfs	54 cfs	1383.0
10 yr	104 cfs	59 cfs	1383.5
100 yr	330 cfs	156 cfs	1386.1

PROPOSED POND

ELEVATION	AREA (ACRES)
1383	82000
1384	91000
1385	96600
1386	100000
1387	117000
1388	127000
1389	130000

Developed Intensity	2yr	10yr	100yr
	3.83	5.22	7.37
Rational C	0.5	0.62	0.76

Developed Flowrates

Basin ID	Area (acres)	2-yr cfs	10-yr cfs	100-yr cfs
1	0.5	1.0	1.6	2.8
2	1.2	2.3	3.9	6.7
3	0.6	1.1	1.9	3.4
4	0.8	1.5	2.6	4.5
5	1.1	2.1	3.6	6.2
6	0.5	1.0	1.6	2.8
7	2.4	4.8	7.8	13
8	0.8	1.5	2.6	4.5
9	0.6	1.1	1.9	3.4
10	0.8	1.5	2.6	4.5
11	1.8	3.4	5.8	10
12	1.0	1.9	3.2	5.6
13	4.4	8.4	14	25
14	1.2	2.3	3.9	6.7
15	1.2	2.3	3.9	6.7
16	3.5	6.7	11	20
17	0.8	1.5	2.6	4.5
18	0.8	1.5	2.6	4.5
19	2.1	4.0	6.8	12
20	0.8	1.4	2.4	4.2
21	8.3	16	27	46
22	5.3	10	17	30
23	4.5	8.8	15	25
24	0.4	0.7	1.2	2.0
25	0.5	1.0	1.6	2.8
TOTAL	45.8	88	148	257

LEGEND

- Drainage Basin Boundary
- Drainage Basin Identifier
- Existing SWS
- Proposed SWS
- Proposed Flow Direction

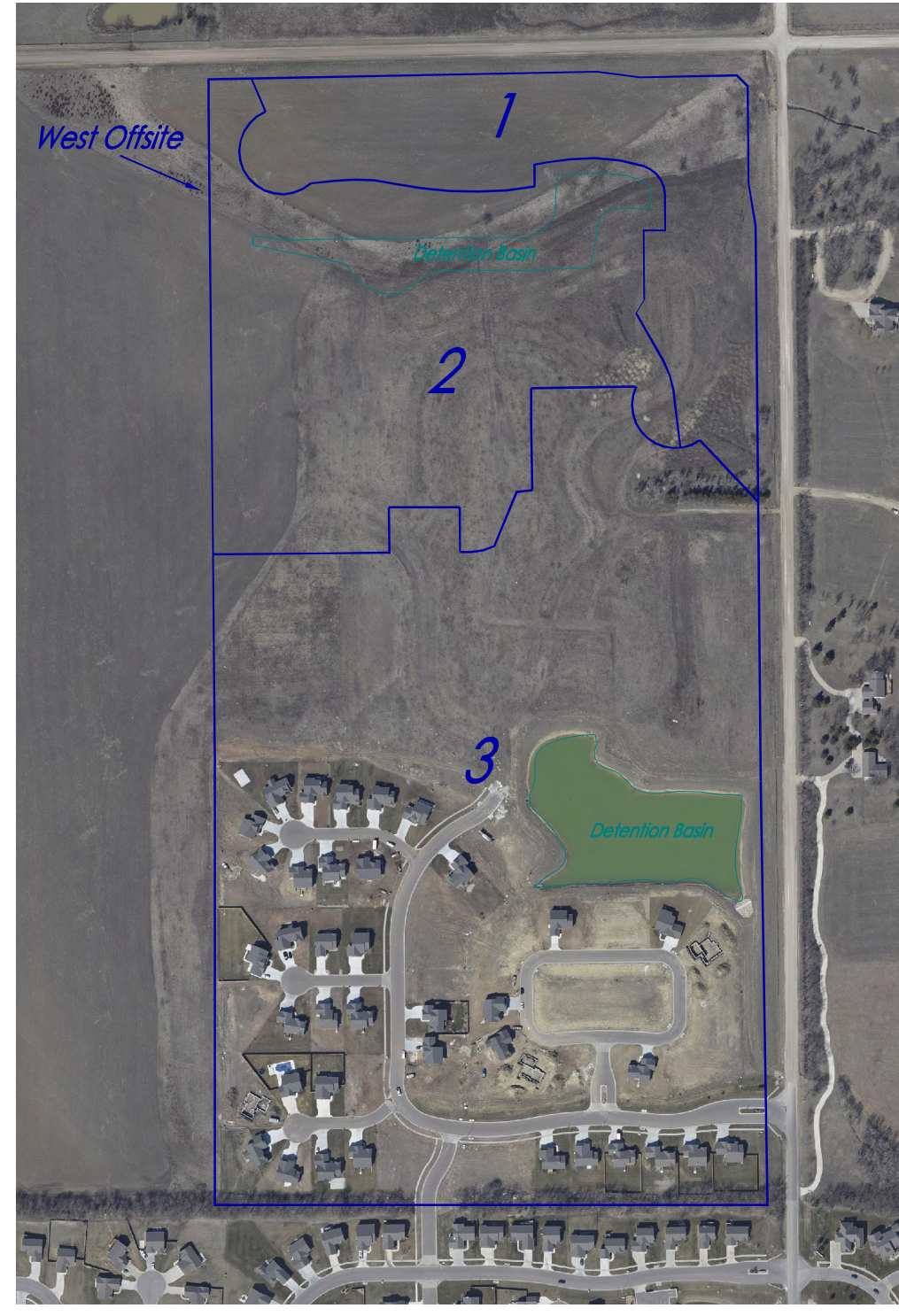
EXISTING POND (Static WS = 1381.0)

STAGE	INFLOW	OUTFLOW	ELEVATION
2 yr	54 cfs	54 cfs	1381.0
10 yr	104 cfs	52 cfs	1382.8
100 yr	330 cfs	138 cfs	1384.0

EXISTING POND

ELEVATION	AREA (ACRES)
1381	2.4
1382	2.6
1383	2.8
1384	3.0
1385	3.2
1386	3.4

Existing Pond Data taken from Approved Drainage Plan for Woods North Addition.



Woods North & Woods North 3rd - Water Quality Data & Computations
 Completed by: TRK
 Date: 1.26.12

- Notes & Assumptions:**
- 1/4 acre size lots assumed with 38% impervious area
 - Pond surface areas not included in WQV calculations
 - Areas already developed (Woods North Addition) is included in the calculations
 - Offsite drainage into site
- 5. Onsite drainage off site**
- | Basin | Area | Effect |
|-------|------|---|
| 1 | 9.8 | Streets & lots untreated drains directly to east and into ROW |
| Total | 9.8 | |

Drainage Basin	Pond Area	Treatment Area	Undisturbed Area	Disturbed Pervious Area	Impervious Area
Area	Area	Area	Area	Area	Area
1	9.8	0.0	9.8	0.0	6.1
2	18.0	3.8	14.2	0.0	8.8
3	47.8	4.2	43.6	0.0	27.0
West	58.0	0.0	58.0	0.0	0.0
Totals	133.6	10.5	123.1	27.8	41.9

Basin	U	D	I	Totals	Rv	Area	WQV
						Acres	Acres-Ft
1	0.00	0.62	0.38	1.0	0.5	9.8	0.5
2	0.00	0.62	0.38	1.0	0.5	14.2	0.7
3	0.00	0.62	0.38	1.0	0.5	43.6	2.2
West	1.00	0.00	0.00	1.0	0.94	58.0	0.2
Totals						123.1	3.6

Pond Volume Below Static Pool

Basin	Static Area	Pond Bottom Area	Depth	Volume
Sq.Ft.	Acres	Sq. Ft.	Feet	Acres-Ft
2	82000	34000	0.8	10.7
3	120000	85000	2.0	18.8
Totals			2.7	29.5

Pond Volume > WQV

Pond	WQV	Check
2	29.5	3.6
3		✓

NOTE: There is no FEMA SFHA located on this as of this date per FEMA FIRN Panel 377 of 700 for Sedgwick County, Kansas: effective February 2, 2007.

Offsite Drainage Areas are approximate per Lidar topography and site visits.

DRAINAGE PLAN

WOODS NORTH 3RD ADDITION

24 JAN 2012

Baughman Company, P.A.
 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

E:\Projects\Woods North 3rd_11-12-P&A\Water Resources\Woods North 3rd_CSE_drain.dwg