

# STORM SEWER COMPUTATIONS

SHEET 1 OF 1

FOR

DESIGN BY: PJJ

## Fox Run Redevelopment

PROJECT NUMBER: 19-9043

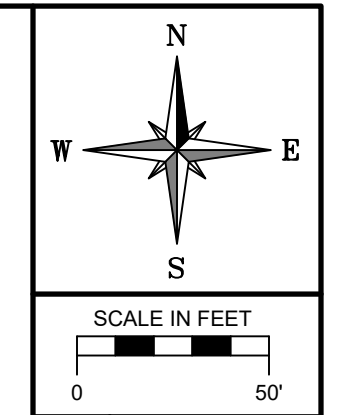
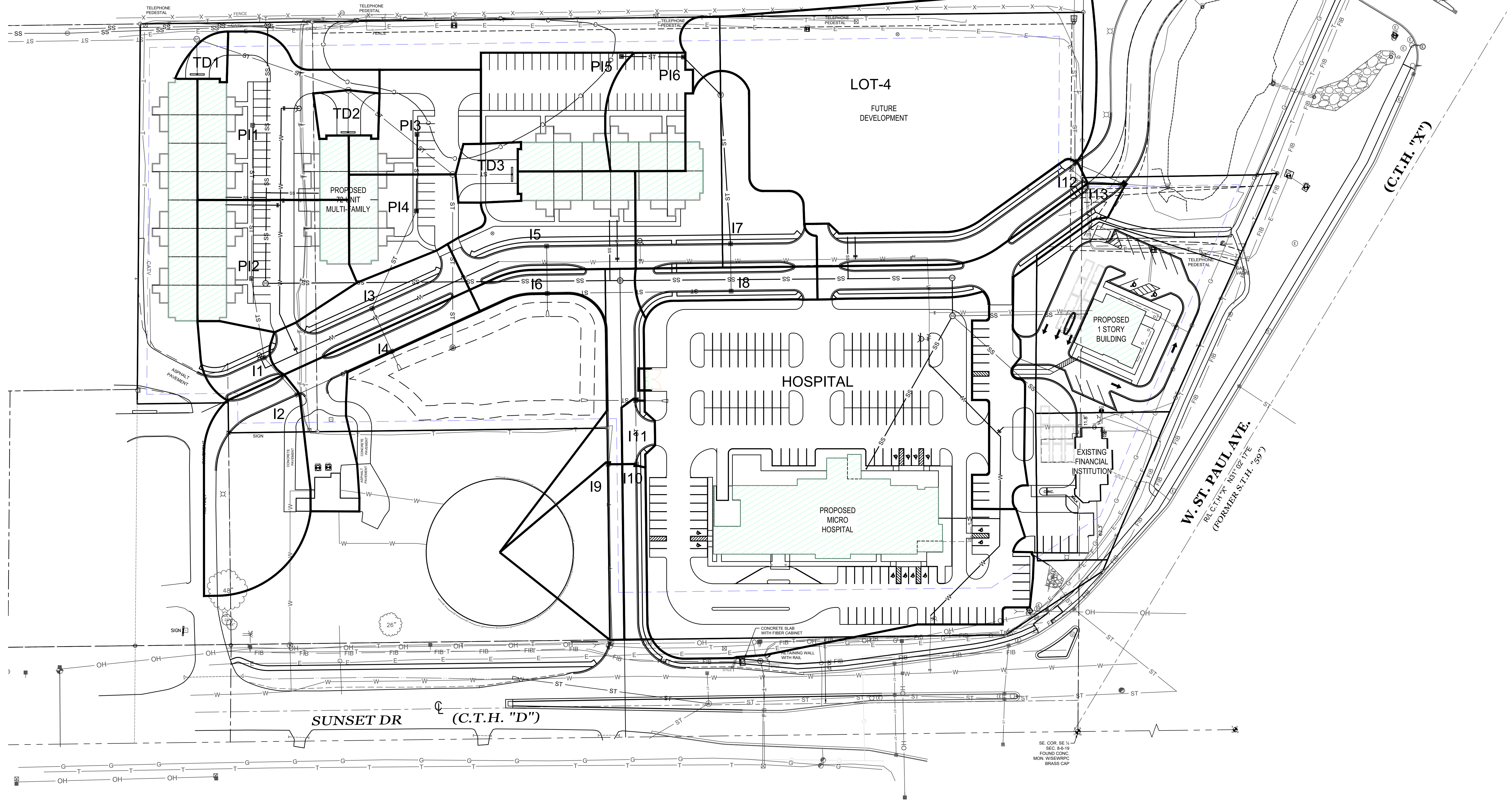
DATE: 3/27/2020

DESIGN DATA																			
<b>STORM EVENT:</b> 10 yr			<b>DESIGN INTENSITY (I):</b> 7.14 in/hr Intensity is based on a 5 min Tc using SEWRPC IDF equations.																
STRUCTURE DATA			DRAINAGE AREA AND FLOW DATA					PIPE DATA				PIPE CAPACITY INFORMATION					ELEVATIONS		
Contributing Basin	Upstream Structure	Downstream Structure	Flow is determined by Rational Method Q = CIA					Length (ft)	Diameter (in)	Slope (%)	Manning Coefficient	Pipe capacity is determined by Manning's Equation Q = 1.486/n AR <sup>2/3</sup> S <sup>1/2</sup>					Rim/FL Up	Invert Up	Invert Down
			Individual Acres A	Impervious Acres	Individual Coefficient C	Individual Flow Q (cfs)	Cumulative Flow (cfs)					Required Drop (ft)	Actual Drop (ft)	Percent Full (%)	Actual Velocity (fps)	Max. Capacity (cfs)			
PI 1	PI 1	PI 2	0.533	0.426	0.819	3.12	3.12	162.00	15	0.50	0.011	0.27	0.81	56%	4.56	5.81	30.50	27.50	26.69
PI 2	PI 2	I 1	0.463	0.325	0.756	2.50	5.62	84.73	18	0.50	0.011	0.17	0.42	60%	5.27	9.44	30.50	26.44	26.02
I 1	I 1	I 2	0.121	0.044	0.536	0.46	6.08	52.35	18	0.50	0.011	0.13	0.26	64%	5.36	9.44	30.49	25.92	25.65
I 2	I 2	I 4	0.489	0.145	0.493	1.72	7.80	109.87	18	0.50	0.011	0.43	0.55	79%	5.61	9.44	30.34	25.40	24.86
PI 3	PI 3	PI 4	0.286	0.192	0.736	1.50	1.50	81.00	12	0.50	0.011	0.10	0.41	50%	3.80	3.20	30.50	27.50	27.10
PI 4	PI 4	I 3	0.264	0.158	0.688	1.30	2.80	113.08	12	1.01	0.011	0.50	1.14	62%	5.75	4.54	30.50	27.00	25.86
I 3	I 3	I 4	0.256	0.159	0.704	1.29	4.09	50.00	15	0.50	0.011	0.14	0.25	69%	4.84	5.81	29.31	25.61	25.36
I 4	I 4	OUTLET 1	0.280	0.110	0.554	1.11	13.00	15.36	24	0.50	0.011	0.04	0.08	64%	6.49	20.34	29.31	24.61	24.53
PI 5	PI 5	PI 6	0.369	0.303	0.834	2.20	2.20	65.50	12	0.50	0.011	0.18	0.33	67%	4.15	3.20	30.81	27.81	27.48
PI 6	PI 6	MH 1	0.230	0.198	0.859	1.41	3.60	56.04	15	0.50	0.011	0.12	0.28	62%	4.71	5.81	30.80	27.23	26.95
MH 1	MH 1	I 7	0.000	0.000	0.000	0.00	3.60	157.81	15	0.50	0.011	0.35	0.79	62%	4.71	5.81	30.00	26.85	26.06
I 7	I 7	I 8	0.551	0.204	0.541	2.13	5.73	50.00	18	0.50	0.011	0.11	0.25	61%	5.29	9.44	29.65	25.81	25.56
I 8	I 8	I 6	0.157	0.127	0.825	0.93	6.66	194.27	18	0.50	0.011	0.56	0.97	69%	5.46	9.44	29.65	25.31	24.34
I 5	I 5	I 6	0.398	0.264	0.731	2.08	2.08	50.00	12	0.50	0.011	0.12	0.25	65%	4.10	3.20	30.31	27.31	27.06
I 6	I 6	OUTLET 2	0.306	0.232	0.793	1.73	10.47	18.36	21	0.50	0.011	0.06	0.09	71%	6.10	14.24	30.31	24.09	24.00
I 9	I 9	I 10	0.315	0.066	0.436	0.98	0.98	30.00	12	0.50	0.011	0.02	0.15	37%	3.40	3.20	33.57	29.57	29.42
I 10	I 10	I 11	0.104	0.104	0.950	0.71	1.69	66.94	12	0.50	0.011	0.11	0.33	55%	3.91	3.20	33.57	29.32	28.99
HOSPITAL	HOSPITAL	I 11	3.058	2.504	0.832	18.17	18.17	28.02	27	0.50	0.011	0.07	0.14	65%	7.05	27.84	27.50	25.00	24.86
I 11	I 11	OUTLET 3	0.043	0.040	0.899	0.28	20.13	51.12	27	0.50	0.011	0.15	0.26	70%	7.19	27.84	31.83	24.76	24.50
LOT 4	LOT 4	I 12	2.019	0.000	0.300	4.32	4.32	157.00	24	0.77	0.024	0.20	1.21	43%	3.24	11.57	24.00	21.13	19.92
I 12	I 12	I 13	0.247	0.187	0.793	1.40	5.72	55.80	24	0.46	0.011	0.03	0.26	36%	5.12	19.51	26.73	19.82	19.56
I 13	I 13	OUTLET 4	0.498	0.436	0.868	3.09	8.81	46.98	24	0.77	0.011	0.05	0.36	40%	6.93	25.24	26.91	19.46	19.10



**LEGEND:**

	PROP. SAW CUT		EX. POWER POLE		BENCHMARK		EX. STORM MANHOLE
	EX. RETAINING WALL		EX. PULL BOX		EX. PK NAIL		EX. CATCH BASIN ROUND
	EX. UNDERGROUND WATER		EX. GUY WIRE		EX. IRON PIPE		EX. CATCH BASIN SQUARE
	EX. STORM SEWER		EX. TELEPHONE MANHOLE		EX. MONUMENT		EX. INVERT
	EX. SANITARY LINE		EX. TELEPHONE PEDESTAL		EX. FLAG POLE		EX. ELECTRIC TRANSFORMER
	EX. UNDERGROUND GAS		EX. UTILITY MANHOLE		EX. BOLLARD		EX. ELECTRIC MANHOLE
	EX. OVERHEAD WIRE		EX. GAS METER		EX. WATER MANHOLE		EX. LIGHTPOLE
	EX. UNDERGROUND ELECTRIC		EX. GAS VALVE		EX. HYDRANT		
	FIB		EX. CLEAN OUT		EX. WATER VALVE		
	EX. FIBER OPTIC CABLE		EX. SANITARY MANHOLE		EX. SPRINKLER VALVE		
	EX. UNDERGROUND TELEPHONE		EX. SEPTIC VENT		EX. ELECTRIC METER		
	EX. CABLE TV UNDERGROUND		EX. AIR CONDITIONER		EX. ELECTRIC PEDESTAL		
	EX. CONTAMINATED AREA						



**RE: VJS CONSTRUCTION SERVICES, INC.**

DRAWN BY: A.C.L. | CHECKED BY: P.J.J. | JOB NUMBER: 19-9043 | DATE: MARCH 25, 2020  
 FILE NUMBER: XXXXXXXX XXXX | BOOK NUMBER: WAUK 191701 - PAGE NUMBER: 1-6  
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 WEBSITE: JAHNKEANDJAHNKE.COM

**JAHNKE & JAHNKE ASSOCIATES, LLC**  
 ENGINEERS-PLANNERS-SURVEYORS  
 ENGINEERING SOLUTIONS SINCE 1944

**PROPOSED STORM SEWER BASINS**  
 ADDRESS: 2300 WEST ST. PAUL AVENUE  
 PART OF THE SE 1/4 OF SECTION 8, T 6 N, R 19 E  
 & PART OF THE SW 1/4 OF SECTION 9, T 6 N, R 19 E  
 CITY OF WAUKESHA, WAUKESHA COUNTY, WISCONSIN.

REVISIONS
3/17/2020 - REV. CURB ENTRY
SHEET:
01 OF 01

FILE NAME: S:\projects\19-9043 (68660)\dwg\Storm Sewer and Storm Water Basins\19-9043\_Design.dwg