HYDRAULIC DATA

PROJECT: OSAGE MEADOWS PLAT 3

SHEET 1 OF 3

Computed By _____ Date _____ Checked By _____ Date _____

LINE Upper Station	LINE Lower Station	Length	Size	Upper Flow Line	Lower Flow Line	F.L. Grade	Upper St. Elev.	Lower St. Elev.	Depth To Hy. Gr. Upper End	Upper Hy. Elev.	Lower Hy. Elev.	Hy. Grade	Frict. Head	Veloc Ft/Sec.	$\frac{V^2}{2g}$ Feet	$+\frac{V^2}{2g}$ V. Head	Turn Loss	Street Grade at Inlet	Inlet Capacity cu.ft./sec.	Area Acres	P. I.	Quantity cu.ft./sec.	82-120 T. Q.	82-120 Pipe Cap. cu.ft./sec.	
											610.39														
EP 230	CI 229	245'	54"	603.28	600.83	1.0	-	611.5	-	610.39	608.58	.0074	1.81	10.6	1.75	-	1/0°	-	-	3.25 67.13	2.4	7.80 161.11	168.91	196.70	
CI 229	CI 228	282'	66"	600.83	598.01	1.0	611.5	608.9	2.9	608.16	606.18	.0070	1.98	11.8	2.17	0.42	1/0°	1.0	2.29	46.37 0.46	2.4	111.29 1.10	281.30	335.70	
CI 228	MH 226	573'	72"	598.01	592.85	0.9	608.9	612.0	2.7	606.18	603.33	.0050	2.85	10.6	1.75	-	1/0°	Low	4.00	0.59 0.65	2.4	15.82 1.56	298.68	401.68	
MH 226	MH 225	143'	72"	592.85	591.13	1.2	612.0	611.3	8.7	601.39	599.87	.0106	1.52	15.4	3.69	1.94	1/0°	-	-	57.52	2.4	138.06	436.74	463.62	
MH 225	Ex. EP 224	74'	72"	591.13	590.17	1.3	611.3	-	11.4	599.28	Plat 2 598.37	.0123	0.91	16.6	4.28	0.59	1/0°	-	-	14.04	2.4	33.70	470.44	482.68	
											2 FULL 610.92														
A1 238	DCI 237	67'	15"	609.67	607.53	3.2	614.5	612.9	3.6	609.97	2 FULL 608.78	.0178	1.19	7.0	0.76	-	0.46 0.60 70°	3-5	8.25	Future 8.60	2.4	8.64	8.64	11.57	@1.7/Ac Ex. Q=6.12 To A1-238
DCI 237	CI 236	52'	18"	607.53	605.87	3.2	612.9	611.2	4.1	608.15	607.42	.0141	0.73	7.1	0.78	0.02	0.37 0.47 45°	4.0	3.56	Future 1.60	2.4	3.84	12.48	18.80	Ex. Q=7.79 To CI-237
CI 236	CI 235	35'	18"	605.87	604.75	3.2	611.2	611.1	3.8	606.88	2 FULL 606.25	.0165	0.63	7.6	0.90	0.12	0.42 0.47 45°	1.9	1.97	0.43	2.4	1.01	13.49	18.80	
CI 235	MH 234	42'	18"	604.75	603.41	3.2	611.1	608.8	4.9	605.52	605.10	.0177	0.42	7.9	0.97	0.07	0.46 0.47 45°	1.9	1.97	0.20	2.4	0.48	13.97	18.80	
MH 234	MH 233	208'	18"	603.41	596.75	3.2	608.8	603.9	3.7	605.10	601.43	.0177	3.67	7.9	0.97	-	0°	-	-	-	-	-	13.97	18.80	
MH 233	CI 232	25'	24"	596.75	596.00	3.0	603.9	603.8	7.5	601.43	601.29	.0057	0.14	5.5	0.47	-	0°	-	-	1.32	2.4	3.17	17.14	39.18	
CI 232	MH 225	325'	30"	596.00	591.13	1.5	603.8	611.3	2.5	601.10	599.87	.0038	1.23	4.2	0.27	-	0.19 1.70 90°	Low	4.0	2.62 0.78	2.4	6.29 1.75	25.18	50.33	
											603.75														
A1 227	CI 231	98'	12"	598.40	596.44	2.0	605.1	603.8	1.3	603.79	601.99	.0180	1.76	6.1	0.58	-	0°	2.3	5.5	1.99	2.4	4.78	4.78	5.04	
CI 231	CI 232	44'	15"	596.44	596.00	1.0	603.8	603.8	1.8	601.71	601.29	.0095	0.42	5.1	0.40	-	0.29 1.70 90°	Low	4.0	0.63	2.4	1.51	6.29	6.47	
											602.45														
A1 233.4	MH 233	106'	12"	597.81	596.75	1.0	604.3	603.9	1.8	602.27	601.43	.0079	0.84	4.0	0.25	-	0.18 1.70 90°	2.5	5.5	1.32	2.4	3.17	3.17	3.57	
											608.49														
A1 240	CI 239	97'	18"	604.92	601.82	3.2	610.3	609.0	1.8	608.49	606.99	.0155	1.50	7.4	0.85	-	0°	4-5	11.0	Future 5.45	2.4	13.08	13.08	18.80	@1.7/Ac. Ex. Q=9.27 To A1-240
CI 239	CI 228	34'	21"	601.82	600.73	3.2	609.0	609.0	2.0	606.52	606.18	.0100	0.34	6.6	0.68	-	0.17 1.70 90°	Low	4.0	1.14	2.4	2.74	15.82	28.33	

HYDRAULIC DATA

PROJECT: Osage Meadows Plat 3

SHEET 2 OF 3

Computed By _____ Date _____ Checked By _____ Date _____

LINE Upper Station	LINE Lower Station	Length	Size	Upper Flow Line	Lower Flow Line	F.L. Grade	Upper St. Elev.	Lower St. Elev.	Depth to Hy. Gr. Upper End	Upper Hy. Elev.	Lower Hy. Elev.	Hy. Grade	Frict. Head	Veloc ft/sec	$\frac{V^2}{2g}$ feet	$\frac{V^2}{2g}$ K Method	Turn Loss	Street Grade at Inlet	Inlet Capacity Cu ft/sec	Area Acres	P. I.	Quantity Cu Ft./Sec	82-120 T. Q.	82-120 Alpha Cap. Cu ft/sec
CI 242	CI 241	34'	15"	606.10	605.42	2.0	610.20	610.12	2.8	606.68	<FULL 606.67	.0002	0.01	.82	0.01	–	$8^{0.47}_{45°}$	2.0	1.93	0.42	2.4	1.01	1.01	9.15
CI 241	Tee 241-A	48'	15"	605.42	600.62	10.0	610.12	–	3.4	606.50	606.45	.00097	0.05	1.6	0.04	0.03	$.02^{0.47}_{45°}$	2.0	1.93	0.42	2.4	1.01	2.02	20.46
											608.58													
AI 243	Tee 243-A	30'	12"	605.95	602.95	10.0	611.7	–	3.1	608.22	607.73	.0164	0.49	5.8	0.52	–	$0.50^{0.70}_{30°}$	3.5	8.25	1.90	2.4	4.56	4.56	11.27
											610.89													
FES 245	CI 244	132'	42"	604.12	601.45	2.0	–	611.55	–	610.89	609.49	.0106	1.40	10.8	1.81	–	1.00	–	–	43.20	2.4	103.68	103.68	142.25
CI 244	CI 229	34'	48"	601.45	600.30	2.0	611.55	611.55	2.1	608.76	608.58	.0053	0.18	8.3	1.07	–	$0.73^{0.70}_{90°}$	1.0	2.29	0.43	2.4	1.03	104.71	203.05
											<FULL 609.55													
CI 247	CI 246	34'	15"	608.33	607.62	2.0	612.79	612.79	3.4	608.94	608.13	.0003	0.012	1.0	.016	–	$0.01^{0.47}_{45°}$	2.0	1.93	0.50	2.4	1.20	1.20	9.15
CI 246	Tee 246-A	48'	15"	607.62	602.82	10.0	612.90	–	3.3	608.85	608.78	.0014	0.07	1.16	.062	.05	$.08^{0.47}_{45°}$	2.0	1.93	0.50	2.4	1.20	2.40	20.46
											611.33													
AI 248	Tee 248A	30'	12"	607.66	604.66	10.0	619.5	–	3.2	610.83	610.14	.0229	0.69	6.8	0.72	–	$0.50^{0.70}_{90°}$	3.5	8.25	2.25	2.4	5.40	5.40	11.27
											602.38													
AI 260	CI 259	119'	12"	600.69	598.91	2.0	606.1	606.38	3.7	602.27	601.74	.0046	0.53	8.1	0.15	–	$0.11^{0.70}_{90°}$	2.5	5.5	1.01	2.4	2.42	2.42	5.04
CI 259	MH 225	219'	18"	598.91	594.13	2.0	606.38	611.3	4.7	601.28	599.87	.0066	1.41	4.8	0.36	0.21	$0.29^{0.70}_{90°}$	Low	4.0	1.34 / 1.20	2.4 / 2.4	3.22 / 2.88	5.52	14.86
											601.92													
CI 261	CI 259	44'	15"	600.17	598.41	4.0	606.38	606.38	4.5	601.85	601.74	.0025	0.11	2.6	.105	–	$0.07^{0.70}_{30°}$	Low	4.0	1.34	2.4	3.22	3.22	12.94

Pickett, Ray & Silver, INC.

HYDRAULIC DATA

PROJECT: OSAGE MEADOWS PLAT 3 **SHEET** 3 **OF** 3

Computed By _____ Date _____ Checked By _____ Date _____

LINE Upper Station	LINE Lower Station	Length	Size	Upper Flow Line	Lower Flow Line	F.L. Grade	Upper St. Elev.	Lower St. Elev.	Depth To Hy. Gr. Upper End	Upper Hy. Elev.	Lower Hy. Elev.	Hy. Grade	Frict. Head	Veloc Ft/Sec	$\frac{V^2}{2g}$ Feet	$\frac{V^2}{2g}$ V. Head	Turn Loss	Street Grade Inlet	Inlet Capacity cu.ft./sec.	Area Acres	P. I.	Quantity Cu.Ft./Sec.	82-120 T. Q.	82-120 Pipe Cap. cu.ft./sec.
											610.60													
EP 258	A1 257	30'	36"	605.24	604.94	1.0	–	617.1	–	610.60	610.37	.0075	0.23	8.2	1.05	–	0°	–	–	24.11	2.4	57.86	57.86	66.66
A1 257	A1 256	21'	36"	604.94	604.73	1.0	617.1	611.7	6.7	610.24	610.06	.0085	0.18	8.7	1.18	0.13	0°	2-S	5.50	1.53	2.4	3.67	61.53	66.66
A1 256	C1 255	101'	36"	604.73	603.72	1.0	611.7	611.4	1.6	609.92	608.96	.0095	0.96	9.2	1.32	0.14	0°	2-S	5.50	1.40	2.4	3.36	64.89	66.66
C1 255	C1 254	34'	42"	603.72	603.38	1.0	611.4	611.4	2.4	608.96	608.81	.0044	0.15	7.0	0.76	–	0°	Low	4.0	0.90	2.4	2.16	67.05	100.60
C1 254	A1 253	132'	42"	603.38	602.06	1.0	611.4	609.5	2.6	608.19	607.57	.0047	0.62	7.2	0.81	0.05	$0.51^{0.70}_{90°}$	Low	4.0	0.79	2.4	1.90	68.95	100.60
A1 253	A1 252	76'	54"	602.06	601.15	1.2	609.5	607.7	1.9	606.82	606.52	.0039	0.30	7.7	0.92	0.11	$0.64^{0.70}_{90°}$	2-S	5.50	20.79 1.63	2.4	49.89 3.91	122.75	215.39
A1 252	Tee 251	140'	54"	601.15	599.47	1.2	607.7	–	1.2	606.34	605.76	.0041	0.58	8.4	1.10	0.18	0°	2-S	5.50	1.55	2.4	3.72	126.47	215.37
Tee 251	A1 250	122'	54"	599.47	598.00	1.2	–	607.3	–	605.02	604.48	.0044	0.54	8.2	1.05	–	$0.54^{0.70}_{90°}$	–	–	1.81	2.4	4.34	130.81	215.39
A1 250	A1 249	70'	54"	598.00	596.99	1.44	607.3	606.8	2.8	604.41	604.08	.0047	0.33	8.5	1.12	0.07	0°	2-S	5.50	1.80	2.4	4.32	135.13	232.70
A1 249	MH 226	230'	66"	596.99	592.85	1.8	606.8	612.0	2.7	603.72	603.33	.0017	0.39	5.8	0.52	–	$0.36^{0.70}_{90°}$	2-S	5.50	1.22	2.4	2.93	138.06	[illegible]
											605.92													
C1 263	C1 262	34'	15"	602.43	601.51	2.7	607.2	607.2	1.3	605.89	605.85	.0011	004	1.7	.094	–	$0.03^{0.63}_{75°}$	Low	4.0	0.88	2.4	2.11	2.11	[illegible]
C1 262	Tee 261	20'	18"	601.51	600.97	2.7	607.2	–	1.3	605.79	605.76	.0017	0.03	2.5	0.10	–	$0.06^{0.63}_{75°}$	Low	4.0	0.93	2.4	2.23	4.34	17.27
											CFull 622.47													
FES 268	A1 267	45'	27"	620.72	618.92	4.0	–	624.0	–	621.83	CFull 621.17	.0146	0.66	9.4	1.37	–	$0.48^{0.35}_{30°}$	–	–	15.60	2.4	37.44	37.44	61.92
A1 267	C1 266	120'	30"	618.92	616.52	2.0	624.0	626.2	2.8	620.93	619.69	.0103	1.24	8.5	1.12	–	0°	3-S	8.25	1.76	2.4	4.22	41.66	57.97
C1 266	C1 265	34'	30"	616.52	615.84	2.0	626.2	626.2	6.5	618.72	CFull 618.34	.0113	0.38	6.9	1.23	0.11	$0.08^{0.70}_{90°}$	2.0	1.93	0.80	2.4	1.92	43.56	57.97
C1 265	C1 264	280'	30"	615.84	610.80	1.8	626.2	621.1	7.9	616.88	613.68	.0114	3.20	8.9	1.23	–	$0.61^{0.70}_{90°}$	2.0	1.93	0.12	2.4	0.29	43.87	55.04
C1 264	A1 253	387	30"	610.57	602.06	2.2	621.1	609.5	7.4	613.29	607.57	.0148	5.72	10.2	1.62	0.39	0°	Low	4.0	2.28 0.23	2.4	5.47 0.55	49.89	60.82
											CFull 619.16													
A1 270	C1 269	95'	12"	618.16	614.36	4.0	622.3	621.1	3.1	616.72	CFull 615.36	.0143	1.36	5.4	0.45	–	0°	4-S	11.0	1.78	2.4	4.27	4.27	7.13
C1 269	C1 264	34'	15"	614.36	613.00	4.0	621.1	621.1	5.7	614.24	CFull 614.00	.0071	0.24	4.5	3.15	0.31	0°	Low	4.0	0.50	2.4	1.20	5.47	12.94

Pickett, Ray & Silver, INC.