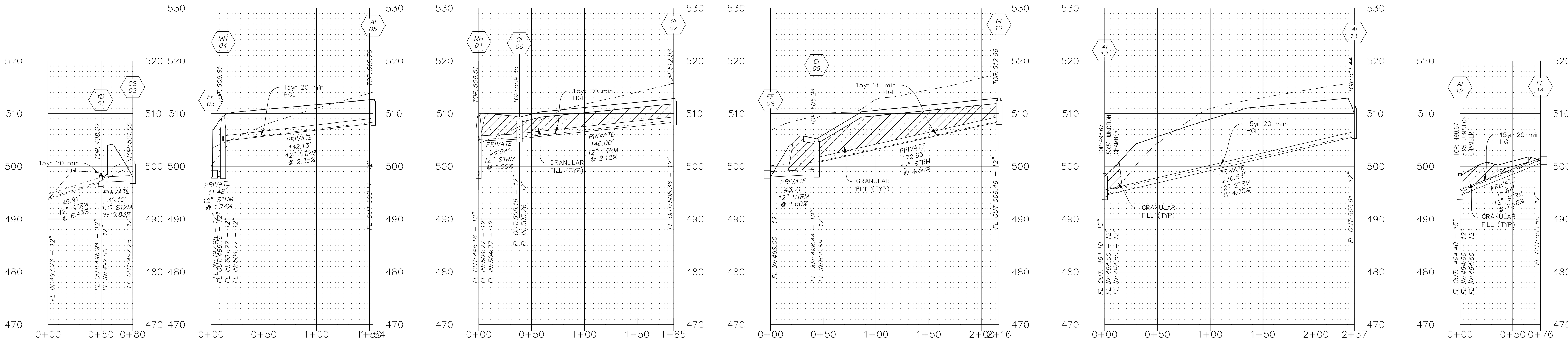


PR STRM 1 PR STRM 2 PR STRM 3 PR STRM 4 PR STRM 5 PR STRM 6

GRAPHIC SCALE IN FEET

PROFILE SCALE:
HORZ: 1" = 50'
VERT: 1" = 10'

PIPES

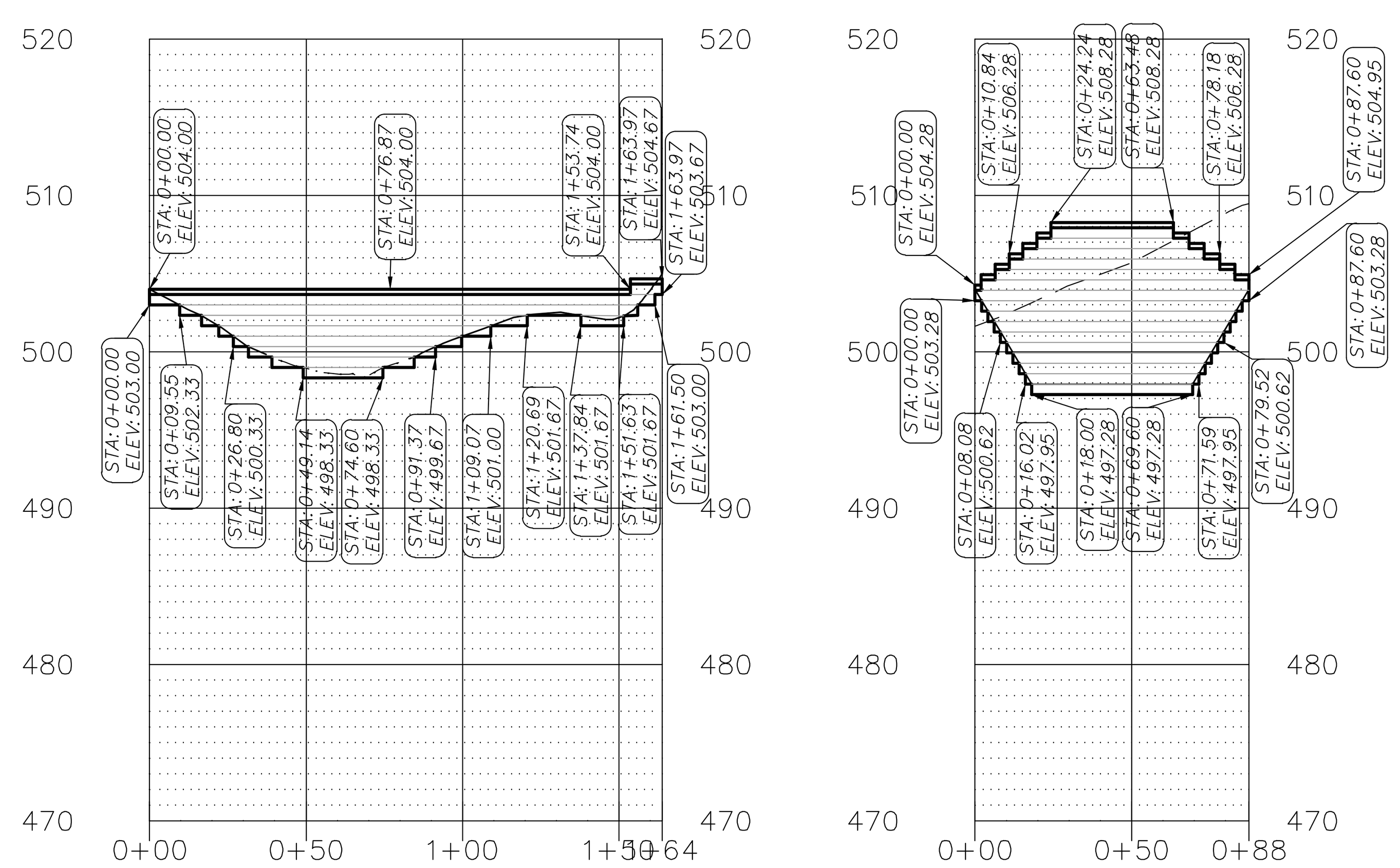
SN	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Total Drop	Average Slope	Pipe Diameter or Height	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Peak Flow	Time of Peak Flow Occurrence	Max Flow Velocity	Travel Time	Design Flow Capacity	Max Flow / Design Flow Ratio	Max Flow Depth / Total Depth Ratio	Max Flow Depth	Reported Condition
			(ft)	(ft)	(ft)	(ft)	(%)	(inches)					(cfs)	(days hh:mm)	(ft/sec)	(min)	(cfs)			(ft)	
1	YD01	Outfall	49.91	496.94	493.73	3.21	6.4300	12.000	0.0130	0.5000	0.5000	0.0000	1.07	0 00:20	7.71	0.11	9.04	0.12	0.23	0.23	Calculated
2	GI10	GI09	172.65	508.46	500.69	7.77	4.5000	12.000	0.0130	0.5000	0.5000	0.0000	0.53	0 00:20	8.84	0.33	7.56	0.07	0.18	0.18	Calculated
3	AI12	EX-NE	58.54	494.34	493.26	1.08	1.8400	15.000	0.0130	0.5000	0.5000	0.0000	7.66	0 00:20	8.58	0.11	9.40	0.81	0.69	0.86	Calculated
4	AI13	AI12	236.53	505.61	494.50	11.11	4.7000	12.000	0.0130	0.5000	0.5000	0.0000	0.93	0 00:20	10.93	0.36	7.72	0.12	0.23	0.23	Calculated
5	FE14	AI12	76.64	500.60	494.50	6.10	7.9600	12.000	0.0130	0.5000	0.5000	0.0000	6.38	0 00:20	14.87	0.09	10.05	0.63	0.58	0.58	Calculated
6	OS02	YD01	30.15	497.25	496.94	0.31	1.0300	12.000	0.0130	0.5000	0.5000	0.0000	0.63	0 00:24	3.46	0.15	3.61	0.18	0.28	0.28	Calculated
7	MH04	FE03	11.48	498.18	497.98	0.20	1.7400	12.000	0.0130	0.5000	0.5000	0.0000	1.92	0 00:20	5.72	0.03	4.74	0.41	0.44	0.44	Calculated
8	AI05	MH04	142.13	508.11	504.77	3.34	2.3500	12.000	0.0130	0.5000	0.5000	0.0000	0.96	0 00:20	8.07	0.29	5.46	0.18	0.28	0.28	Calculated
9	GI06	MH04	38.54	505.16	504.77	0.39	1.0100	12.000	0.0130	0.5000	0.5000	0.0000	0.96	0 00:20	3.87	0.17	3.58	0.27	0.35	0.35	Calculated
10	GI07	GI06	146.00	508.36	505.26	3.10	2.1200	12.000	0.0130	0.5000	0.5000	0.0000	0.54	0 00:20	6.95	0.35	5.19	0.10	0.22	0.22	Calculated
11	GI09	FE08	43.71	498.44	498.00	0.44	1.0100	12.000	0.0130	0.5000	0.5000	0.0000	1.17	0 00:20	4.10	0.18	3.57	0.33	0.39	0.39	Calculated

SUB BASINS

SN	Element ID	Area	Drainage Node ID	Weighted Runoff Coefficient	Accumulated Precipitation	Total Runoff	Peak Runoff	Rainfall Intensity	Time of Concentration
		(acres)			(inches)	(inches)	(cfs)	(inches/hr)	(days hh:mm:ss)
1	DR-01	0.28	YD01	0.3400	1.64	0.56	0.47	4.920	0 00:05:00
2	DR-02	0.09	OS02	0.3400	1.64	0.56	0.15	4.920	0 00:05:00
3	DR-05	0.27	AI05	0.7200	1.64	1.18	0.96	4.920	0 00:05:00
4	DR-06	0.12	GI06	0.7200	1.64	1.18	0.43	4.920	0 00:05:00
5	DR-07	0.15	GI07	0.7200	1.64	1.18	0.53	4.920	0 00:05:00
6	DR-09	0.18	GI09	0.7200	1.64	1.18	0.64	4.920	0 00:05:00
7	DR-10	0.15	GI10	0.7200	1.64	1.18	0.53	4.920	0 00:05:00
8	DR-12	0.21	AI12	0.3400	1.64	0.56	0.35	4.920	0 00:05:00
9	DR-13	0.26	AI13	0.7200	1.64	1.18	0.92	4.920	0 00:05:00
10	DR-14	1.80	FE14	0.7200	1.64	1.18	6.38	4.920	0 00:05:00

JUNCTIONS

SN	Element ID	Invert Elevation	Ground/Rim (Max) Elevation	Ground/Rim (Max) Offset	Initial Water Elevation	Initial Water Depth	Surcharge Elevation	Peak Inflow	Peak Lateral Inflow	Maximum HGL Elevation Attained	Maximum HGL Depth Attained	Minimum Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Maximum HGL Occurrence
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)
1	AI05	508.11	512.70	4.59	508.11	0.00	512.70	0.96	0.96	508.39	0.28	4.31	508.11	0.00	0 00:05
2	AI12	494.50	500.50	6.00	494.50	0.00	500.50	7.66	0.35	495.36	0.86	5.14	494.51	0.01	0 00:20
3	AI13	505.61	511.44	5.83	505.61	0.00	511.44	0.92	0.92	505.84	0.23	5.60	505.61	0.00	0 00:05
4	FE14	500.60	501.85	1.25	500.60	0.00	501.85	6.38	6.38	501.18	0.58	0.67	500.61	0.01	0 00:05
5	GI06	505.16	509.76	4.60	505.16	0.00	509.76	0.96	0.43	505.51	0.35	4.25	505.26	0.10	0 00:12
6	GI07	508.36	512.86	4.50	508.36	0.00	512.86	0.53	0.53	508.58	0.22	4.28	508.36	0.00	0 00:05
7	GI09	498.44	505.24	6.80	498.44	0.00	505.24	1.17	0.64	500.87	2.43	4.37	500.69	2.25	0 00:20
8	GI10	508.46	512.96	4.50	508.46	0.00	512.96	0.53	0.53	508.64	0.18	4.32	508.46	0.00	0 00:05
9	MH04	498.18	510.20	12.02	498.18	0.00	510.20	1.92	0.00	505.12	6.94	5.08	504.78	6.60	0 00:20
10	YD01	496.94	498.67	1.73	496.94	0.00	0.00	1.07	0.47	497.22	0.28	1.45	496.97	0.03	0 00:24



540 SQ FT WALL FACE
WALL #1

745 SQ FT WALL FACE
WALL #2

STORAGE NODE

SN	Element ID	Invert Elevation	Max (Rim) Elevation	Max (Rim) Offset	Initial Water Elevation	Peak Inflow	Peak Lateral Inflow	Peak Outflow	Maximum HGL Elevation Attained	Maximum HGL Depth Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Maximum HGL Occurrence
		(ft)	(ft)	(ft)	(ft)	(cfs)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)
1	OS02	497.25	504.00	6.75	497.25	3.29	0.32	2.58	497.88	0.63	497.25	0.00	0 00:06

OUTFALLS

SN	Element ID	Invert Elevation	Boundary Type	Flap Gate	Fixed Water Elevation	Peak Inflow	Peak Lateral Inflow	Maximum HGL Depth Attained	Maximum HGL Elevation Attained
		(ft)			(ft)	(cfs)	(cfs)	(ft)	(ft)
1	EX-NE	493.26	FREE	NO		7.66	0.00	0.86	494.12
2	Outfall	493.73	FREE	NO		1.07	0.00	0.23	493.96

UTILITIES NOTE

UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UTILITIES LOCATED IN THE FIELD PRIOR TO EXCAVATION OR CONSTRUCTION.

"Little MO" says CALL BEFORE YOU DIG! 1-800-DIG-RITE

K:\21047-RINV.000\DWG\OUTPUT\IMPROVEMENT PLANS\05 - PROFILES.DWG

RELIABLE INVESTMENTS

Improvement Plans

Profiles

PRS PROJECT NO. 21047.RINV.000
CEC PROJECT NO. 320-171

Pickett Ray & Silver
Part of Civil & Environmental Consultants, Inc. (CEC)
St. Charles
3000 Little Hills Expwy
Suite 102
St. Charles, MO 63301
Phone (314) 656-4566
Fax (636) 397-1104
www.CECINC.com

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.
PICKETT, RAY & SILVER, INC

STATE OF MISSOURI
KARL A. SCHOENIKE
NUMBER
PE-2003015039
04/15/2022
PROFESSIONAL ENGINEER

KARL ANTHONY SCHOENIKE, P.E.
PE-2003015039

*** 2022/04/14 IMPROVEMENT PLAN ***

Owner Information:
Reliable Investments
1262 Peruque Ridge Drive
Wentzville, MO 63385

City of O'Fallon Site Plan

P+Z No.: 21-009215
Approval Date: 11-04-2021
City No.: