

# Storm Drainage Calculations

**PRESERVE AT JONES DAIRY CENTRAL**  
Rolesville, North Carolina

September 16, 2022  
Revised December 12, 2022  
Revised January 24, 2023  
Revised May 3, 2023



**Prepared By:**

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## Storm Drainage Calculations

May 3, 2023

Preserve at Jones Dairy Central

### **INTRODUCTION**

This report presents the storm drainage design for the proposed improvements at the Preserve at Jones Dairy North project located on parcels bounded by Jones Dairy Road and Averette Road in Rolesville, North Carolina.

### **BACKGROUND**

The Preserve at Jones Dairy Central project is comprised of approximately 88.6 acres of land that is currently undeveloped. At full build-out, the proposed subdivision will consist of 260 single family lots and 179 townhome units. Water and sewer services will be provided by the City of Raleigh. The proposed subdivision will have two stormwater control measures (SCMs) that will meet Town and State requirements for stormwater quality. All roads will be Town maintained roads. The proposed roads will utilize storm sewer piping to convey runoff to the SCM.

### **METHODOLOGY**

#### **General**

All calculations were performed in accordance with NCDOT requirements including those in the Guidelines for Drainage Studies (1999 Edition).

#### **Runoff**

Peak flow runoff rates were calculated using the Rational Formula. Rational runoff coefficients were determined for each inlet based on generalized land use conditions encountered for this project. A minimum time of concentration equal to 10 minutes was used for each inlet due to the relatively small drainage area for each inlet. Rainfall intensities were based on the time of concentration to the inlet.

#### **Storm Drainage Piping**

Storm sewer pipes were designed for the 10-year storm using Hydrology Studio/Stormwater Studio. The primary computational methodologies by the software are methods described in FHWA HEC-22. Runoff to each inlet was determined by the rational method. The minimum pipe size for this project is 15 inches.

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May 3, 2023

Preserve at Jones Dairy Central

### **Inlets and Gutter Spread**

Gutter spread for this project was calculated by Hydrology Studio/Stormwater Studio which follows the methodology of FHWA HEC-22. The 4 inch per hour storm was used to calculate the runoff to each inlet. Inlet data used in the software was based on NCDOT frames/grates/hoods shown in NCDOT detail 840.03. The desirable gutter spread was limited to one half of a travel lane.

### **Pipe Hydraulic Grade Line**

The hydraulic grade line (HGL) for this project was calculated by Hydrology Studio/Stormwater Studio which uses the energy-based Standard Step method. The storm systems were designed to maintain the HGL within the pipe for the 10-year storm.

## **APPENDICES**

Appendix A – Drainage Area Map

Appendix B – Storm Sewer and Runoff Calculations

Appendix C – Storm Sewer HGL Calculations

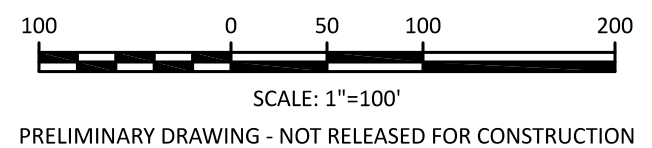
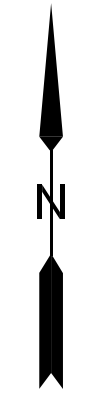
Appendix D – Storm Sewer Gutter Spread Calculations

# APPENDIX A – DRAINAGE AREA MAPS



DRIVE  
PUBLIC R/W

AWERETTE ROAD - N.C.S.R. 1945  
(60' PUBLIC R/W)



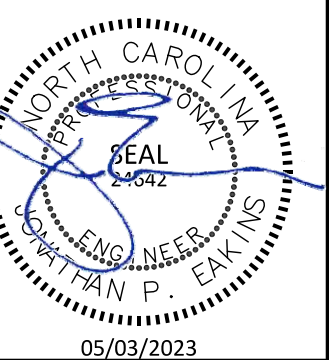
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CLIENT:  
PRESERVE AT JONES DAIRY

REVISIONS

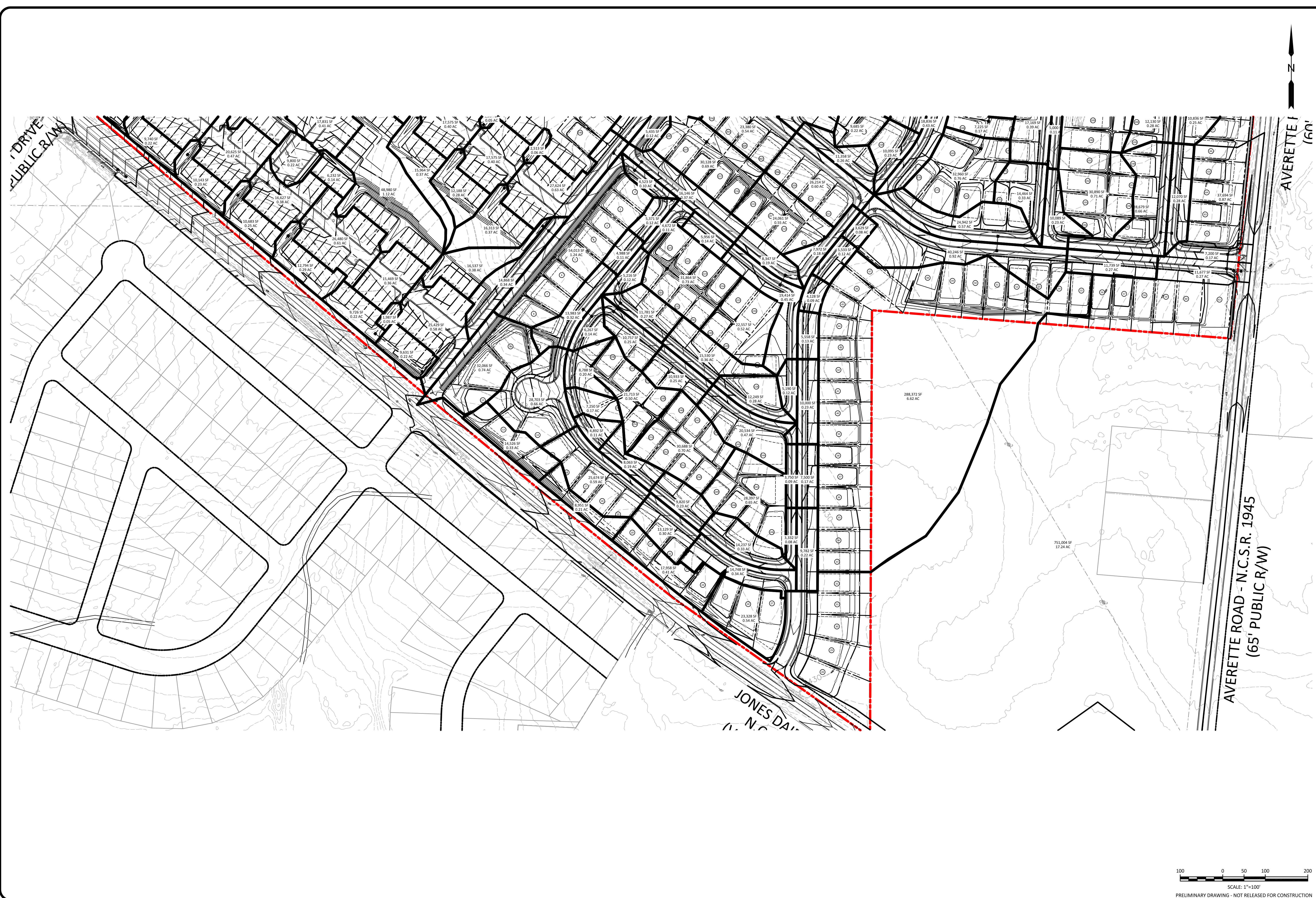
NO.	DATE	DESCRIPTION

PRESERVE AT JONES DAIRY CENTRAL  
ROLESVILLE, NC  
STORM SEWER DA MAP - NORTH



PROJECT NO: ---  
DESIGN BY: JPE  
DRAWN BY: JPE  
SCALE: 1"=200'  
DATE: 2023-05-03  
SHEET NO: **SD1.1**

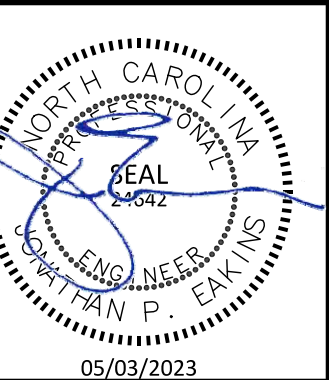
PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



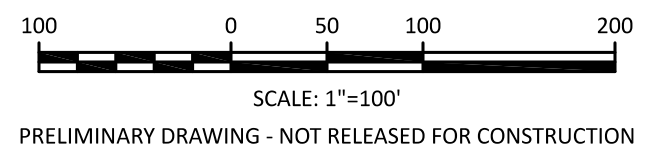
CLIENT:  
 PRESERVE AT JONES DAIRY

NO.	REVISIONS

**PRESERVE AT JONES DAIRY CENTRAL**  
 ROLESVILLE, NC  
 STORM SEWER DA MAP - SOUTH



PROJECT NO: ...  
 DESIGN BY: JPE  
 DRAWN BY: JPE  
 SCALE: 1"=200'  
 DATE: 2023-05-03  
 SHEET NO: **SD1.2**



# **APPENDIX B – STORM SEWER AND RUNOFF CALCULATIONS**



# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length (ft)	Drng Area		Rational	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
101 TO 100	50.86	0.070	54.988	0.80	0.06	34.98	5.0	10.96	5.55	194.15	199.80	9.58	66	0.35	388.18	388.00	392.56	392.37	399.63	399.00	1
102 TO 101	33.94	0.080	28.822	0.80	0.06	17.75	5.0	10.90	5.56	98.75	101.66	8.85	48	0.50	389.85	389.68	393.15	393.02	399.63	399.63	2
103 TO 102	47.52	0.180	14.772	0.70	0.13	9.92	5.0	10.84	5.57	55.31	142.25	9.37	42	2.00	391.40	390.45	393.68	392.35	398.55	399.63	3
104 TO 103	50.84	0.170	14.202	0.70	0.12	9.52	5.0	10.80	5.58	53.17	140.93	11.32	36	4.47	394.17	391.90	396.49	393.53	399.27	398.55	4
105 TO 104	89.94	0.250	14.032	0.70	0.18	9.40	5.0	10.65	5.61	52.77	66.72	9.35	36	1.00	395.17	394.27	397.49	396.43	401.19	399.27	5
106 TO 105	34.00	0.360	13.782	0.70	0.25	9.23	5.0	10.59	5.62	51.89	66.69	9.11	36	1.00	395.61	395.27	397.91	397.48	401.19	401.19	6
107 TO 106	145.41	0.140	13.422	0.70	0.10	8.98	5.0	10.39	5.66	50.84	81.66	9.94	36	1.50	397.89	395.71	400.16	397.57	404.22	401.19	7
108 TO 107	74.23	0.320	12.612	0.70	0.22	8.41	5.0	10.27	5.69	47.83	66.59	8.95	36	1.00	399.59	398.85	401.79	400.90	406.08	404.22	8
109 TO 108	184.76	0.300	12.292	0.07	0.02	8.19	5.0	9.96	5.75	47.07	66.74	7.92	36	1.00	401.54	399.69	403.73	402.25	411.62	406.08	9
110 TO 109	34.00	0.590	11.992	0.70	0.41	8.17	5.0	9.90	5.76	47.05	66.69	8.72	36	1.00	401.98	401.64	404.17	403.74	411.62	411.62	10
111 TO 110	90.18	0.100	11.402	0.70	0.07	7.75	5.0	9.75	5.79	44.91	66.63	8.77	36	1.00	402.98	402.08	405.12	404.04	414.50	426.00	11
112 TO 111	105.17	0.100	11.302	0.70	0.07	7.68	5.0	9.58	5.83	44.79	66.64	8.81	36	1.00	404.13	403.08	406.26	405.02	418.20	414.50	12
113 TO 112	216.59	0.001	10.902	0.80	0.00	7.40	5.0	9.20	5.91	43.77	63.28	7.58	36	0.90	406.18	404.23	408.29	406.75	419.06	418.20	13
114 TO 113	63.55	0.100	10.901	0.70	0.07	7.40	5.0	9.09	5.94	43.93	66.41	7.66	36	0.99	406.91	406.28	409.02	408.74	419.05	419.06	14
115 TO 114	111.55	0.001	10.431	0.80	0.00	7.07	5.0	8.91	5.98	42.28	66.83	7.40	36	1.00	408.13	407.01	410.20	409.53	422.70	419.05	15
116 TO 115	58.94	0.140	0.140	0.70	0.10	0.10	5.0	5.00	7.04	0.69	6.46	2.96	15	1.00	416.70	416.11	417.03	416.39	425.37	422.70	16
117 TO 115	117.30	0.120	10.290	0.70	0.08	6.97	5.0	8.71	6.02	42.00	66.61	7.45	36	1.00	409.40	408.23	411.47	410.68	422.30	422.70	17
118 TO 117	100.00	0.110	8.810	0.70	0.08	6.00	5.0	8.53	6.06	36.38	41.01	8.81	30	1.00	410.90	409.90	412.92	411.81	421.30	422.30	18
119 TO 118	29.33	0.120	8.700	0.70	0.08	5.92	5.0	8.48	6.08	35.99	40.78	8.61	30	0.99	411.29	411.00	413.30	412.96	421.16	421.30	19
120 TO 119	46.57	0.270	8.580	0.70	0.19	5.84	5.0	8.40	6.10	35.59	41.20	8.11	30	1.01	411.86	411.39	413.85	413.61	420.29	421.16	20
121 TO 120	26.00	0.250	6.950	0.70	0.18	4.70	5.0	8.35	6.11	28.69	41.01	5.98	30	1.00	412.22	411.96	414.51	414.44	420.29	420.29	21
122 TO 121	52.63	0.140	6.700	0.70	0.10	4.52	5.0	8.24	6.13	27.74	37.07	7.63	30	0.82	412.75	412.32	414.52	414.03	420.63	420.29	22

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 10-yrs. Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length		Drng Area		Rational	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
	Incr (ac)	Total (ac)	Incr	Total		Inlet (min)	Syst (min)	Incr	Total					Inlet (min)	Syst (min)	Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
123 TO 122	0.200	6.460	0.14	4.36	0.70	0.14	4.36	5.0	8.07	6.17	26.89	41.09	7.82	30	1.00	413.78	412.85	415.51	414.43	421.15	420.63	23
124 TO 123	0.170	3.750	0.12	2.55	0.70	0.12	2.55	5.0	7.88	6.22	15.86	22.60	7.04	24	1.00	415.15	414.28	416.56	415.57	422.20	421.15	24
125 TO 124	0.110	3.580	0.08	2.43	0.70	0.08	2.43	5.0	7.74	6.26	15.21	22.64	6.04	24	1.00	415.93	415.25	417.31	416.89	423.02	422.20	25
126 TO 125	0.190	1.390	0.13	0.97	0.70	0.13	0.97	5.0	5.95	6.74	6.56	12.84	7.90	15	3.95	420.27	416.68	421.29	417.35	424.12	423.02	26
127 TO 126	0.230	1.200	0.16	0.84	0.70	0.16	0.84	5.0	5.55	6.86	5.76	6.96	5.39	15	1.16	422.15	420.37	423.11	421.46	426.00	424.12	27
128 TO 127	0.330	0.670	0.23	0.47	0.70	0.23	0.47	5.0	5.10	7.00	3.28	6.95	3.56	15	1.16	423.99	422.25	424.72	423.50	428.01	426.00	28
129 TO 128	0.340	0.340	0.24	0.24	0.70	0.24	0.24	5.0	5.00	7.04	1.67	6.46	2.41	15	1.00	424.36	424.09	424.94	424.97	428.11	428.01	29
130 TO 127	0.300	0.300	0.21	0.21	0.70	0.21	0.21	5.0	5.00	7.04	1.48	6.42	1.61	15	0.99	422.81	422.55	423.58	423.59	426.06	426.00	30
131 TO 125	0.590	2.080	0.41	1.38	0.70	0.41	1.38	5.0	7.65	6.28	8.67	10.42	6.21	18	0.98	419.67	419.35	420.79	420.44	423.24	423.02	31
132 TO 131	0.330	1.490	0.21	0.97	0.65	0.21	0.97	5.0	7.18	6.40	6.20	7.45	4.01	18	0.50	420.45	419.77	421.56	421.17	425.70	423.24	32
133 TO 132	0.210	1.160	0.14	0.75	0.65	0.14	0.75	5.0	6.90	6.47	4.88	4.60	4.22	15	0.51	421.05	420.70	422.17	421.82	424.30	425.70	33
134 TO 133	0.410	0.950	0.27	0.62	0.65	0.27	0.62	5.0	6.17	6.68	4.12	5.54	4.91	15	0.74	422.75	421.15	423.56	421.95	426.30	424.30	34
135 TO 134	0.540	0.540	0.35	0.35	0.65	0.35	0.35	5.0	5.00	7.04	2.47	4.57	4.00	15	0.50	424.19	422.85	424.82	423.48	427.44	426.30	35
136 TO 123	0.660	0.660	0.46	0.46	0.70	0.46	0.46	5.0	5.00	7.04	3.25	6.46	4.64	15	1.00	417.40	417.14	418.12	417.81	421.15	421.15	36
137 TO 123	0.500	1.850	0.33	1.20	0.65	0.33	1.20	5.0	6.05	6.71	8.07	20.94	7.70	18	3.97	417.00	414.78	418.08	415.51	420.60	421.15	37
138 TO 137	0.700	1.350	0.46	0.88	0.65	0.46	0.88	5.0	5.56	6.86	6.02	7.50	6.26	15	1.35	420.05	417.35	421.03	418.21	423.40	420.60	38
139 TO 138	0.650	0.650	0.42	0.42	0.65	0.42	0.42	5.0	5.00	7.04	2.97	7.36	3.46	15	1.30	422.85	420.37	423.54	421.45	426.10	423.40	39
140 TO 122	0.100	0.100	0.07	0.07	0.70	0.07	0.07	5.0	5.00	7.04	0.49	6.47	2.63	15	1.00	416.88	416.62	417.16	416.87	420.63	426.00	40
141 TO 120	0.360	1.360	0.25	0.95	0.70	0.25	0.95	5.0	5.57	6.86	6.53	18.19	7.08	18	3.00	418.56	414.52	419.54	415.18	422.11	420.29	41
142 TO 141	0.280	0.750	0.20	0.53	0.70	0.20	0.53	5.0	5.09	7.01	3.68	6.45	4.26	15	1.00	420.46	418.91	421.23	419.82	424.57	422.11	42
143 TO 142	0.470	0.470	0.33	0.33	0.70	0.33	0.33	5.0	5.00	7.04	2.31	6.46	4.13	15	1.00	420.82	420.56	421.43	421.12	424.57	424.57	43
144 TO 141	0.250	0.250	0.18	0.18	0.70	0.18	0.18	5.0	5.00	7.04	1.23	6.51	1.32	15	1.02	419.18	418.91	419.96	419.96	422.20	422.11	44

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 10-yrs. Project File = PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length (ft)	Drng Area		Rational	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
145 to 117	29.82	0.110	1.360	0.70	0.08	0.89	5.0	5.60	6.85	6.09	14.43	7.54	15	5.00	415.98	414.49	416.97	415.15	422.16	422.30	45
146 to 145	67.27	0.730	1.250	0.65	0.47	0.81	5.0	5.41	6.91	5.61	6.44	5.72	15	1.00	416.75	416.08	417.70	417.00	420.10	422.16	46
147 to 146	150.00	0.520	0.520	0.65	0.34	0.34	5.0	5.00	7.04	2.38	8.90	2.99	15	1.90	419.85	417.00	420.47	418.12	423.10	420.10	47
148 TO 114	26.00	0.370	0.370	0.70	0.26	0.26	5.0	5.00	7.04	1.82	6.45	3.83	15	1.00	415.15	414.89	415.69	415.38	419.05	419.05	48
149 TO 107	34.00	0.670	0.670	0.70	0.47	0.47	5.0	5.00	7.04	3.30	6.46	3.51	15	1.00	400.47	400.13	401.24	401.25	404.22	404.22	49
150 TO 103	34.01	0.390	0.390	0.70	0.27	0.27	5.0	5.00	7.04	1.92	6.45	3.94	15	1.00	395.75	395.41	396.30	395.91	398.55	398.55	50
151 TO 102	127.47	0.190	13.970	0.70	0.13	7.77	5.0	6.66	6.54	50.77	71.29	5.45	42	0.50	391.09	390.45	394.20	393.95	398.62	399.63	51
152 TO 151	116.44	0.040	13.490	0.80	0.03	7.43	5.0	6.40	6.61	49.11	47.07	7.55	36	0.50	392.17	391.59	394.77	394.19	399.75	398.62	52
153 TO 152	70.65	0.220	10.380	0.70	0.15	5.56	5.0	6.24	6.66	36.97	46.94	5.34	36	0.50	392.62	392.27	395.39	395.22	400.98	399.75	53
154 TO 153	100.00	0.350	9.870	0.70	0.25	5.20	5.0	6.01	6.72	34.94	47.16	5.54	36	0.50	393.22	392.72	395.58	395.42	402.62	400.98	54
155 TO 154	155.00	0.090	9.520	0.80	0.07	4.95	5.0	5.66	6.83	33.82	47.31	6.69	36	0.50	394.10	393.32	395.96	395.53	405.17	402.62	55
156 TO 155	155.00	0.350	0.620	0.70	0.25	0.43	5.0	5.16	6.98	3.03	6.46	4.69	15	1.00	402.48	400.93	403.18	401.54	407.72	405.17	56
157 TO 156	39.30	0.270	0.270	0.70	0.19	0.19	5.0	5.00	7.04	1.33	6.43	3.53	15	0.99	404.45	404.06	404.91	404.47	408.20	407.72	57
158 TO 155	139.32	8.600	8.600	0.50	4.30	4.30	5.0	5.00	7.04	30.25	29.07	6.72	30	0.50	395.30	394.60	397.46	396.76	398.50	405.17	58
159 TO 155	26.00	0.210	0.210	0.70	0.15	0.15	5.0	5.00	7.04	1.03	6.46	3.25	15	1.00	401.19	400.93	401.60	401.29	405.17	405.17	59
160 TO 153	26.00	0.290	0.290	0.70	0.20	0.20	5.0	5.00	7.04	1.43	6.45	3.58	15	1.00	398.44	398.18	398.92	398.61	400.98	400.98	60
161 TO 152	27.24	3.070	3.070	0.60	1.84	1.84	5.0	5.00	7.04	12.96	30.71	10.23	18	8.55	396.00	393.67	397.35	394.51	399.50	399.75	61
163 TO 151	26.00	0.290	0.290	0.70	0.20	0.20	5.0	5.00	7.04	1.43	6.46	3.58	15	1.00	394.87	394.61	395.35	395.04	398.62	398.62	62
163 TO 101	97.33	0.170	26.096	0.70	0.12	17.17	5.0	9.67	5.81	99.76	101.92	9.04	48	0.50	390.17	389.68	393.42	393.00	400.64	399.63	63
164 TO 163	34.00	0.330	25.926	0.70	0.23	17.05	5.0	9.61	5.82	99.29	101.58	8.62	48	0.50	390.44	390.27	393.87	393.74	400.64	400.64	64
165 TO 164	21.60	0.340	25.596	0.60	0.20	16.82	5.0	9.57	5.83	98.09	102.51	9.22	48	0.51	390.65	390.54	393.80	393.70	399.00	400.64	65
166 TO 165	132.24	0.001	25.256	0.60	0.00	16.62	5.0	9.33	5.88	97.77	101.48	8.72	48	0.50	391.41	390.75	394.67	394.19	401.00	399.00	66

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 10-ylrs. Project File = PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length (ft)	Drng Area		Rational	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
167 TO 166	63.87	1.850	25.255	0.55	1.02	16.61	5.0	9.21	5.91	98.19	101.67	8.63	48	0.50	391.83	391.51	395.18	394.96	400.00	401.00	67
168 TO 167	78.86	4.540	23.405	0.55	2.50	15.60	5.0	9.07	5.94	92.68	101.02	8.33	48	0.49	392.32	391.93	395.56	395.33	400.50	400.00	68
169 TO 168	302.42	0.010	18.865	0.75	0.01	13.10	5.0	8.50	6.07	79.55	101.50	7.83	48	0.50	393.93	392.42	396.61	395.97	406.00	400.50	69
170 TO 169	123.61	0.350	18.855	0.65	0.23	13.09	5.0	8.26	6.13	80.22	101.73	8.21	48	0.50	394.65	394.03	397.36	397.18	405.34	406.00	70
171 TO 170	51.50	0.001	18.505	0.75	0.00	12.87	5.0	8.17	6.15	79.12	102.07	7.60	48	0.50	395.01	394.75	398.01	397.94	405.87	405.34	71
172 TO 171	65.12	0.400	6.311	0.75	0.30	4.35	5.0	7.56	6.30	27.39	47.48	4.30	36	0.51	396.34	396.01	398.75	398.70	404.91	405.87	72
173 TO 172	121.67	0.340	5.611	0.75	0.26	3.87	5.0	7.26	6.38	24.67	29.04	6.63	30	0.50	397.45	396.84	399.21	398.62	403.73	404.91	73
174 TO 173	86.27	0.340	4.841	0.75	0.26	3.35	5.0	7.03	6.44	21.59	28.96	5.89	30	0.50	397.98	397.55	399.62	399.44	402.68	403.73	74
175 TO 174	60.11	0.360	3.911	0.75	0.27	2.75	5.0	6.87	6.48	17.79	28.97	5.05	30	0.50	398.38	398.08	399.96	399.90	403.41	402.68	75
176 TO 175	129.83	0.410	3.551	0.75	0.31	2.48	5.0	6.50	6.58	16.30	16.00	5.80	24	0.50	399.53	398.88	401.20	400.55	404.81	403.41	76
177 TO 176	168.17	0.001	2.351	0.75	0.00	1.69	5.0	6.00	6.73	11.39	16.62	4.44	24	0.54	400.53	399.62	401.85	401.51	406.09	404.81	77
178 TO 177	20.50	0.170	0.170	0.75	0.13	0.13	5.0	5.00	7.04	0.90	14.47	1.91	15	5.02	402.40	401.37	402.78	402.25	406.82	406.09	78
179 TO 177	36.99	0.540	2.180	0.75	0.41	1.57	5.0	5.89	6.76	10.59	15.78	5.39	24	0.49	400.81	400.63	402.01	401.83	405.88	406.09	79
180 TO 179	150.01	0.480	1.400	0.75	0.36	1.01	5.0	5.60	6.85	6.88	15.68	6.80	18	2.23	404.68	401.33	405.68	402.06	408.93	405.88	80
181 TO 180	152.00	0.470	0.700	0.75	0.35	0.50	5.0	5.27	6.95	3.49	10.48	5.93	15	2.63	408.93	404.93	409.68	405.45	413.38	408.93	81
182 TO 181	62.00	0.230	0.230	0.65	0.15	0.15	5.0	5.00	7.04	1.05	6.46	3.33	15	1.00	409.65	409.03	410.06	409.38	412.90	413.38	82
188 TO 180	62.00	0.220	0.220	0.65	0.14	0.14	5.0	5.00	7.04	1.01	6.46	1.29	15	1.00	405.55	404.93	406.14	406.14	408.80	408.93	83
187 TO 179	22.00	0.240	0.240	0.65	0.16	0.16	5.0	5.00	7.04	1.10	6.46	1.45	15	1.00	401.78	401.56	402.43	402.44	405.03	405.88	84
186 TO 176	22.00	0.790	0.790	0.60	0.47	0.47	5.0	5.00	7.04	3.33	14.85	2.92	18	2.00	400.81	400.37	401.56	401.66	403.06	404.81	85
185 TO 174	22.00	0.590	0.590	0.60	0.35	0.35	5.0	5.00	7.04	2.49	4.57	2.80	15	0.50	399.34	399.23	400.15	400.13	401.83	402.68	86
184 TO 173	62.31	0.430	0.430	0.60	0.26	0.26	5.0	5.00	7.04	1.82	6.44	3.92	15	0.99	400.75	400.13	401.29	400.60	404.00	403.73	87
183 TO 172	29.50	0.300	0.300	0.60	0.18	0.18	5.0	5.00	7.04	1.27	9.13	2.22	15	2.00	398.68	398.09	399.13	399.04	404.04	404.91	88

# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length (ft)	Drng Area		Rational	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
189 TO 171	66.79	0.470	12.193	0.75	0.35	8.52	5.0	8.08	6.17	52.55	94.40	10.14	36	2.00	397.35	396.01	399.66	397.89	406.69	405.87	89
190 TO 189	65.12	0.010	10.973	0.75	0.01	7.68	5.0	7.98	6.20	47.57	66.63	8.89	36	1.00	398.10	397.45	400.30	399.51	407.65	406.69	90
191 TO 190	80.30	0.001	10.903	0.80	0.00	7.63	5.0	7.85	6.23	47.54	66.57	8.94	36	1.00	399.00	398.20	401.20	400.23	408.73	407.65	91
192 TO 191	183.08	0.400	5.321	0.75	0.30	3.71	5.0	6.56	6.57	24.36	50.26	6.04	30	1.50	402.25	399.50	403.90	401.95	411.12	408.73	92
193 TO 192	131.67	0.400	4.491	0.75	0.30	3.13	5.0	6.37	6.62	20.74	62.62	8.38	30	2.33	405.42	402.35	406.94	403.44	412.90	411.12	93
194 TO 193	131.67	0.630	3.761	0.75	0.47	2.62	5.0	6.12	6.69	17.54	25.78	7.67	24	1.30	407.63	405.92	409.11	407.19	414.68	412.90	94
195 TO 194	144.67	0.001	2.701	0.75	0.00	1.87	5.0	5.82	6.78	12.69	25.78	5.11	24	1.30	409.61	407.73	410.87	409.61	416.78	414.68	95
196 TO 195	42.59	0.340	2.700	0.70	0.24	1.87	5.0	5.77	6.80	12.71	50.46	8.24	24	4.98	411.83	409.71	413.09	410.54	417.09	416.78	96
197 TO 196	34.00	1.240	1.980	0.70	0.87	1.39	5.0	5.70	6.81	9.45	14.85	7.05	18	2.00	413.01	412.33	414.18	413.31	417.09	417.09	97
198 TO 197	228.85	0.740	0.740	0.70	0.52	0.52	5.0	5.00	7.04	3.64	6.46	3.98	15	1.00	415.88	413.59	416.64	414.64	421.22	417.09	98
199 TO 196	18.00	0.380	0.380	0.65	0.25	0.25	5.0	5.00	7.04	1.74	6.46	1.75	15	1.00	412.76	412.58	413.62	413.63	416.01	417.09	99
200 TO 194	55.50	0.060	0.060	0.60	0.04	0.04	5.0	5.00	7.04	0.25	6.43	2.21	15	0.99	411.09	410.54	411.29	410.71	414.34	414.68	100
201 TO 194	29.50	0.370	0.370	0.65	0.24	0.24	5.0	5.00	7.04	1.69	6.40	3.77	15	0.98	410.49	410.20	411.01	410.67	413.74	414.68	101
202 TO 193	29.50	0.280	0.280	0.65	0.18	0.18	5.0	5.00	7.04	1.28	6.40	3.46	15	0.98	408.69	408.40	409.14	408.80	411.94	412.90	102
203 TO 193	55.50	0.050	0.050	0.60	0.03	0.03	5.0	5.00	7.04	0.21	6.43	2.10	15	0.99	409.93	409.38	410.11	409.54	413.18	412.90	103
204 TO 192	29.50	0.370	0.370	0.65	0.24	0.24	5.0	5.00	7.04	1.69	6.40	3.77	15	0.98	406.88	406.59	407.40	407.06	410.13	411.12	104
205 TO 192	55.50	0.060	0.060	0.60	0.04	0.04	5.0	5.00	7.04	0.25	6.43	2.21	15	0.99	407.75	407.20	407.95	407.37	411.00	411.12	105
206 TO 191	72.74	0.060	0.060	0.60	0.04	0.04	5.0	5.00	7.04	0.25	6.47	2.23	15	1.00	405.85	405.12	406.05	405.29	409.10	408.73	106
207 TO 191	45.19	0.660	5.521	0.70	0.46	3.89	5.0	7.76	6.25	24.30	40.92	7.39	30	1.00	403.24	402.79	404.89	404.32	408.16	408.73	107
208 TO 207	61.19	0.410	4.861	0.75	0.31	3.43	5.0	7.63	6.28	21.52	22.58	7.89	24	1.00	404.35	403.74	405.99	405.34	409.30	408.16	108
209 TO 208	133.33	0.220	3.331	0.75	0.17	2.39	5.0	7.34	6.36	15.19	22.59	6.10	24	1.00	406.30	404.97	407.68	406.57	415.20	409.30	109
210 TO 209	135.67	0.001	2.971	0.70	0.00	2.13	5.0	7.09	6.42	13.70	28.14	7.27	24	1.55	408.50	406.40	409.81	407.44	418.07	415.20	110

# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length (ft)	Drng Area		Rational	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
211 TO 210	36.06	0.380	0.630	0.75	0.29	0.46	5.0	5.26	6.95	3.20	16.34	6.51	15	6.41	413.43	411.12	414.15	411.55	417.84	418.07	111
212 TO 211	62.00	0.250	0.250	0.70	0.18	0.18	5.0	5.00	7.04	1.23	6.46	2.24	15	1.00	414.15	413.53	414.59	414.42	417.40	417.84	112
213 TO 210	116.24	0.610	2.340	0.75	0.46	1.67	5.0	6.82	6.50	10.87	22.59	6.21	24	1.00	412.27	411.11	413.44	412.13	422.29	418.07	113
214 TO 213	304.00	0.360	1.440	0.75	0.27	1.03	5.0	6.02	6.72	6.90	10.50	5.87	18	1.00	415.81	412.77	416.81	413.67	424.79	422.29	114
215 TO 214	103.43	0.580	0.580	0.75	0.44	0.44	5.0	5.00	7.04	3.06	12.33	6.06	15	3.64	419.83	416.06	420.53	416.51	423.58	424.79	115
216 Tl 214	65.75	0.060	0.500	0.60	0.04	0.32	5.0	5.79	6.79	2.19	6.47	4.15	15	1.00	416.72	416.06	417.31	416.58	424.62	424.79	116
217 TO 216	46.25	0.220	0.440	0.65	0.14	0.29	5.0	5.62	6.84	1.96	6.44	3.99	15	0.99	417.28	416.82	417.84	417.32	425.57	424.62	117
218 TO 217	142.00	0.220	0.220	0.65	0.14	0.14	5.0	5.00	7.04	1.01	6.46	2.30	15	1.00	418.80	417.38	419.20	418.01	422.05	425.57	118
219 TO 213	62.00	0.290	0.290	0.65	0.19	0.19	5.0	5.00	7.04	1.33	6.46	3.58	15	1.00	417.80	417.18	418.26	417.58	421.80	422.29	119
220 TO 209	58.00	0.140	0.140	0.65	0.09	0.09	5.0	5.00	7.04	0.64	6.46	2.89	15	1.00	410.95	410.37	411.27	410.64	414.20	415.20	120
221 TO 208	61.07	1.120	1.120	0.65	0.73	0.73	5.0	5.00	7.04	5.12	9.64	6.34	15	2.23	407.33	405.97	408.24	406.67	410.50	409.30	121
222 TO 190	51.50	0.060	0.060	0.60	0.04	0.04	5.0	5.00	7.04	0.25	6.43	2.21	15	0.99	404.67	404.16	404.87	404.33	407.92	407.65	122
223 TO 189	29.50	0.750	0.750	0.65	0.49	0.49	5.0	5.00	7.04	3.43	6.51	4.74	15	1.02	402.59	402.29	403.33	402.98	405.84	406.69	123
314 TO 112	78.56	0.300	0.300	0.70	0.21	0.21	5.0	5.00	7.04	1.48	6.48	3.72	15	1.01	413.48	412.69	413.97	413.11	417.23	418.20	124

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 10-yrs.

Project File = PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Storm Sewer Tabulation

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line ID	Length (ft)		Drng Area (ac)		Rational (C)	C x A		Tc (min)		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev (ft)		HGL Elev (ft)		Surface Elev (ft)		Line No
	Incr	Total	Incr	Total		Inlet	Syst	Incr	Total					Size (in)	Slope (%)	Up	Dn	Up	Dn	Up	Dn	
301 TO 300	158.01	0.120	26.874	0.70	0.08	17.07	5.0	9.33	5.88	100.42	143.64	10.67	393.58	392.00	396.54	394.67	411.53	409.00	1			
318 TO 301	53.51	0.470	1.950	0.65	0.31	1.27	5.0	5.96	6.74	8.54	10.45	6.21	405.40	404.87	406.52	405.94	409.50	411.53	2			
319 TO 318	150.00	0.770	1.480	0.65	0.50	0.96	5.0	5.56	6.86	6.60	10.50	4.68	407.00	405.50	407.98	406.84	411.00	409.50	3			
320 TO 319	200.00	0.710	0.710	0.65	0.46	0.46	5.0	5.00	7.04	3.25	7.64	3.70	410.05	407.25	410.77	408.29	413.80	411.00	4			
302 TO 301	121.15	0.030	22.024	0.70	0.02	13.77	5.0	9.16	5.92	81.55	143.65	9.79	395.96	394.75	398.63	397.14	413.22	411.53	5			
303 TO 302	194.20	0.001	11.892	0.70	0.00	8.05	5.0	8.84	5.99	48.24	66.69	9.19	398.90	396.96	401.12	398.94	415.40	413.22	6			
304 TO 303	99.50	0.060	10.151	0.70	0.04	6.92	5.0	8.67	6.03	41.73	66.69	7.20	400.00	399.00	402.06	401.65	414.57	415.40	7			
305 TO 304	180.50	0.190	5.691	0.70	0.13	3.86	5.0	7.19	6.39	24.67	41.01	7.71	402.30	400.50	403.96	401.96	412.58	414.57	8			
306 TO 305	119.54	0.030	3.500	0.70	0.02	2.39	5.0	6.94	6.46	15.47	22.62	7.02	404.00	402.80	405.39	404.07	413.40	412.58	9			
307 TO 306	51.61	0.170	3.470	0.70	0.12	2.37	5.0	6.82	6.49	15.40	22.62	6.16	404.62	404.10	406.01	405.70	413.39	413.40	10			
308 TO 307	26.00	0.210	3.300	0.70	0.15	2.25	5.0	6.78	6.51	14.66	32.10	7.16	405.24	404.72	406.60	405.87	413.39	413.39	11			
309 TO 308	51.59	0.140	1.990	0.70	0.10	1.39	5.0	6.68	6.53	9.10	31.96	6.33	406.97	405.94	408.04	406.78	414.49	413.39	12			
363 TO 309	32.89	0.150	0.150	0.70	0.11	0.11	5.0	5.00	7.04	0.74	6.45	2.97	410.95	410.62	411.29	410.92	414.70	414.49	13			
310 TO 309	110.98	0.080	1.700	0.70	0.06	1.19	5.0	6.32	6.63	7.90	15.92	4.96	407.62	407.07	408.62	408.09	415.68	414.49	14			
311 TO 310	74.28	0.130	1.620	0.70	0.09	1.13	5.0	6.07	6.71	7.60	15.96	4.63	408.09	407.72	409.07	408.82	416.43	415.68	15			
312 TO 311	109.40	0.090	1.490	0.70	0.06	1.04	5.0	5.70	6.82	7.11	16.02	4.48	408.74	408.19	409.68	409.27	417.80	416.43	16			
364 TO 312	198.16	0.260	0.860	0.70	0.18	0.60	5.0	5.11	7.00	4.21	6.46	5.22	415.42	413.44	416.24	414.18	419.61	417.80	17			
365 TO 364	34.00	0.600	0.600	0.70	0.42	0.42	5.0	5.00	7.04	2.96	6.46	3.59	415.86	415.52	416.55	416.48	419.61	419.61	18			
313 TO 312	34.00	0.540	0.540	0.70	0.38	0.38	5.0	5.00	7.04	2.66	10.50	4.15	409.68	409.34	410.30	409.90	417.80	417.80	19			
360 TO 308	132.52	0.100	1.100	0.70	0.07	0.71	5.0	5.09	7.01	5.00	6.46	5.52	409.88	408.56	410.78	409.39	415.56	413.39	20			
361 TO 360	26.00	0.430	0.430	0.70	0.30	0.30	5.0	5.00	7.04	2.12	6.46	4.04	411.81	411.55	412.39	412.08	415.56	415.56	21			
362 TO 360	27.00	0.570	0.570	0.60	0.34	0.34	5.0	5.00	7.04	2.41	6.44	2.27	410.25	409.98	411.15	411.15	414.00	415.56	22			

# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length (ft)		Drng Area (ac)		Rational (C)	C x A		Tc (min)		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev (ft)		HGL Elev (ft)		Surface Elev (ft)		Line No
	Incr	Total	Incr	Total		Inlet	Syst	Incr	Total					Size (in)	Slope (%)	Up	Dn	Up	Dn	Up	Dn	
356 TO 305	0.001	1.371	0.70	0.89	5.0	5.85	0.00	0.89	5.0	6.77	6.03	6.45	5.82	15	1.00	407.41	407.25	408.40	408.24	412.60	412.58	23
357 TO 356	0.840	1.370	0.65	0.89	5.0	5.73	0.55	0.89	5.0	6.81	6.06	6.46	5.87	15	1.00	407.95	407.51	408.94	408.49	411.80	412.60	24
358 TO 357	0.310	0.530	0.65	0.34	5.0	5.24	0.20	0.34	5.0	6.96	2.40	9.79	2.98	15	2.30	412.65	408.23	413.27	409.40	416.50	411.80	25
359 TO 358	0.220	0.220	0.65	0.14	5.0	5.00	0.14	0.14	5.0	7.04	1.01	9.12	2.15	15	1.99	414.15	412.75	414.55	413.48	417.90	416.50	26
355 TO 305	0.630	0.630	0.70	0.44	5.0	5.00	0.44	0.44	5.0	7.04	3.10	6.46	4.57	15	1.00	408.83	408.57	409.54	409.22	412.58	412.58	27
338 TO 304	0.370	4.400	0.70	3.02	5.0	8.62	0.26	3.02	5.0	6.04	18.24	59.32	10.19	24	6.88	404.59	401.00	406.10	401.90	413.24	414.57	28
339 TO 338	0.140	4.030	0.70	2.76	5.0	8.56	0.10	2.76	5.0	6.06	16.71	22.62	7.01	24	1.00	404.95	404.69	406.40	406.08	413.24	413.24	29
340 TO 339	0.320	3.890	0.70	2.66	5.0	8.29	0.22	2.66	5.0	6.12	16.28	22.60	6.31	24	1.00	406.31	405.05	407.74	406.71	415.23	413.24	30
341 TO 340	0.230	3.140	0.70	2.14	5.0	7.84	0.16	2.14	5.0	6.23	13.30	22.64	5.44	24	1.00	408.40	406.41	409.69	408.11	418.92	415.23	31
342 TO 341	0.180	2.910	0.70	1.97	5.0	7.33	0.13	1.97	5.0	6.36	12.56	22.61	6.59	24	1.00	410.76	408.50	412.02	409.59	422.62	418.92	32
343 TO 342	0.080	2.730	0.70	1.85	5.0	7.27	0.06	1.85	5.0	6.37	11.78	22.62	6.12	24	1.00	411.12	410.86	412.34	412.00	422.62	422.62	33
343A TO 343	0.120	2.650	0.70	1.79	5.0	7.10	0.08	1.79	5.0	6.42	11.51	22.68	5.39	24	1.01	411.95	411.22	413.15	412.61	423.40	422.62	34
344 TO 343	0.090	1.280	0.70	0.90	5.0	6.95	0.06	0.90	5.0	6.46	5.79	25.95	7.96	18	6.10	419.30	412.45	420.22	412.96	424.55	423.40	35
345 TO 344	0.130	1.000	0.70	0.70	5.0	6.74	0.09	0.70	5.0	6.52	4.56	8.66	5.91	15	1.80	421.11	419.55	421.97	420.23	425.48	424.55	36
346 TO 345	0.230	0.870	0.70	0.61	5.0	6.40	0.16	0.61	5.0	6.61	4.03	6.46	5.12	15	1.00	422.34	421.21	423.14	421.94	426.63	425.48	37
347 TO 346	0.170	0.550	0.70	0.39	5.0	5.74	0.12	0.39	5.0	6.81	2.62	6.46	3.34	15	1.00	424.44	422.44	425.09	423.40	428.64	426.63	38
348 TO 347	0.220	0.300	0.70	0.21	5.0	5.15	0.15	0.21	5.0	6.99	1.47	6.46	2.63	15	1.00	426.04	424.54	426.52	425.29	430.15	428.64	39
349 TO 348	0.080	0.080	0.70	0.06	5.0	5.00	0.06	0.06	5.0	7.04	0.39	6.46	1.33	15	1.00	426.40	426.14	426.68	426.69	430.15	430.15	40
354 TO 347	0.080	0.080	0.70	0.06	5.0	5.00	0.06	0.06	5.0	7.04	0.39	7.49	0.73	15	1.35	424.89	424.54	425.34	425.34	428.64	428.64	41
353 TO 346	0.090	0.090	0.70	0.06	5.0	5.00	0.06	0.06	5.0	7.04	0.44	8.40	0.56	15	1.69	422.88	422.44	423.50	423.50	426.63	426.63	42
351 TO 344	0.190	0.190	0.70	0.13	5.0	5.00	0.13	0.13	5.0	7.04	0.94	6.13	3.16	15	0.90	420.28	419.62	420.67	419.96	424.39	424.55	43
315 TO 343A	0.000	1.250	0.00	0.81	0.0	6.04	0.00	0.81	0.0	6.71	5.46	10.50	4.58	18	1.00	412.96	412.45	413.85	413.49	423.91	423.40	44



# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length (ft)	Drng Area		Rational	C x A		Tc		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
316 TO 315	204.81	0.550	1.250	0.65	0.36	0.81	5.0	5.48	6.88	5.59	10.51	5.46	18	1.00	415.11	413.06	416.01	413.85	419.11	423.91	45
317 TO 316	150.00	0.700	0.700	0.65	0.46	0.46	5.0	5.00	7.04	3.20	6.46	4.76	15	1.00	416.86	415.36	417.58	415.99	420.11	419.11	46
350 TO 340	26.00	0.430	0.430	0.70	0.30	0.30	5.0	5.00	7.04	2.12	6.47	4.04	15	1.00	411.48	411.22	412.06	411.75	415.23	415.23	47
333 TO 303	67.00	0.170	1.740	0.65	0.11	1.13	5.0	5.93	6.75	7.63	10.50	5.99	18	1.00	409.04	408.37	410.09	409.35	414.53	415.40	48
334 TO 333	100.00	0.370	1.570	0.65	0.24	1.02	5.0	5.67	6.82	6.96	10.50	5.82	18	1.00	410.14	409.14	411.15	410.06	414.53	414.53	49
335 TO 334	100.00	0.270	1.200	0.65	0.18	0.78	5.0	5.39	6.91	5.39	6.46	5.66	15	1.00	411.39	410.39	412.32	411.27	415.53	414.53	50
336 TO 335	60.09	0.170	0.930	0.65	0.11	0.60	5.0	5.21	6.97	4.21	6.46	4.34	15	1.00	412.09	411.49	412.91	412.57	416.32	415.53	51
337 TO 336	66.97	0.760	0.760	0.65	0.49	0.49	5.0	5.00	7.04	3.48	6.46	4.24	15	1.00	412.86	412.19	413.61	413.04	416.61	416.32	52
322 TO 302	59.02	0.130	9.882	0.70	0.09	5.55	5.0	6.58	6.56	36.39	41.00	8.75	30	1.00	401.21	400.62	403.23	402.56	413.37	413.22	53
323 TO 322	26.00	0.580	9.752	0.70	0.41	5.46	5.0	6.53	6.57	35.87	41.01	8.13	30	1.00	401.57	401.31	403.58	403.54	413.37	413.37	54
324 TO 323	170.39	0.390	9.172	0.70	0.27	5.05	5.0	6.23	6.66	33.64	41.01	8.61	30	1.00	403.37	401.67	405.31	403.45	415.13	413.37	55
325 TO 324	200.00	0.330	8.672	0.70	0.23	4.70	5.0	5.86	6.77	31.81	41.01	8.46	30	1.00	405.47	403.47	407.36	405.18	417.37	415.13	56
326 TO 325	178.00	0.001	8.112	0.70	0.00	4.31	5.0	5.53	6.87	29.58	41.01	8.21	30	1.00	407.35	405.57	409.17	407.21	419.02	417.37	57
327 TO 326	90.79	0.570	8.111	0.70	0.40	4.31	5.0	5.37	6.92	29.80	41.01	8.14	30	1.00	408.36	407.45	410.19	409.13	418.81	419.02	58
328 TO 327	34.00	0.920	7.541	0.65	0.60	3.91	5.0	5.30	6.94	27.12	41.01	6.91	30	1.00	408.80	408.46	410.54	410.48	418.81	418.81	59
329 TO 328	24.75	0.001	6.621	0.70	0.00	3.31	5.0	5.25	6.95	23.02	22.62	8.08	24	1.00	409.55	409.30	411.25	411.00	419.11	418.81	60
330 TO 329	125.00	6.620	6.620	0.50	3.31	3.31	5.0	5.00	7.04	23.29	22.62	8.13	24	1.00	410.90	409.65	412.62	411.35	415.40	419.11	61
332 TO 325	27.86	0.230	0.230	0.70	0.16	0.16	5.0	5.00	7.04	1.13	6.46	3.34	15	1.00	413.73	413.45	414.16	413.83	417.48	417.37	62
331 TO 324	27.86	0.110	0.110	0.70	0.08	0.08	5.0	5.00	7.04	0.54	6.46	2.70	15	1.00	411.49	411.21	411.78	411.47	415.24	415.13	63
321 TO 302	26.00	0.220	0.220	0.70	0.15	0.15	5.0	5.00	7.04	1.08	6.46	3.28	15	1.00	409.47	409.21	409.89	409.58	413.22	413.22	64
366 TO 301	31.12	0.180	2.780	0.70	0.13	1.95	5.0	6.64	6.54	12.74	22.72	6.33	24	1.01	402.76	402.45	404.03	403.63	411.43	411.53	65
367 TO 366	88.52	0.210	2.270	0.70	0.15	1.59	5.0	6.42	6.61	10.50	10.50	6.74	18	1.00	404.15	403.26	405.39	404.49	412.21	411.43	66

# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

Line ID	Length (ft)	Drng Area (ac)		Rational (C)	C x A		Tc (min)		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev (ft)		HGL Elev (ft)		Surface Elev (ft)		Line No
		Incr	Total		Incr	Total	Inlet	Syst					Incr	Slope (%)	Up	Dn	Up	Dn	Up	Dn	
368 TO 367	117.23	0.280	1.740	0.70	0.20	1.22	5.0	6.12	6.69	8.15	10.50	6.17	18	1.00	405.32	404.15	406.41	405.16	414.68	412.21	67
368 TO 368	328.78	0.660	1.210	0.70	0.46	0.85	5.0	5.22	6.96	5.90	10.50	4.35	18	1.00	408.71	405.42	409.64	406.76	413.07	414.68	68
370 TO 369	73.25	0.270	0.270	0.70	0.19	0.19	5.0	5.00	7.04	1.33	9.48	2.27	15	2.16	410.64	409.06	411.10	410.02	414.39	413.07	69
374 TO 369	26.00	0.280	0.280	0.70	0.20	0.20	5.0	5.00	7.04	1.38	6.46	1.68	15	1.00	409.32	409.06	410.01	410.02	413.07	413.07	70
383 TO 368	26.00	0.250	0.250	0.70	0.18	0.18	5.0	5.00	7.04	1.23	6.47	3.40	15	1.00	410.93	410.67	411.37	411.07	414.68	414.68	71
372 TO 367	26.00	0.320	0.320	0.70	0.22	0.22	5.0	5.00	7.04	1.58	6.45	3.68	15	1.00	408.46	408.20	408.96	408.65	412.21	412.21	72
371 TO 366	26.00	0.330	0.330	0.70	0.23	0.23	5.0	5.00	7.04	1.63	6.45	3.70	15	1.00	407.68	407.42	408.19	407.88	411.43	411.43	73

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 10-yls.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0300.sws

# Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2022 v 3.0.0.29

12-12-2022

Line ID	Length (ft)	Drng Area (ac)		Rational (C)	C x A		Tc (min)		Intensity (in/hr)	Total Q (cfs)	Capacity (cfs)	Velocity (ft/s)	Line		Invert Elev (ft)		HGL Elev (ft)		Surface Elev (ft)		Line No
		Incr	Total		Incr	Total	Inlet	Syst					Incr	Total	Incr	Total	Incr	Total	Incr	Total	
401 TO 400	37.42	0.001	19.141	0.75	0.00	8.12	5.0	15.08	4.87	39.54	23.68	12.62	24	1.10	405.35	404.94	408.00	406.89	409.10	409.00	1
402 TO 401	17.46	0.100	19.140	0.90	0.09	8.11	5.0	15.06	4.88	39.56	16.24	12.59	24	0.52	405.94	405.85	408.54	408.00	409.25	409.10	2
403 TO 402	17.34	0.270	1.840	0.75	0.20	1.14	5.0	5.26	6.95	7.96	7.56	4.50	18	0.52	406.13	406.04	410.79	410.69	408.98	409.25	3
404 TO 403	34.00	0.700	1.570	0.60	0.42	0.94	5.0	5.14	6.99	6.59	7.43	3.73	18	0.50	406.40	406.23	411.02	410.88	408.98	408.98	4
405 TO 404	71.28	0.870	0.870	0.60	0.52	0.52	5.0	5.00	7.04	3.67	19.67	2.08	18	3.51	409.00	406.50	411.25	411.17	412.00	408.98	5
406 TO 402	58.58	17.200	17.200	0.40	6.88	6.88	15.0	15.00	4.88	33.60	47.28	10.70	24	4.37	408.00	405.44	410.52	409.22	412.00	409.25	6

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 10-yls.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0400.sws

# **APPENDIX C – STORM SEWER HGL CALCULATIONS**

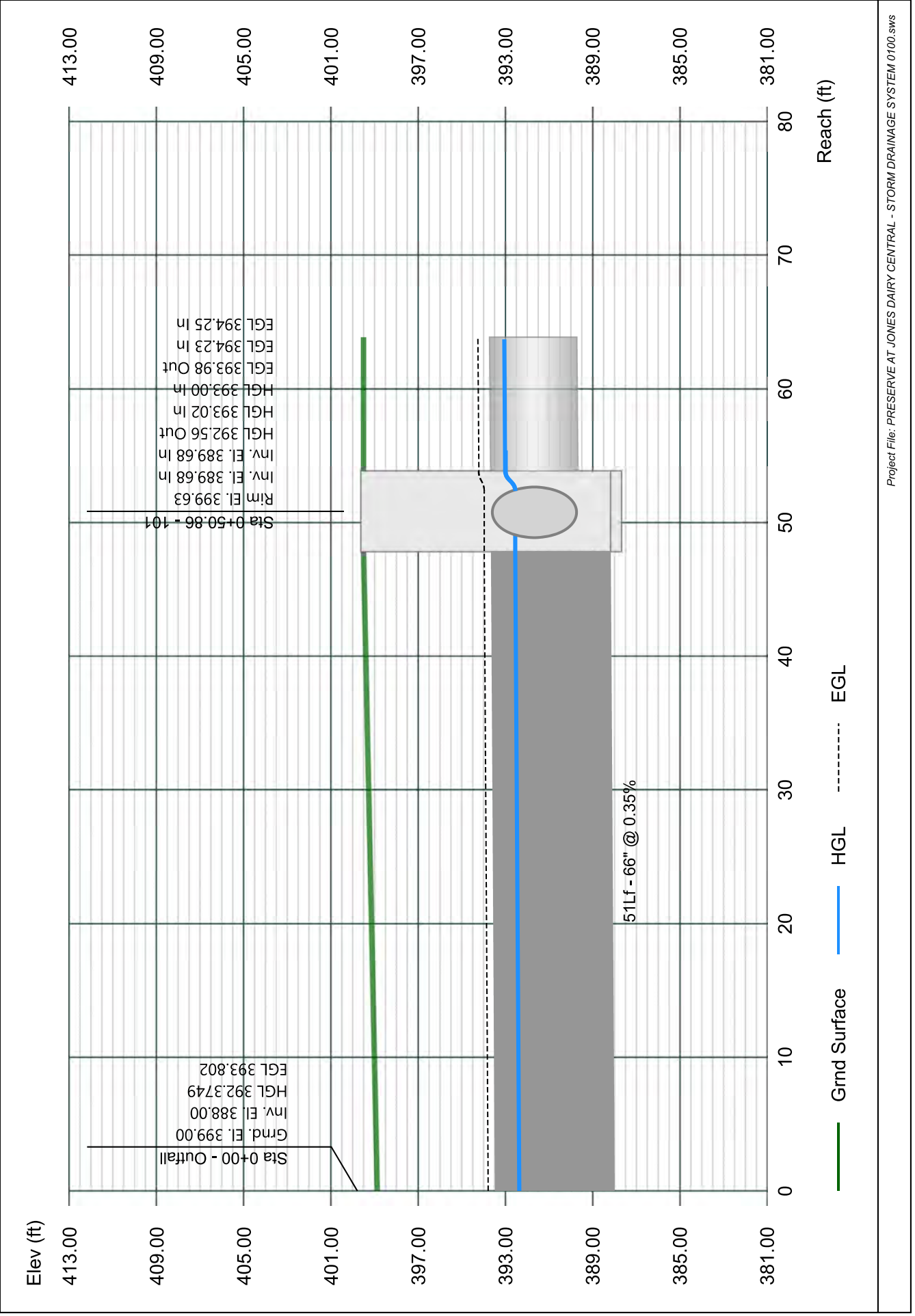
# 10-YEAR HGL

# Line 1 - 101 TO 100

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

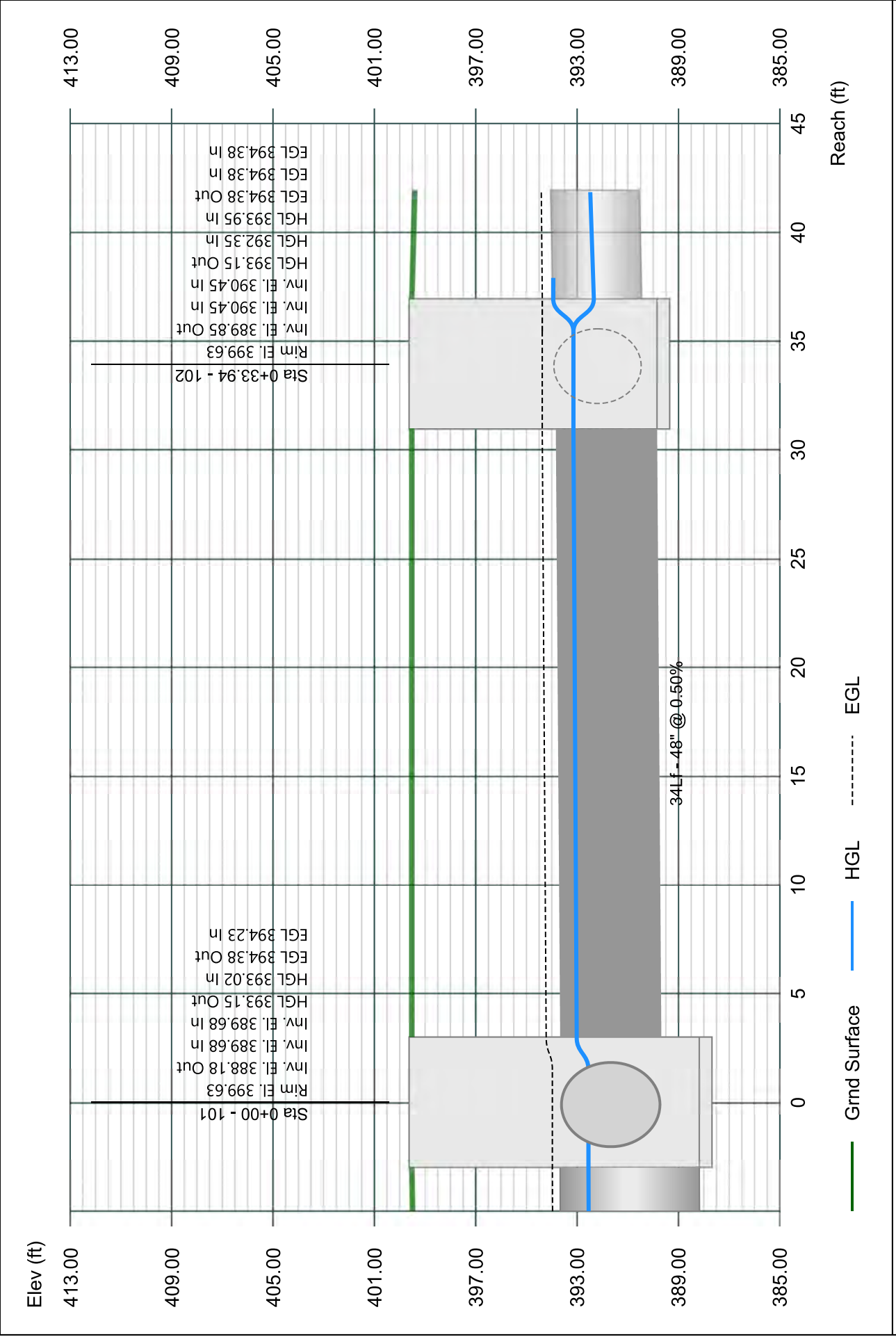


# Line 2 - 102 TO 101

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

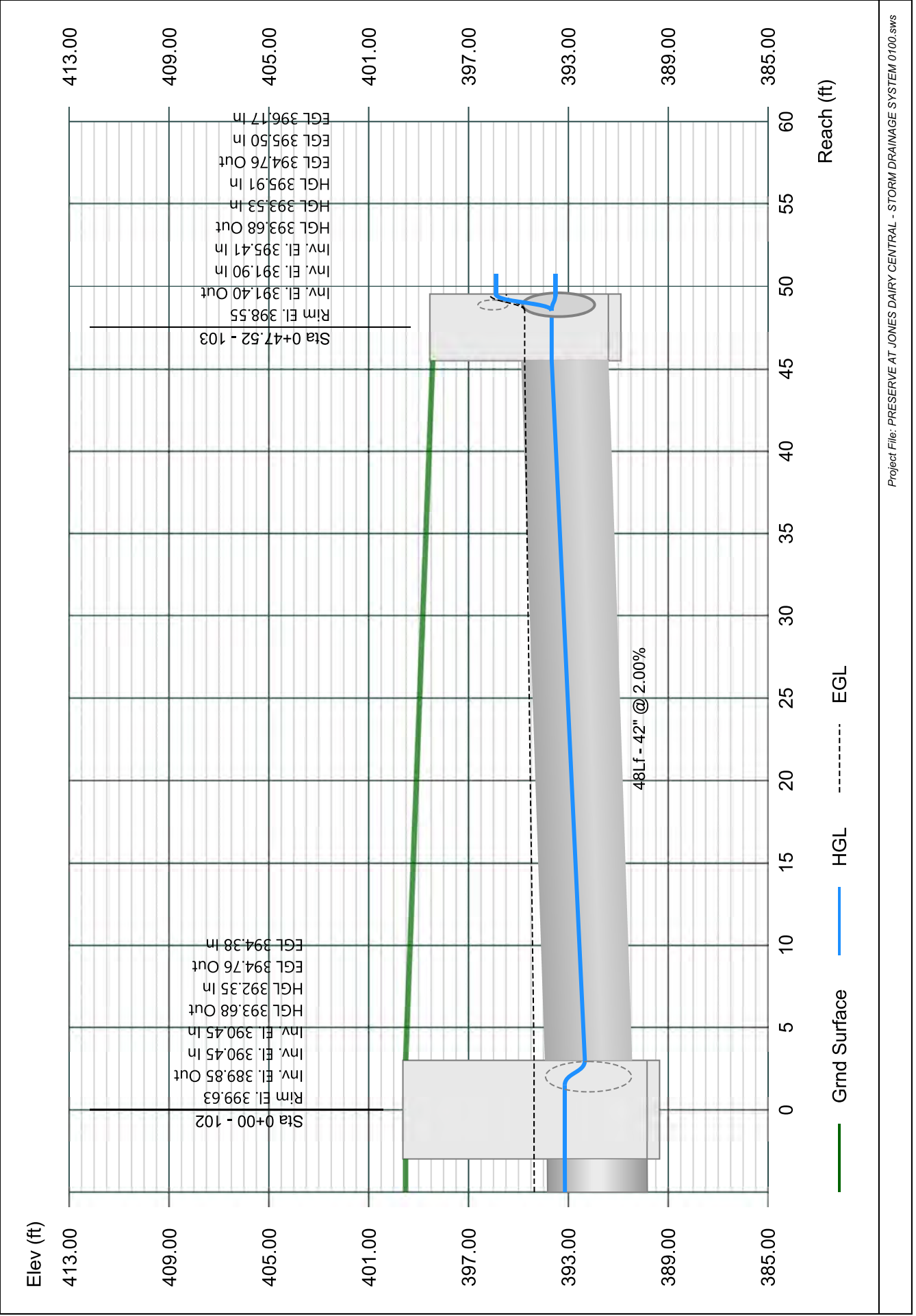


# Line 3 - 103 TO 102

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



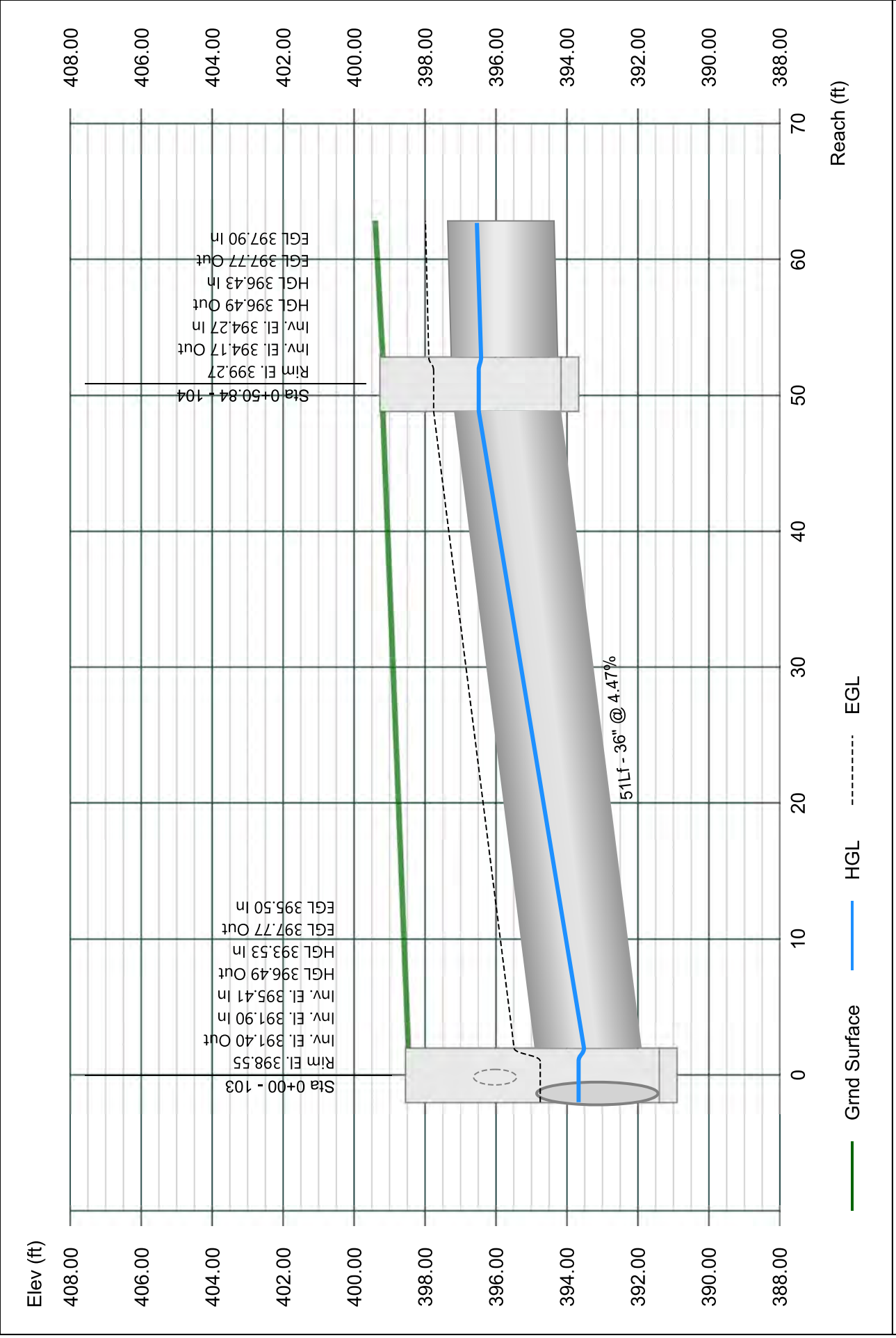


# Line 4 - 104 TO 103

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

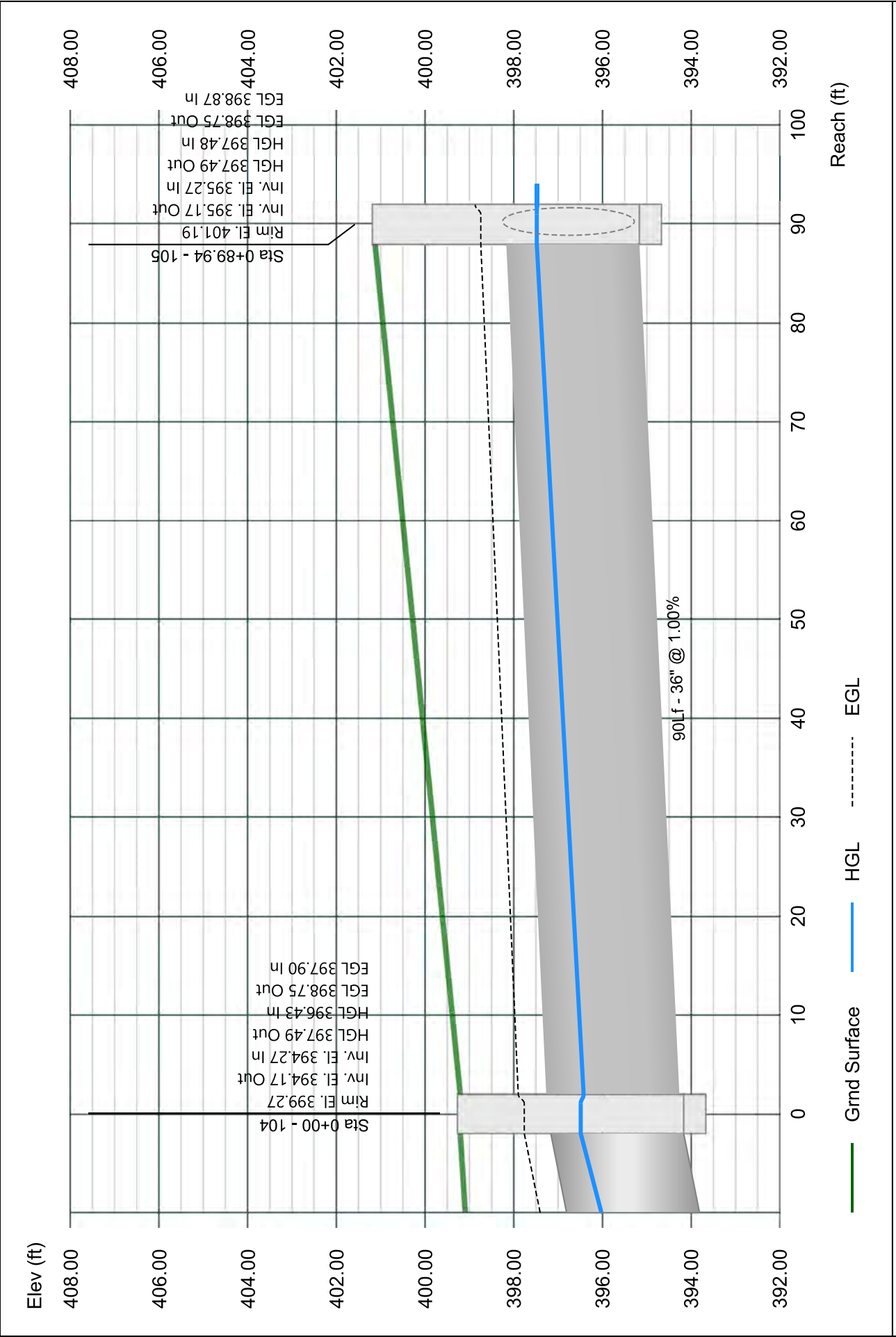


# Line 5 - 105 TO 104

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

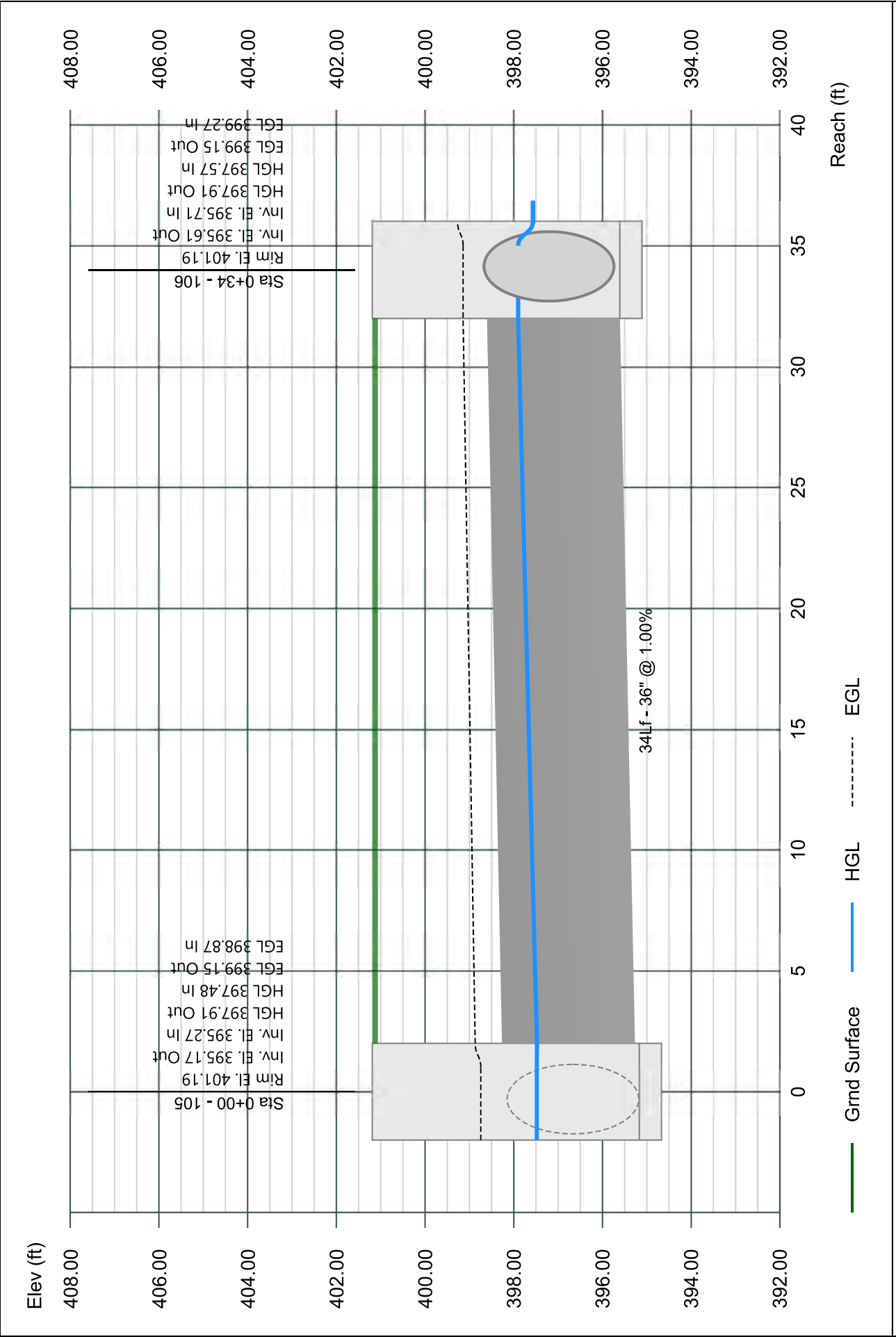


# Line 6 - 106 TO 105

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

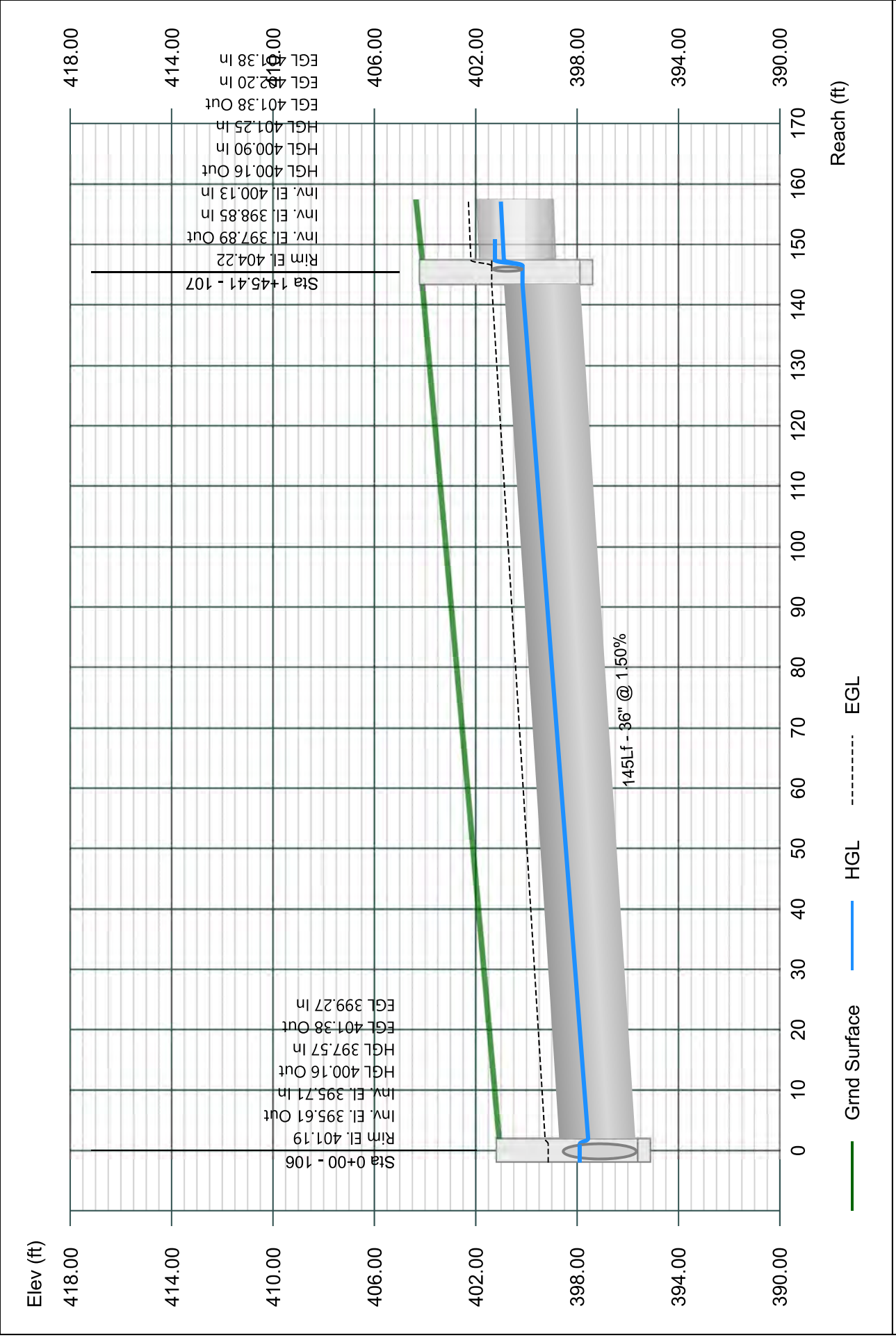


# Line 7 - 107 TO 106

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

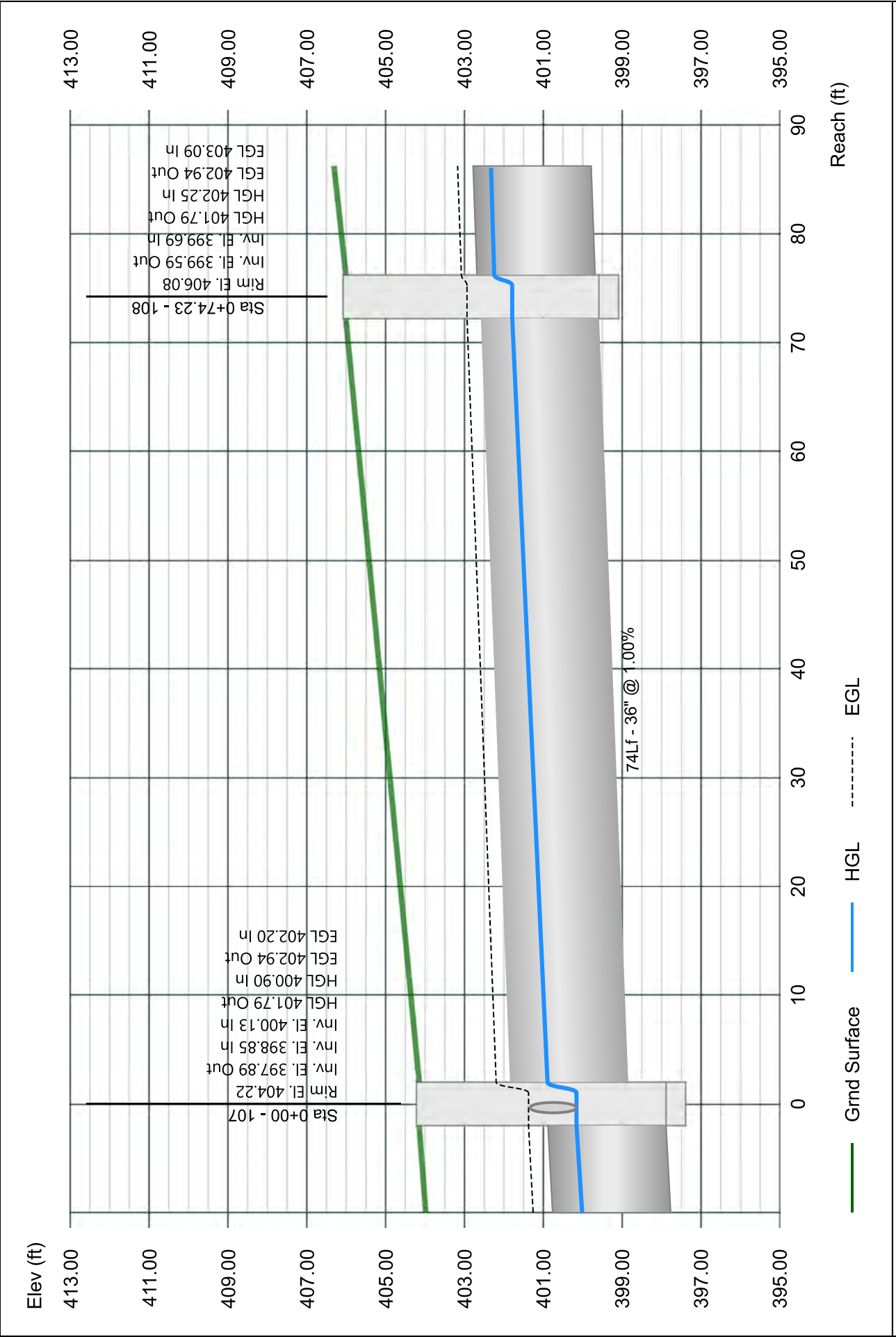


# Line 8 - 108 TO 107

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

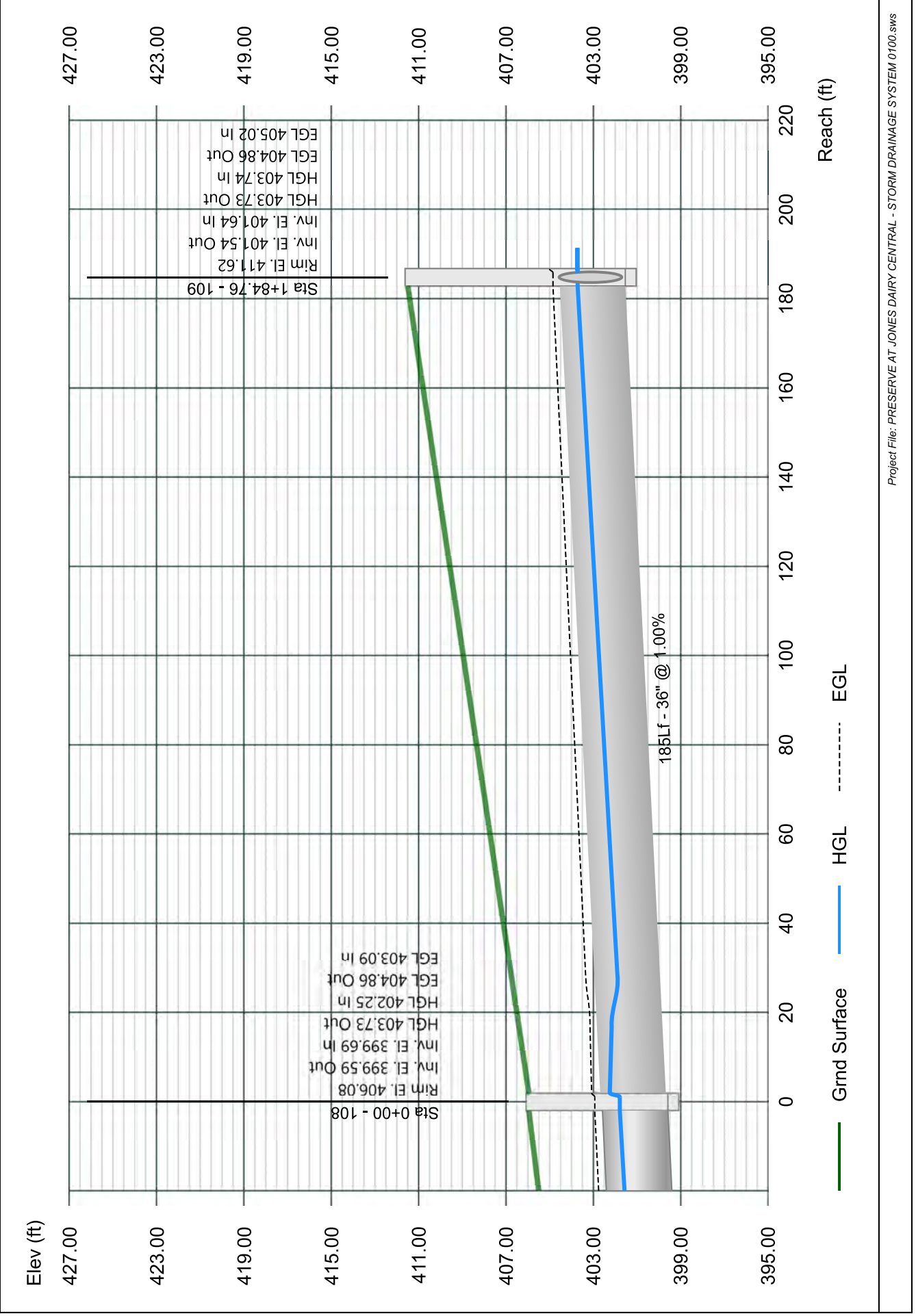


# Line 9 - 109 TO 108

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

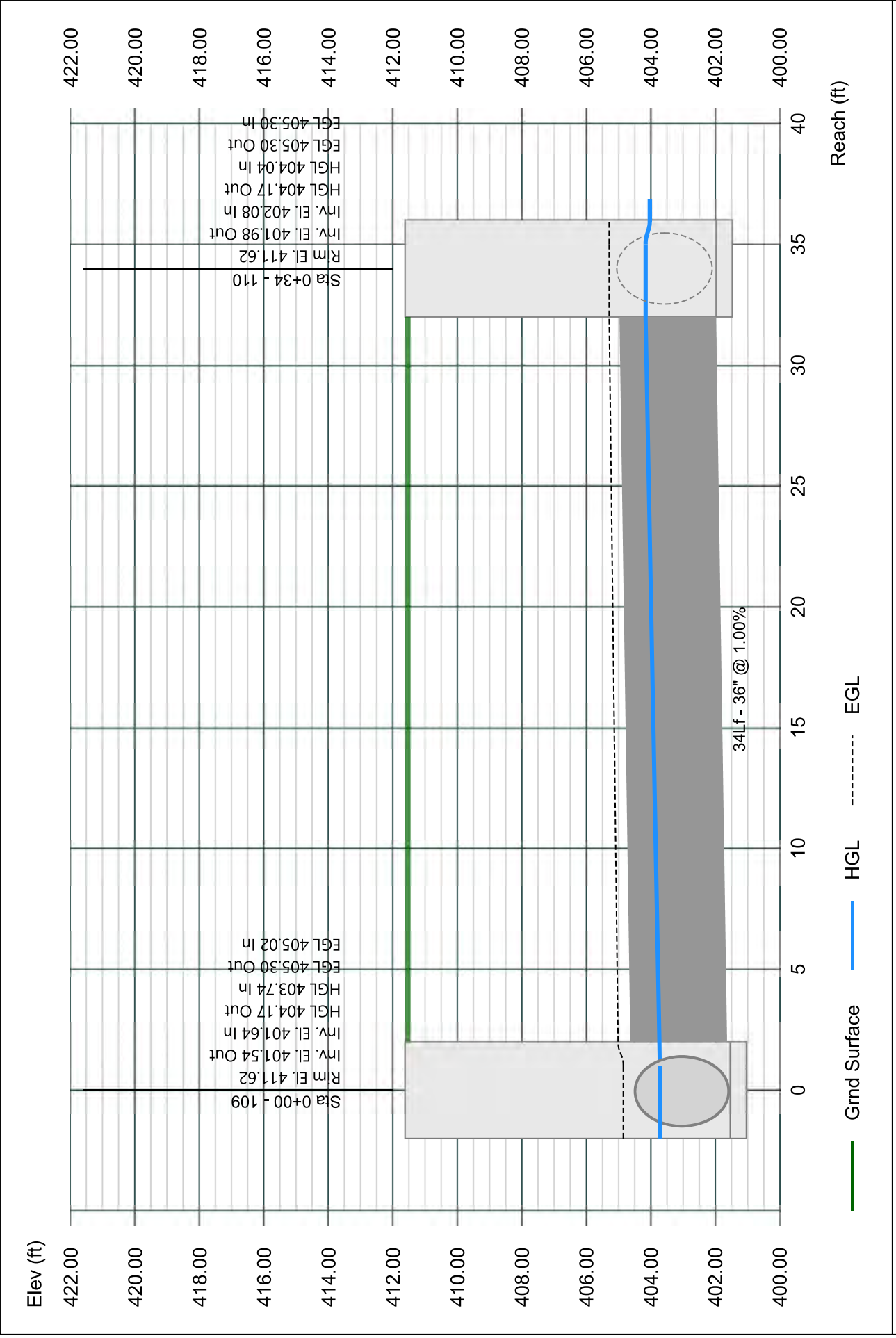


# Line 10 - 110 TO 109

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

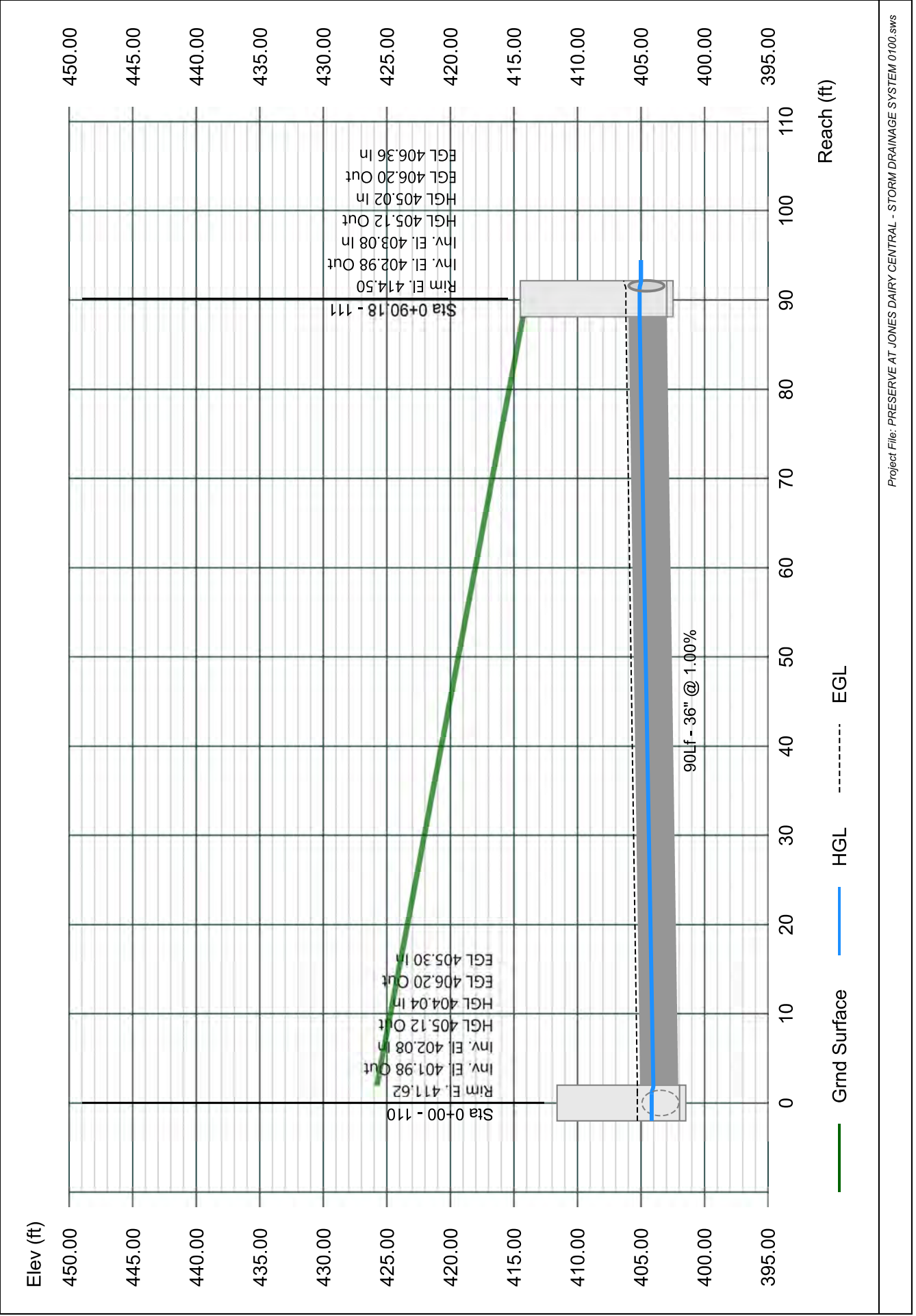


# Line 11 - 111 TO 110

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



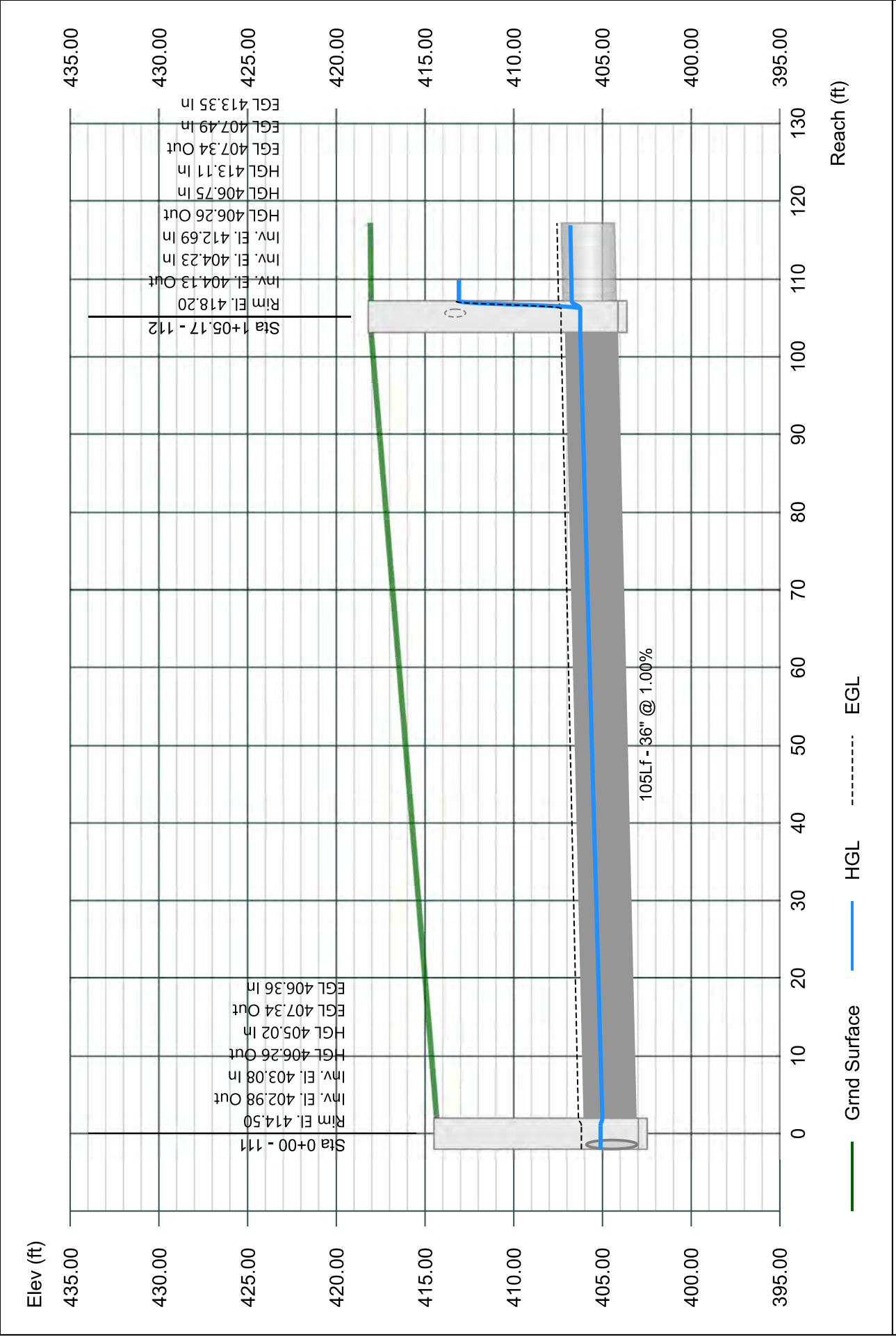


# Line 12 - 112 TO 111

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

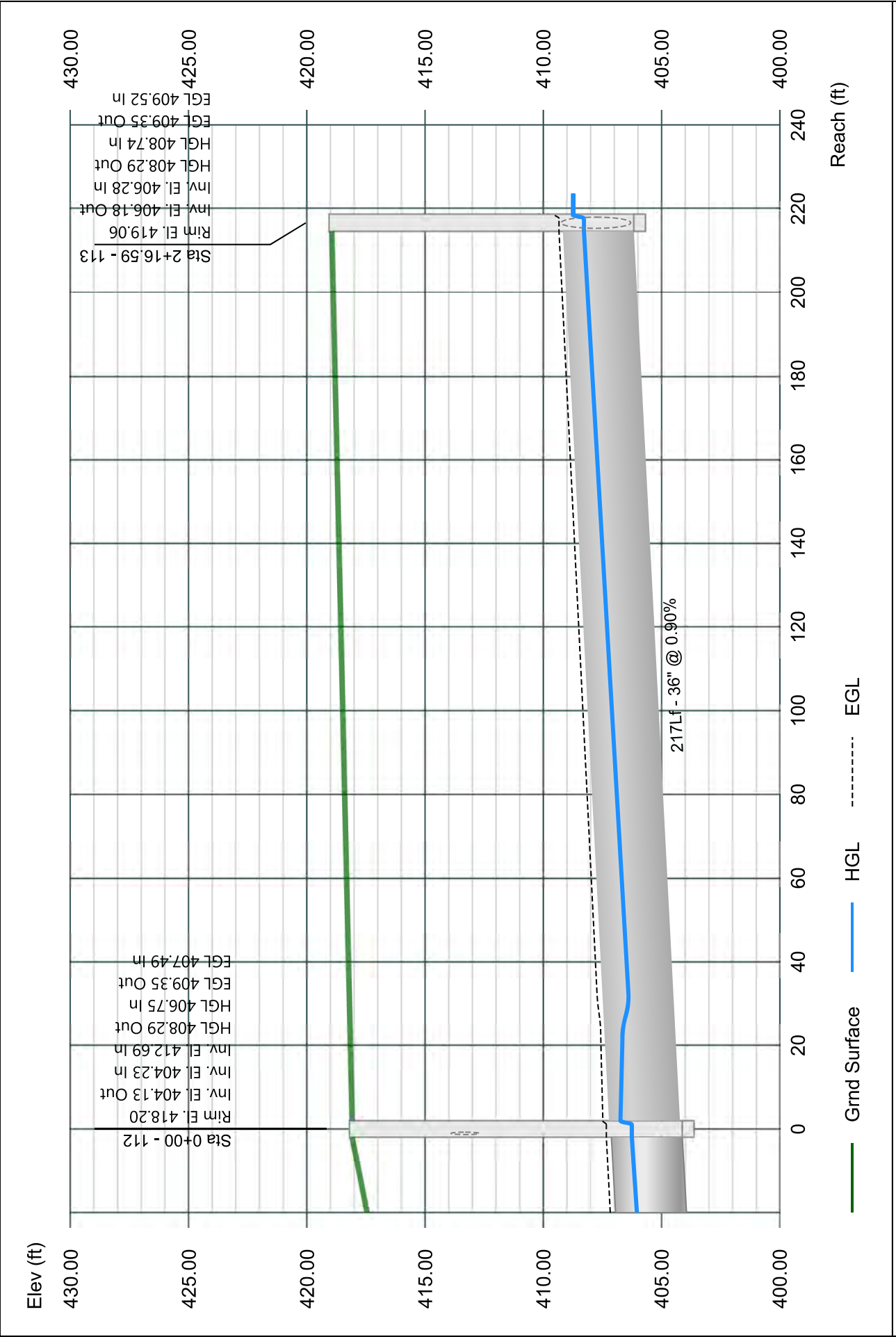


# Line 13 - 113 TO 112

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

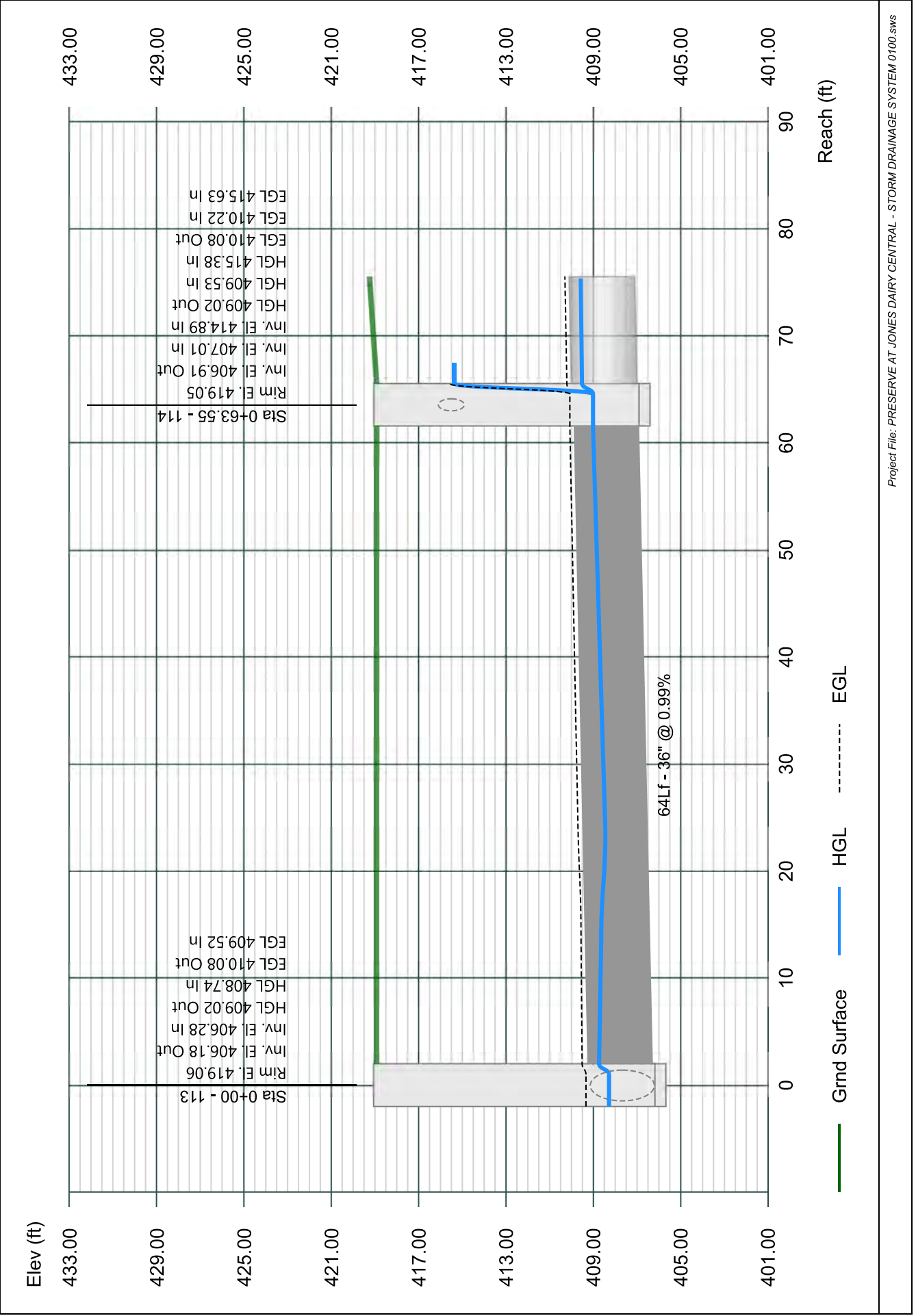


# Line 14 - 114 TO 113

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

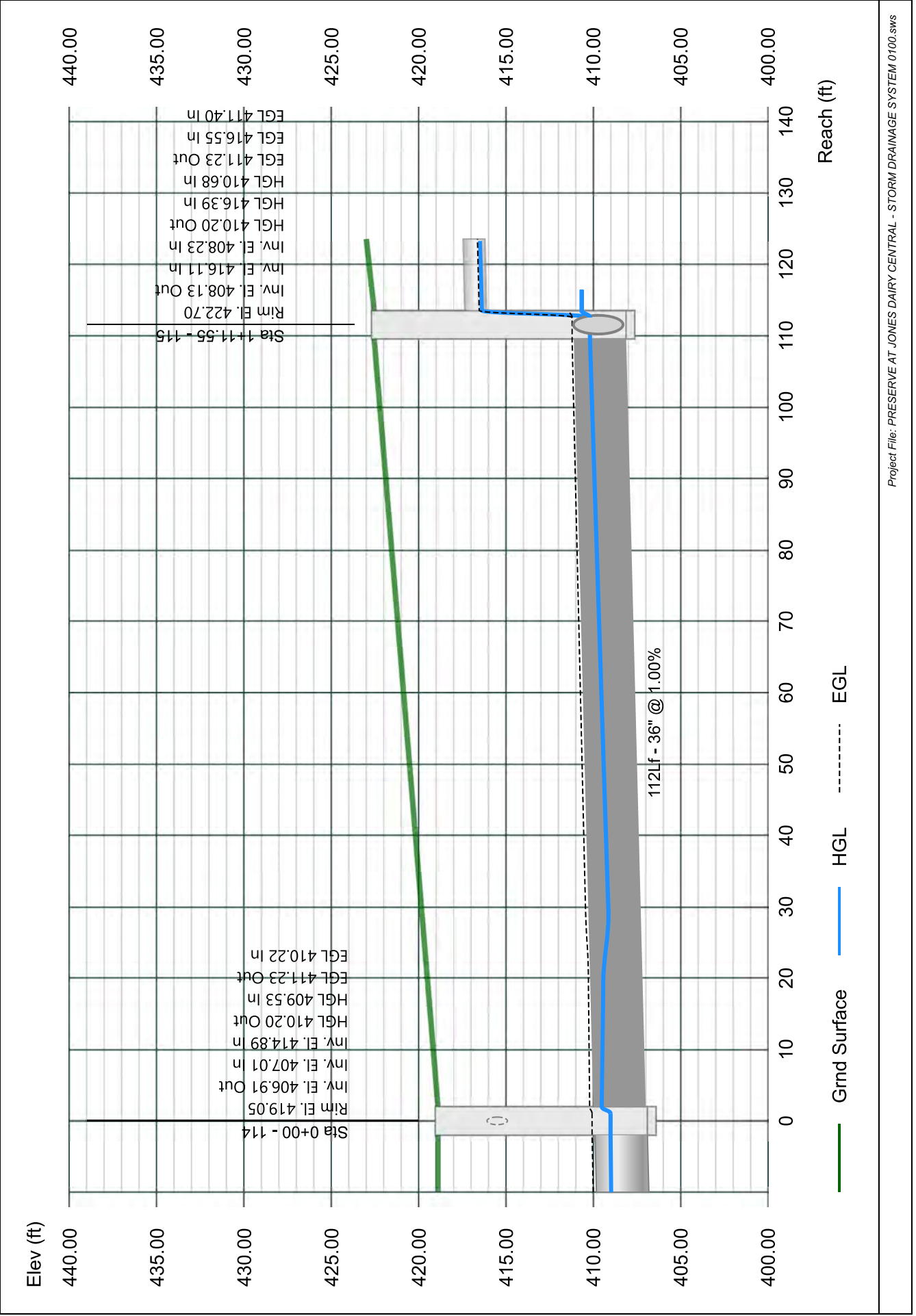


# Line 15 - 115 TO 114

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

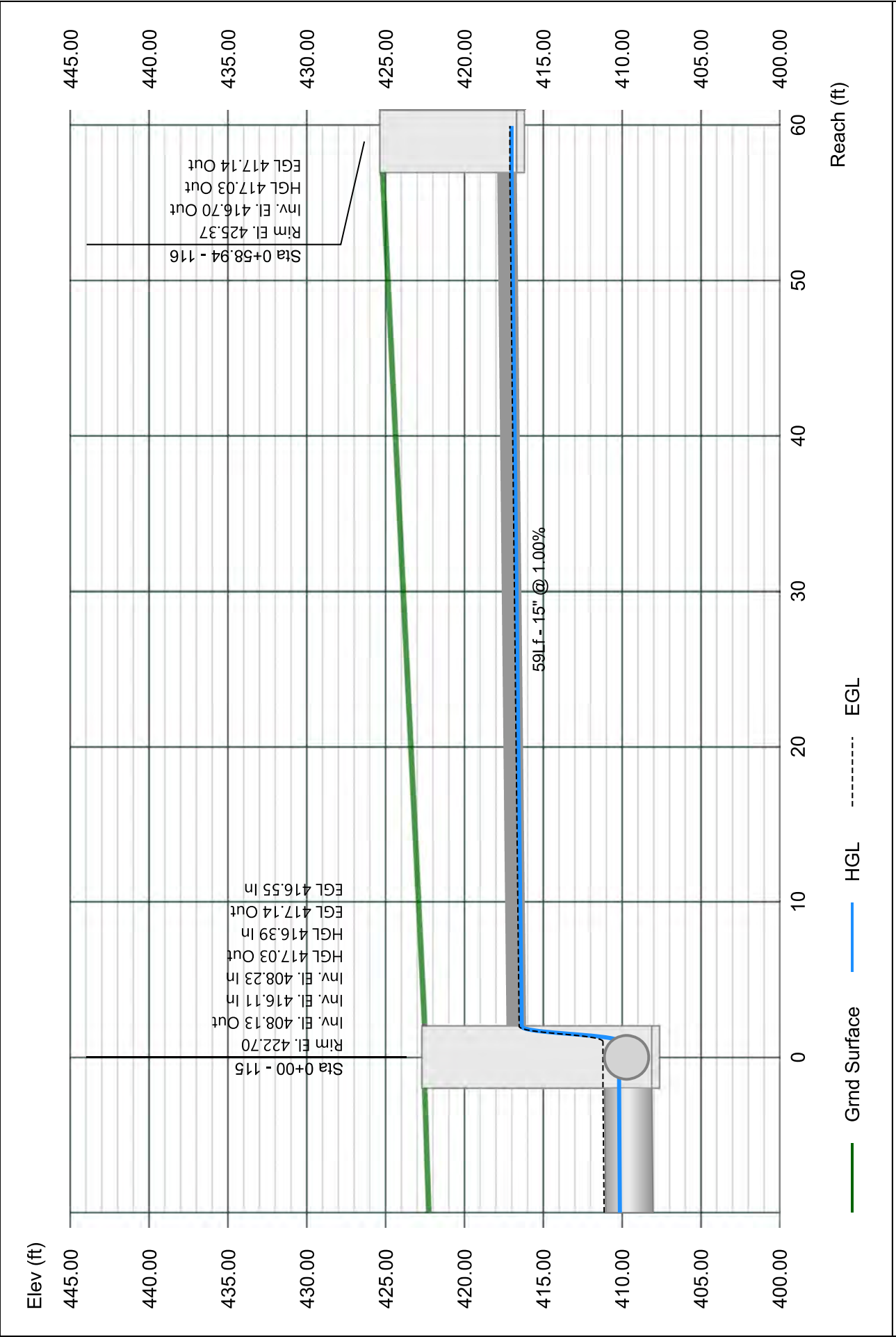


# Line 16 - 116 TO 115

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

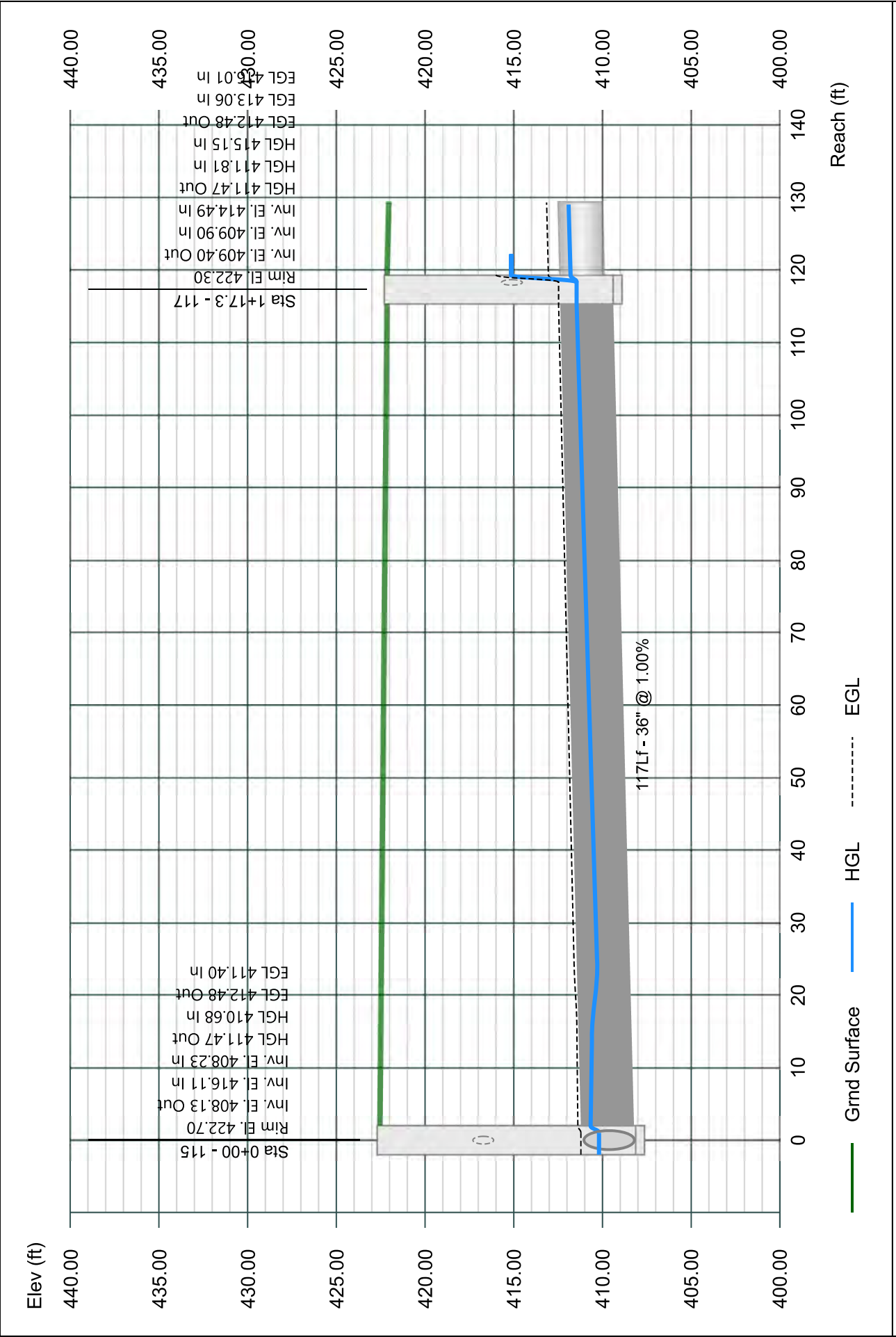


# Line 17 - 117 TO 115

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

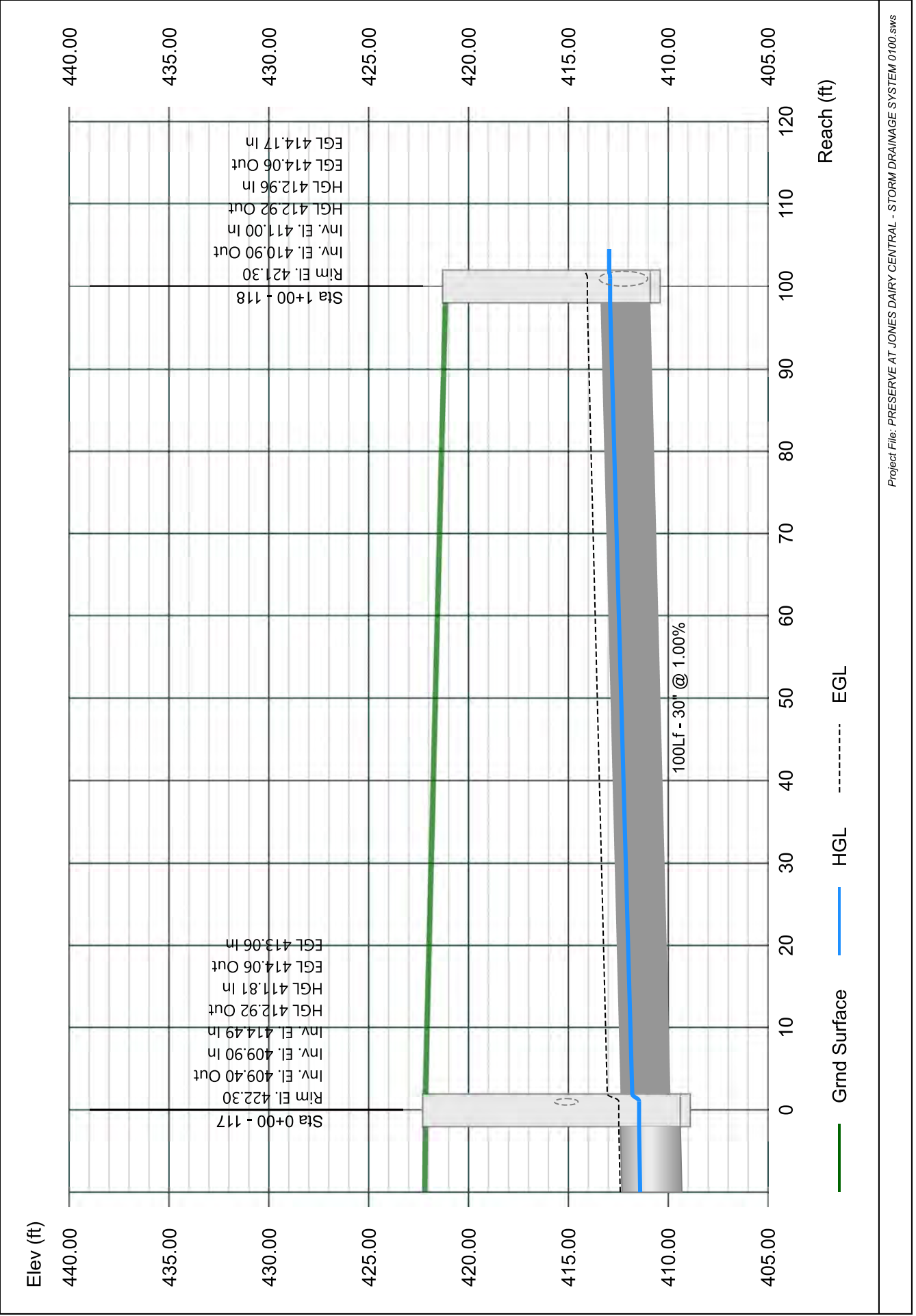


# Line 18 - 118 TO 117

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

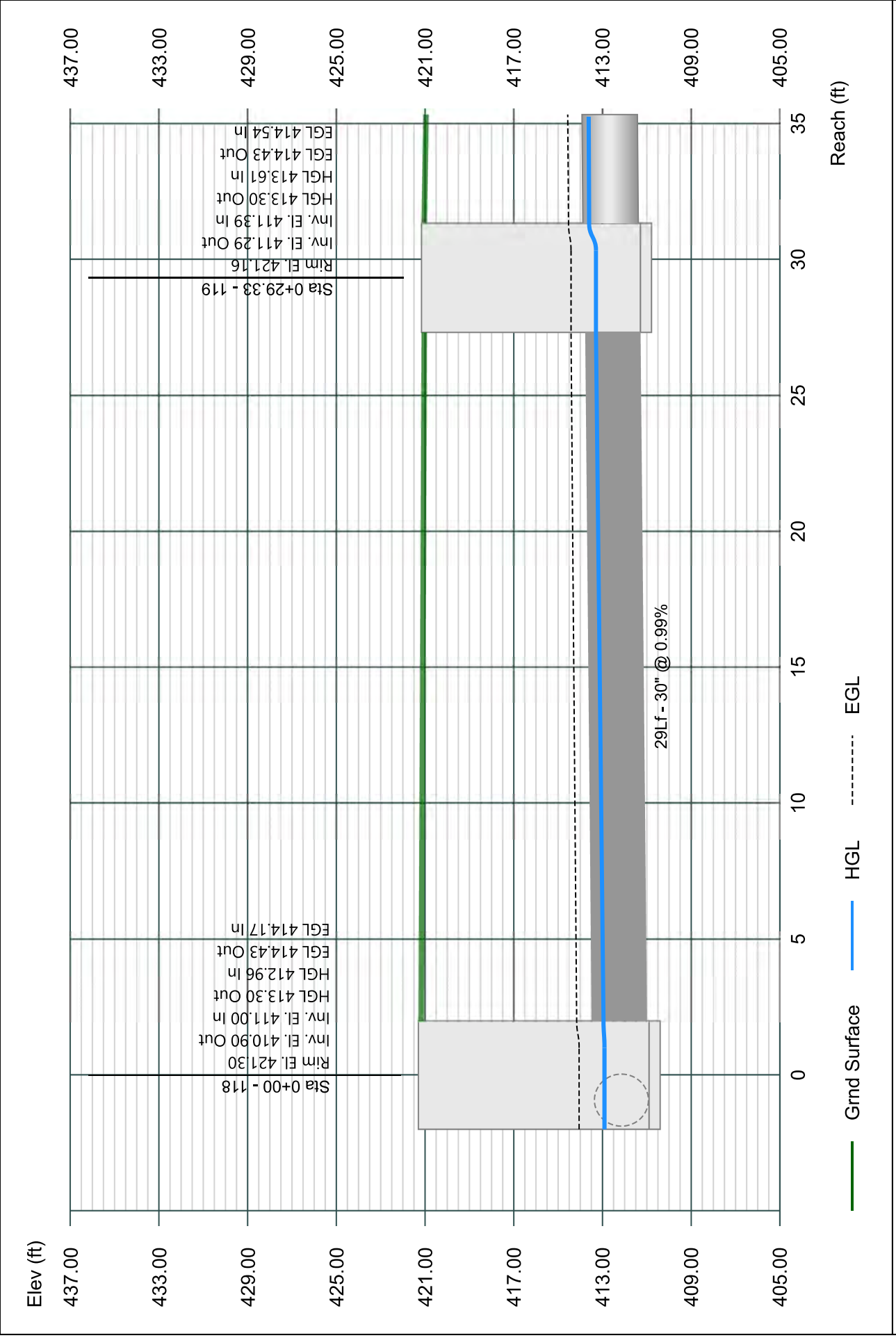


# Line 19 - 119 TO 118

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



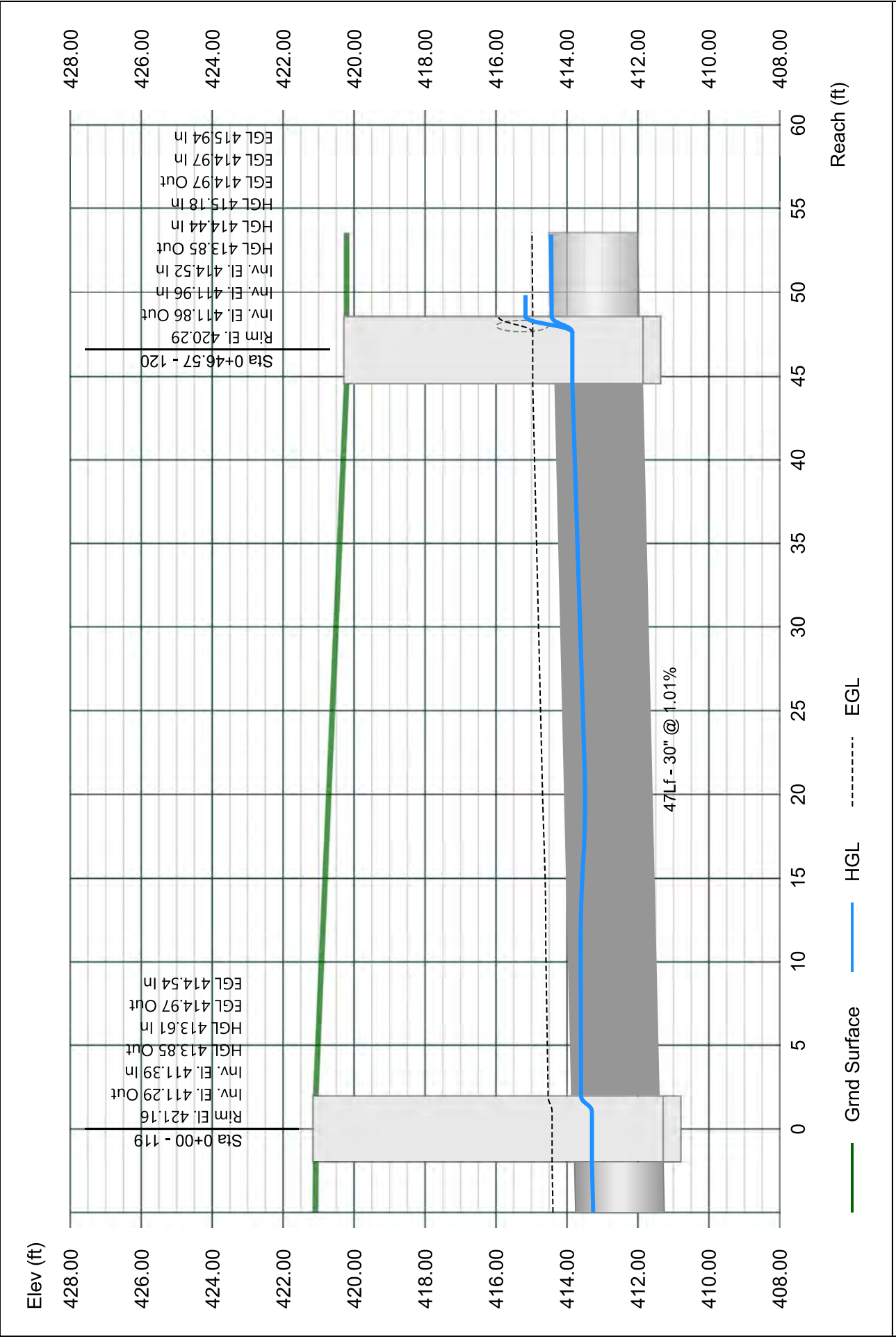


# Line 20 - 120 TO 119

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

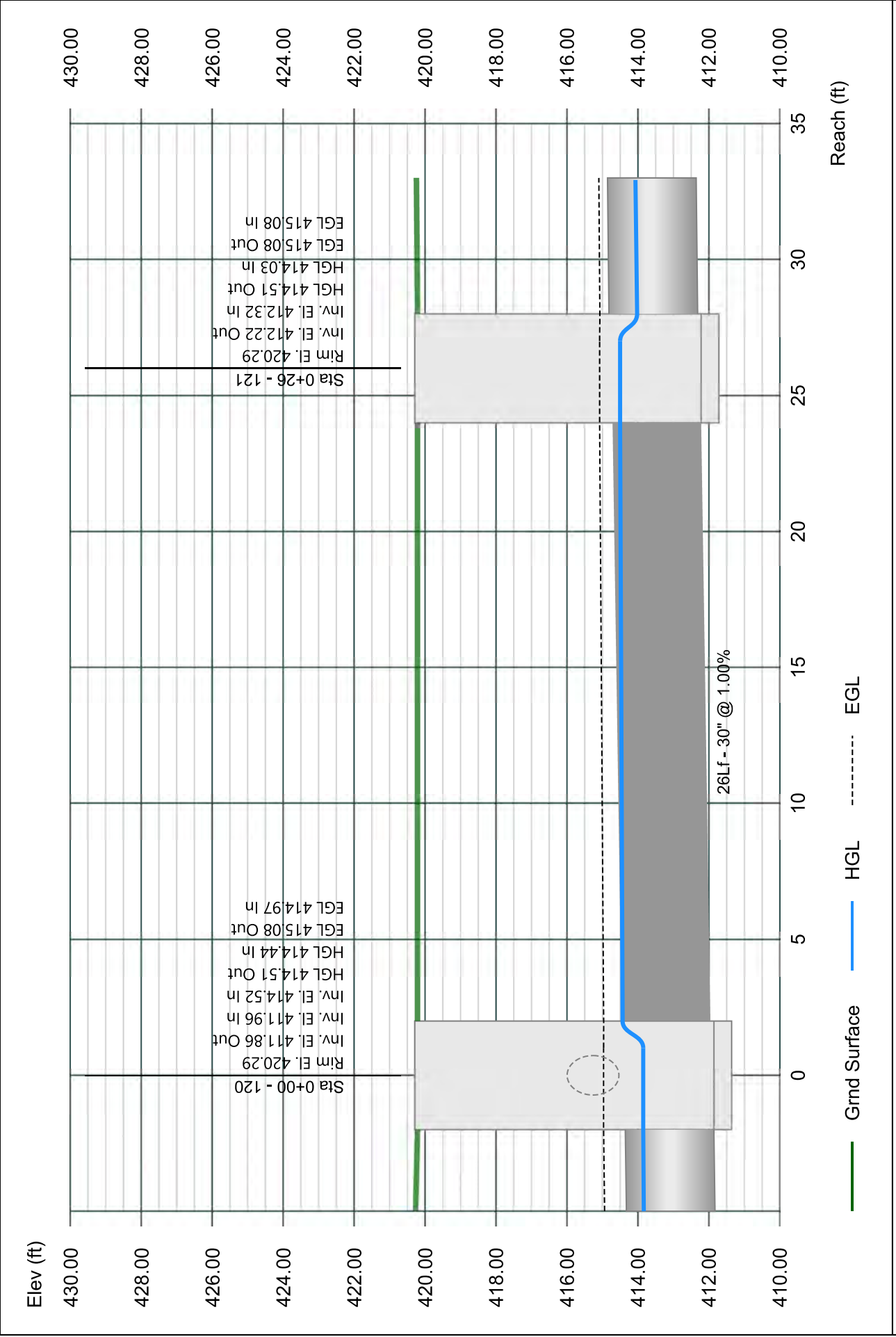


# Line 21 - 121 TO 120

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

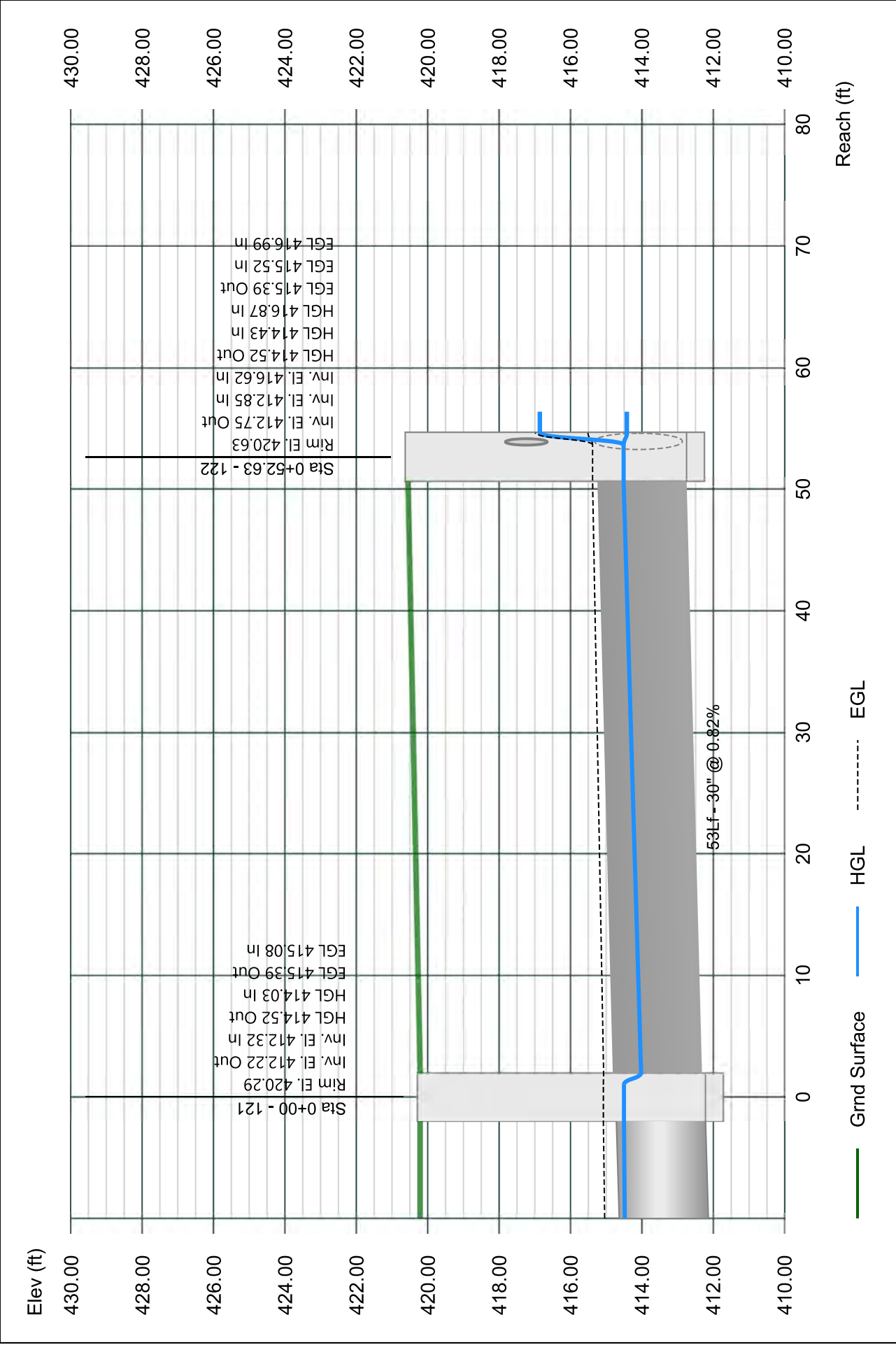


# Line 22 - 122 TO 121

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

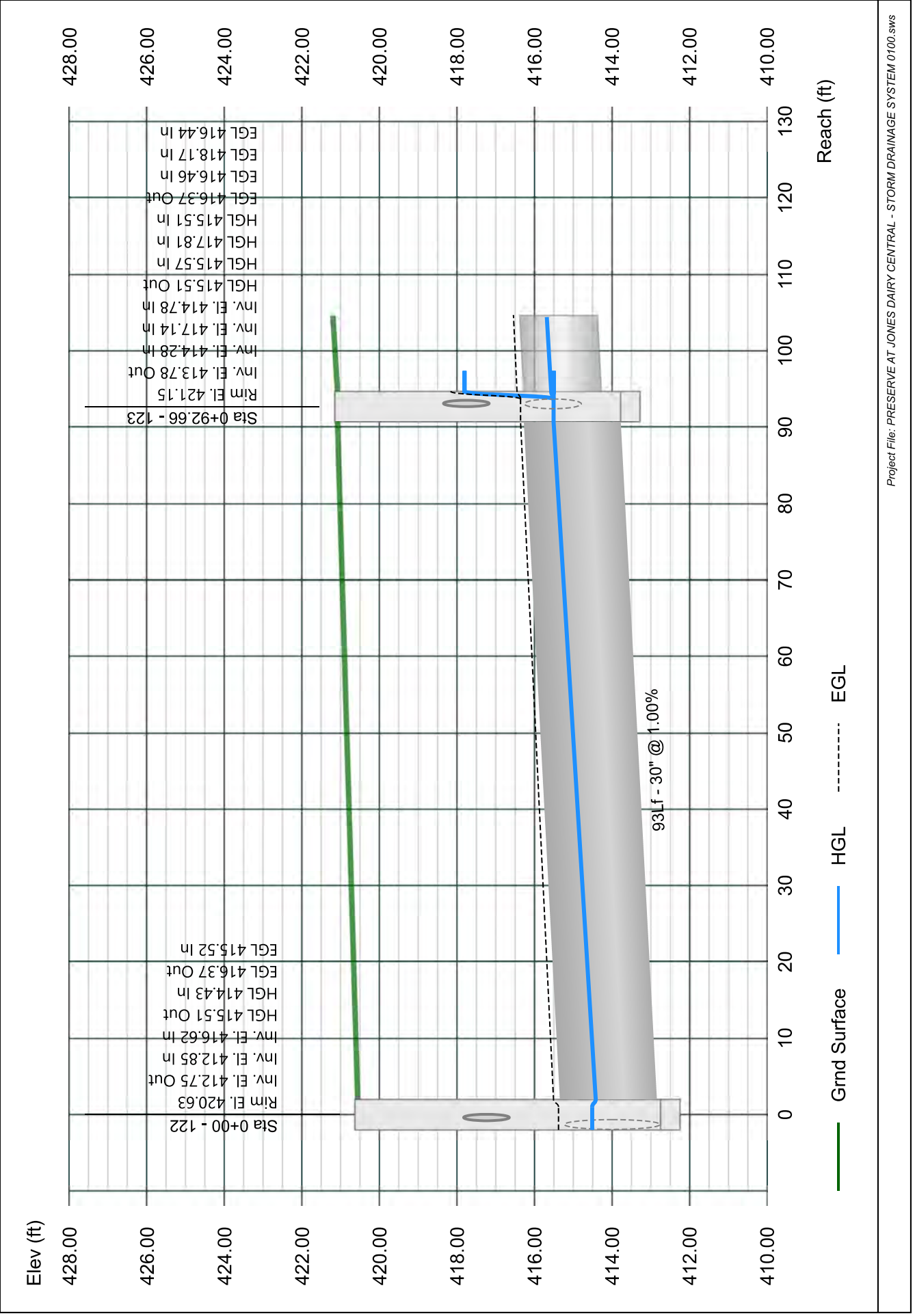


# Line 23 - 123 TO 122

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

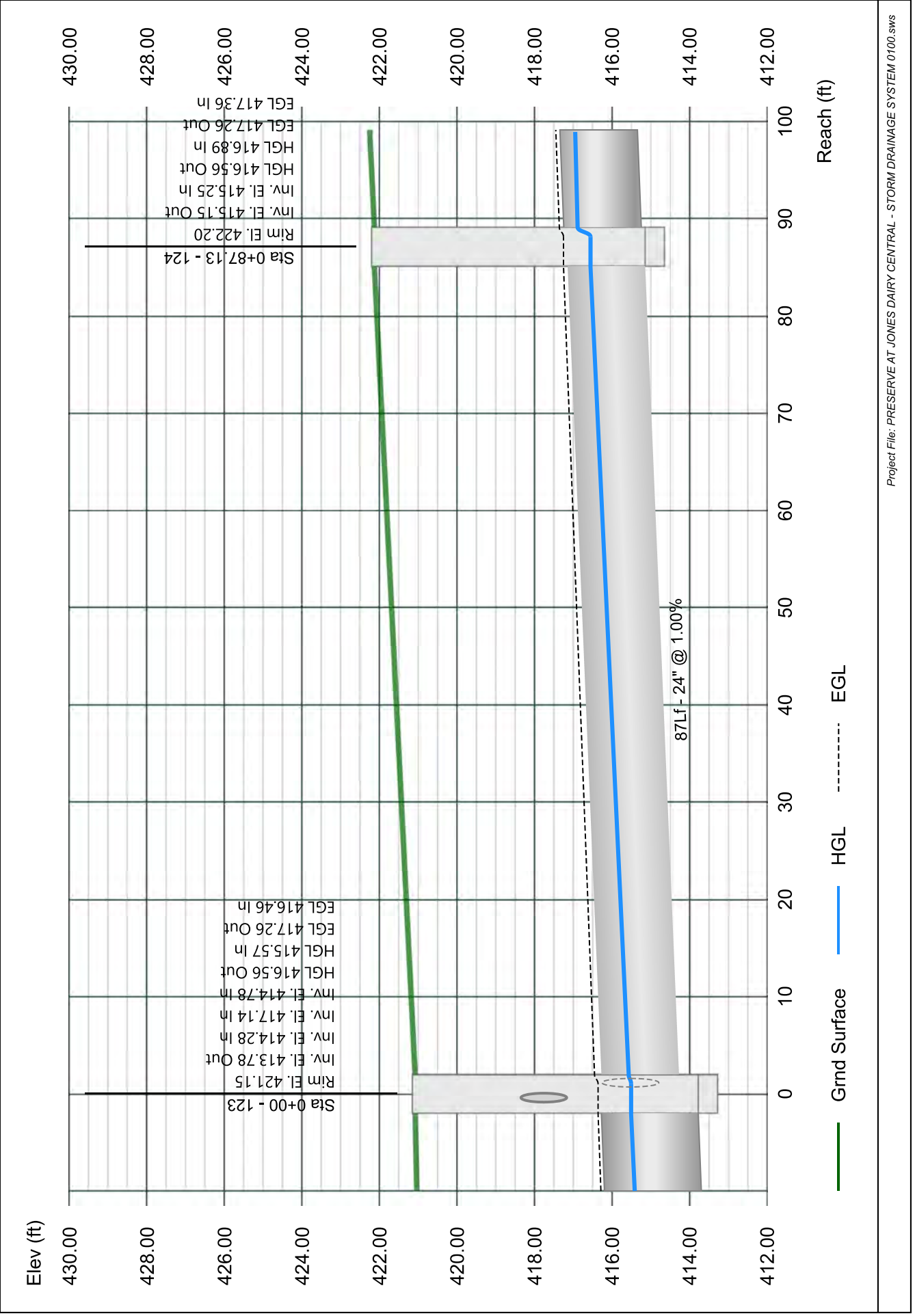


# Line 24 - 124 TO 123

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

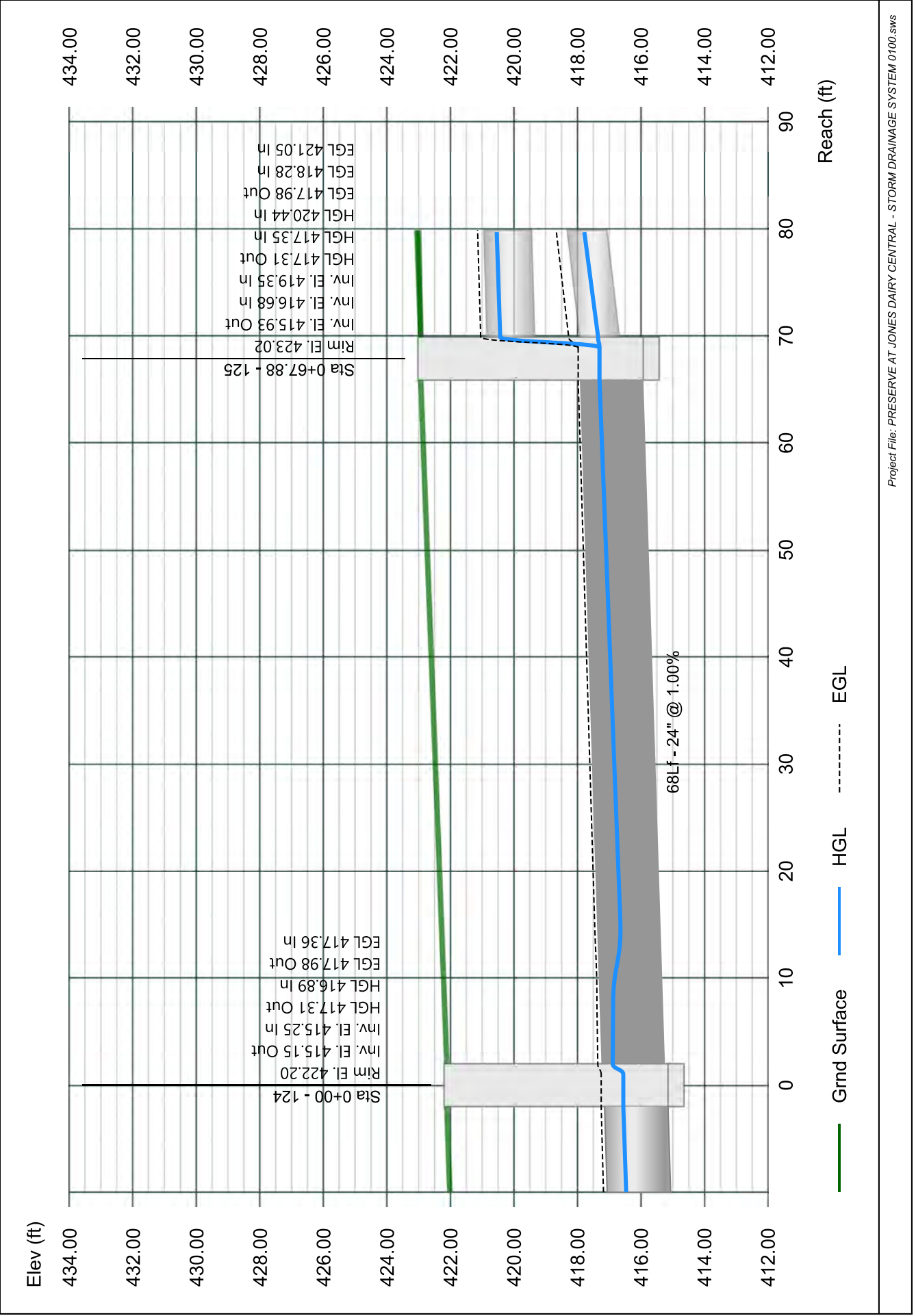


# Line 25 - 125 TO 124

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

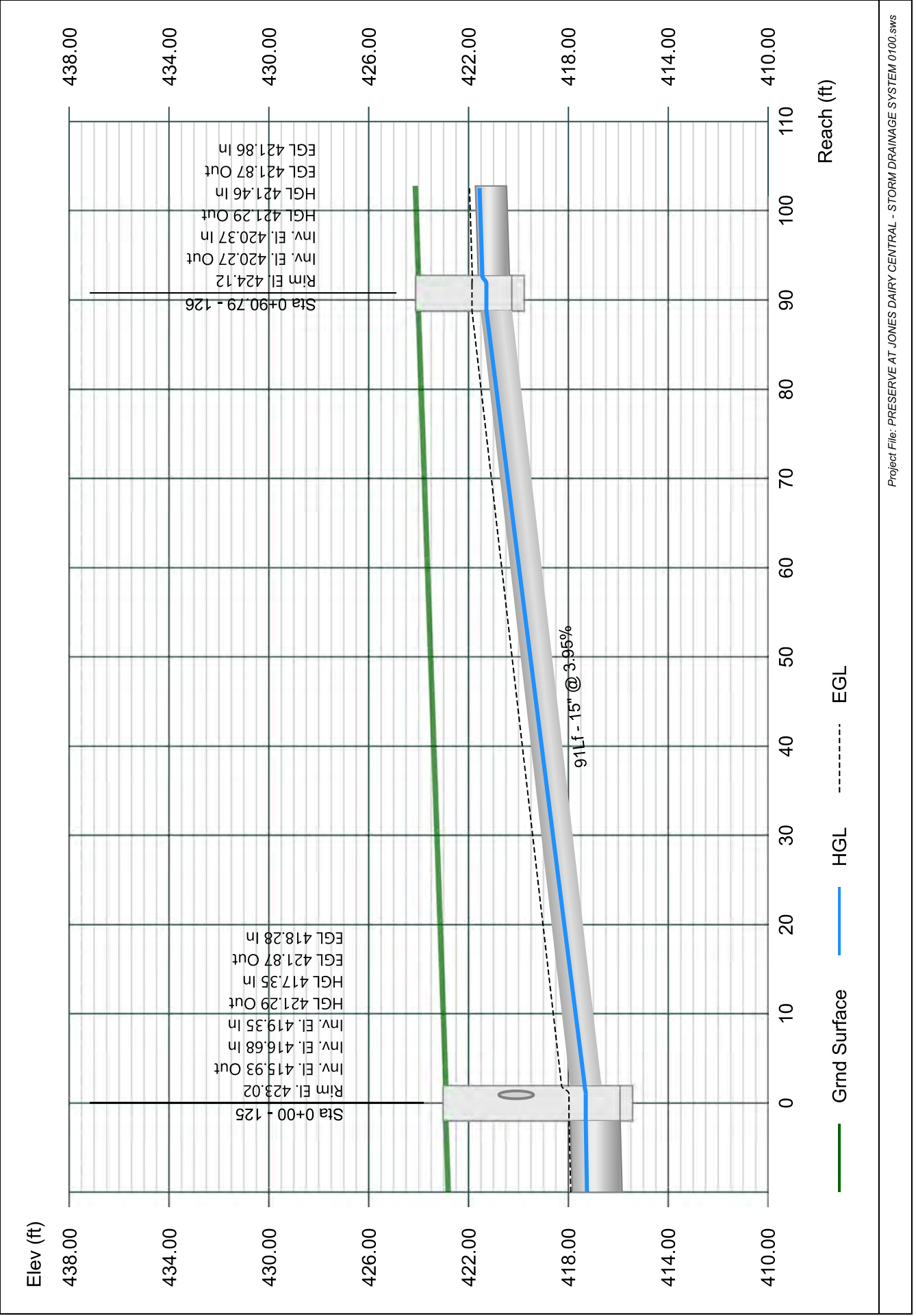


# Line 26 - 126 TO 125

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

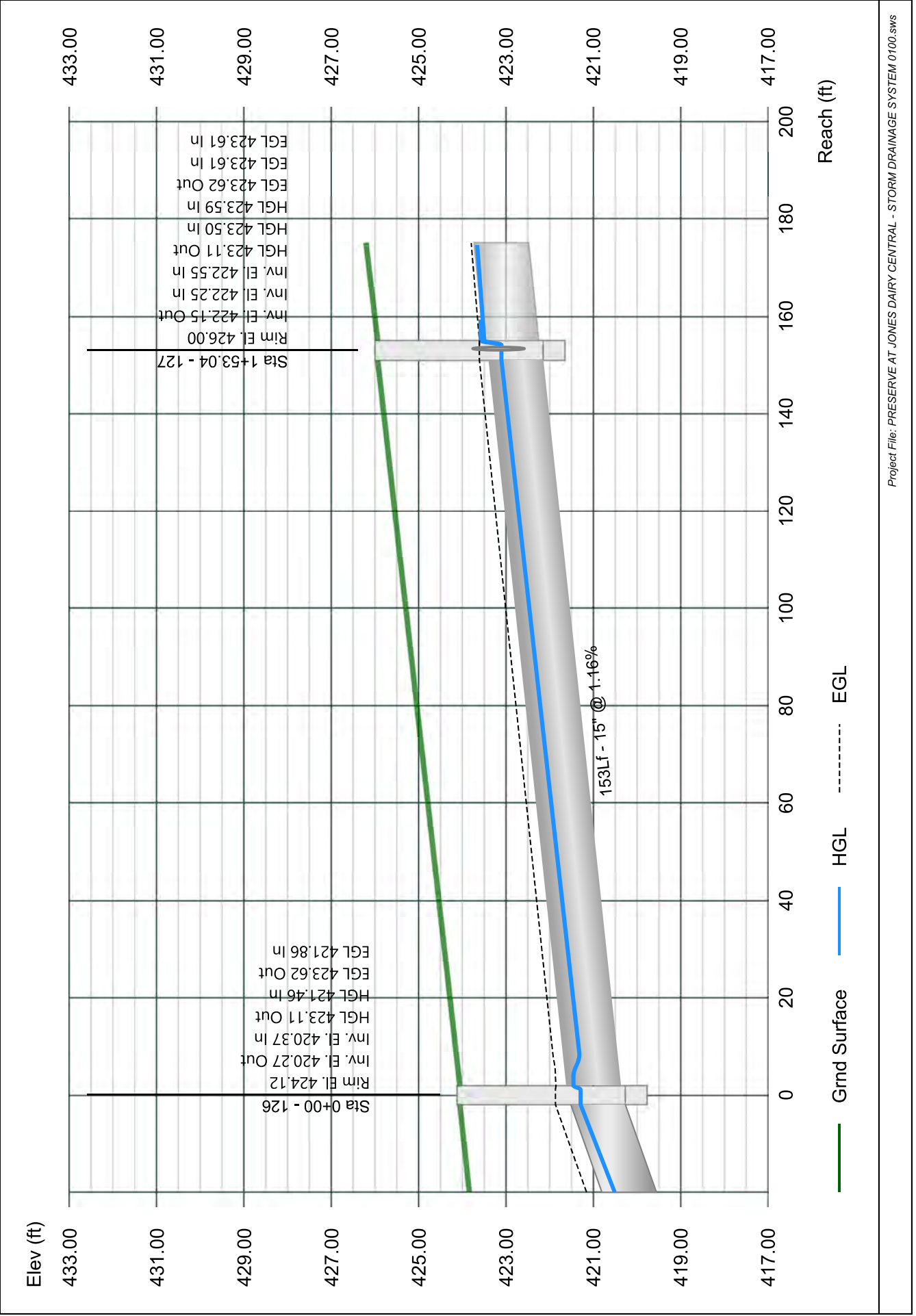


# Line 27 - 127 TO 126

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



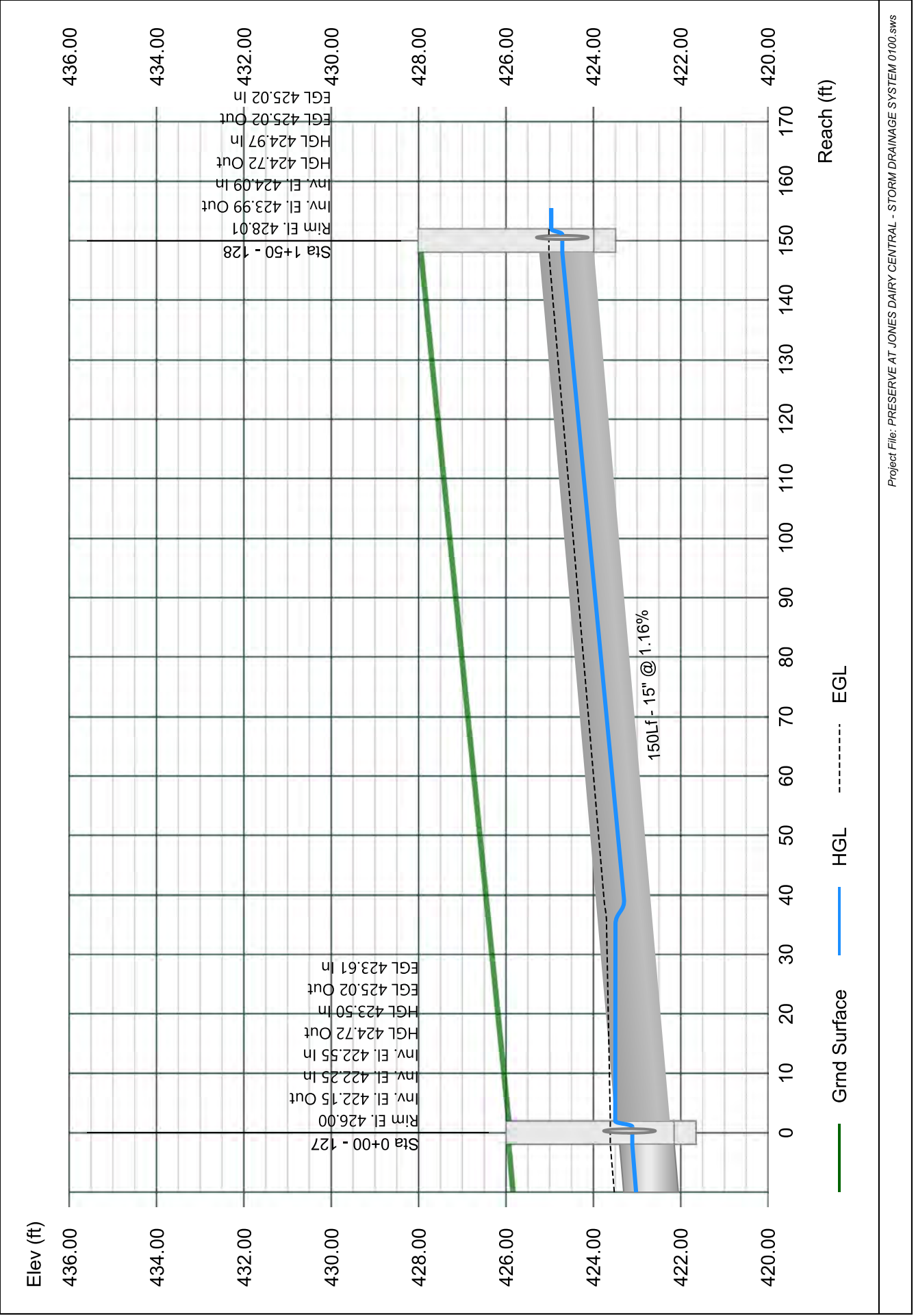


# Line 28 - 128 TO 127

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

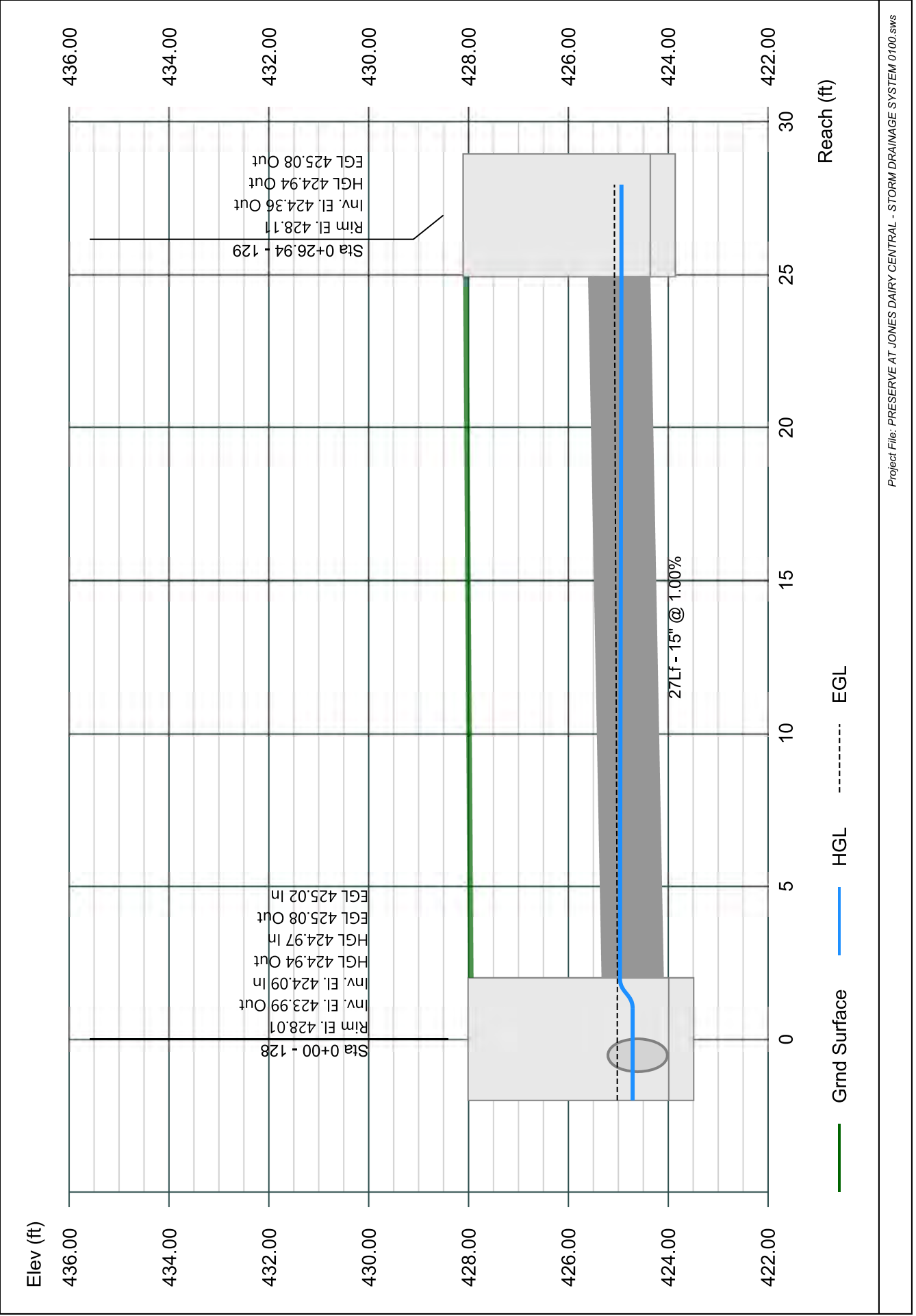


# Line 29 - 129 TO 128

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

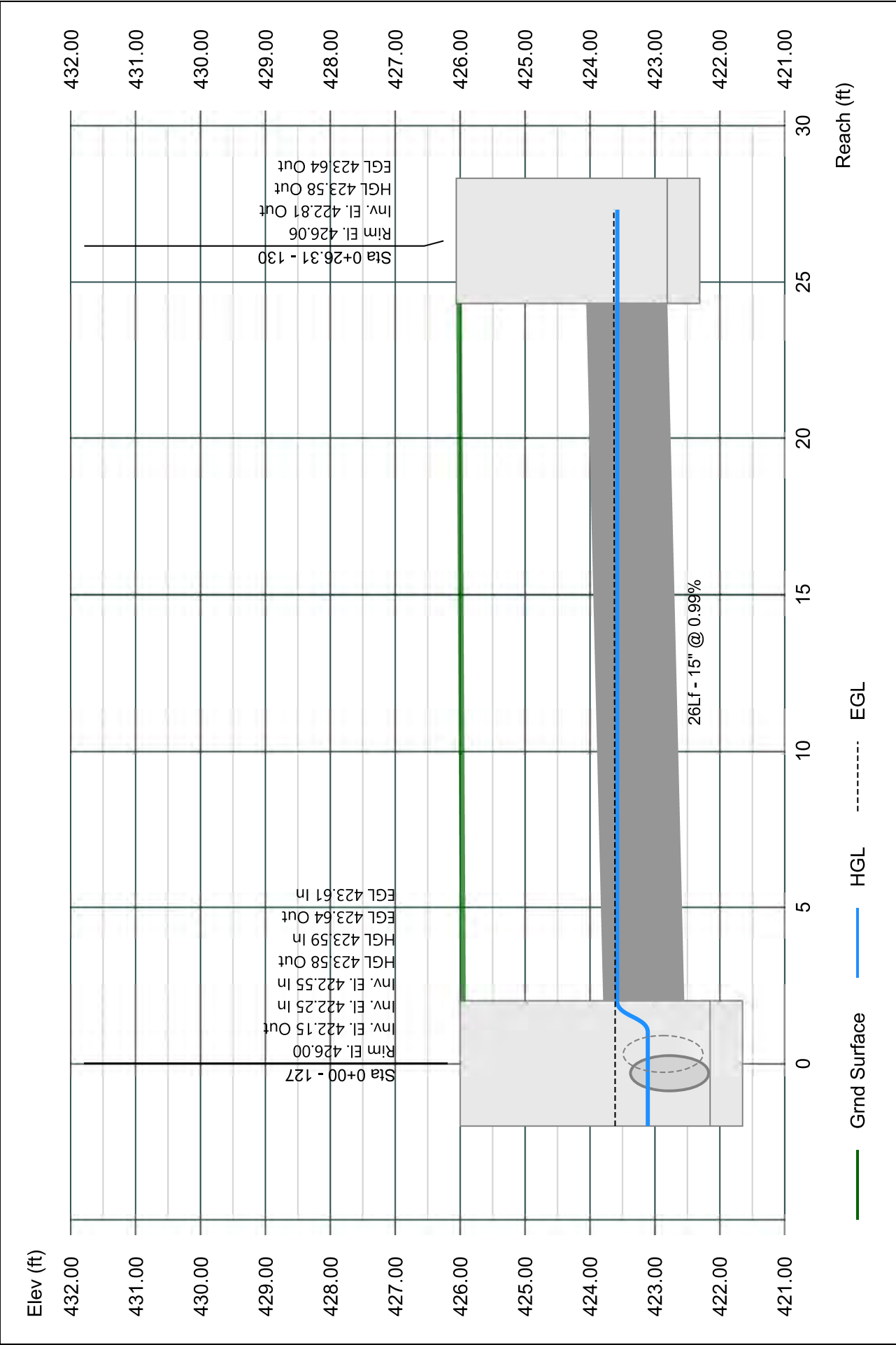


# Line 30 - 130 TO 127

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

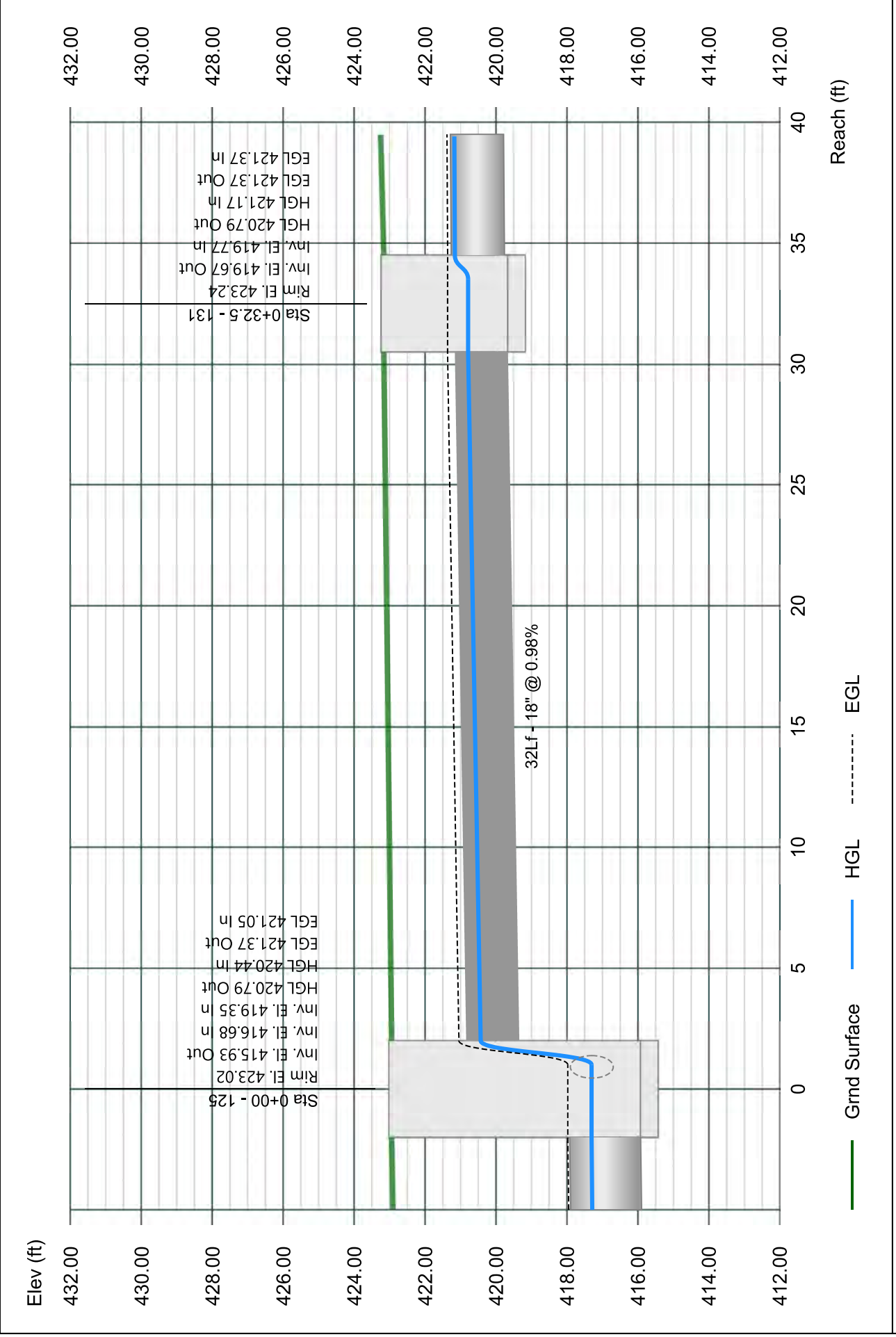


# Line 31 - 131 TO 125

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

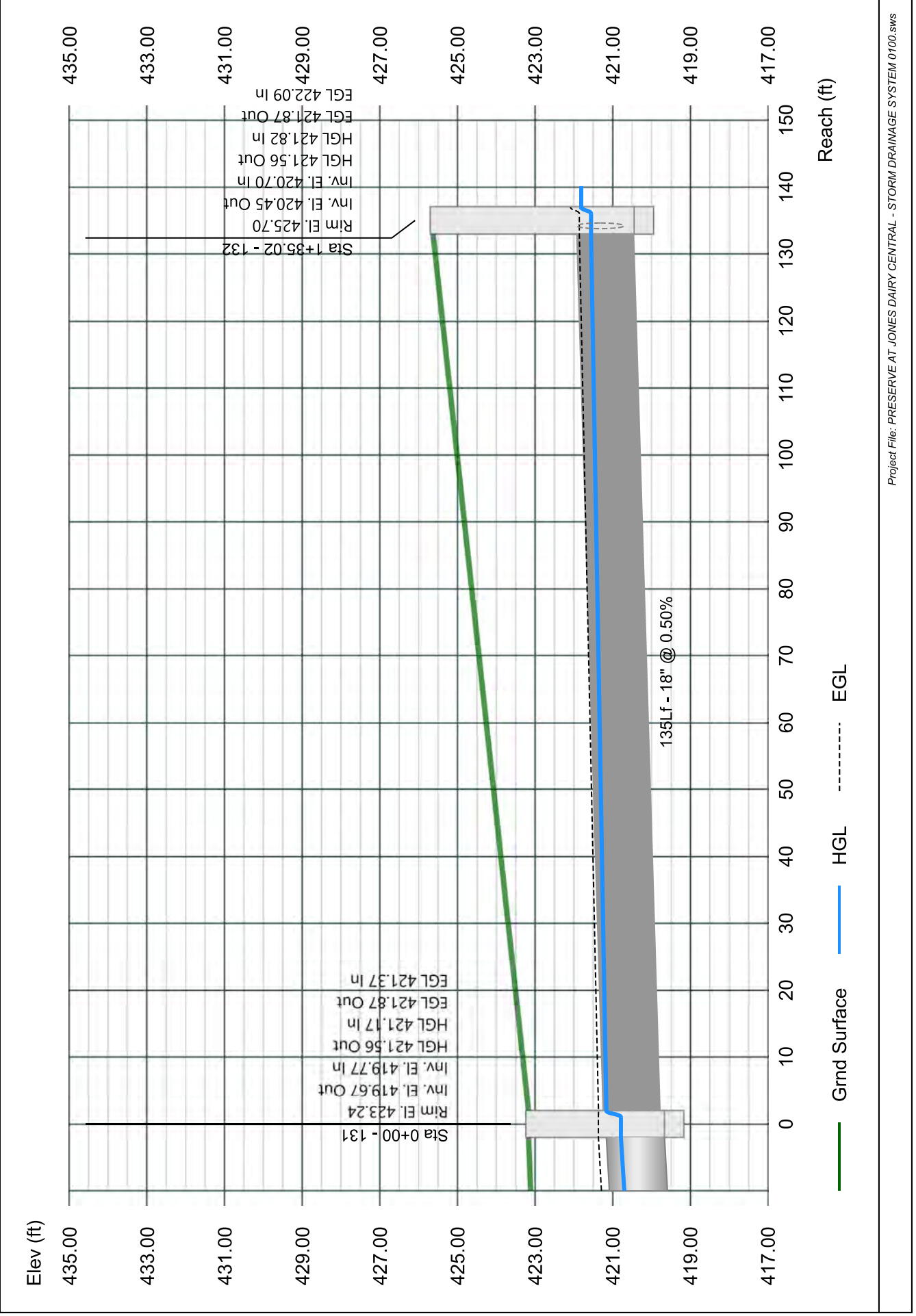


# Line 32 - 132 TO 131

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

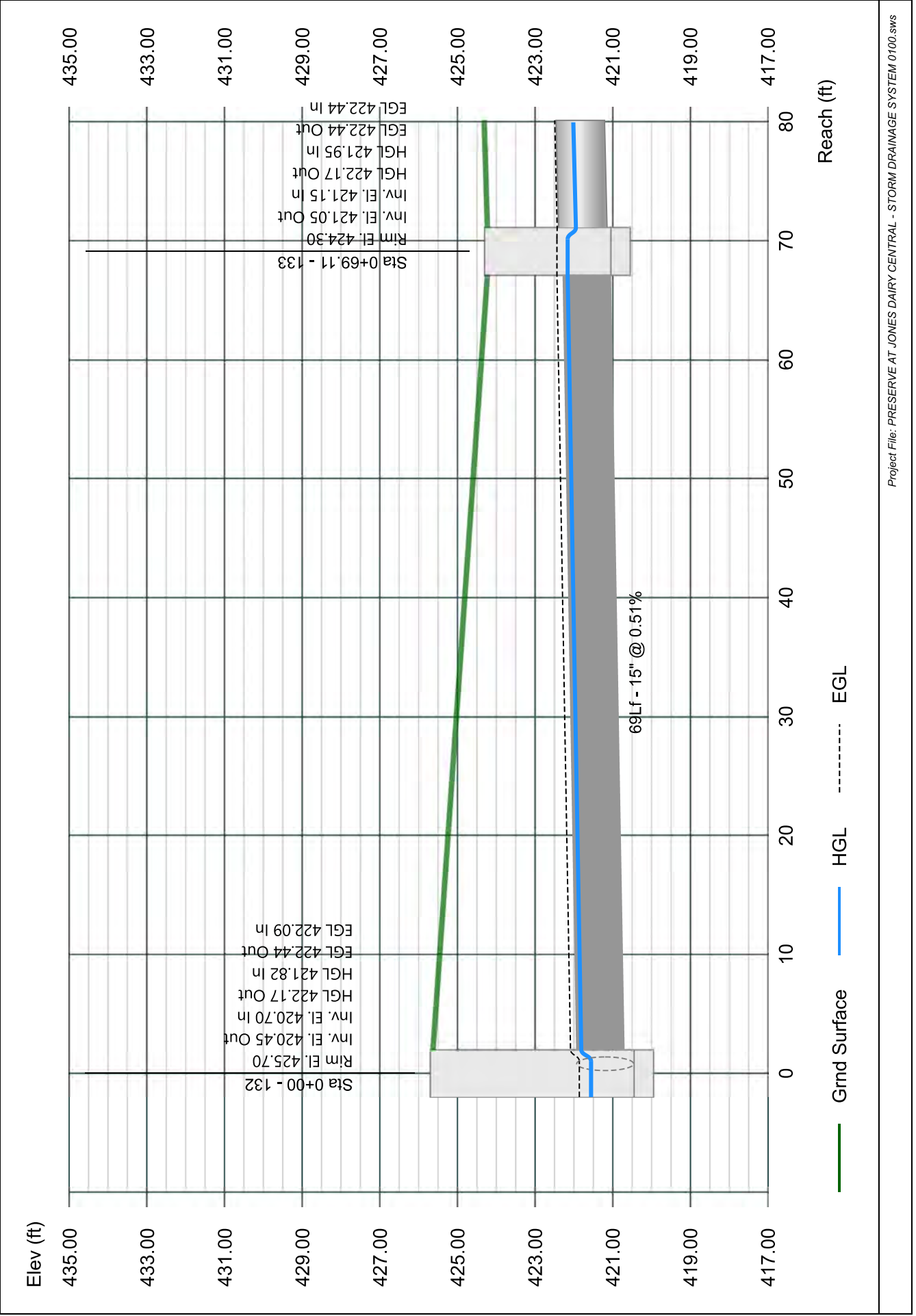


# Line 33 - 133 TO 132

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

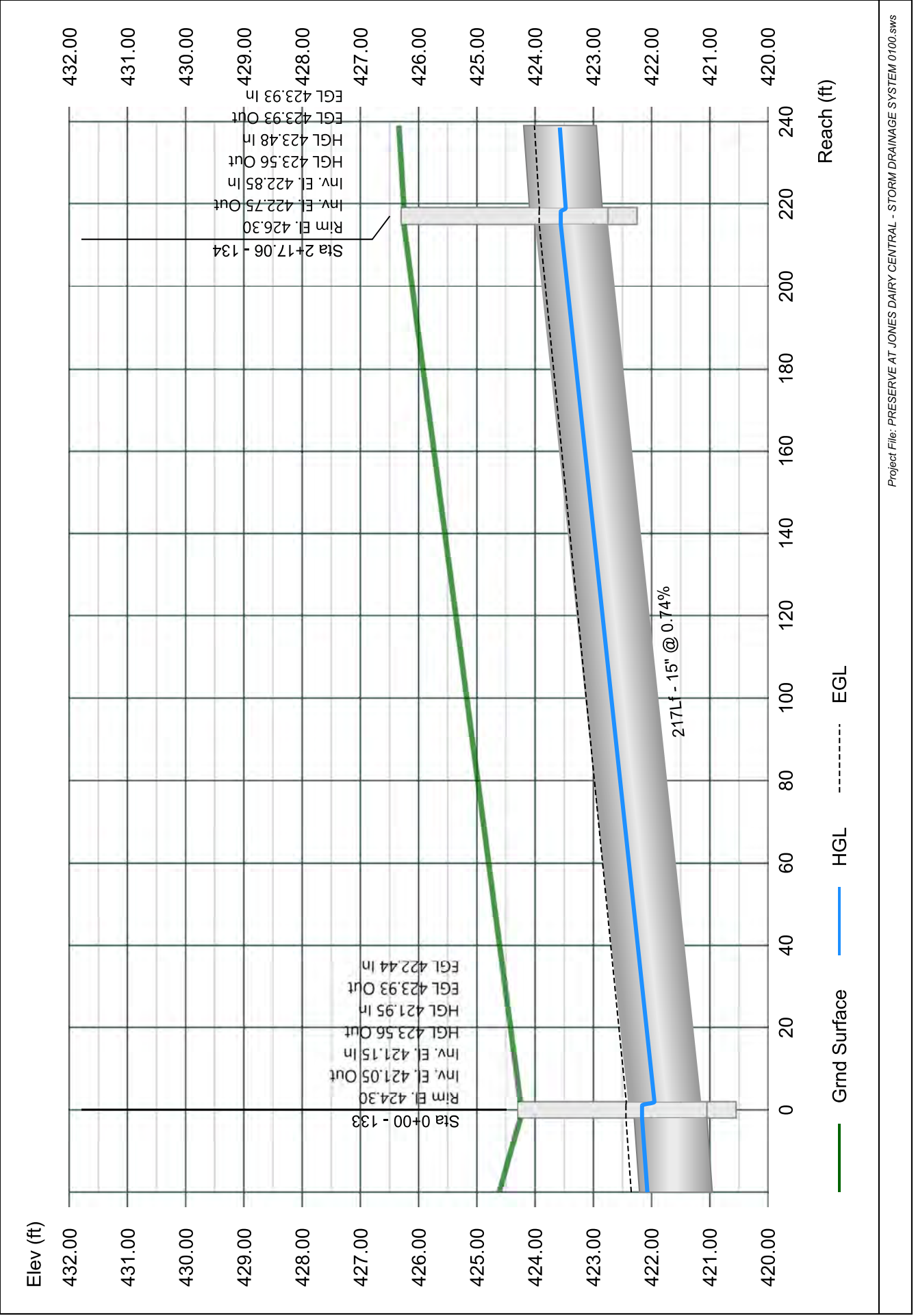


# Line 34 - 134 TO 133

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

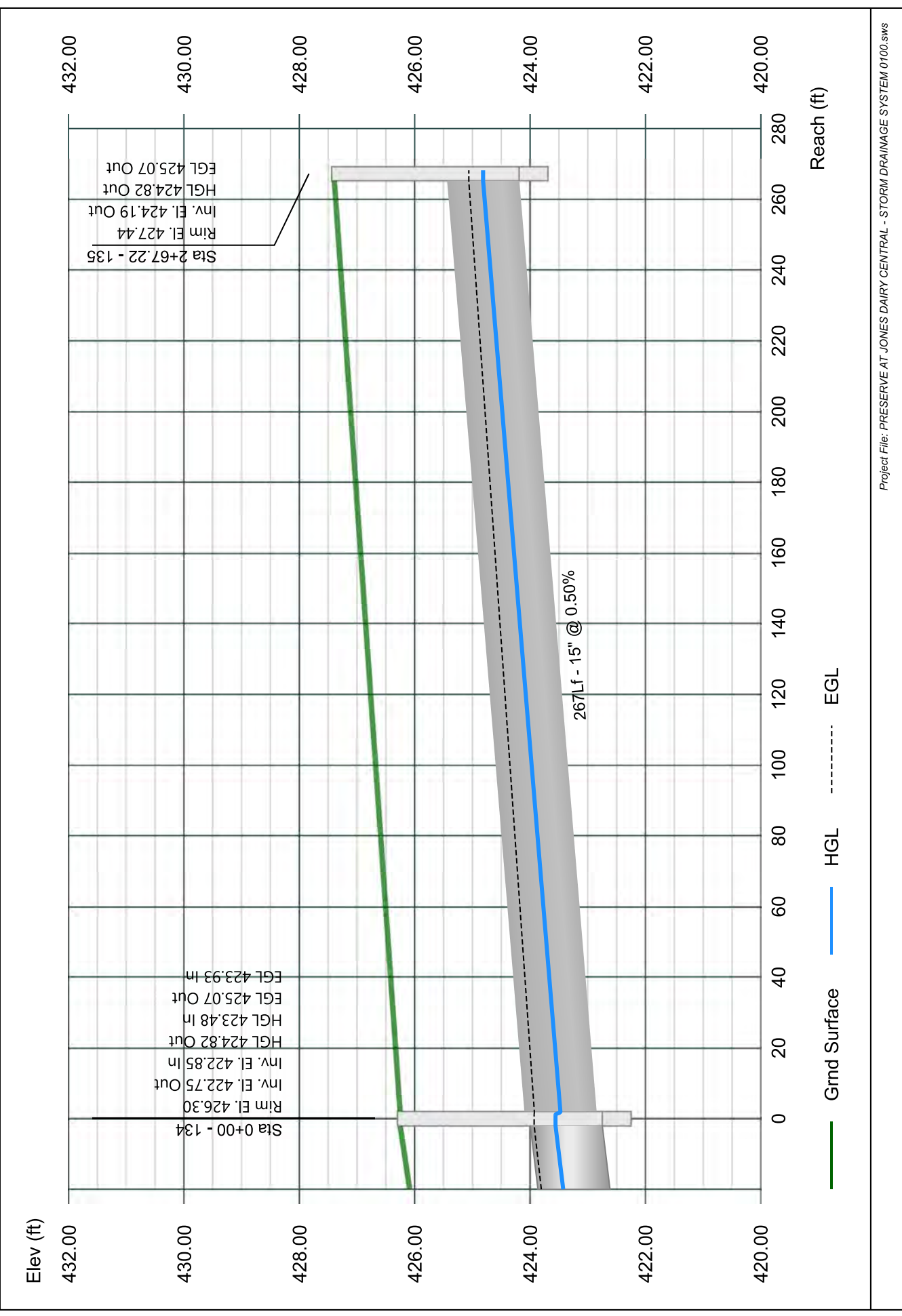


# Line 35 - 135 TO 134

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



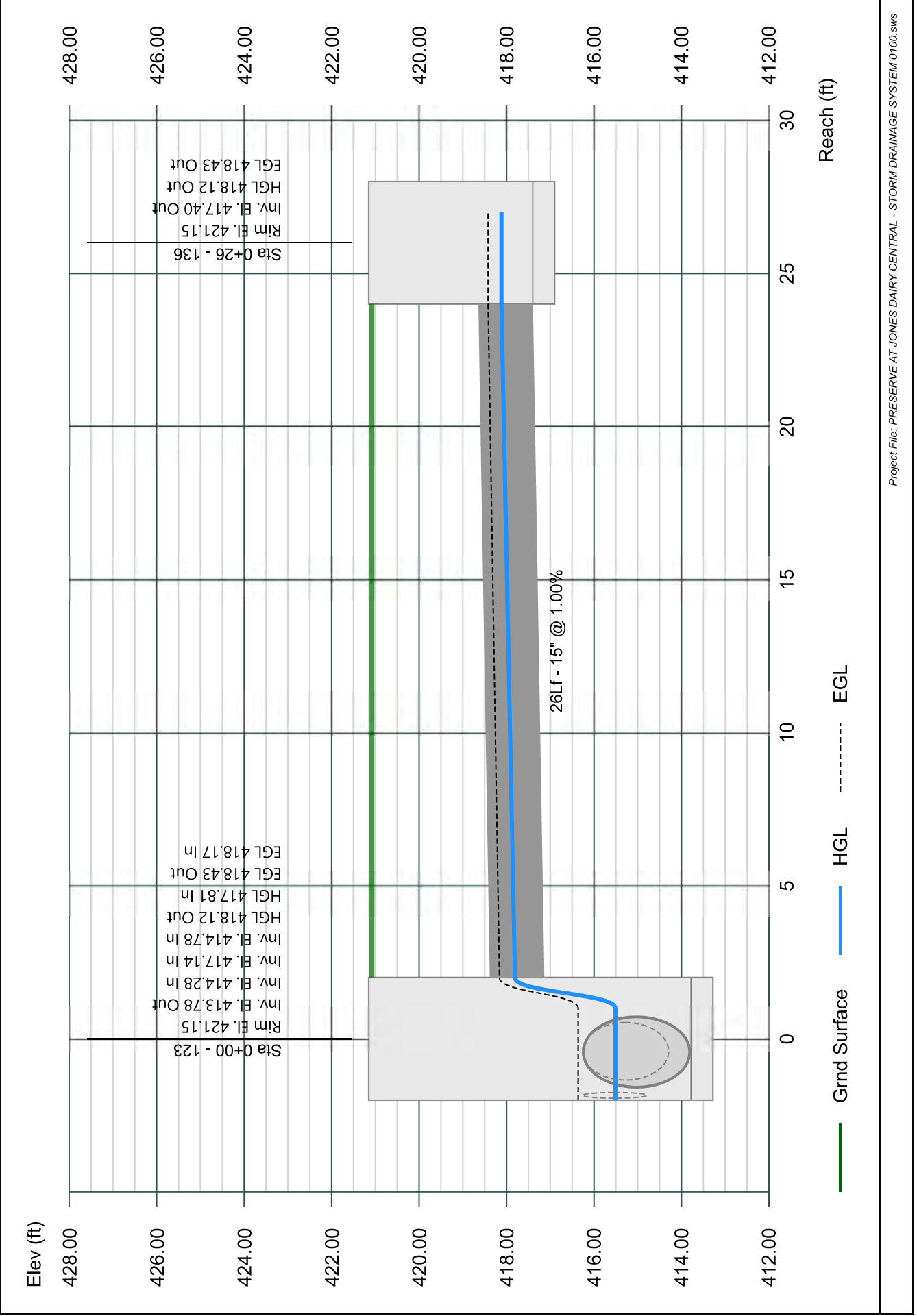


# Line 36 - 136 TO 123

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

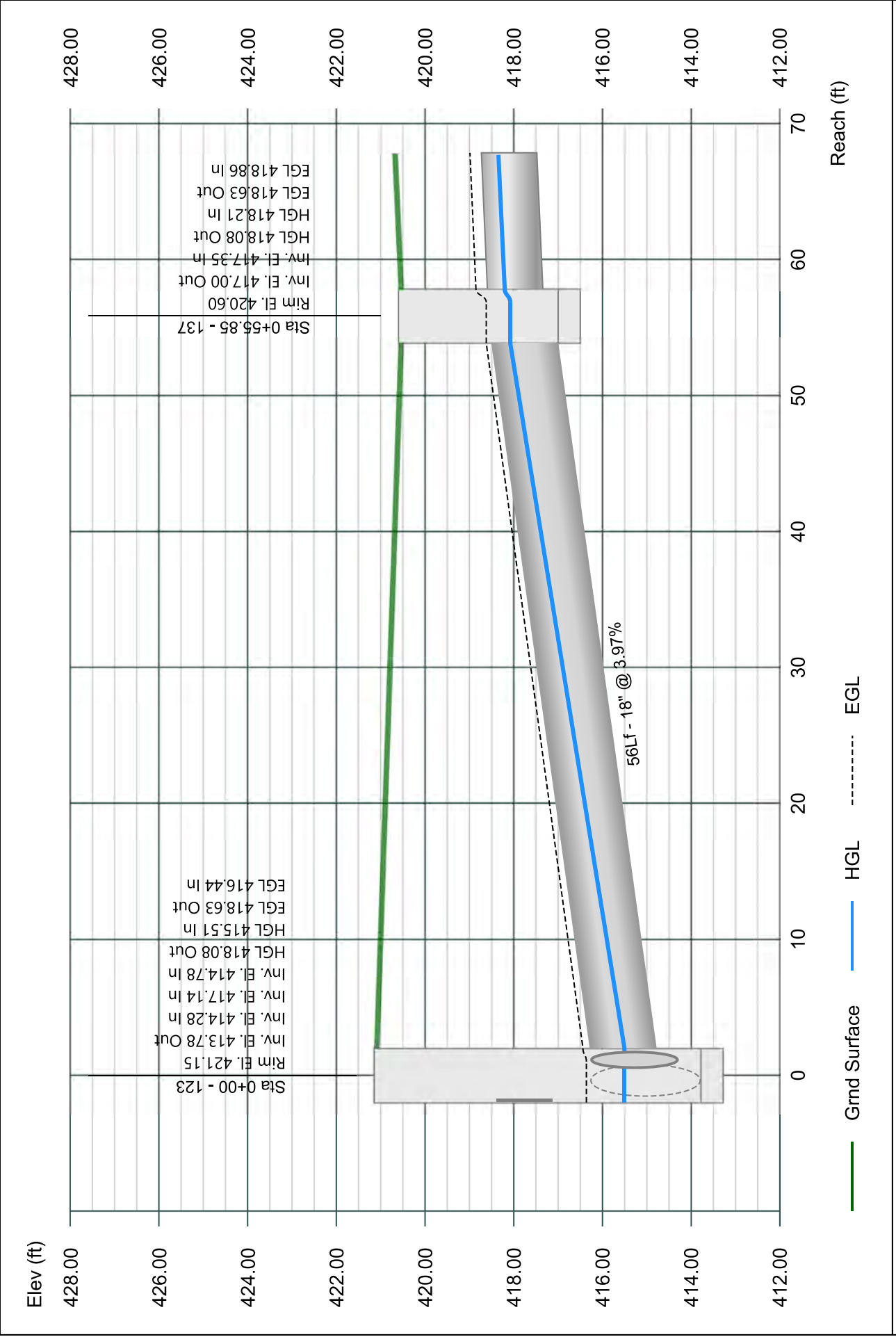


# Line 37 - 137 TO 123

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

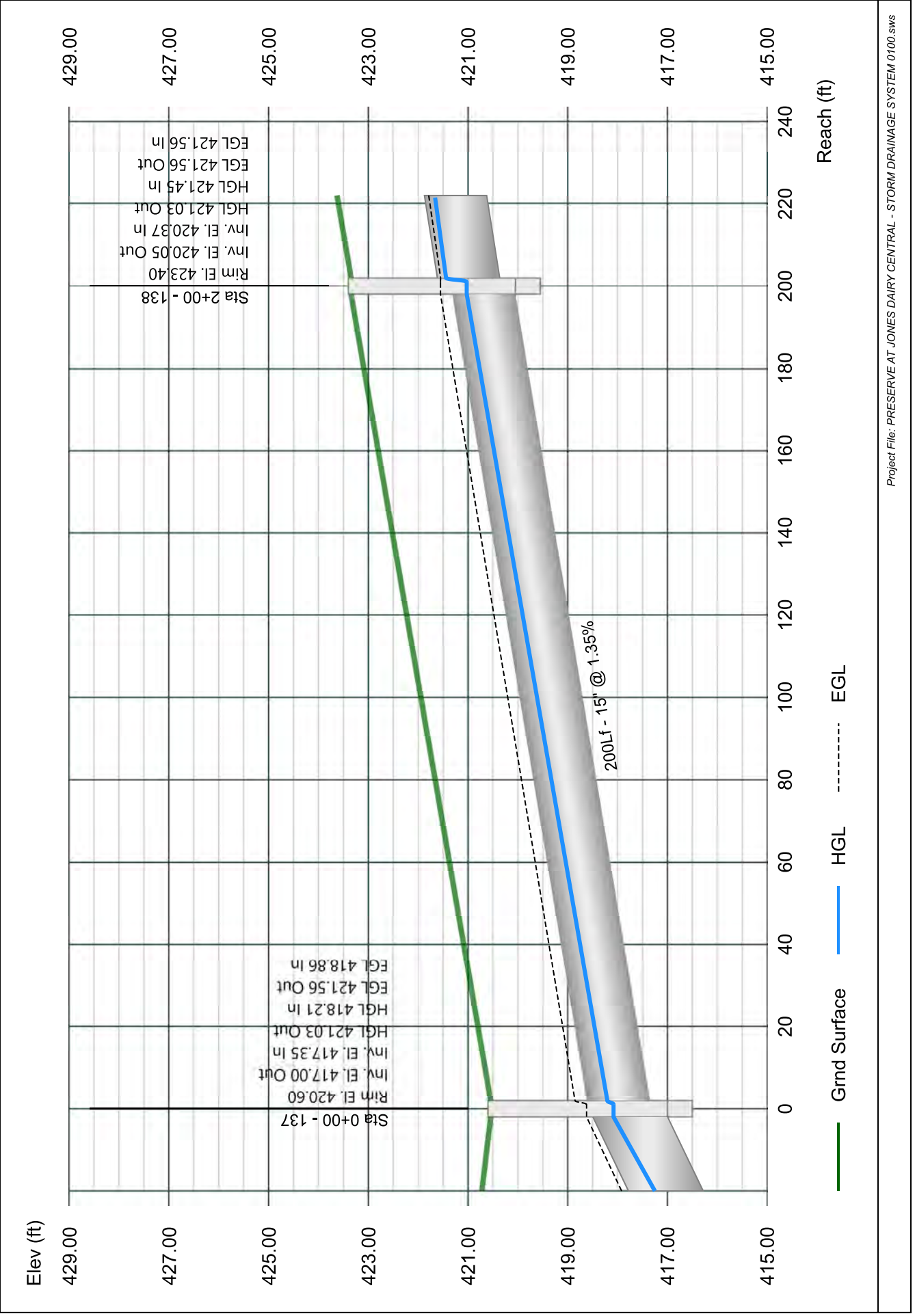


# Line 38 - 138 TO 137

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

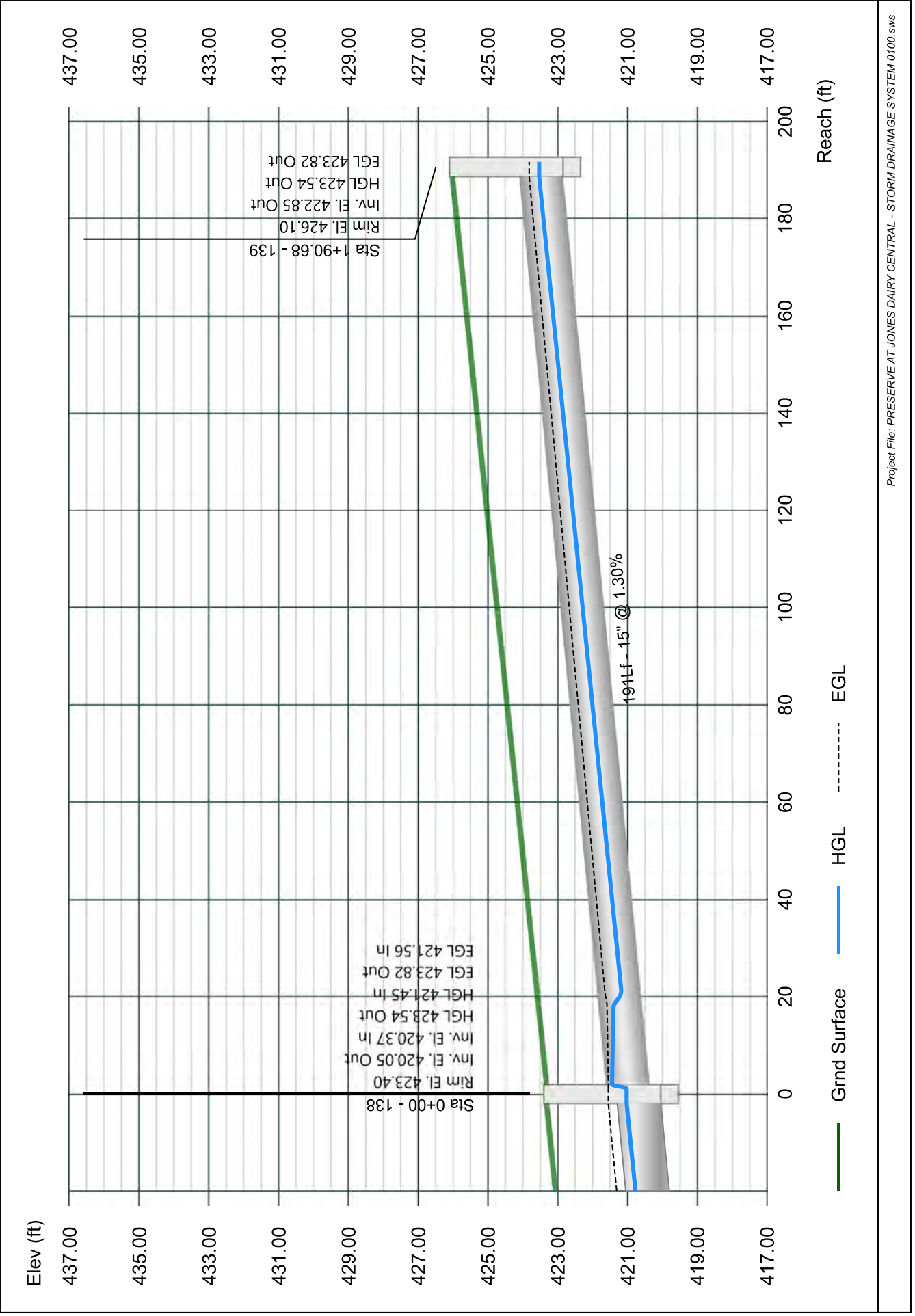


# Line 39 - 139 TO 138

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

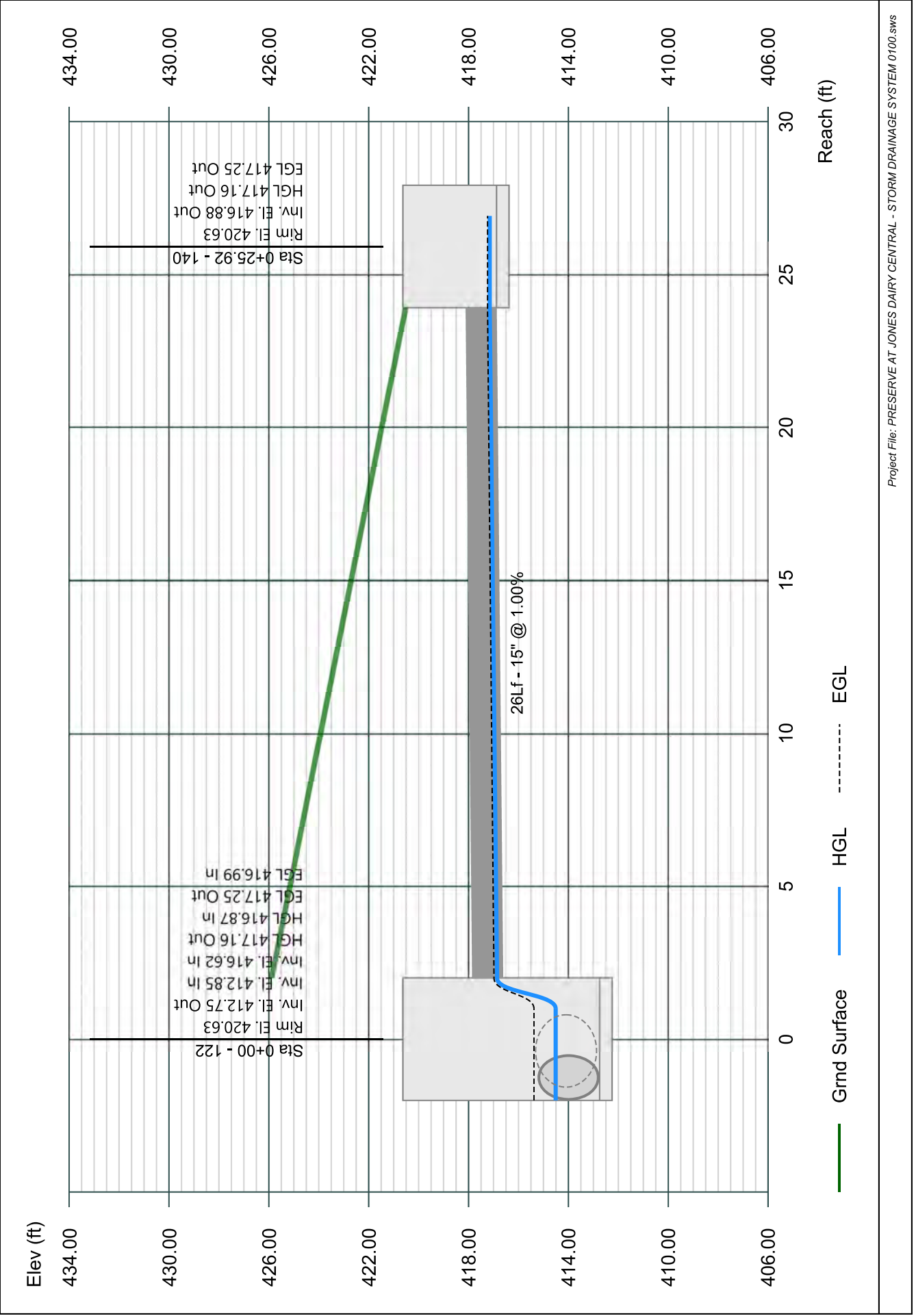


# Line 40 - 140 TO 122

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

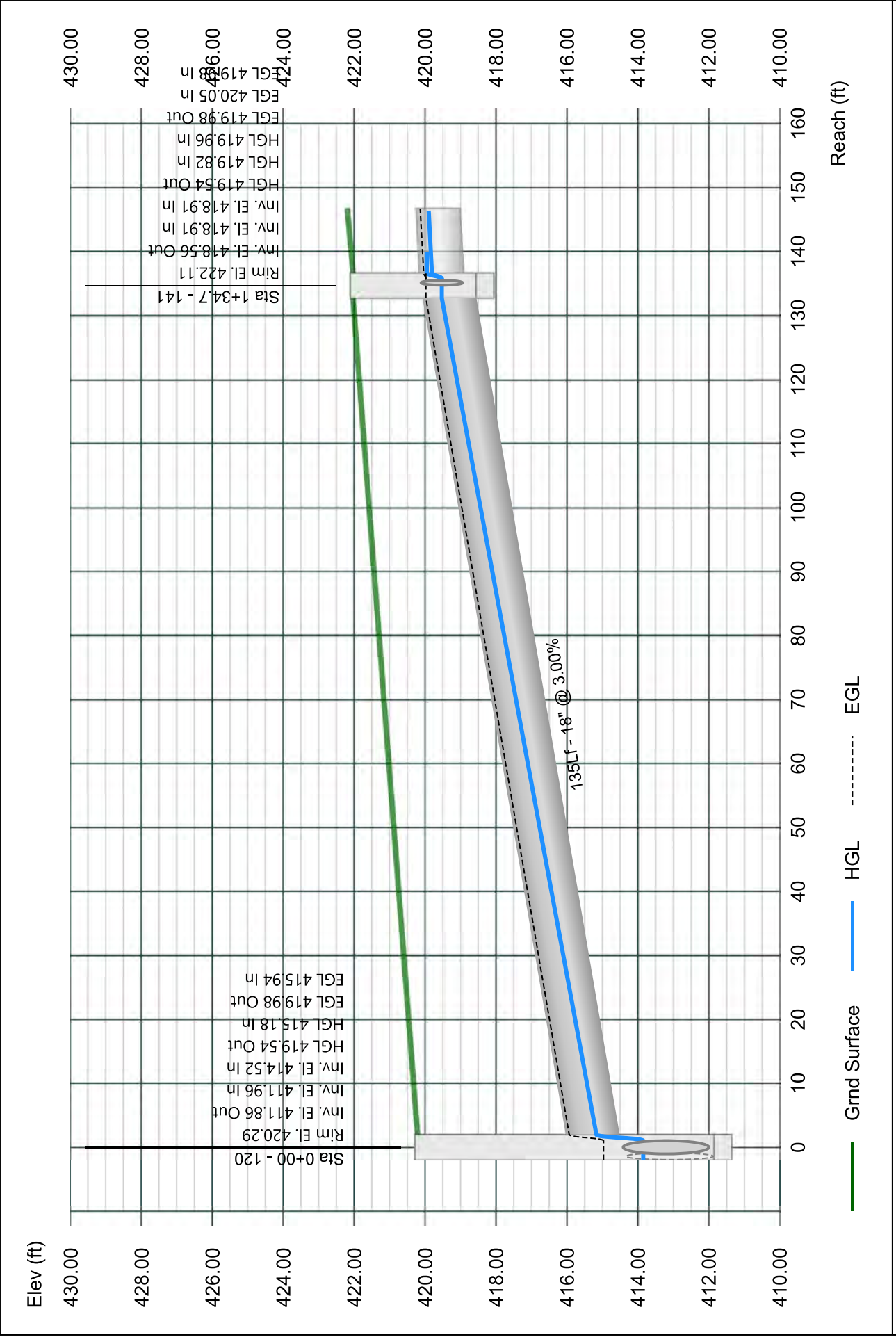


# Line 41 - 141 TO 120

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

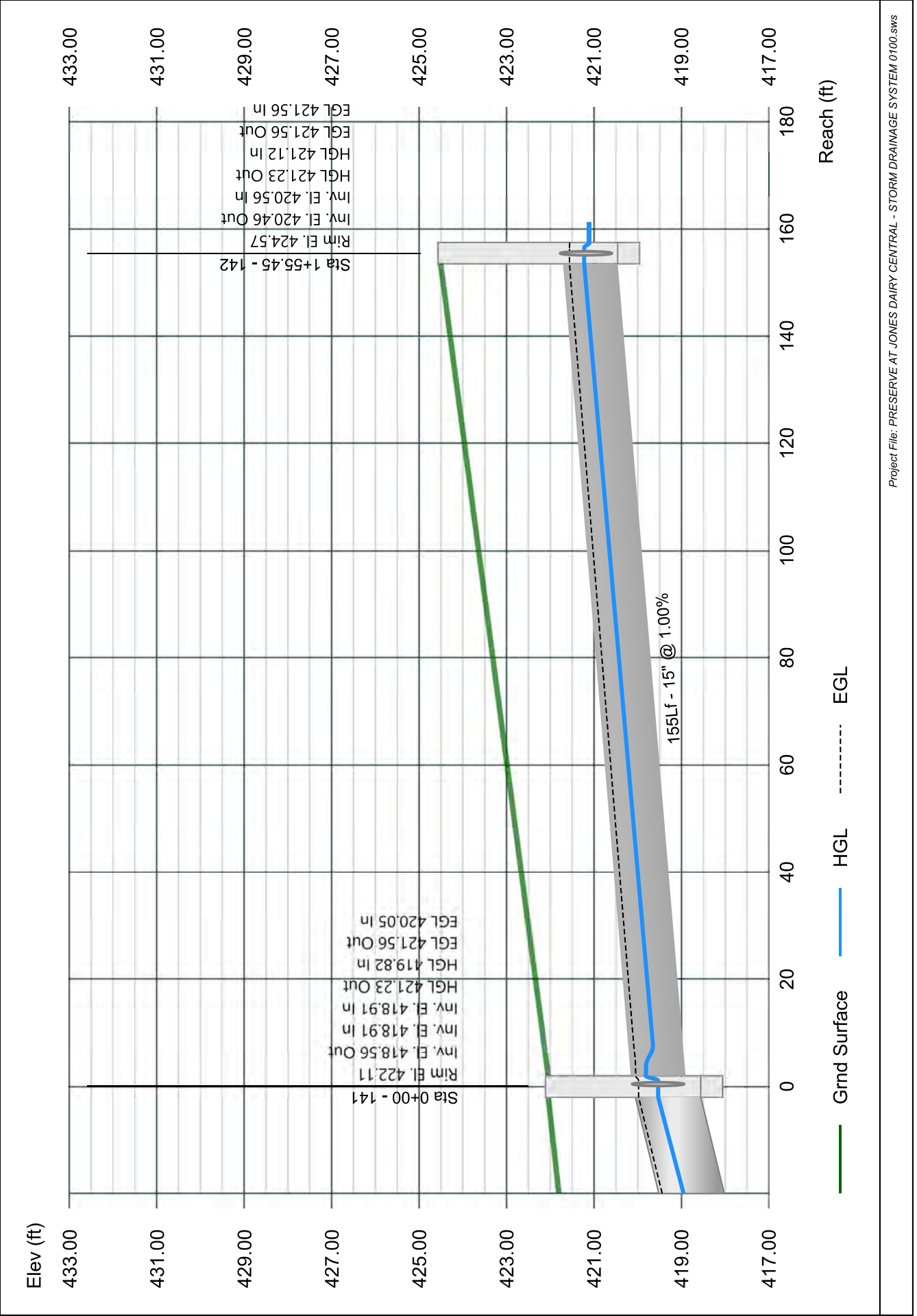


# Line 42 - 142 TO 141

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

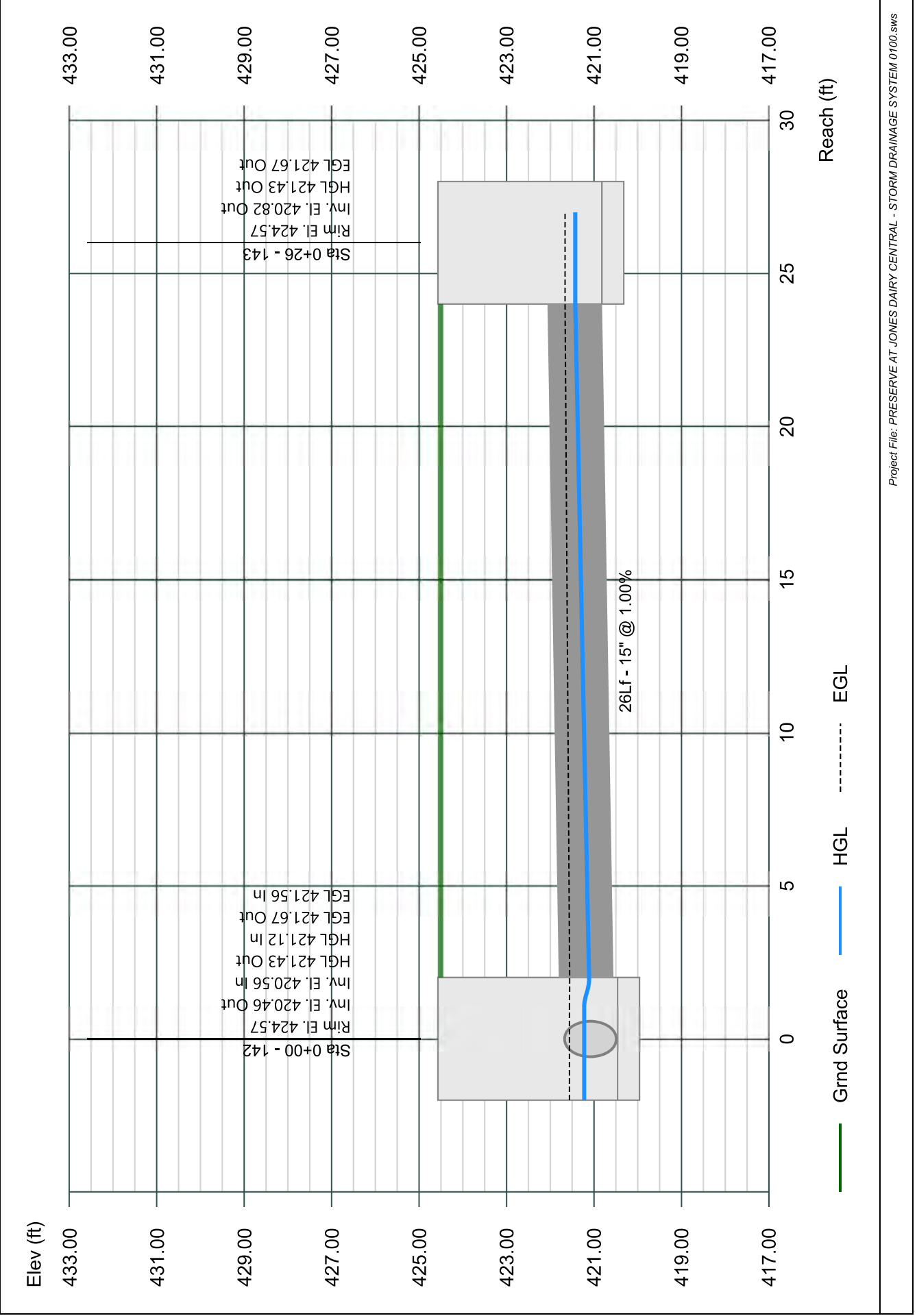


# Line 43 - 143 TO 142

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



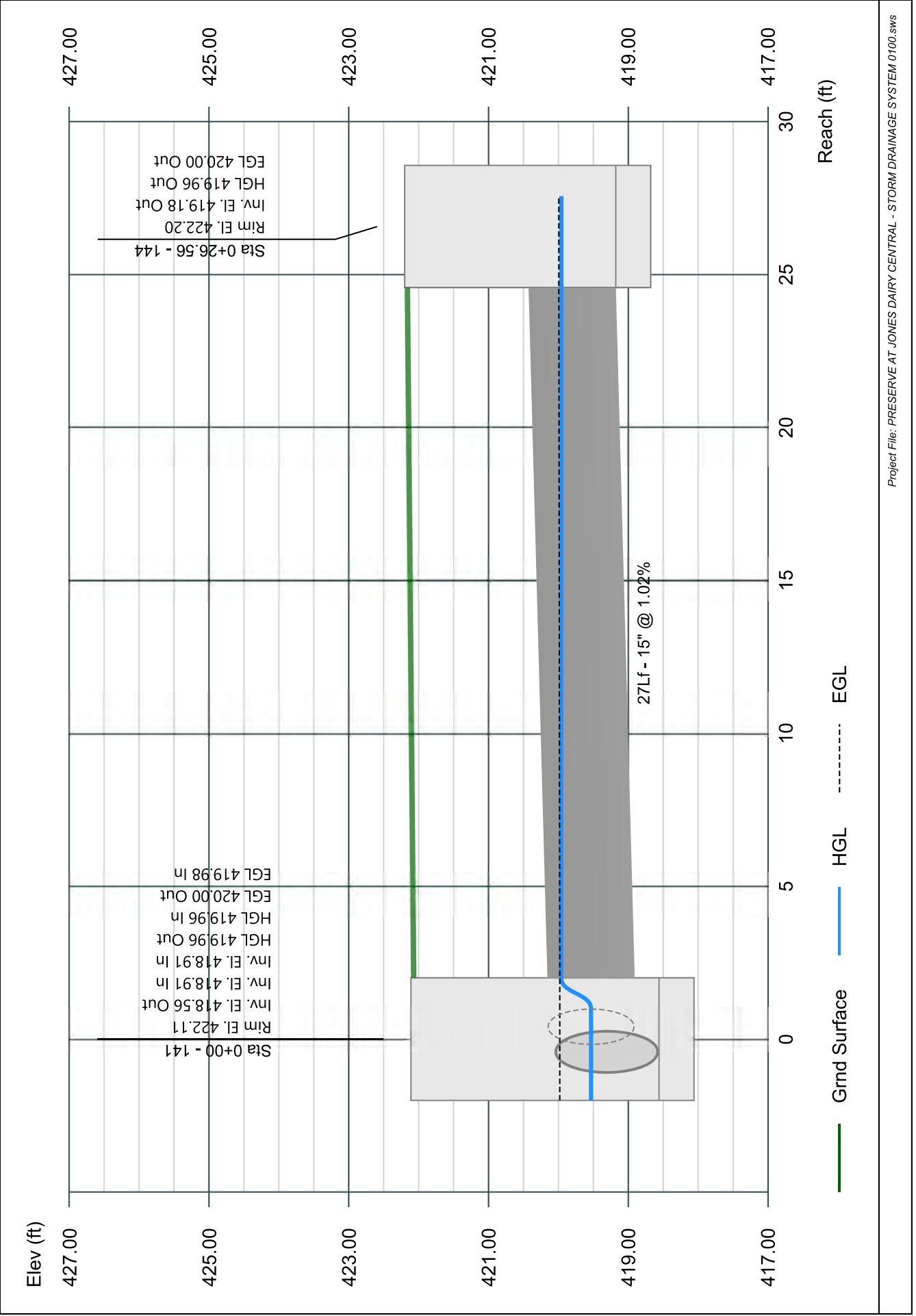


# Line 44 - 144 TO 141

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

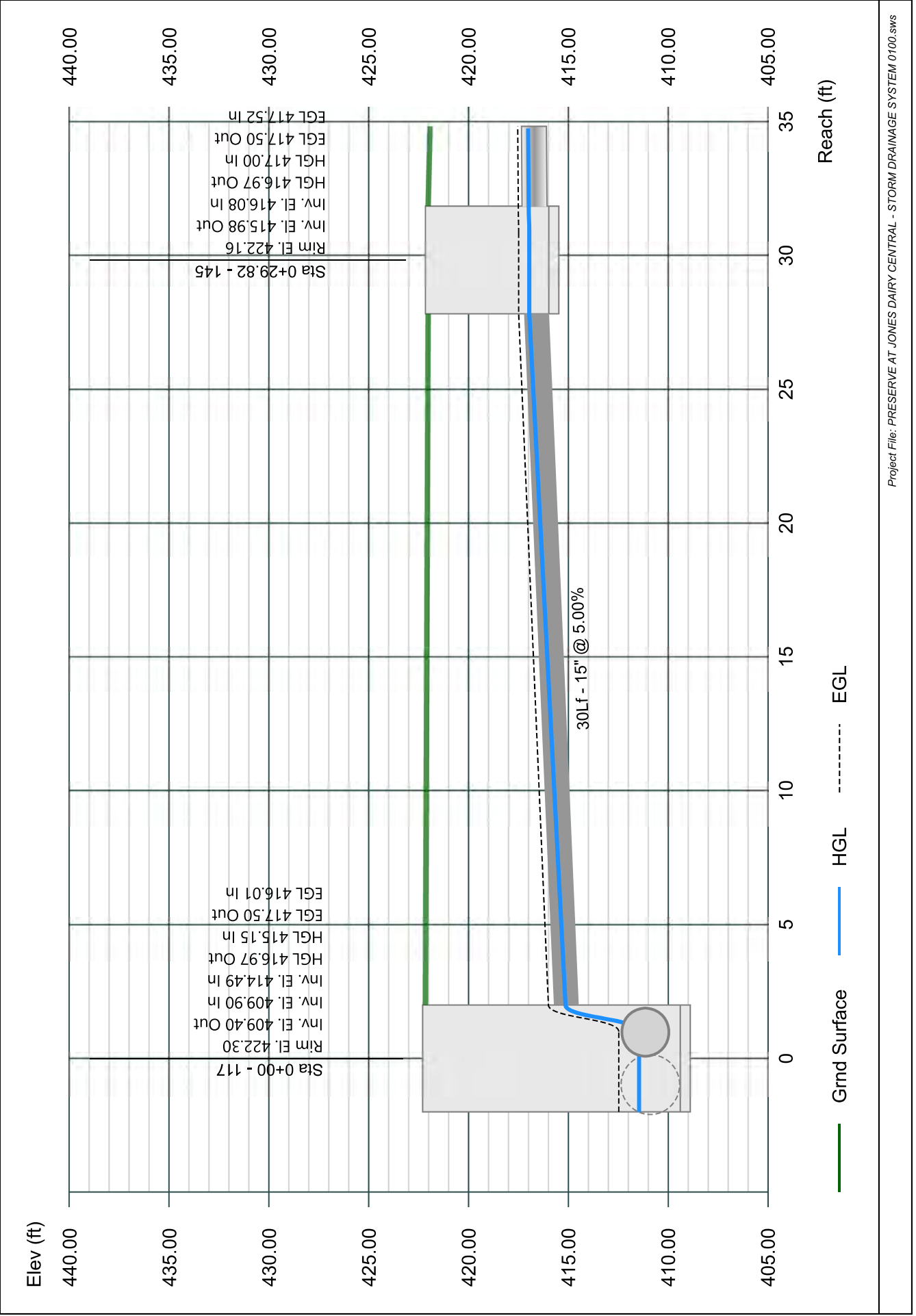


# Line 45 - 145 to 117

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

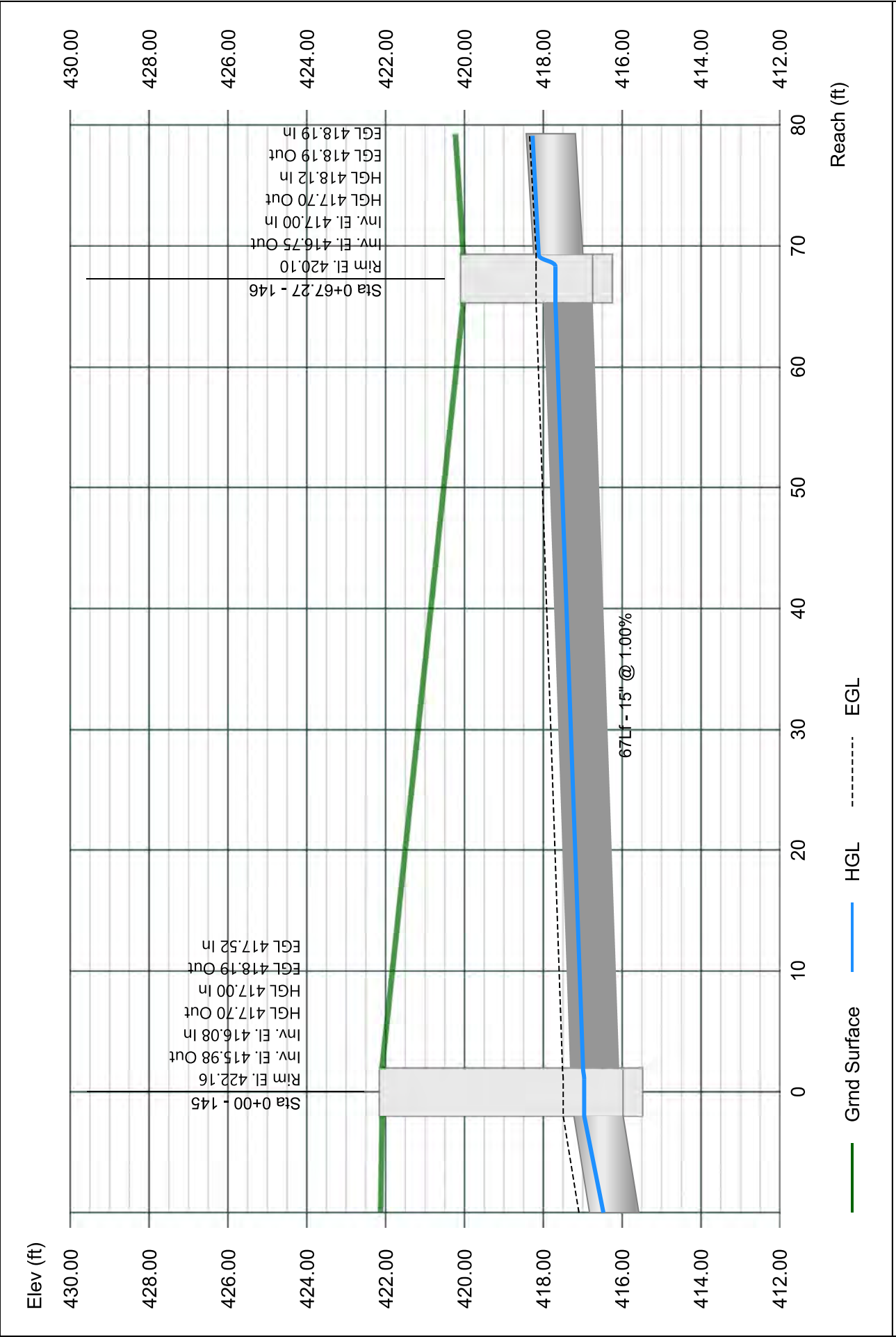


# Line 46 - 146 to 145

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

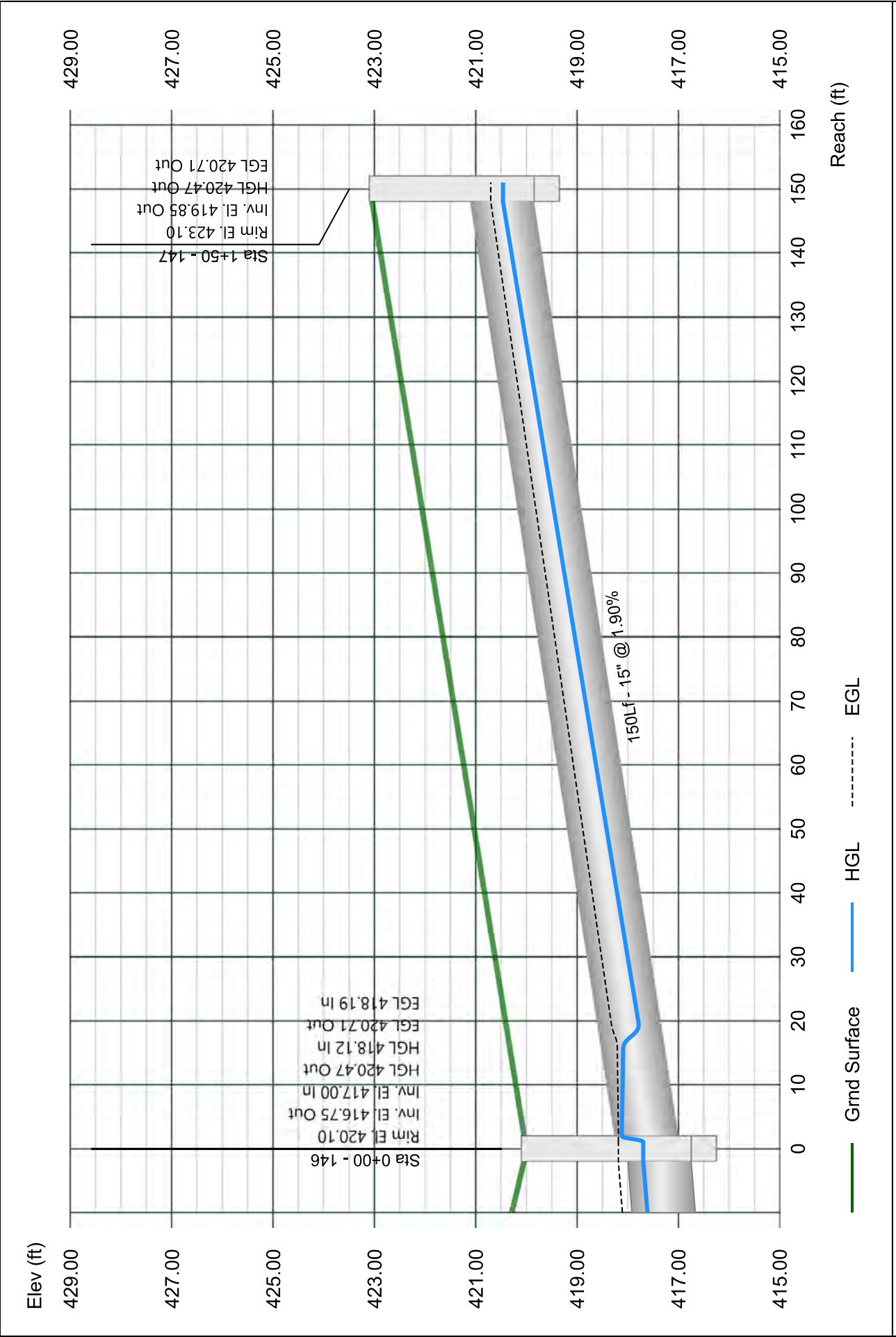


# Line 47 - 147 to 146

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

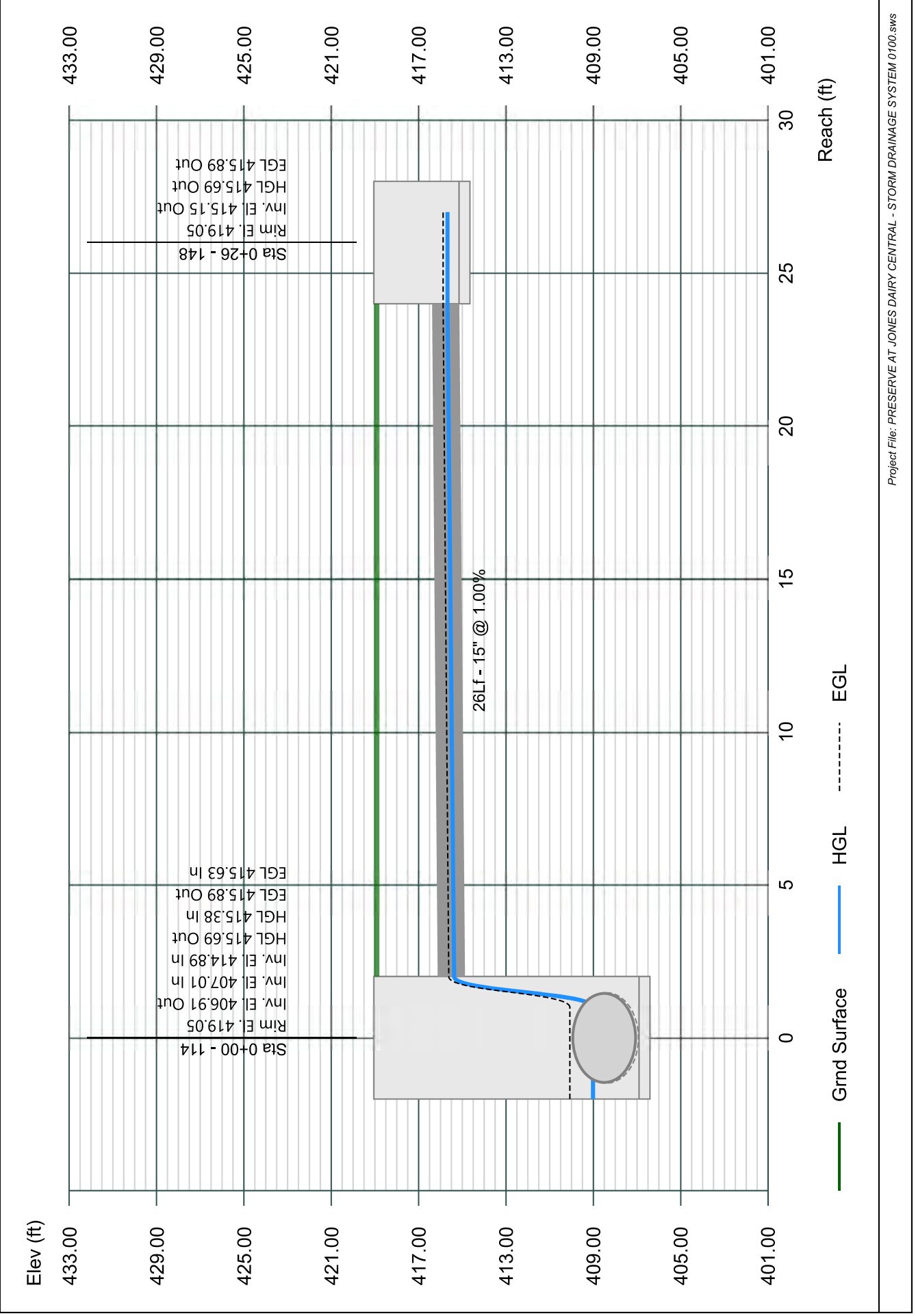


# Line 48 - 148 TO 114

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

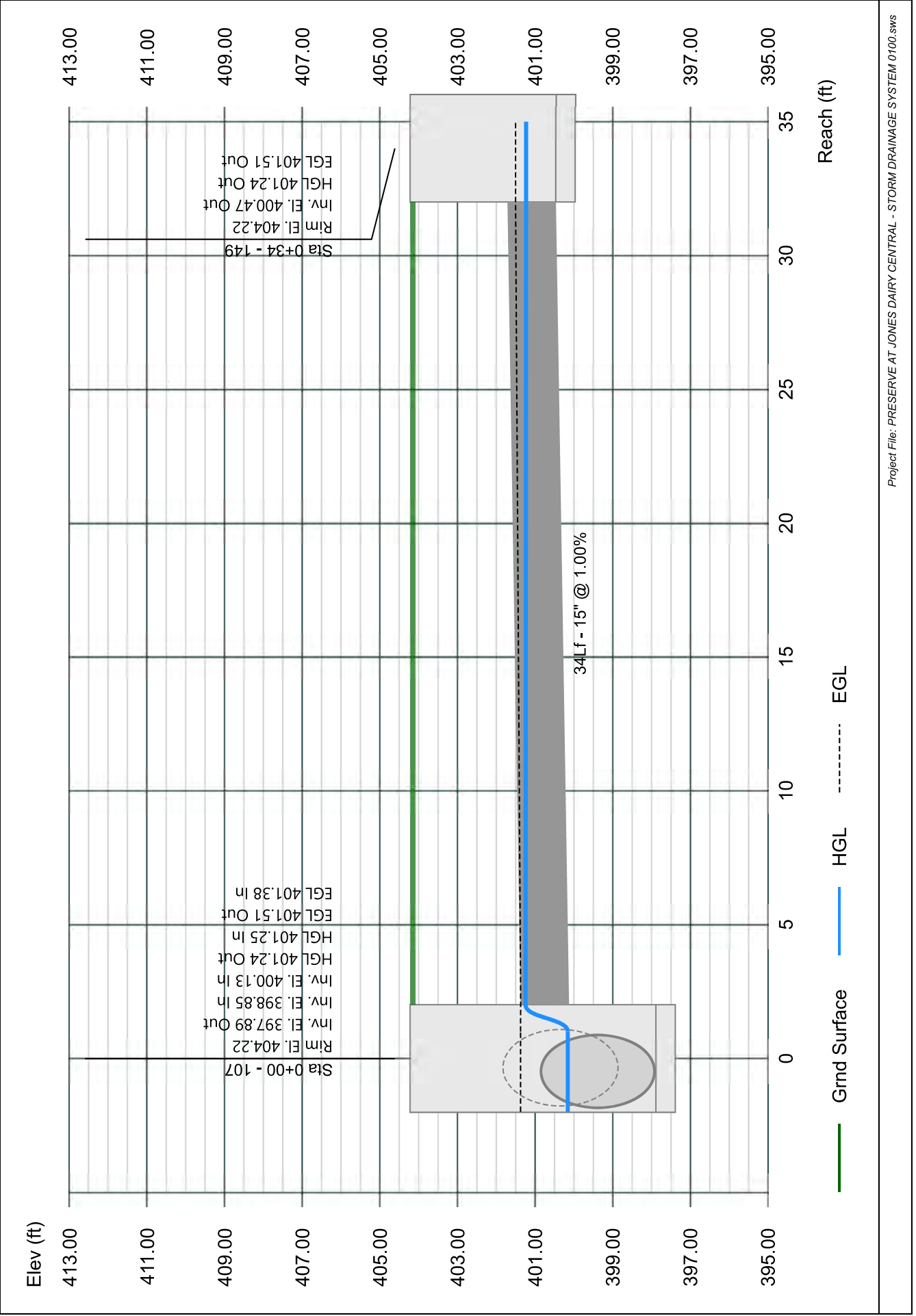


# Line 49 - 149 TO 107

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

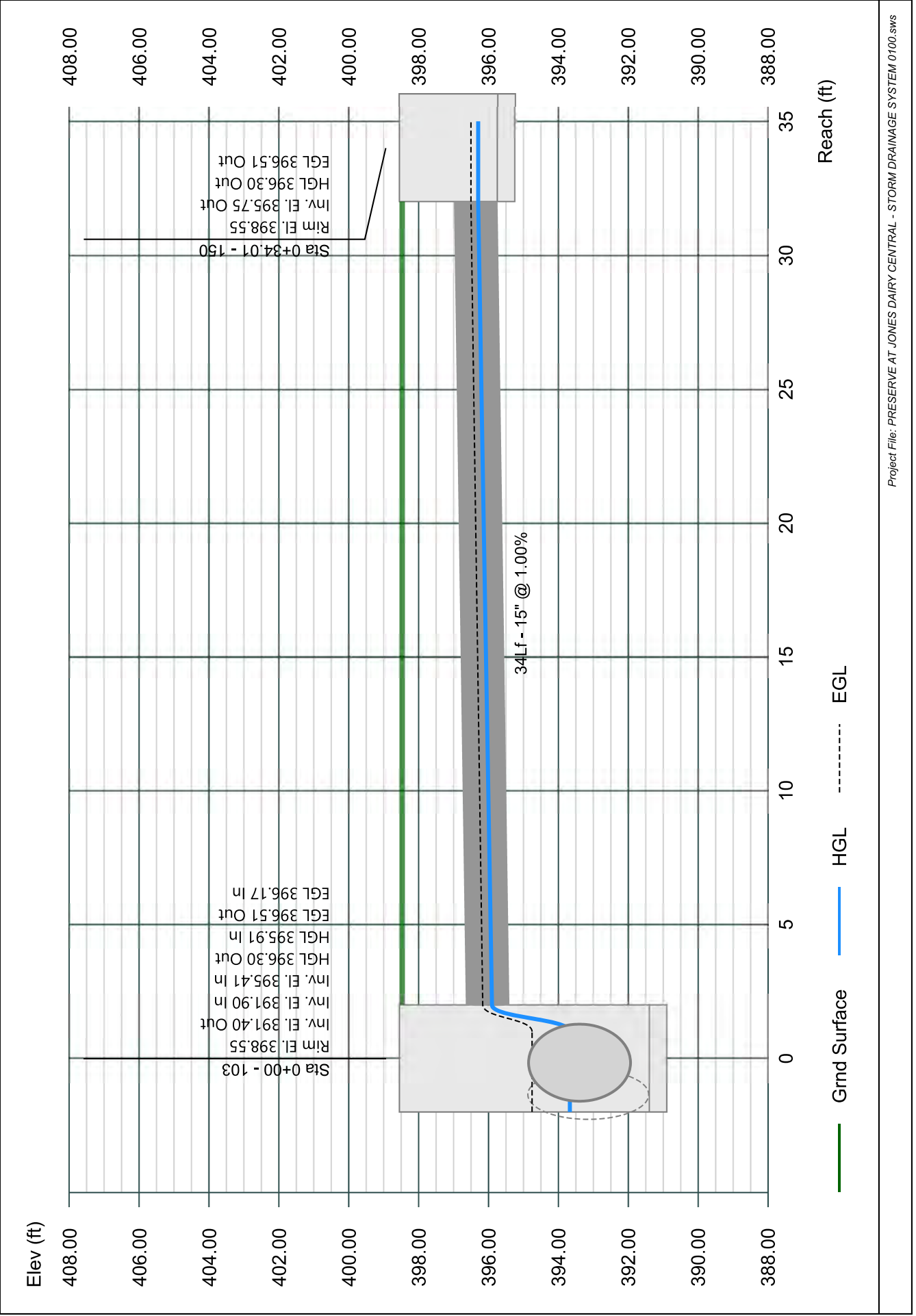


# Line 50 - 150 TO 103

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

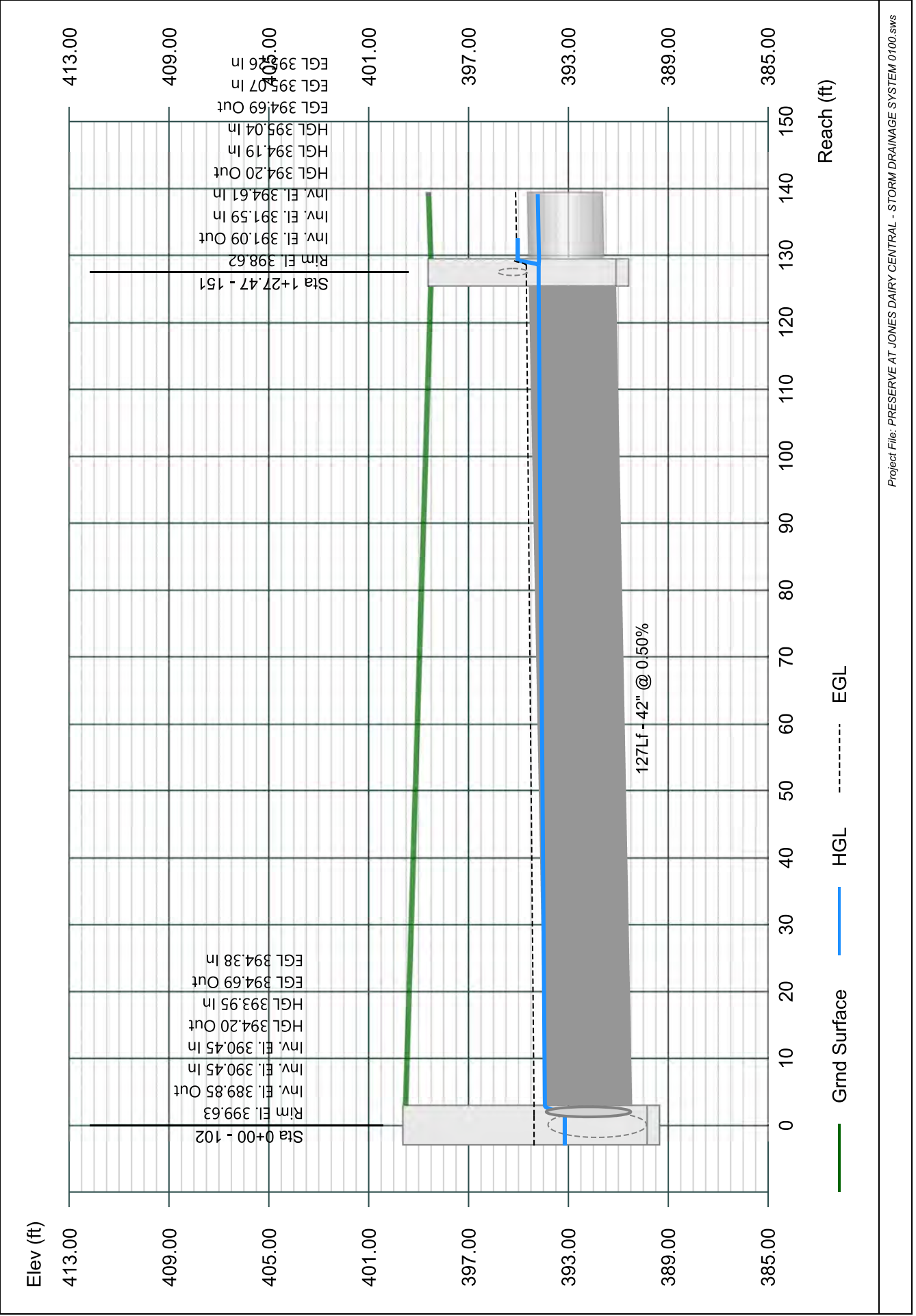


# Line 51 - 151 TO 102

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



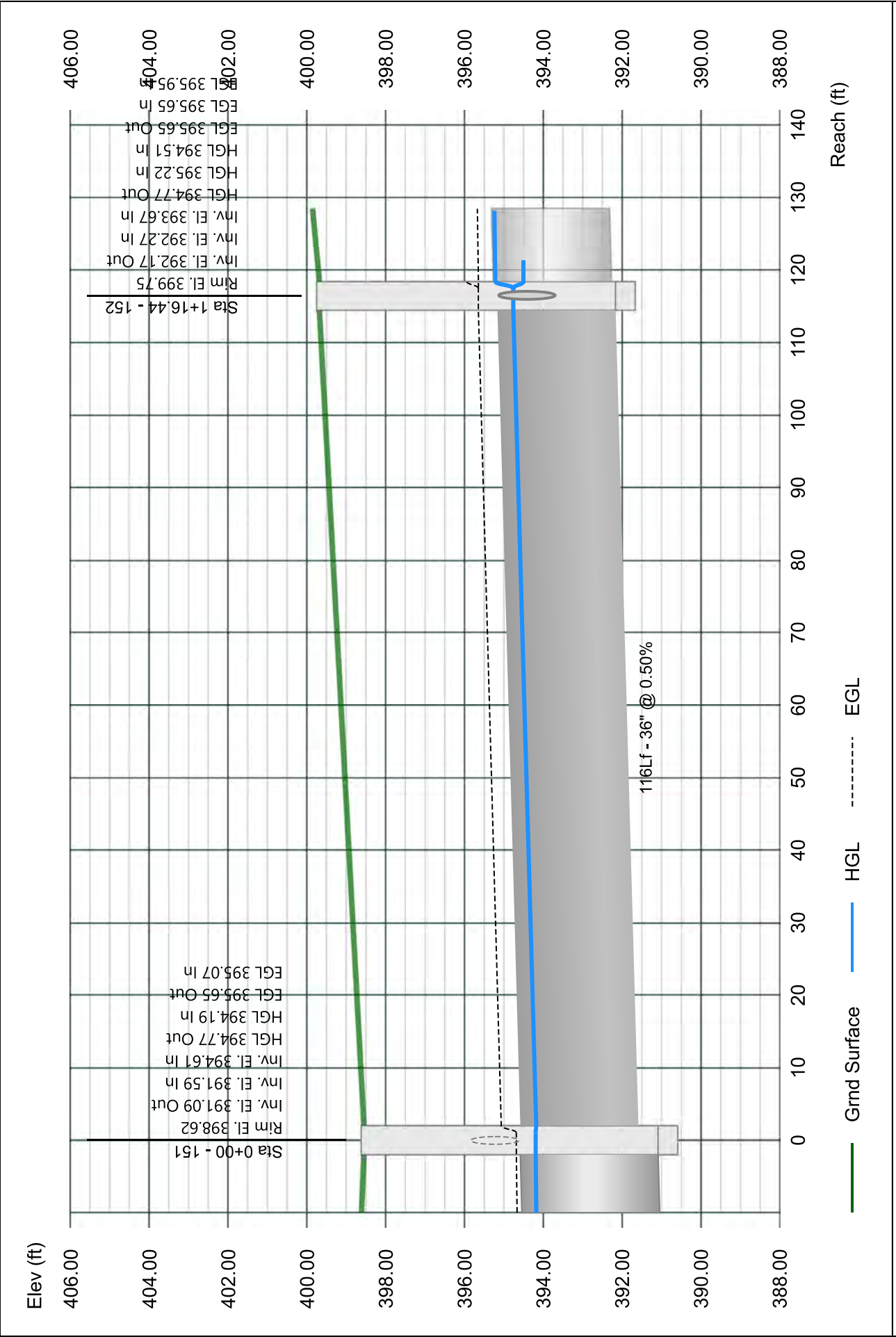


# Line 52 - 152 TO 151

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

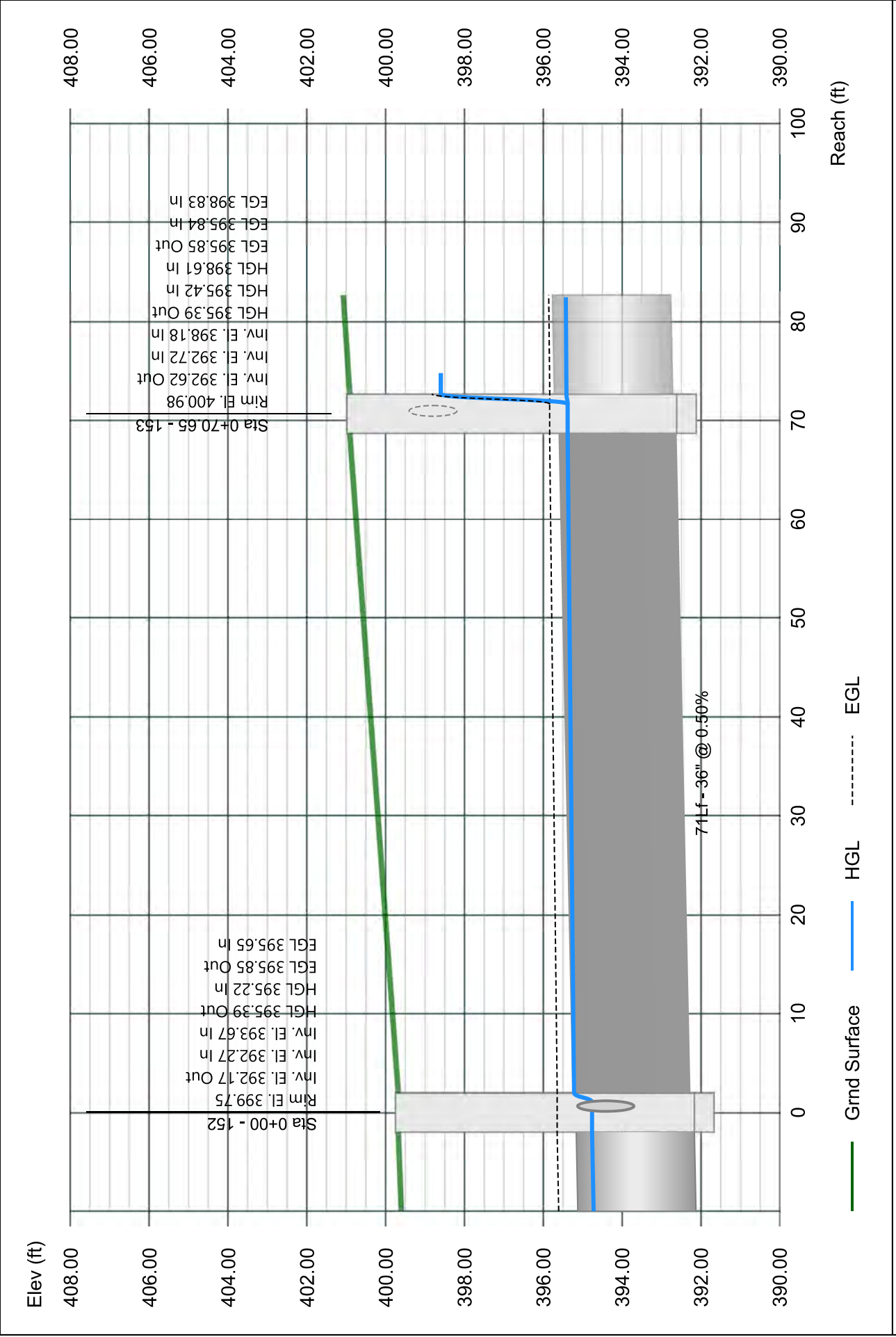


# Line 53 - 153 TO 152

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

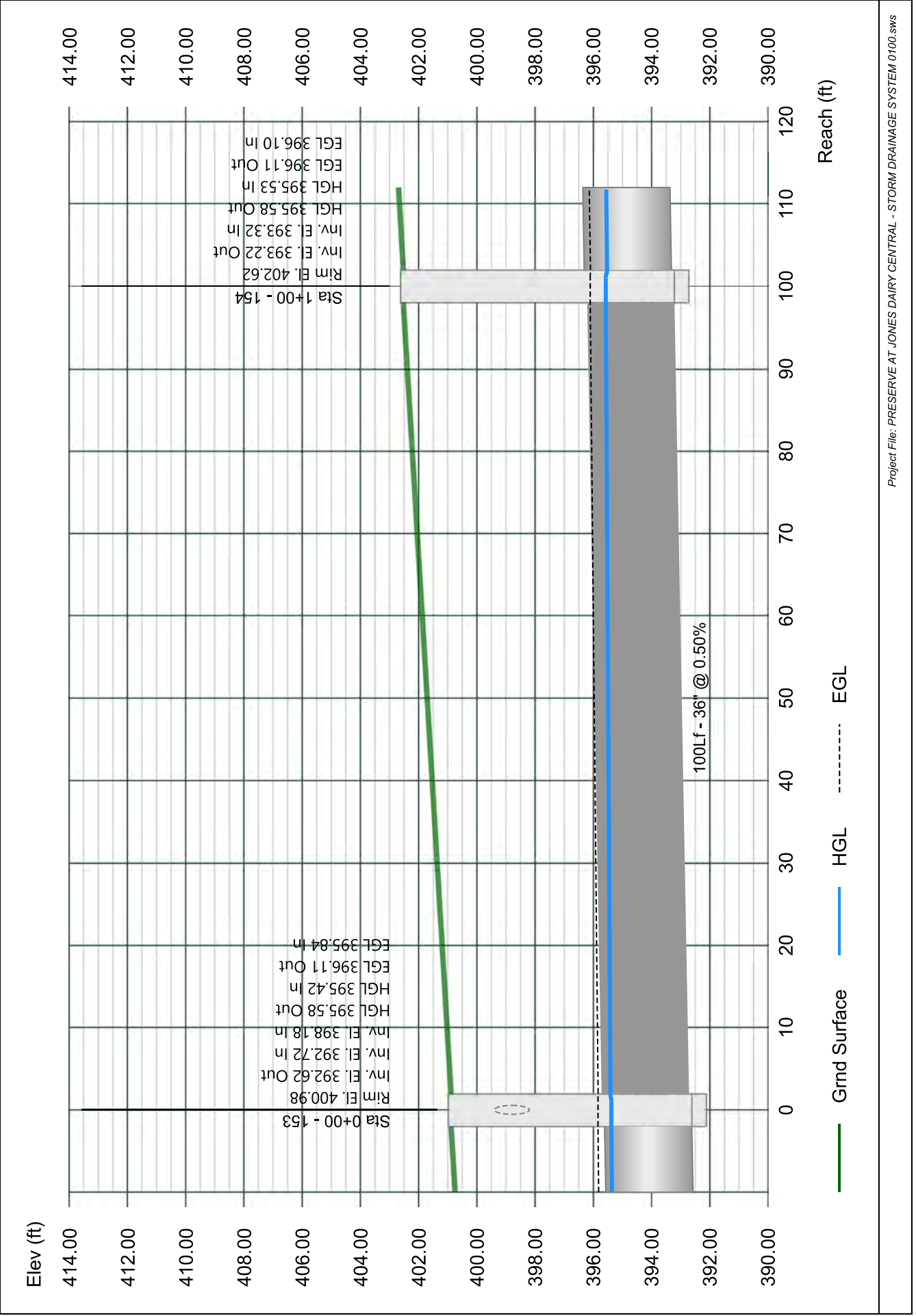


# Line 54 - 154 TO 153

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

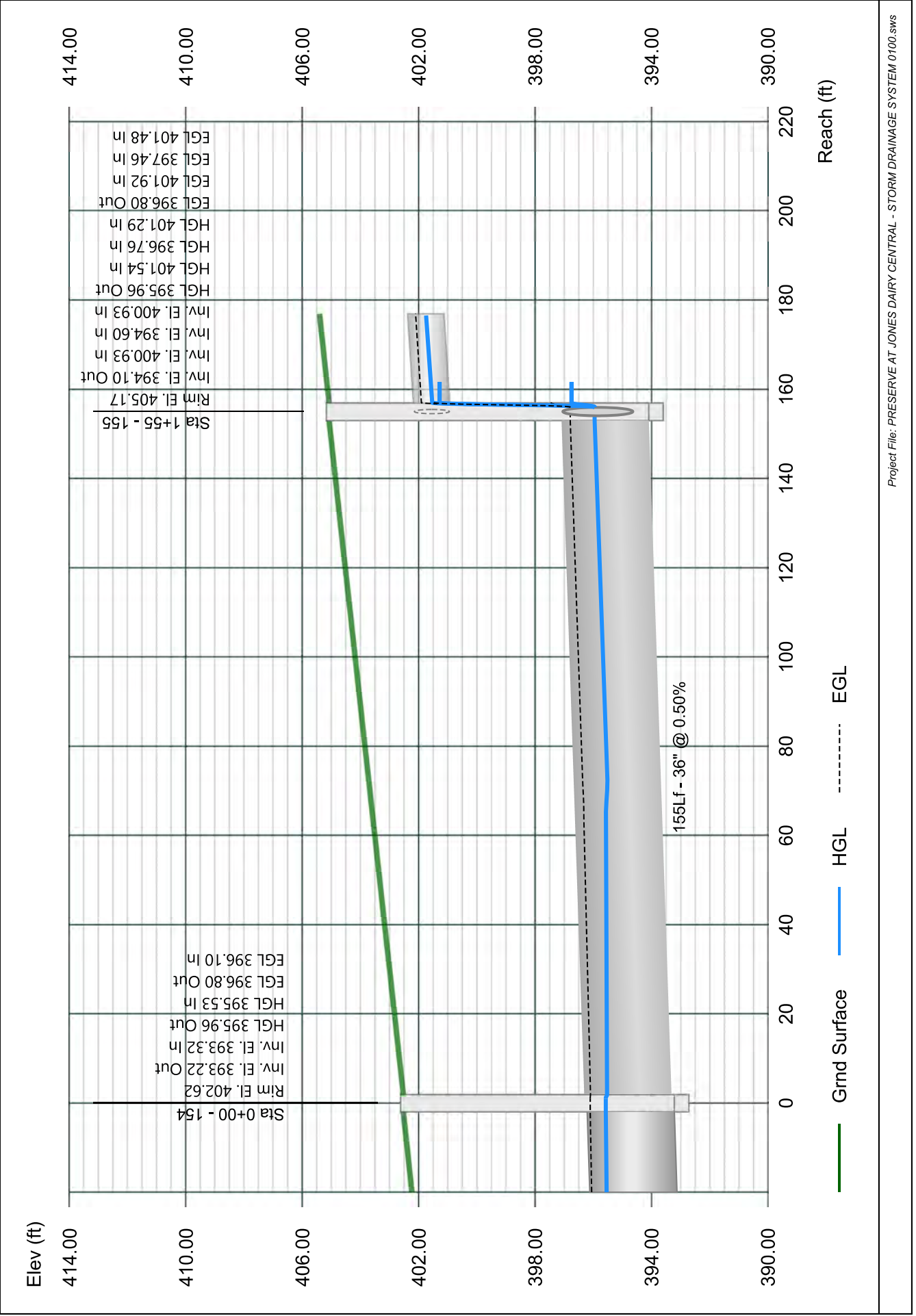


# Line 55 - 155 TO 154

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

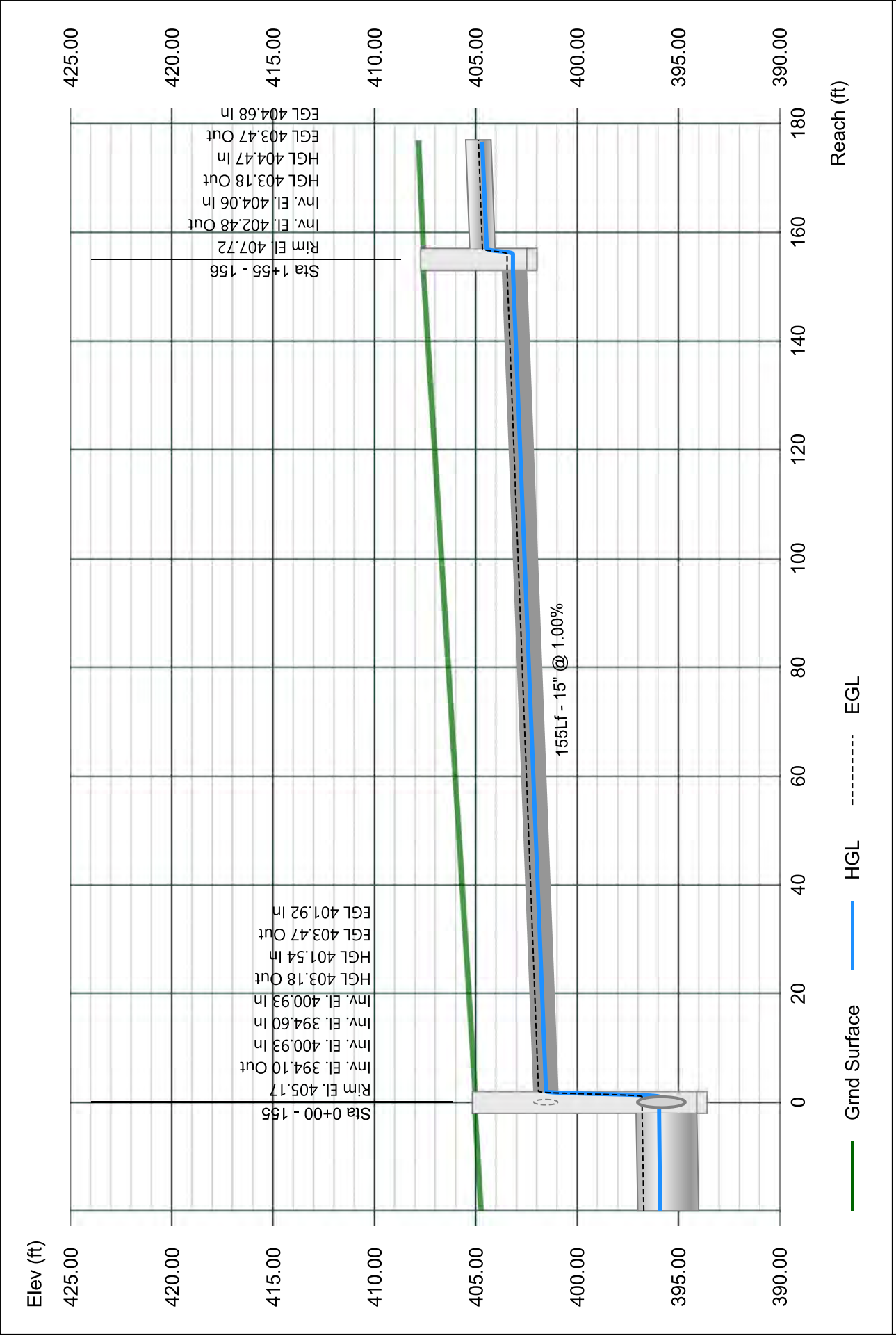


# Line 56 - 156 TO 155

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

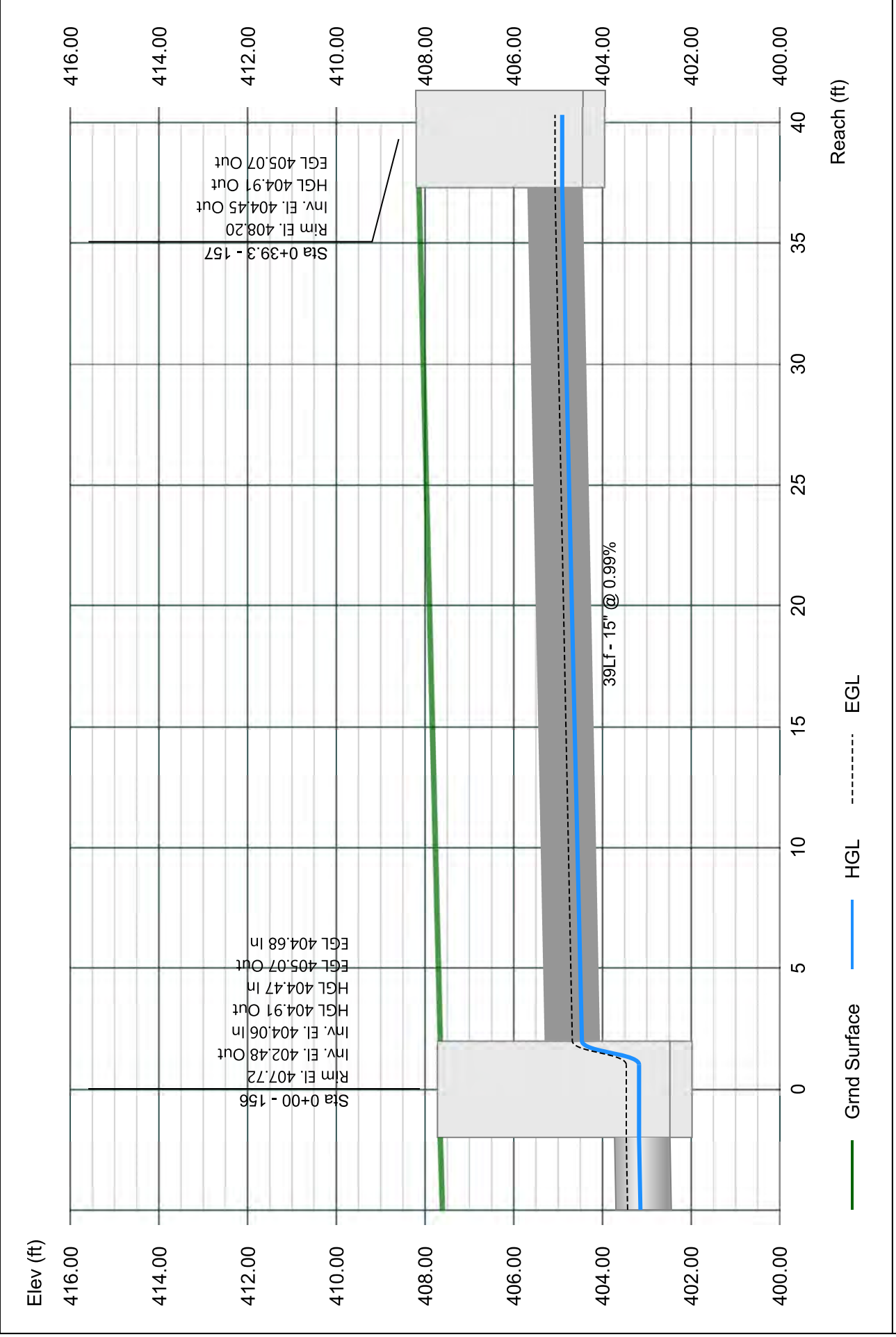


# Line 57 - 157 TO 156

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

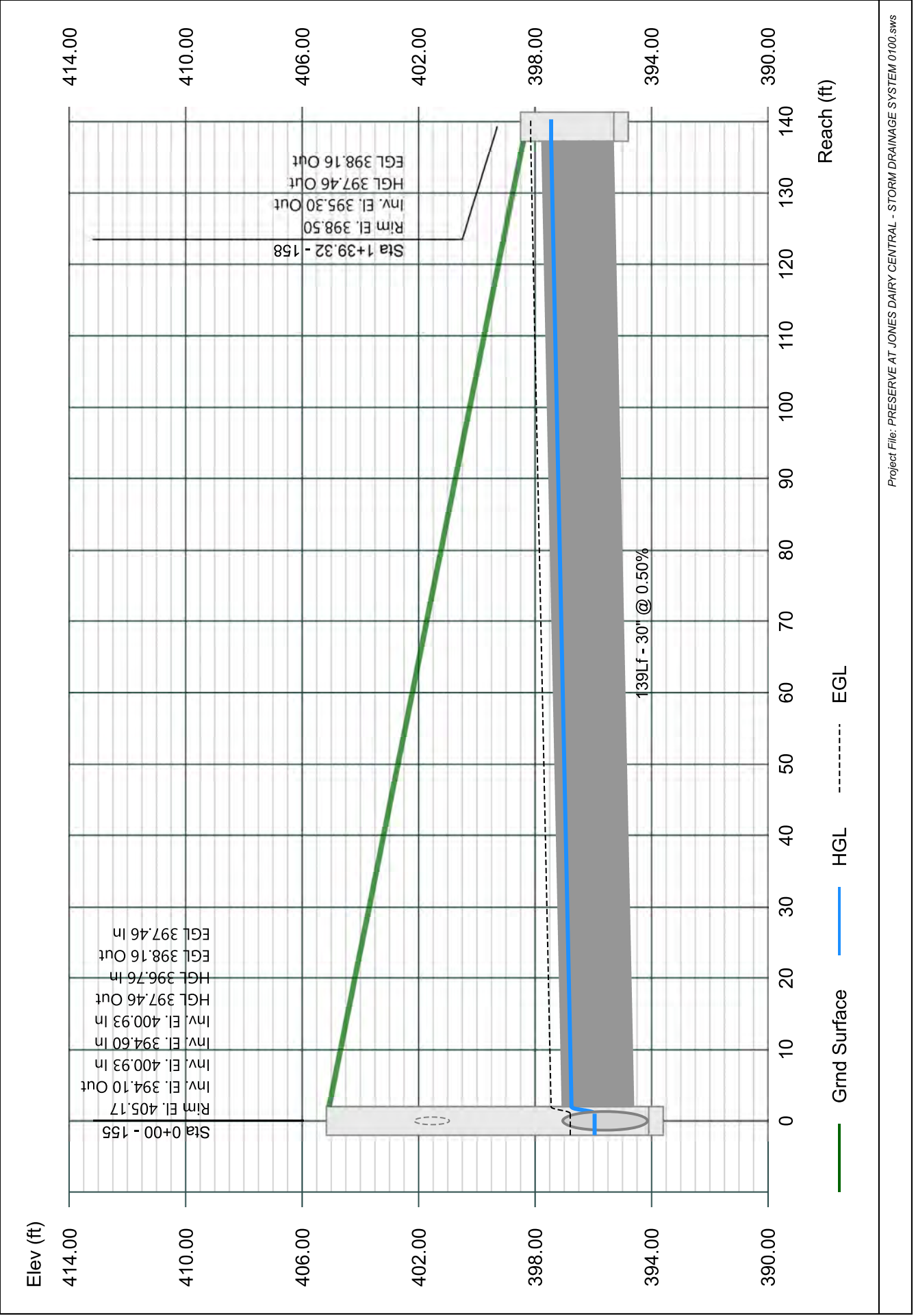


# Line 58 - 158 TO 155

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

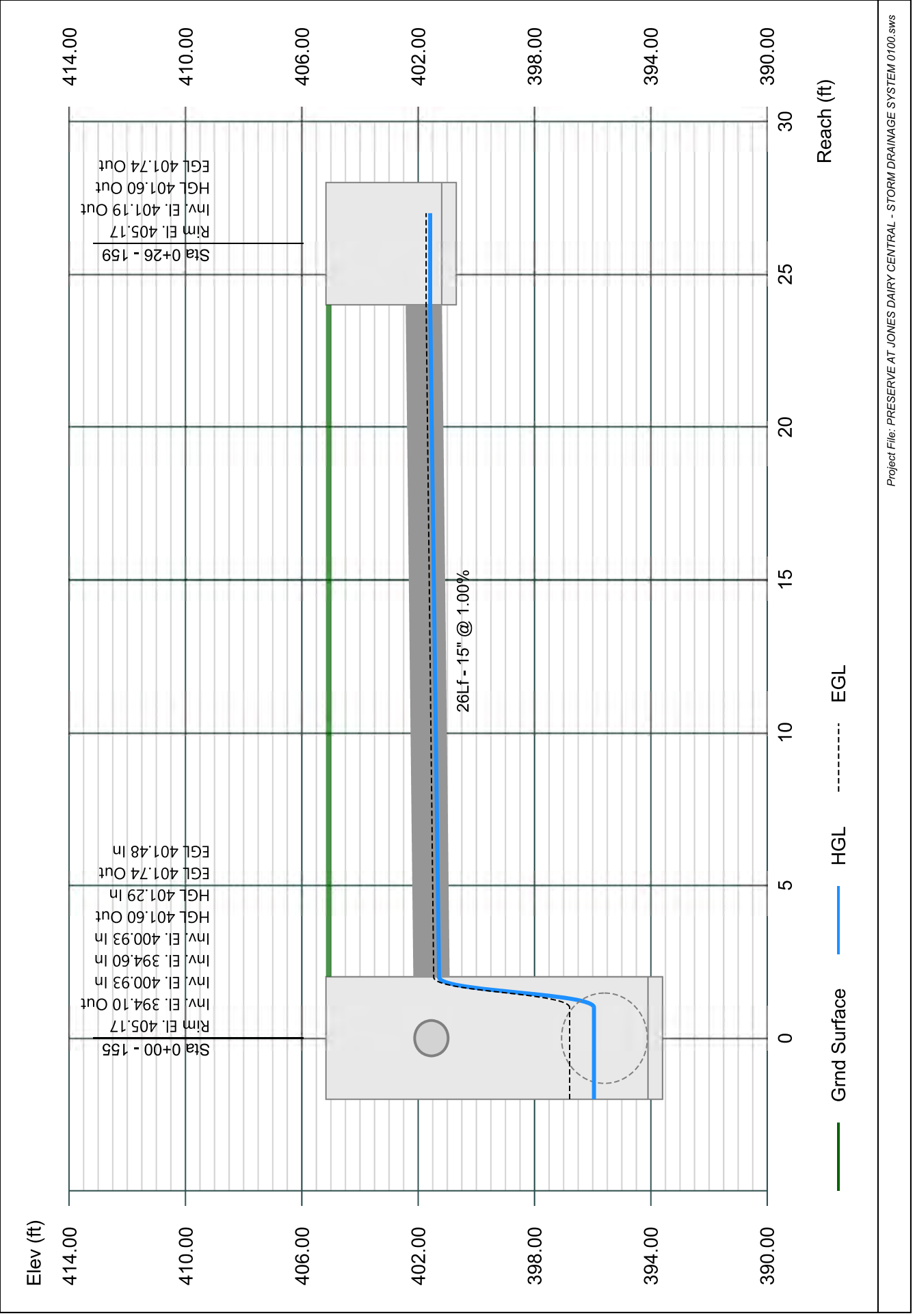


# Line 59 - 159 TO 155

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



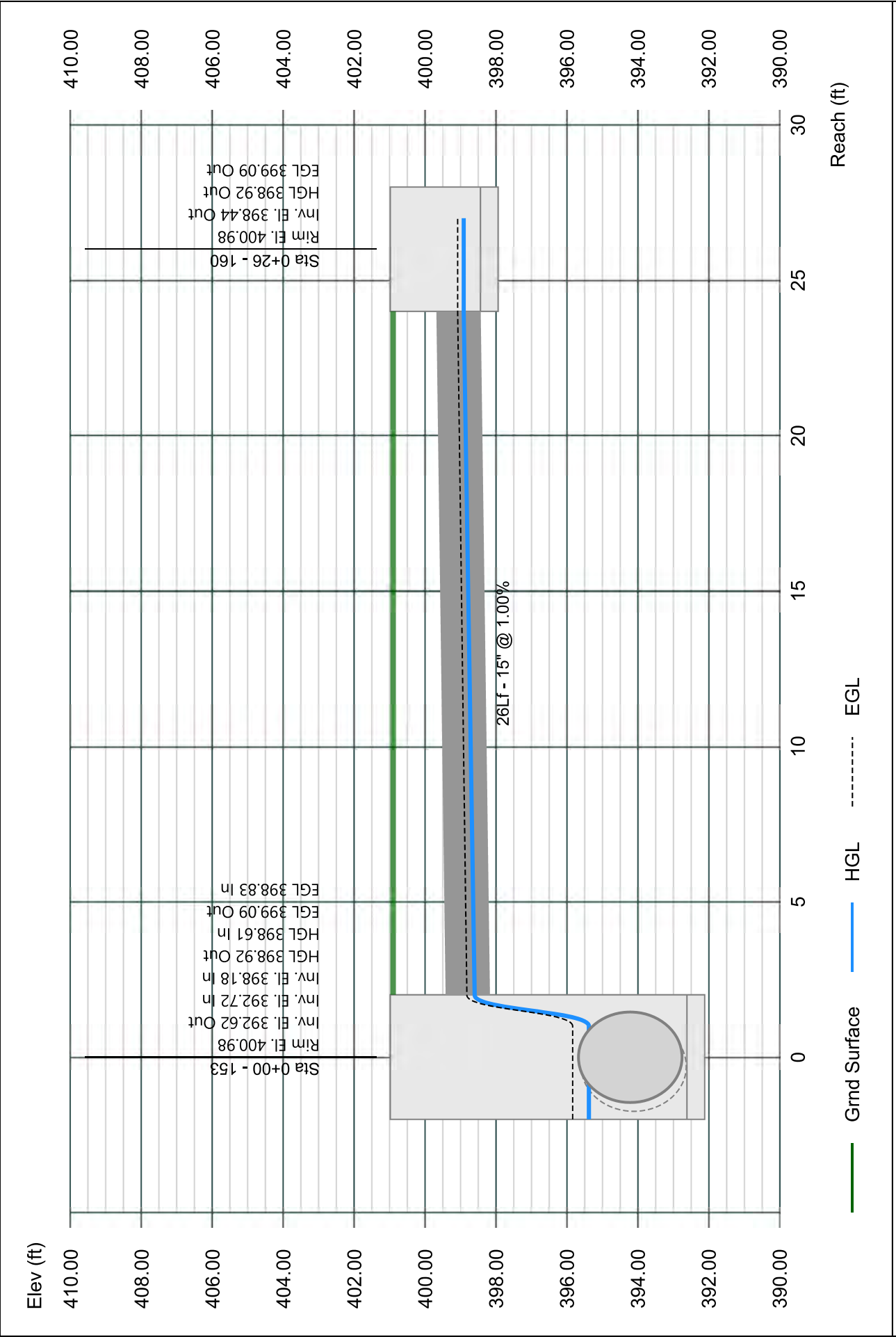


# Line 60 - 160 TO 153

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

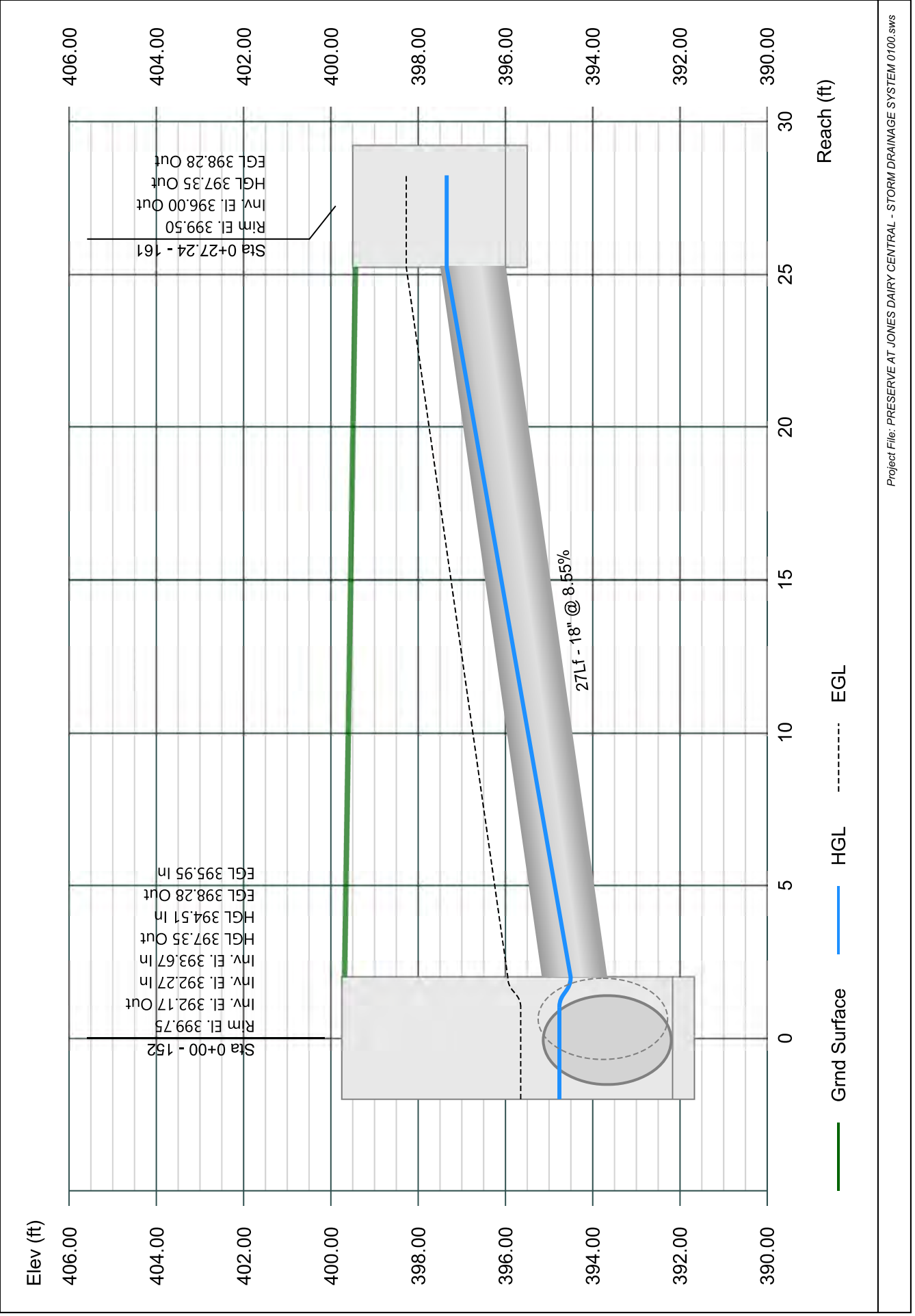


# Line 61 - 161 TO 152

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

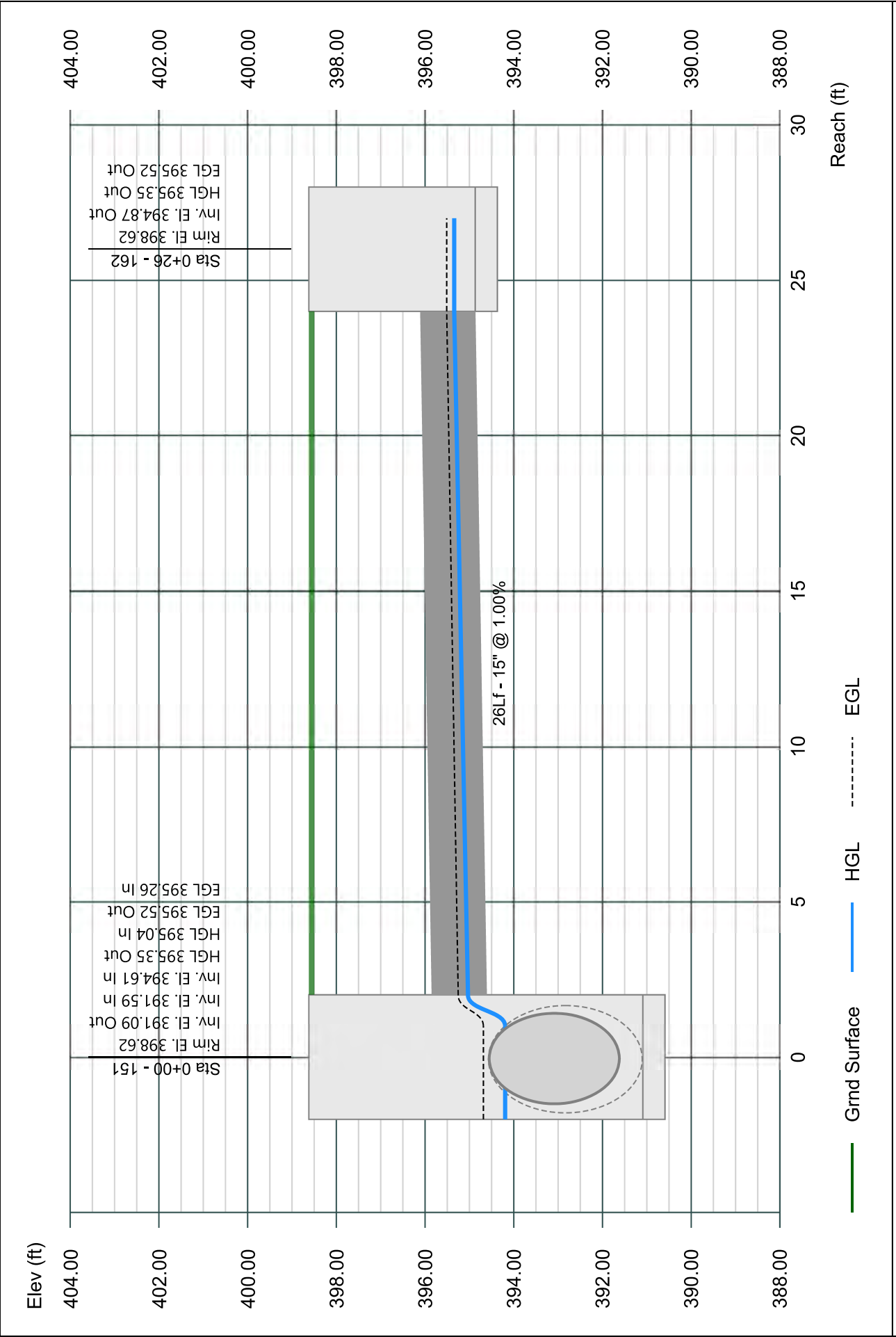


# Line 62 - 163 TO 151

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

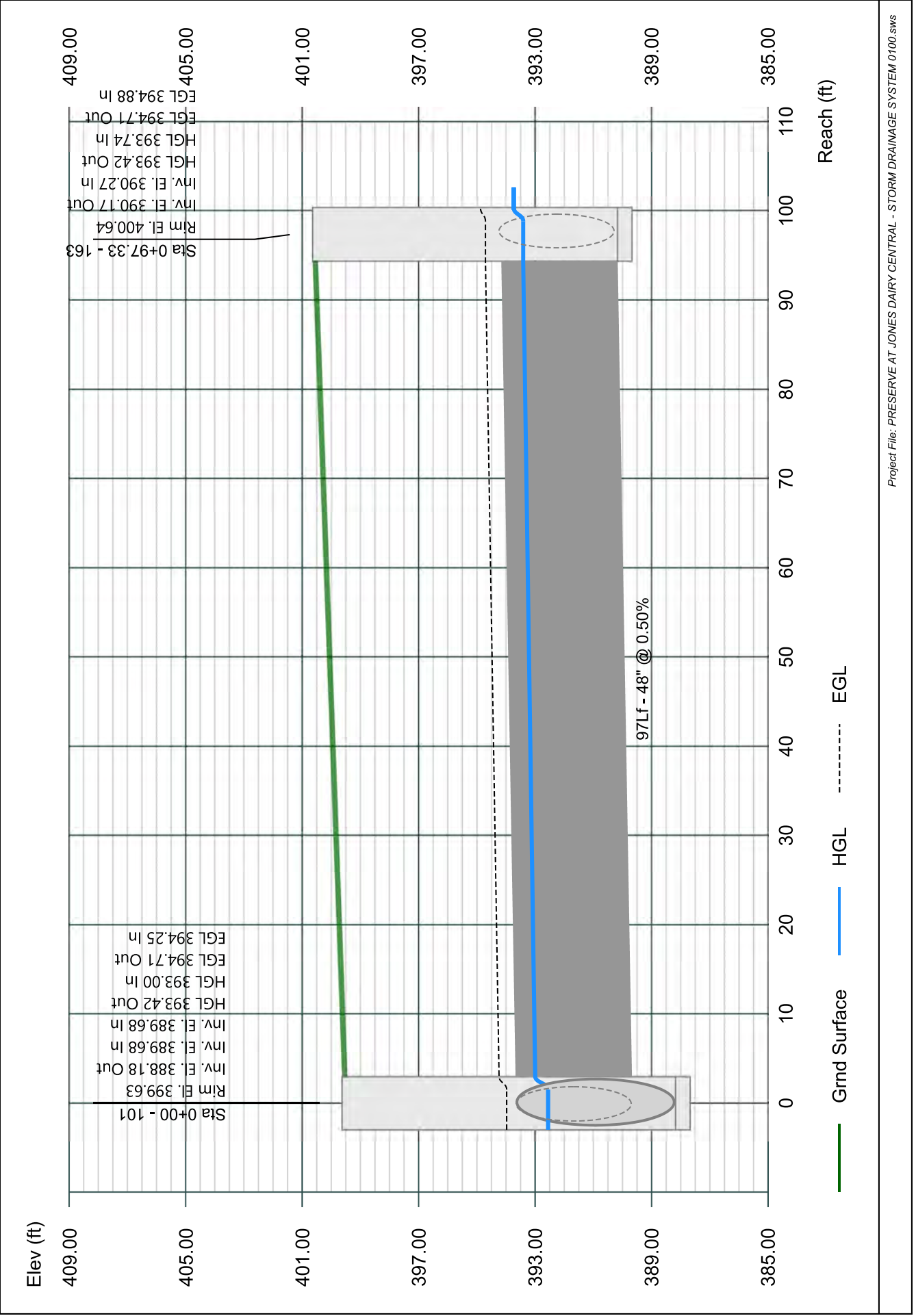


# Line 63 - 163 TO 101

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

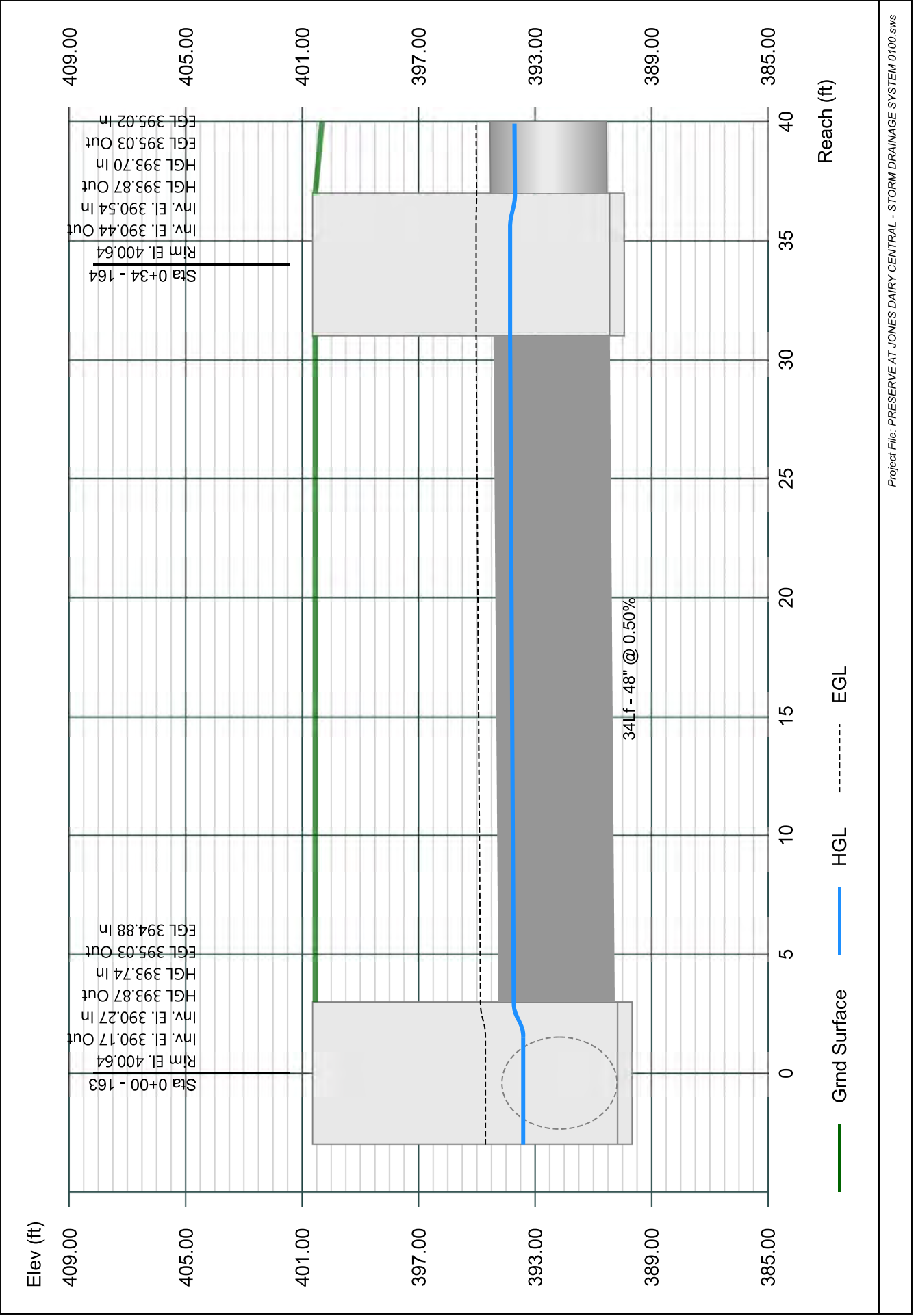


# Line 64 - 164 TO 163

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

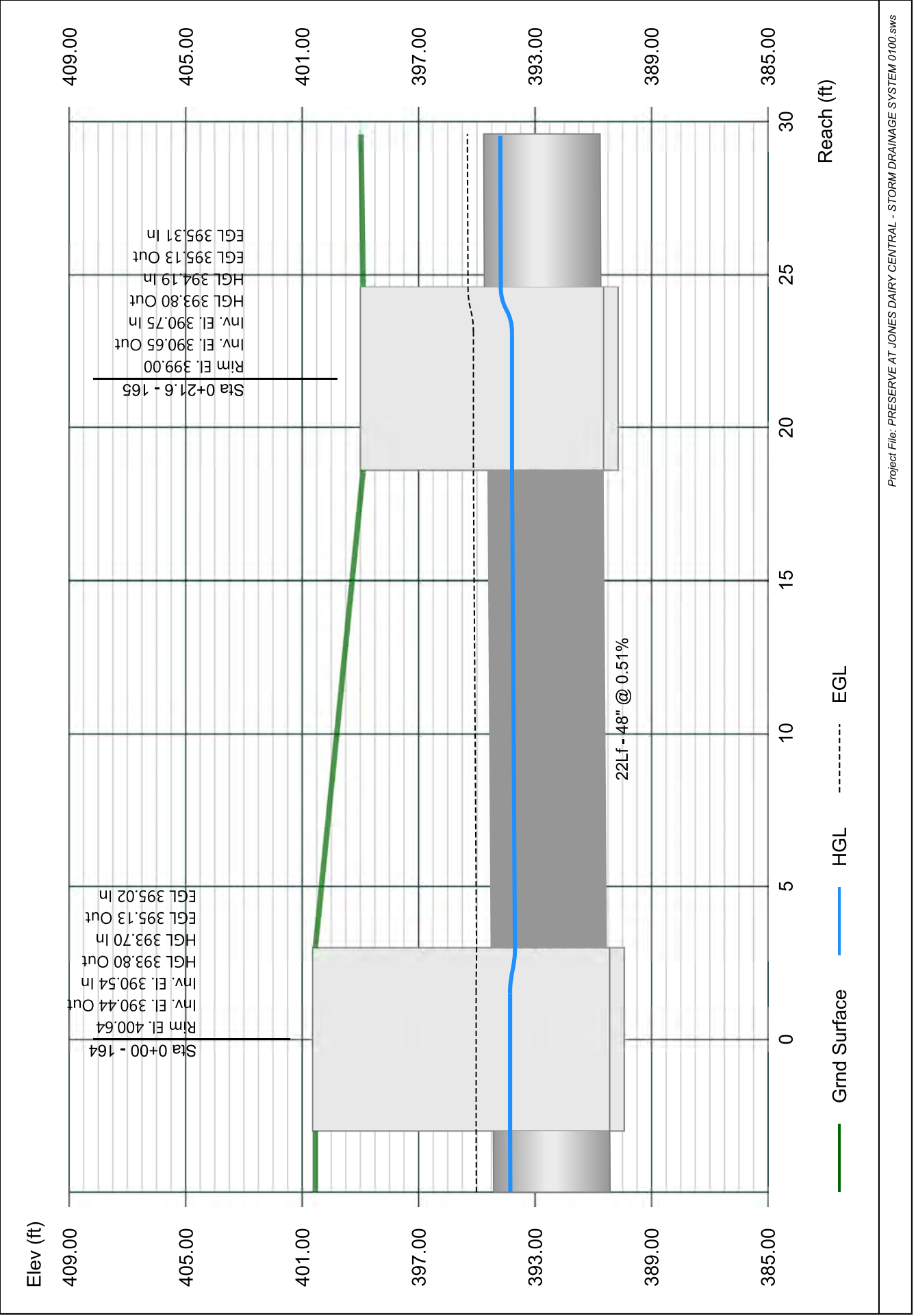


# Line 65 - 165 TO 164

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

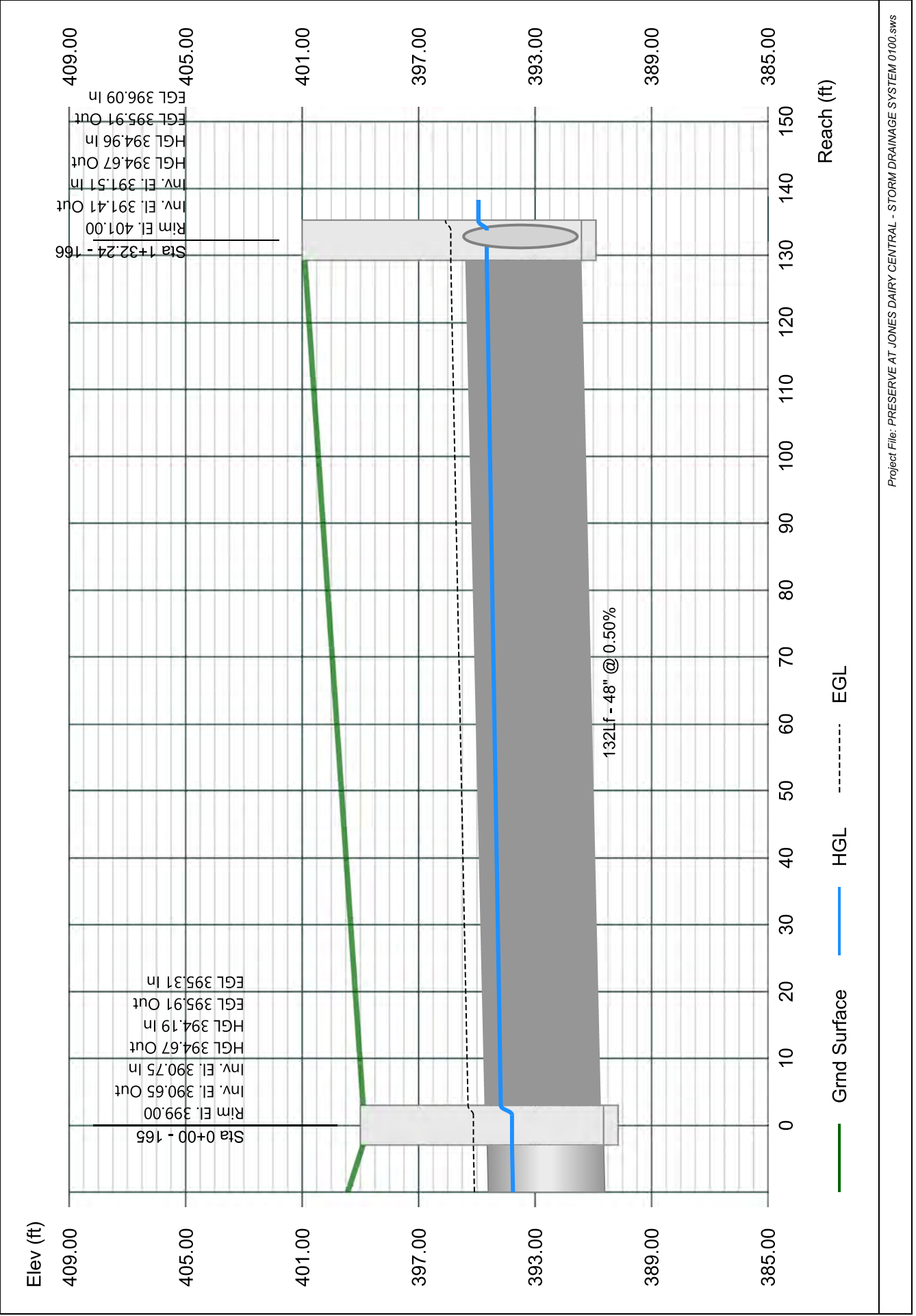


# Line 66 - 166 TO 165

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

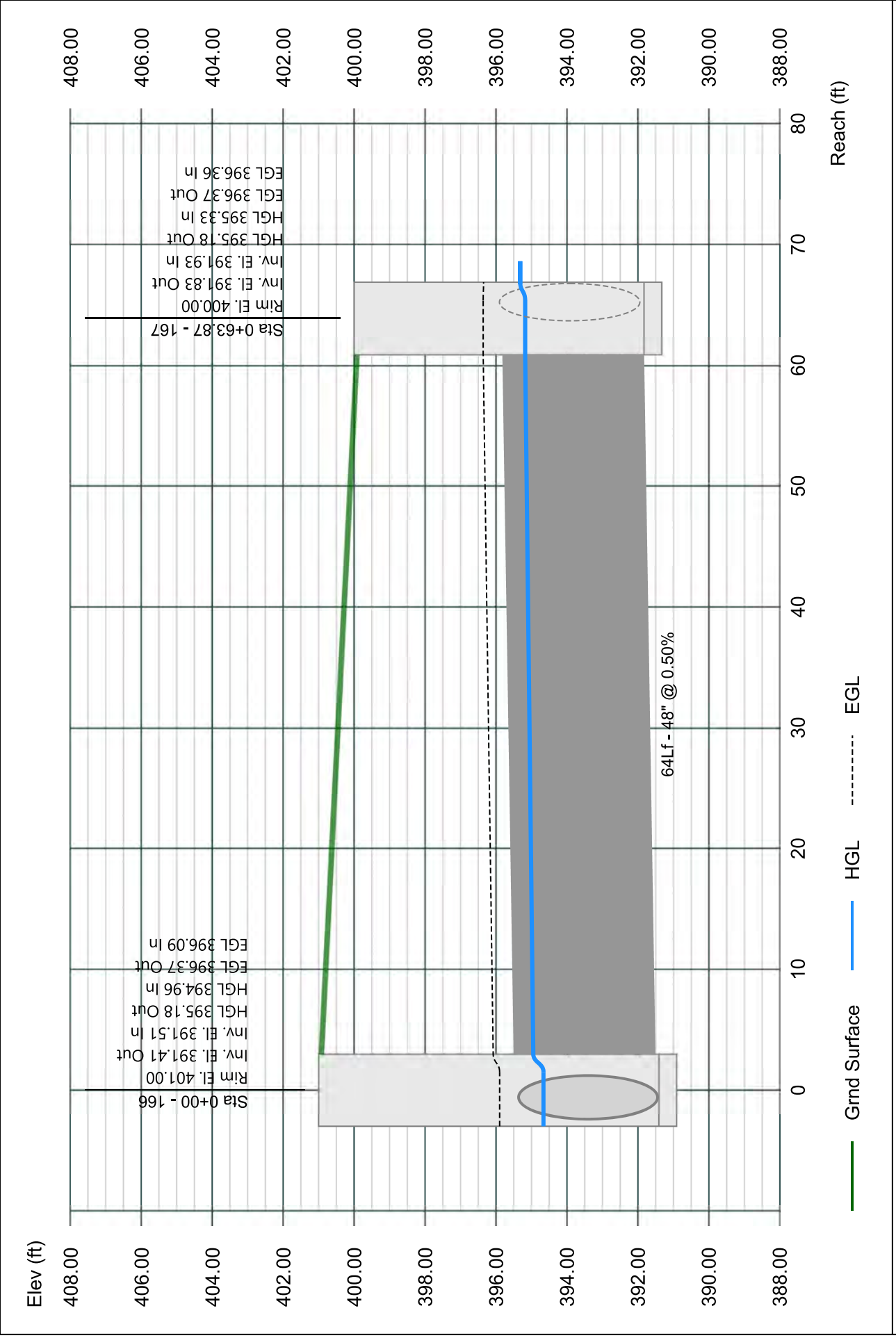


# Line 67 - 167 TO 166

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



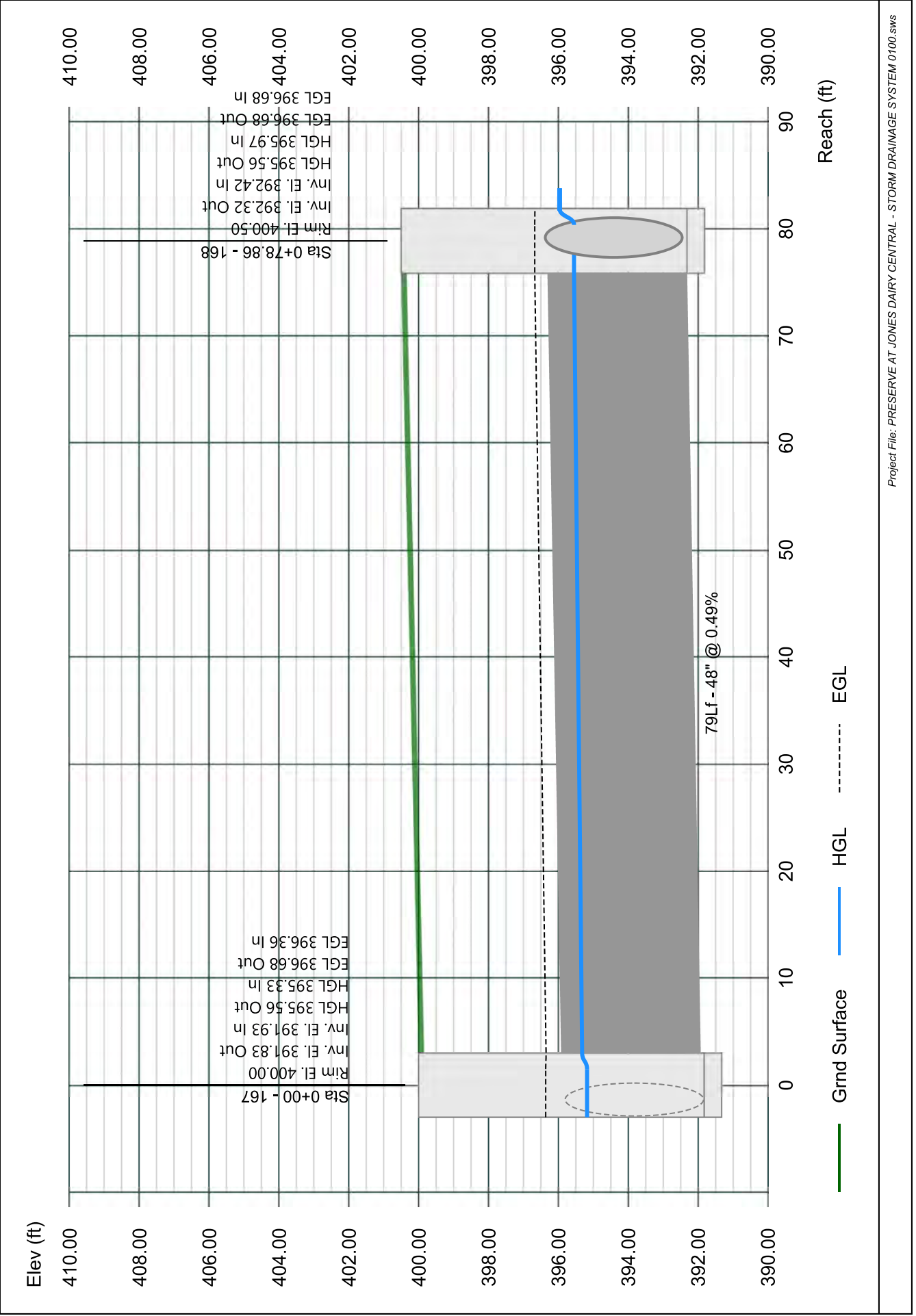


# Line 68 - 168 TO 167

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

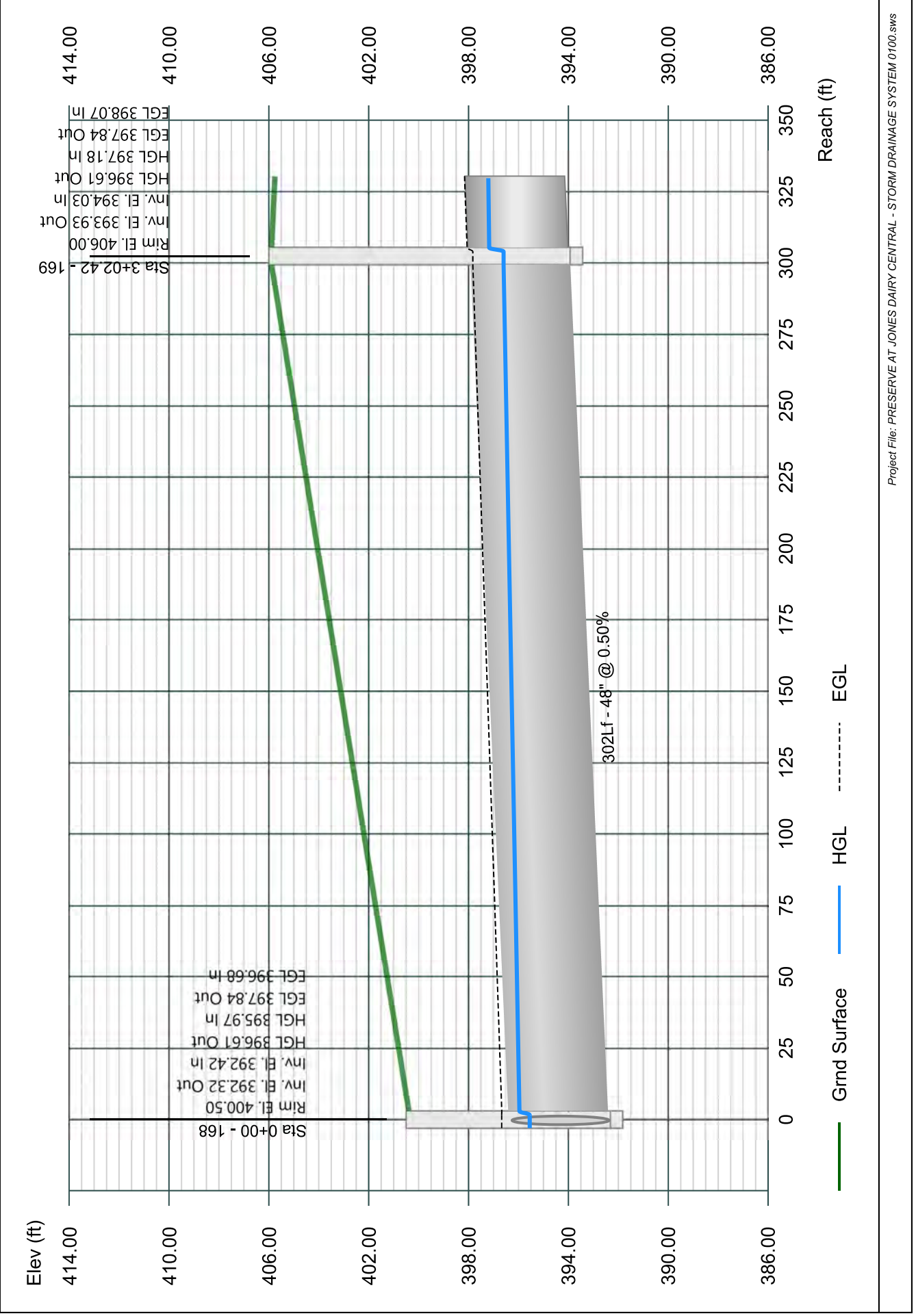


# Line 69 - 169 TO 168

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

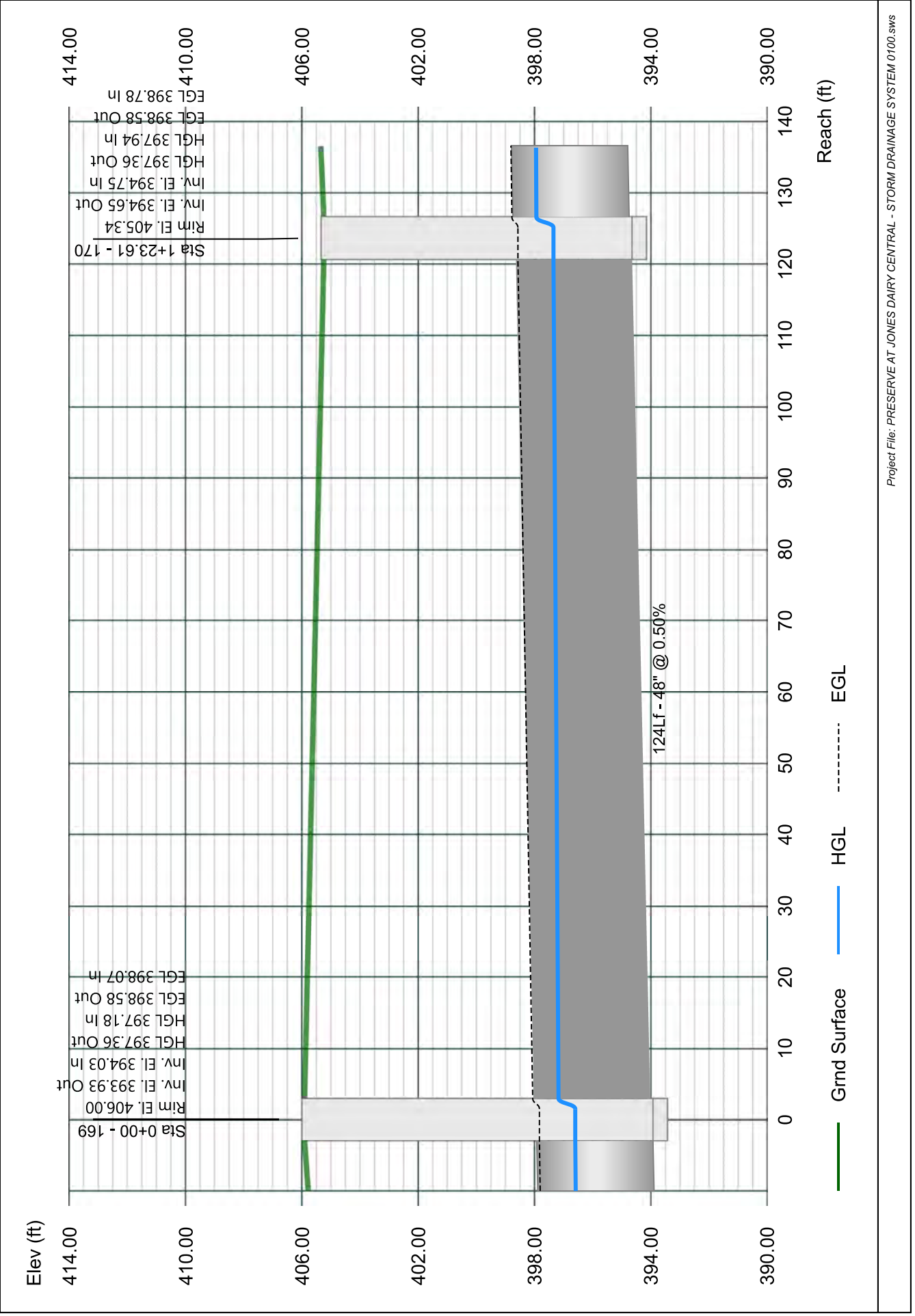


# Line 70 - 170 TO 169

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

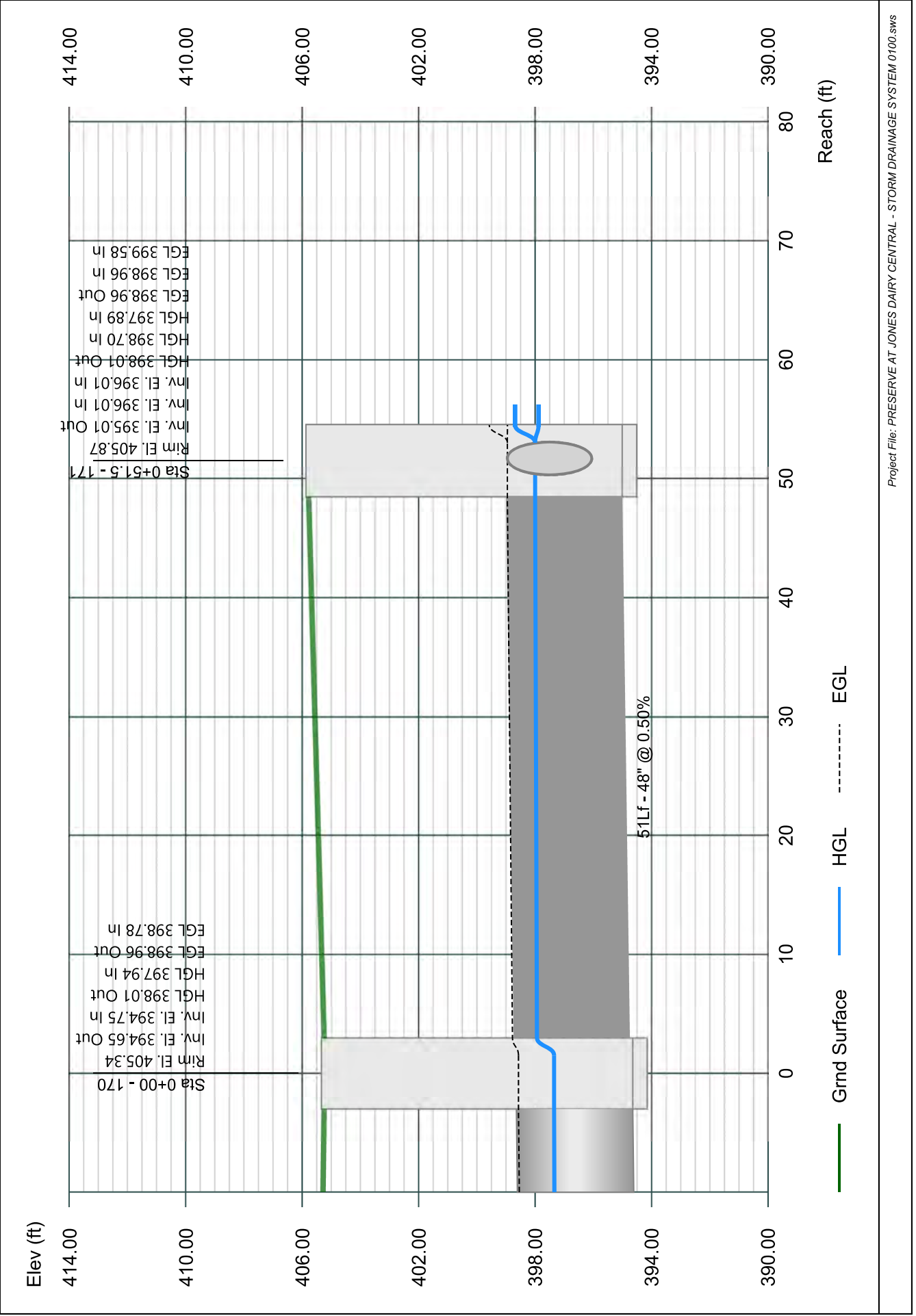


# Line 71 - 171 TO 170

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

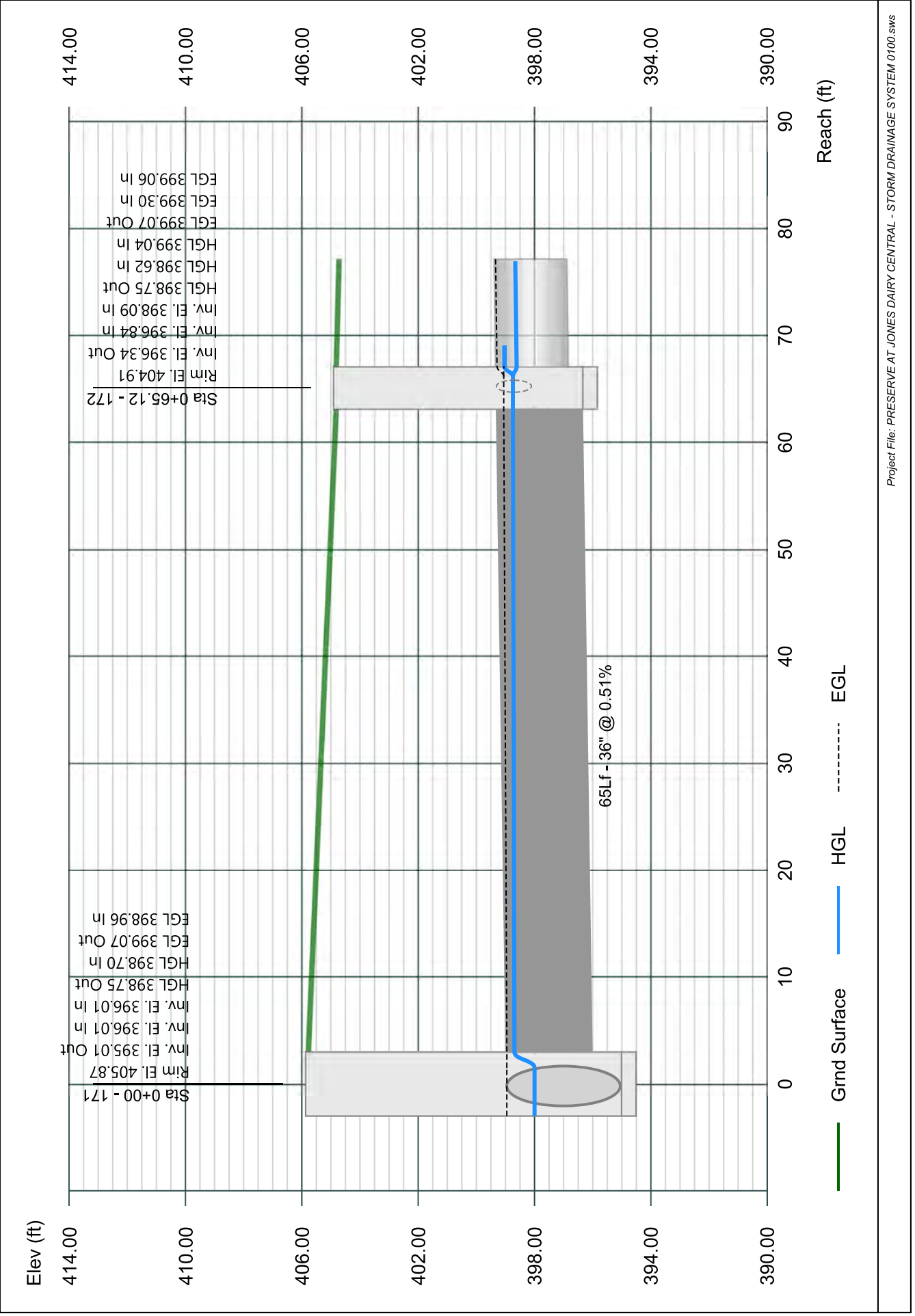


# Line 72 - 172 TO 171

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

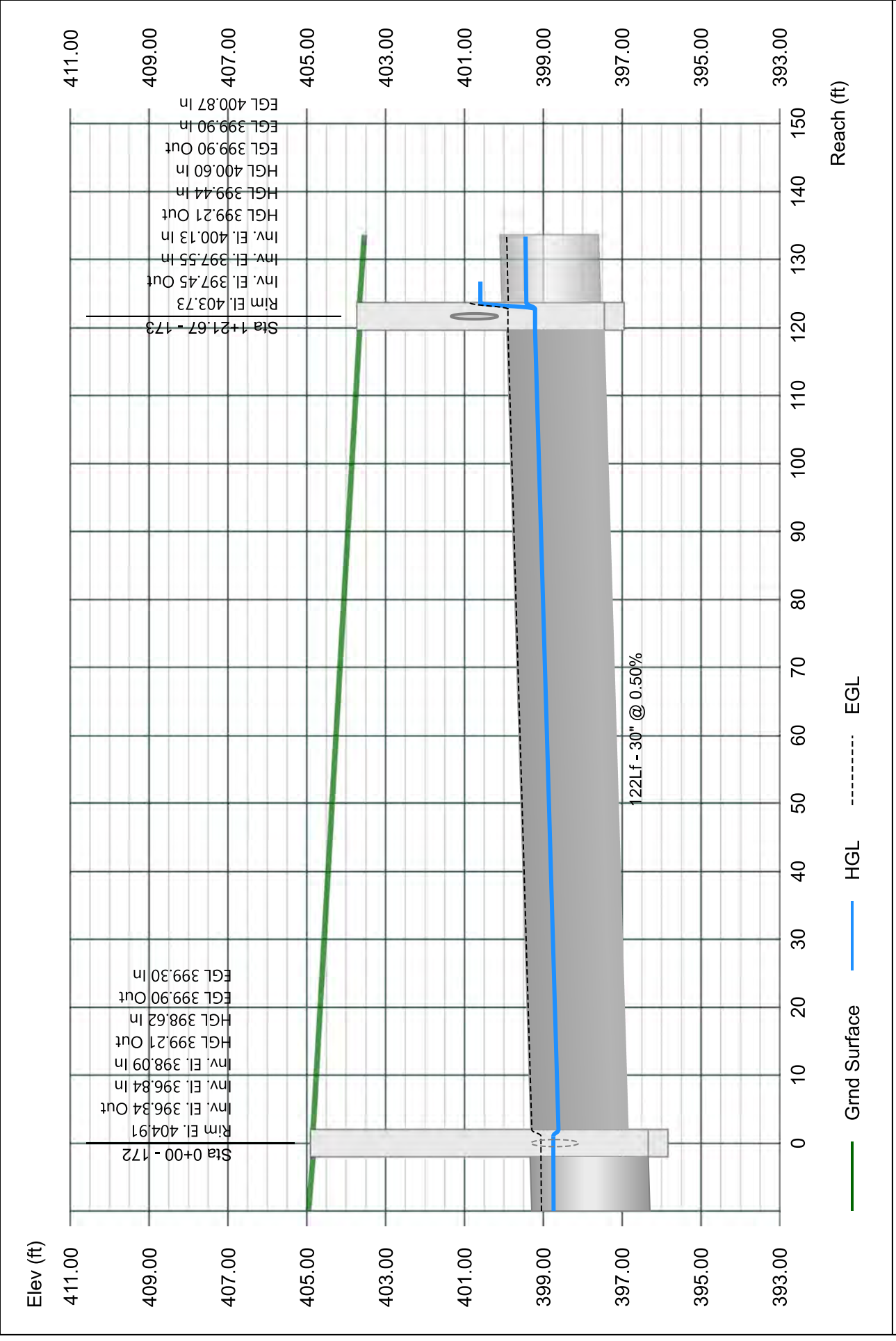


# Line 73 - 173 TO 172

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

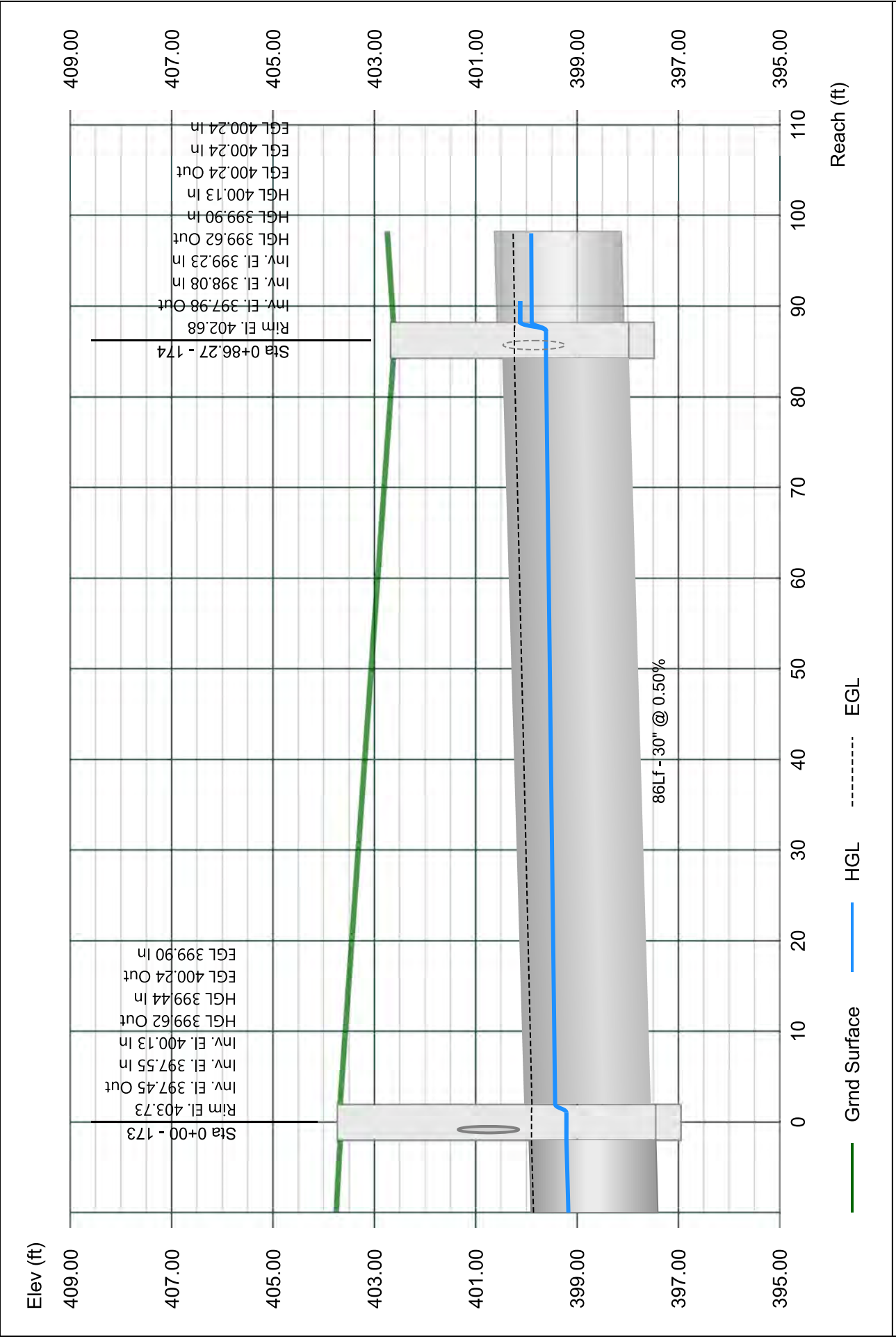


# Line 74 - 174 TO 173

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

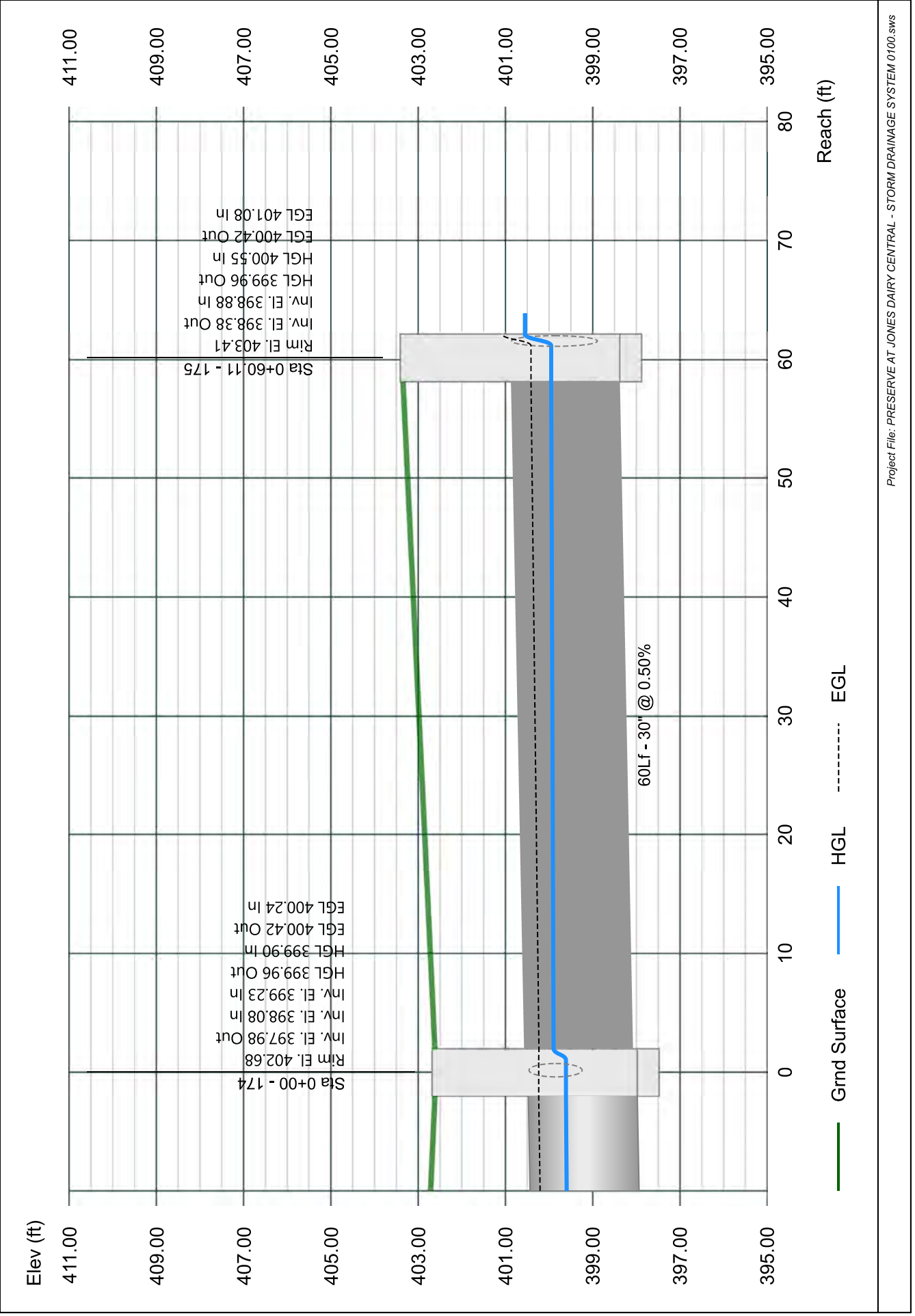


# Line 75 - 175 TO 174

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



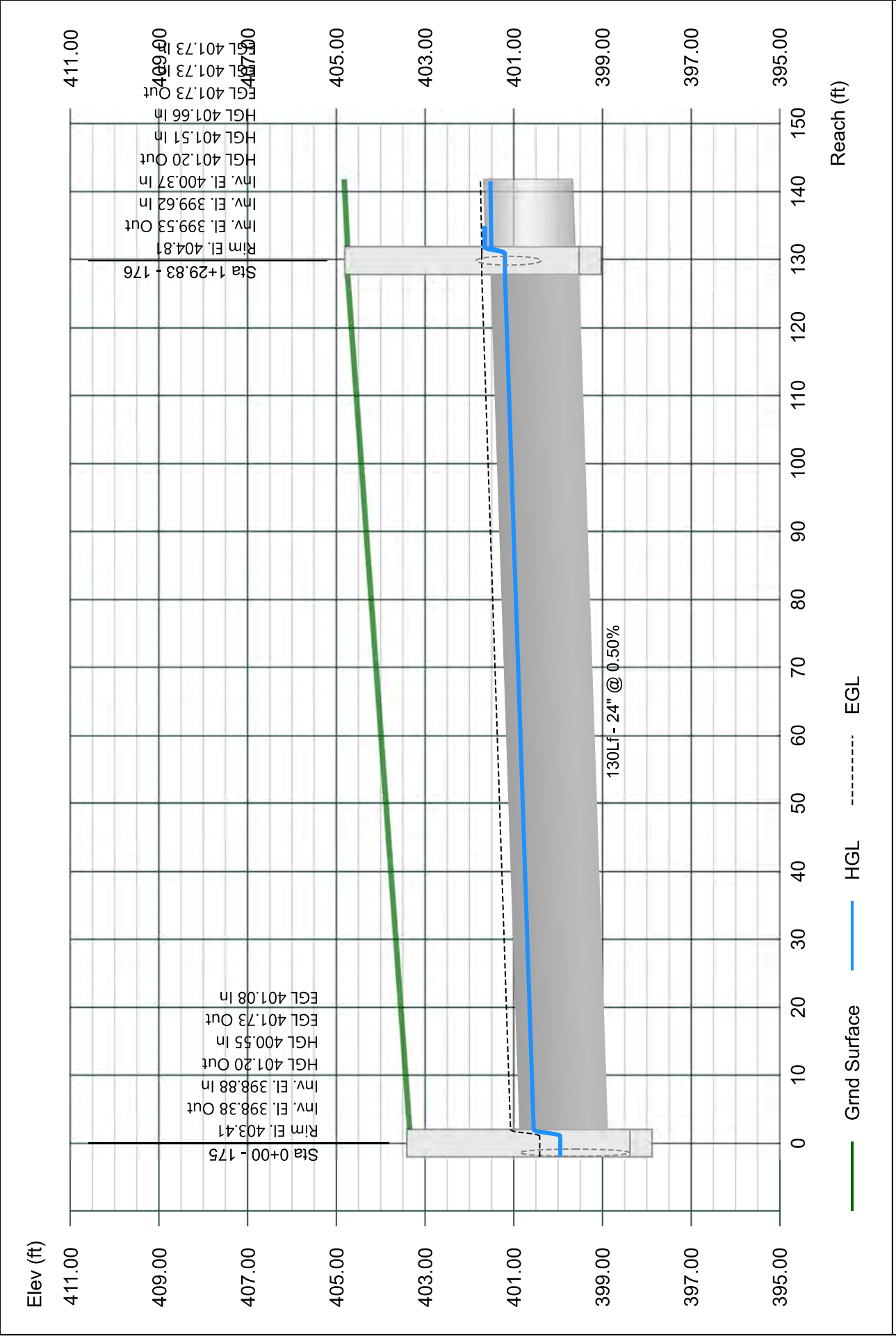


# Line 76 - 176 TO 175

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

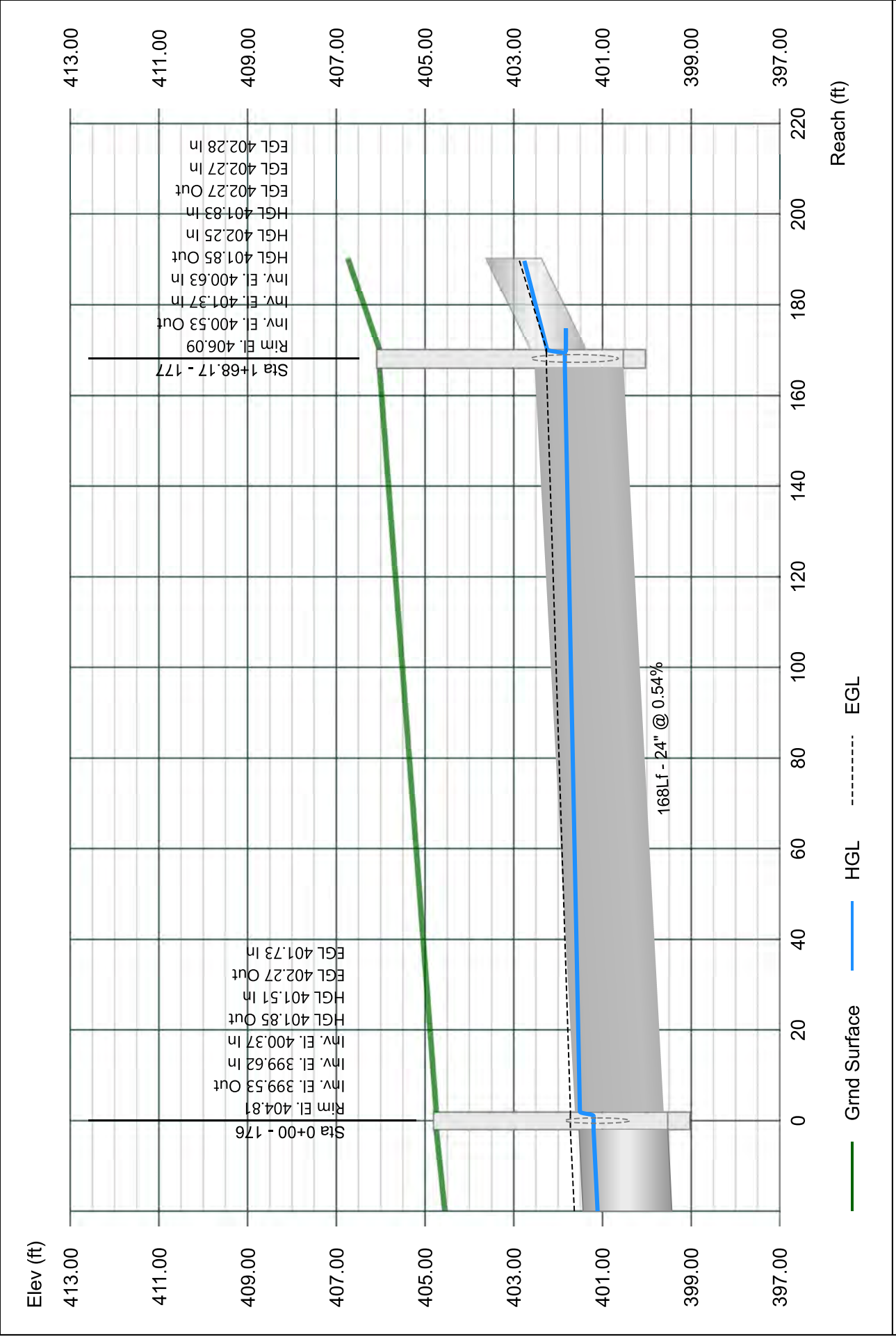


# Line 77 - 177 TO 176

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

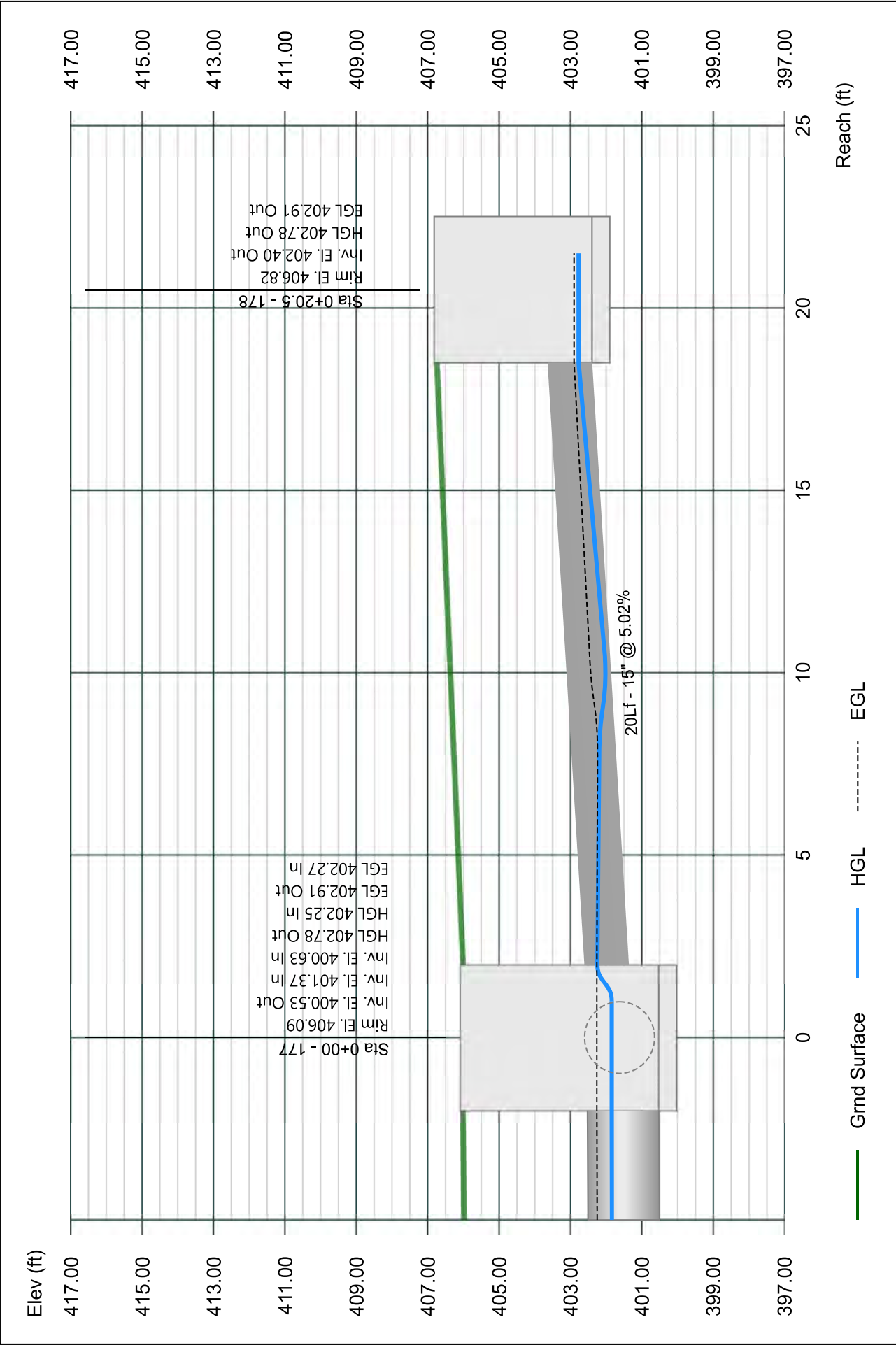


# Line 78 - 178 TO 177

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

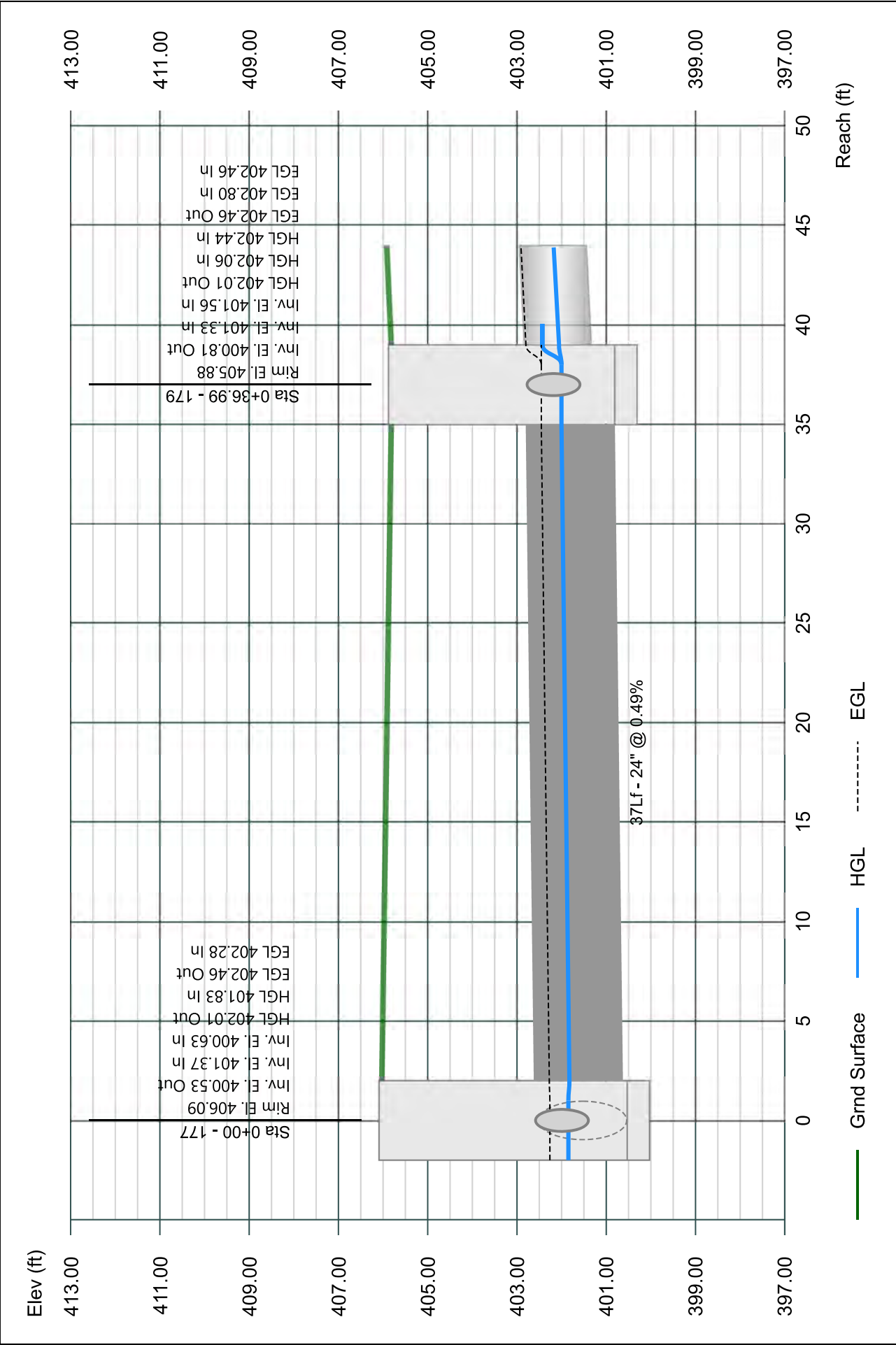


# Line 79 - 179 TO 177

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

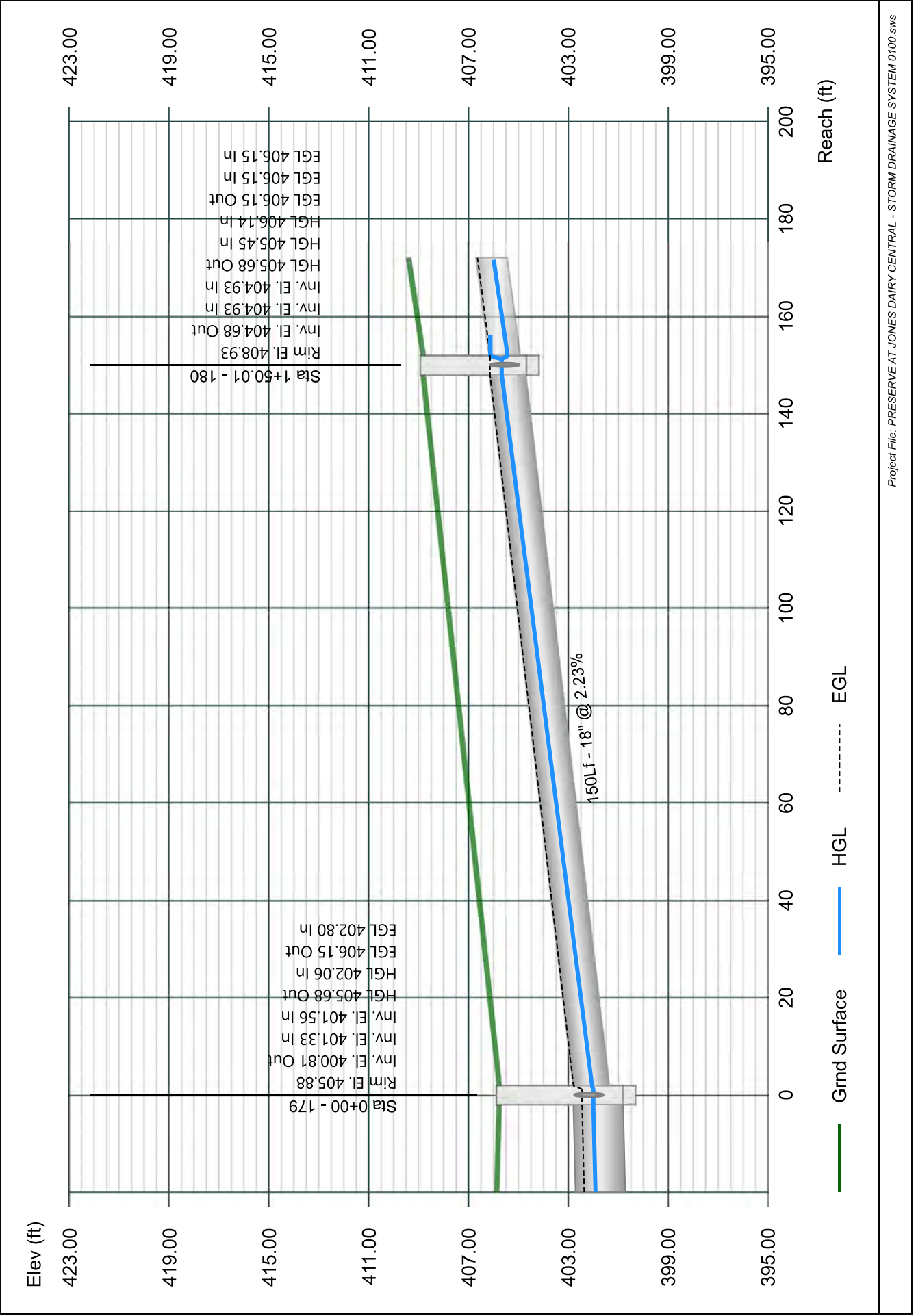


# Line 80 - 180 TO 179

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

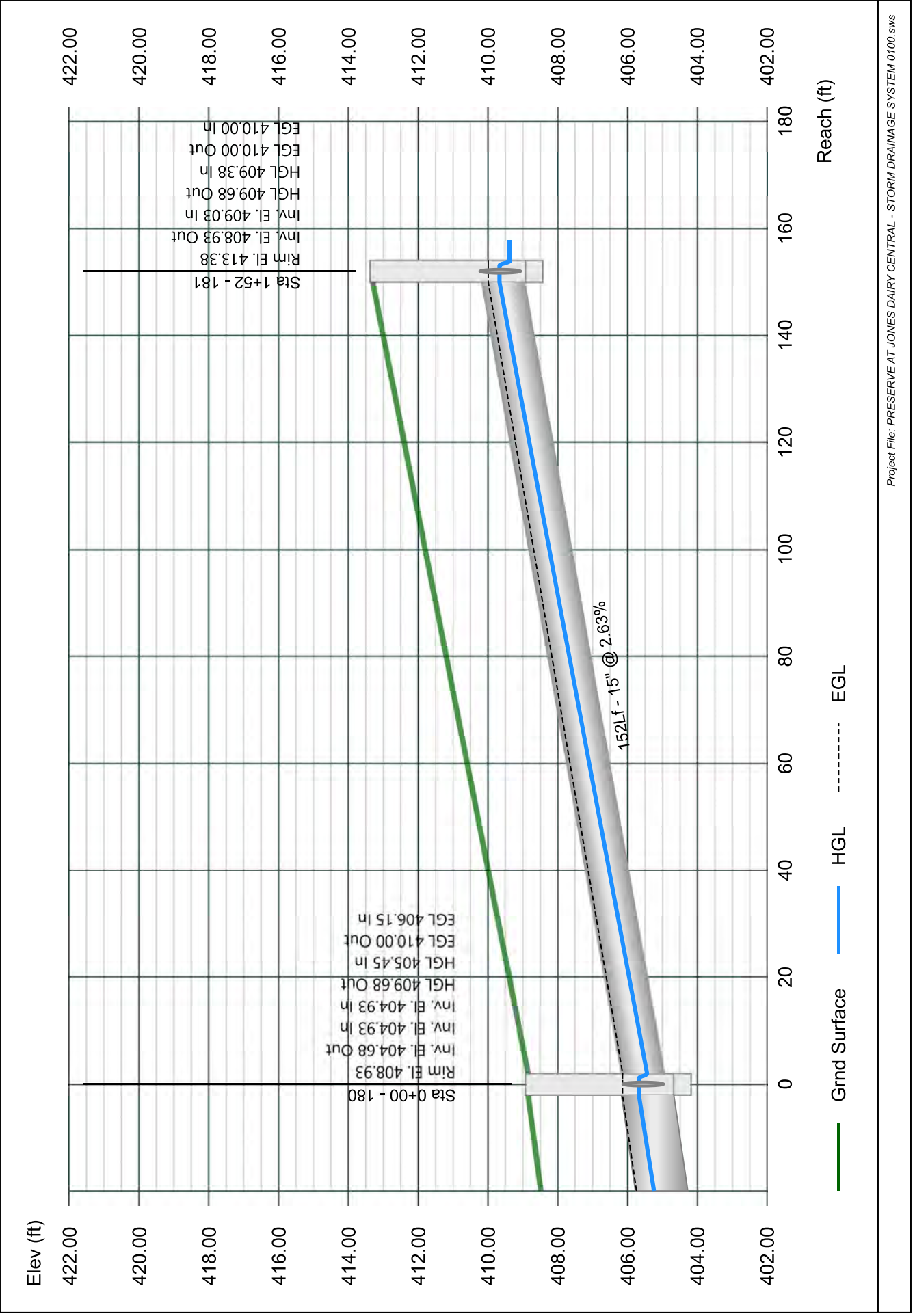


# Line 81 - 181 TO 180

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

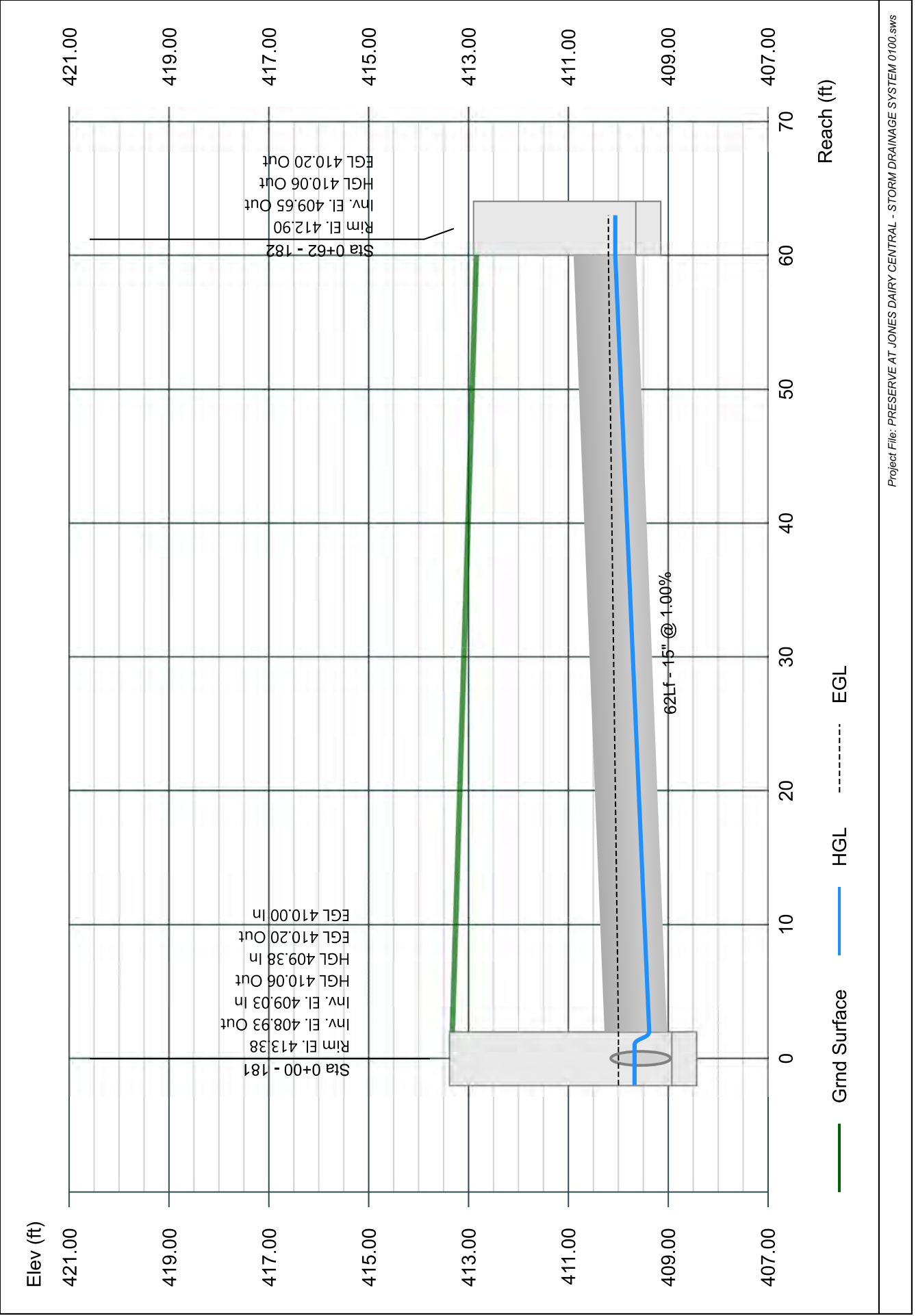


# Line 82 - 182 TO 181

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

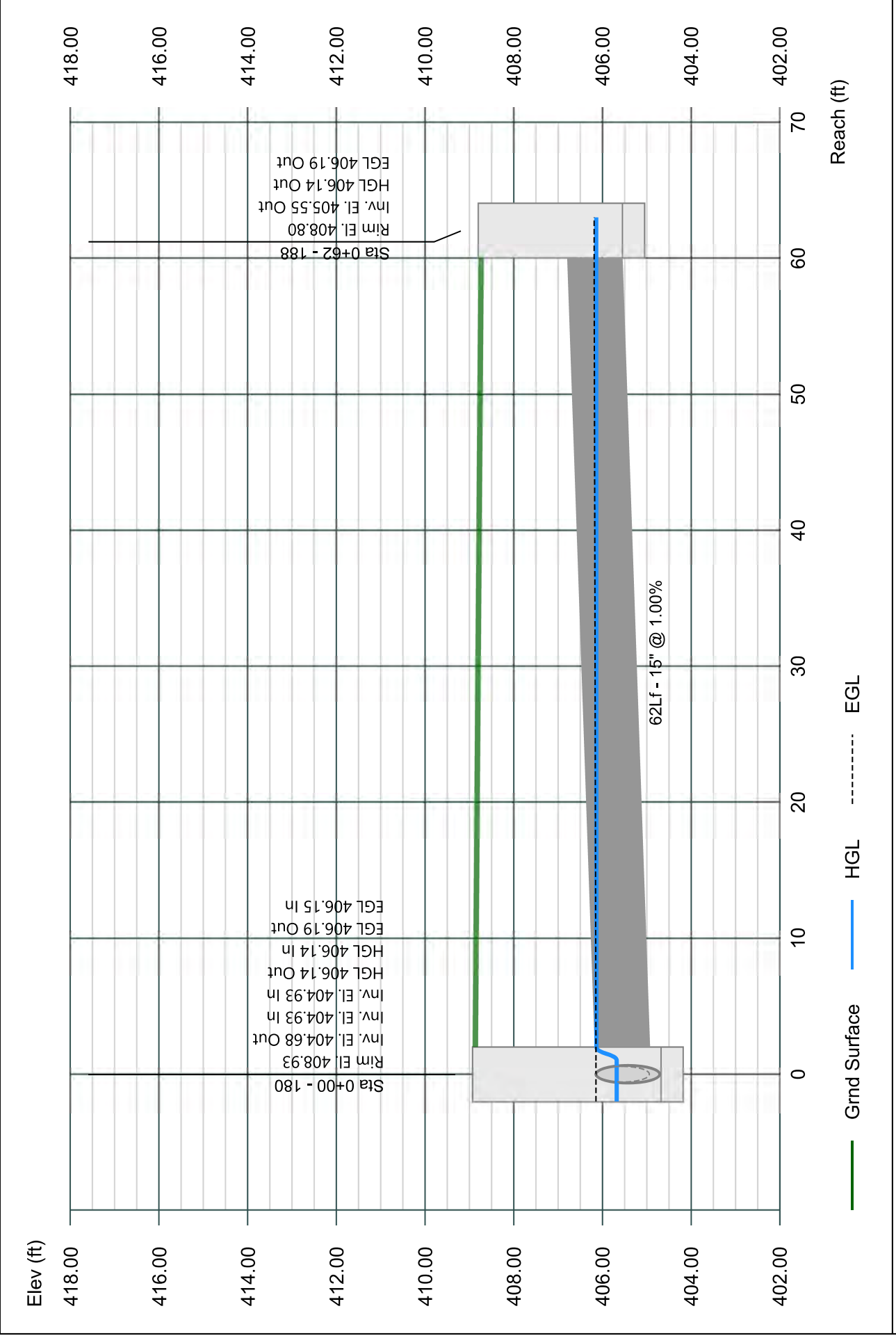


# Line 83 - 188 TO 180

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



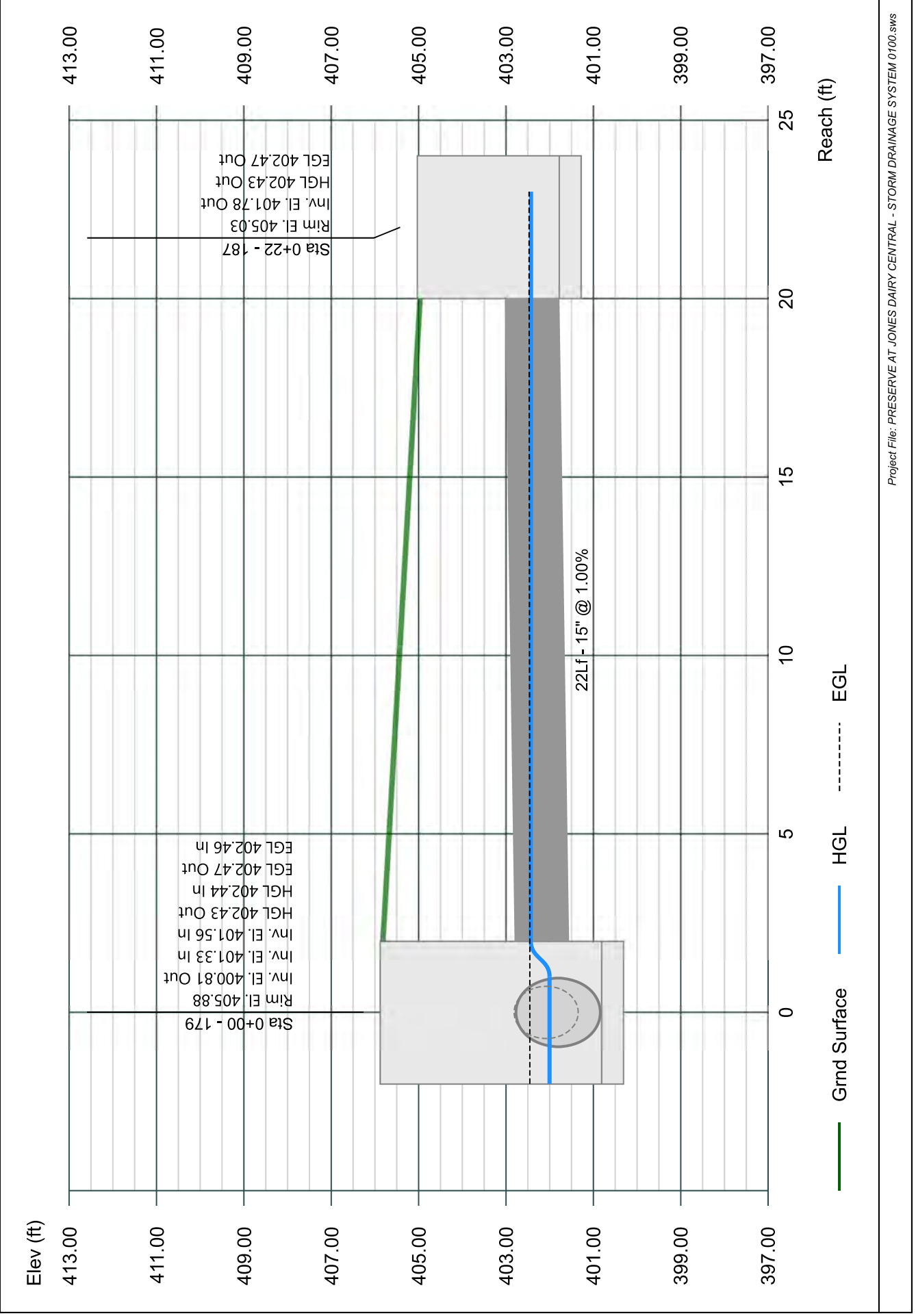


# Line 84 - 187 TO 179

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

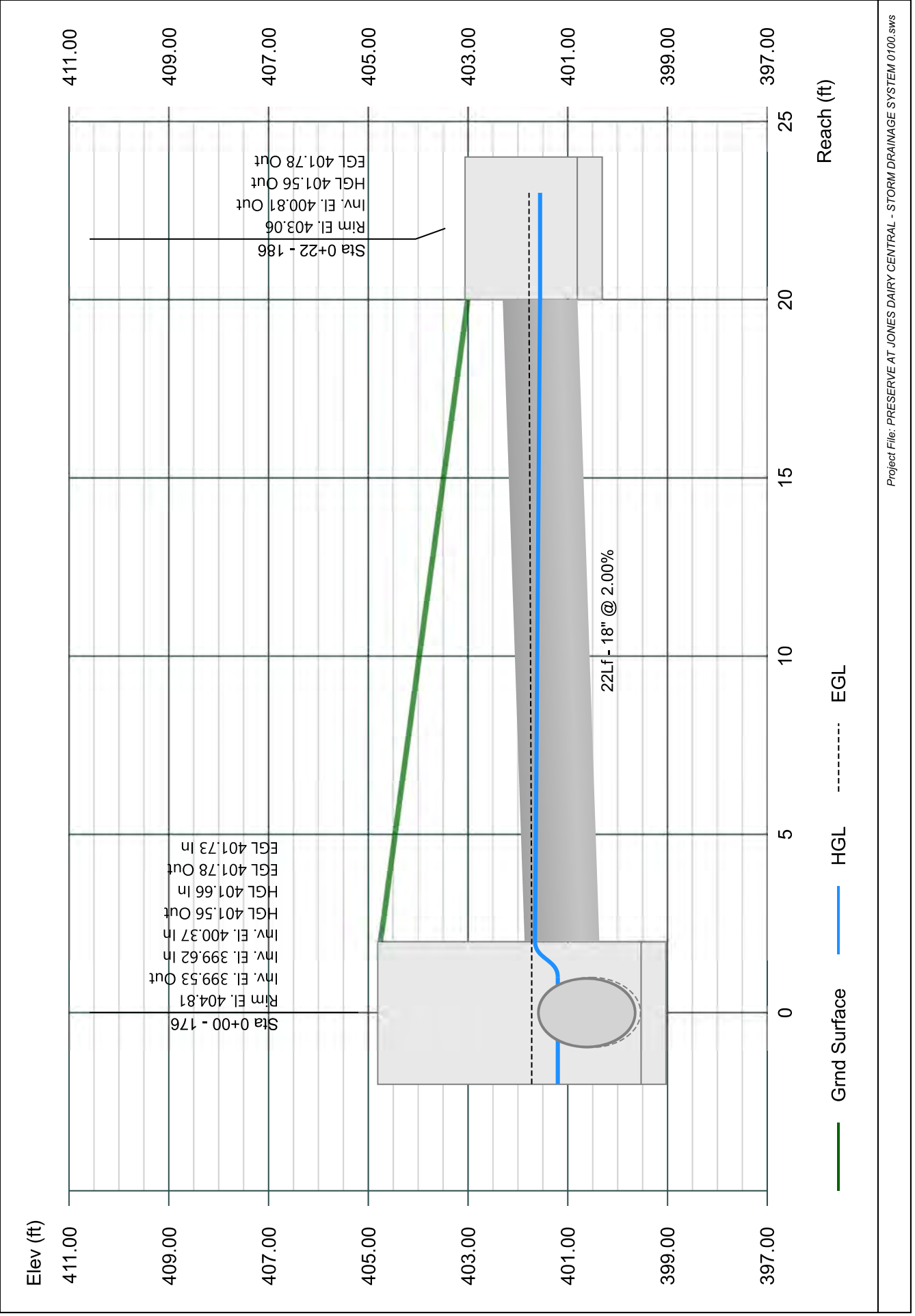


# Line 85 - 186 TO 176

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

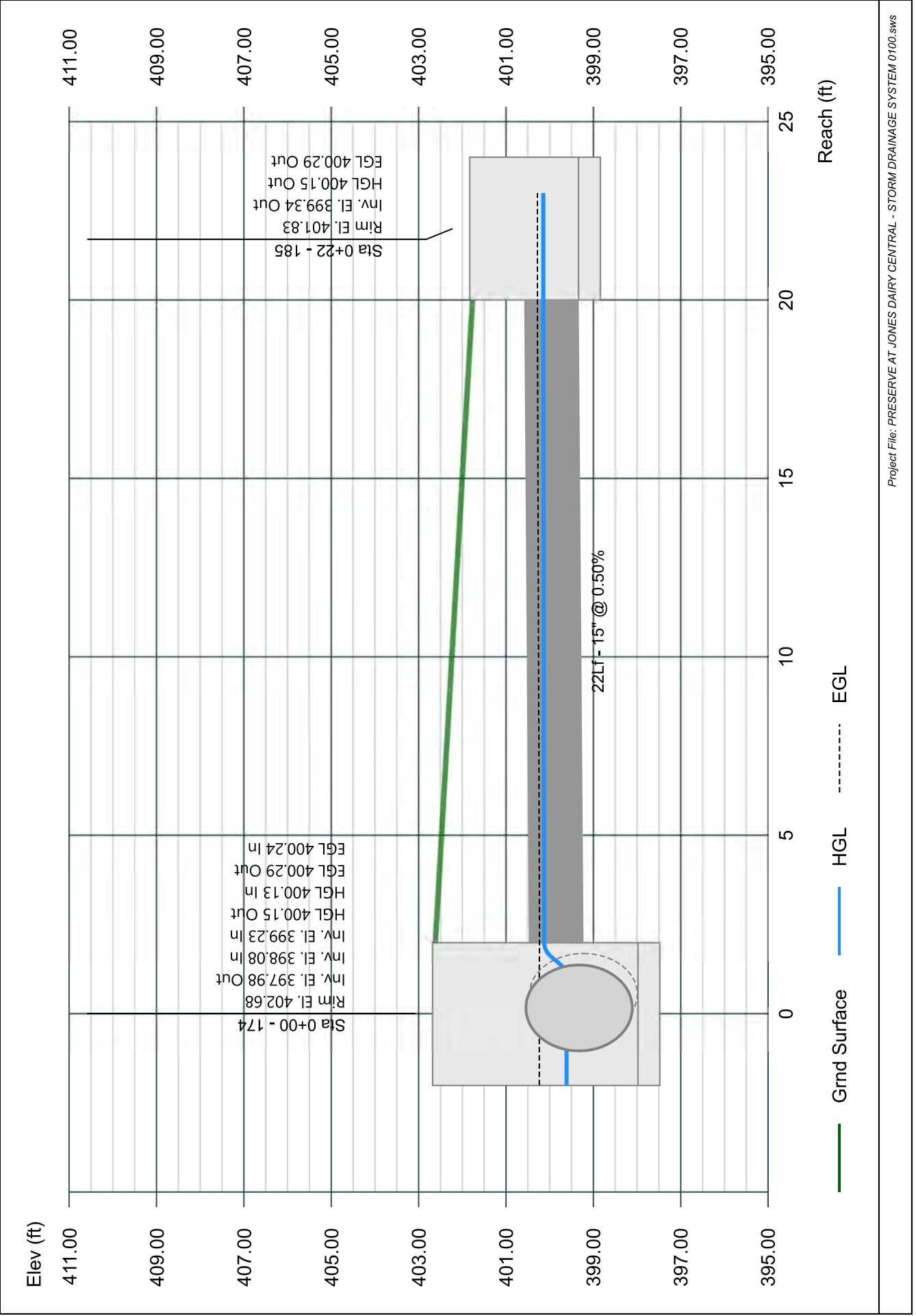


# Line 86 - 185 TO 174

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

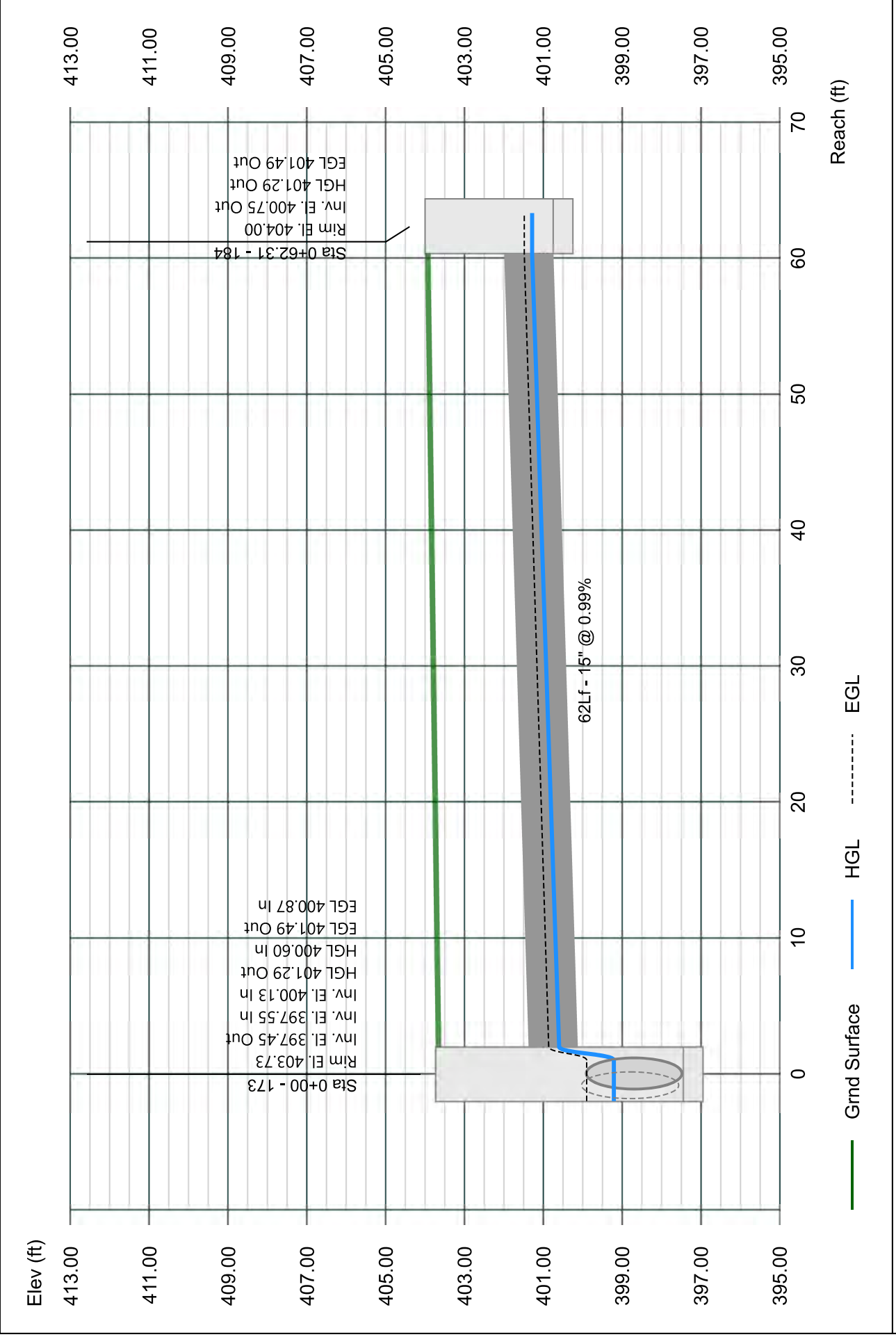


# Line 87 - 184 TO 173

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

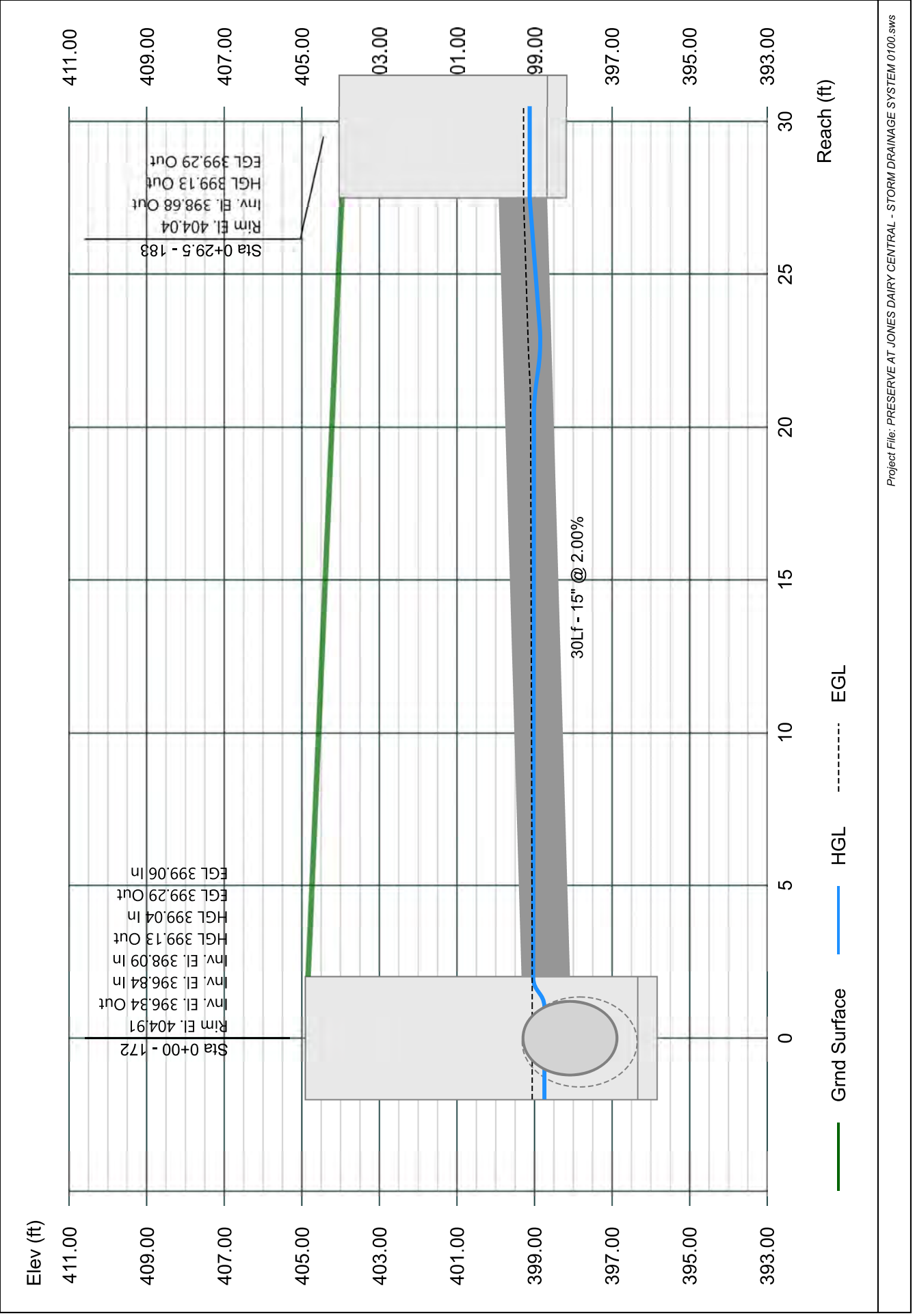


# Line 88 - 183 TO 172

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

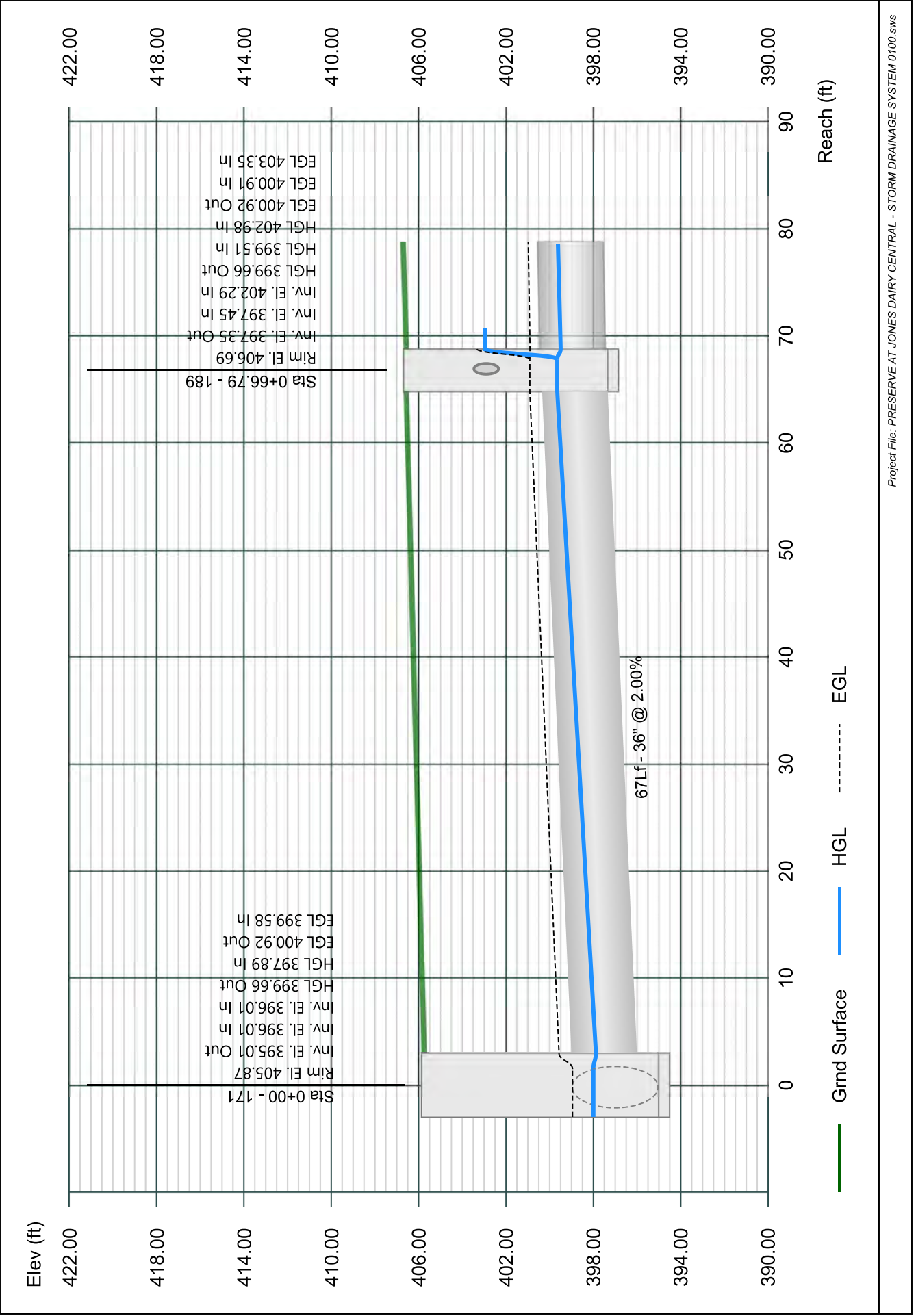


# Line 89 - 189 TO 171

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

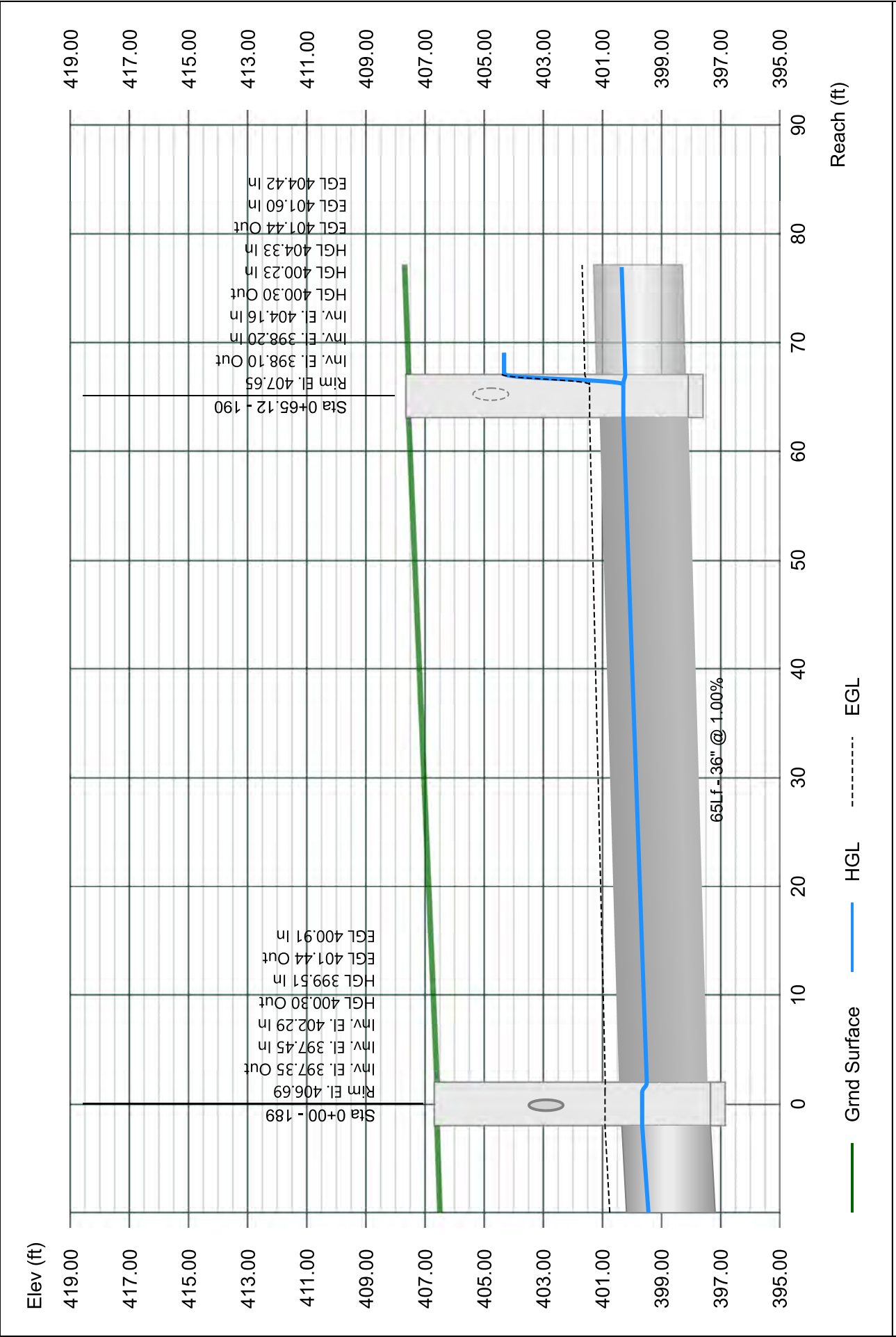


# Line 90 - 190 TO 189

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

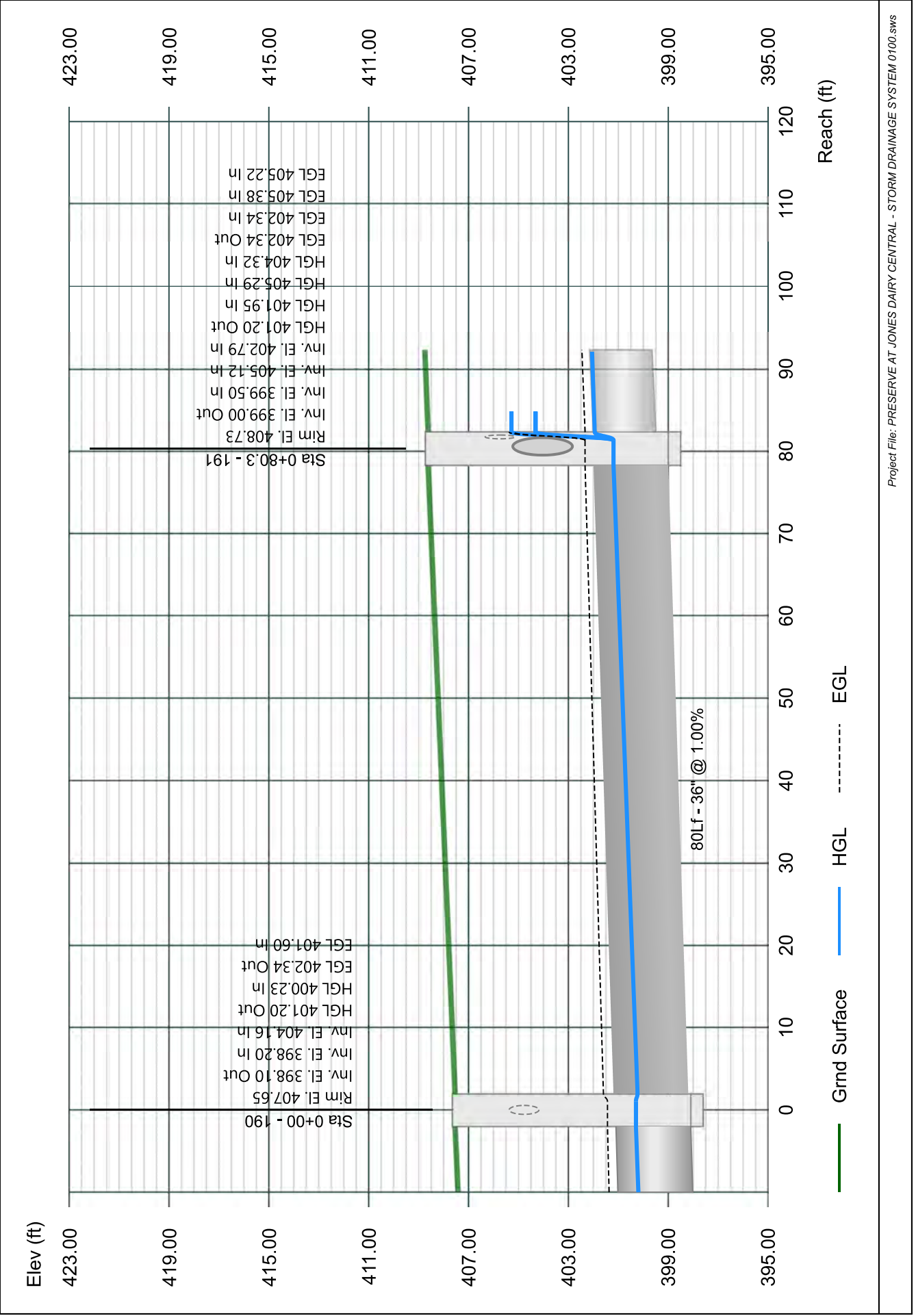


# Line 91 - 191 TO 190

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



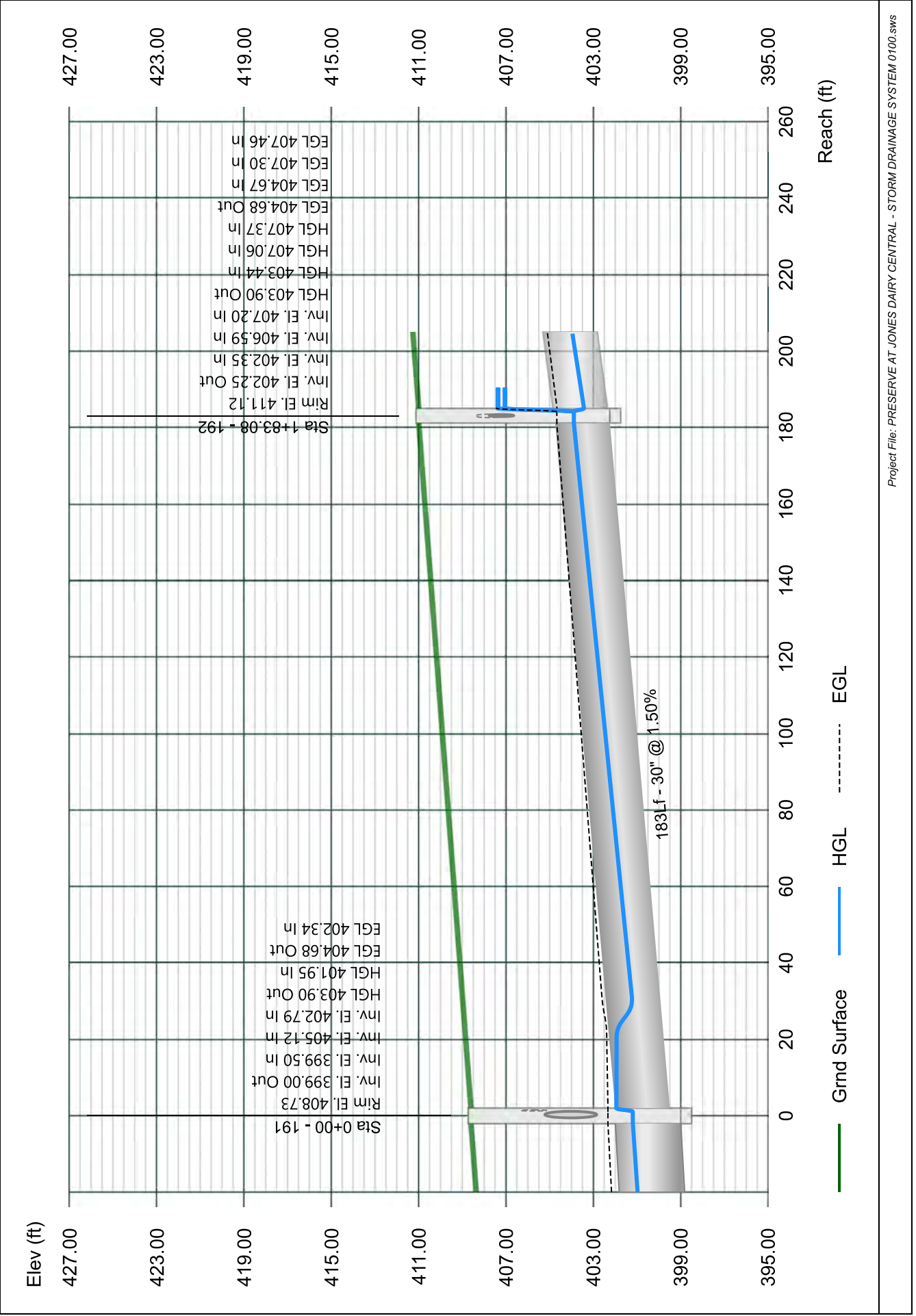


# Line 92 - 192 TO 191

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

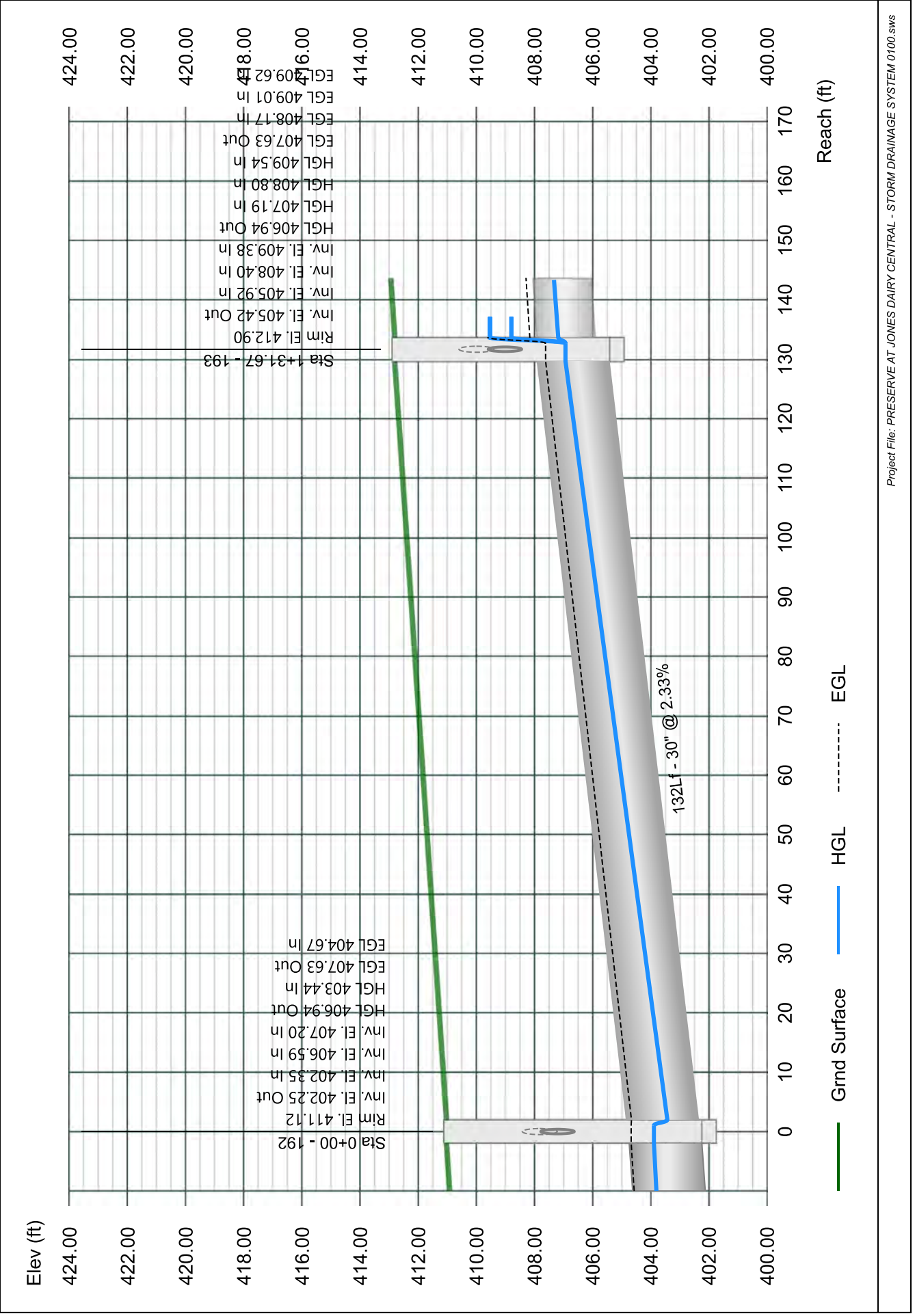


# Line 93 - 193 TO 192

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

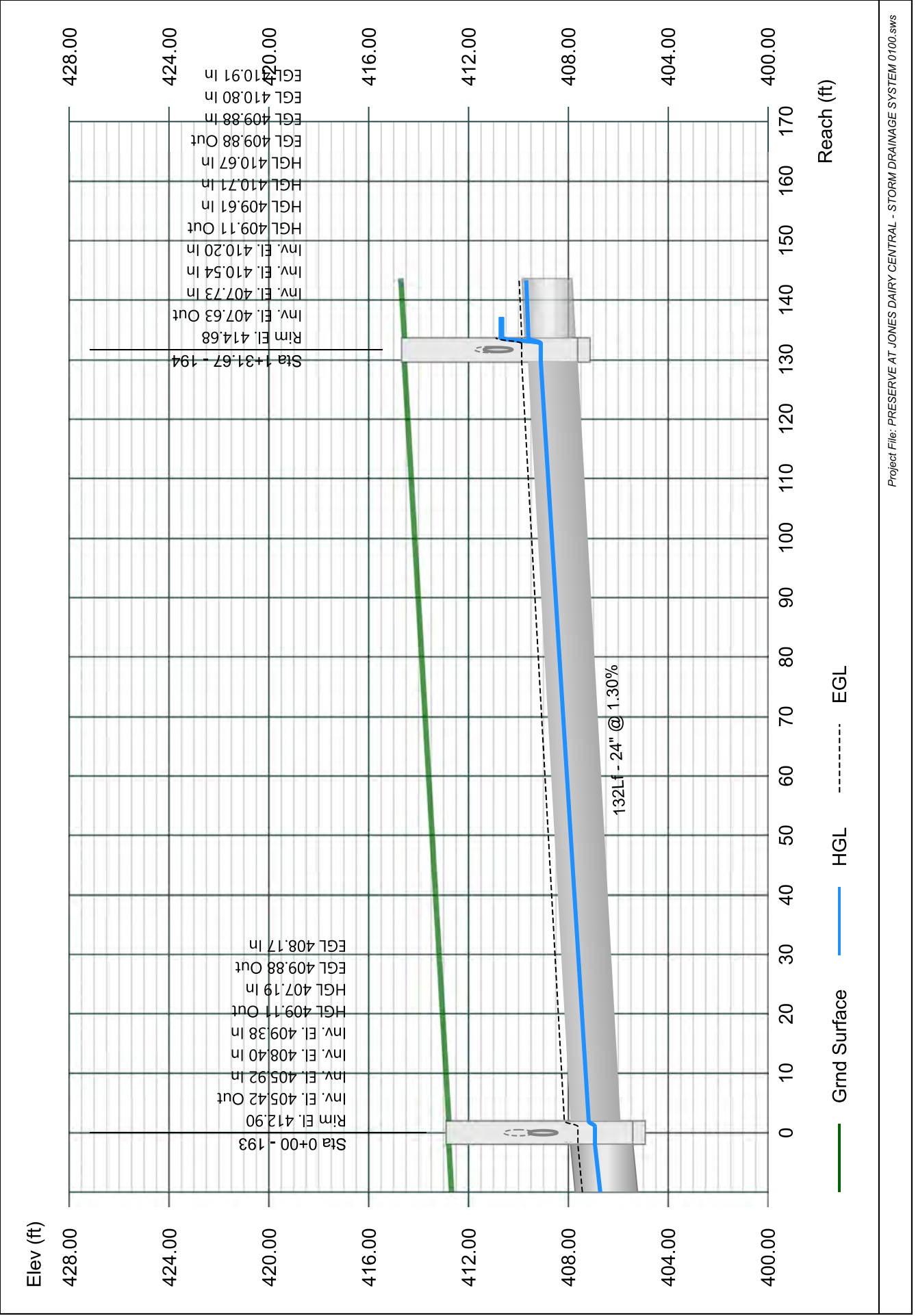


# Line 94 - 194 TO 193

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

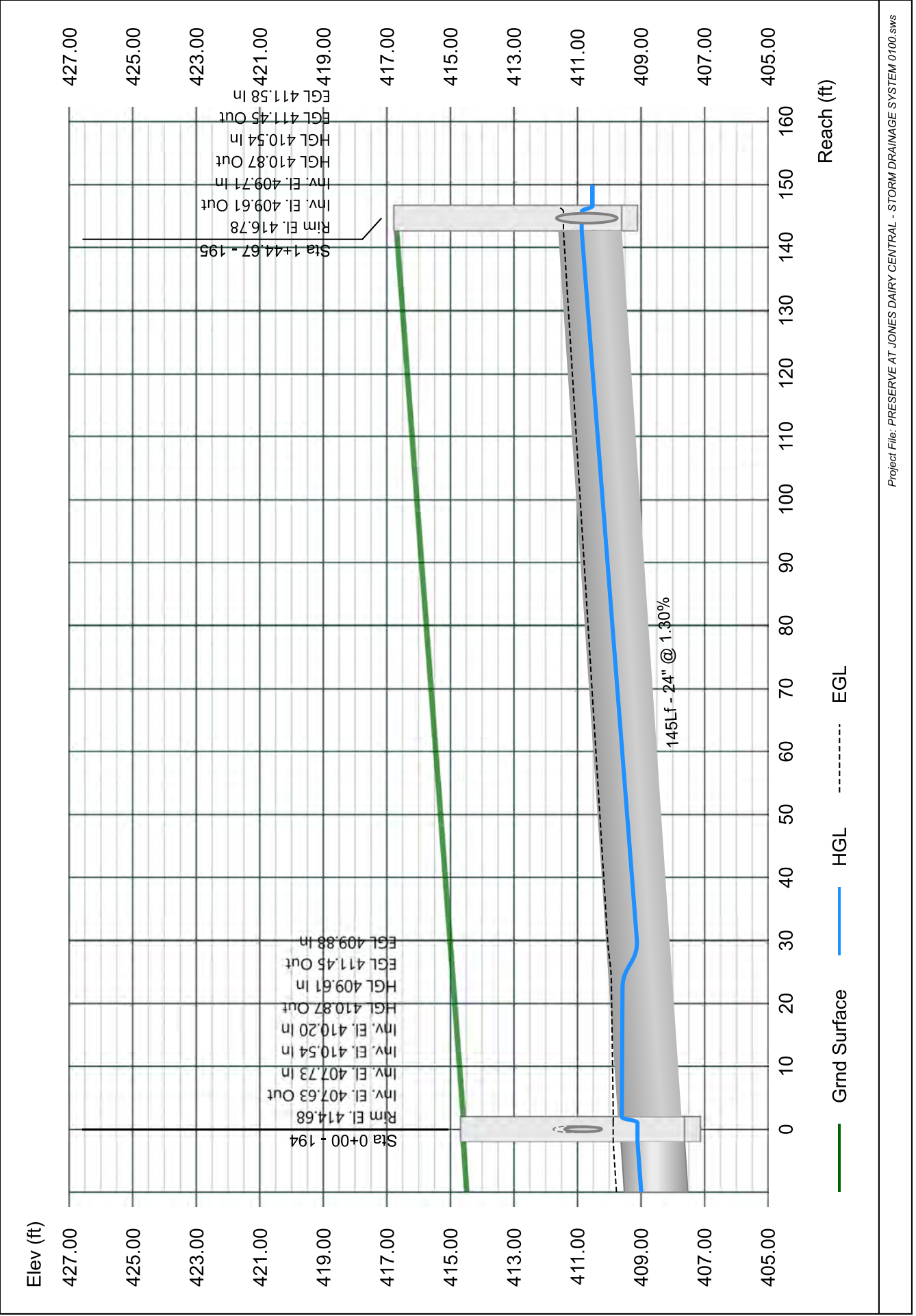


# Line 95 - 195 TO 194

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

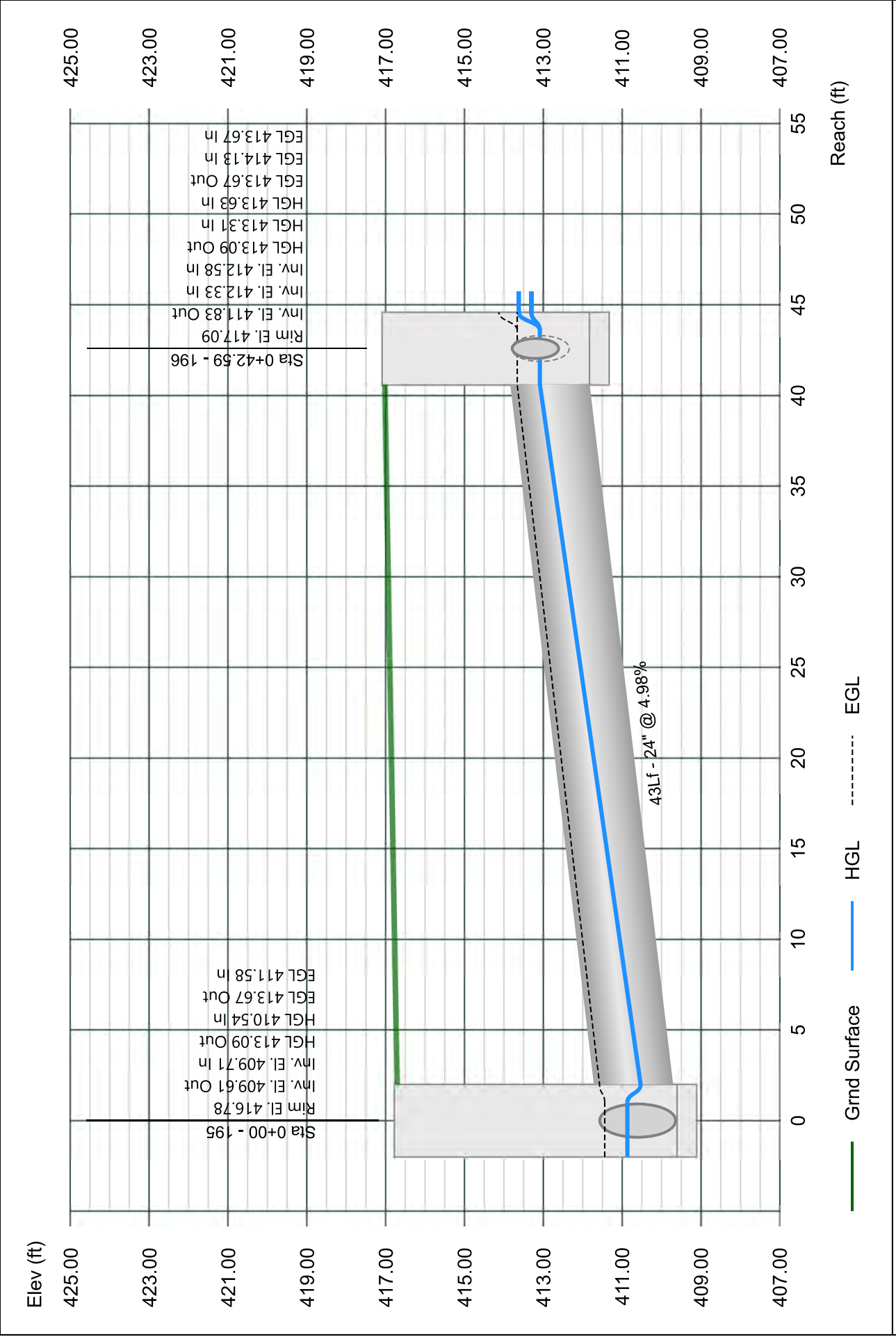


# Line 96 - 196 TO 195

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

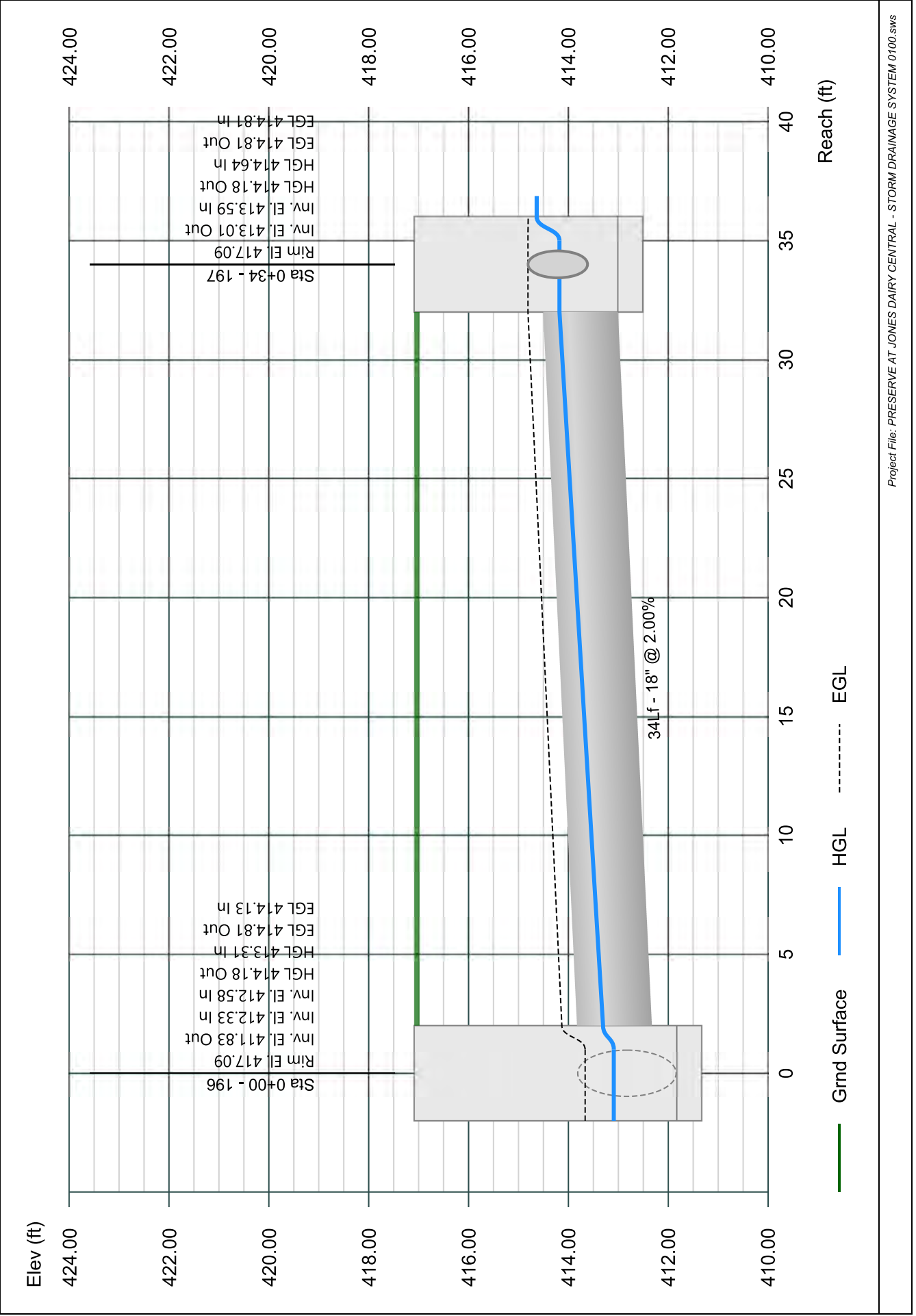


# Line 97 - 197 TO 196

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

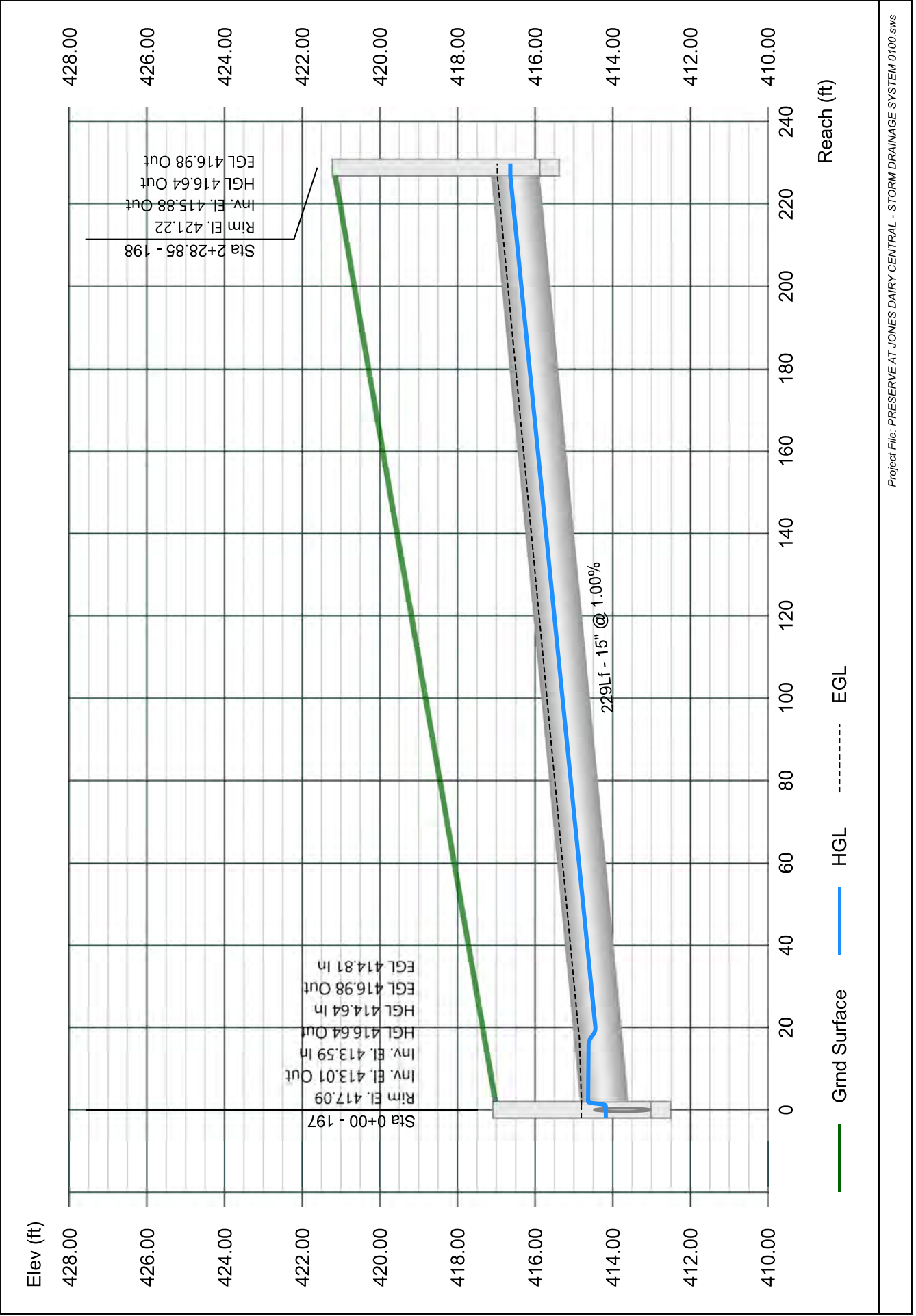


# Line 98 - 198 TO 197

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

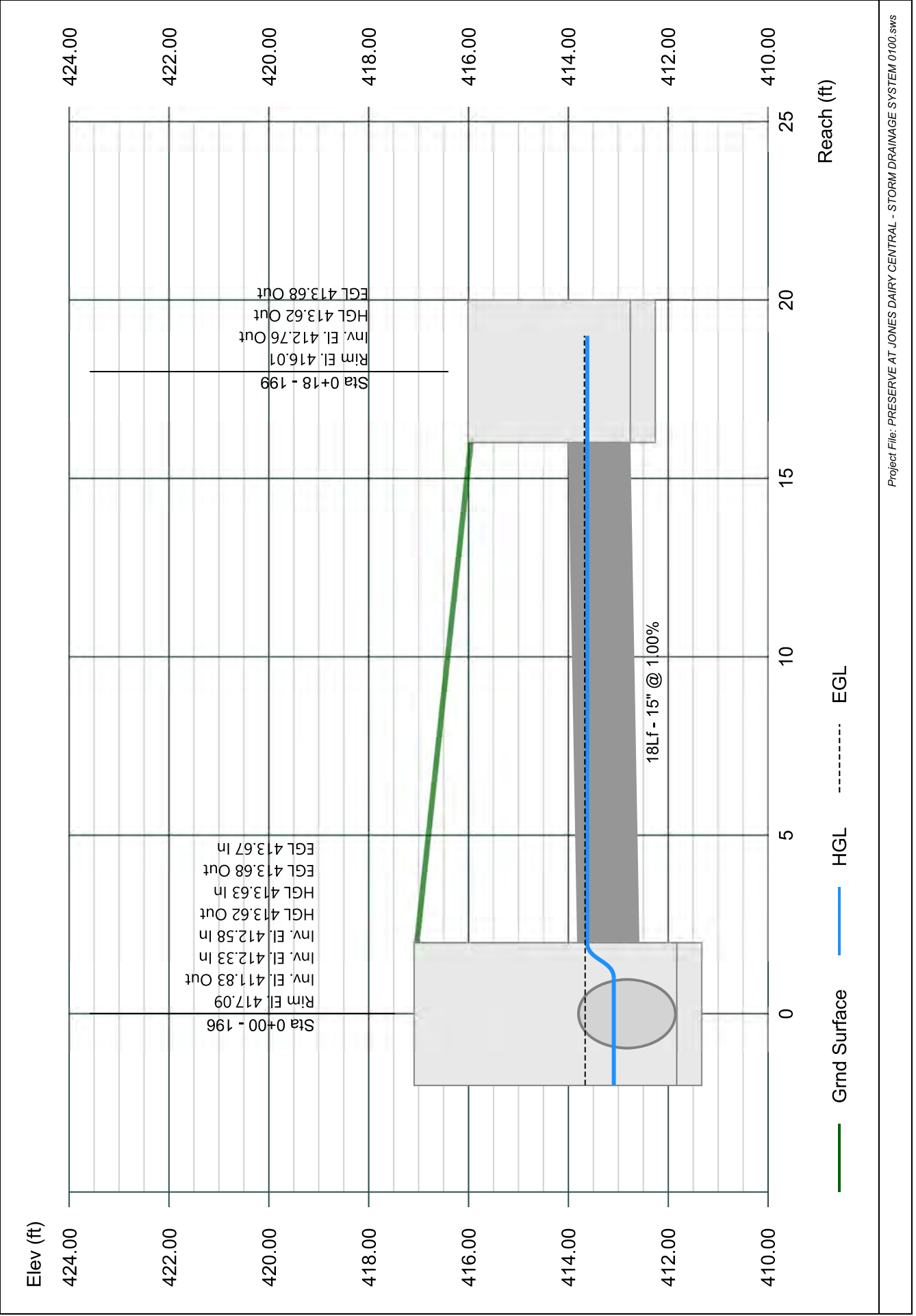


# Line 99 - 199 TO 196

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



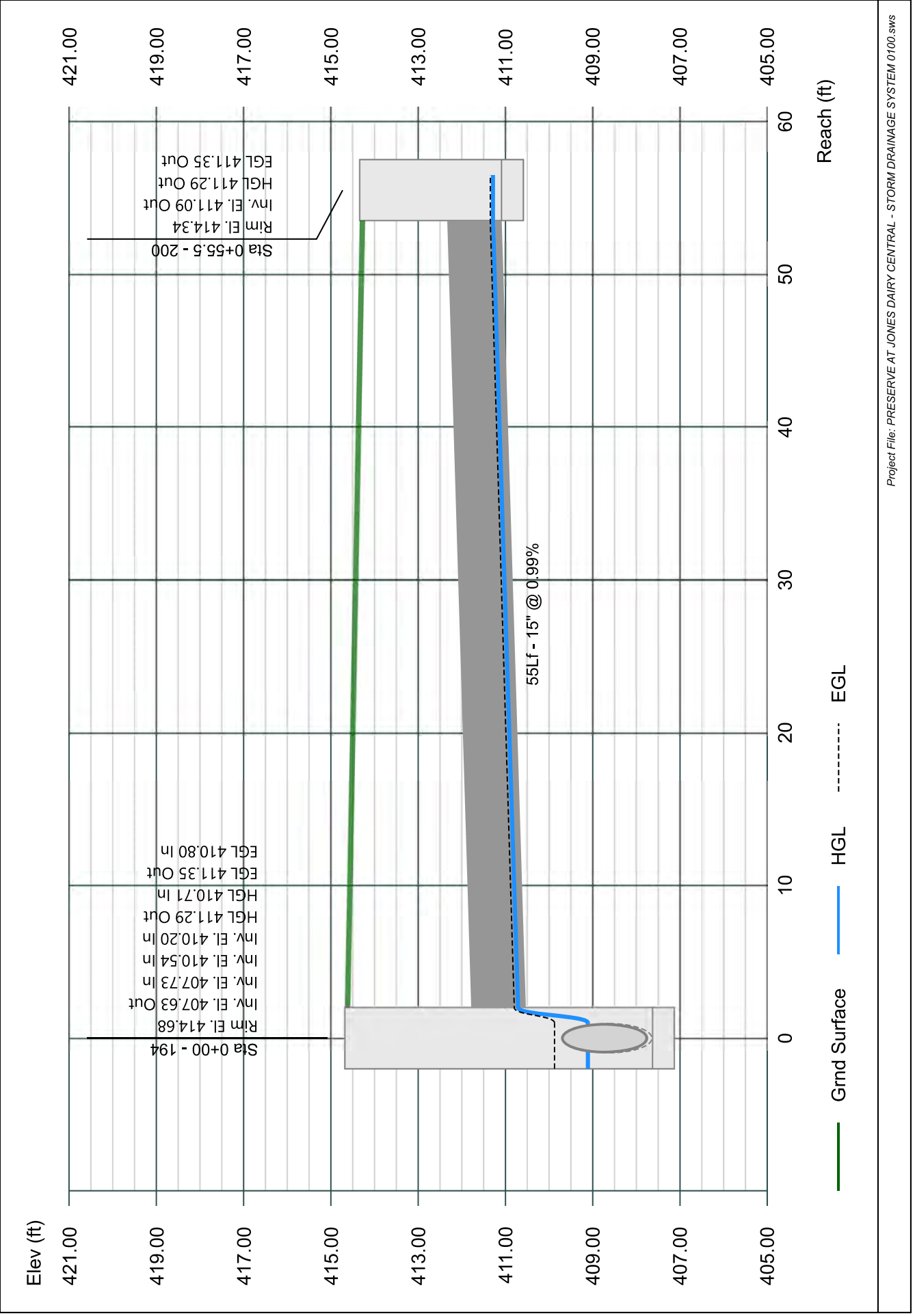


# Line 100 - 200 TO 194

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

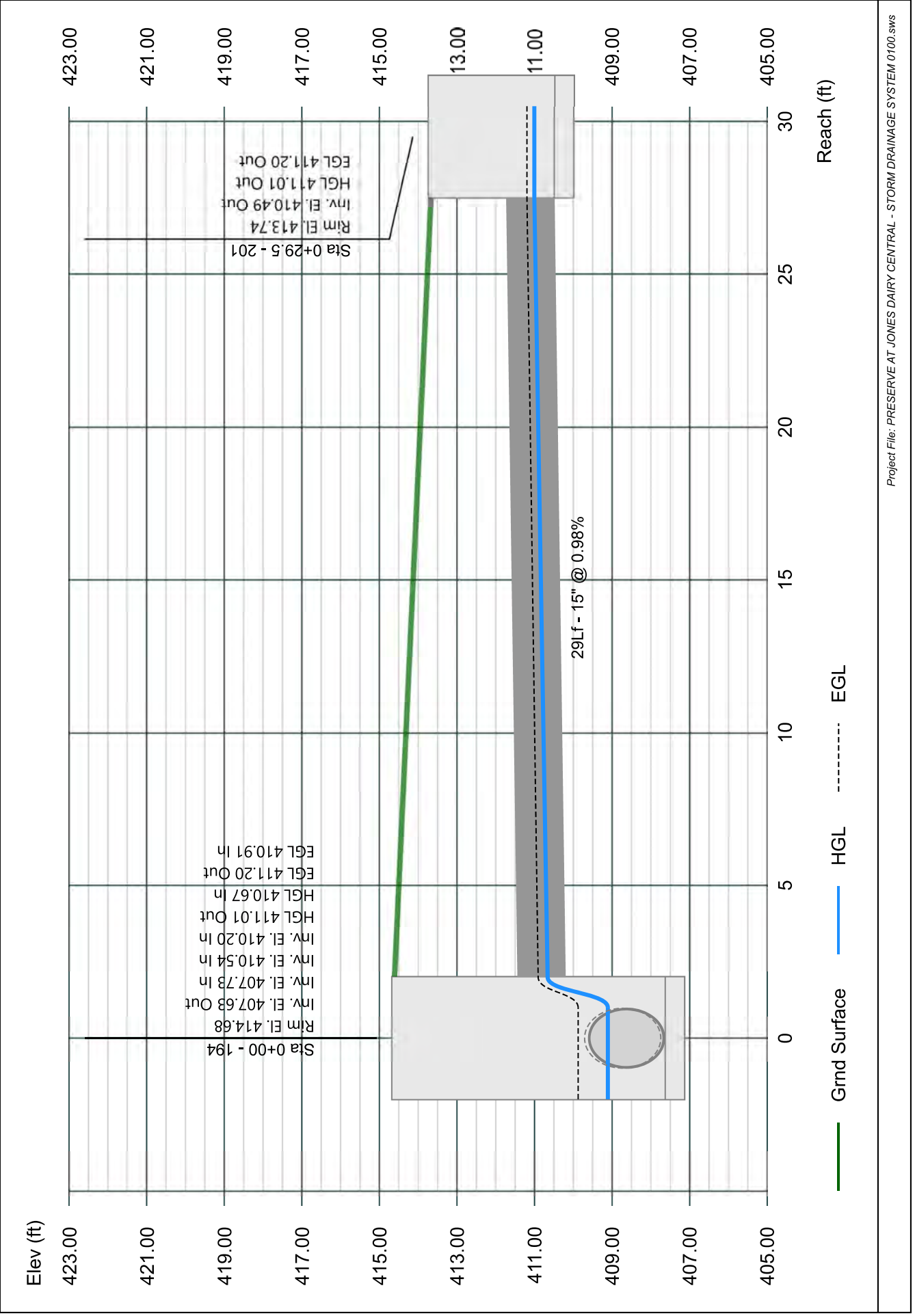


# Line 101 - 201 TO 194

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

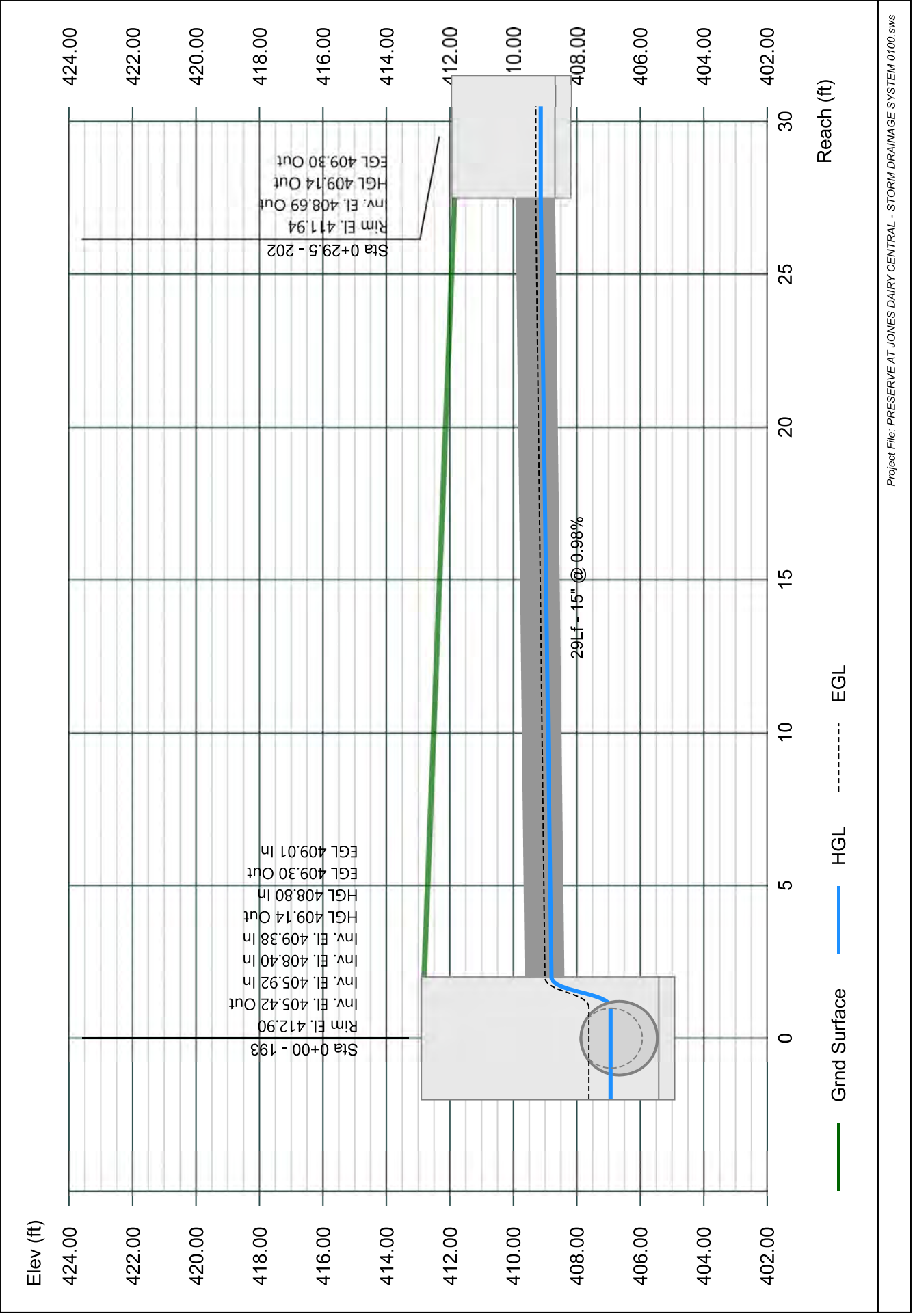


# Line 102 - 202 TO 193

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

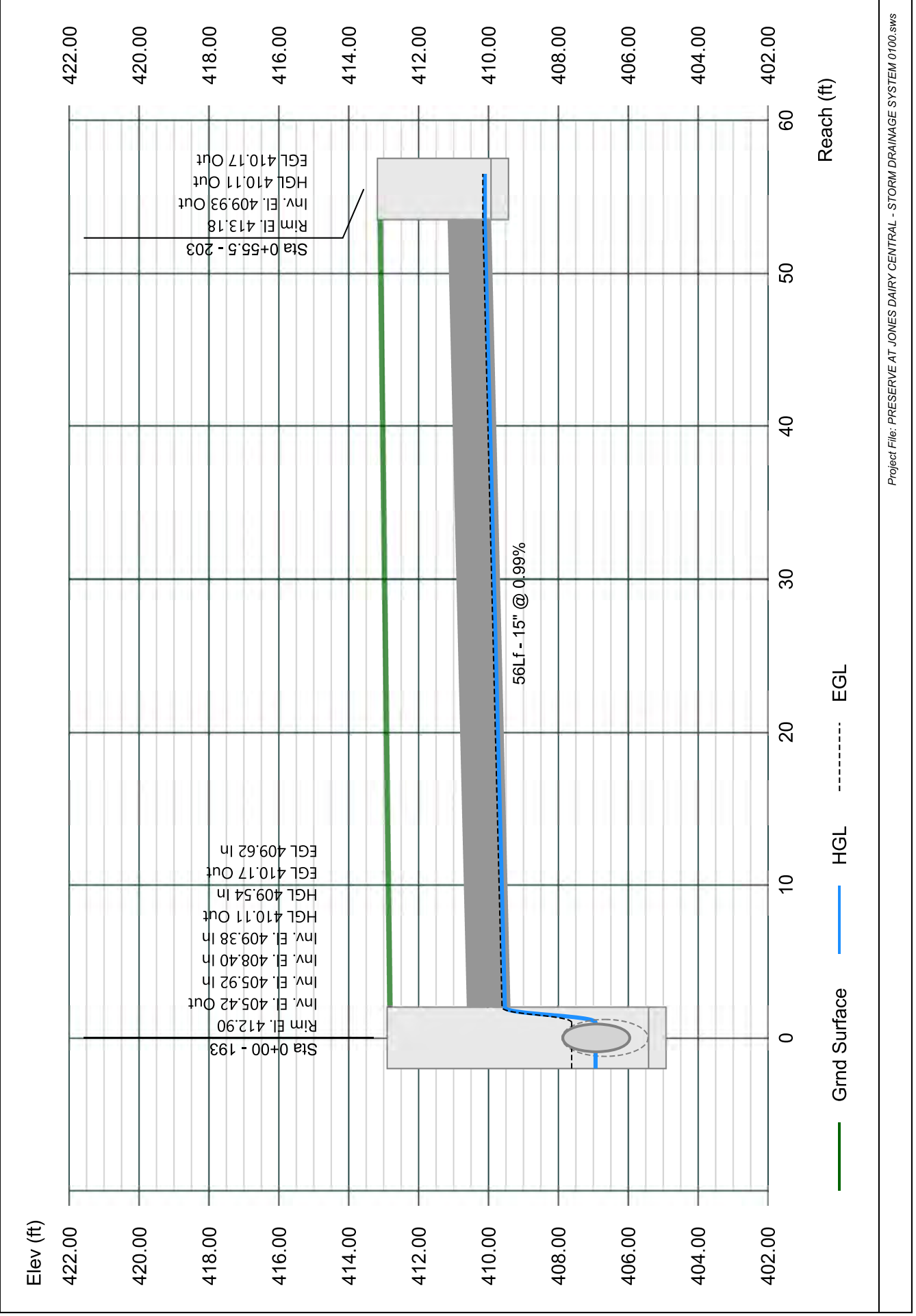


# Line 103 - 203 TO 193

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

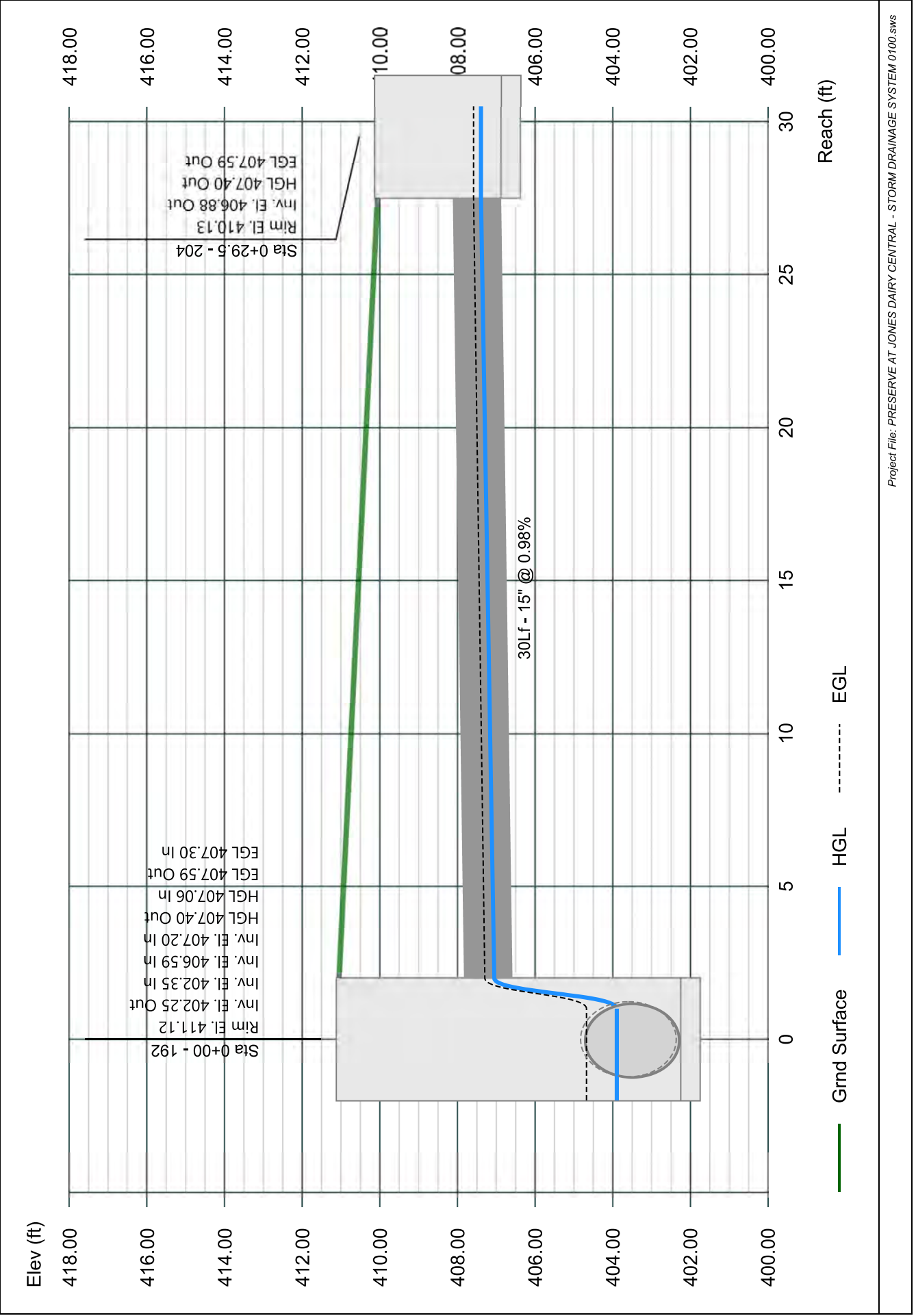


# Line 104 - 204 TO 192

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

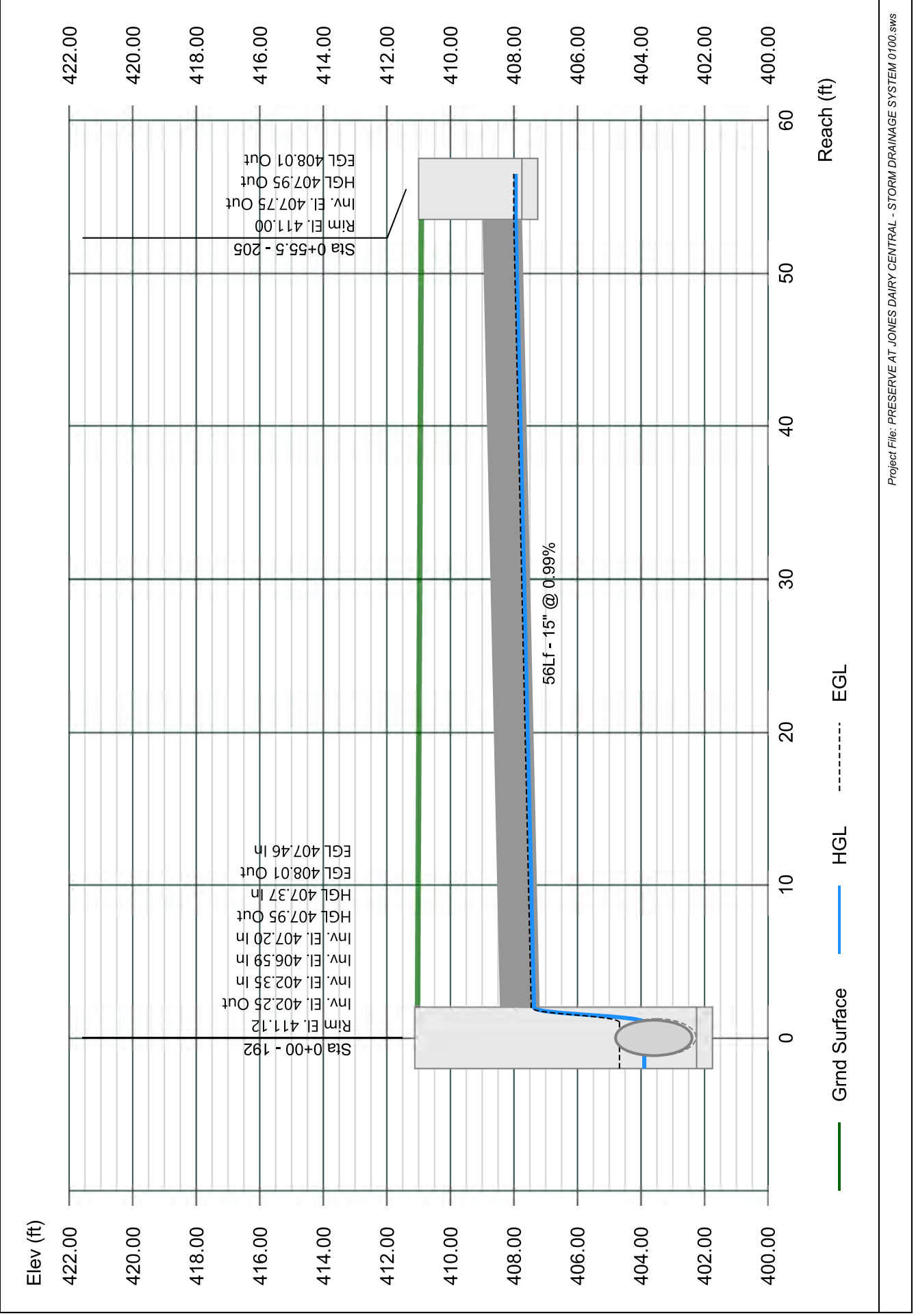


# Line 105 - 205 TO 192

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

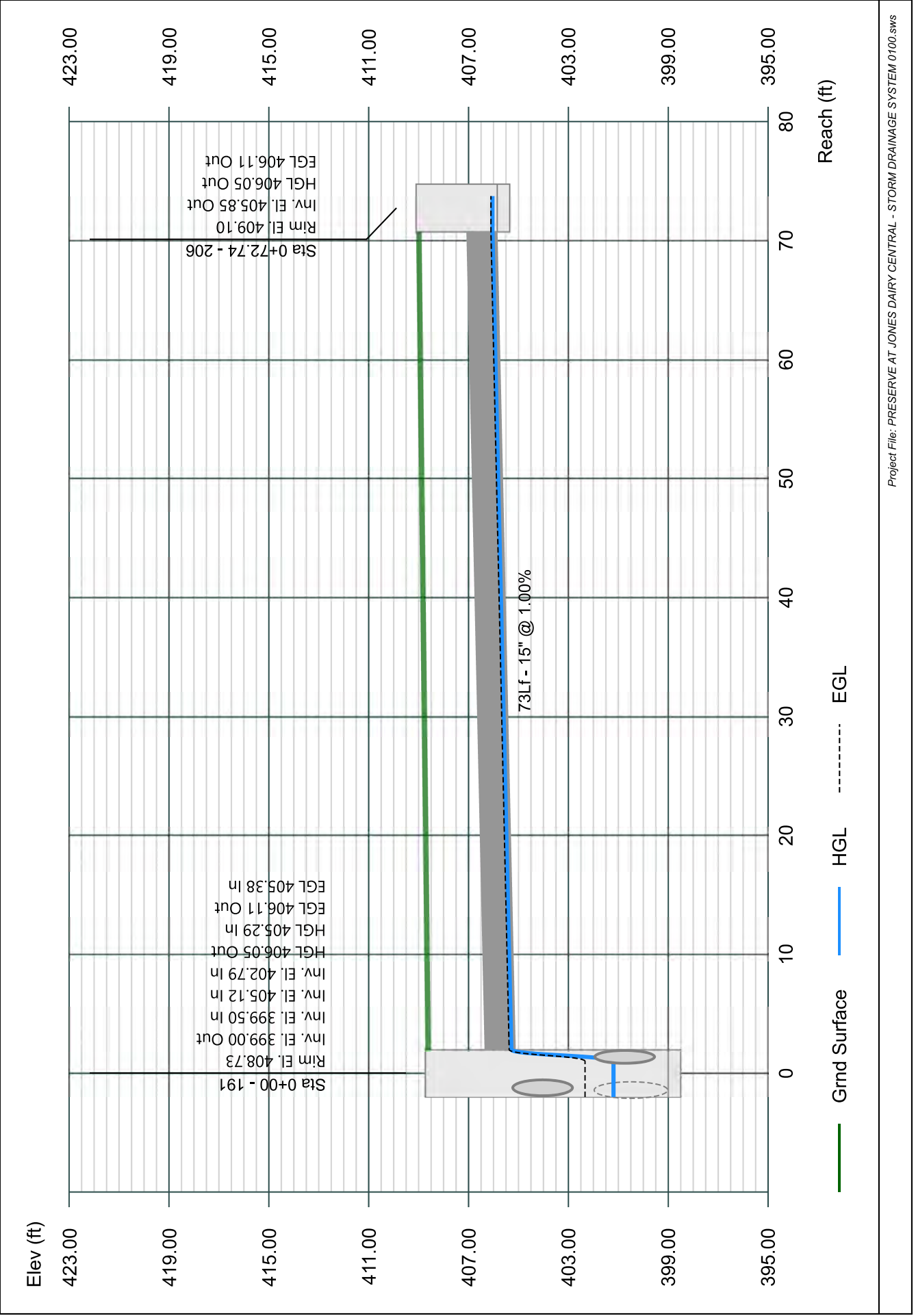


# Line 106 - 206 TO 191

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

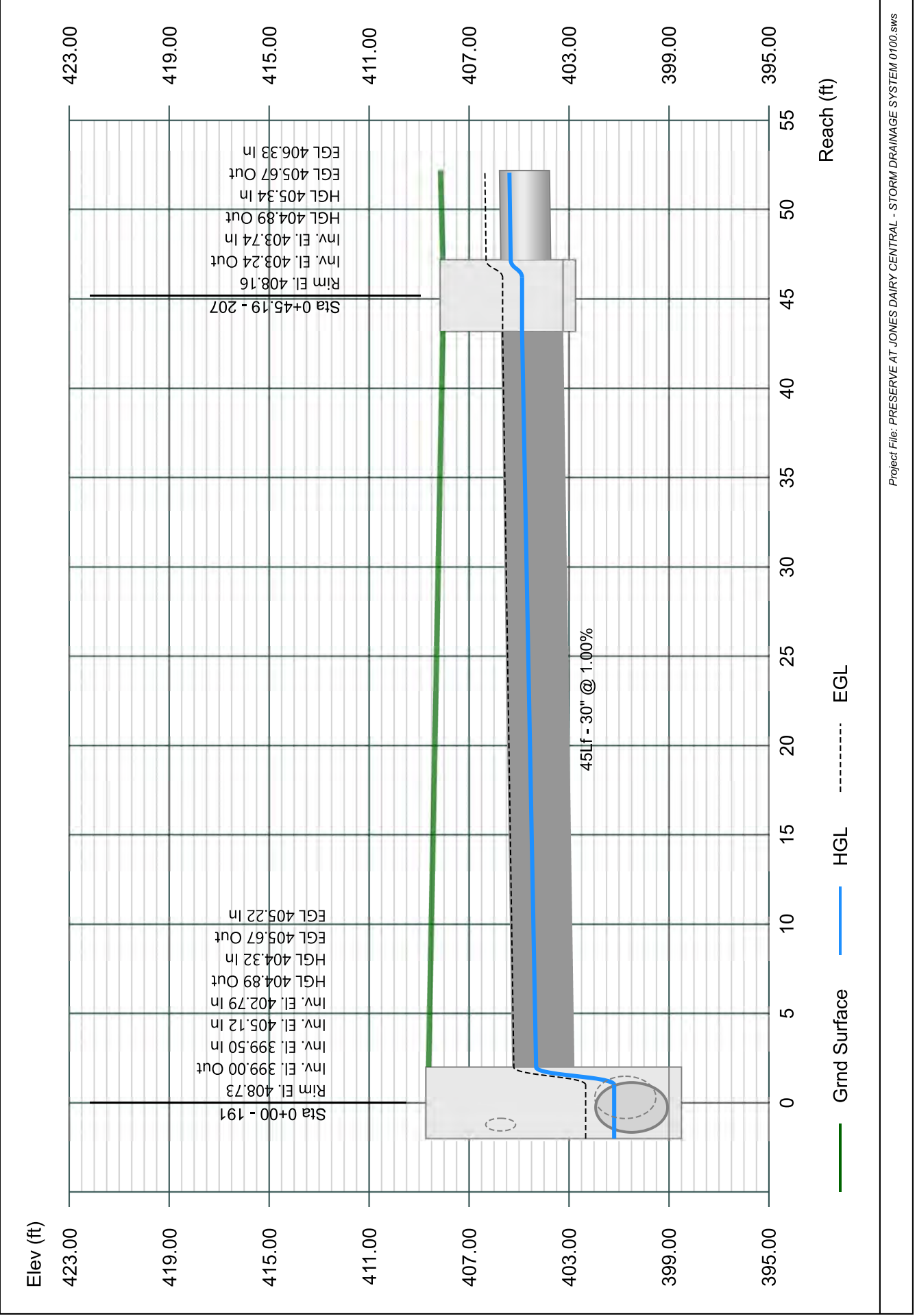


# Line 107 - 207 TO 191

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



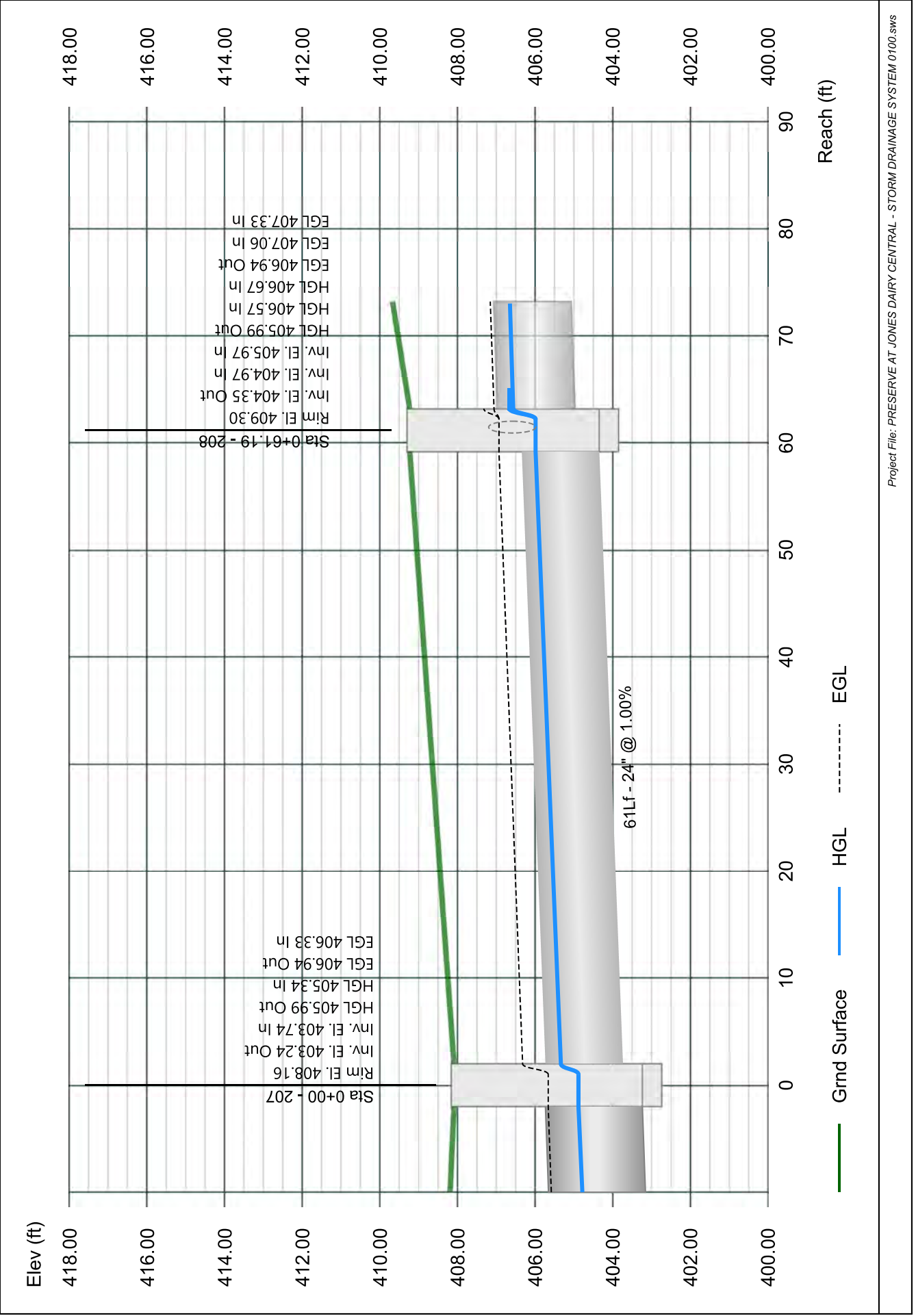


# Line 108 - 208 TO 207

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

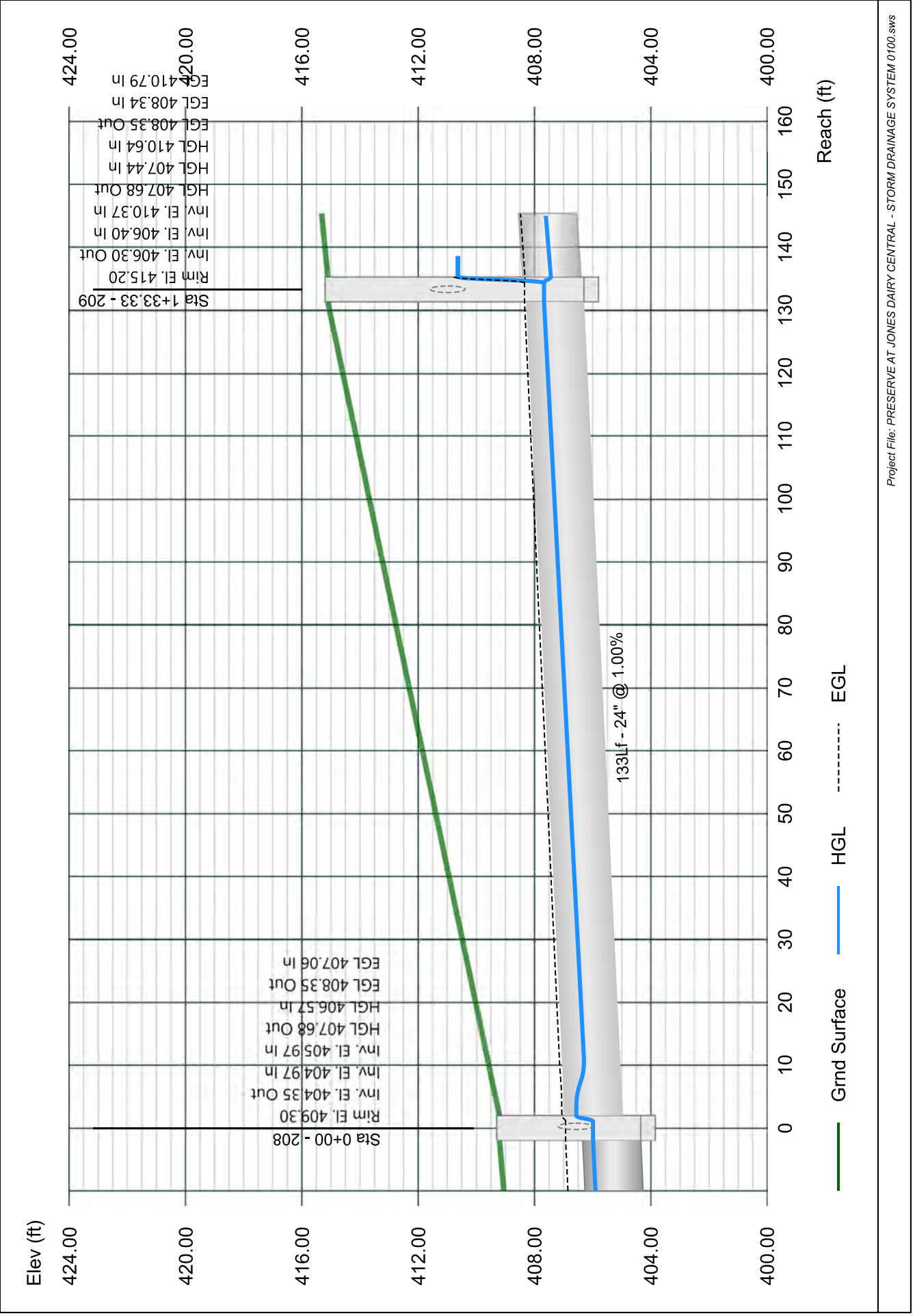


# Line 109 - 209 TO 208

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

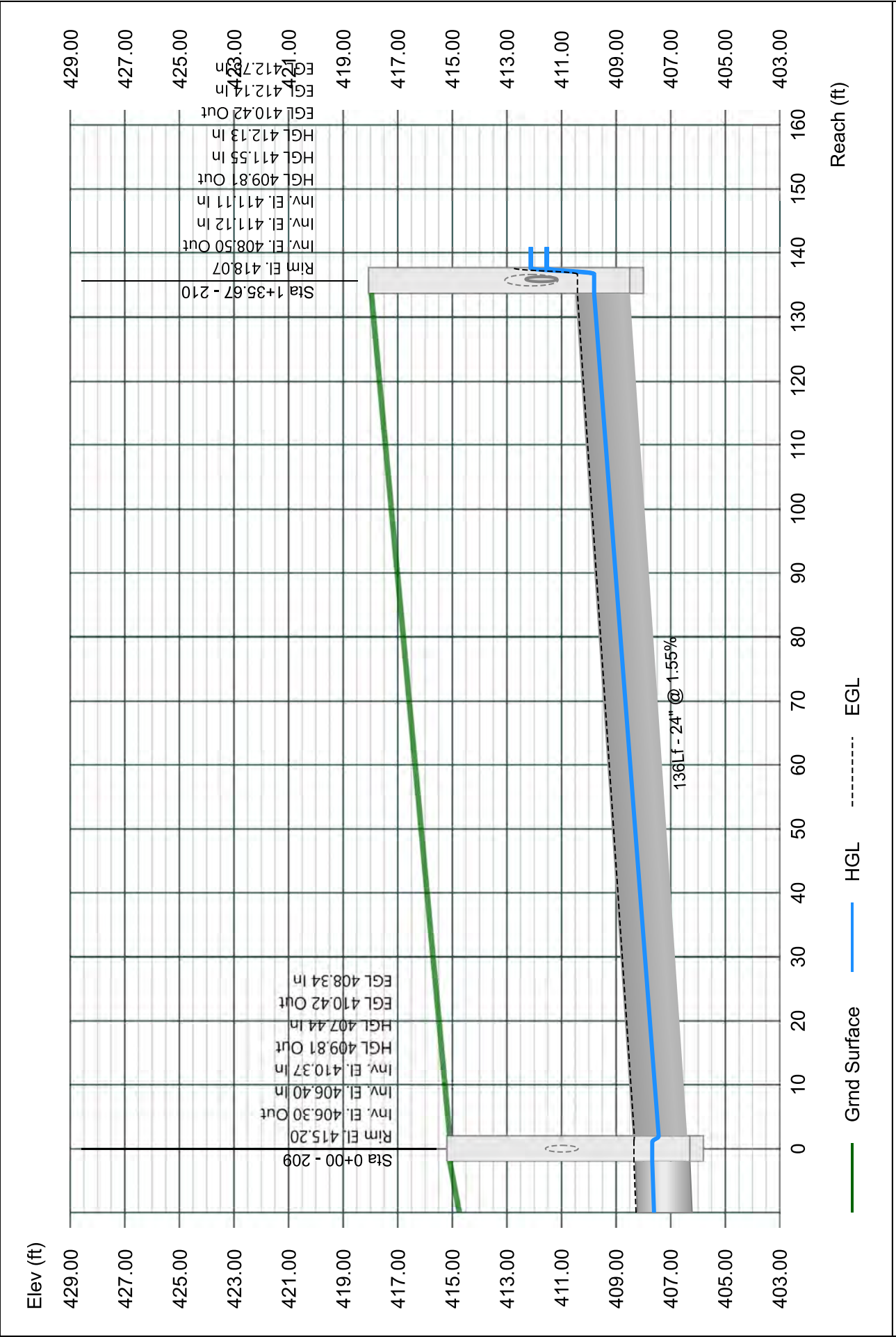


# Line 110 - 210 TO 209

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

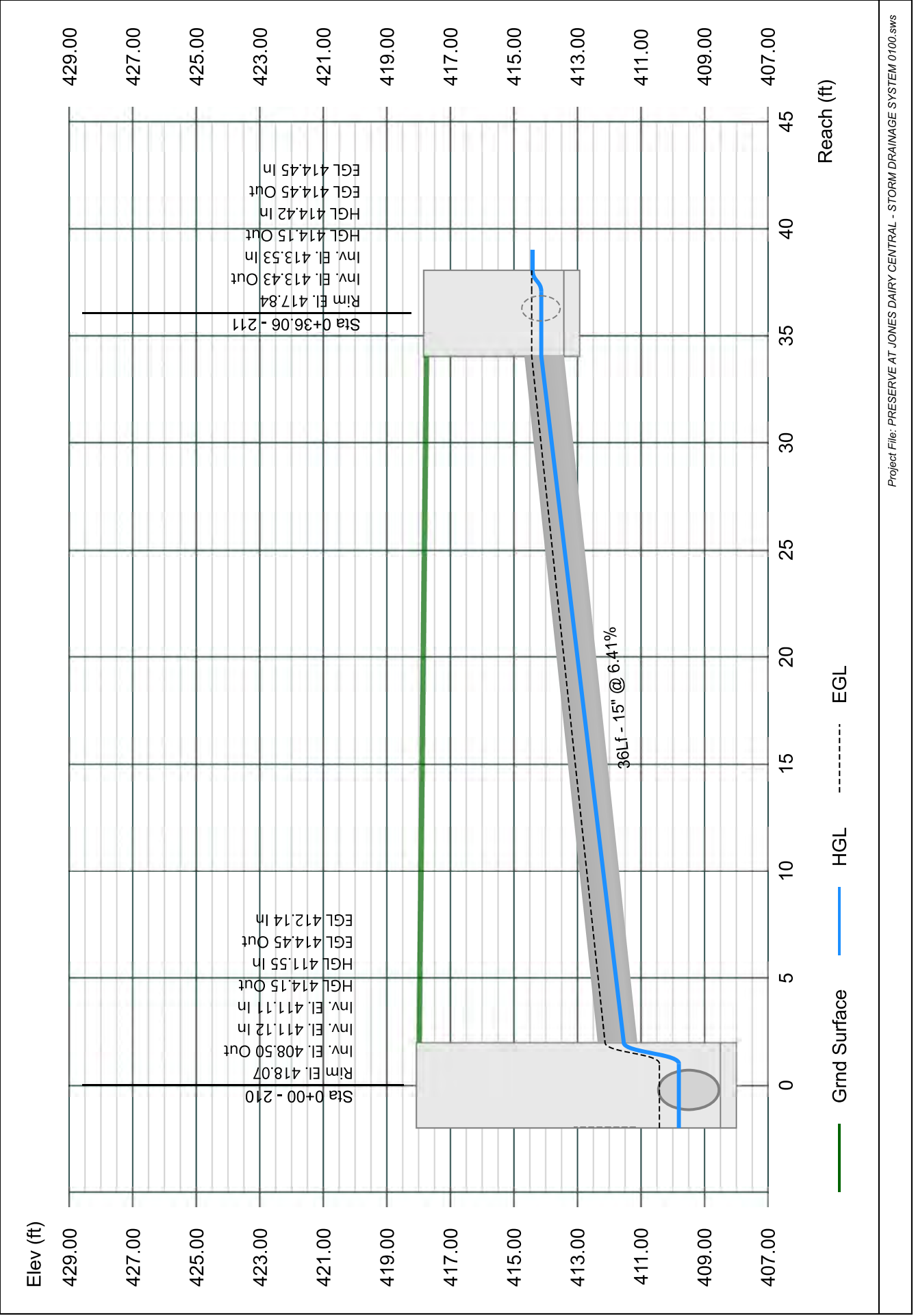


# Line 111 - 211 TO 210

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

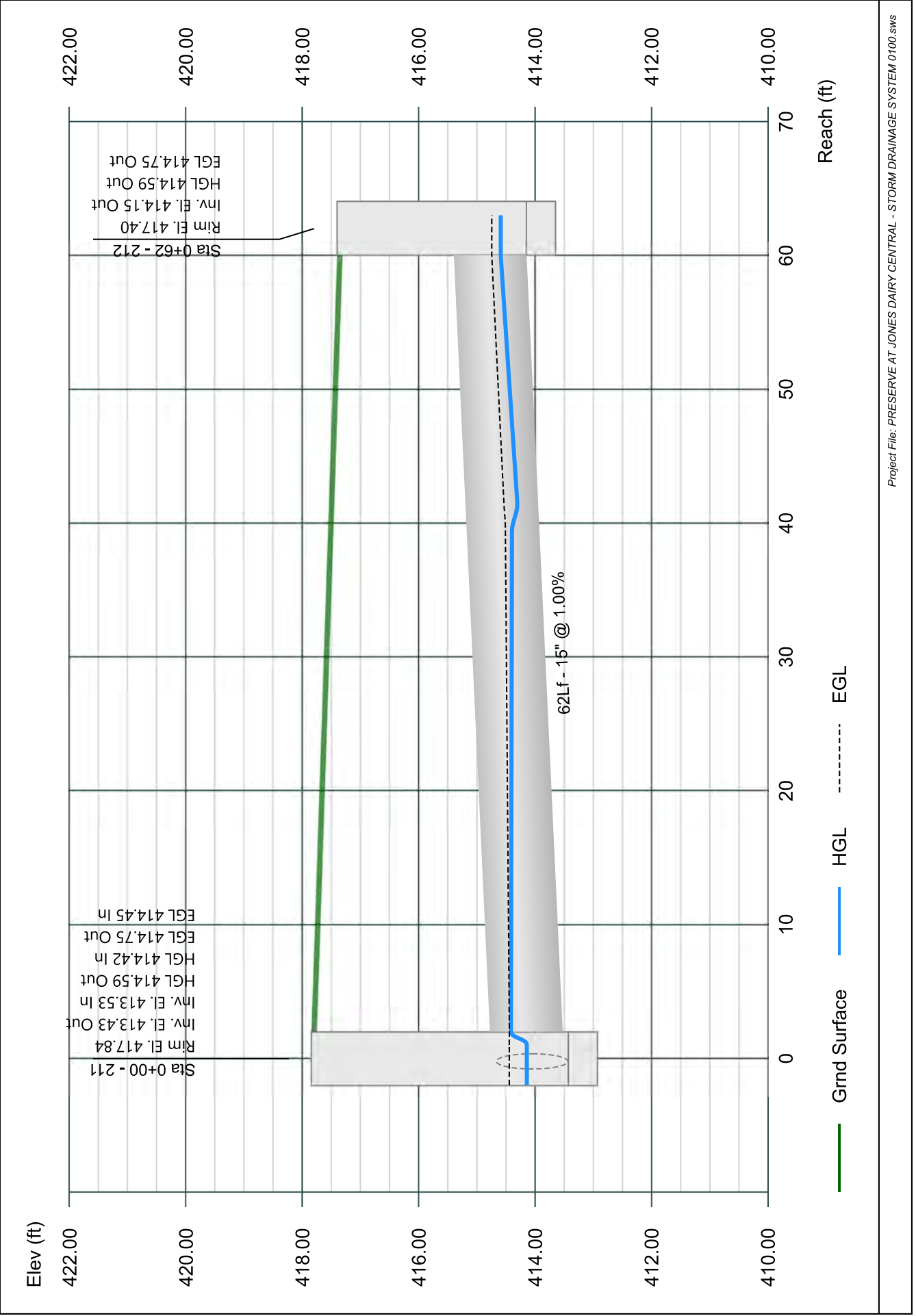


# Line 112 - 212 TO 211

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

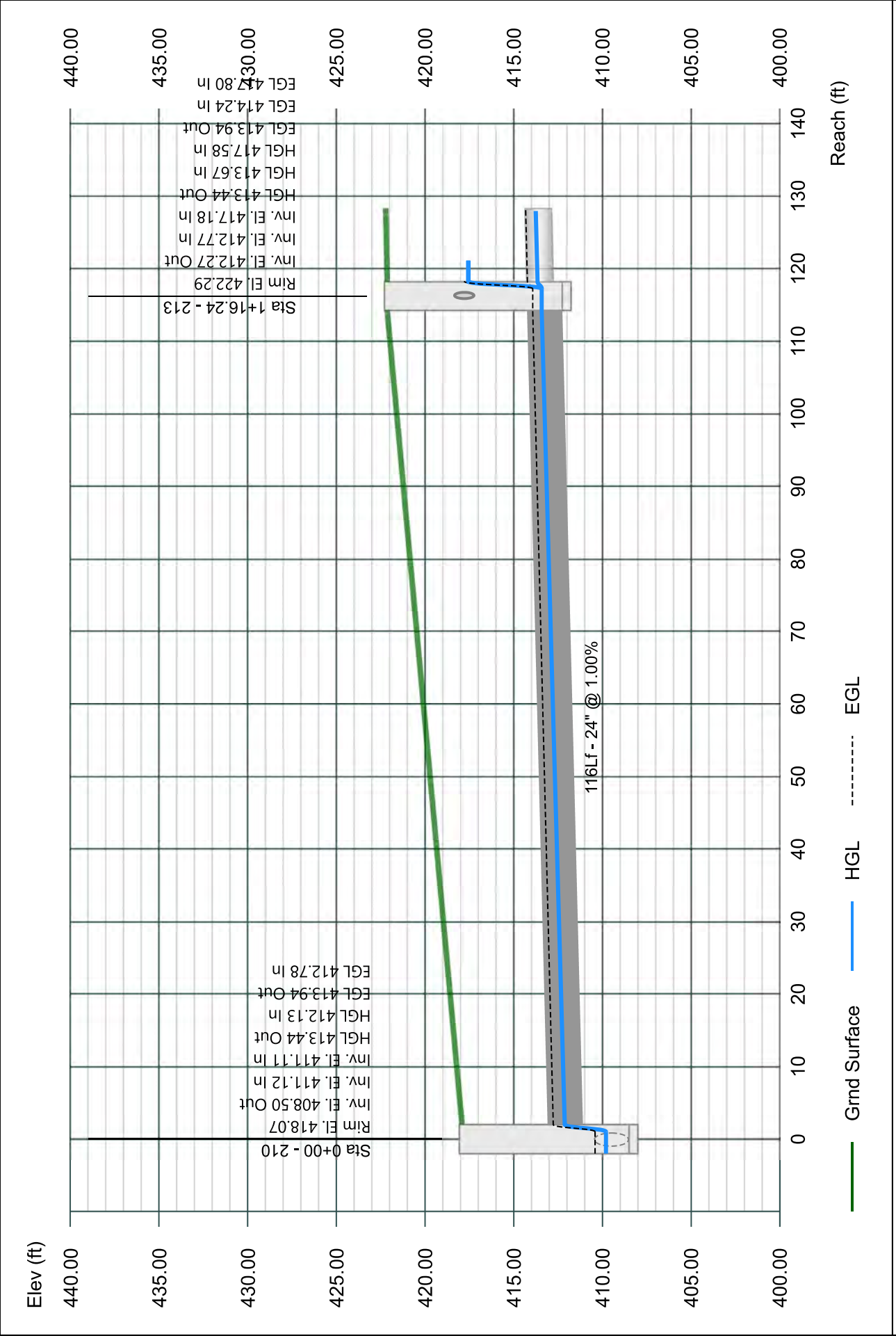


# Line 113 - 213 TO 210

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

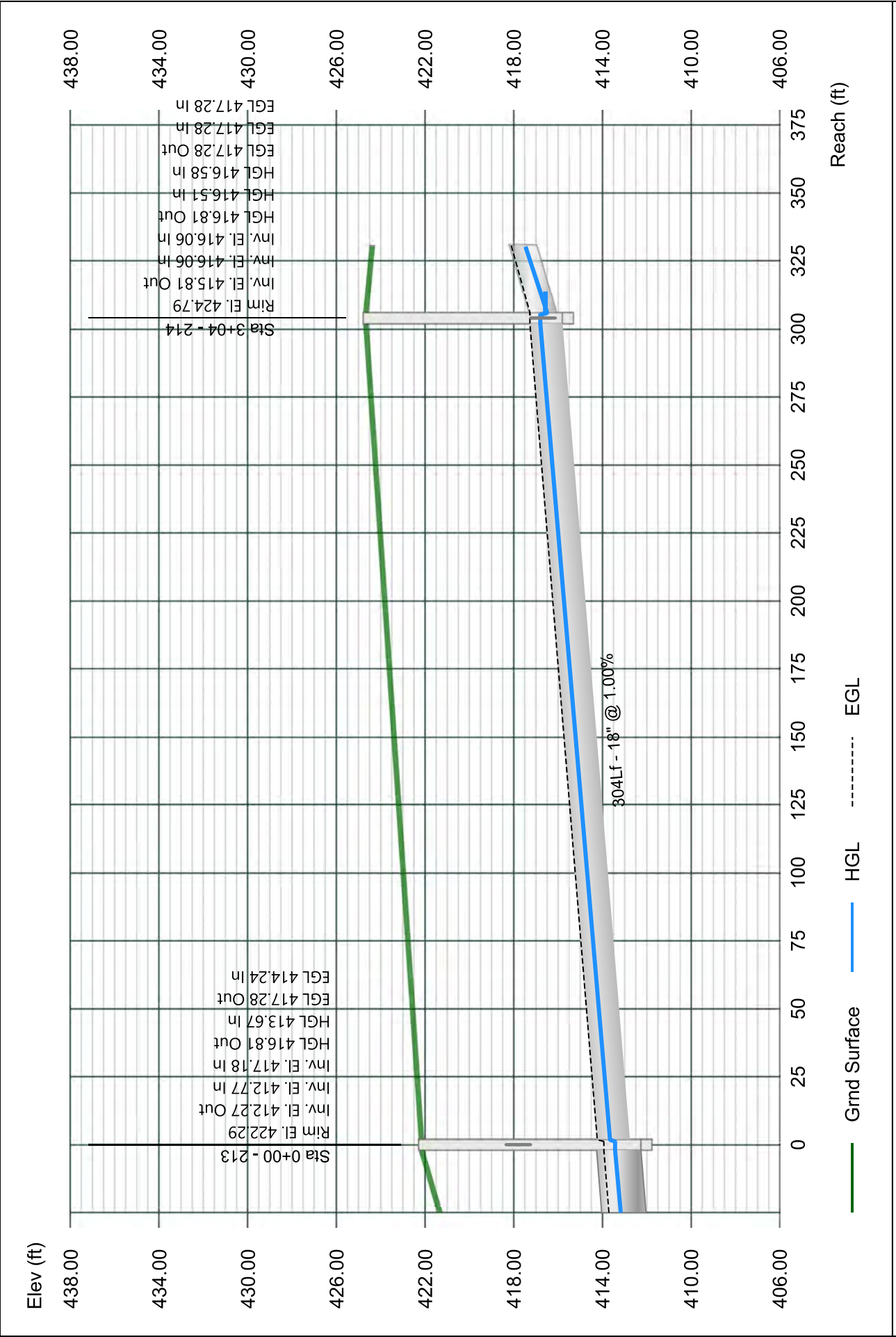


# Line 114 - 214 TO 213

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

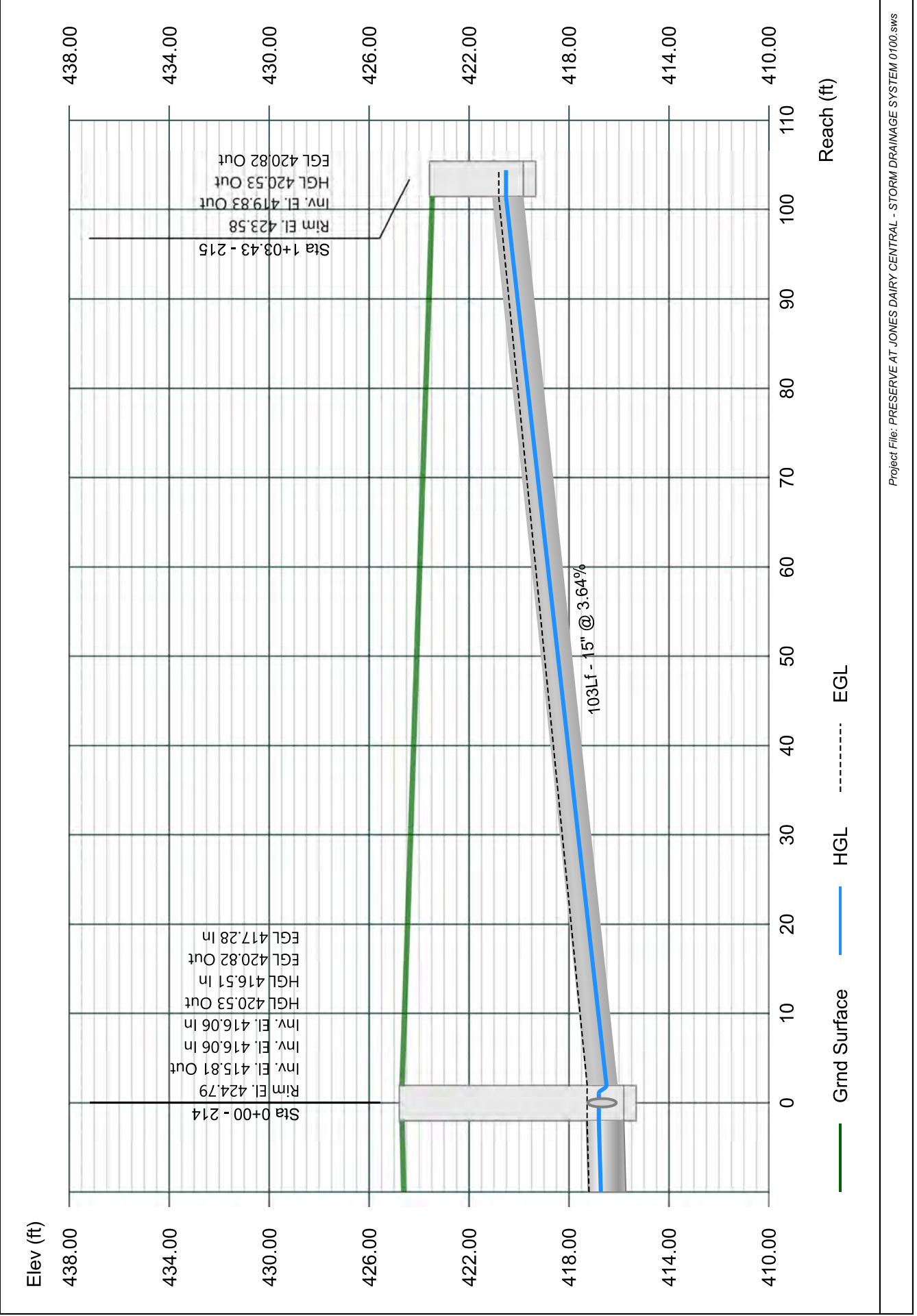


# Line 115 - 215 TO 214

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



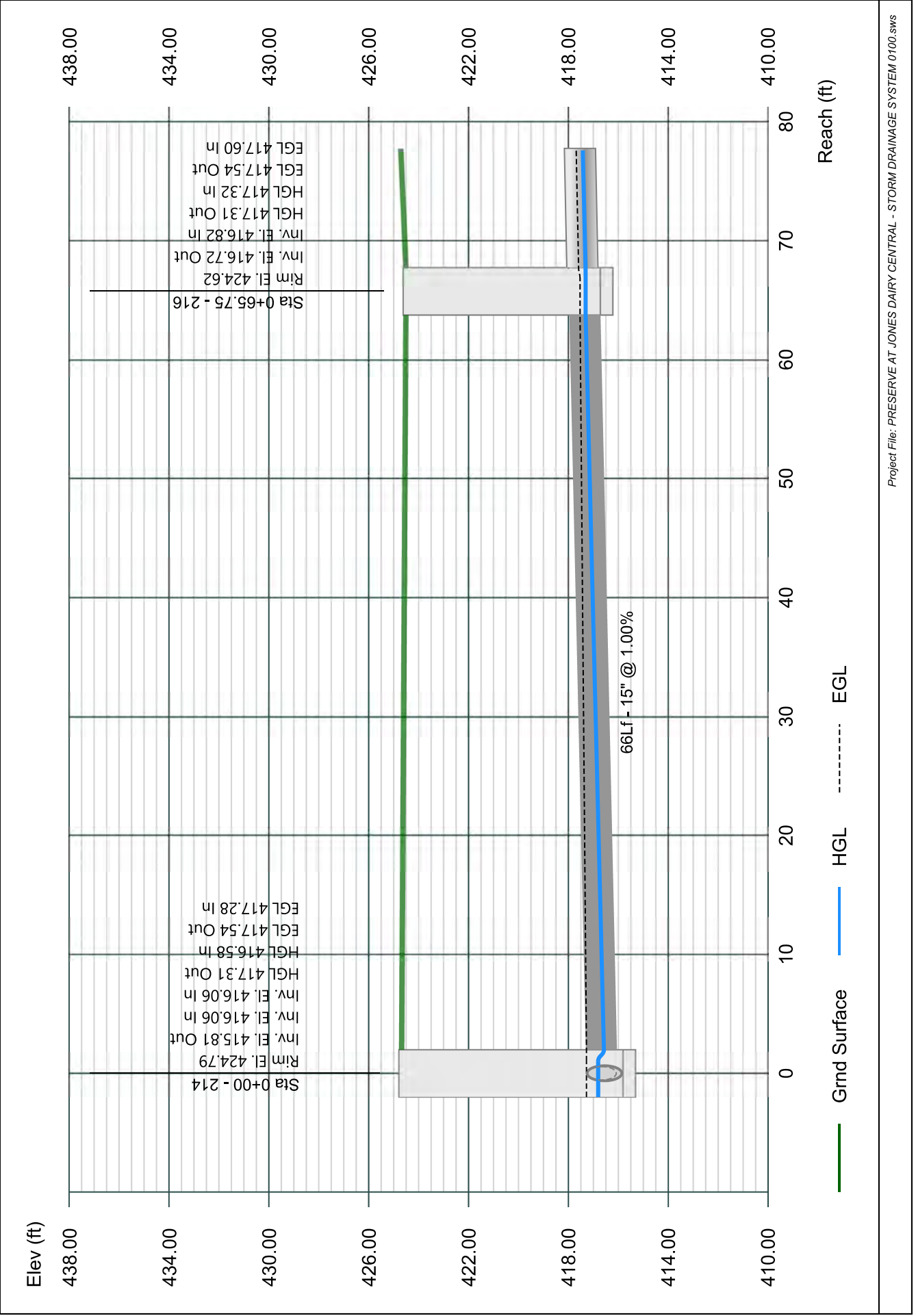


# Line 116 - 216 TI 214

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

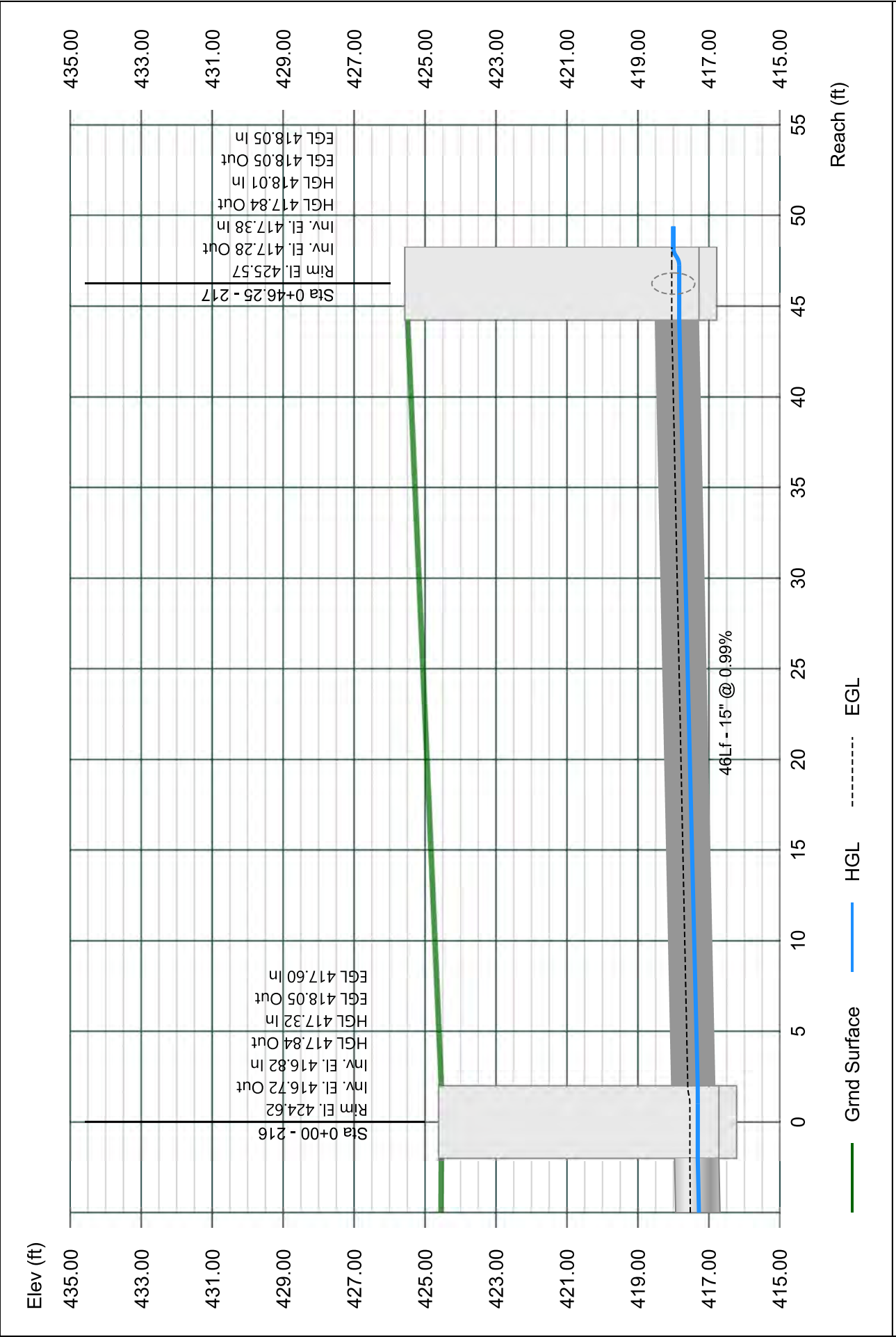


# Line 117 - 217 TO 216

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

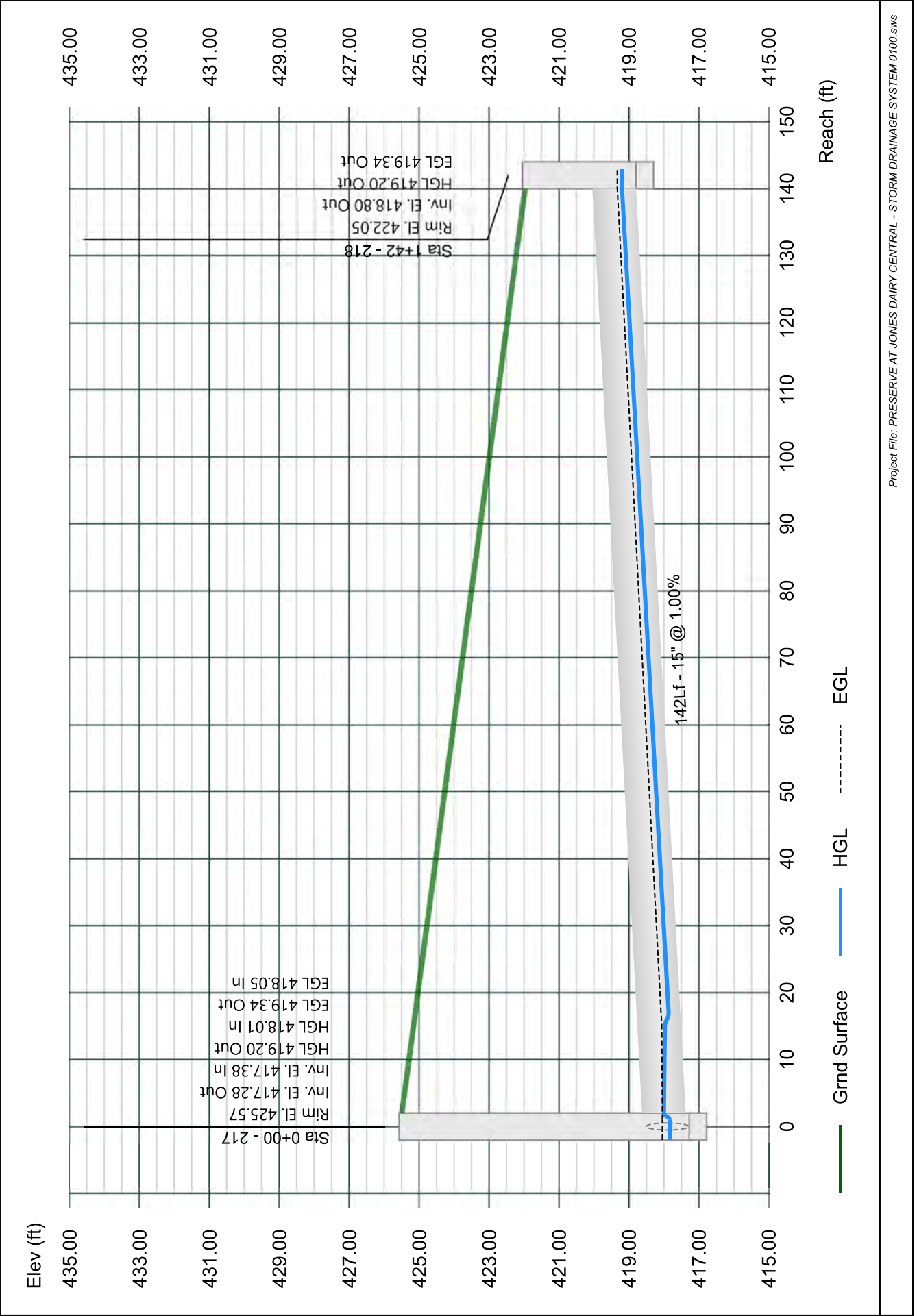


# Line 118 - 218 TO 217

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

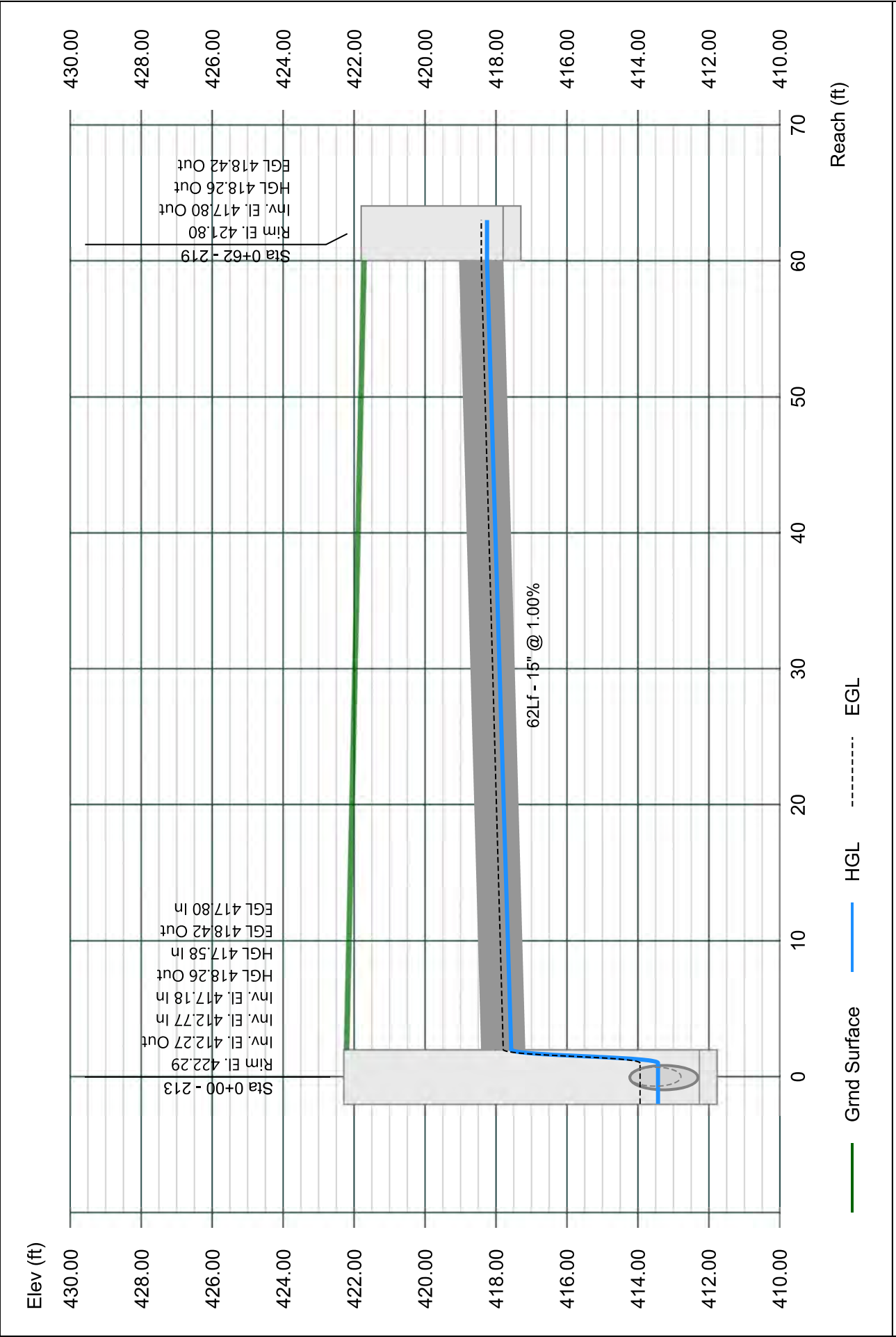


# Line 119 - 219 TO 213

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

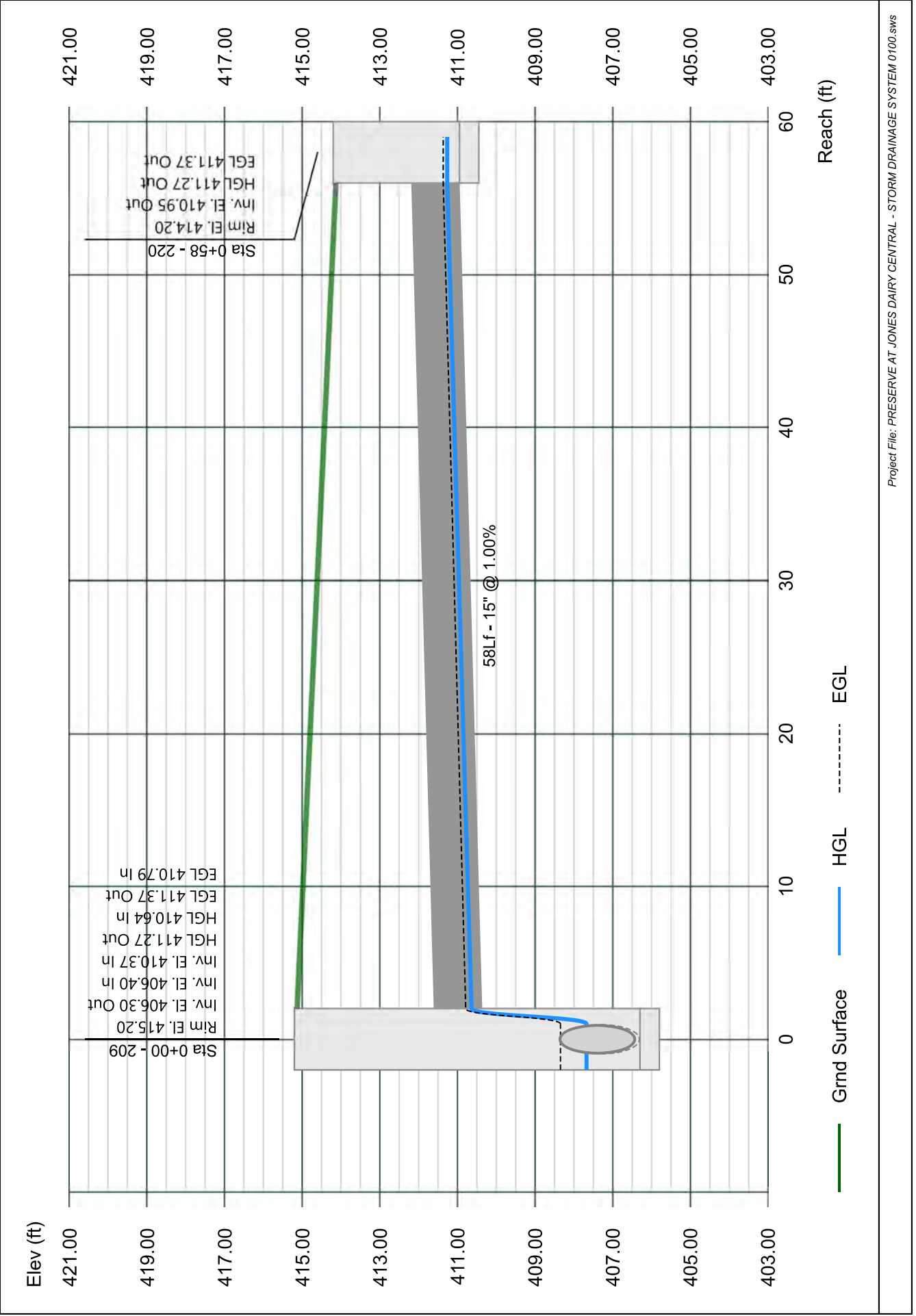


# Line 120 - 220 TO 209

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

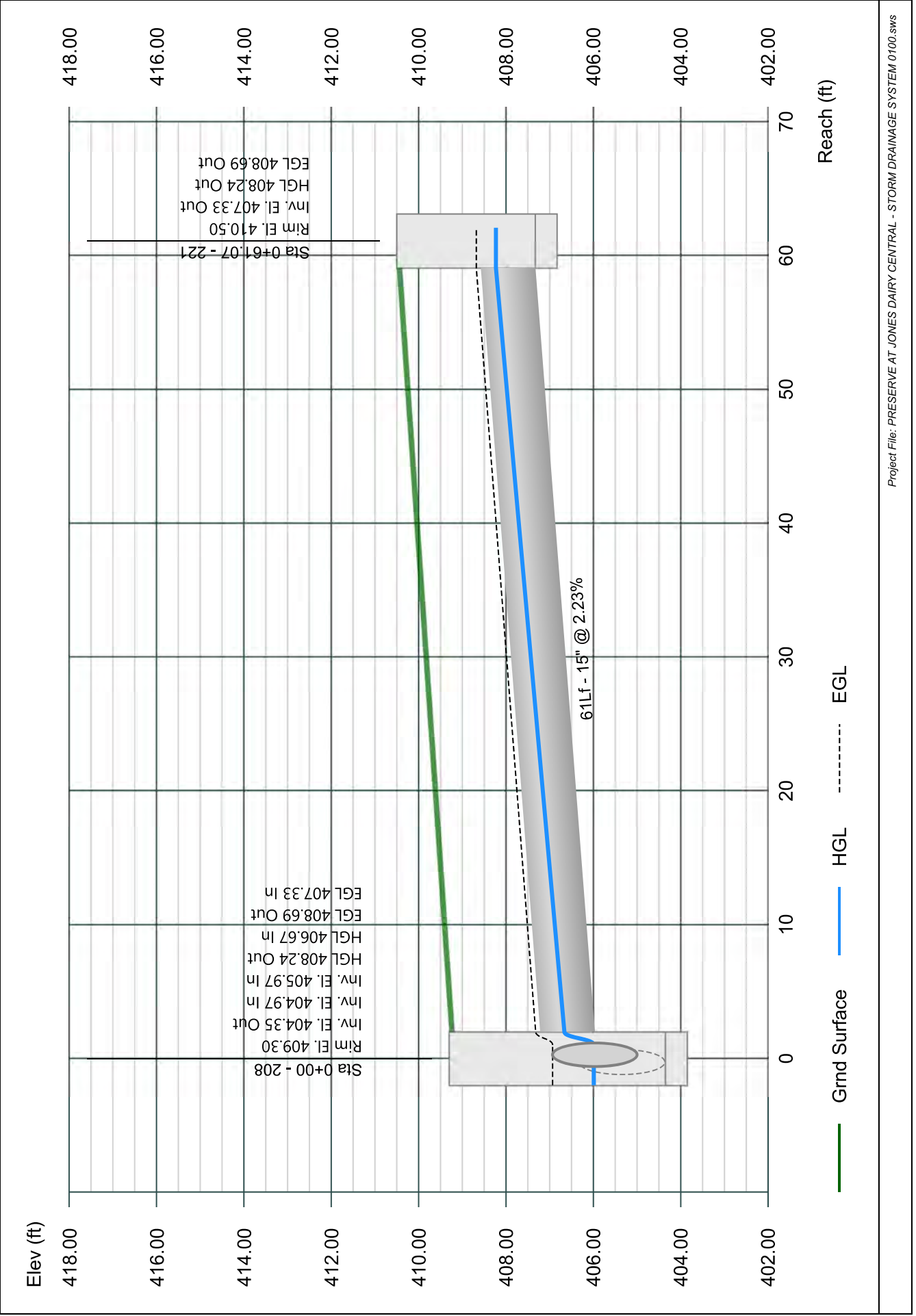


# Line 121 - 221 TO 208

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

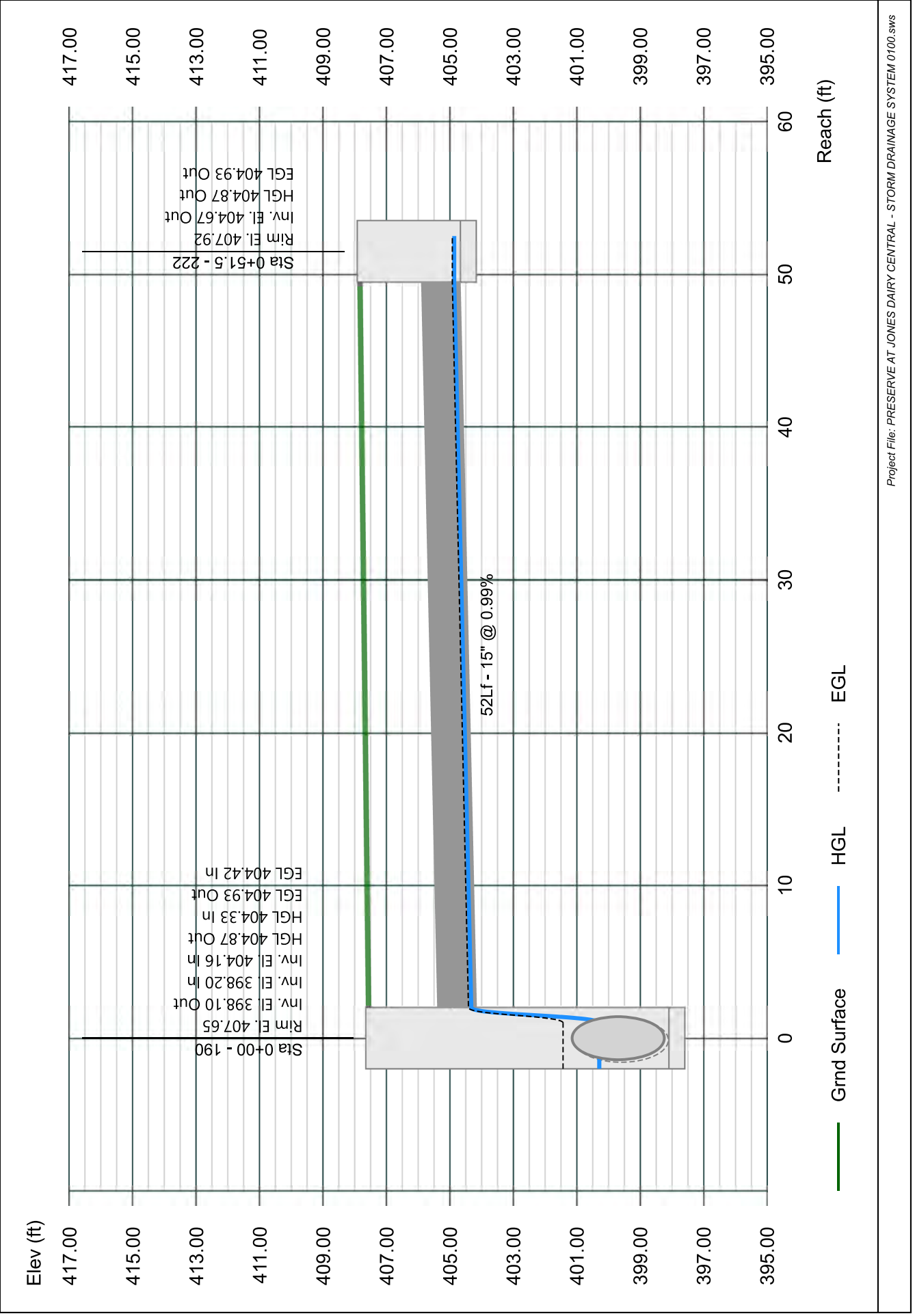


# Line 122 - 222 TO 190

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

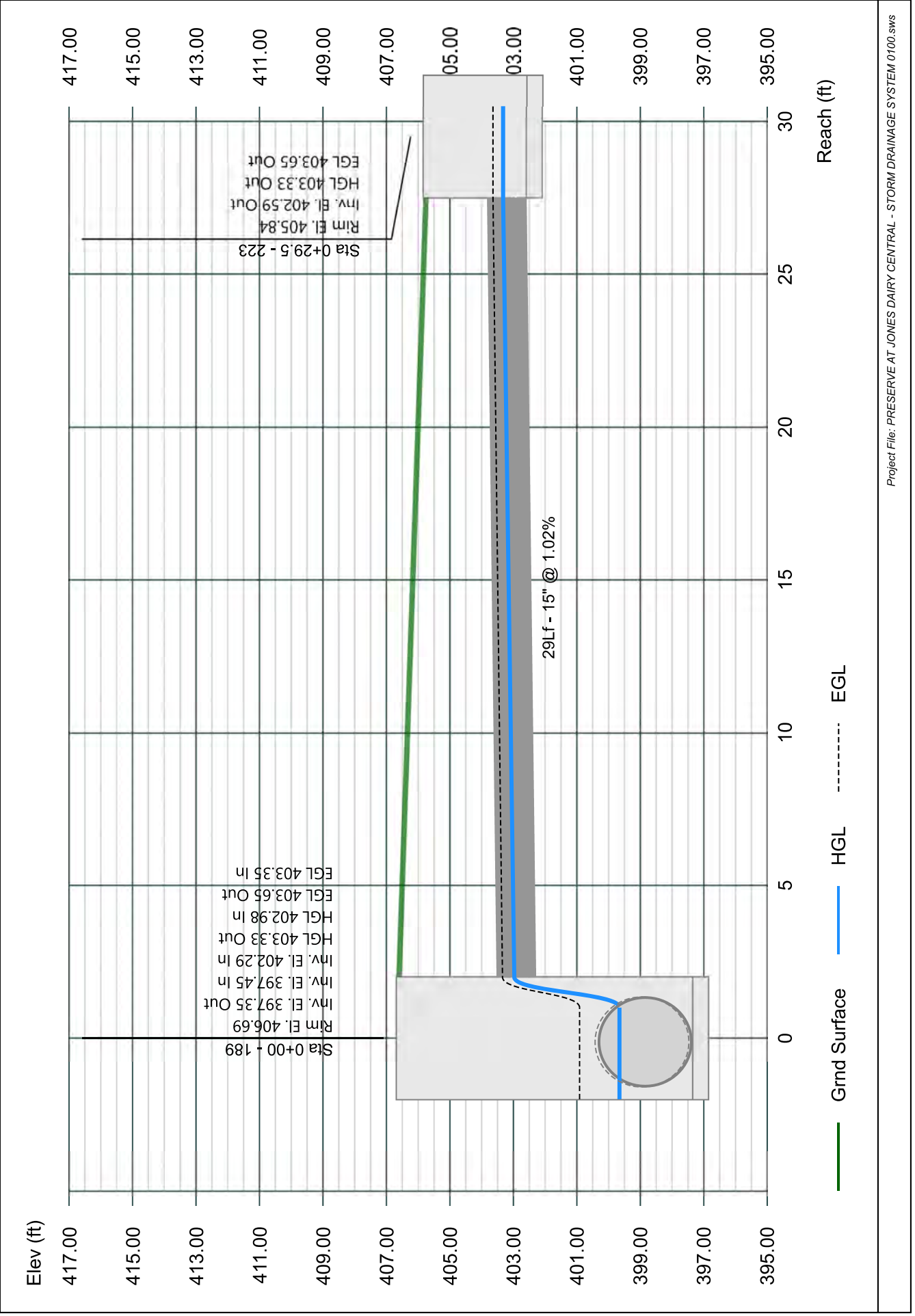


# Line 123 - 223 TO 189

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



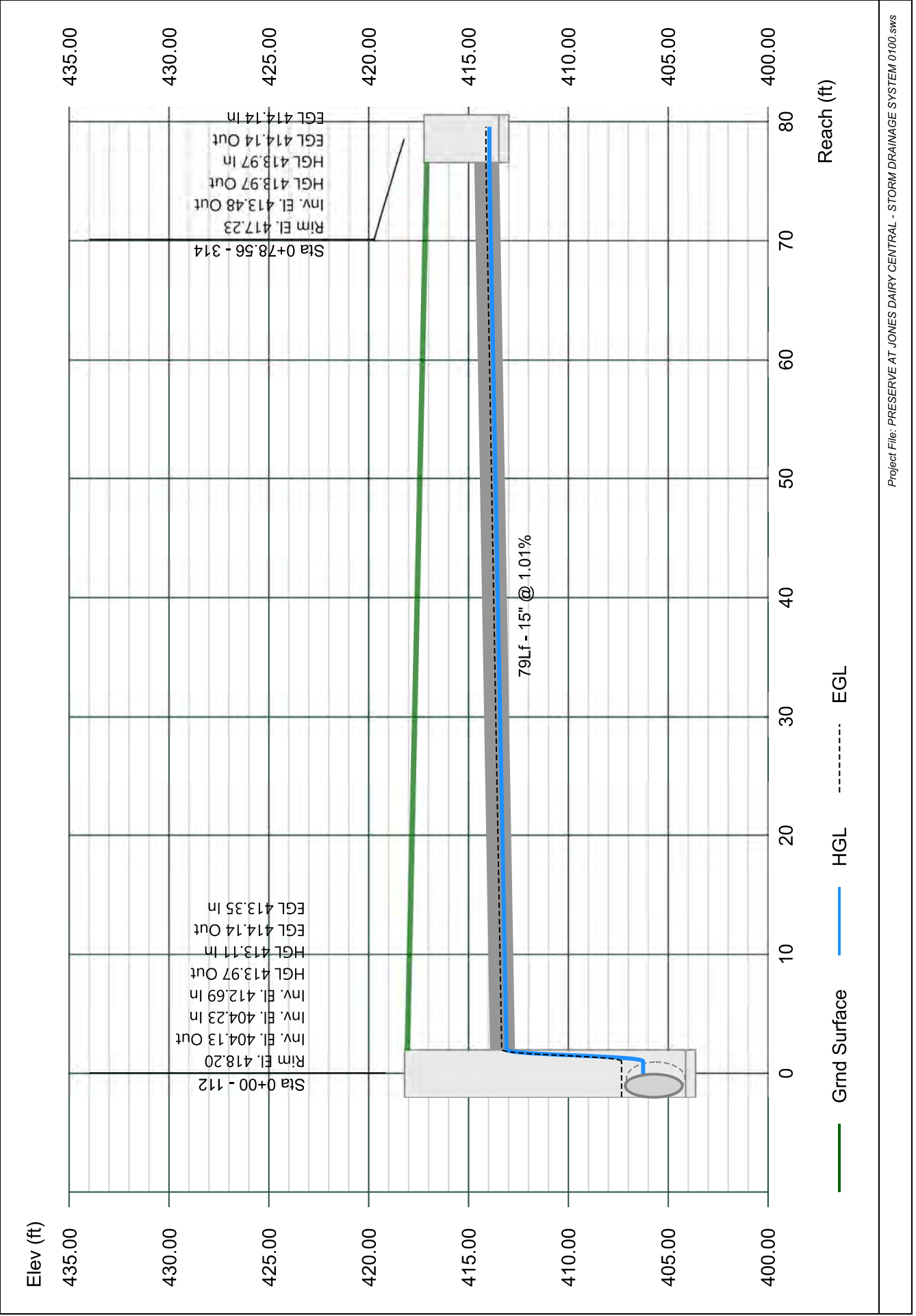


# Line 124 - 314 TO 112

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

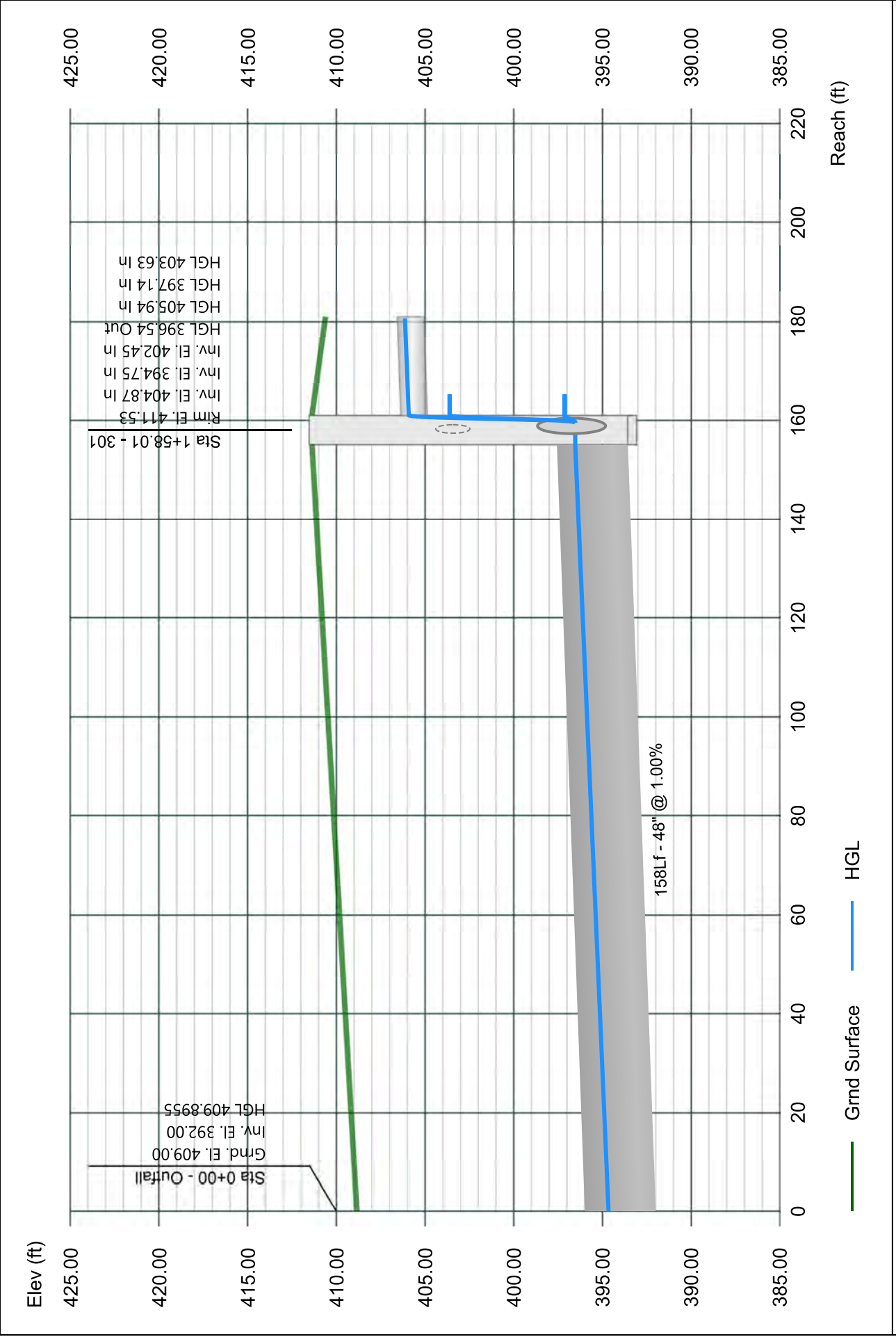


# Line 1 - 301 TO 300

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

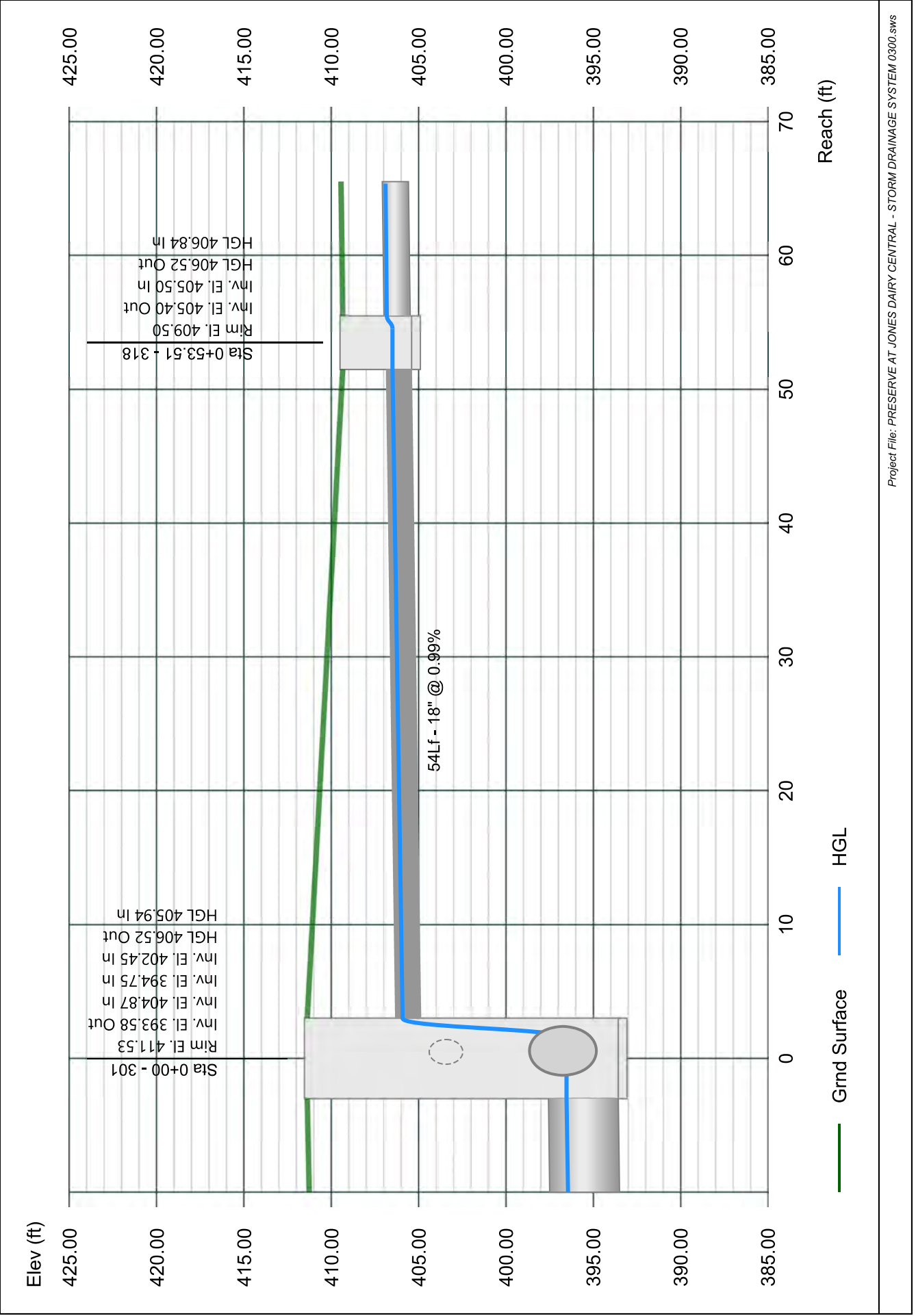


# Line 2 - 318 TO 301

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

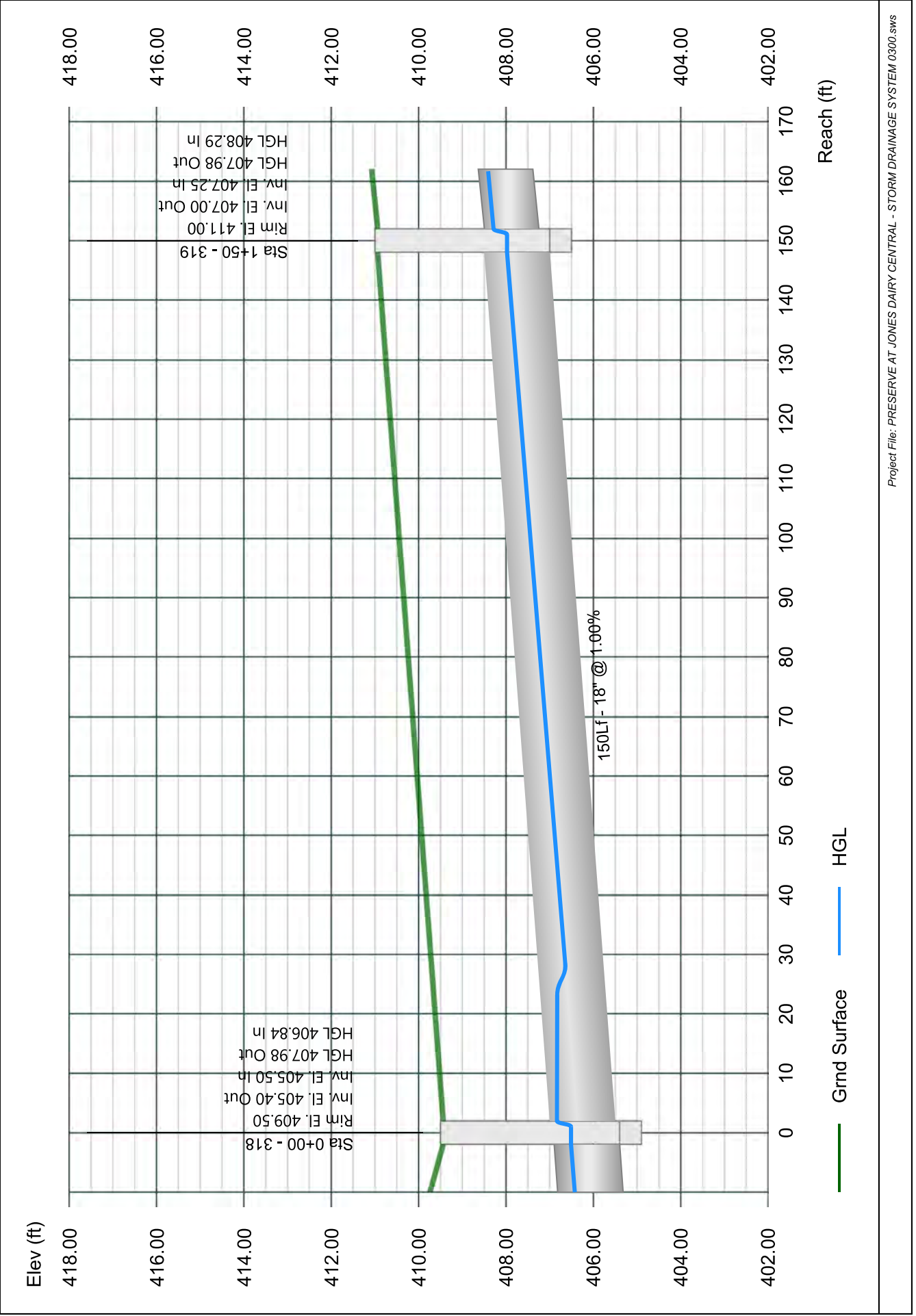


# Line 3 - 319 TO 318

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

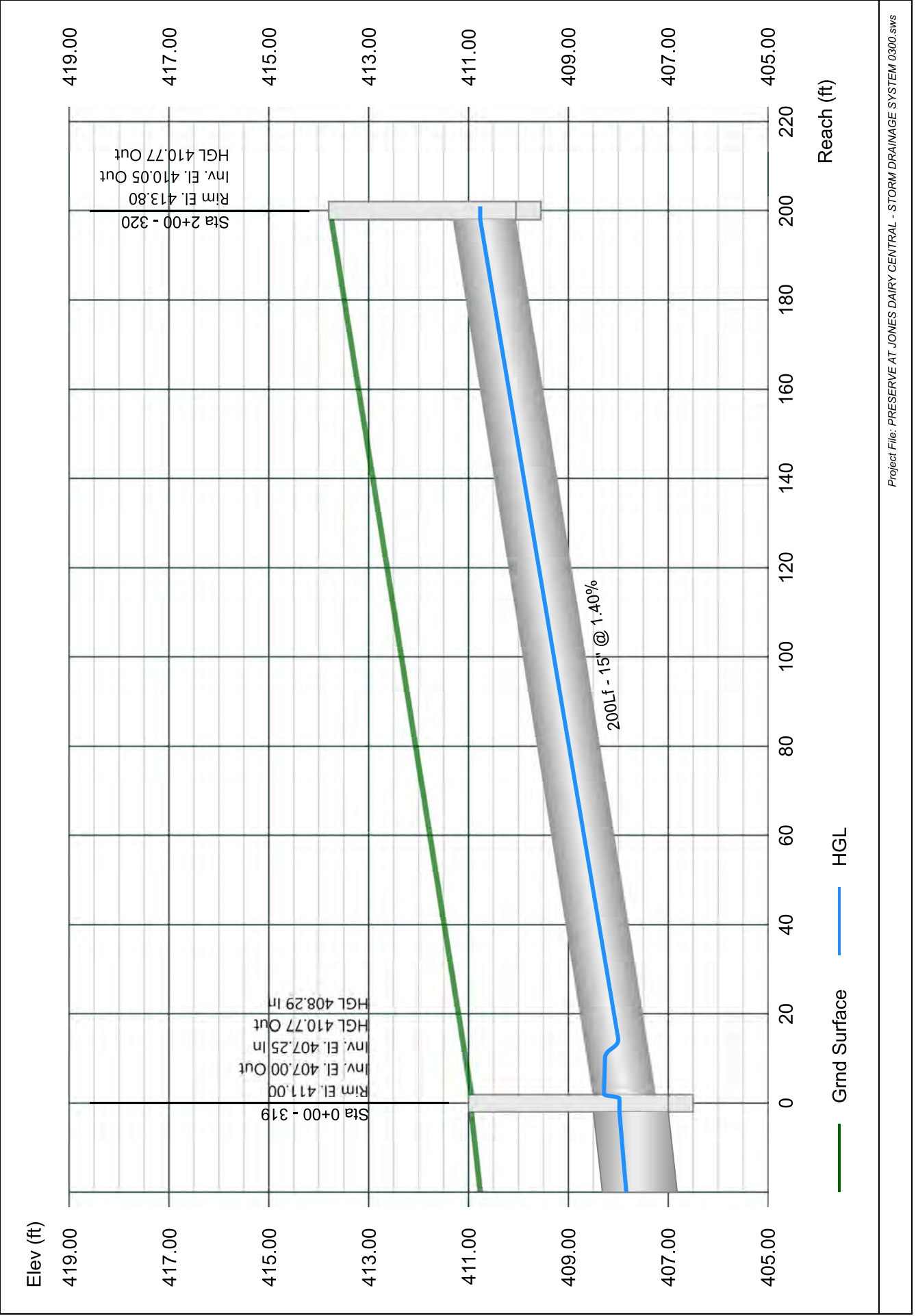


# Line 4 - 320 TO 319

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

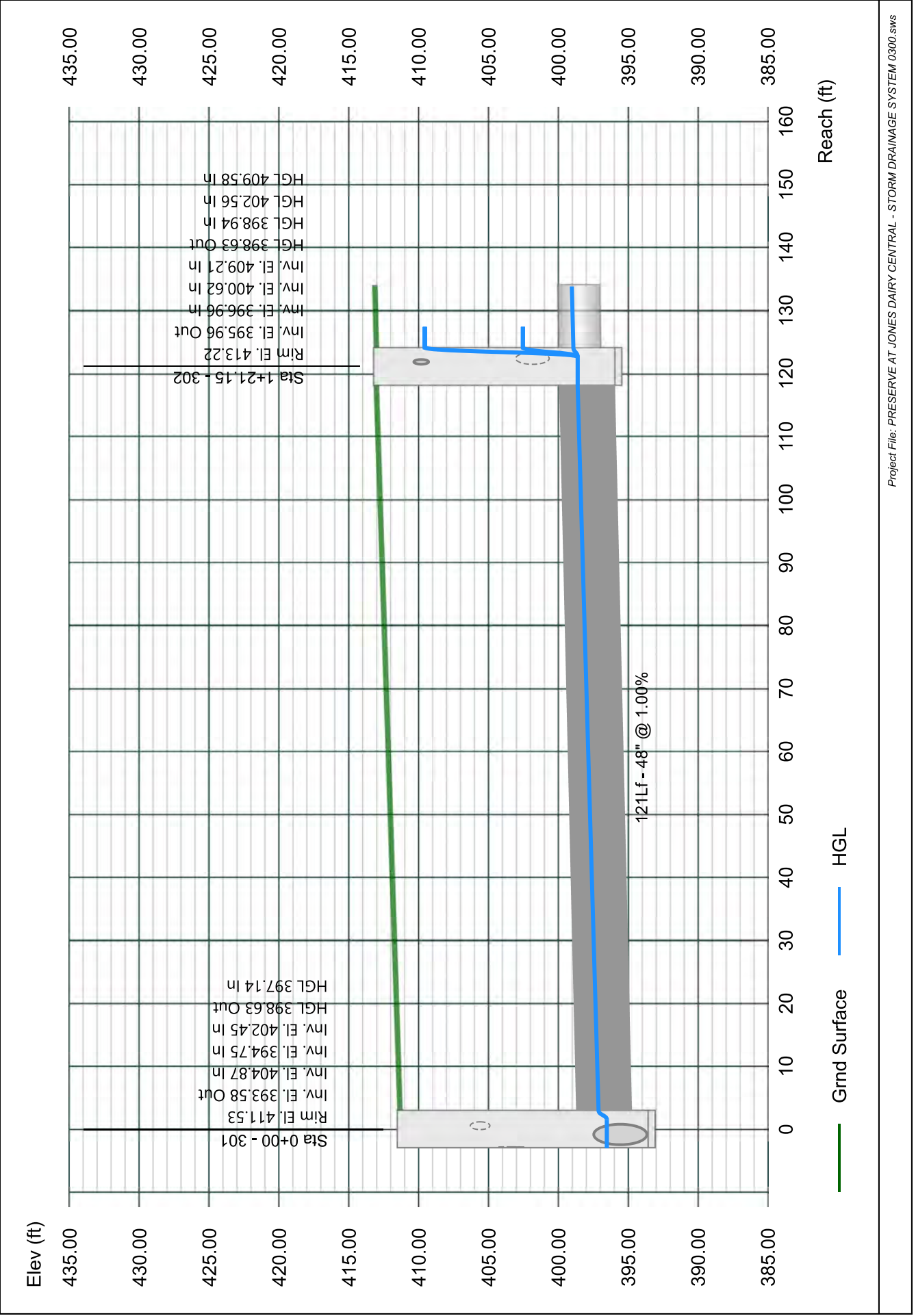


# Line 5 - 302 TO 301

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

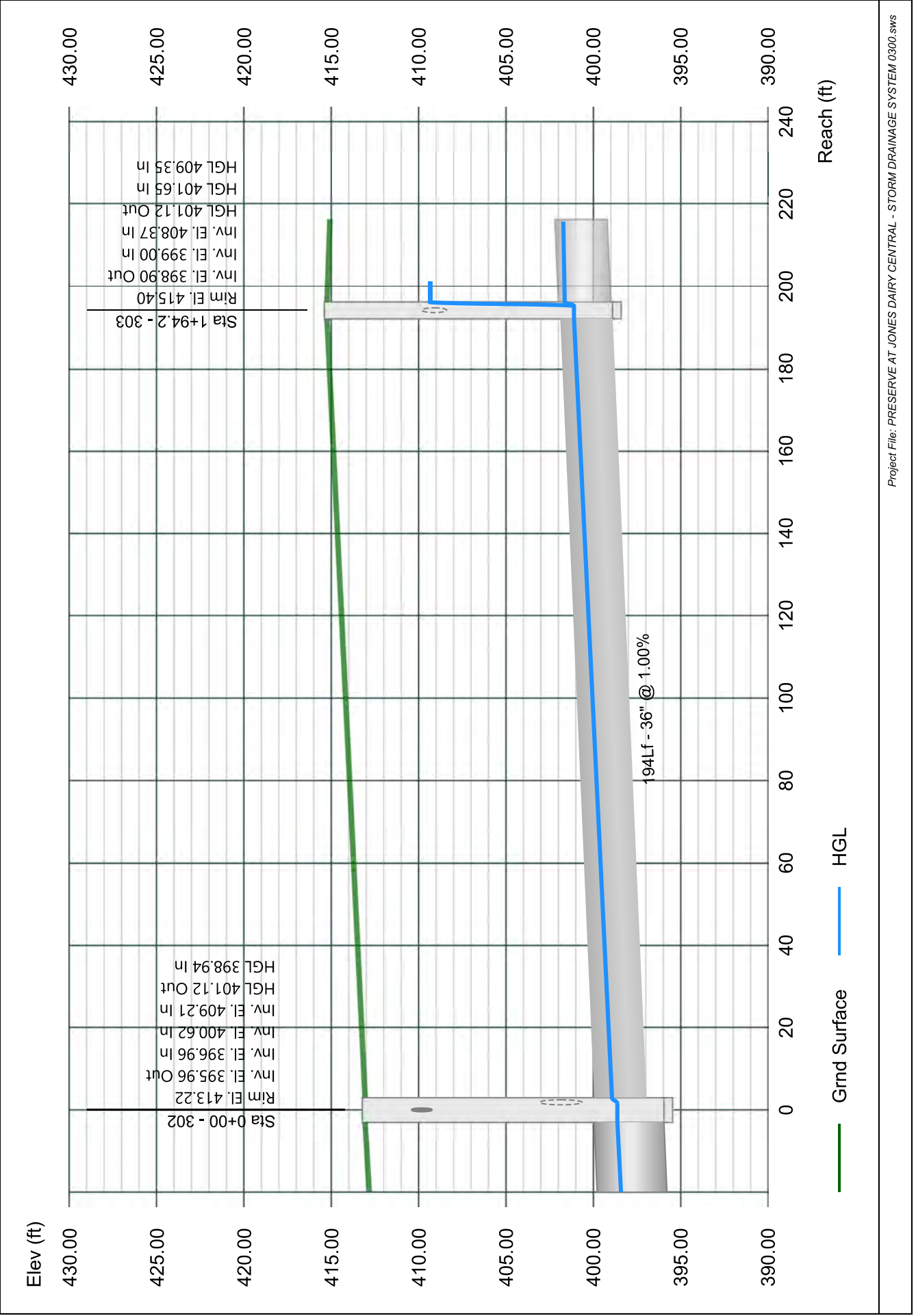


# Line 6 - 303 TO 302

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

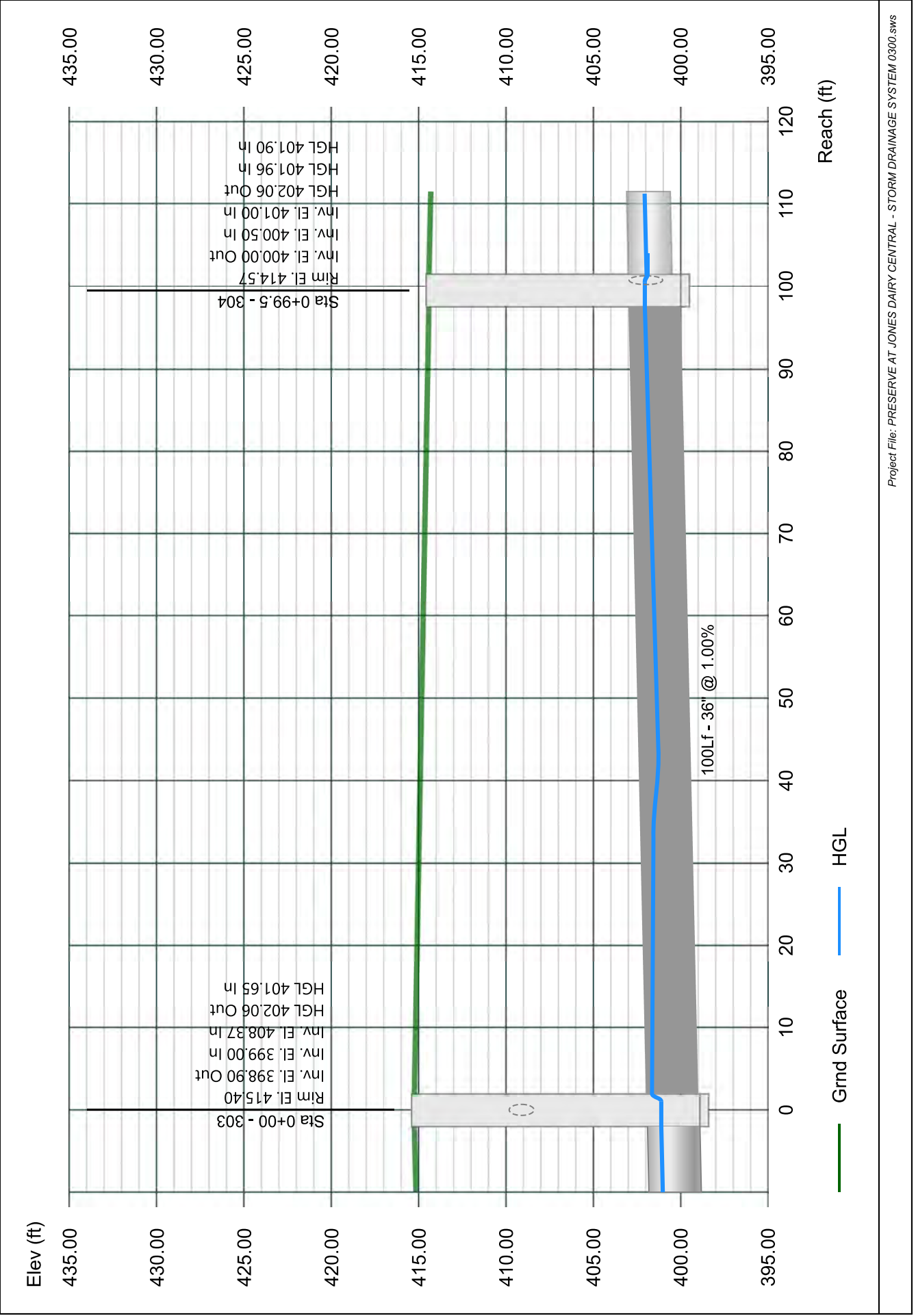


# Line 7 - 304 TO 303

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



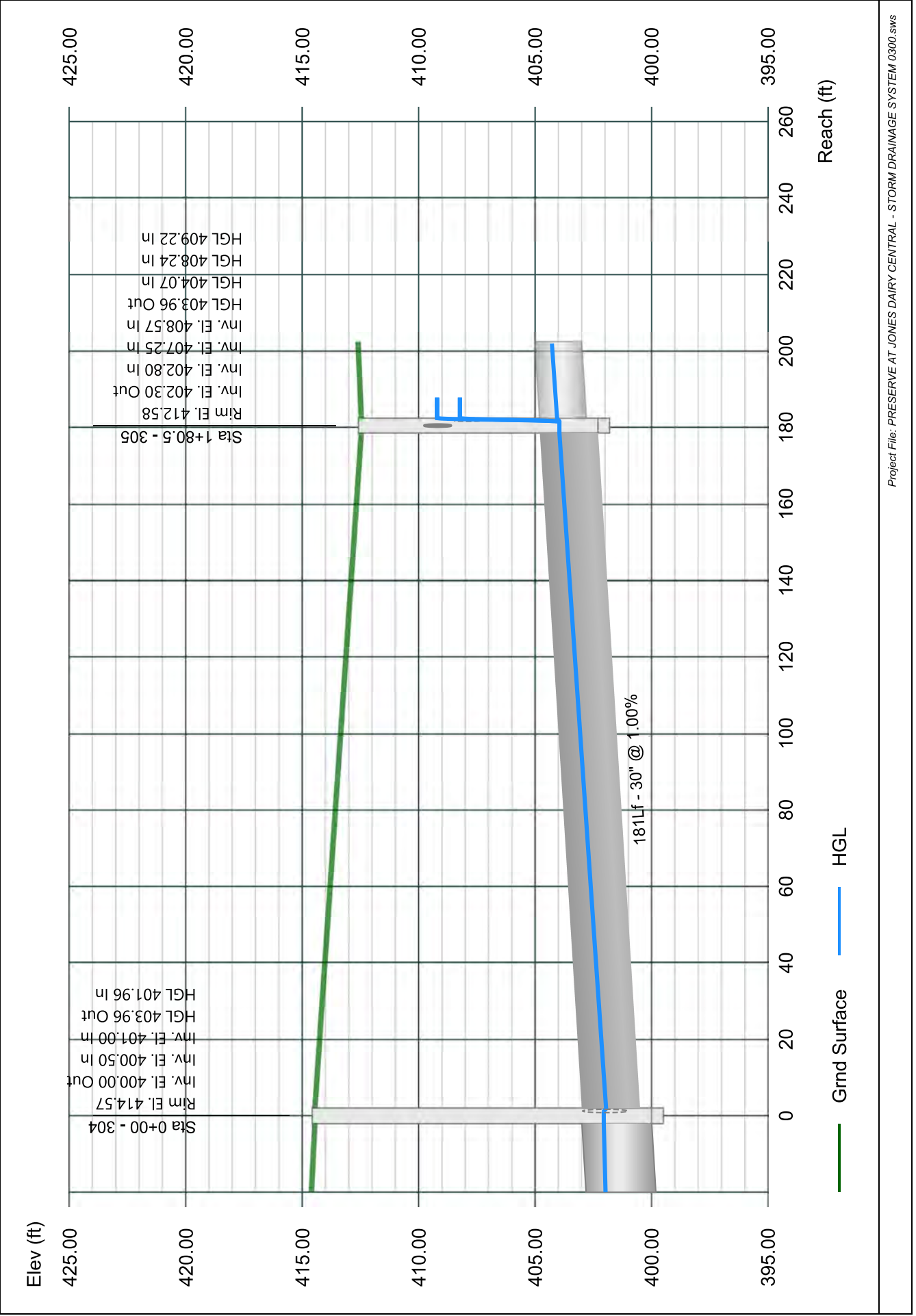


# Line 8 - 305 TO 304

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

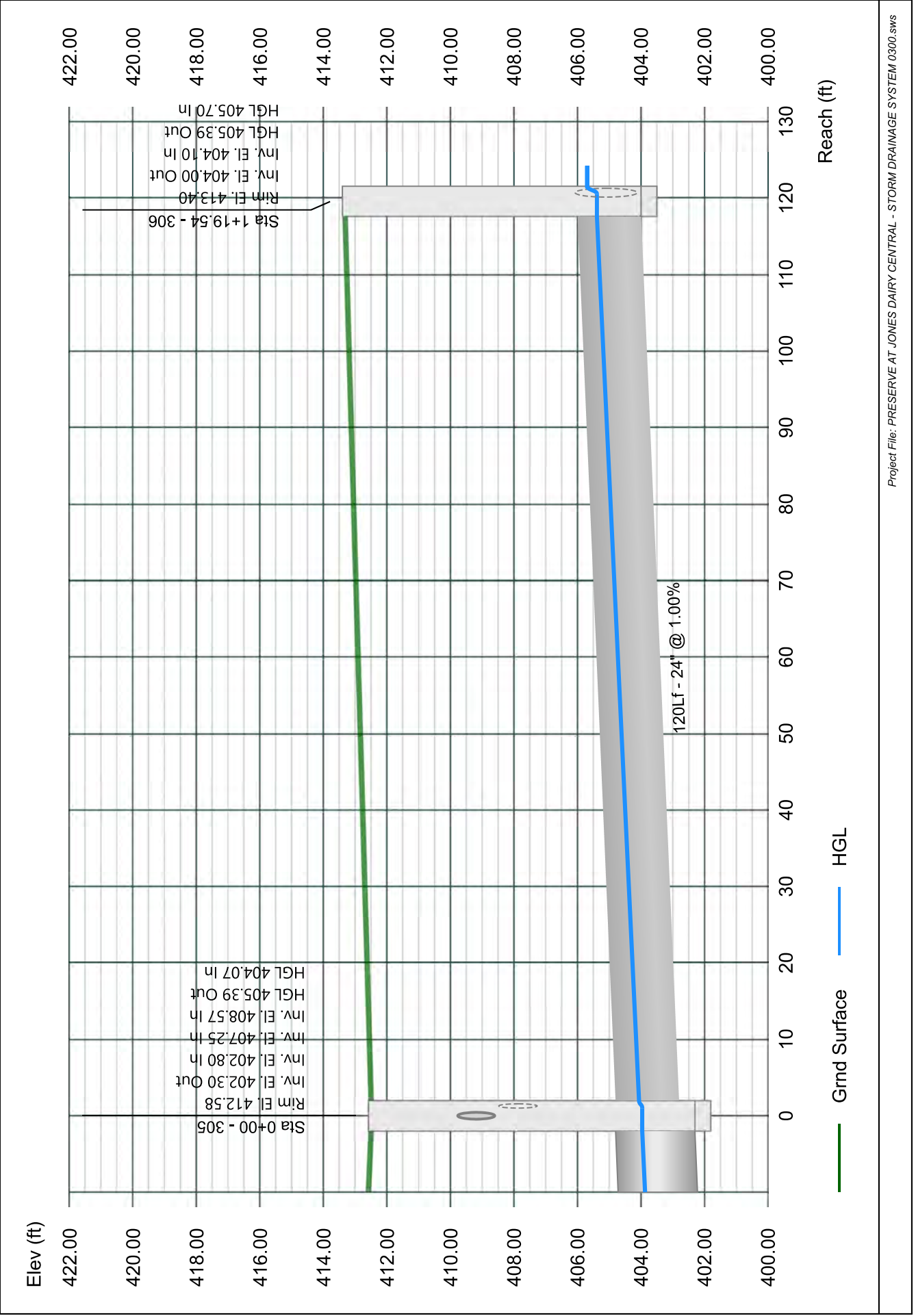


# Line 9 - 306 TO 305

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

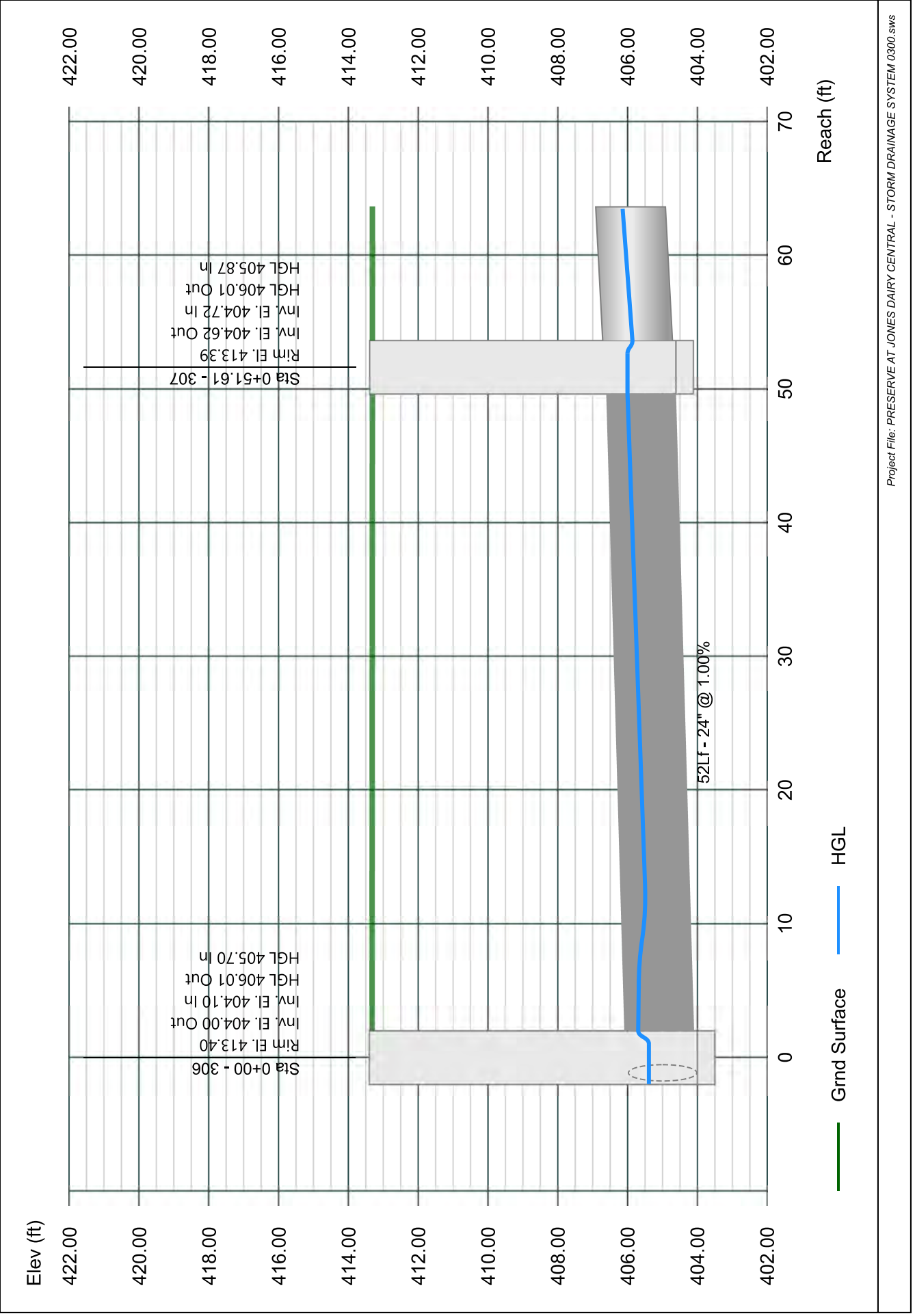


# Line 10 - 307 TO 306

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

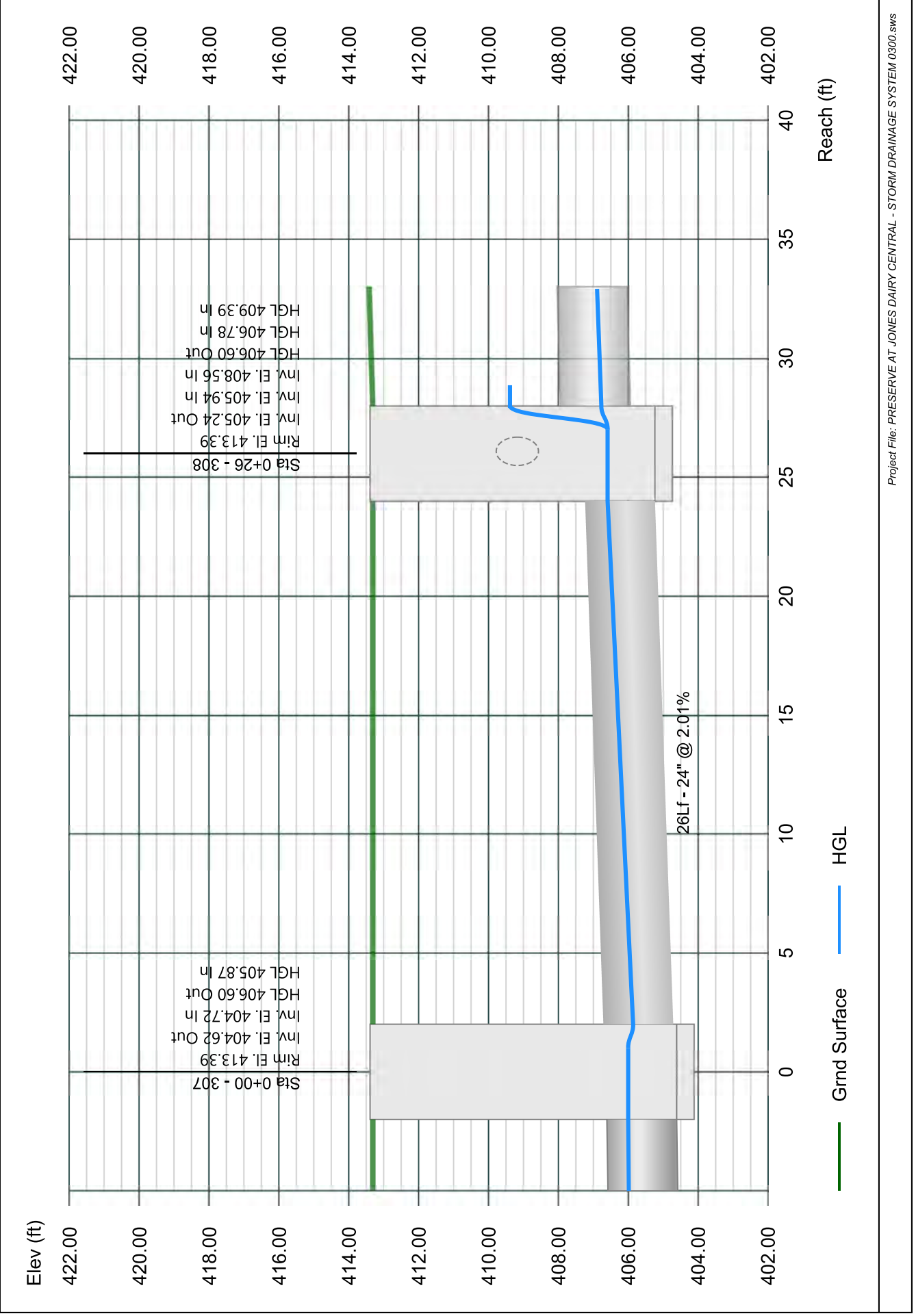


# Line 11 - 308 TO 307

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

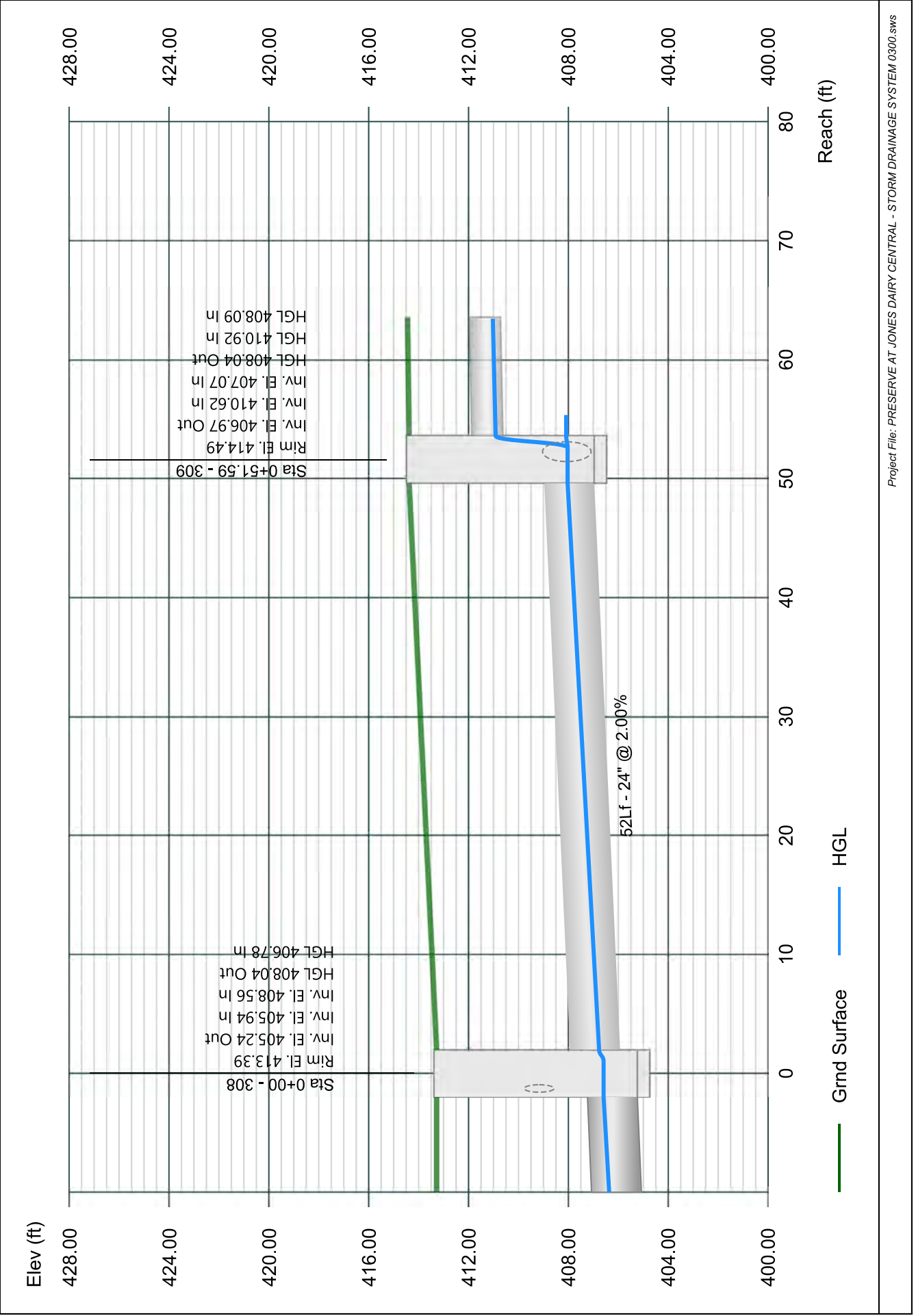


# Line 12 - 309 TO 308

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

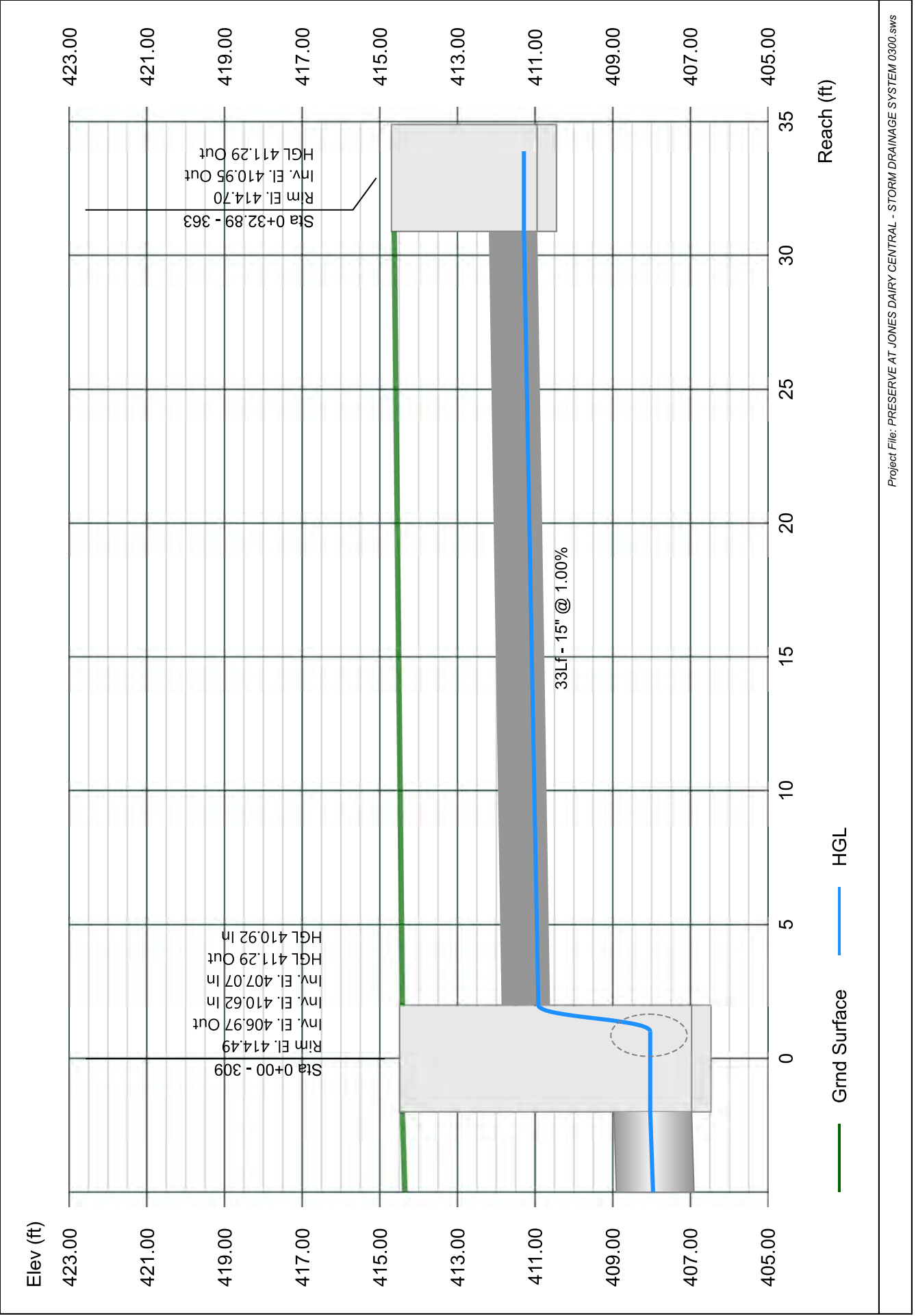


# Line 13 - 363 TO 309

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

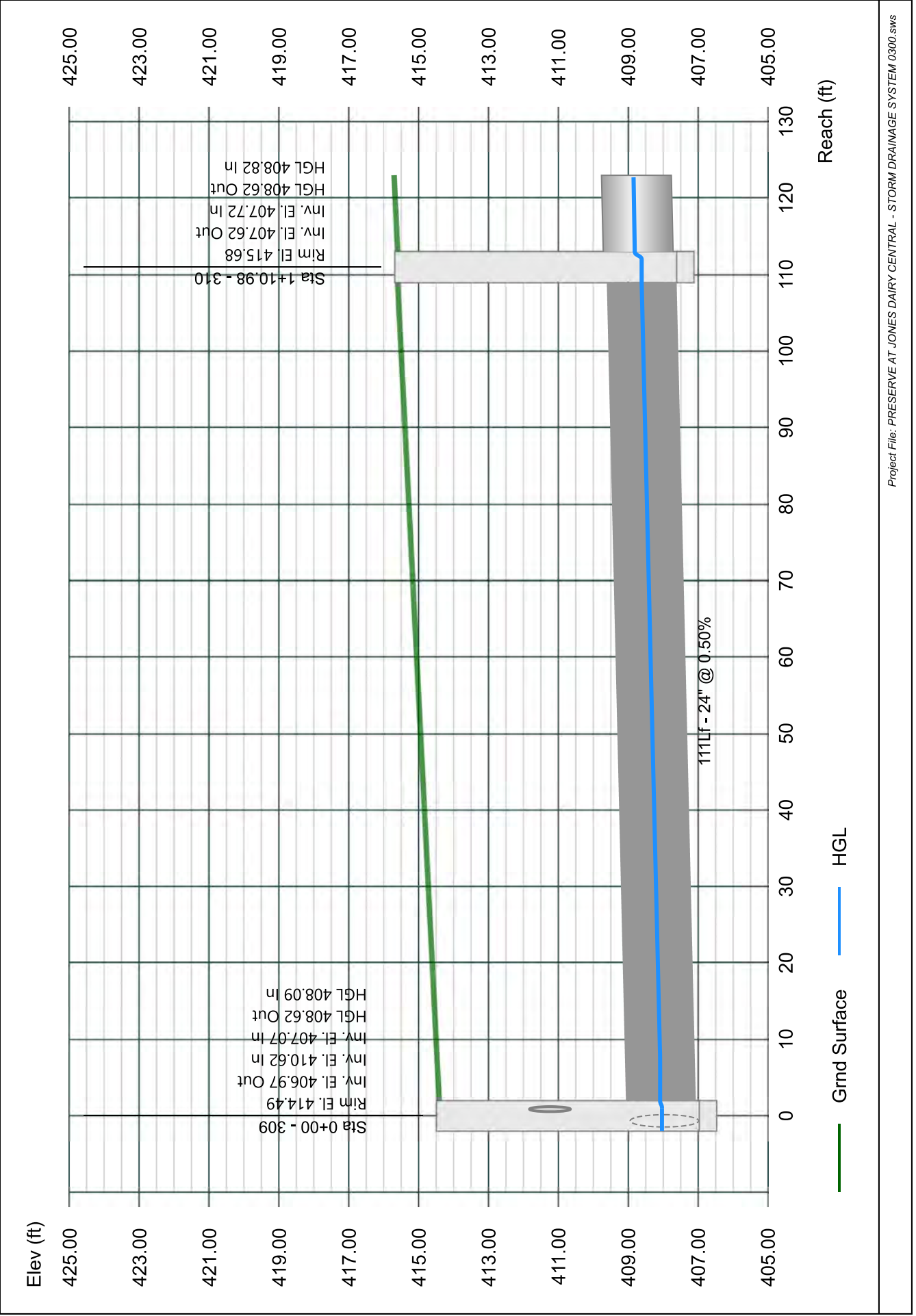


# Line 14 - 310 TO 309

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

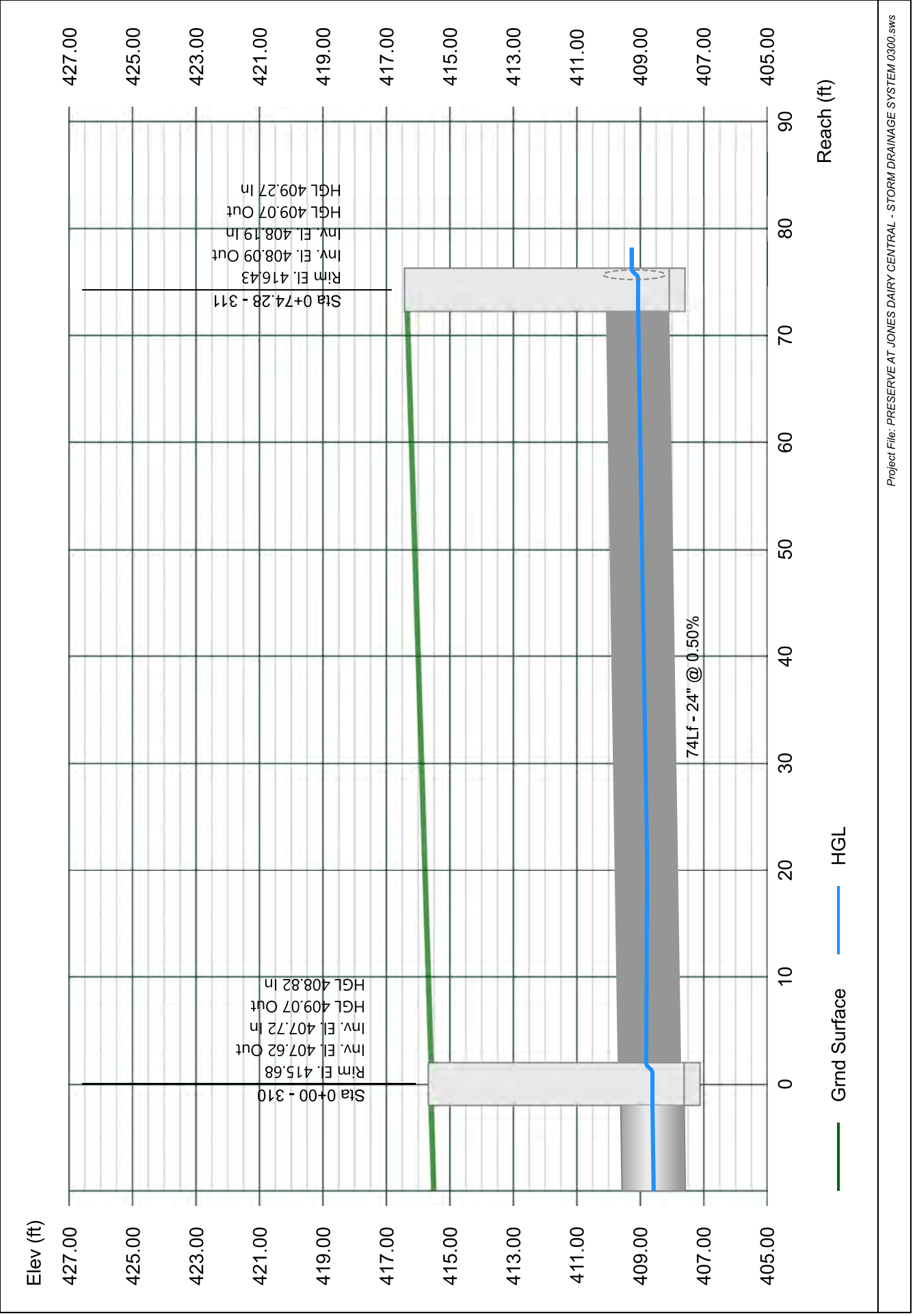


# Line 15 - 311 TO 310

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



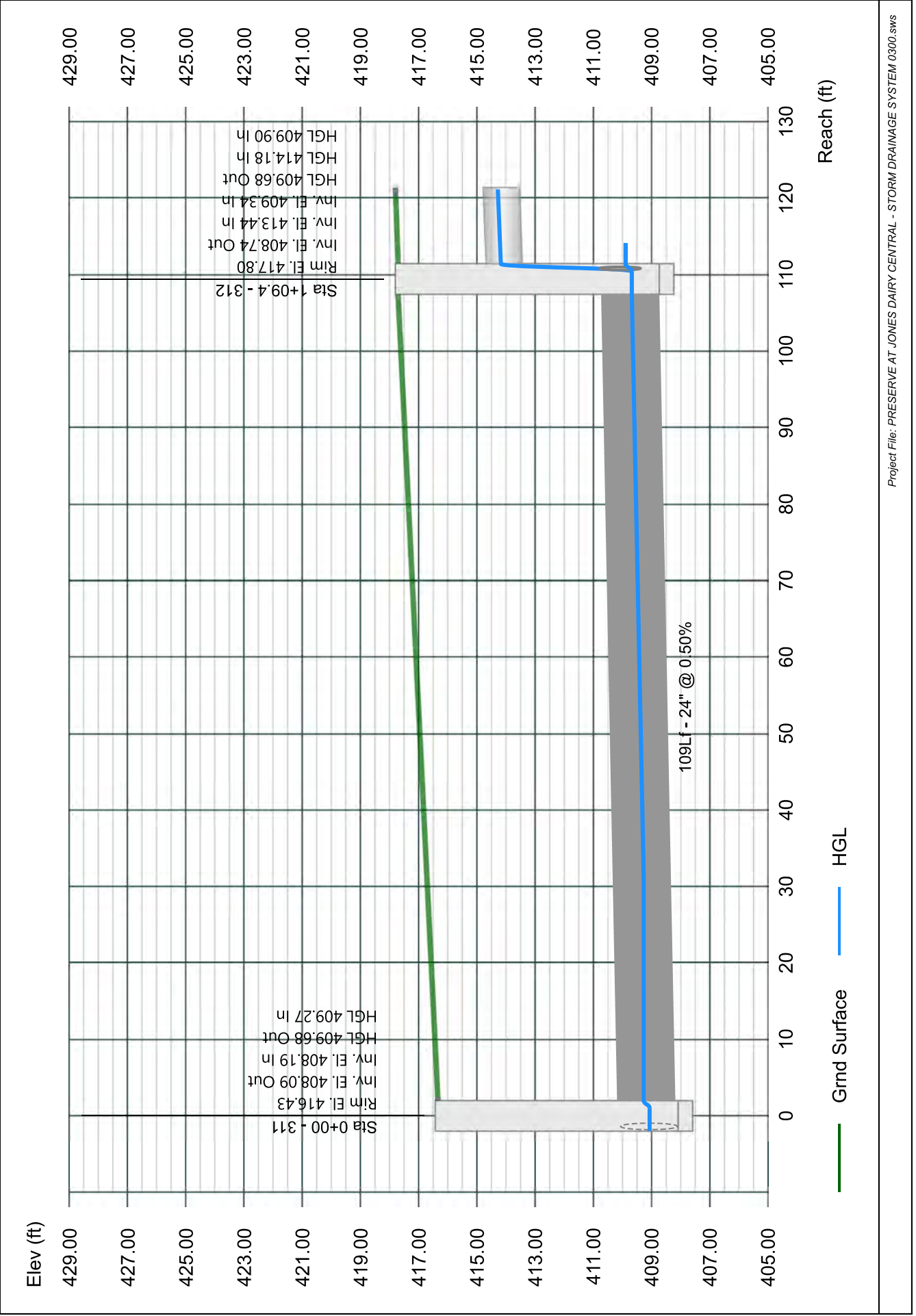


# Line 16 - 312 TO 311

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

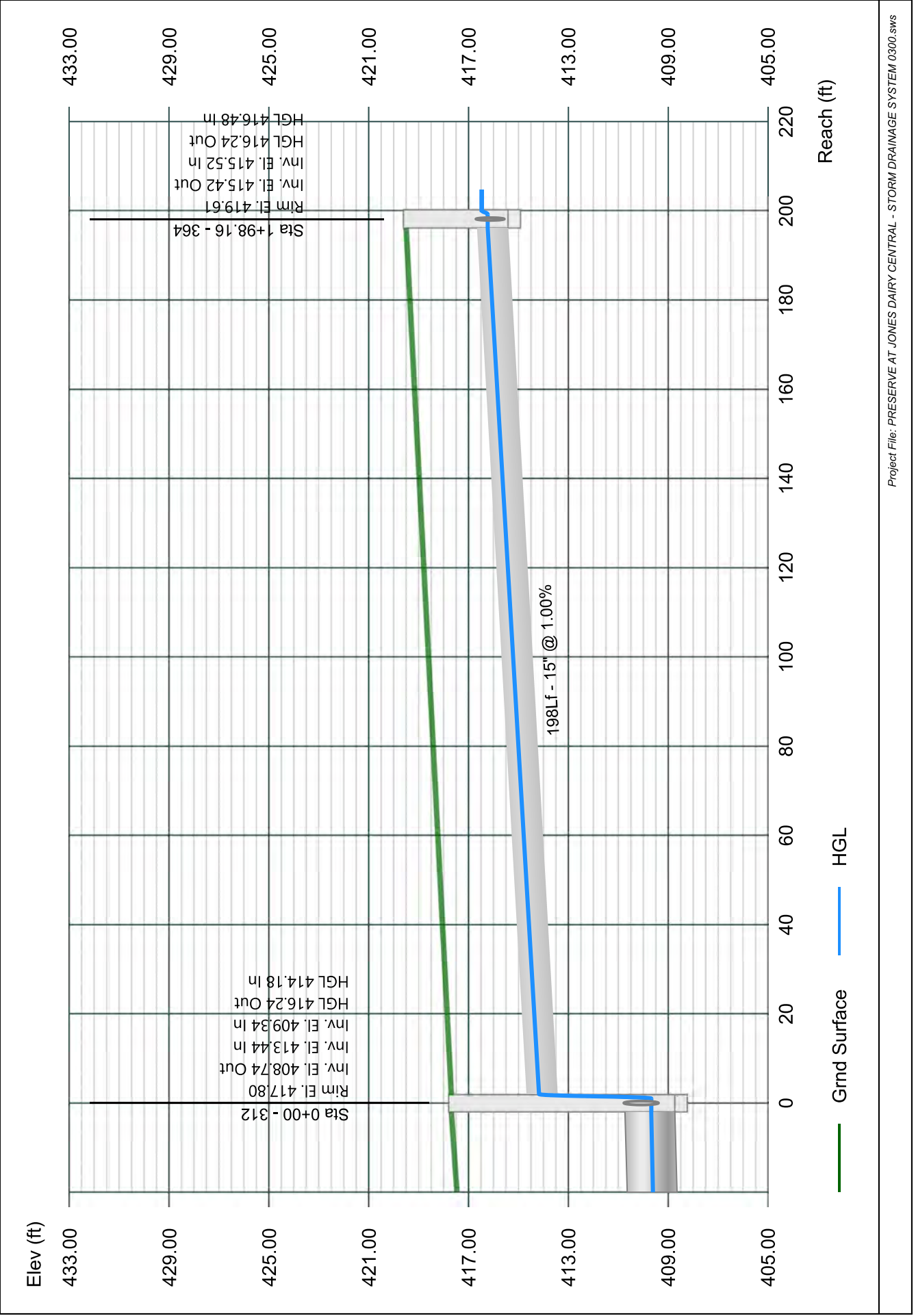


# Line 17 - 364 TO 312

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

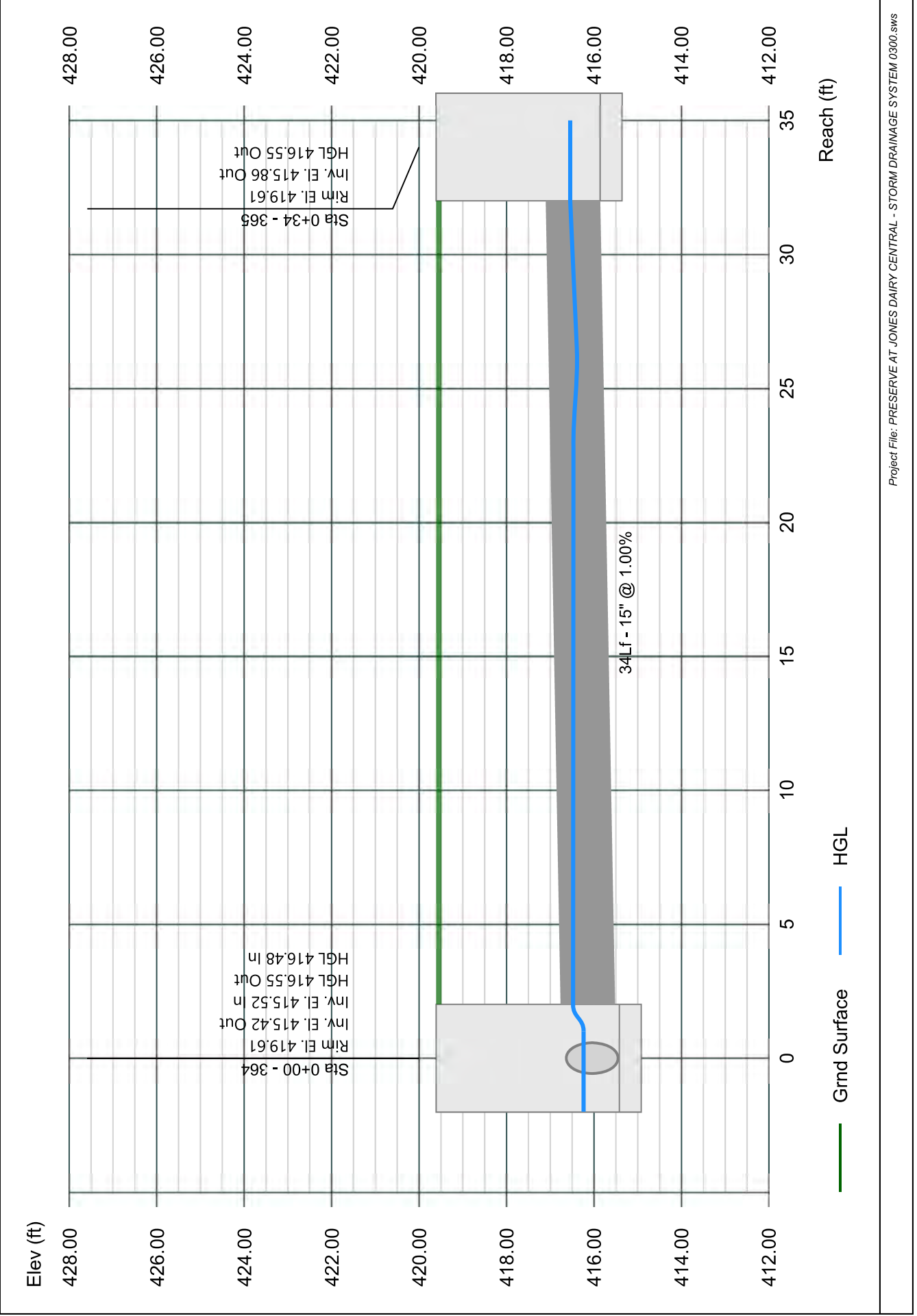


# Line 18 - 365 TO 364

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

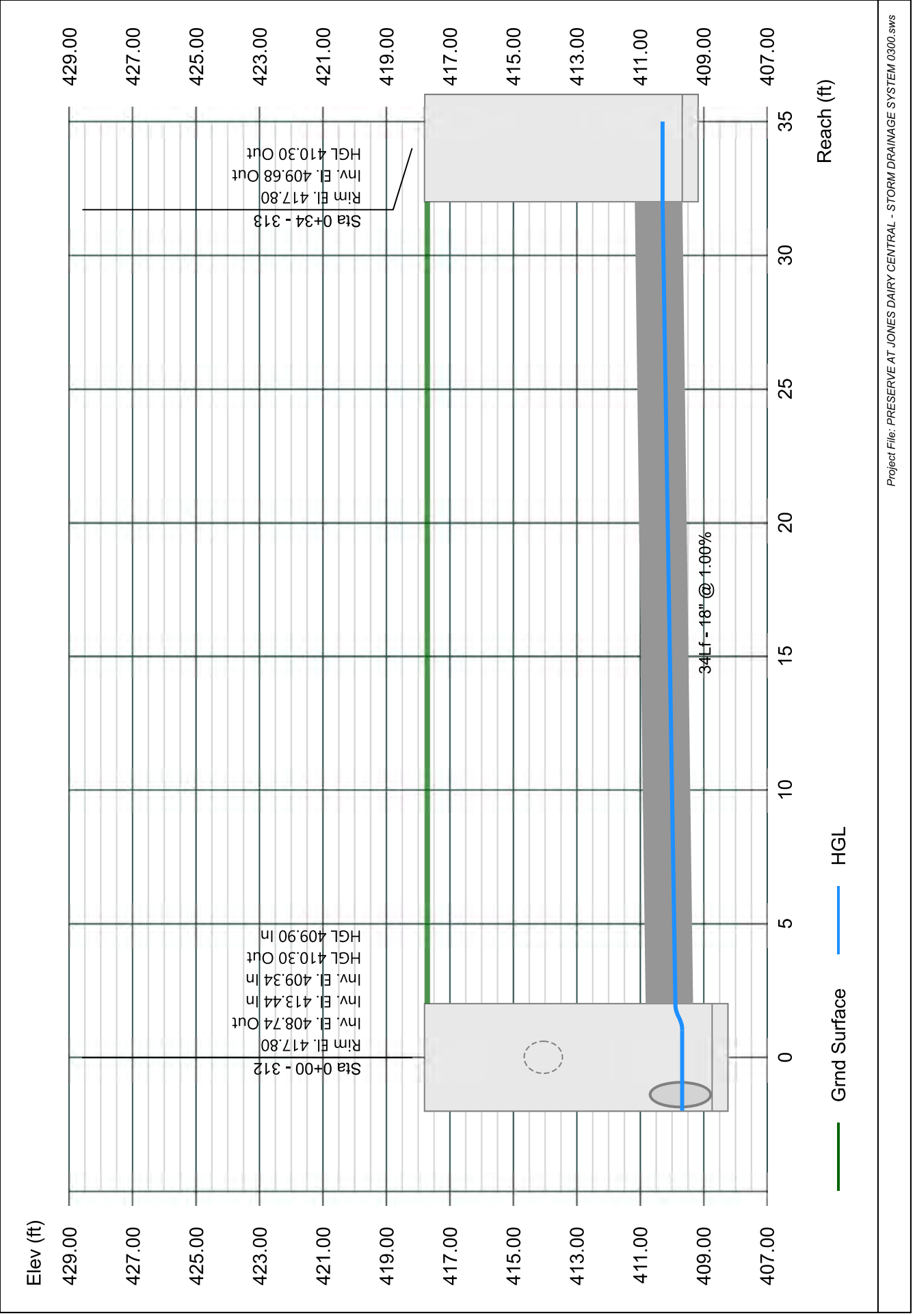


# Line 19 - 313 TO 312

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

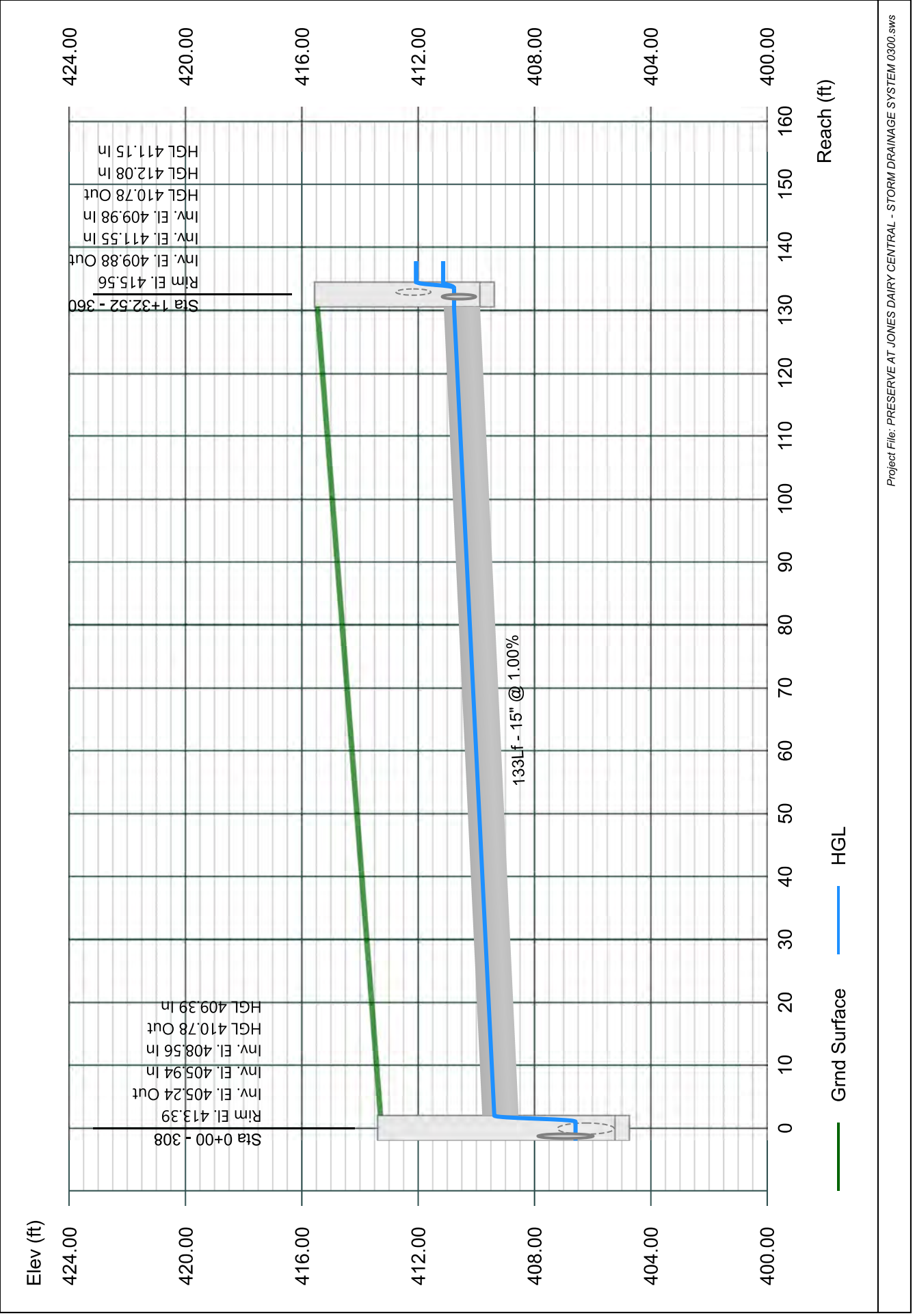


# Line 20 - 360 TO 308

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

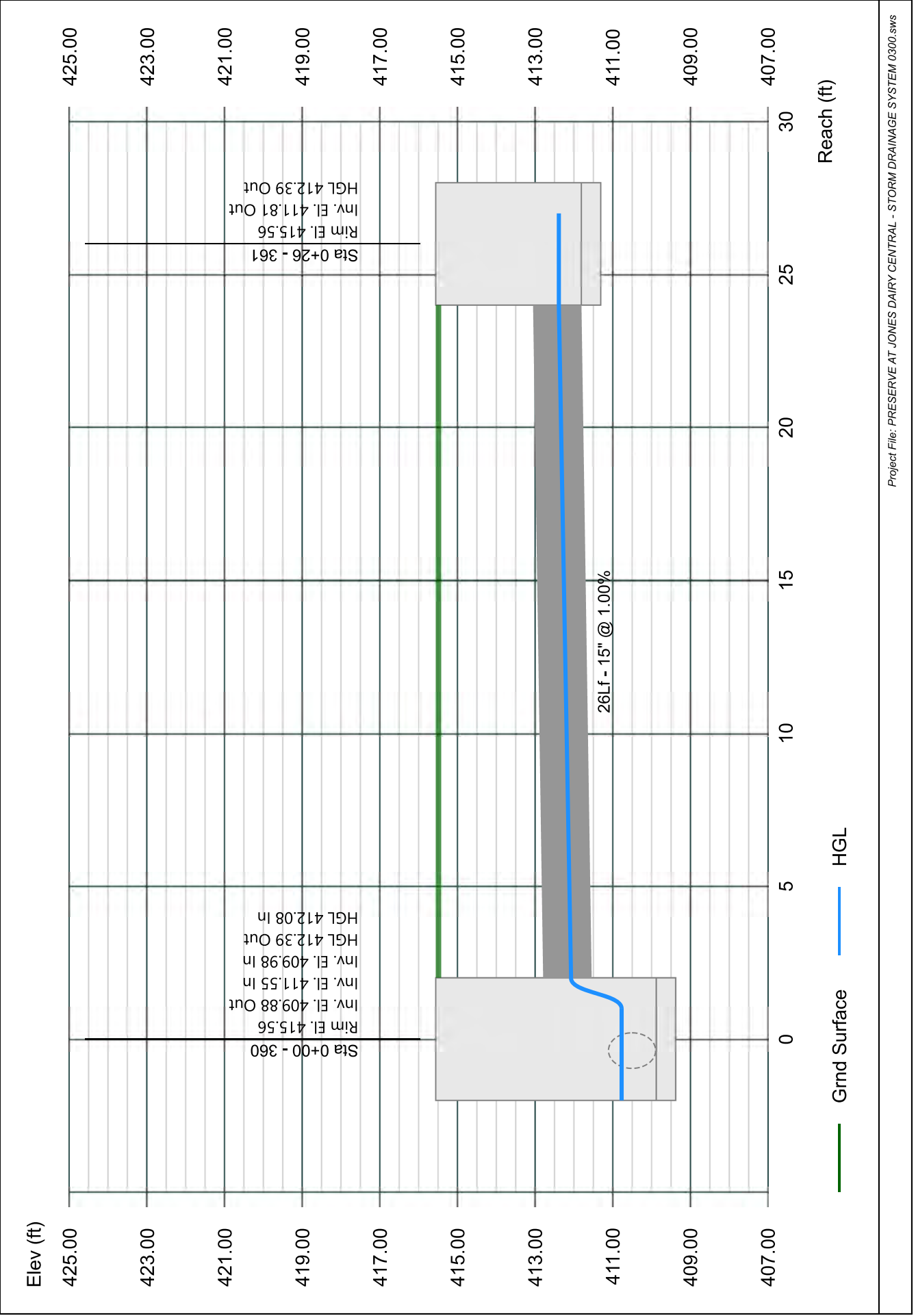


# Line 21 - 361 TO 360

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

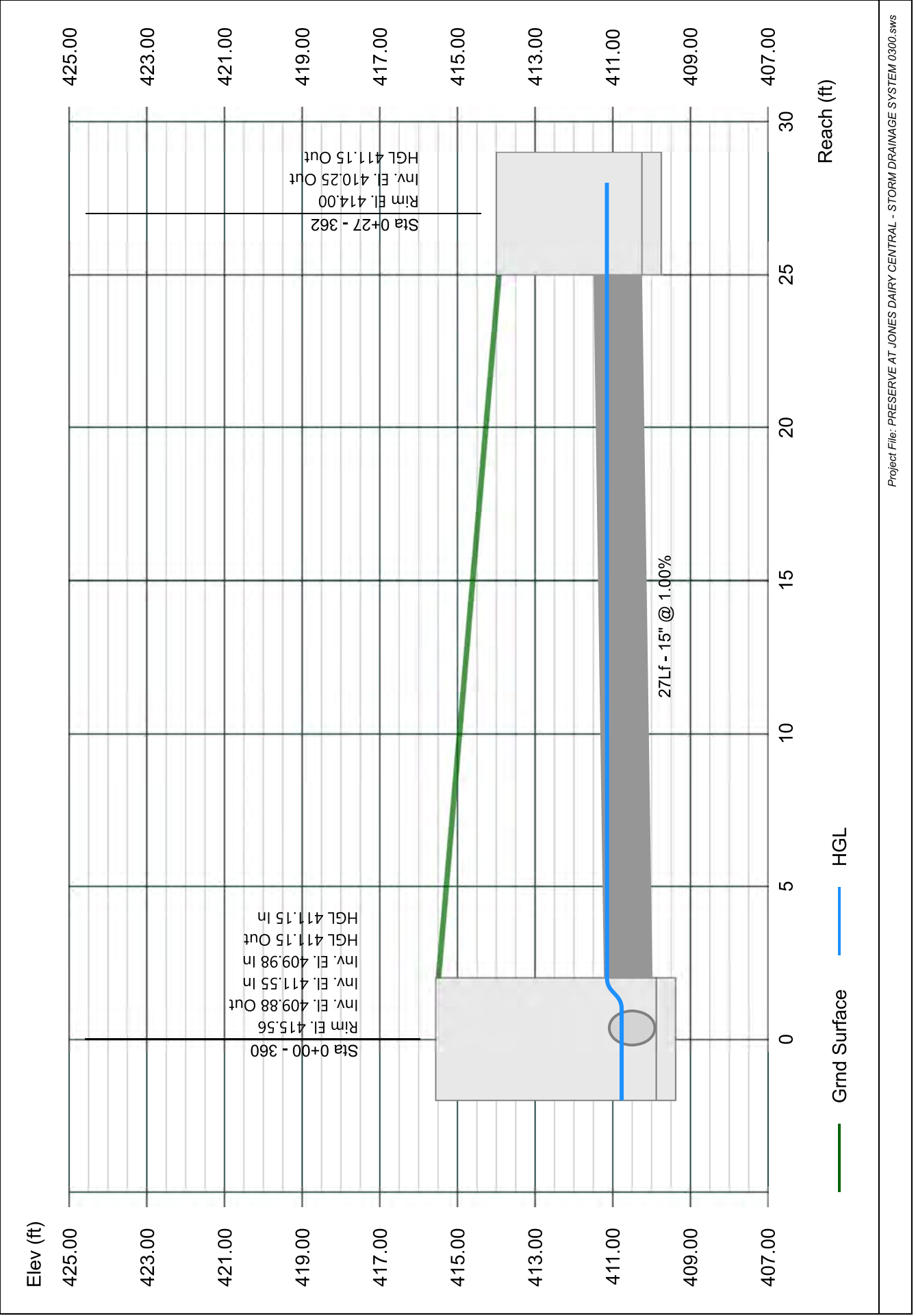


# Line 22 - 362 TO 360

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

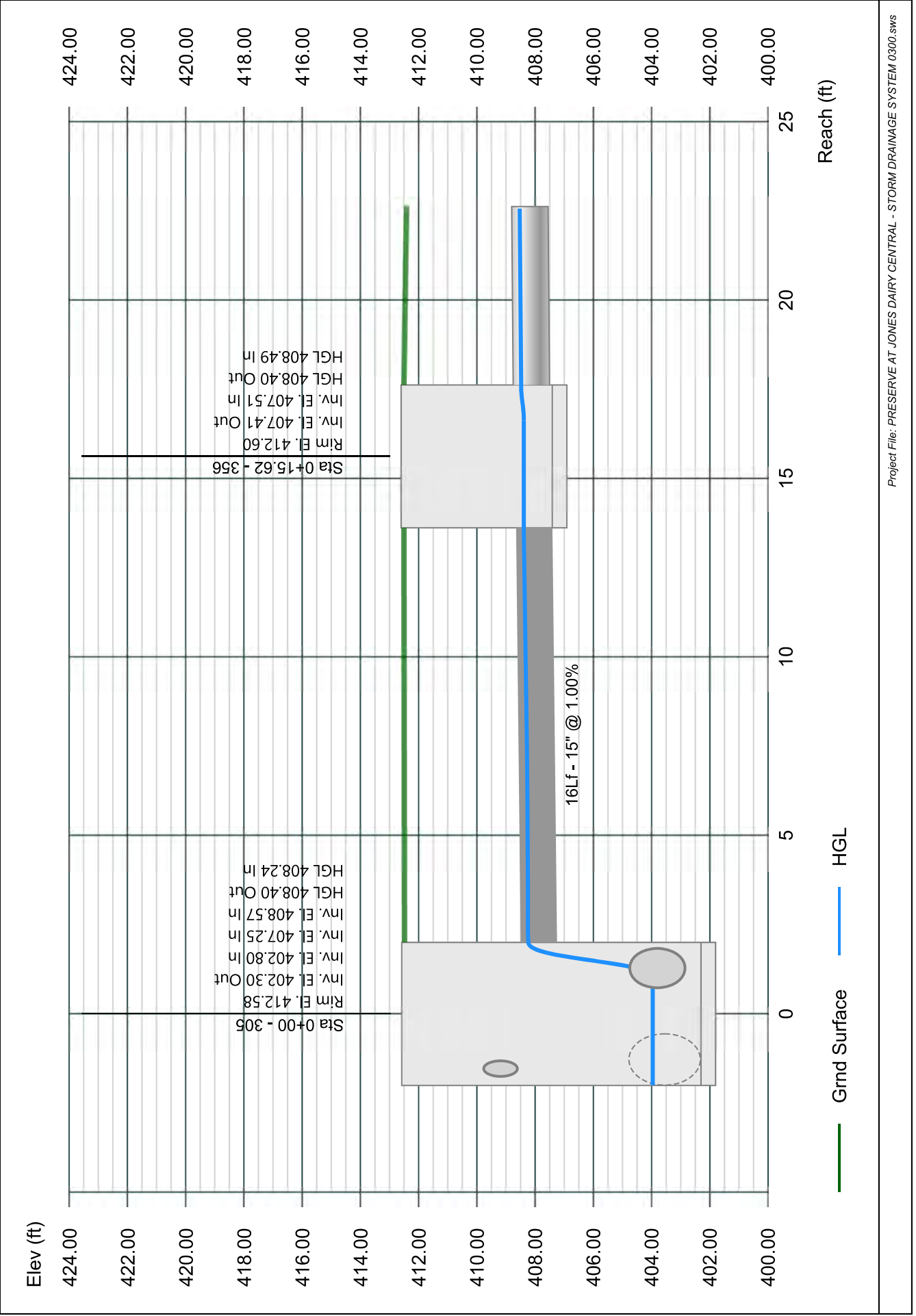


# Line 23 - 356 TO 305

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



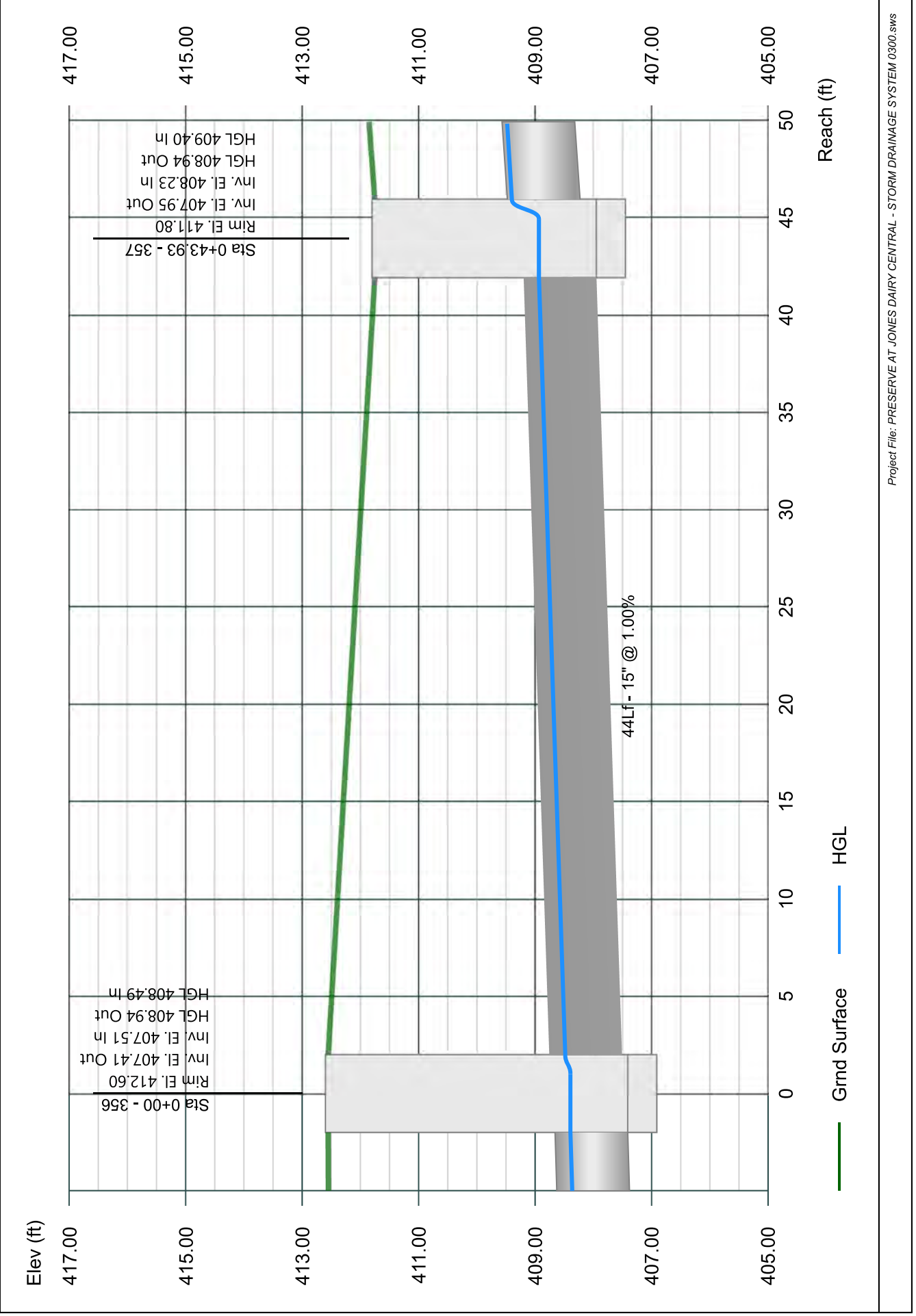


# Line 24 - 357 TO 356

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

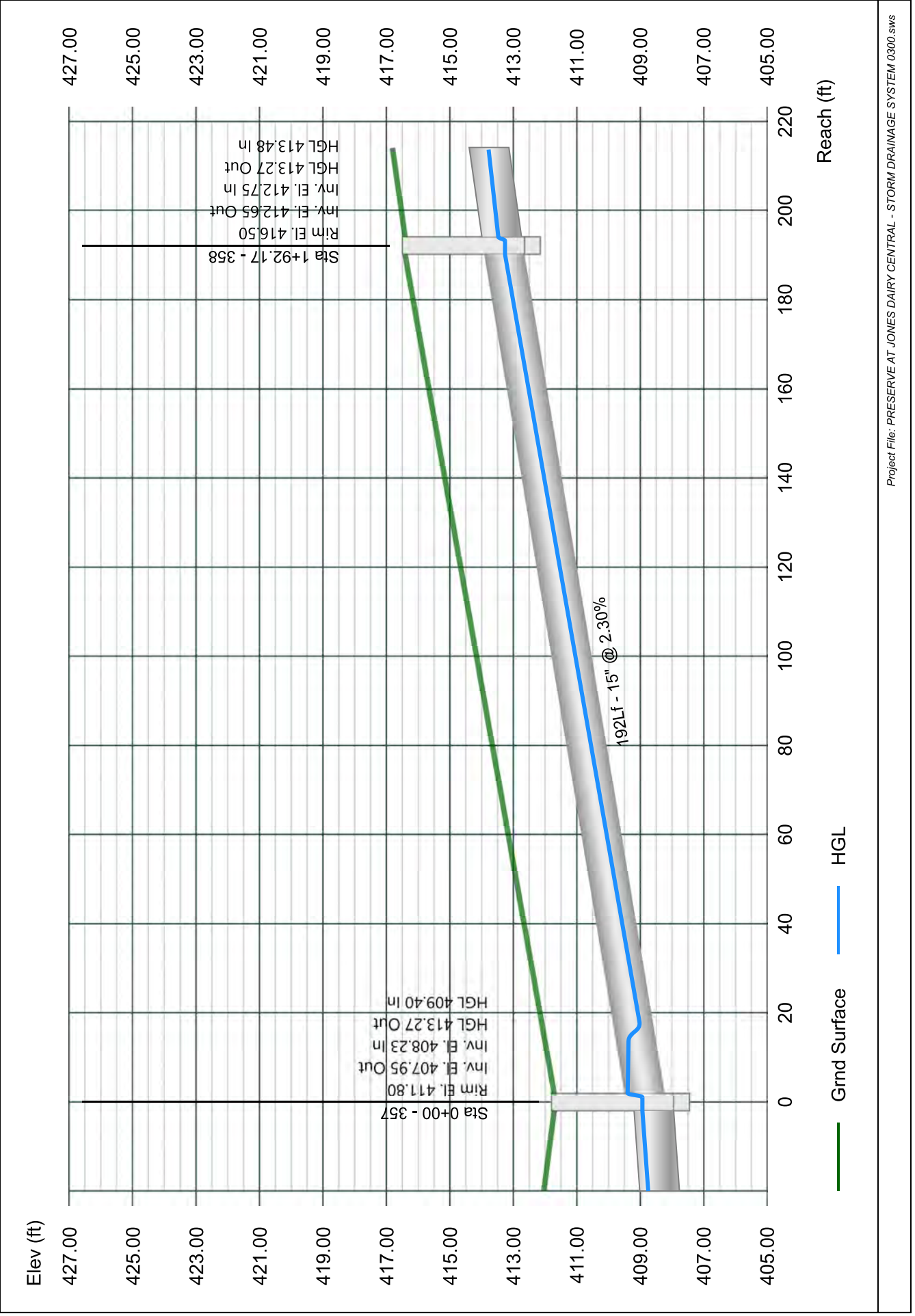


# Line 25 - 358 TO 357

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

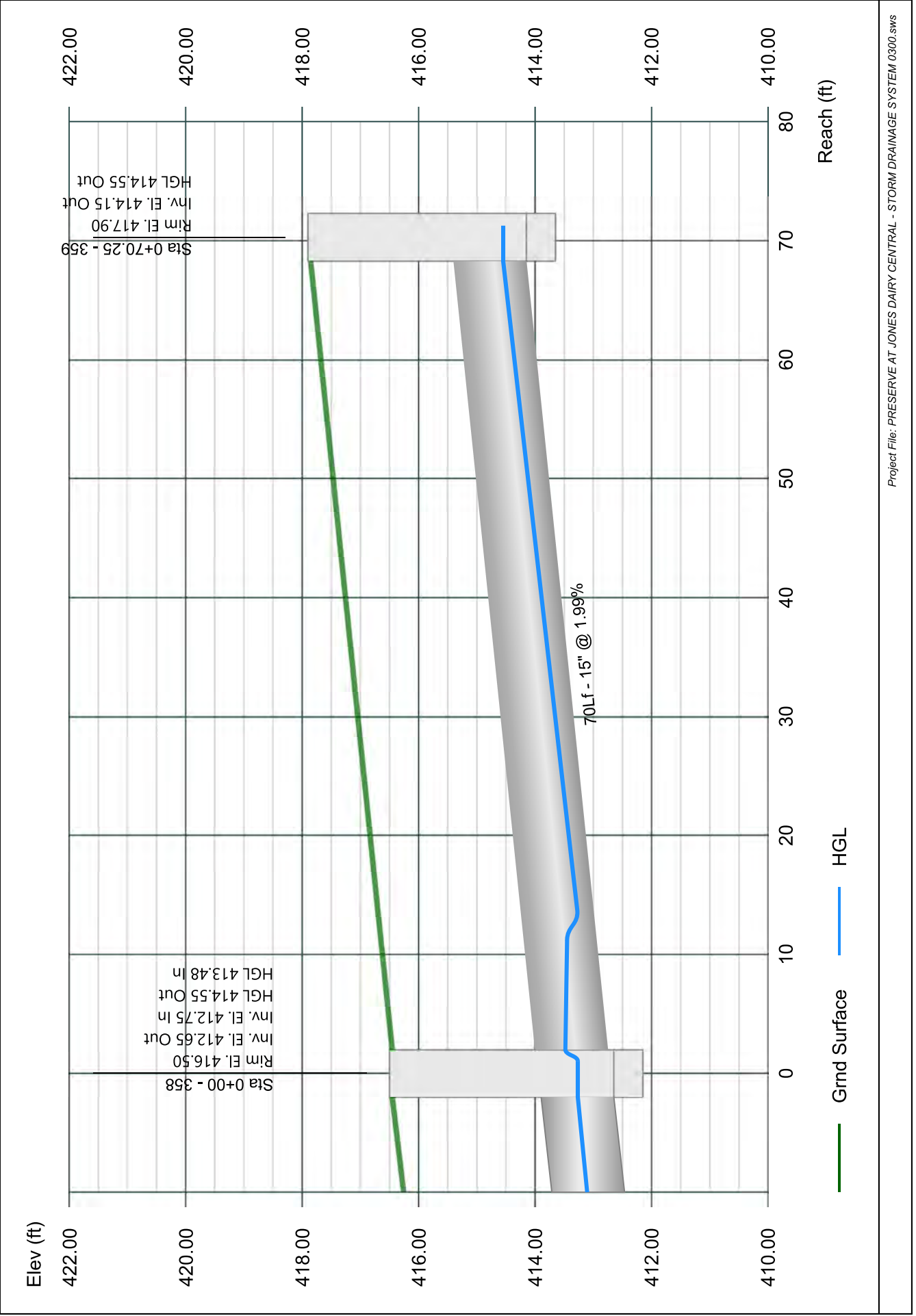


# Line 26 - 359 TO 358

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

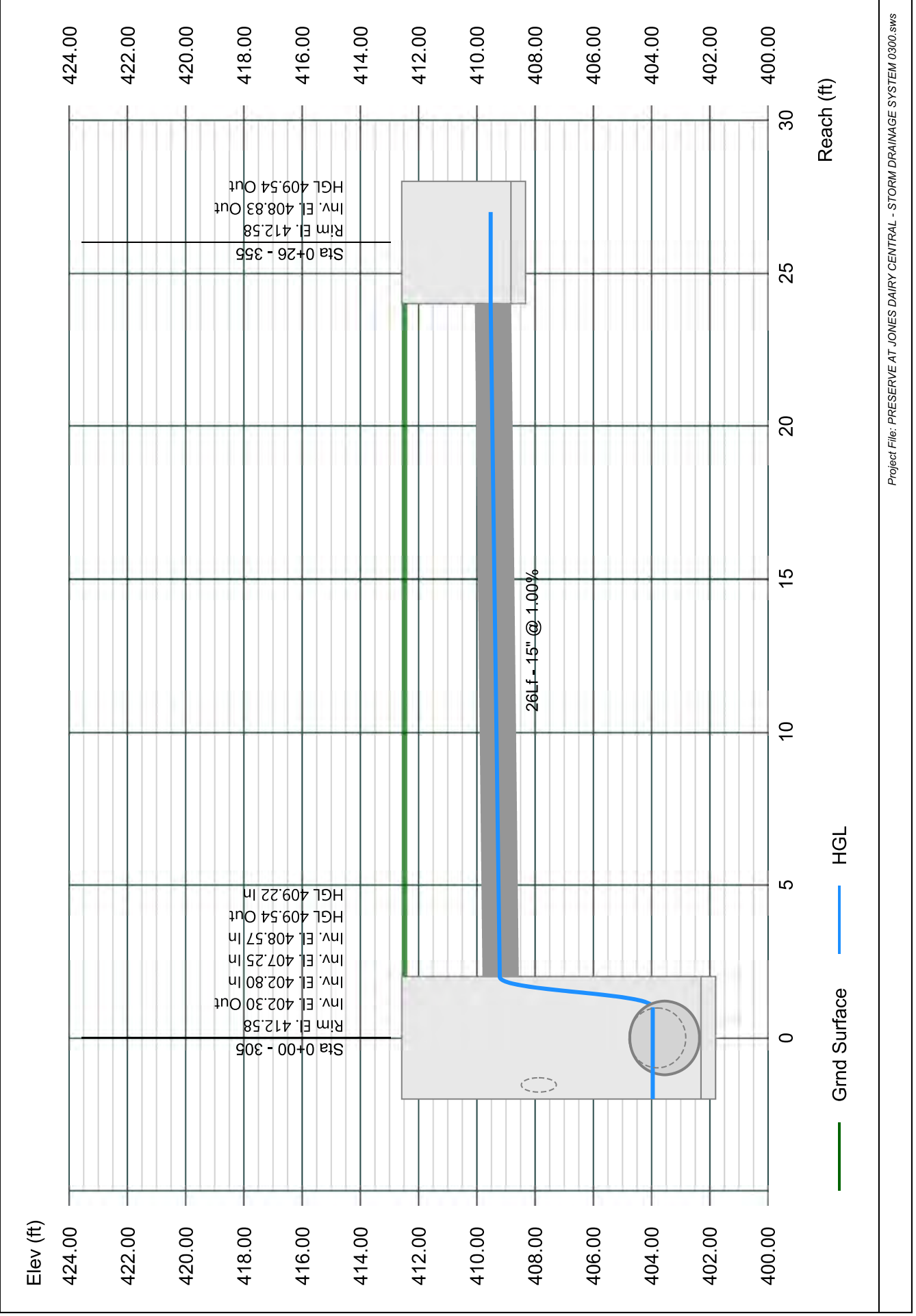


# Line 27 - 355 TO 305

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

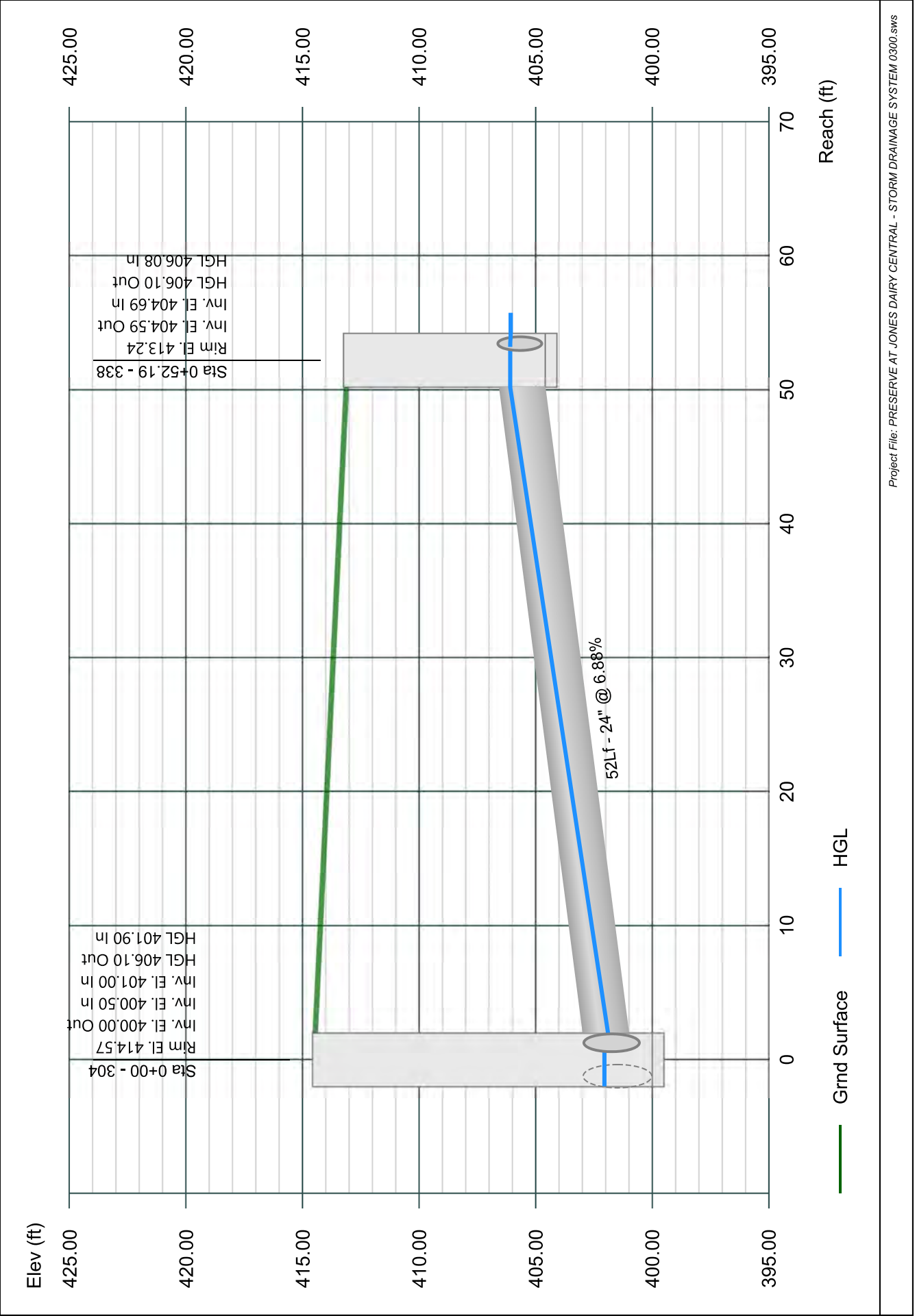


# Line 28 - 338 TO 304

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

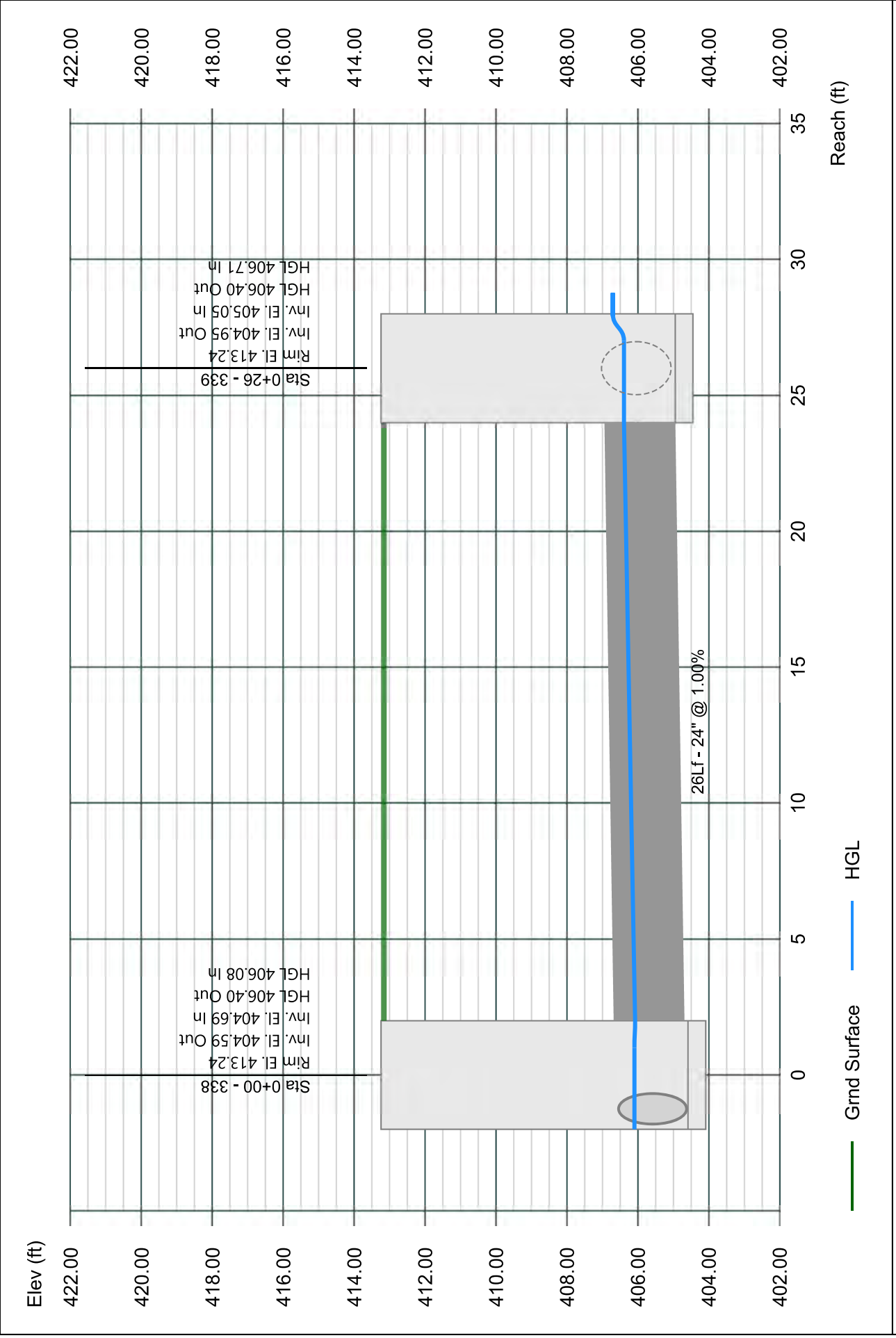


# Line 29 - 339 TO 338

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

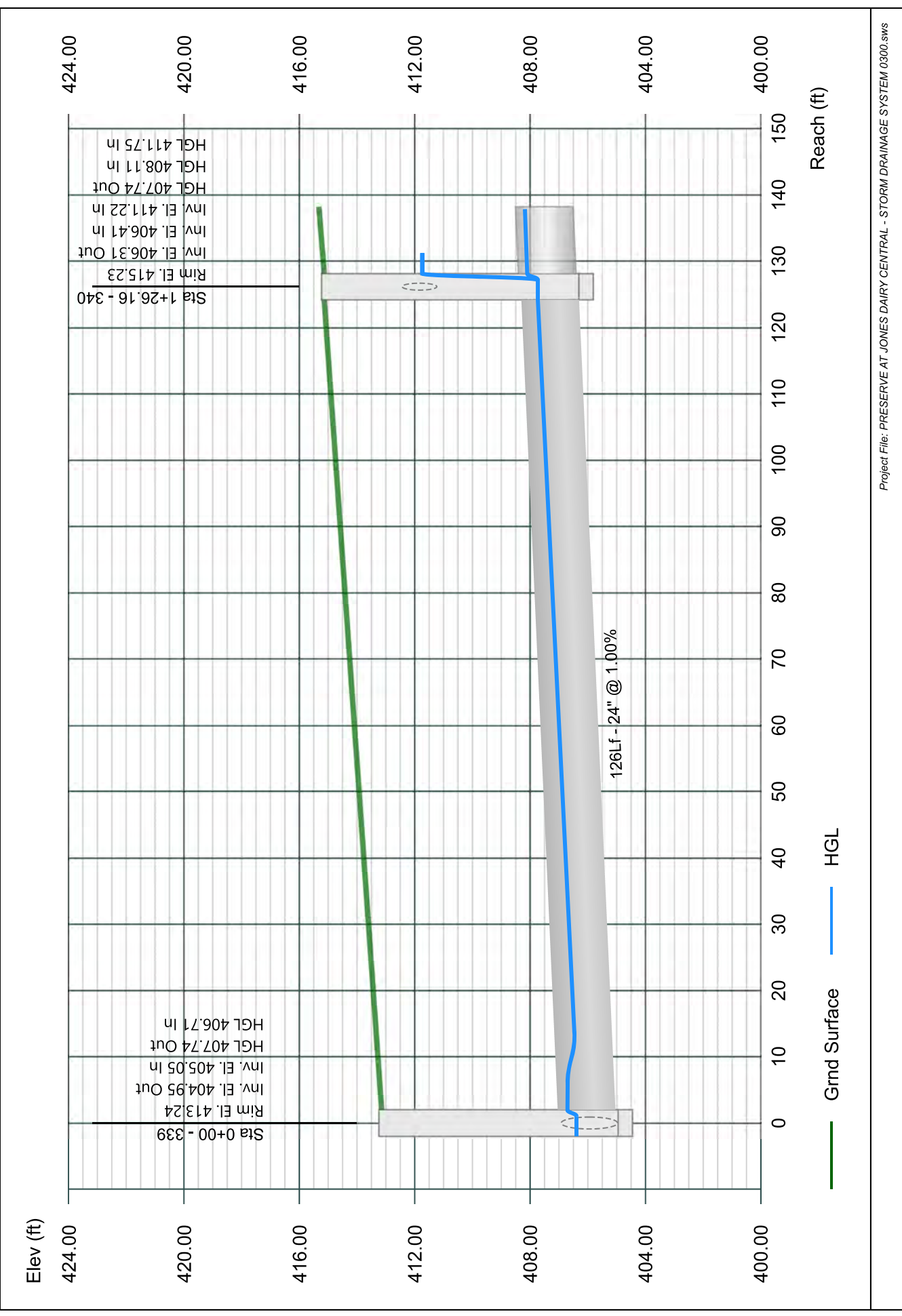


# Line 30 - 340 TO 339

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

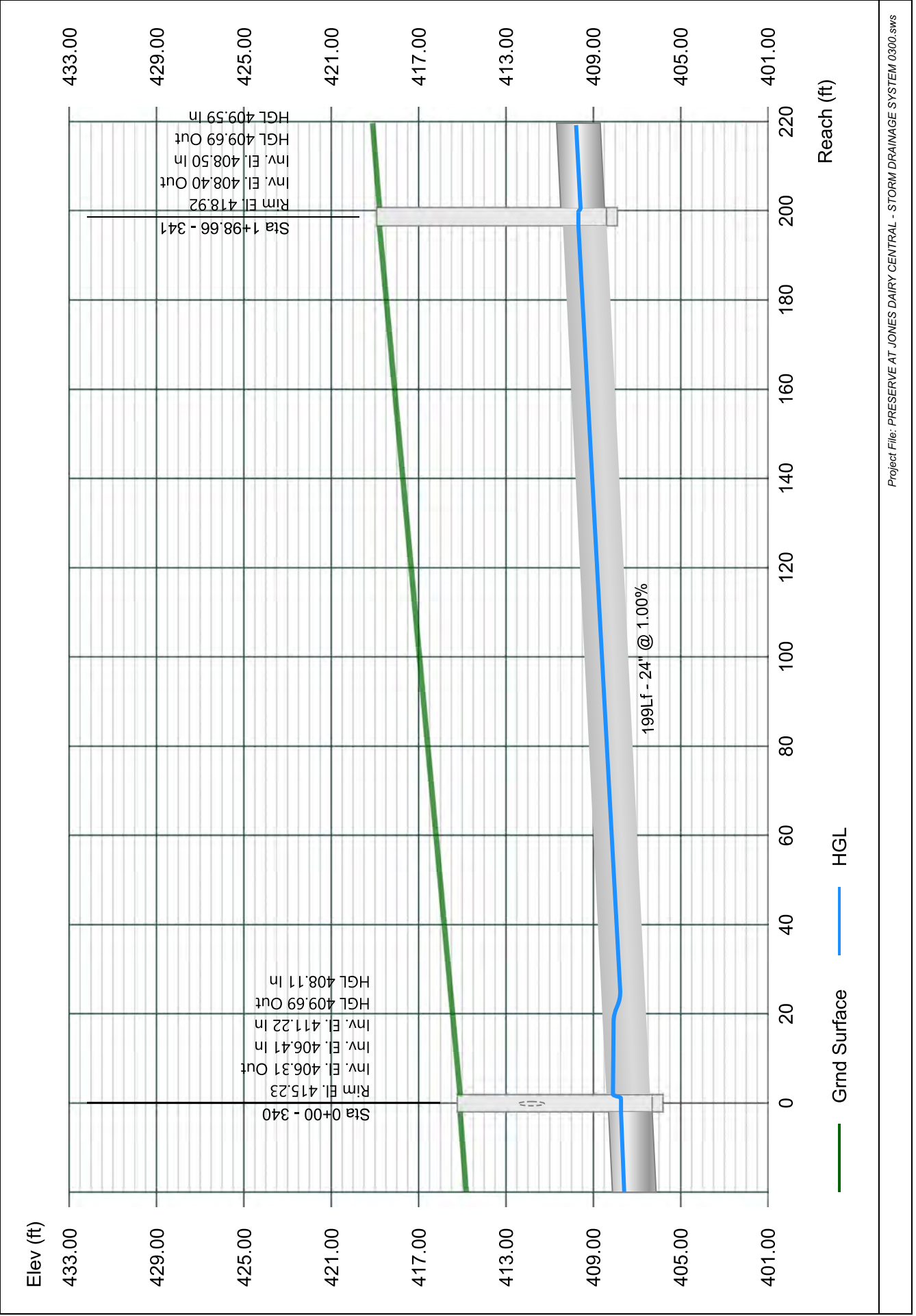


# Line 31 - 341 TO 340

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



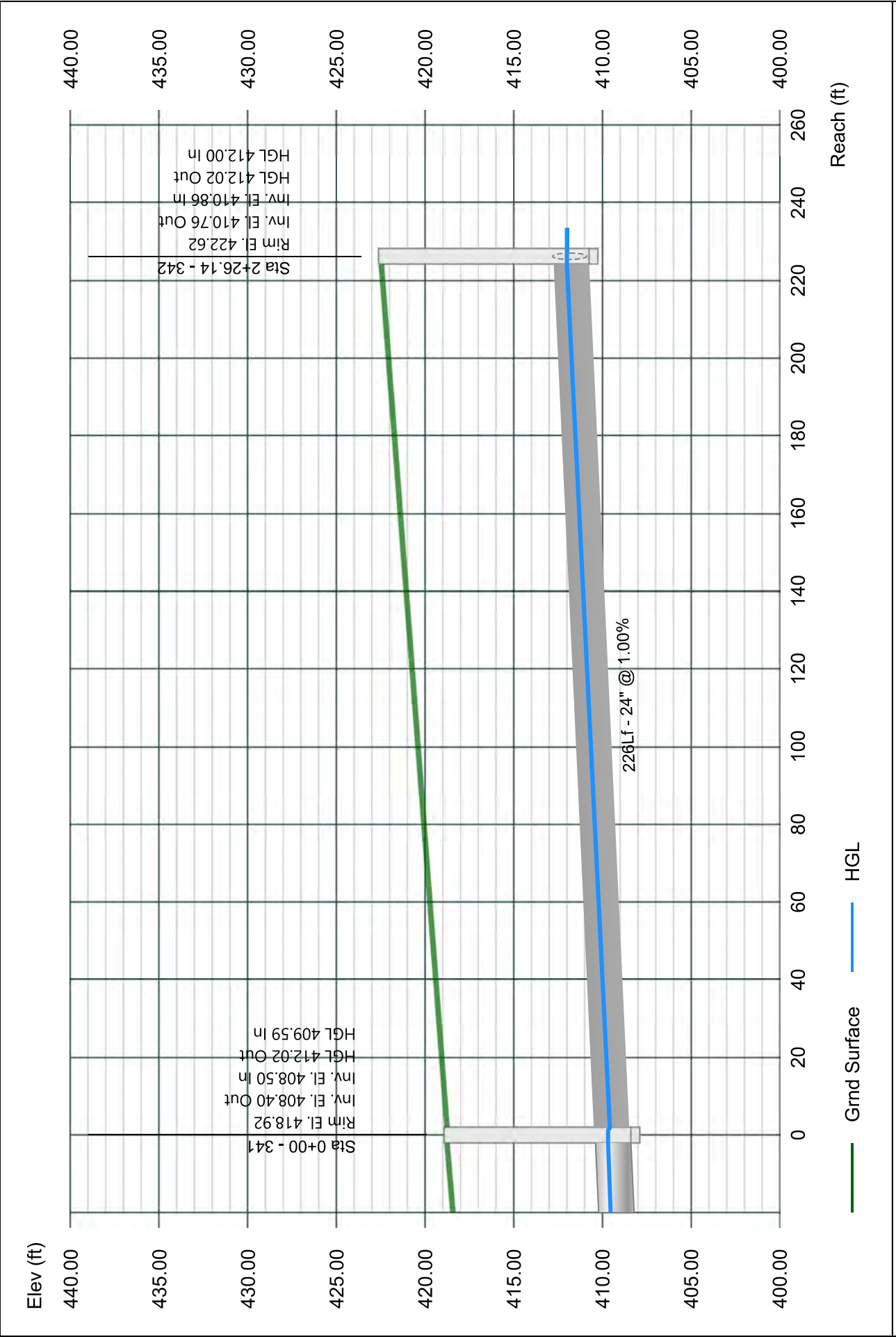


# Line 32 - 342 TO 341

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

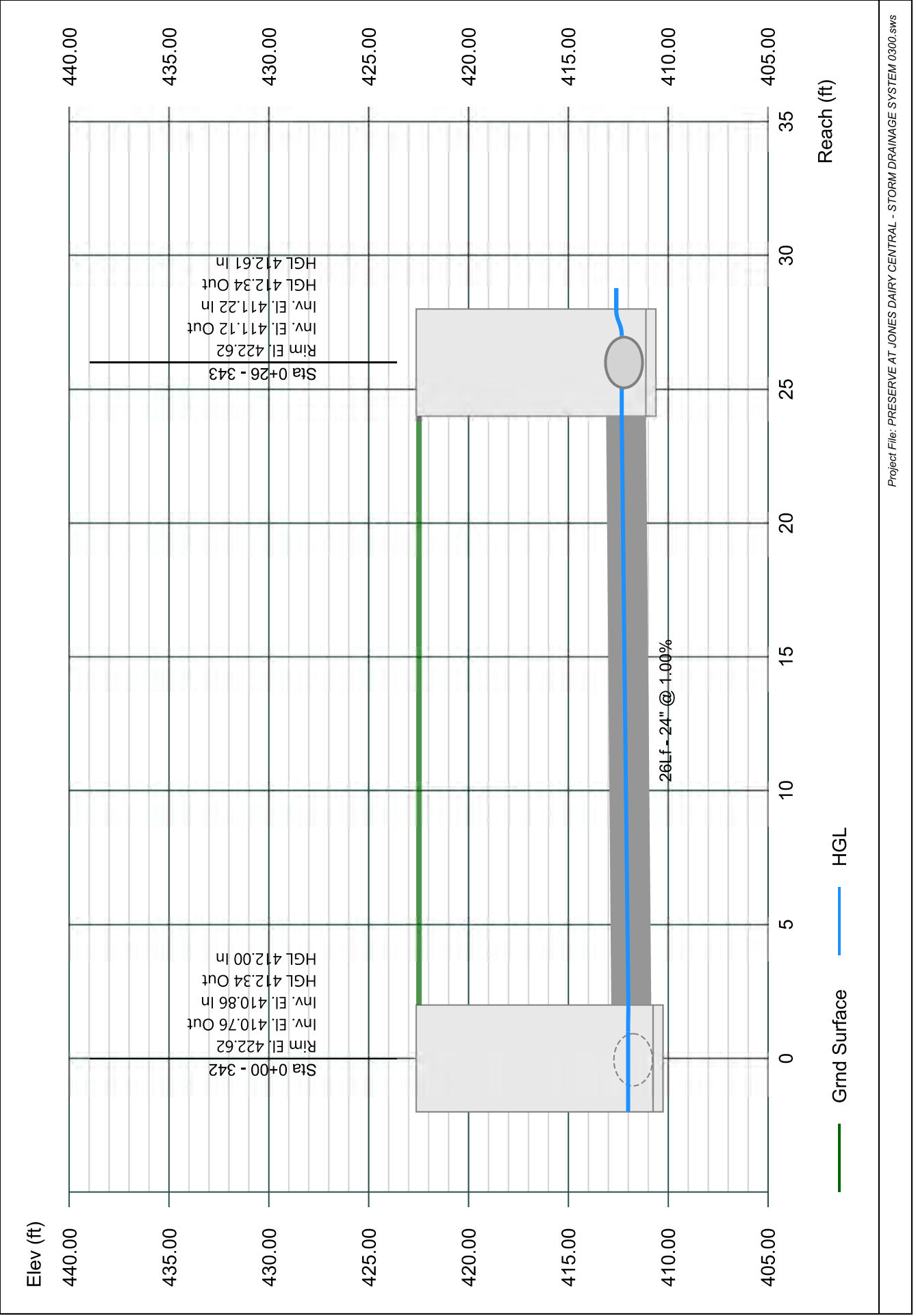


# Line 33 - 343 TO 342

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

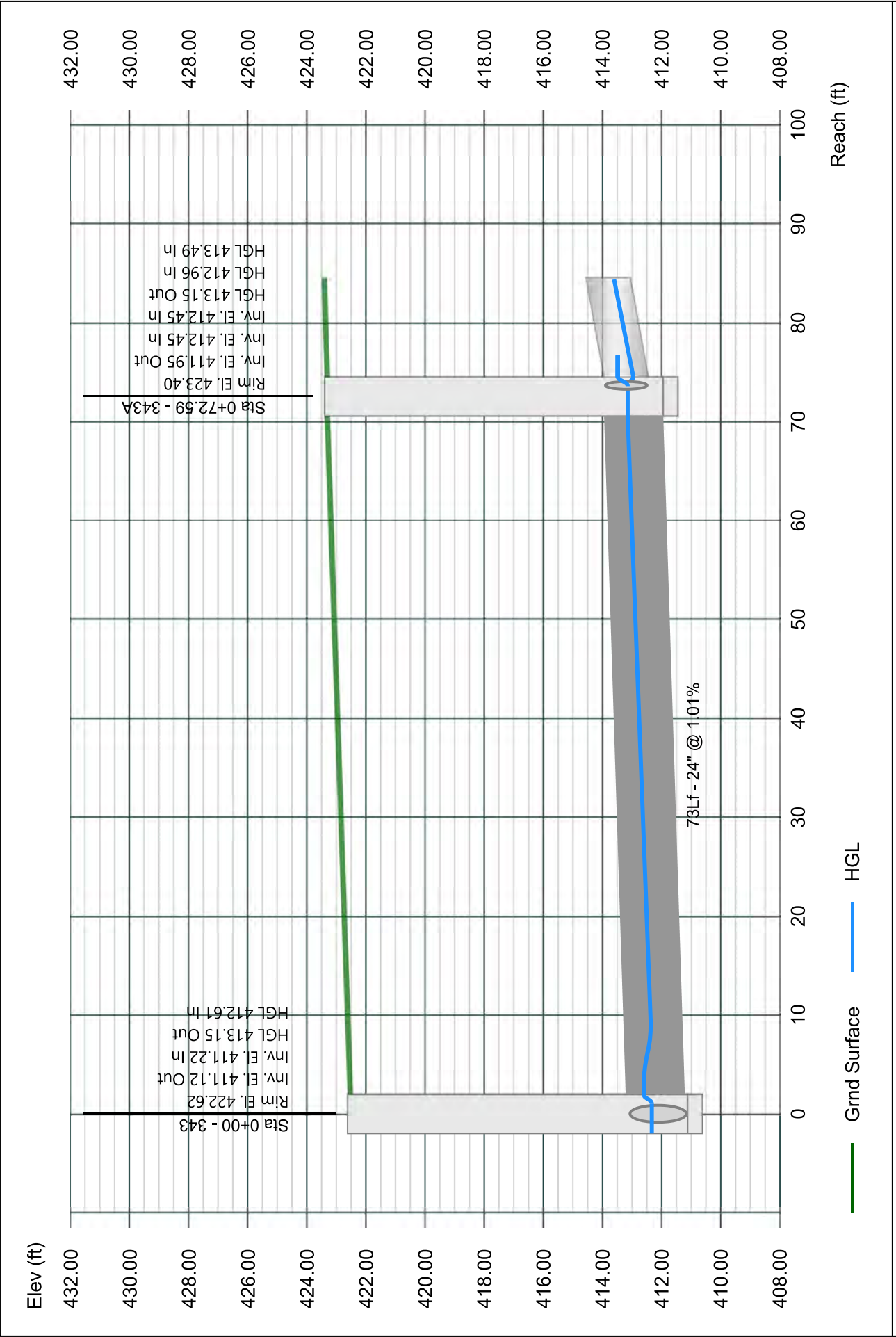


# Line 34 - 343A TO 343

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

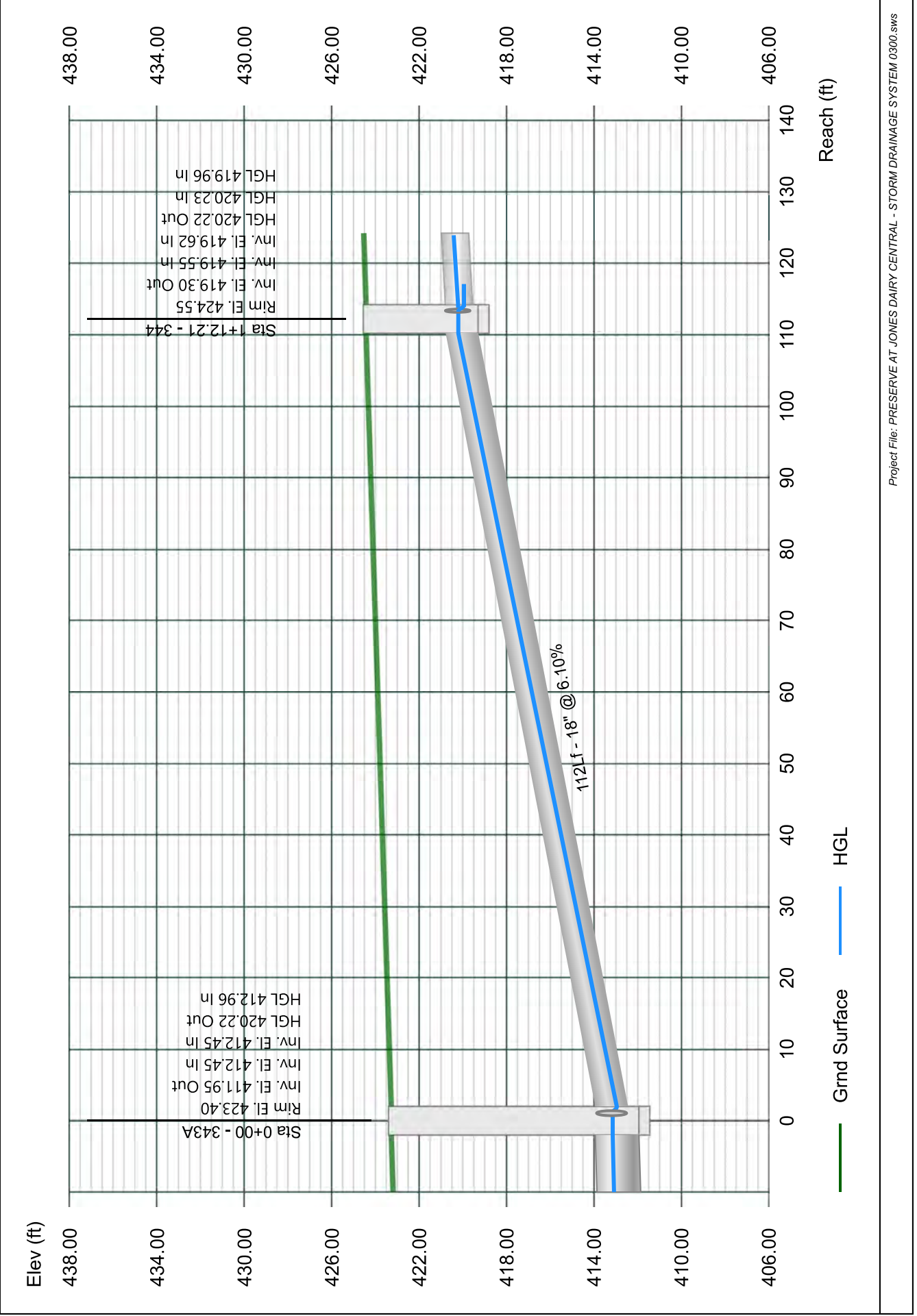


# Line 35 - 344 TO 343

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

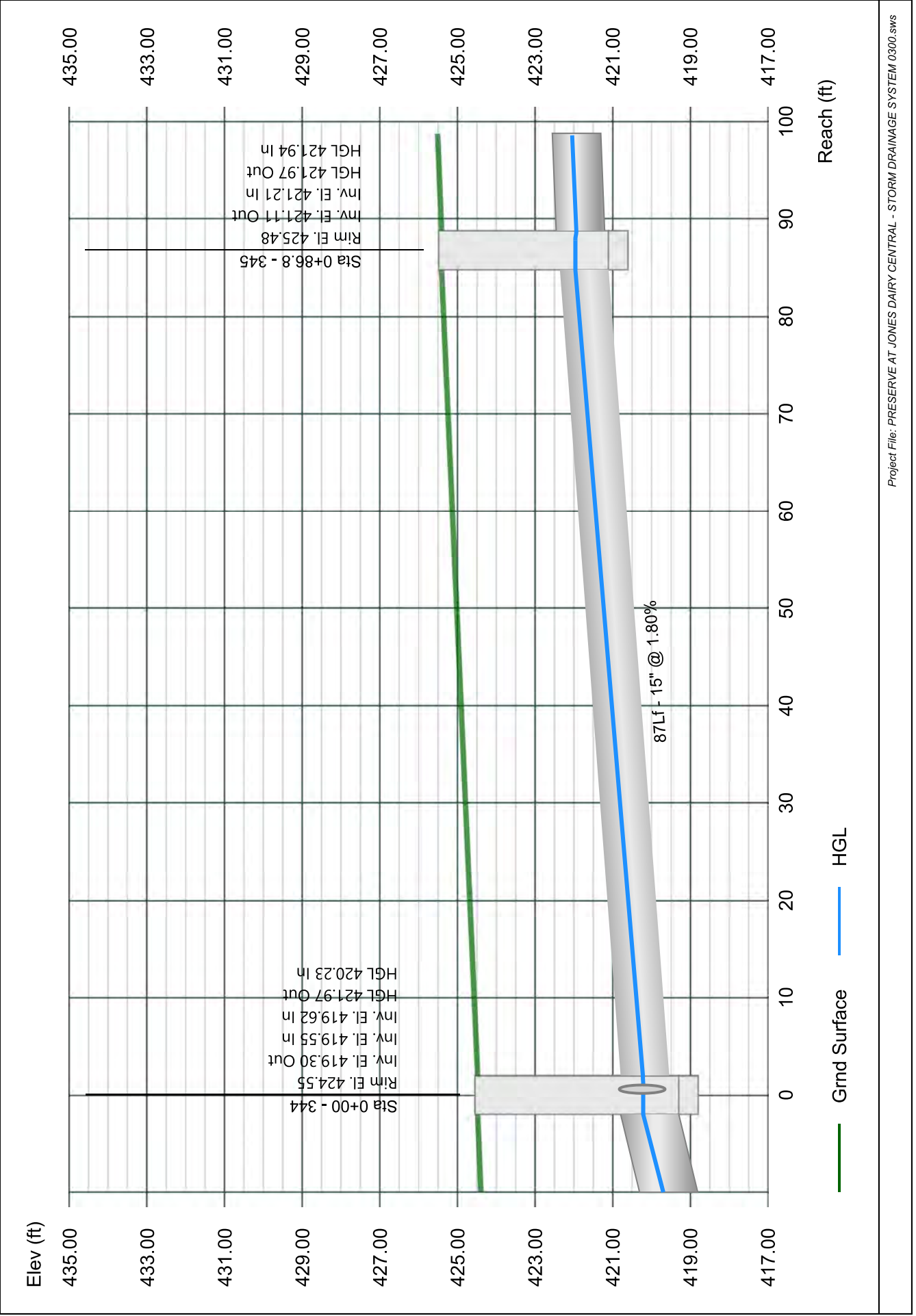


# Line 36 - 345 TO 344

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

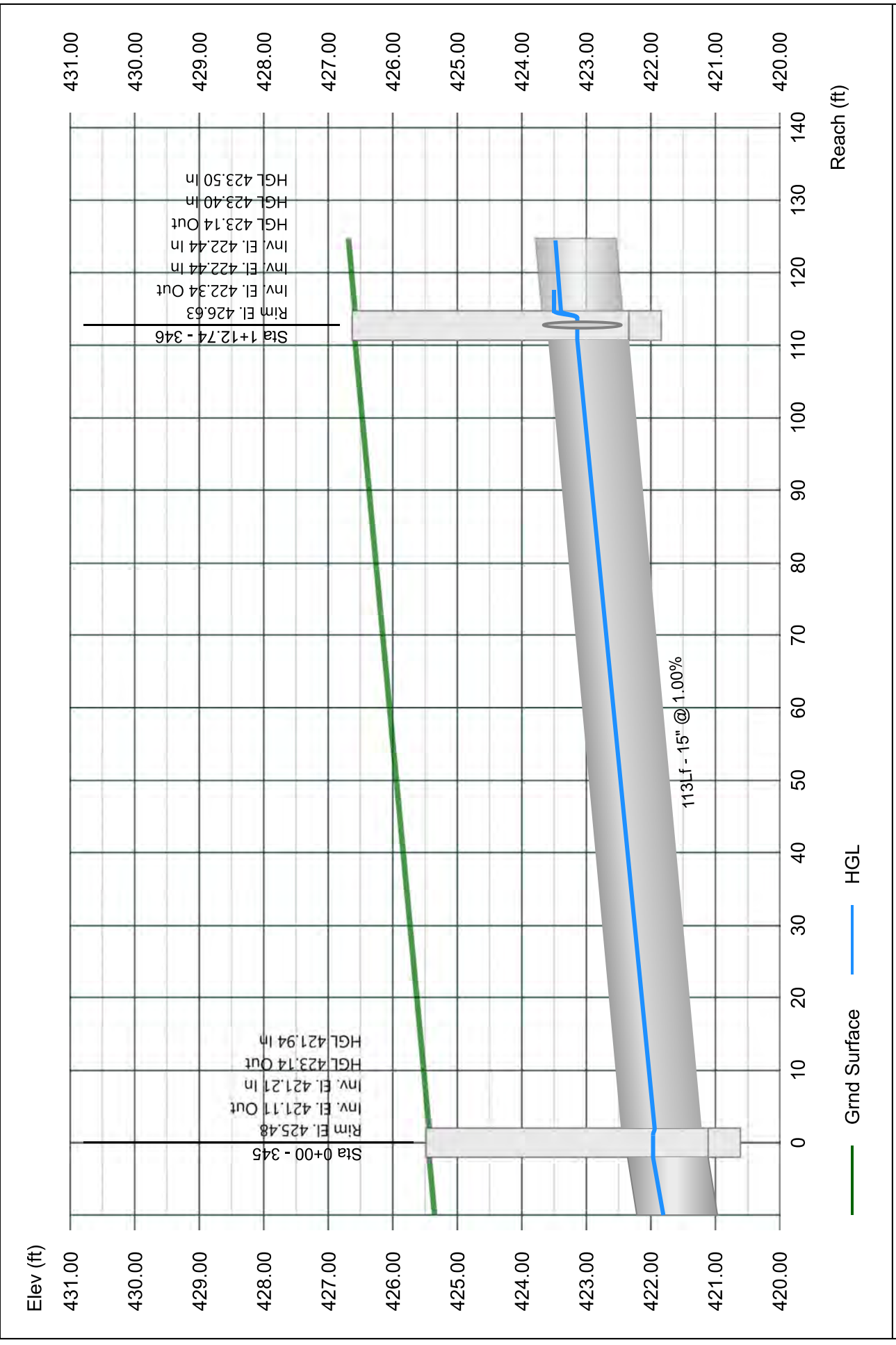


# Line 37 - 346 TO 345

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

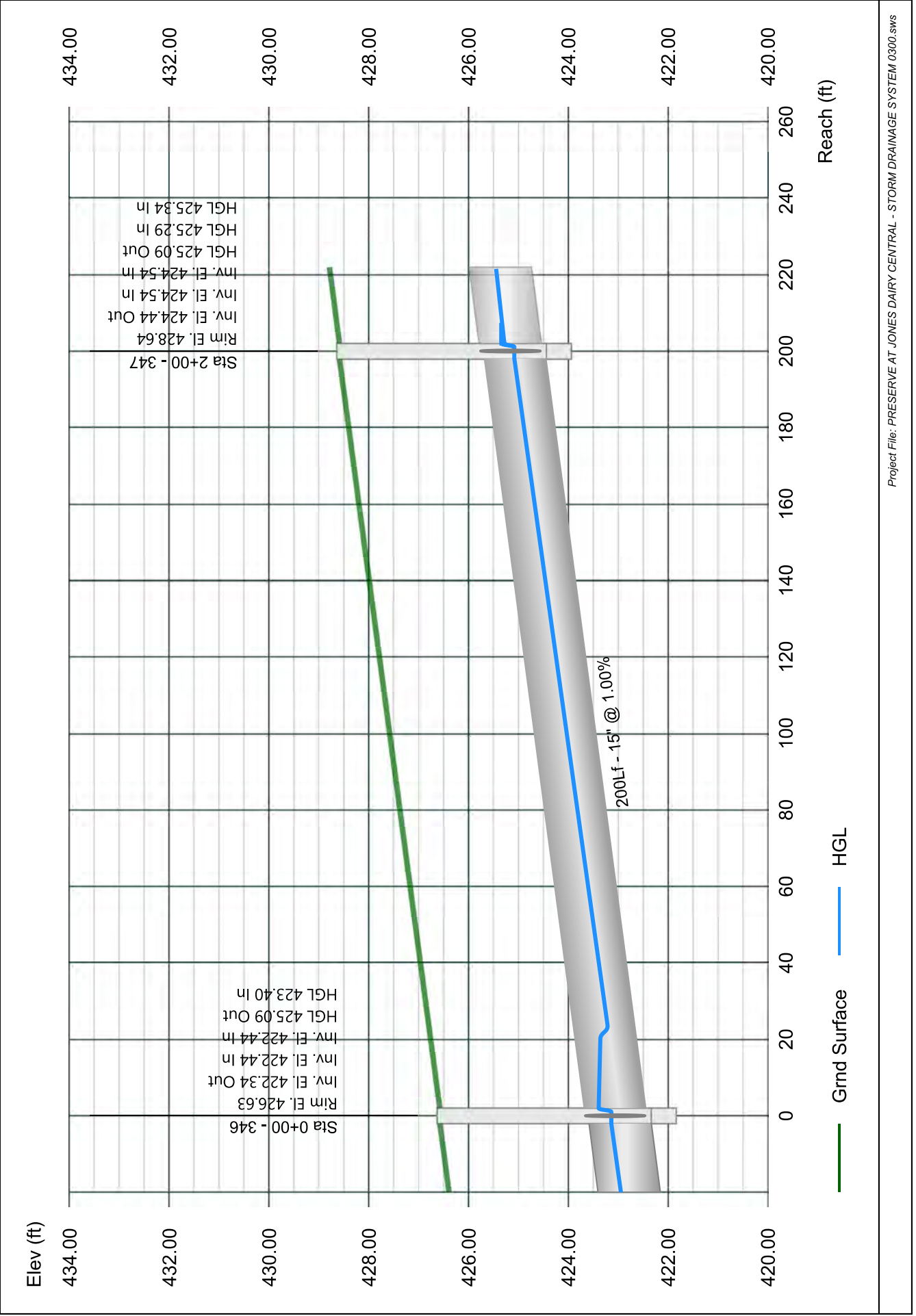


# Line 38 - 347 TO 346

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

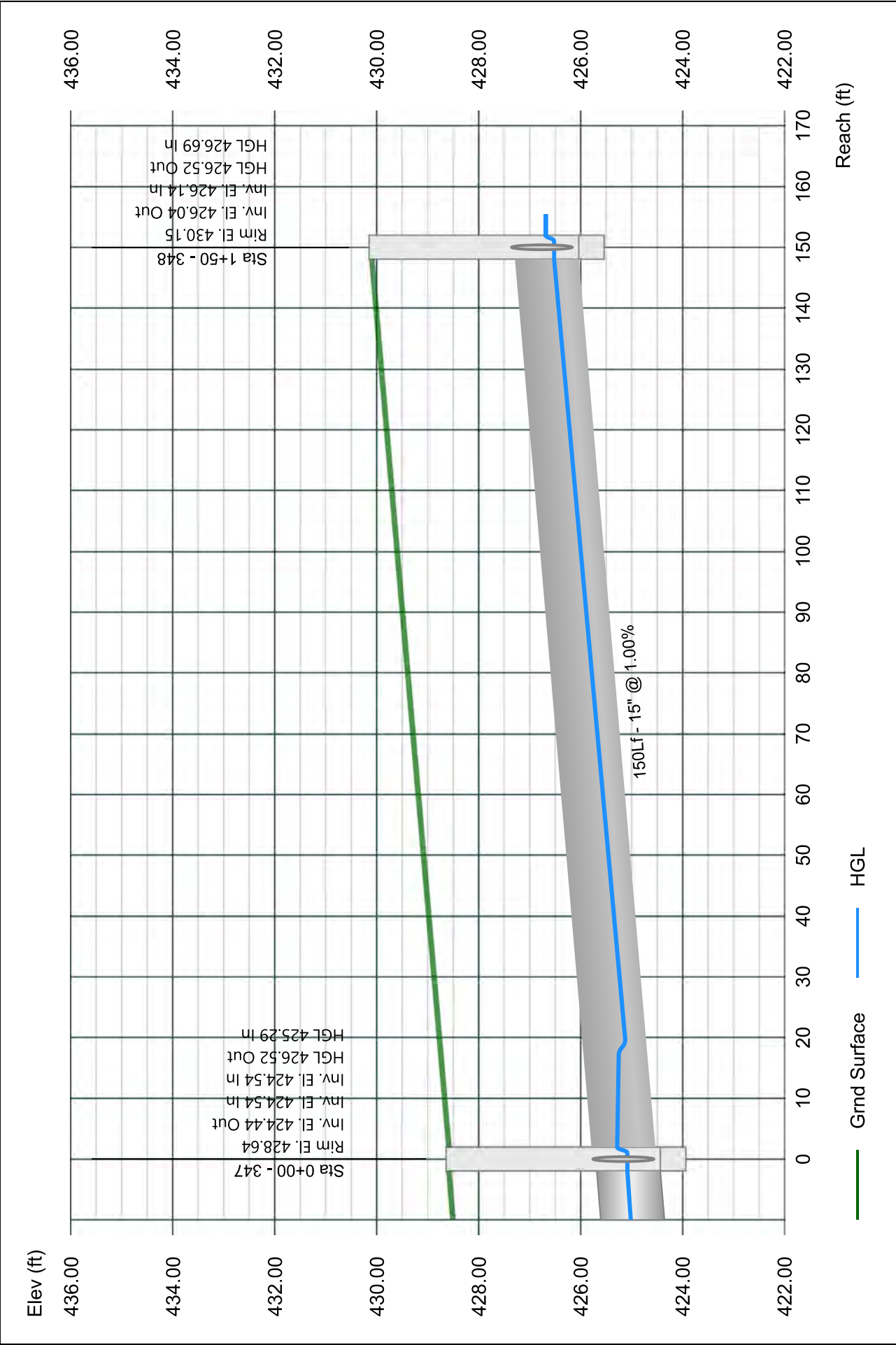


# Line 39 - 348 TO 347

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



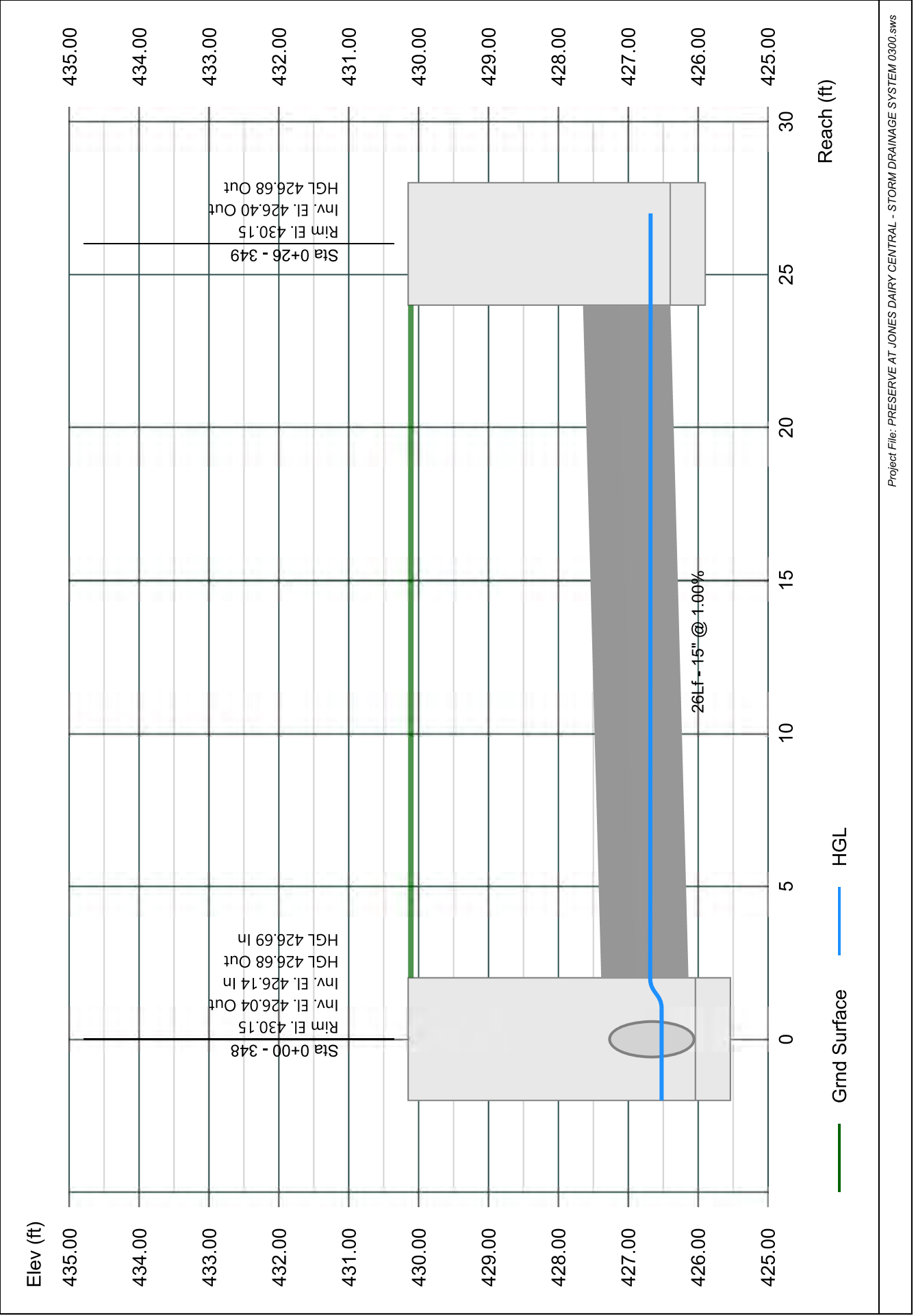


# Line 40 - 348 TO 349

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

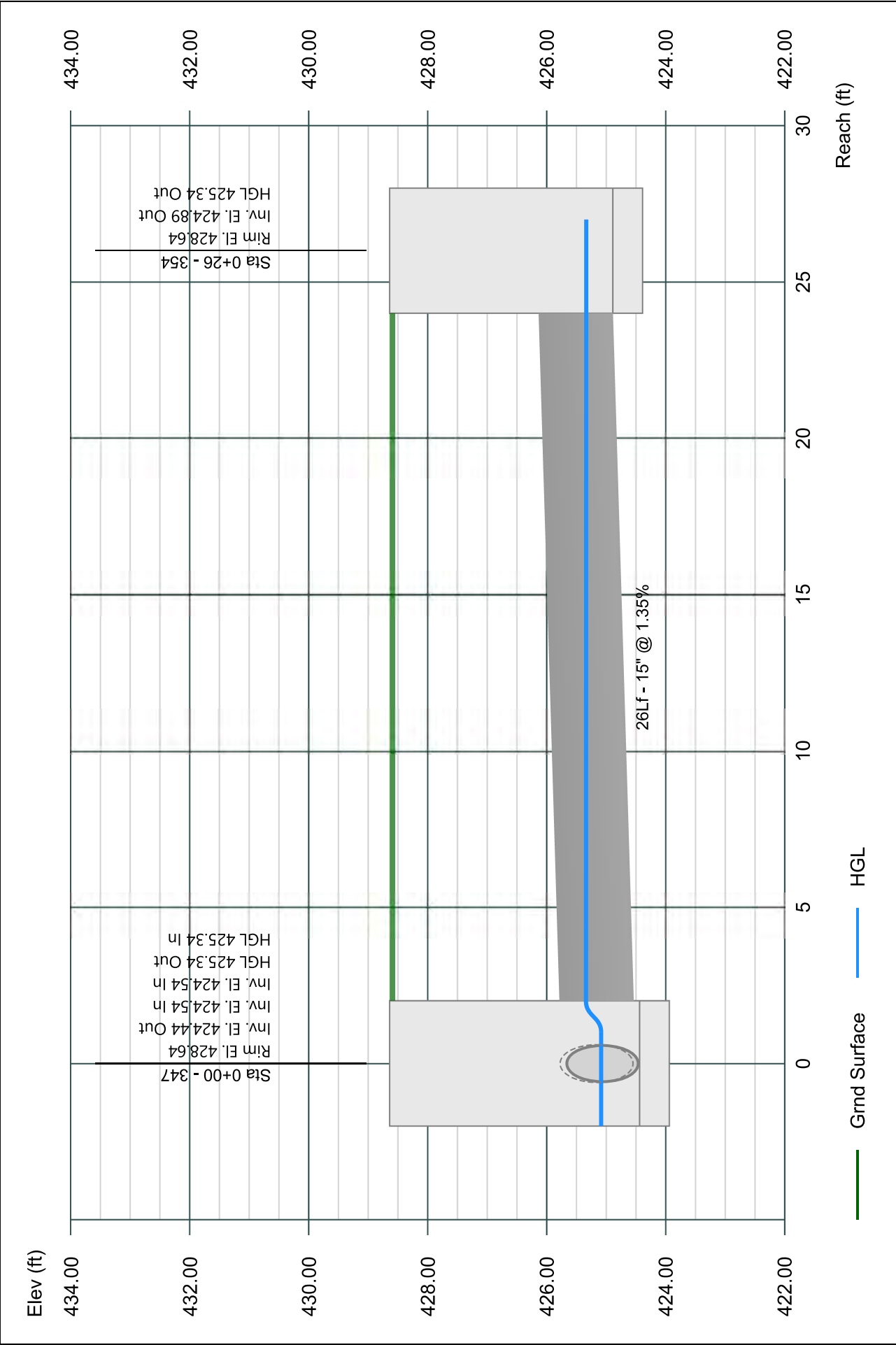


# Line 41 - 354 TO 347

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

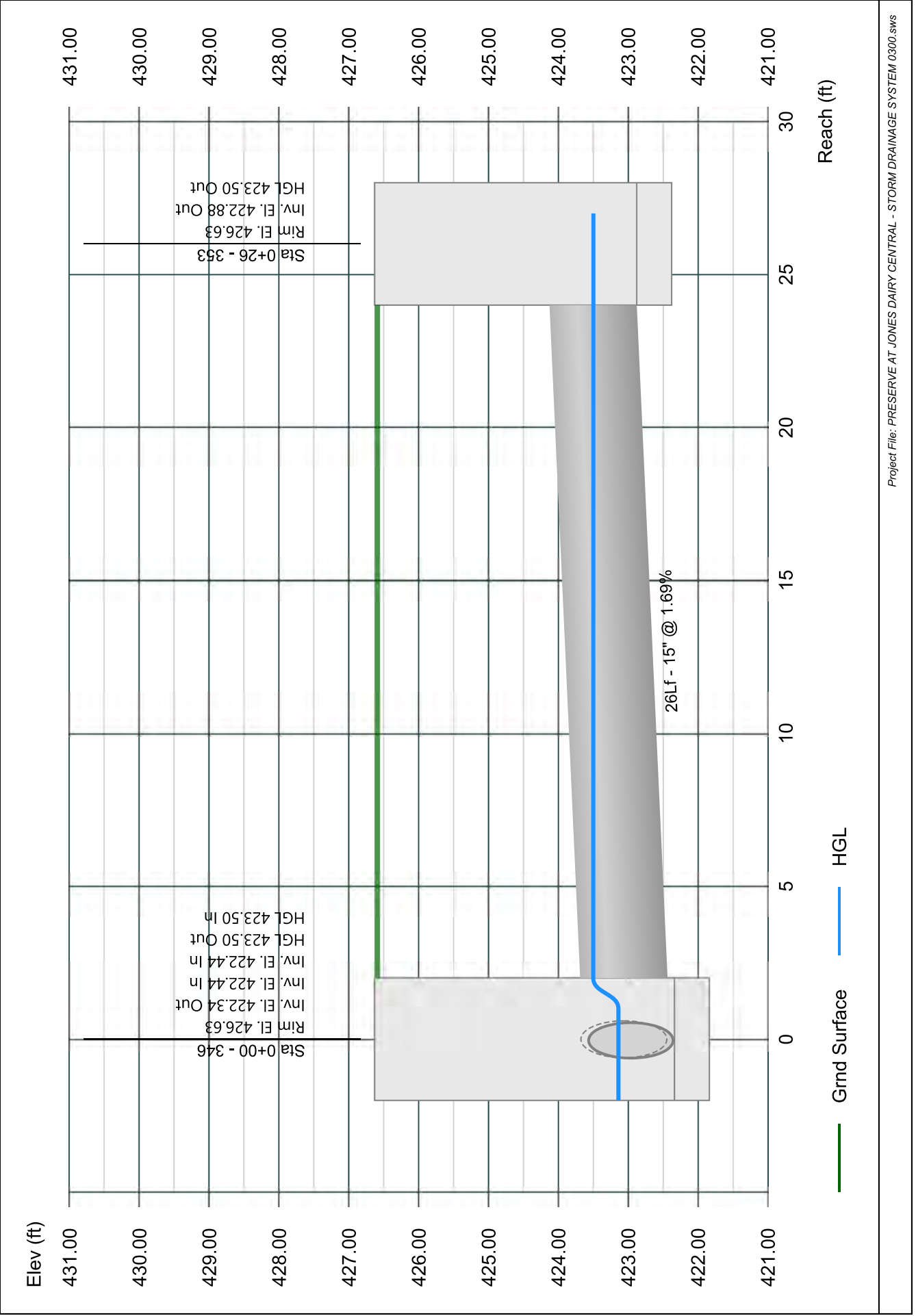


# Line 42 - 353 TO 346

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

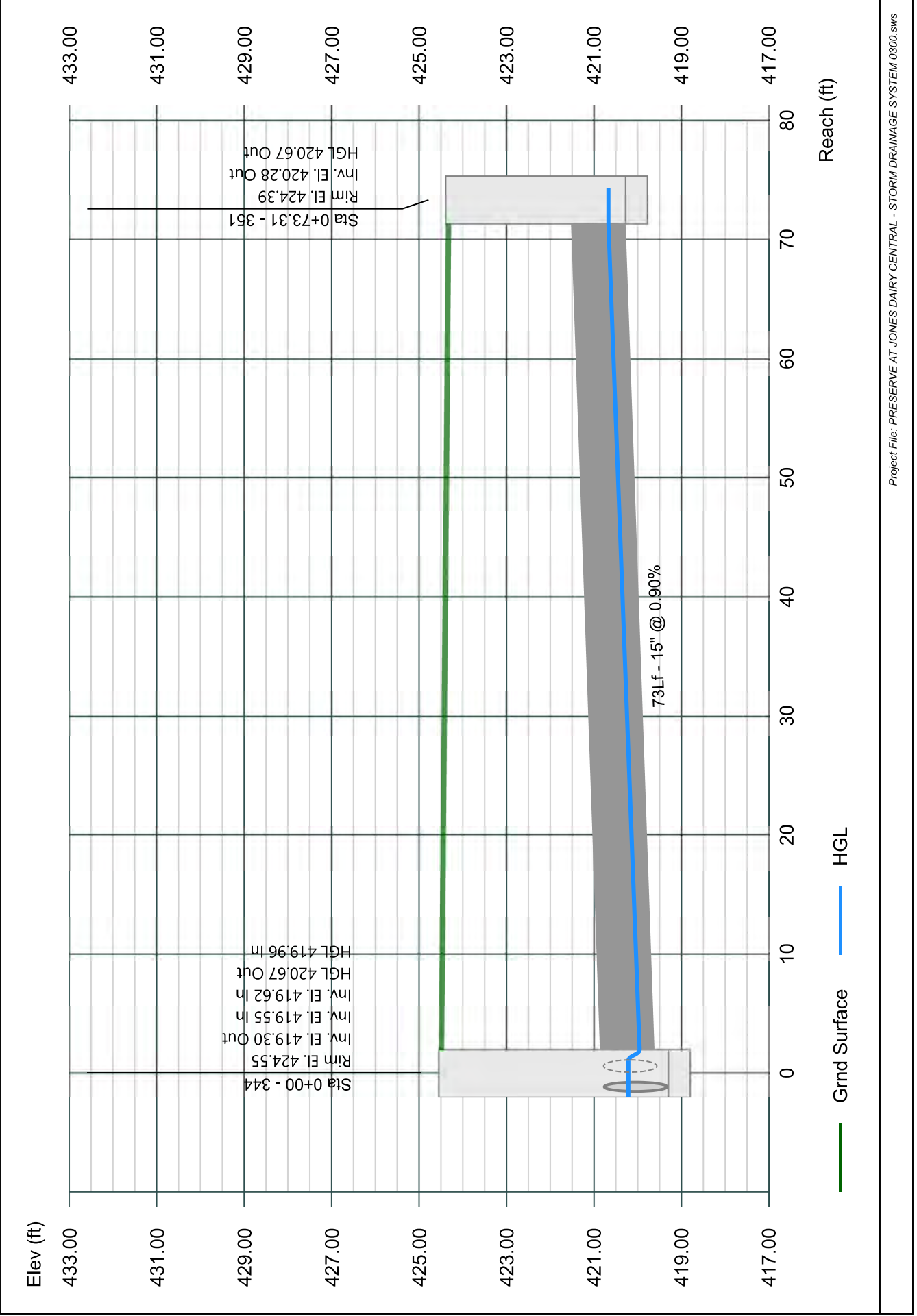


# Line 43 - 351 TO 344

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

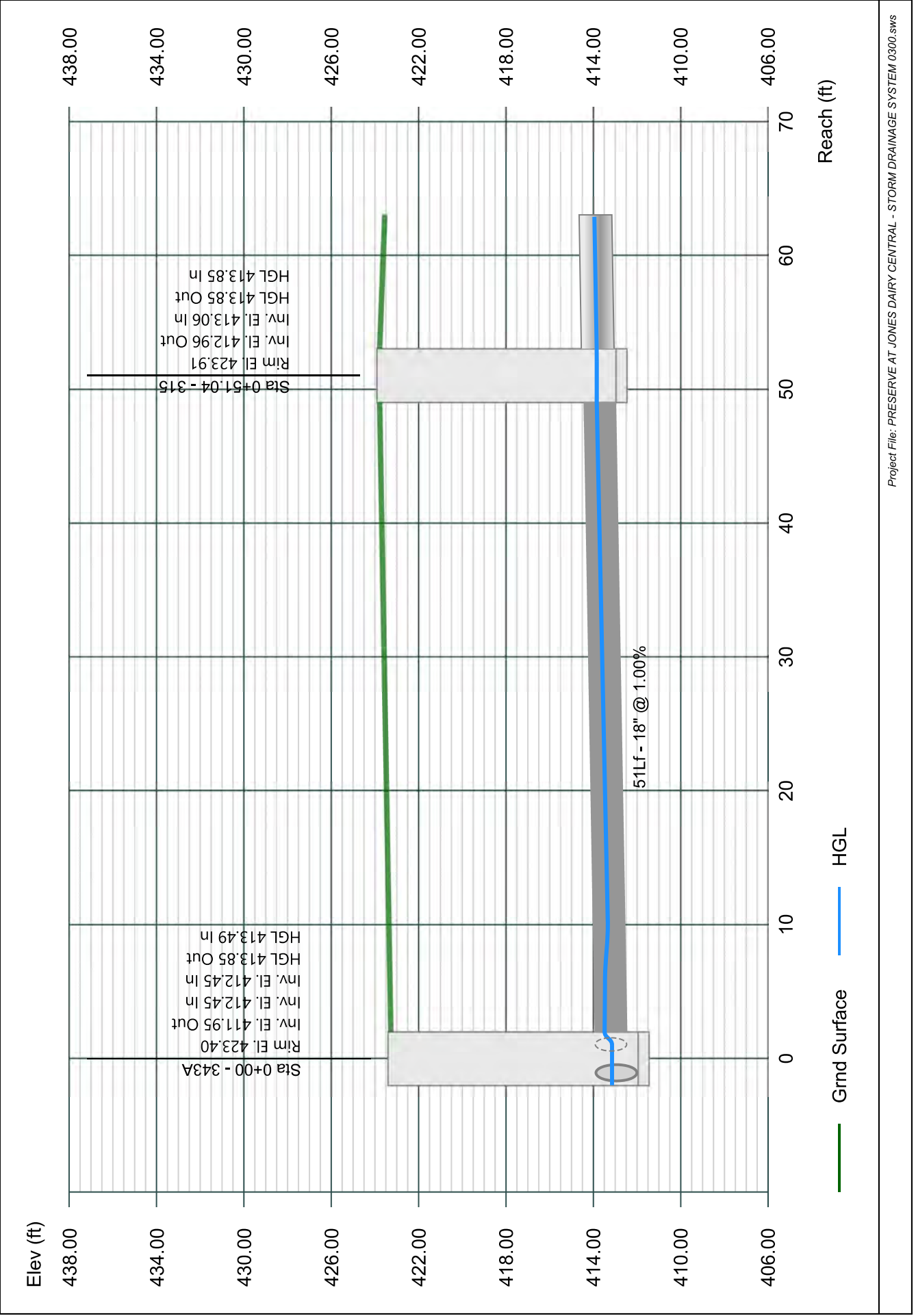


# Line 44 - 315 TO 343A

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

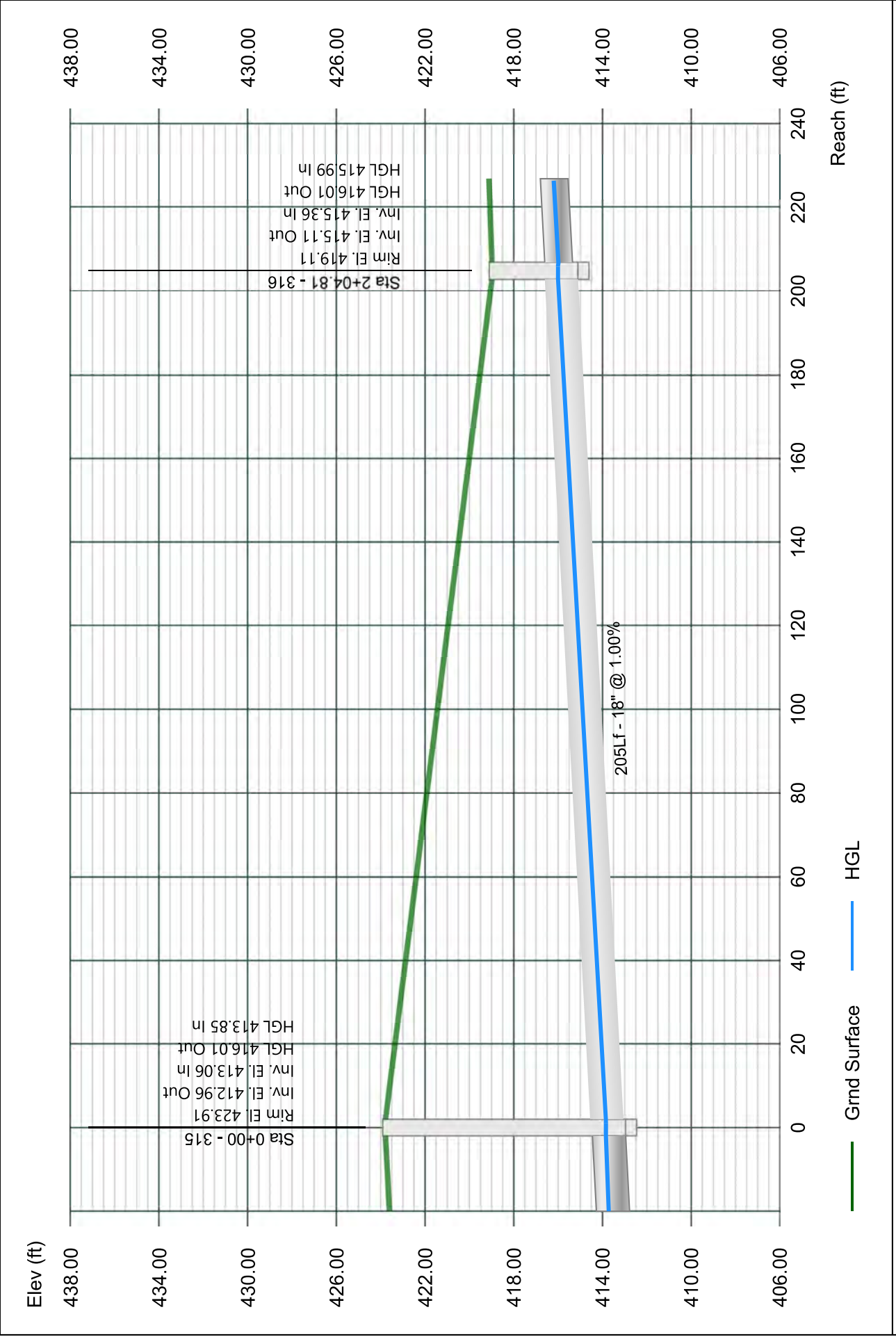


# Line 45 - 316 TO 315

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

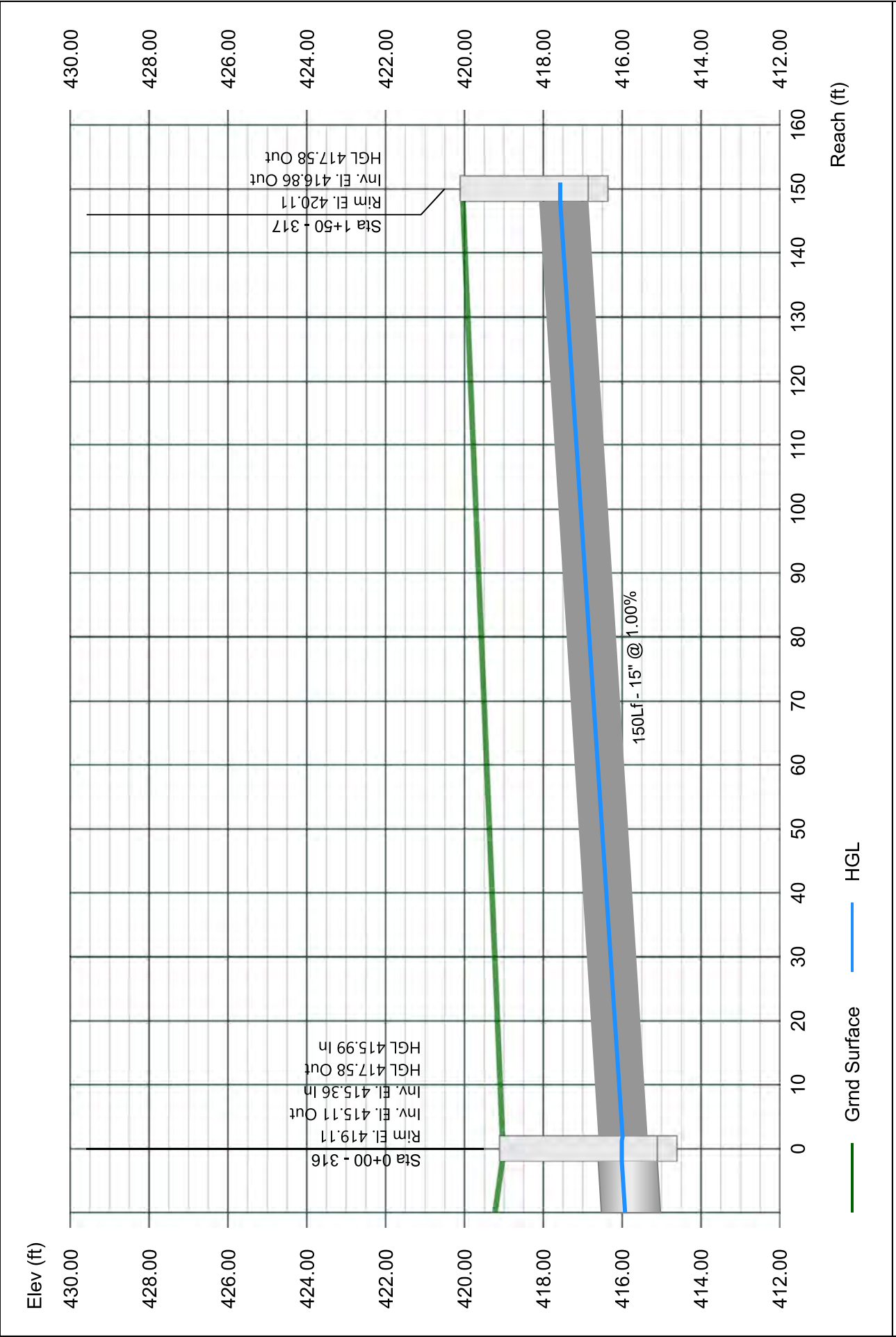


# Line 46 - 317 TO 316

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

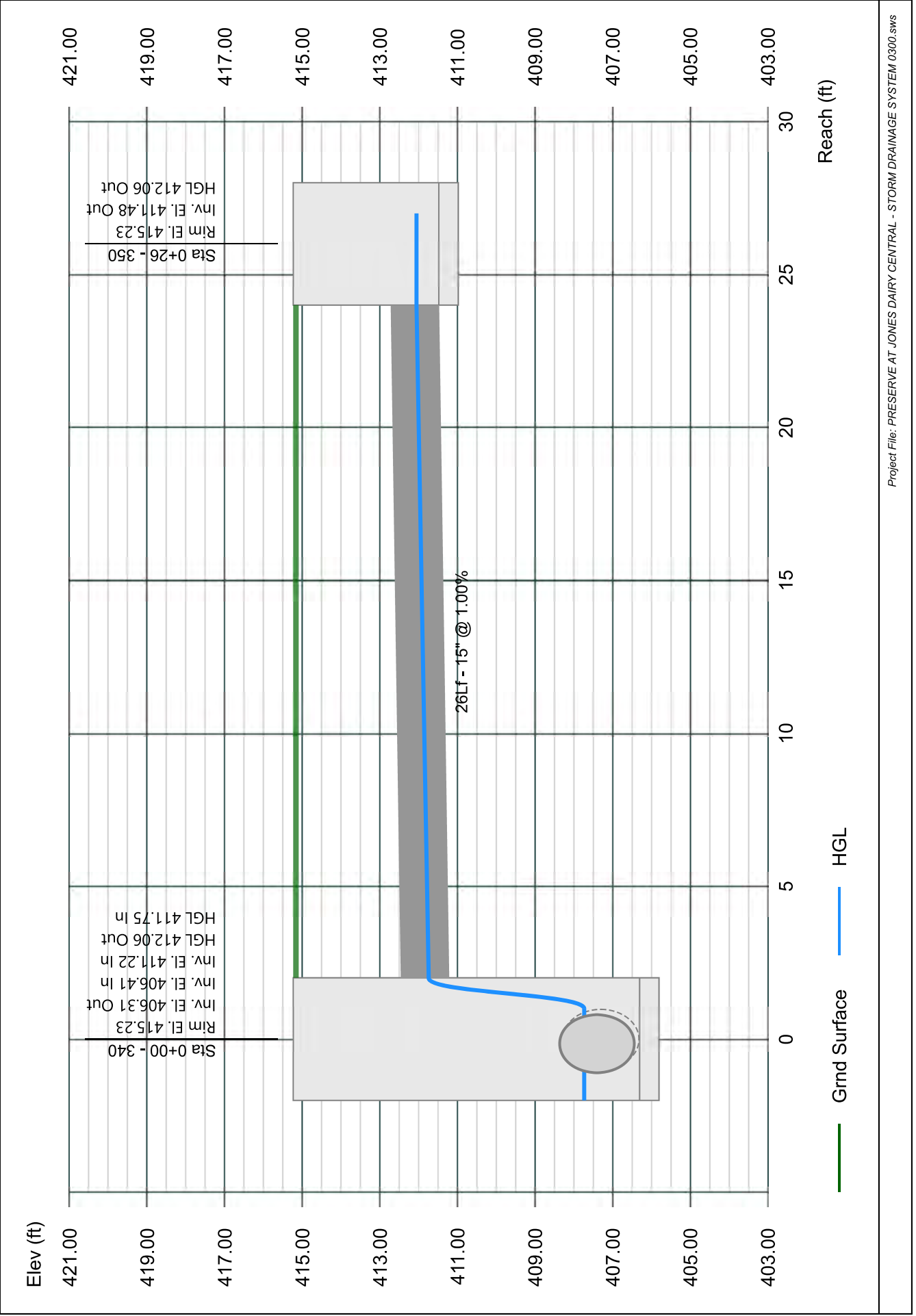


# Line 47 - 350 TO 340

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



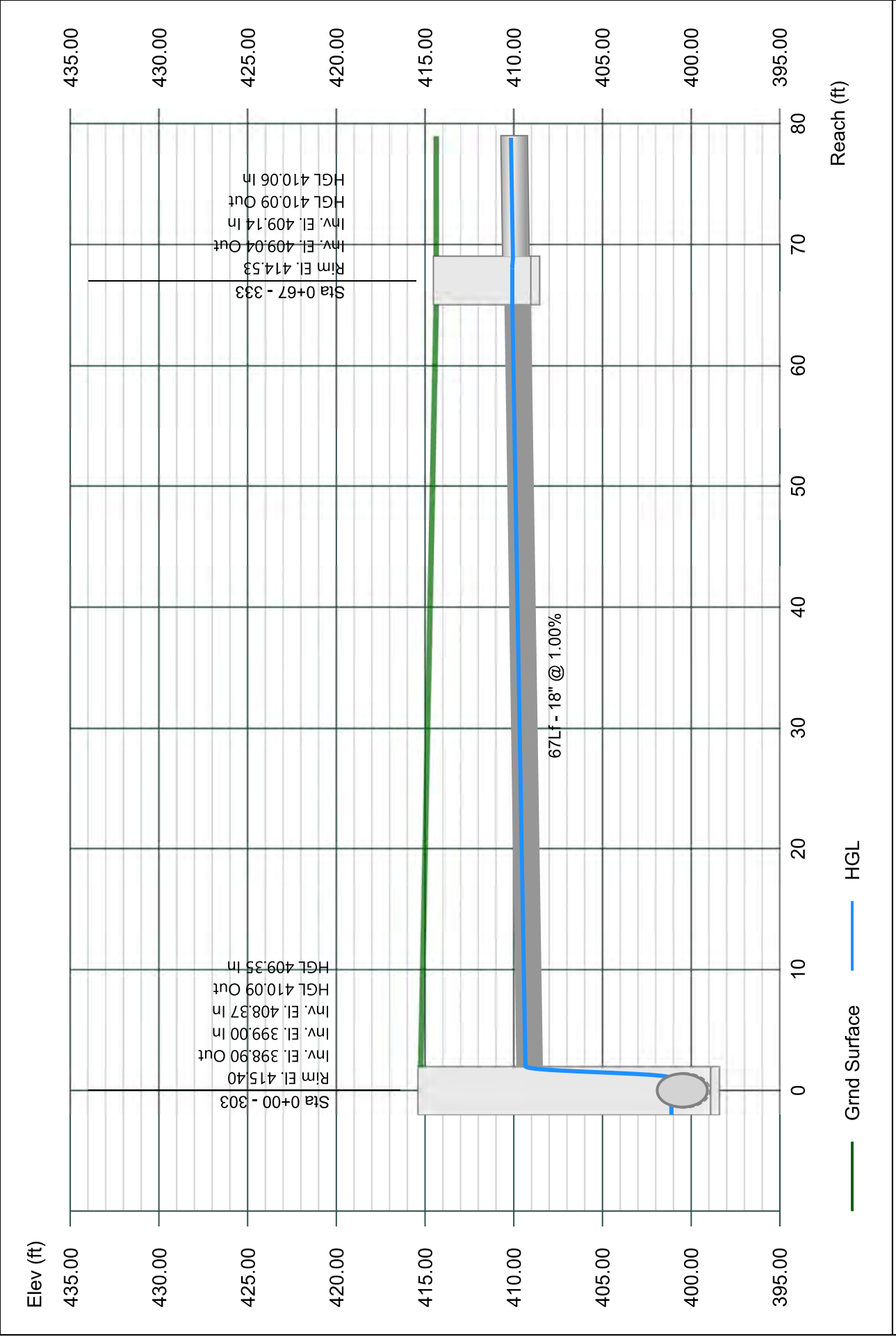


# Line 48 - 333 TO 303

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

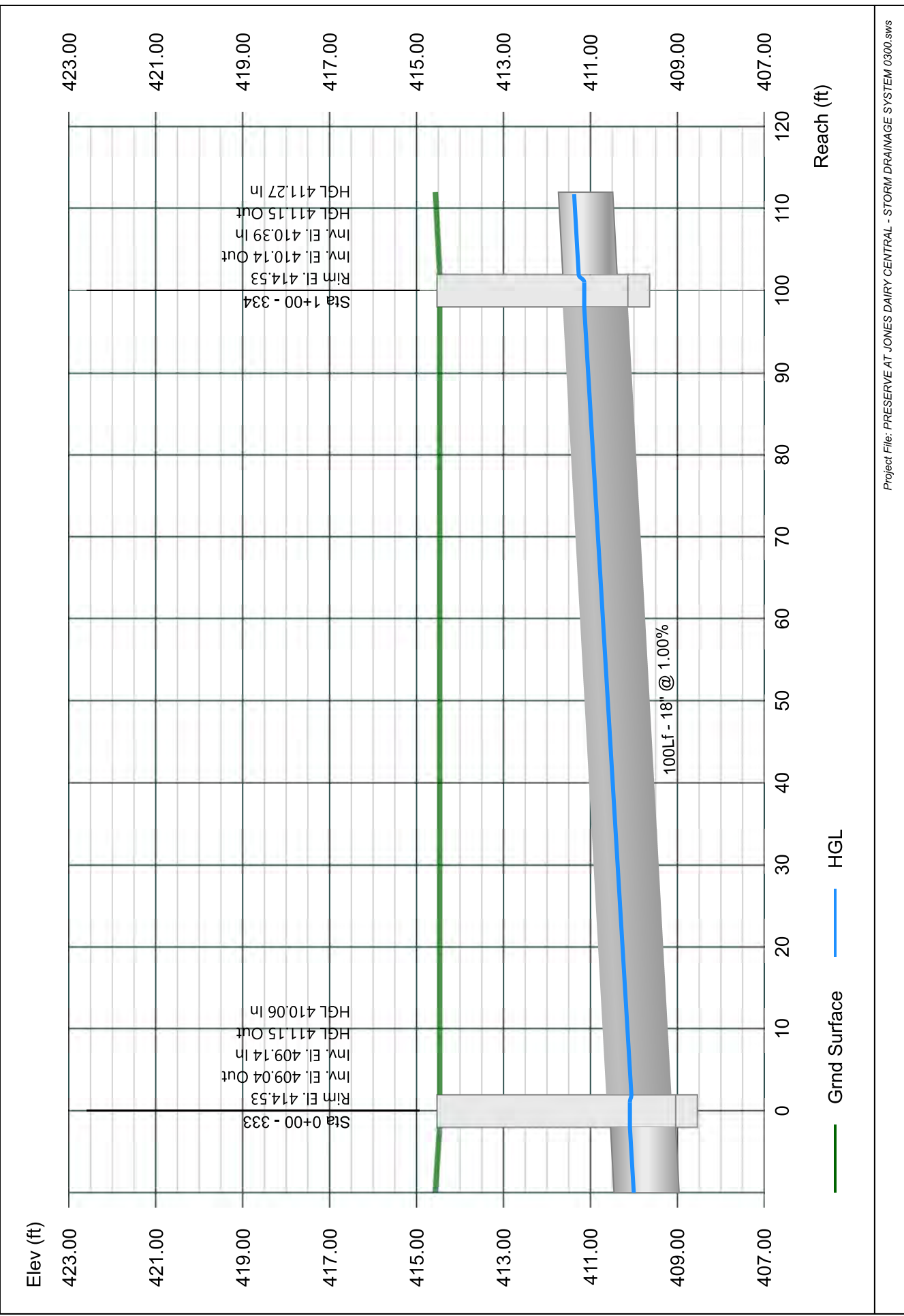


# Line 49 - 334 TO 333

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

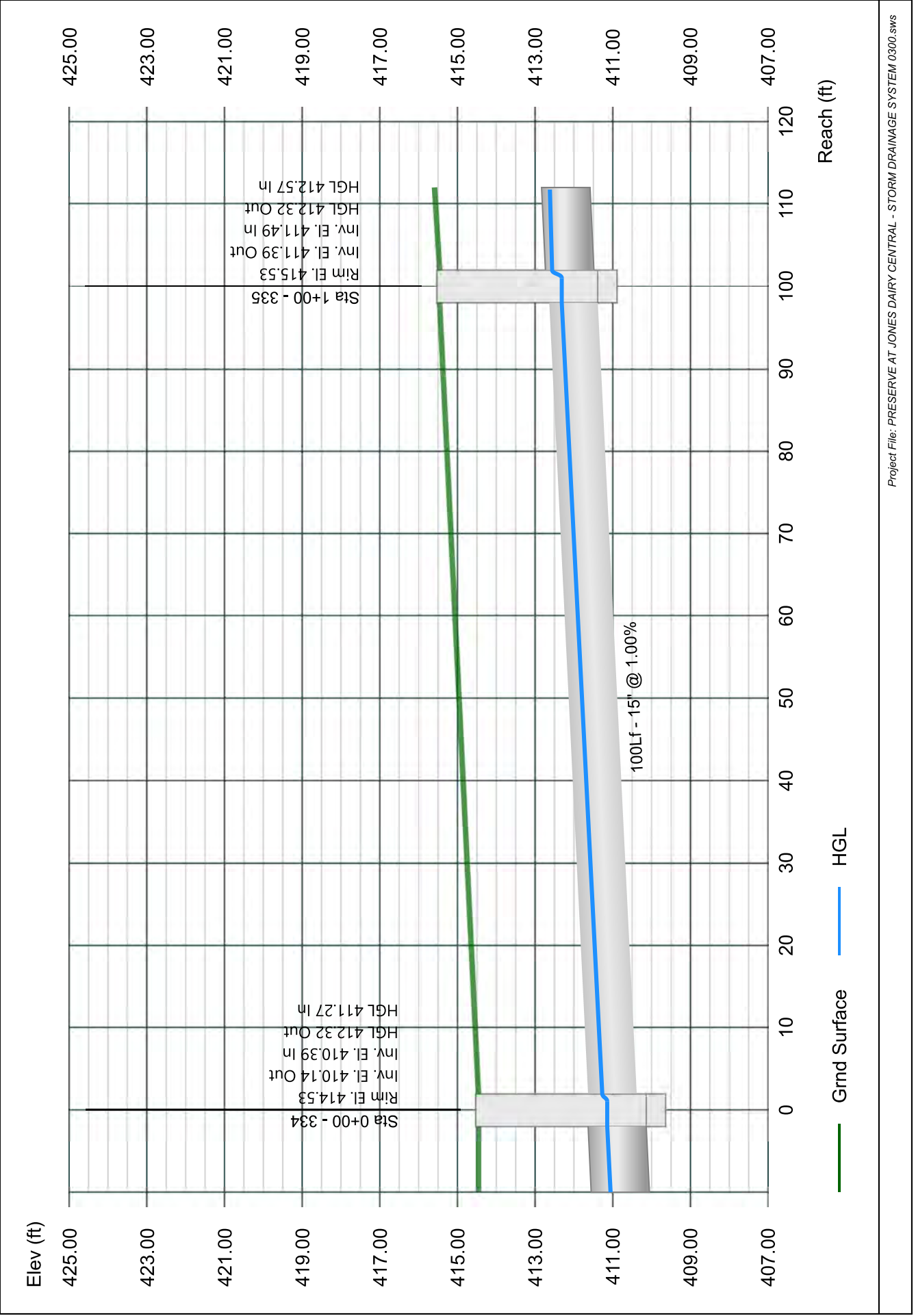


# Line 50 - 335 TO 334

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

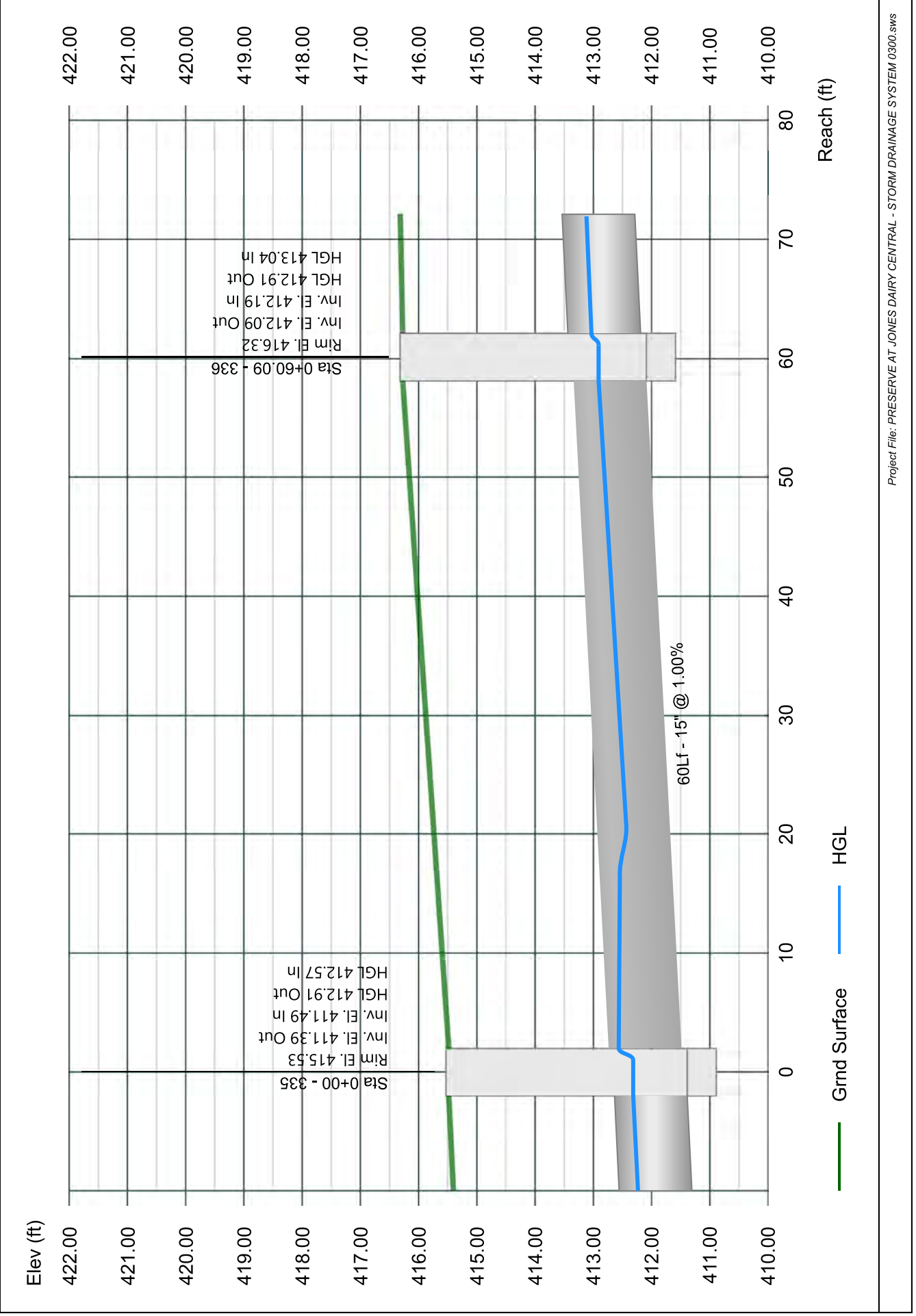


# Line 51 - 336 TO 335

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

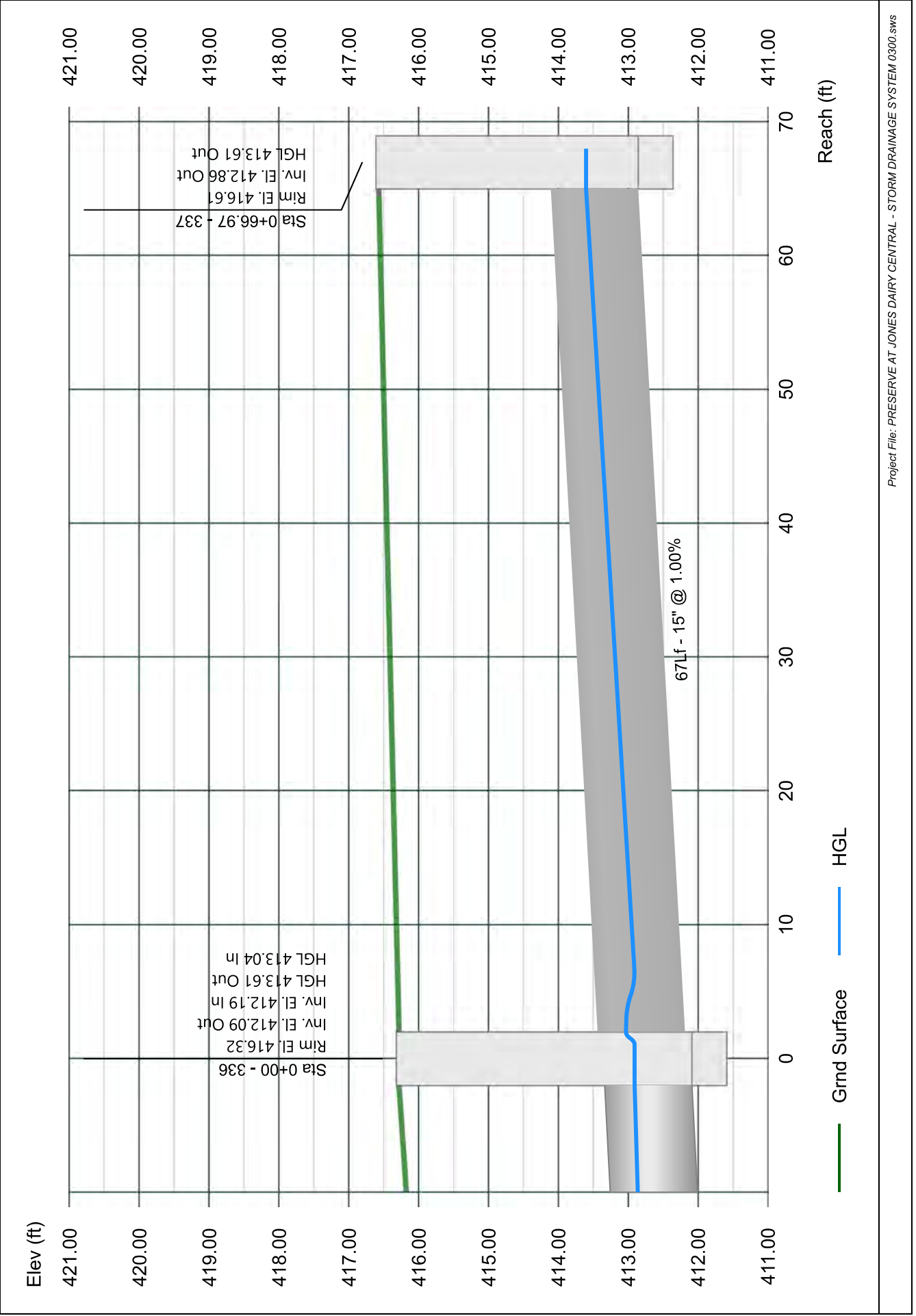


# Line 52 - 337 TO 336

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

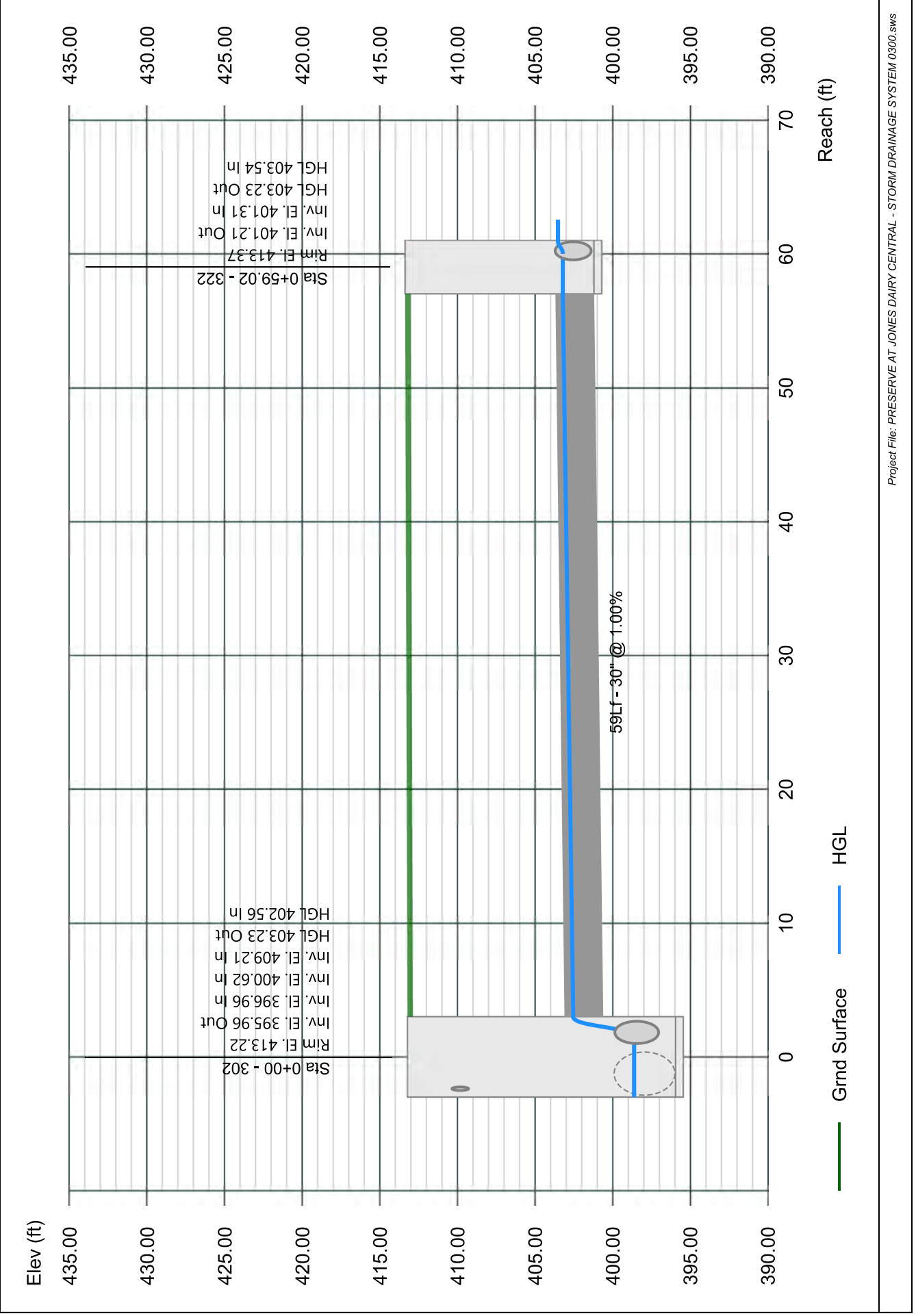


# Line 53 - 322 TO 302

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

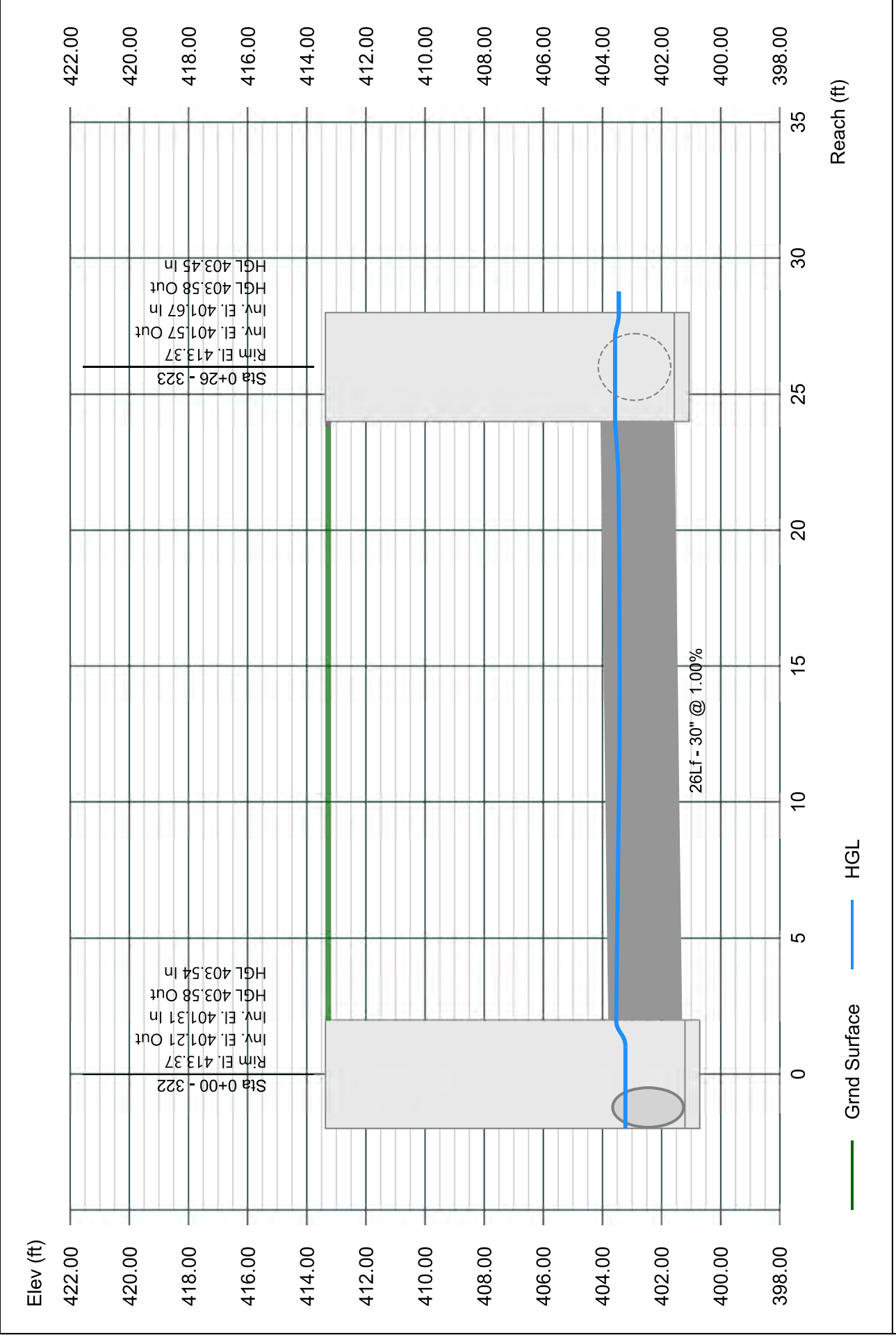


# Line 54 - 323 TO 322

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

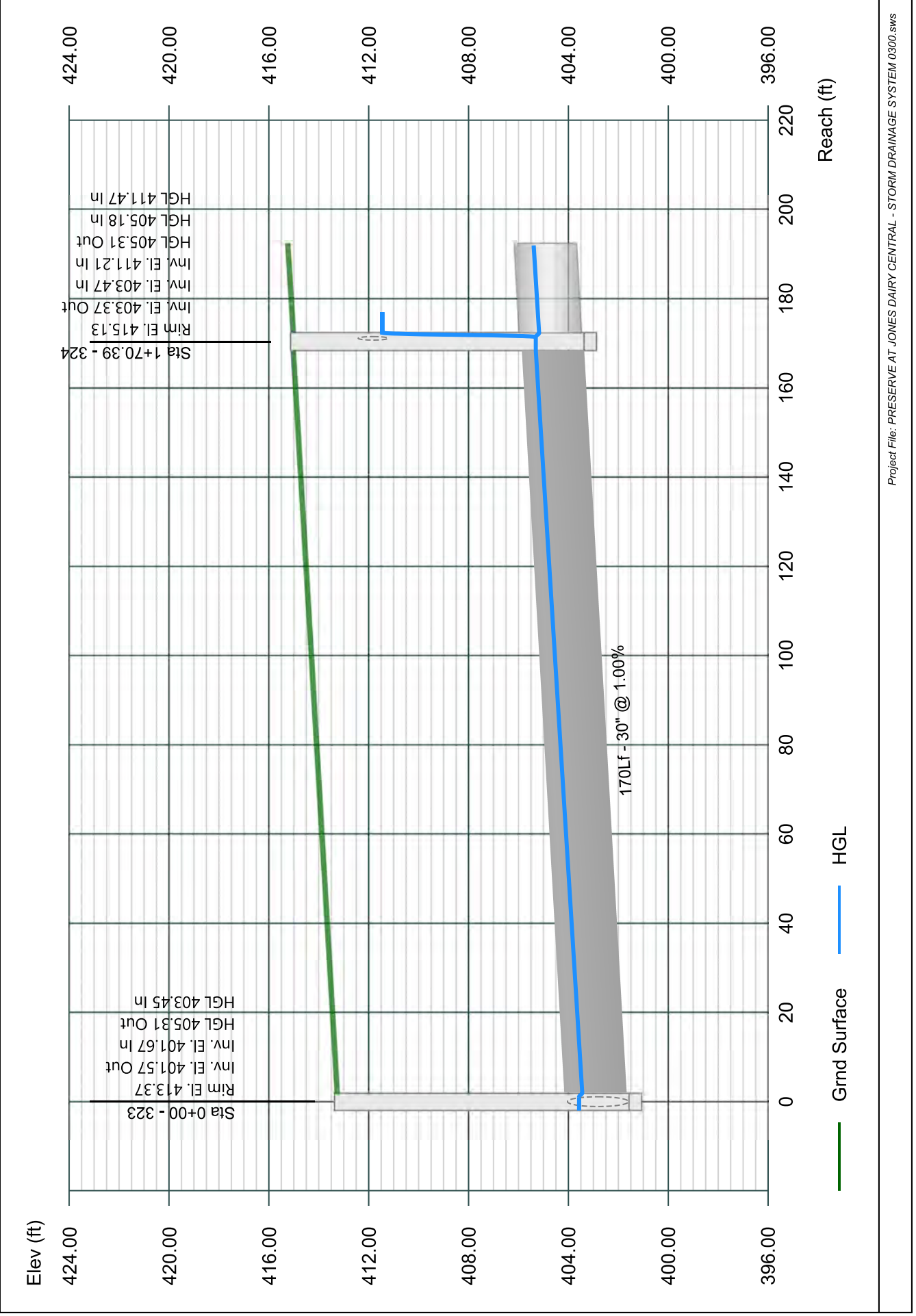


# Line 55 - 324 TO 323

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



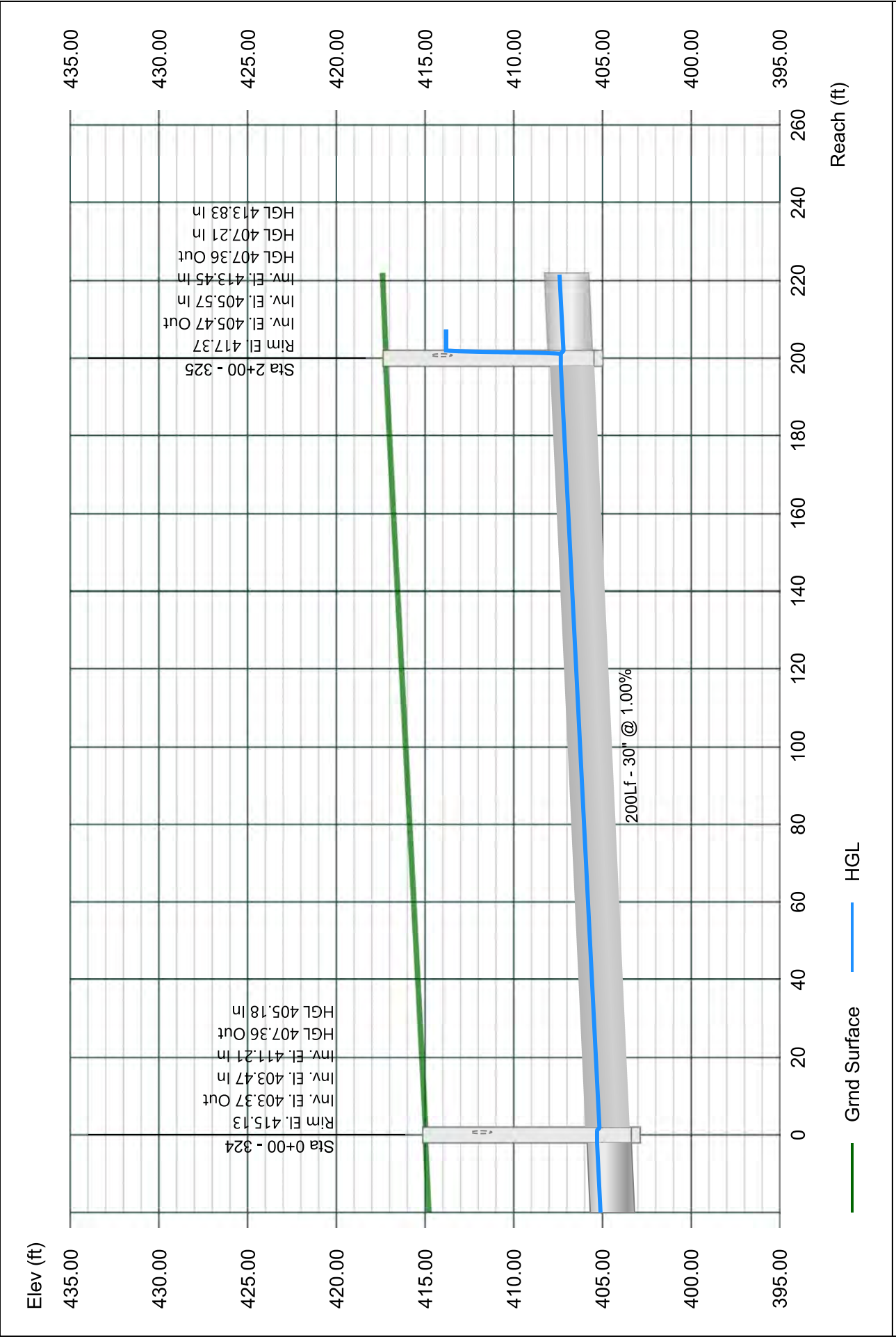


# Line 56 - 325 TO 324

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

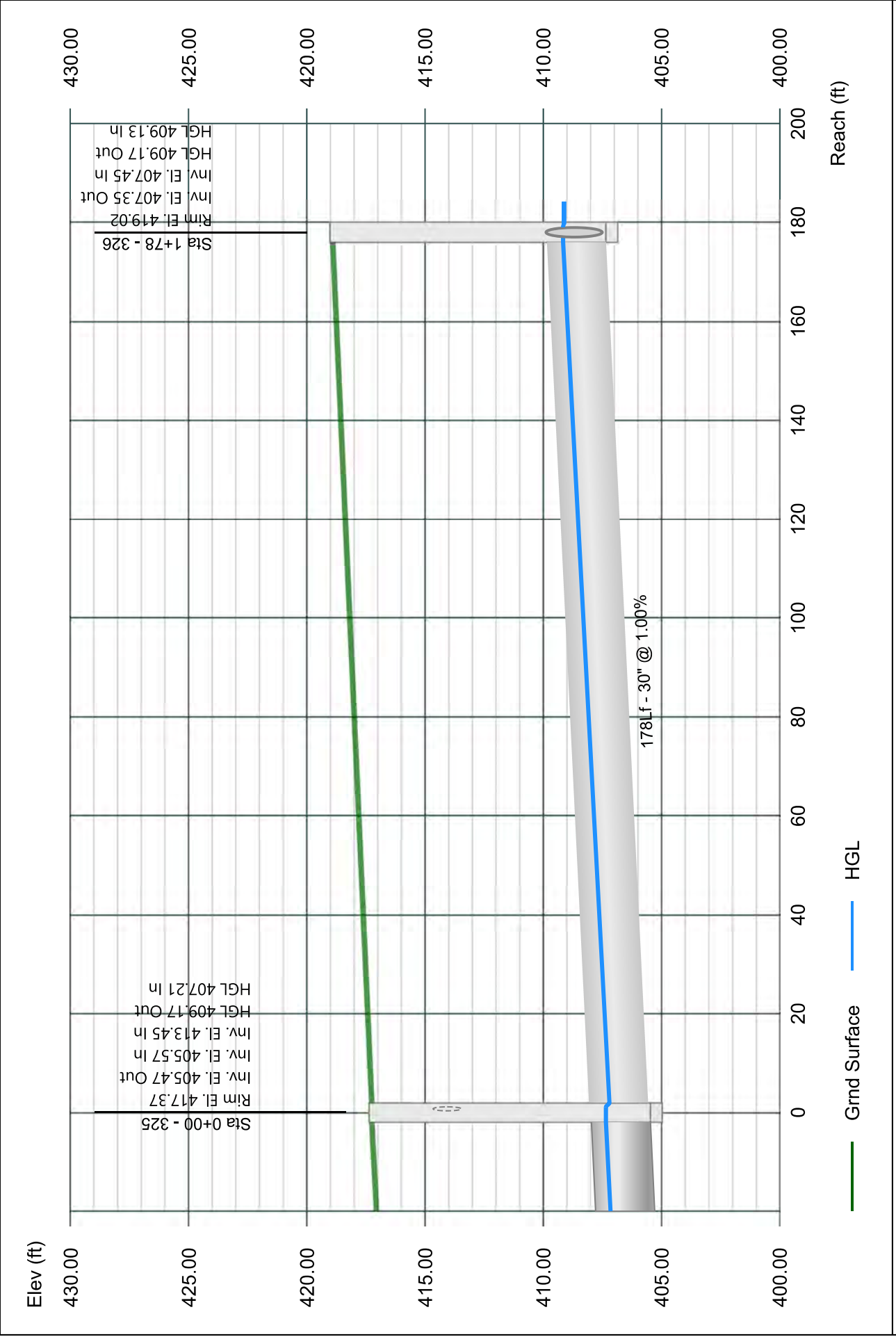


# Line 57 - 326 TO 325

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

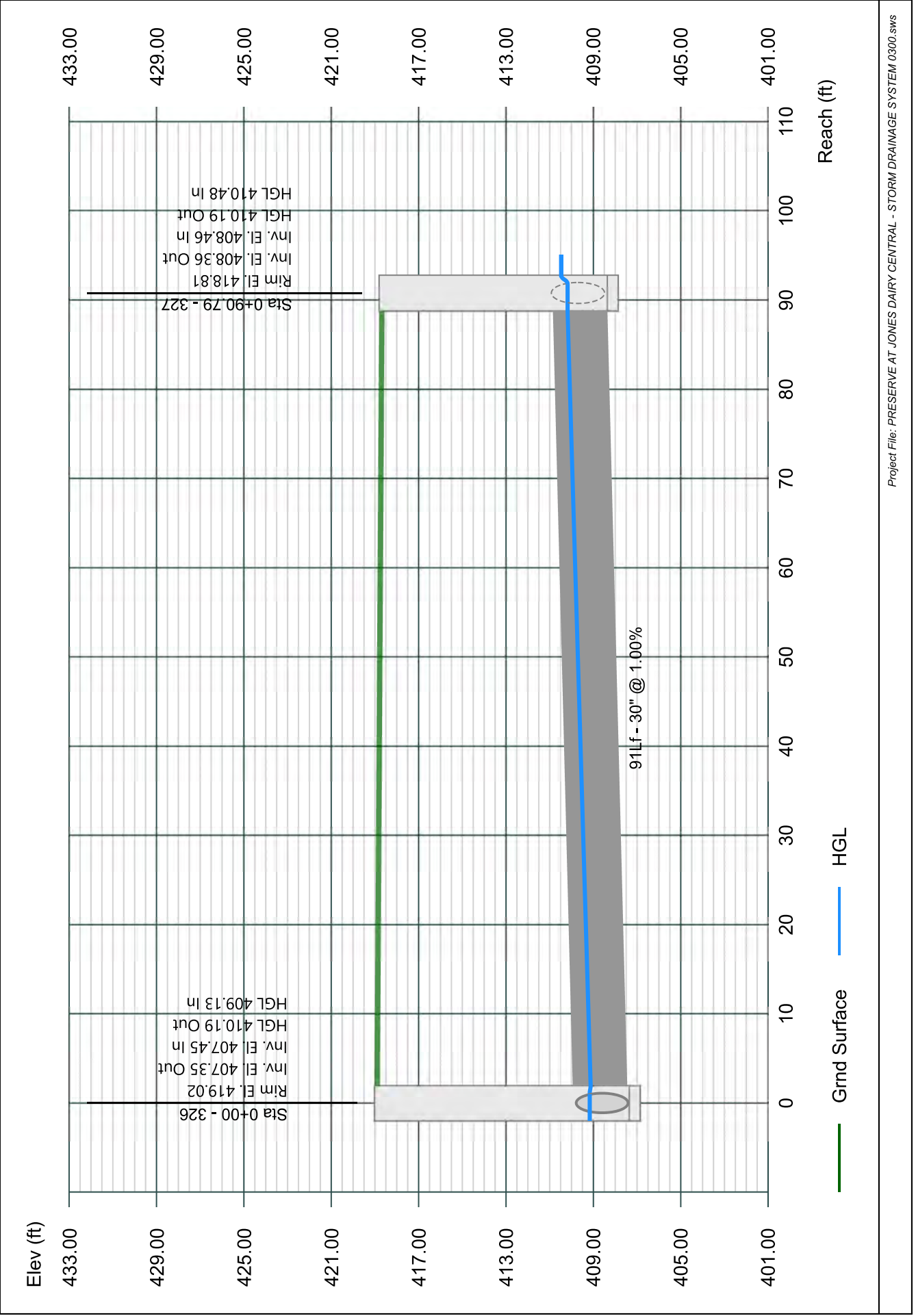


# Line 58 - 327 TO 326

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

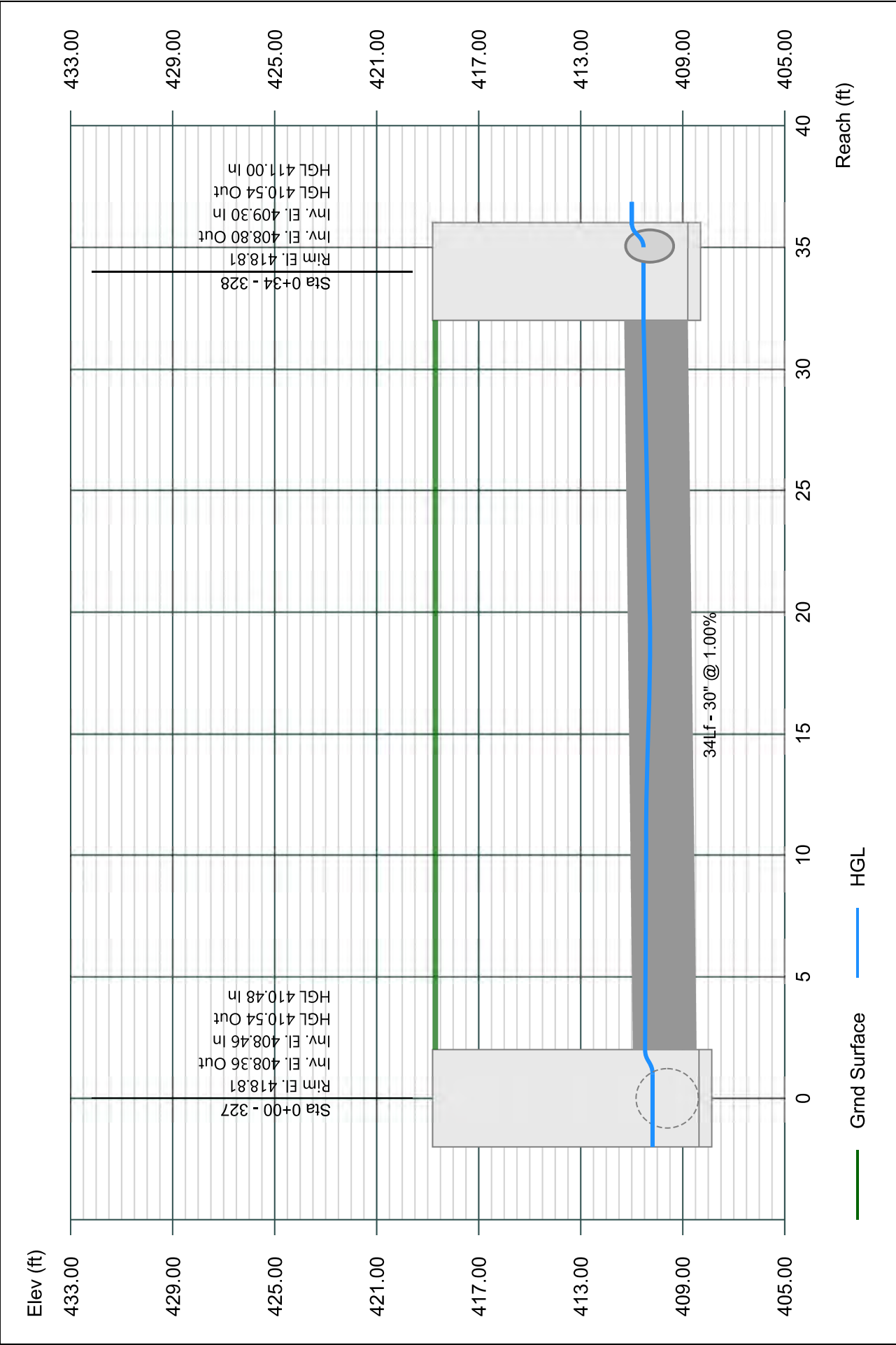


# Line 59 - 328 TO 327

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

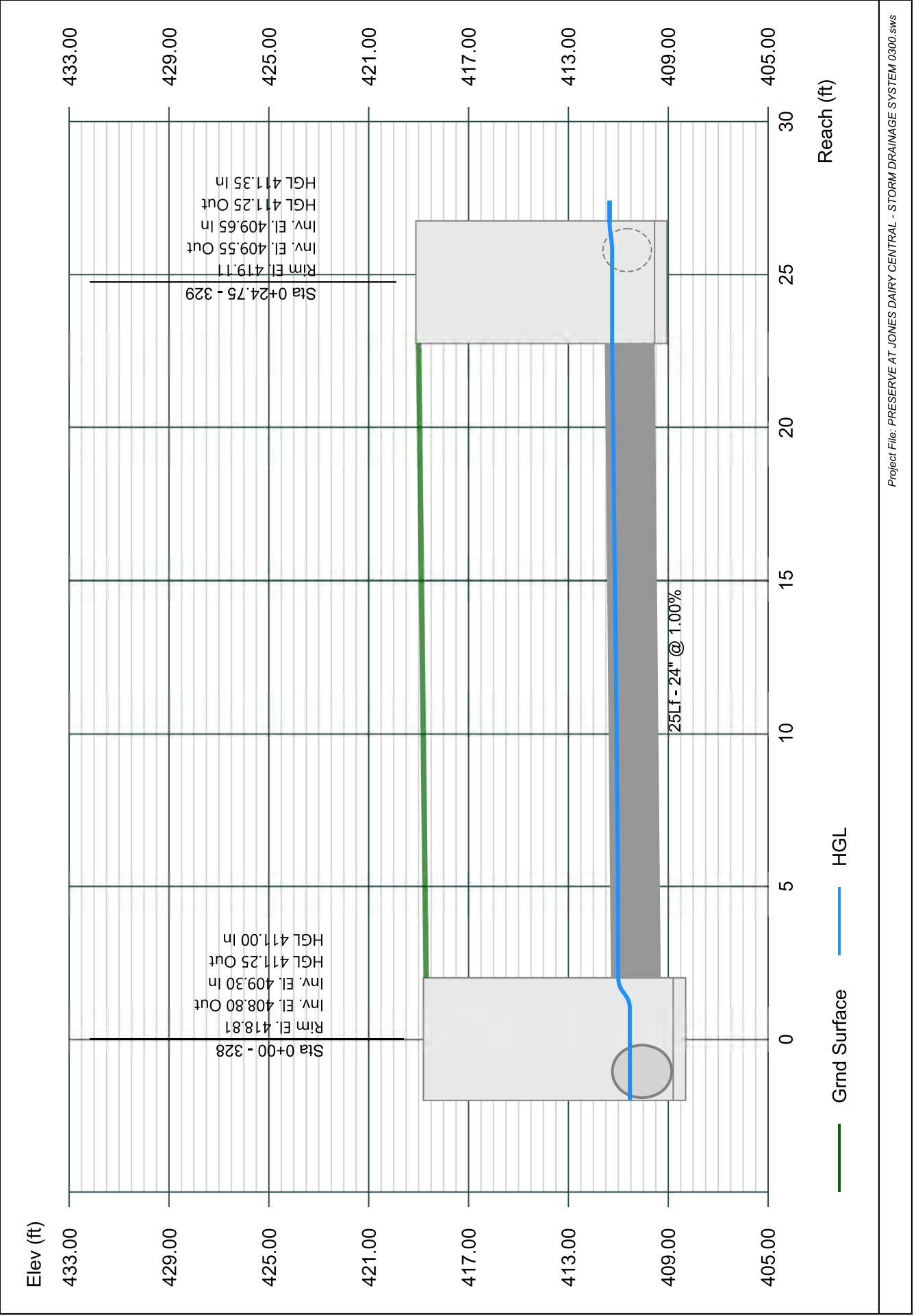


# Line 60 - 329 TO 328

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

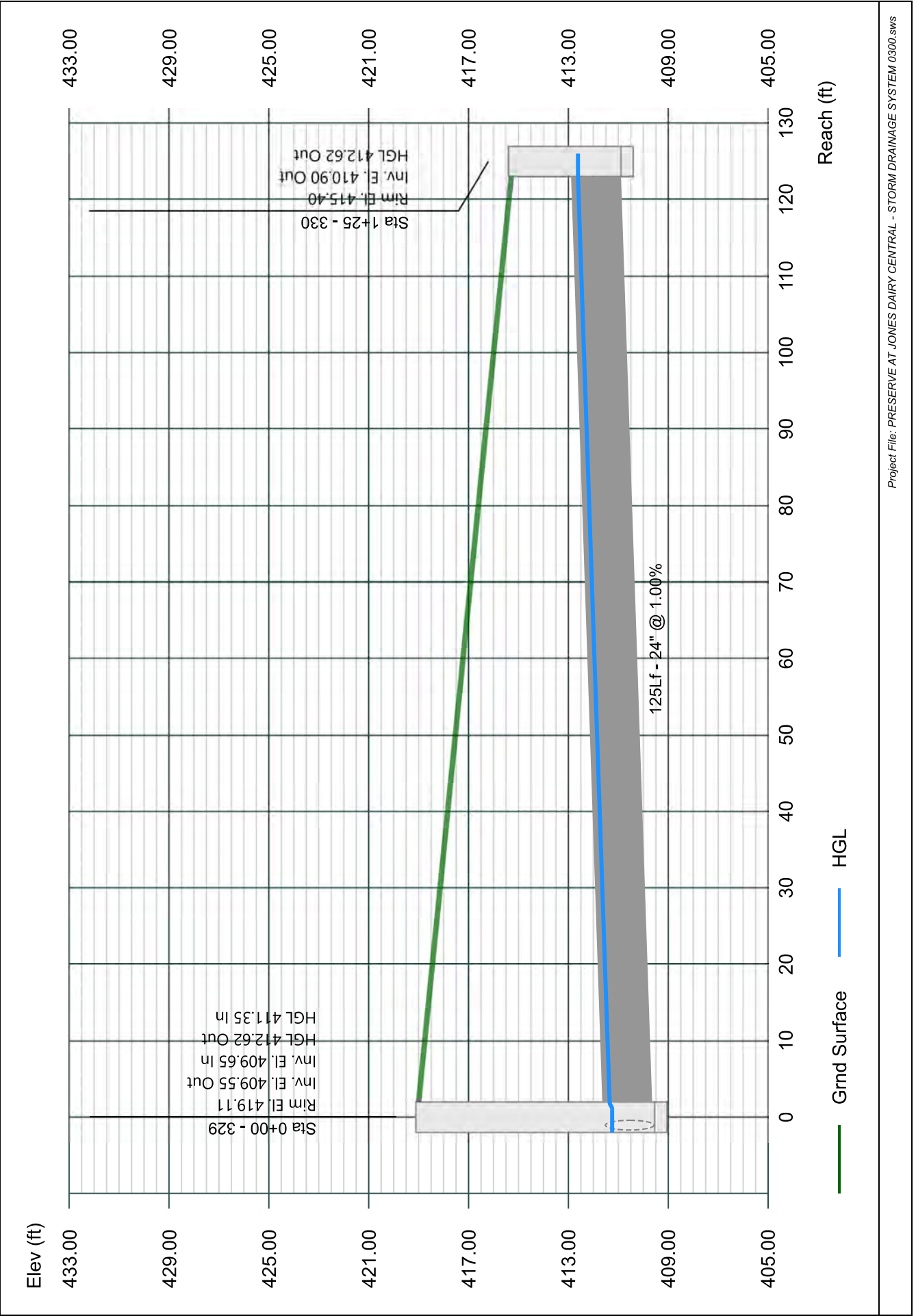


# Line 61 - 330 TO 329

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

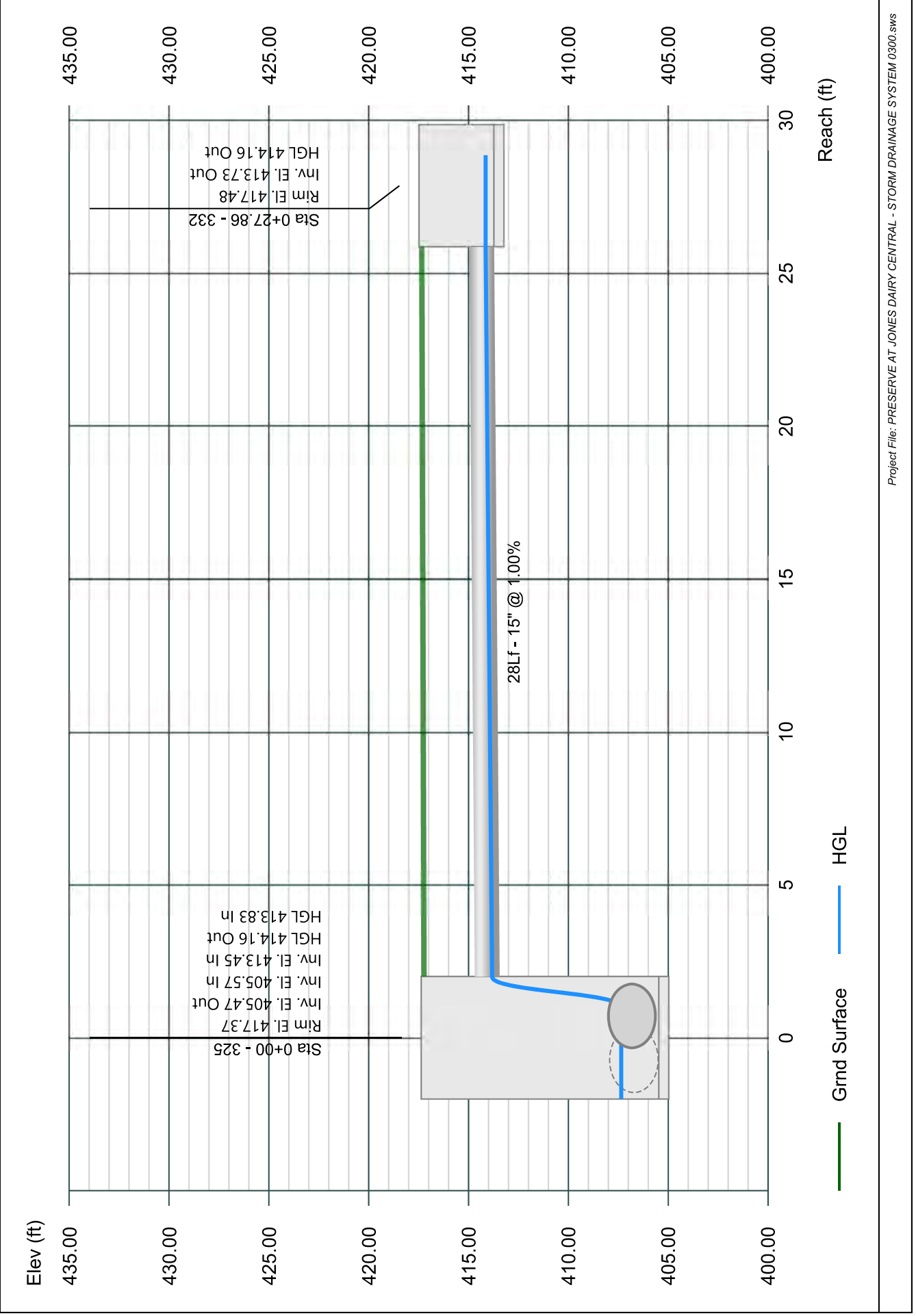


# Line 62 - 332 TO 325

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

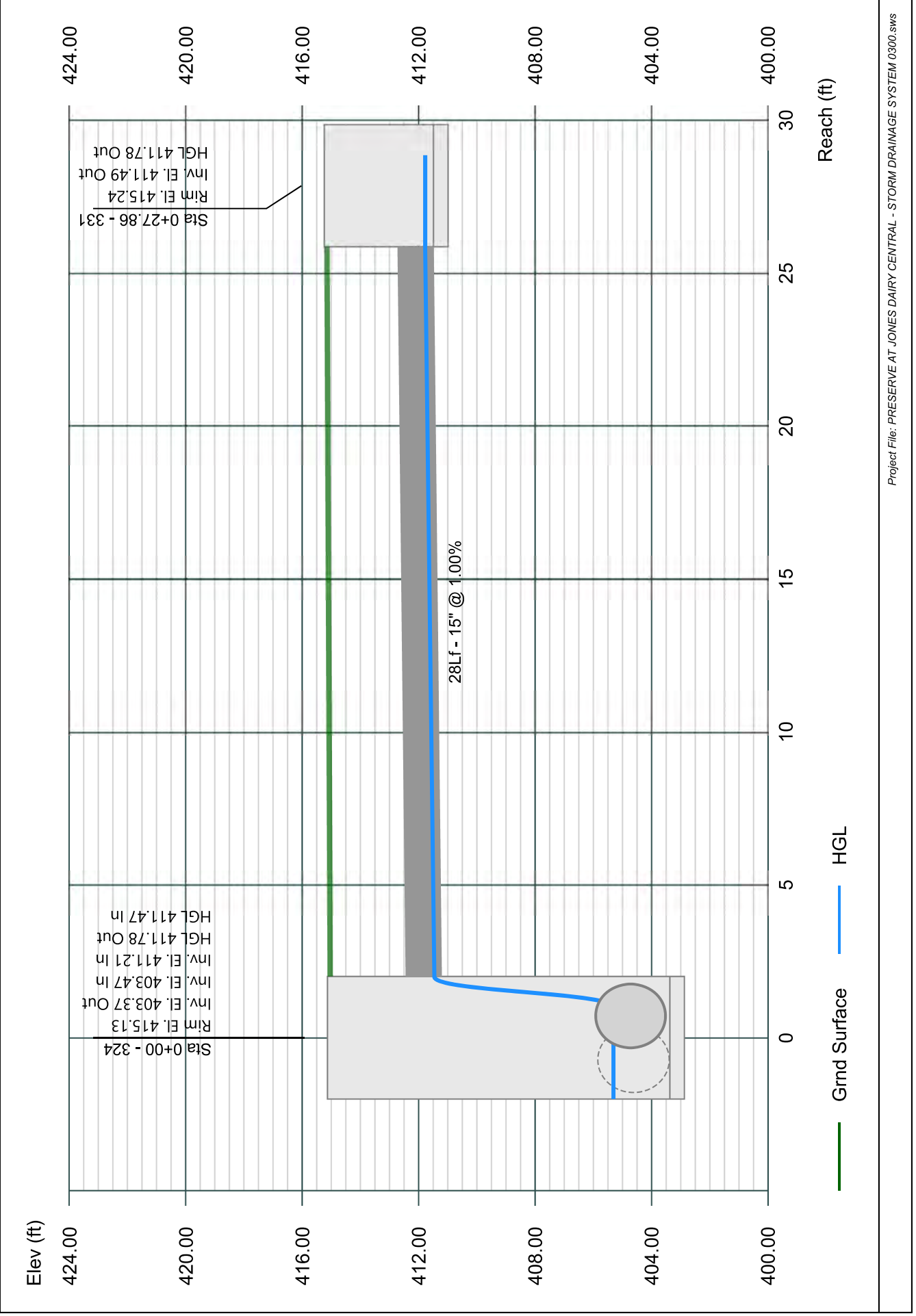


# Line 63 - 331 TO 324

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



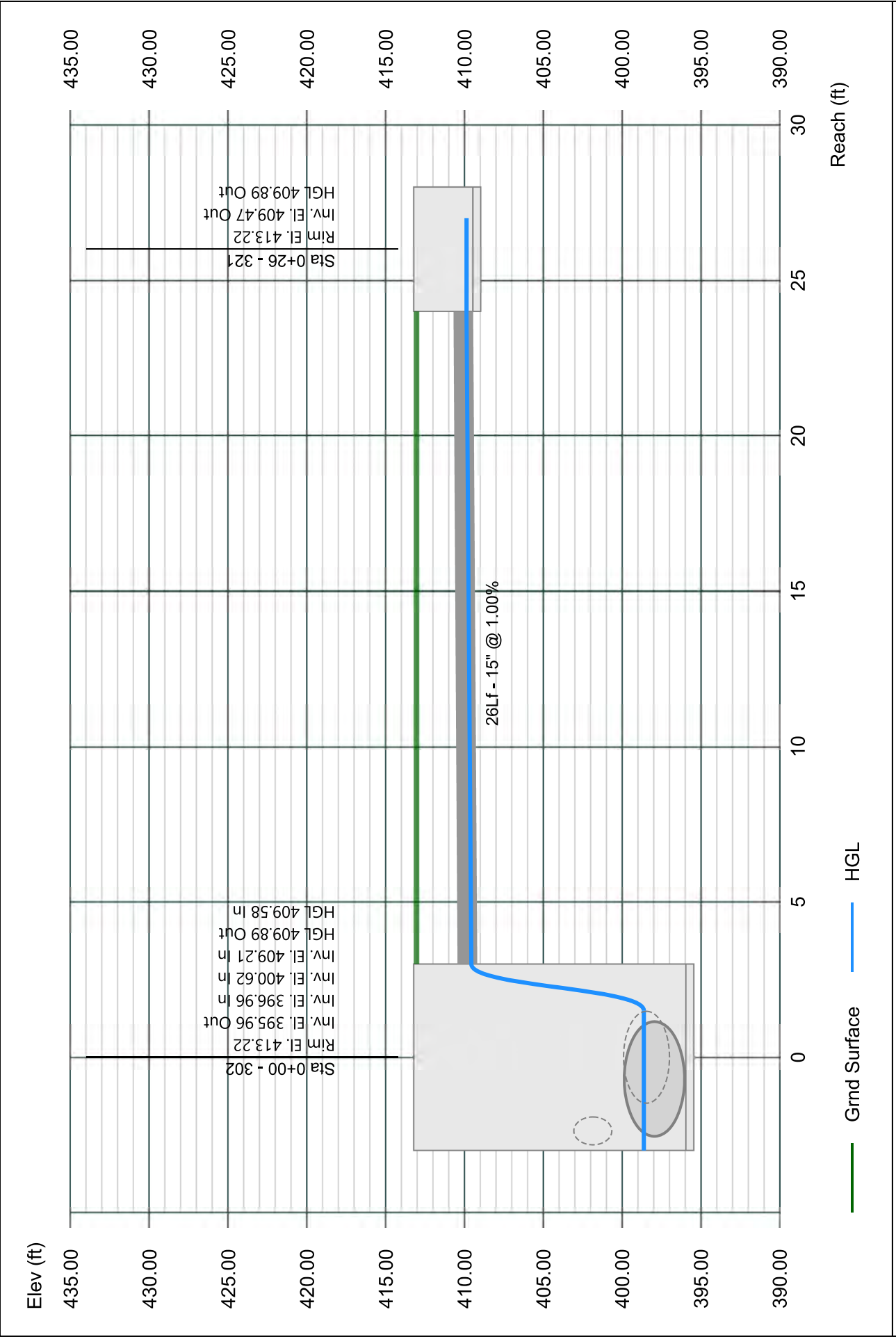


# Line 64 - 321 TO 302

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

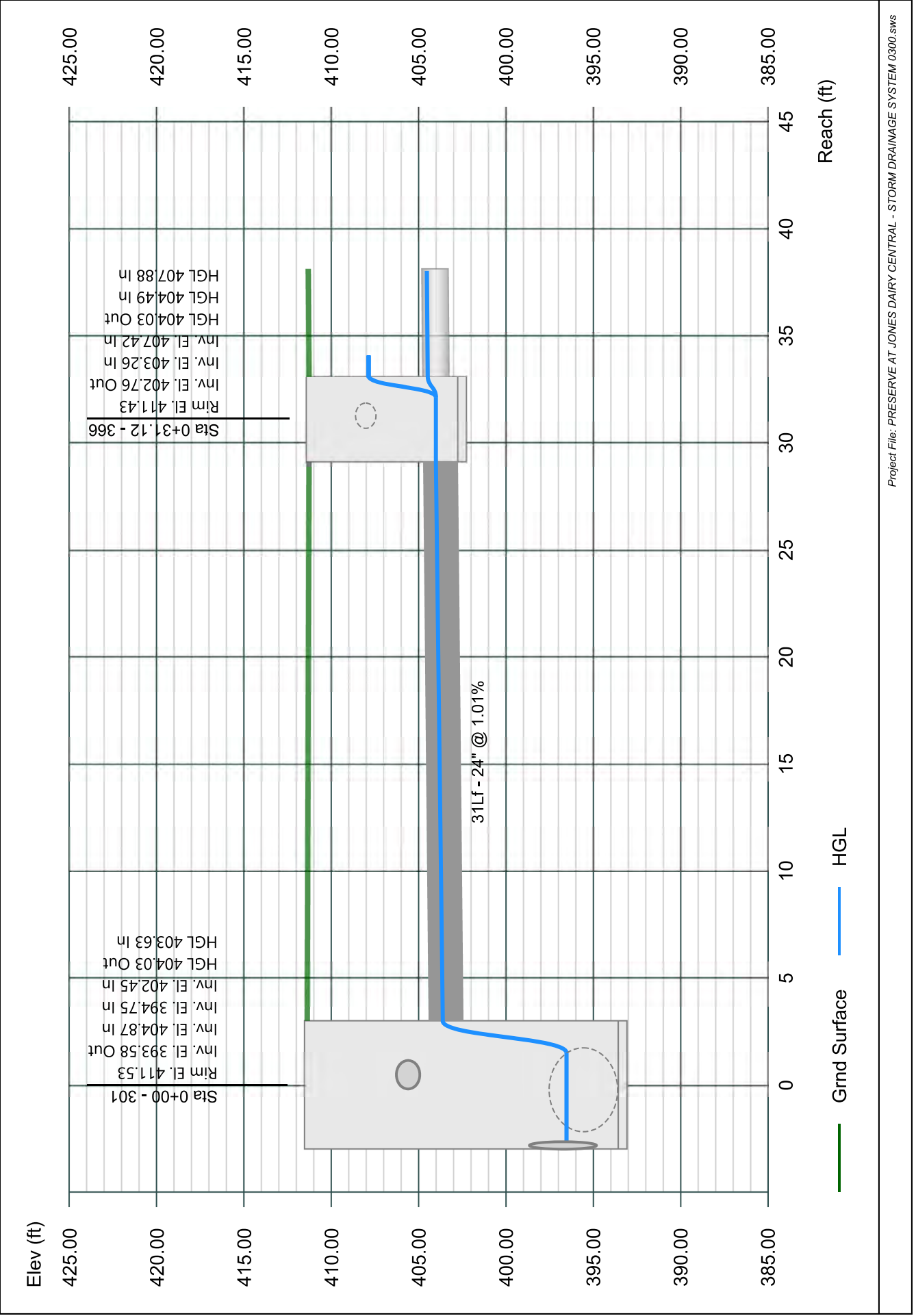


# Line 65 - 366 TO 301

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

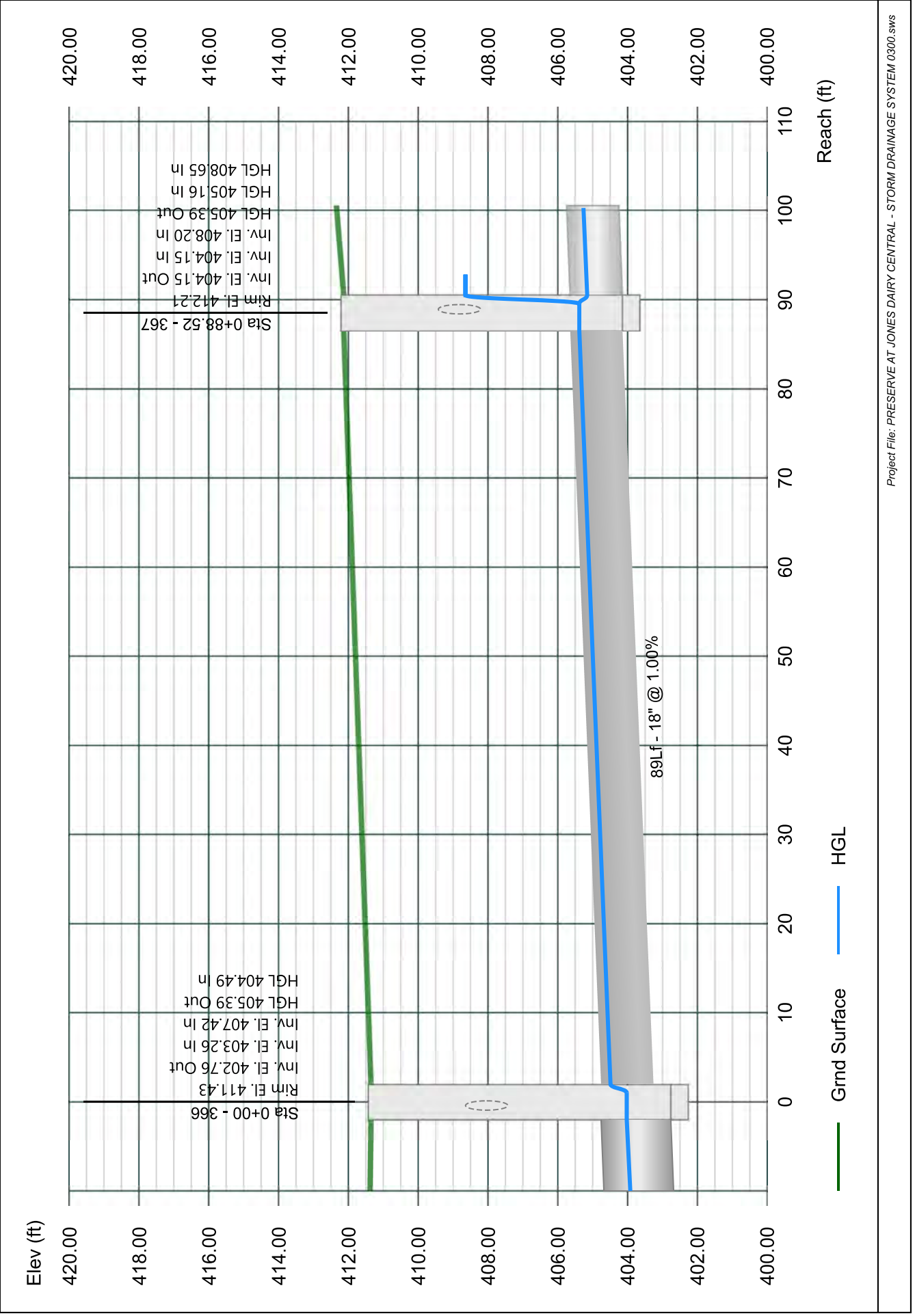


# Line 66 - 367 TO 366

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

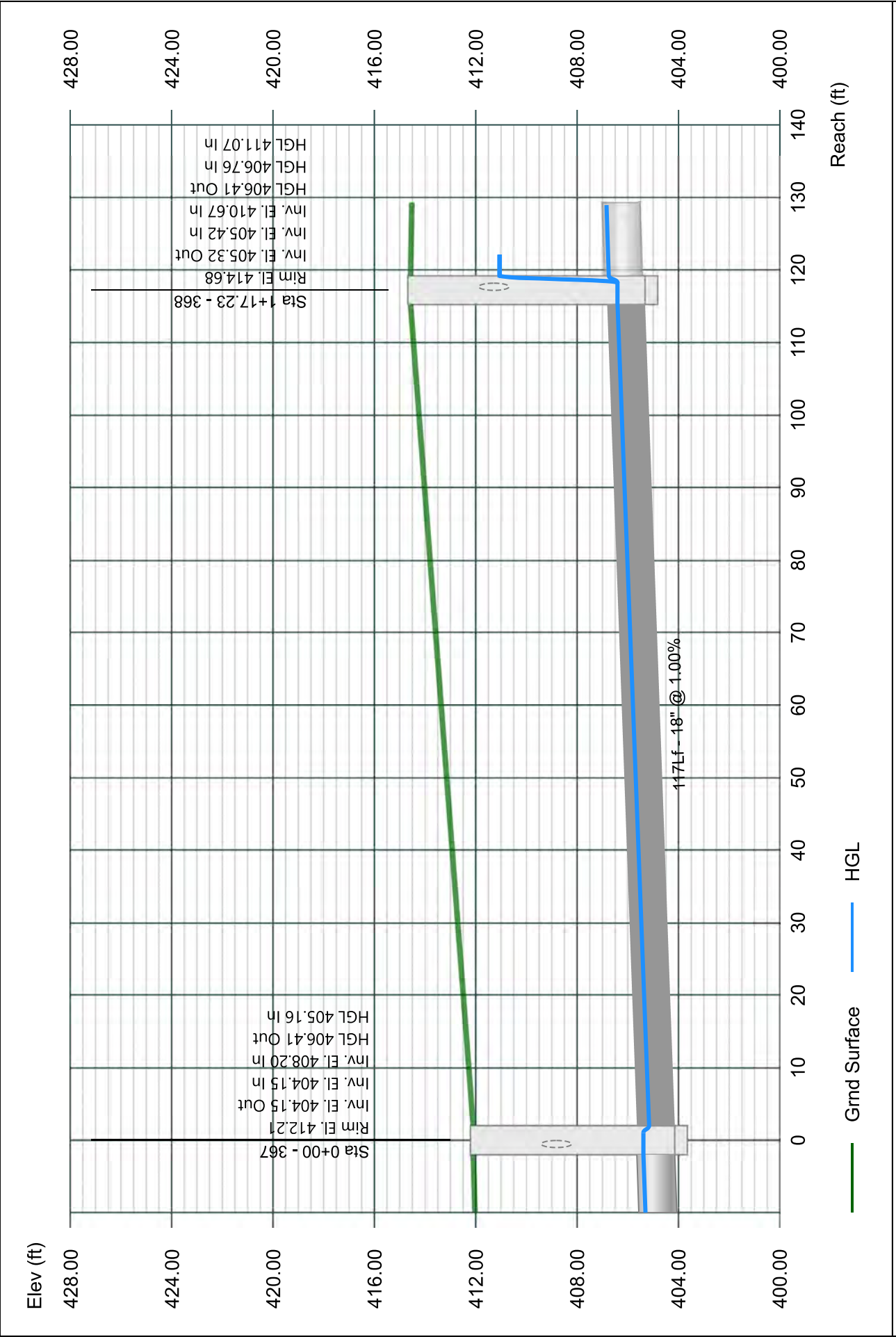


# Line 67 - 368 TO 367

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

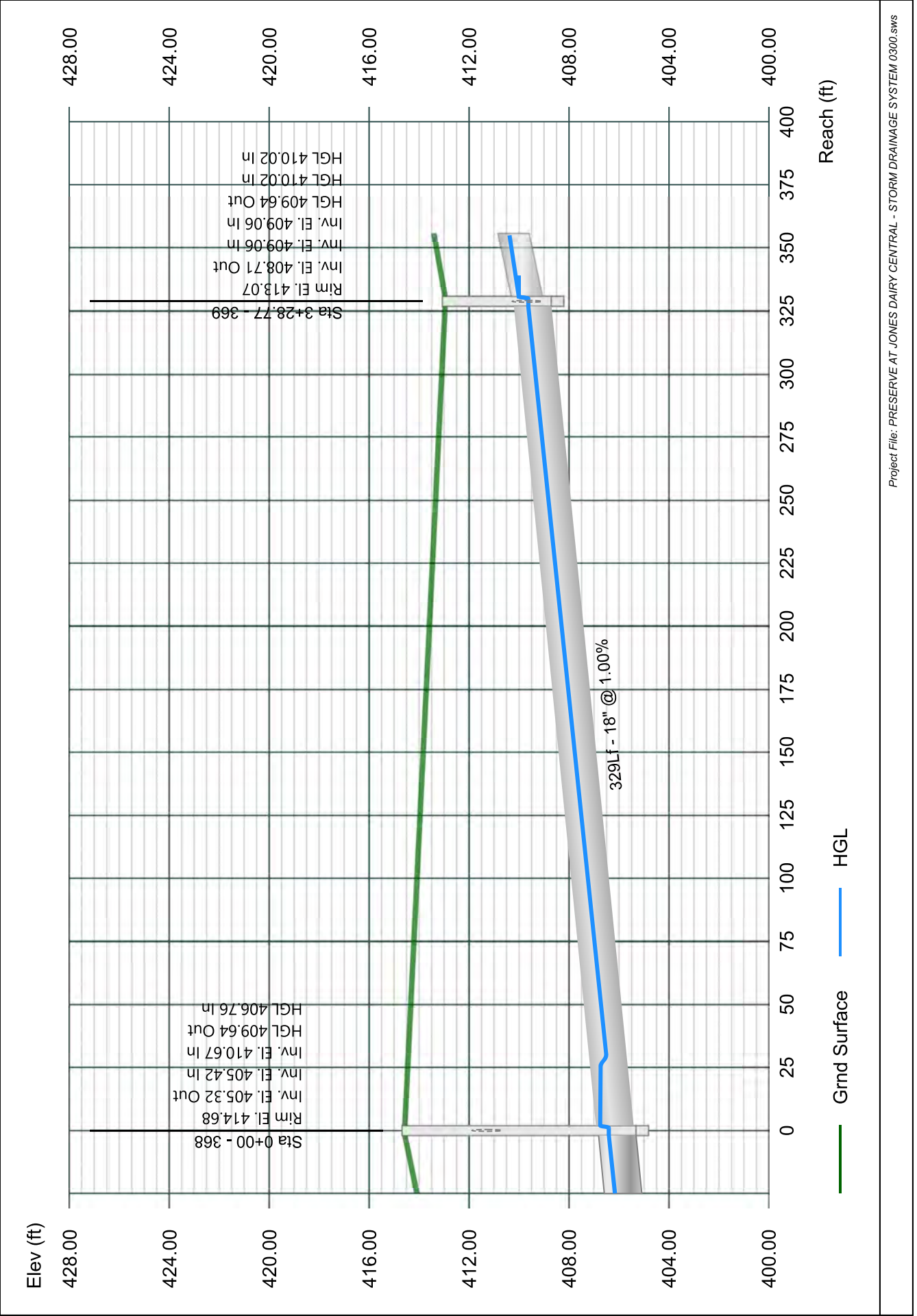


# Line 68 - 368 TO 368

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

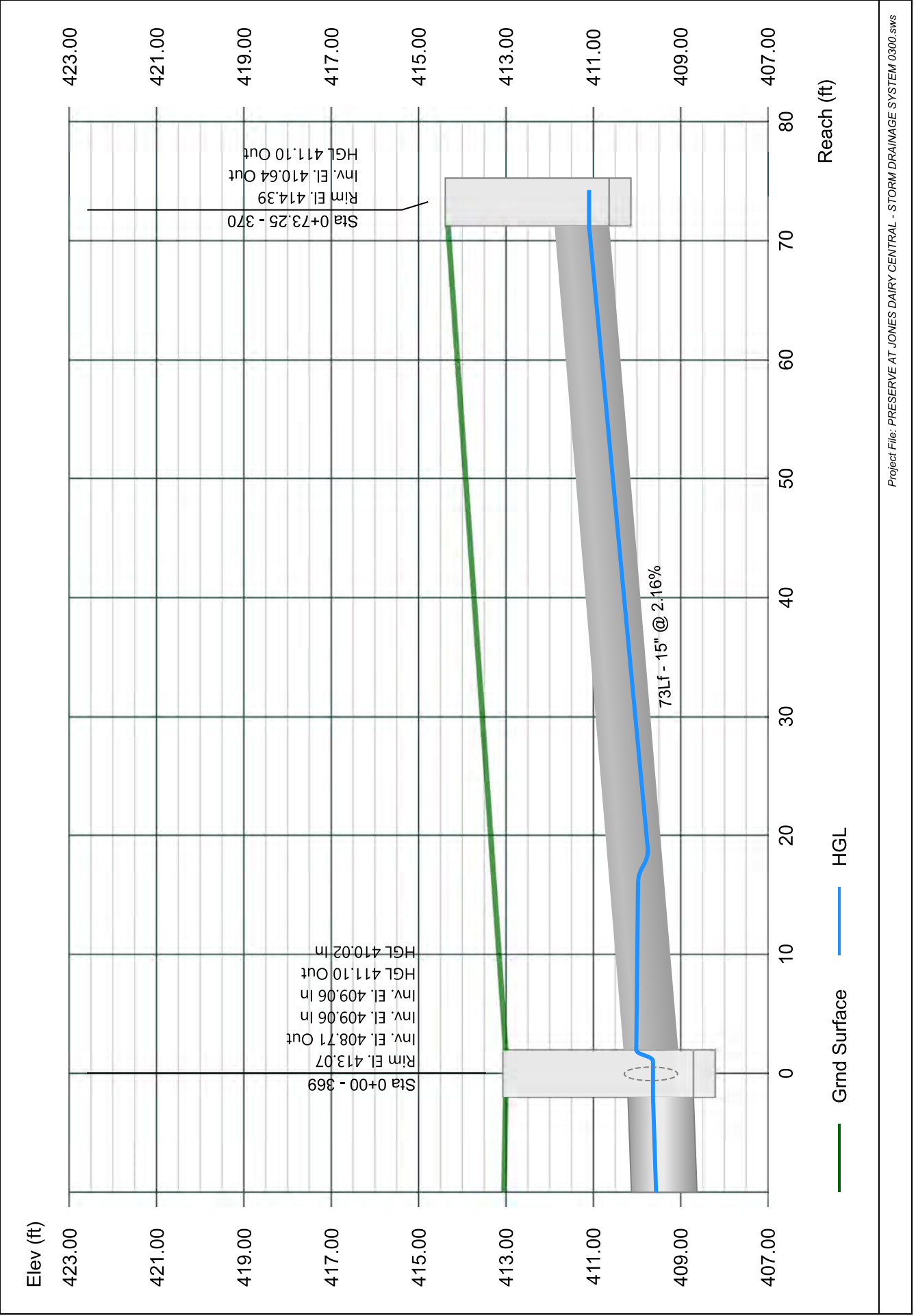


# Line 69 - 370 TO 369

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

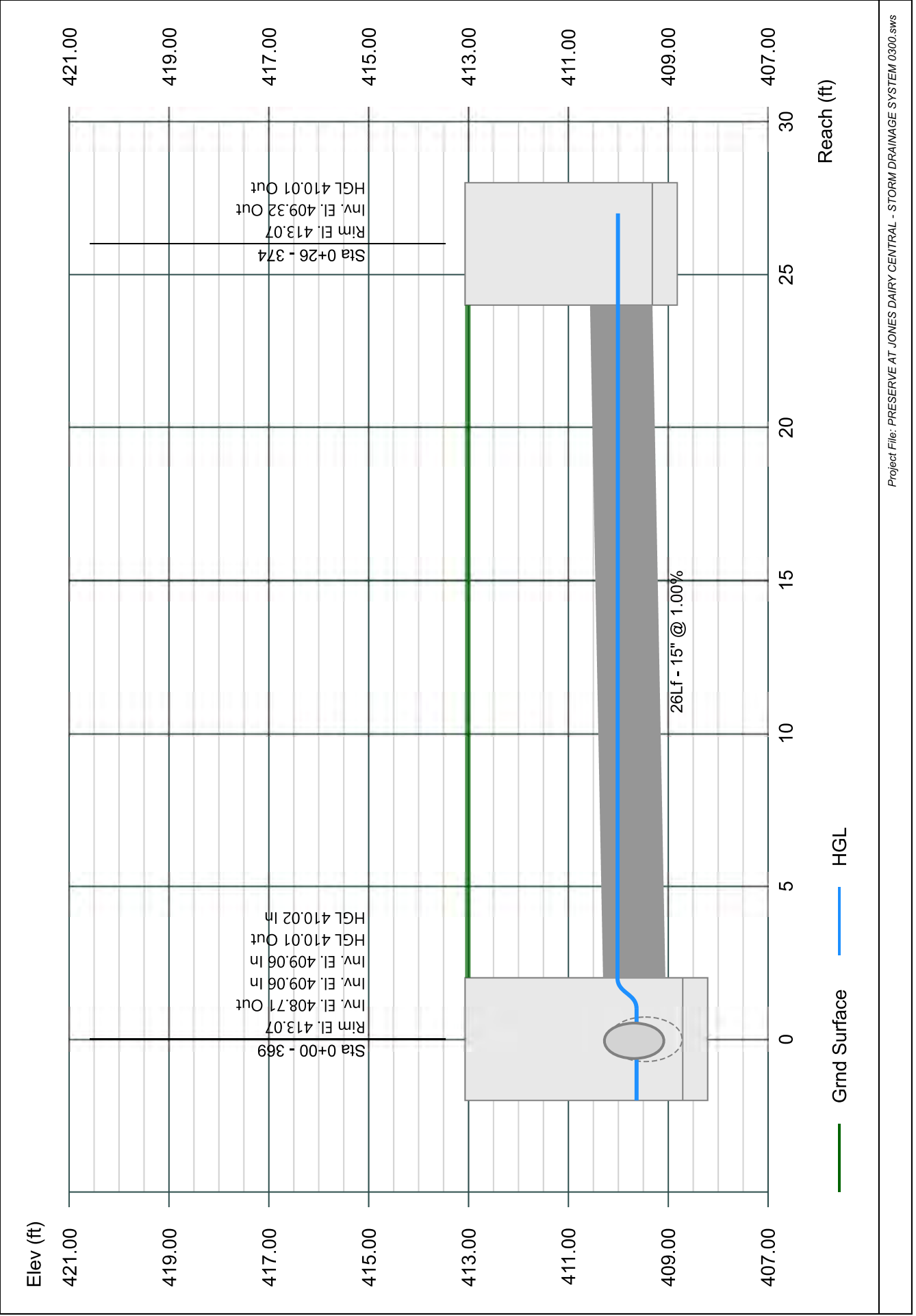


# Line 70 - 374 TO 369

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

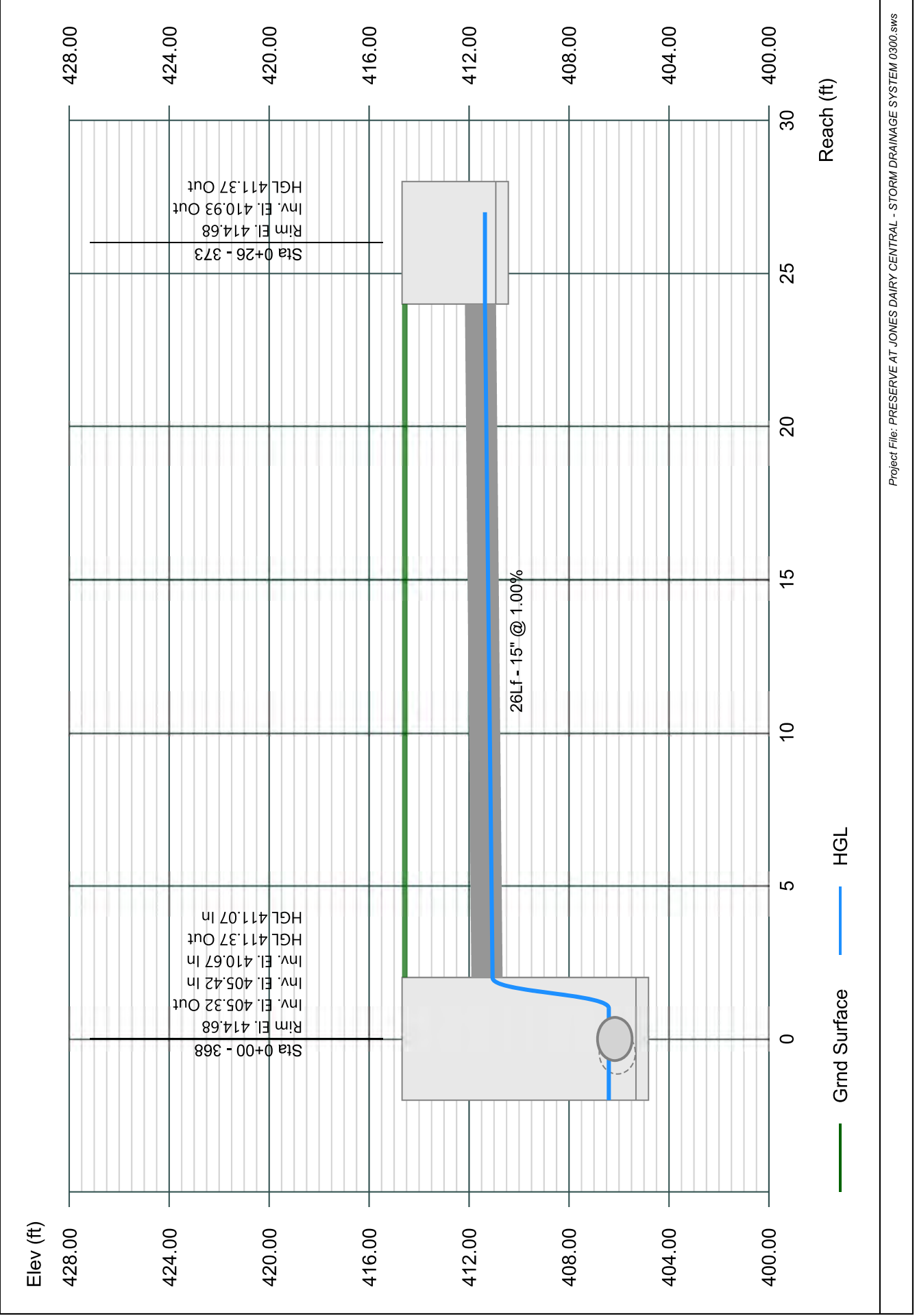


# Line 71 - 383 TO 368

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



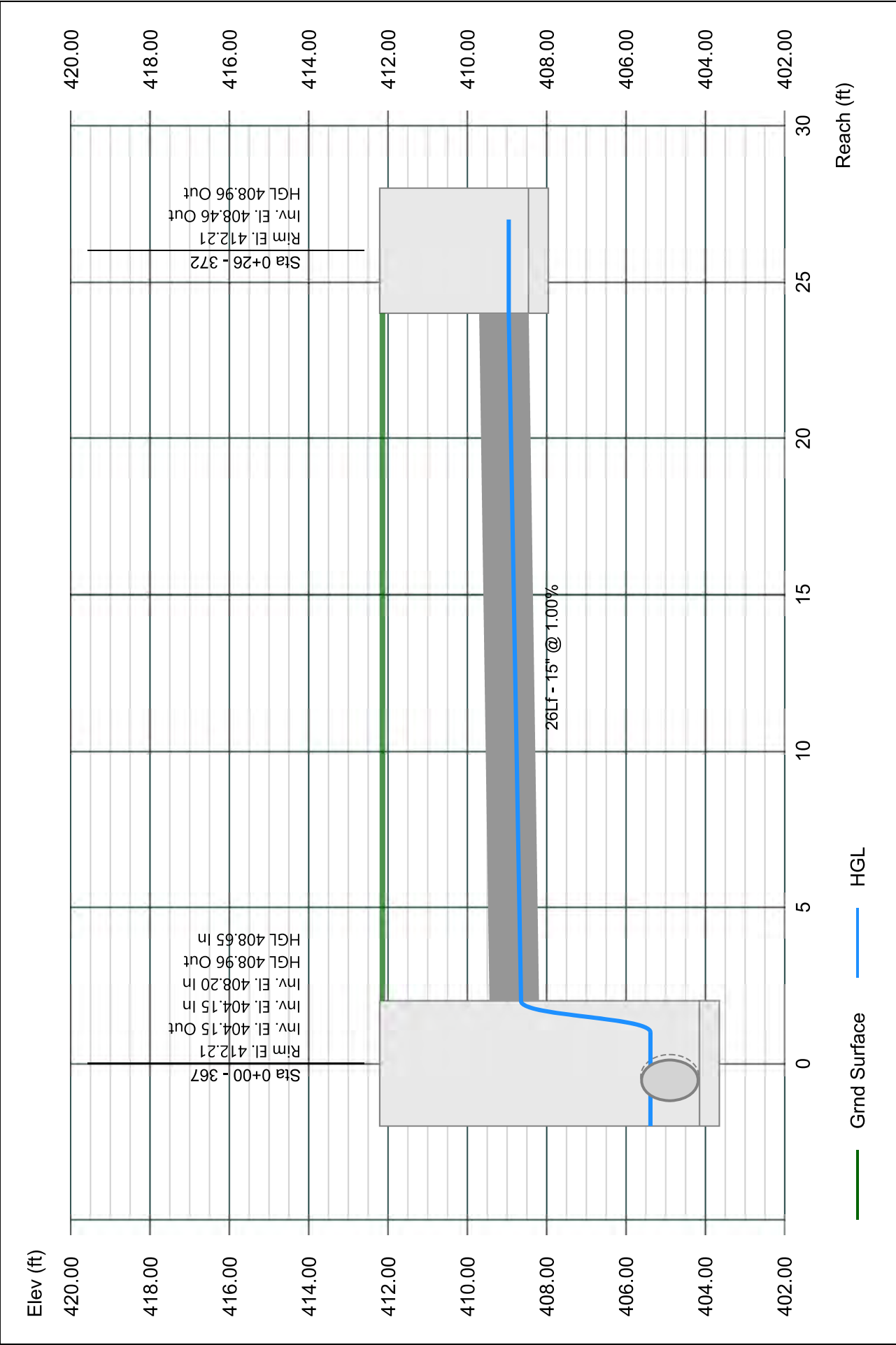


# Line 72 - 372 TO 367

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

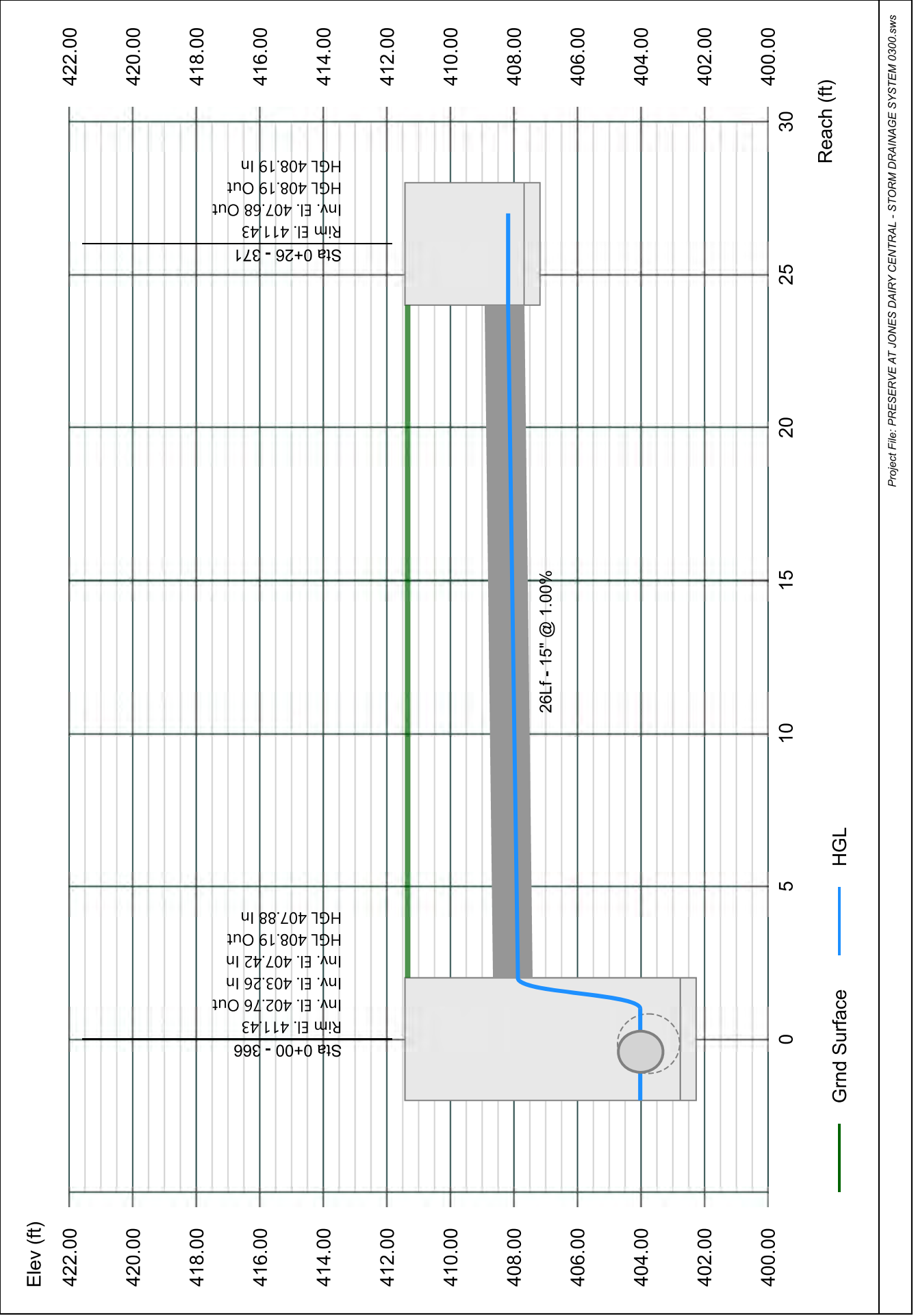


# Line 73 - 371 TO 366

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



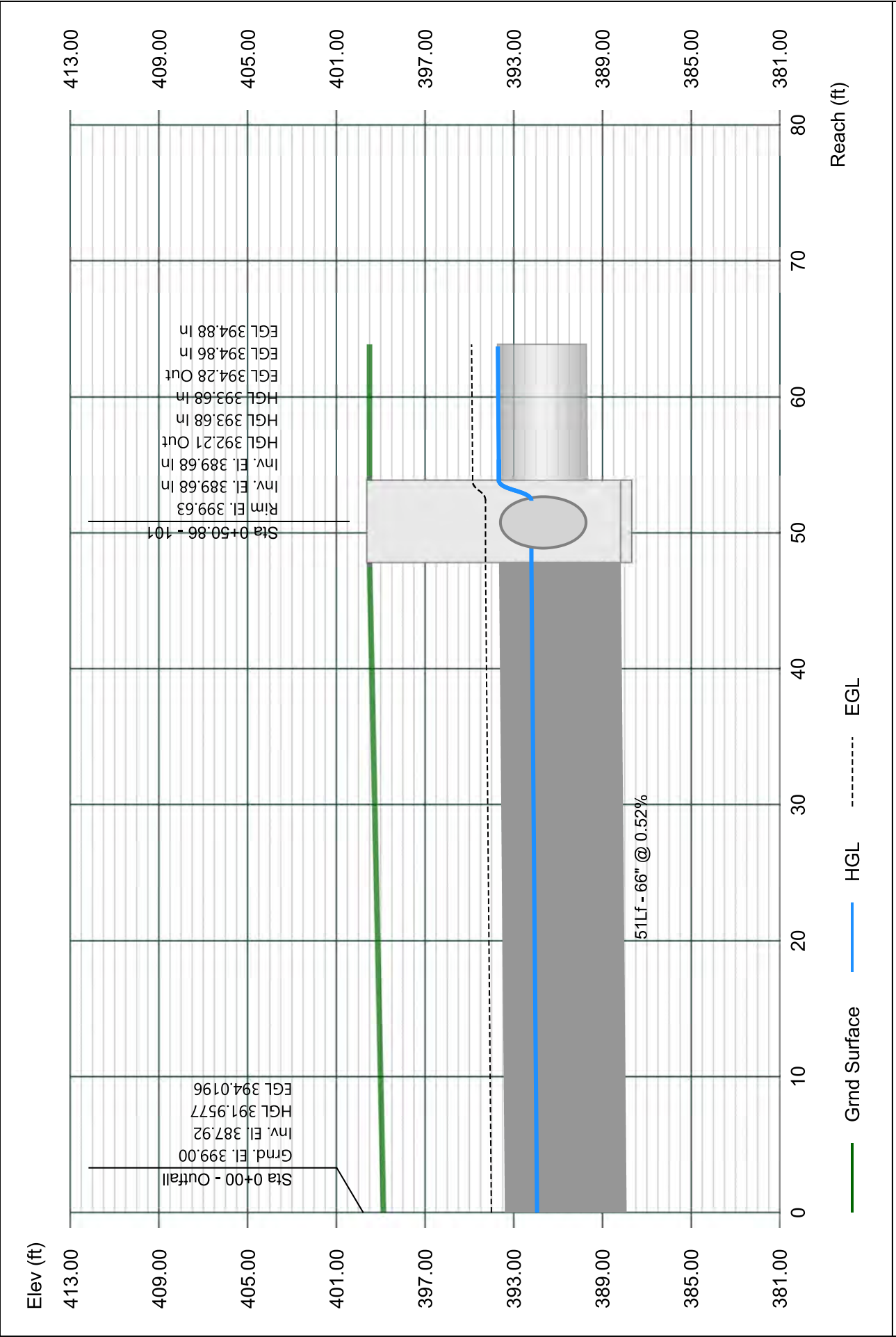
## 25-YEAR HGL

# Line 1 - 101 TO 100

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

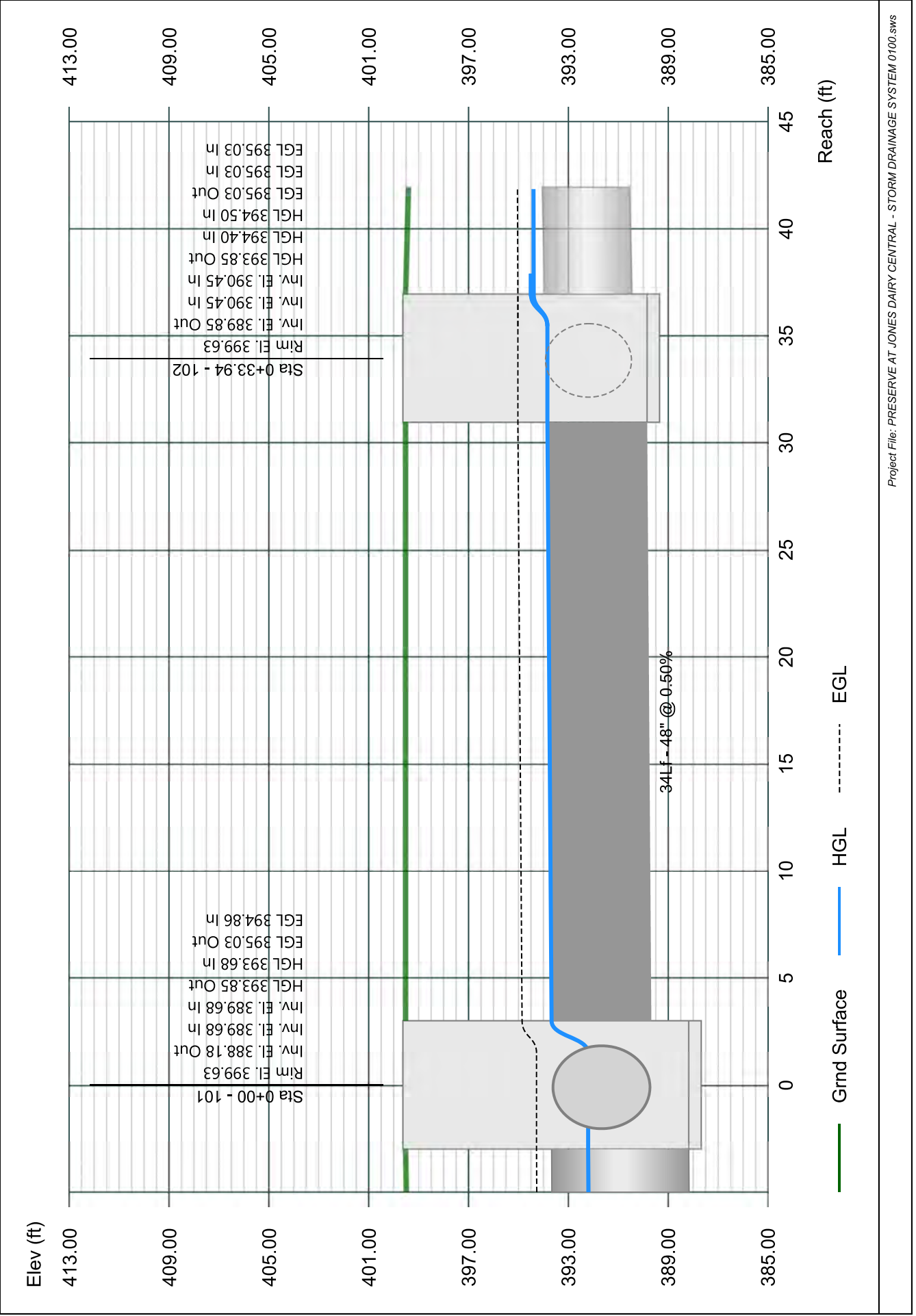


# Line 2 - 102 TO 101

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

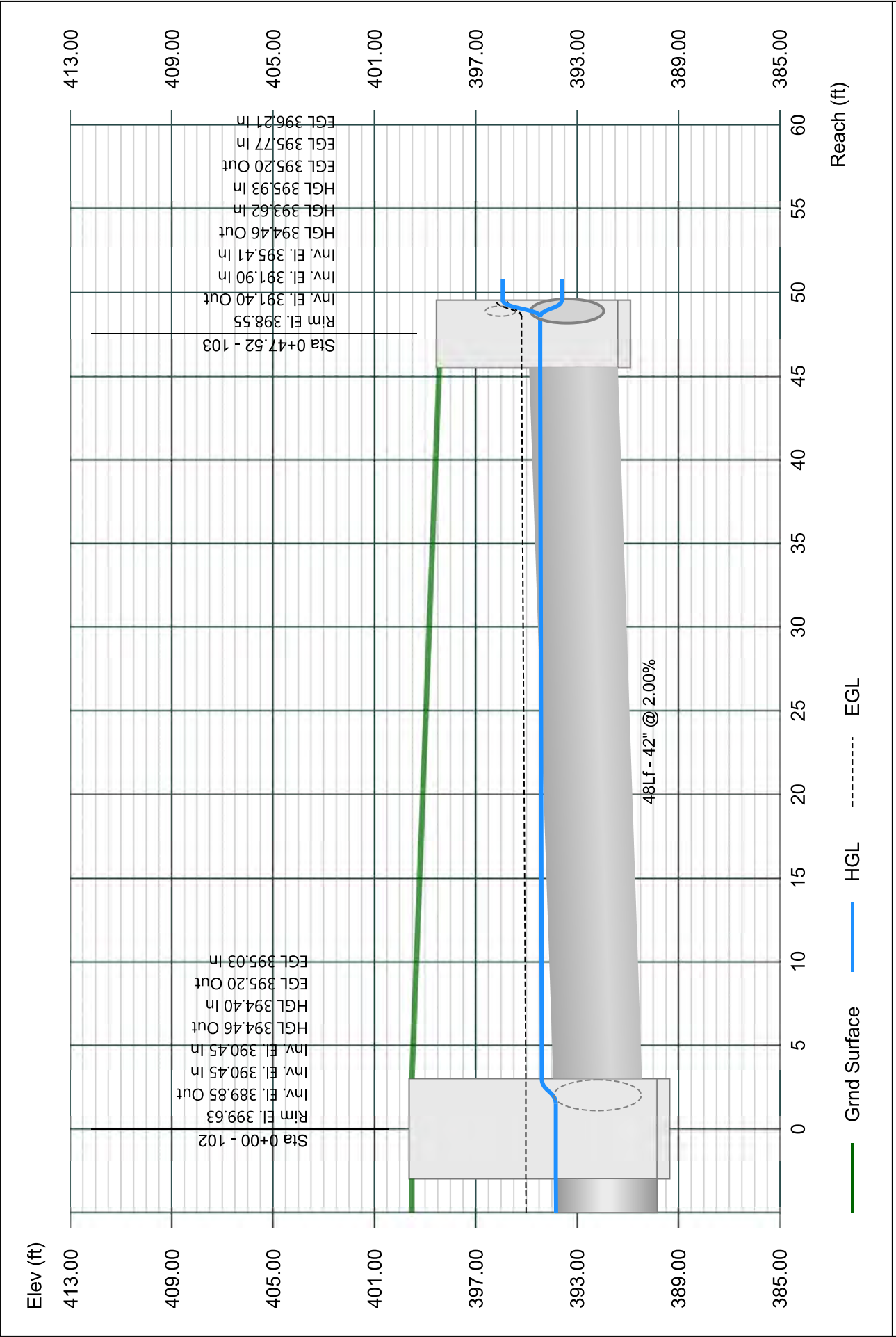


# Line 3 - 103 TO 102

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

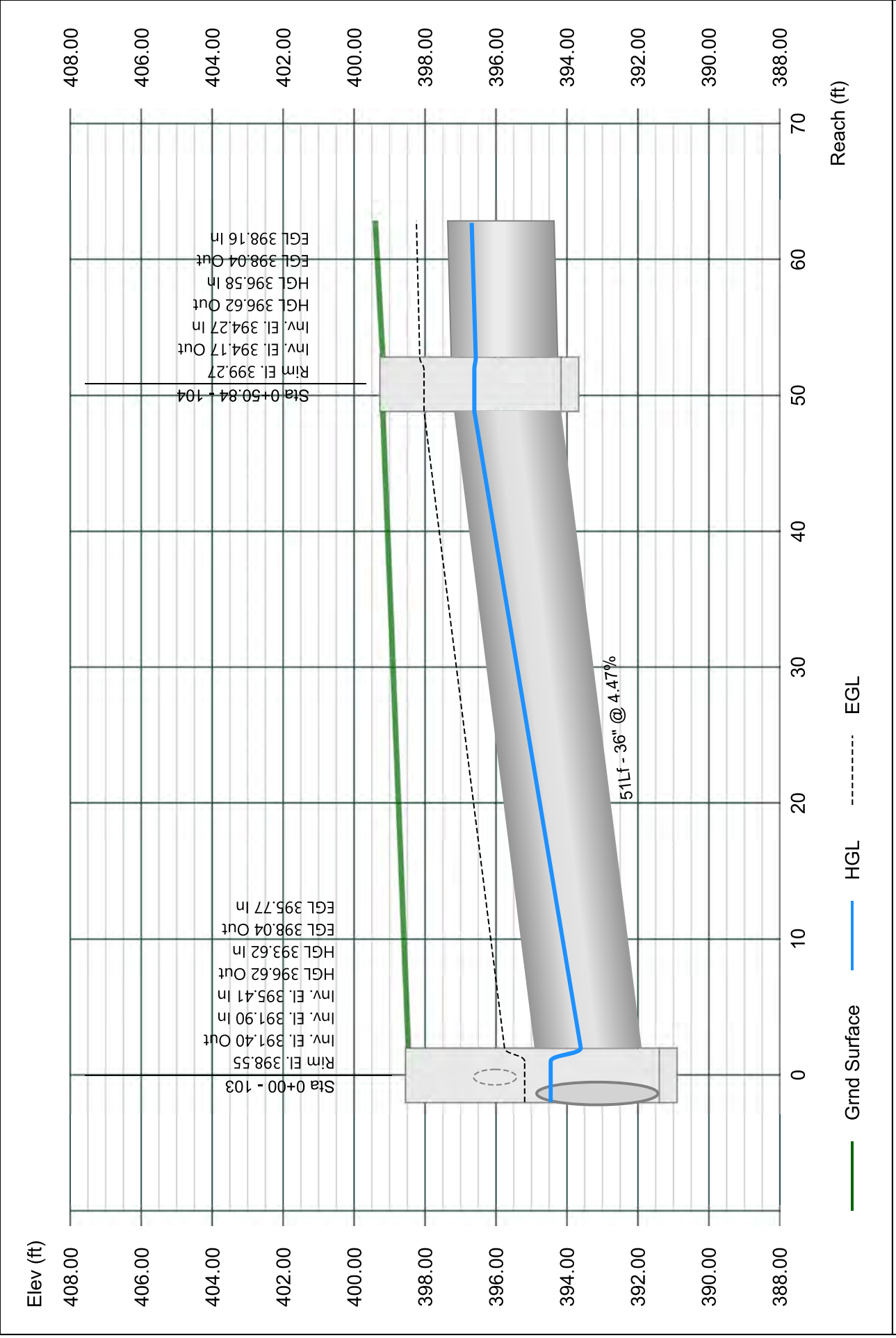


# Line 4 - 104 TO 103

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

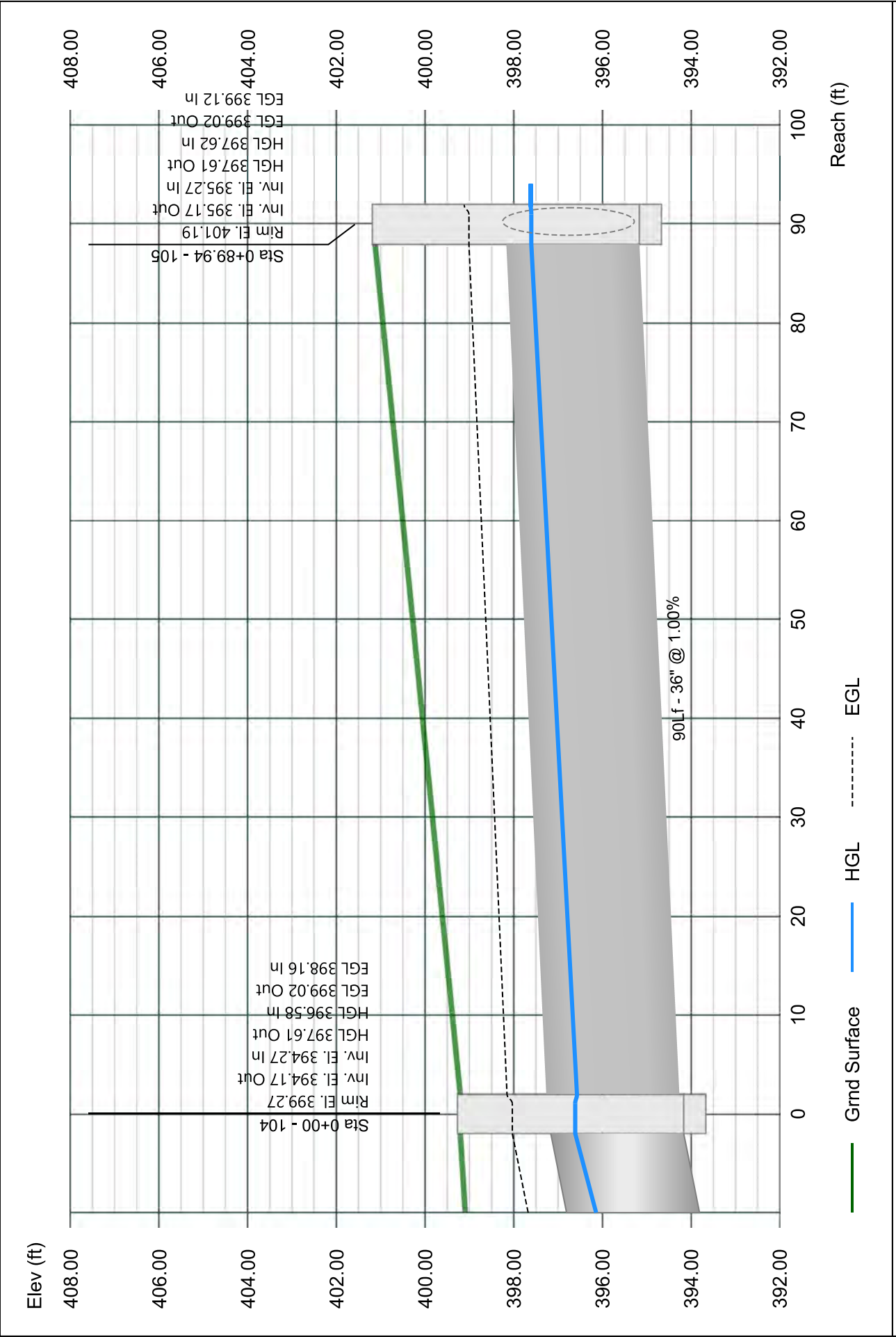


# Line 5 - 105 TO 104

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



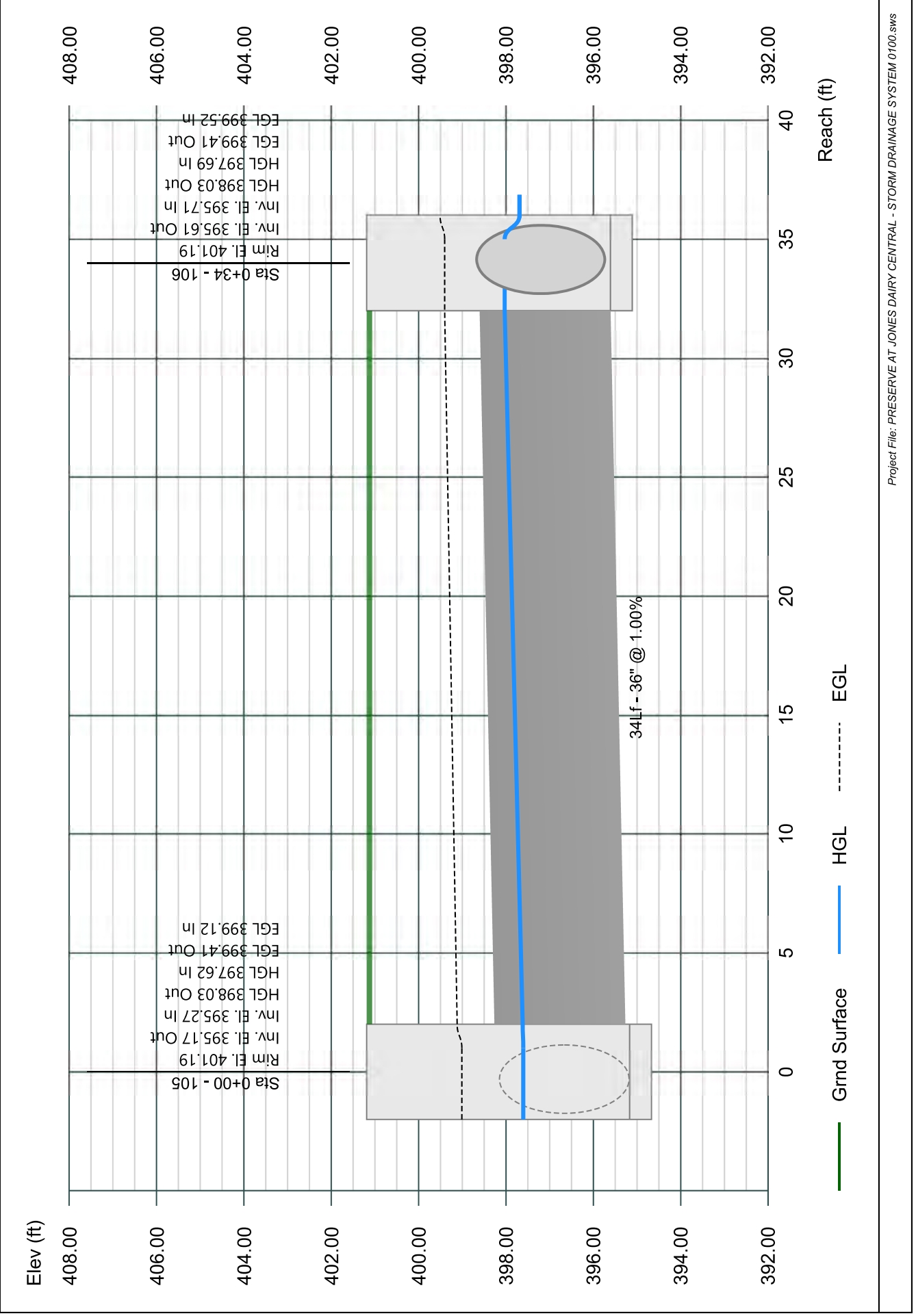


# Line 6 - 106 TO 105

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

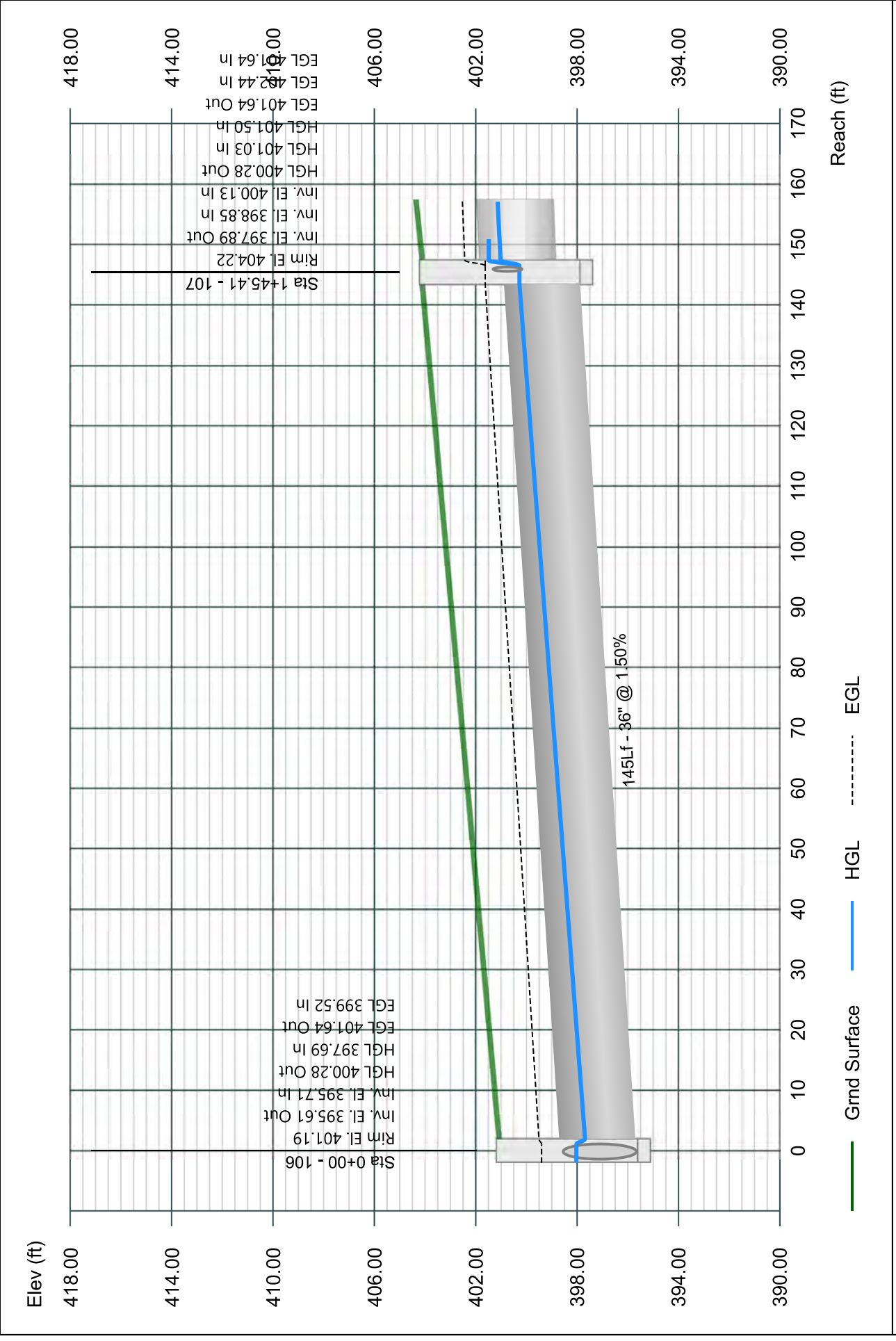


# Line 7 - 107 TO 106

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

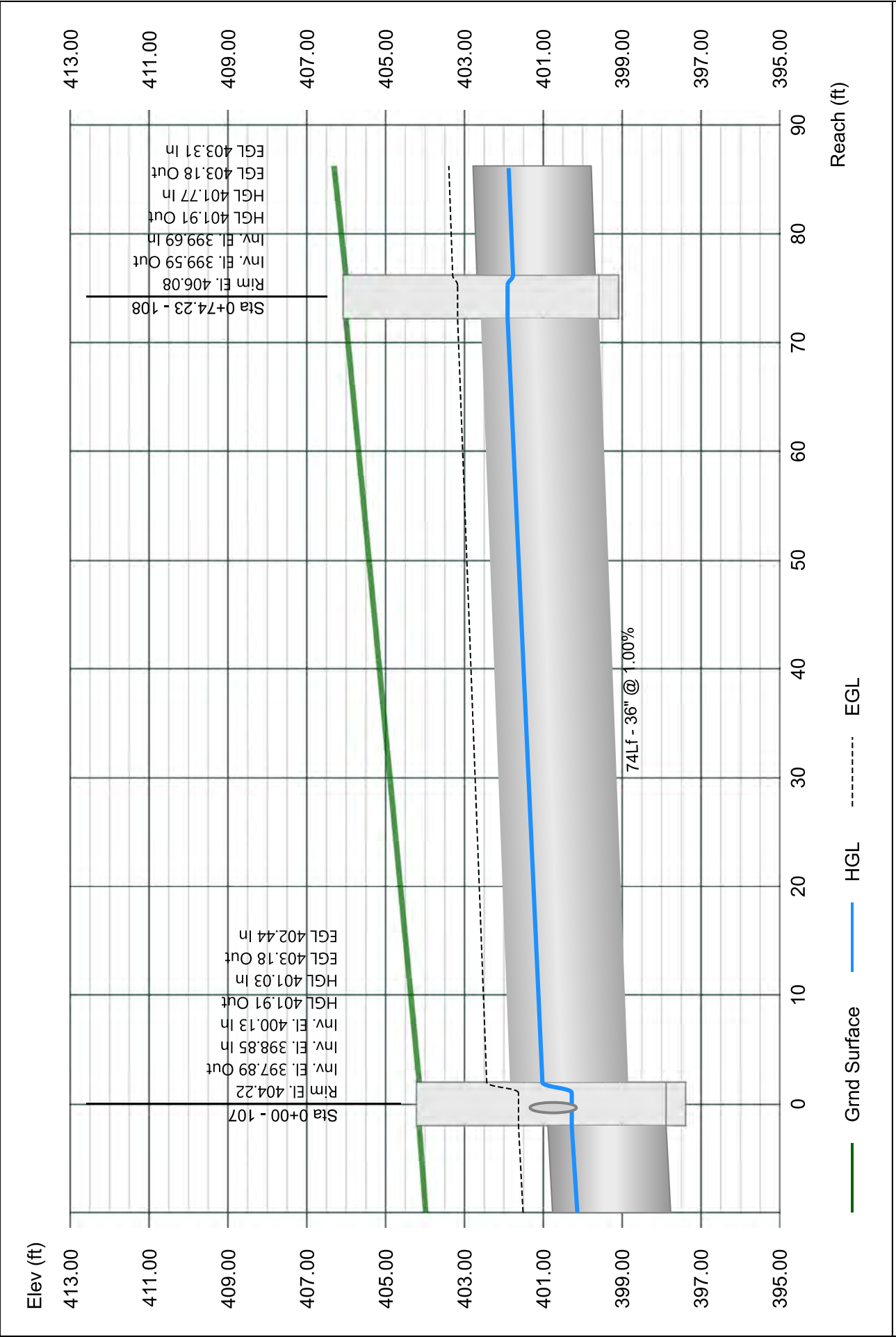


# Line 8 - 108 TO 107

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

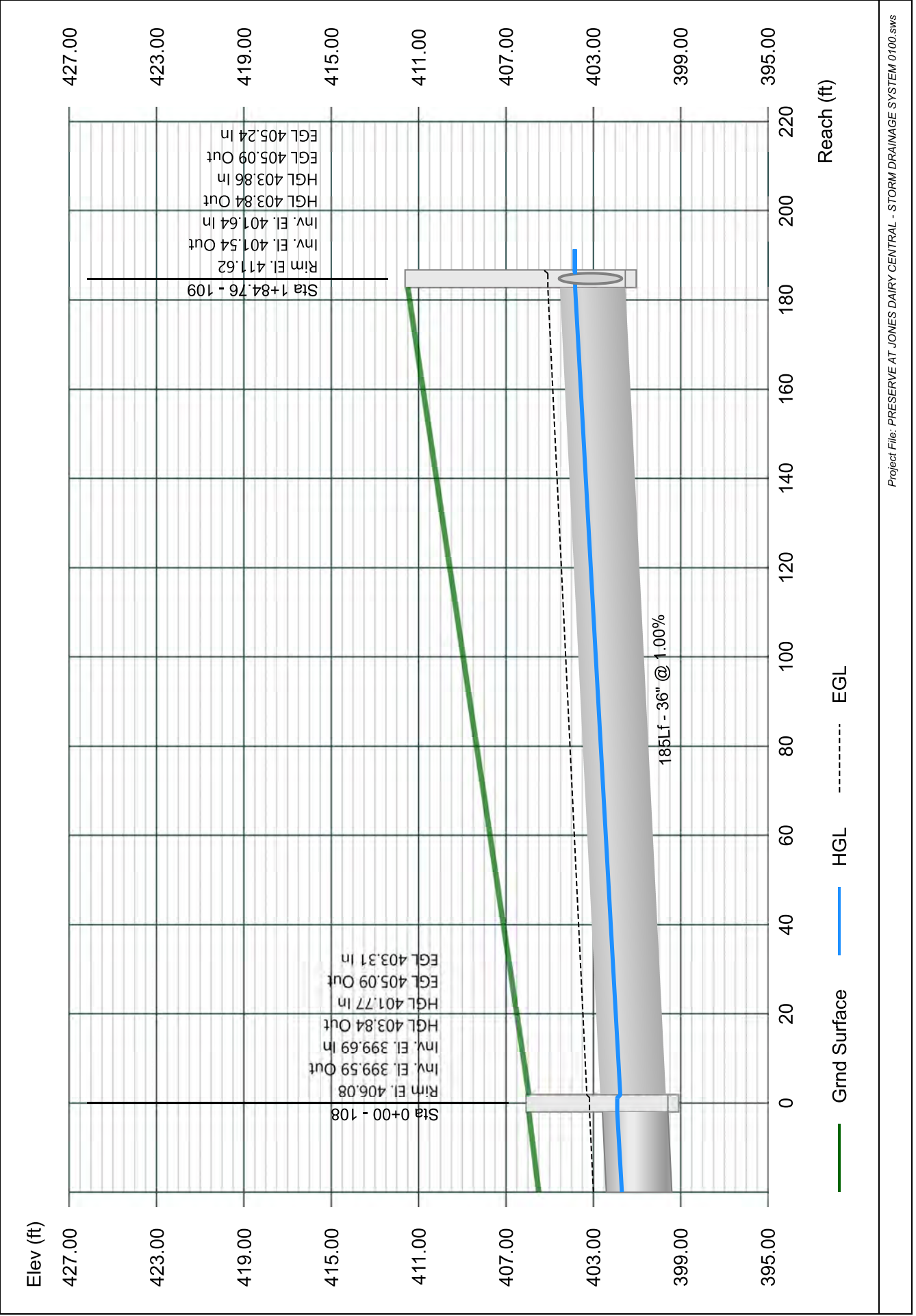


# Line 9 - 109 TO 108

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

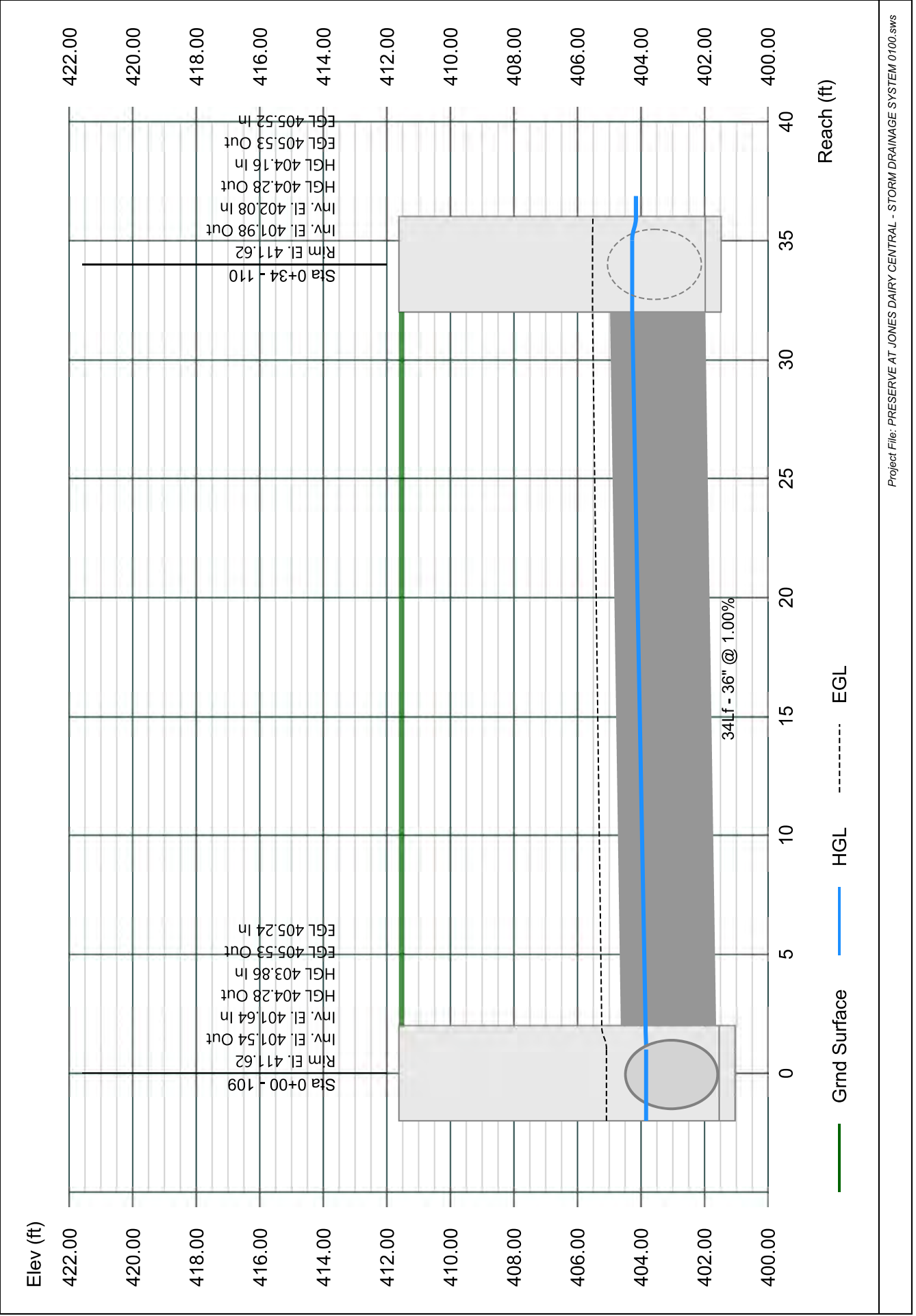


# Line 10 - 110 TO 109

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

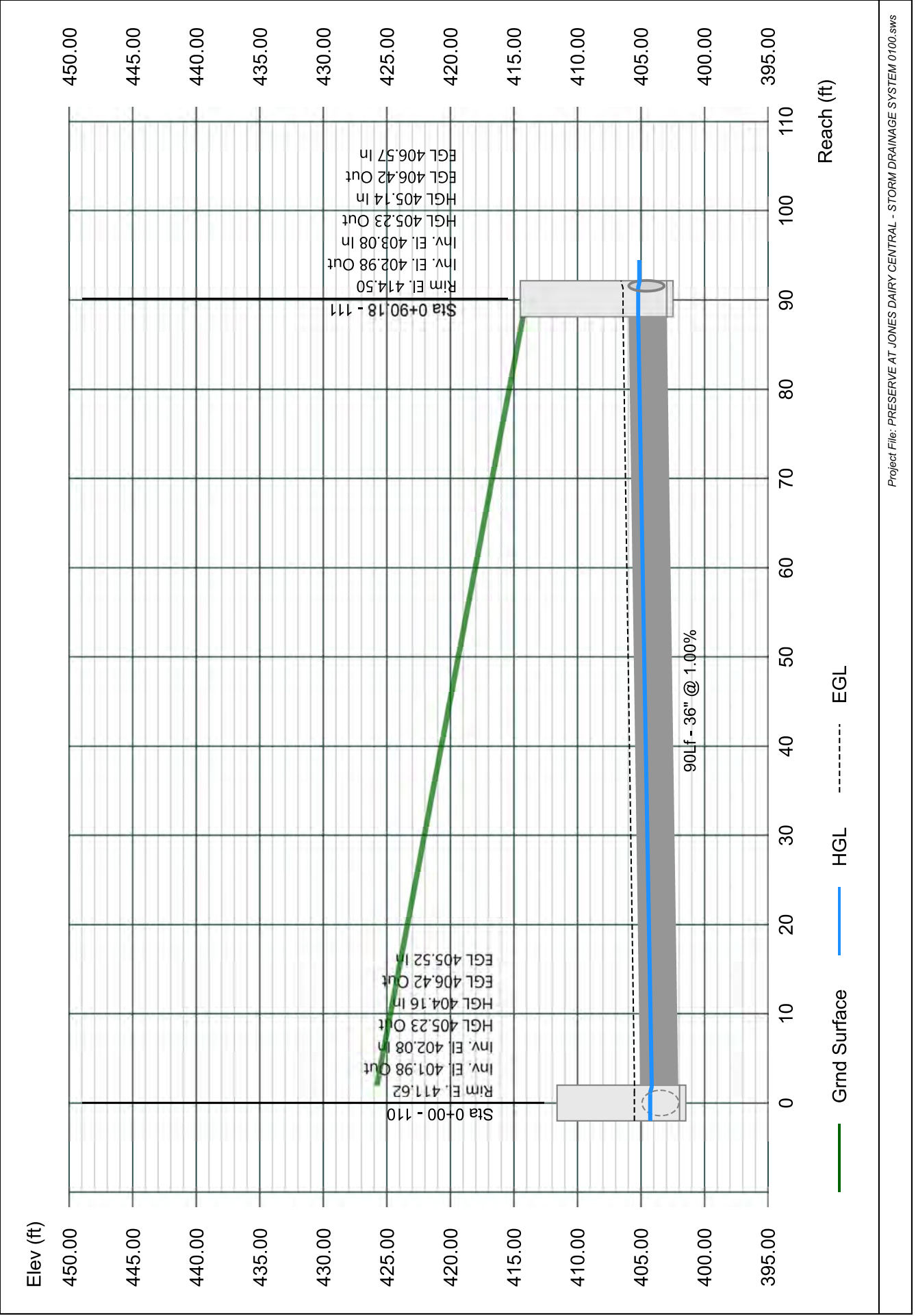


# Line 11 - 111 TO 110

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

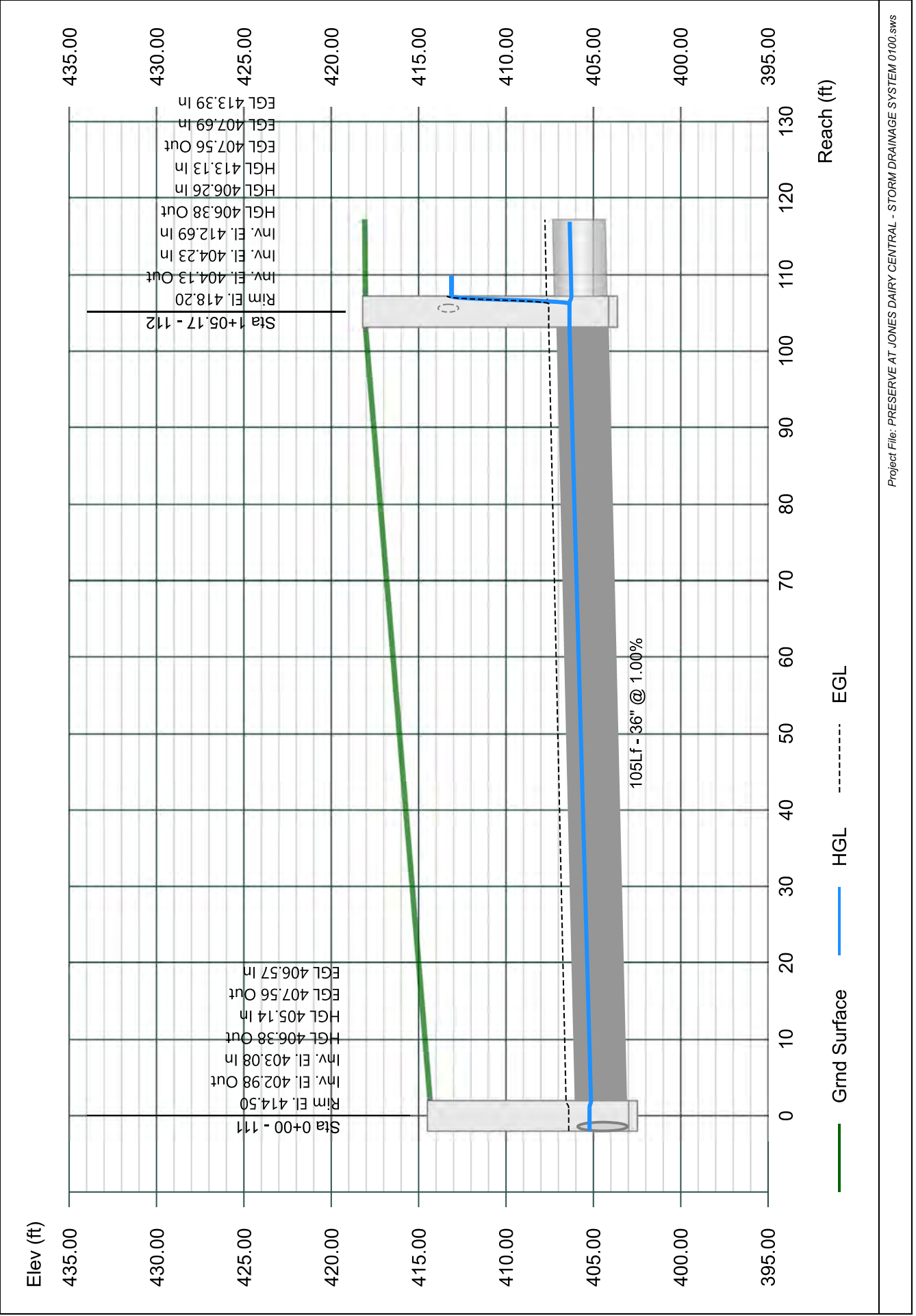


# Line 12 - 112 TO 111

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

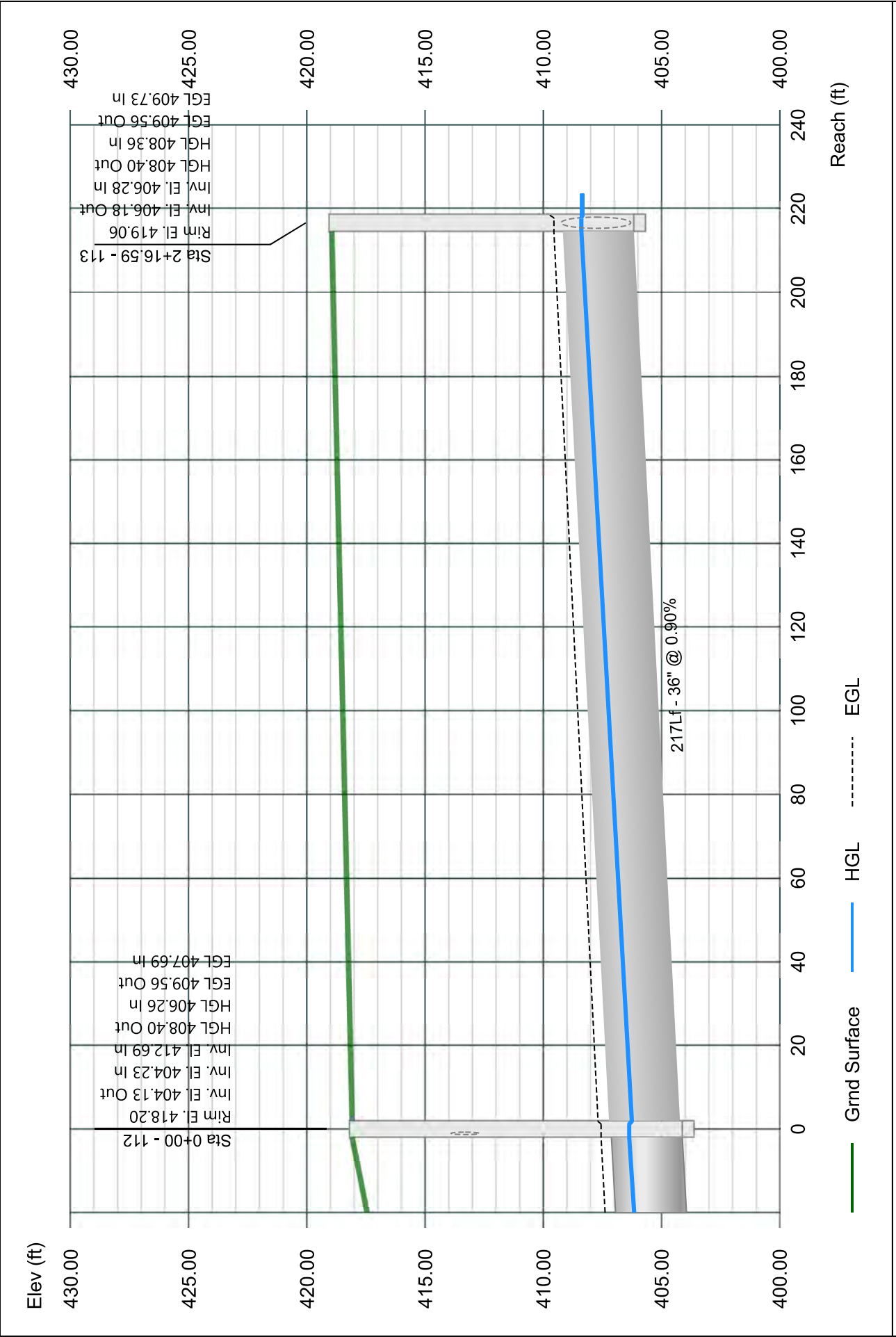


# Line 13 - 113 TO 112

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



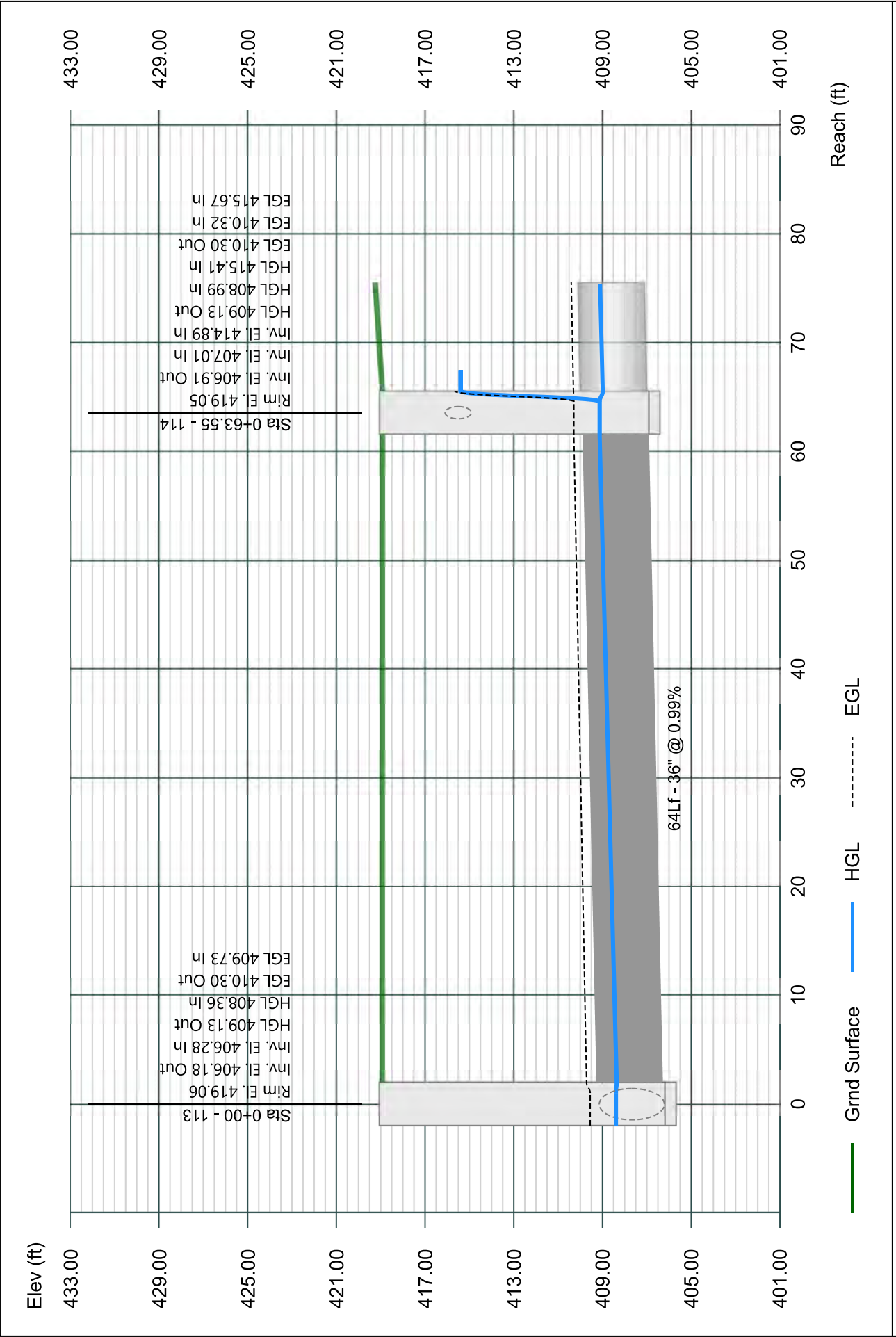


# Line 14 - 114 TO 113

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

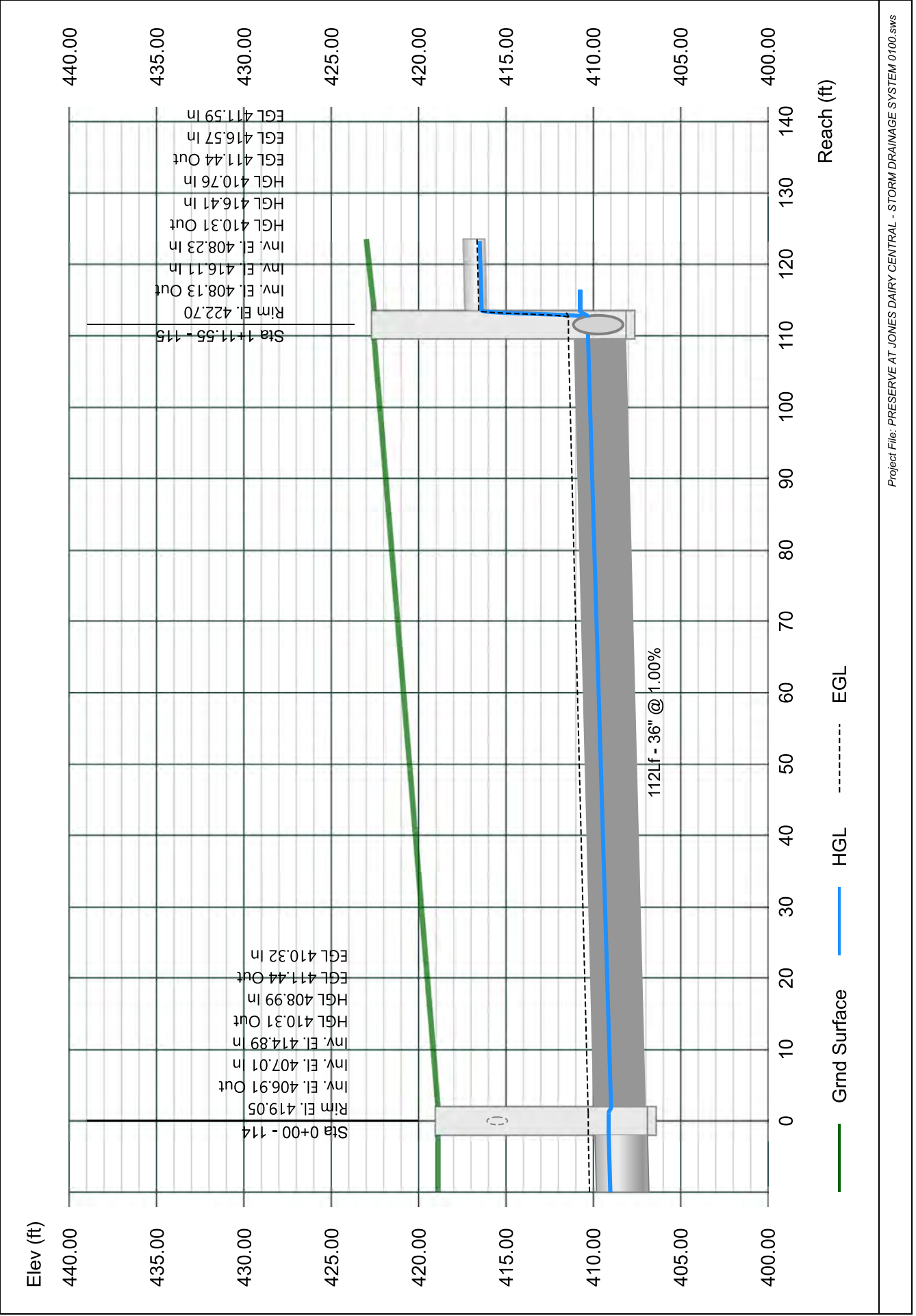


# Line 15 - 115 TO 114

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

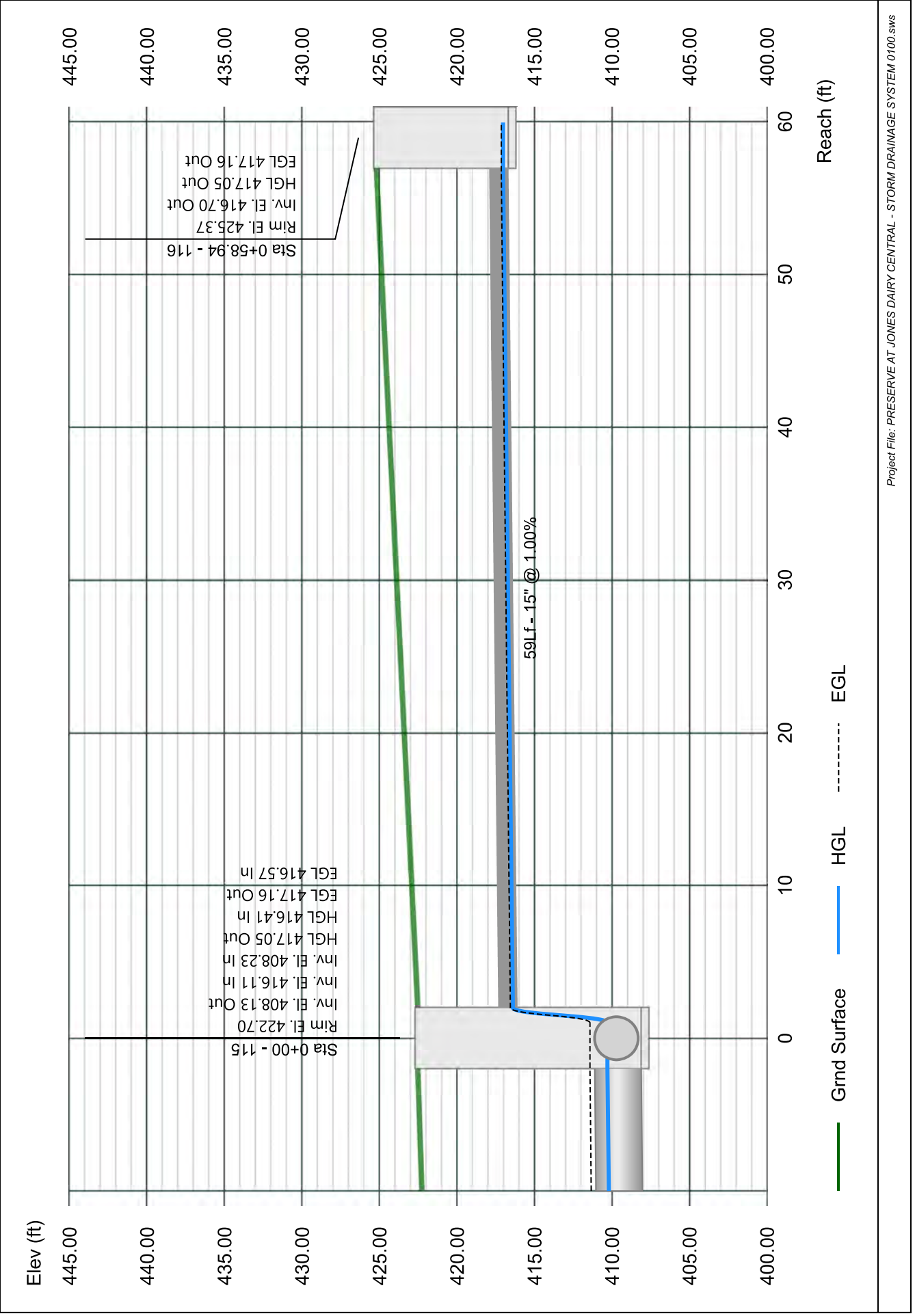


# Line 16 - 116 TO 115

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

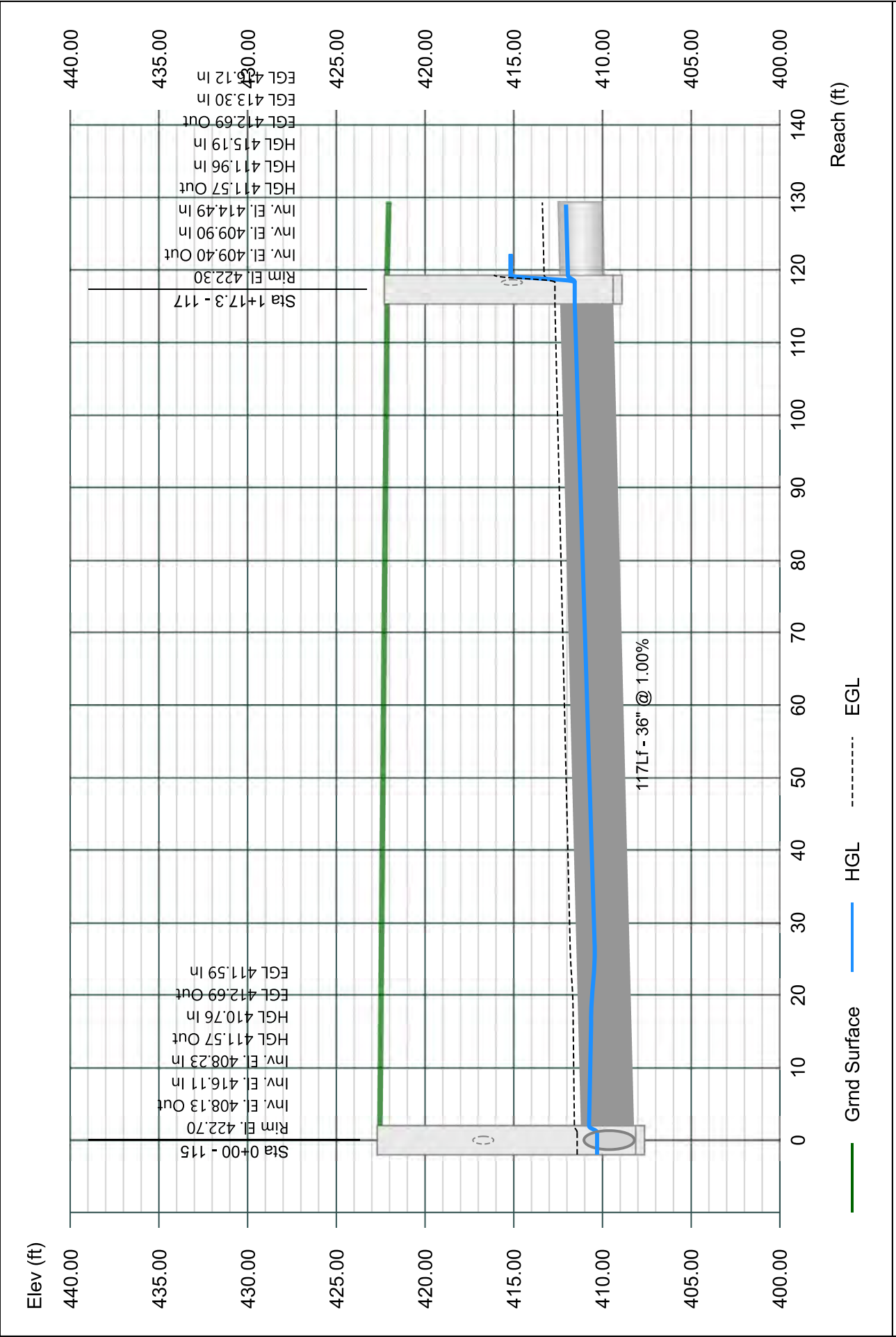


# Line 17 - 117 TO 115

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

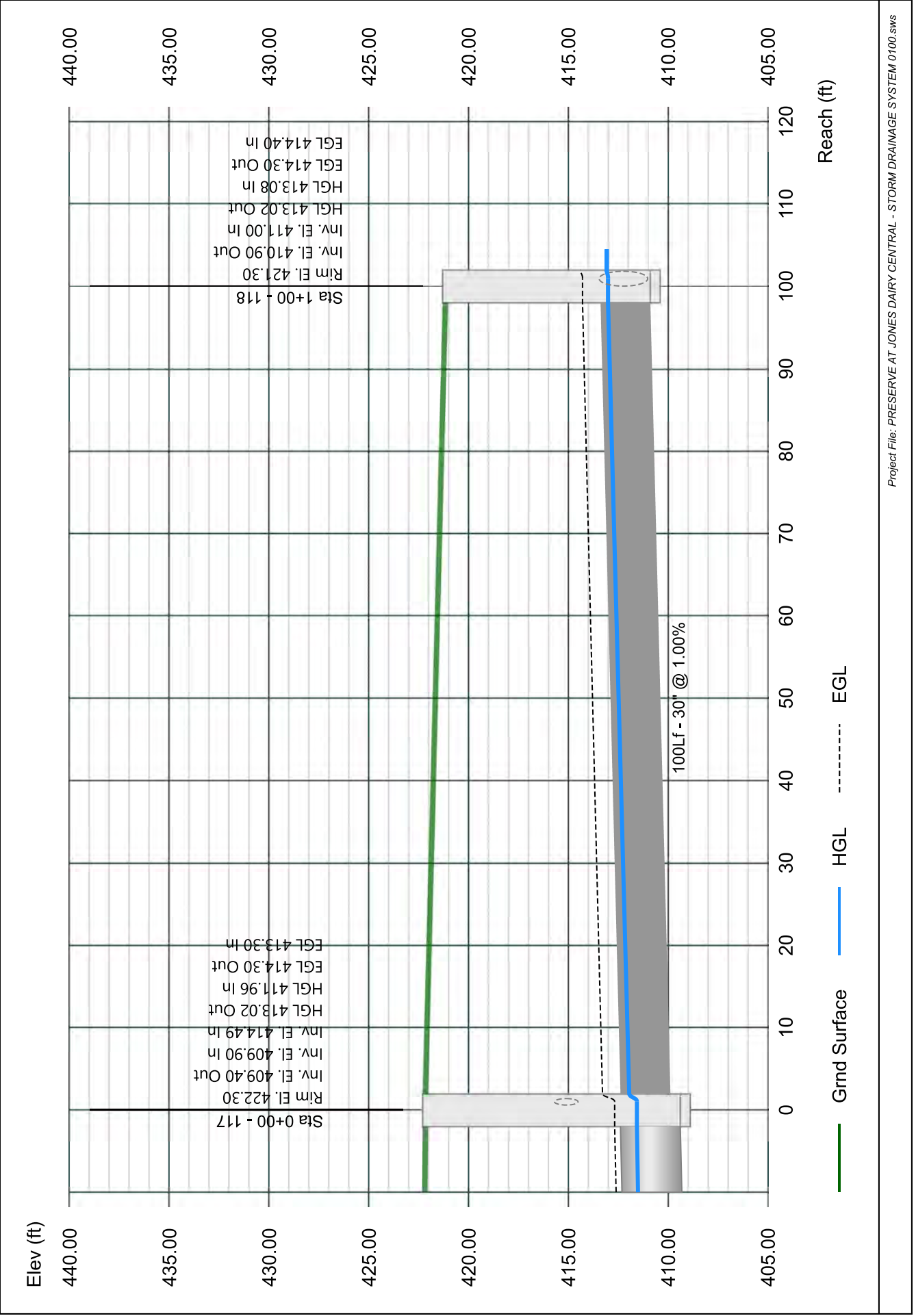


# Line 18 - 118 TO 117

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

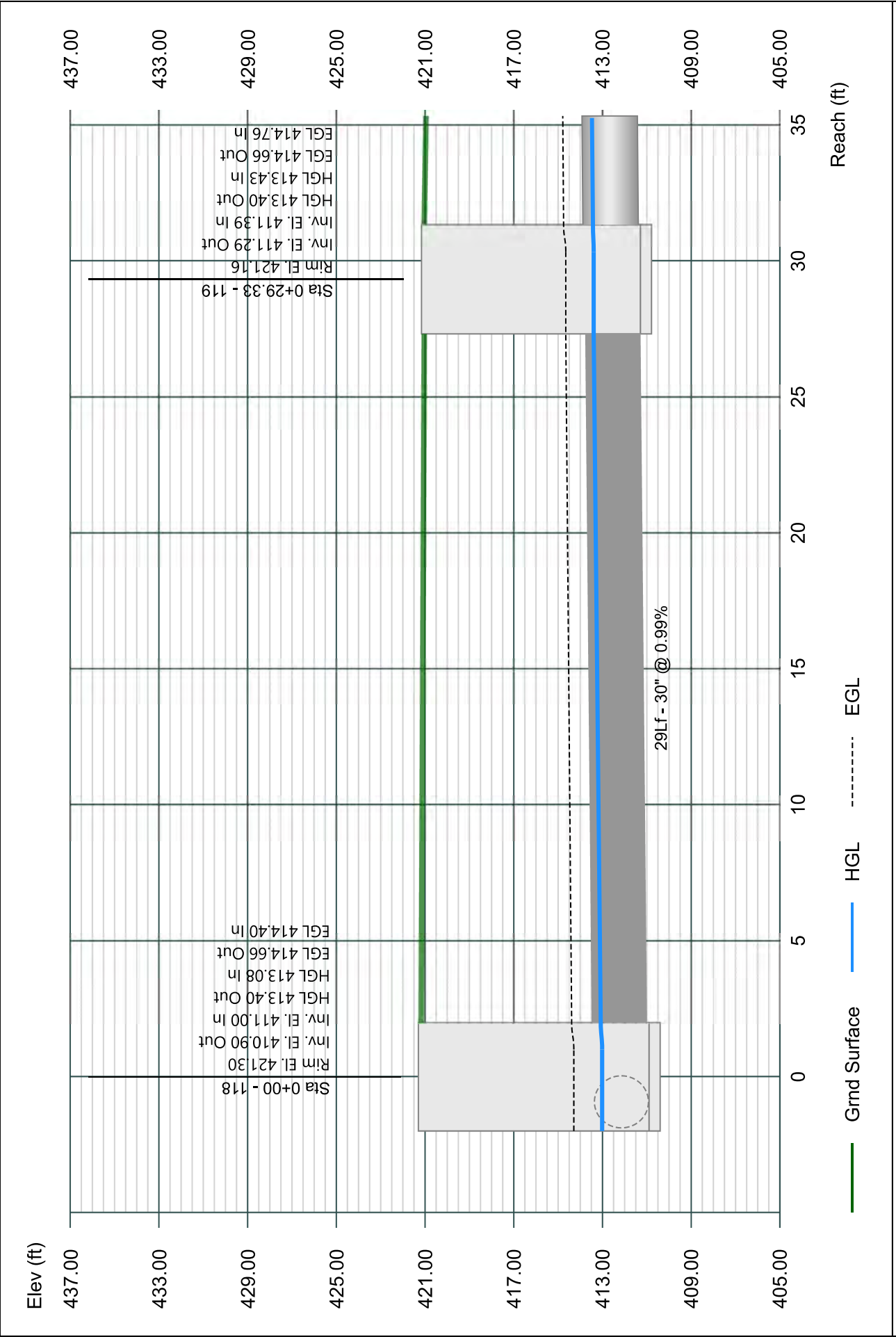


# Line 19 - 119 TO 118

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

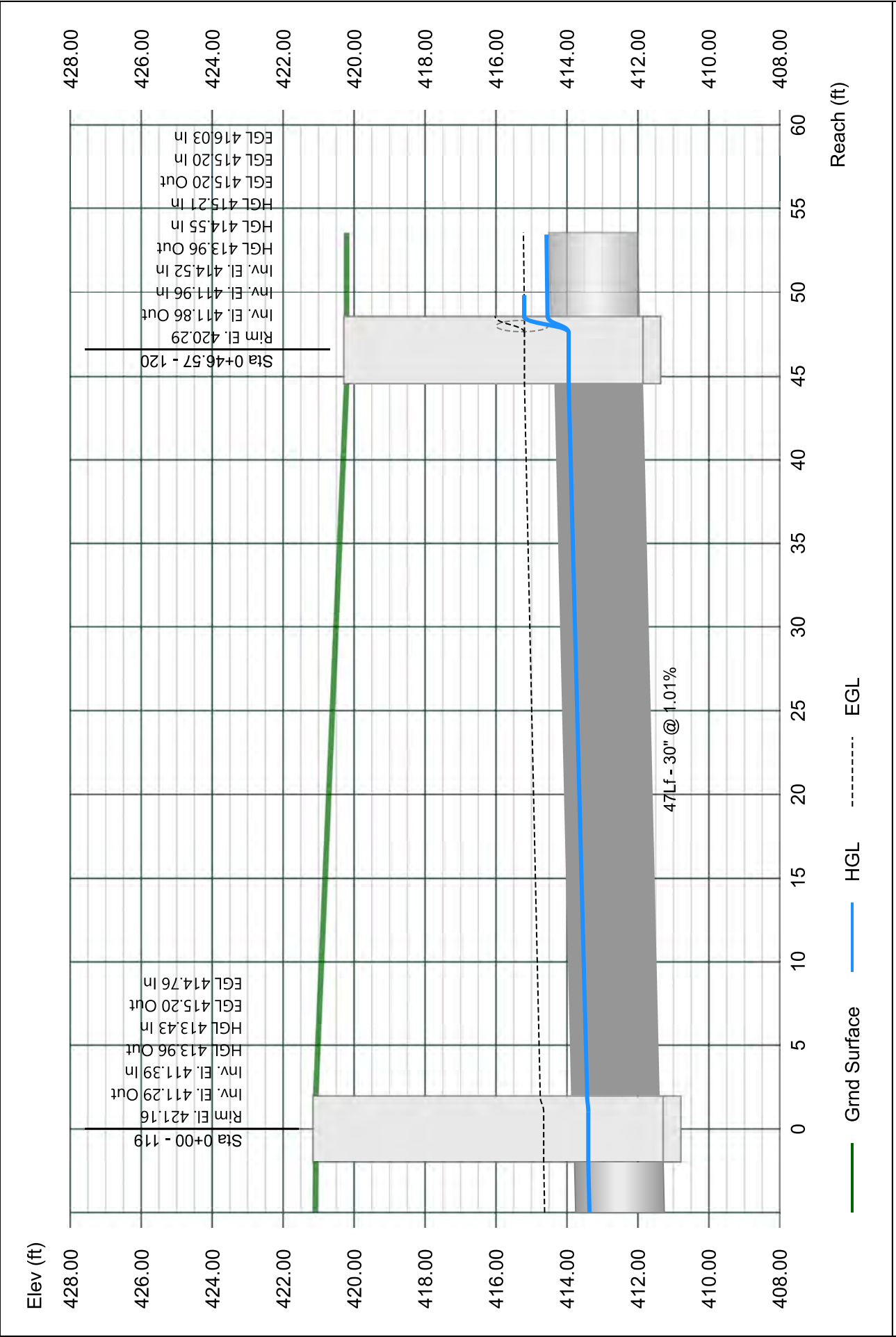


# Line 20 - 120 TO 119

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

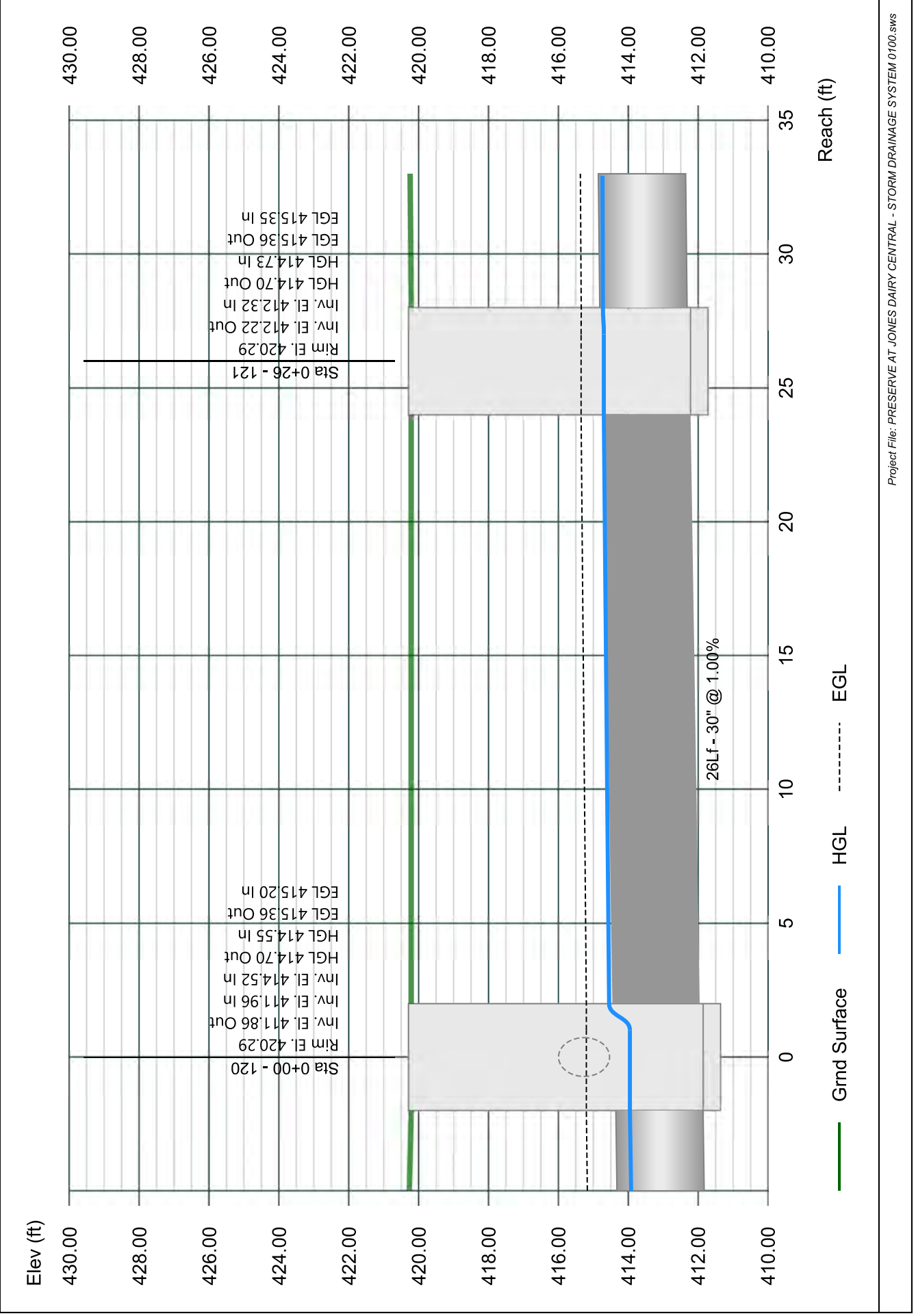


# Line 21 - 121 TO 120

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023



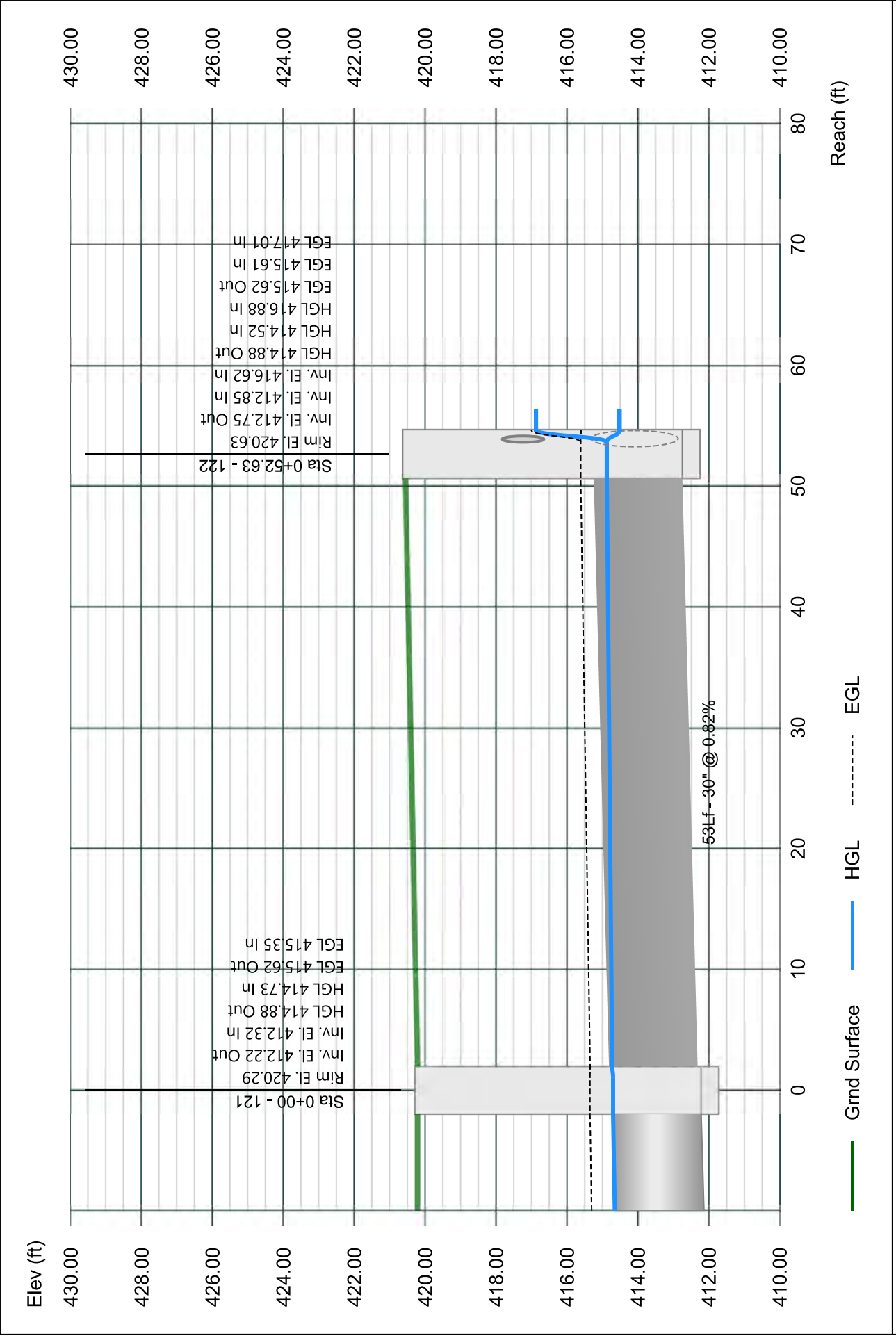


# Line 22 - 122 TO 121

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

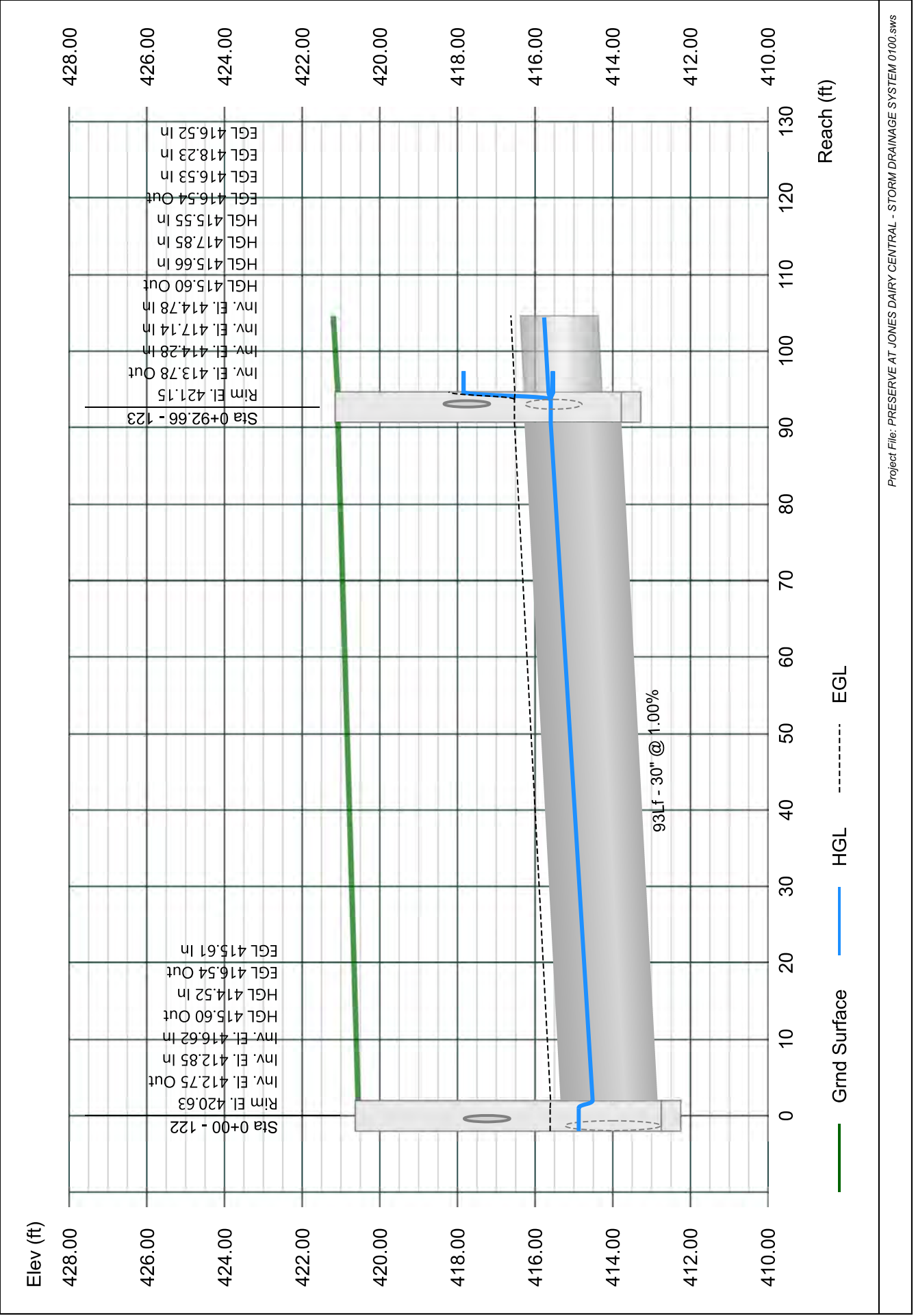


# Line 23 - 123 TO 122

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

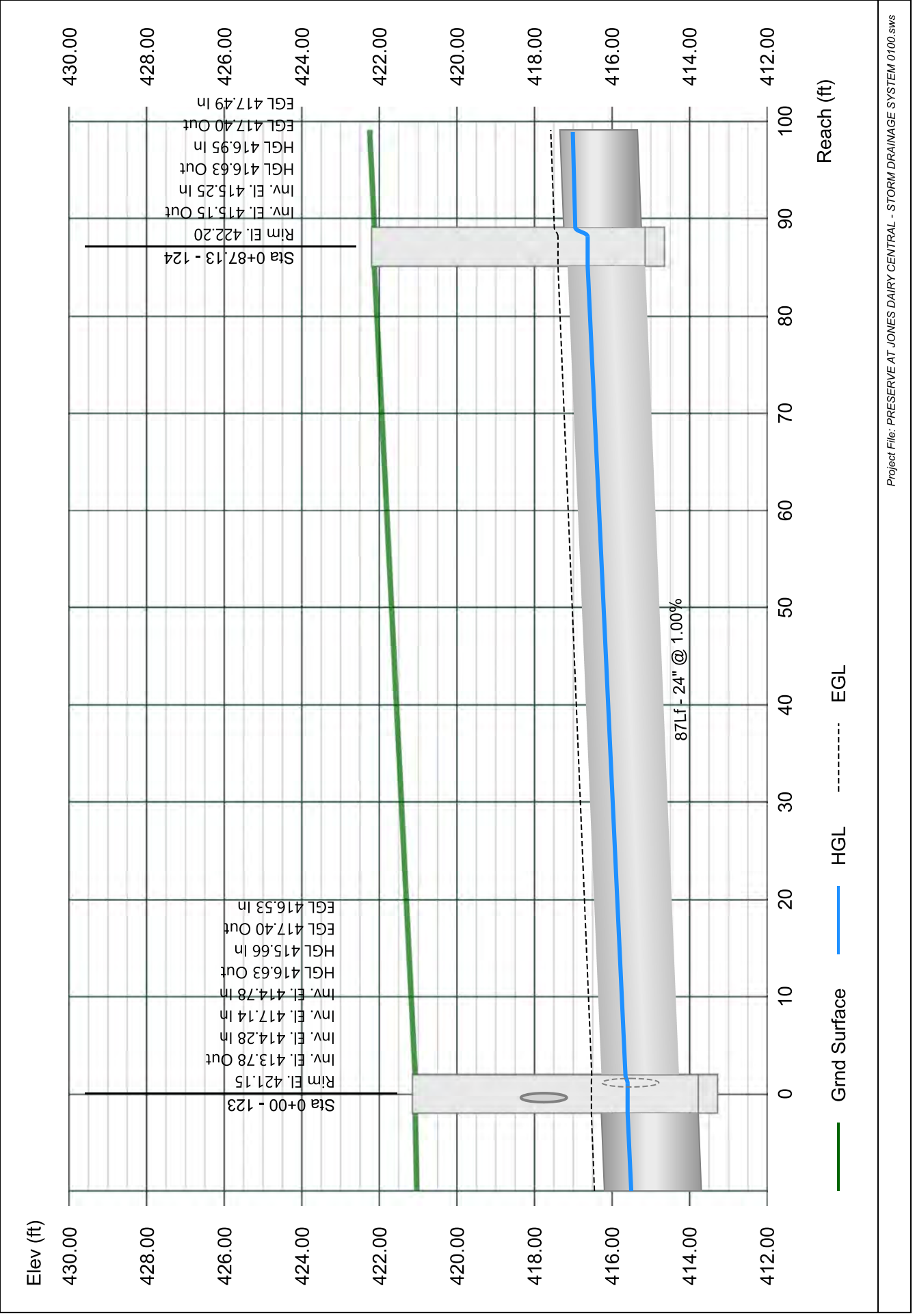


# Line 24 - 124 TO 123

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

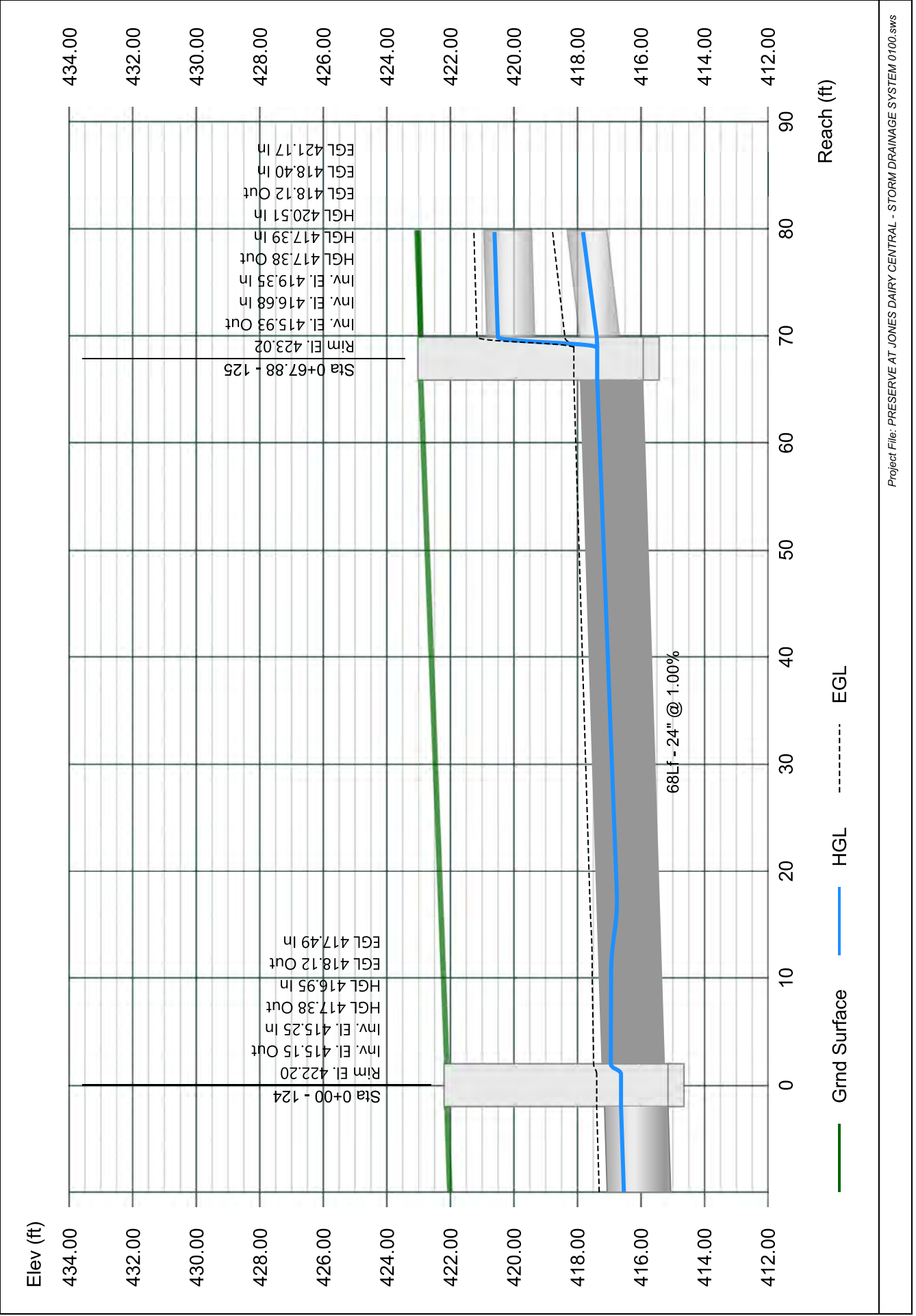


# Line 25 - 125 TO 124

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

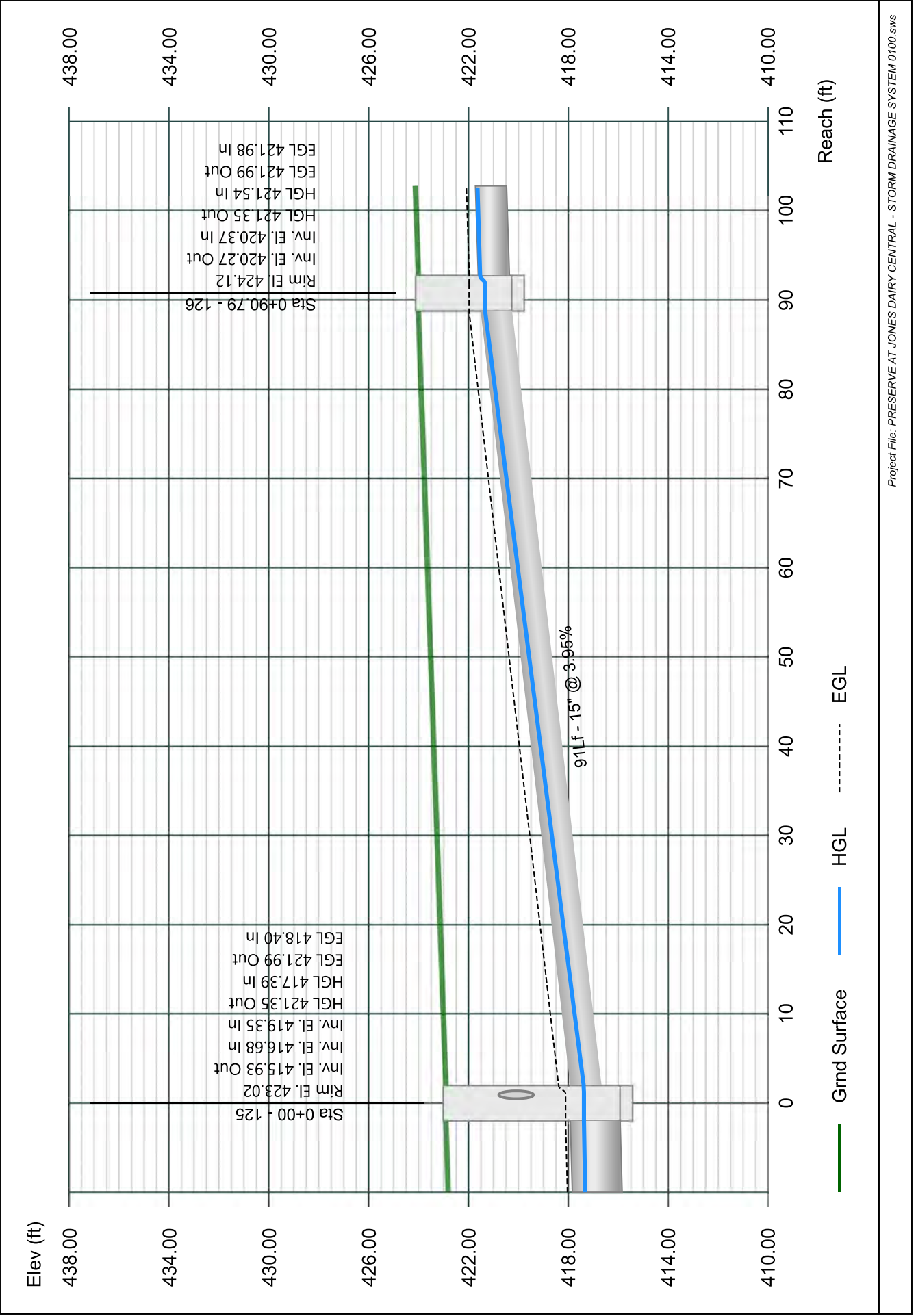


# Line 26 - 126 TO 125

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

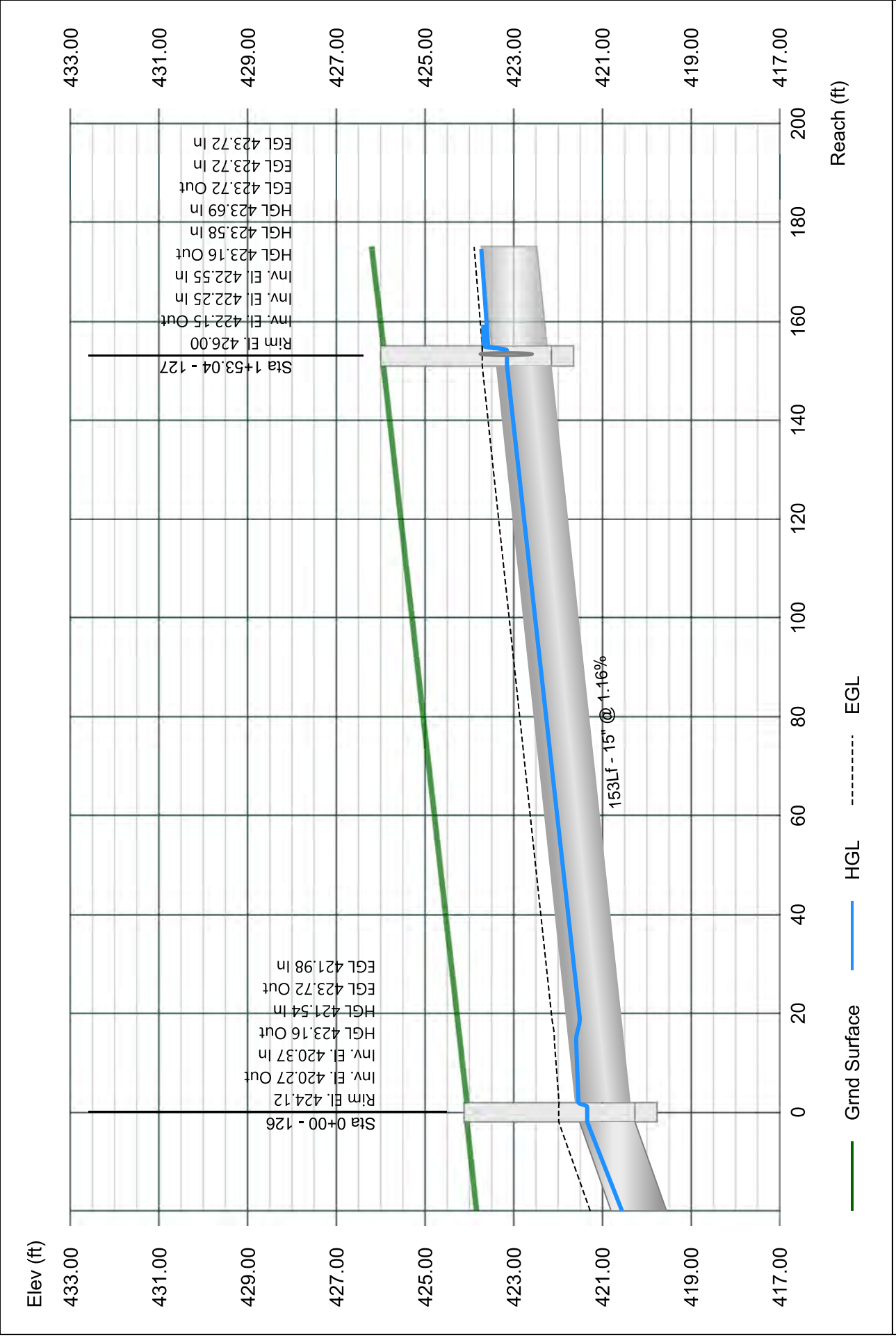


# Line 27 - 127 TO 126

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

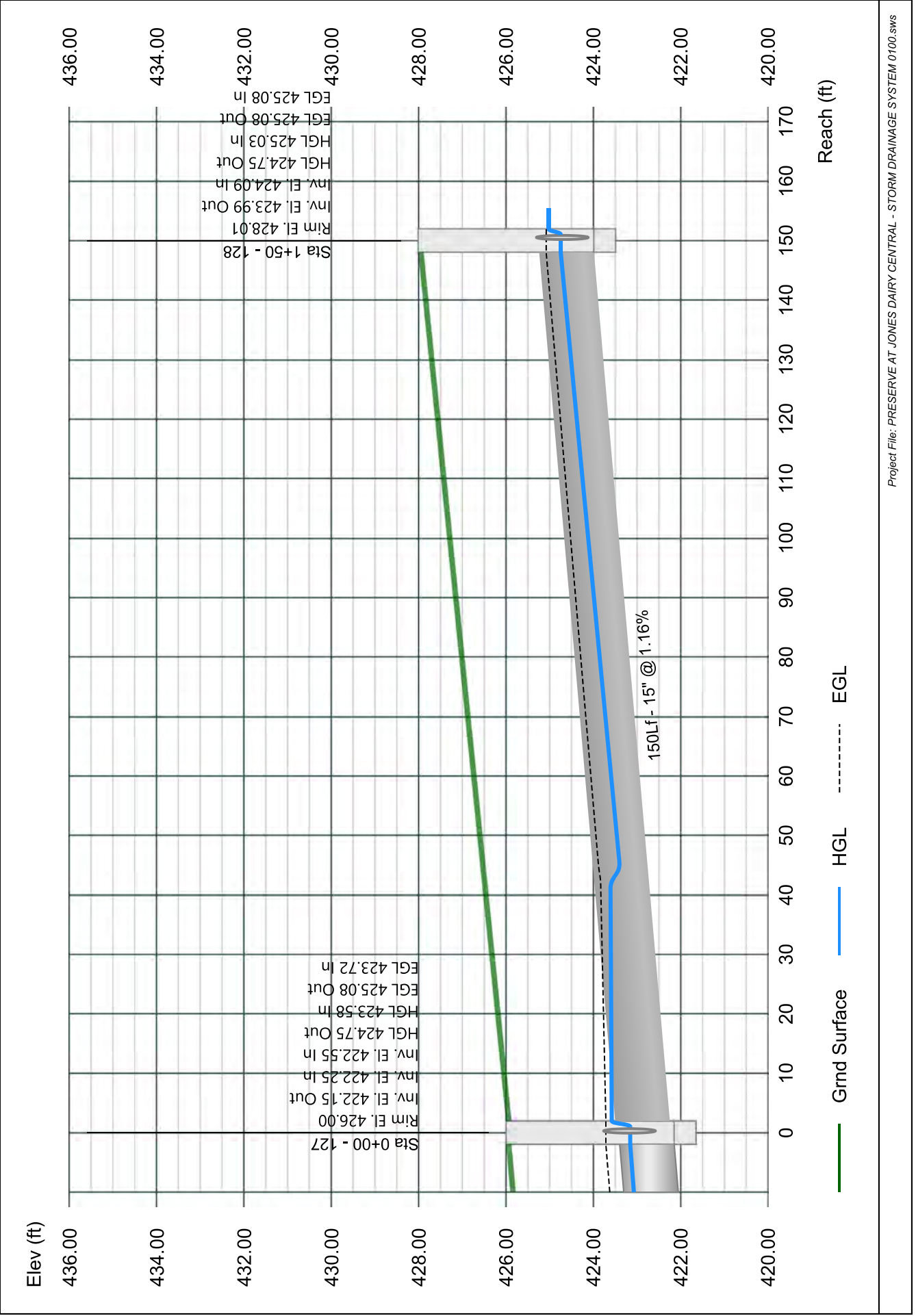


# Line 28 - 128 TO 127

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

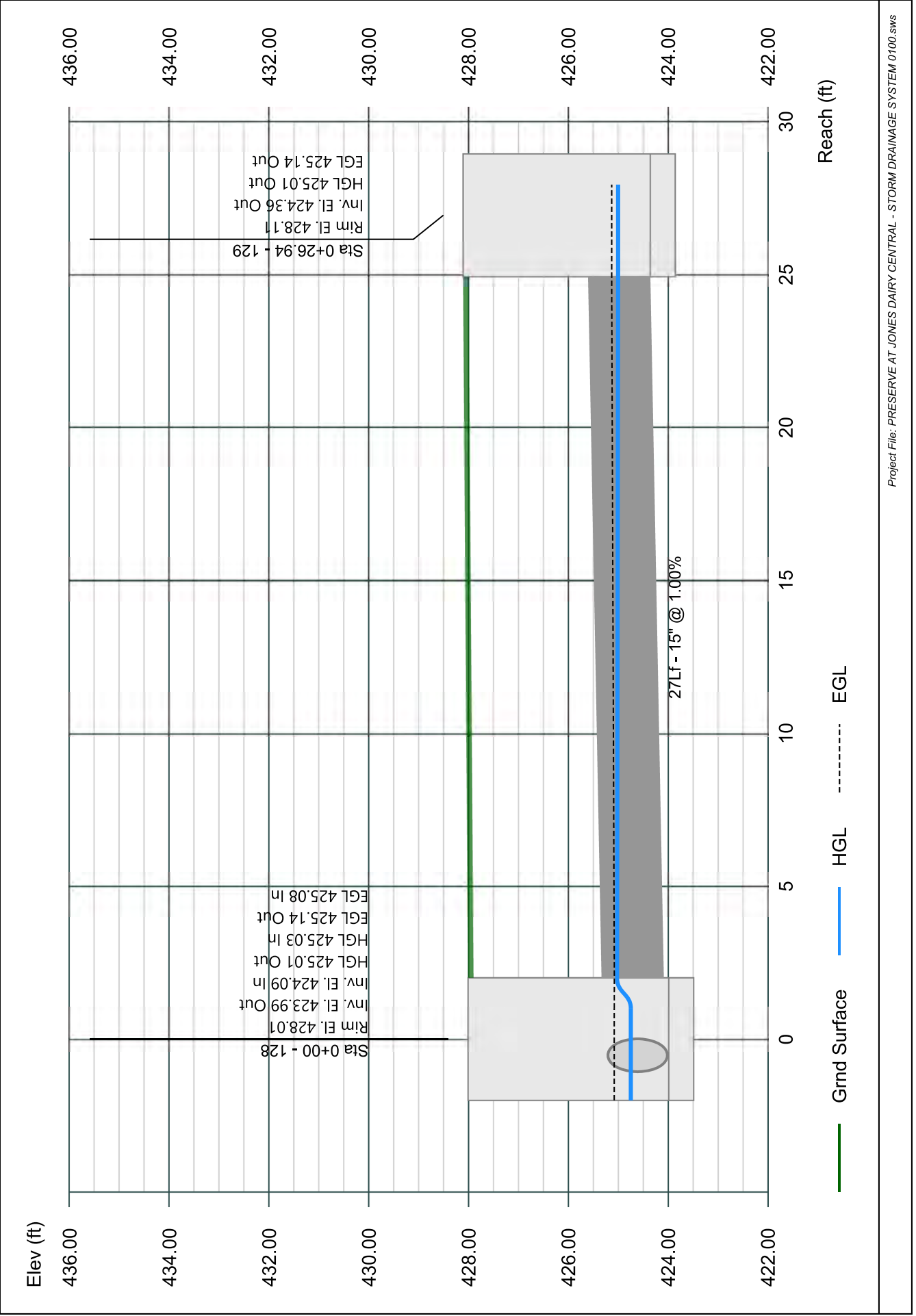


# Line 29 - 129 TO 128

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



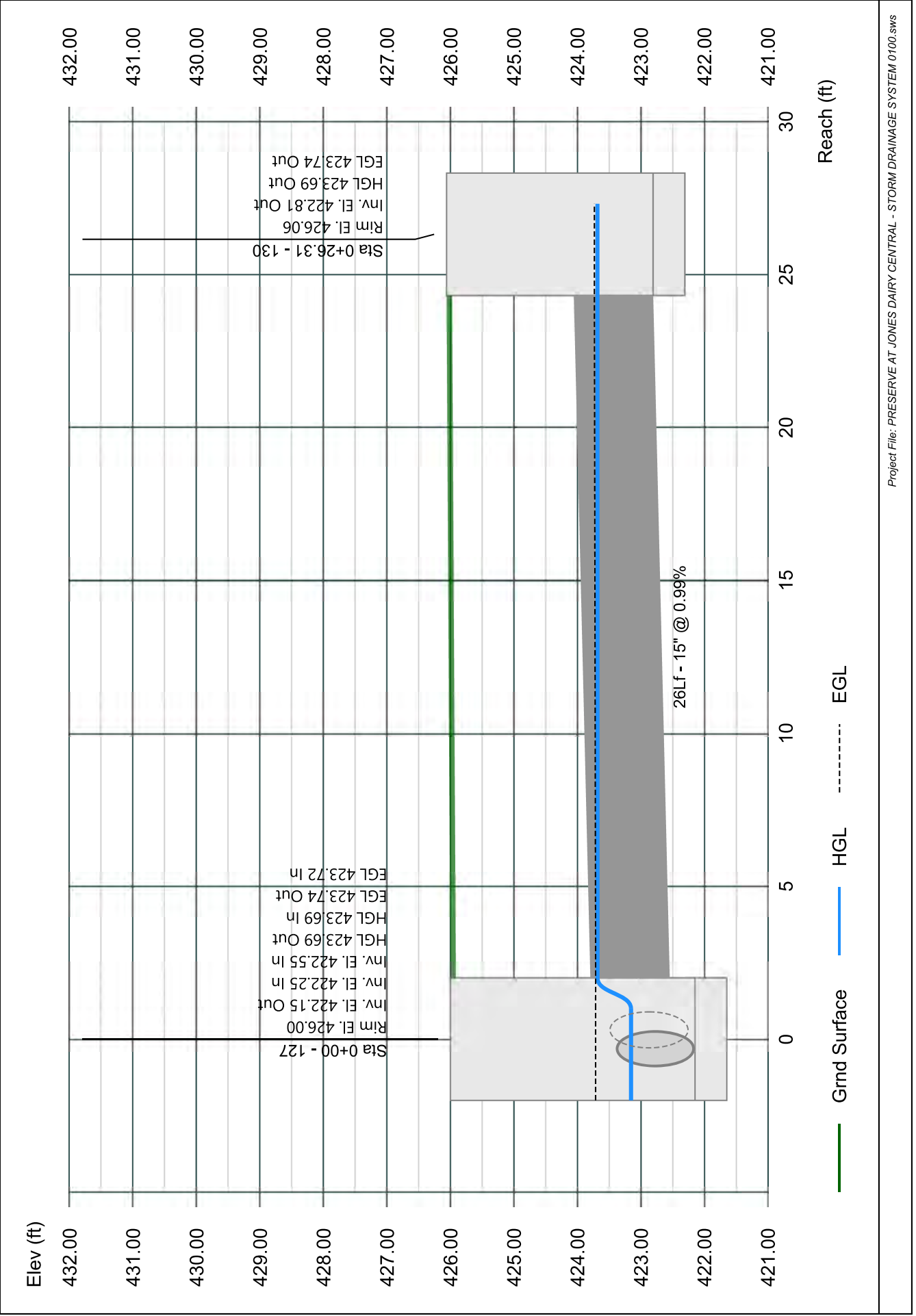


# Line 30 - 130 TO 127

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

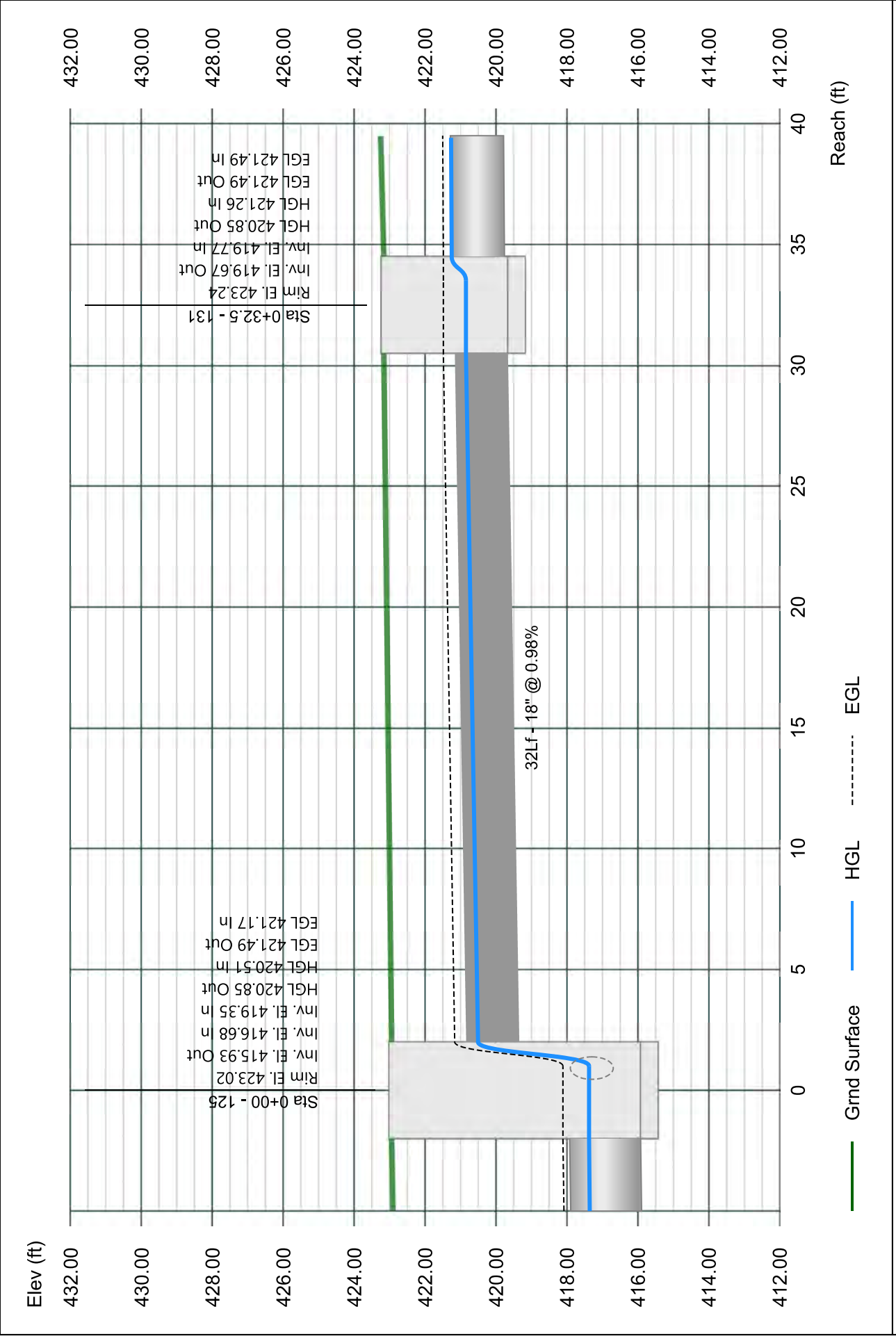


# Line 31 - 131 TO 125

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

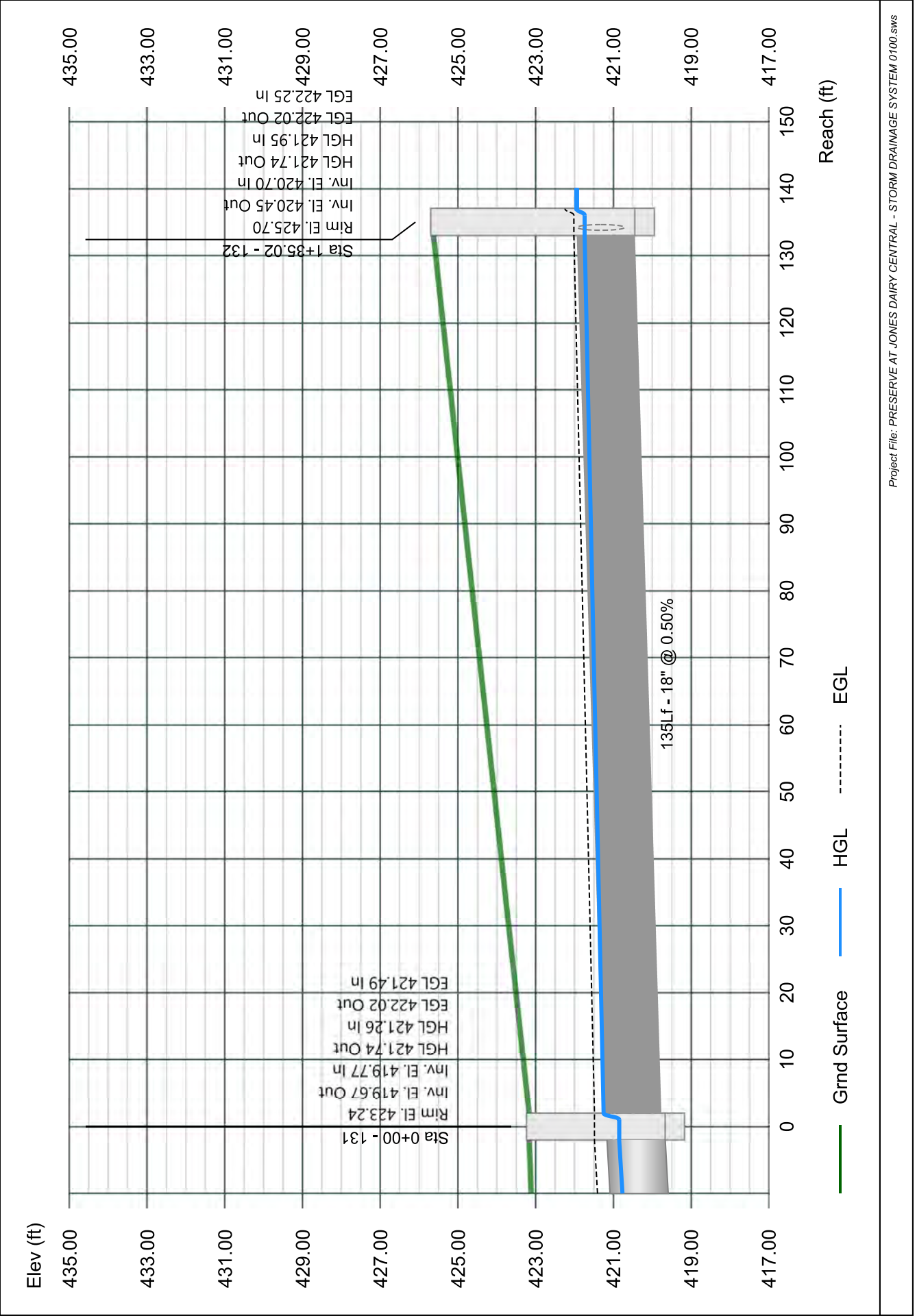


# Line 32 - 132 TO 131

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

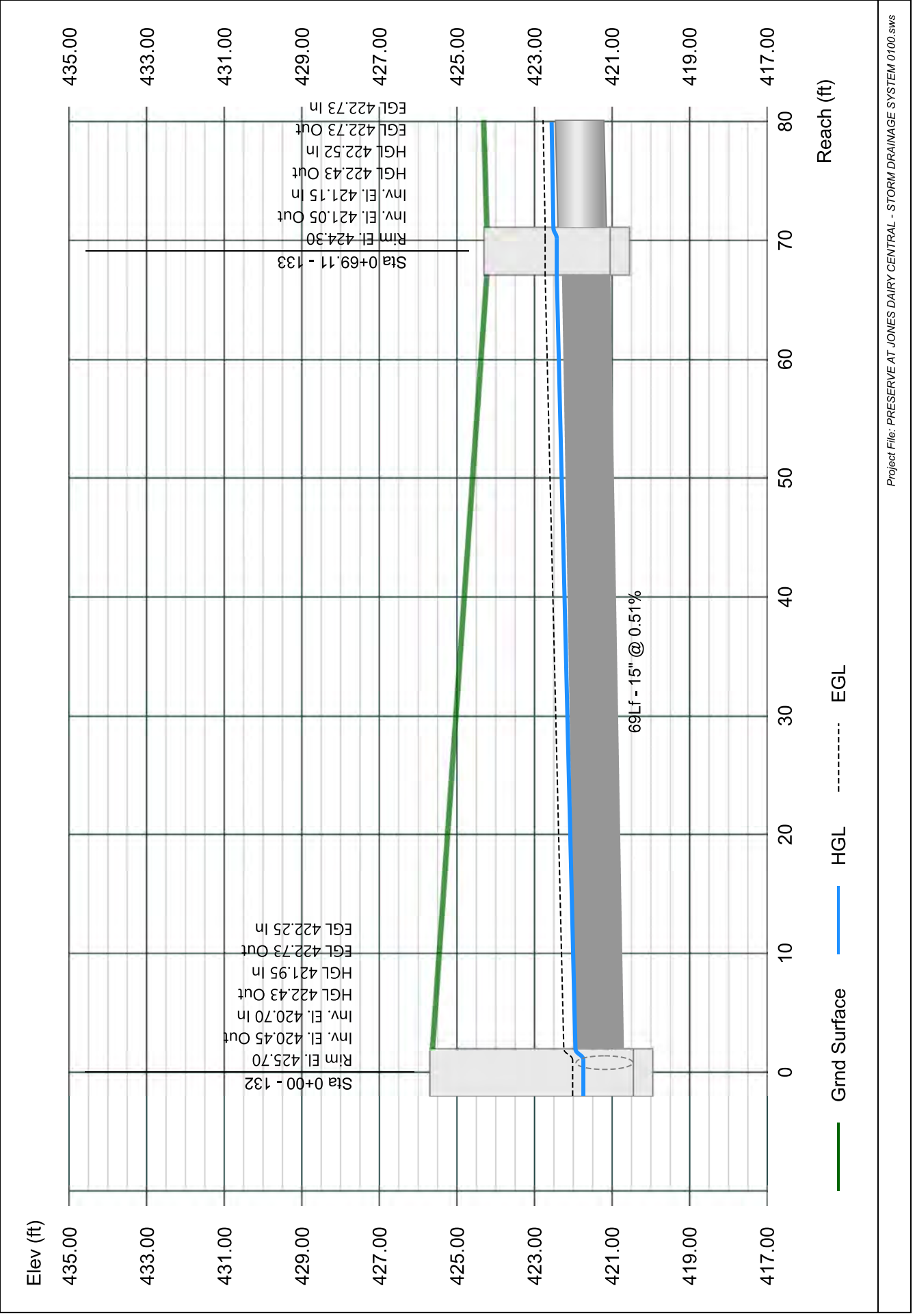


# Line 33 - 133 TO 132

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

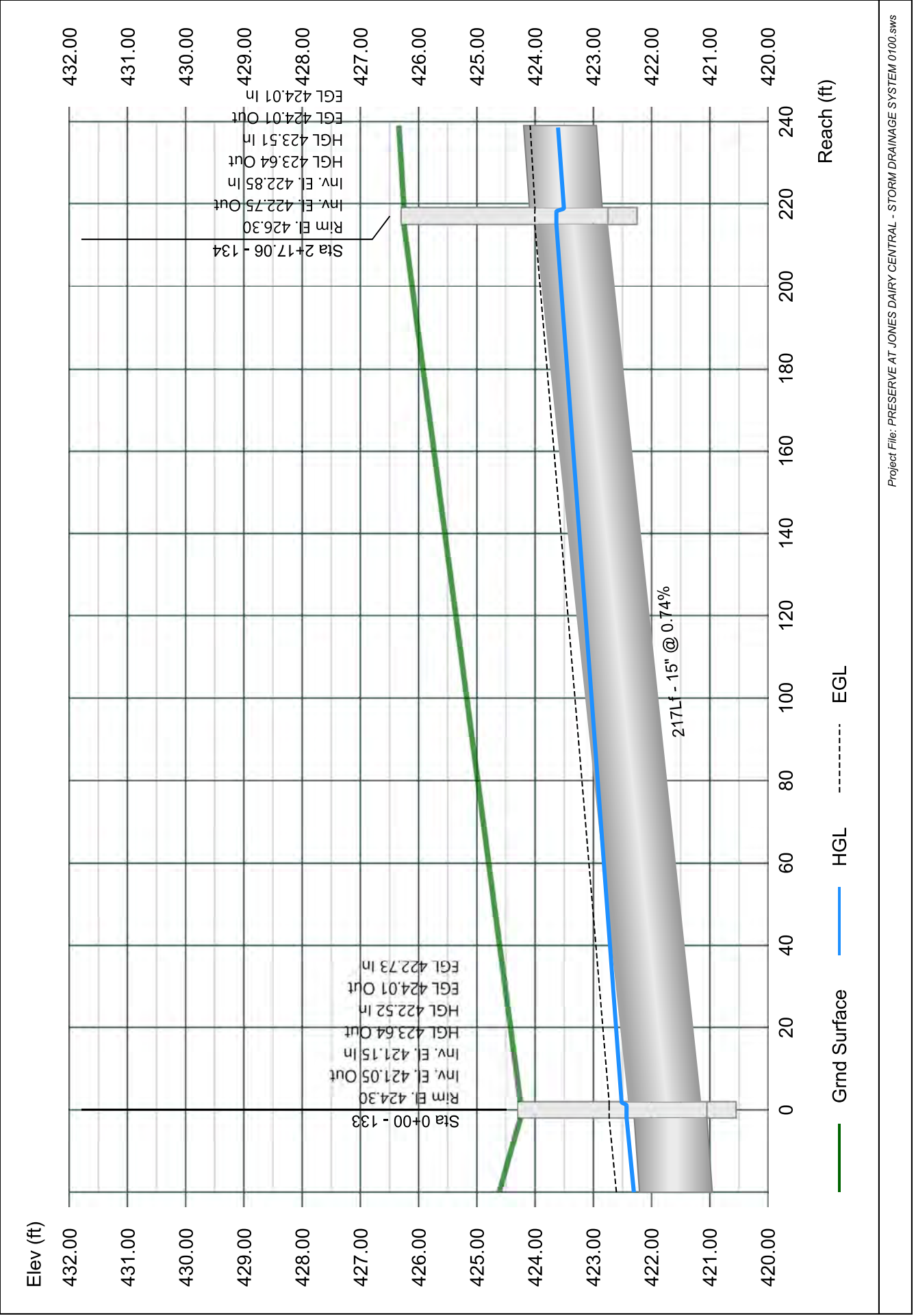


# Line 34 - 134 TO 133

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

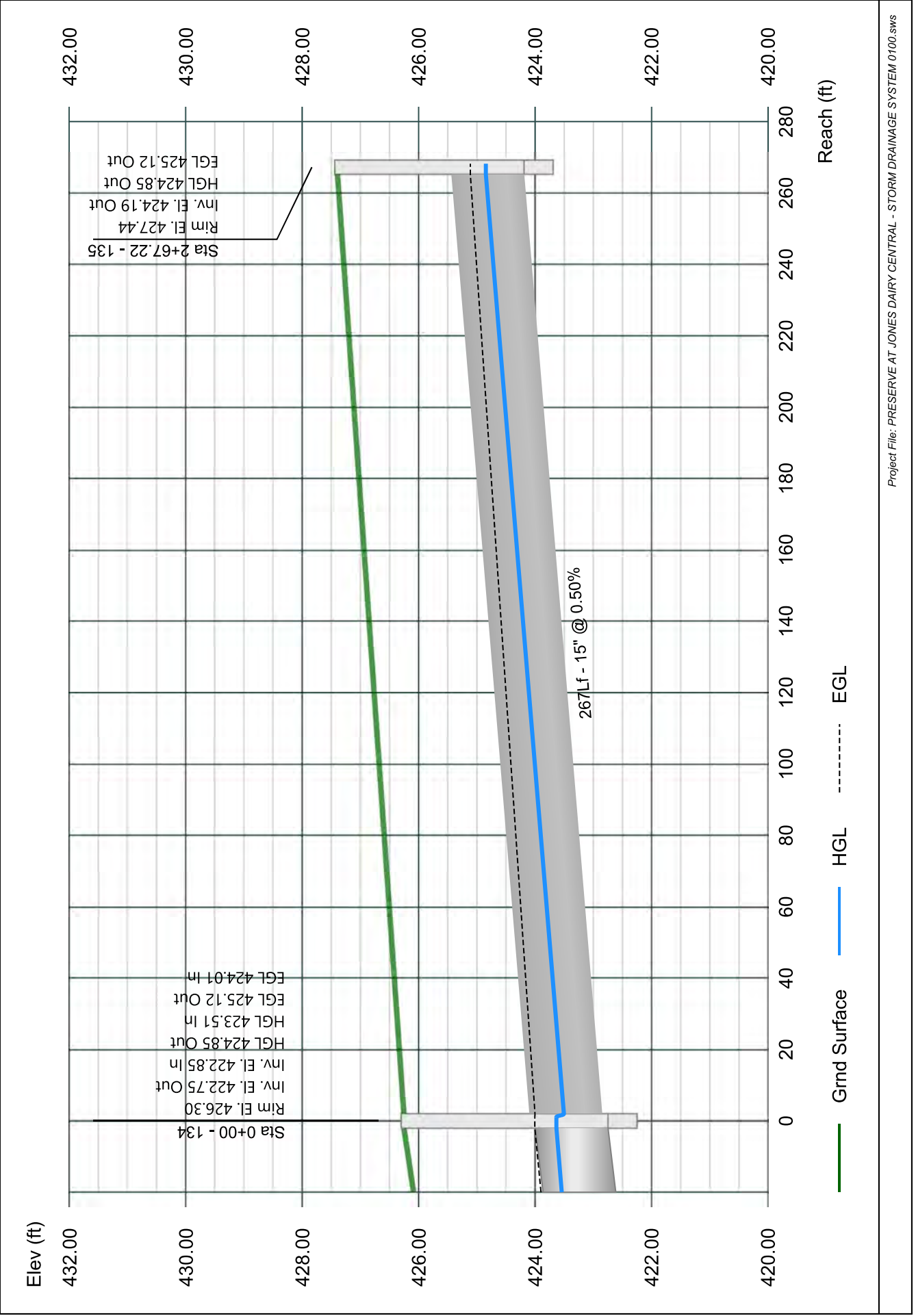


# Line 35 - 135 TO 134

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

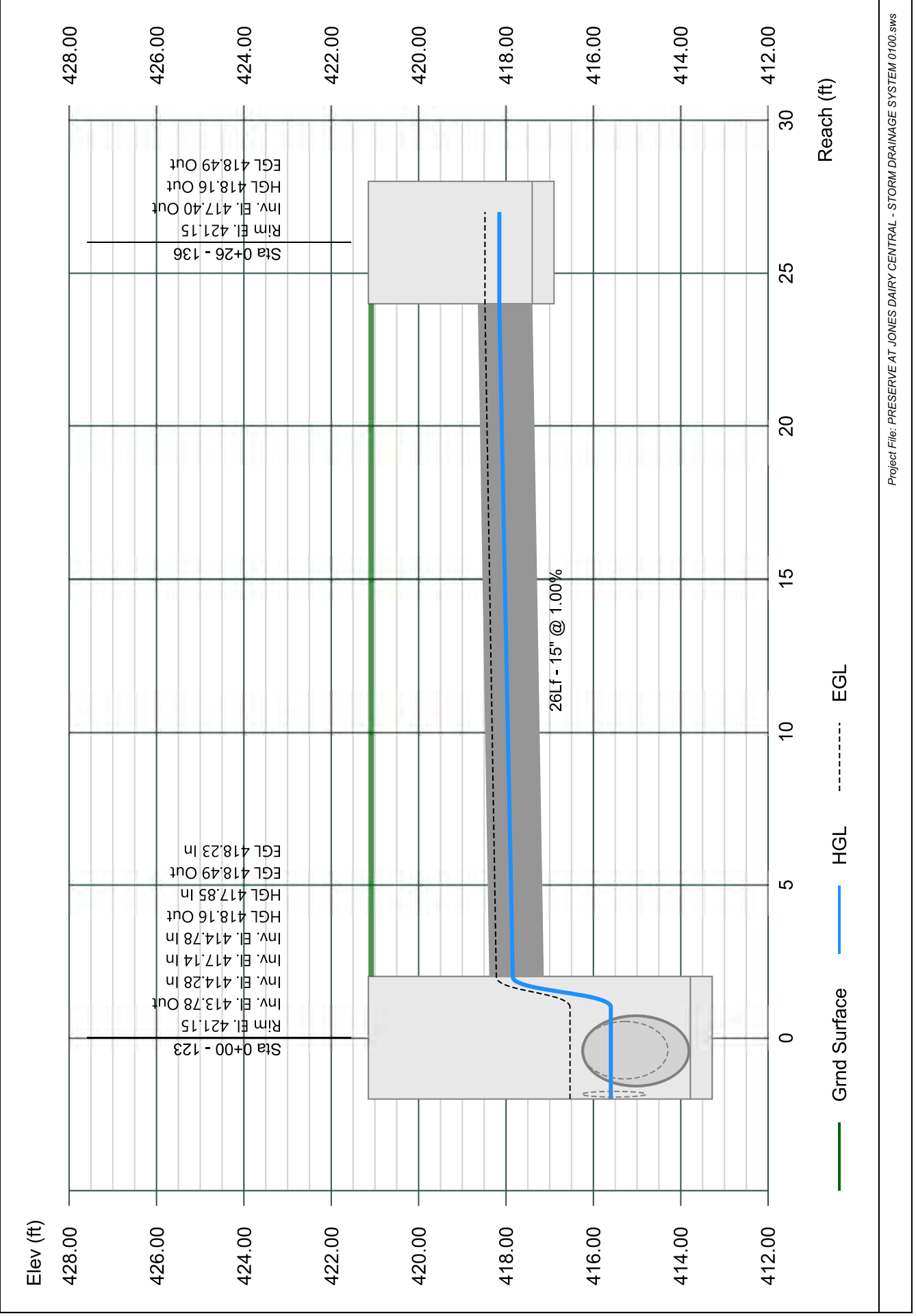


# Line 36 - 136 TO 123

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

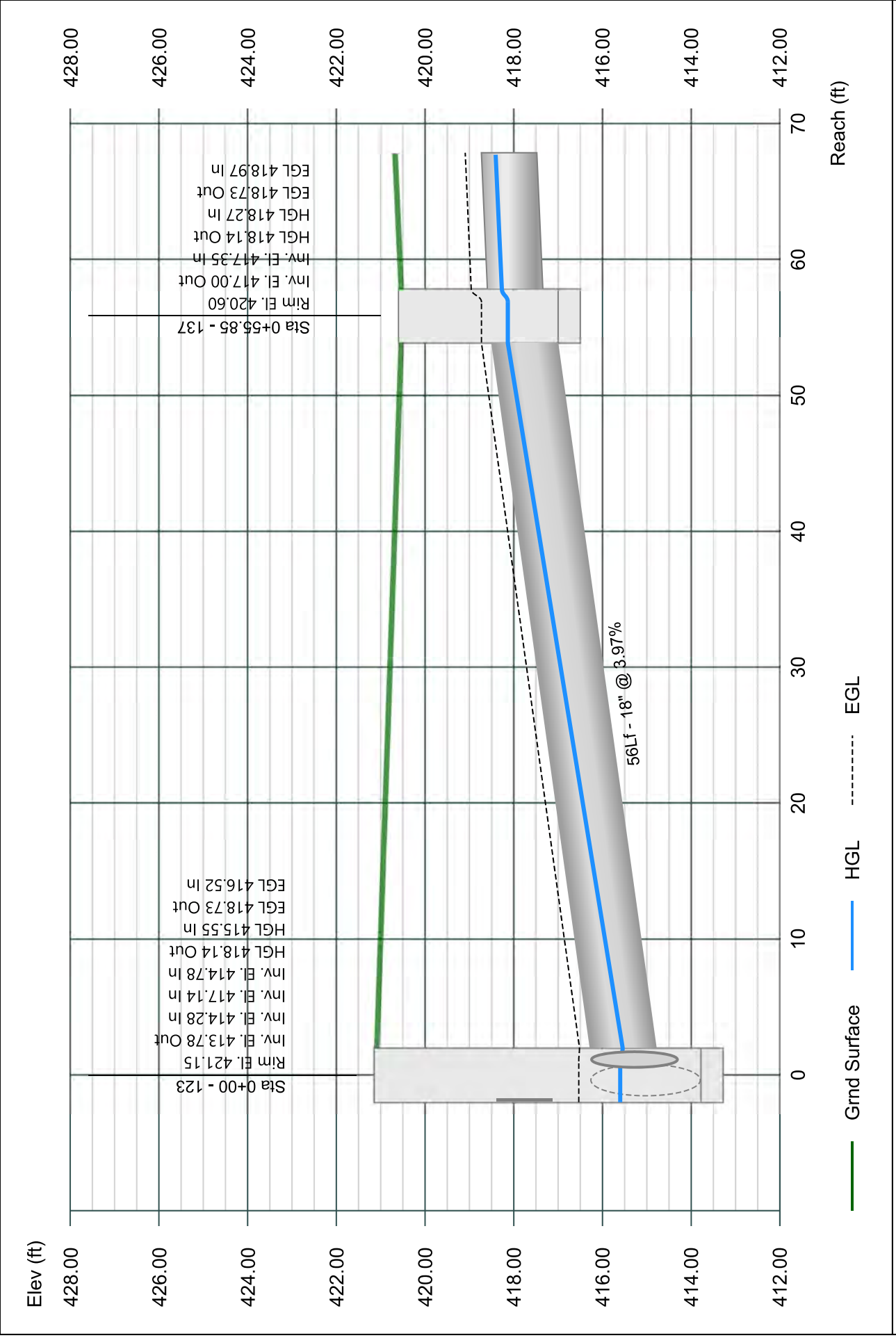


# Line 37 - 137 TO 123

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



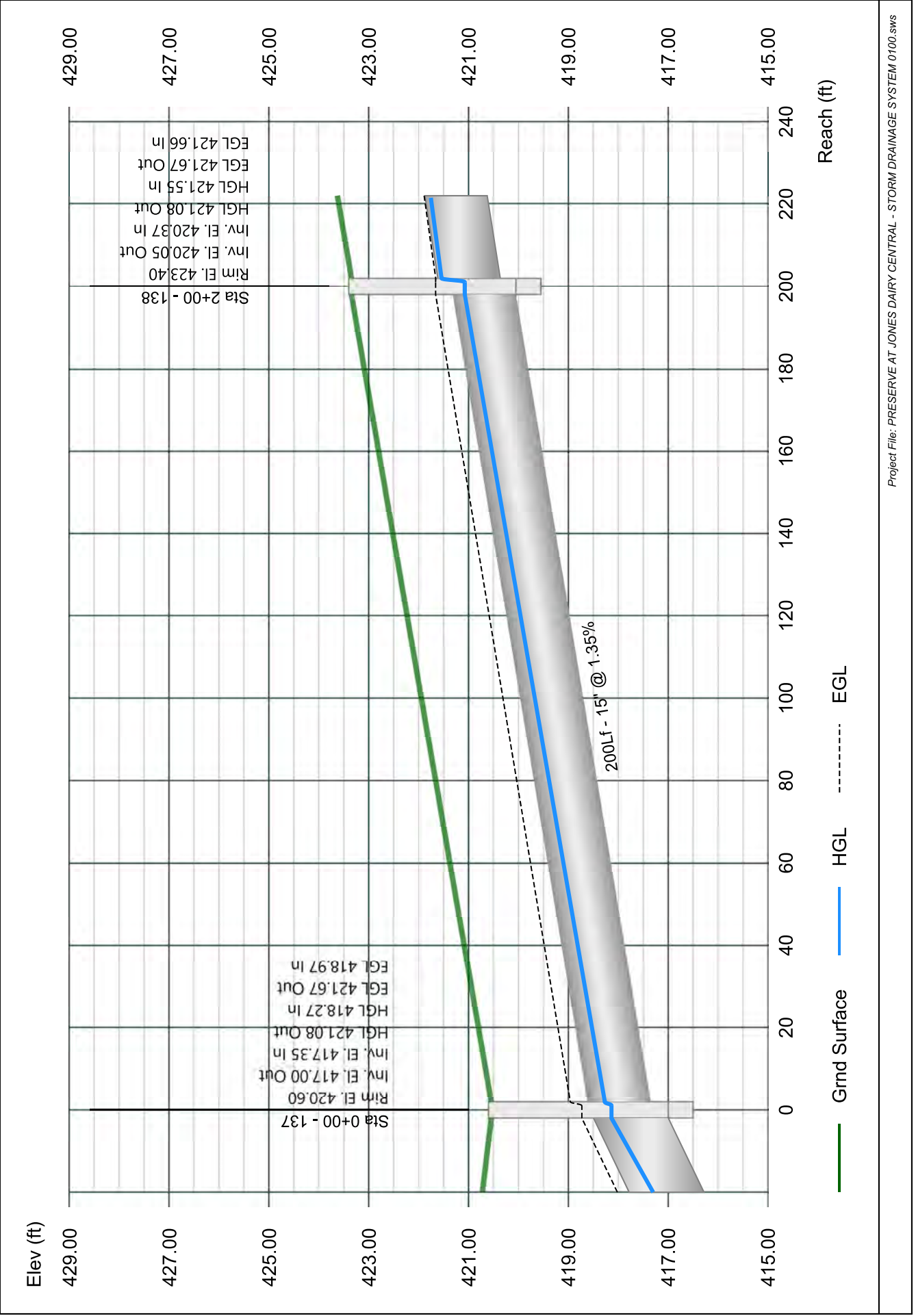


# Line 38 - 138 TO 137

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

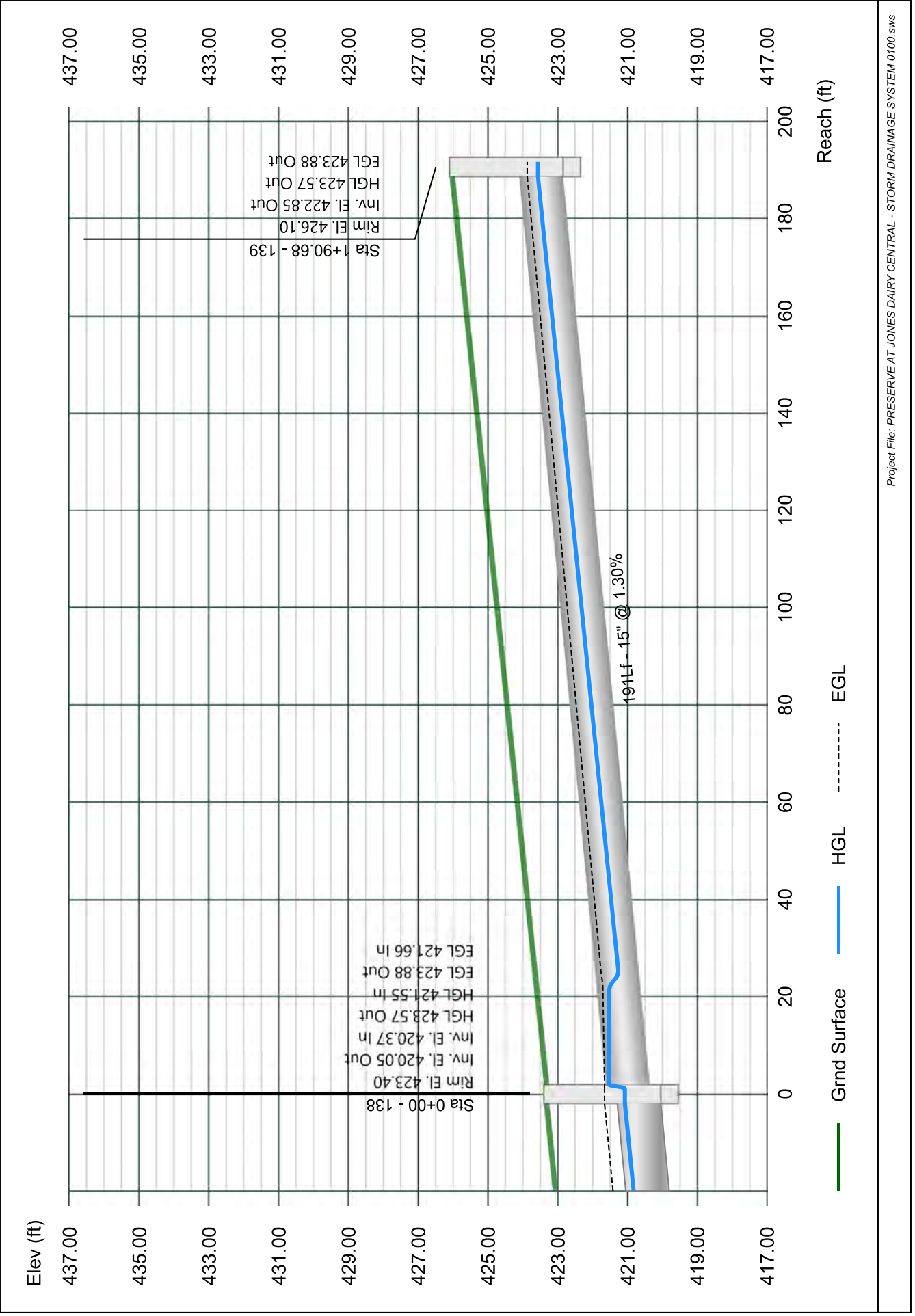


# Line 39 - 139 TO 138

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

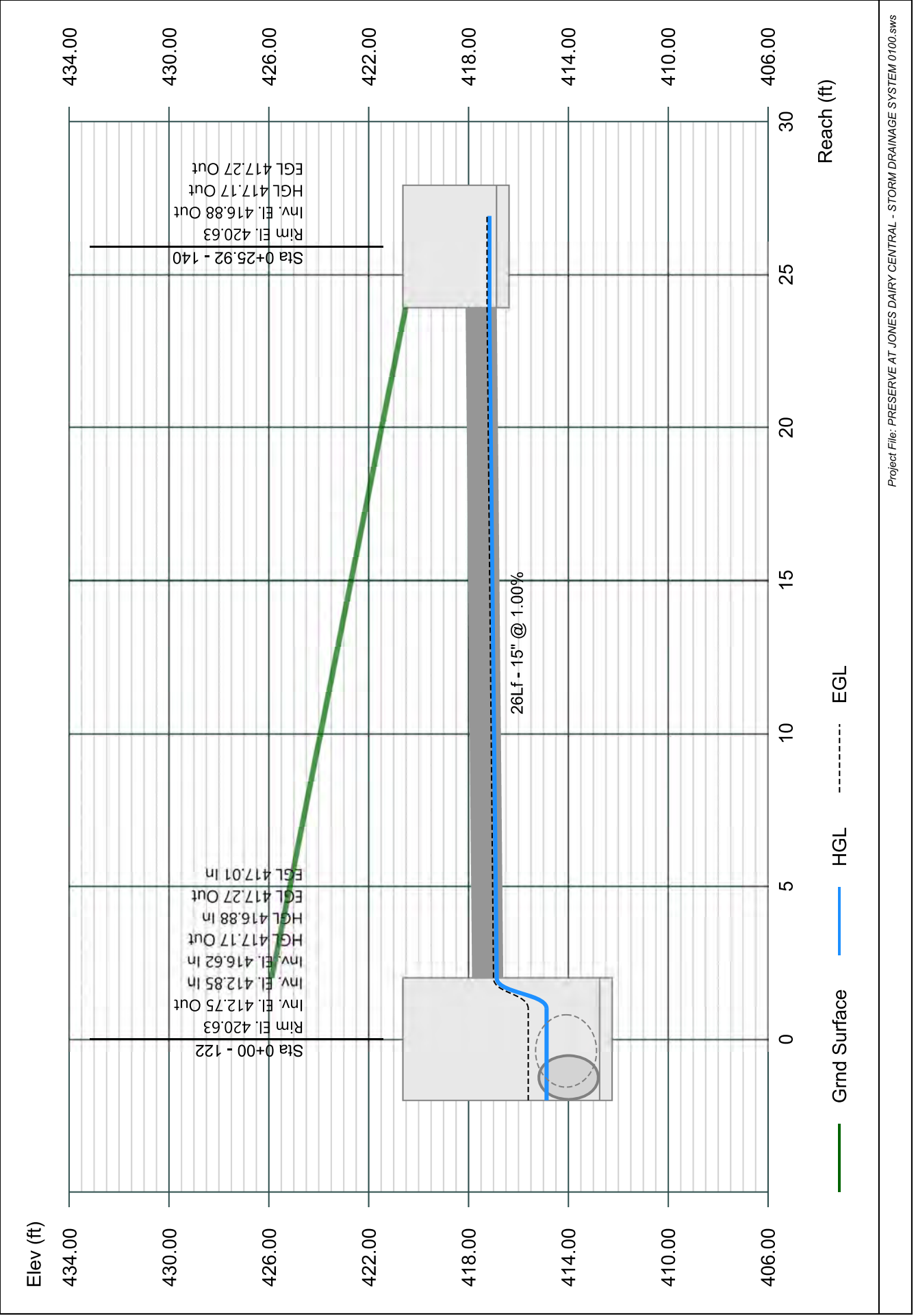


# Line 40 - 140 TO 122

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

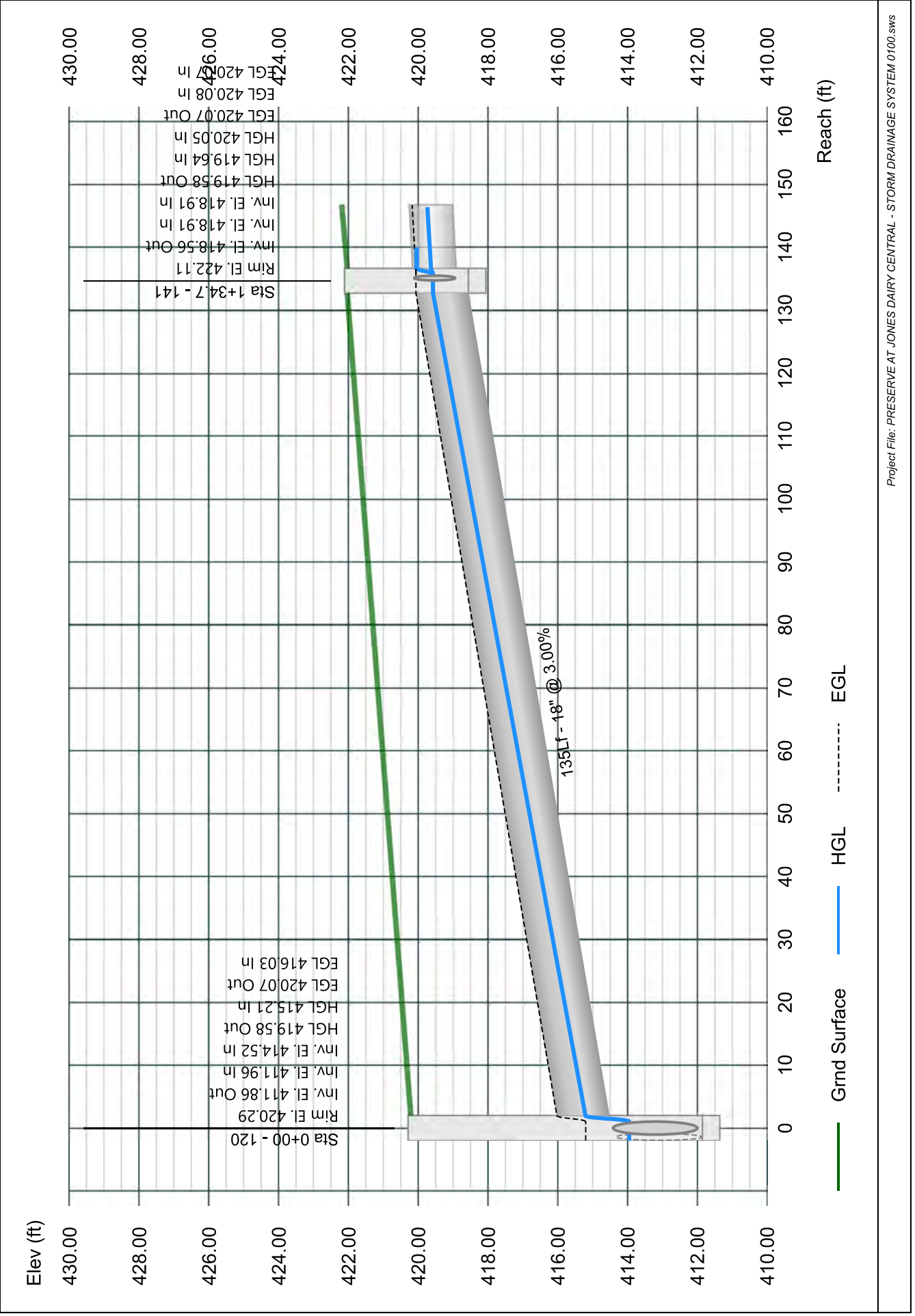


# Line 41 - 141 TO 120

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

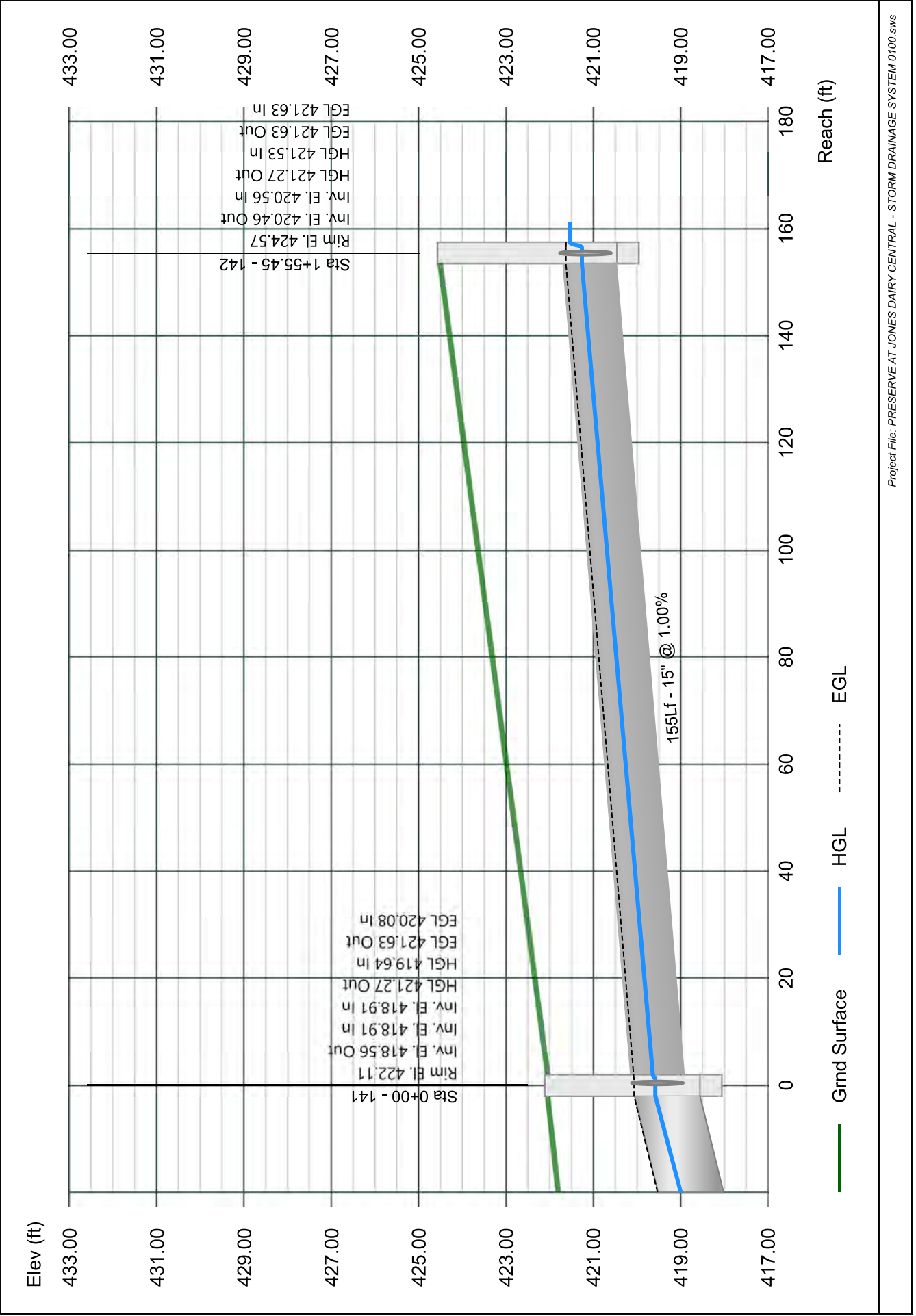


# Line 42 - 142 TO 141

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

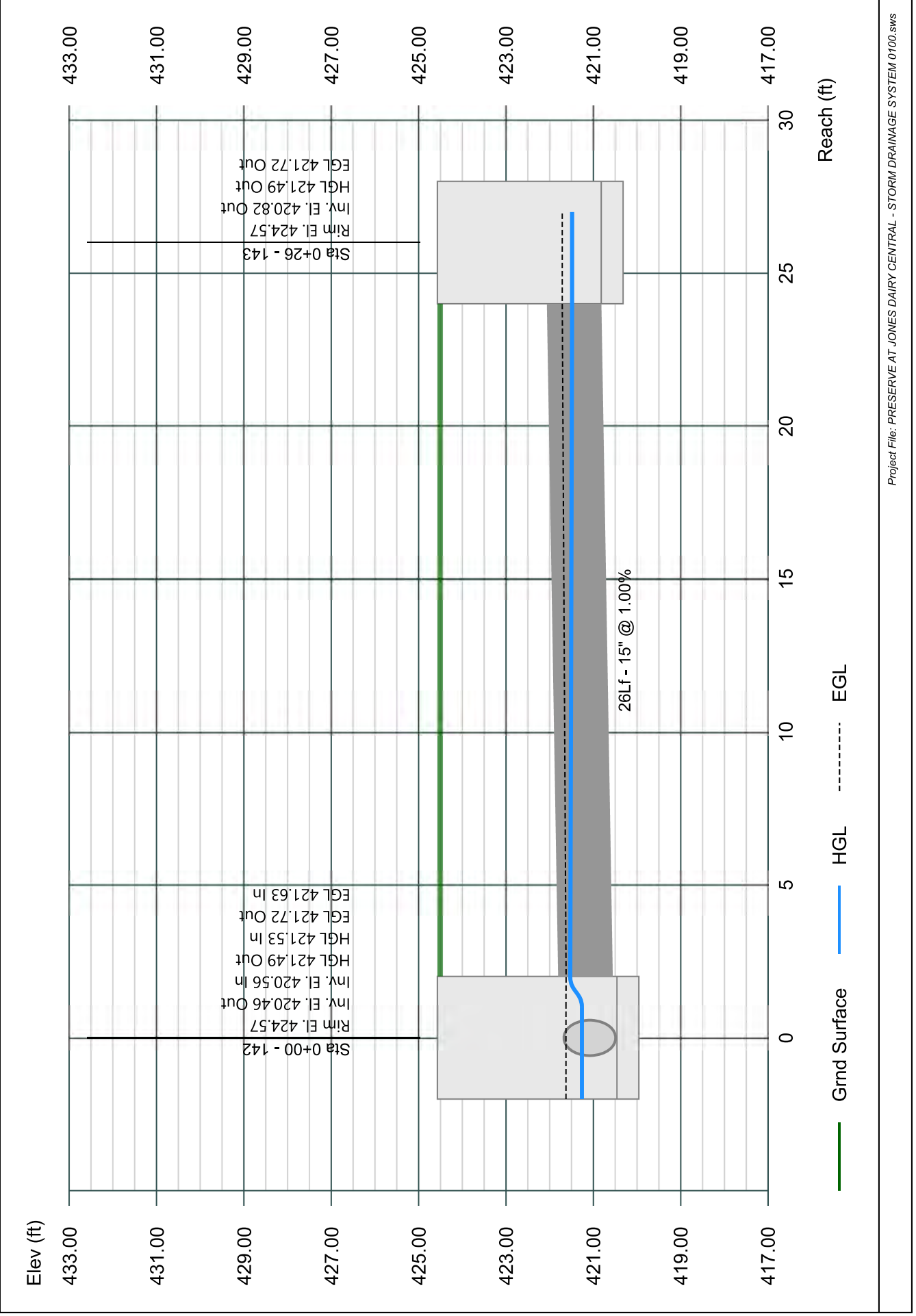


# Line 43 - 143 TO 142

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

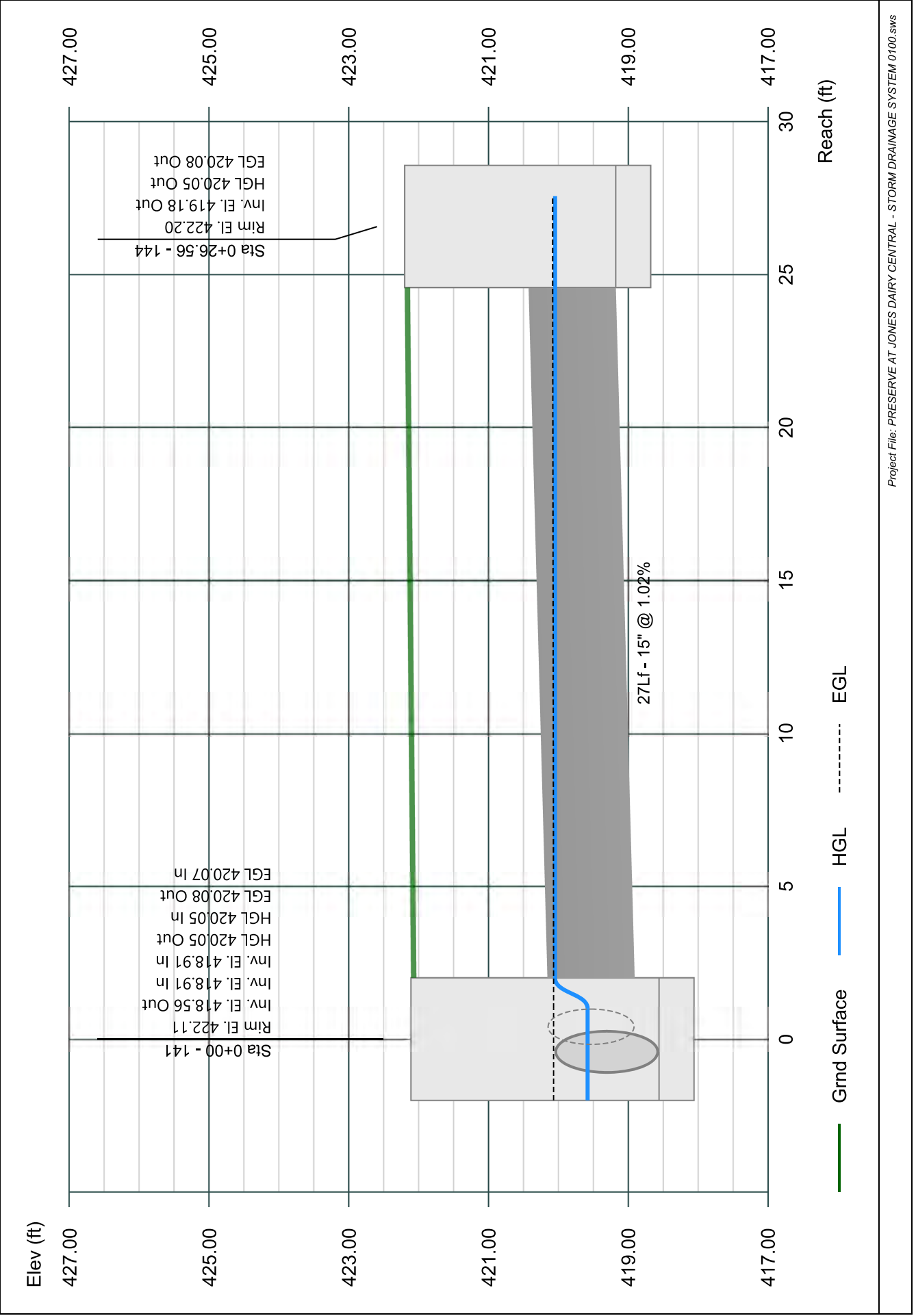


# Line 44 - 144 TO 141

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

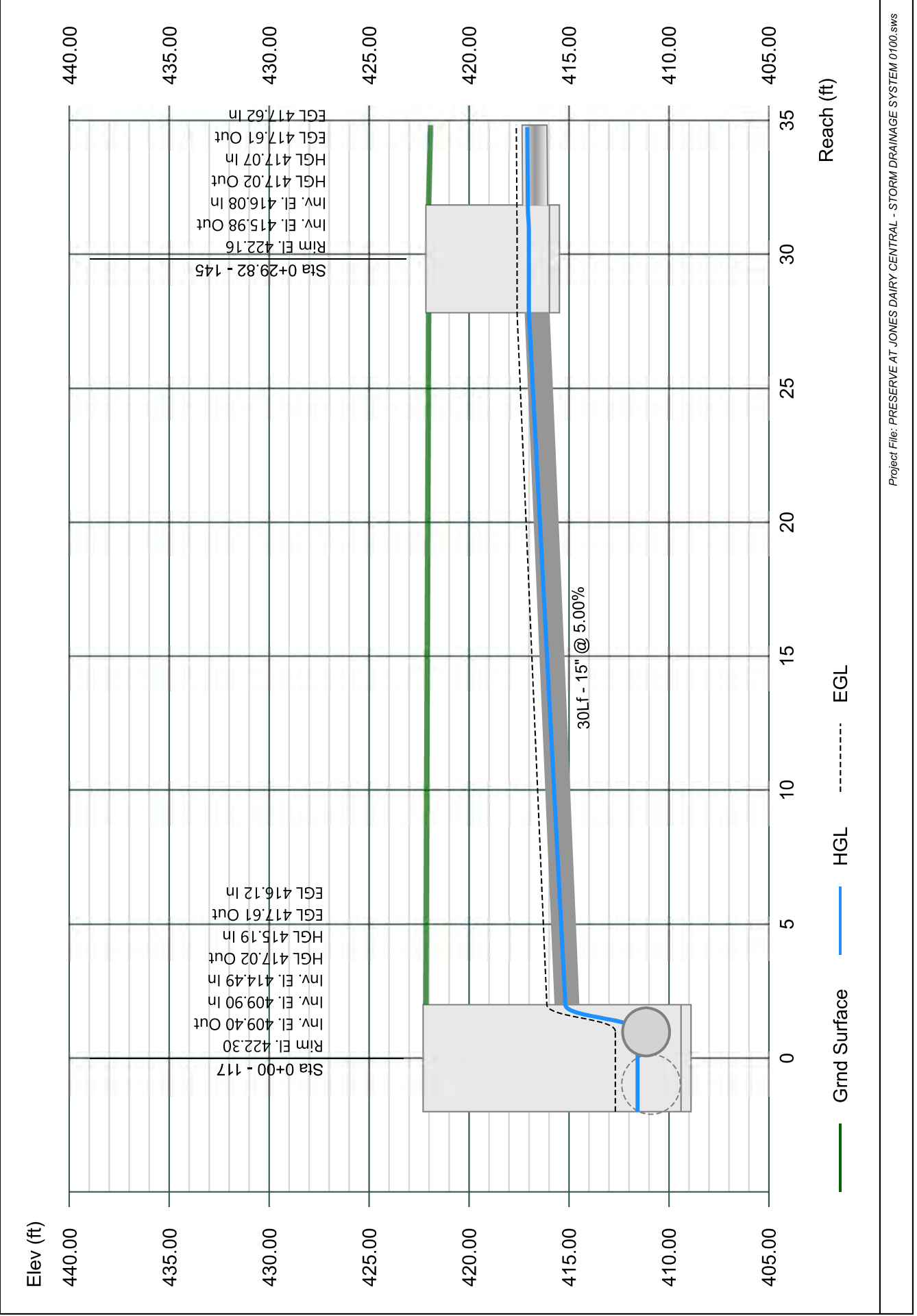


# Line 45 - 145 to 117

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



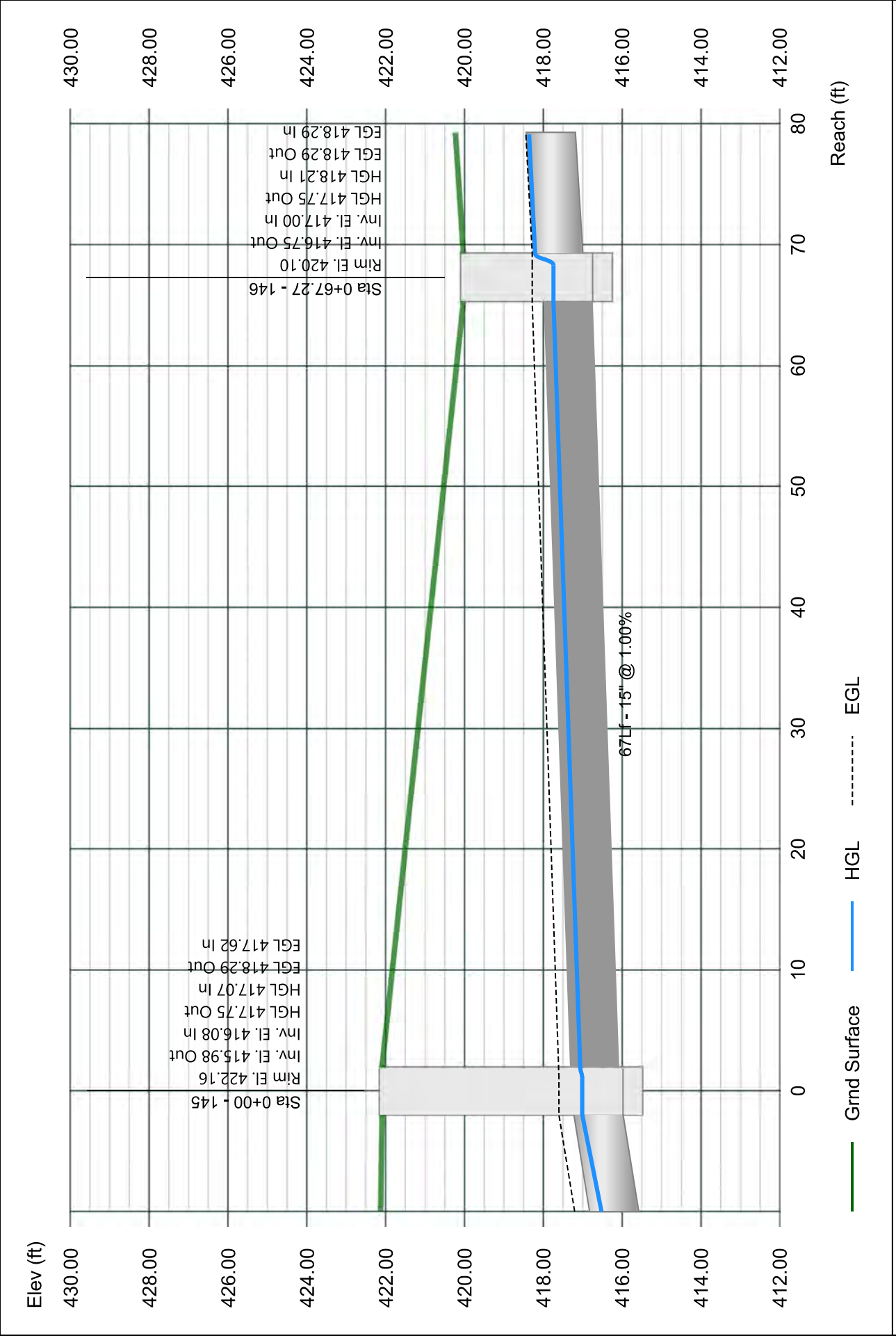


# Line 46 - 146 to 145

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

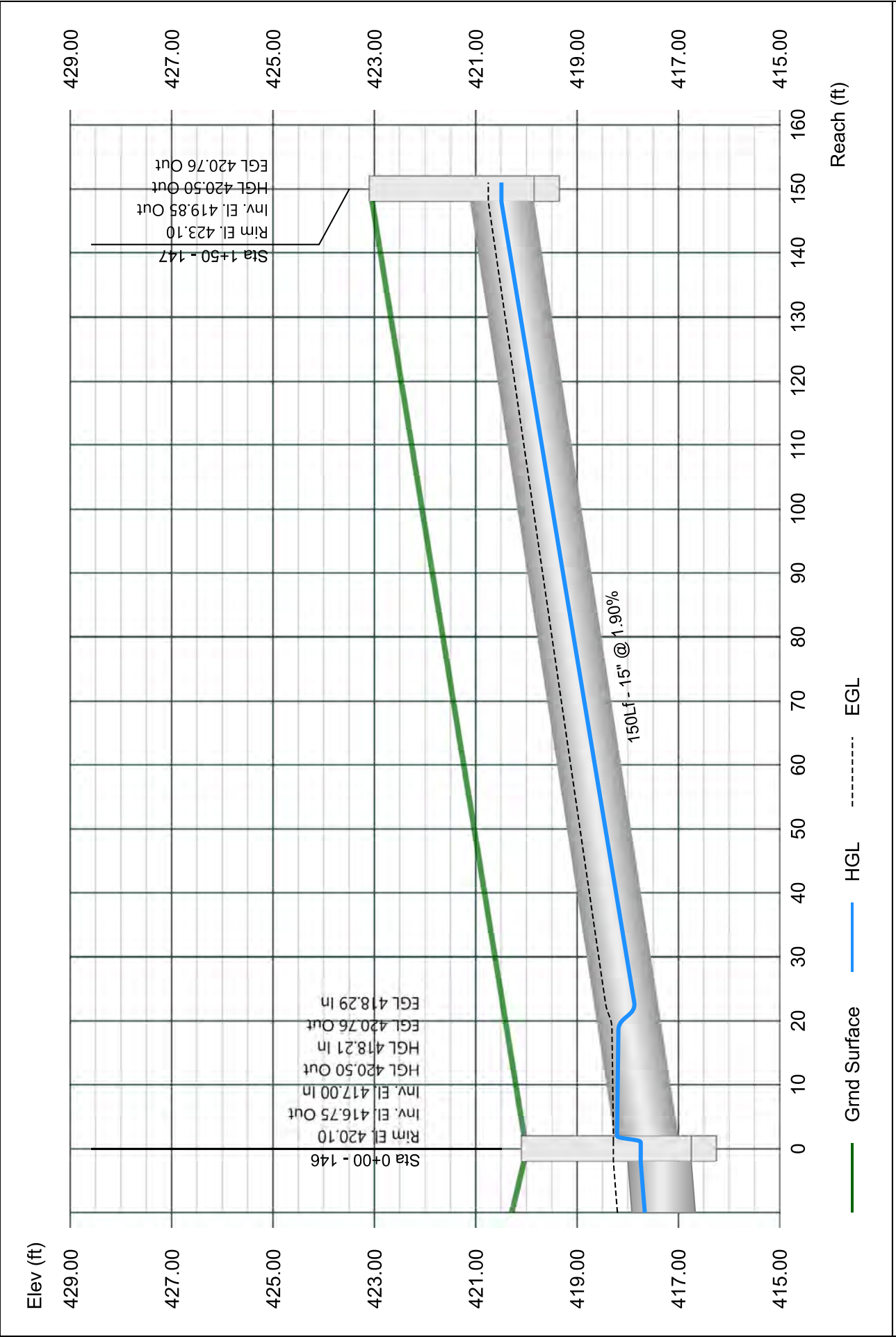


# Line 47 - 147 to 146

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

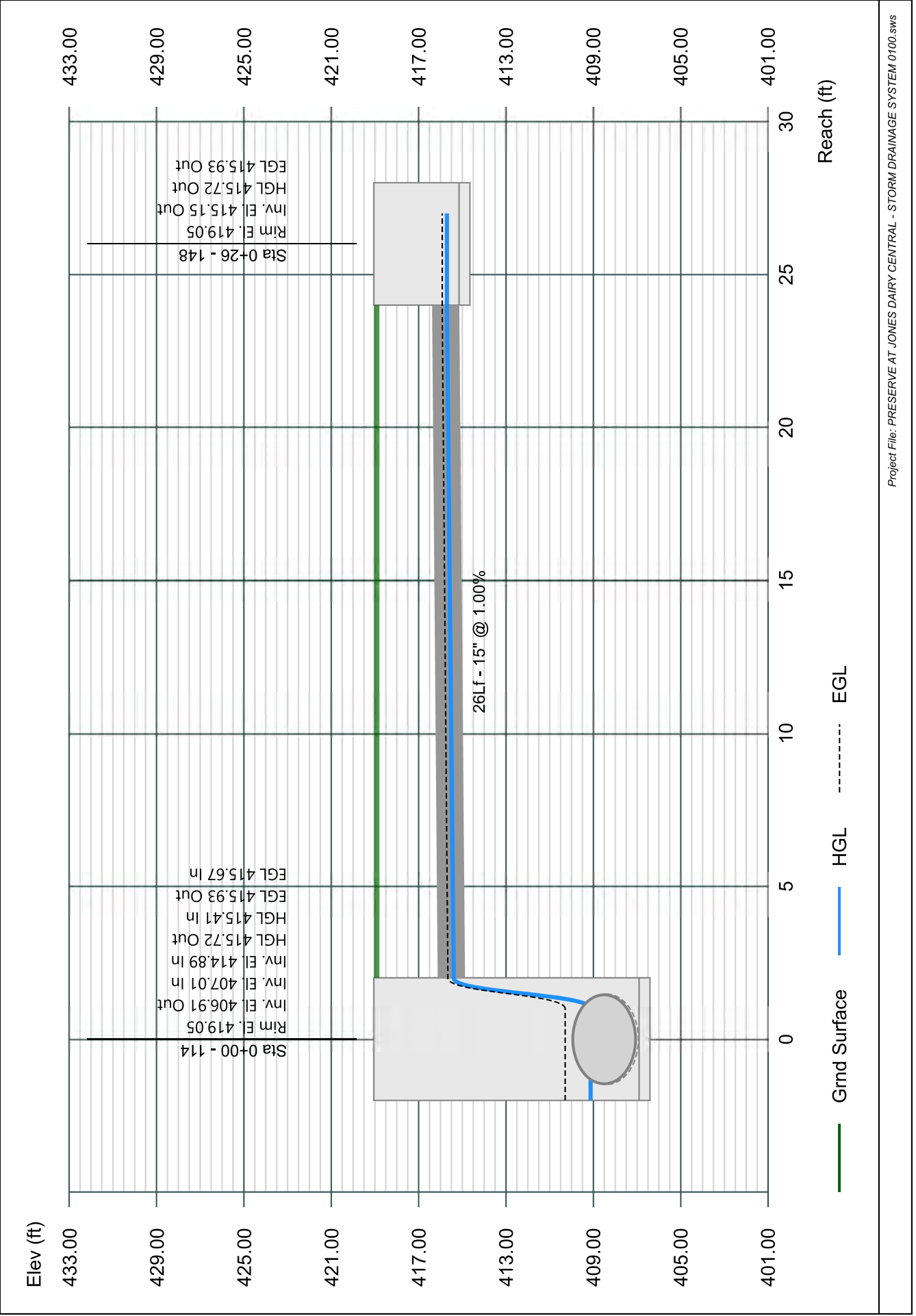


# Line 48 - 148 TO 114

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

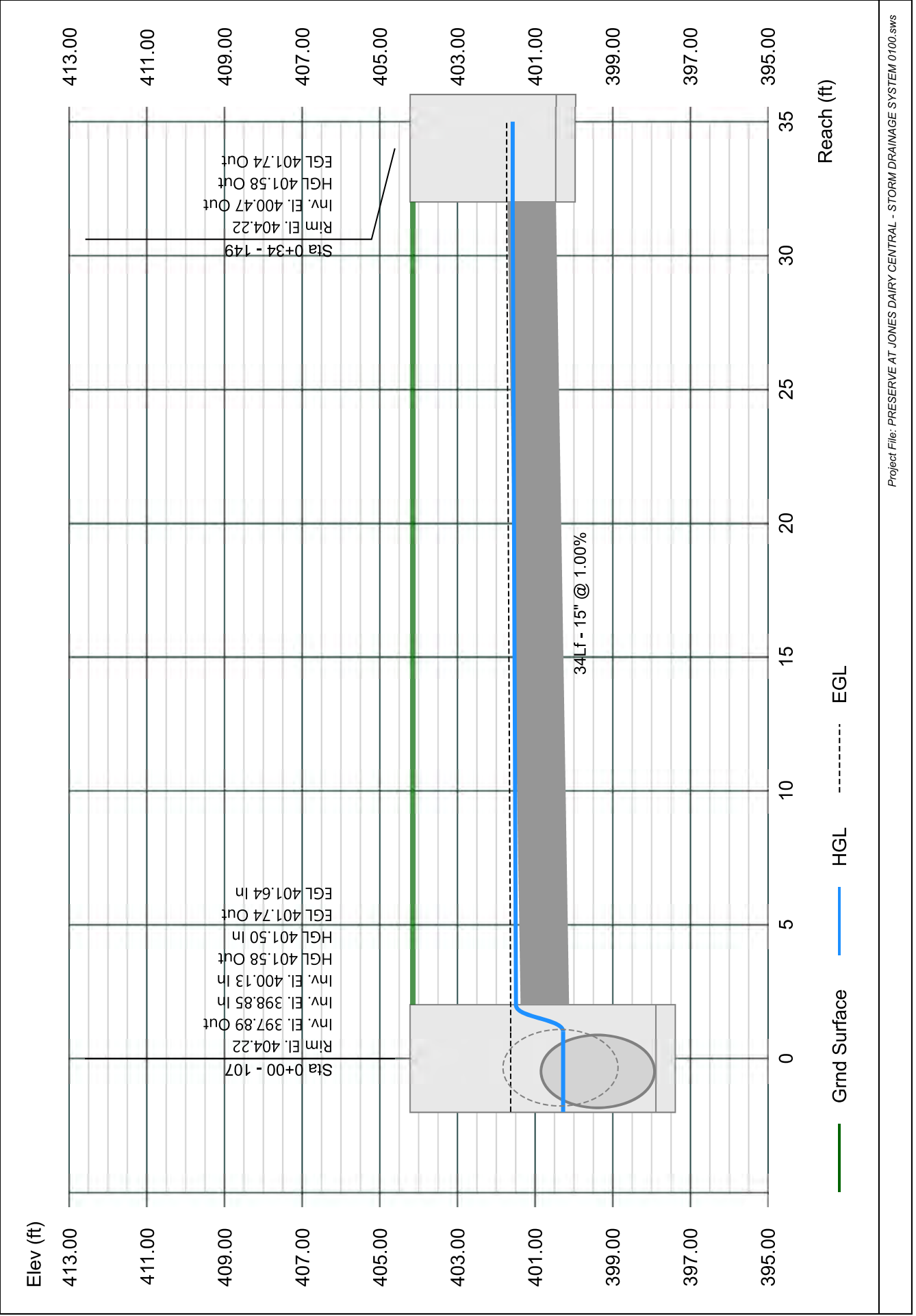


# Line 49 - 149 TO 107

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

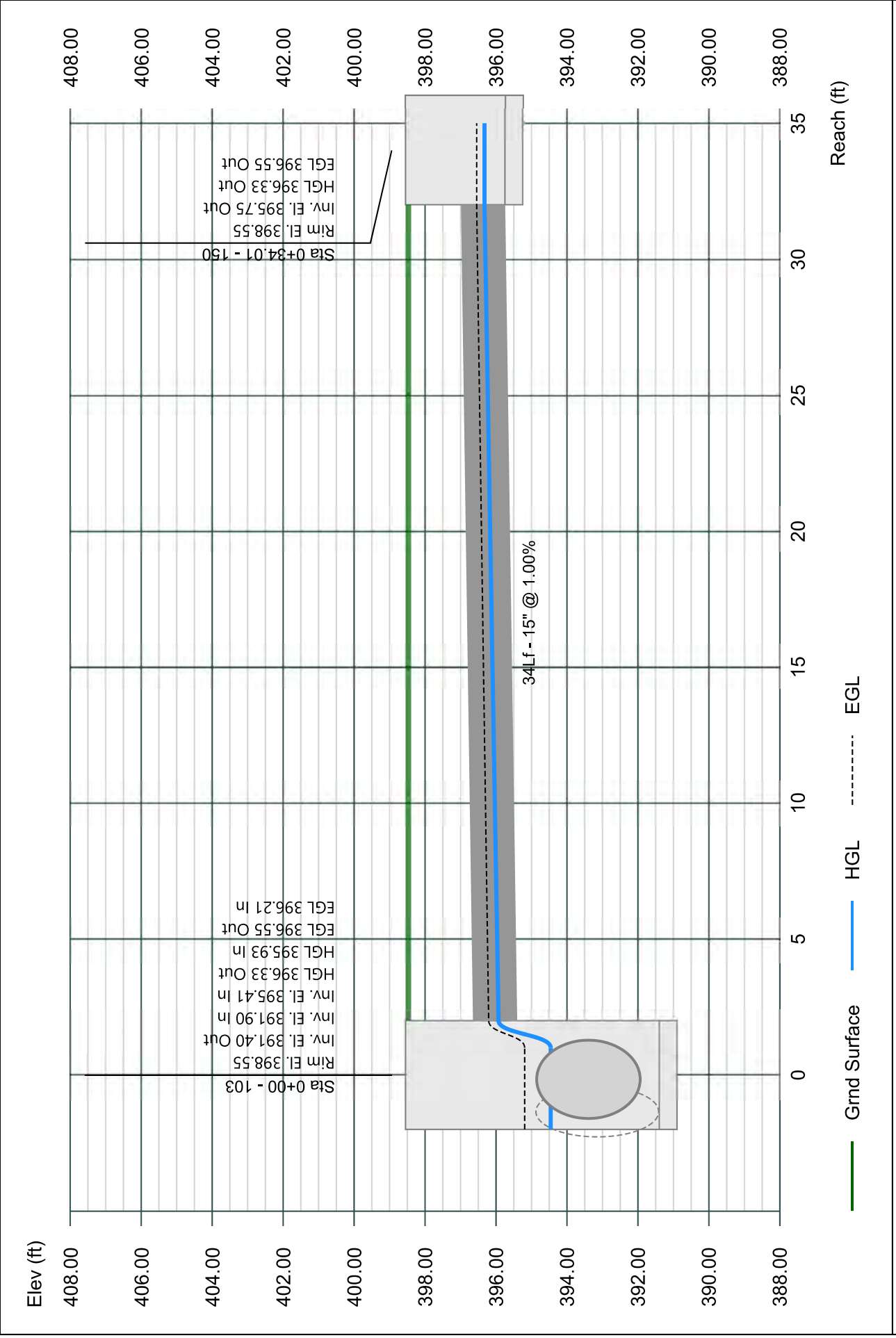


# Line 50 - 150 TO 103

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

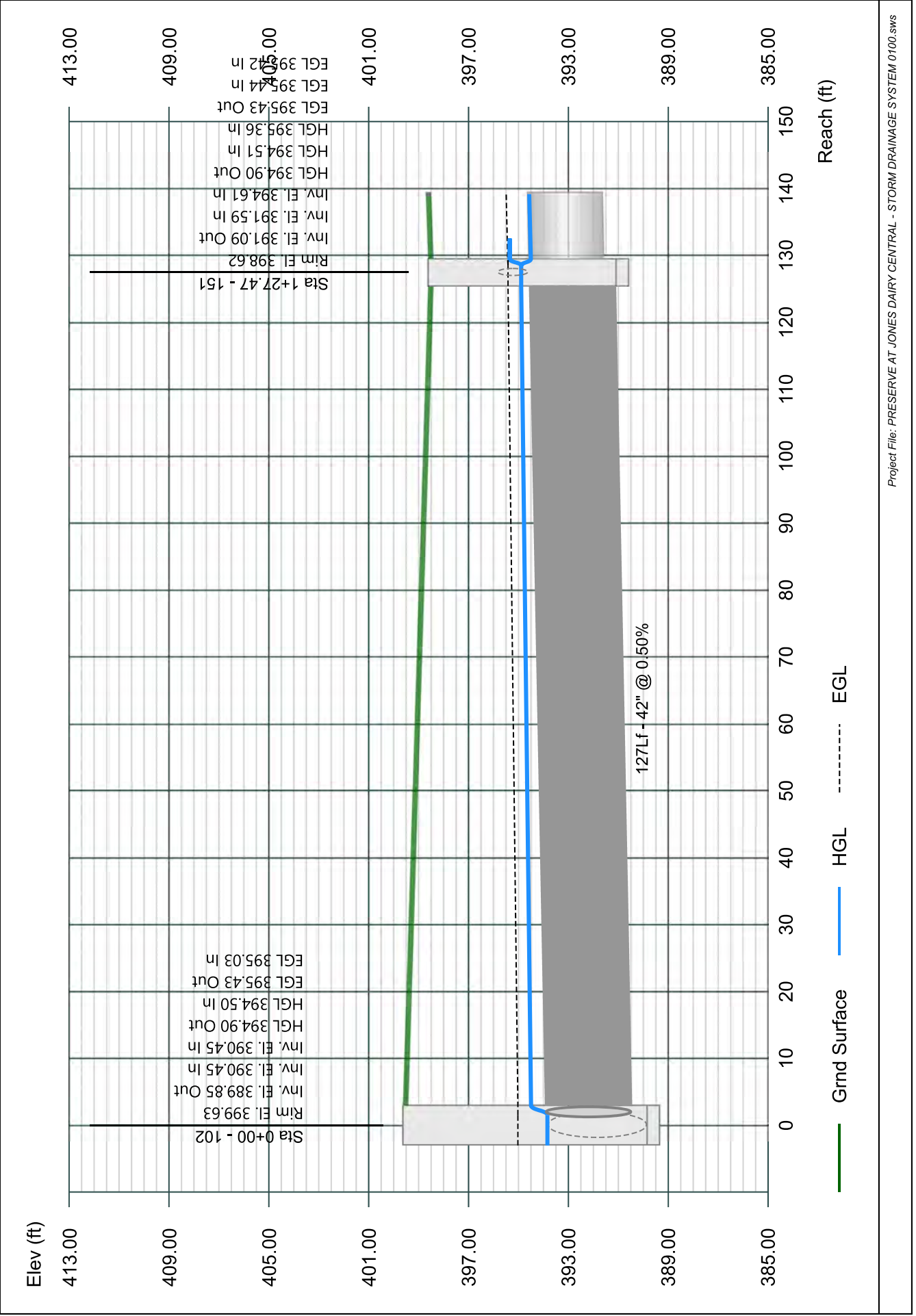


# Line 51 - 151 TO 102

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

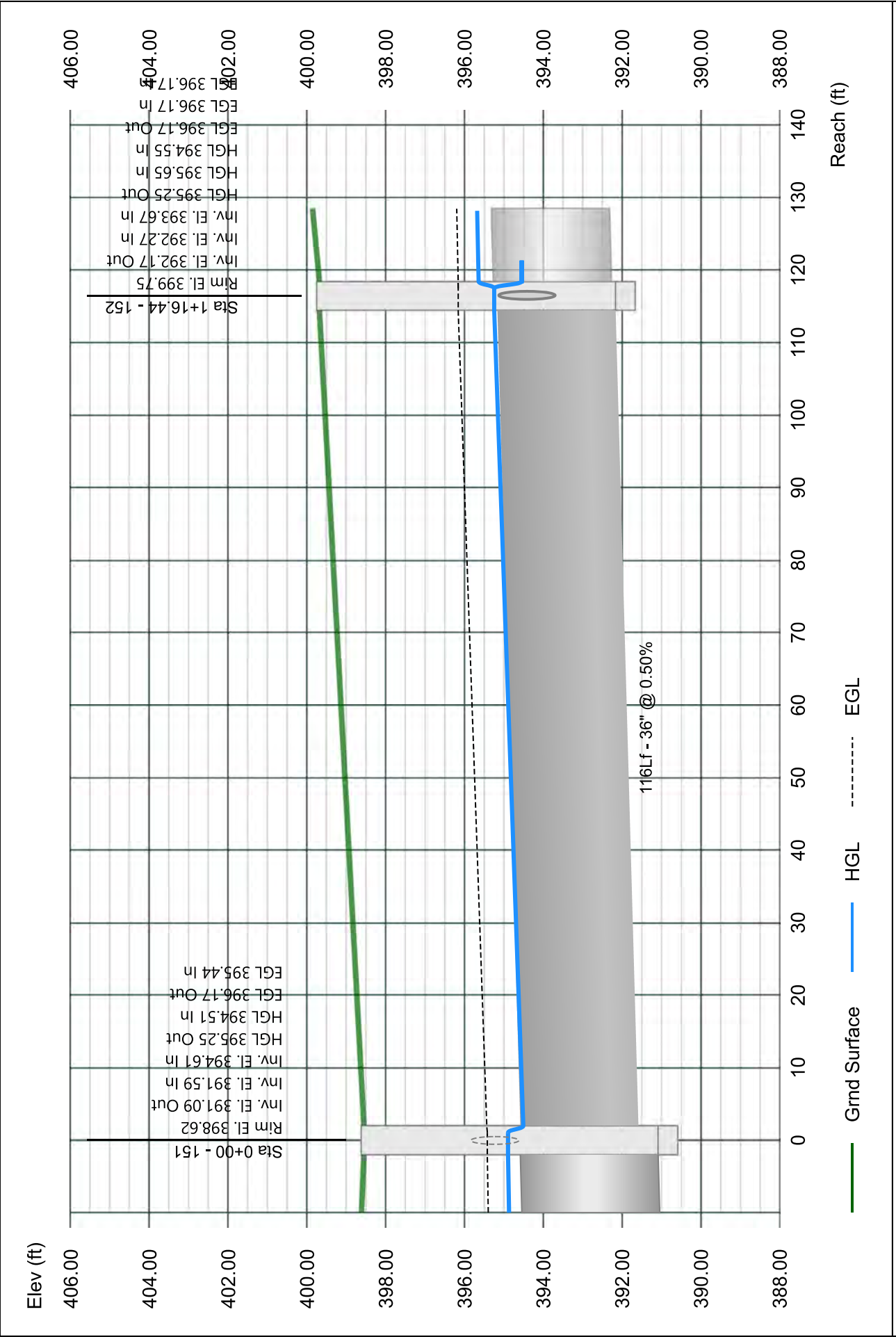


# Line 52 - 152 TO 151

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

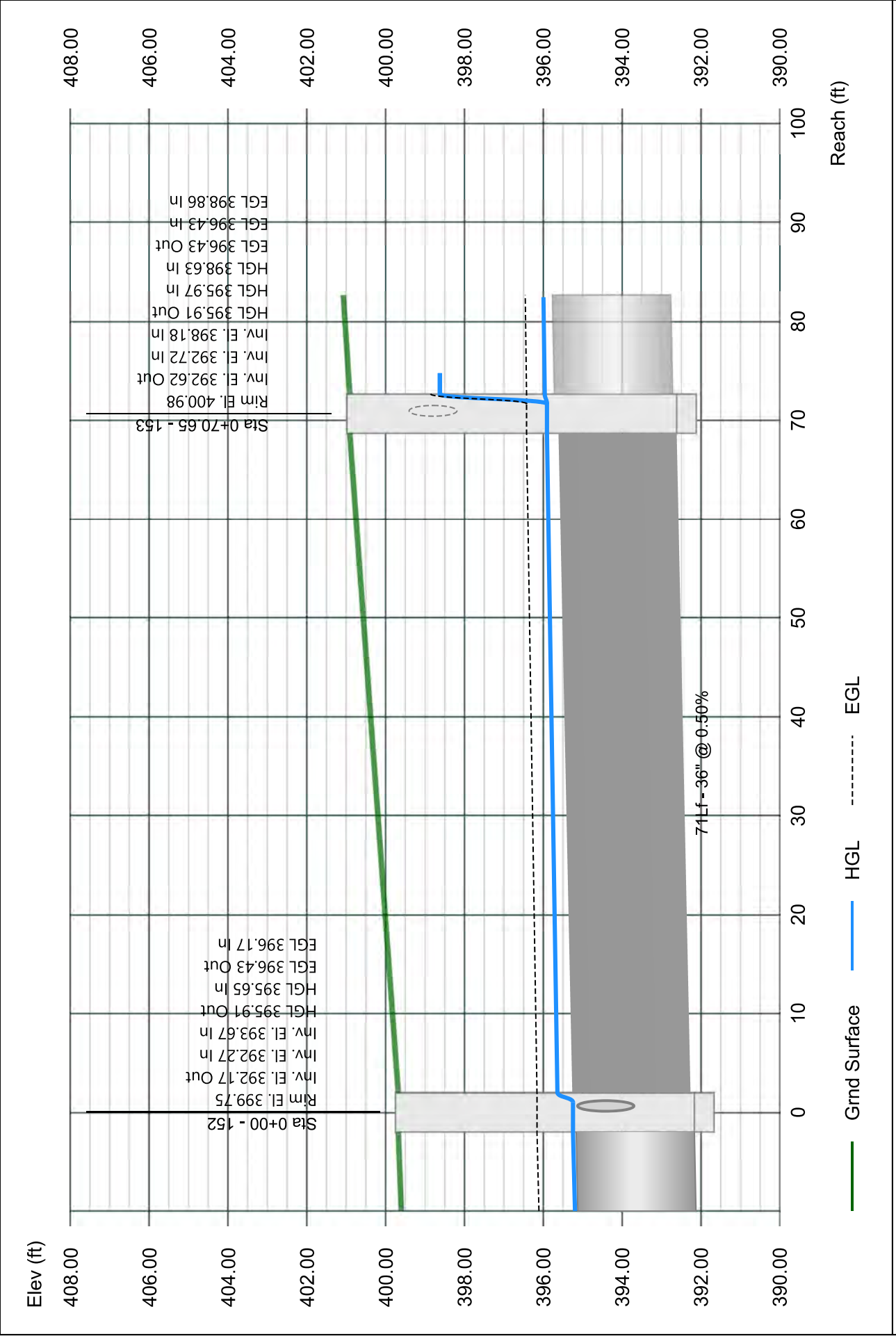


# Line 53 - 153 TO 152

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



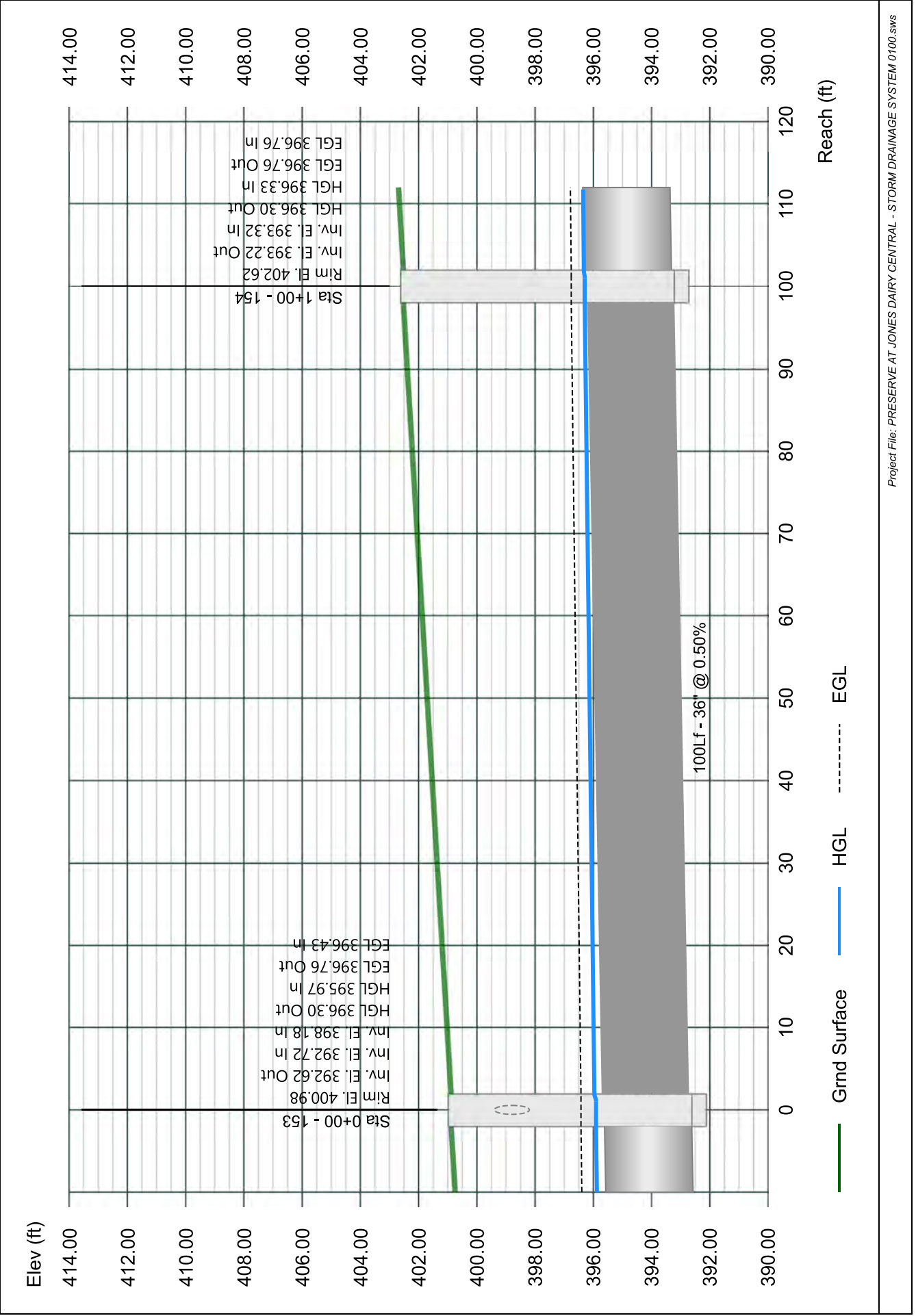


# Line 54 - 154 TO 153

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

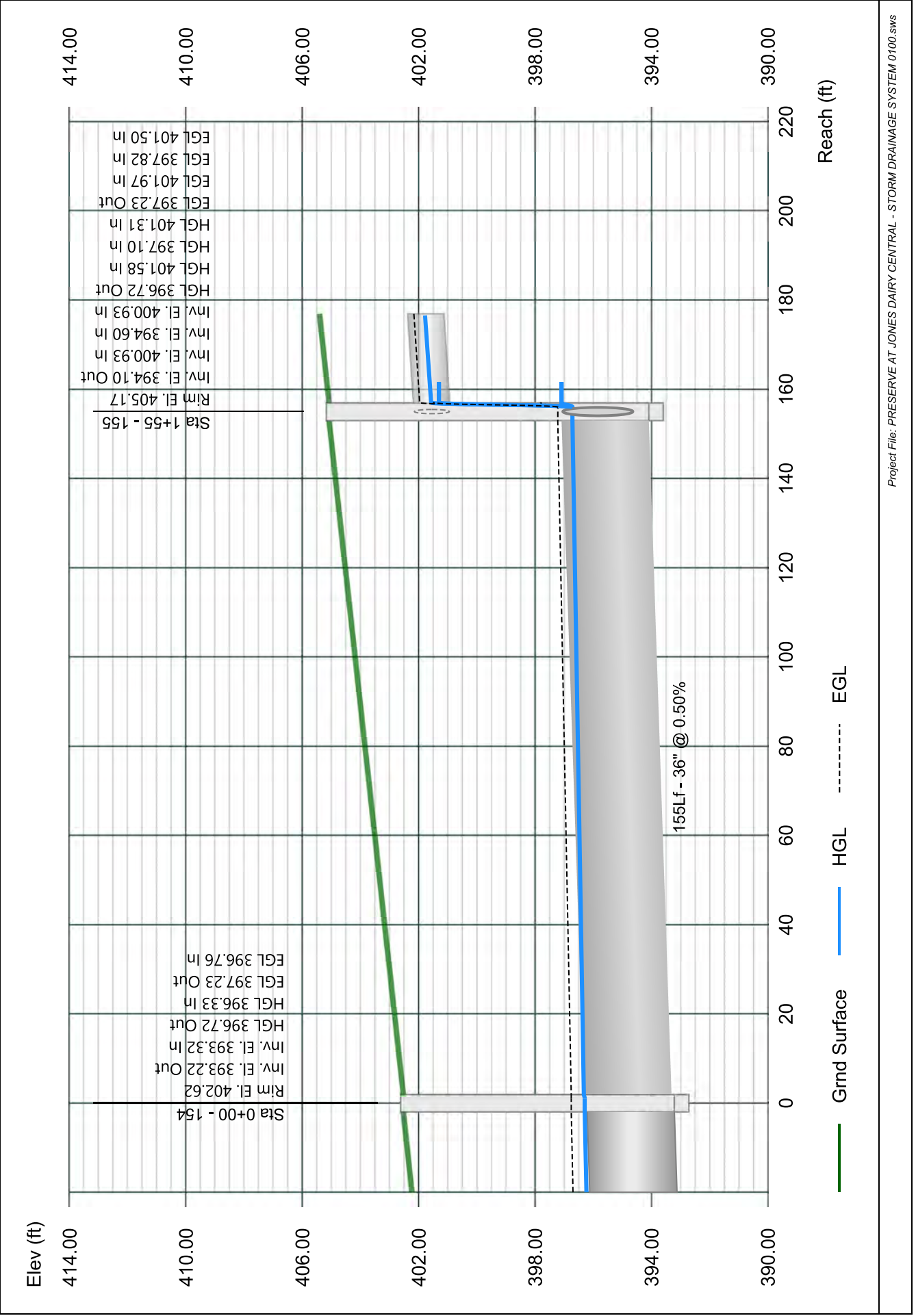


# Line 55 - 155 TO 154

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

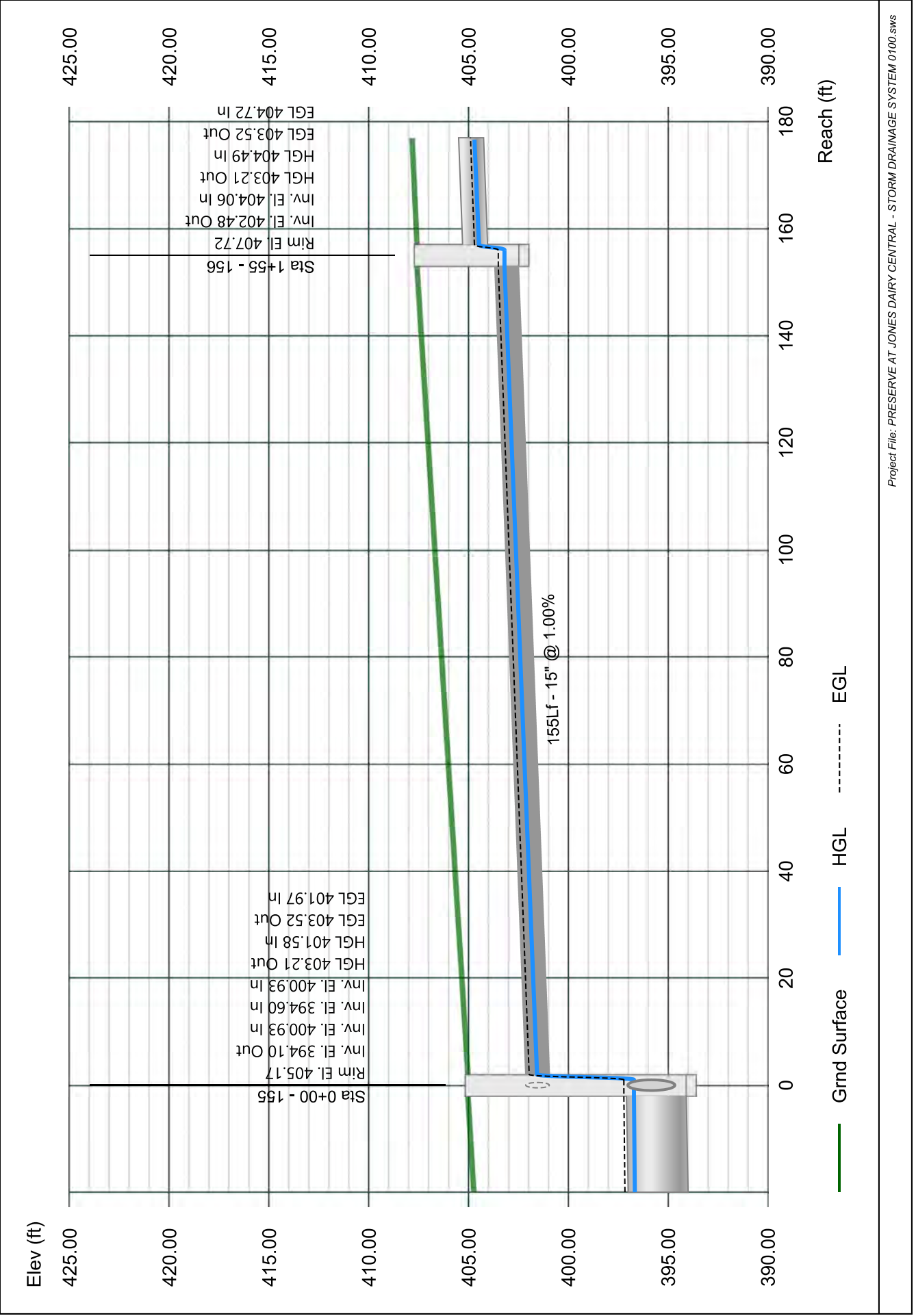


# Line 56 - 156 TO 155

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

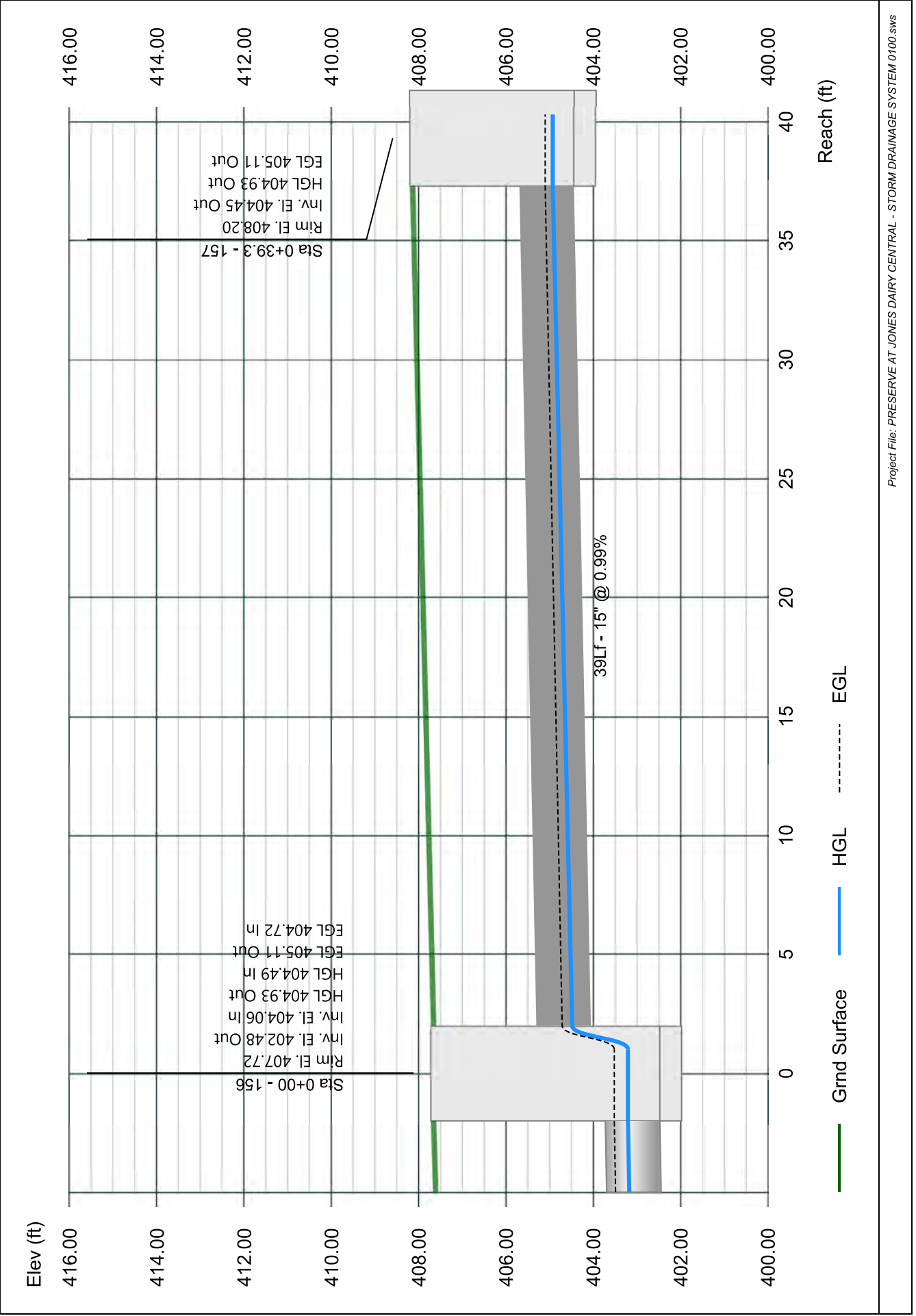


# Line 57 - 157 TO 156

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

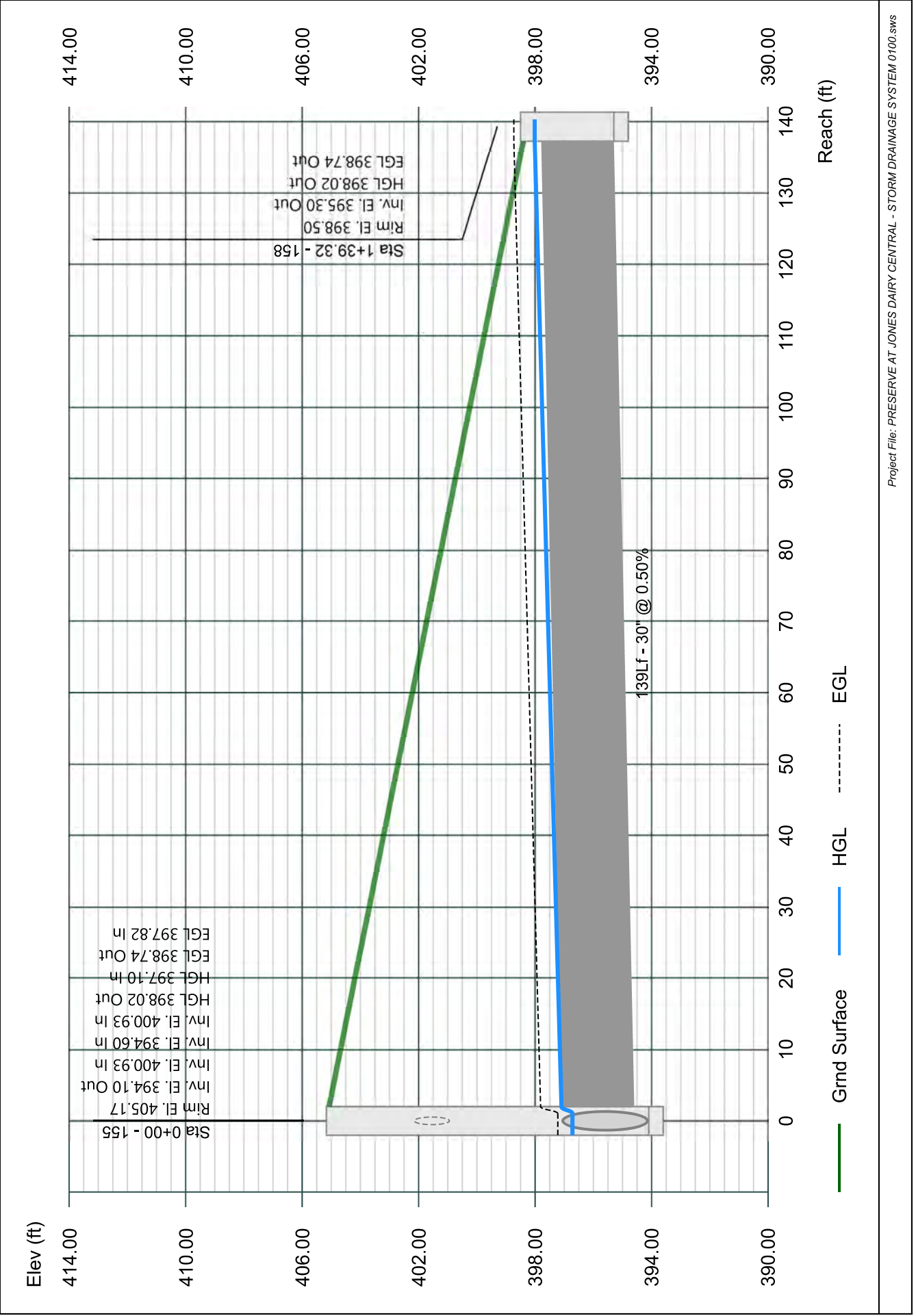


# Line 58 - 158 TO 155

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

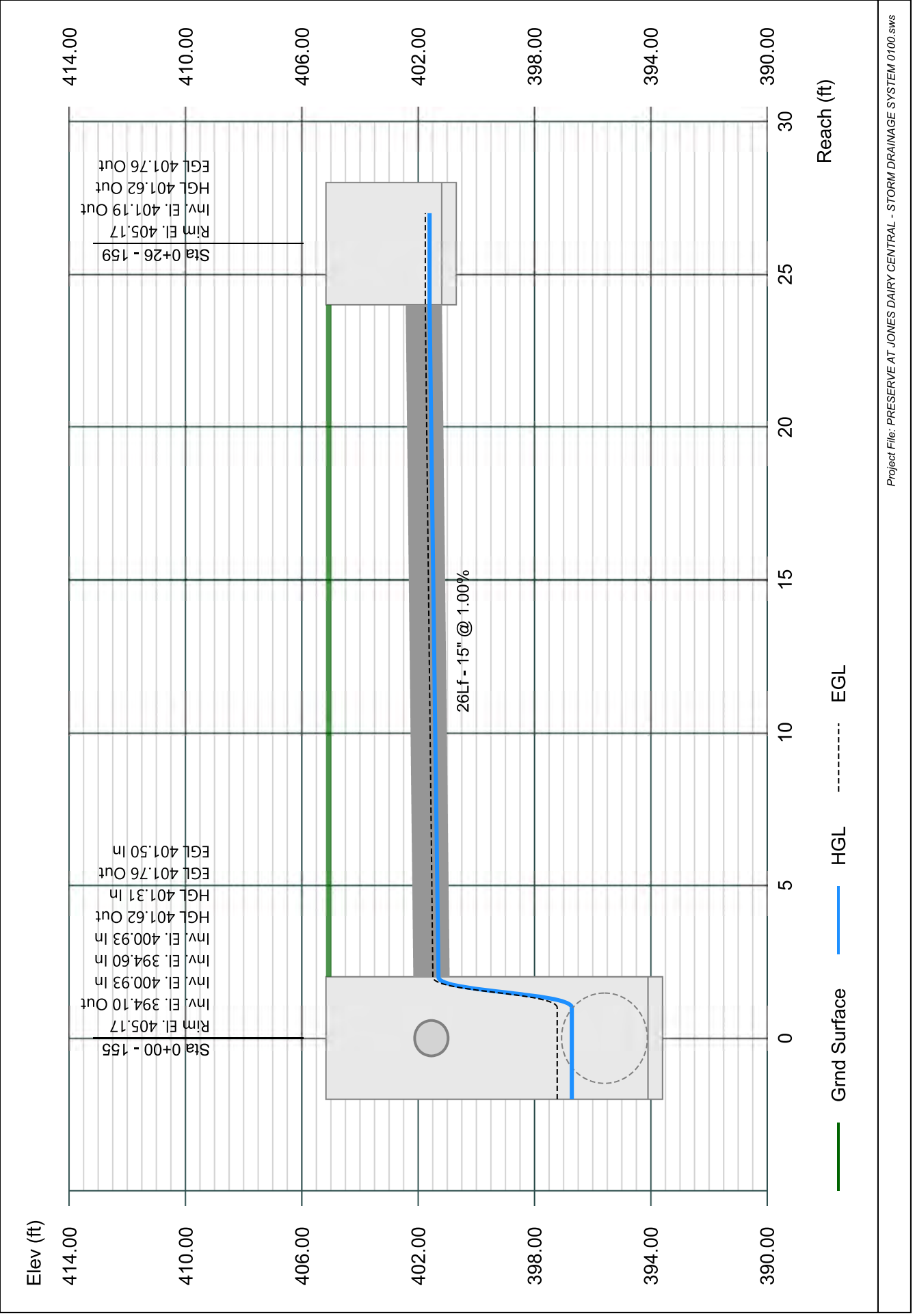


# Line 59 - 159 TO 155

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

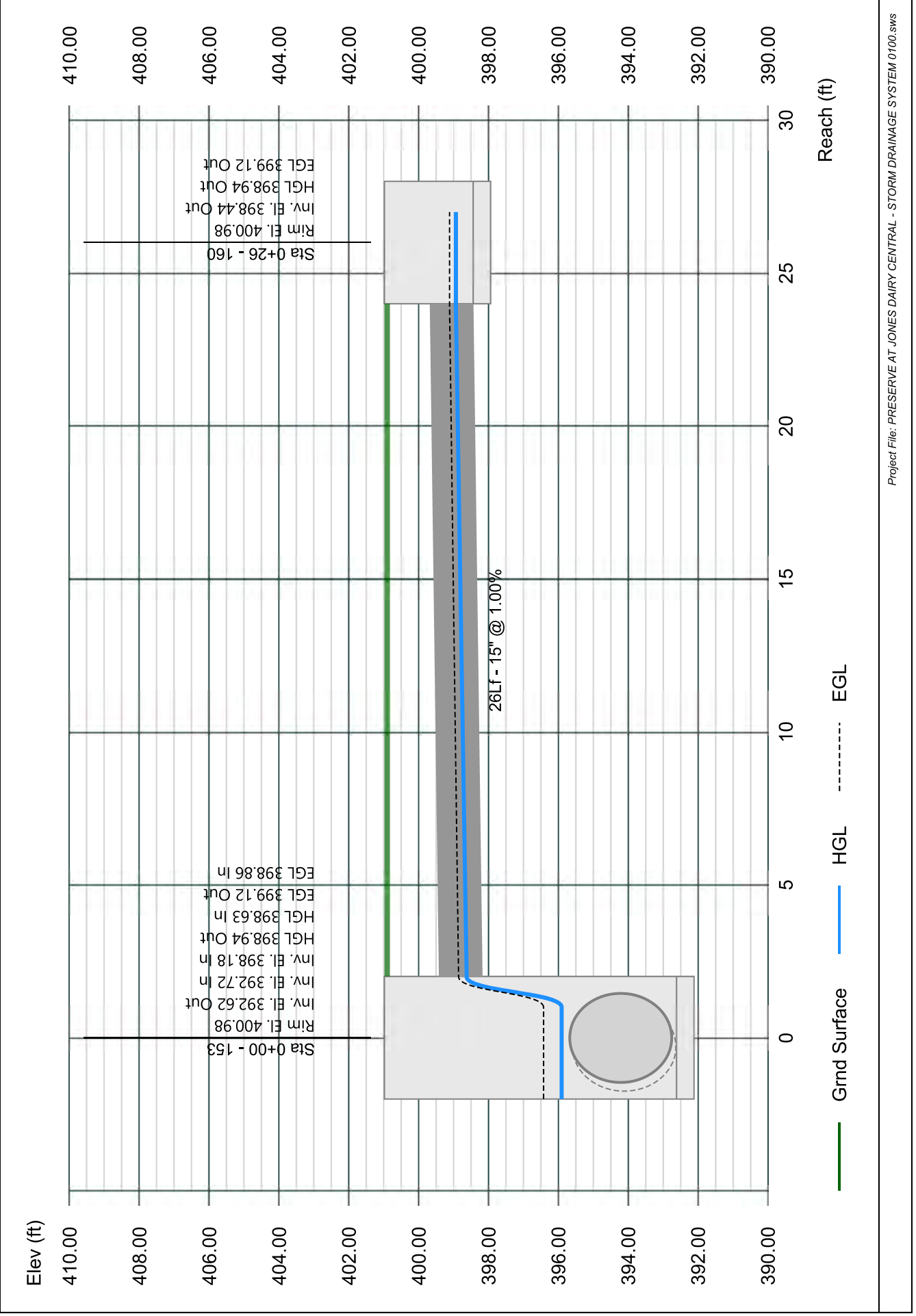


# Line 60 - 160 TO 153

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

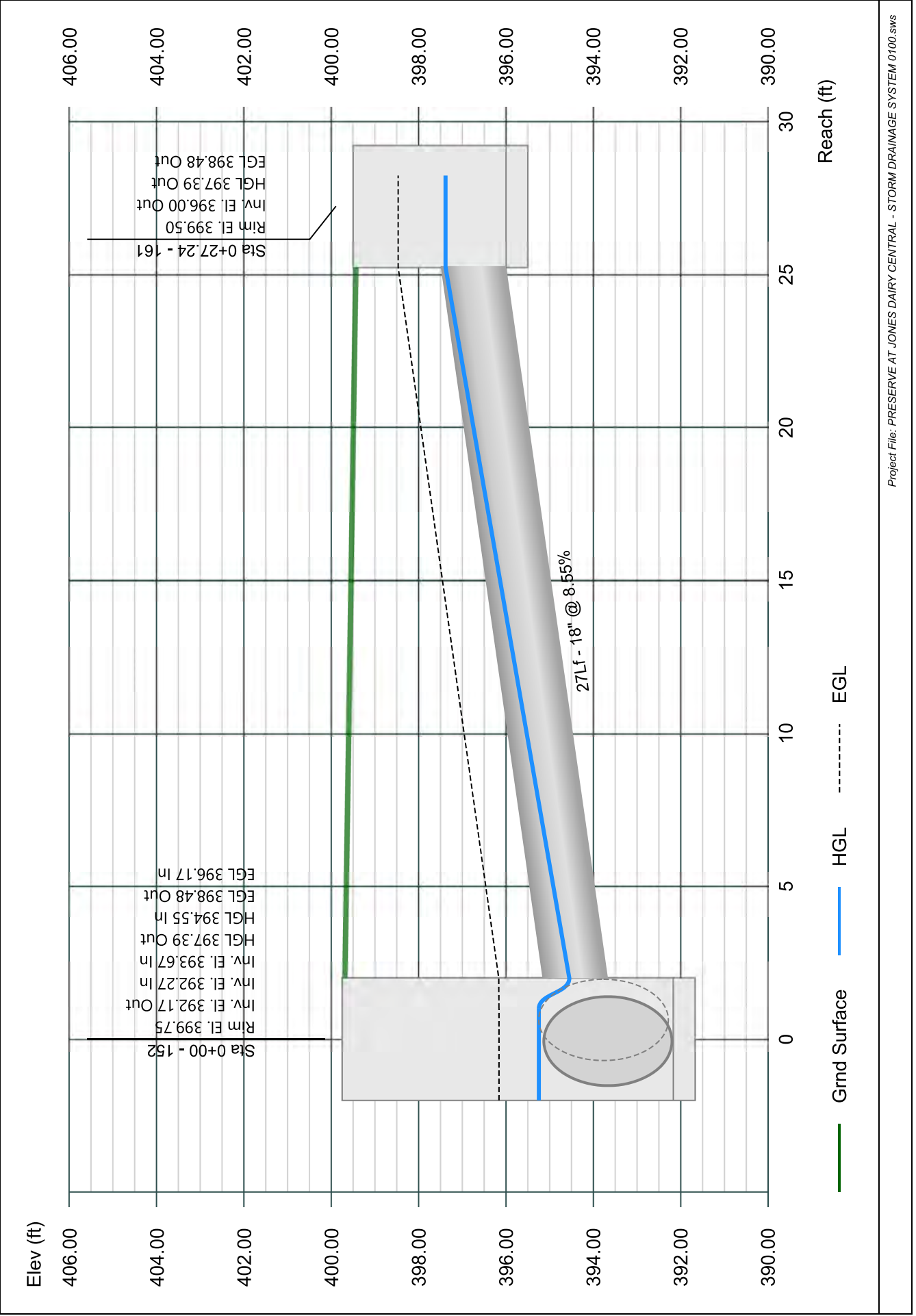


# Line 61 - 161 TO 152

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



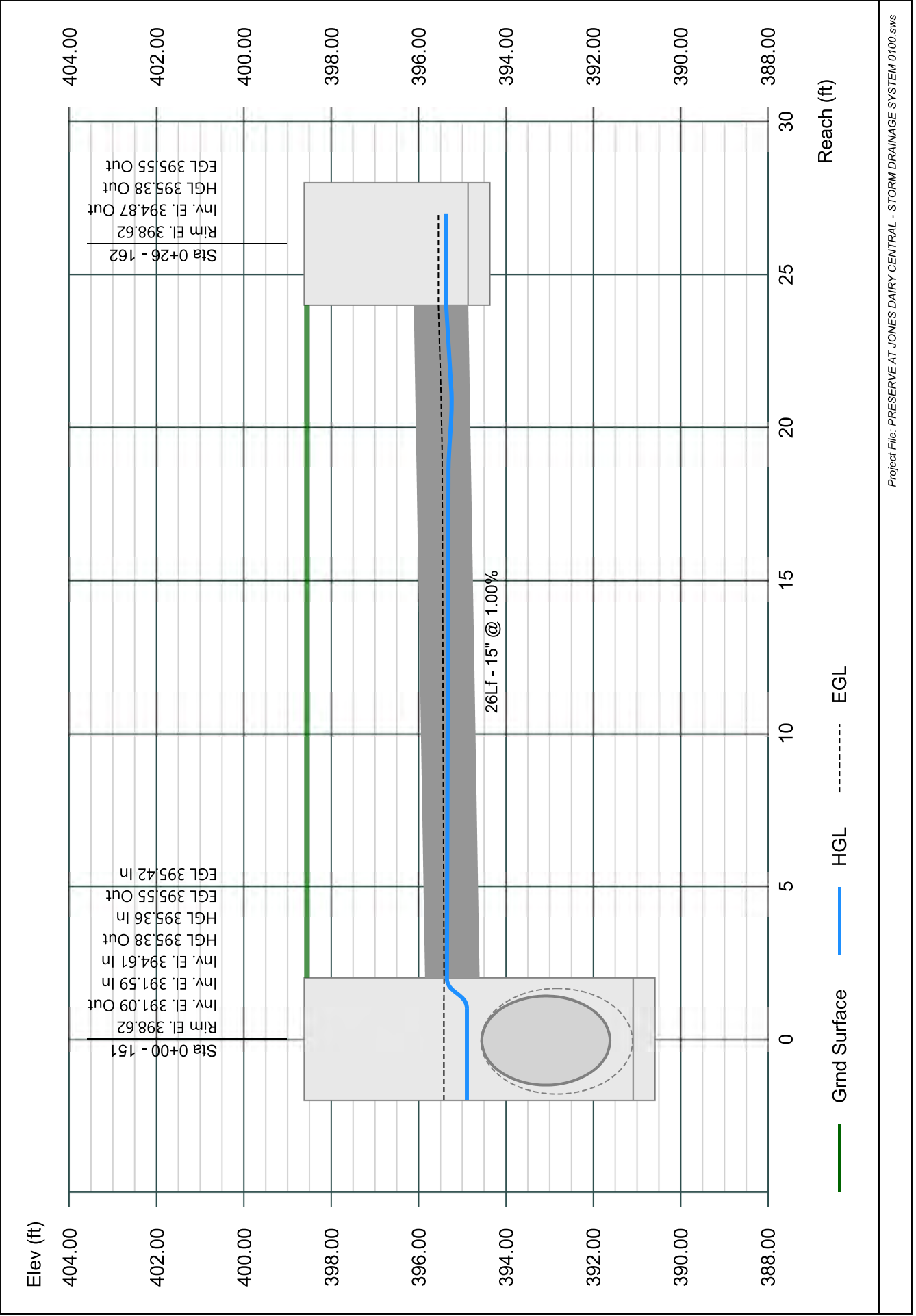


# Line 62 - 163 TO 151

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

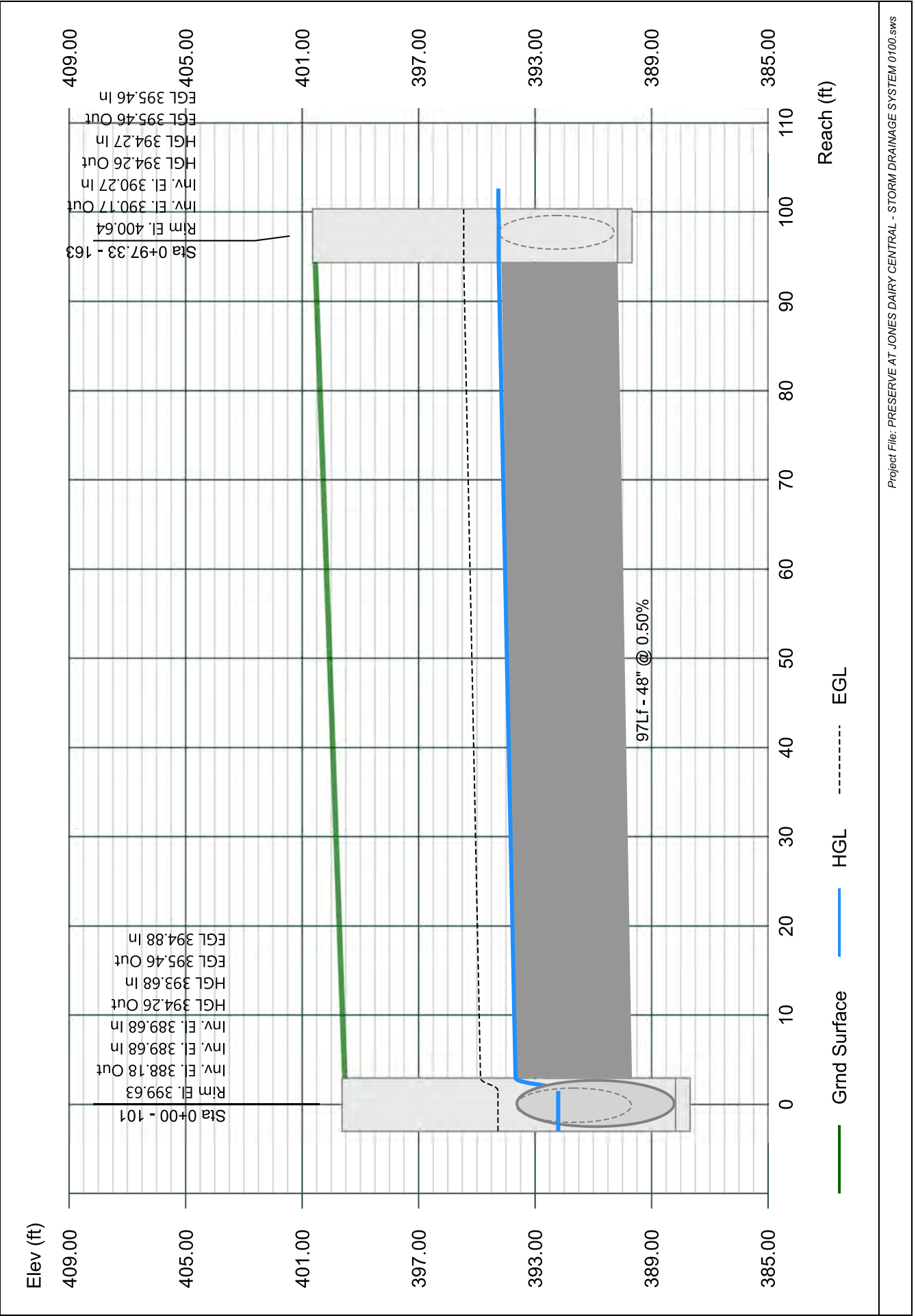


# Line 63 - 163 TO 101

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

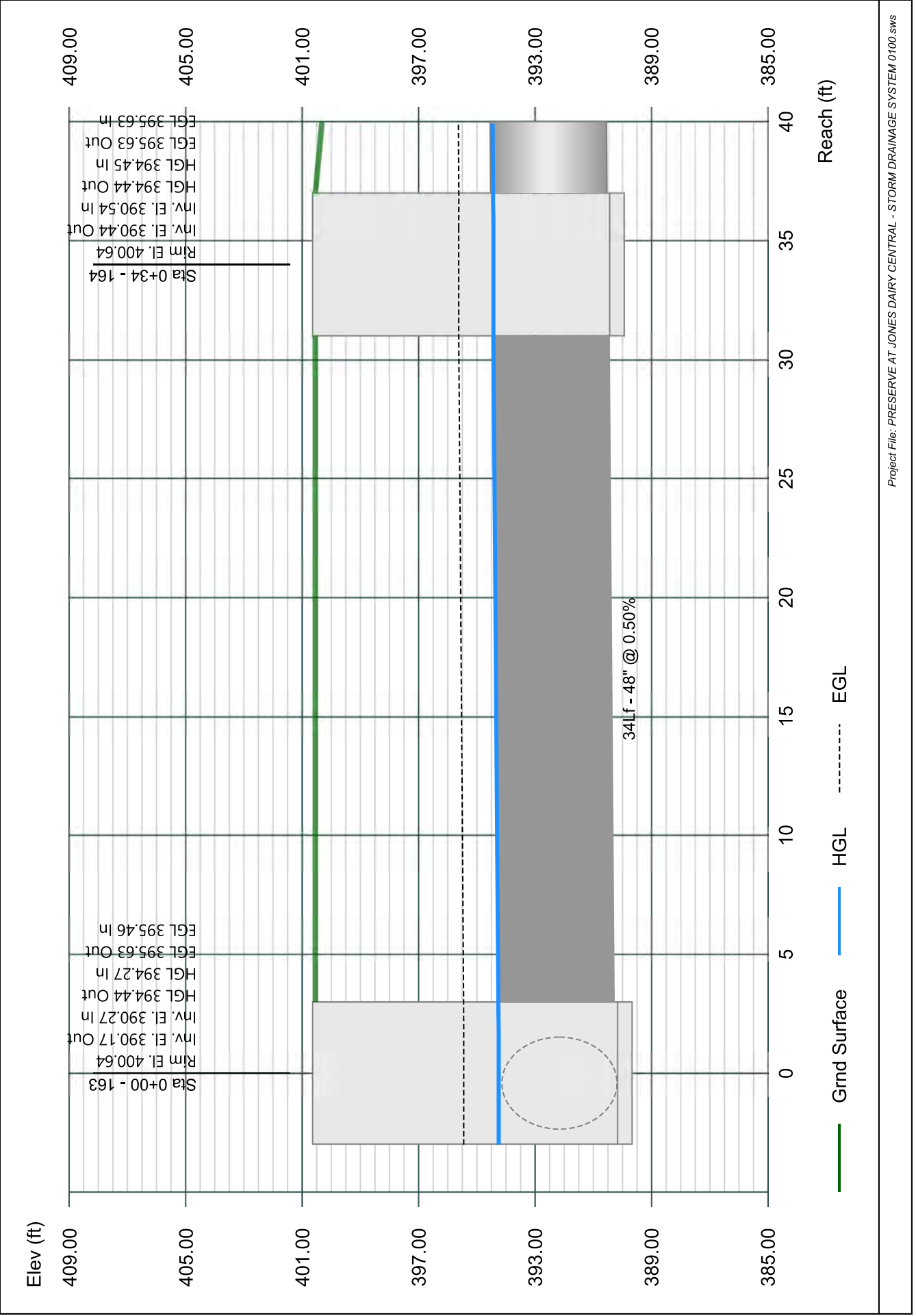


# Line 64 - 164 TO 163

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

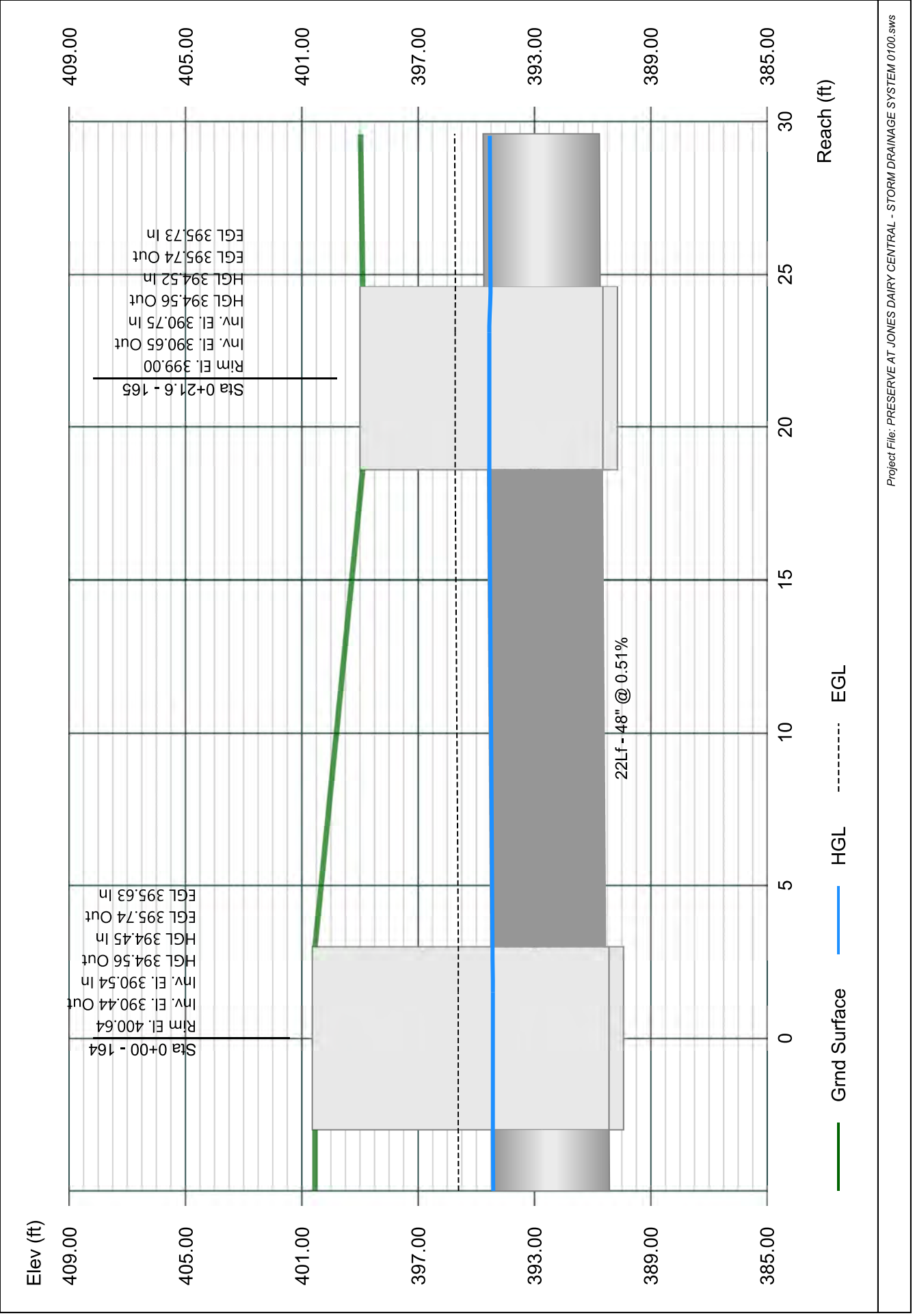


# Line 65 - 165 TO 164

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

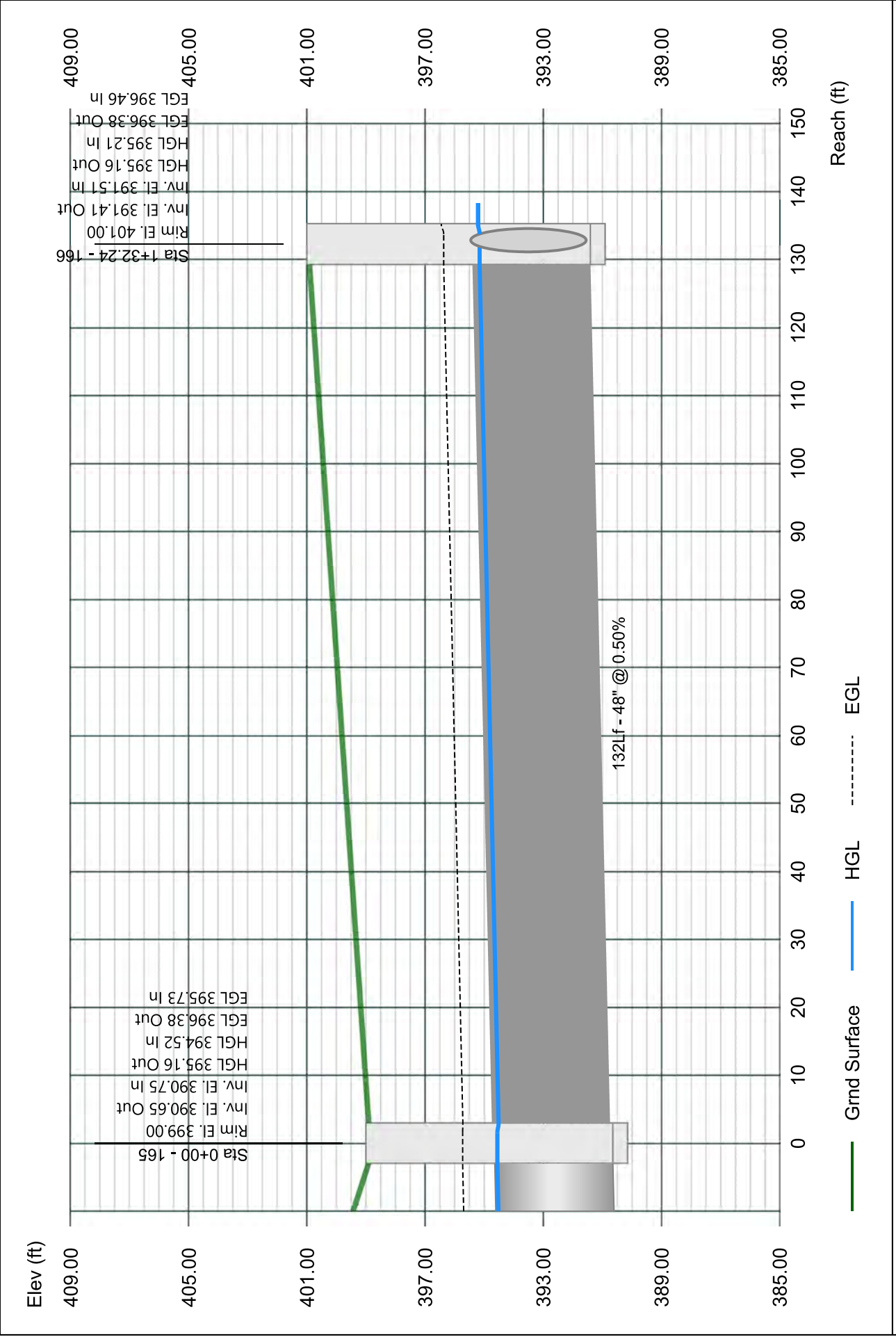


# Line 66 - 166 TO 165

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

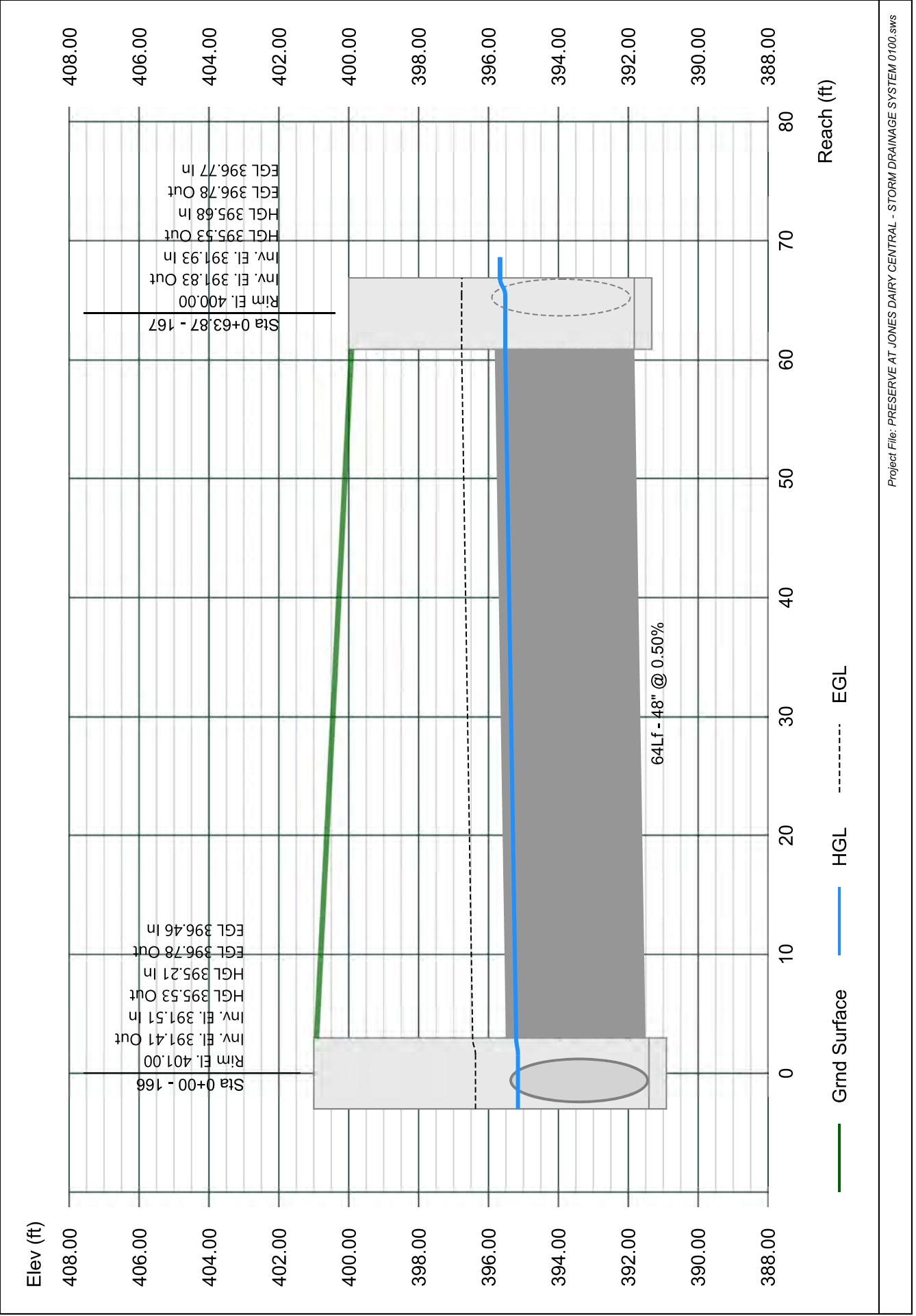


# Line 67 - 167 TO 166

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

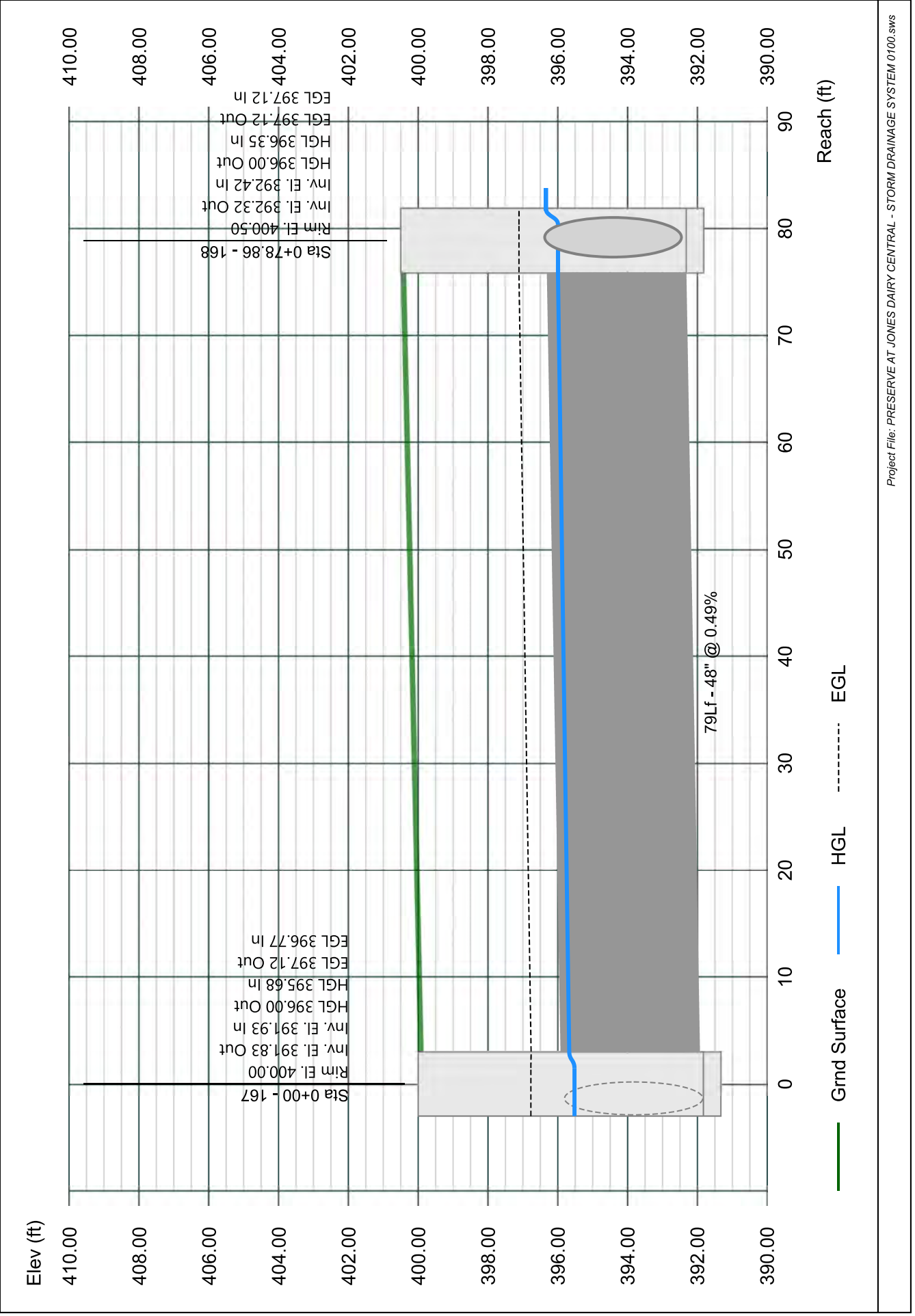


# Line 68 - 168 TO 167

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

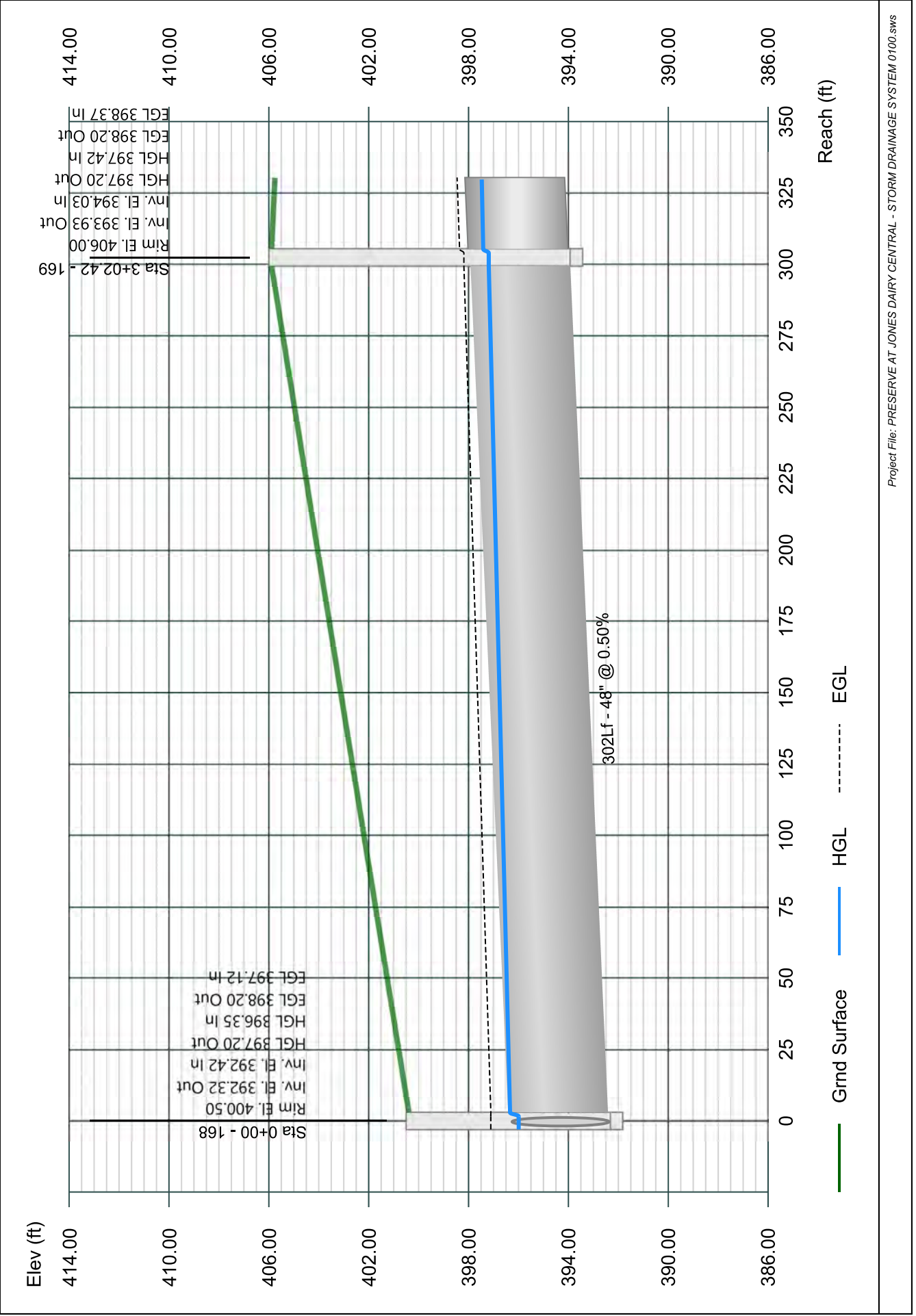


# Line 69 - 169 TO 168

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



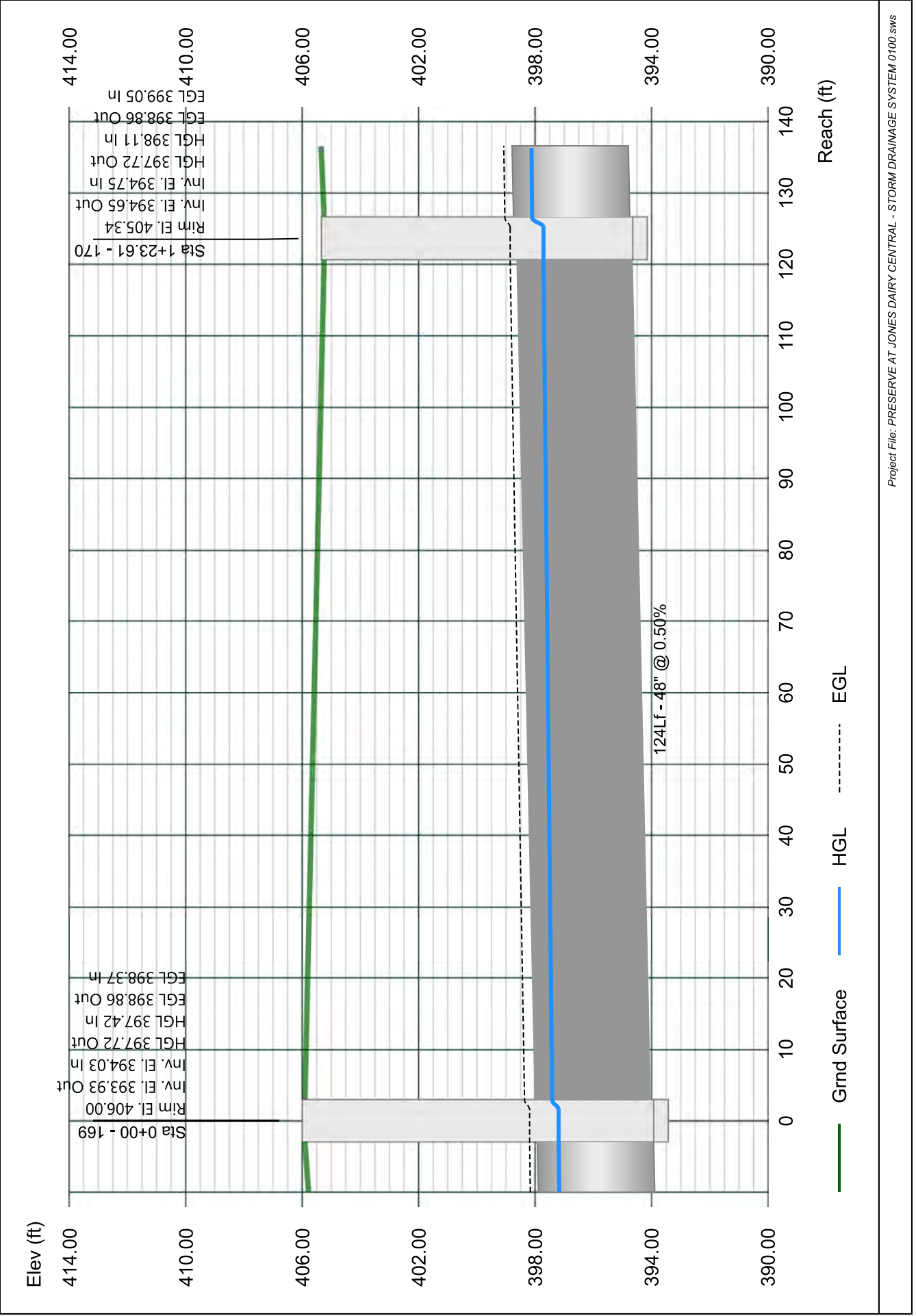


# Line 70 - 170 TO 169

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

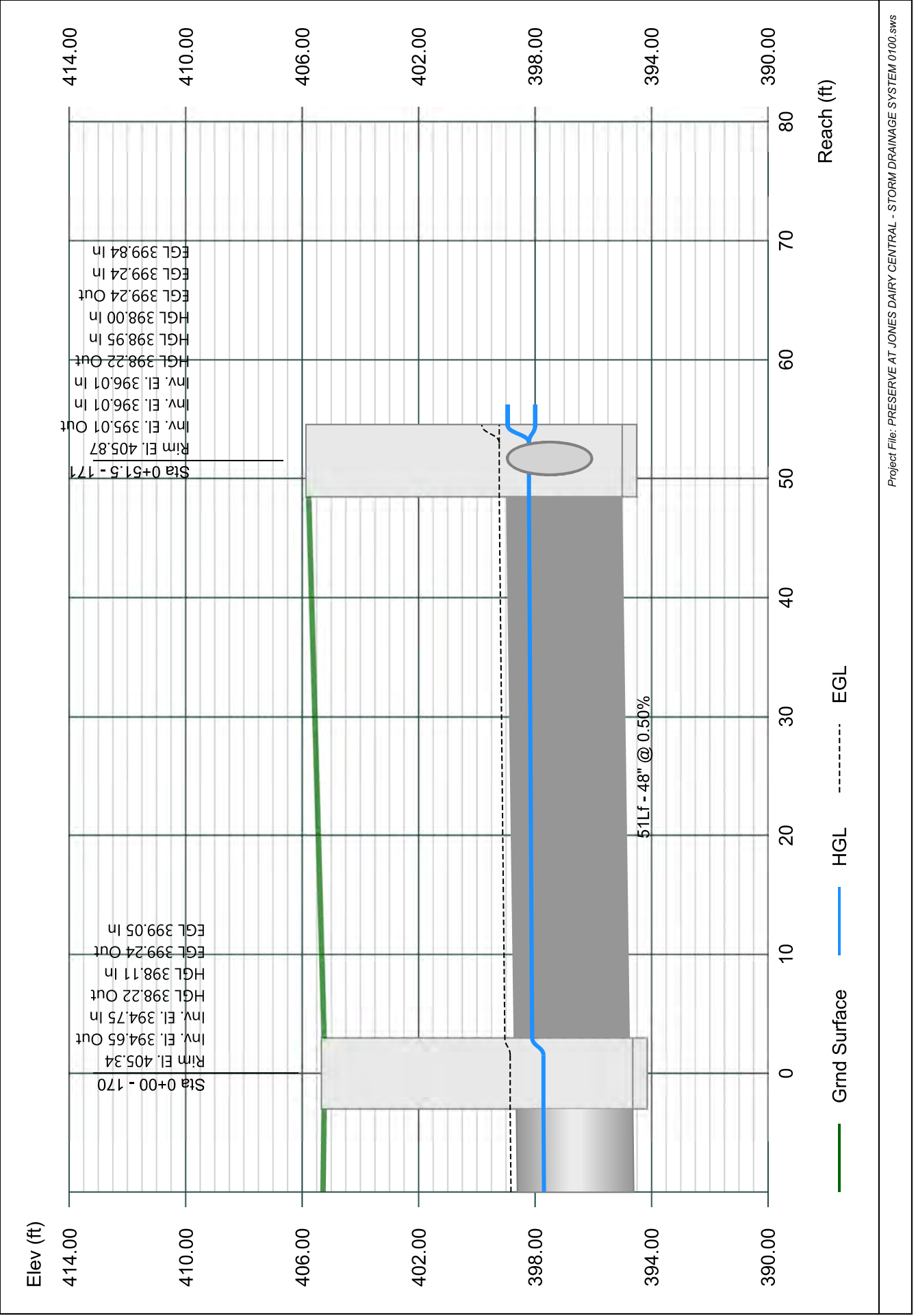


# Line 71 - 171 TO 170

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

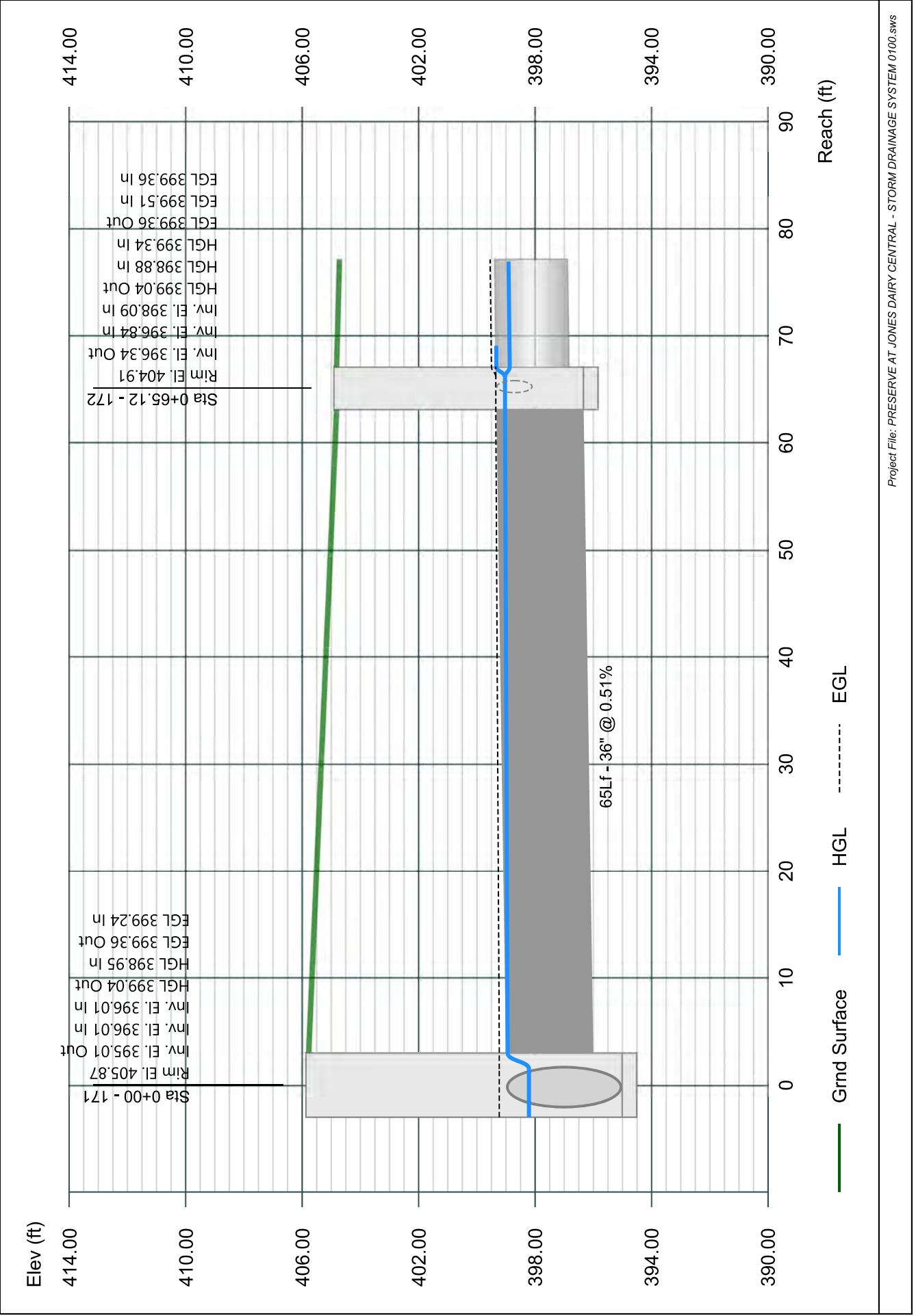


# Line 72 - 172 TO 171

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

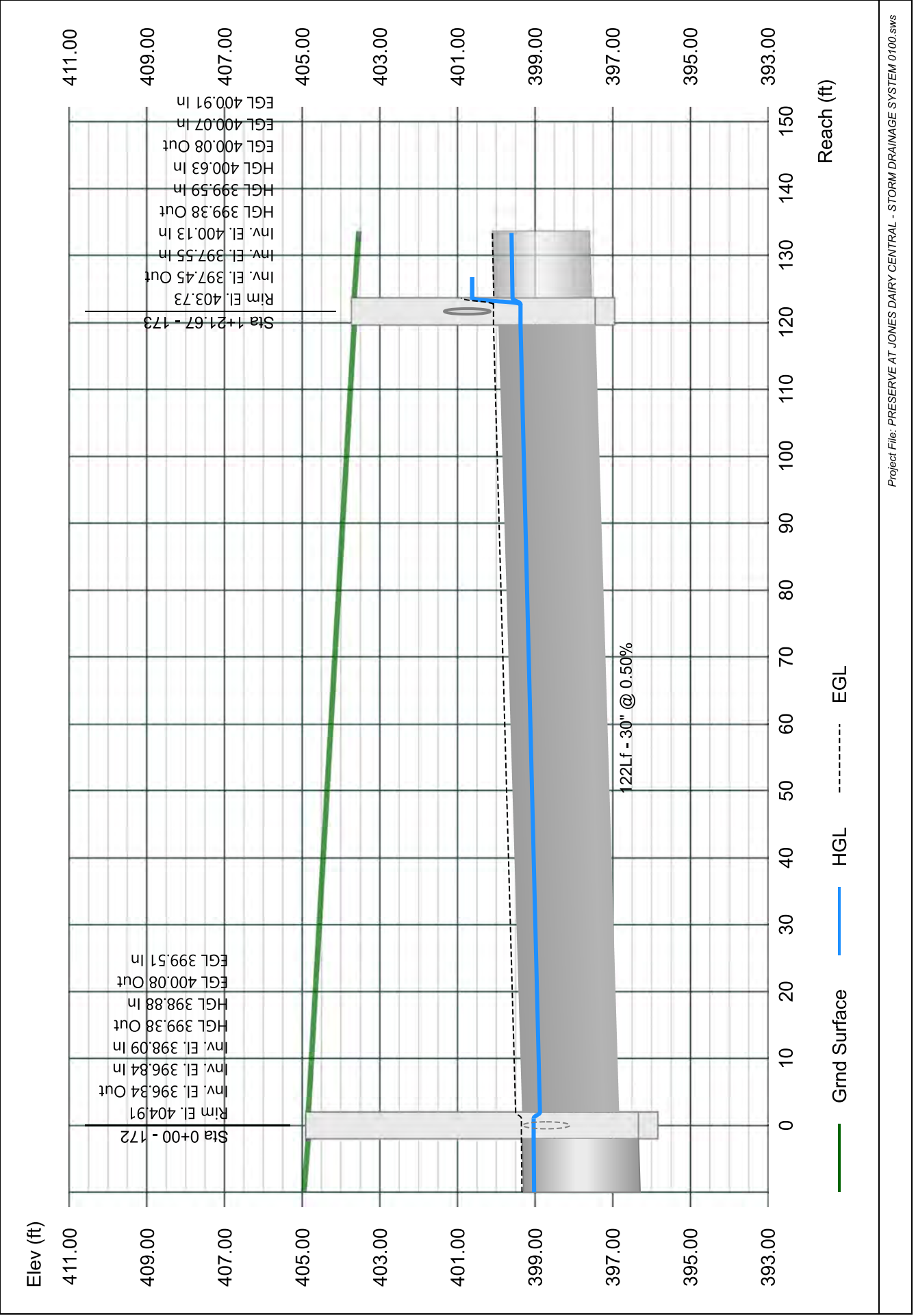


# Line 73 - 173 TO 172

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

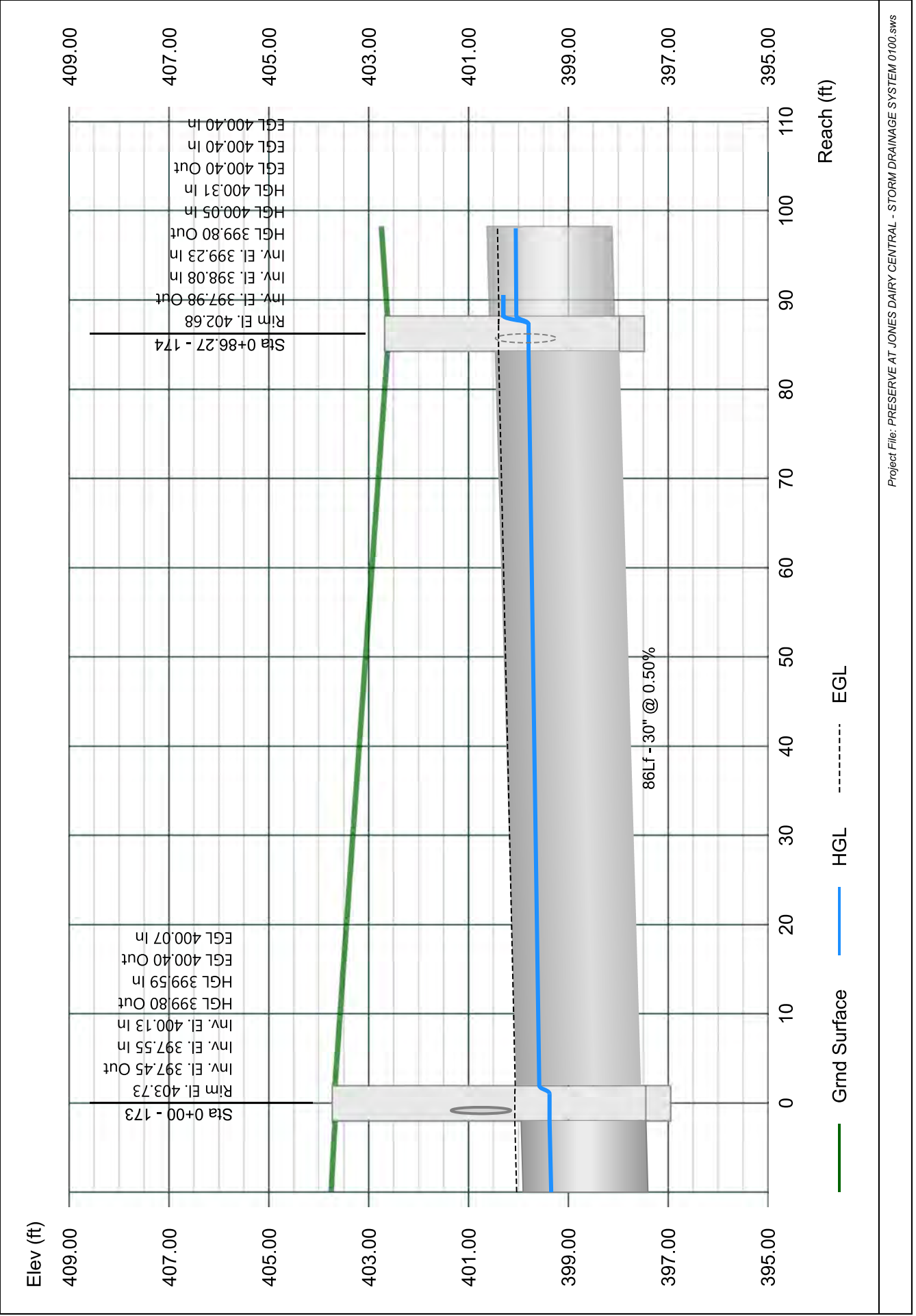


# Line 74 - 174 TO 173

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

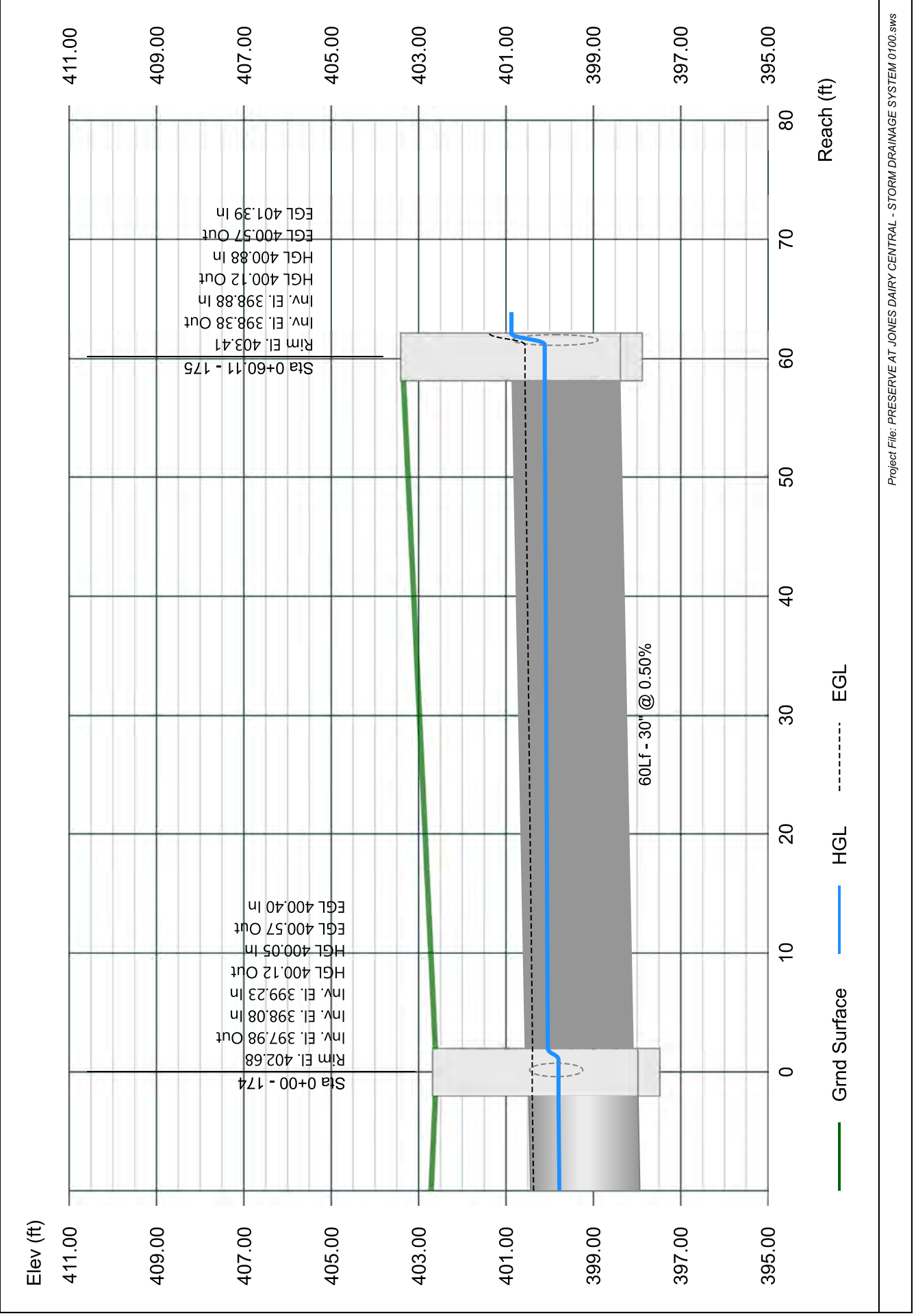


# Line 75 - 175 TO 174

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

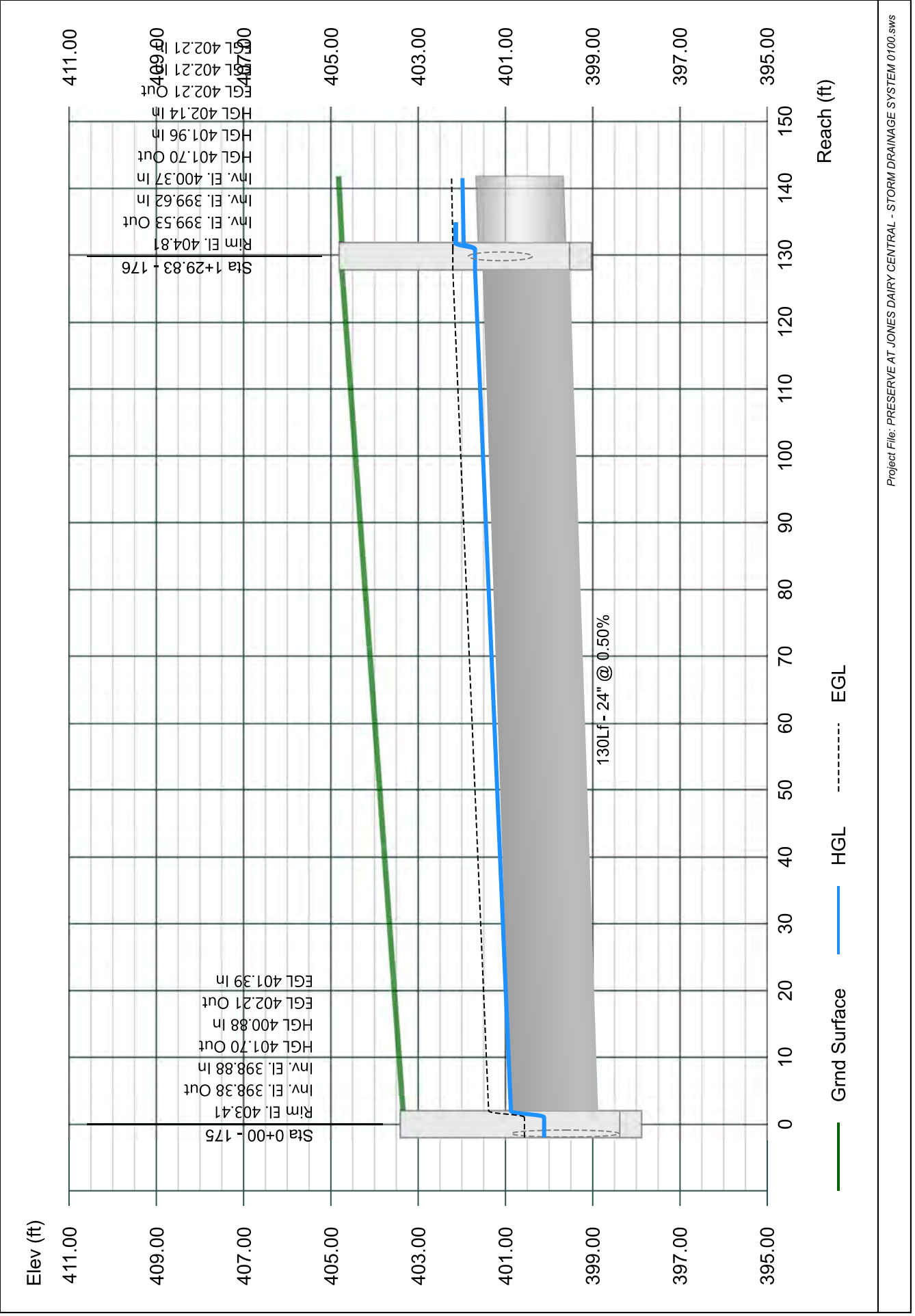


# Line 76 - 176 TO 175

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

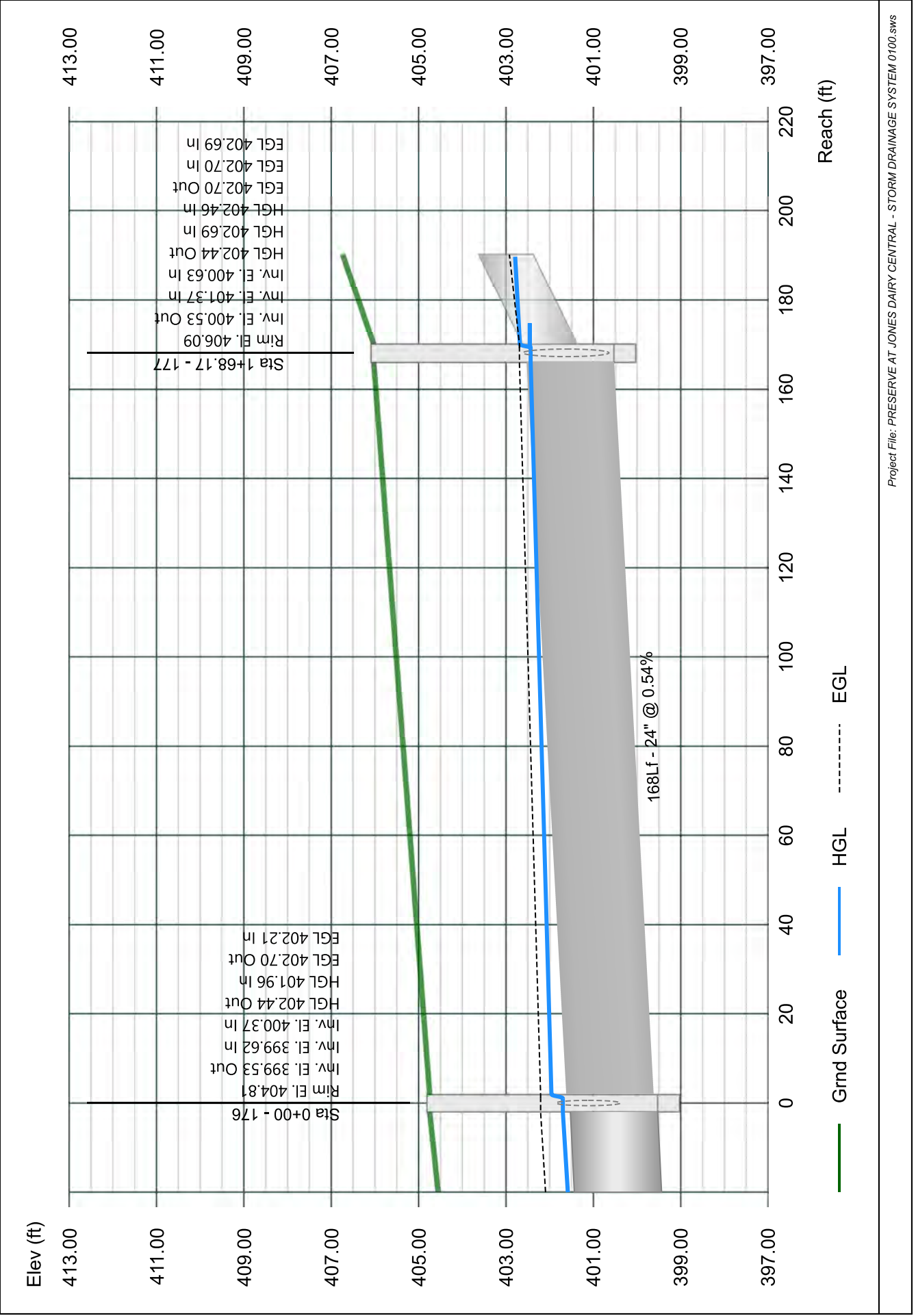


# Line 77 - 177 TO 176

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



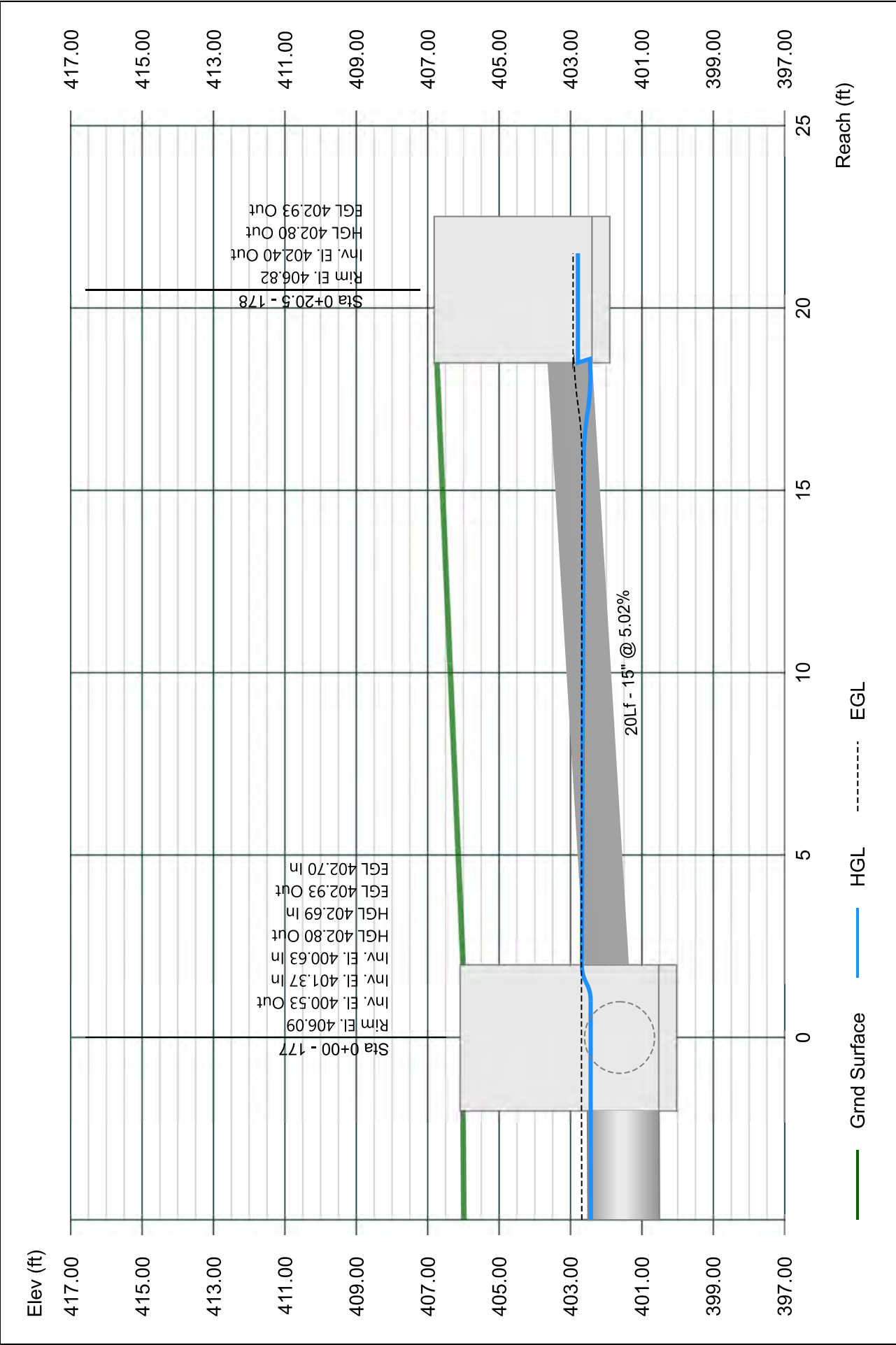


# Line 78 - 178 TO 177

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

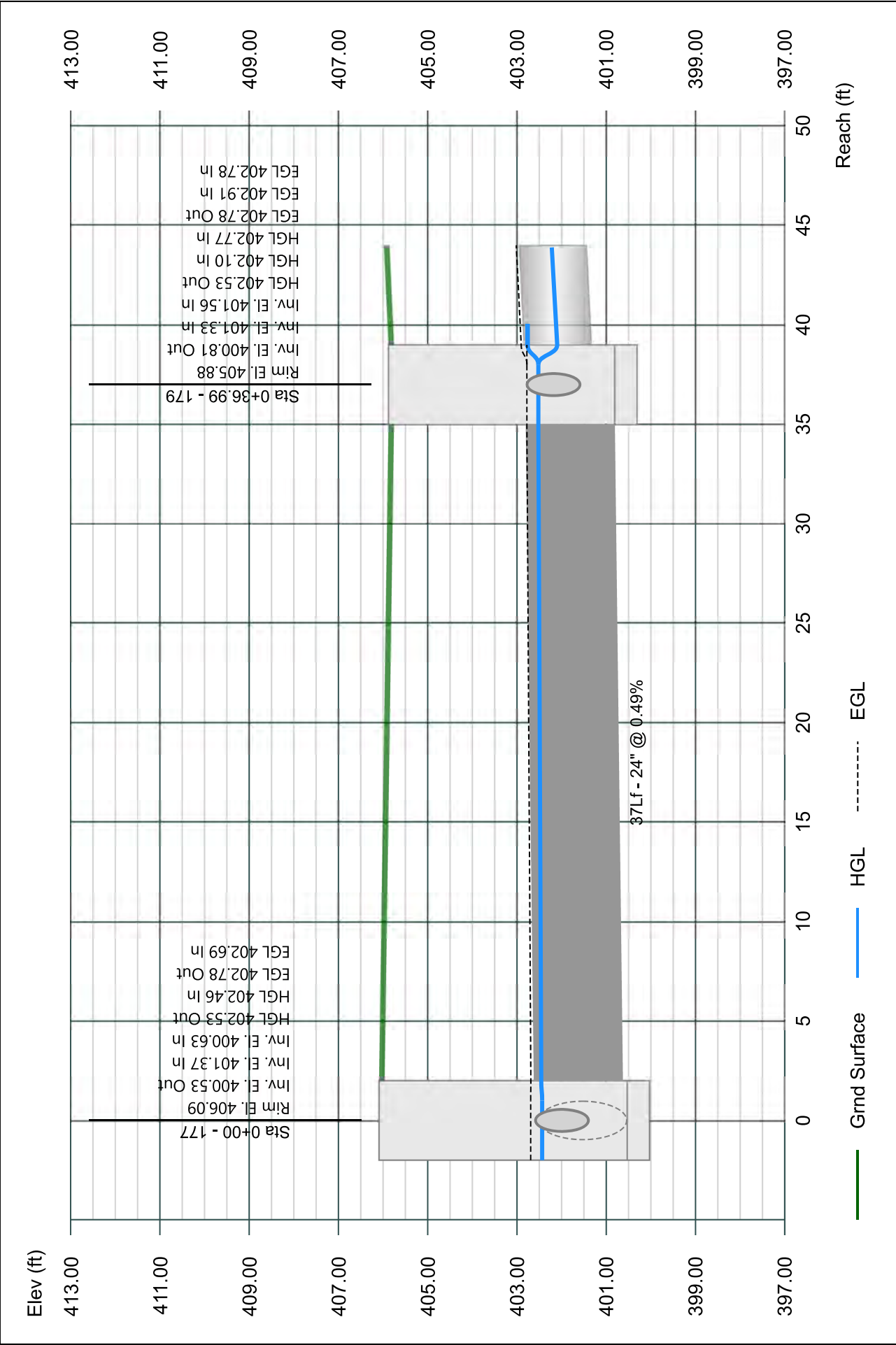


# Line 79 - 179 TO 177

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

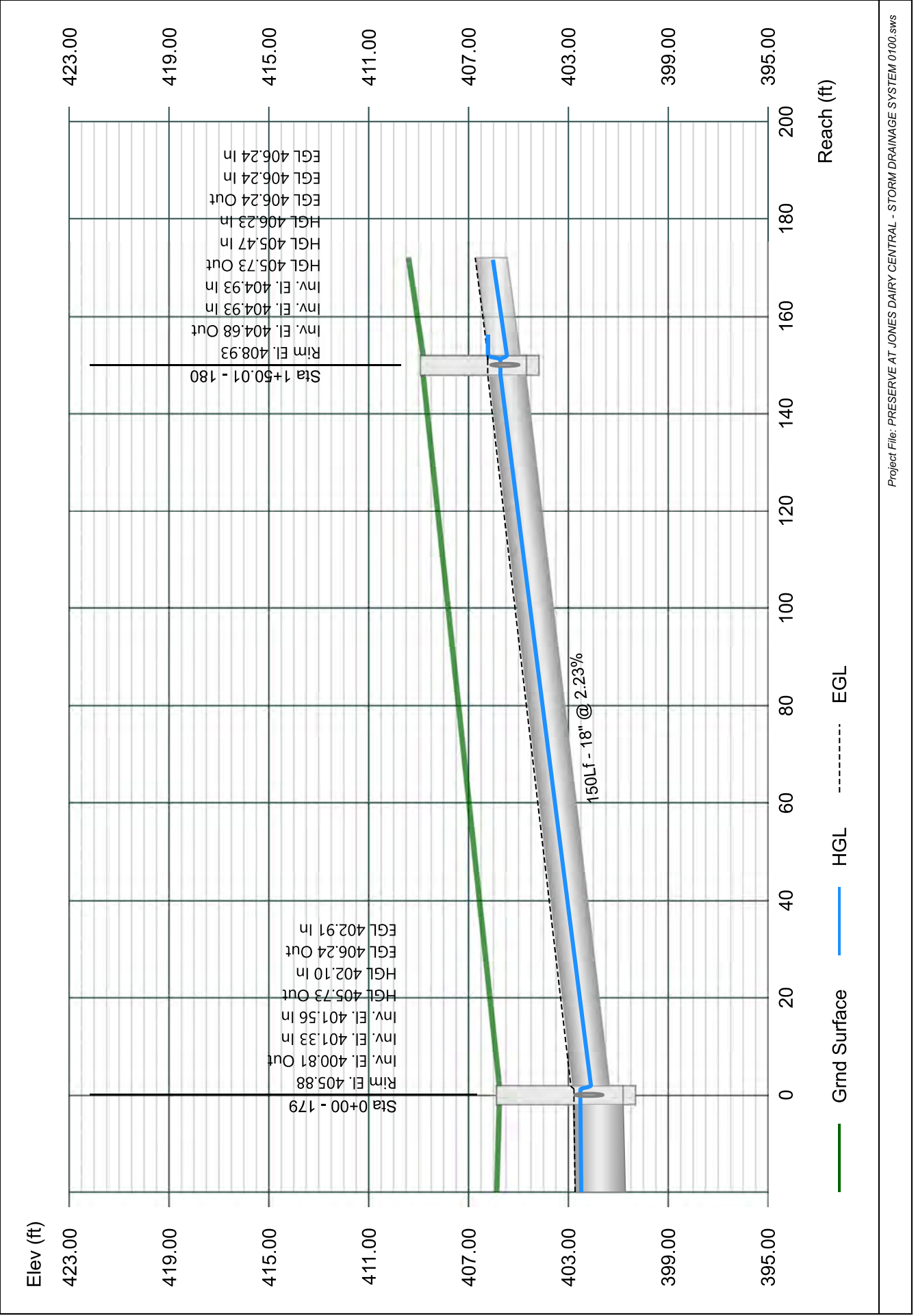


# Line 80 - 180 TO 179

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

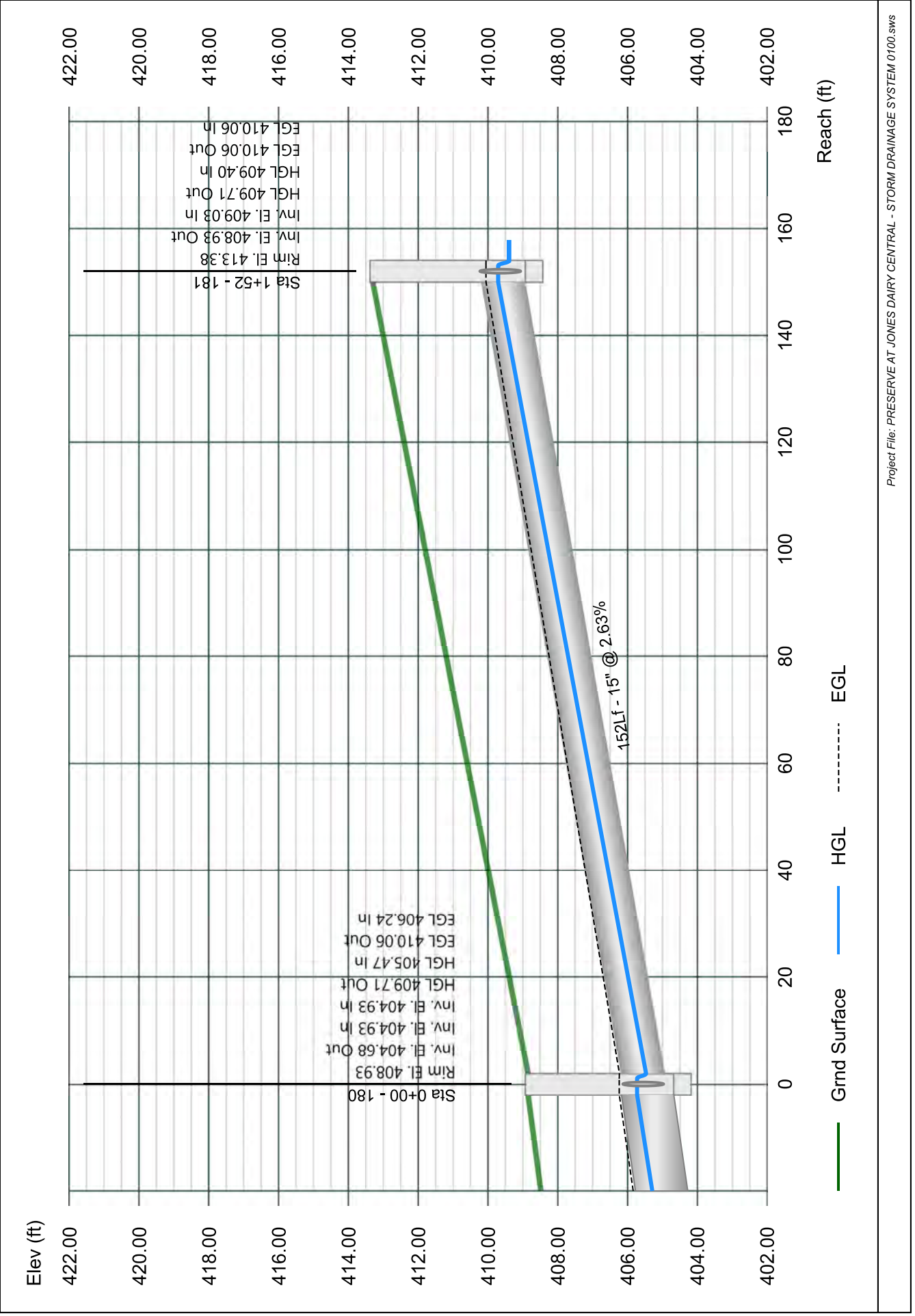


# Line 81 - 181 TO 180

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

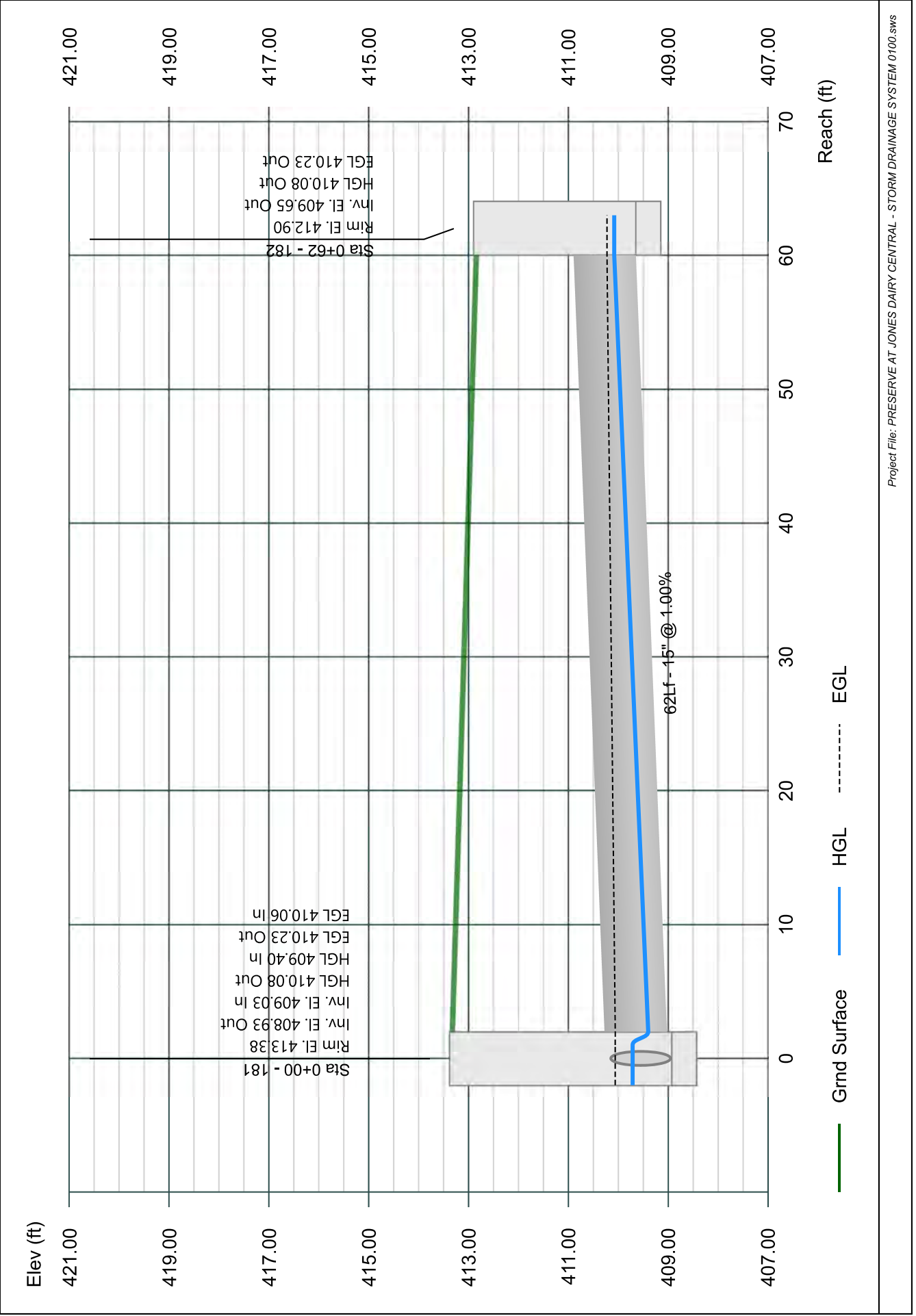


# Line 82 - 182 TO 181

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

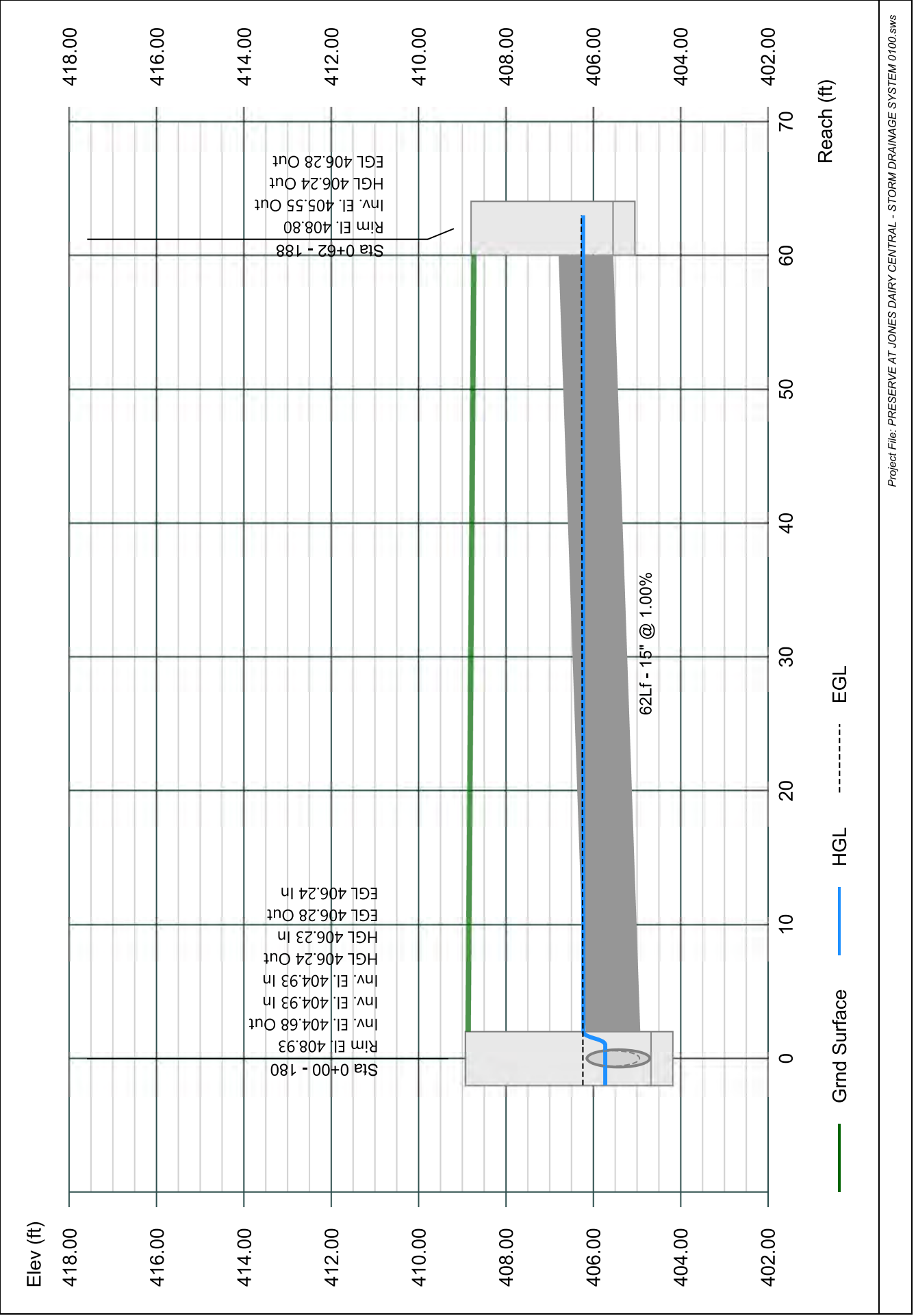


# Line 83 - 188 TO 180

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

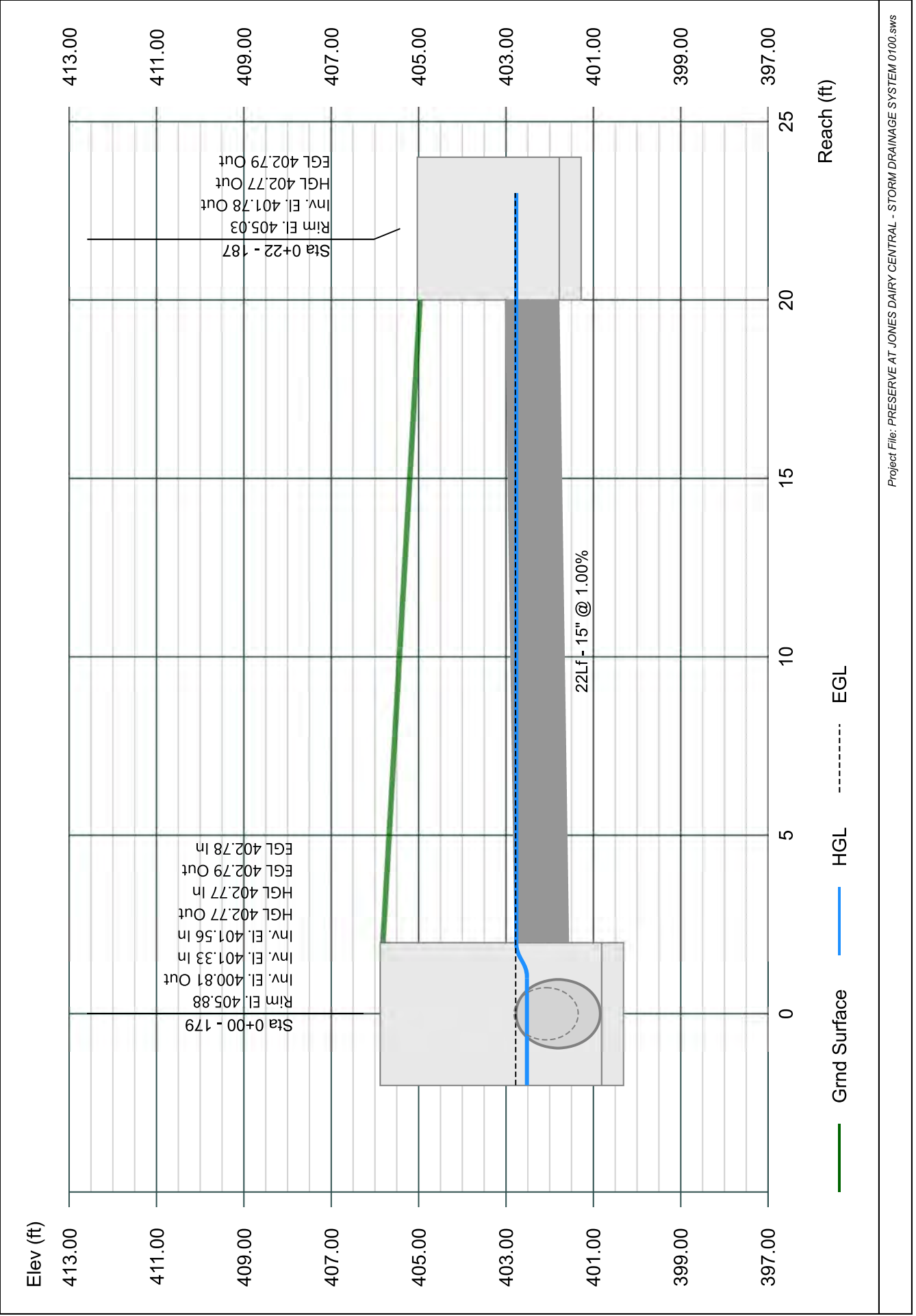


# Line 84 - 187 TO 179

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

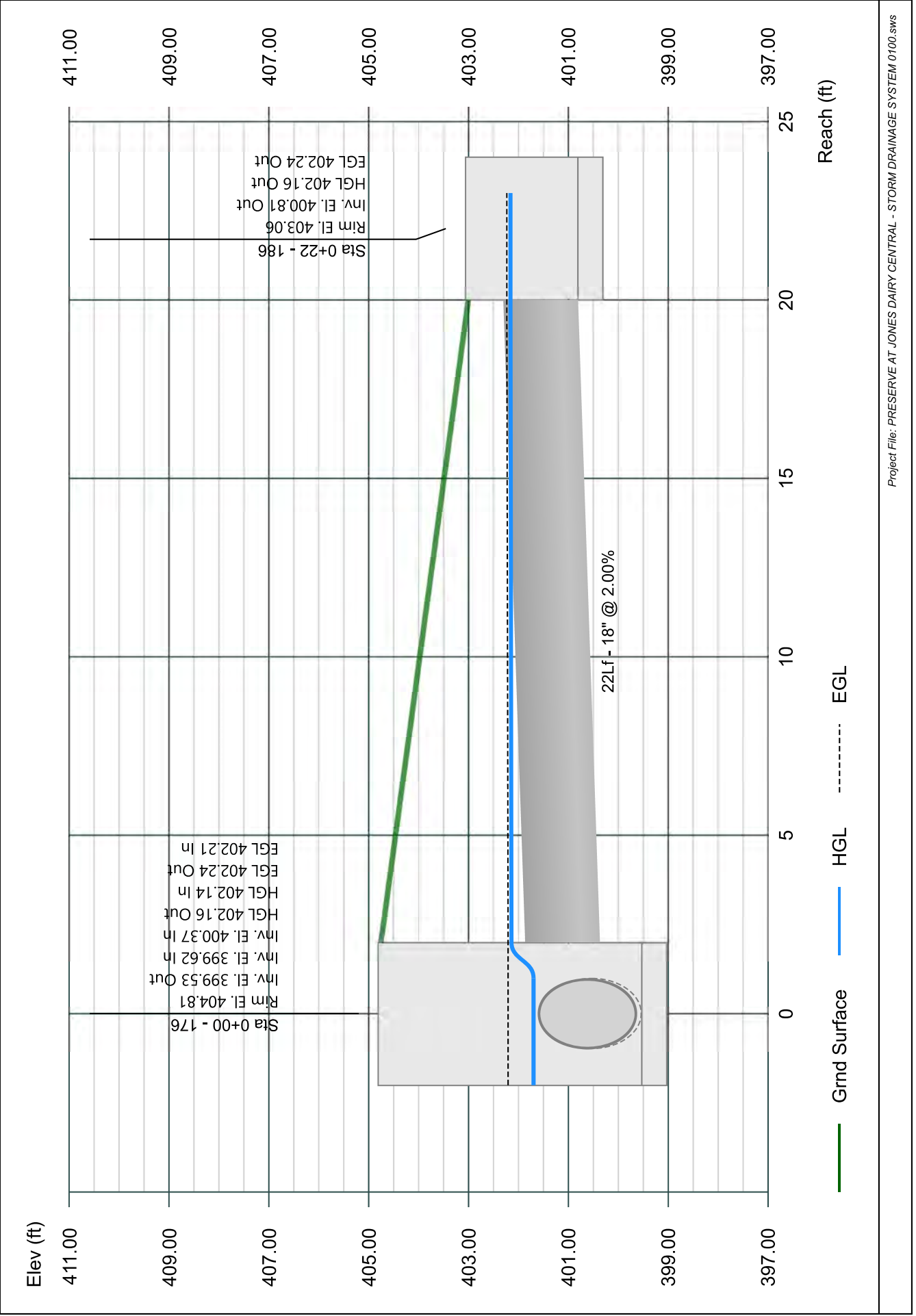


# Line 85 - 186 TO 176

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



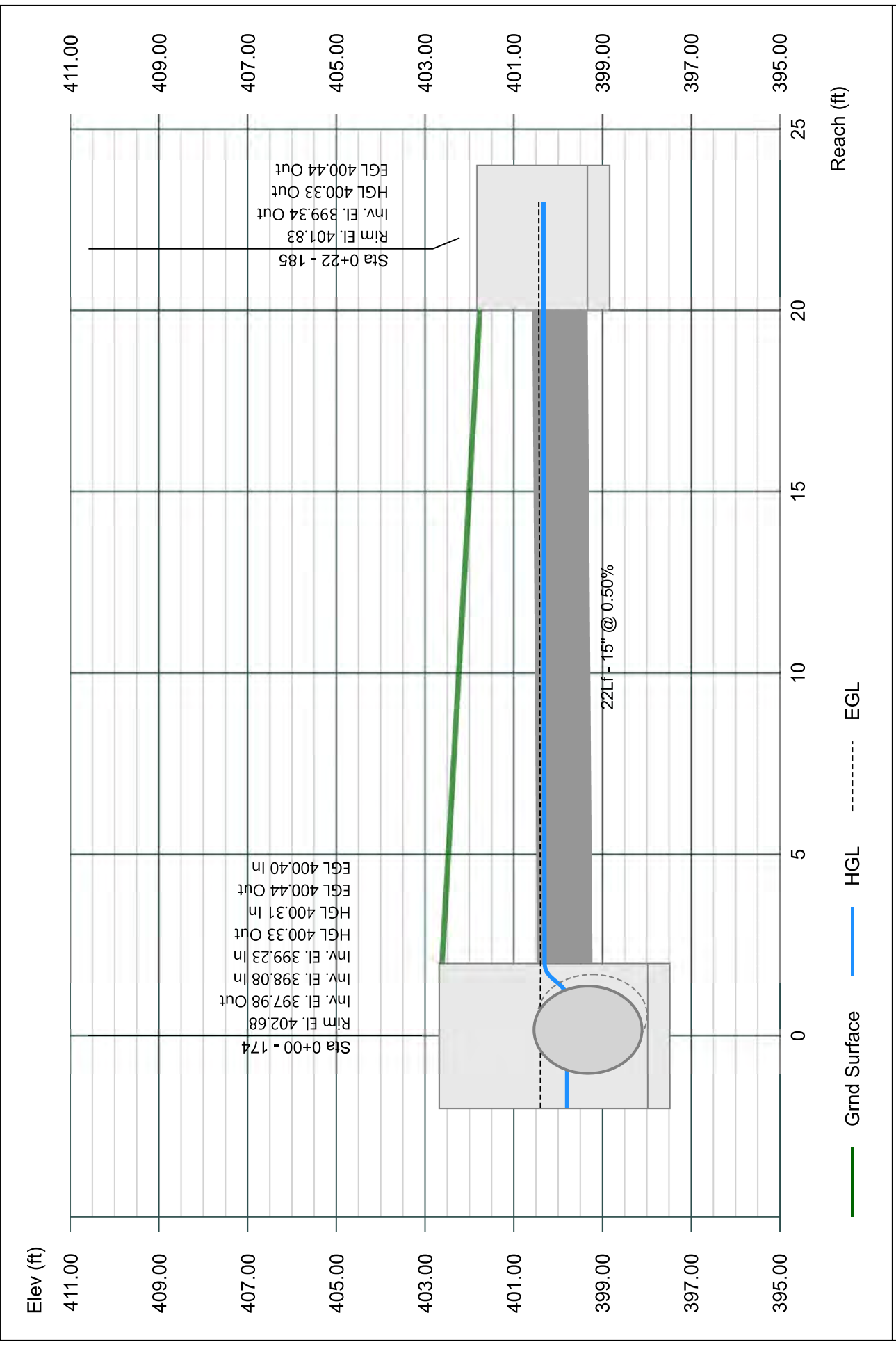


# Line 86 - 185 TO 174

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

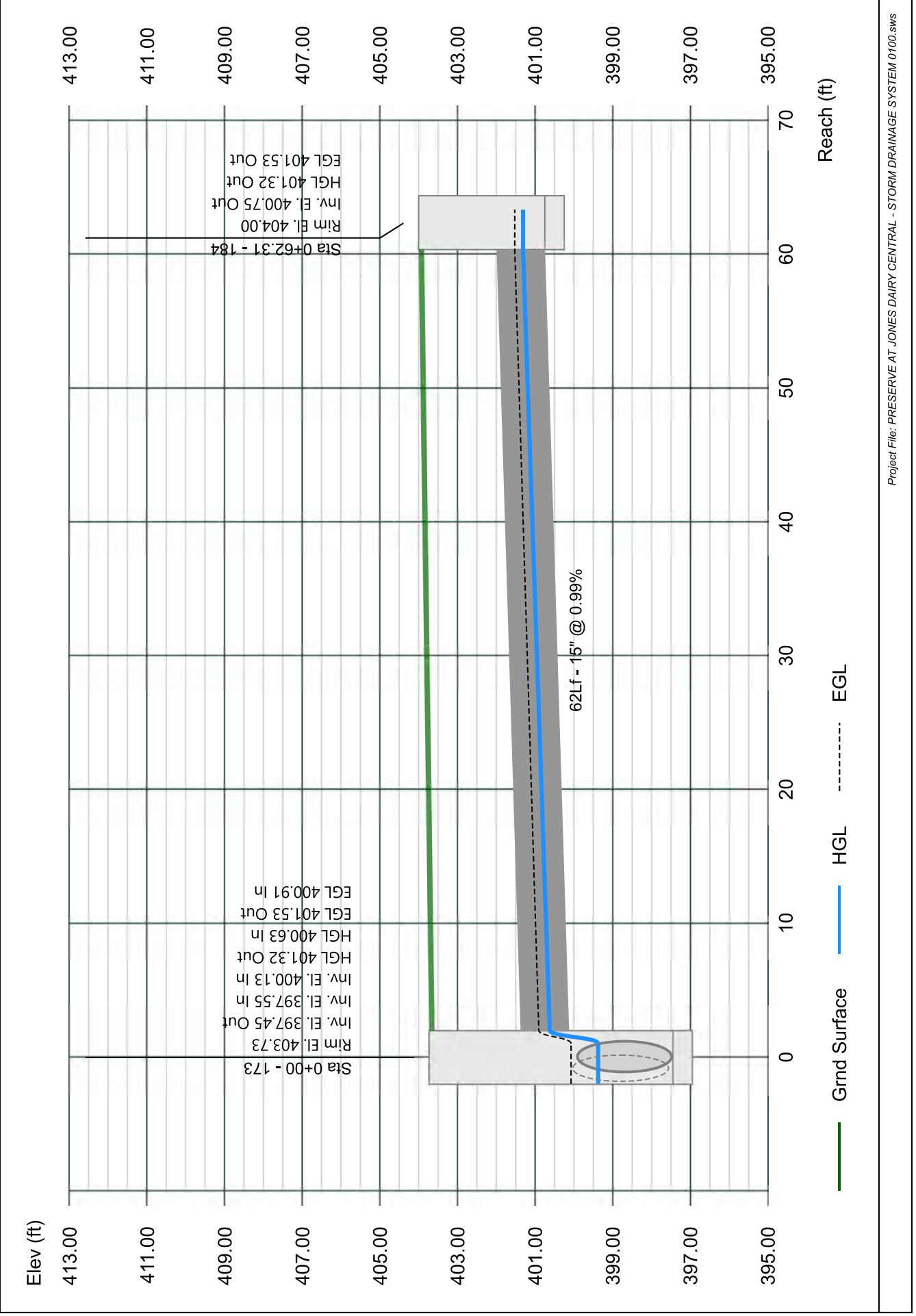


# Line 87 - 184 TO 173

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

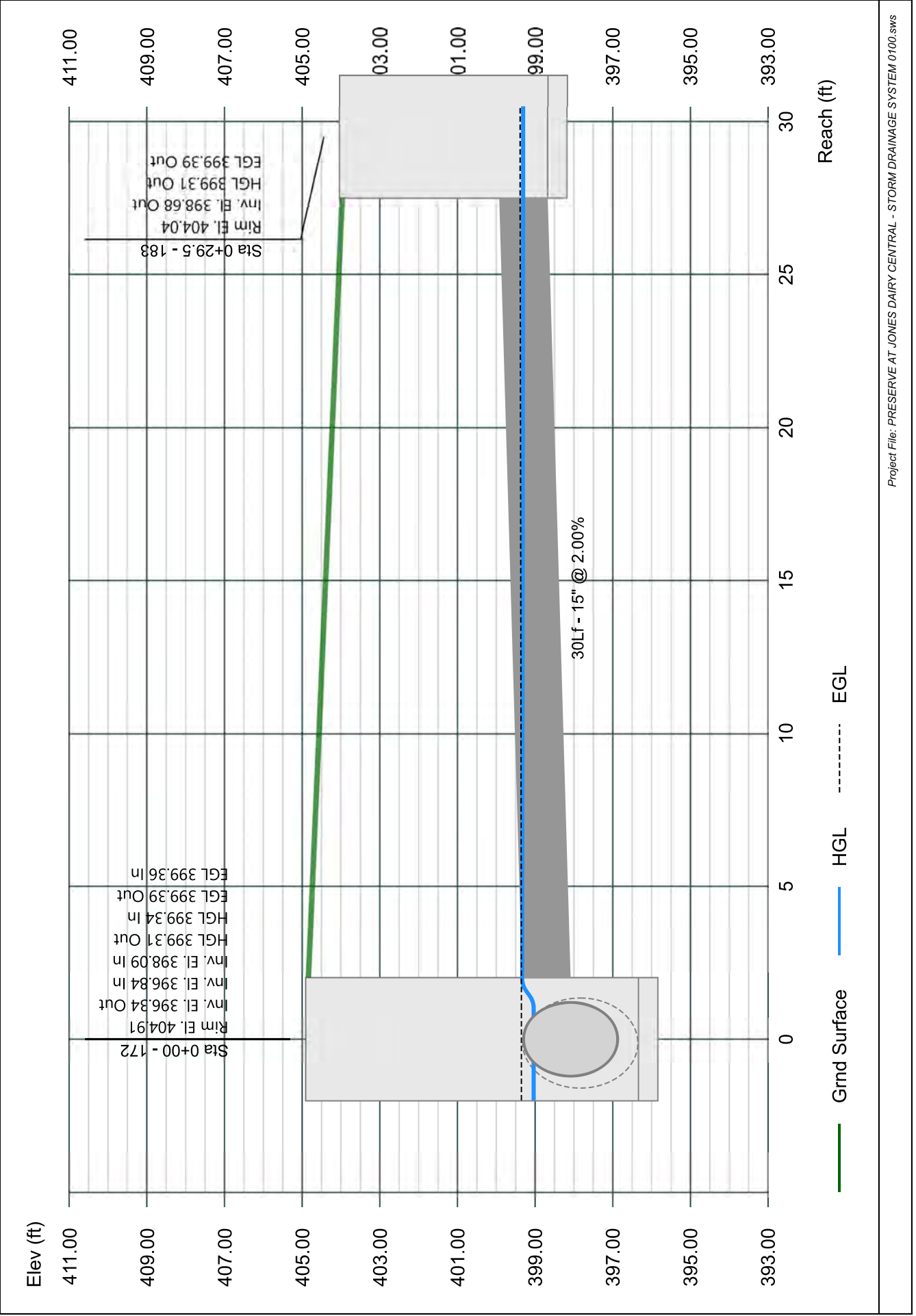


# Line 88 - 183 TO 172

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

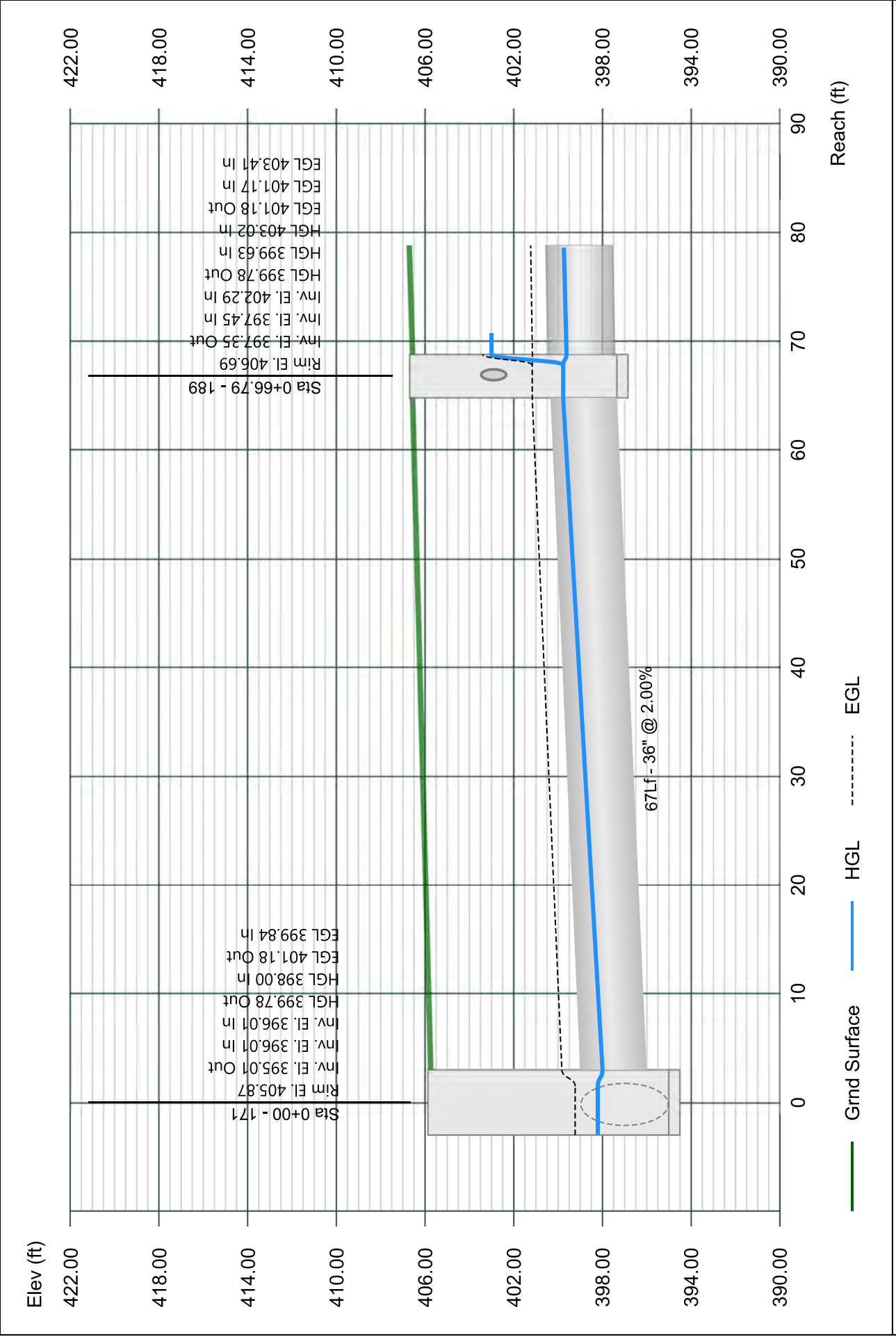


# Line 89 - 189 TO 171

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

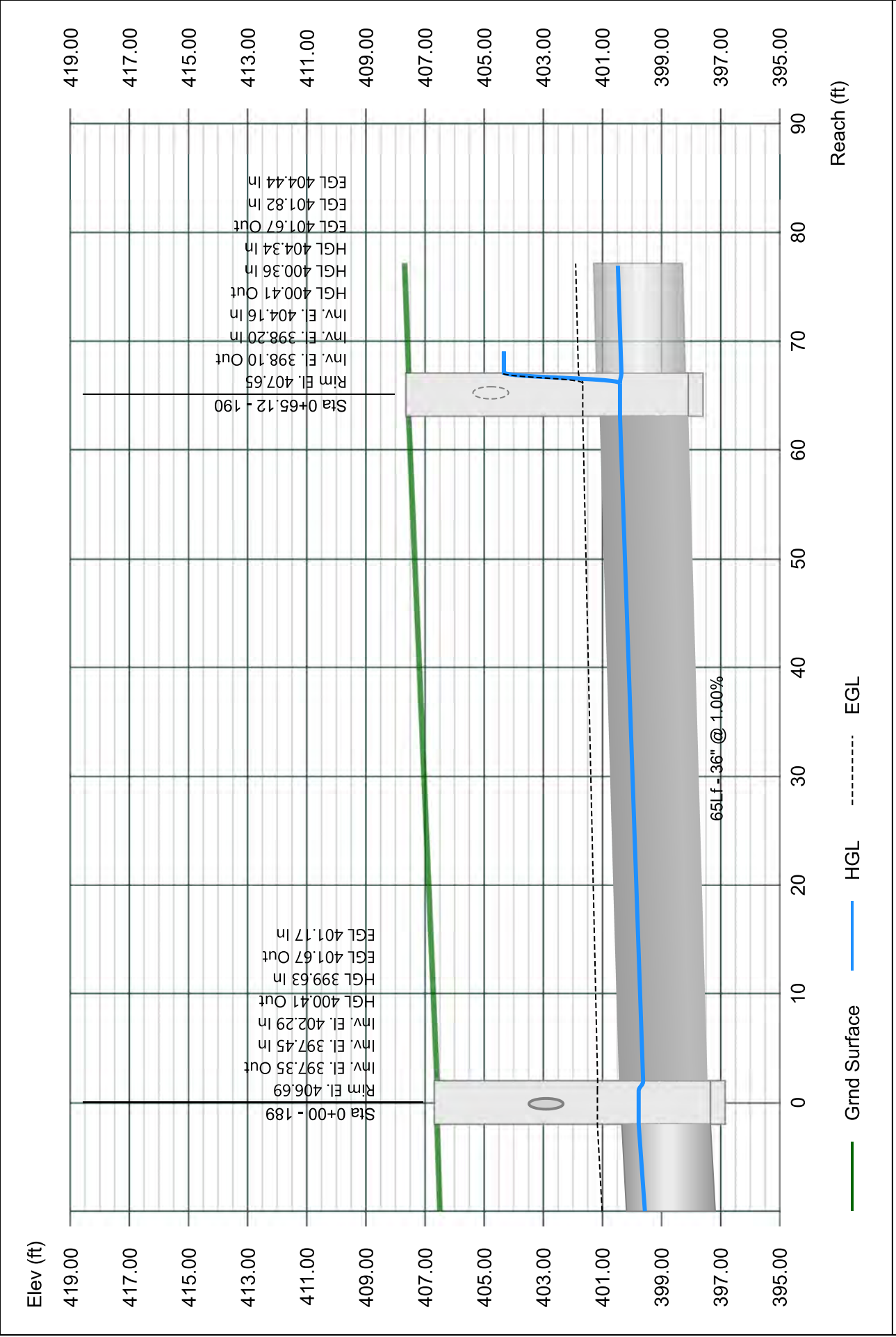


# Line 90 - 190 TO 189

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

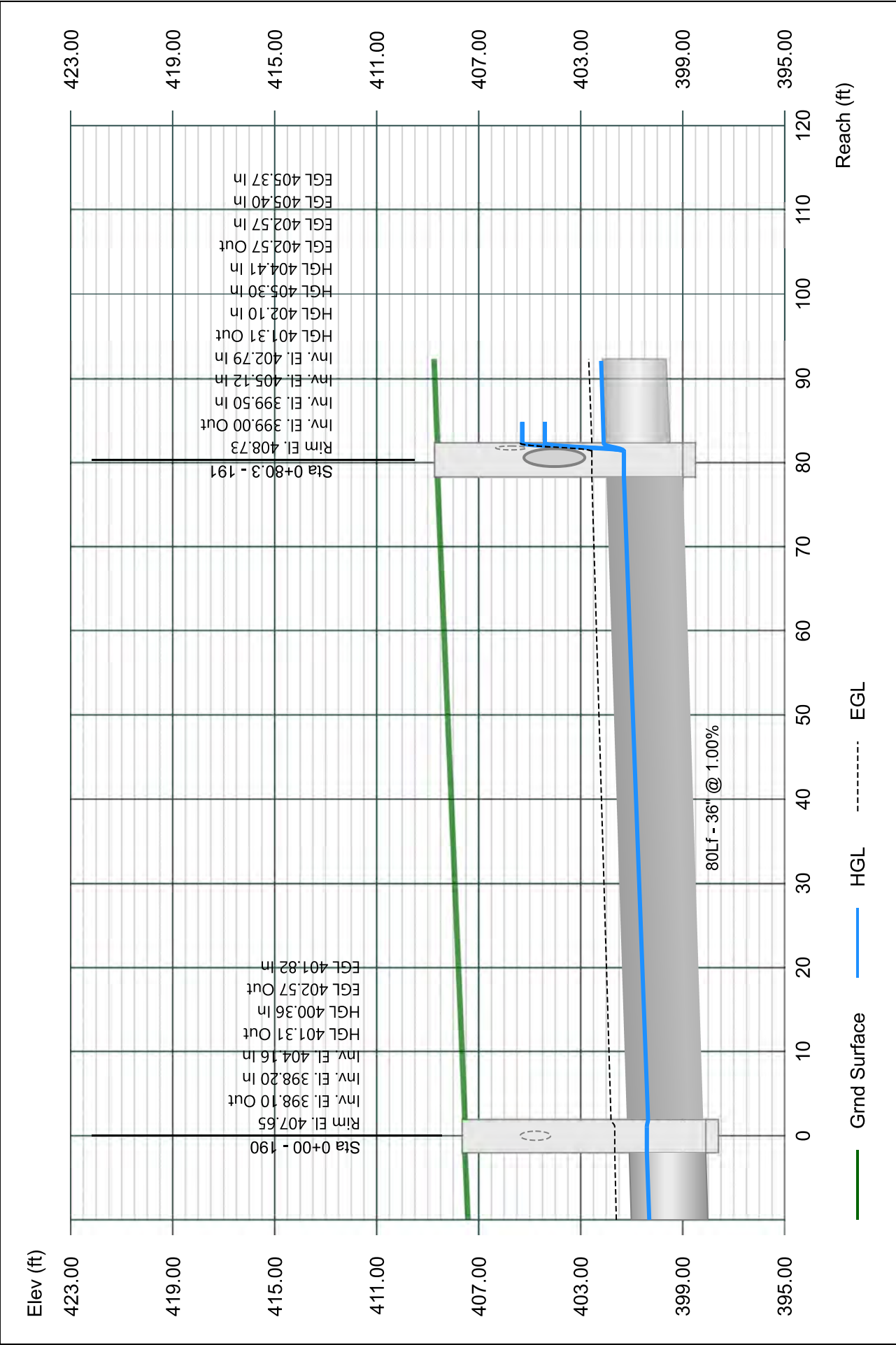


# Line 91 - 191 TO 190

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

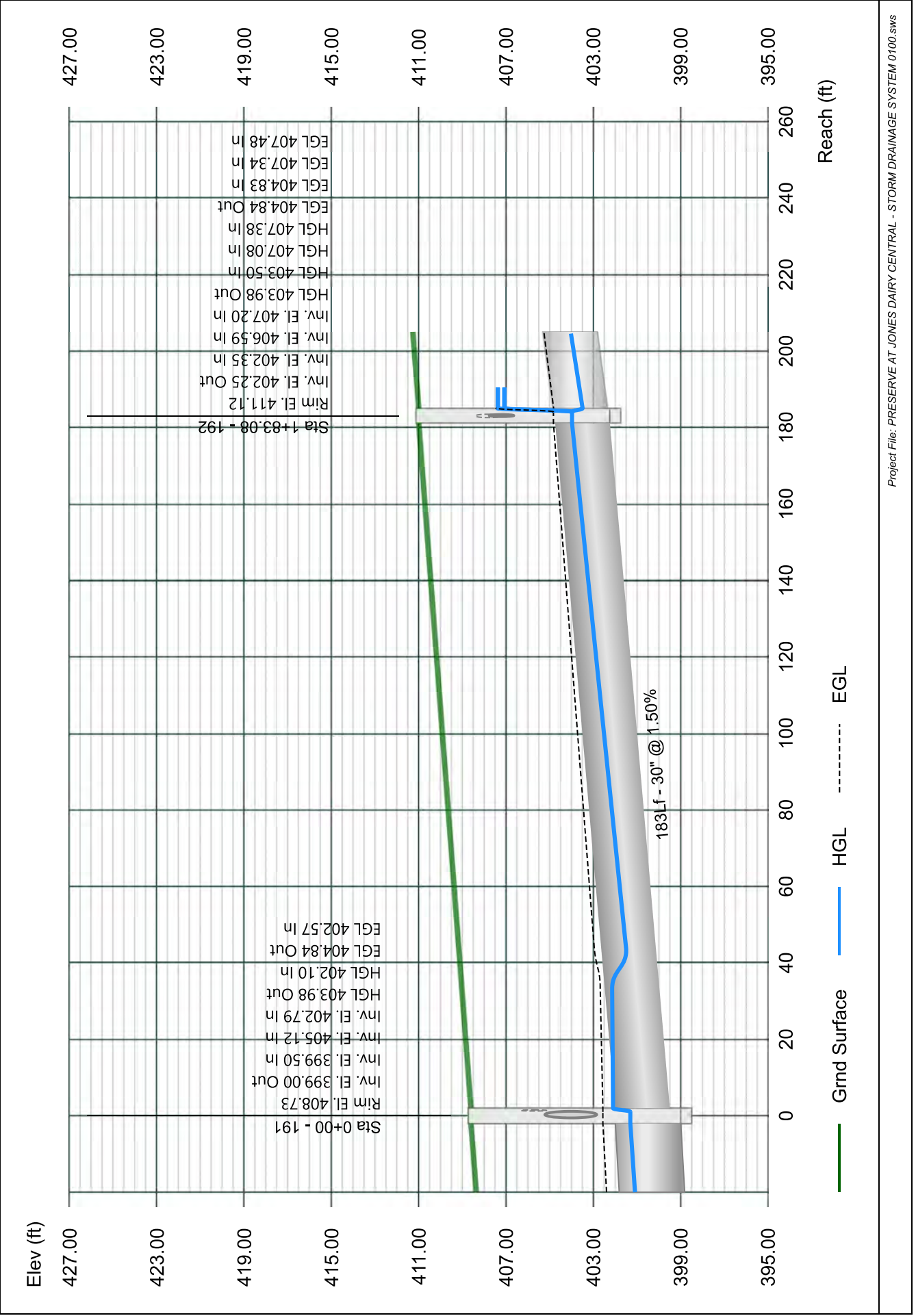


# Line 92 - 192 TO 191

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

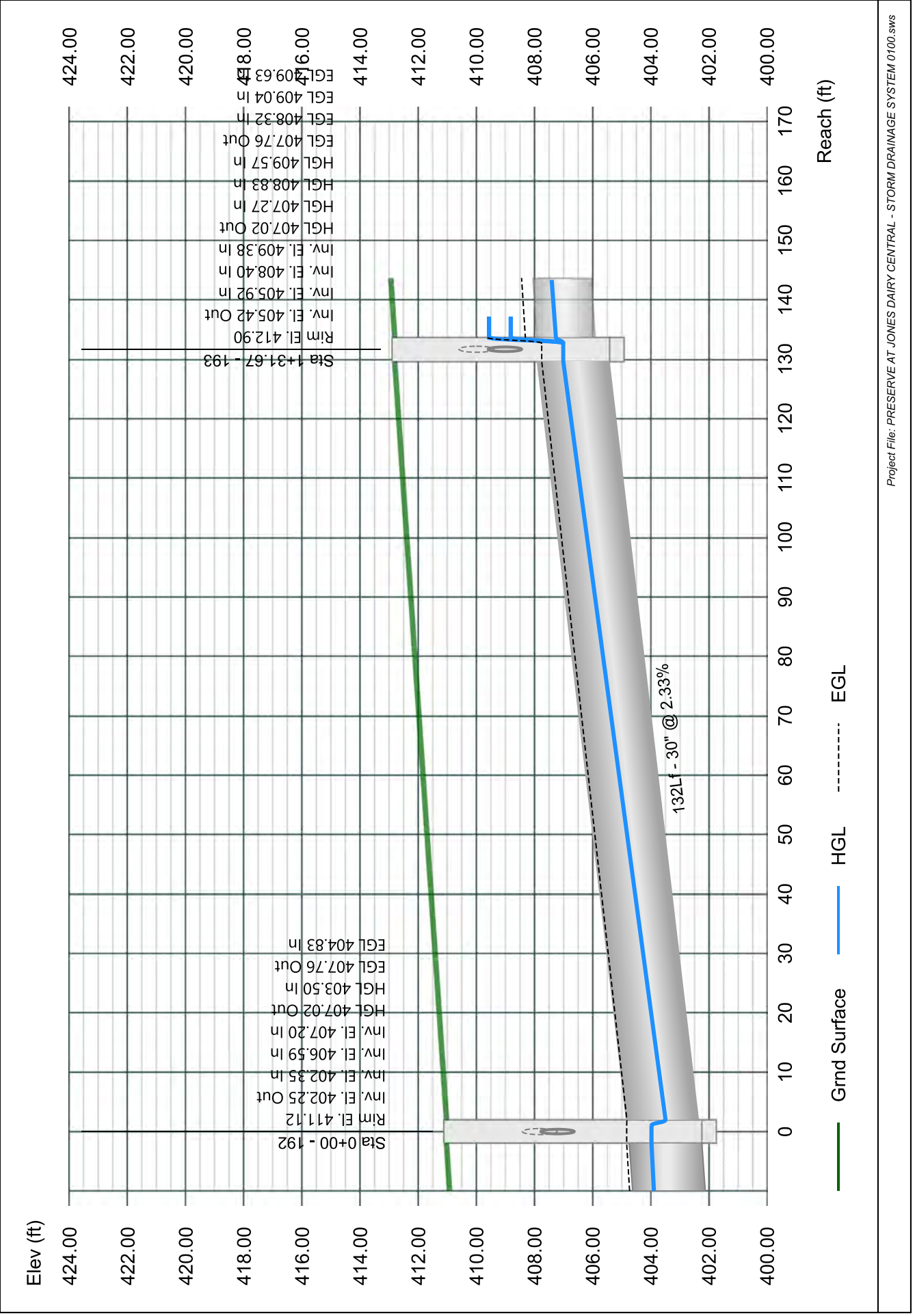


# Line 93 - 193 TO 192

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



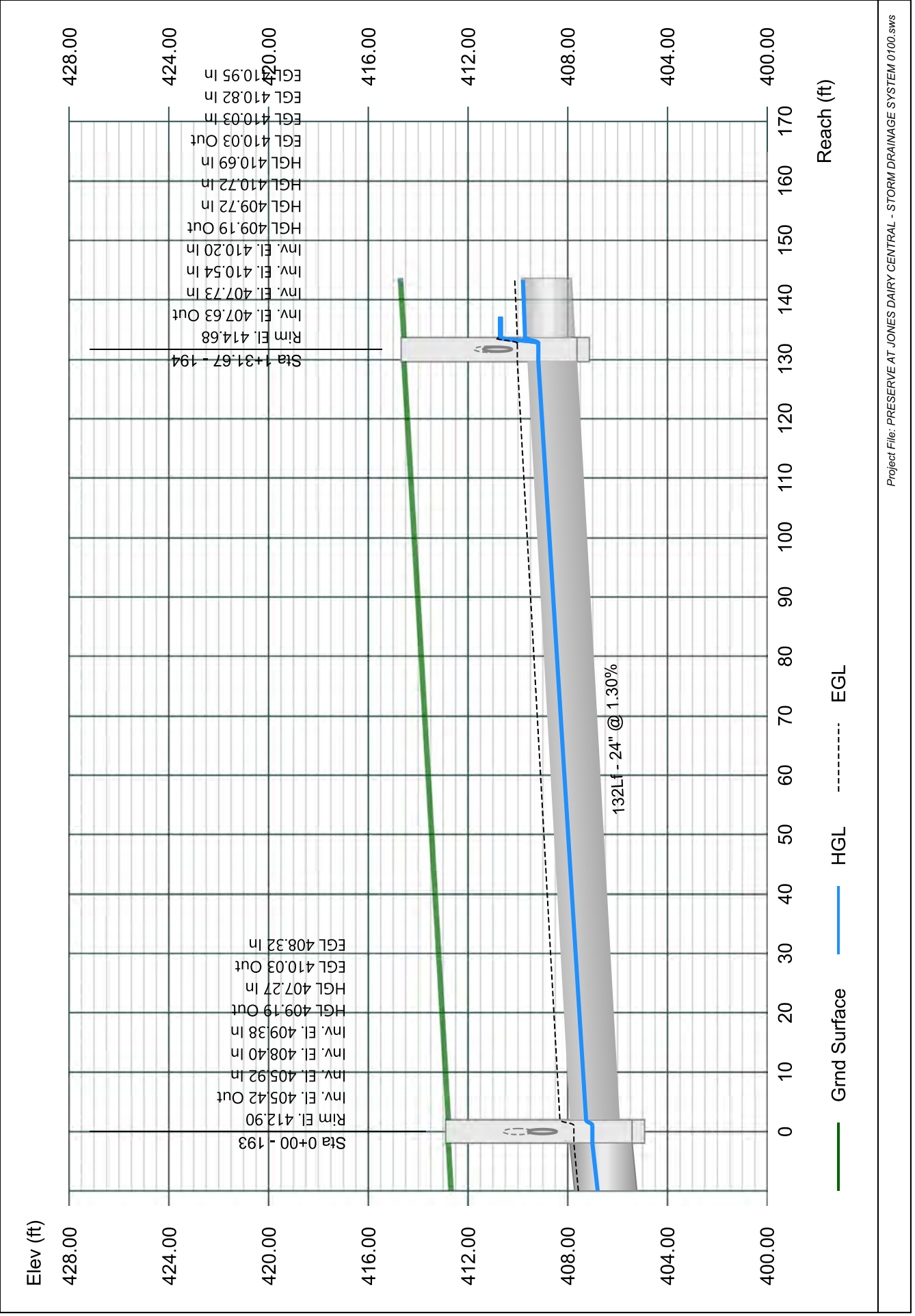


# Line 94 - 194 TO 193

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

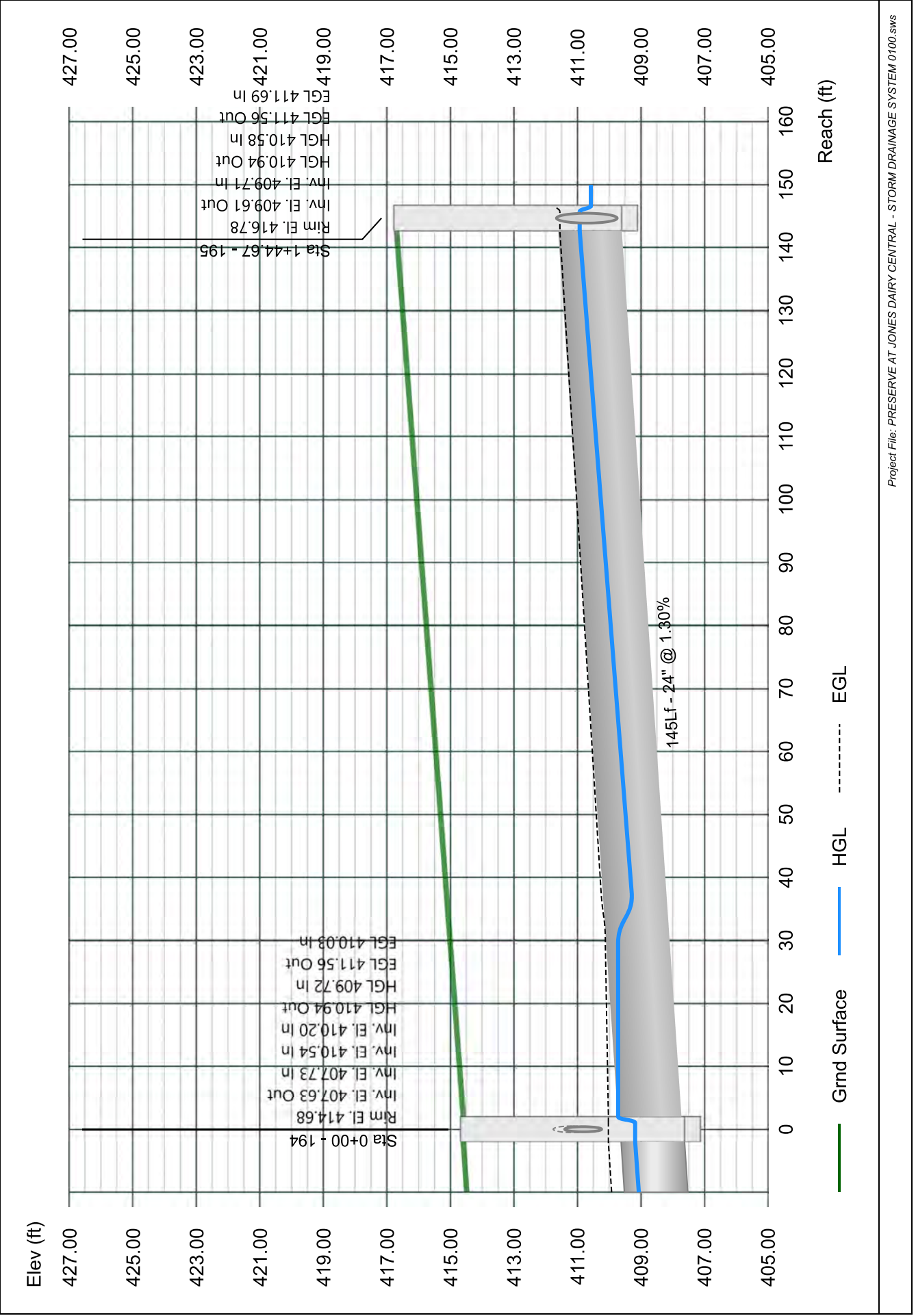


# Line 95 - 195 TO 194

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

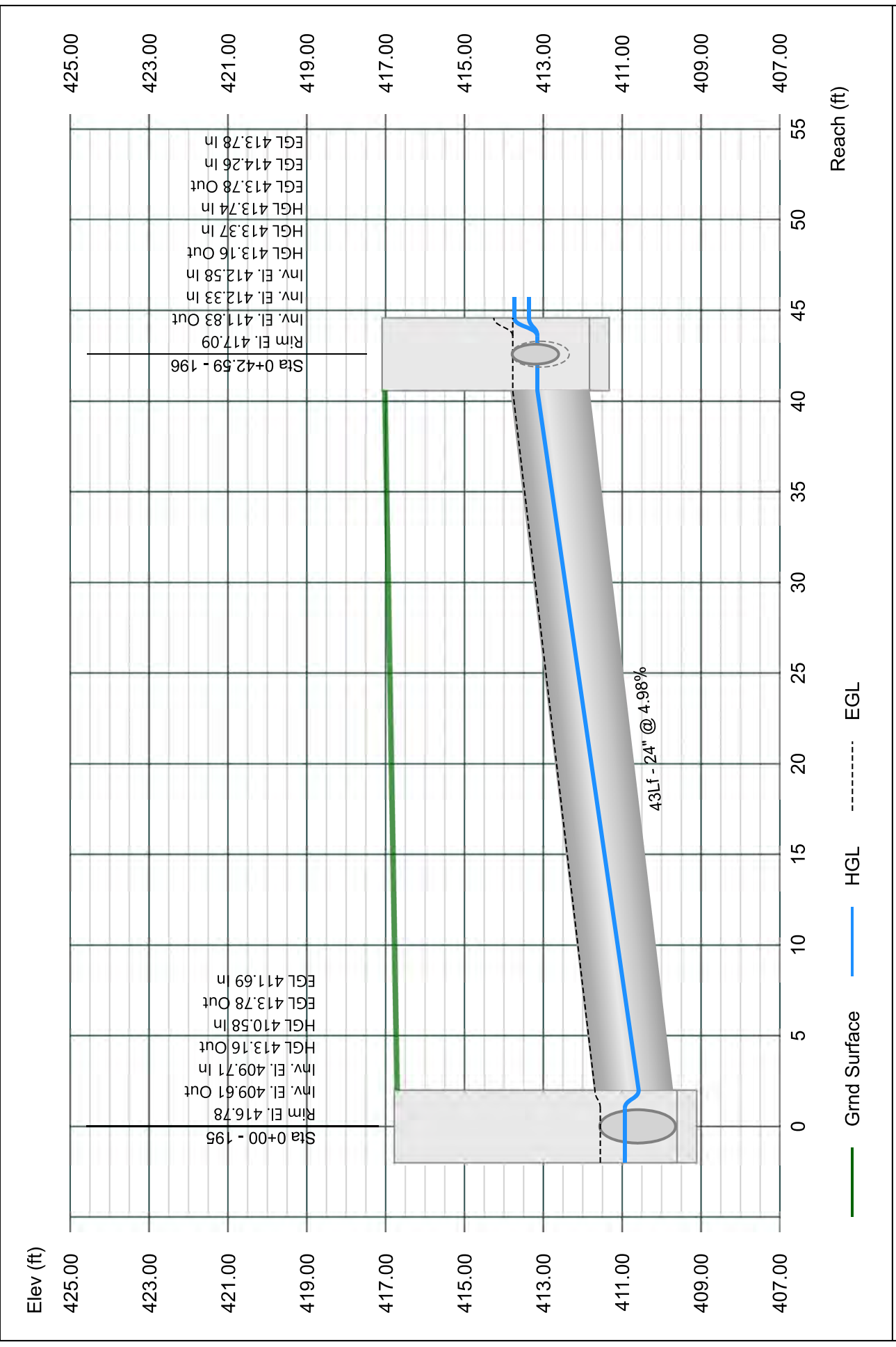


# Line 96 - 196 TO 195

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

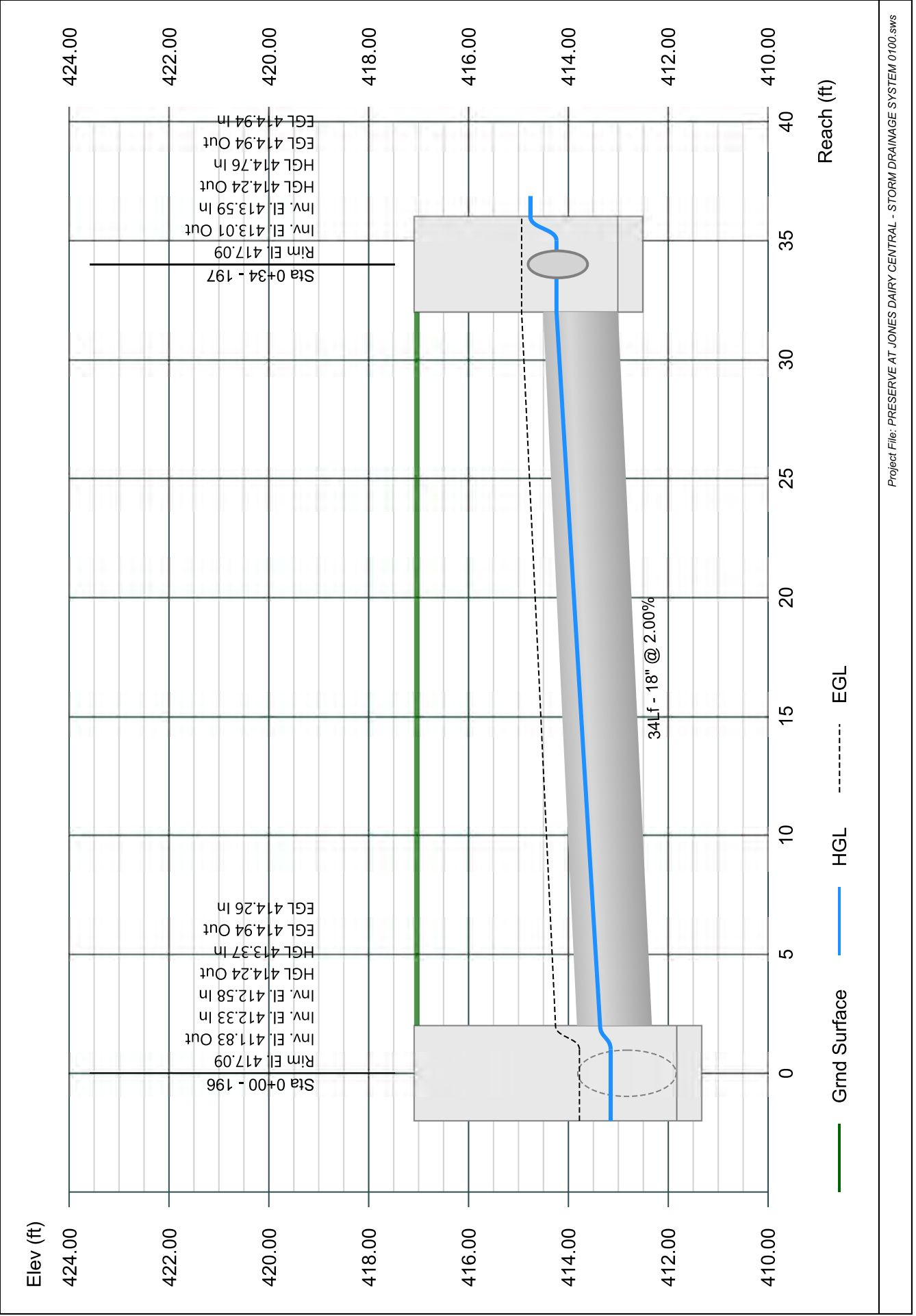


# Line 97 - 197 TO 196

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

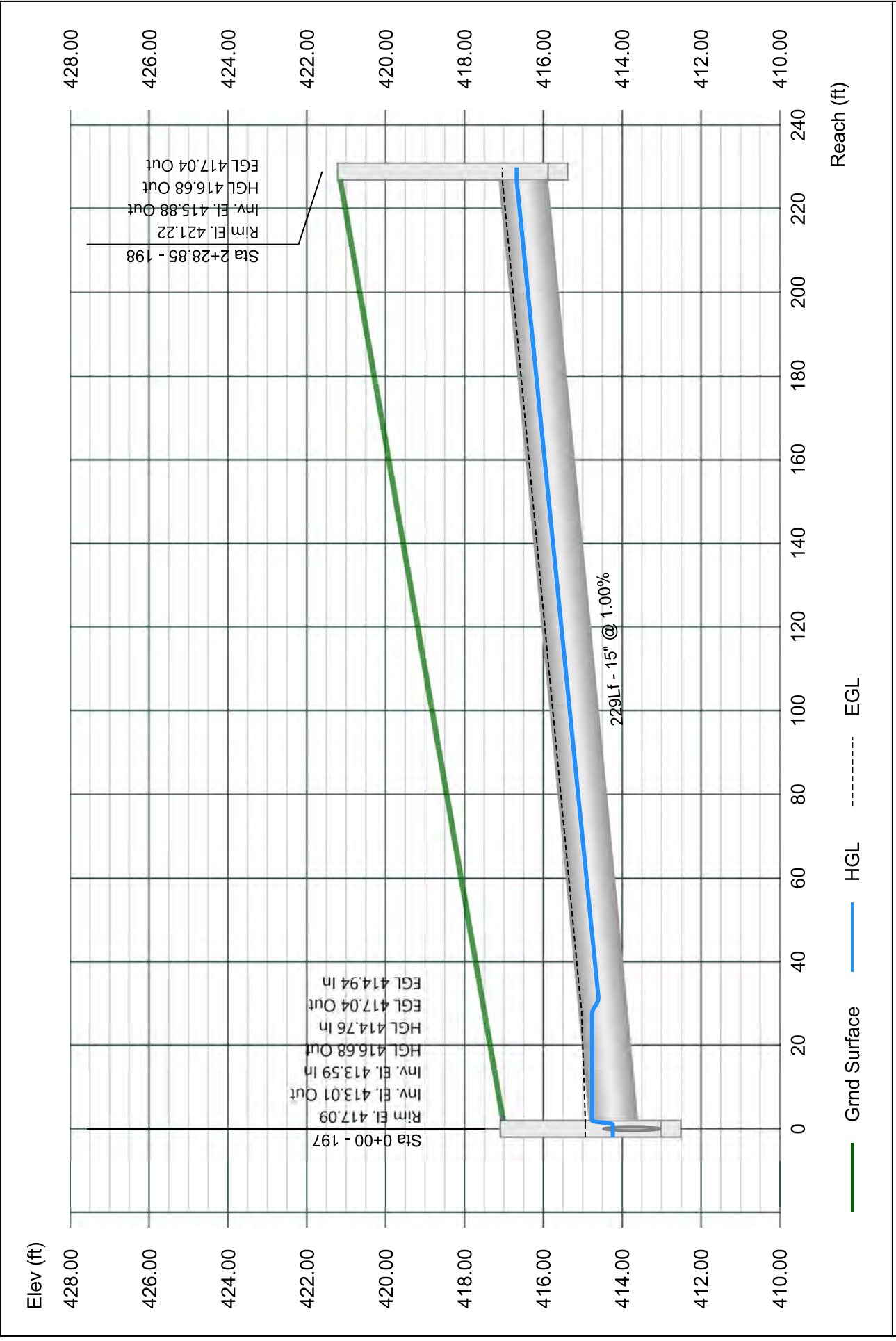


# Line 98 - 198 TO 197

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

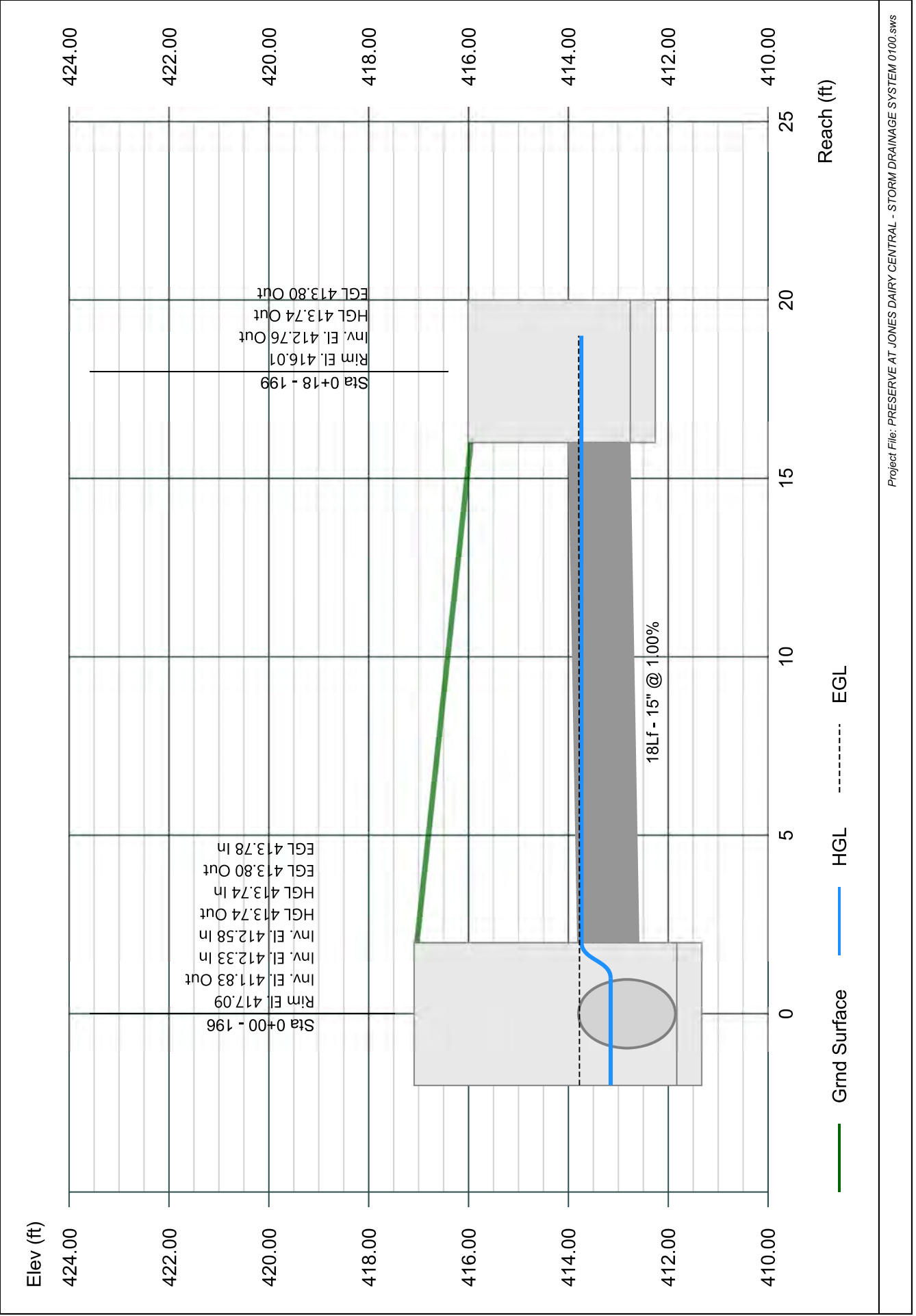


# Line 99 - 199 TO 196

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

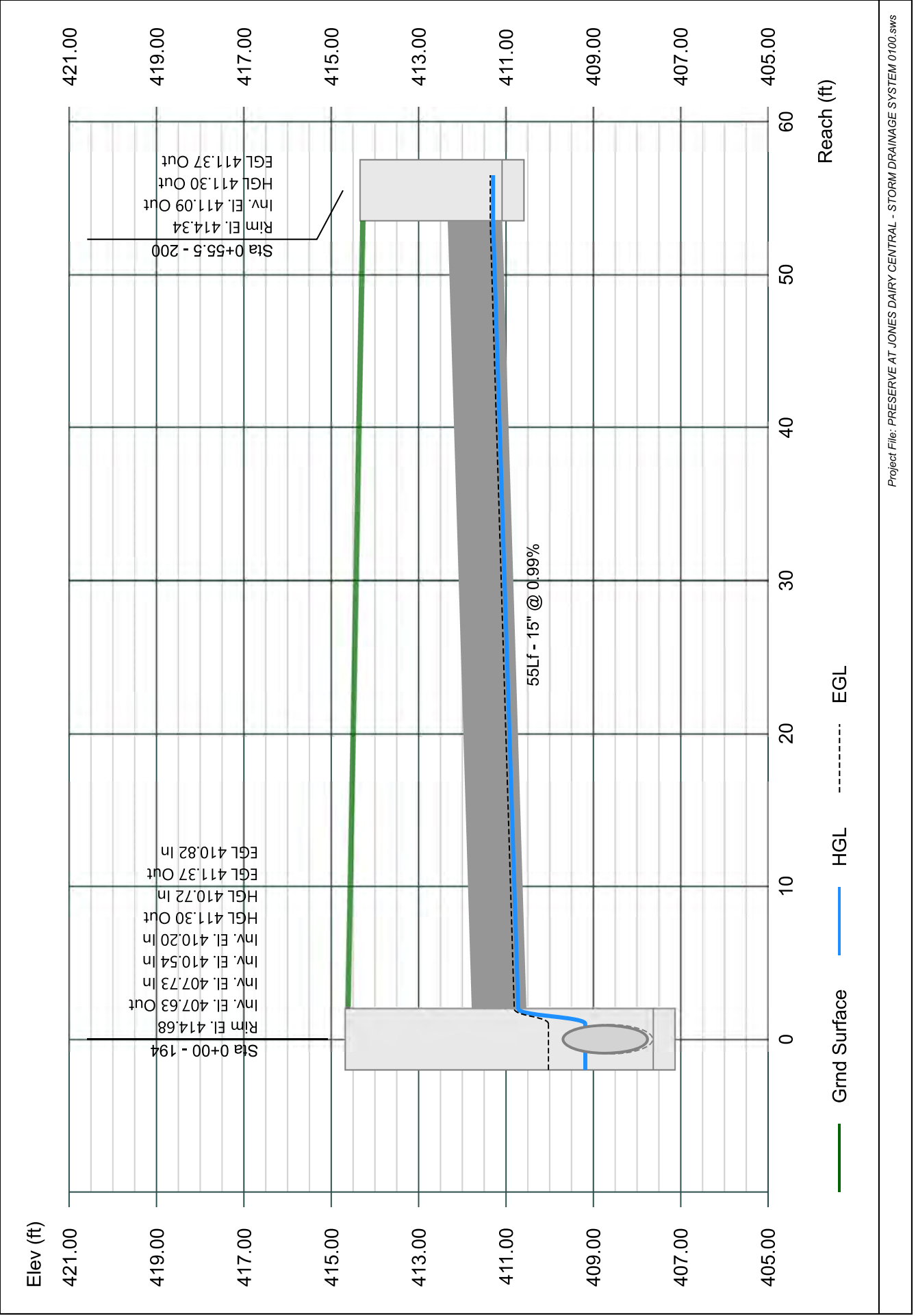


# Line 100 - 200 TO 194

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

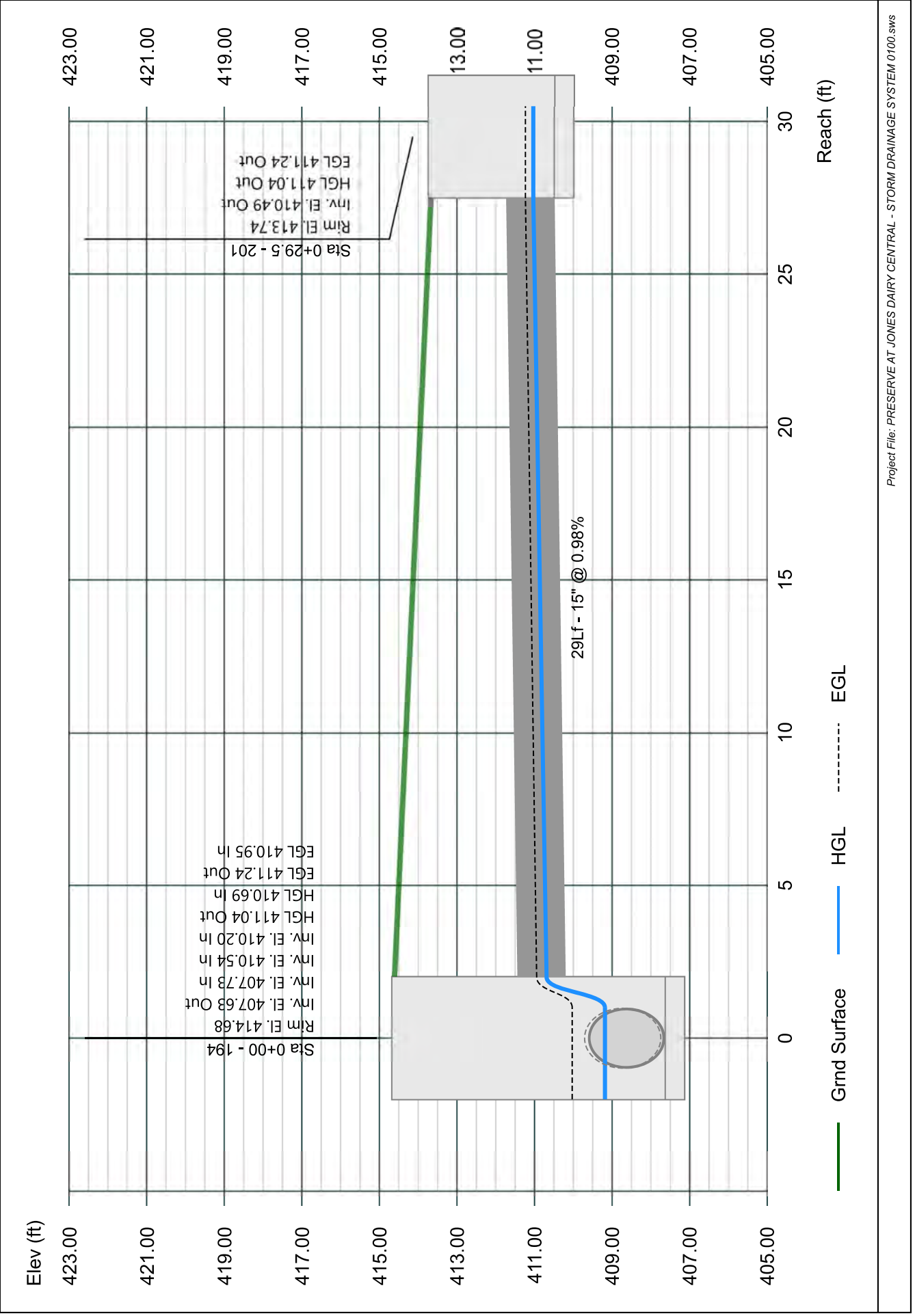


# Line 101 - 201 TO 194

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



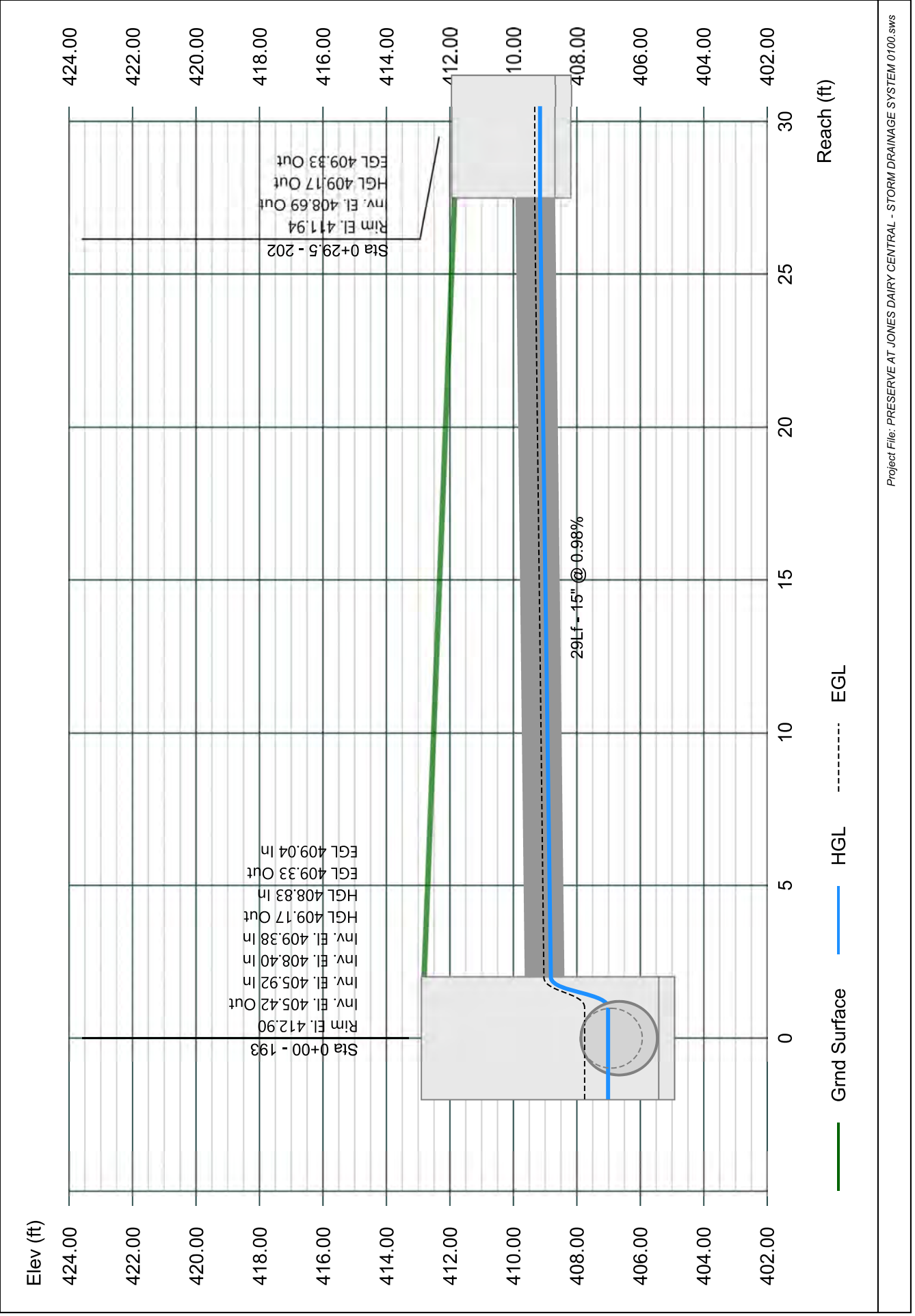


# Line 102 - 202 TO 193

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

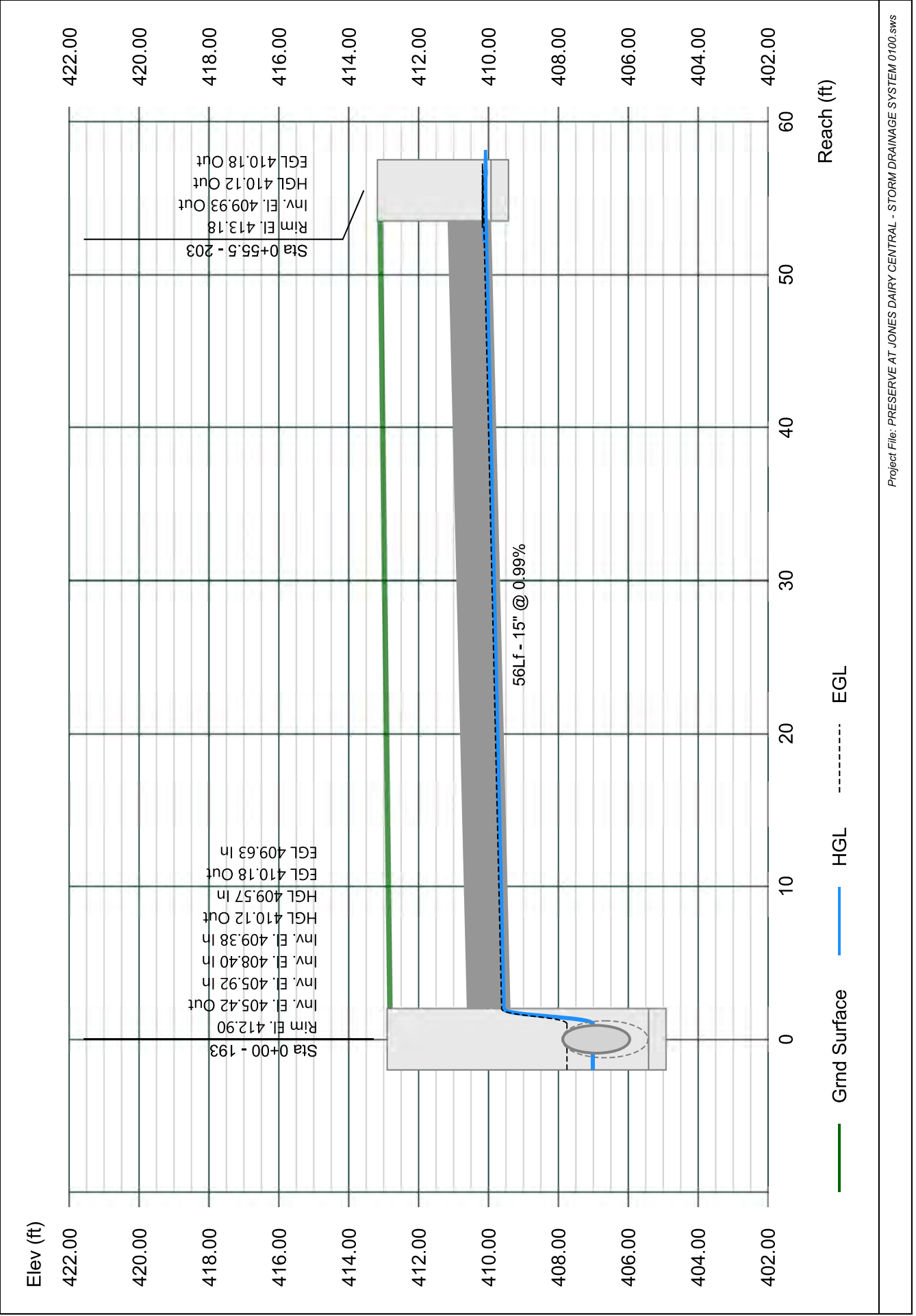


# Line 103 - 203 TO 193

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

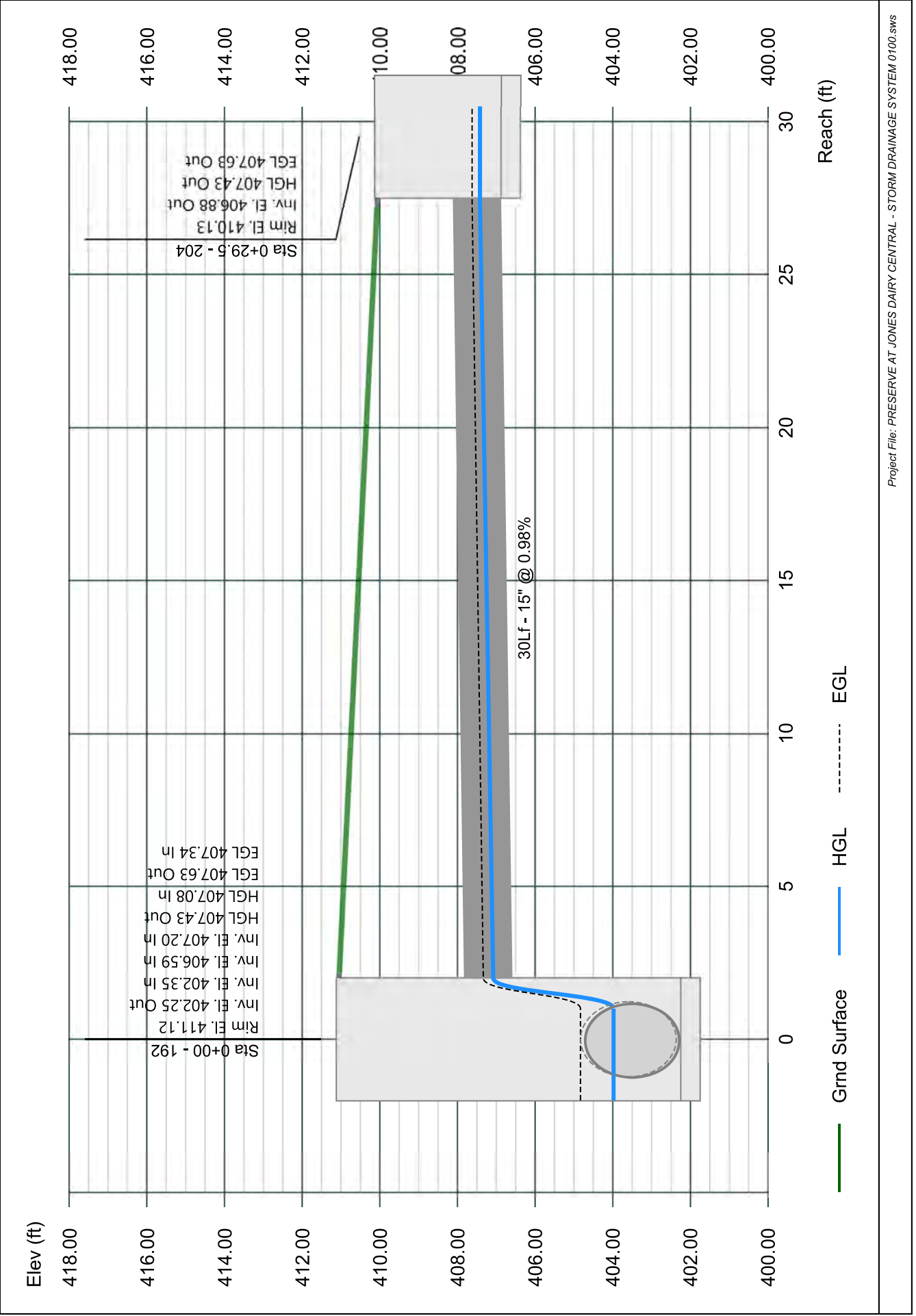


# Line 104 - 204 TO 192

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

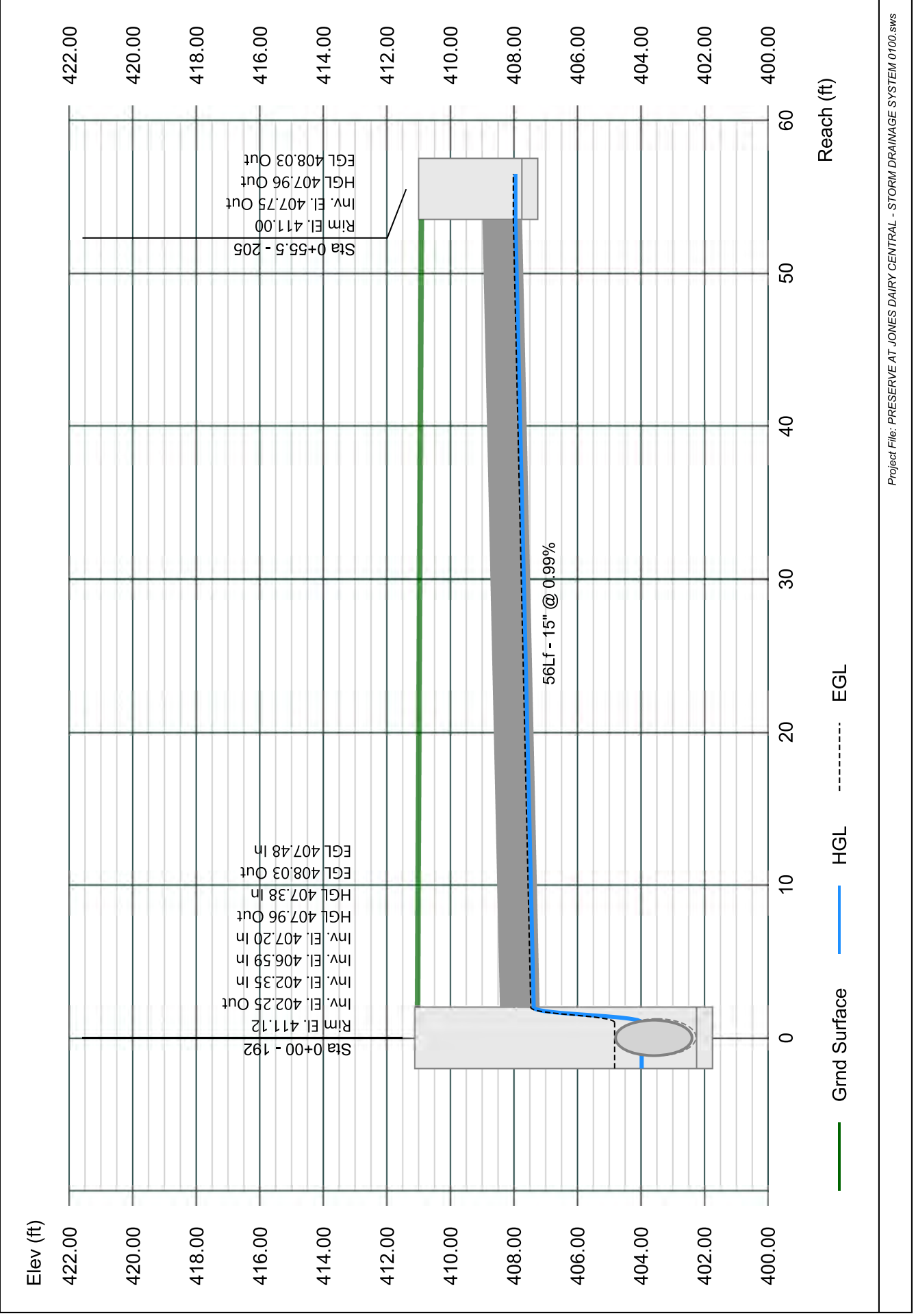


# Line 105 - 205 TO 192

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

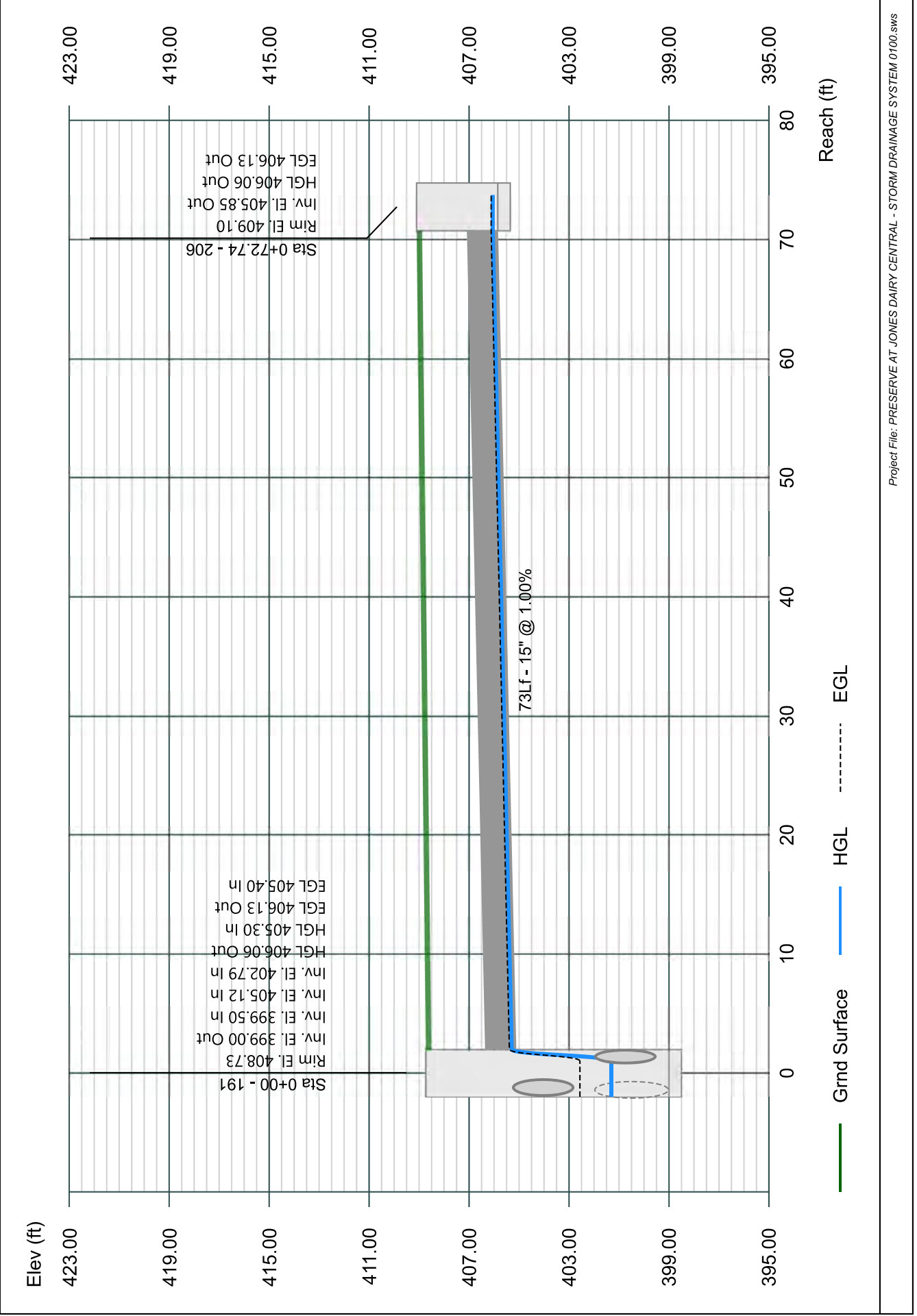


# Line 106 - 206 TO 191

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

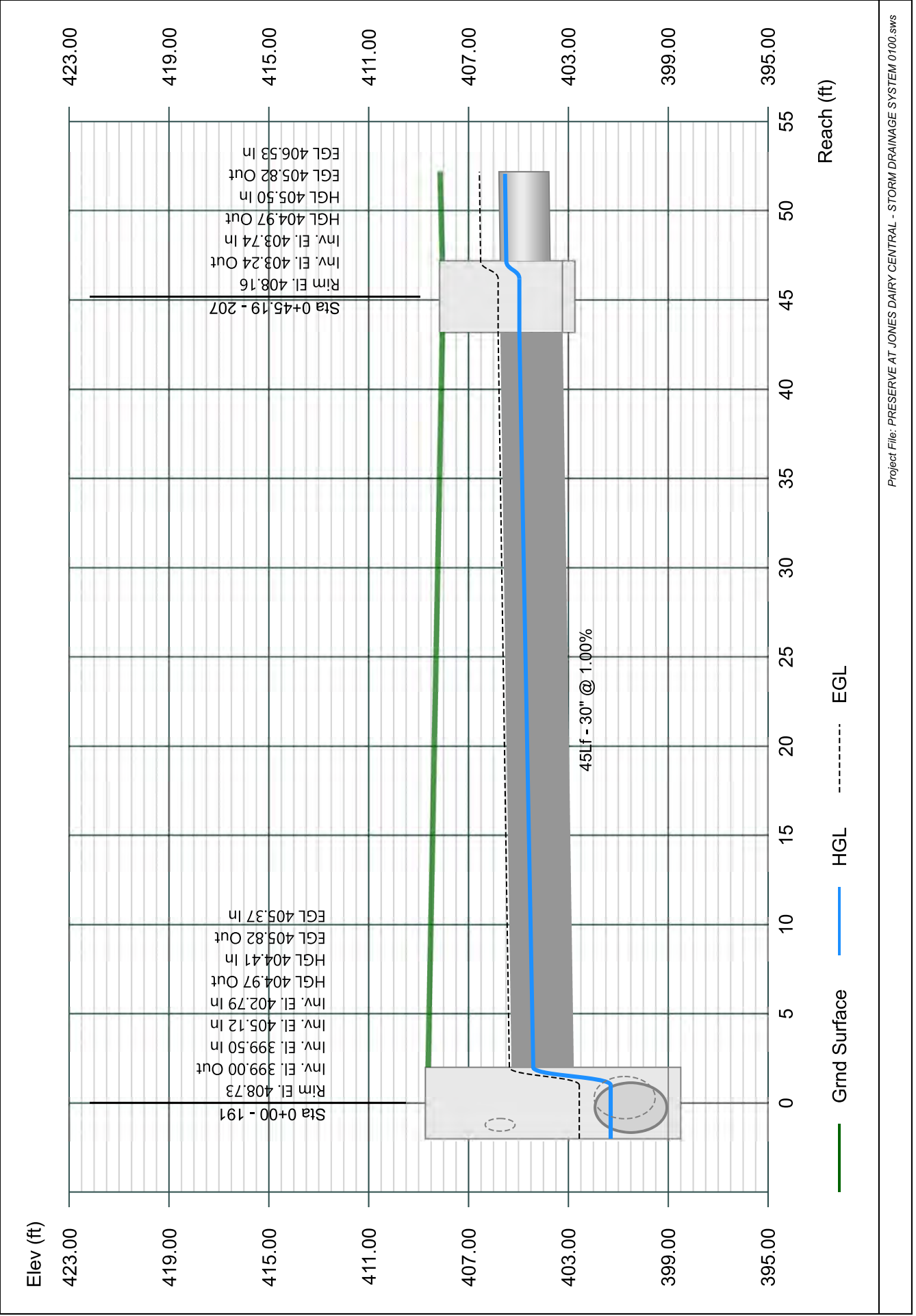


# Line 107 - 207 TO 191

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

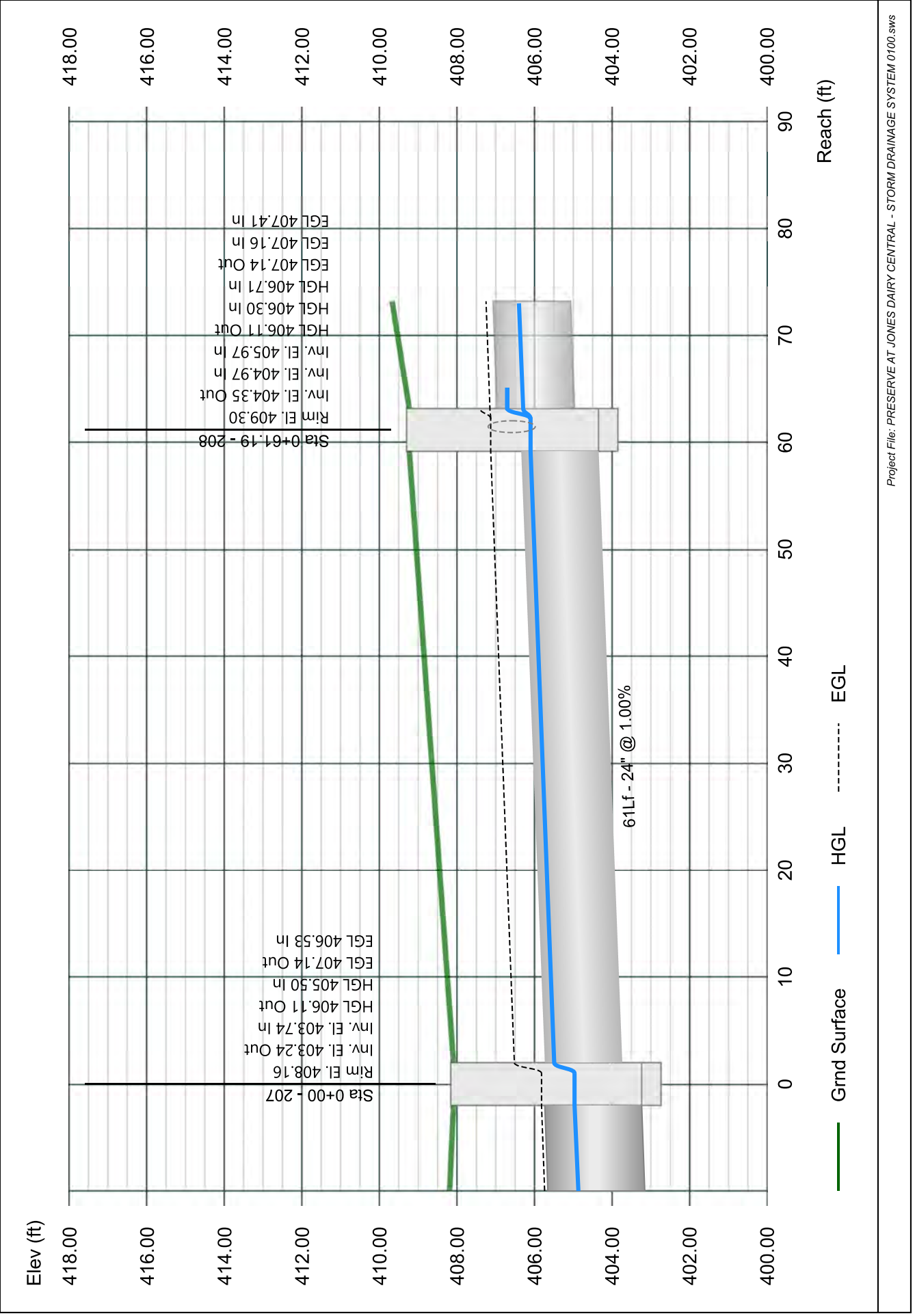


# Line 108 - 208 TO 207

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

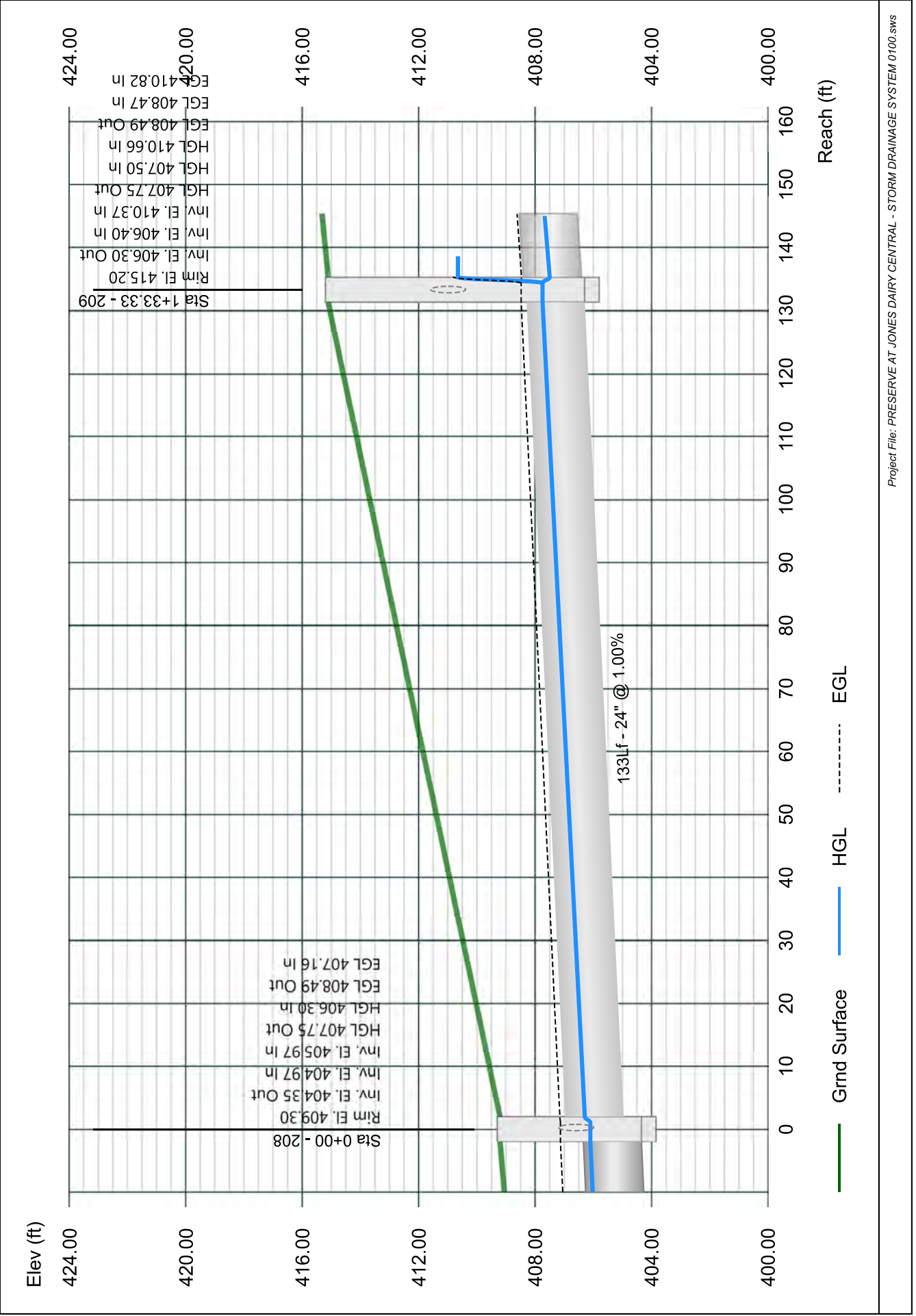


# Line 109 - 209 TO 208

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



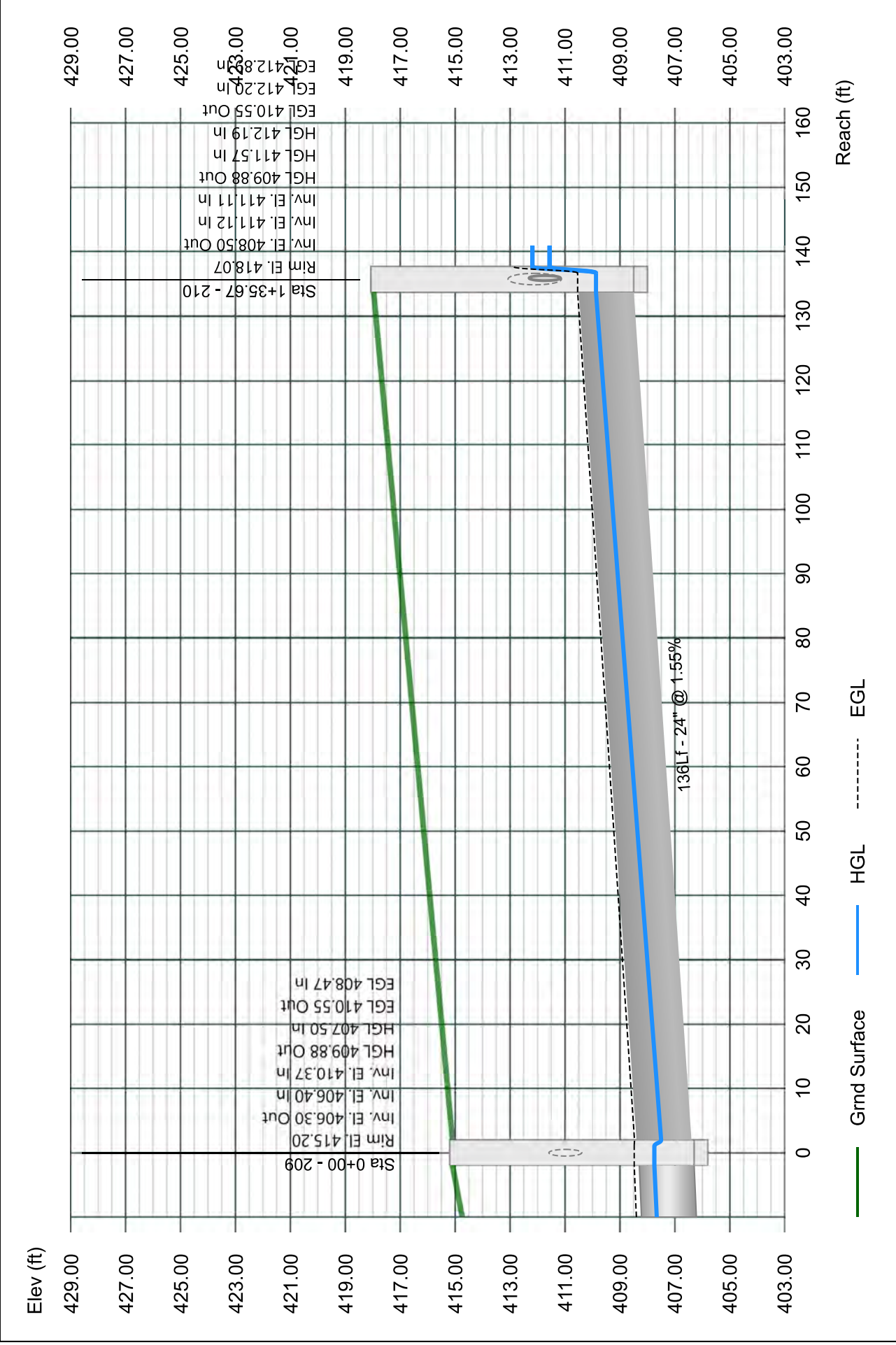


# Line 110 - 210 TO 209

Project Name: Enter Project Name...

Stormwater Studio 2023 v 3.0.0.31

05-03-2023

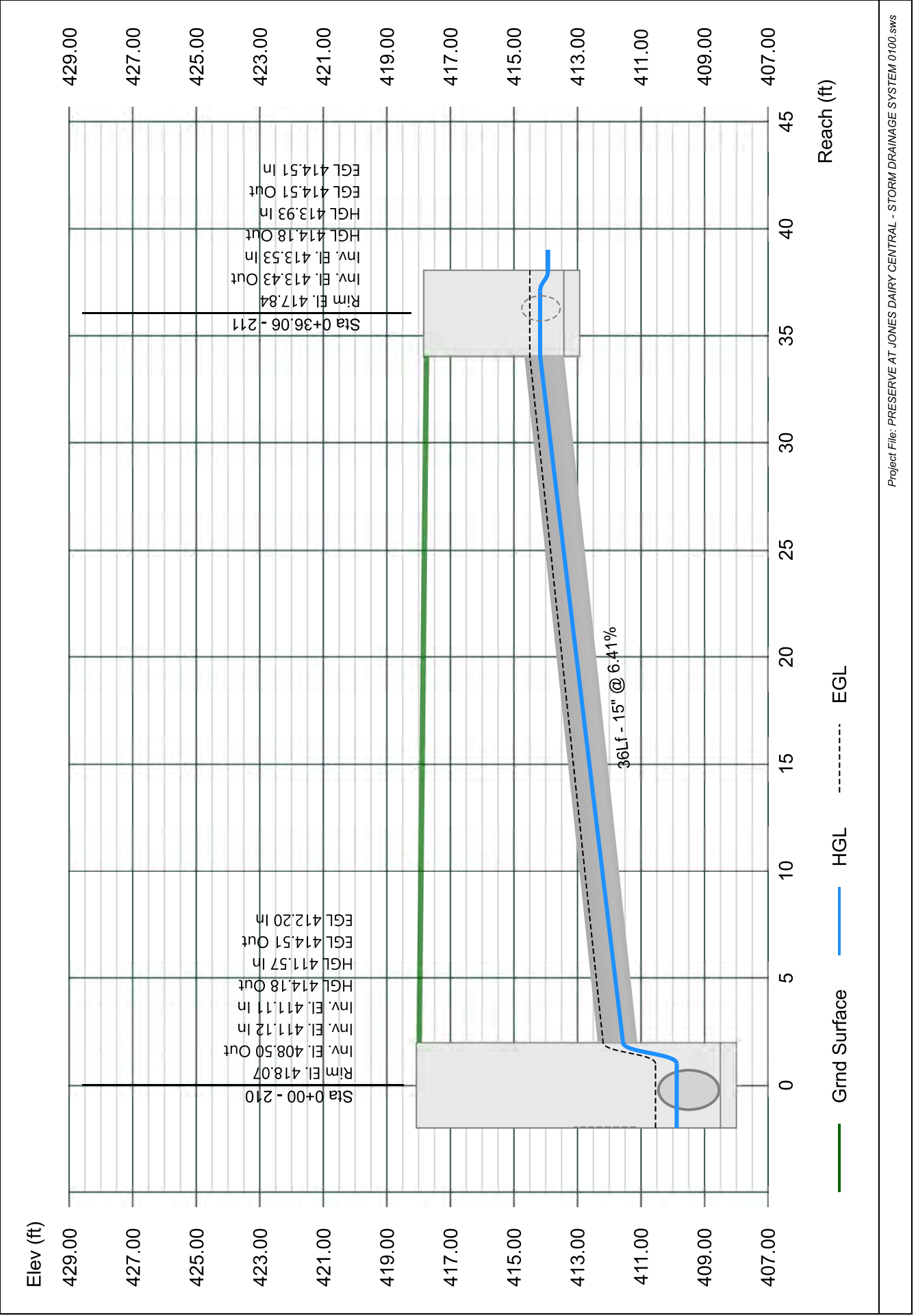


# Line 111 - 211 TO 210

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

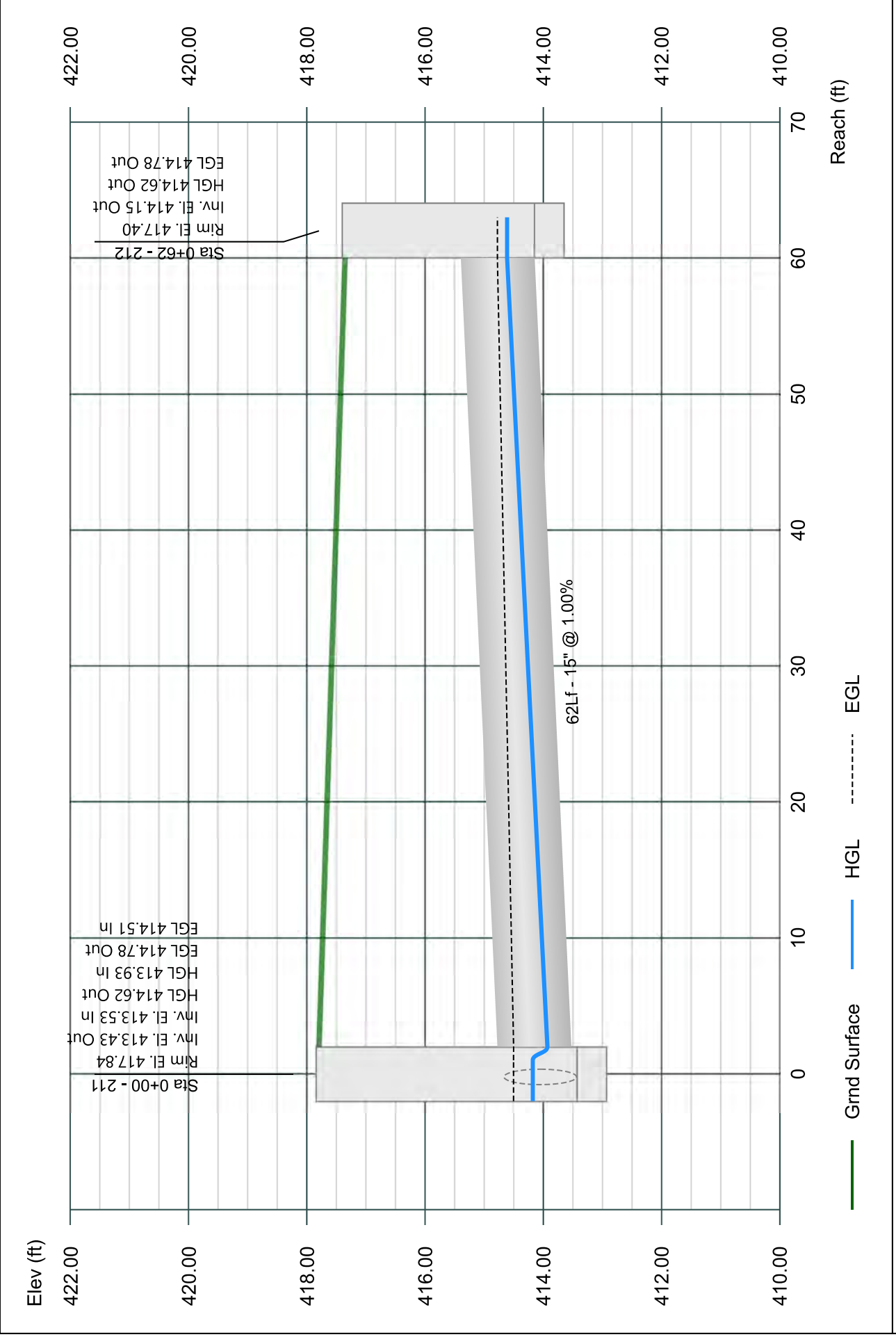


# Line 112 - 212 TO 211

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

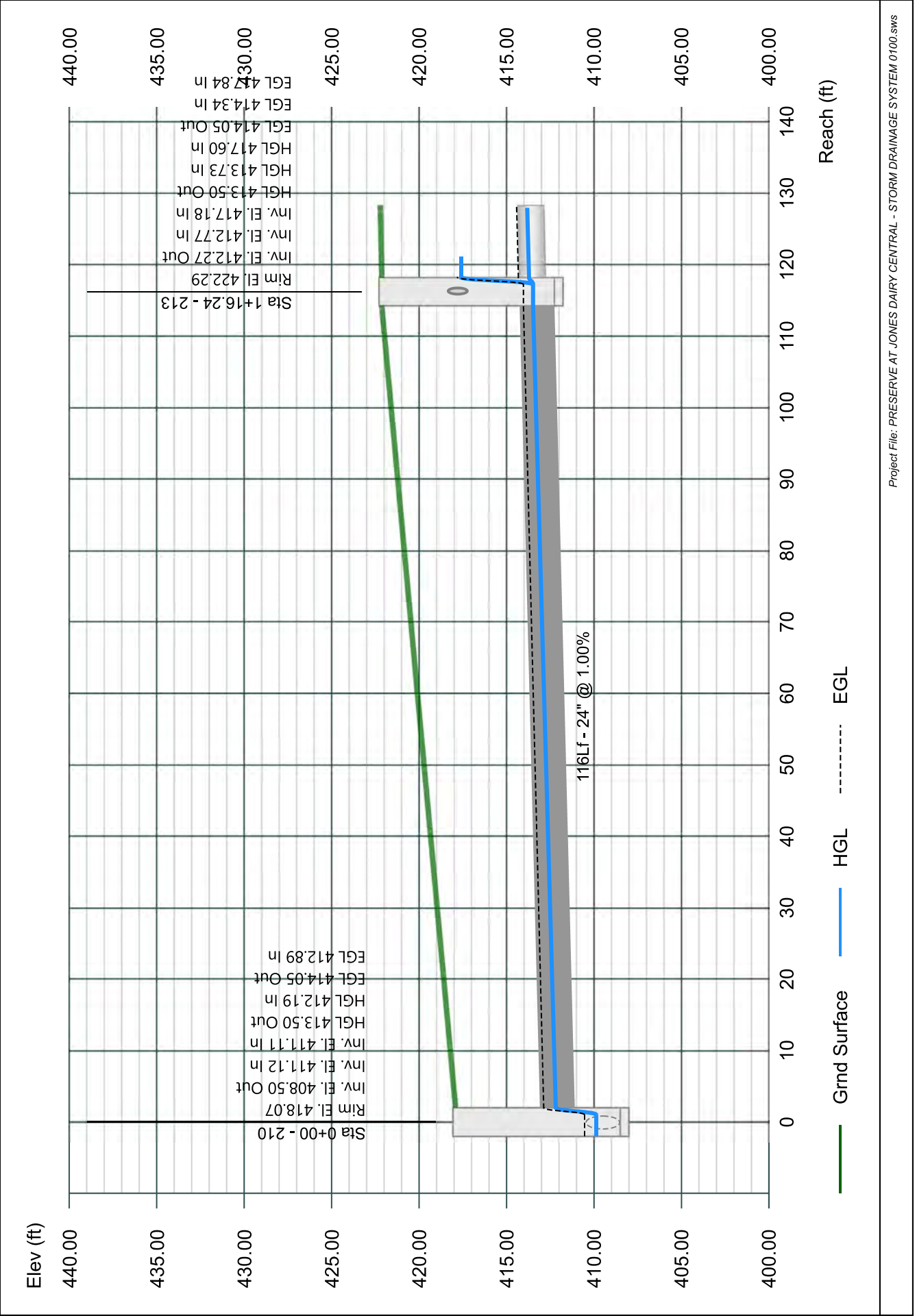


# Line 113 - 213 TO 210

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

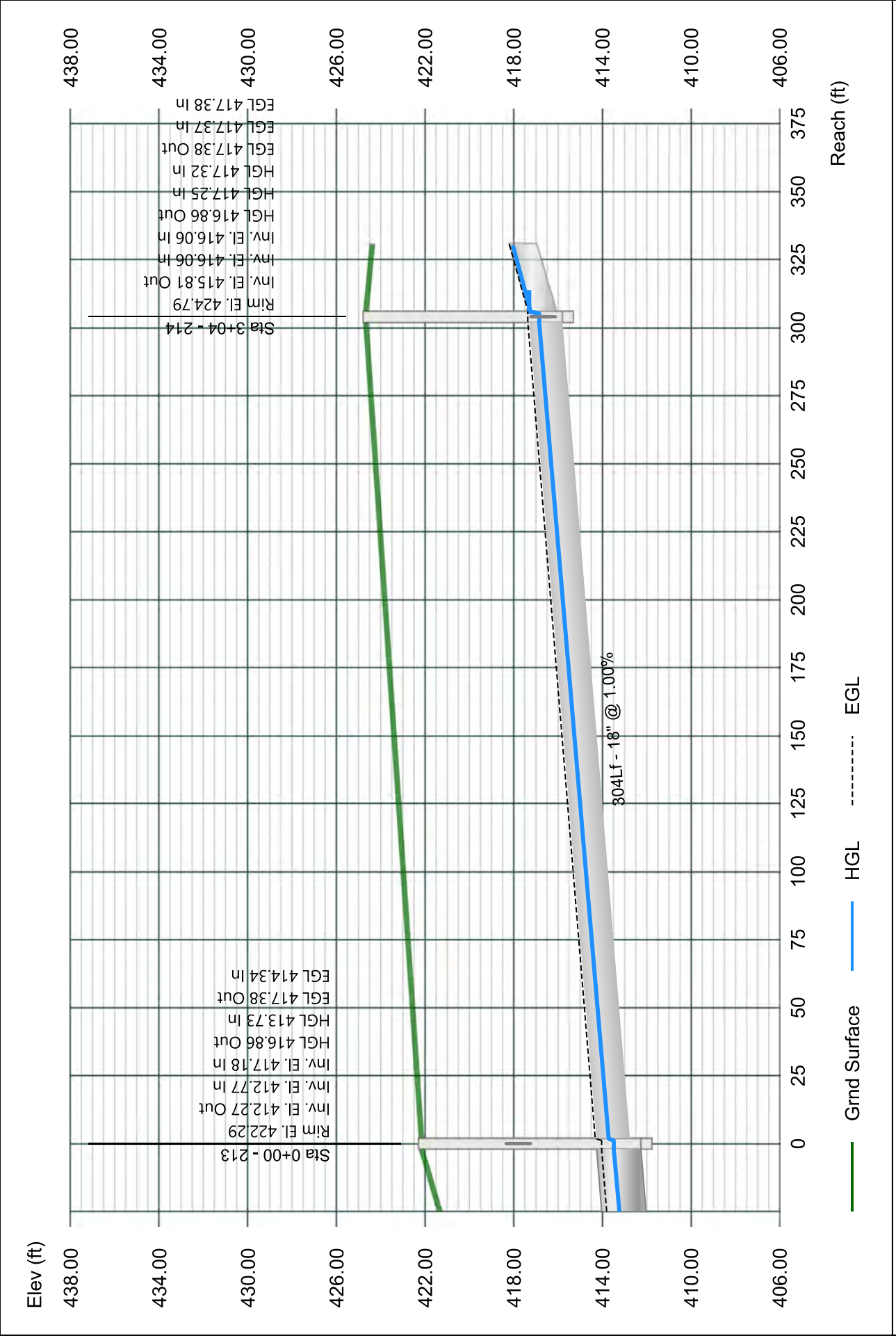


# Line 114 - 214 TO 213

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

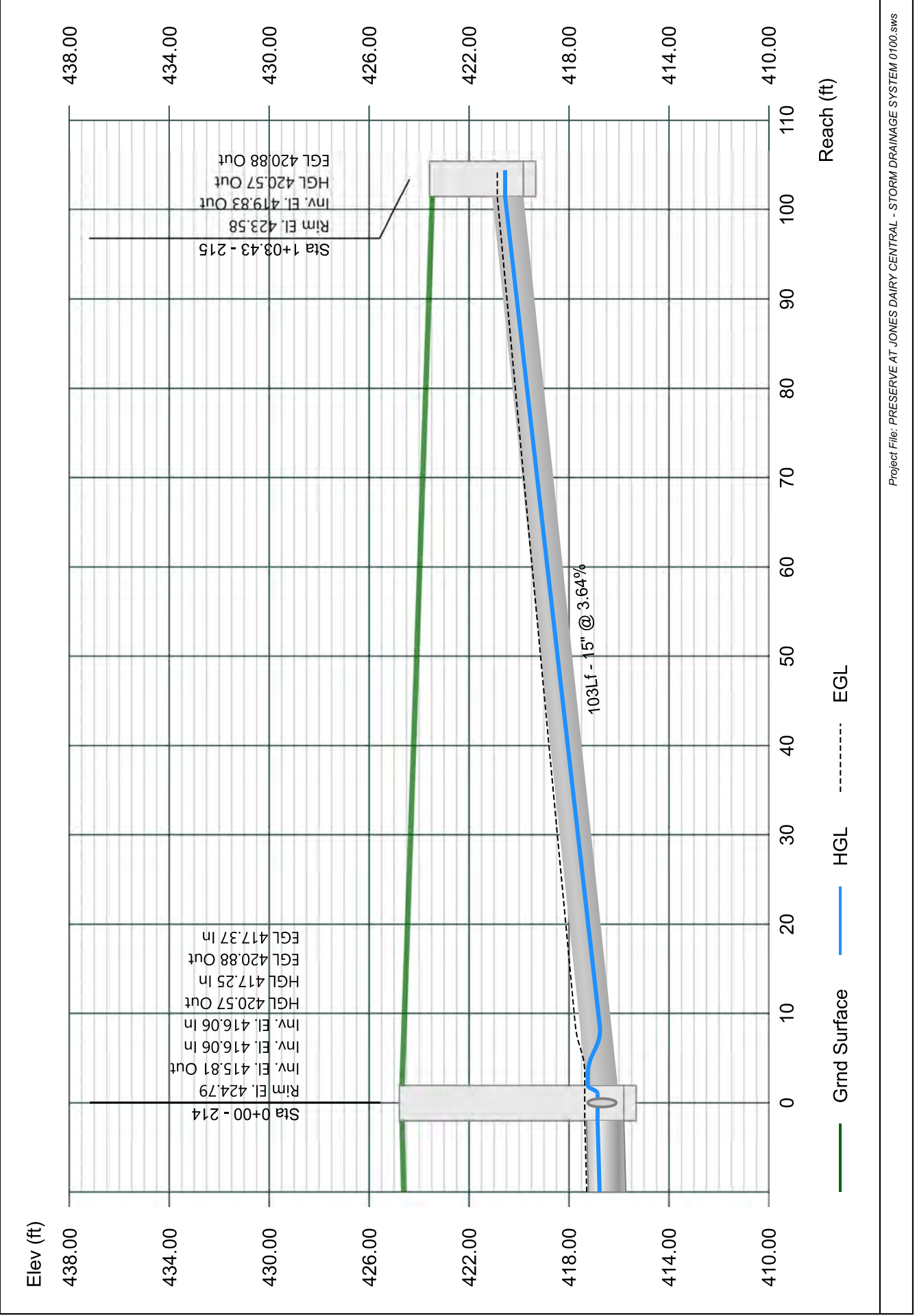


# Line 115 - 215 TO 214

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

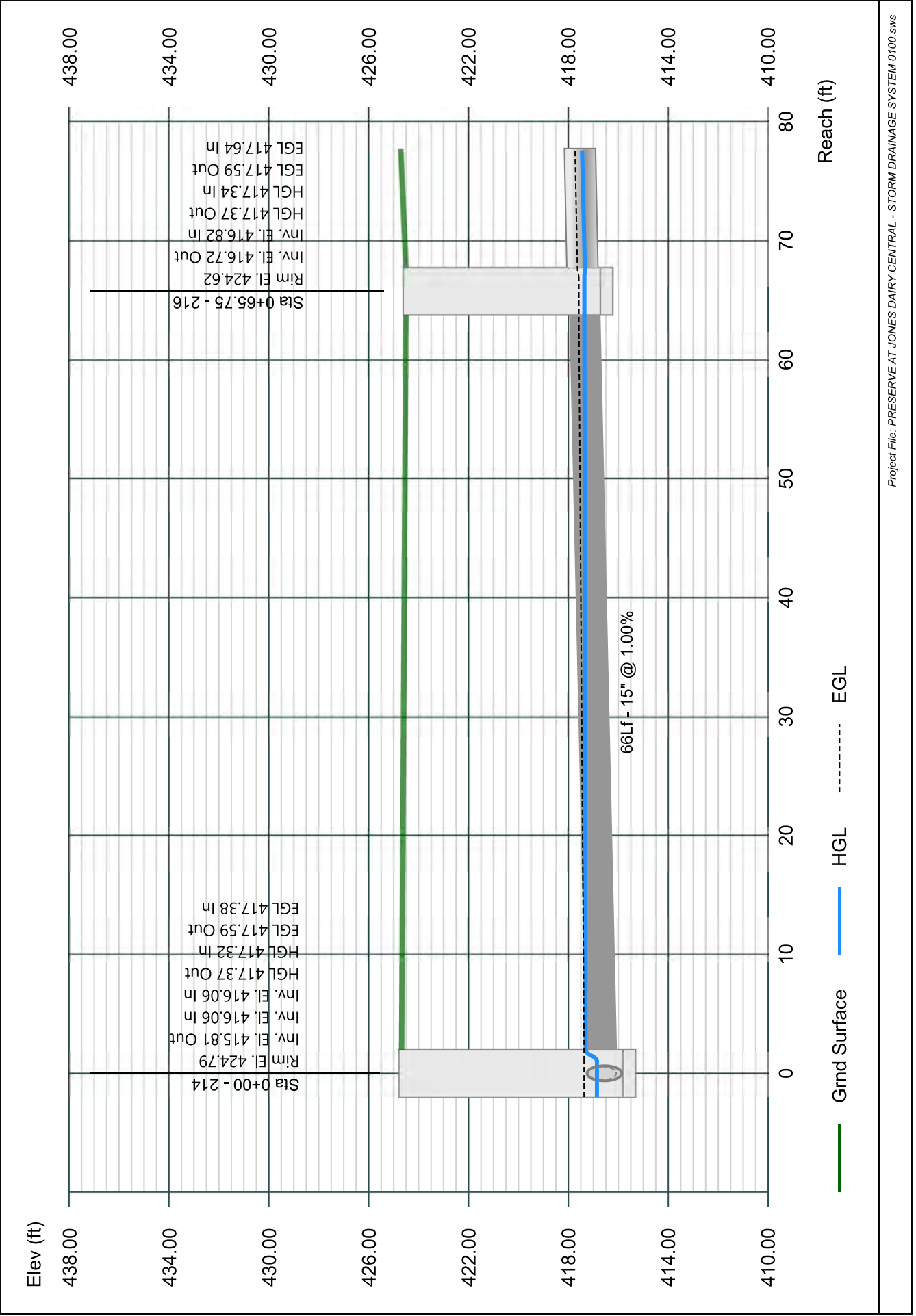


# Line 116 - 216 TI 214

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

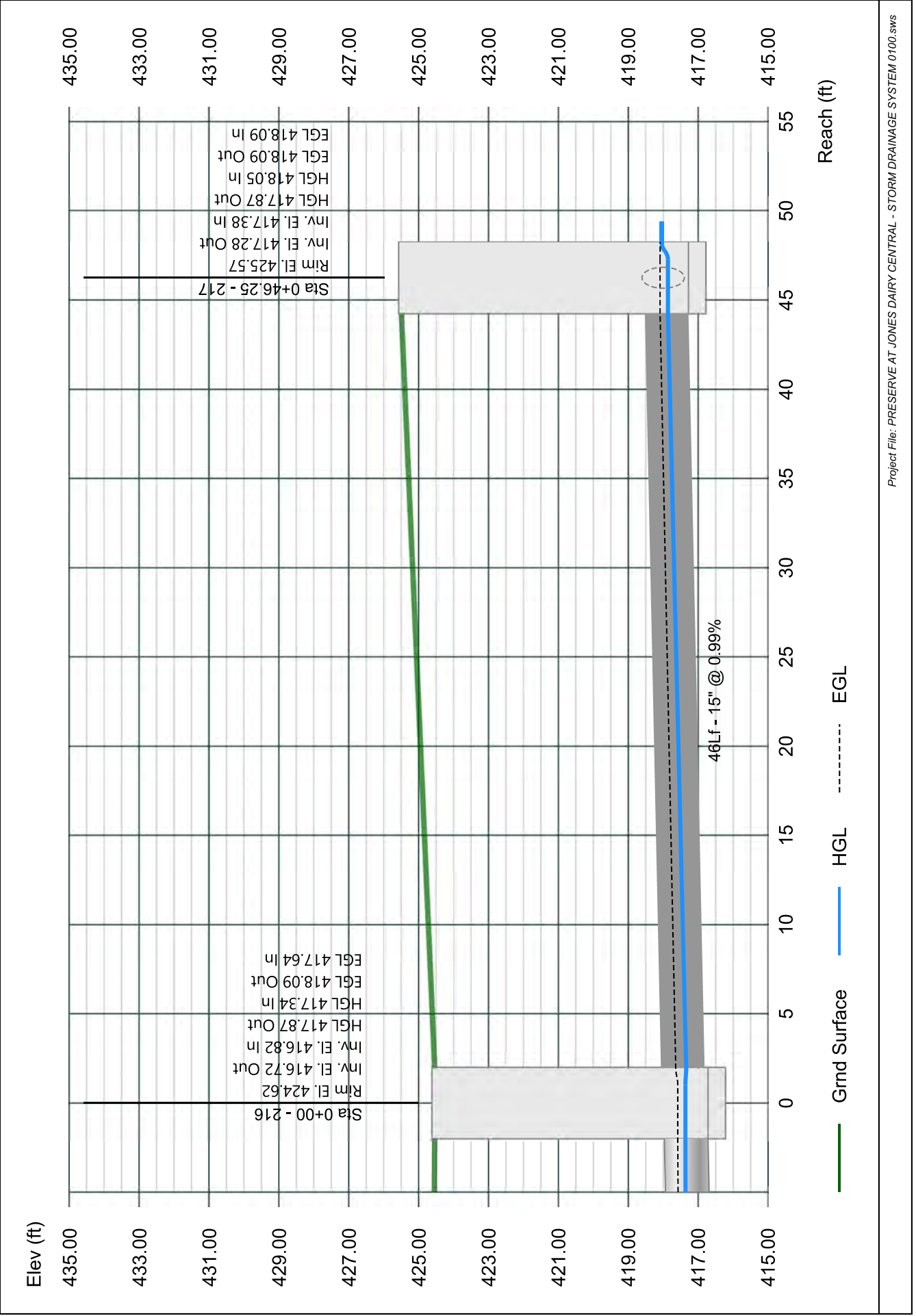


# Line 117 - 217 TO 216

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



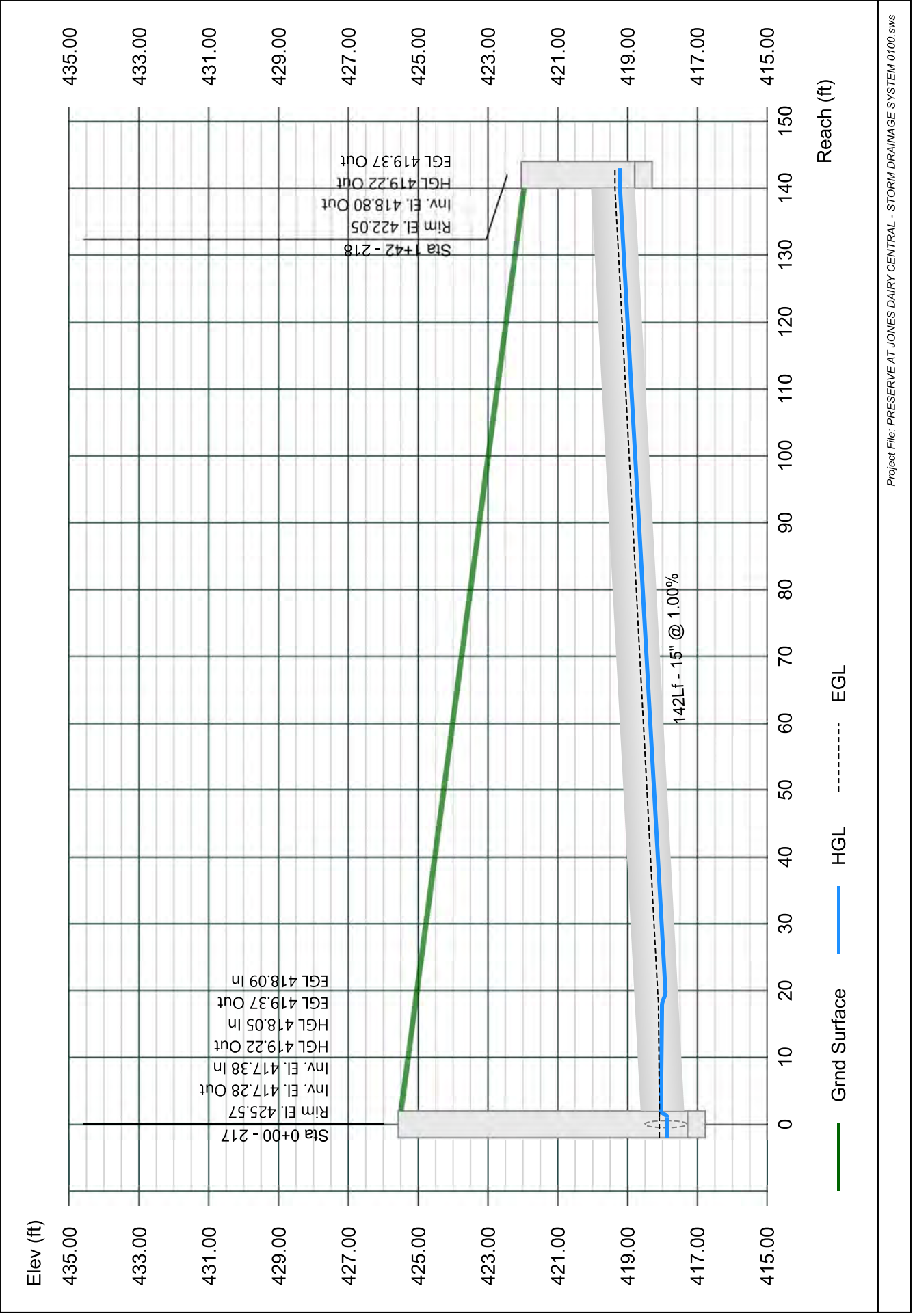


# Line 118 - 218 TO 217

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

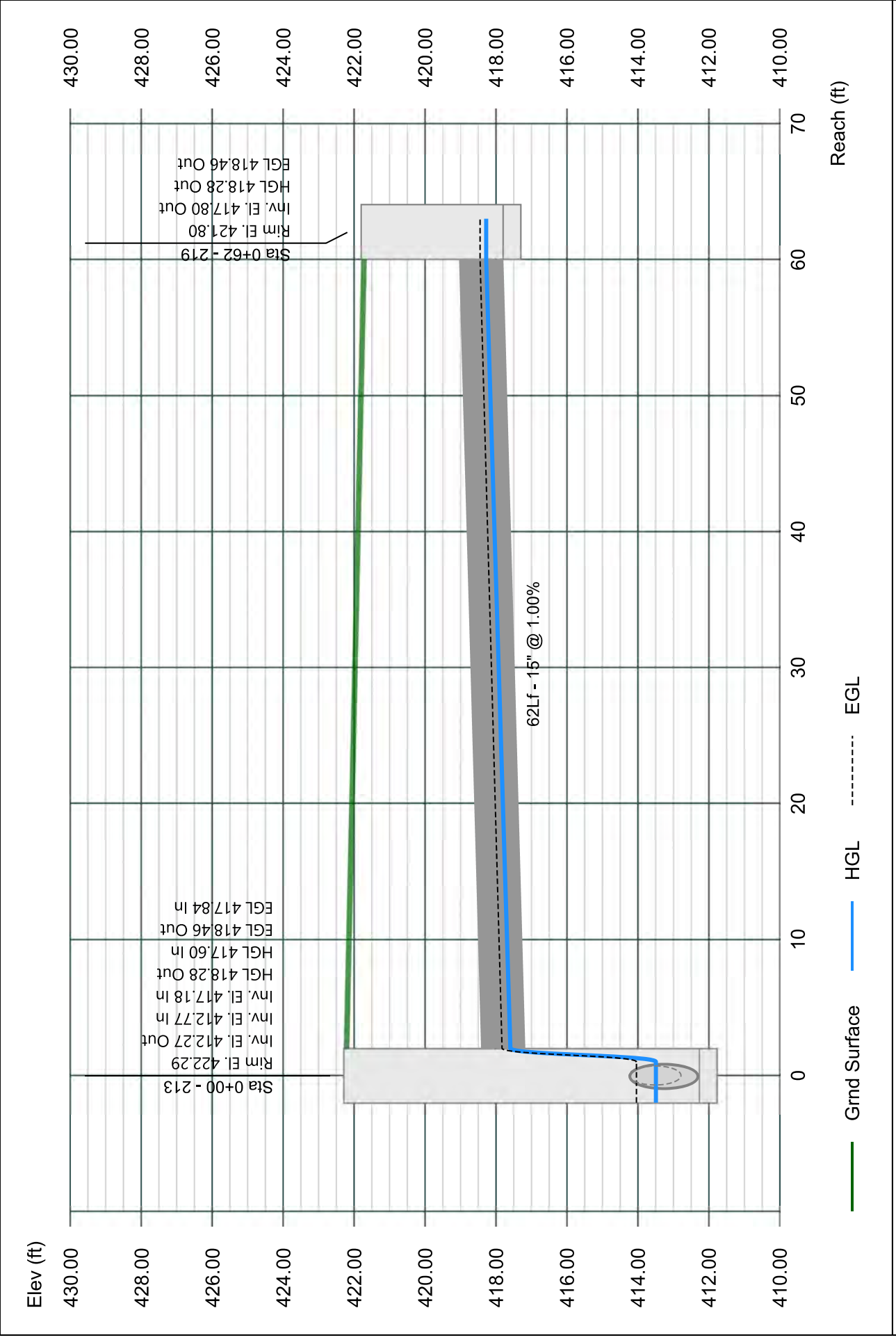


# Line 119 - 219 TO 213

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

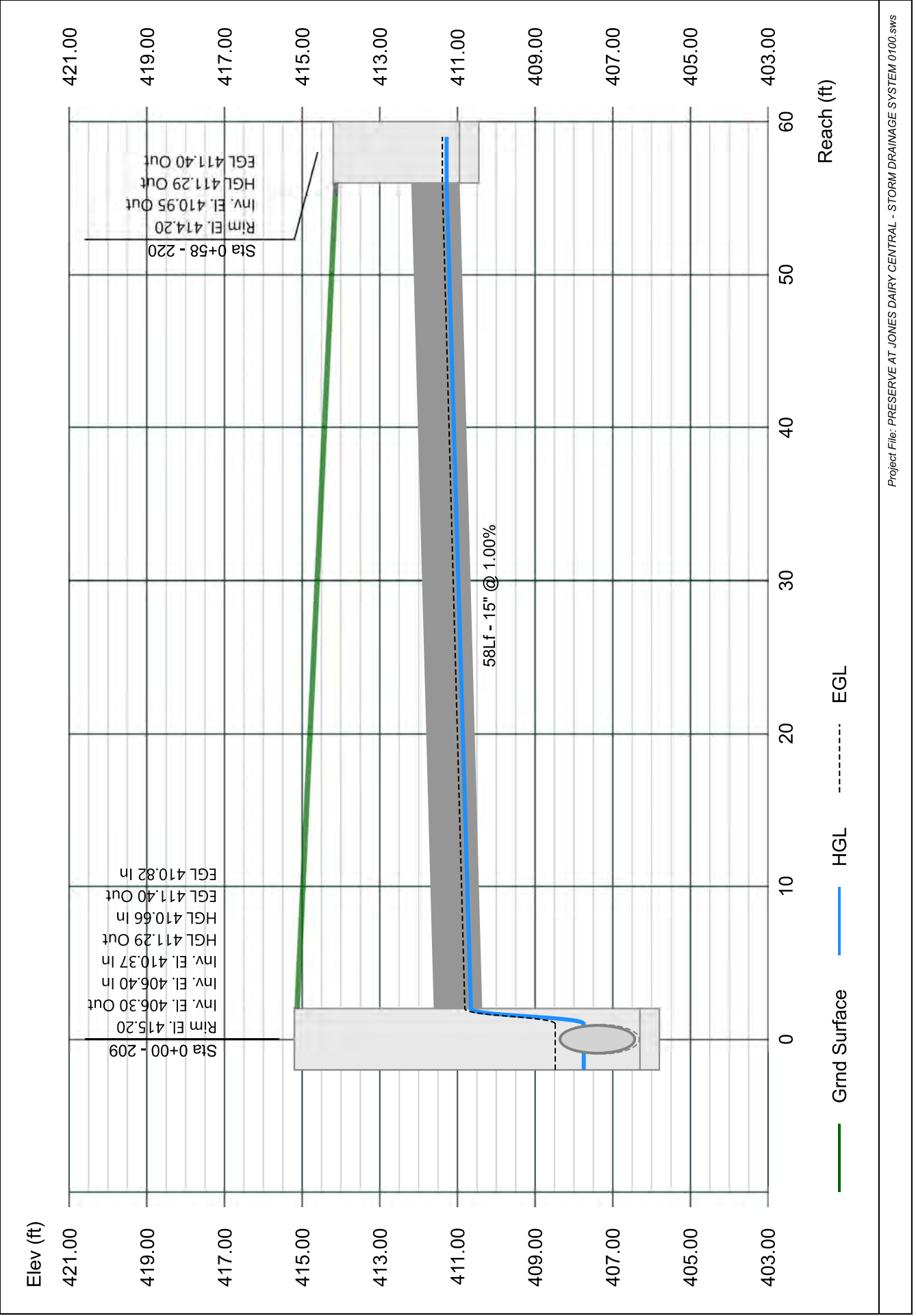


# Line 120 - 220 TO 209

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

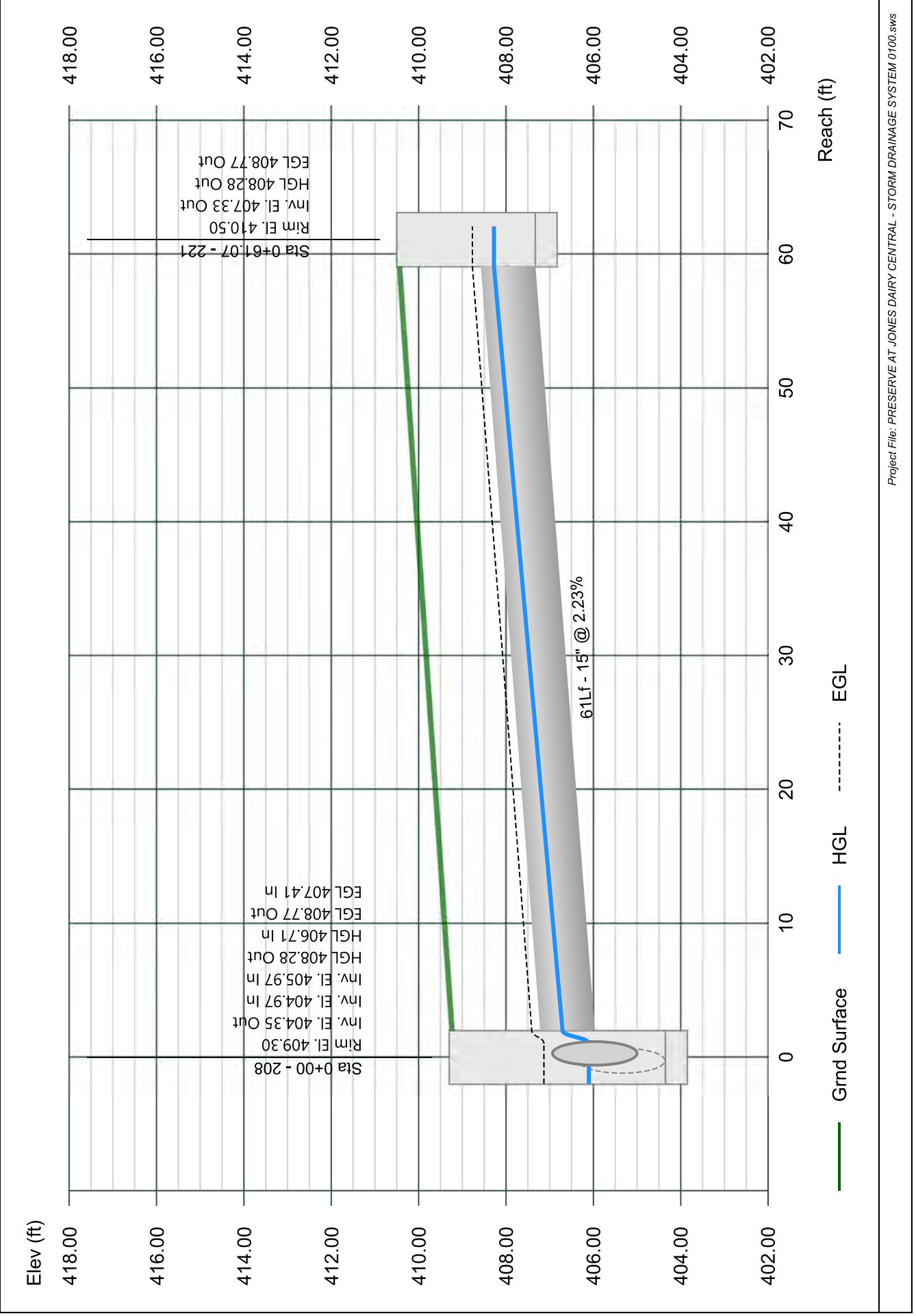


# Line 121 - 221 TO 208

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

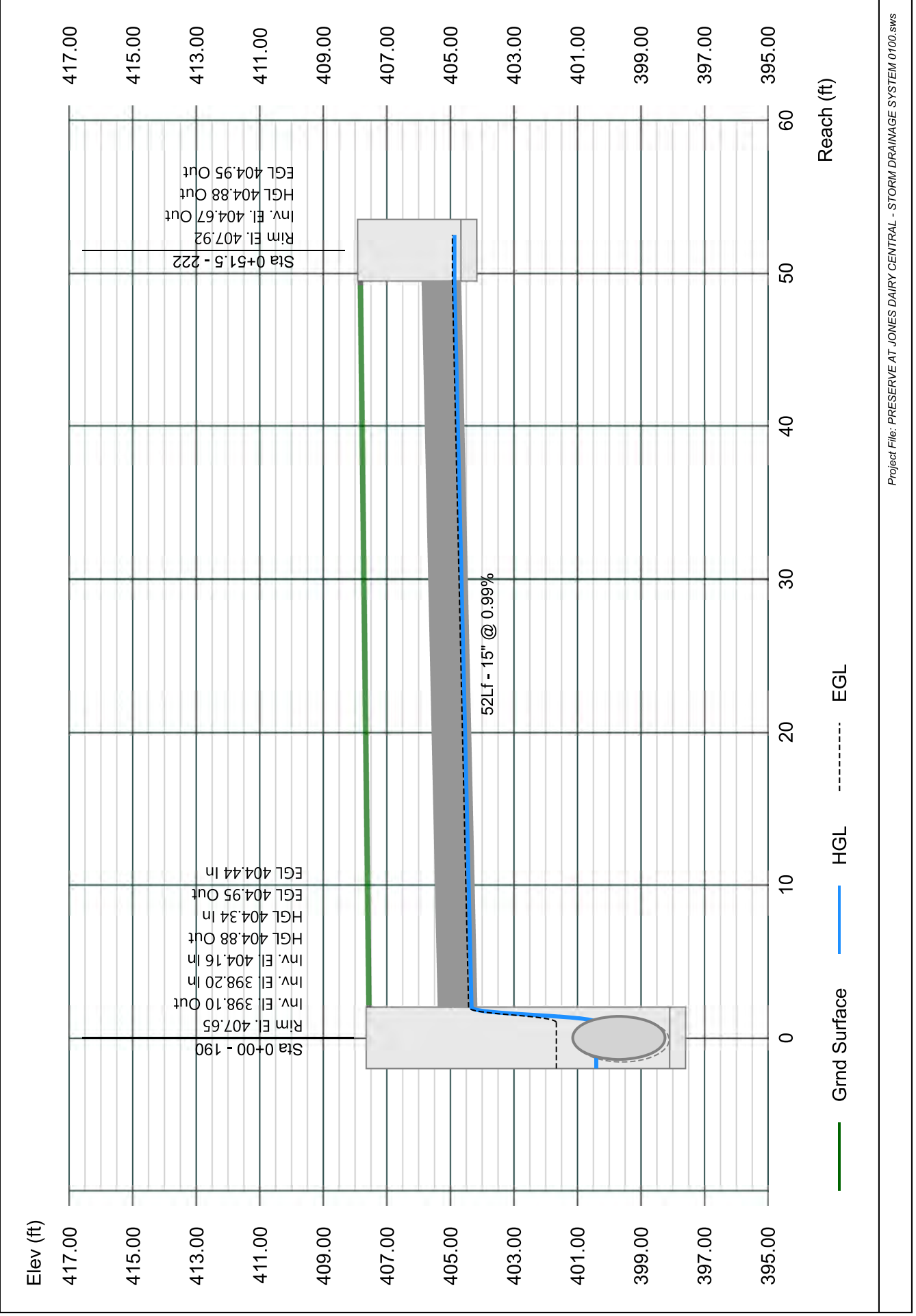


# Line 122 - 222 TO 190

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

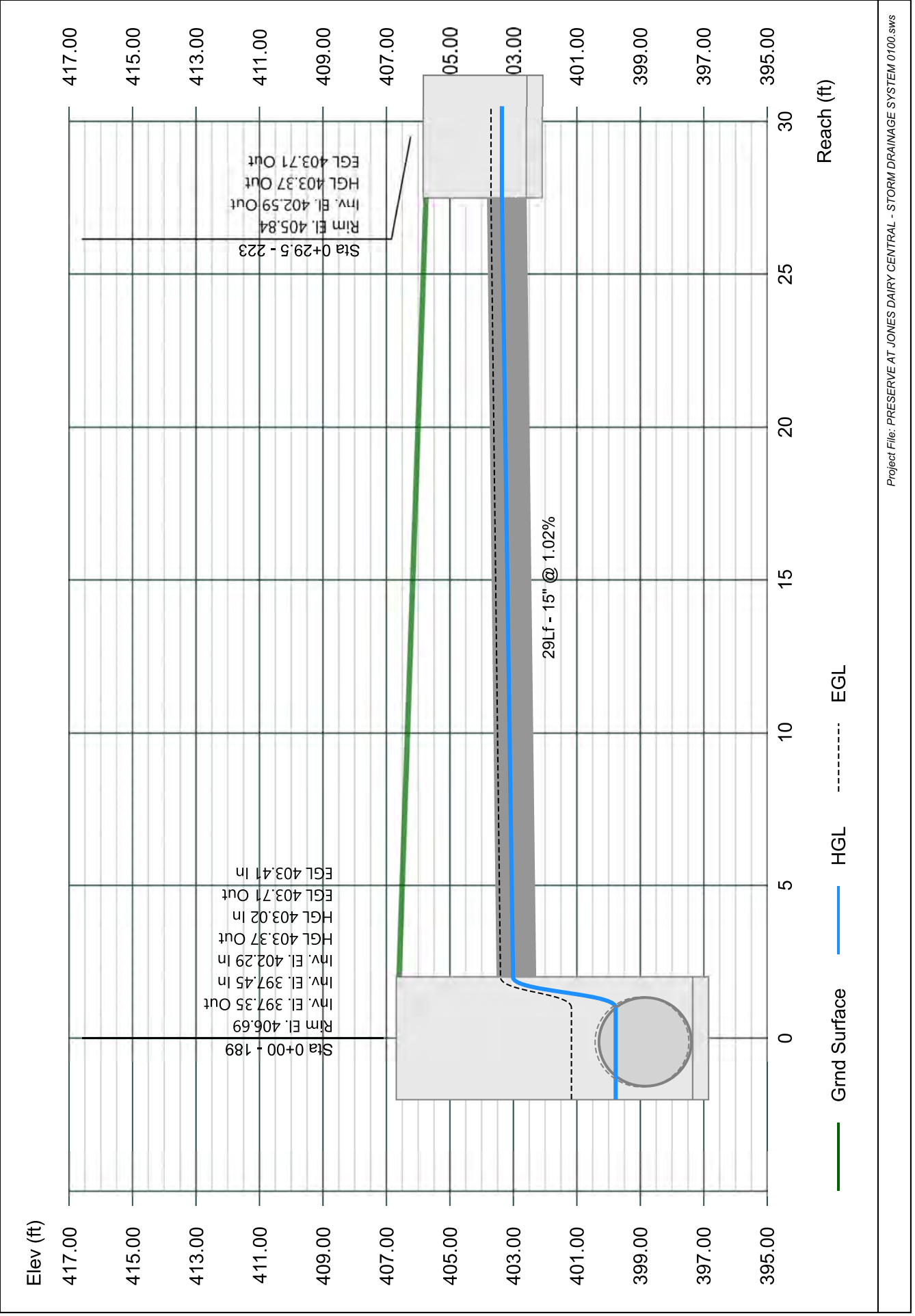


# Line 123 - 223 TO 189

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

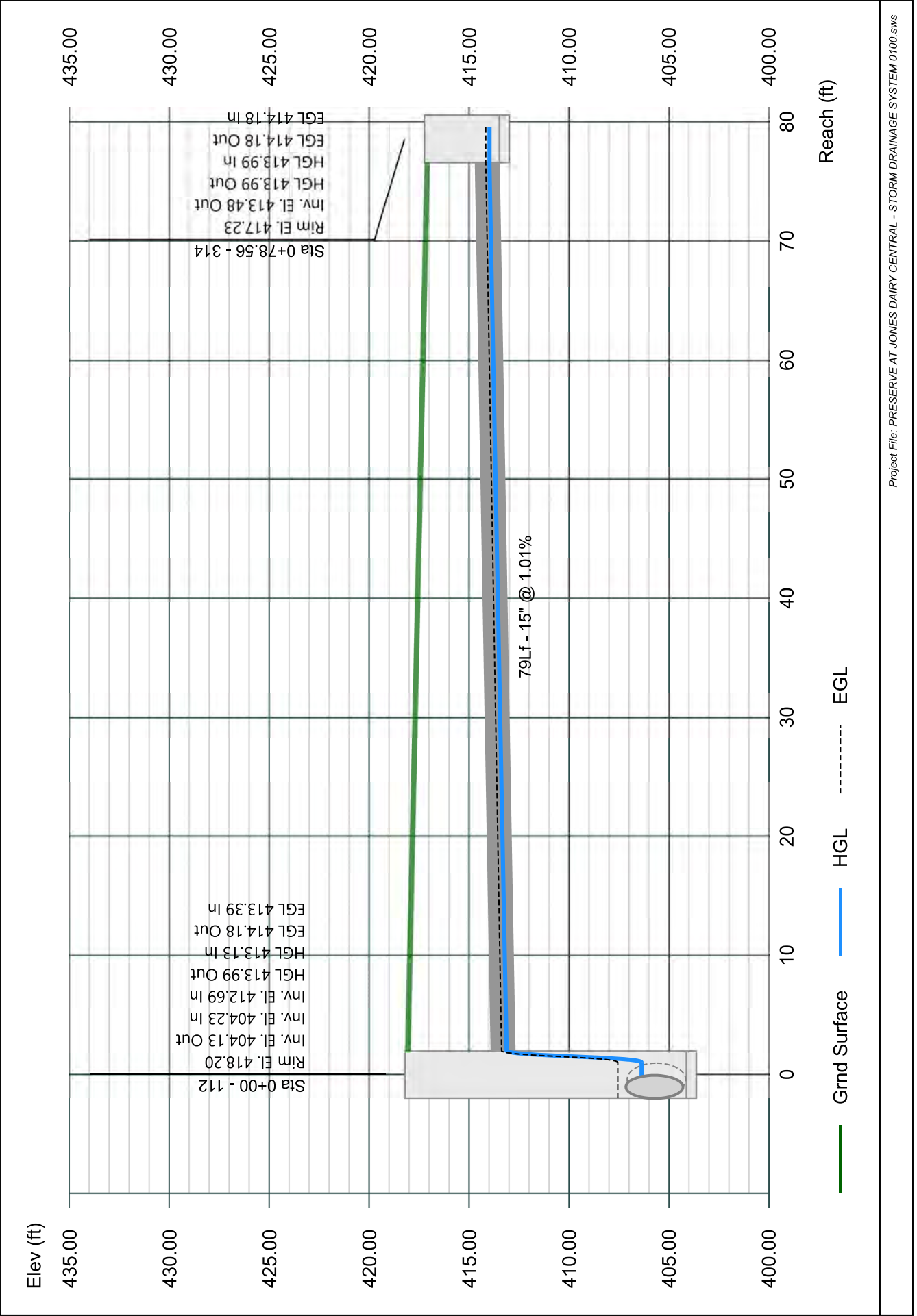


# Line 124 - 314 TO 112

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

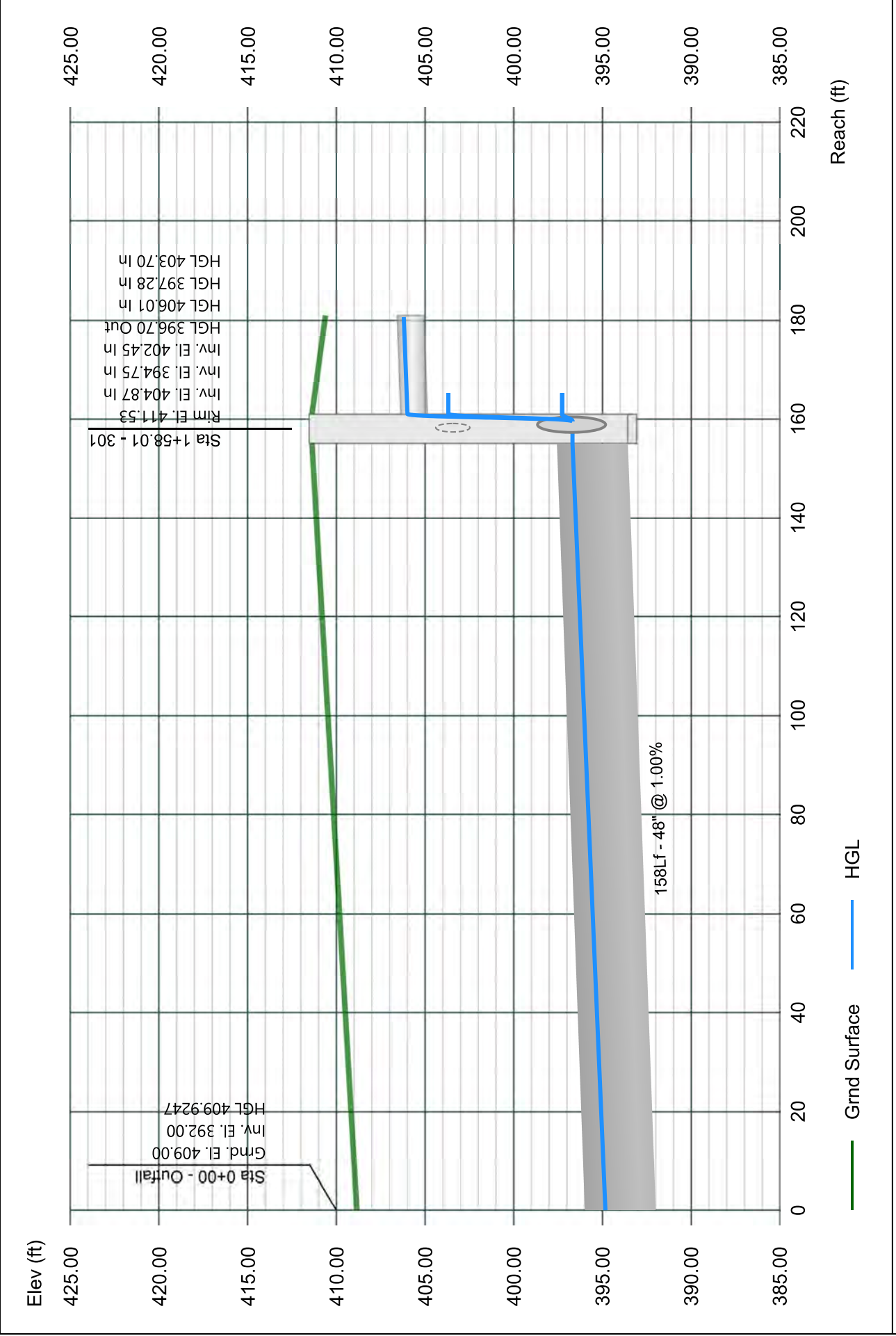


# Line 1 - 301 TO 300

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



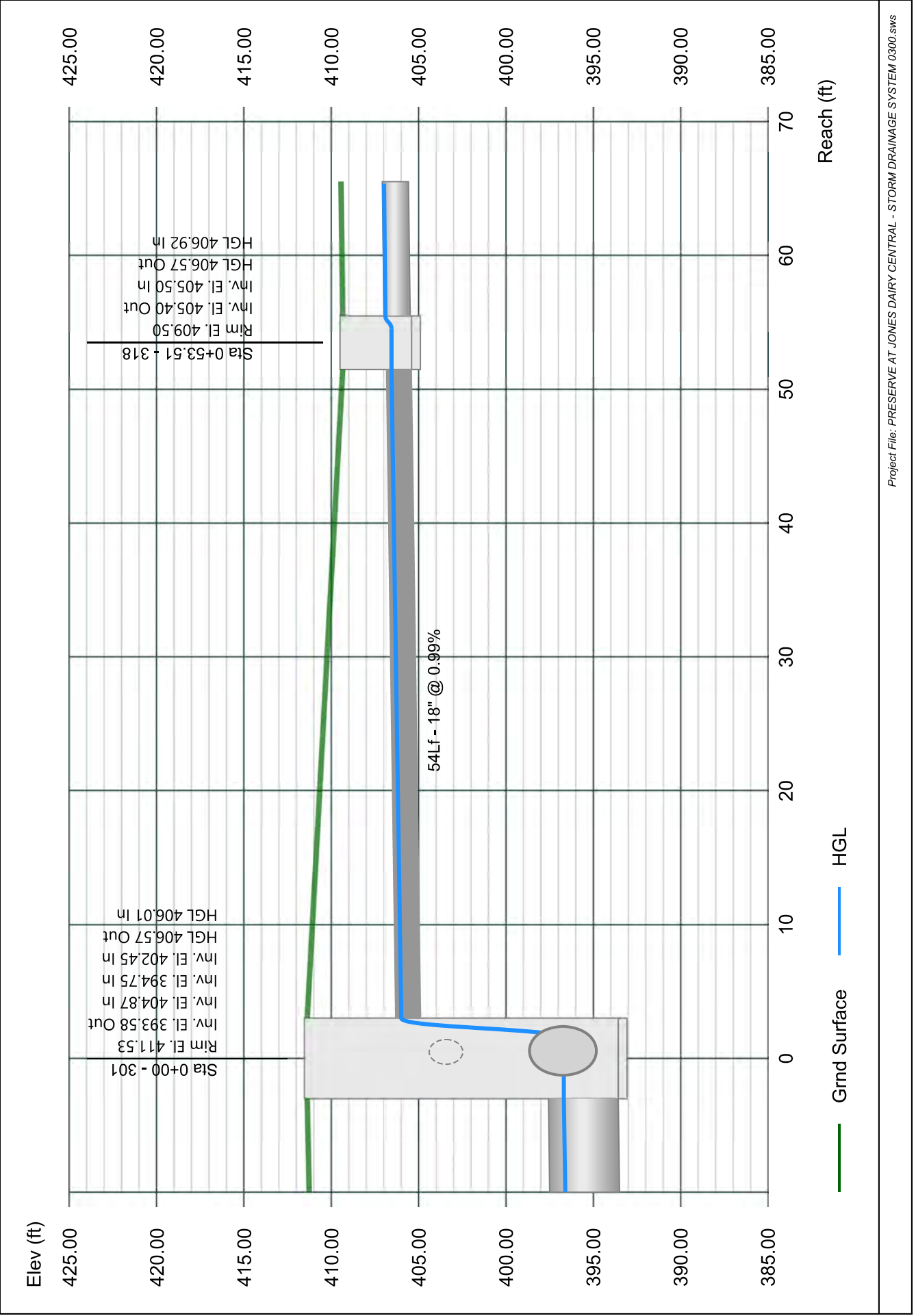


# Line 2 - 318 TO 301

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

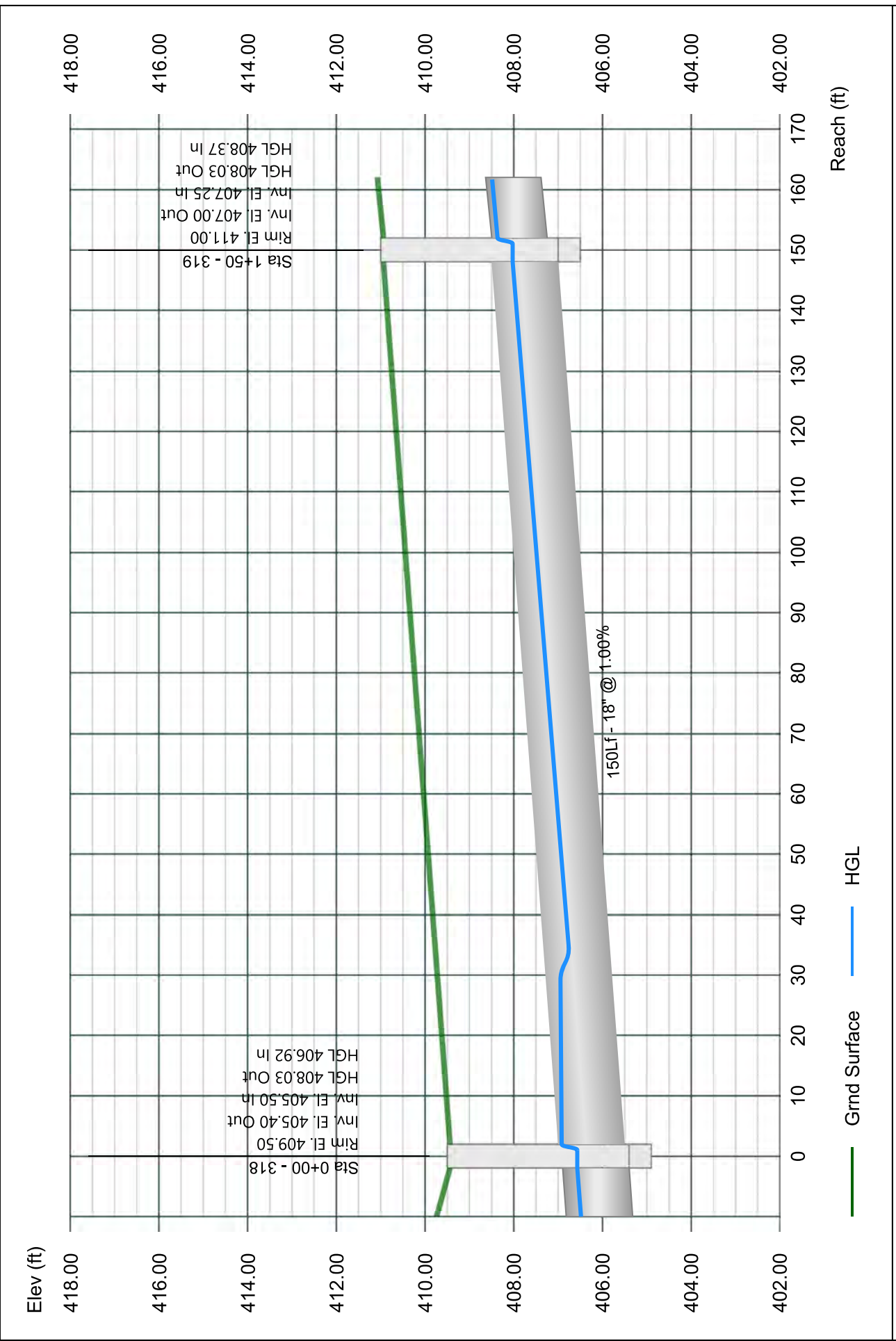


# Line 3 - 319 TO 318

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

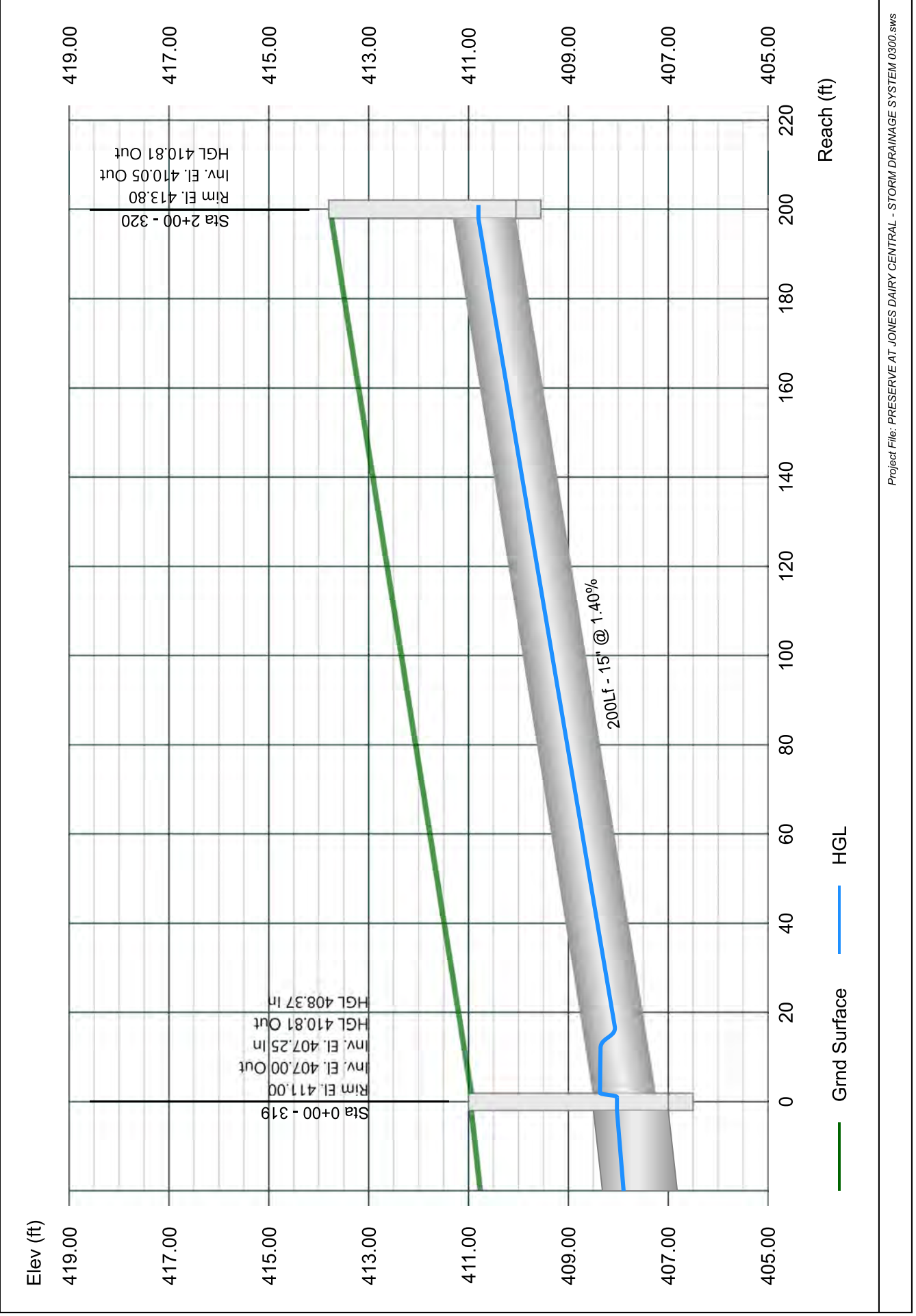


# Line 4 - 320 TO 319

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

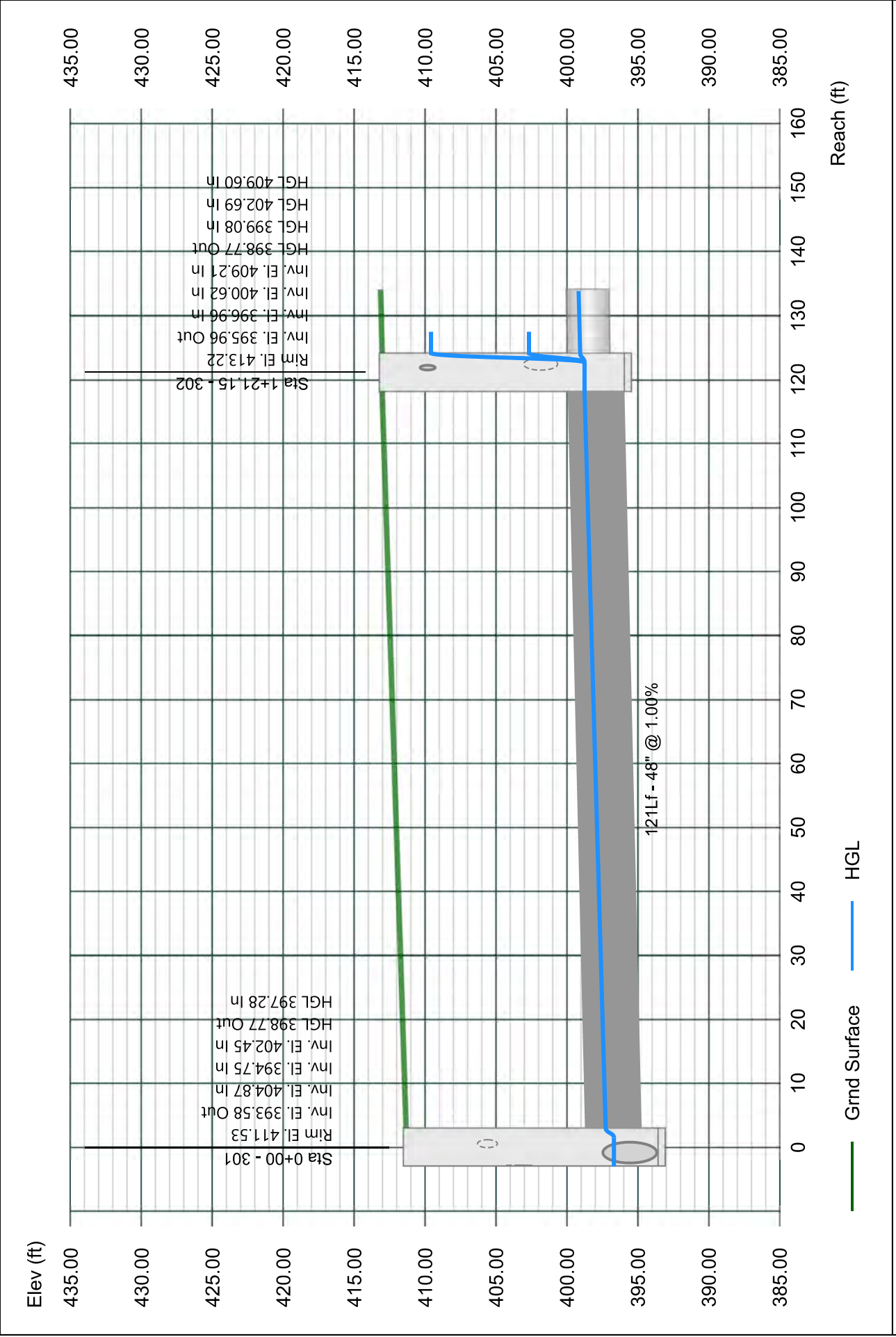


# Line 5 - 302 TO 301

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

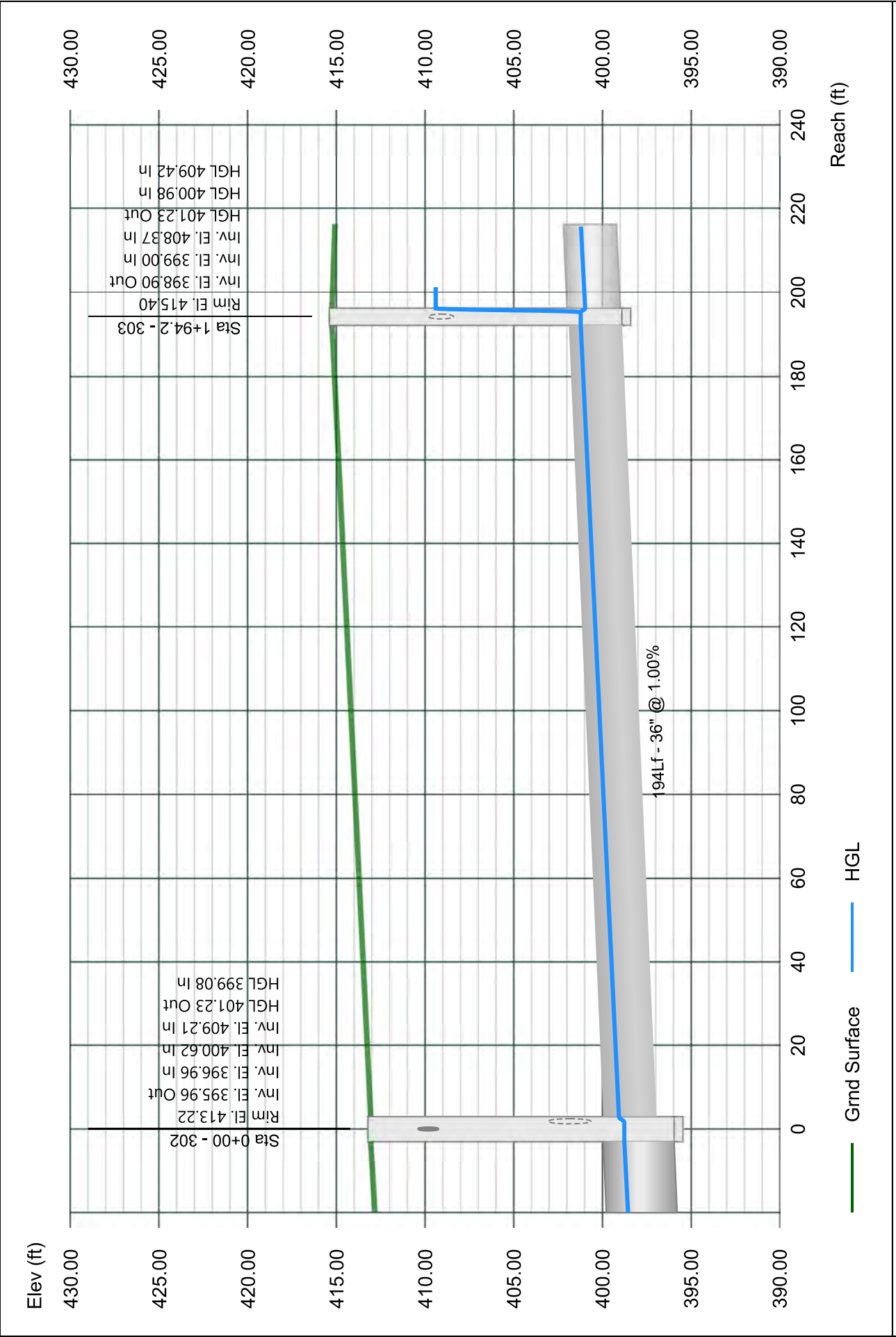


# Line 6 - 303 TO 302

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

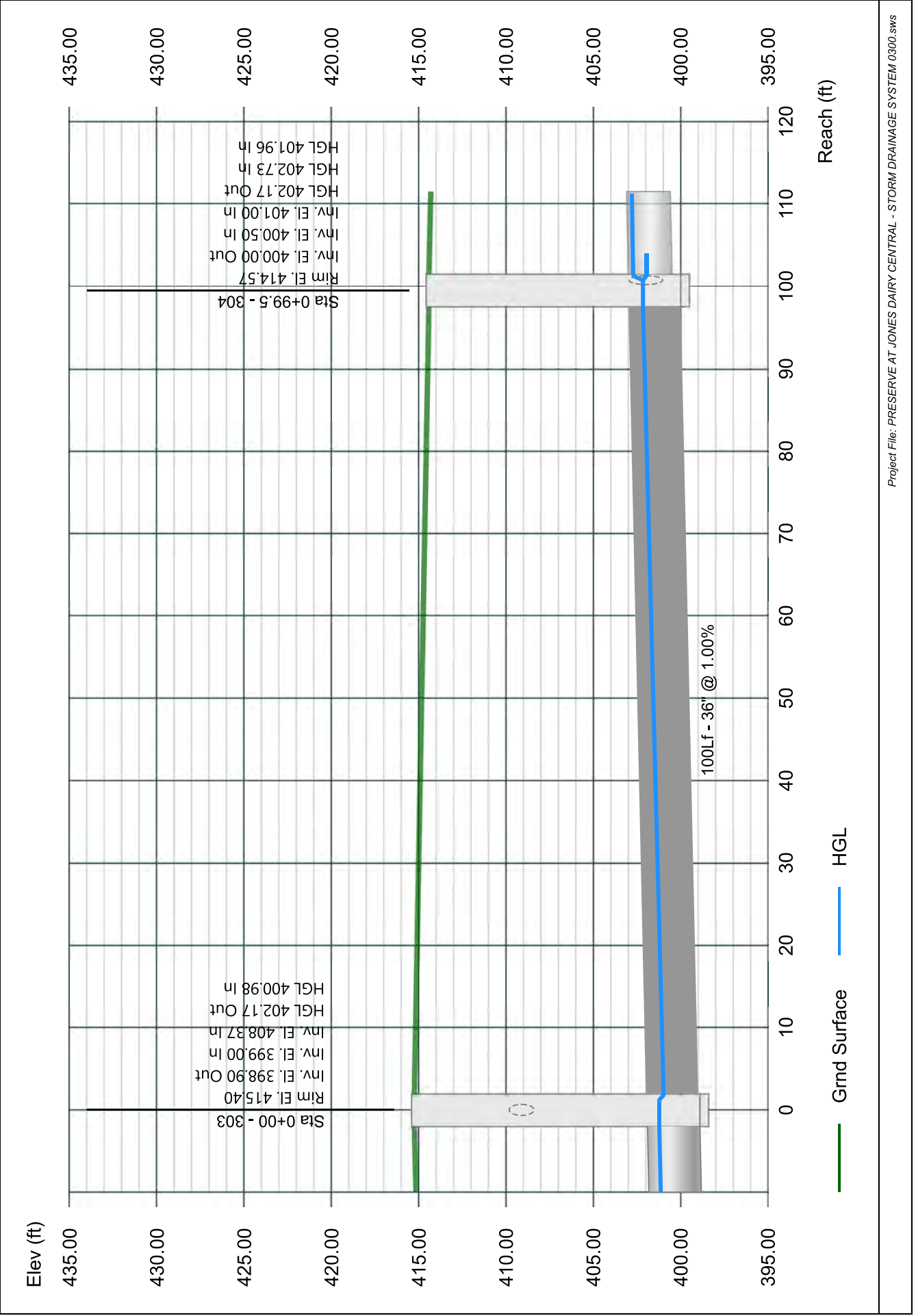


# Line 7 - 304 TO 303

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

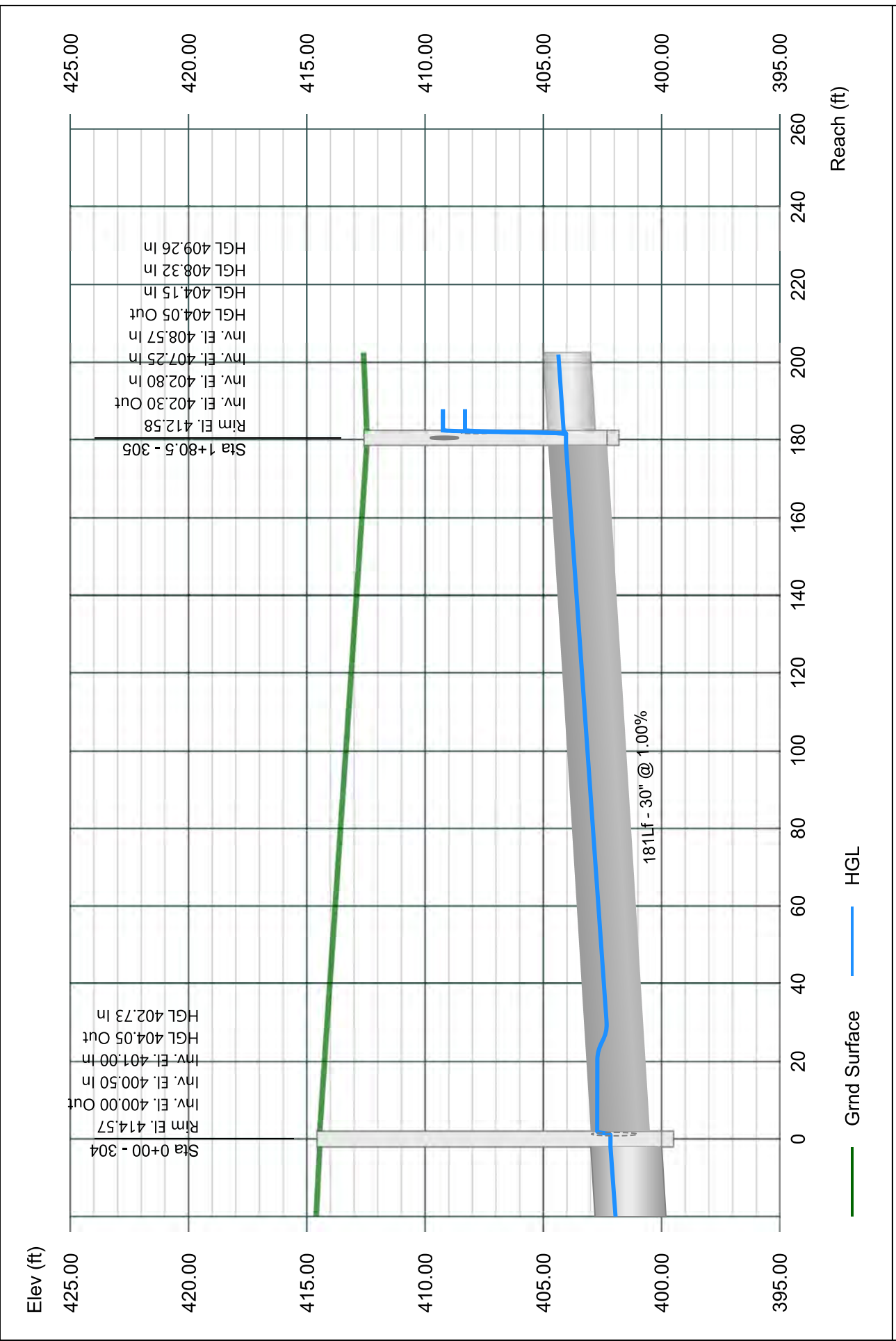


# Line 8 - 305 TO 304

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

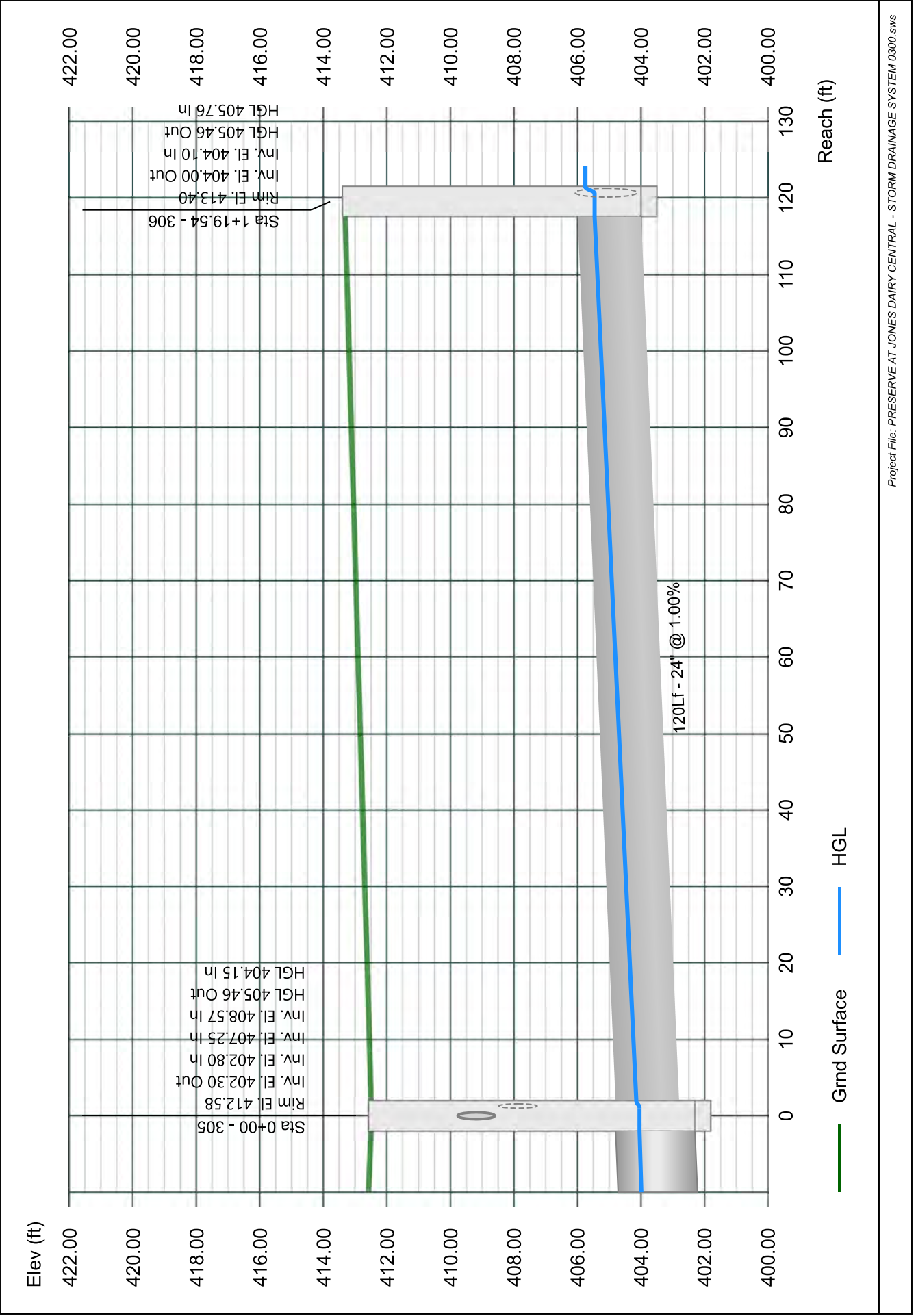


# Line 9 - 306 TO 305

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



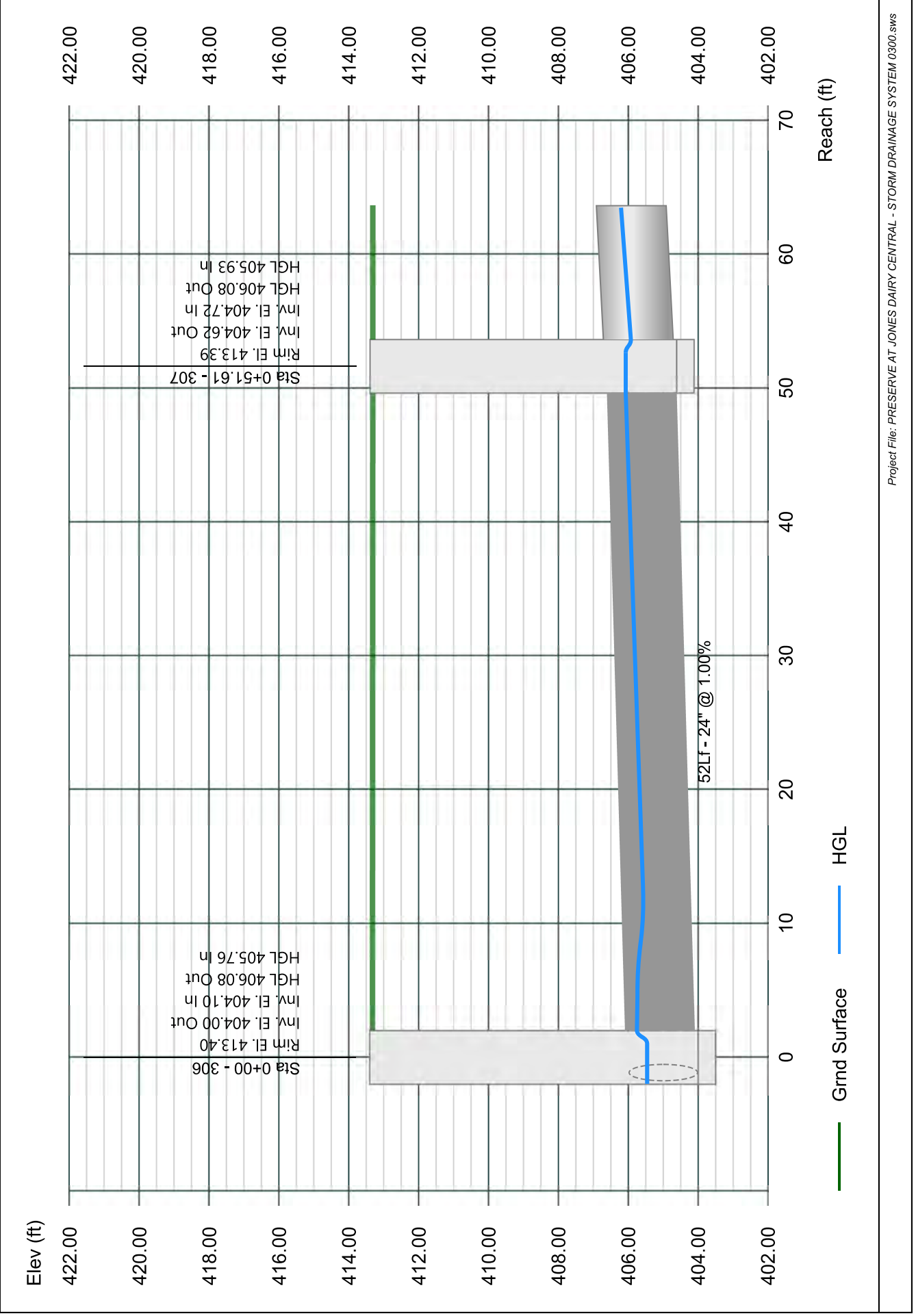


# Line 10 - 307 TO 306

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

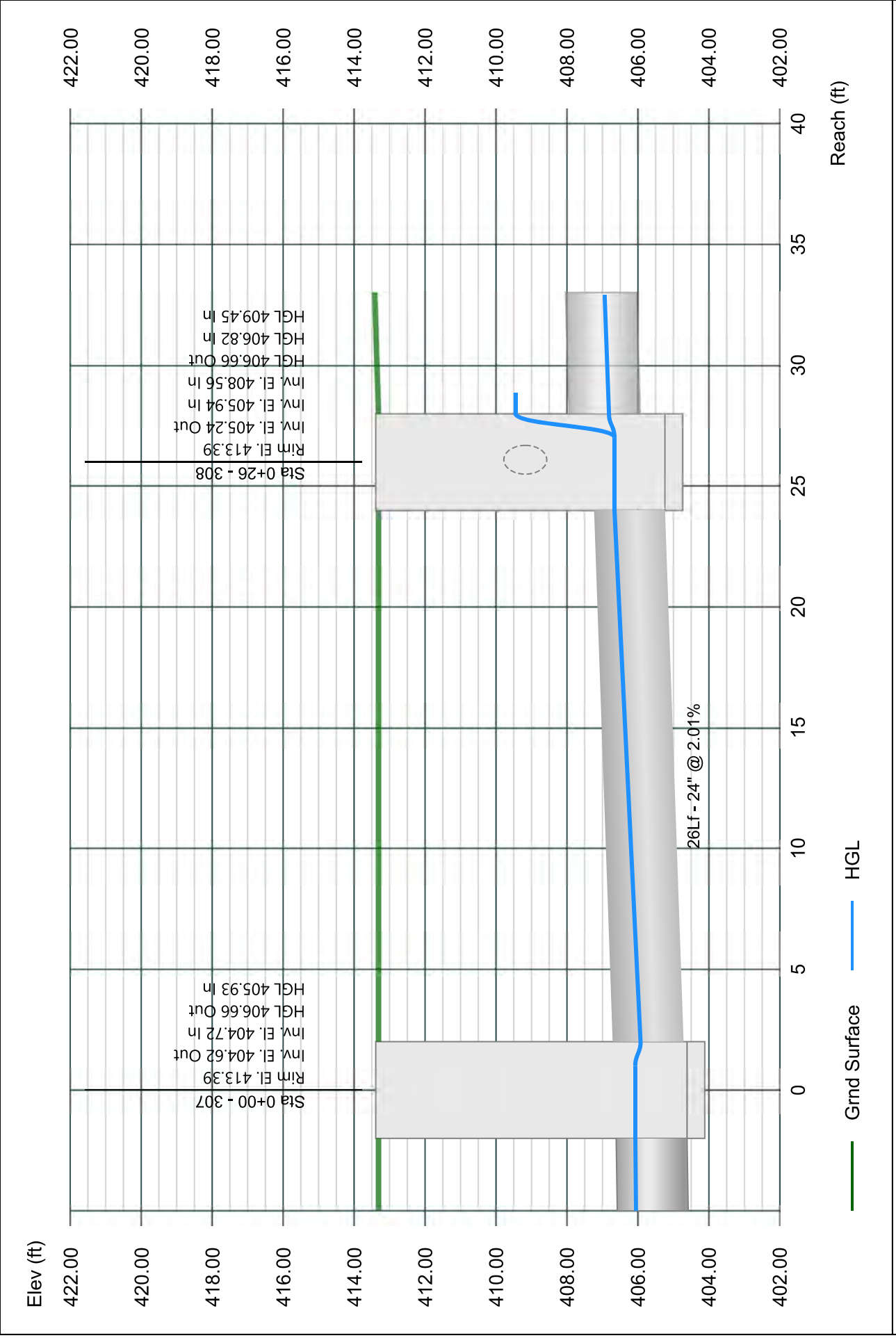


# Line 11 - 308 TO 307

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

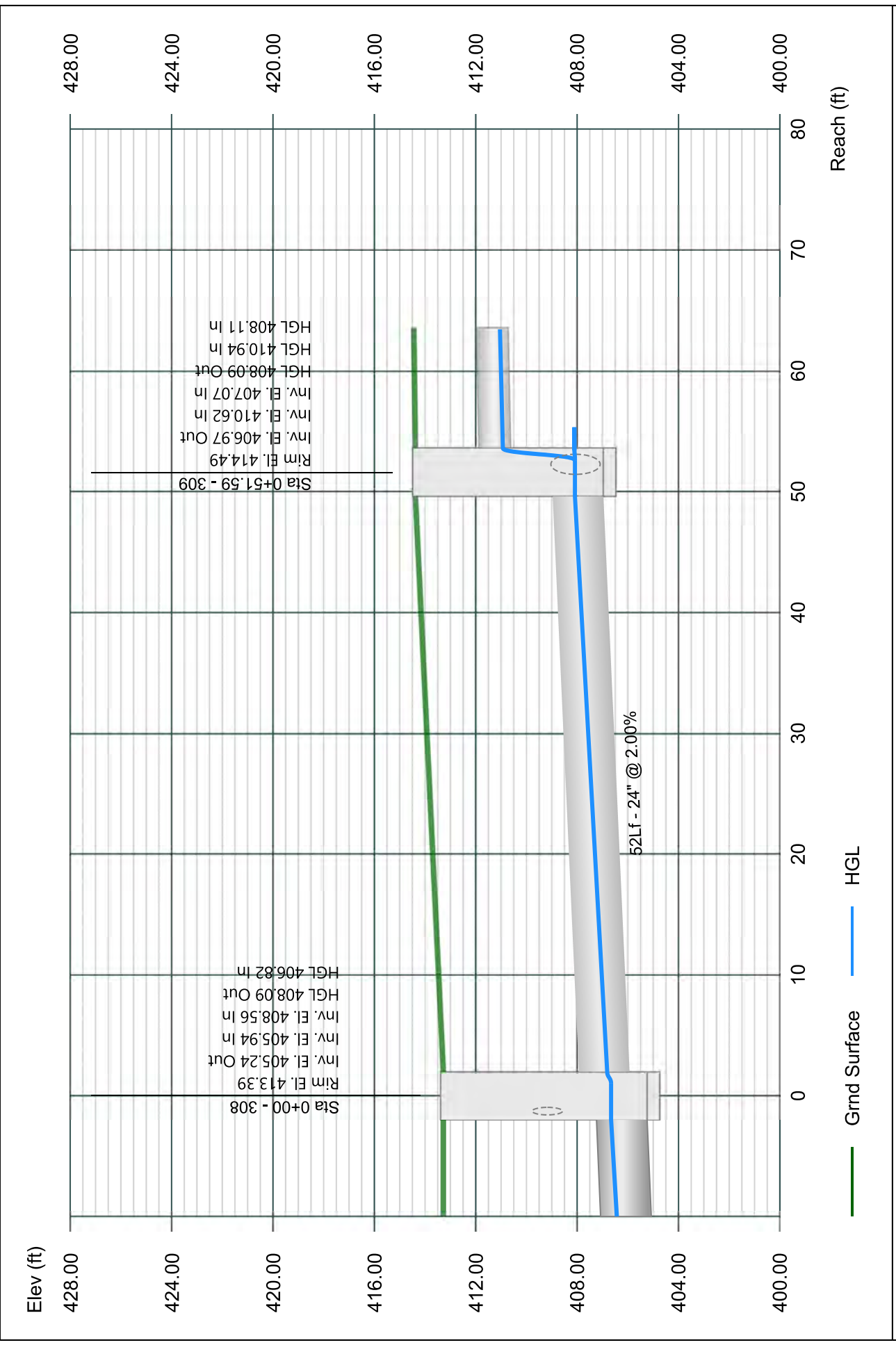


# Line 12 - 309 TO 308

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

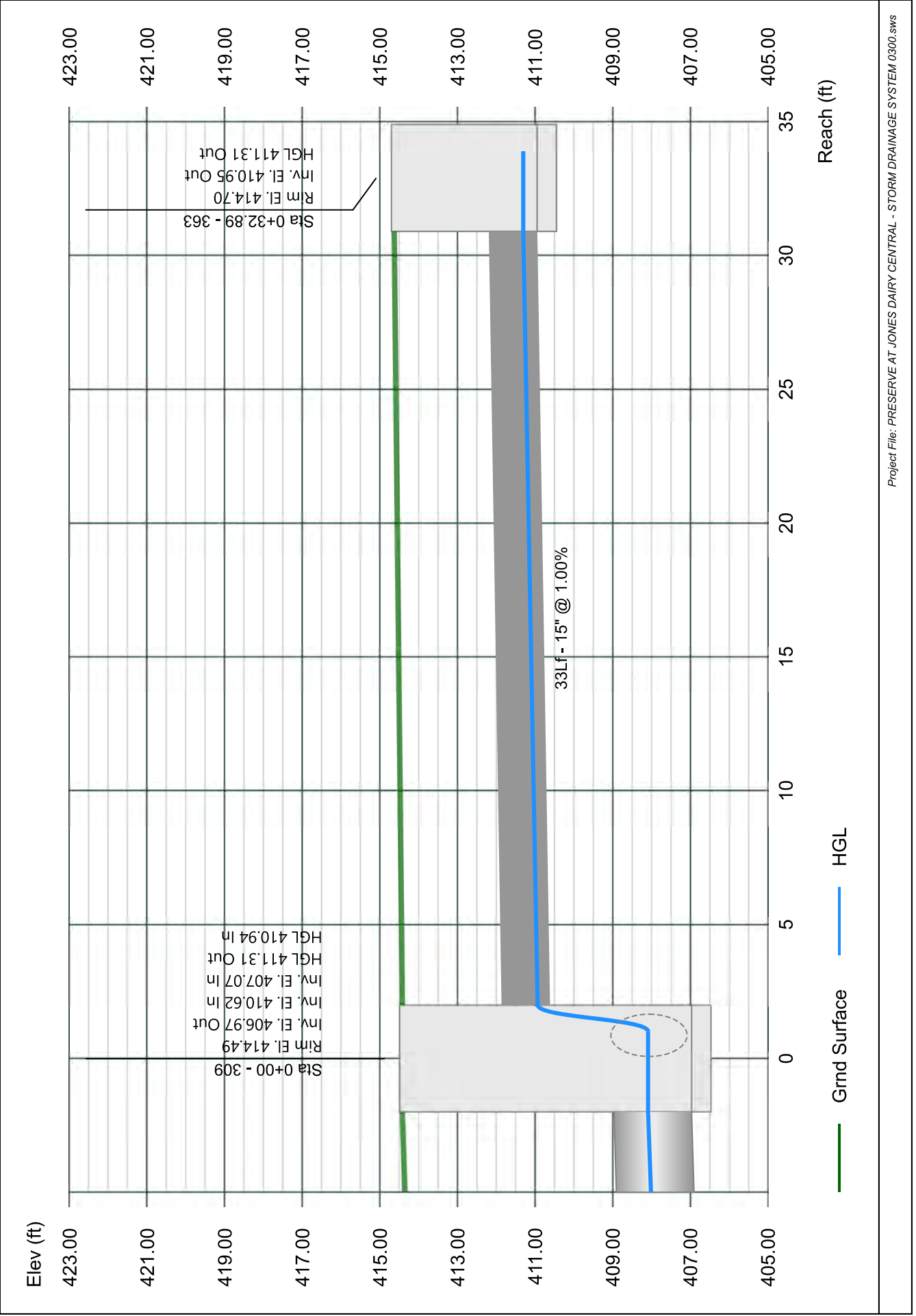


# Line 13 - 363 TO 309

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

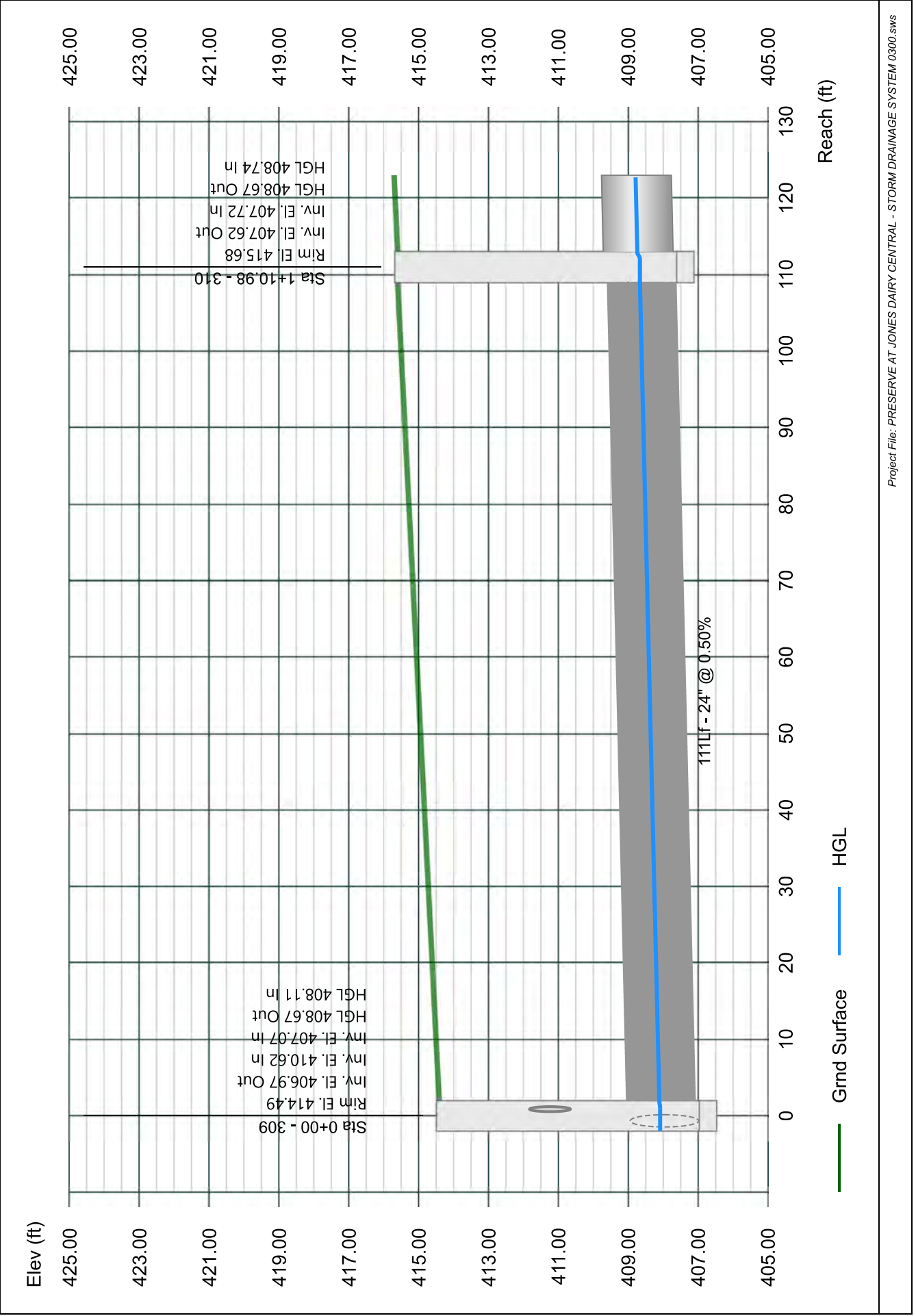


# Line 14 - 310 TO 309

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

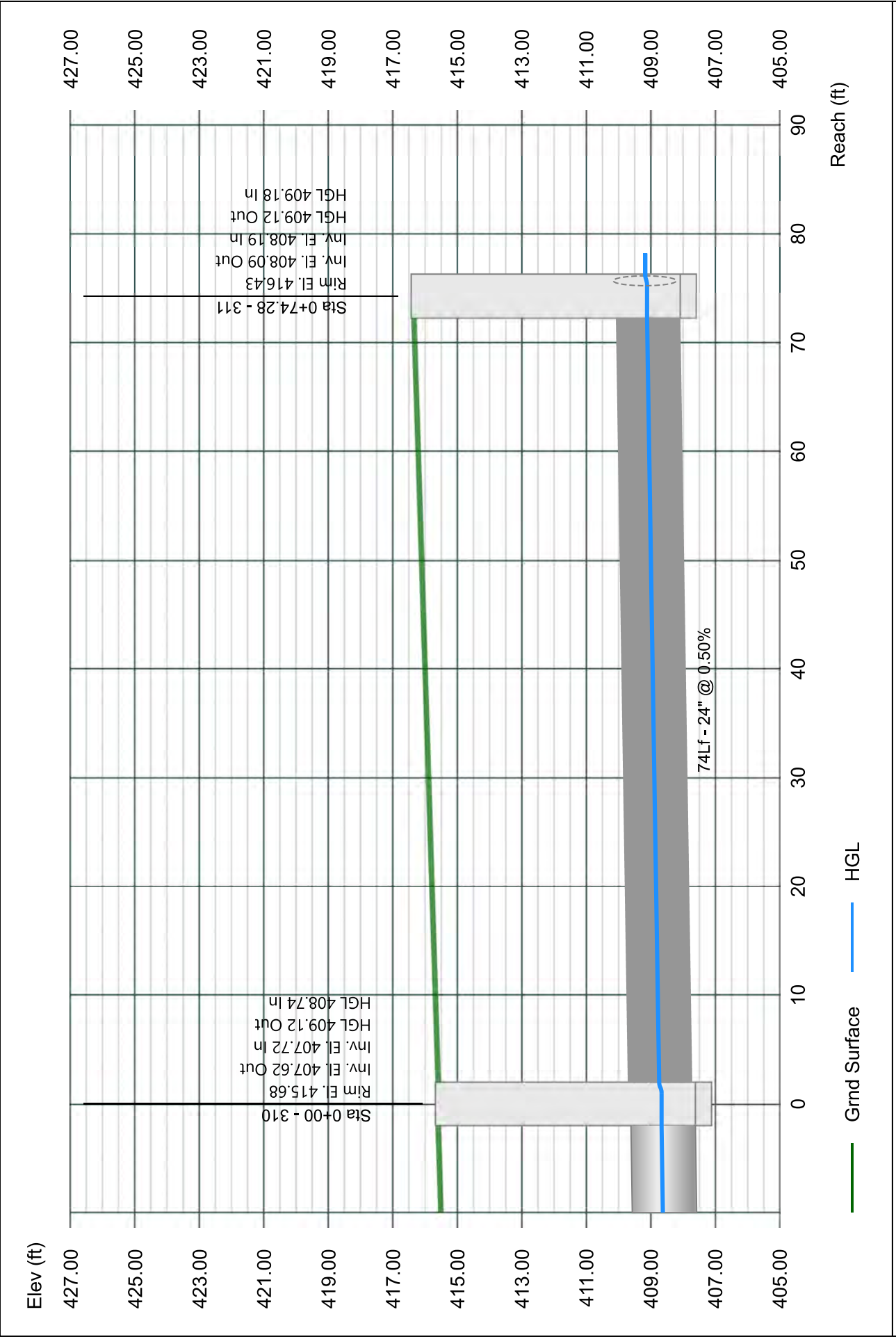


# Line 15 - 311 TO 310

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

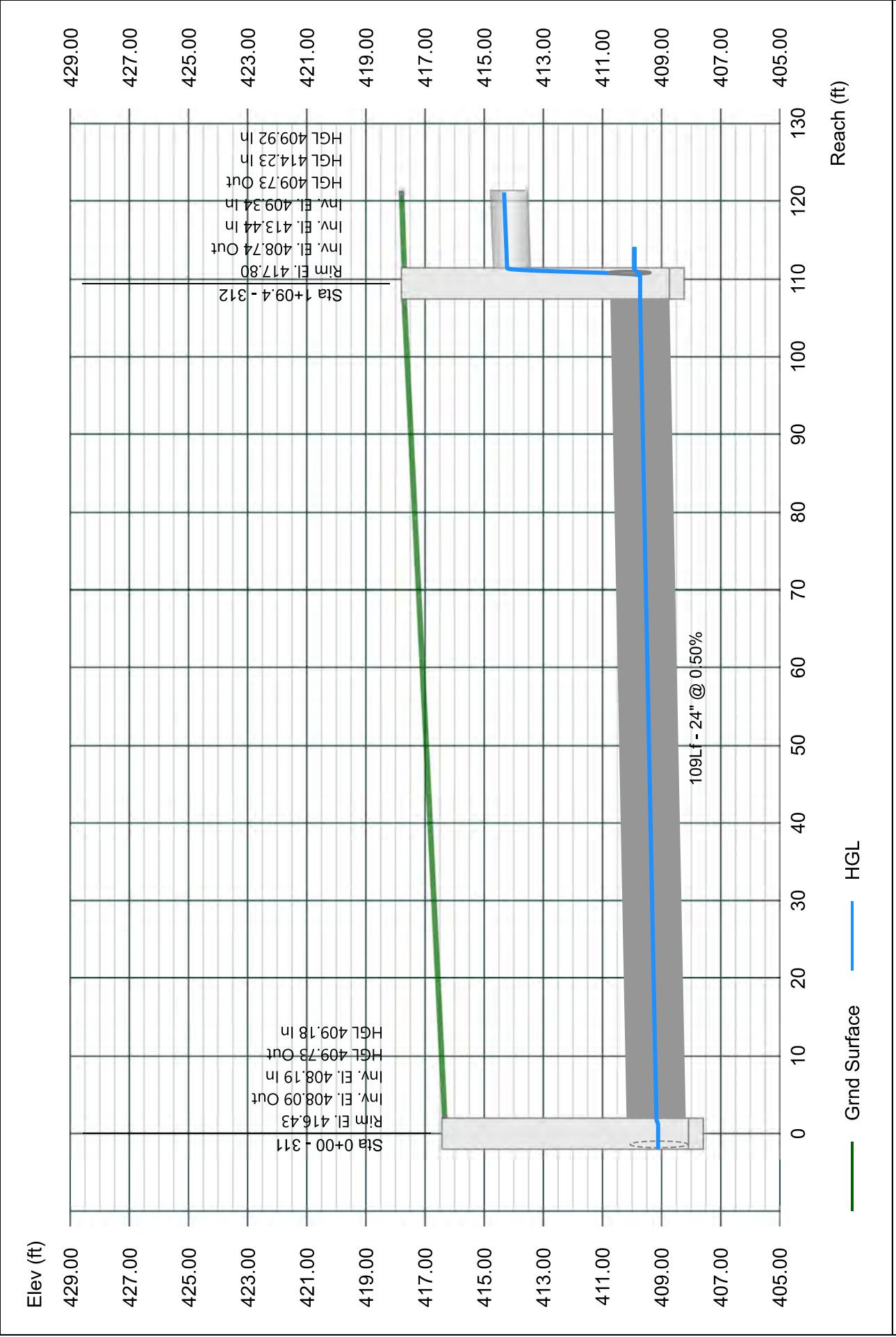


# Line 16 - 312 TO 311

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

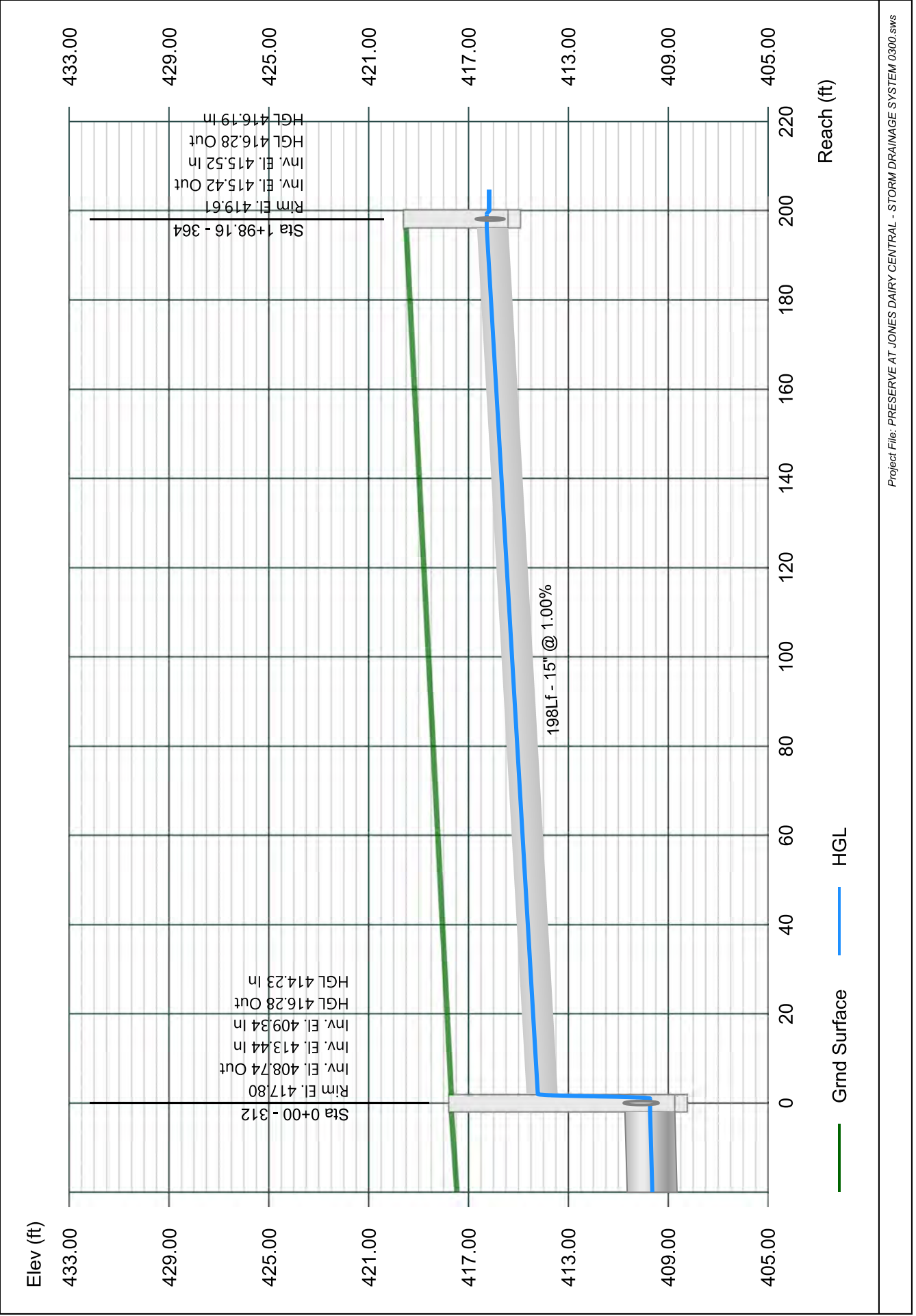


# Line 17 - 364 TO 312

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



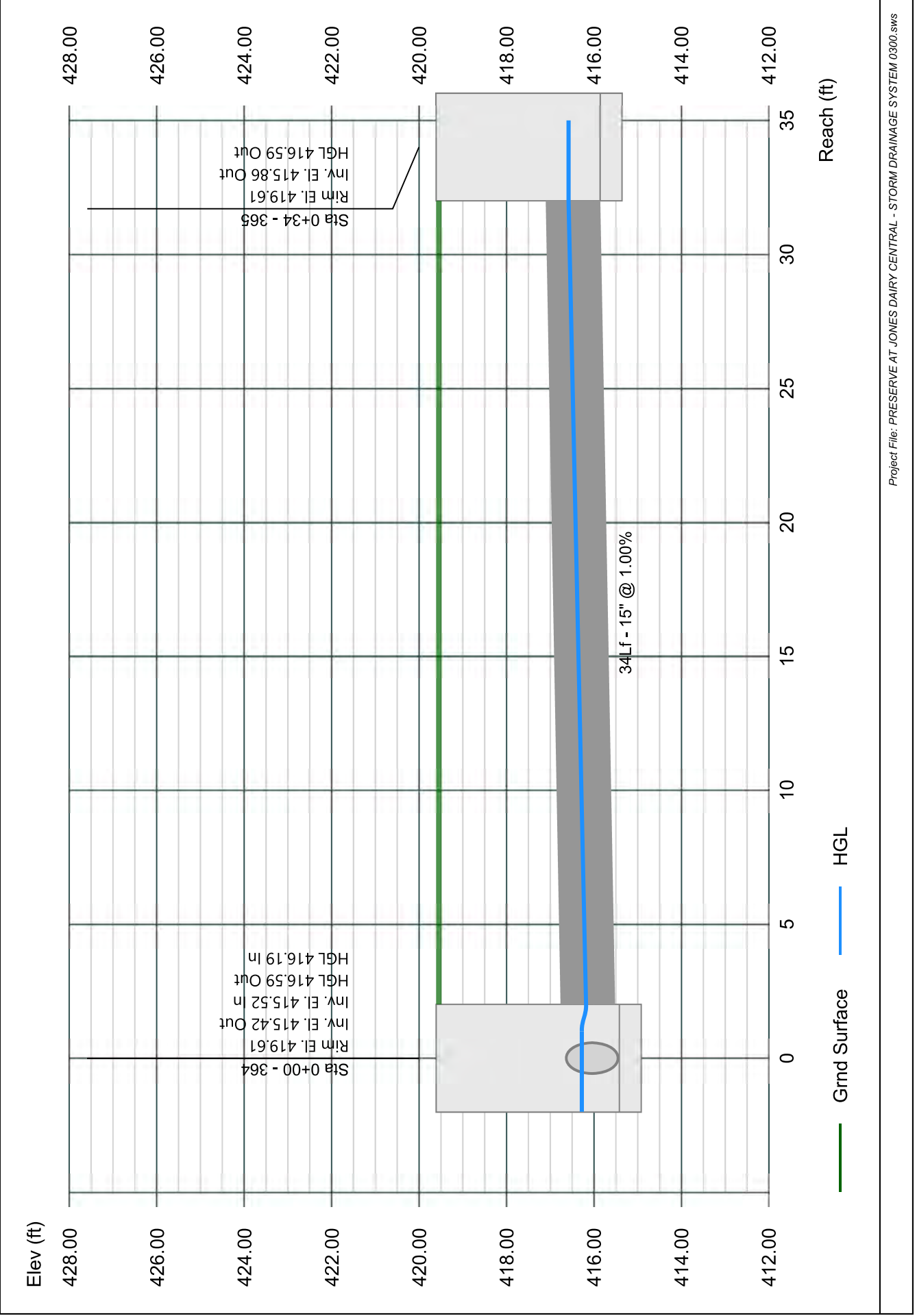


# Line 18 - 365 TO 364

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

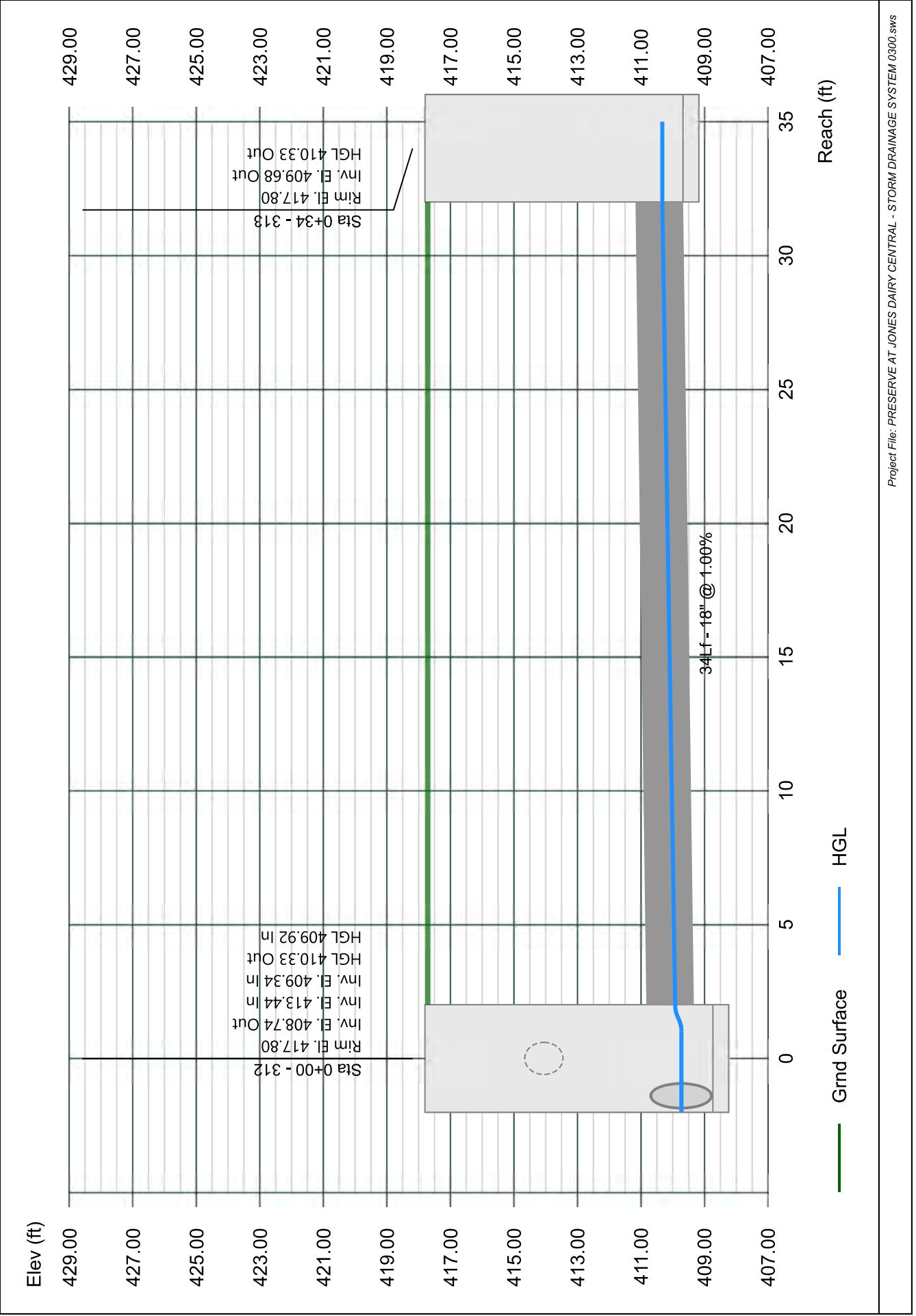


# Line 19 - 313 TO 312

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

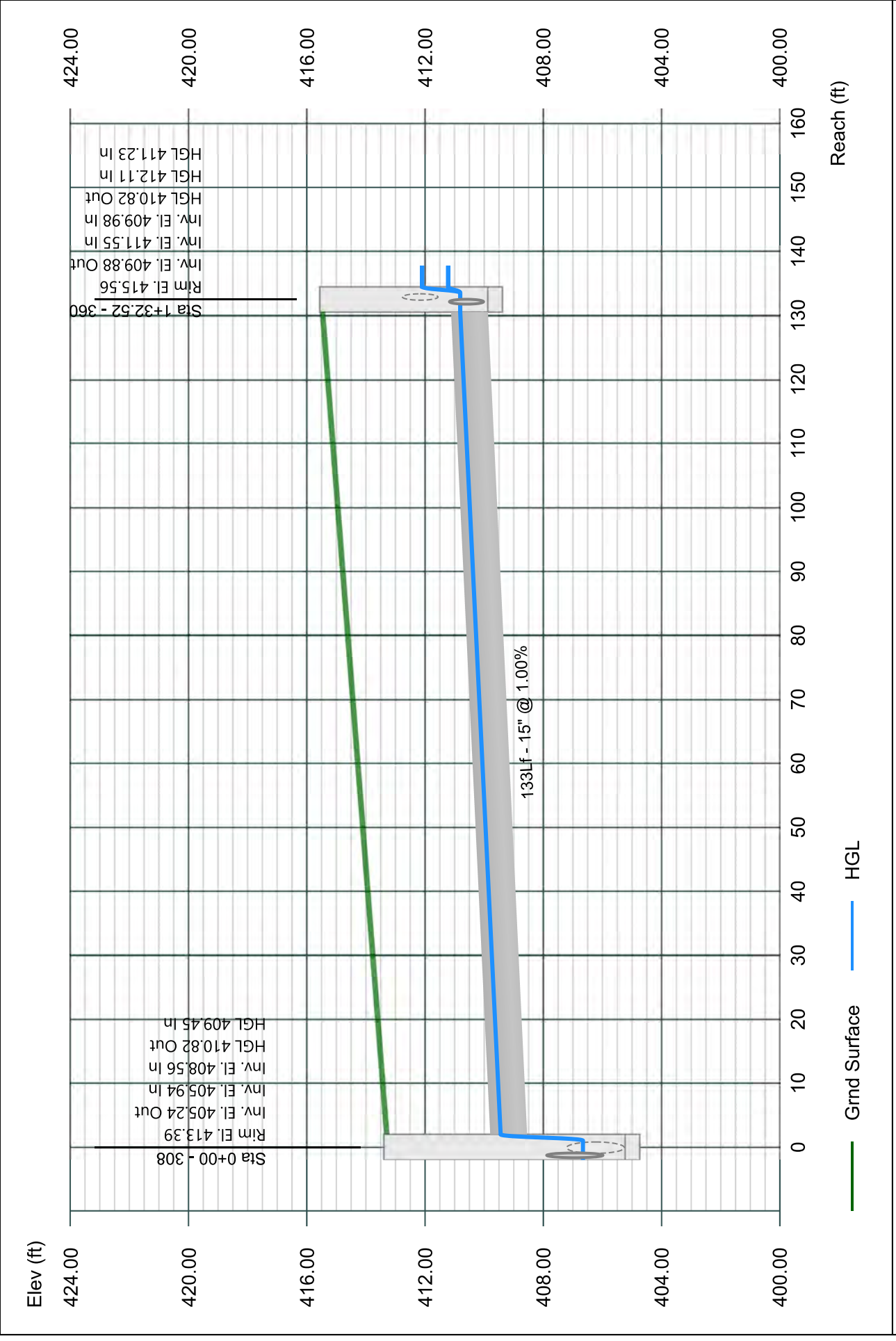


# Line 20 - 360 TO 308

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

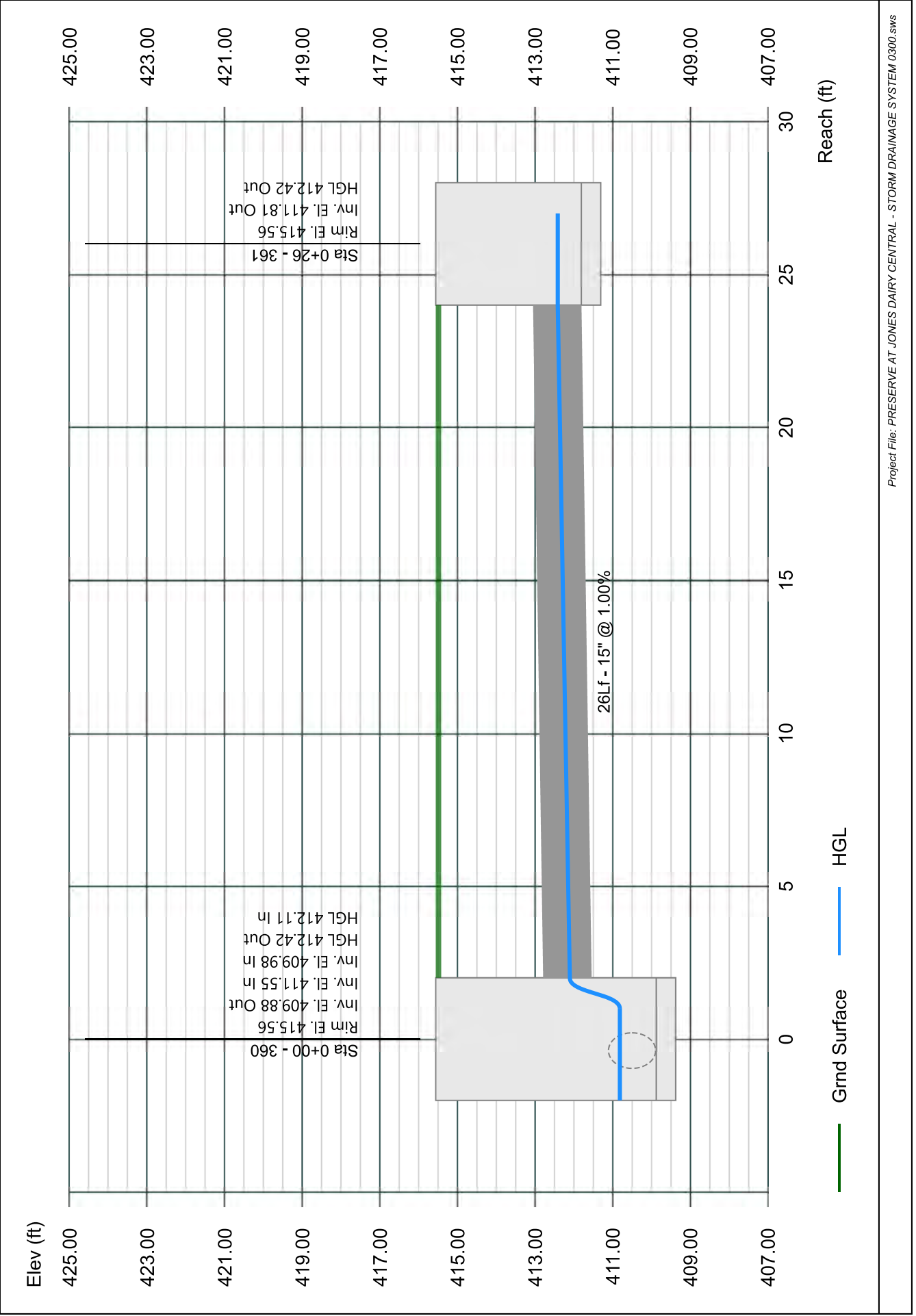


# Line 21 - 361 TO 360

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

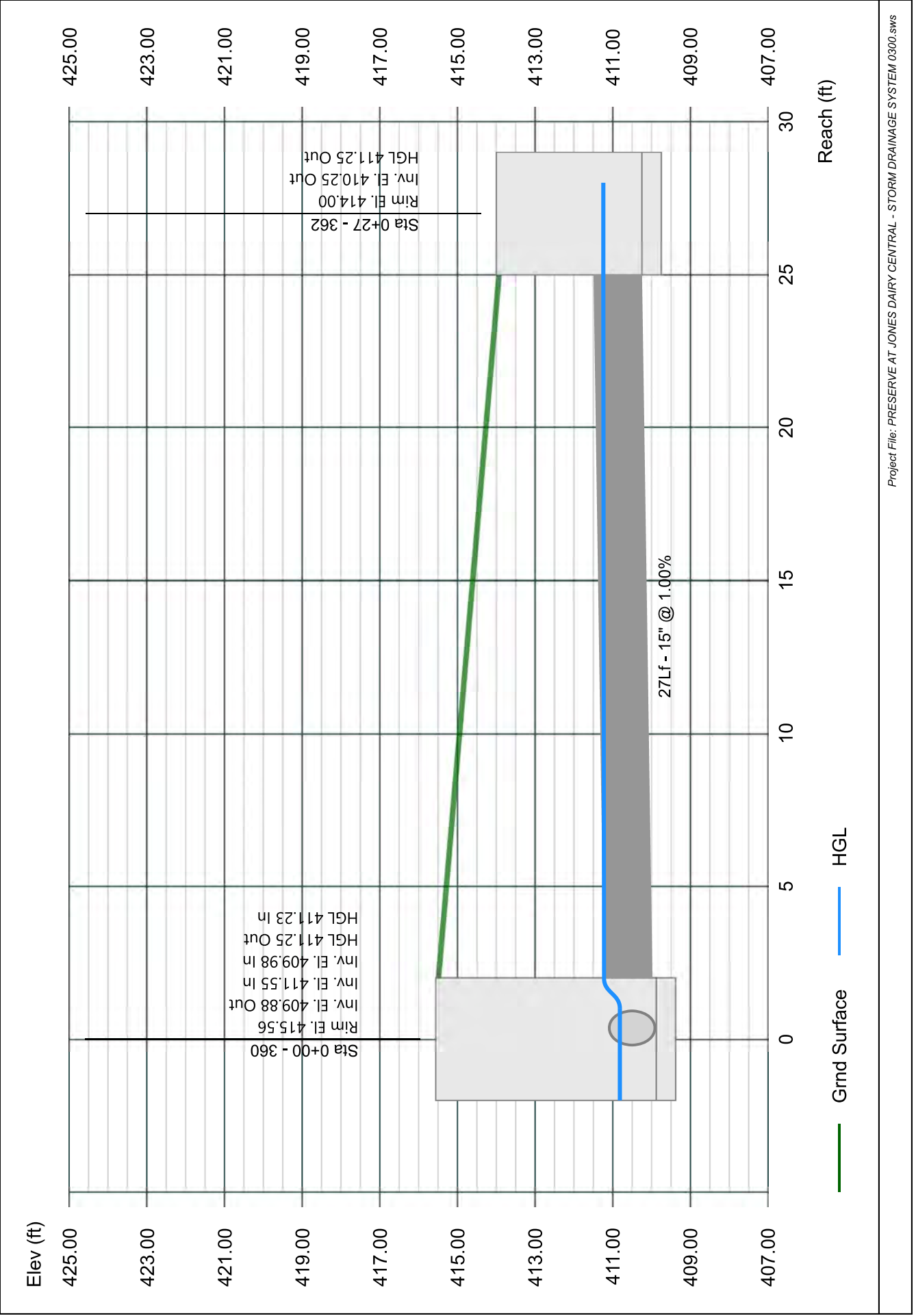


# Line 22 - 362 TO 360

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

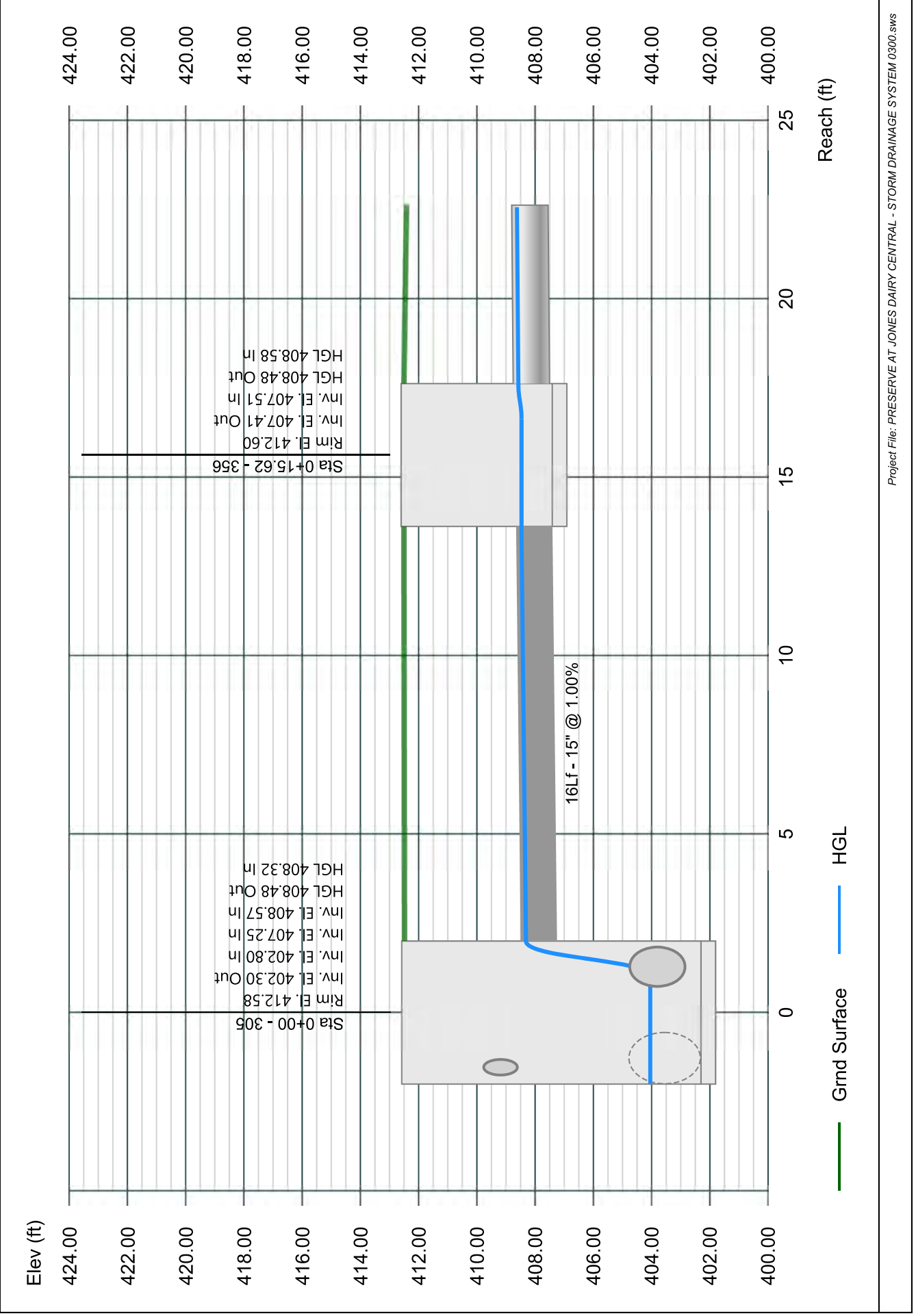


# Line 23 - 356 TO 305

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

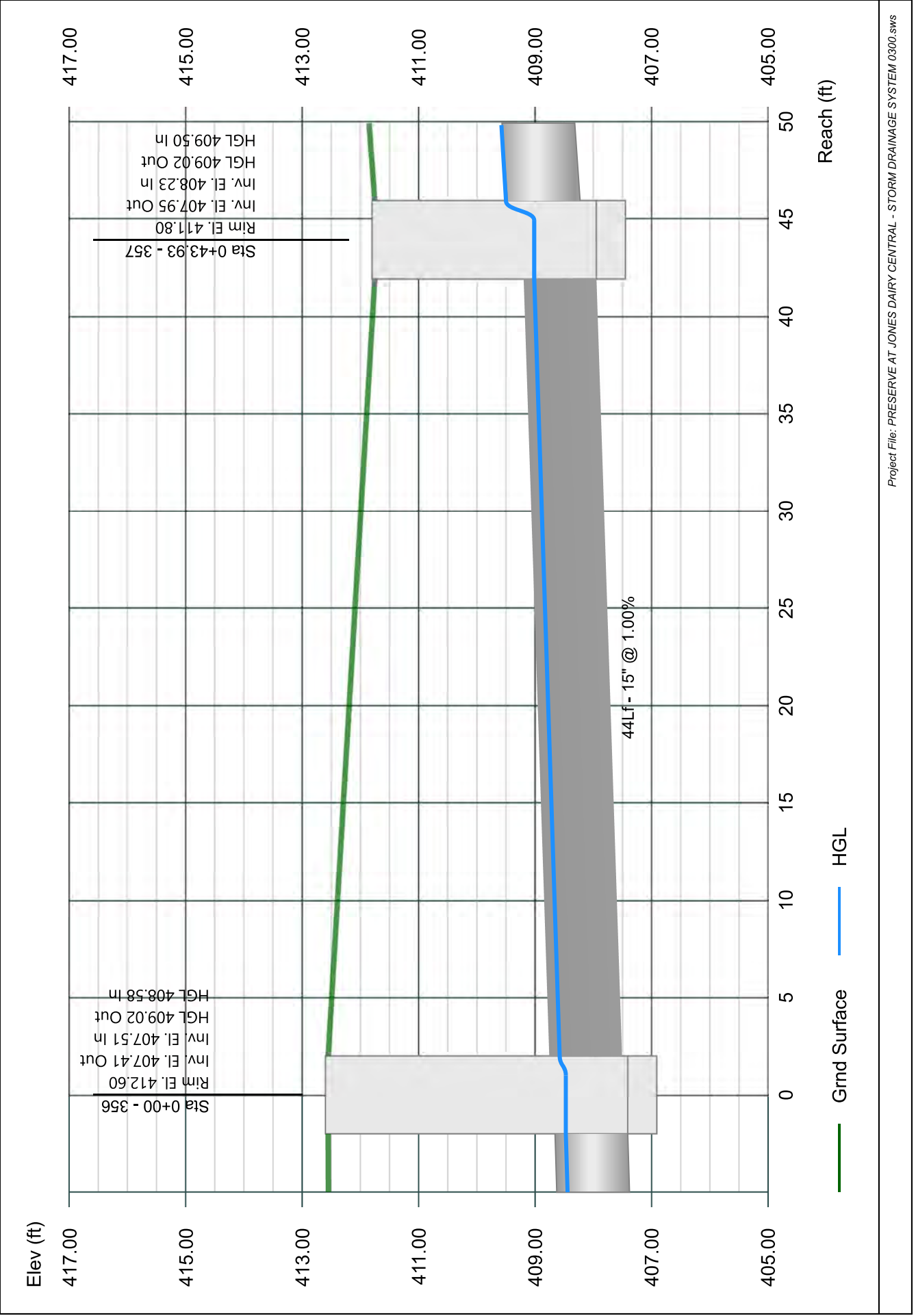


# Line 24 - 357 TO 356

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

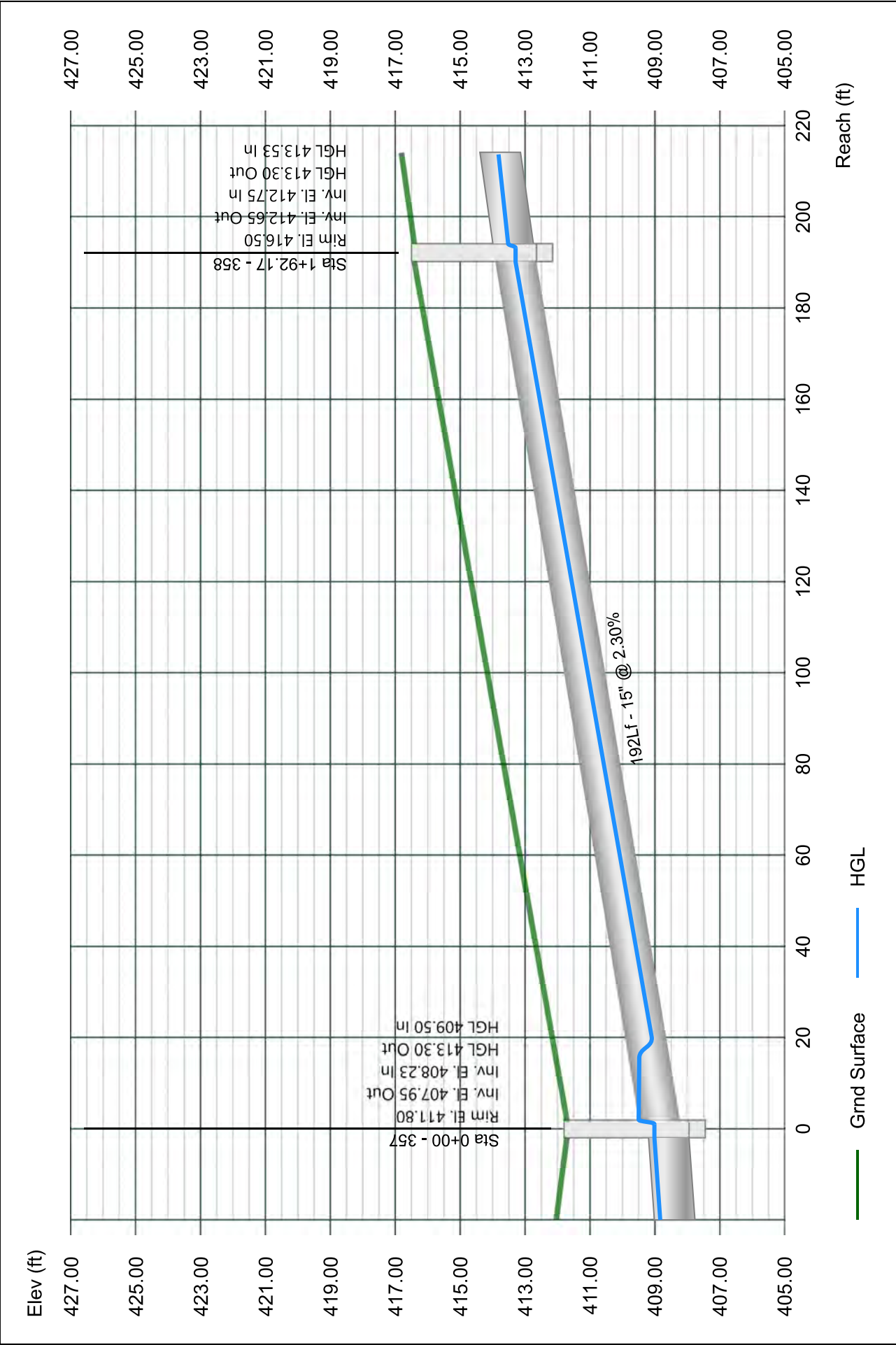


# Line 25 - 358 TO 357

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



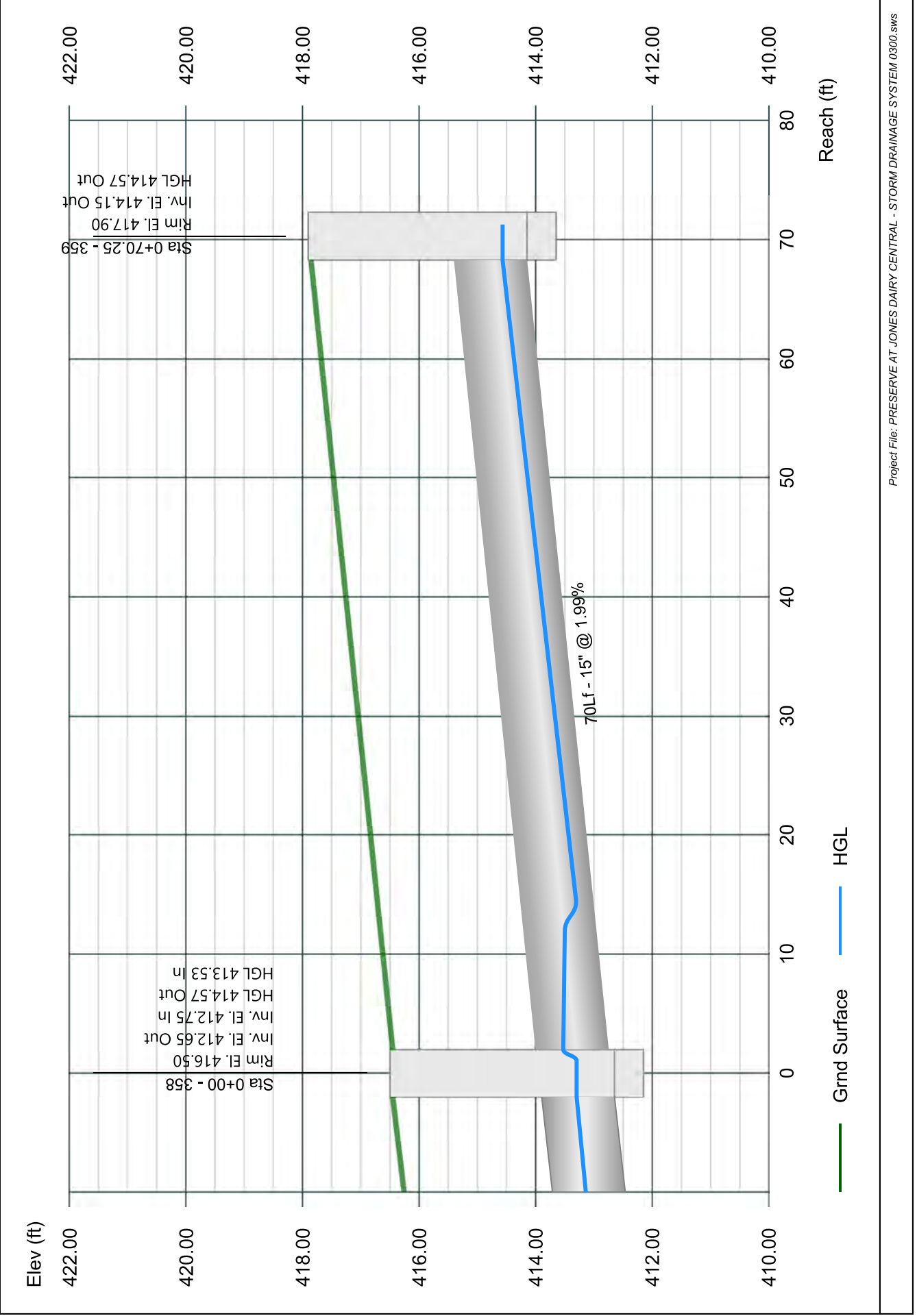


# Line 26 - 359 TO 358

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

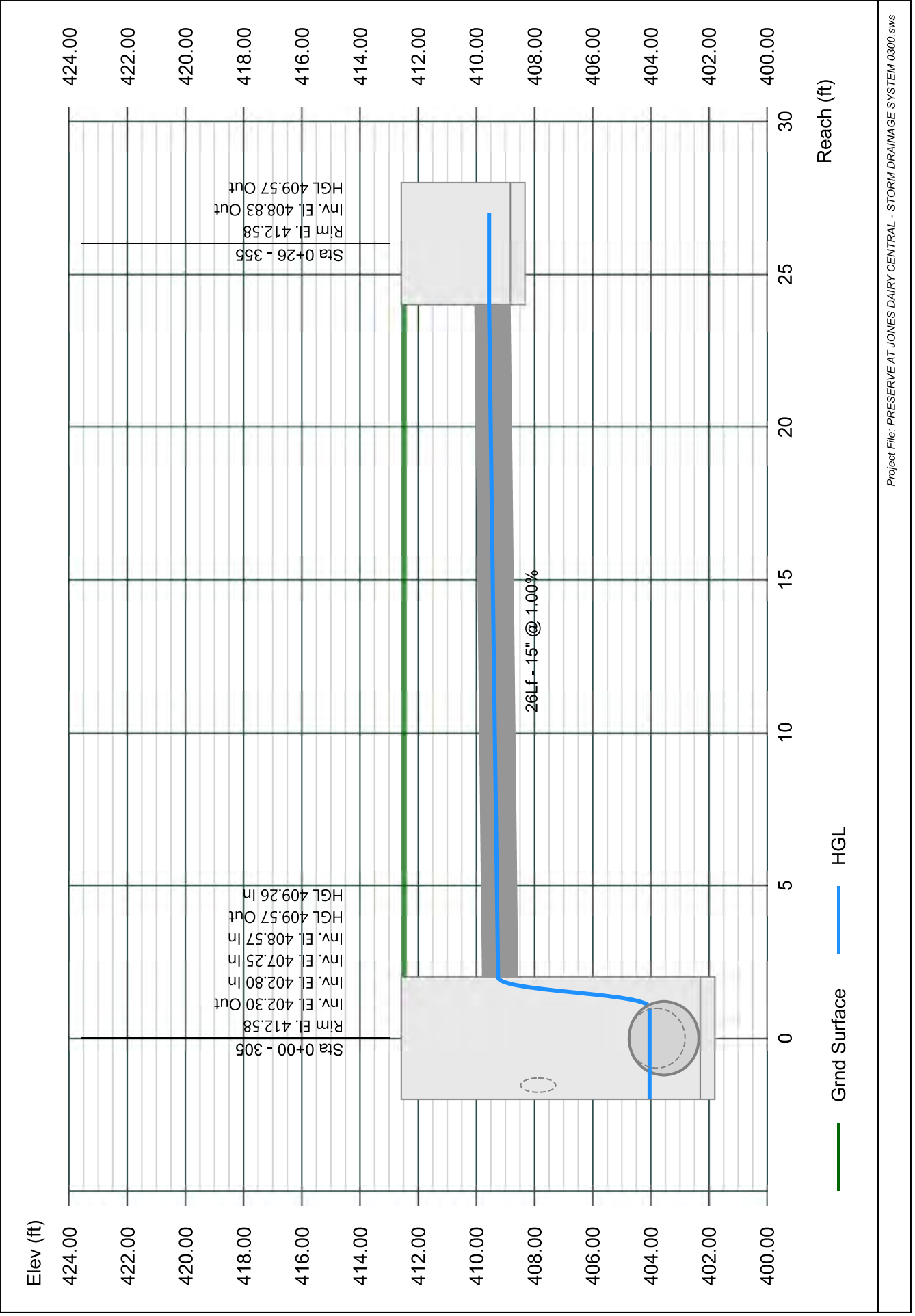


# Line 27 - 355 TO 305

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

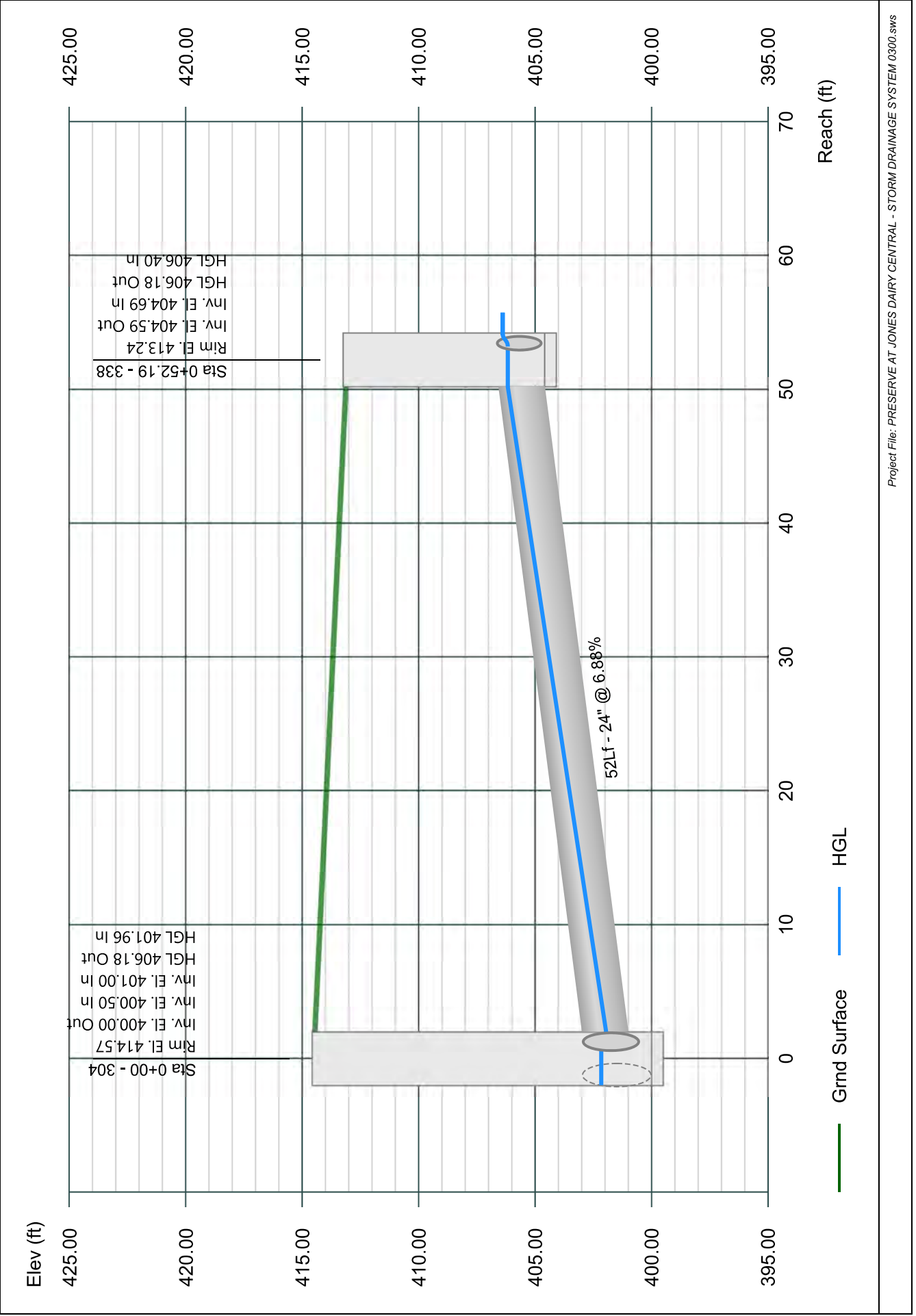


# Line 28 - 338 TO 304

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

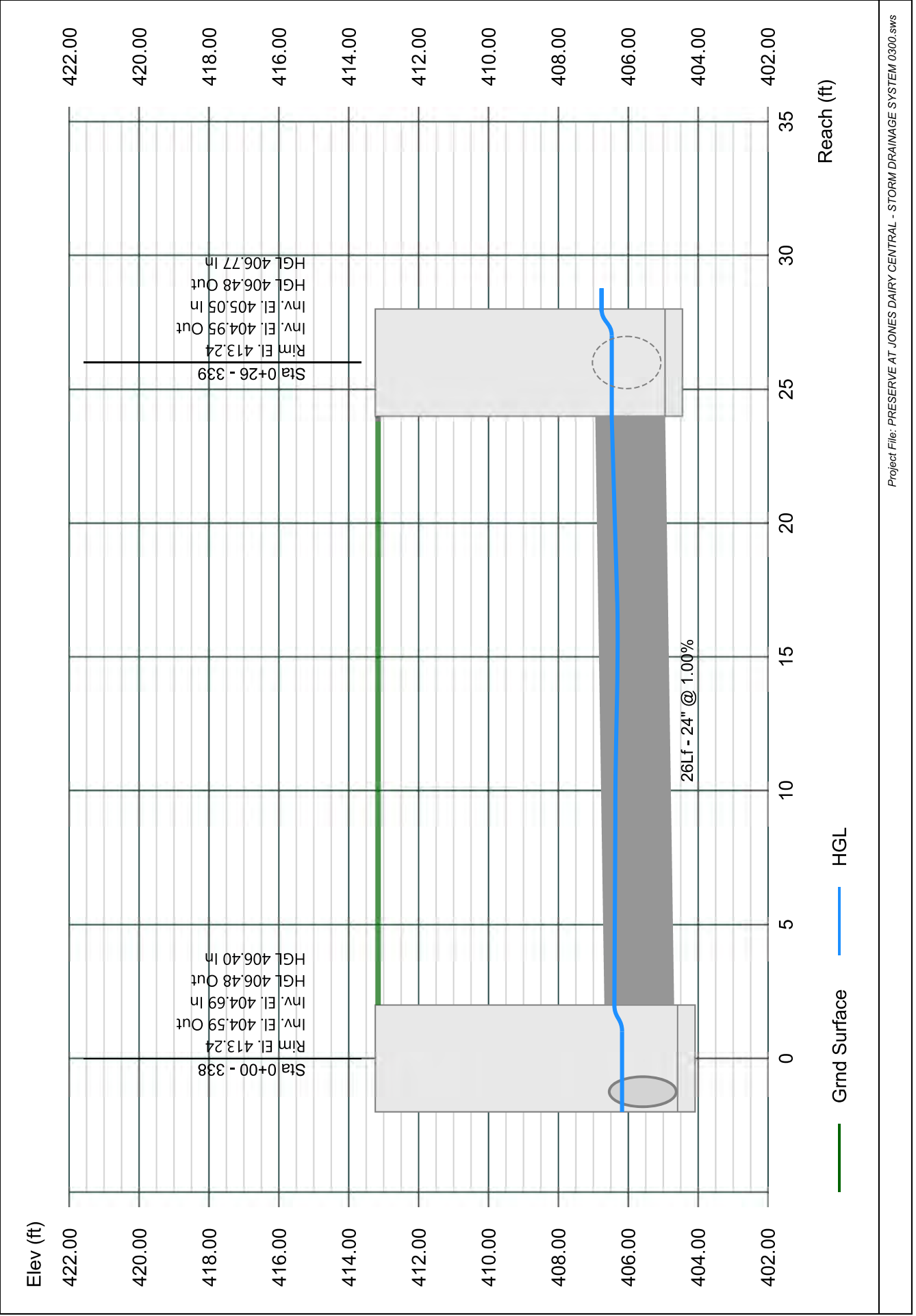


# Line 29 - 339 TO 338

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

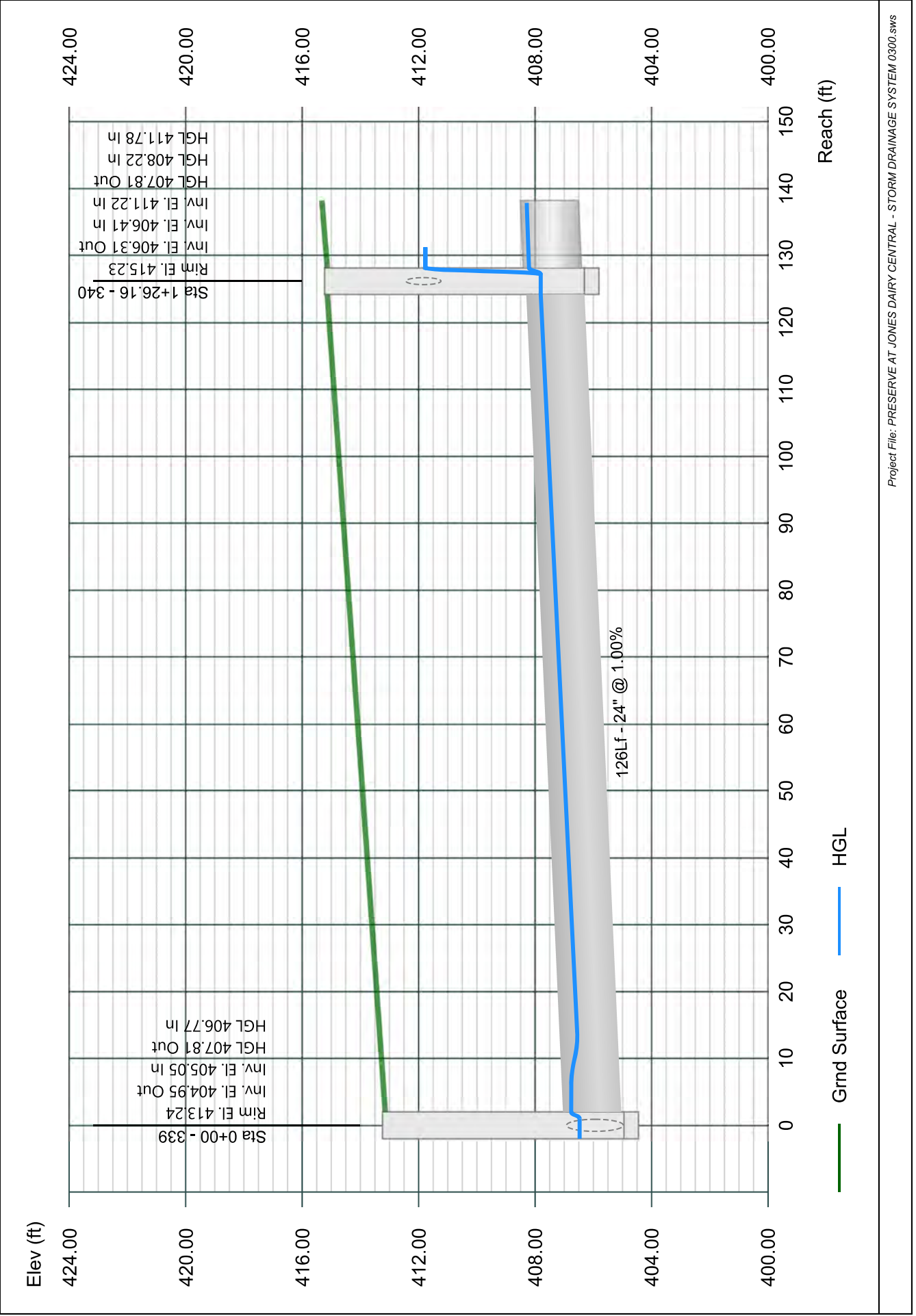


# Line 30 - 340 TO 339

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

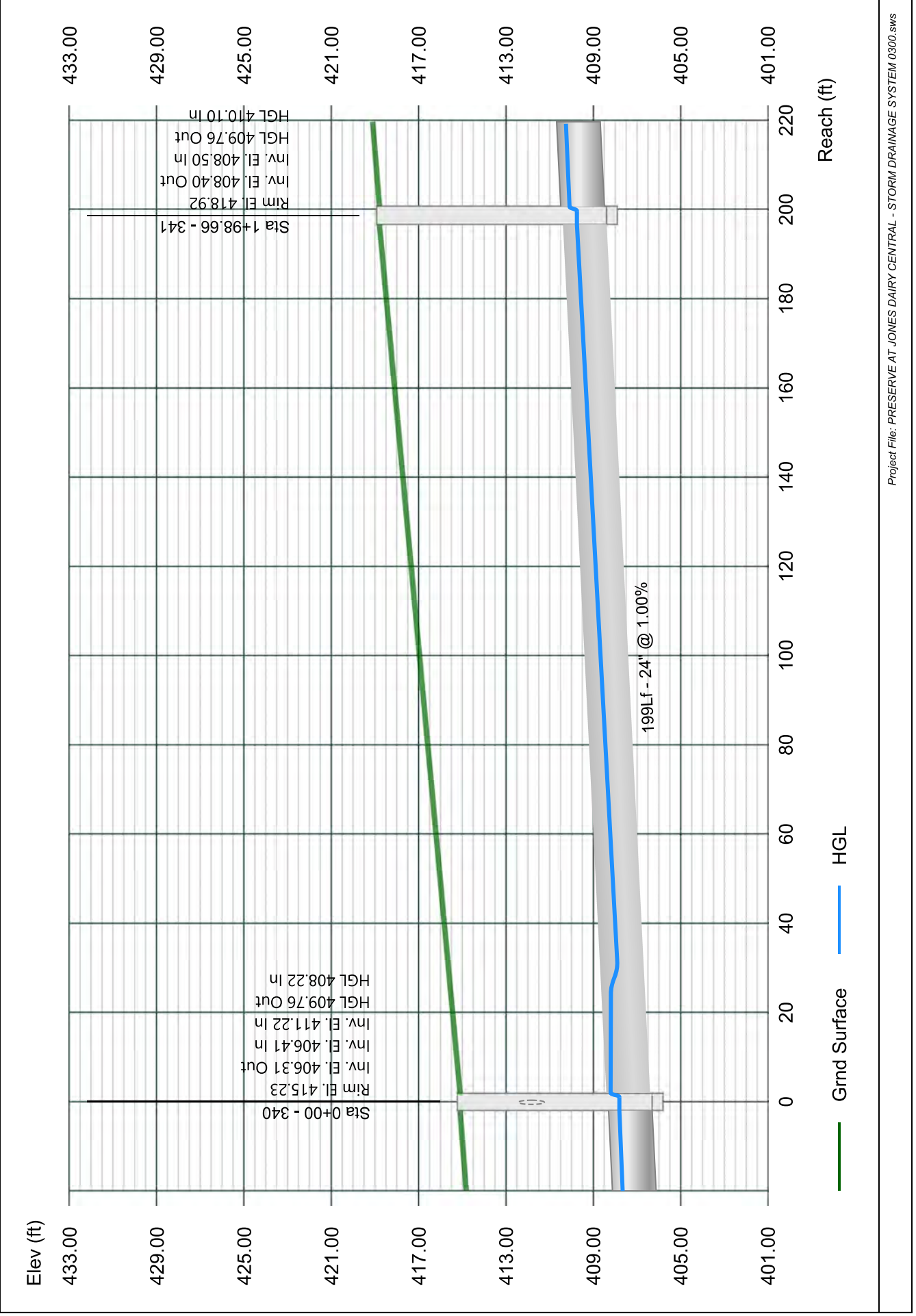


# Line 31 - 341 TO 340

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

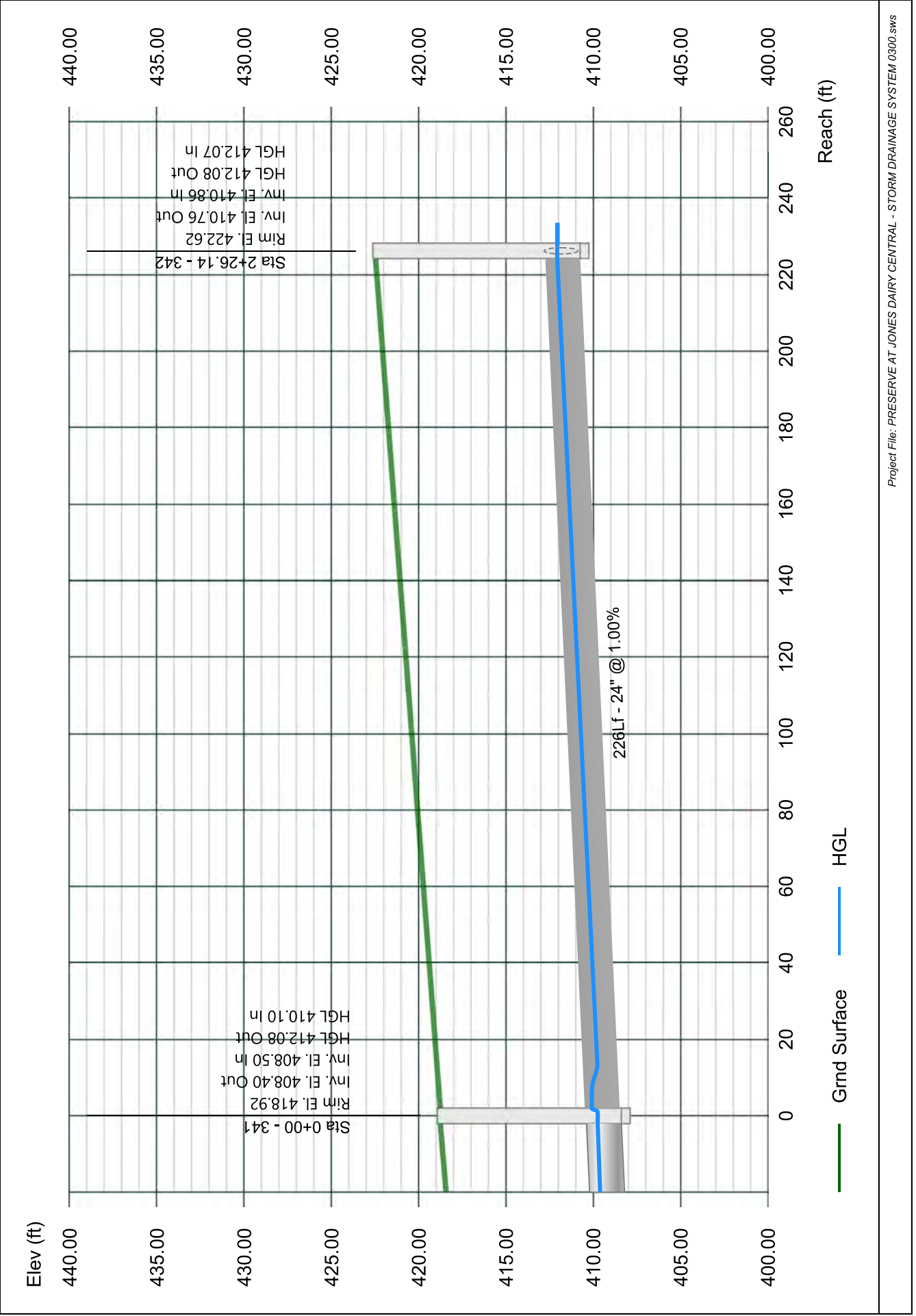


# Line 32 - 342 TO 341

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

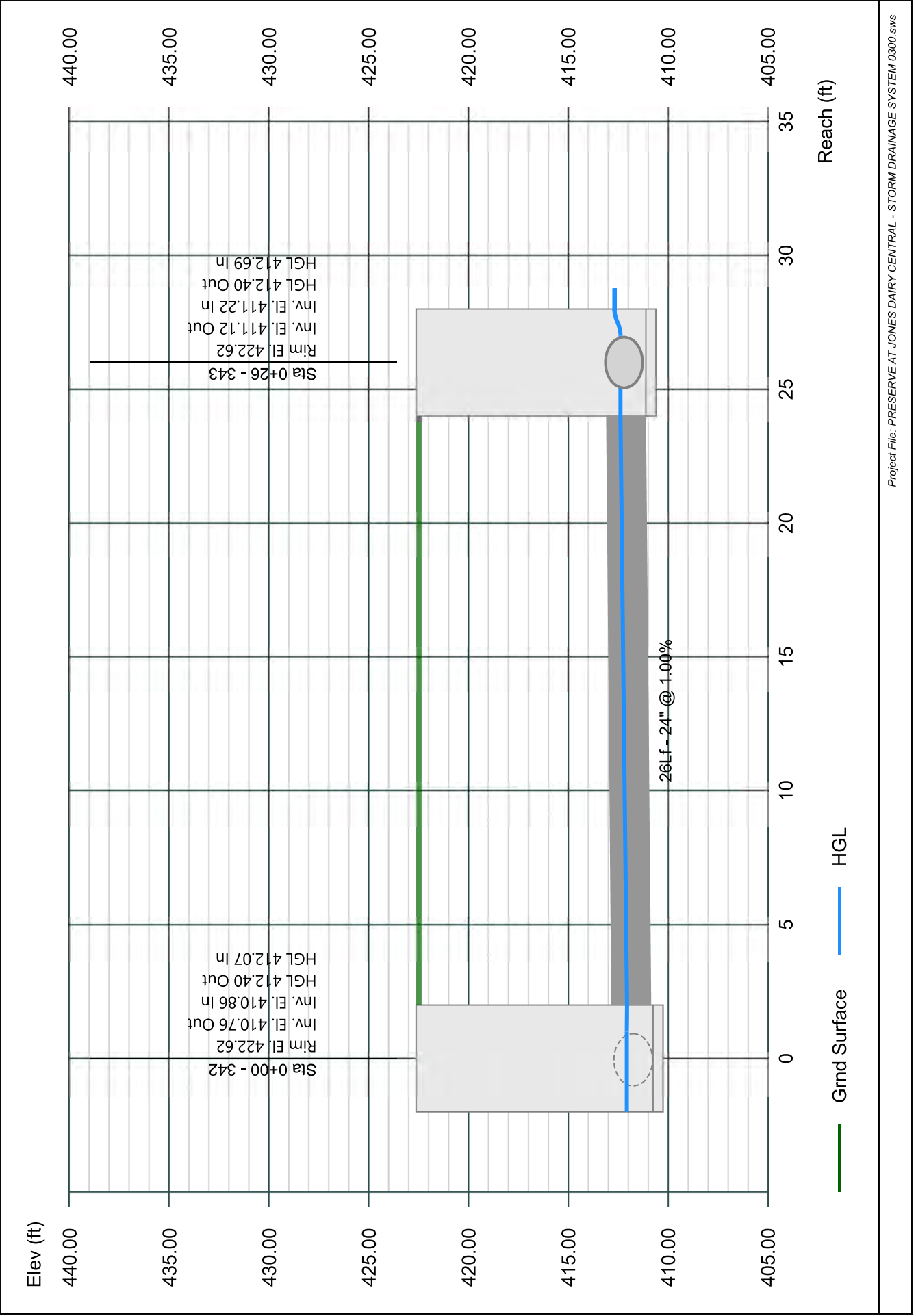


# Line 33 - 343 TO 342

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



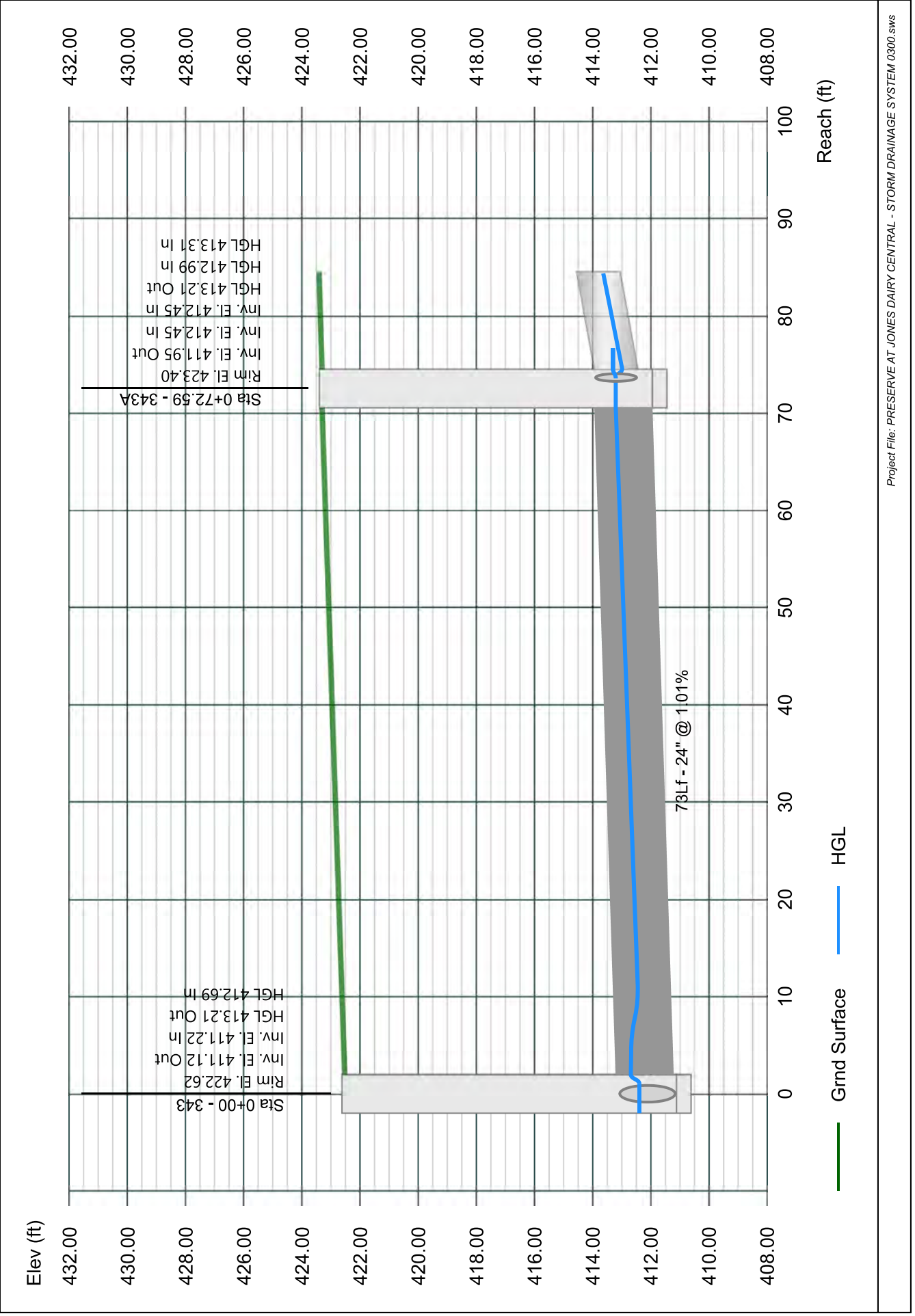


# Line 34 - 343A TO 343

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

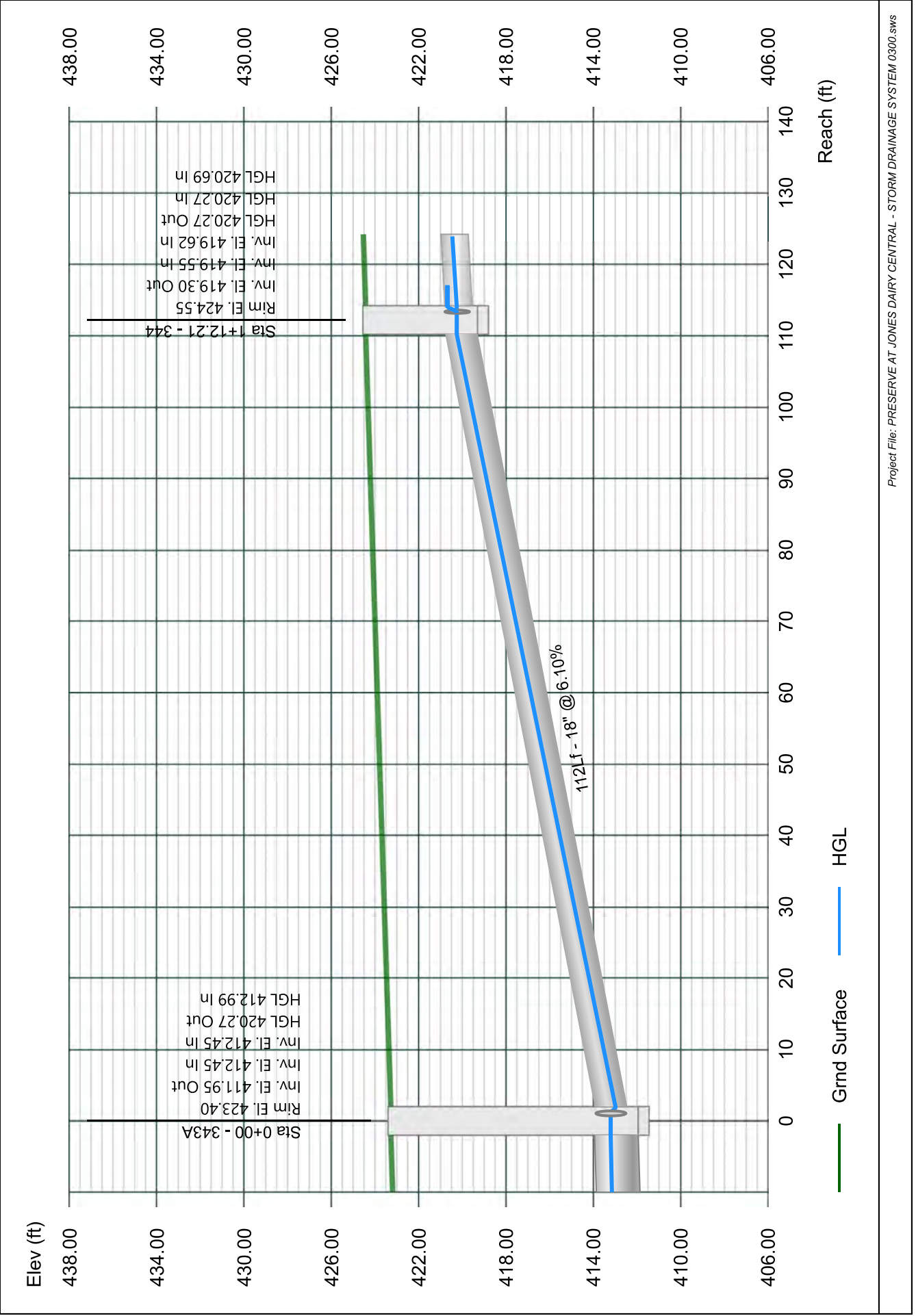


# Line 35 - 344 TO 343

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

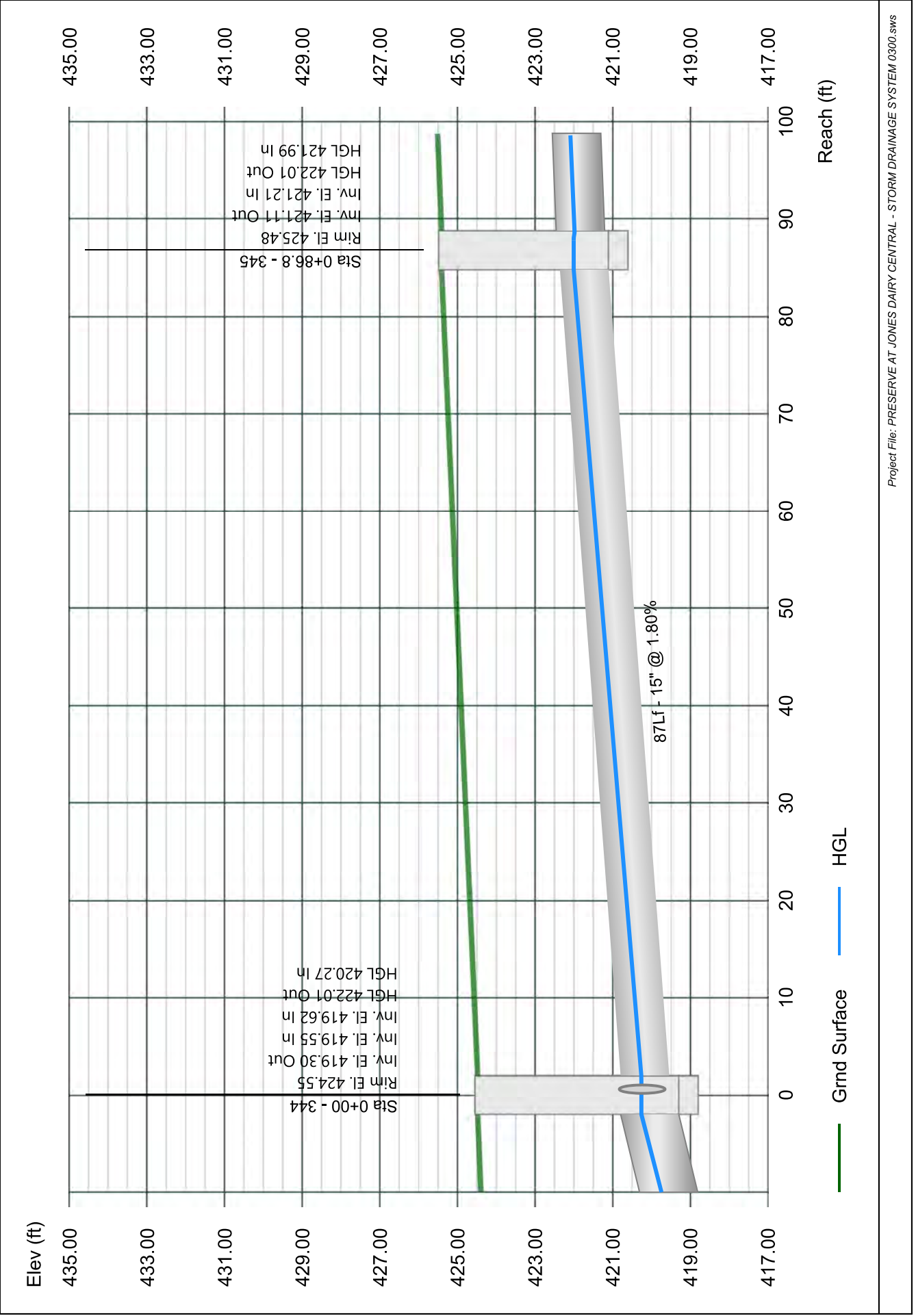


# Line 36 - 345 TO 344

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

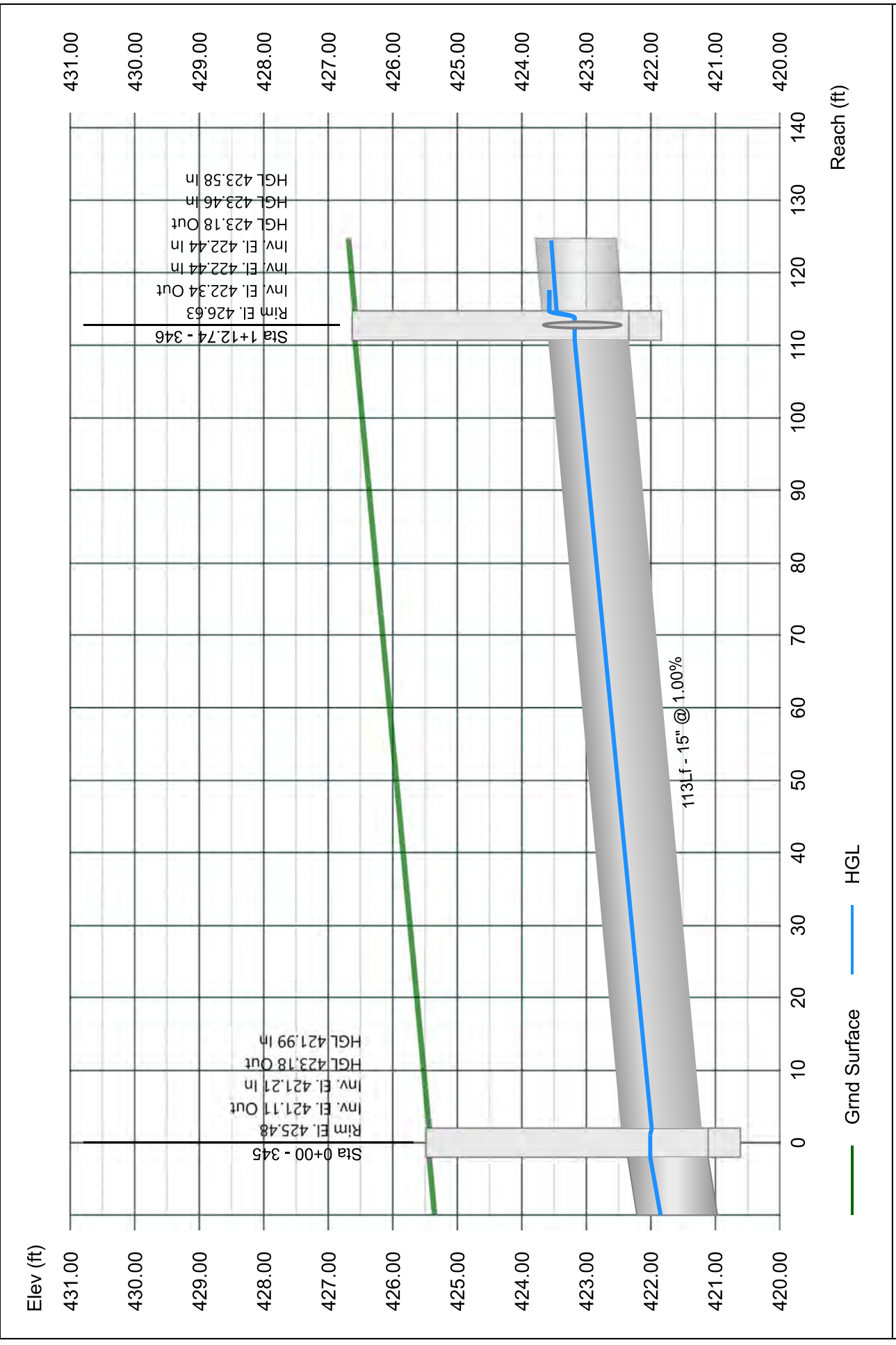


# Line 37 - 346 TO 345

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

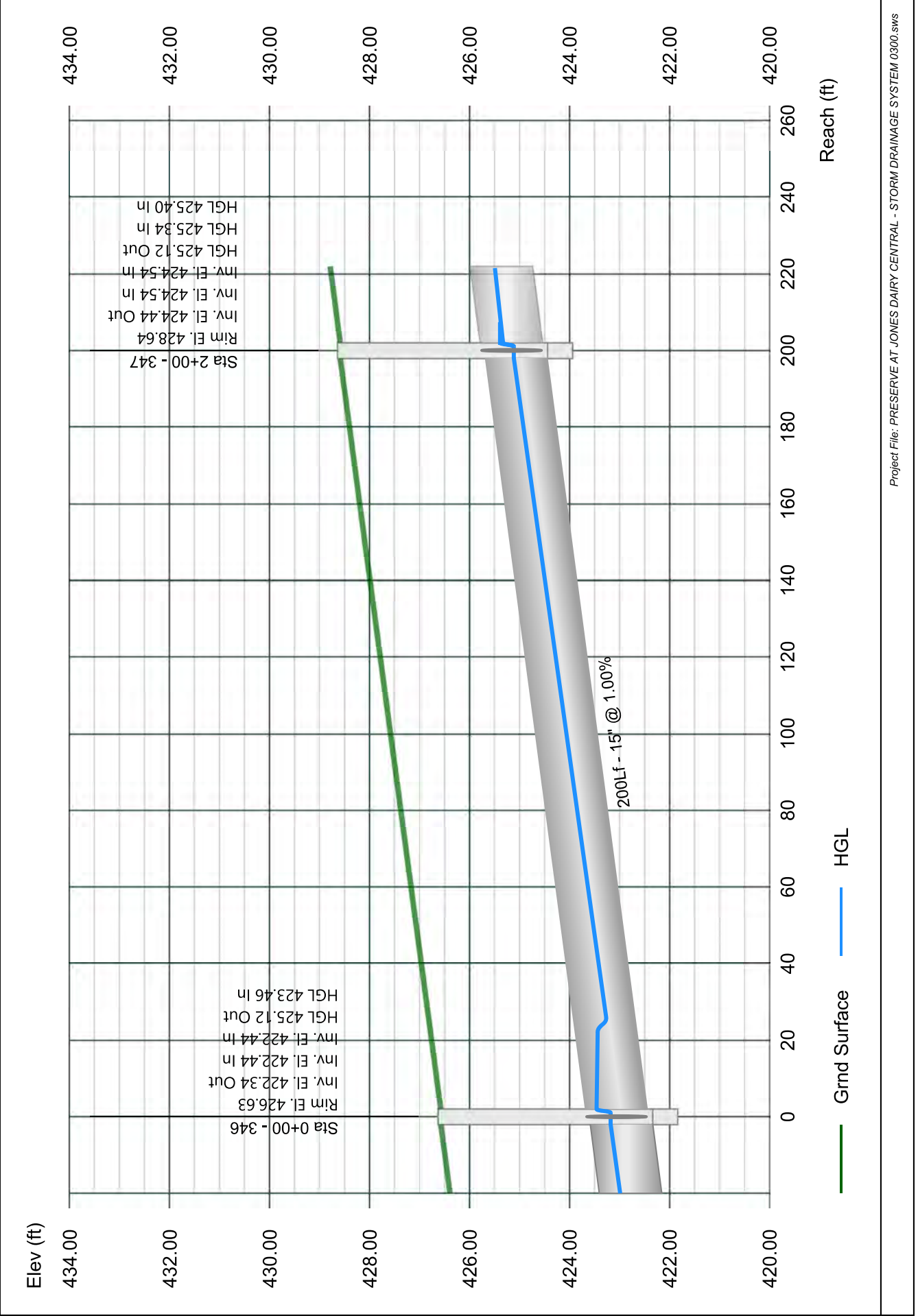


# Line 38 - 347 TO 346

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

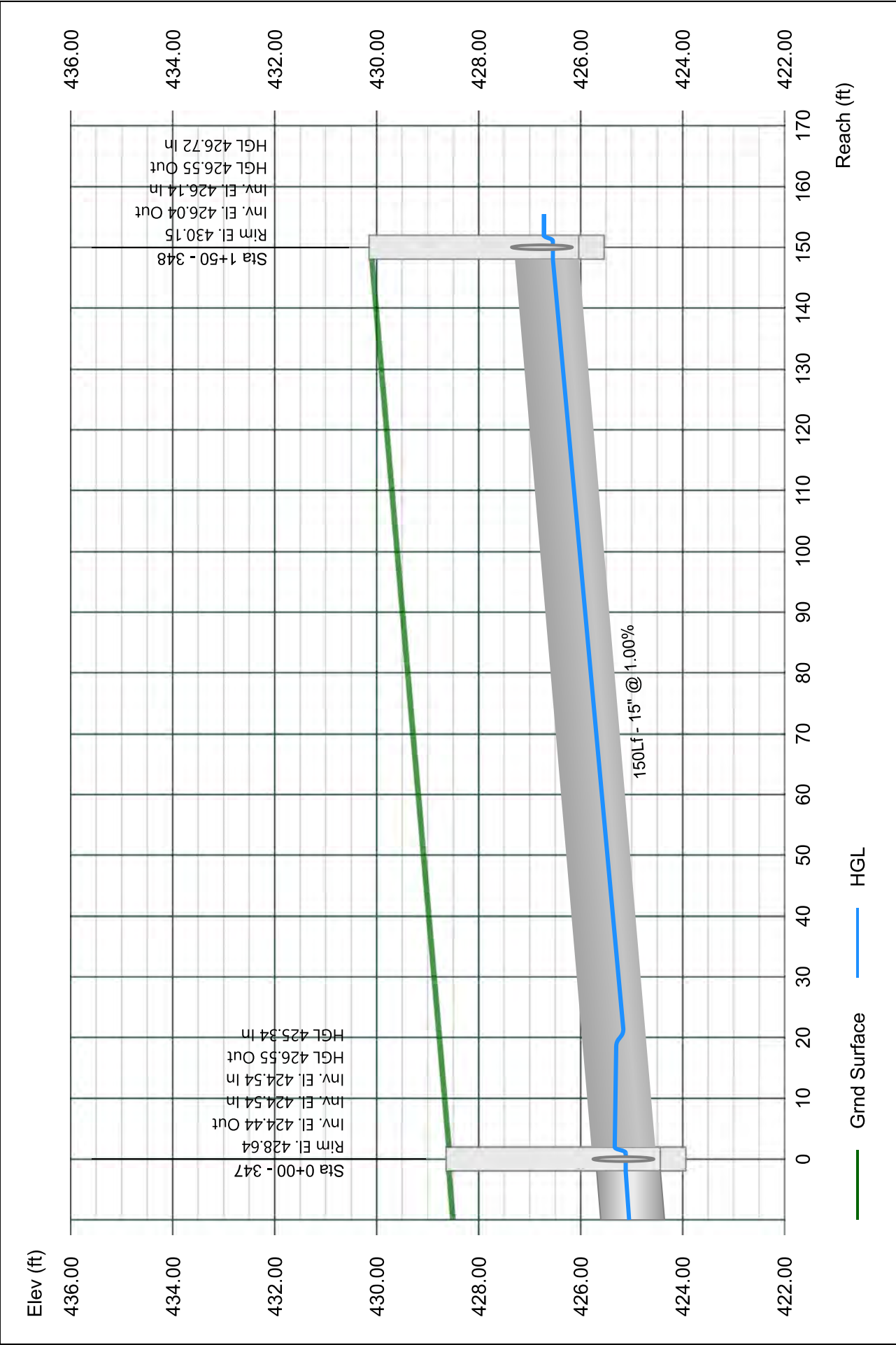


# Line 39 - 348 TO 347

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

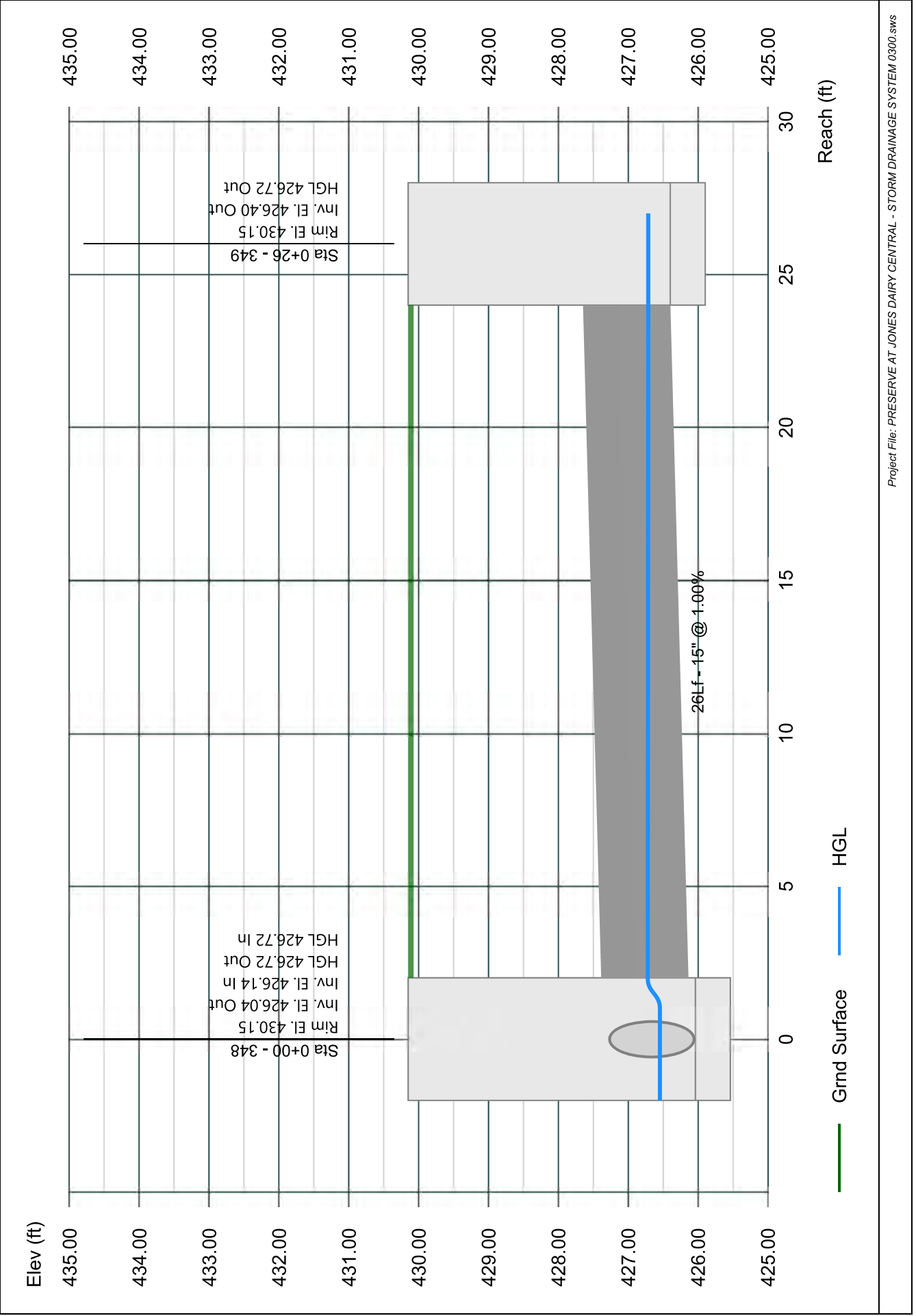


# Line 40 - 348 TO 349

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

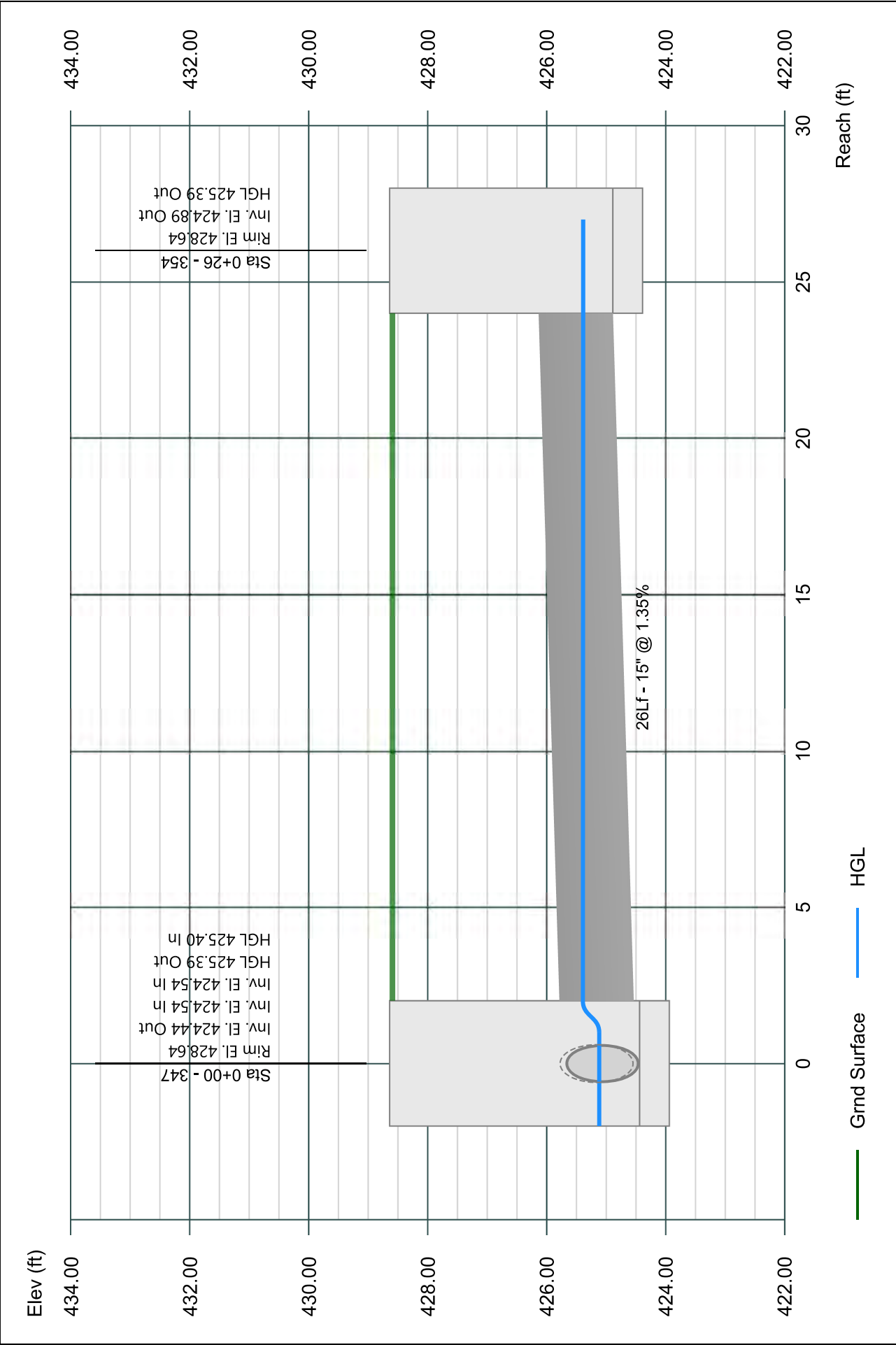


# Line 41 - 354 TO 347

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



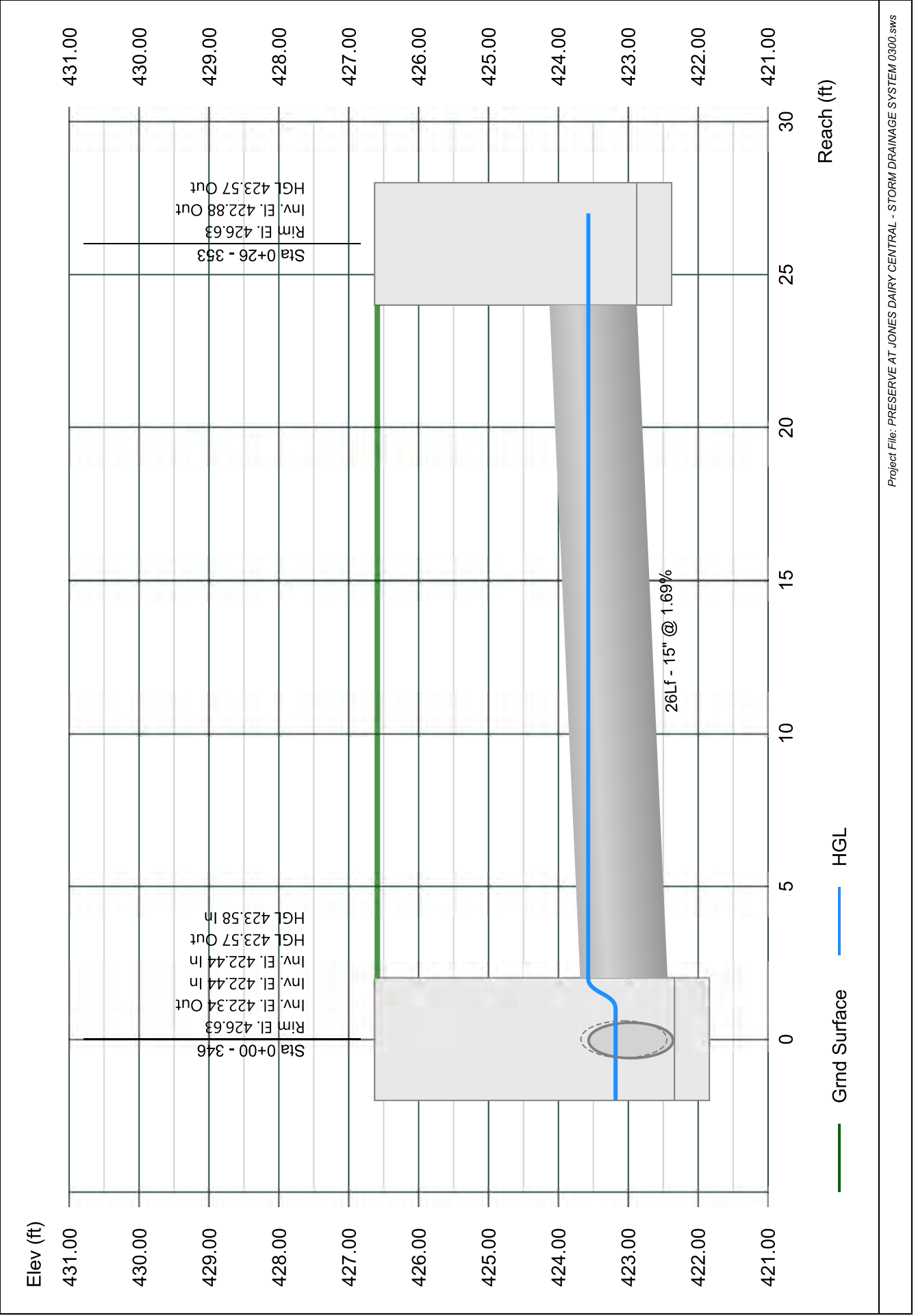


# Line 42 - 353 TO 346

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

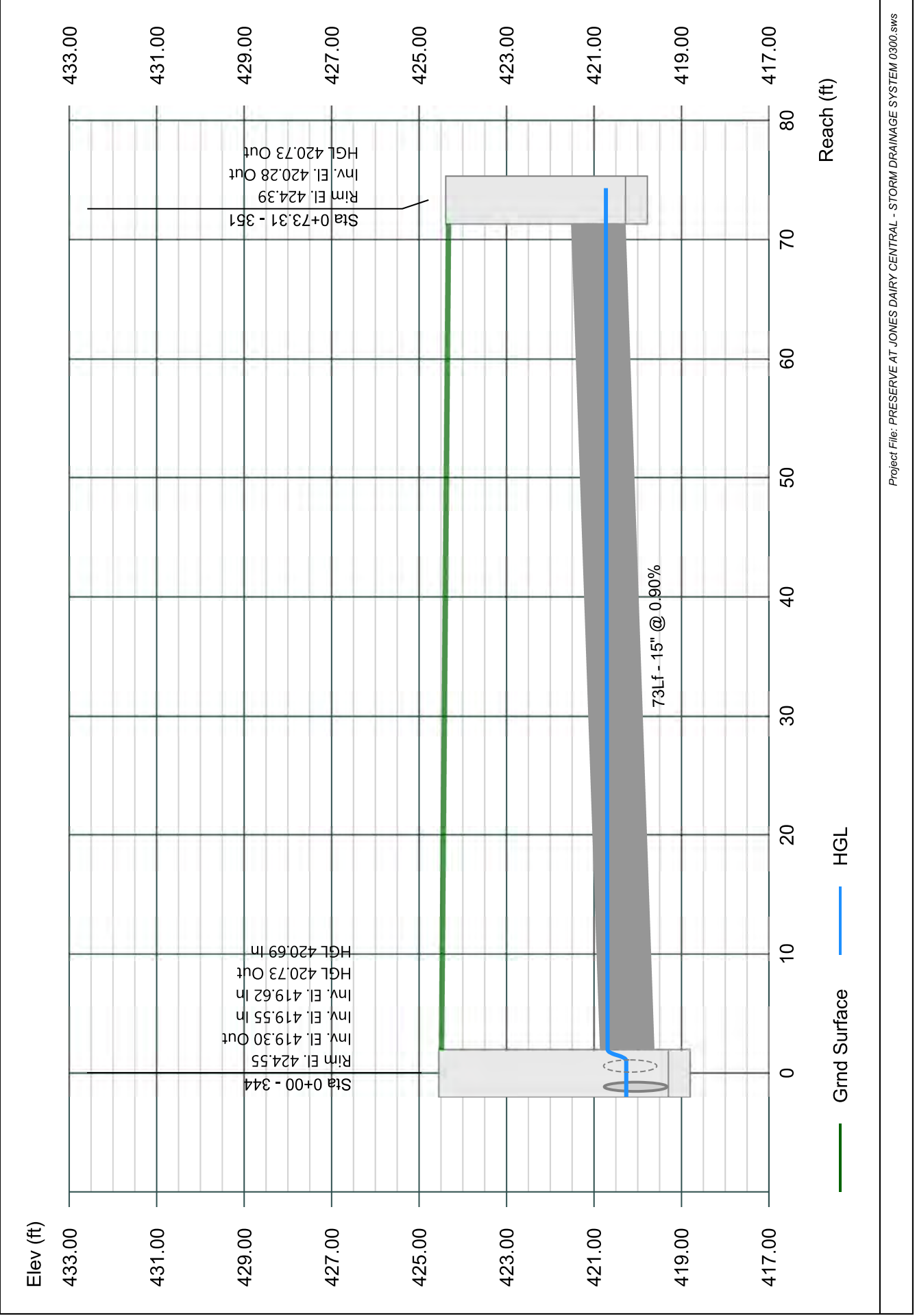


# Line 43 - 351 TO 344

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

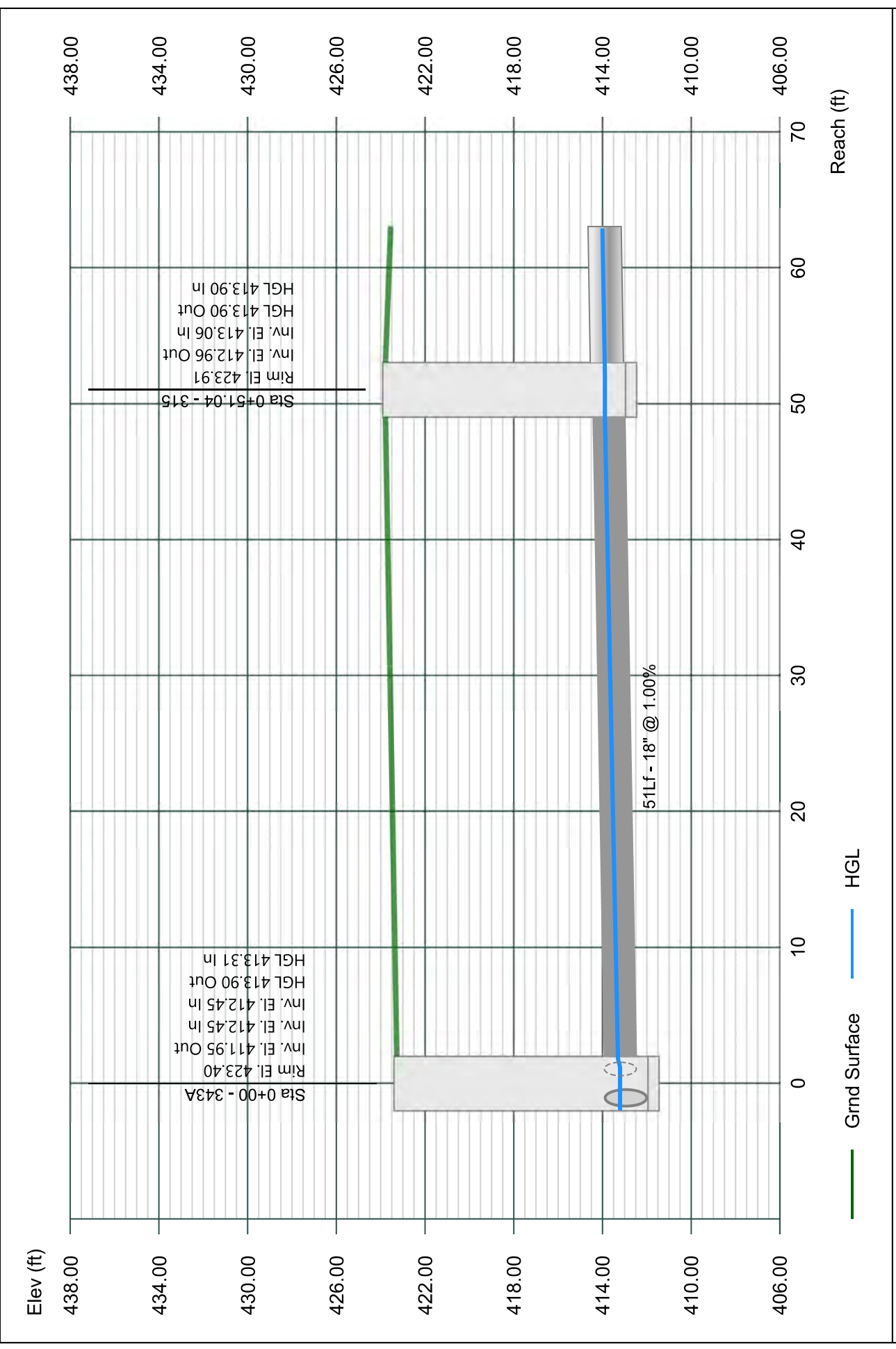


# Line 44 - 315 TO 343A

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

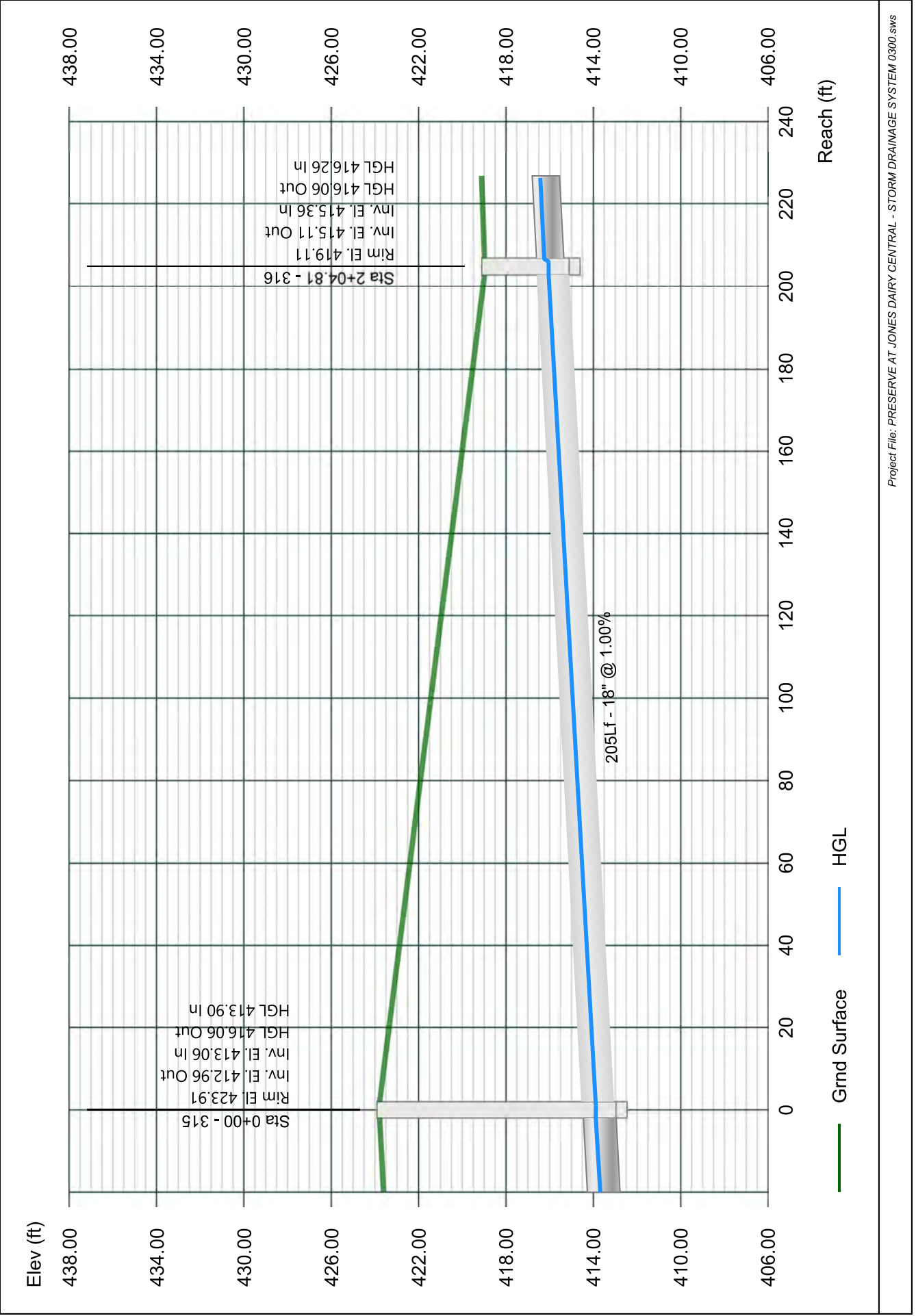


# Line 45 - 316 TO 315

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

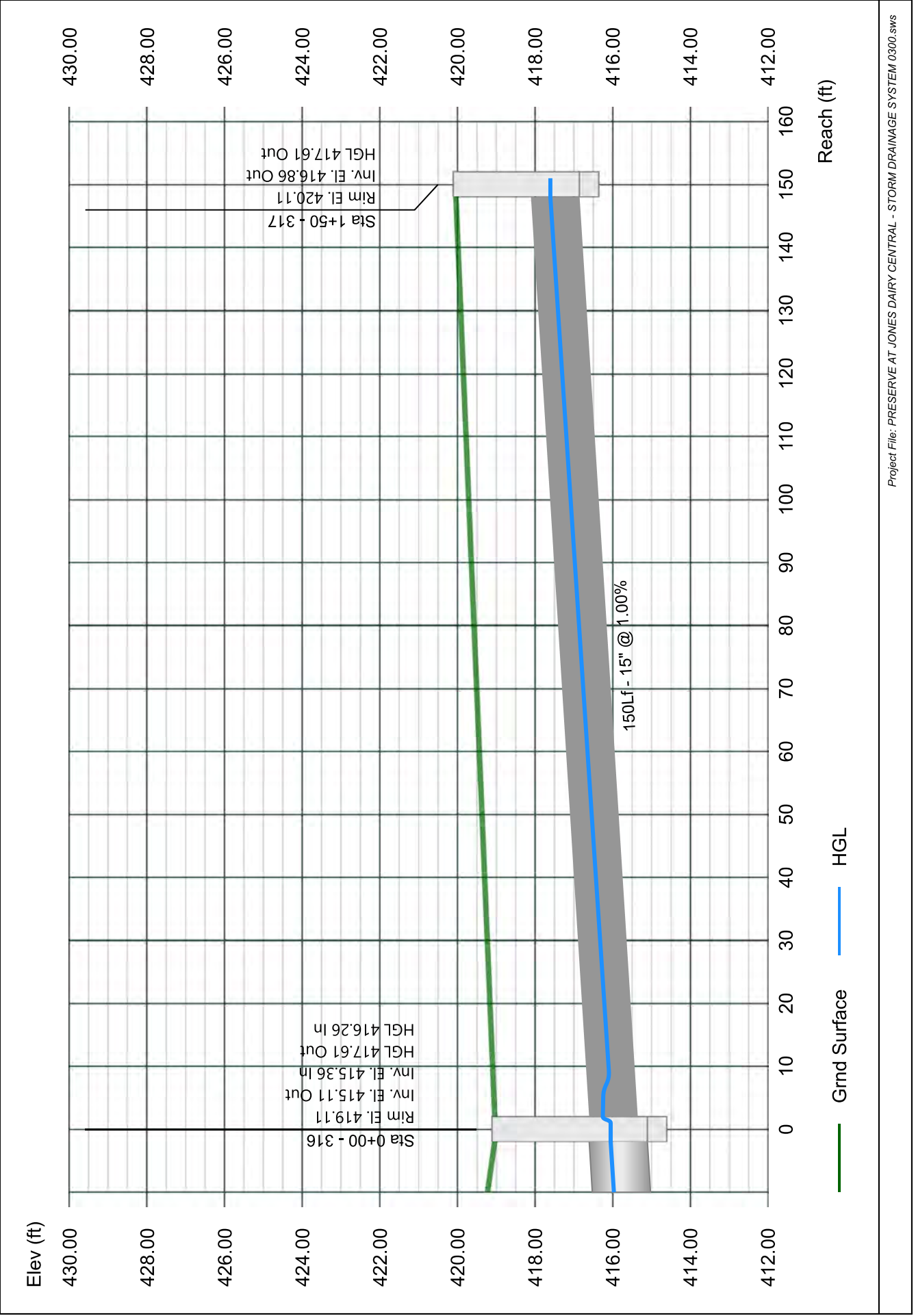


# Line 46 - 317 TO 316

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

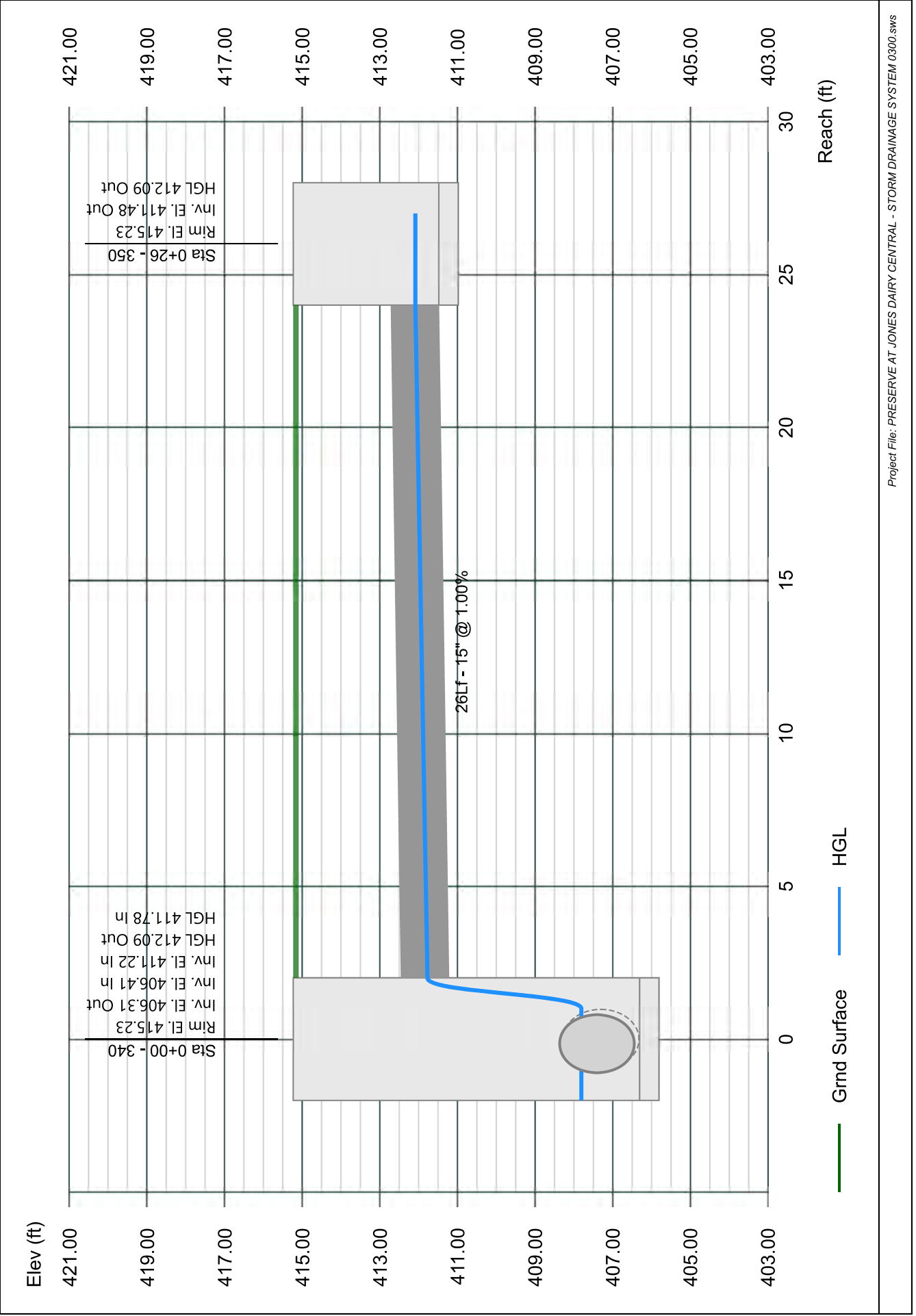


# Line 47 - 350 TO 340

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

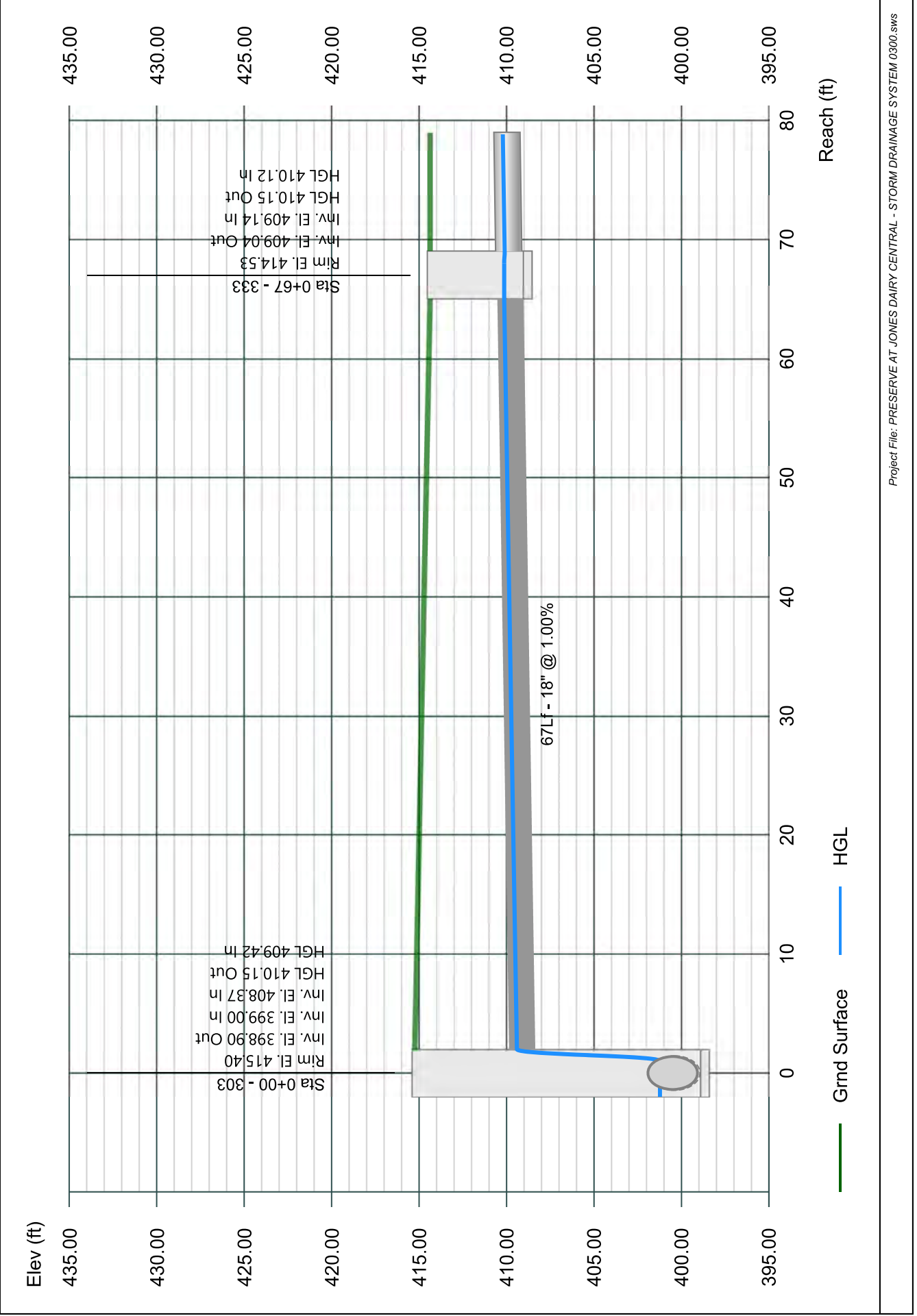


# Line 48 - 333 TO 303

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

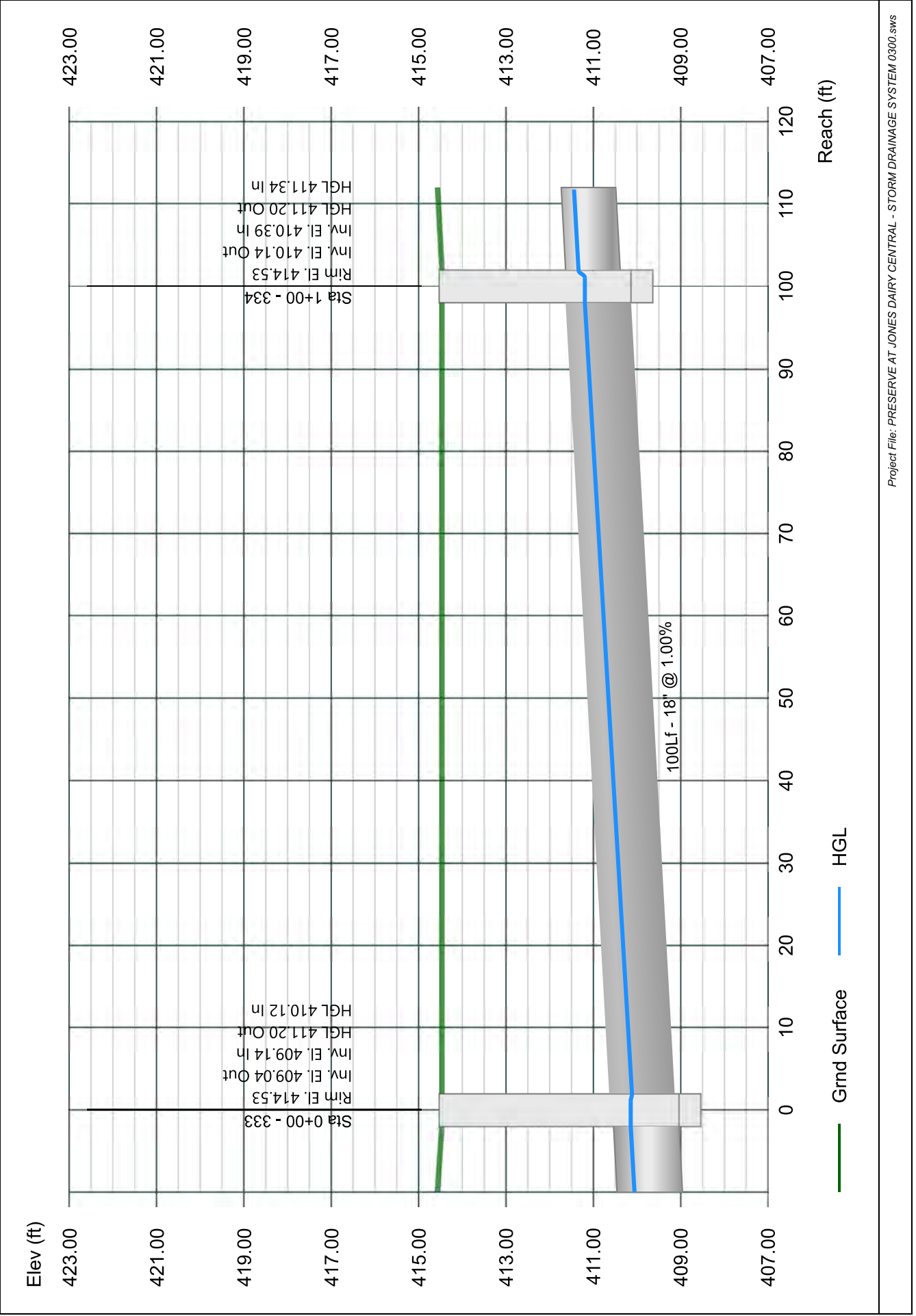


# Line 49 - 334 TO 333

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



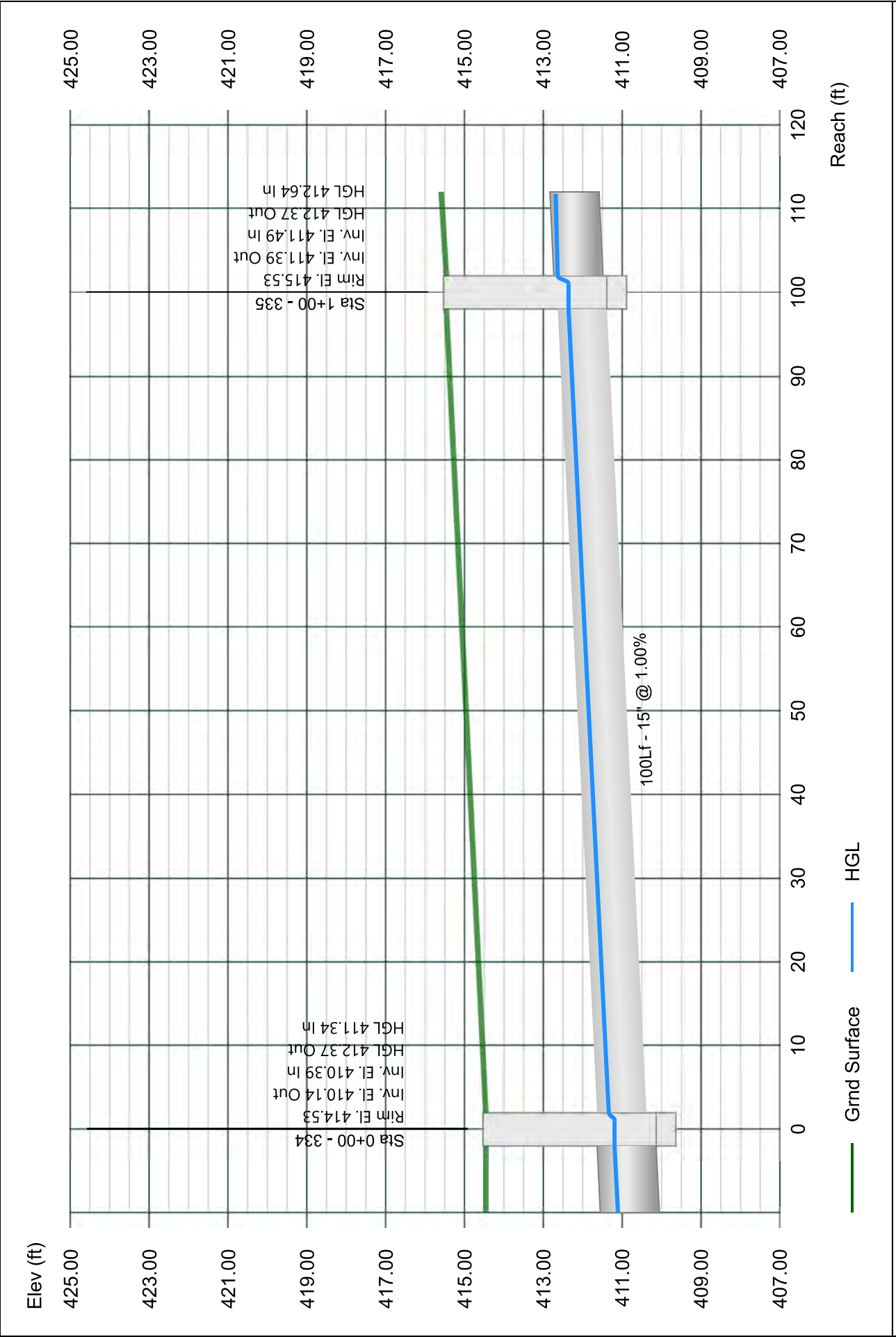


# Line 50 - 335 TO 334

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

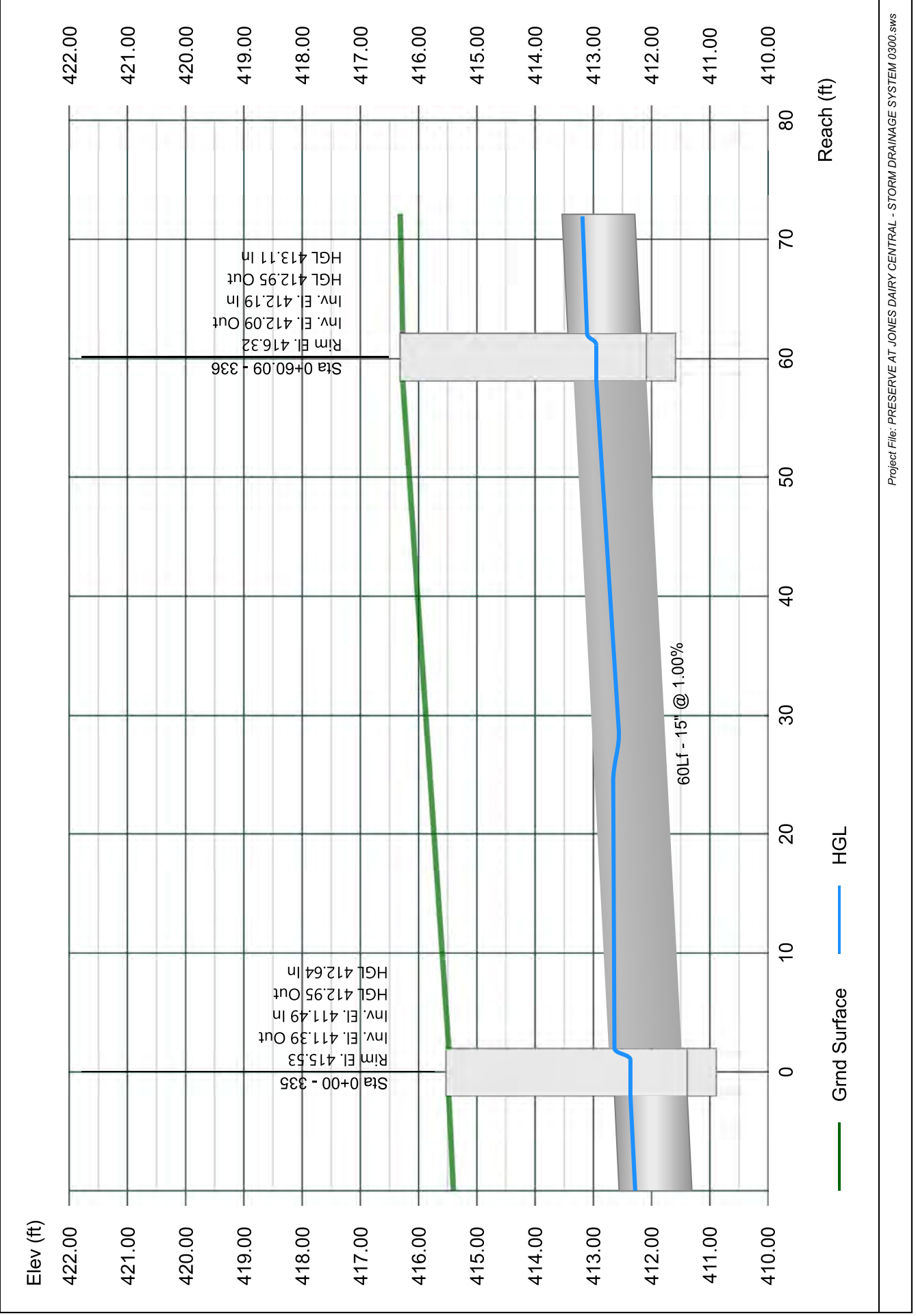


# Line 51 - 336 TO 335

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

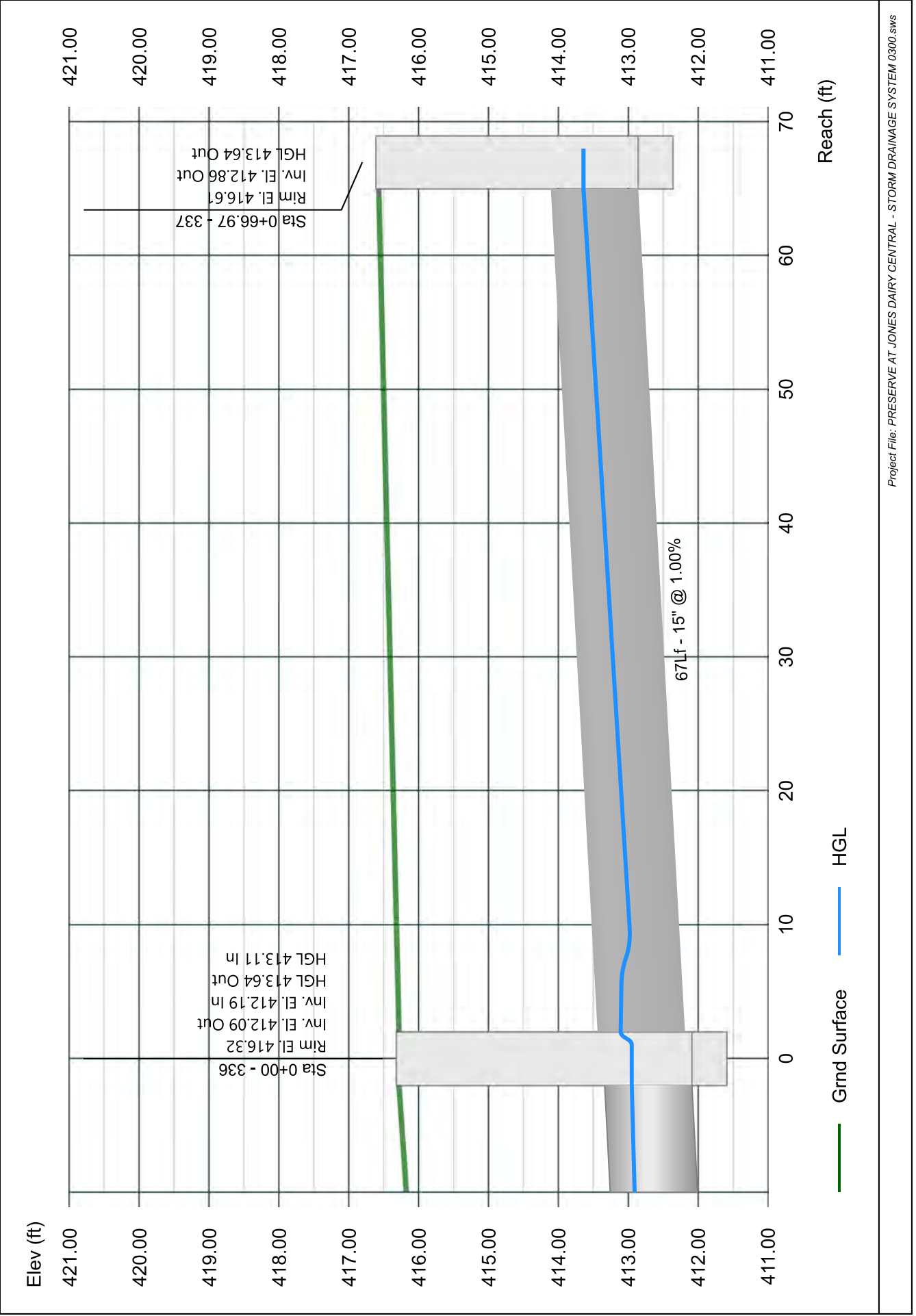


# Line 52 - 337 TO 336

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

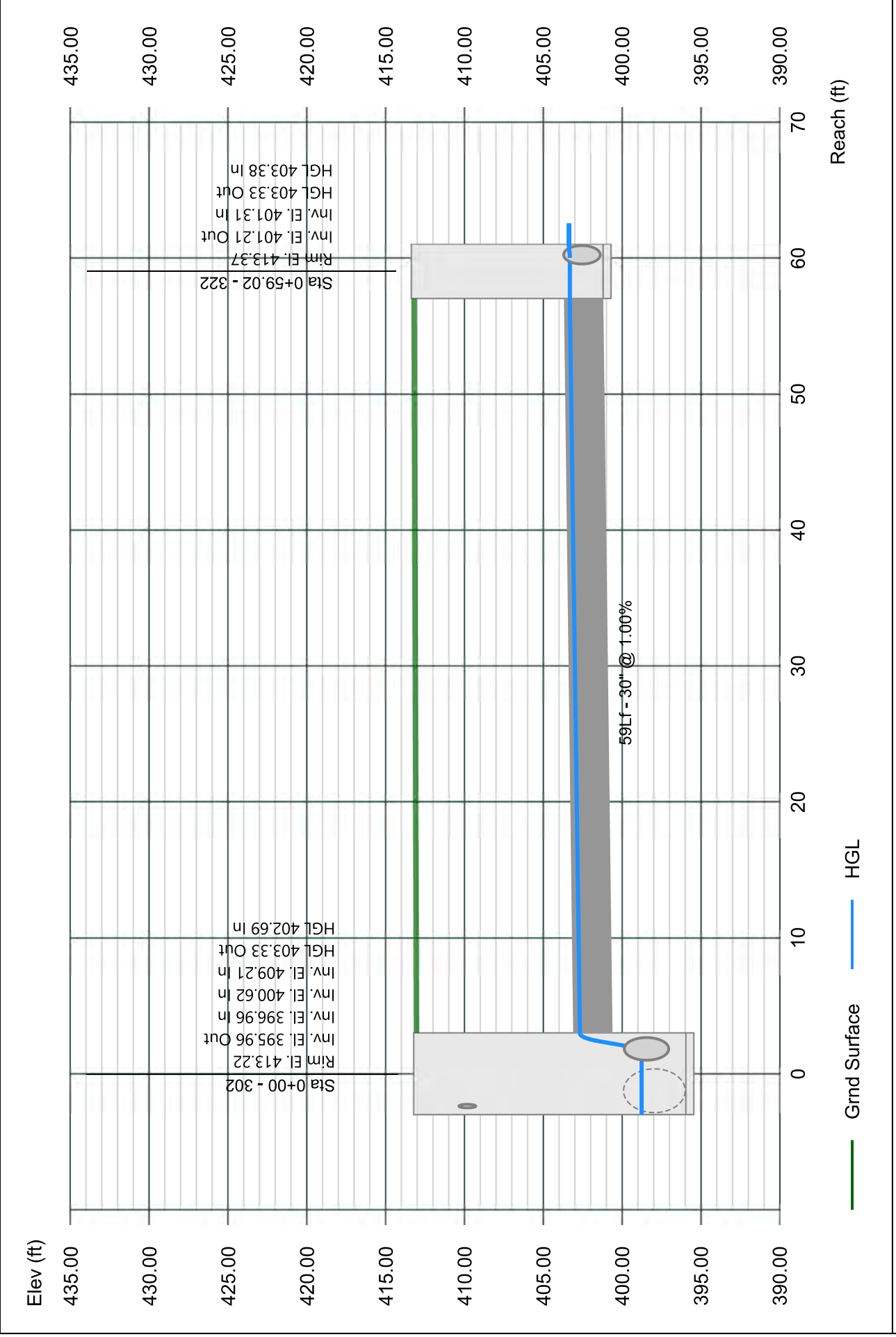


# Line 53 - 322 TO 302

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

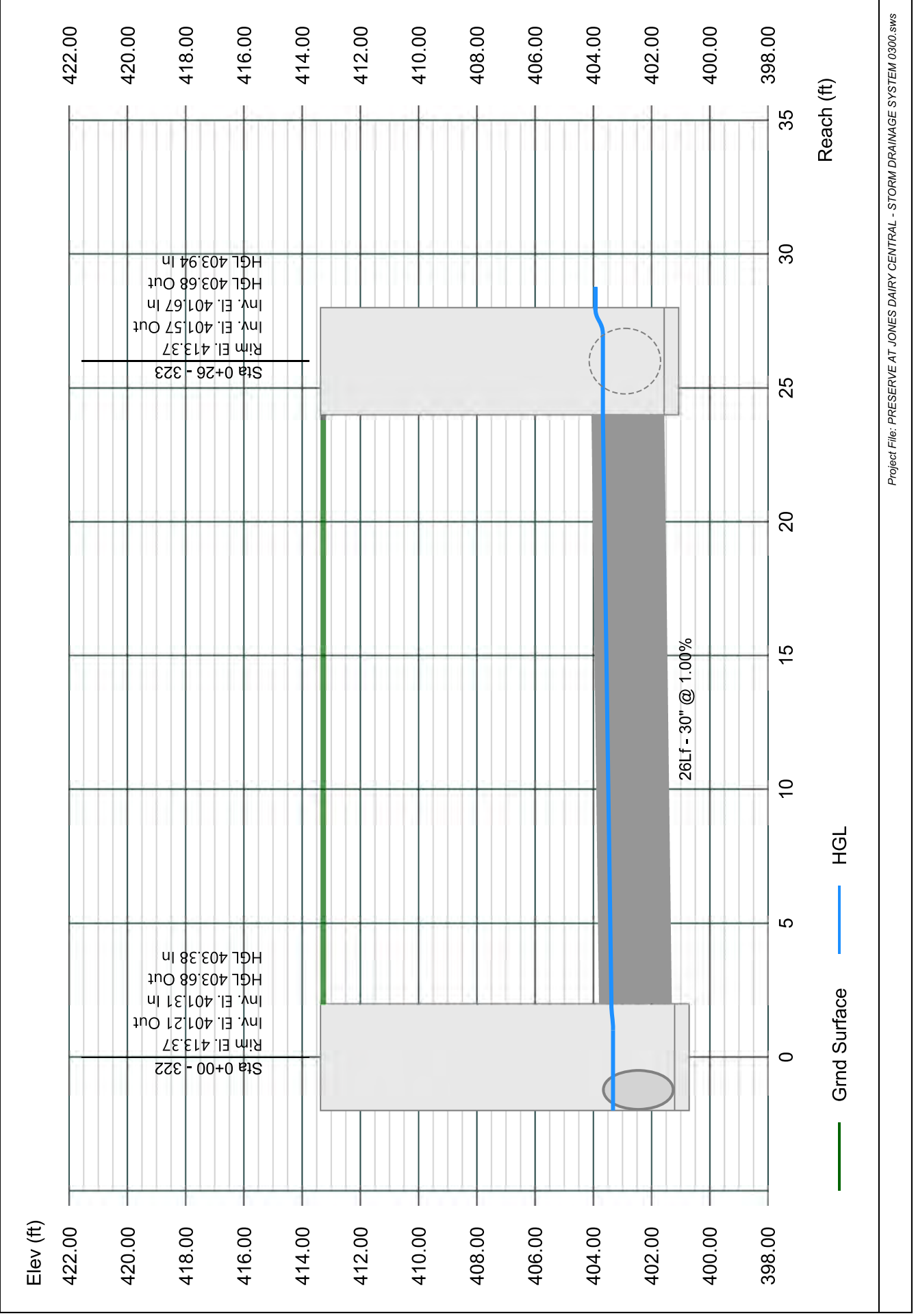


# Line 54 - 323 TO 322

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

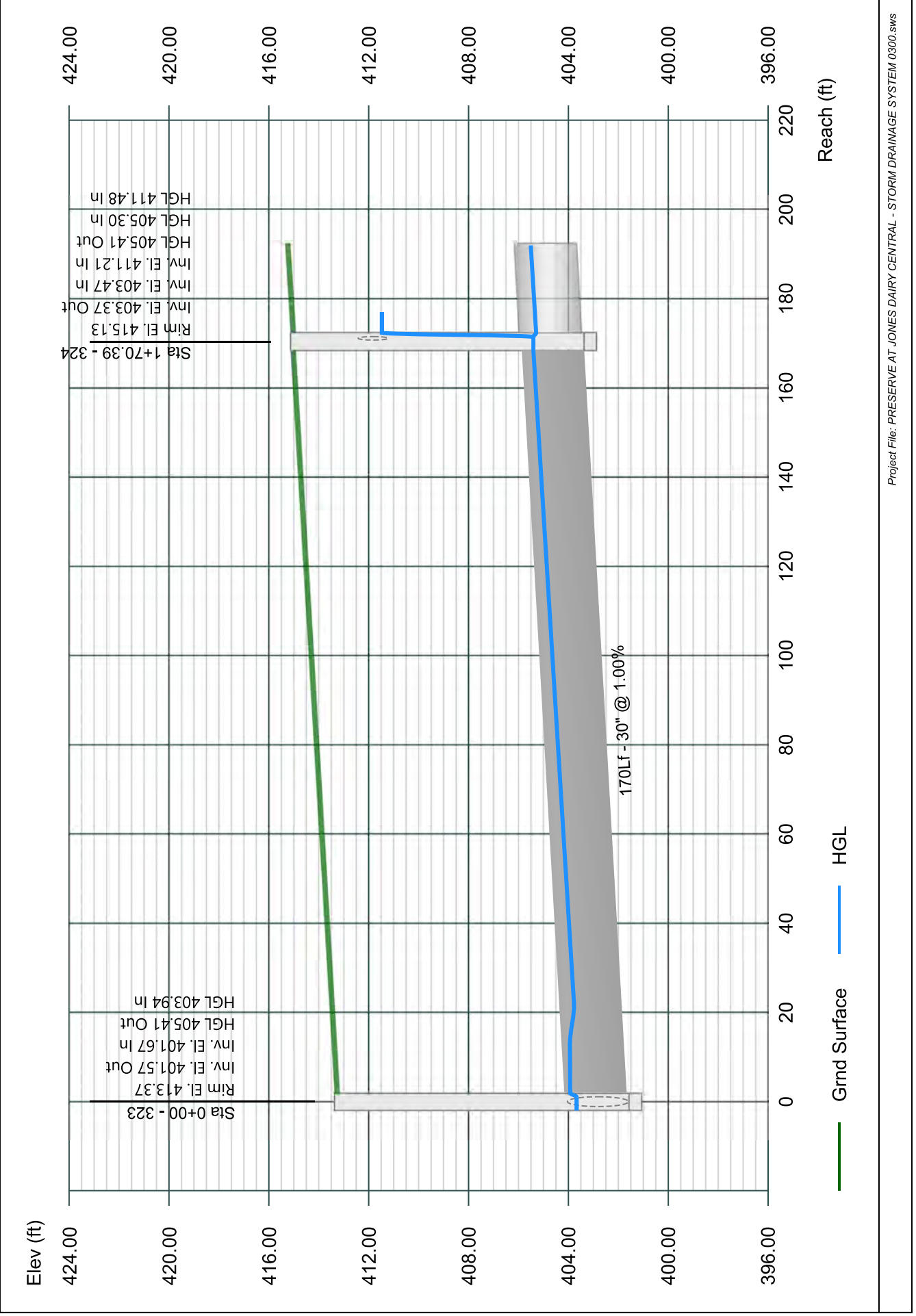


# Line 55 - 324 TO 323

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

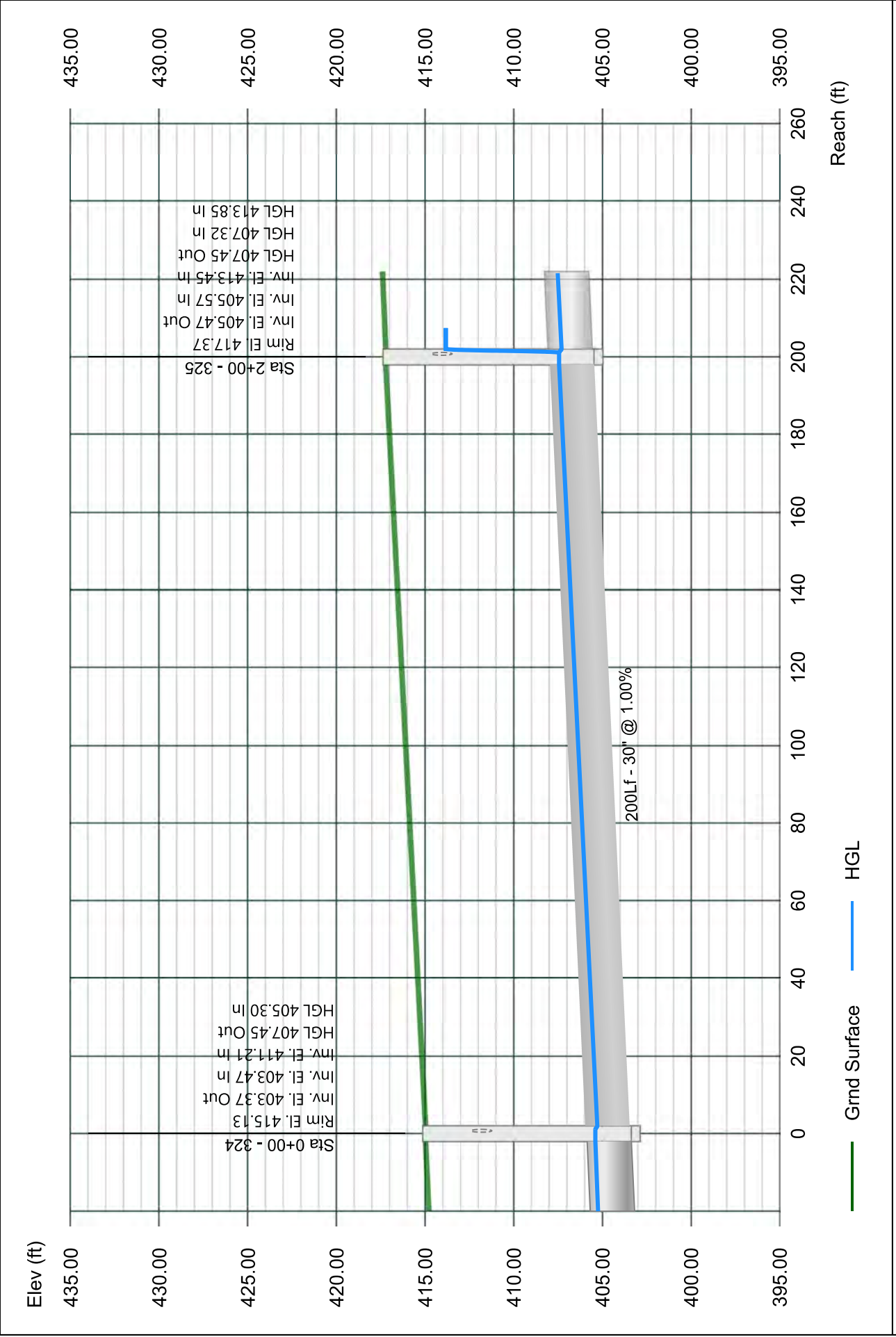


# Line 56 - 325 TO 324

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

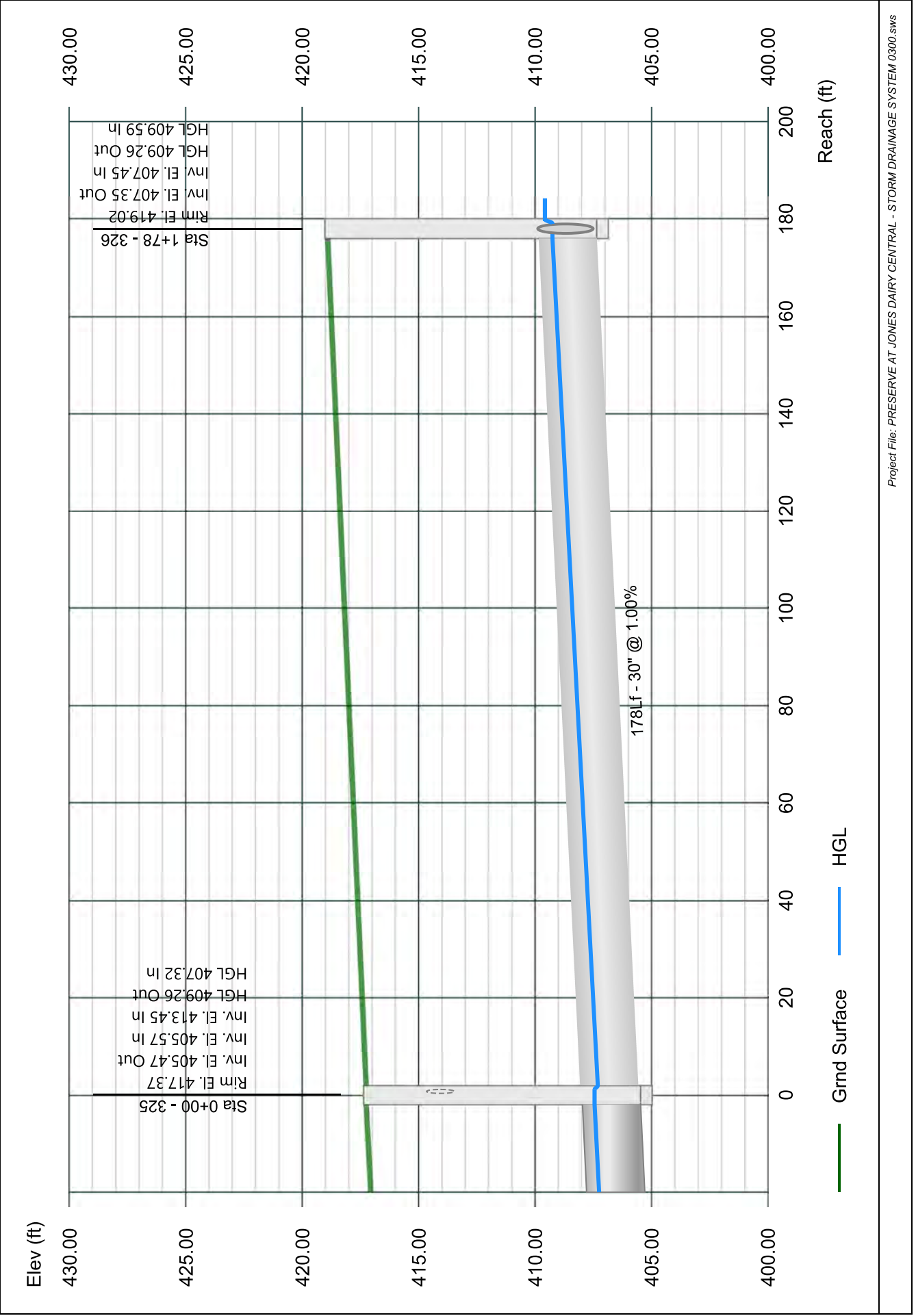


# Line 57 - 326 TO 325

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



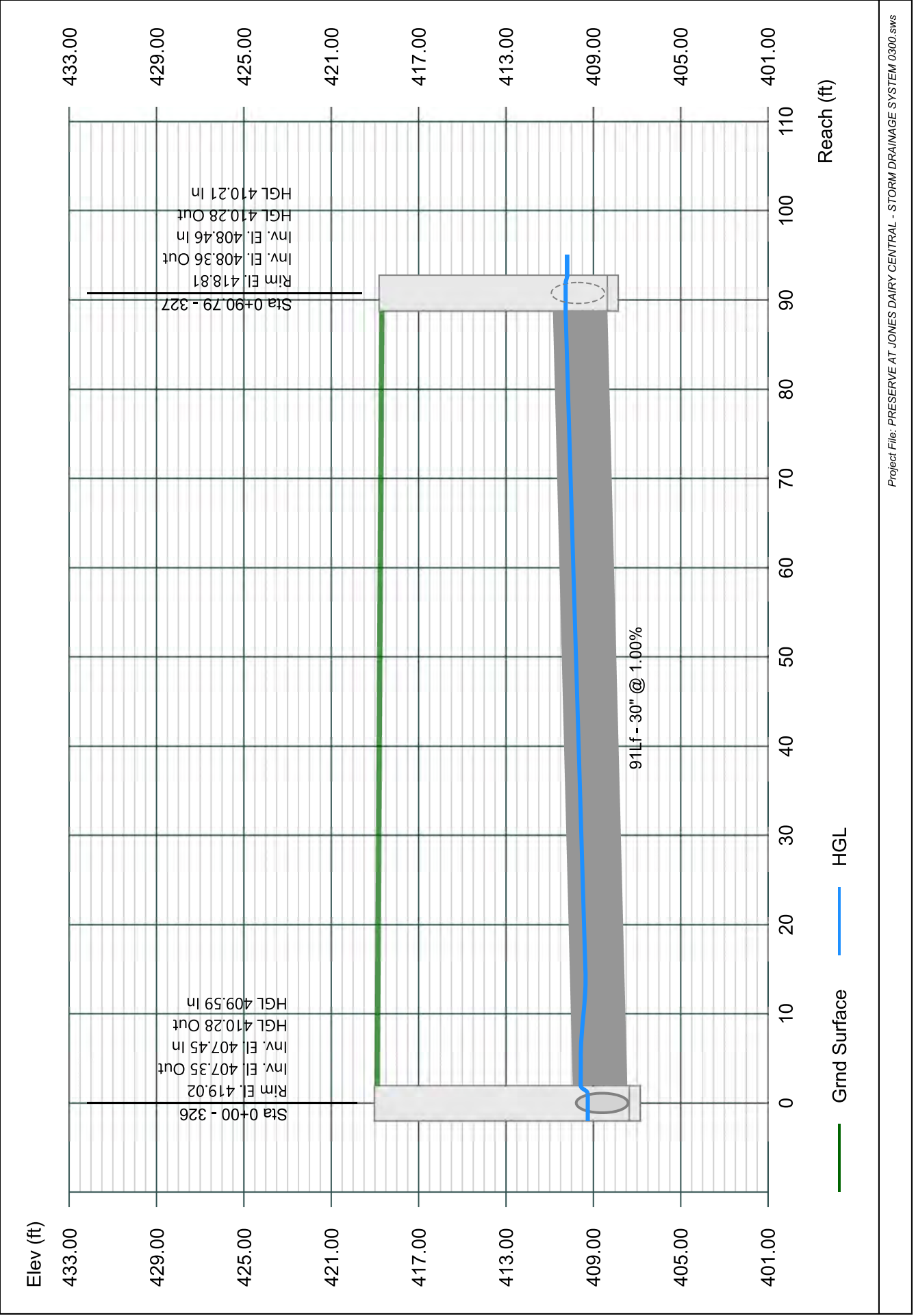


# Line 58 - 327 TO 326

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

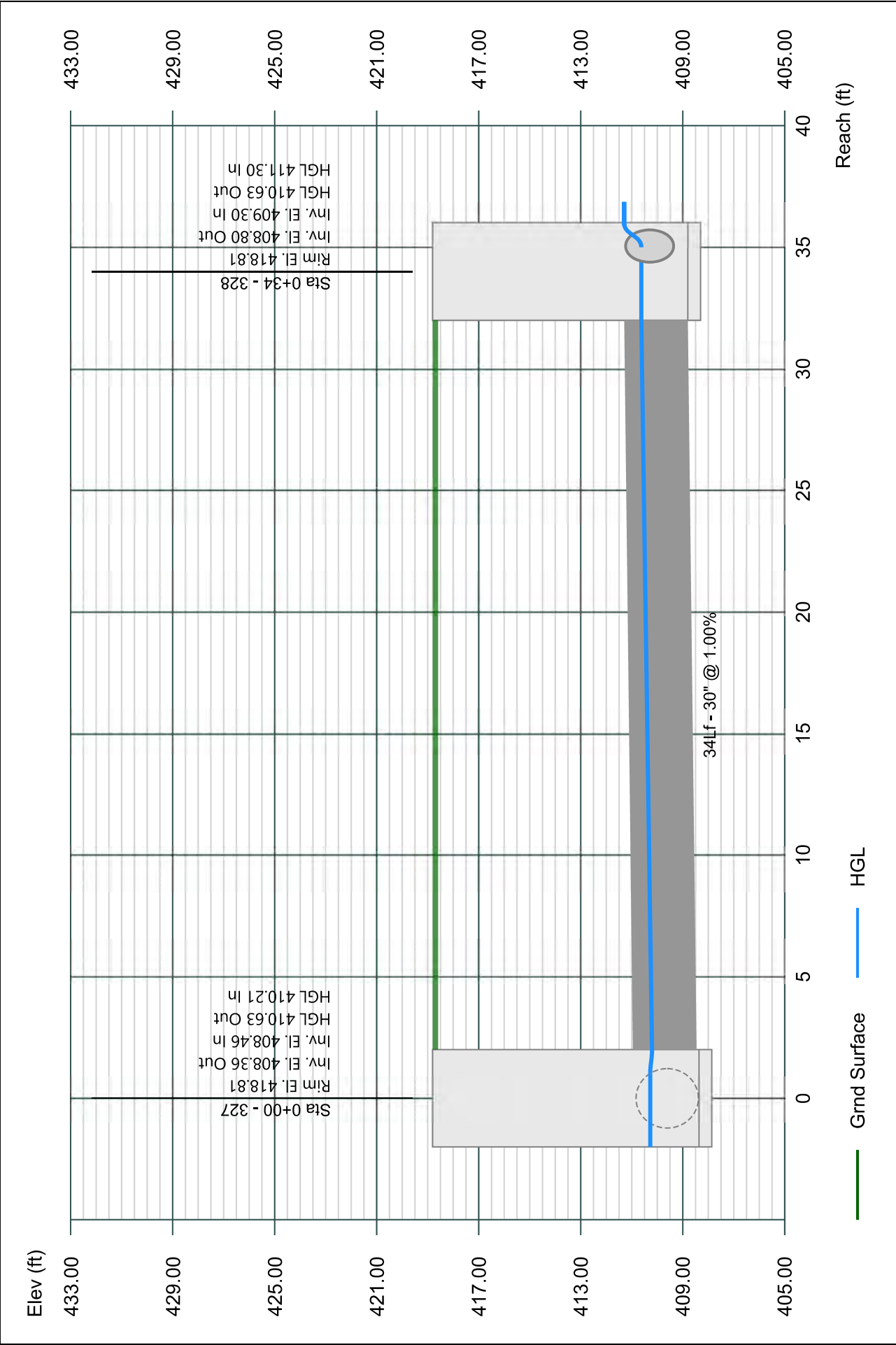


# Line 59 - 328 TO 327

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

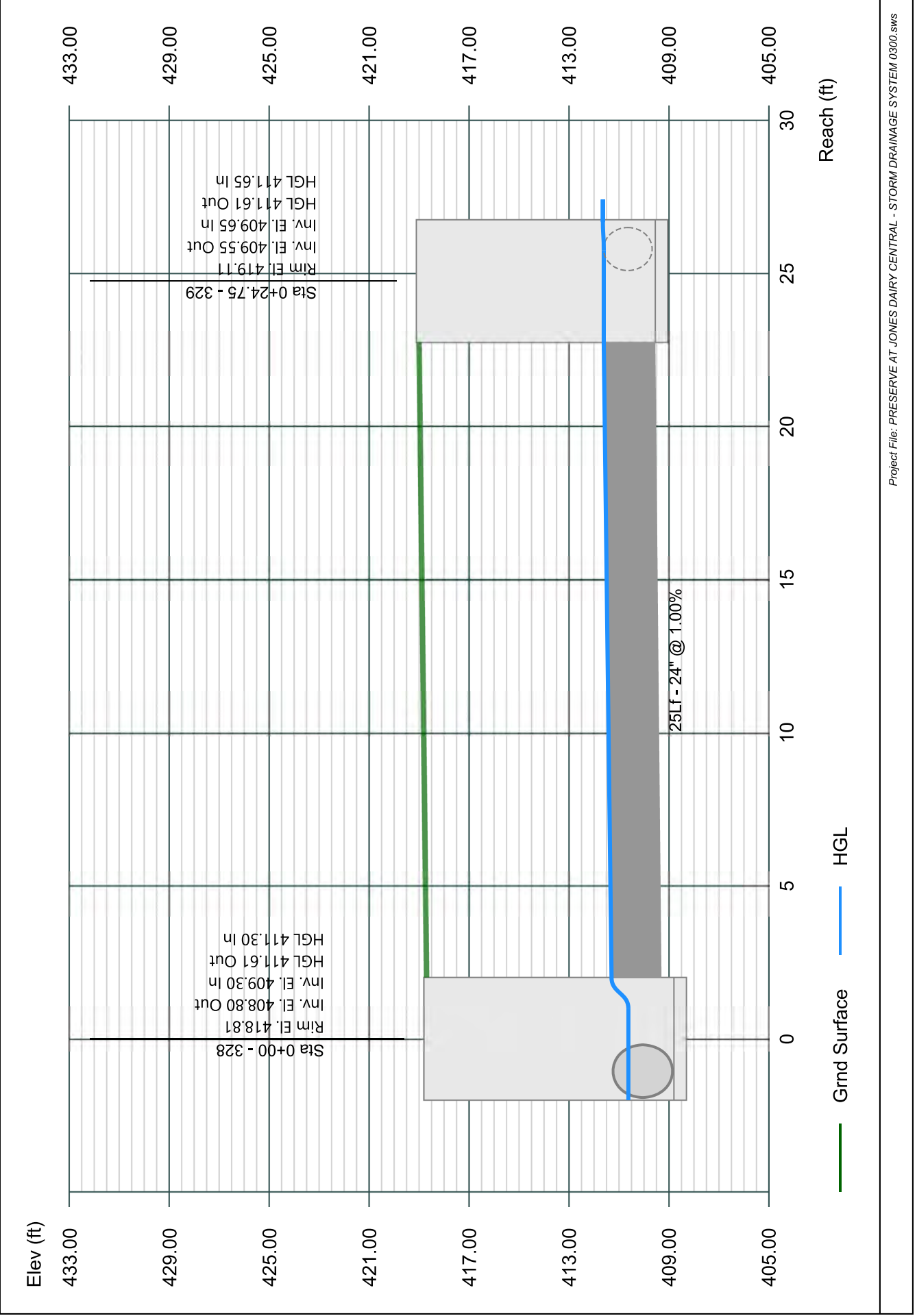


# Line 60 - 329 TO 328

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

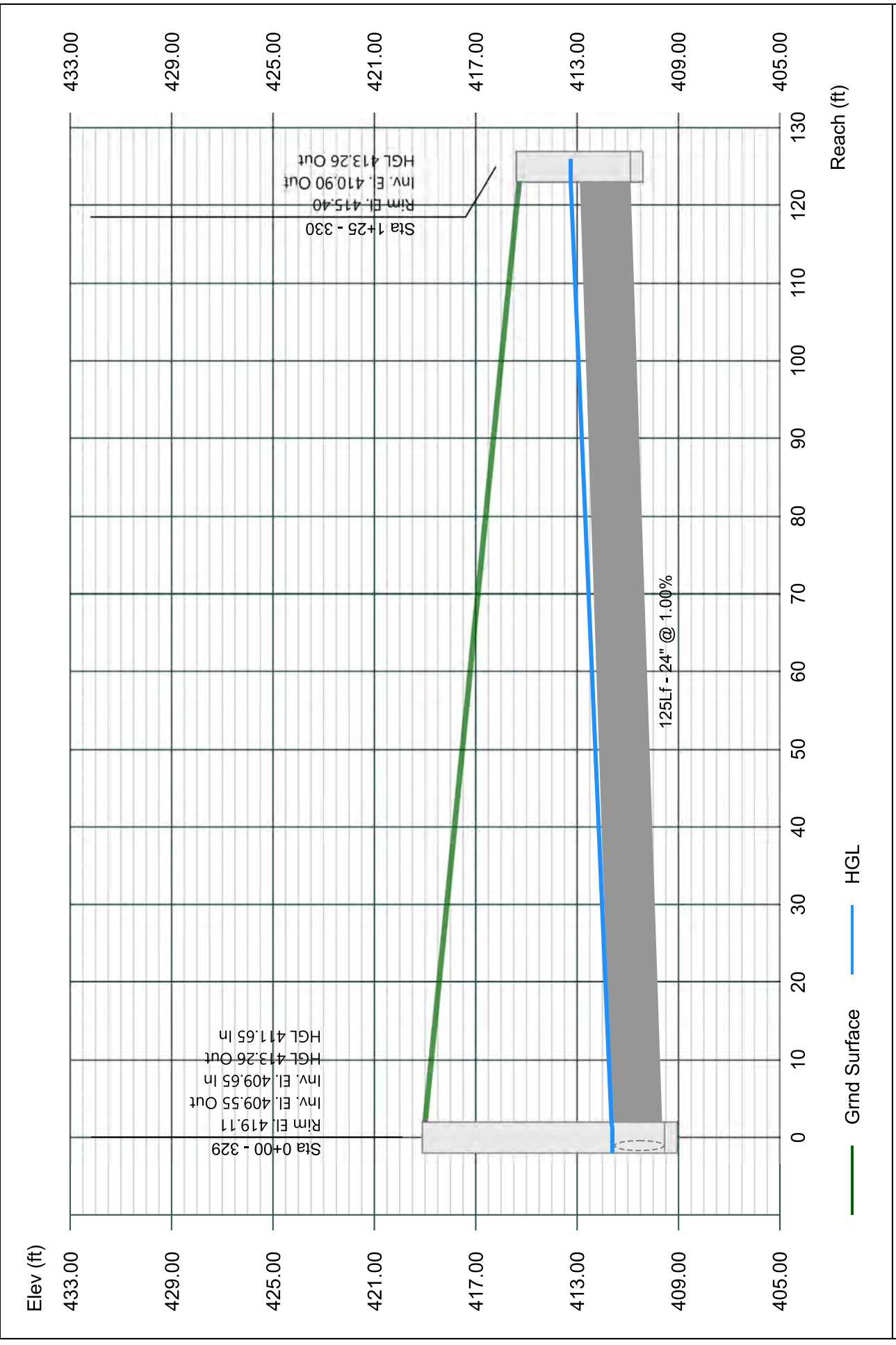


# Line 61 - 330 TO 329

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

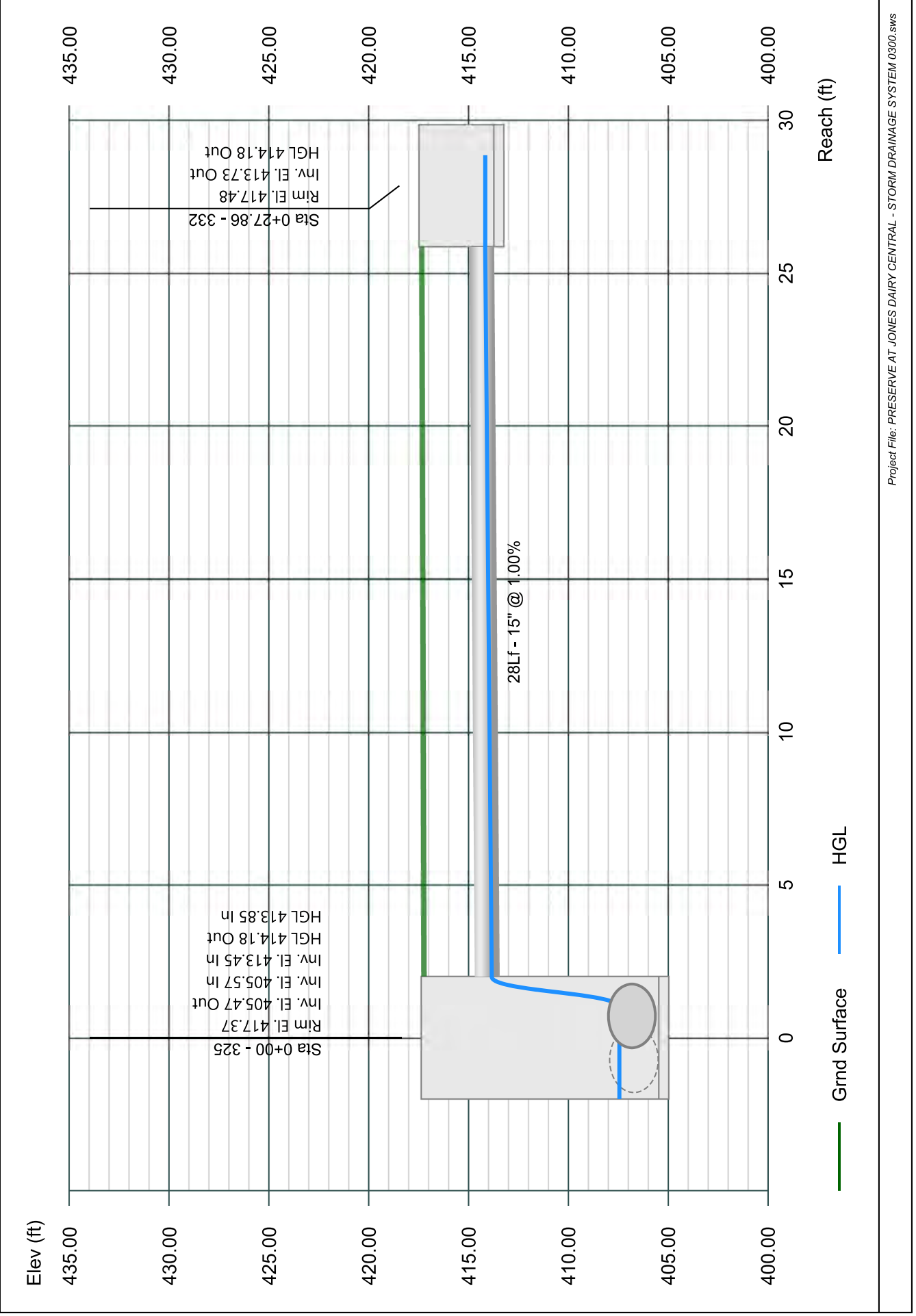


# Line 62 - 332 TO 325

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

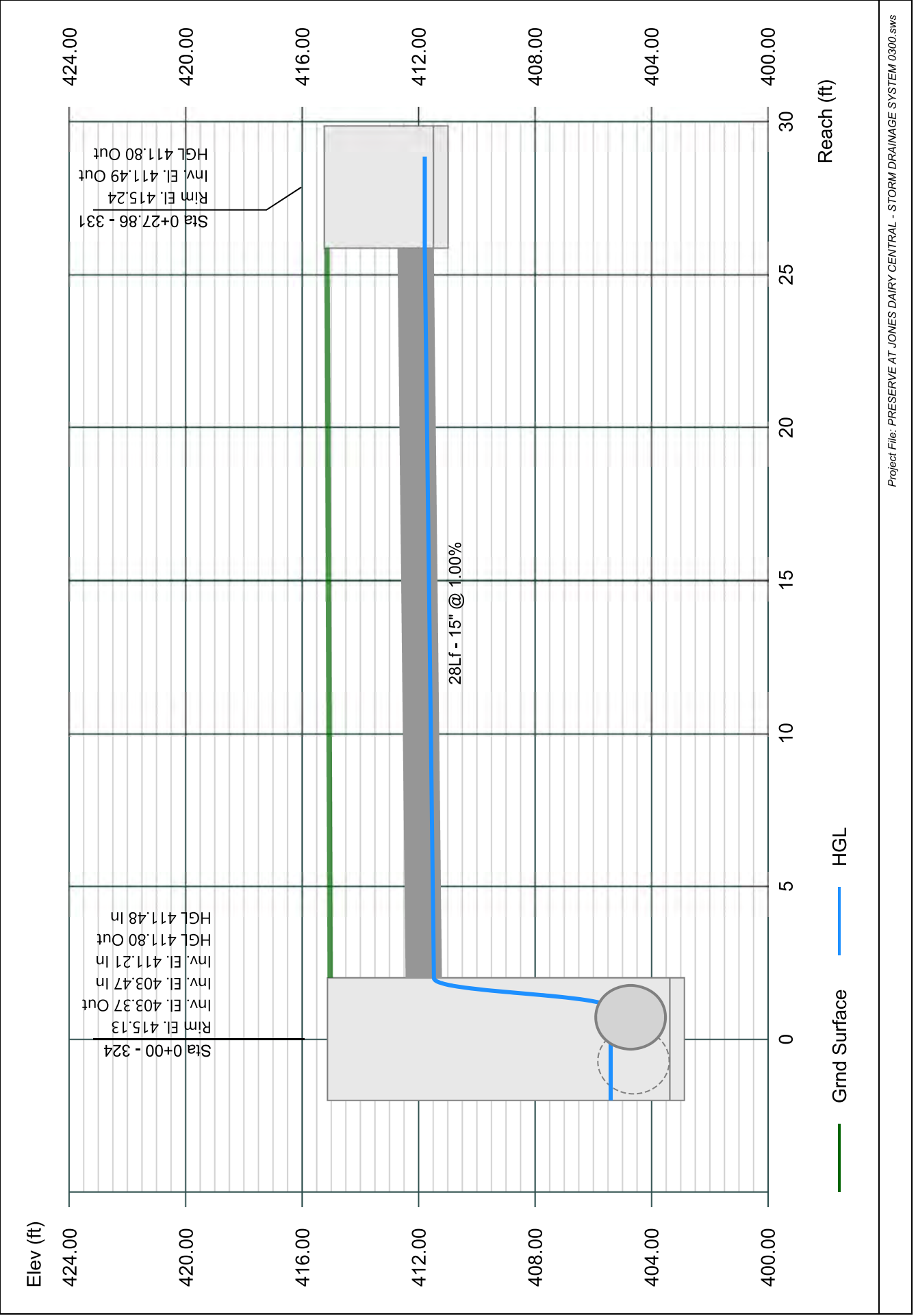


# Line 63 - 331 TO 324

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

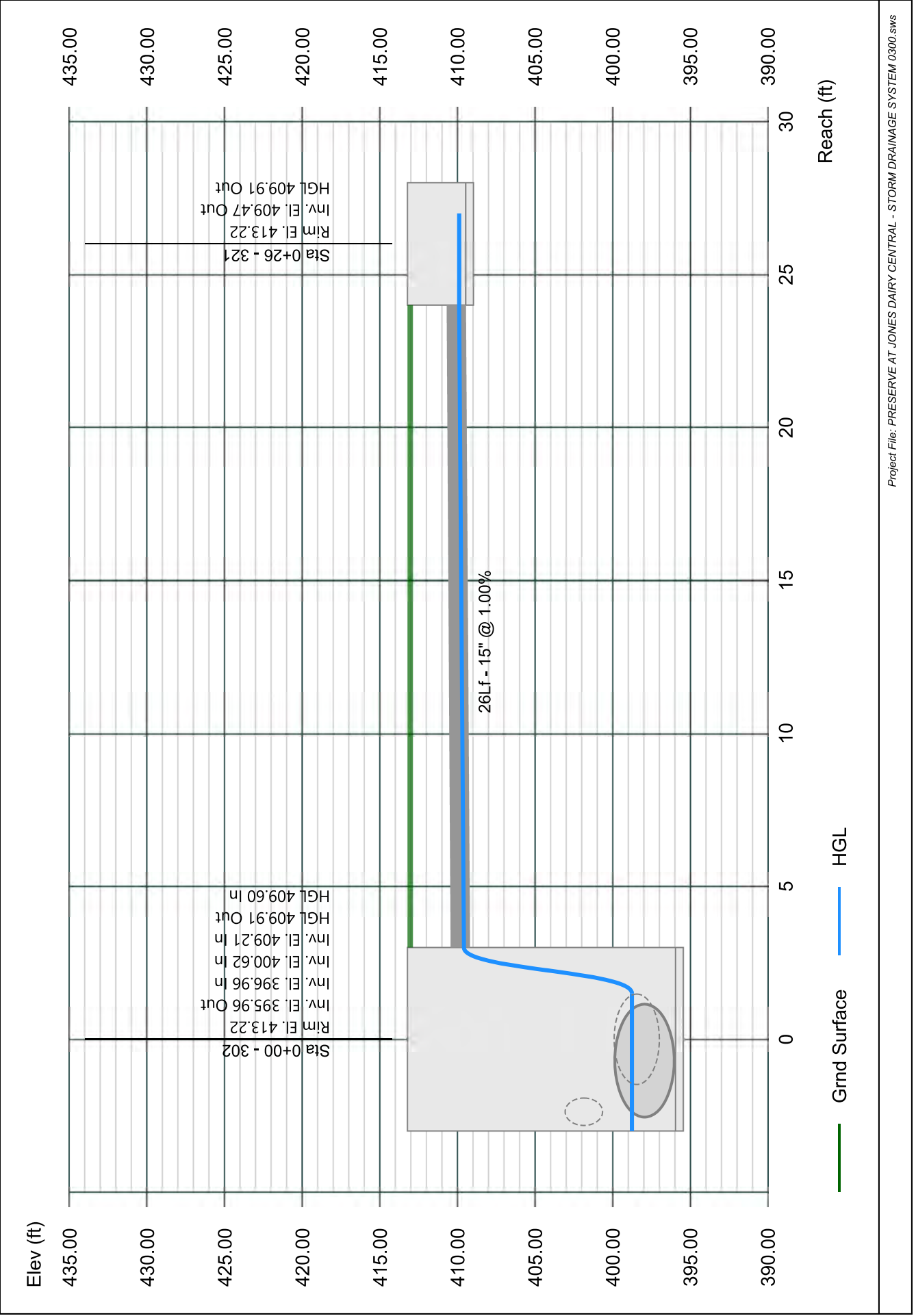


# Line 64 - 321 TO 302

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

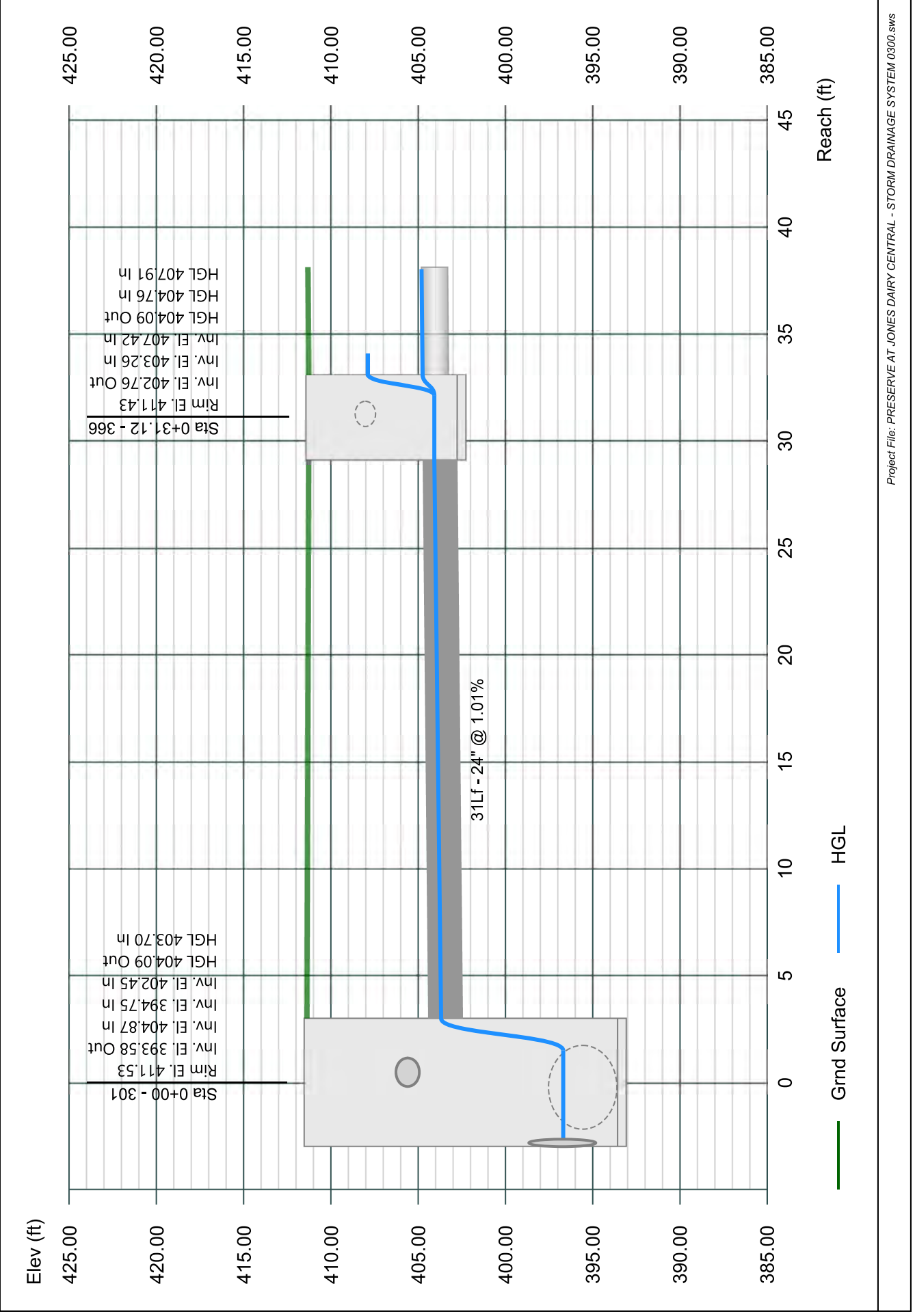


# Line 65 - 366 TO 301

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023



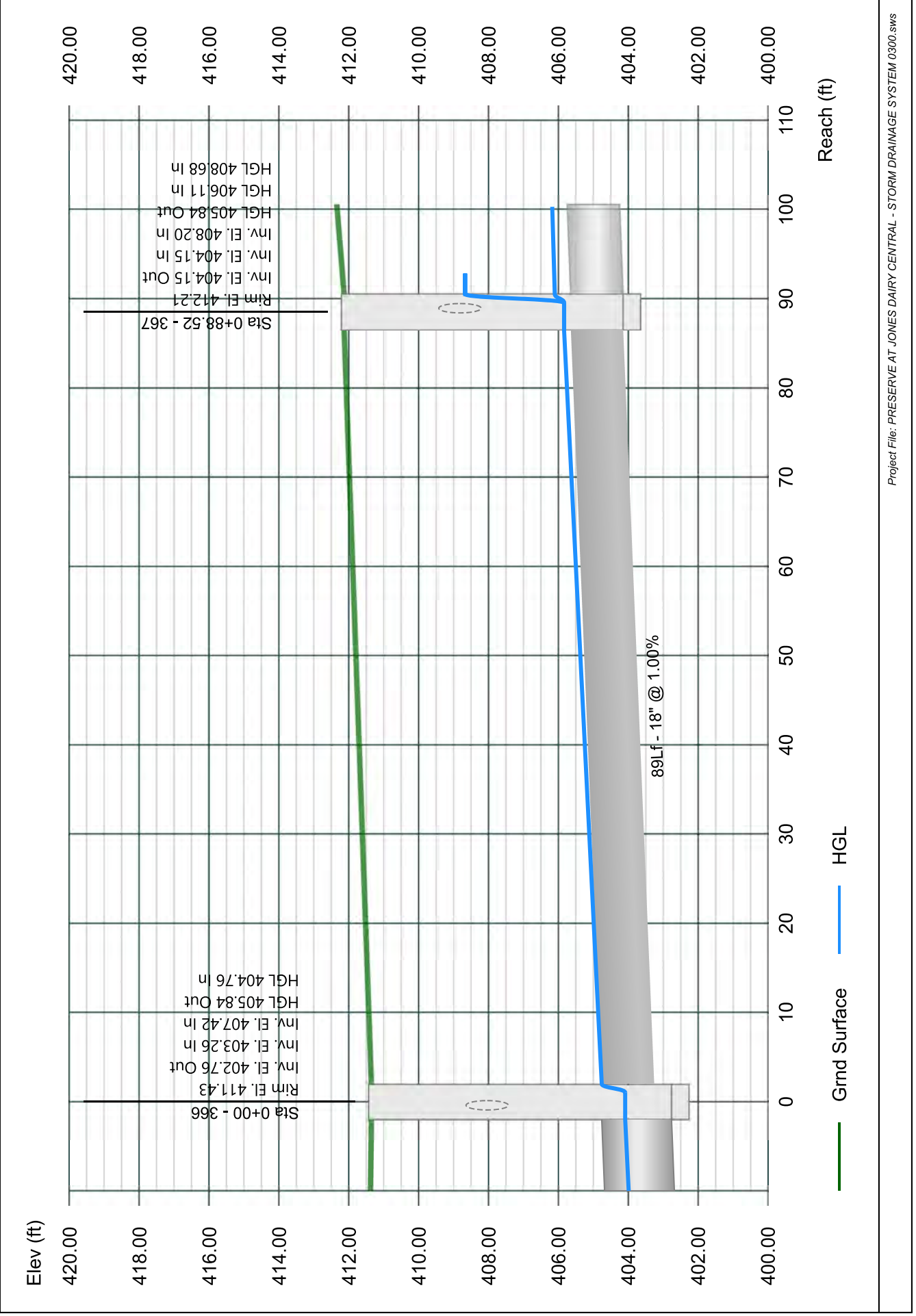


# Line 66 - 367 TO 366

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

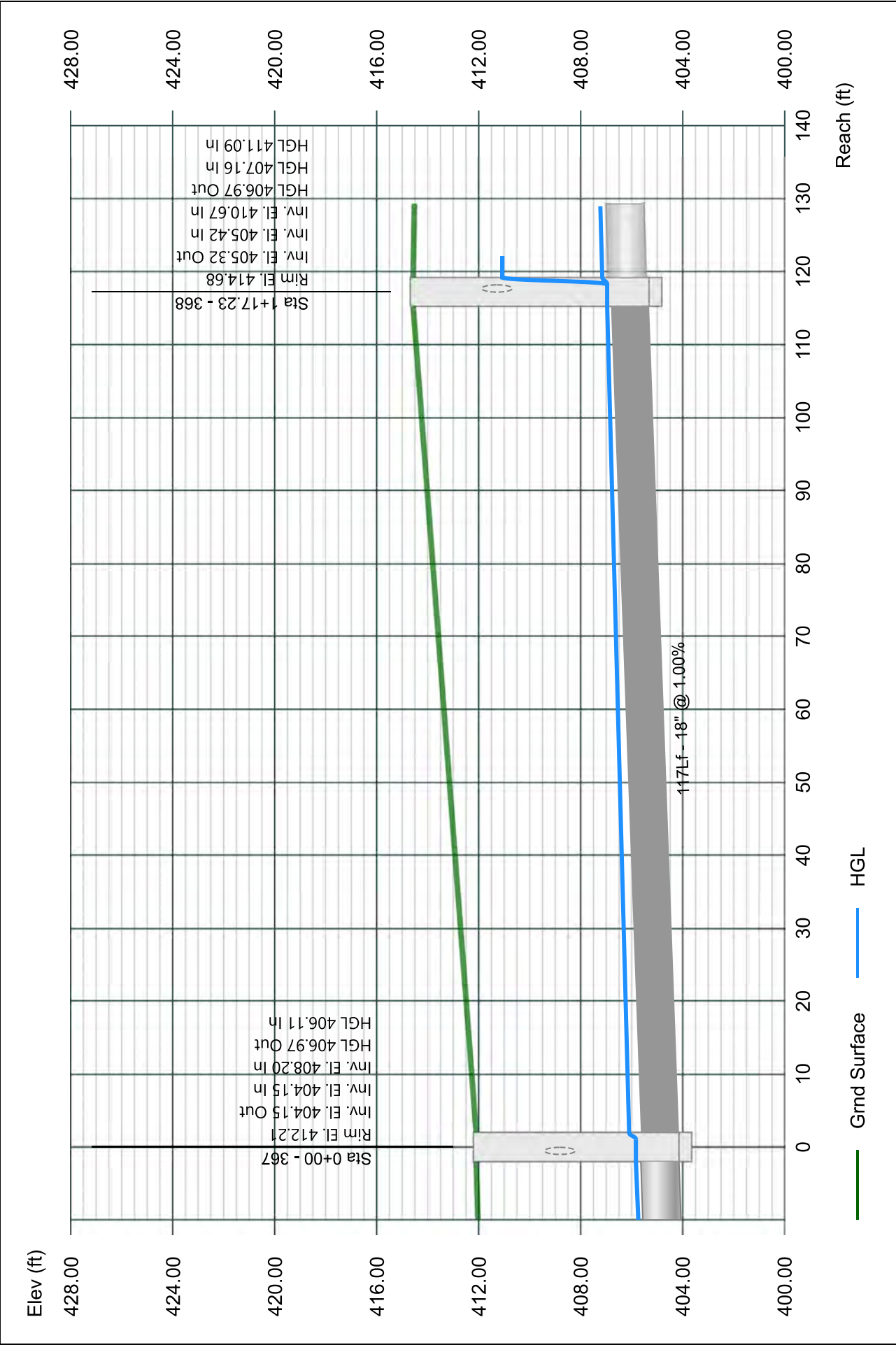


# Line 67 - 368 TO 367

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

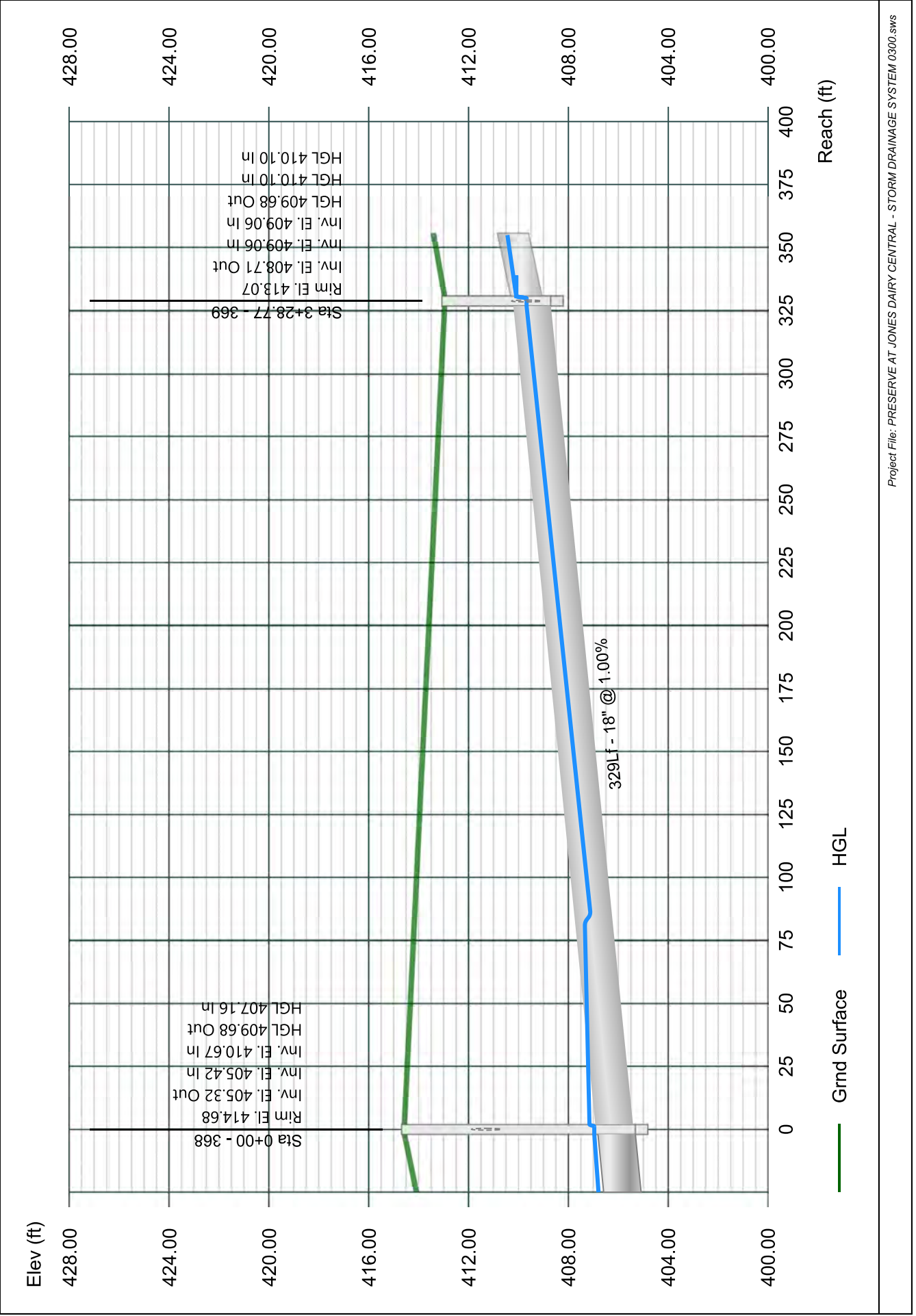


# Line 68 - 368 TO 368

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

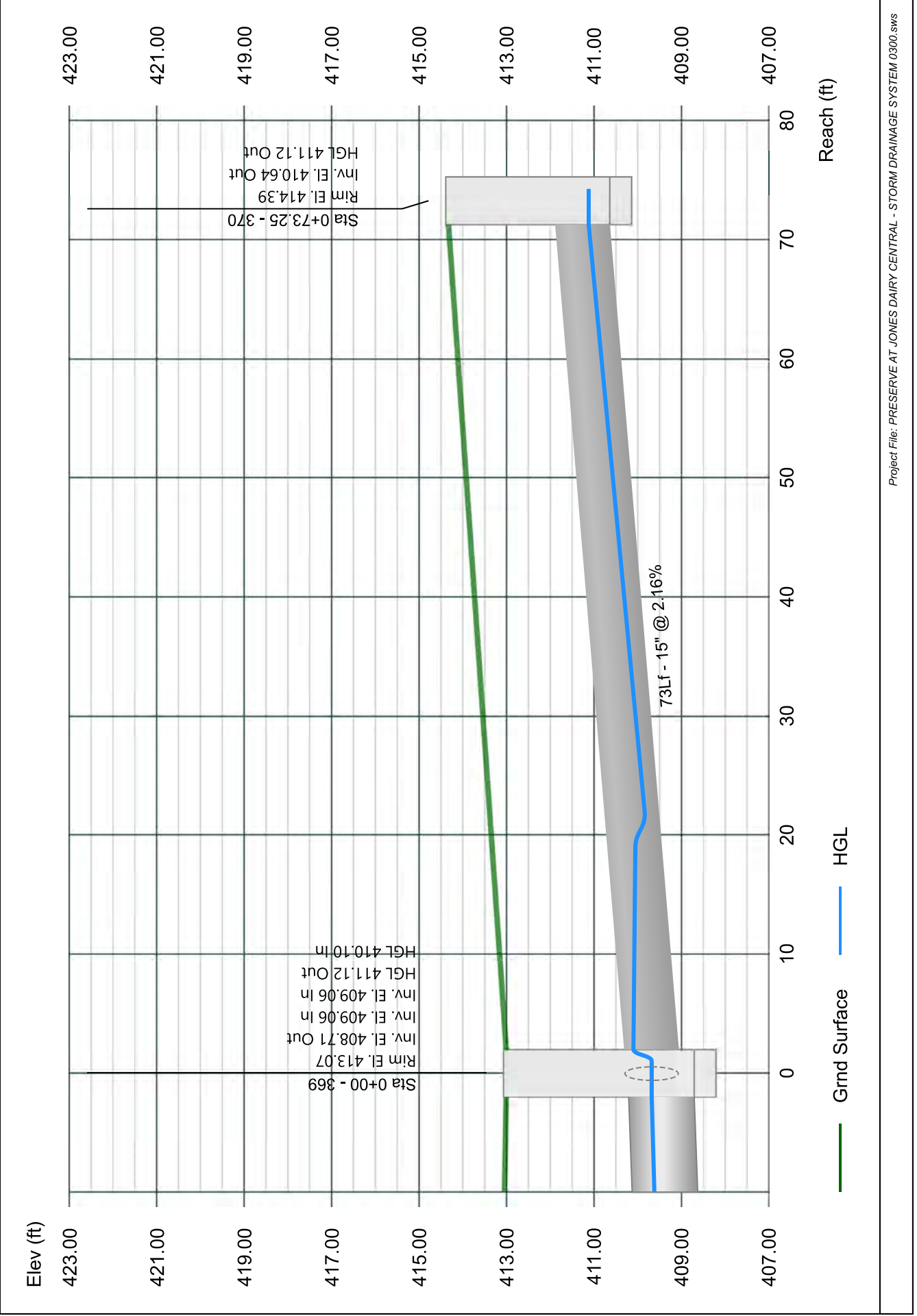


# Line 69 - 370 TO 369

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

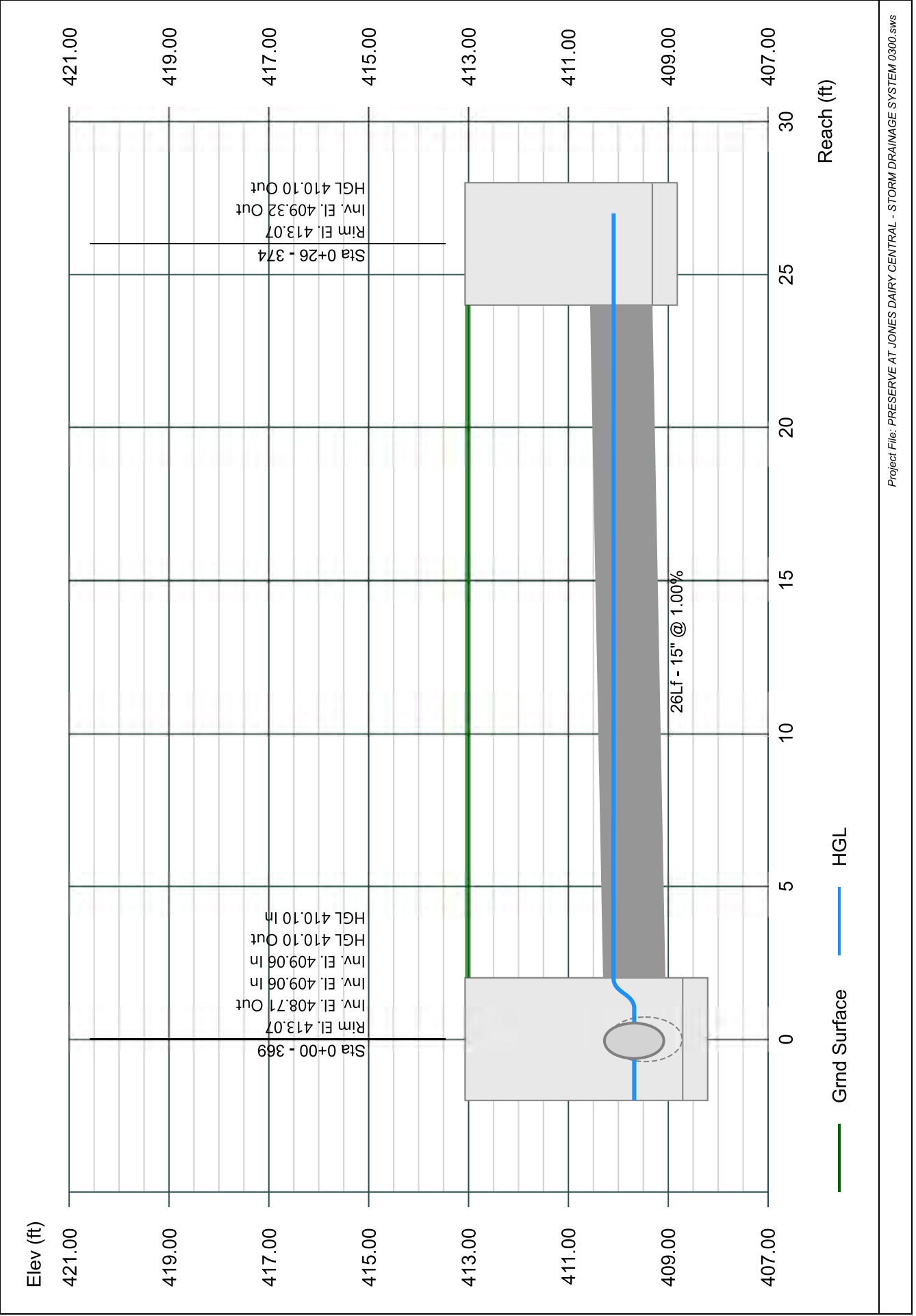


# Line 70 - 374 TO 369

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

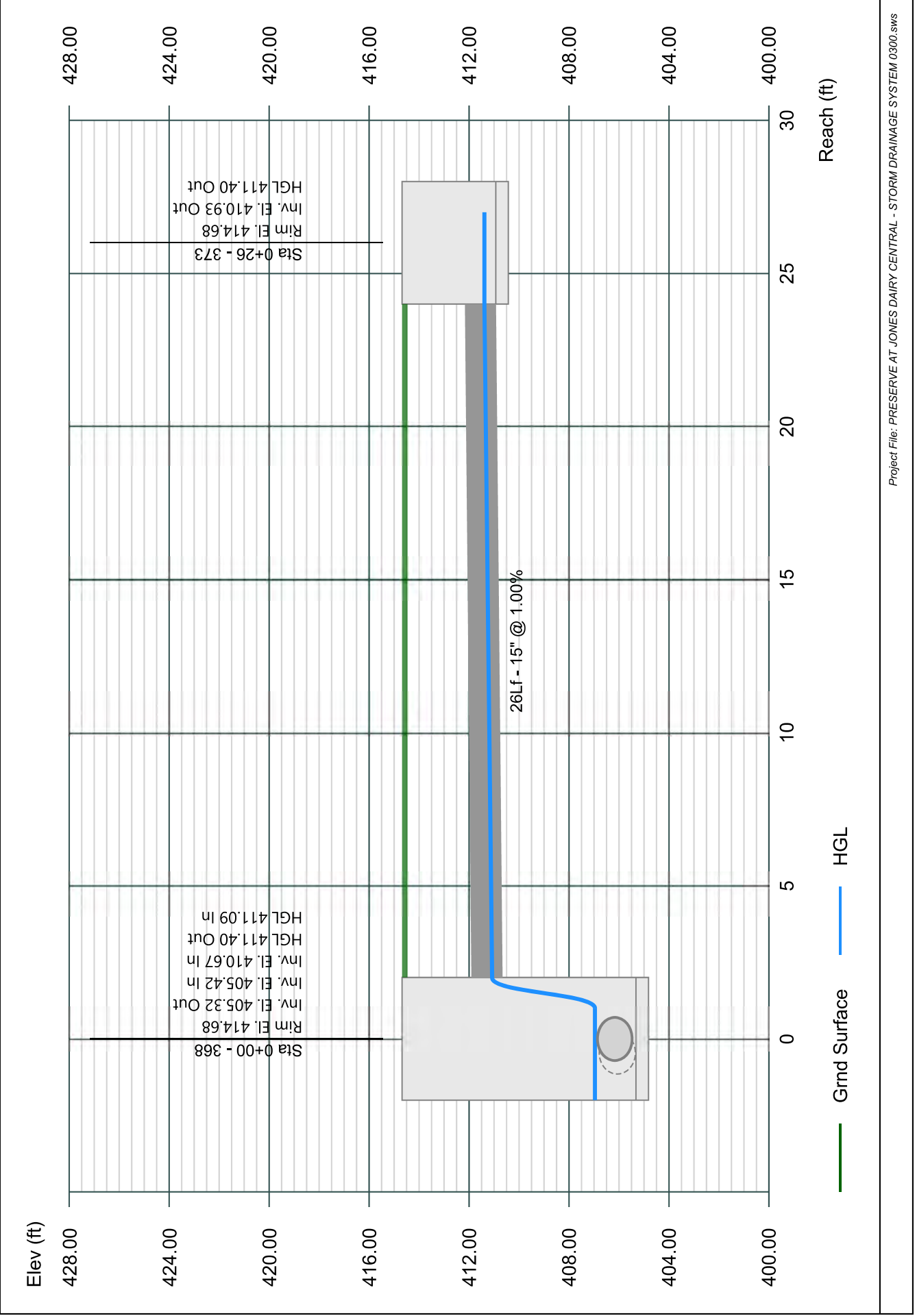


# Line 71 - 383 TO 368

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

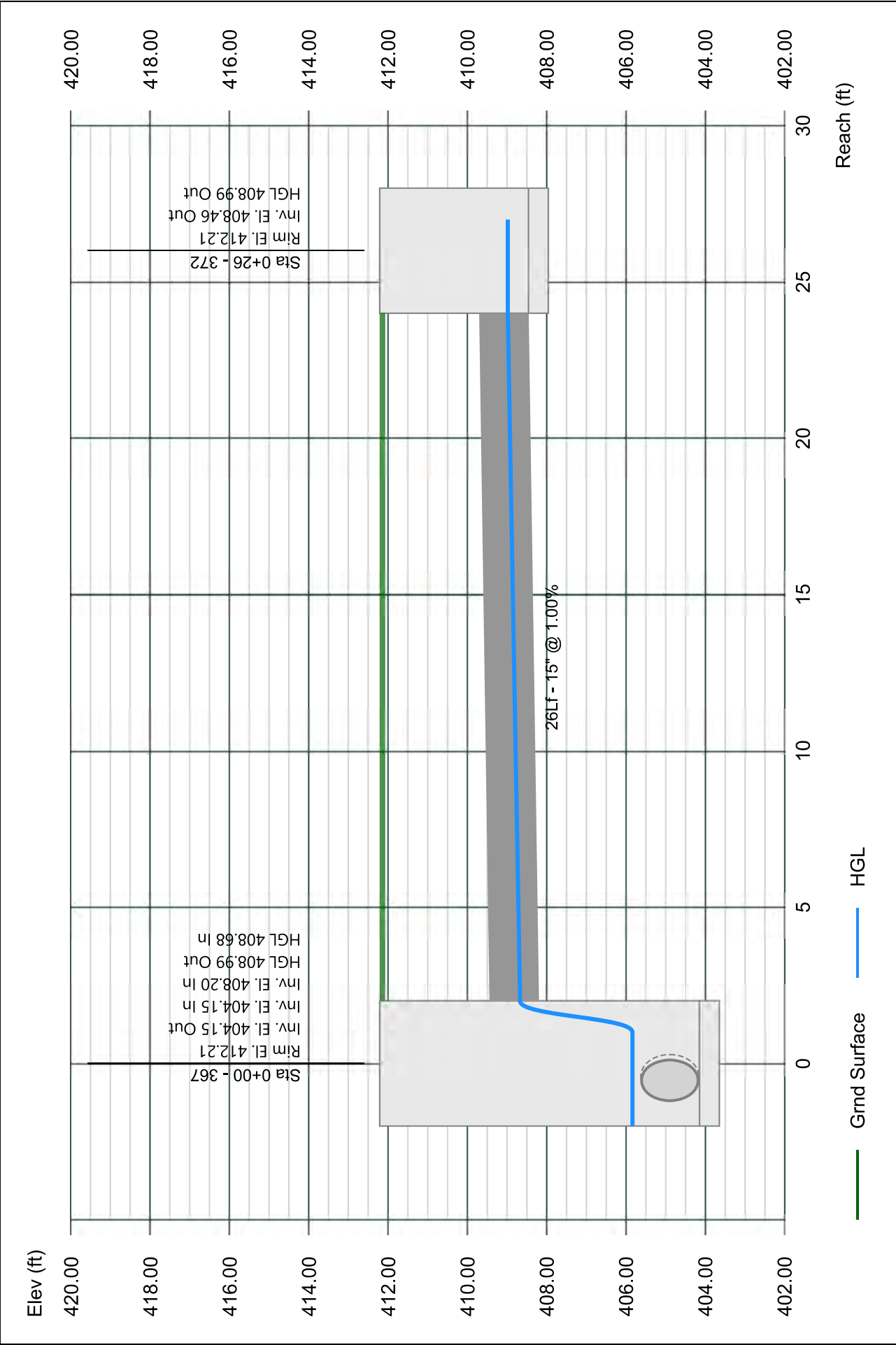


# Line 72 - 372 TO 367

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

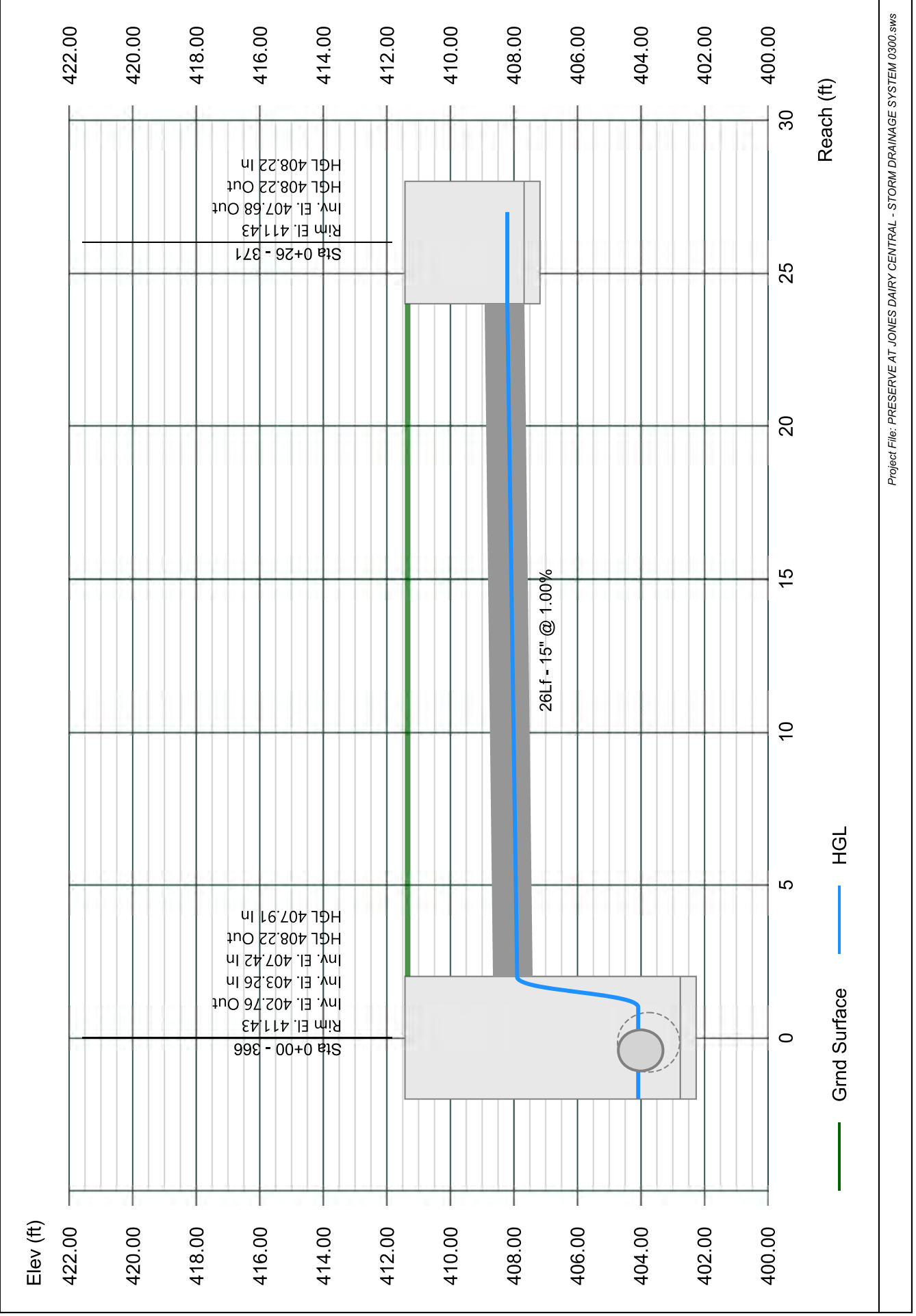


# Line 73 - 371 TO 366

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023





# **APPENDIX D – STORM SEWER GUTTER SPREAD CALCULATIONS**

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
1	101		Comb.	0.070	0.80	5.52	0.31	0.08	0.36	0.02	3.48	1.95
2	102		Comb.	0.080	0.80	5.52	0.35	0.25	0.54	0.06	3.98	2.62
3	103		Comb.	0.180	0.70	5.52	0.70	0.17	0.86	0.00	2.96	2.96
4	104		Comb.	0.170	0.70	5.52	0.66	0.39	0.87	0.17	4.23	2.97
5	105		Comb.	0.250	0.70	5.52	0.97	0.73	1.31	0.39	4.95	3.89
6	106		Comb.	0.360	0.70	5.52	1.39	0.09	1.18	0.30	4.75	3.62
7	107		Comb.	0.140	0.70	5.52	0.54	0.22	0.67	0.09	3.85	2.42
8	108		Comb.	0.320	0.70	5.52	1.24	0.00	1.02	0.22	4.48	3.27
9	109		Comb.	0.300	0.07	5.52	0.12	0.00	0.12	0.00	2.32	1.09
10	110		Comb.	0.590	0.70	5.52	2.28	0.02	1.69	0.61	5.50	4.54
11	111		Comb.	0.100	0.70	5.52	0.39	0.03	0.39	0.02	3.20	1.75
12	112		Comb.	0.100	0.70	5.52	0.39	0.00	0.36	0.03	3.48	1.95
13	113		MH	0.001	0.80	5.52	0.00	...	...	...	...	...
14	114		Comb.	0.100	0.70	5.52	0.39	0.04	0.43	0.00	1.92	1.98
15	115		MH	0.001	0.80	5.52	0.00	...	...	...	...	...
16	116		Comb.	0.140	0.70	5.52	0.54	0.00	0.50	0.04	3.13	1.70
17	117		Comb.	0.120	0.70	5.52	0.46	0.00	0.43	0.04	3.68	2.17
18	118		Comb.	0.110	0.70	5.52	0.43	0.00	0.39	0.03	3.58	2.04
19	119		Comb.	0.120	0.70	5.52	0.46	0.03	0.45	0.04	3.75	2.27
20	120		Comb.	0.270	0.70	5.52	1.04	0.35	1.39	0.00	4.21	4.21
21	121		Comb.	0.250	0.70	5.52	0.97	0.15	1.12	0.00	3.71	3.71
22	122		Comb.	0.140	0.70	5.52	0.54	0.37	0.91	0.00	3.21	3.21
23	123		Comb.	0.200	0.70	5.52	0.77	0.87	1.27	0.37	5.43	4.44
24	124		Comb.	0.170	0.70	5.52	0.66	0.23	0.76	0.13	4.43	3.22

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
25	125		Comb.	0.110	0.70	5.52	0.43	0.79	0.99	0.23	4.90	3.82
26	126		Comb.	0.190	0.70	5.52	0.73	0.30	0.86	0.17	4.65	3.49
27	127		Comb.	0.230	0.70	5.52	0.89	0.55	1.13	0.30	5.18	4.17
28	128		Comb.	0.330	0.70	5.52	1.28	0.26	1.20	0.34	5.30	4.29
29	129		Comb.	0.340	0.70	5.52	1.31	0.00	1.05	0.26	5.03	3.97
30	130		Comb.	0.300	0.70	5.52	1.16	0.00	0.95	0.21	4.83	3.72
31	131		Comb.	0.590	0.70	5.52	2.28	0.00	1.66	0.62	6.08	5.19
32	132		Dp-Curb	0.330	0.65	5.52	1.18	0.00	1.18	0.00	2.09	2.09
33	133		Dp-Curb	0.210	0.65	5.52	0.75	0.00	0.75	0.00	1.09	1.55
34	134		Dp-Curb	0.410	0.65	5.52	1.47	0.00	1.47	0.00	2.42	2.42
35	135		Dp-Curb	0.540	0.65	5.52	1.94	0.00	1.94	0.00	2.91	2.91
36	136		Comb.	0.660	0.70	5.52	2.55	0.00	1.81	0.74	6.30	5.47
37	137		Dp-Curb	0.500	0.65	5.52	1.80	0.00	1.80	0.00	2.77	2.77
38	138		Dp-Curb	0.700	0.65	5.52	2.51	0.00	2.51	0.00	3.46	3.46
39	139		Dp-Curb	0.650	0.65	5.52	2.33	0.00	2.33	0.00	3.30	3.30
40	140		Comb.	0.100	0.70	5.52	0.39	0.00	0.39	0.00	1.42	1.86
41	141		Comb.	0.360	0.70	5.52	1.39	0.19	1.23	0.35	5.08	4.04
42	142		Comb.	0.280	0.70	5.52	1.08	0.00	0.90	0.19	4.48	3.29
43	143		Comb.	0.470	0.70	5.52	1.82	0.00	1.38	0.43	5.33	4.34
44	144		Comb.	0.250	0.70	5.52	0.97	0.00	0.82	0.15	4.33	3.09
45	145		Comb.	0.110	0.70	5.52	0.43	0.00	0.39	0.03	3.53	1.98
46	146		Dp-Curb	0.730	0.65	5.52	2.62	0.00	2.62	0.00	3.56	3.56
47	147		Dp-Curb	0.520	0.65	5.52	1.87	0.00	1.87	0.00	2.84	2.84
48	148		Comb.	0.370	0.70	5.52	1.43	0.00	1.43	0.00	4.21	4.21

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
49	149		Comb.	0.670	0.70	5.52	2.59	0.00	1.86	0.73	5.73	4.79
50	150		Comb.	0.390	0.70	5.52	1.51	0.00	1.51	0.00	4.46	4.46
51	151		Comb.	0.190	0.70	5.52	0.73	0.22	0.96	0.00	3.21	3.21
52	152		Comb.	0.040	0.80	5.52	0.18	0.20	0.36	0.02	3.25	1.79
53	153		Comb.	0.220	0.70	5.52	0.85	0.30	0.95	0.20	4.58	3.39
54	154		Comb.	0.350	0.70	5.52	1.35	0.07	1.13	0.30	4.90	3.82
55	155		Comb.	0.090	0.80	5.52	0.40	0.27	0.59	0.07	3.85	2.44
56	156		Comb.	0.350	0.70	5.52	1.35	0.00	1.09	0.27	4.83	3.72
57	157		Comb.	0.270	0.70	5.52	1.04	0.00	0.87	0.17	4.43	3.22
58	158		Dp-Curb	8.600	0.50	5.52	23.75	0.00	23.75	0.00	6.24	6.24
59	159		Comb.	0.210	0.70	5.52	0.81	0.00	0.71	0.11	4.10	2.77
60	160		Comb.	0.290	0.70	5.52	1.12	0.00	0.92	0.20	4.53	3.37
61	161		Dp-Curb	3.070	0.60	5.52	10.17	0.00	10.17	0.00	8.84	8.84
62	162		Comb.	0.290	0.70	5.52	1.12	0.00	0.92	0.20	4.53	3.37
63	163		Comb.	0.170	0.70	5.52	0.66	0.00	0.58	0.08	4.08	2.77
64	164		Comb.	0.330	0.70	5.52	1.28	0.00	1.03	0.25	5.05	4.02
65	165		Dp-Curb	0.340	0.60	5.52	1.13	0.00	1.13	0.00	2.02	2.02
66	166		Dp-Curb	0.001	0.60	5.52	0.00	0.00	0.00	0.00	0.00	0.04
67	167		Dp-Curb	1.850	0.55	5.52	5.62	0.00	5.62	0.00	5.94	5.94
68	168		Dp-Curb	4.540	0.55	5.52	13.79	1.80	15.59	0.00	4.71	4.71
69	169		MH	0.010	0.75	5.52	0.04	...	...	...	...	...
70	170		MH	0.350	0.65	5.52	1.26	...	...	...	...	...
71	171		MH	0.001	0.75	5.52	0.00	...	...	...	...	...
72	172		Dp-Grate	0.400	0.75	5.52	1.66	1.24	1.26	1.65	9.00	9.00

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
73	173	173	Comb.	0.340	0.75	5.52	1.41	0.00	1.13	0.28	4.90	3.79
74	174	174	Comb.	0.340	0.75	5.52	1.41	0.47	1.87	0.00	4.96	4.96
75	175	175	Comb.	0.360	0.75	5.52	1.49	0.40	1.42	0.47	5.78	4.87
76	176	176	Comb.	0.410	0.75	5.52	1.70	0.00	1.31	0.40	5.58	4.64
77	177	177	MH	0.001	0.75	5.52	0.00	...	...	...	...	...
78	178	178	Comb.	0.170	0.75	5.52	0.70	0.00	0.62	0.09	4.18	2.87
79	179	179	Comb.	0.540	0.75	5.52	2.24	0.72	2.96	0.00	6.96	6.96
80	180	180	Dp-Grate	0.480	0.75	5.52	1.99	0.60	1.87	0.72	5.40	5.40
81	181	181	Dp-Grate	0.470	0.75	5.52	1.95	0.34	1.69	0.60	5.20	5.20
82	182	182	Dp-Curb	0.230	0.65	5.52	0.83	0.00	0.83	0.00	1.29	1.64
83	188	188	Dp-Curb	0.220	0.65	5.52	0.79	0.00	0.79	0.00	1.19	1.60
84	187	187	Dp-Curb	0.240	0.65	5.52	0.86	0.00	0.86	0.00	1.38	1.69
85	186	186	Dp-Curb	0.790	0.60	5.52	2.62	0.00	2.62	0.00	3.56	3.56
86	185	185	Dp-Curb	0.590	0.60	5.52	1.96	0.00	1.96	0.00	2.93	2.93
87	184	184	Dp-Curb	0.430	0.60	5.52	1.43	0.00	1.43	0.00	2.37	2.37
88	183	183	Dp-Curb	0.300	0.60	5.52	0.99	0.00	0.99	0.00	1.72	1.86
89	189	189	Dp-Grate	0.470	0.75	5.52	1.95	0.04	1.03	0.96	8.50	8.50
90	190	190	MH	0.010	0.75	5.52	0.04	...	...	...	...	...
91	191	187	MH	0.001	0.80	5.52	0.00	...	...	...	...	...
92	192	192	Dp-Grate	0.400	0.75	5.52	1.66	0.54	1.71	0.49	5.80	5.80
93	193	193	Dp-Grate	0.400	0.75	5.52	1.66	0.66	1.77	0.54	5.80	5.80
94	194	194	Dp-Grate	0.630	0.75	5.52	2.61	0.00	1.96	0.66	6.00	6.00
95	195	191	MH	0.001	0.75	5.52	0.00	...	...	...	...	...
96	196	196	Comb.	0.340	0.70	5.52	1.31	0.00	1.31	0.00	3.96	3.96

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
97	197		Comb.	1.240	0.70	5.52	4.79	0.81	5.61	0.00	8.21	8.21
98	198		Comb.	0.740	0.70	5.52	2.86	0.00	2.05	0.81	5.40	4.42
99	199		Dp-Curb	0.380	0.65	5.52	1.36	0.00	1.36	0.00	2.30	2.30
100	200		Dp-Curb	0.060	0.60	5.52	0.20	0.00	0.20	0.00	0.00	0.63
101	201		Dp-Curb	0.370	0.65	5.52	1.33	0.00	1.33	0.00	2.26	2.26
102	202		Dp-Curb	0.280	0.65	5.52	1.01	0.00	1.01	0.00	1.75	1.88
103	203		Dp-Curb	0.050	0.60	5.52	0.17	0.00	0.17	0.00	0.00	0.56
104	204		Dp-Curb	0.370	0.65	5.52	1.33	0.00	1.33	0.00	2.26	2.26
105	205		Dp-Curb	0.060	0.60	5.52	0.20	0.00	0.20	0.00	0.00	0.63
106	206		Dp-Curb	0.060	0.60	5.52	0.20	0.00	0.20	0.00	0.00	0.63
107	207		Dp-Grate	0.660	0.70	5.52	2.55	1.24	3.79	0.00	7.03	7.03
108	208		Dp-Grate	0.410	0.75	5.52	1.70	0.43	0.89	1.24	7.00	7.00
109	209		Dp-Grate	0.220	0.75	5.52	0.91	0.00	0.48	0.43	5.50	5.50
110	210		MH	0.001	0.70	5.52	0.00	...	...	...	...	...
111	211		Dp-Grate	0.380	0.75	5.52	1.57	0.00	1.23	0.34	4.60	4.60
112	212		Dp-Curb	0.250	0.70	5.52	0.97	0.00	0.97	0.00	1.65	1.83
113	213		Dp-Grate	0.610	0.75	5.52	2.53	0.00	1.84	0.69	5.40	5.40
114	214		Dp-Grate	0.360	0.75	5.52	1.49	0.00	0.75	0.75	7.00	7.00
115	215		Comb.	0.580	0.75	5.52	2.40	0.00	2.40	0.00	5.96	5.96
116	216		Dp-Curb	0.060	0.60	5.52	0.20	0.00	0.20	0.00	0.00	0.63
117	217		Dp-Curb	0.220	0.65	5.52	0.79	0.79	1.58	0.00	2.54	2.54
118	218		MH	0.220	0.65	5.52	0.79	...	...	...	...	...
119	219		Dp-Curb	0.290	0.65	5.52	1.04	0.00	1.04	0.00	1.84	1.92
120	220		Dp-Curb	0.140	0.65	5.52	0.50	0.00	0.50	0.00	0.36	1.18

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
121	221	221	Dp-Curb	1.120	0.65	5.52	4.02	0.00	4.02	0.00	4.75	4.75
122	222	222	Dp-Curb	0.060	0.60	5.52	0.20	0.00	0.20	0.00	0.00	0.63
123	223	223	Dp-Curb	0.750	0.65	5.52	2.69	0.00	2.69	0.00	3.63	3.63
124	314	314	Comb.	0.300	0.70	5.52	1.16	0.00	1.16	0.00	3.71	3.71

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0100.sws

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
1	301	301	Comb.	0.120	0.70	5.52	0.46	0.01	0.44	0.03	3.48	1.95
2	318	318	Dp-Curb	0.470	0.65	5.52	1.69	0.55	2.23	0.00	3.20	3.20
3	319	319	Dp-Curb	0.770	0.65	5.52	2.76	0.00	2.76	0.00	3.69	3.69
4	320	320	Dp-Curb	0.710	0.65	5.52	2.55	0.00	2.55	0.00	3.50	3.50
5	302	302	Comb.	0.030	0.70	5.52	0.12	0.12	0.23	0.01	2.85	1.51
6	303	303	Comb.	0.001	0.70	5.52	0.00	0.00	0.00	0.00	0.80	0.33
7	304	304	Comb.	0.060	0.70	5.52	0.23	0.00	0.23	0.01	2.80	1.46
8	305	305	Comb.	0.190	0.70	5.52	0.73	0.00	0.74	0.00	2.71	2.71
9	306	306	Comb.	0.030	0.70	5.52	0.12	0.00	0.12	0.00	2.52	1.25
10	307	307	Comb.	0.170	0.70	5.52	0.66	0.00	0.66	0.00	2.46	2.46
11	308	308	Comb.	0.210	0.70	5.52	0.81	0.15	0.96	0.00	3.21	3.21
12	309	309	Comb.	0.140	0.70	5.52	0.54	0.02	0.51	0.05	3.90	2.49
13	363	363	Comb.	0.150	0.70	5.52	0.58	0.00	0.52	0.06	3.93	2.54
14	310	310	Comb.	0.080	0.70	5.52	0.31	0.06	0.35	0.02	3.43	1.92
15	311	311	Comb.	0.130	0.70	5.52	0.50	0.09	0.53	0.06	3.95	2.57
16	312	312	Comb.	0.090	0.70	5.52	0.35	0.37	0.63	0.09	4.20	2.89
17	364	364	Comb.	0.260	0.70	5.52	1.01	0.66	1.30	0.37	4.93	3.84
18	365	365	Comb.	0.600	0.70	5.52	2.32	0.09	1.75	0.66	5.58	4.64
19	313	313	Comb.	0.540	0.70	5.52	2.09	0.00	1.54	0.55	5.98	5.09
20	360	360	Comb.	0.100	0.70	5.52	0.39	0.37	0.66	0.09	3.83	2.39
21	361	361	Comb.	0.430	0.70	5.52	1.66	0.00	1.30	0.37	4.93	3.84
22	362	362	Dp-Curb	0.570	0.60	5.52	1.89	0.00	1.89	0.00	2.86	2.86
23	356	356	MH	0.001	0.70	5.52	0.00	...	...	...	...	...
24	357	357	Dp-Curb	0.840	0.65	5.52	3.02	0.00	3.02	0.00	3.91	3.91

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0300.sws



# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
25	358	358	Dp-Curb	0.310	0.65	5.52	1.11	0.00	1.11	0.00	2.01	2.01
26	359	359	Dp-Curb	0.220	0.65	5.52	0.79	0.00	0.79	0.00	1.19	1.60
27	355	355	Comb.	0.630	0.70	5.52	2.44	0.00	2.44	0.00	5.96	5.96
28	338	338	Comb.	0.370	0.70	5.52	1.43	0.00	1.43	0.00	4.21	4.21
29	339	339	Comb.	0.140	0.70	5.52	0.54	0.40	0.95	0.00	3.21	3.21
30	340	340	Comb.	0.320	0.70	5.52	1.24	0.50	1.33	0.40	5.08	4.04
31	341	341	Comb.	0.230	0.70	5.52	0.89	0.00	0.77	0.12	4.10	2.77
32	342	342	Comb.	0.180	0.70	5.52	0.70	0.00	0.61	0.09	4.15	2.87
33	343	343	Comb.	0.080	0.70	5.52	0.31	0.07	0.35	0.02	3.45	1.93
34	343A	343A	Comb.	0.120	0.70	5.52	0.46	0.00	0.43	0.04	3.68	2.17
35	344	344	Comb.	0.090	0.70	5.52	0.35	0.08	0.39	0.03	3.58	2.04
36	345	345	Comb.	0.130	0.70	5.52	0.50	0.16	0.59	0.08	4.10	2.79
37	346	346	Comb.	0.230	0.70	5.52	0.89	0.13	0.85	0.16	4.70	3.54
38	347	347	Comb.	0.170	0.70	5.52	0.66	0.14	0.69	0.11	4.35	3.09
39	348	348	Comb.	0.220	0.70	5.52	0.85	0.01	0.74	0.13	4.38	3.17
40	349	349	Comb.	0.080	0.70	5.52	0.31	0.00	0.30	0.01	3.23	1.76
41	354	354	Comb.	0.080	0.70	5.52	0.31	0.00	0.30	0.01	3.23	1.76
42	353	353	Comb.	0.090	0.70	5.52	0.35	0.00	0.33	0.02	3.33	1.84
43	351	351	Comb.	0.190	0.70	5.52	0.73	0.00	0.73	0.00	2.71	2.71
44	315	315	MH	0.000	0.00	0.00	0.00	...	...	...	...	...
45	316	316	Dp-Curb	0.550	0.65	5.52	1.97	0.00	1.97	0.00	6.37	6.37
46	317	317	Dp-Curb	0.700	0.65	5.52	2.51	0.00	2.51	0.00	7.49	7.49
47	350	350	Comb.	0.430	0.70	5.52	1.66	0.00	1.28	0.38	5.45	4.47
48	333	333	Dp-Curb	0.170	0.65	5.52	0.61	0.00	0.61	0.00	0.68	1.34

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0300.sws

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
49	334	334	Dp-Curb	0.370	0.65	5.52	1.33	0.00	1.33	0.00	2.26	2.26
50	335	335	Dp-Curb	0.270	0.65	5.52	0.97	0.00	0.97	0.00	1.66	1.83
51	336	336	Dp-Curb	0.170	0.65	5.52	0.61	0.00	0.61	0.00	0.68	1.34
52	337	337	Dp-Curb	0.760	0.65	5.52	2.73	0.00	2.73	0.00	3.66	3.66
53	322	322	Comb.	0.130	0.70	5.52	0.50	0.03	0.53	0.00	2.21	2.21
54	323	323	Comb.	0.580	0.70	5.52	2.24	0.42	2.66	0.00	6.46	6.46
55	324	324	Comb.	0.390	0.70	5.52	1.51	0.25	1.34	0.42	5.55	4.59
56	325	325	Comb.	0.330	0.70	5.52	1.28	0.00	1.03	0.25	4.98	3.92
57	326	326	MH	0.001	0.70	5.52	0.00	...	...	...	...	...
58	327	327	Comb.	0.570	0.70	5.52	2.20	0.00	2.20	0.00	5.71	5.71
59	328	328	Comb.	0.920	0.65	5.52	3.30	0.00	3.31	0.00	7.46	7.46
60	329	329	MH	0.001	0.70	5.52	0.00	...	...	...	...	...
61	330	330	Dp-Curb	6.620	0.50	5.52	18.28	0.00	18.28	0.00	5.24	5.24
62	332	332	Comb.	0.230	0.70	5.52	0.89	0.00	0.76	0.13	4.43	3.22
63	331	331	Comb.	0.110	0.70	5.52	0.43	0.00	0.39	0.03	3.53	1.98
64	321	321	Comb.	0.220	0.70	5.52	0.85	0.00	0.73	0.12	4.15	2.84
65	366	366	Comb.	0.180	0.70	5.52	0.70	0.15	0.84	0.00	2.96	2.96
66	367	367	Comb.	0.210	0.70	5.52	0.81	0.18	0.84	0.15	4.18	2.87
67	368	368	Comb.	0.280	0.70	5.52	1.08	0.00	0.90	0.18	4.28	3.02
68	369	369	Comb.	0.660	0.70	5.52	2.55	0.13	2.69	0.00	6.46	6.46
69	370	370	Comb.	0.270	0.70	5.52	1.04	0.00	0.91	0.13	3.68	2.19
70	374	374	Comb.	0.280	0.70	5.52	1.08	0.00	1.08	0.00	3.46	3.46
71	373	373	Comb.	0.250	0.70	5.52	0.97	0.00	0.82	0.15	4.13	2.82
72	372	372	Comb.	0.320	0.70	5.52	1.24	0.00	1.02	0.22	4.48	3.27

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0300.sws

# Spread Report

Stormwater Studio 2023 v 3.0.0.31

Project Name: Enter Project Name...

05-03-2023

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
73	371	371	Comb.	0.330	0.70	5.52	1.28	0.00	1.28	0.00	3.96	3.96

Notes: IDF File = RDU-Rainfall Intensity.idf, Return Period = 2-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0300.sws

# Spread Report

Stormwater Studio 2022 v 3.0.0.29

Project Name: Enter Project Name...

12-12-2022

Line No.	Inlet ID	Area ID	Junct Type	Drain Area (ac)	Runoff Coeff (C)	i Inlet (in/hr)	Incr Q (cfs)	Q Carry (cfs)	Q Capt (cfs)	Q Bypass (cfs)	Gutter Spread (ft)	Inlet Spread (ft)
1	401	401	MH	0.001	0.75	4.00	0.00	...	...	...	...	...
2	402	402	Comb.	0.100	0.90	4.00	0.36	0.00	0.36	0.00	1.42	1.86
3	403	403	Comb.	0.270	0.75	4.00	0.81	0.00	0.81	0.00	2.96	2.96
4	404	404	Comb.	0.700	0.60	4.00	1.68	0.00	1.68	0.00	4.71	4.71
5	405	405	Hdwall	0.870	0.60	4.00	2.09	0.00	2.09	0.00	...	...
6	406	406	Hdwall	17.200	0.40	4.00	27.52	0.00	27.52	0.00	...	...

Notes: IDF File = Gutter Spread - 4 inches per hour.idf, Return Period = 10-yrs.

Project File: PRESERVE AT JONES DAIRY CENTRAL - STORM DRAINAGE SYSTEM 0400.sws