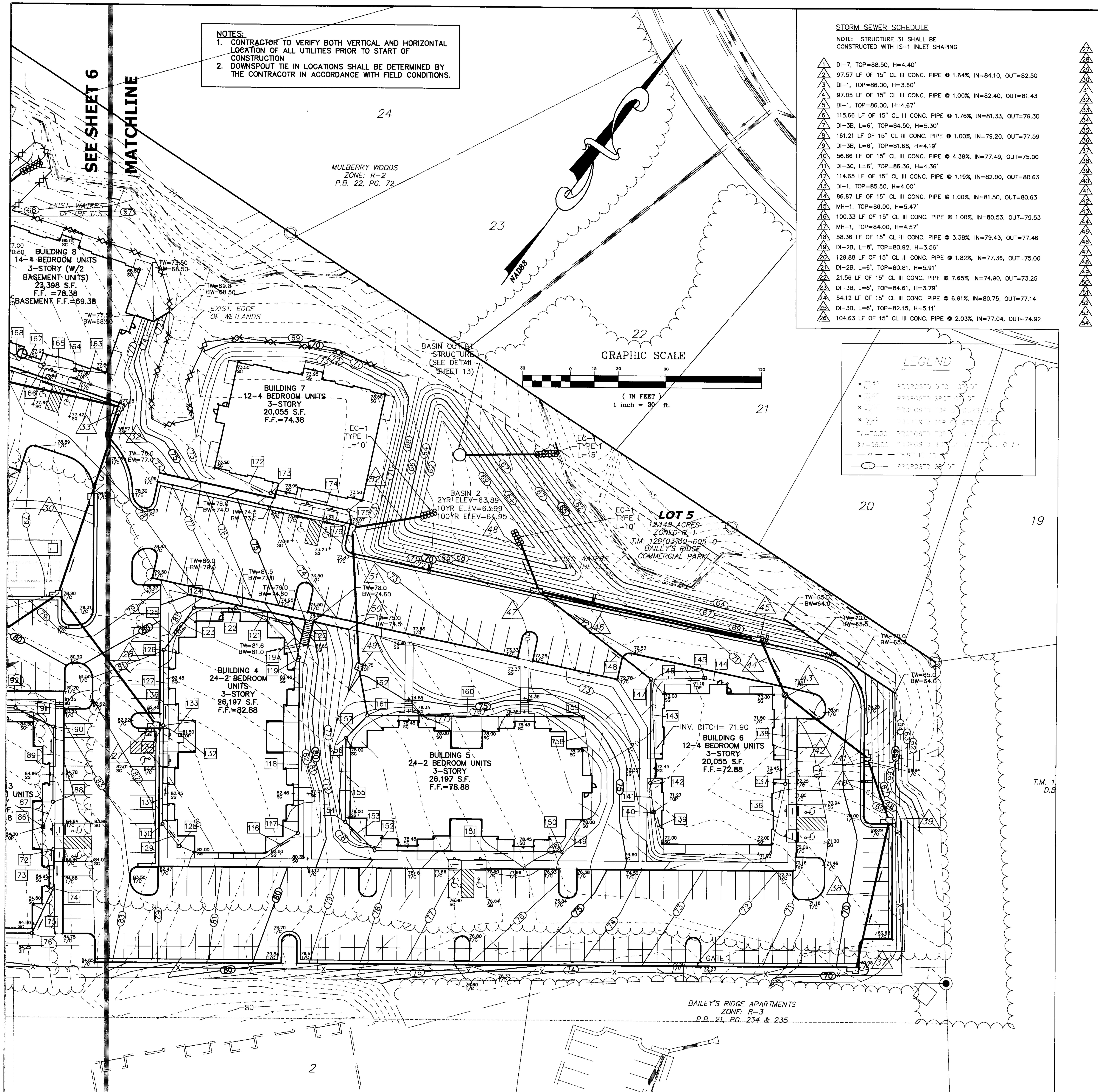
NOTES:
1. CONTRACTOR TO VERIFY BOTH VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES PRIOR TO START OF CONSTRUCTION
2. DOWNSPOUT TIE IN LOCATIONS SHALL BE DETERMINED BY THE CONTRACOTR IN ACCORDANCE WITH FIELD CONDITIONS.



STORM SEWER SCHEDULE

NOTE: STRUCTURE 31 SHALL BE CONSTRUCTED WITH IS-1 INLET SHAPING

1	DI-7, TOP=88.50, H=4.40'
2	97.57 LF OF 15" CL III CONC. PIPE @ 1.64%, IN=84.10, OUT=82.50
3	DI-1, TOP=86.00, H=3.60'
4	97.05 LF OF 15" CL III CONC. PIPE @ 1.00%, IN=82.40, OUT=81.43
5	DI-1, TOP=86.00, H=4.67'
6	115.66 LF OF 15" CL III CONC. PIPE @ 1.76%, IN=81.33, OUT=79.30
7	DI-3B, L=6', TOP=84.50, H=5.30'
8	161.21 LF OF 15" CL III CONC. PIPE @ 1.00%, IN=79.20, OUT=77.59
9	DI-3B, L=6', TOP=81.68, H=4.19'
10	56.86 LF OF 15" CL III CONC. PIPE @ 4.38%, IN=77.49, OUT=75.00
11	DI-3C, L=6', TOP=86.36, H=4.36'
12	114.65 LF OF 15" CL III CONC. PIPE @ 1.19%, IN=82.00, OUT=80.63
13	DI-1, TOP=85.50, H=4.00'
14	86.87 LF OF 15" CL III CONC. PIPE @ 1.00%, IN=81.50, OUT=80.63
15	MH-1, TOP=86.00, H=5.47'
16	100.33 LF OF 15" CL III CONC. PIPE @ 1.00%, IN=80.53, OUT=79.53
17	MH-1, TOP=84.00, H=4.57'
18	58.36 LF OF 15" CL III CONC. PIPE @ 3.38%, IN=79.43, OUT=77.46
19	DI-2B, L=8', TOP=80.92, H=3.56'
20	129.88 LF OF 15" CL III CONC. PIPE @ 1.82%, IN=77.36, OUT=75.00
21	DI-2B, L=6', TOP=80.81, H=5.91'
22	21.56 LF OF 15" CL III CONC. PIPE @ 7.65%, IN=74.90, OUT=73.25
23	DI-3B, L=6', TOP=84.61, H=3.79'
24	54.12 LF OF 15" CL III CONC. PIPE @ 6.91%, IN=80.75, OUT=77.14
25	DI-3B, L=6', TOP=82.15, H=5.11'
26	104.63 LF OF 15" CL III CONC. PIPE @ 2.03%, IN=77.04, OUT=74.92
27	DI-3B, L=6', TOP=81.57, H=5.12'
28	104.09 LF OF 15" CL III CONC. PIPE @ 1.47%, IN=76.45, OUT=74.92
29	DI-3B, L=6', TOP=78.90, H=4.08'
30	64.78 LF OF 21" CL III CONC. PIPE @ 1.03%, IN=74.82, OUT=74.15
31	DI-3B, L=6', TOP=78.56, H=4.51'
32	59.79 LF OF 21" CL III CONC. PIPE @ 1.27%, IN=74.05, OUT=73.29
33	DI-3B, L=6', TOP=77.18, H=3.99'
34	141.33 LF OF 24" CL III CONC. PIPE @ 0.50%, IN=73.19, OUT=72.48
35	DI-3B, L=6', TOP=79.89, H=7.51'
36	20.00 LF OF 24" CL III CONC. PIPE @ 0.50%, IN=72.38, OUT=72.28
37	DI-3B, L=10', TOP=70.05, H=4.50'
38	96.21 LF OF 15" CL III CONC. PIPE @ 0.50%, IN=65.55, OUT=65.07
39	DI-3B, L=6', TOP=69.29, H=4.32'
40	42.38 LF OF 15" CL III CONC. PIPE @ 2.52%, IN=64.97, OUT=63.90
41	DI-3C, L=6', TOP=69.84, H=6.04'
42	65.04 LF OF 18" CL III CONC. PIPE @ 0.51%, IN=63.80, OUT=63.47
43	MH-1, TOP=71.75, H=8.38'
44	38.71 LF OF 18" CL III CONC. PIPE @ 0.52%, IN=63.37, OUT=63.17
45	DI-3B, L=6', TOP=71.00, H=7.93'
46	141.95 LF OF 18" CL III CONC. PIPE @ 0.50%, IN=63.07, OUT=62.36
47	DI-3BB, L=6', TOP=72.43, H=10.17'
48	32.00 LF OF 18" CL III CONC. PIPE @ 0.81%, IN=62.26, OUT=62.00
49	DI-3B, L=6', TOP=74.75, H=4.50'
50	88.94 LF OF 15" CL III CONC. PIPE @ 4.22%, IN=70.25, OUT=66.50
51	DI-3B, L=6', TOP=73.07, H=6.67'
52	44.00 LF OF 15" CL III CONC. PIPE @ 10.00%, IN=66.40, OUT=62.00
53	DI-7, TOP=85.00, H=4.90'
54	200.00 LF OF 15" CL III CONC. PIPE @ 0.50%, IN=80.10, OUT=79.10

ROOF DRAIN/YARD INLET SCHEDULE

1	C.O., TOP AT FINISHED GRADE, INV=86.50
2	64.00 LF OF 6" HDPE @ 1.17%, IN=86.50, OUT=85.75
3	TRENCH DRAIN, L=70', TOP=89.35, INV OUT=86.00
4	6.48 LF OF 6" HDPE @ 3.86%, IN=86.00, OUT=85.75
5	C.O., TOP AT FINISHED GRADE, INV=85.75
6	22.78 LF OF 6" HDPE @ 2.19%, IN=85.75, OUT=85.25
7	C.O., TOP AT FINISHED GRADE, INV=85.75
8	57.49 LF OF 6" HDPE @ 2.30%, IN=85.75, OUT=85.25
9	C.O., TOP AT FINISHED GRADE, INV=85.25
10	24.11 LF OF 6" HDPE @ 4.36%, IN=85.25, OUT=84.20
11	12" x 12" ADS INLET, TOP=88.75
12	62.92 LF OF 6" HDPE @ 1.59%, IN=85.50, OUT=84.75
13	C.O., TOP AT FINISHED GRADE, INV=84.75
14	62.36 LF OF 6" HDPE @ 2.41%, IN=84.75, OUT=83.25
15	12" x 12" ADS INLET, TOP=87.90
15A	49.58 LF OF 6" HDPE @ 3.67%, IN=83.25, OUT=81.43
16	26.18 LF OF 4" HDPE @ 1.53%, IN=85.00, OUT=84.60
17	C.O., TOP AT FINISHED GRADE, INV=84.60
18	14.57 LF OF 6" HDPE @ 1.51%, IN=84.60, OUT=84.38
19	C.O., TOP AT FINISHED GRADE, INV=84.38
20	26.35 LF OF 6" HDPE @ 1.50%, IN=84.38, OUT=83.98
21	12" x 12" ADS INLET, TOP=87.75, INV=83.98
22	15.07 LF OF 6" HDPE @ 1.50%, IN=83.98, OUT=83.75
23	C.O., TOP AT FINISHED GRADE, INV=83.75
24	45.03 LF OF 6" HDPE @ 1.50%, IN=83.75, OUT=83.07
25	C.O., TOP AT FINISHED GRADE, INV=83.07
26	33.49 LF OF 6" HDPE @ 1.70%, IN=83.07, OUT=82.50
27	C.O., TOP AT FINISHED GRADE, INV=82.50
28	70.87 LF OF 6" HDPE @ 3.46%, IN=82.50, OUT=80.05
29	12" x 12" ADS INLET, TOP=84.00
30	26.51 LF OF 4" HDPE @ 1.49%, IN=81.50, OUT=81.11
31	C.O., TOP AT FINISHED GRADE, INV=81.11
32	115.00 LF OF 8" HDPE @ 1.40%, IN=81.11, OUT=79.50
33	12" x 12" ADS INLET, TOP=84.25
34	26.86 LF OF 4" HDPE @ 7.50%, IN=81.51, OUT=79.50
35	C.O., TOP AT FINISHED GRADE, INV=79.50
36	65.20 LF OF 8" HDPE @ 2.04%, IN=79.50, OUT=78.17
37	24.91 LF OF 4" HDPE @ 1.04%, IN=84.00, OUT=83.74
38	C.O., TOP AT FINISHED GRADE, INV=83.74
39	79.24 LF OF 6" HDPE @ 1.50%, IN=83.74, OUT=82.55
40	12" x 12" ADS INLET, TOP=86.25
41	C.O., TOP AT FINISHED GRADE, INV=82.55
42	36.41 LF OF 6" HDPE @ 1.51%, IN=82.55, OUT=82.00
43	30.76 LF OF 4" HDPE @ 1.01%, IN=84.00, OUT=83.69
44	C.O., TOP AT FINISHED GRADE, INV=83.69
45	111.48 LF OF 6" HDPE @ 1.43%, IN=83.69, OUT=82.10
46	22.06 LF OF 4" HDPE @ 7.39%, IN=83.73, OUT=82.10
47	C.O., TOP AT FINISHED GRADE, INV=82.10
48	29.11 LF OF 6" HDPE @ 7.87%, IN=82.10, OUT=79.81
49	12" x 12" ADS INLET, TOP=84.00, INV=81.50
50	53.02 LF OF 6" HDPE @ 1.74%, IN=81.50, OUT=80.58
51	12" x 12" ADS INLET, TOP=84.00, INV=80.58
52	61.15 LF OF 8" HDPE @ 1.26%, IN=80.58, OUT=79.81
53	12" x 12" ADS INLET, TOP=84.00, INV=79.81
54	25.81 LF OF 12" HDPE @ 1.08%, IN=79.81, OUT=79.53
55	C.O., TOP AT FINISHED GRADE, INV=82.00
56	50.00 LF OF 4" HDPE @ 4.00%, IN=82.00, OUT=80.00
57	C.O., TOP AT FINISHED GRADE, INV=80.00
58	64.46 LF OF 4" HDPE @ 3.49%, IN=80.00, OUT=77.75
59	C.O., TOP AT FINISHED GRADE, INV=77.75
60	3.71 LF OF 4" HDPE @ 7.82%, IN=77.75, OUT=77.46
61	25.79 LF OF 4" HDPE @ 1.01%, IN=85.00, OUT=84.74
62	C.O., TOP AT FINISHED GRADE, INV=84.74
63	39.80 LF OF 6" HDPE @ 1.01%, IN=84.74, OUT=84.34
64	C.O., TOP AT FINISHED GRADE, INV=85.00
65	24.77 LF OF 4" HDPE @ 2.66%, IN=85.00, OUT=84.34
66	12" x 12" ADS INLET, TOP=87.25, INV=84.34
67	50.35 LF OF 8" HDPE @ 0.99%, IN=84.34, OUT=83.84
68	C.O., TOP AT FINISHED GRADE, INV=83.84
69	160.00 LF OF 8" HDPE @ 2.46%, IN=83.84, OUT=79.91
70	C.O., TOP AT FINISHED GRADE, INV=81.79
71	1829 LF OF 8" HDPE @ 4.59%, IN=81.75, OUT=80.91
72	C.O., TOP AT FINISHED GRADE, INV=82.00
73	24.67 LF OF 4" HDPE @ 0.97%, IN=82.00, OUT=81.76
74	C.O., TOP AT FINISHED GRADE, INV=81.76
75	31.07 LF OF 6" HDPE @ 0.97%, IN=81.76, OUT=81.46
76	C.O., TOP AT FINISHED GRADE, INV=81.46
77	48.52 LF OF 6" HDPE @ 1.03%, IN=81.46, OUT=80.96
78	C.O., TOP AT FINISHED GRADE, INV=80.96
79	20.03 LF OF 6" HDPE @ 0.90%, IN=80.96, OUT=80.78
80	C.O., TOP AT FINISHED GRADE, INV=80.78
81	16.86 LF OF 6" HDPE @ 1.01%, IN=80.78, OUT=80.61
82	12" x 12" ADS INLET, TOP=83.62, INV=80.61
83	55.38 LF OF 12" HDPE @ 1.26%, IN=80.61, OUT=79.91
84	12" x 12" ADS INLET, TOP=84.75, INV=81.75
85	80.45 LF OF 12" HDPE @ 2.82%, IN=79.91, OUT=77.64
86	12" x 12" ADS INLET, TOP=84.00, INV=81.50
87	16.72 LF OF 4" HDPE @ 1.02%, IN=81.50, OUT=81.33
88	C.O., TOP AT FINISHED GRADE, INV=81.33
89	47.81 LF OF 6" HDPE @ 0.95%, IN=81.33, OUT=80.88
90	12" x 12" ADS INLET, INV=80.88
91	26.53 LF OF 6" HDPE @ 1.13%, IN=80.88, OUT=80.58
92	C.O., TOP AT FINISHED GRADE, INV=80.58
93	48.91 LF OF 6" HDPE @ 0.92%, IN=80.58, OUT=80.13
94	C.O., TOP AT FINISHED GRADE, INV=81.25
95	59.18 LF OF 6" HDPE @ 1.89%, IN=81.25, OUT=80.13
96	C.O., TOP AT FINISHED GRADE, INV=80.13
97	17.72 LF OF 6" HDPE @ 2.20%, IN=80.13, OUT=79.74
98	18.04 LF OF 4" HDPE @ 1.00%, IN=80.00, OUT=79.82
99	C.O., TOP AT FINISHED GRADE, INV=79.82
100	50.23 LF OF 6" HDPE @ 0.90%, IN=79.82, OUT=79.37
101	12" x 12" ADS INLET, TOP=81.50, INV=79.37
102	52.58 LF OF 8" HDPE @ 0.89%, IN=79.37, OUT=78.90
103	12" x 12" ADS INLET, TOP=81.00, INV=78.90
104	18.04 LF OF 8" HDPE @ 0.94%, IN=78.90, OUT=78.73
105	C.O., TOP AT FINISHED GRADE, INV=78.73
106	48.94 LF OF 8" HDPE @ 0.92%, IN=78.73, OUT=78.28
107	C.O., TOP AT FINISHED GRADE, INV=78.28
108	21.75 LF OF 8" HDPE @ 0.92%, IN=78.28, OUT=78.08
109	32.93 LF OF 4" HDPE @ 0.97%, IN=79.50, OUT=79.18
110	C.O., TOP AT FINISHED GRADE, INV=79.18
111	62.96 LF OF 6" HDPE @ 1.00%, IN=79.18, OUT=78.55
112	12" x 12" ADS INLET, TOP=81.50, INV=78.55
113	48.38 LF OF 8" HDPE @ 0.97%, IN=78.55, OUT=78.08
114	C.O., TOP AT FINISHED GRADE, INV=78.08
115	48.52 LF OF 12" HDPE @ 1.01%, IN=78.08, OUT=77.59
116	23.16 LF OF 4" HDPE @ 0.99%, IN=79.50, OUT=79.27
117	C.O., TOP AT FINISHED GRADE, INV=79.27
118	110.76 LF OF 8" HDPE @ 1.15%, IN=79.27, OUT=78.00
119	NO STRUCTURE
120	C.O., TOP AT FINISHED GRADE, INV=78.00
121	36.18 LF OF 8" HDPE @ 1.05%, IN=78.00, OUT=77.62
122	C.O., TOP AT FINISHED GRADE, INV=77.62
123	26.12 LF OF 8" HDPE @ 1.00%, IN=77.62, OUT=77.36
124	C.O., TOP AT FINISHED GRADE, INV=77.36
125	32.98 LF OF 8" HDPE @ 1.06%, IN=77.36, OUT=77.01
126	C.O., TOP AT FINISHED GRADE, INV=77.01
127	47.73 LF OF 8" HDPE @ 0.96%, IN=77.01, OUT=76.55
128	12" x 12" ADS INLET, TOP=81.50, INV=78.50
129	17.03 LF OF 4" HDPE @ 2.94%, IN=78.50, OUT=78.00
130	C.O., TOP AT FINISHED GRADE, INV=78.00
131	62.22 LF OF 6" HDPE @ 2.33%, IN=78.00, OUT=76.55
132	12" x 12" ADS INLET, TOP=81.50, INV=77.25
133	12.21 LF OF 4" HDPE @ 5.73%, IN=77.25, OUT=76.55
134	C.O., TOP AT FINISHED GRADE, INV=76.55
135	4.42 LF OF 8" HDPE @ 2.26%, IN=76.55, OUT=76.45
136	38.42 LF OF 4" HDPE @ 0.99%, IN=69.50, OUT=69.12
137	C.O., TOP AT FINISHED GRADE, INV=69.12
138	56.10 LF OF 6" HDPE @ 5.56%, IN=69.12, OUT=66.00
139	20.19 LF OF 4" HDPE @ 0.99%, IN=69.50, OUT=69.30
140	12" x 12" ADS INLET, TOP=81.50, INV=69.30
141	18.42 LF OF 6" HDPE @ 0.98%, IN=69.30, OUT=69.12
142	C.O., TOP AT FINISHED GRADE, INV=69.12
143	65.62 LF OF 8" HDPE @ 1.16%, IN=69.12, OUT=68.36
144	14.72 LF OF 4" HDPE @ 5.50%, IN=69.50, OUT=68.69
145	12" x 12" ADS INLET, TOP=71.19, INV=68.69
146	33.81 LF OF 6" HDPE @ 0.98%, IN=68.69, OUT=63.36
147	C.O., TOP AT FINISHED GRADE, INV=68.36
148	89.62 LF OF 8" HDPE @ 2.63%, IN=68.36, OUT=66.00
149	22.06 LF OF 4" HDPE @ 1.00%, IN=75.50, OUT=75.28
150	C.O., TOP AT FINISHED GRADE, INV=75.28
151	117.16 LF OF 8" HDPE @ 0.98%, IN=75.28, OUT=74.13
152	C.O., TOP AT FINISHED GRADE, INV=74.13
153	25.99 LF OF 8" HDPE @ 1.04%, IN=74.13, OUT=73.86
154	C.O., TOP AT FINISHED GRADE, INV=73.86
155	52.97 LF OF 8" HDPE @ 0.94%, IN=73.86, OUT=73.36
156	C.O., TOP AT FINISHED GRADE, INV=73.36
157	19.65 LF OF 8" HDPE @ 0.87%, IN=73.36, OUT=73.19
158	36.75 LF OF 4" HDPE @ 0.95%, IN=75.50, OUT=75.15
159	C.O., TOP AT FINISHED GRADE, INV=75.15
160	135.86 LF OF 6" HDPE @ 1.44%, IN=75.15, OUT=73.19
161	C.O., TOP AT FINISHED GRADE, INV=73.19
162	30.99 LF OF 8" HDPE @ 7.87%, IN=73.19, OUT=70.75
163	18.78 LF OF 4" HDPE @ 2.66%, IN=75.00, OUT=74.50
164	12" x 12" ADS INLET, TOP=77.00, INV=74.50
165	19.95 LF OF 6" HDPE @ 1.00%, IN=74.50, OUT=74.30
166	C.O., TOP AT FINISHED GRADE, INV=74.30
167	18.05 LF OF 6" HDPE @ 1.00%, IN=74.30, OUT=74.12
168	C.O., TOP AT FINISHED GRADE, INV=74.12
169	38.19 LF OF 8" HDPE @ 1.00%, IN=74.12, OUT=73.74
170	12" x 12" ADS INLET, TOP=77.00, INV=73.74
171	33.86 LF OF 8" HDPE @ 1.45%, IN=73.74, OUT=73.25
172	38.63 LF OF 4" HDPE @ 1.01%, IN=71.00, OUT=70.61
173	C.O., TOP AT FINISHED GRADE, INV=70.61
174	50.01 LF OF 6" HDPE @ 1.38%, IN=70.61, OUT=69.92
175	C.O., TOP AT FINISHED GRADE, INV=69.92
176	11.37 LF OF 6" HDPE @ 7.48%, IN=69.92, OUT=69.07
177	12" x 12" ADS INLET, TOP=77.00, INV=74.46
178	32.00 LF OF 6" HDPE @ 2.50%, IN=74.46, OUT=73.66

COMMONWEALTH OF VIRGINIA
DERRICK A. JOHNSON
Lic. No. 24761
6-19-09
PROFESSIONAL ENGINEER

THIS DRAWING PREPARED AT THE
TRI-CITIES OFFICE
4260 Crossings Blvd | Prince George, VA 23875
TEL 804.458.8685 FAX 804.751.0798 www.timmons.com

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DATE	REVISION DESCRIPTION
05-18-09	OWNER REVISIONS
06-19-09	COUNTY COMMENTS

DATE	02 JULY 2008
DRAWN BY	K.HALPAUS
DESIGNED BY	K.HALPAUS
CHECKED BY	D.JOHNSON
SCALE	1"=30'

TIMMONS GROUP

INDEPENDENCE PLACE APARTMENTS

BLAND DISTRICT - PRINCE GEORGE COUNTY - VIRGINIA

GRADING PLAN

JOB NO.	25056
SHEET NO.	9