

## **APPENDIX F**

### **Wet Well Operational Set Points**



Water and Waste Department • Wastewater Services

**INTER-OFFICE MEMORANDUM**

**TO:** Ron Hahlweg

**OUR FILE NO.:**

**FROM:** Maurice Jegues, C.E.T.  
Senior Instrumentation Tech

**DATE:** February 10, 2009

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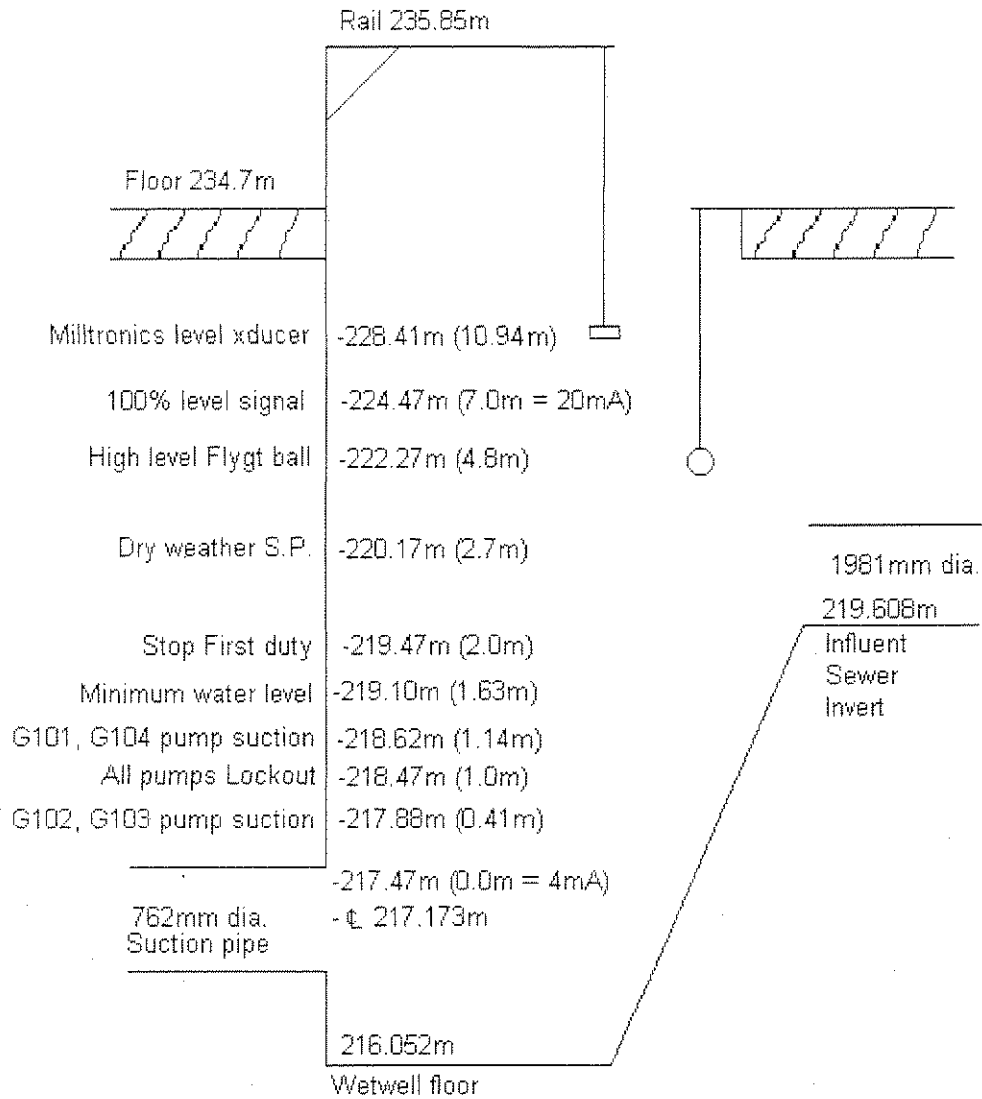
**RE: SEWPCC Influent Pumping Info Request**

- 1.) Actual numerical elevation values for the setpoint equals the S.P. level + 217.5m. E.g. 3.0m = Elevation of 220.5m. See attachment 1 and 2. Attachment 3 shows duty on/off for dry and wet weather. Confirmed by attachments 4, 5, and 6. Tables 3.2 to 3.5 values have been changed: date and reasons unknown (attachments 7 to 10). Values come from Bailey CAD configuration dwgs 1080330 to 1080332.

*Embrace the Spirit • Vivez l'esprit*

# SEWPCC Wetwell Elevations

## Feb 10, 2009 MPJ



Elevations from SEP-5, 19, 20, 29, 40, 815.  
 Other Values from Bailey CAD dwgs 1080330, 1080331, 1080332

## SEWPCC Wetwell Elevations

Drawing	Description	Elev (ft)	Elev (m)	Elev (ft)
SEP-5	wetwell floor	708.83	216.054	
SEP-5	influent sewer invert	720.50	219.611	
SEP-19	wetwell floor	708.83	216.054	
SEP-19	pump well floor	709.00	216.106	
SEP-20	influent sewer invert	720.50	219.611	
SEP-29	wetwell floor	708.83	216.054	
SEP-29	influent sewer invert	720.50	219.611	
SEP-40	pump suction centerline	712.50	217.173	
SEP-40	low water level	720.00	219.459	
SEP-40	normal water level min	721.00	219.763	
SEP-40	normal water level max	727.50	221.745	
SEP-40	pump discharge approx	772.00	235.308	
SEP-814	pump well floor		216.052	708.82
SEP-814A	pump suction centerline		217.170	712.49
SEP-815	wetwell floor		216.052	708.82
SEP-815	pump well floor		216.103	708.99
SEP-815	pump pipe suction centerline		217.170	712.49
	G102, 103 pump suction	714.83	217.880	
	G101, 104 pump suction	717.25	218.620	
	normal water level min		219.100	718.82
	normal water level max		224.700	737.20
SEP-815	pump discharge approx		235.327	772.06
	<b>Milltronics level xducer:</b>			
	low level lockout (1.00 m)		218.470	
	zero (0.00 m = 4 mA)		217.470	
	span (7.00 m = 20 mA)		224.700	

## INFORMATION

**NOTE:** There are 2 ultrasonic level meters, 1 for the east side of the wetwell and 1 for the west side of the wetwell. The Bailey takes an average of these 2 levels and uses this average for control. In most cases the 2 levels will be virtually identical.

	Meters	feet(above sea level)	
<b>LEVEL</b>	0	713' 6"	bottom of wetwell
	.5	715' 2"	
	1.0	716' 10"	
	1.5	718' 6"	
	2.0	720' 2"	
	2.5	721' 10"	
	3.0	723' 6"	
	3.5	725' 2"	
	3.7	725' 7"	invert[bottom] interceptor @ St Mary's overflow
		725' 7"	bottom of interceptor
	4.0	726' 10"	
	4.5	728' 6"	
	4.7		river winter ice level
	5.0	730' 2"	
	5.5	731' 10"	
	5.7		overt[top] interceptor @ St Mary's overflow
	6.0	733' 6"	
	6.4		river normal summer level
	6.5	735' 2"	
	6.7	735' 6"	invert of St Mary's overflow
	7.0	736' 10"	
		770'	SEWPCC wetwell [top of upper level floor]

Wetwell Level Duty Setpoints  
(Summary of Tables 3-2 to 3-5 in Operator Manual)

Setpoint (meters)		Dry Weather				Wet Weather
		2.70	3.00	3.50	4.00	2.70
1st Duty	start	2.70	3.00	3.50	4.00	2.70
	stop	2.00	2.00	2.00	2.00	1.50
2nd Duty	start	3.54	3.84	4.34	4.84	3.09
	stop	2.30	2.60	3.10	3.60	2.20
3rd Duty	start	3.95	4.25	4.75	5.25	3.37
	stop	2.70	3.00	3.50	4.00	2.70
4th Duty	start	4.35	4.65	5.15	5.65	3.65
	stop	3.10	3.40	3.90	4.40	3.00
High Level alarm		4.78	4.78	4.78	4.78	4.78
High Level reset		4.70	4.70	4.70	4.70	4.70

Low Level Pump Lockout: 1.0 meters, resets at 1.3 (contact in level indicator)  
See Bailey CAD dwg 1080330, 1080331, and 1080332

*Only these setpoints are used.  
Programming is never changed to alternate schemes.*