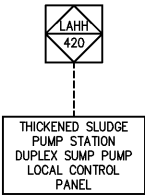


NOTES:

- 1 ALL SCUM CONCENTRATOR TAG NUMBERS ARE PRECEDED BY '29'. ALL GRAVITY THICKENER TAG NUMBERS ARE PRECEDED BY '70'. ALL THICKENED SLUDGE PUMP STATION TAG NUMBERS ARE PRECEDED BY '72'.

INTERLOCK LEGEND:

- 1 START SCUM CONCENTRATOR WHEN ANY PRIMARY OR THICKENER SCUM PUMP IS RUNNING. STOP CONCENTRATOR AFTER TIME DELAY WHEN ALL PUMPS ARE STOPPED.
- 2 ALLOW MAXIMUM OF TWO SCUM PUMPS TO RUN SIMULTANEOUSLY ANYWHERE IN PLANT. QUEUE REMAINING PUMPS WITH HIGH WET WELLS ON FIFO BASIS.
- 3 IF FLOW SETPOINT < CAPACITY OF ONE THICKENED SLUDGE PUMP, OPERATE DUTY PUMP ON TIMER WHILE MAINTAINING SET FLOW.
- 4 IF FLOW SETPOINT > CAPACITY OF ONE THICKENED SLUDGE PUMP, OPERATE BOTH DUTY PUMPS ON TIMER WHILE MAINTAINING SET FLOW. PUMPS SHALL RUN AT SAME SPEED.
- 5 RUN GRINDER WHEN ASSOCIATED THICKENED SLUDGE PUMP IS RUNNING. SHUT DOWN PUMP UPON GRINDER FAIL OR NOT RUNNING STATUS.



DESIGNED	DBE
DRAWN	JAD
CHECKED	
PROJ. ENGR.	DAN
APPROVED	
NO.	
ISSUED FOR	
DATE	BY
RECORD DRAWINGS	MAR 2008
CONSTRUCTION	MAR 2004
REGULATORY APPROVAL	NOV 2003
PRELIMINARY DESIGN	NOV 2002

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CITY OF ROANOKE  
VIRGINIA

REGIONAL WATER POLLUTION CONTROL PLANT  
WET WEATHER IMPROVEMENTS

INSTRUMENTATION AND CONTROL  
PRIMARY SLUDGE THICKENING/SCUM REMOVAL  
PROCESS AND INSTRUMENTATION DIAGRAM

THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

DATE	JULY 2003
H & S JOB NUMBER	30788A
CONTRACT NUMBER	A
DRAWING NUMBER	1700