TYPICAL FOR 5 MBBR TRAINS

PLC 16

pH | RUNNING MIXER FAIL | IN HAND | IN OFF | RUN COMMAND | RUNNING MIXER FAIL | IN HAND | IN OFF | RUN COMMAND | SAMPLE INTERVAL | NITRATE | NITRITE | AMMONIA | PHOSPHORUS | FLOW RATE | RUNNING MIXER FAIL | IN HAND | IN OFF | RUN COMMAND | RUNNING MIXER FAIL | IN HAND | IN OFF | RUN COMMAND | RUNNING VFD FAIL | IN HAND | IN OFF | PUMP FAIL | SPEED COMMAND | SPEED INDICATION | RUN COMMAND | E-STOP | RUNNING MIXER FAIL | IN HAND | IN OFF | RUN COMMAND | RUNNING MIXER FAIL | IN HAND | IN OFF | RUN COMMAND | DO (TYP OF TRAINS 2 AND 4) | POSITION CONTROL | POSITION INDICATION | IN HAND | IN OFF | OPEN | CLOSED | FAILED | FLOW RATE | FLOW RATE | FLOW RATE | POSITION CONTROL | POSITION INDICATION | IN HAND | IN OFF | OPEN | CLOSED | FAILED | DO (TYP OF TRAINS 2 AND 4) | FLOW RATE | POSITION CONTROL | POSITION INDICATION | IN HAND | IN OFF | OPEN | CLOSED | FAILED | DO (TYP OF TRAINS 2 AND 4) | SAMPLE INTERVAL | NITRATE | NITRITE | AMMONIA | PHOSPHORUS | pH

AIT 10001 | AE 10001 | AIT 10004 | AE 10004 | AIT 10006 | AE 10006 | AIT 10008 | AE 10008 | AIT 10007 | AE 10007

ANOXIC REACTOR ZONE R-1 | AEROBIC REACTOR ZONE R-2 | AEROBIC REACTOR ZONE R-3 | AEROBIC REACTOR ZONE R-4

HOA HSXX XXXX

MBBR MIXER 1 MIX-100-01 | MBBR MIXER 2 MIX-100-02 | MBBR MIXER 3 MIX-100-03 | MBBR MIXER 4 MIX-100-04 | MBBR MIXER 5 MIX-100-05 | MBBR MIXER 6 MIX-100-06

INFLUENT CHANNEL

MBBR TRAIN NO. 1

36"-AS | Y-175 | Y-176

EFFLUENT CHANNEL

EFFLUENT RECYCLE WET WELL

120VAC

FIT 10001 | FE 10001 | FIT 10002 | FE 10002 | FIT 10003 | FE 10003 | FIT 10004 | FE 10004

8"-AS | 6"-AS | 4"-AS | 10"X8" | 8"X6" | 12"X6"

CV 10001 | CV 10002 | CV 10003

2"-SPL | 36" MBBRR

CHEMICAL ANALYZER NO. 1

FROM MBBR TRAIN NO. 2 (ZONE R-1)

FROM MBBR TRAIN NO. 3 (ZONE R-1)

4"-AS | 12"-AS | 14"-AS | 10"-AS | 6"-AS

FIT 10017 | FE 10017 | 120 VAC

TO MBBR TRAIN NO. 2 (ZONE R-2) | TO MBBR TRAIN NO. 2 (ZONES R-3 AND R-4)

480 VAC | VFD | ES

MBBR RECYCLE PUMP NO. 3 AFP-100-03

MBBR RECYCLE PUMP NO. 2 AFP-100-02

MBBR RECYCLE PUMP NO. 1 AFP-100-01

24" MBBRR | 20" MBBRR | 36"x24"

FROM MBBR EFFLUENT WET WELL

TO MBBR TRAIN NO. 3 (ZONE R-2) | TO MBBR TRAIN NO. 3 (ZONES R-3 AND R-4)

TO MBBR TRAIN NO. 4 (ZONE R-2) | TO MBBR TRAIN NO. 4 (ZONES R-3 AND R-4)

TO MBBR TRAIN NO. 5 (ZONE R-2) | TO MBBR TRAIN NO. 5 (ZONES R-3 AND R-4)

30"-AS | 24"-AS

FROM MBBR TRAIN NO. 2 (ZONE R-3) | FROM MBBR TRAIN NO. 3 (ZONE R-3)

CHEMICAL ANALYZER NO. 2

FROM EFFLUENT CHANNEL

HDR Engineering, Inc.
5700 Lake Wright Dr.
Suite 300
Norfolk, VA 23502

ISSUE	DATE	DESCRIPTION
D	04/7/2014	pH PROBES ADDED/DELETED AND MBBR RECYCLE PUMPS ADDED
C	03/12/2014	CHEM ANAL. ADDED & AS PIPING REVISION
B	09/20/2013	MBBR TANK P&ID

PROJECT MANAGER:	WILLIAM S. M'COY
DESIGNED BY:	C. ALCORN
DRAWN BY:	C. ALCORN
CHECKED BY:	L. ANDERSON
PROJECT NUMBER	

CONCEPTUAL DESIGN

CITY OF HOPEWELL
HOPEWELL REGIONAL WASTEWATER TREATMENT FACILITY

ALTERNATIVE 4A-1 LIGHT
PHASE 2

SEGREGATED MBBR SYSTEM PROCESS AND INSTRUMENTATION DIAGRAM (UNIT PROCESS XX)

0 1" 2"

FILENAME: Y-100.dwg
SCALE: NONE

DRAWING NUMBER: **Y-100**

SHEET OF -