SECTION 3.9 - WASTEWATER SYSTEM STANDARD DETAILS LISTING

GENERAL
1S OIL/GREASE INTERCEPTOR
2S SAND/OIL INTERCEPTOR
3S GREASE TRAP
4S POTABLE WATER MAIN, WASTEWATER MAIN & STORM SEWER CONFLICT
5S POTABLE WATER/FORCE MAIN PRESSURE PIPE CONFLICT
6S OPEN CUT PIPE INSTALLATION - NON-THOROUGHFARE ROAD
7S OPEN CUT PIPE INSTALLATION - THOROUGHFARE ROAD
8S TYPICAL TRENCH DETAIL & ROOT BARRIER INSTALLATION
9S WASTEWATER SYSTEM STANDARD CUT IN DETAILS
10S PRESSURE TEST CRITERIA FOR GRAVITY WASTEWATER MAIN IN WELL FIELD AND FORCE MAIN
11S TYPICAL CLEANOUT INSTALLATION
12S TYPICAL WASTEWATER SERVICE CONNECTIONS

GRAVITY SEWER MANHOLES WITHOUT CAST-IN WALL LINER
13S STANDARD MANHOLE
14S SHALLOW MANHOLE
15S DROP CONNECTION PRECAST MANHOLE
16S INVERT FLOW CHANNELS
17S GRAVITY SEWER MANHOLE FRAME & COVER

GRAVITY SEWER MANHOLES WITH CAST-IN WALL LINER
18S STANDARD MANHOLE WITH CAST-IN LINER
19S SHALLOW MANHOLE WITH CAST-IN LINER
20S OUTSIDE DROP MANHOLE WITH CAST-IN LINER
21S PIPE TO MANHOLE CONNECTION - TYPE "A"
22S PIPE TO MANHOLE CONNECTION - TYPE "B"
23S PIPE TO MANHOLE CONNECTION - TYPE "C"
24S PIPE TO MANHOLE CONNECTION FOR CORE DRILLED INVERT
25S PIPE TO DROP MANHOLE CONNECTION - LOWER INVERT
26S BASE MANHOLE SECTION WATERSTOP DETAIL
27S TURN BACK JOINT INSTALLED PRIOR TO CAST
28S TURN BACK JOINT INSTALLED AFTER CAST

GRAVITY SEWER MANHOLES WITH CAST-IN WALL LINER & BASE LINER
29S STANDARD MANHOLE WITH CAST-IN LINER & BASE LINER
30S SHALLOW MANHOLE WITH CAST-IN LINER & BASE LINER
31S OUTSIDE DROP MANHOLE WITH CAST-IN LINER & BASE LINER
32S MANHOLE BASE SECTION
33S FLOW CHANNEL/PIPE CONNECTION TO NEW CAST-IN BASE LINER
34S FLOW CHANNEL/PIPE CONNECTION TO EXISTING CAST-IN BASE LINER
35S PIPE TO MANHOLE CONNECTION DETAIL - TYPE "A" (GASKET)
36S PIPE TO MANHOLE CONNECTION DETAIL - TYPE "B" (BOOT)
SECTION 3.9 - WASTEWATER SYSTEM STANDARD DETAILS LISTING (cont’d)

FORCE MAINS
37S CONNECTION OF PRIVATE FORCE MAIN UNDER 4” IN DIAMETER
38S TYPICAL FORCE MAIN GATE VALVE SETTING AND CUT-IN DETAIL
39S FORCE MAIN AIR RELEASE VALVE & VAULT OUTSIDE OF ROAD RIGHT-OF-WAY, NON TRAFFIC AREAS
40S FORCE MAIN AIR RELEASE VALVE AND MANHOLE IN PAVED AREAS AND ROAD RIGHT-OF-WAY
41S MECHANICAL THRUST RESTRAINT - MINIMUM PIPE LENGTHS (FORCE MAINS)
42S TYPICAL THRUST BLOCKS FOR PRESSURE PIPING
43S FORCE MAIN ENTERING MANHOLE
44S WASTEWATER MAIN CASING INSTALLATION
45S TYPICAL FORCE MAIN AERIAL CANAL CROSSING- SINGLE PIPE (SINGLE PILES)
46S FAN GUARD/PILE CAP DESIGN - SINGLE PIPE (SINGLE PILES)

LIFT STATIONS
47S TYPICAL LIFT STATION SITE PLAN DETAIL
48S TYPICAL LIFT STATION SITE PLAN NOTES
49S TYPICAL LIFT STATION SECTION WITH CAST-IN LINER
50S LIFT STATION TOP SLAB
51S LIFT STATION WITH 2” CONDUIT CONNECTION
52S LIFT STATION WETWELL SETTING TREMIE POUR DETAIL
53S LIFT STATION STANDARD ALUMINUM COVER AND PUMP CABLE RACK
54S HOSE CONNECTION WITH RP BACKFLOW PREVENTER FOR LIFT STATION WATER SERVICE 55S FENCE AND GATE DETAIL
56S LIFT STATION ELECTRICAL RACK FOR GENERATOR RECEPTACLE ON LEFT SIDE
57S LIFT STATION ELECTRICAL RACK FOR GENERATOR RECEPTACLE ON RIGHT SIDE
58S CONTROL PANEL INSTALLATION NOTES
59S CONTROL PANEL - INTERNAL PANEL LAYOUT FOR MOTORS SMALLER THAN 20 HP
60S CONTROL PANEL - INTERNAL PANEL LAYOUT FOR MOTORS 20 HP AND LARGER
61S LIFT STATION CONTROL PANEL INNER DOORS FOR MOTORS SMALLER THAN 20 HP
62S LIFT STATION CONTROL PANEL INNER DOORS FOR 20 HP MOTORS AND LARGER
63S ELECTRICAL PANEL SPECIFICATIONS (1 OF 3)
64S ELECTRICAL PANEL SPECIFICATIONS (2 OF 3)
65S ELECTRICAL PANEL SPECIFICATIONS (3 OF 3)
66S CONTROL PANEL - BILL OF MATERIALS
67S CONTROL PANEL - 240V & 480V PANELS NOTES
68S LIFT STATION ELECTRICAL SCHEMATIC (1 OF 3)
69S LIFT STATION ELECTRICAL SCHEMATIC (2 OF 3)
70S LIFT STATION ELECTRICAL SCHEMATIC (3 OF 3)
71S LIFT STATION ELECTRICAL SCHEMATICANTS WITH SOFT STARTERS (SHEET 1 OF 3)
72S LIFT STATION ELECTRICAL SCHEMATICANTS WITH SOFT STARTERS (SHEET 2 OF 3)
73S LIFT STATION ELECTRICAL SCHEMATICANTS WITH SOFT STARTERS (SHEET 3 OF 3)
74S LIFT STATION CONTROL PANEL ELECTRICAL RISER
75S REMOTE TELEMETRY UNIT SPECIFICATIONS (SHEET 1 OF 5)
76S REMOTE TELEMETRY UNIT SPECIFICATIONS (SHEET 2 OF 5)
77S REMOTE TELEMETRY UNIT SPECIFICATIONS (SHEET 3 OF 5)
SECTION 3.9 - WASTEWATER SYSTEM STANDARD DETAILS LISTING (cont’d)

78S REMOTE TELEMETRY UNIT SPECIFICATIONS (SHEET 4 OF 5)
79S REMOTE TELEMETRY UNIT SPECIFICATIONS (SHEET 5 OF 5)
80S RTU WIRING DIAGRAM/PLC ANALOG INPUT WIRING DIAGRAM
81S TYPICAL LIFT STATION (SECTION)

MISCELLANEOUS
82S TYPICAL WASTEWATER SERVICE INSTALLATION FOR VACUUM SEWER
83S RIP-RAP INSTALLATION DETAIL
84S LANDSCAPE AND ROOT BARRIER DETAIL
85S FORCE MAIN AIR RELEASE VALVE W/VENTED AIR ENCLOSURE