DESCRIPTION OF VILLAGE WOODS WATER AND SEWER FACILITIES

VILLAGE WOODS
WATER SYSTEM:

WELLS & PUMPS:
(2) Dolomite aquifer wells, each approximately 500 feet deep:

- Well #1 – drilled March 1969
- Well # 2 – drilled November 1992

Well casings are 12-inch in diameter and flanged for 6-inch discharge. Well #1 is a high water producing well with excellent draw-down recovery, and whose capacity is 1,500 GPM (gallons per minute). Well # 2's capacity is 1,000 GPM. Both wells run through a single 4" master meter.

Well #1 was originally a vertical lift turbine installation converted to submersible operation in 1989. Both wells utilize 30 HP 230/460 volt, 3-phase Grunfos submersible pumps. Pumps are 3-inch discharge, pump capacity is rated for 375 and 225 GPM, respectively. Pumps and selected drop pipe were replaced in 1998 and 2000, respectively, and basically in new condition.

Well House #1 is a poured concrete building that houses well #1 and the primary pump and motor control centers for wells 1 and 2, chemical feeds and ductile iron (DI) header piping. Motors are soft-start controlled and program logic (PLC) controlled. SCAD and alarm monitoring is provided, but housed in Village Wood's high-rise building.

STORAGE:
(2) 15,000-gallon, steel hydropneumatic tanks:

- Tank # 1 – built 1992
- Tank # 2 – built 1997

The original 10,000-gallon hydropreumatic tank installed in 1969 was housed in the maintenance room of the high-rise apartment complex. Tank was retired and scrapped in 1997 when hydropneumatic tank #2 was installed.

Both tanks are housed in additions that were added onto Village Wood's Storage Building. The enclosure for Tank #1 also houses Well #2. The additions are partitioned to allow for heating of the inlet/discharge end of both tanks. Dehumification is also provided.

Tanks float on the distribution system via parallel 8-inch headers. Valves allow for independent operation of the hydropneumatic tanks in the event maintenance, inspection, or cleaning is needed.

STAND-BY POWER:

- (1) 85KW 230/460 Volt, 3-Phase Natural Gas GENERAC Generator with automatic switchover and start. Purchased and installed in 2000. Generator can run both wells and main lift station.

CHEMICAL FEED:
(2) LMI, 26-gallon per day hypochlorite feeders
(2) LMI Fluoride feeders
(2) Fairbanks-Morse platform scales

DISTRIBUTION SYSTEM:

- 5,050 LF C-900 PVC Pipe
- (14) 5-1/4" East Jordan Iron Works 3-way NST fire hydrants w/ 4-1/2" pumper ports and 2-1/2" steamer ports
- (14) auxiliary valves
- (26) 8-inch main valves

Distribution system is relatively new, with the vast majority of the system installed after 1989. Approximately 3,000 LF of the system was installed in 1995, during the construction of Phase III of the Fairways.

SERVICES:

- (1) looped 6-inch D.I. water service (high-rise)
- (78) 1" copper water services (townhouses) w/ curb stops

METERS:

- 4-inch master meter
- 2-inch Sensus water meter for high-rise

WASTEWATER SYSTEM:

- (1) Master (Main) Lift Station (1989)
  Runs off of 85KW generator.

- (1) Collection System Lift Station (1992)
  Runs off a separate stand-by generator.

There are no meters at the lift stations. The main lift station does have an ultra-sonic meter that measures the discharge in a force manhole located in Balmoral Woods.

COLLECTION SYSTEM:

- 4,285 LF 8" PCV Sewer Main
- (27) 48-inch diameter manholes