

Note: Submersible lift stations will carry a maximum of 200 GPM and 10 HP pumps. Anything greater will require a dry pit flooded suction can station.

Calculation: Units x 350 Gal. X 2.5 /1440 = GPM

#### **LIFT STATION SITE:**

- Minimum 75' x 75' site deeded to City of Rockledge with minimum 40' x 40' fenced area around station (commercial and industrial: only 40' x 40' fenced area must be deeded, remainder of the site to be easement)
- Property corners identified with concrete markers
- Site elevation: 12' above finished road grade
- Fence: 6' high, 9 ga. fabric, 3-strand barbed, 4' walk gate, 12' double drive gate, standard weight post, top rail, 7 ga. wire on bottom with hog rings (residential: fencing as required for security and aesthetics, with minimum stated)
- Site (75' x 75') sodded, other shall be seed and mulch, landscaped for buffer screening. Oleander and/or hibiscus around outside of fenced area 4' from fence on 6' centers
- Access road – concrete (min. 5" wire reinforced) , Asphalt – same spec as roadway
- Potable water supply
- Underground electrical service
- Drainage as per City of Rockledge code

#### **STATION FOUNDATION AND WET WELL:**

- 10' x 12' x 1' concrete slab (allowed to set for 48 hours) with 5/8" reinforcement rods in slab every 6", welded together (footer for can).
- Tie-down rods bent over I-beams, encased in slab and cemented over to about 8" to 10" up the side of the can.
- 16' x 20' slab to be poured 6" thick around wet and dry wells
- Entrance tube shall be 18" to 20" above slab
- Entrance tube should act as guide and centered with 6' of freeboard on all sides
- 8' diameter wet-well minimum
- 4' square aluminum hatch cover with stainless steel hardware
- 4" PVC vent pipe
- Can 4' to 5' from wet-well
- Detail of emergency hydraulic hook-up
- Aluminum hatch cover for basket
- 8' diameter wet-well precast, minimum
- Minimum wall thickness: 8" (minimum 12" for wells over 25' deep)
- Bottom slab will be 17' x 14' with #5 rebar on 6" center protruding out of the slab 36", a cast keyway 14' x 9' x 3" with #5 rebar on 12" center extending into and protruding out of slab 36"
- Top elevation: 12" above finished road grade
- All holes located within 12" of the top of the riser
- Two (2) coats of Kopper Bitumastic 300m epoxy resin inside and out, one coat to be applied in the field (white)
- Stainless steel, aluminum or fiberglass rag basket, situated to facilitate removal for cleaning rail system winch assembly for basket removal

#### **CAN STATION:**

- Discharge pressure gauges on lines
- Florescent light over sump area
- Welded rung ladder, with anti-slip compound
- Bell & Gossett air compressor, with tank
- 4 anodes, 17# magnesium
- Sump discharge line from dry well to extend within 12" of top of station, before discharging into wet well
- Motors shall be steel, not aluminum
- "Celery" green paint, inside of can
- 9'-9" diameter station
- Plug valves on discharge and suction
- Stainless steel disconnect
- ENPO sump pump, model AV or Sprint II model 4C445
- Dayton shaded pole blower, model 2C946
- Full operation maintenance and lube schedules, parts list and instructions
- Check valves to have lever and spring
- Provide a spare mechanical seal
- Provide touch-up paint
- Dark green paint on outside of can

#### **CONTROL PANEL:**

- Panel on side of can, not in front of pumps
- Florescent light over panel
- Wet well level gauge
- High/low level alarm lights, with guard
- Phase loss protection (to have a double pole monitor, one is for Compucom telemetry)
- Lightning arrestors
- Surge arrestors
- Honeywell pressure
- ALLEN-BRADLEY H-O-A switches
- ALLEN-BRADLEY manual alternator
- ALLEN-BRADLEY starters (reduced voltage part winding)
- WESTINGHOUSE circuit breakers
- Elapsed time meters
- Manual control
- Telemetry system (Compucom, Inc.)
- 15' high, 1" diameter galvanized pipe for antenna (to be bracketed to utility pedestal)
- Emergency generator receptacle

#### **NOTES:**

All materials and equipment are to be approved by the City of Rockledge and comply with their specifications.

Backfill materials over the bottom slab shall be compacted to 95% maximum density for the full depth of backfill.