## Loxahatchee River District

Water Reclamation | Environmental Education | River Restoration

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D. Albrey Arrington, Ph.D., Executive Director



## **MEMORANDUM**

TO: Governing Board

DEPARTMENT: Engineering Services

Kris Dean, P.E.

DATE: January 14, 2016

SUBJECT: Construction Standards Update – January 2016

In April of 1983 the Governing Board approved the District's first "Manual of Minimum Construction Standards and Technical Specifications". Since the initial adoption of District standards, that document has been updated from time to time as codes, rules, materials and methods have changed and improved over time. These changes were most recently approved by the Board in March 2014.

On January 4, 2016 Engineering Services updated the Manual of Minimum Construction Standards and Technical Specifications. All updates can be reviewed in the Manual of Minimum Construction Standards and Technical Specifications at the following link.

 $\frac{http://www.loxahatcheeriver.org/pdf/2016\_June\_LRD\%20Construction\%20Standards\%20and\%20Technical\%20Specifications.pdf}{}$ 

A summary of the update is as follows.

- 1. LP-12
  - a. Revised to clarify the intent of the commercial duplex installation and delete extraneous information.
  - b. Revised to require Barnes Model XSGV explosion proof grinder pump assemblies.
  - c. Revised to relocate the float hanger to avoid conflict with the discharge piping assemblies.
  - d. Revised to delete low flow option information.
- 2. LP-12 ALT Low Flow Option
  - a. Added to define the new low flow option for commercial duplex stations. This option is only applicable to installations serving less than 7 E.C.'s.
- 3. LP-13 LP-20
  - a. Revised and reordered to clarify the intent of the commercial duplex control panel installation.
  - b. Revised to address the following changes
    - i. Intrinsically safe circuit for wet well controls.
    - ii. Added 12V alarm and battery back-up system and deleted previous system.
    - iii. Added 120V control circuit and deleted previous circuit
    - iv. Added and corrected schematic for lightening arrestors, phase monitors, and voltage monitors.

- 4. LP -29
  - a. Revised to require brass compression fittings
- 5. LP-31
  - a. Deleted requirement for curb rod and guide ring.
- 6. Section 1
  - a. Minor administrative changes.
- 7. Section 2
  - a. Deleted requirement for additional 4 hours in grease interceptor sizing calculation.
  - b. Clarified exemption from oil/sand interceptors for indoor hydraulic elevators with approved alarm/shut-off system.
  - c. Deleted separation requirements from various pipe sections and added a stand-alone section.
- 8. Section 150
  - a. Revised to require explosion proof pump and motor assemblies meeting NEC and NFPA requirements for Class 1, Division 1, Group D environments.
- 9. Lift Station Mechanical, Structural Details.
  - a. Renamed SD-31
  - b. Revised base detail to include access holes for grout, correct hole diameters for studs and alternate base ell stud to negate the removal of existing embeds in wetwell floors.
- 10. Lift Station Electrical Control Panel Standard Details.:
  - a. Deleted detail and included information on new detail sheets SD 32, 33 and 34
  - b. Previous information was revised to address the following changes
    - i. Intrinsically safe circuit for wet well controls.
    - ii. Added 12V alarm and battery back-up system and deleted previous system.
    - iii. Added 120V control circuit and deleted previous circuit
    - iv. Added and corrected schematic for lightening arrestors, phase monitors, and voltage monitors.

Therefore, the following motion is recommended for approval:

"THAT THE DISTRICT GOVERNING BOARD ratify and approve the Loxahatchee River Environmental Control District's "Manual of Minimum Construction Standards and Technical Specifications", as of January 4, 2016, and authorize the District Engineer and Executive Director to update the Construction Standards and Technical Specifications from time to time, and periodically present it to the Governing Board for ratification and approval."