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October 24, 2012

Mr. Wes Weaver, President  
Weaver Construction Management, Inc.  
3679 South Huron Street, Suite 404  
Englewood, CO 80110

***Via Email to: wes@weavercm.com***  
***No Hard Copy to Follow***

Re: Harold D. Thompson Regional Water Reclamation Facility (HDTRWRF)  
Lower Fountain Metropolitan Sewage Disposal District (LFMSDD)

Dear Wes:

Reference is made to your shop submittal identified as follows:

Submittal No.:	16269-001A
Date of Submittal:	October 8, 2012
Title:	Variable Frequency Drives (VFDs) and Motor Control Centers (MCCs) for Pumping and Disinfection Building
Specification Sections:	16269 and 16443
Manufacturers:	Various

The referenced submittal has been stamped "**No Exception Taken**" and "**Make Corrections Noted**". Our comments are as follows:

1. The proposed MCC is 11 sections in total length. The design, including structural support fabrications for the MCC, only allocated space for 10-unit width MCC. Provide verification that the MCC will fit in the planned space and structure, or reduce the width of the MCC by eliminating one section. It appears from the submittal drawings that Sections 8, 9, and 10 are largely composed of blank spaces, and that the units could be rearranged to reduce the number of sections from 11 to 10.
2. Nameplates:
  - a. Change the 2nd line nameplate for Unit DDP-1 to read: PUMP NO 1 5HP
  - b. Change 3rd line to read: DDP-1
3. Provide verification that the MCC is extendable for the future recycle pumps as specified on Drawing EPD-1, Note 6.
4. Provide verification that the units for pumps WSP-1, WSP-2 and WSP-3 are sized adequately to allow these starters to be replaced with VFD units in the future as specified on Drawing ES-1, MCC Schedule, Note 7.
5. The diagram for the TVSS/SPD unit implies a neutral connection. This MCC is 3-phase, 3-wire. Provide TVSS/SPD arranged accordingly.

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6. Provide verification that all FVNR starters and SMC starters are provided with phase monitor protection as specified on Drawing ES-1, MCC Schedule, Note 2.
7. Diagrams for the RSP-1, RSP-2 and RSP-3 VFDs do not show external connections. Provide verification that the VFDs are provided with analog control inputs, analog speed outputs and all necessary SCADA system I/O provisions as indicated on Drawing ES-1, MCC Schedule, Note 3, and the I&C narrative.
8. Provide verification that the starters for fans EF-1, EF-2 and EF-3 are arranged to interlock with the corresponding HVAC controls as specified on Drawing ES-1, MCC Schedule, Note 5, and on the electrical and mechanical drawings.
9. Provide verification that there is adequate unit space for the future pump DDP-2 as specified on Drawing ES-1, MCC Schedule, Note 6. This unit space should be equivalent to that required for DDP-1 (15HP SMC controller).
10. As a point of clarification, the approved shop submittal for the NPW system requires the feeder circuit breaker to be 125A.
11. In prior discussions, MWI indicated they will build the starter and controls units for the scum pumps and digested sludge pumps. Please provide verification the proposed units are acceptable to the pump manufacturer(s).

Please call if you should have any questions.

Sincerely,



David R. Frisch, P.L.S.

DRF/kmw

ec (letter only):

Mr. Jim Heckman, Manager, LFMSDD, [lfmanager@lfmsdd.org](mailto:lfmanager@lfmsdd.org)

Ms. Cindy Murray, Office Manager, Fountain Sanitation District, [fsdistrict@fsd901.org](mailto:fsdistrict@fsd901.org)

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cc (letter only): Mr. Jerry Miller, Resident Project Representative, GMS, Inc.