



THE CITY OF
MT. PLEASANT, MICHIGAN

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PRE-BID ADDENDUM NO. 1

Project Bid: Ranney Collector Well and Pump Rehabilitation

Bid Date: January 10, 2017

Time: 1:30 p.m.

Opening: Office of the City Clerk
City Hall
320 West Broadway St.
Mt. Pleasant, MI 48858

Addendum Issued by: Division of Public Works

Date Issued: January 5, 2017

Intent: 1. To replace Technical Specifications Sections 8.0 and 8.2
Performance Testing – attached

2. To clarify that both chlorination and dechlorination may be performed before the final pumping test. The contractor is responsible for ensuring that an acceptable bacteriological test result occurs after all work is completed.

3. Davis-Bacon wage rates and wage reports are not applicable for this project.

Bid Proposal: No change

8.0 PERFORMANCE TESTING:

- A) A pre-maintenance constant rate pumping test shall be performed for 12 hours conducted with lateral flow and temperature analysis and underwater photographs (video). This shall be at a minimum of 2100 gpm. The Contractor shall provide temporary pumping facilities sufficient to deliver a minimum of 2100 gpm when installed at the maximum setting in the well. The discharge pipe shall be equipped with a valve to control and maintain a constant pumping rate. A flow-measuring device capable of measuring the pumping rate in gallons per minute with an accuracy of +/-2% shall be installed on the discharge side of the control valve. Acceptable flow measuring devices include a free discharge orifice equipped with a piezometer tube or calibrated flow meter, equipped with both a totalizer and instantaneous flow meter.
- B) A post-maintenance constant-rate pumping test will be conducted with lateral flow and temperature analysis and underwater photographs (video). The constant rate test shall be 24 – 72 hours depending on the stabilization of the well drawdown. In addition, thermal profiling will be conducted on all operational observation wells within 200 feet of the Collector, (see attached sheet Fig. I). The tests will be conducted by a geologist experienced in testing performance characteristics of wells.
- C) A post-performance step test will be run at rates of 700 gpm, 1200 gpm, 1700 gpm, and 2100 gpm for 2 hours at each rate.

Use a method for measuring sand content during the post maintenance performance test and include the results in the final report.

8.2 LATERAL FLOW ANALYSIS:

Both pre-maintenance and post-maintenance pumping tests shall be performed. During these pumping tests, flow and temperature analysis will be conducted on all laterals under pumping conditions. The lateral flow and temperature analysis shall be conducted at least four (4) hours following the start of each pumping test. The following will be determined:

1. Flow rate (gpm) of each lateral,
2. Percent of total flow for each lateral,
3. Relative efficiency expressed as gpm/ft. of screen,
4. Temperature from each lateral.