## Shaw, William (DEC)

**From:** Moline, Kirk <k.moline@ctmale.com>

**Sent:** Tuesday, April 03, 2018 07:39

**To:** Shaw, William (DEC); Edwards, Susan L (DEC)

**Cc:** Angier, Christopher; d.reilly@CTMALE.com; Brian Angerman (bangerman@barr.com); Sara Ramsden

(sramsden@barr.com)

**Subject:** Seismic Survey- McCaffrey Street Site

**Attachments:** Proposed Geophysical Survey Area 2018-04-02.pdf

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Will,

As discussed with you last week, we are planning to complete a seismic refraction survey on the McCaffrey Street Site property, Village property and two private properties to the east of the McCaffrey Street site. The purpose of the survey is to establish the depth to the top of bedrock. This information will be used to evaluate possible IRM groundwater interceptor trench locations. The attached figure depicts the general survey area.

The seismic refraction data will be acquired along three profiles parallel to the long axis of the area of interest and two or three cross lines to generate a bedrock topographic model for the area of interest. A 48-channel seismograph (two 24-channel Geometrics Geodes) coupled to 48 14-Hz geophones will be used. A geophone spacing of 5 feet will be used for the transects.

A 12-pound sledge hammer will be used as an energy source. Seven "shots" per cable spread -- one shot off each end of the cable, one shot at each end of the cable, and three shots interior to the cable will be completed. The seismic data will be interpreted with the Generalized Reciprocal Method, commonly referred to as GRM. GRM allows the depth to bedrock to be determined for each geophone location (i.e., every 5 feet at this site), rather than only at the shot points as for most other methods, and it is less sensitive to the presence of dipping interfaces and hidden layers. The transects will be surveyed using a Trimble Geo7X CM GPS system. The results of the surveys will be presented relative to the New York East State Plane System NAD 1983 in US Survey Feet.

We are planning to complete the survey the week of April 16<sup>th</sup>. Once we have your authorization to proceed, we will contact the Village and private property owners as necessary per the access agreements currently in place. We will let you know of any difficulties that may arise relative to working on the off-site properties.

Please let us know if this plan is acceptable at your earliest convenience.

Thank you, Kirk

## **Kirk Moline PG**

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