Below are our responses to questions submitted on April 28, 2020

1. The document states 70 days to complete in one location and 75 days in multiple locations. Which is the stated time to complete from NTP? These are all business days, correct?

Response: The length of the contract is 70 working days from actual start of construction. This is based on 5 working days a week. Saturdays may be worked if allowed by the Owner and the county.

2. Target contractor selection and NTP date is the end of May 2020 correct?

Response: Yes, selection will be determined after Township Board review of bids and selection/approval.

3. Will a detailed drawing of fiber splice locations be included along with any future splice locations where a fiber loop will need to be included?
   a. Above refers to fiber storage loops. Fiber storage loops are quite often spec’d to be placed at 2000 ft intervals, at termination locations and be 100 ft loops. Will that be appropriate here?
   b. There are fiber footages called out on page 20. Do these footages include the designed spare fiber for storage?

Response: Yes, a map will be provided noting the count to be spliced at each building location.

   A 100’ coil will be left in each Hand Hole placed on the project. The staking sheets reflect this in that the cable length shown is 100’ longer than the duct for each section on the main run. Reel end splices are indicated on the staking sheet tabs at approximately 20,000 ft intervals.

   Yes coils were included in the totals.

4. Futurepath duct can be purchased with an integral 20 AWG locate wire, will that be sufficient to meet project specifications?

Response: Yes, in addition we should clarify that when splicing the wire and the duct, approved waterproof connectors are to be used. In the case of the 1.25 ID used for building entrances the copperhead locate wire is to be placed with the duct as noted in the contract.

5. Will there be further details of entrance structure into buildings and what work is required internal to the buildings?

Response: Unfortunately no individual site drawings were prepared for the project in anticipation of doing a walkthrough. Due to current circumstances and restraints we do not anticipate being able to do a walk through as originally intended prior to the bid date. We do however have a limited amount of photos on hand for each location if you have a specific request.

6. Rack mount patch panels have been specified. Is the contractor responsible to provide a 4 post rack to contain the patch panel?
   a. Where will the location of the patch panels be specified?

Response: Existing racks are in place at each location and Township IT will have placement locations identified prior to installation.

7. After contract is awarded and NTP is given the bidder will have time to procure the materials before the clock begins on the placement of the infrastructure?

Response: Yes the clock starts upon start of construction. Construction start is however to be within 45 days of NTP.
8. Fiber cable to be single mode, loose tube, micro, dielectric fiber with a 10-year manufacturer warranty, meeting the G.652 or G.655 characteristics. Is a certain manufacturer of this fiber suggested?
   a. Is Microfiber a requirement within the duct system, or is standard Outside Plant Fiber of the correct fiber count acceptable?

   Response: No manufacturer is specified as long as cable meets stated requirements. All cable for the project is to be Microfiber.

9. Will any restaking be done since indicated was completed more the 9 months ago?

   Response: No re-staking will be performed prior to construction. It is likely however that minor changes will need to be made once location of existing facilities has been determined.

10. What are the work hours that are allowed for the placement of infrastructure and fiber?

    Response: Oakland County Road Commission allows Monday thru Saturday 7AM to 7PM. If a lane closure is involved it is 9AM to 3PM for weekdays. We are unaware of any Township requirements more restrictive.

Confirmations

1. Documentation states that only 1 plow may be utilized on the project at a time; boring rigs are not included under the description of “plow” and therefore multiple boring rigs may be used at the same time along this project?

   Response: This is true. Tie ins and dig downs will however be inspected prior to backfilling.

2. The Township will work with the permitting agencies to make sure the work is permitted to limit delays and winning bidder will coordinate with permitting agency as work proceeds

   Response: Permitting will be handled by the Engineer on the Townships behalf. Miss DIG’s are the contractor's responsibility. Conflicts requiring resolution will be coordinated between the OCRC permitting engineer and the townships representative with contractor input.

3. If there are issues with material manufacturers a letter from the manufacturer will suffice to indicate any delays and may extend the due date?

   Response: This generally true.

___ William R. Dorgan – Staff Engineer ___