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Velocity Group	Mr. Jason Shuler, P.Eng.	Jason@velocitygroup.ca

Project:	99 Street Retaining Walls	***Date:***	August 16, 2017	***Pages (inc. cover):***	X
Sender:	Brad Gavronsky, P.Eng.	***Original will:***	Remain on File		

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Reference: **Tender Addendum 2 Letter**
Tender for 99 Street Landslide Remediation
Peace River, Alberta

Tender closing has been extended by one week. The new tender closing date is be August 29, 2017 at 14:00 (2 pm) local time.

Attached to this Addendum is a copy of the sign in sheet for the Pre-Tender meeting held on August 15, 2017.

The following are clarifications and answered questions from the Pre-Tender Meeting held on August 15, 2017:

#1) Temporary earthworks and including preparing the working benches will be the responsibility of the earthworks contractor (under a separate contract). The earthworks contractor will also be responsible for loading and disposing of the drill cuttings. The wall contractor will be responsible for managing drill cuttings on their immediate site and stockpiling the cuttings for disposal. Minor maintenance of the work site including but not limited to access road maintenance and general site housekeeping is the responsibility of the wall contractor and is included in this contract.

#2) *Where can groundwater encountered during construction be disposed?* Contractors must test the water to determine if any pathogens (fecal coliforms or E.Coli) are present. If none are present, the groundwater may be pumped downslope through pipes directly into the storm sewer, pending notice and acceptance by the Town of Peace River.

#3) *What are the groundwater conditions on the site?* The groundwater conditions and groundwater measurements from piezometers installed on the slope are included in the preliminary geotechnical report. Generally, no head was measured in the sand layer directly above the bedrock, indicating that it is free draining. Groundwater encountered in the upper clay layers are considered to be perched water tables.

#4) *Do the wall and earthwork contracts have a public opening?* Yes. Both will have a public opening.

#5) *What areas are available for site lay down and office trailers?* The flat lot north of the condominium building and the flat lot across the road both are property of the Town and are available for lay down and site office trailers. Maps are attached showing the lot locations.

#6) *Will the anchors pass through any utilities (active or abandoned)?* There is an existing 200 mm and 300 mm abandoned pipe that runs below the existing gravel road. The upper row of anchors is expected to be installed below these pipes.

#7) *Where is the access to the lower wall?* Access to the lower wall will be from 98 Street, towards the north end of the private lot. Temporary work benches and grading will likely be required for full access. The grading for these benches and any necessary utility relocation will be the responsibility of the earthworks contractor (separate contract). Design of the temporary slopes, work benches, or any necessary temporary shoring is the responsibility of the wall contractor included in this contract.

#8) *Is water and power supplied by the Town to the site?* Water is available to the site from a hydrant south of the condominium building, just north of the reservoir. The wall contractor will be responsible for contacting ATCO to arrange for temporary power to the site.

#9) *Is temporary fencing required?* Temporary fencing (either steel or snow fence) shall be installed by the wall contractor at the top of the slope along the edge of the parking lot and along the walking path/stairs to the south of the site. Other fencing may be installed at the discretion of the contractor to conform with appropriate OH&S requirements for temporary excavations, holes or other site hazards. The fencing shall be such that it deters the general public from accessing the site.

#10) *Is a corporate seal required on the electronic submission or can just the hard copy contain the corporate seal?* The electronic submission is not required to contain the corporate seal as long as a hard copy is received within 24 hours of the submission deadline that contains the corporate seal. If a hard copy with a corporate seal is not received within 24 hours of the submission deadline, the Town of Peace River may, at their discretion, choose to reject the bid.

#11) *What is the preferred access to the site for construction traffic?* The preferred access to the site by construction traffic is by the road that passes the high school and enters to the north of the site to limit loads on the main slide. Only localized traffic (ex - concrete trucks) should use the south access from 99th Street alongside the parking lot. An access map is attached to this addendum letter.

#12) *What are the available hours of operation for construction activities?* Monday to Saturday 7am-7pm, Sunday 8am-6pm. Silent after hours work is allowed Monday to Saturday until 11pm. No Silent Sunday work.

#13) *What is the allowable site noise?* All noise to take place between hours of operation 7am-7pm and to follow OHS guidelines. Decibel levels of no more than 85 dB should be measured beside the apartment building exterior wall.

#14) *What information is required for submittal of an alternative wall option?* The alternative wall option documentation should include a description of the wall system, summary of the geotechnical design of the wall, proposed construction sequence and drawings with general dimension details and geometry. Detailed shop drawings for items such as reinforcement, connections are not required at the tender stage, but will be required for submittal prior to construction of the wall beginning. The documentation shall identify the benefits of the alternative wall system compared to the existing proposed design. The bidder shall be prepared to submit additional details regarding the alternative wall design to the Consultant or Town after closing of the tender, if requested. The bidder shall submit adequate information regarding geotechnical design of the wall to justify the performance of the alternative wall option.

#15) *When will the earthwork contract be posted?* The earthworks contract is scheduled to be posted by Friday August 18, 2017.

#16) It was clarified during the Pre-Tender meeting that the pile cap dimensions shown on the tender drawings are nominal. The structural engineer retained by the bidder shall design the reinforcement and section dimensions to transfer the loads adequately.

The following are answers to additional questions received from the interested proponents:

#17) *The 32MPA concrete is mentioned in drawing "number 9" can you confirm this is for structural piles and infill piles?* The intention is for both the infill piles and structural piles to be 32 MPa concrete. The bidder should confirm the concrete strength with their Structural Engineer who designs the pile section reinforcement.

#18) *Can you confirm that the structural piles and infill piles along the wall are of the same length, sometimes the infill piles are of shorter length but I don't see any variance on the drawings?* An additional drawing will be issued by the end of the week detailing the wall profile and pile lengths. The infill piles shall be 16 m long, which will extend a minimum of 2 m below the measured slip surface, but not through the sand layer just above the bedrock. This is intended to allow the sand layer to remain free draining.

#19) *Can you confirm the size of bar required for the soil anchors?* The bidder's structural engineer shall size the anchor bars based on the anchor loads.

#20) *Is there a detail for the sizes on the plates, nuts and washers for the soil anchors?* Connection details shall be designed by the bidder's structural engineer.

#21) *Can you provide clarification if the soil anchors run through the structural piles or the infill piles? If through the structural piles a spacing will need to be left in the rebar cage for the soil anchor to pass through.* The structural pile spacing and the anchor spacing are not the same, therefore anchors will go through both structural and infill piles. The bidder's structural engineer to design the necessary connections and walers needed to transfer the loads from the wall to the anchors. Alternatively, the bidder may submit an alternative design for review and approval changing either the pile or anchor spacing.

#22) *Can we move the infill piles to a 56 day strength or lower the MPA on those to accommodate the drilling out of the structural piles?* This is acceptable, provided the bidder's structural engineer confirms that the final wall section meets the stiffness and rigidity outlined in the tender package.

#23) *Are the design alternative bid items for a full design of the wall or modifications to the current design?* The intention of bid items OP1 and OP2 is to allow for a full alternative design of a different stabilization system. This includes geotechnical and structural design, as well as supply and installation. A unit price schedule should be included for the alternative stabilization system.

#24) *How many piles will have SI casing installed?* Five (5) of the structural piles will have SI casing installed.

#25) *Where are the strain gauges to be installed?* One (1) of the structural piles will have strain gauges to be installed (to be chosen by the Consultant). The spacing of the gauges is specified at 2 m intervals as per SP 24.8.

#26) *Where are the load cells to be installed?* Load cells will be required on nine (9) of the soil anchors as chosen by the Consultant. Specifications for the load cells are in SP 24.9.

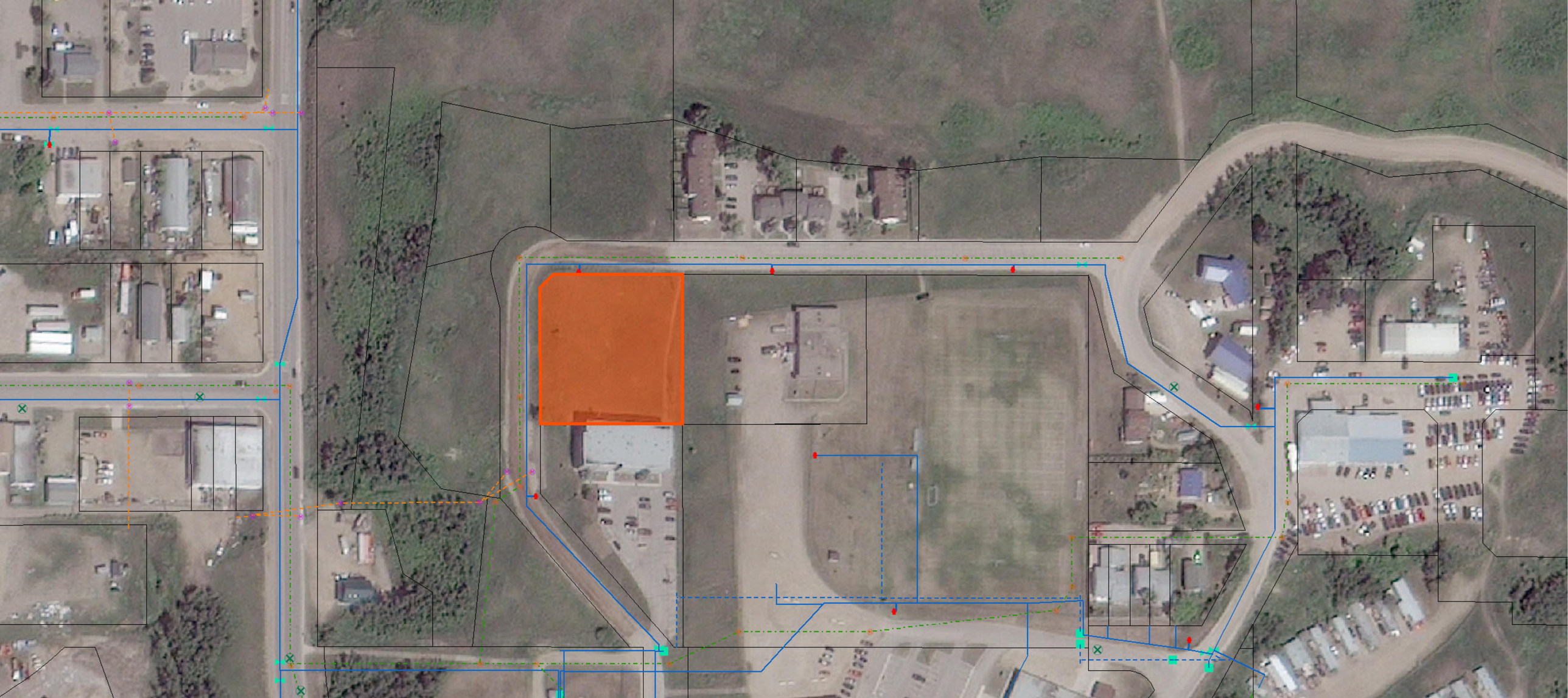
#27) *Prepare a stable platform for the Drill rig: drilling rig will be working in the unstable or failed zone. The rig platform will be prepared by the earthwork contractor (separate contract). Is it the earthwork contractor responsibility, or it is the wall contractor responsibility, to ensure the rig platform's stability is achieved?* Design of temporary shoring, benching, access roads, or other temporary measures required to support construction of the wall is considered incidental to the work and is the responsibility of the wall contractor. The temporary works design should be summarized in the proposed work plan to be submitted as per SP11.1.

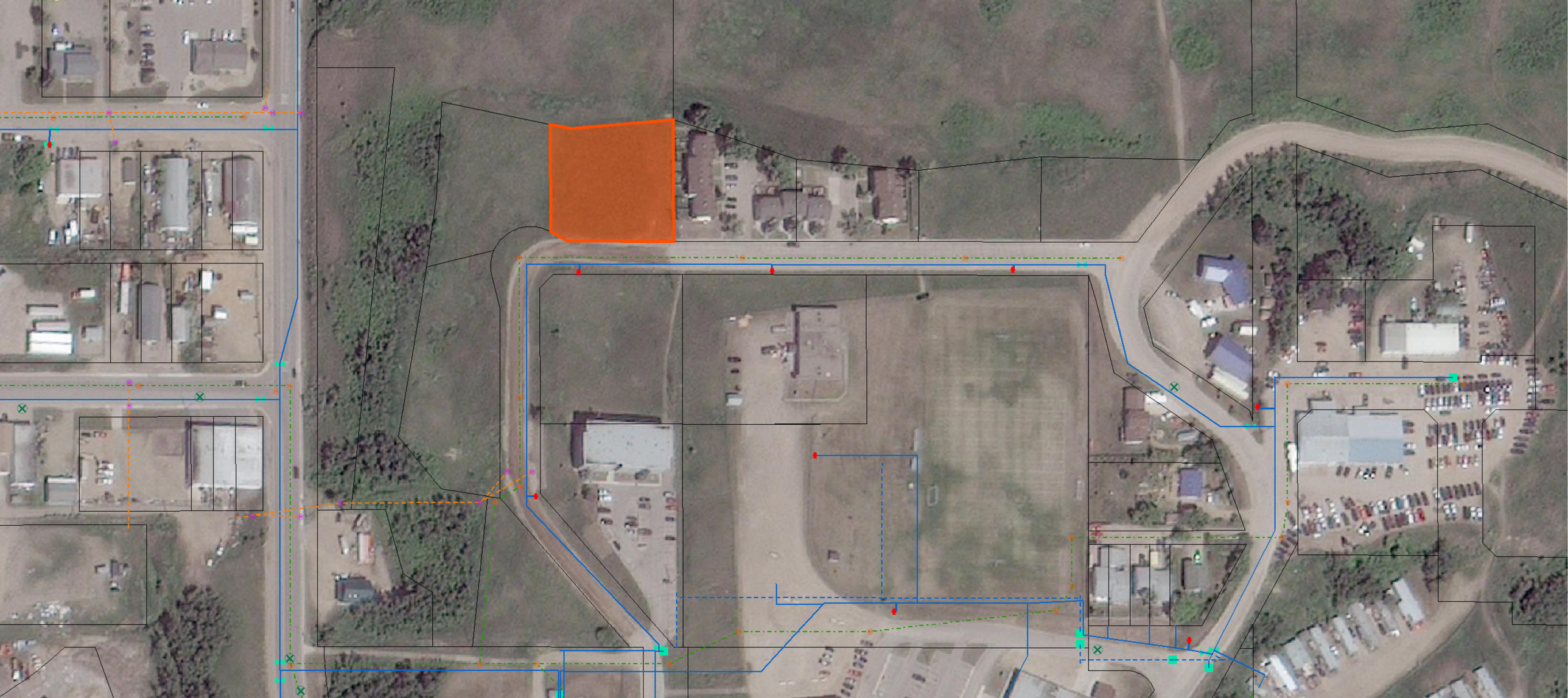
#28) *The piles and pile cap reinforcement for both upper and lower wall is not shown and Figure 8 says "Reinforcing to be determined by structural engineer" is it going to be provided by someone who is client's structural engineer or the contractor (bidder) is supposed to design it?* Structural design of the reinforcement for piles and pile caps, as well as design of the anchor rods and anchor connection details are the responsibility of the bidder.

Contractors are to acknowledge receipt of this addendum via e-mail to:

Brad Gavronsky, P.Eng.
brad.gavronsky@parklandgeo.com

Attached: Figures (2) showing lots available for lay down and site trailers (pdf)
Site traffic and access route (pdf)
Pre-Tender Meeting sign in sheet (pdf)





Google Maps

Pats Creek Rd, St Isidore, AB T0H 3B0 to 9002 99 St, Peace River, AB T8S 2A4

Drive 1.0 km, 2 min

99th Street Slide Project Site Traffic

Imagery ©2017 DigitalGlobe, Map data ©2017 Google Canada 50 m

TENDER PRE-BID MEETING

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