St. Lawrence Testing & Inspection Co. Ltd.

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November 30, 2023

Mr. Kevin MacDonald, P.Eng.
HSP Consultants Inc.
5715 Warner Dr.
Long Sault, ON
K0C 1P0

RE: Greensmere Golf Course Fabric Dome
Geotechnical Subsurface Investigation
Report No. 23C274

Dear Mr. MacDonald:

As requested by you, the undersigned geotechnical engineer went to the site on November 29, 2023 to supervise the digging of test pits to evaluate the bearing capacity.

A) DESCRIPTION OF FIELD WORK & STRATIGRAPHY

The undersigned geotechnical engineer called the site golf course superintendent, Mr. Dane Richardson, and arranged a time to have the test pits dug. The golf course is located at 1717 Bear Hill Rd. in Carp, ON. We met with Mr. Steve Richardson on site at the fabric dome. Mr. Richardson had a backhoe. We asked about local services and he showed us where they were. The fabric dome was on the main entrance coming in from Bear Hill Rd.

We had test pits dug just off the South West and North East corners of the fabric dome. Following is the stratigraphy at the test pits.

Test Pit #1

Location: 2.0 ft. (0.61 m) West of South West corner.

0 – 0.15 m:	Compacted gravel fill.
0.15 – 0.91 m:	Brown, moist, silty gravelly sand till with cobbles and boulders.
at 0.91 m:	Limestone bedrock.

Test Pit #2

Location: 2.0 ft. (0.61 m) East of North East corner.

0 – 0.20 m:	Compacted gravel fill.
0.20 – 1.07 m:	Brown, moist, silty gravelly sand till with cobbles and boulders.
at 1.07 m:	Limestone bedrock.

B) GEOTECHNICAL DISCUSSION

We evaluated the soil bearing capacity during the excavation process. The bearing was 75 KPa S.L.S. and 112 KPa U.L.S. from the top of the silty gravelly sand till to 1.5 ft. (0.46 m) below the surface. From 1.5 ft. below the surface to the bottom of the till, just above the bedrock, the bearing was 150 KPa S.L.S. and 225 KPa U.L.S. The bearing on the bedrock surface was 500 KPa S.L.S. and U.L.S.

We understand that the large concrete blocks holding up the fabric dome are resting on the surface of the brown, moist silty gravelly sand till. The entire area would be subject to some frost penetration. This is expected to be uniform throughout for the dome.

Respectfully submitted,
ST. LAWRENCE TESTING & INSPECTION CO. LTD.

G.G. McIntee, P. Eng.
GGM:mm

REGISTERED PROFESSIONAL ENGINEER
G. G. McINTEE
PROVINCE OF ONTARIO