## **APPENDIX I-7**

Response to AECOM Memo of September 16, 2020

**Dynamic Earth** 

October 30, 2020





Dynamic Earth, LLC www.dynamic-earth.com 245 Main Street, Suite 110 Chester, NJ 07930 T. 908-879-7095

October 30, 2020
Via email: jtunis@northwindgroup.com

THE PRESERVE AT INDIAN HILLS, LLC c/o THE NORTHWIND GROUP, LLC

One Rabro Drive, Suite 100 Hauppauge, New York 11788

Attn: Mr. Jim Tsunis

**RE:** The Preserve at Indian Hills

21 Breeze Hill Road Northport, Town of Huntington Suffolk County, NY Dynamic Earth Job# 3114-99-001EC

Dear Mr. Tsunis:

As requested, contained herein please find Dynamic Earth's response to comments provided by AECOM regarding slope stability analyses previously completed for the aforementioned project and presented in our August 3, 2020 memorandum. AECOM's comments were provided in a September 16, 2020 memorandum titled *Update of Landslide Soils Properties* and is included as an attachment for reference.

**COMMENT:** "Considering the new data provided, we now conclude that 120 feet may be enough of a buffer provided the hydrology and shoreline conditions outside the Coastal Erosion Hazard Line do not change. A possible new scarp is visible on recent Google Earth imagery between borings TB-1 and TB-2 as shown on Figure 2 where the golf cart path is damaged. Continued survey deformation monitoring at the golf course is recommended."

**RESPONSE:** Dynamic Earth's evaluation confirms that the 120 feet buffer is sufficient so that the proposed construction does not adversely impact the factor of safety for the existing slope, and we concur that the hydrology and shoreline conditions outside the Coastal Erosion Hazard Line should be maintained in their present condition. It is our understanding that drainage and grading plans have been developed to divert water into the stormwater drainage system away from the existing slope to prevent adverse impacts. The referenced possible new scarp was not observed during our field exploration and is not a feature that affects the conclusions of our analysis. We concur with AECOM's recommendation for continued survey deformation monitoring at the golf course, as this is good engineering practice.

**COMMENT:** "We remain concerned that a 30-feet high retaining wall is being constructed near the northwest portion of the site within the buffer zone (see Figure 3). Several housing units may face damage in the future. Subdivision approval plans prior to ground-breaking should include detailed slope stability and drainage calculations to be submitted for review to the Town of Huntington."

Preserve at Indian Hills Peer Review Response Letter October 30<sup>th</sup>, 2020 Page 2 of 2

**RESPONSE:** While Dynamic is not involved with the design of these retaining walls, it is our understanding that these walls are being designed by a licensed engineer and that details regarding their design (including internal and global stability and drainage calculations) will be submitted during the permitting/approval process with the Town of Huntington.

We trust that the record of information including our August 3<sup>rd</sup>, 2020 Memorandum, the AECOM review of September 16<sup>th</sup>, 2020, and this response dated October 29<sup>th</sup>, 2020 provide sufficient information to consider this matter closed, subject to subsequent monitoring. Please do not hesitate to contact our office should you have any question regarding this matter.

Sincerely,

**DYNAMIC EARTH, LLC** 

Gregory J. Fritts, P.E.

Senior Geotechnical Engineer

Jeffrey W. Schaumburg, P.E.

/hh/h

**Principal** 

GF/JWS O:\EARTH Projects\3114 The Northwind Group LLC\99-001EC Huntington\Reports by Dearth\Drafts\3114-99-001EC\_Response to Huntington Comments (2020-10-30).doc

cc: Charles J. Voorhis (Nelson Pope Voorhis)

Mark Haley (Haley & Aldrich, Inc.)

Carrie Layhee, P.E. (Haley & Aldrich, Inc.)



## **AECOM Geotechnical Practice**

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## Memorandum

 Date:
 9/16/2020

 To:
 IHCC Files

From: David M. Cregger, P.E. (NY), P.G. (NY)
Subject: Update of Landslide Soils Properties

AECOM responds by this memorandum to a request from Town of Huntington for Geotechnical Engineering Services for a check of slope stability at Indian Hills Country Club. We have received 5 documents for review:

- 1. Appendix H-1 Geotechnical Engineering Services Report, Phase I of the Bluff Area Stability Evaluation, PS&S, dated July 25, 2008 (*did not include Appendix*)
- 2. Appendix H-2 Geotechnical Engineering Investigation and Slope Stability Analysis, PS&S, dated April 15, 2019 (with associated Appendices A&B)
- 3. Appendix H-3 Dynamic Earth Correspondence, dated July 8, 2019
- 4. 2019-11-18 Response to AECOM memo with attachments which includes a response letter from NP&V and the Dynamic Earth Consultants
- 5. APPENDIX I-4 SLOPE STABILITY EVALUATION by Dynamic Earth, LLC, dated August 3, 2020 which presents results of the new test borings and laboratory testing requested in our Memorandum dated March 18, 2020.

Based on the new data from 3 borings shown on Figure 1 and lab tests, we reduced the cohesion of the Gardiners clay deposit from 650 psf to 500 psf in our simplified analysis and raised the water table to approximate Elevation +50 in the pre-existing landslide area. This conservative approach indicates a Factor of Safety greater than 1.3 as we previously recommended with the 300 psf surcharge of the buildings.

Considering the new data provided, we now conclude that 120 feet may be enough of a buffer provided the hydrology and shoreline conditions outside the Coastal Erosion Hazard Line do not change. A possible new scarp is visible on recent Google Earth imagery between borings TB-1 and TB-2 as shown on Figure 2 where the golf cart path is damaged. Continued survey deformation monitoring at the golf course is recommended.

We remain concerned that a 30-feet high retaining wall is being constructed near the northwest portion of the site within the buffer zone (see Figure 3). Several housing units may face damage in the future. Subdivision approval plans prior to ground-breaking should include detailed slope stability and drainage calculations to be submitted for review to the Town of Huntington.

AECOM is pleased to provide this opinion and trust that this clarifies our position.



Figure 1. Topographic Profile along Three Borings



Figure 2. Possible New Scarp North of TB-1

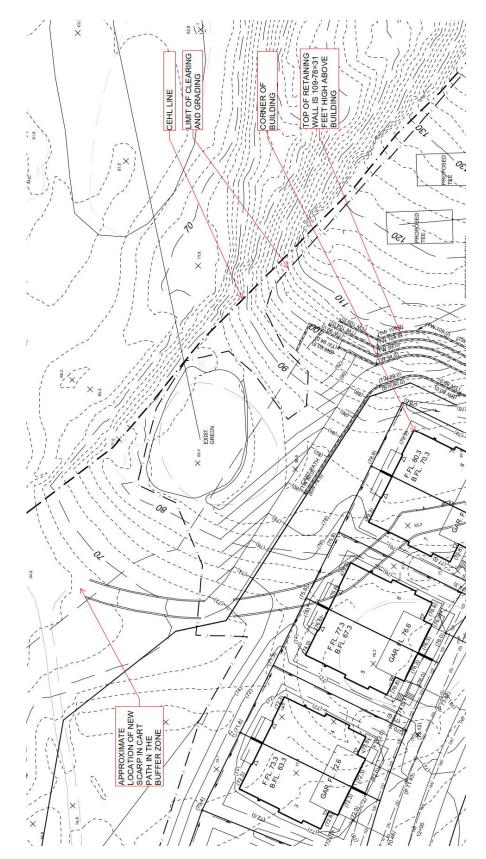


Figure 3. Potential Damage in Buffer Zone