GEO-TECH, INC.
ENGINEERING CONSULTANTS IN GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION MATERIALS TESTING

April 21, 2023
Project No. 23-2162.19.1

Douglas A. VanDeursen, P.E.
DNM Engineering & Associates, Inc.
P.O. Box 42
Ocala, Florida 34478

Reference: Existing County Road 337, Proposed 3RT Sand Pit, NE 110th Avenue
Bronson, Levy County, Florida
Pavement Analysis

Dear Mr. VanDeursen:

Geo-Technologies, Inc. (Geo-Tech) performed pavement analysis on a section of existing County Road 337 between County Road 326 and north of NE 30th Street per your request. Our analysis was performed in order to provide an opinion on roadway stability for an expected increase in traffic due to three (3) axle trucks accessing the proposed sand mine.

The original asphalt thickness is unknown for this section of roadway. However, Geo-Tech was provided the spread rate for each time the roadway was resurfaced to estimate the approximate asphalt thickness for use in our analysis.

Geo-Tech has determined an existing structural number of 3.67. This structural number is capable of withstanding 5,000,000 ESALs according to Table A.2A in the FDOT Flexible Pavement Design Manual.

Geo-Tech understands the proposed daily traffic will be approximately 75 one-way trips based on information provided by you. Geo-Tech utilized a Reliability (%R) of 80 and a Resilient Modulus (M_R) of 12,000 for our calculations to determine that the total ESALs for the aforementioned traffic is approximately 550,000.

In Geo-Tech's opinion, an increase in ESALs due to the expected increase in traffic is minimal. Geo-Tech recommends additional roadway analysis be performed should traffic increase more significantly than expected. However, minimal increases would not be of concern.

Geo-Tech appreciates the opportunity to provide our services for this project. Please contact the undersigned with any questions regarding the contents of this report or for further assistance.

Sincerely,

Gerald W. Green, Jr.
Soil & Water Scientist
GWG/CAH

CRAIG A. HAMPY LICENSE No. 83240 4/21/23 STATE OF FLORIDA PROFESSIONAL ENGINEER

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