

February 14, 2024



Limited Geoforensic Study of a Residence in the Houston Area Presented by Mr. James Namekar, Ph.D., P.E., with <u>Geotech</u> <u>Engineering and Testing</u>

BIO: Dr. James Namekar, P.E., is the Chief Engineer for geotechnical engineering at Geotech Engineering and Testing (GET) with the responsibility for the daily operations of geoforensic, geotechnical and environmental engineering, data analyses and the preparation of report recommendations. He has 24 years of experience in the fields of geoforensic, geotechnical, environmental, and materials engineering. He has been involved in geoforensic studies as they relate to commercial structures, residential, slope failures, pavements, retaining walls, pipelines, sewer leaks, plumbing leaks, etc. His other experience includes planning and supervising

geotechnical explorations, subsurface investigations, coordinate laboratory testing and analyze results, date review, report preparation and post-design services. His other experience includes research and development in the field of deep foundations, slope-stability, retaining walls, unsaturated soil mechanics. Dr. Namekar's geotechnical experience has been in landslide investigations, static and seismic slope stability analysis for embankments, cut slopes, ground improvements, jet grouting, shallow and deep foundation design and special inspection, horizontal directional drilling, settlement, lateral earth pressure, rigid pavement design. He has a lot of experience with design of foundations on expansive soils. He has also been involved in conducting many environmental site assessment studies, including Phase I and II environmental site assessment studies.

PRESENTATION SUMMARY: Mr. James Namekar, Ph.D., P.E., Chief Geotechnical Engineer with Geotech Engineering and Testing discussed an existing residence in Bellaire, Texas, that experienced foundation and structural movements. These movements resulted in cracks in the concrete floor slabs. The residence consists of a one-story building located at the east area and a two-story wing building located at the west area. The designed foundation system consists of a 6-inch thick concrete slab on 6-inch void boxes supported by drilled and underreamed concrete piers with a 9-ft depth below the existing grade. The foundation and structural movements causes were identified as a combination of insufficient drilled footing depth and absence of void boxes under grade beams. Repair techniques that would reduce future movement and cracking of the structure were recommended during this limited geoforensic study.

PREVIOUS FPA PRESENTATIONS BY MR. NAMEKAR:

<u>May 2023 – Geotechnical Instrumentation</u> August 2022 - Horizontal Directional Drilling and Its Applications