

29623



Subsidence Investigation
RICHARDS-ROGERS RESIDENCE
189 SW TAMARACK LOOP
LAKE CITY, FLORIDA

Claim Number: ACM100745

Prepared For:
AMERICAN INTEGRITY INSURANCE GROUP
TAMPA, FLORIDA

Prepared By:
SDII GLOBAL CORPORATION
SDII Project Number: **3027720**

JANUARY 2011



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January 1, 2011

Ms. Bertha Ramirez
American Integrity Insurance Group
7650 West Courtney Campbell Causeway
Suite 1200
Tampa, Florida 33607

Subject: Final Report – Subsidence Investigation
Richards-Rogers Residence - Lake City, Florida
Claim Number ACM100745
SDII Project No. 3027720

Dear Ms. Ramirez:

SDII Global Corporation (SDII) is pleased to submit this final report of our subsidence evaluation for the above referenced project. When conducting a subsidence investigation, SDII follows the general sinkhole-investigation protocols included in Chapter 627.707 Florida Statutes and described in "Geological and Geotechnical Investigation Procedures for Evaluation of the Causes of Subsidence Damage in Florida" (Florida Geological Survey, Special Publication No. 57, 2005).

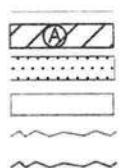
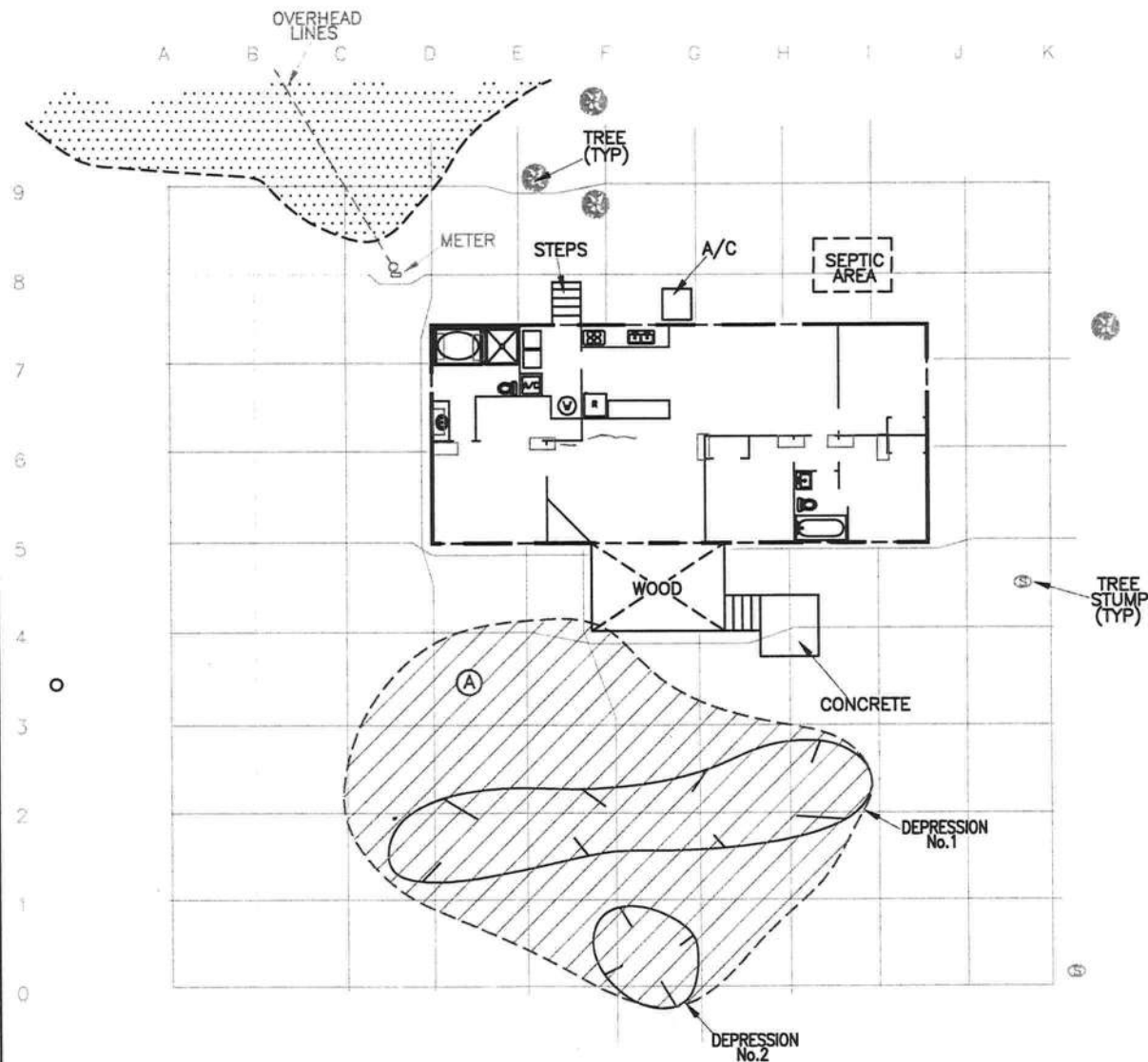
Presented herein are the findings and conclusions of our investigation including geologic, geotechnical, and structural evaluations of the cause(s) of damage to the Richards-Rogers Residence. These evaluations are based on an extensive data collection and interpretation effort by our technical staff who have been trained in Florida subsidence investigation techniques and data interpretation, and supervision and review by the senior professionals who have signed and sealed the report.

SDII appreciates the opportunity to have assisted American Integrity Insurance Group on this project. The senior professionals who developed the opinions herein and signed the report and I are always available to help. If you have any questions or comments concerning this report, please contact us.

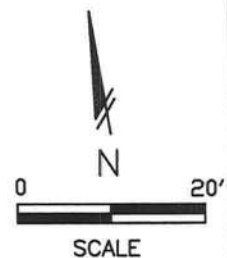
Sincerely,

SDII GLOBAL CORPORATION

Sam B. Upchurch, Ph.D., P.G.
Vice President and Principal Geologist



- APPROXIMATE LOCATION OF GPR TRANSECT LINE
- APPROXIMATE LOCATION OF SUBSURFACE ANOMALY WITH DESIGNATION
- APPROXIMATE LOCATION OF AREA PARTIALLY OR TOTALLY INACCESSIBLE TO GPR SURVEY
- APPROXIMATE LOCATION OF CRACKING/SEPARATION ON WALLS
- APPROXIMATE LOCATION OF CRACKING/SEPARATION IN CONCRETE SLAB
- APPROXIMATE LOCATION OF CRACKING IN CEILING



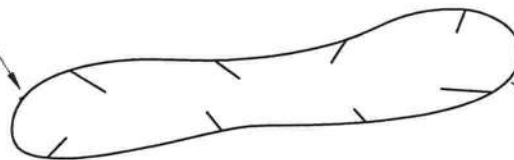
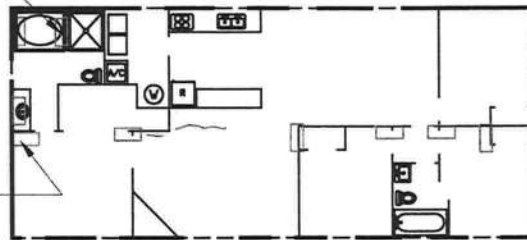
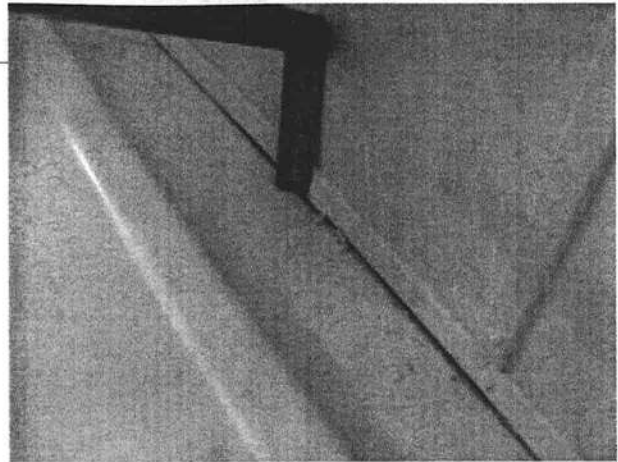
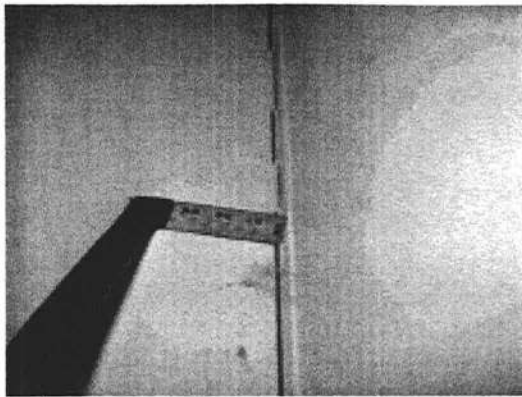
AMERICAN INTEGRITY
INSURANCE GROUP
TAMPA, FLORIDA



SITE PLAN SHOWING APPROXIMATE LOCATION
OF GPR SURVEY AND RESULTS

RICHARDS-ROGERS RESIDENCE
LAKE CITY, FLORIDA

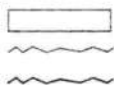
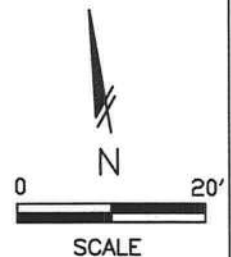
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DEPRESSION
No.1



DEPRESSION
No.2



APPROXIMATE LOCATION OF CRACKING/SEPARATION ON WALLS
APPROXIMATE LOCATION OF CRACKING/SEPARATION IN CONCRETE SLAB
APPROXIMATE LOCATION OF CRACKING IN CEILING

AMERICAN INTEGRITY
INSURANCE GROUP
TAMPA, FLORIDA



SITE PLAN SHOWING APPROXIMATE LOCATION
AND EXAMPLES OF OBSERVED DAMAGE

RICHARDS-ROGERS RESIDENCE
LAKE CITY, FLORIDA

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6.0 ENDORSEMENTS

6.1 Compliance with Florida Statute Title XXXVII Chapter 627.7073

This report followed the statutory requirements that it be prepared by an individual qualified to determine the existence of sinkhole activity and that the tests performed be of sufficient scope to identify sinkhole activity as the cause of damage. SDII certifies that this investigation was of sufficient scope to determine the cause(s) of damage within a reasonable professional probability as specified in §627.7073 Florida Statutes.

In accordance with Florida Statutes, the following individuals, who are licensed to practice in the State of Florida and are Principals of SDII, have supervised this investigation and report.

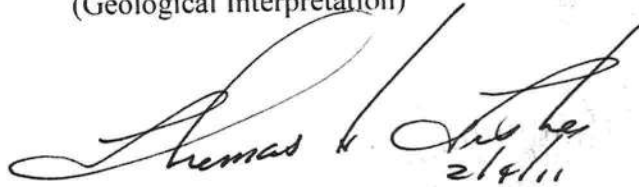
SDII GLOBAL CORPORATION

4509 George Road, Tampa, FL 33634
FBPE Certificate of Authorization 8778
FBPG Certificate of Authorization GB91



3 FEB 2011

Michael C. Alfieri, P.G., P.Hg., CGWP
Geologist of Record
Florida License Number PG2476
(Geological Interpretation)



2/4/11

Thomas H. Fisher, P.E.
Structural Engineer of Record
Florida License Number 58027
(Structural Evaluation)



2/4/11

Ruben Sosa, Jr., P.E.
Geotechnical Engineer of Record
Florida License Number 61847
(Geotechnical Evaluation and Remediation Plan)

4.0 CONCLUSIONS

It is SDII's opinion, within a reasonable professional probability, that sinkhole activity as defined by §627.706 Florida Statutes exists at the Richards-Rogers Residence. Sinkhole activity was identified through: 1) the patterns of declining soil strength with depth accompanied by weight-of-rod/hammer strength materials in SPT borings B-1 (located within GPR anomaly A and Depression 1) and B-4; 2) the rapid loss of drilling fluid circulation above limestone in SPT boring B-4; and 3) the difference in depth to limestone across the project site.

It is SDII's opinion, within a reasonable professional probability, that the observed damage on the interior of the residence is consistent with differential movement of the isolated pier foundation system. Further, it is the opinion of SDII that the sinkhole activity identified at the site has contributed to the damage. The observed damage on the exterior and interior of the residence is cosmetic in nature, in that the damage has not impaired the ability of the structure to support intended loads.

SDII recommends that the sinkhole conditions be remediated using compaction grout injection to increase the density of the soils and cap the limestone. SDII also recommends that the remediation program be monitored in order to verify that it is completed in accordance with our recommendations. The cost of remediation, monitoring, and certification is estimated to be approximately \$64,560.