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that this degree of compaction is achieved. For this case, footings could be seated in the structural fill using the allowable soil bearing capacities given above.

14. Estimated Settlements No detailed settlement analyses were made since the design structural loads are not known at this time. However, settlement of 5 ft. square spread footings and 2 ft. wide continuous footings that are seated in stiff to very stiff reddish tan and gray sandy clay or in controlled-compacted structural fill and using the recommended allowable soil bearing capacities are estimated to be on the order of  $\frac{3}{4}$  to 1 inch. This further assumes that the sustained dead load on the footings will be about 75 percent of the total load. Settlements would increase with the size of the spread footing and, if larger footings are needed for support, detailed settlement analyses should be made.

*Handwritten notes:*  
29 1/2 151  
35 9 118 201  
200 220 71 =  
200 220 50 11

15. In view of the magnitude of the estimated settlements and to bridge any undetected soft or loose areas, good rigidity should be assured in the structure foundation to minimize detrimental effects of differential settlements. This could consist of stiffening grade beams tying individual foundation elements together and forming a rigid or "waffle" like pattern. If the foregoing estimated settlements are considered prohibitive, then piles are recommended for support of all structural loads including the ground floor slab and any sensitive pavements.

16. Volumetric Change The near surface soils are believed to be slightly to moderately susceptible to changes in volume if variations in moisture content of the subsoils occur. Therefore, there is some potential for heave and shrinkage during periods of heavy precipitation and severe drought, respectively. In order to minimize detrimental effects of

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differential movement due to this potential for volumetric change, the estimated settlements given above and the variations in the near soil conditions throughout the site, good rigidity of the structure foundation should be assured, as previously discussed in Paragraph 15.

17. Good drainage should be assured, both during and subsequent to construction, to divert the flow of surface waters from the area of the structure foundation. By precluding surface waters from saturating the potentially expansive soils, the resulting volumetric movements would be minimized. In this regard, good roof and surface drainage should be assured with positive collection and runoff of these waters. The surrounding ground should slope away from the structure to divert surface runoff away from the structure foundation. Consideration could be given to placing an impervious membrane below flowerbeds in the immediate vicinity of the structure to prevent water infiltration into the subsoils in the area of the structure foundation. Also, a distance of at least one-half (1/2) the expected height of fully-grown trees should be maintained between any trees and the structure foundation. It is also recommended that trees and shrubbery with heavy moisture demand not be placed in close proximity to the structure foundation.

GORE ENGINEERING, INC.

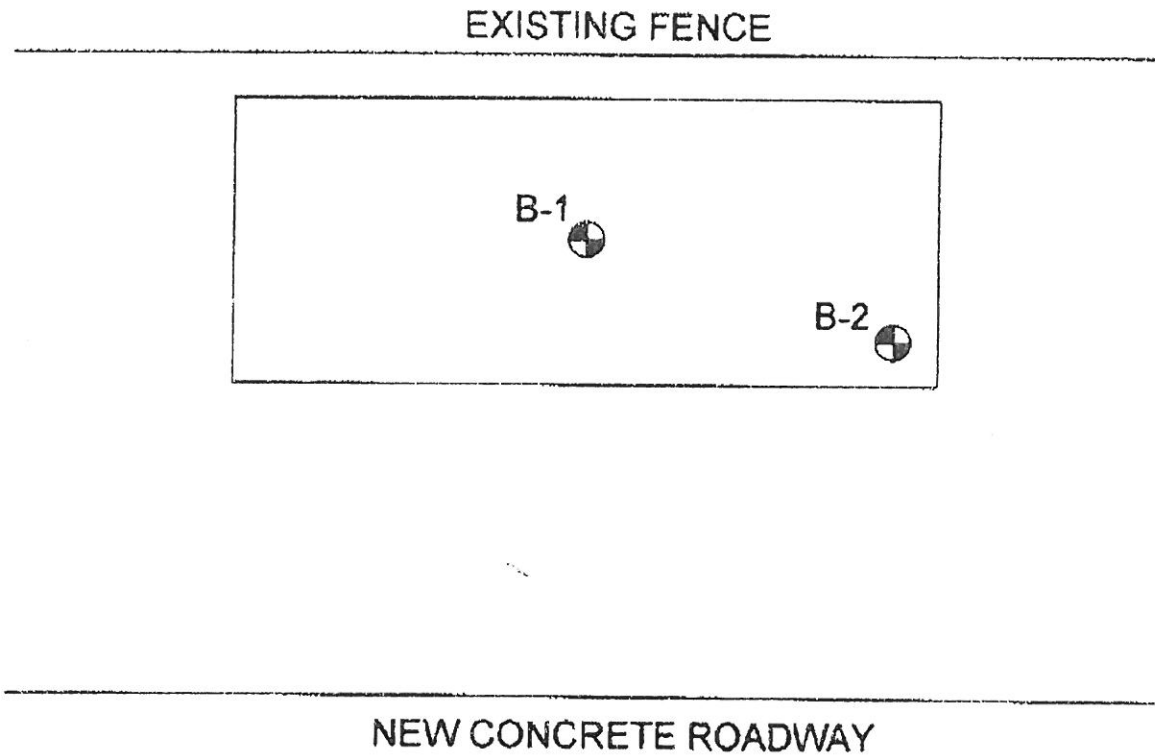
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Lawrence W. Gilbert

(Reda Bakeer)

Figure 1

Scale 1:40



Boring No. B-1

**LOG OF BORING AND TEST RESULTS**

Date Boring Drilled: 7 May 2007

Project: Proposed LaQuinta Hotel \* Holiday Business Park \* Lot 2 \* vicinity Airport Road \* Slidell, La. \* Owner: Dapco Ventures, LLC  
Disk File: J9353.B1

Recorded By: Mark Alharado

Sample No.	SAMPLE Depth in Feet		STRATUM Depth in Feet	VISUAL CLASSIFICATION	* Blows per Foot	Symbol Log	Scale (feet)	UNCOMPIED COMPRESSION (lb./sq ft.)	WATER CONTENT (percent)	UNIT WEIGHT (lb./cu. ft.)		ATTERBERG LIMITS			
	From	To								DRY	WET	L.L.	P.L.	P.I.	
1	0	0.5	0.5	SOFT DARK BROWN SILTY CLAY W/ SAND & ROOTS											
2	1.5	2.0	2.0	SOFT TAN SANDY CLAY				800	18.6	107.4	127.4				
3	3.5	4.0	6.5	STIFF TO VERY STIFF REDDISH TAN & GRAY SANDY CLAY (FISSURED @ 5.5'-6.0')				6100	18.5	108.4	128.4	41	11	30	
4	5.5	6.0						1990	16.9	108.3	126.6				
5	7.5	8.0	11.5	MEDIUM STIFF TO STIFF LIGHT GRAY SILTY CLAY				1600	23.4	96.9	119.6	37	14	23	
6	9.5	10.0						2050	34.5	84.7	113.9				
7	11.5	12.0	19.5	SOFT TO MEDIUM STIFF GRAY & REDDISH TAN SILTY CLAY				825	30.5	87.0	113.6				
8	14.5	15.0						1845	35.1	84.2	113.8				
9	19.5	20.0	24.5	STIFF REDDISH TAN CLAY (W/ SAND LAYER @ 20')				3530	45.0	78.5	113.8				
10	24.5	25.0	28.5	MEDIUM STIFF GREENISH GRAY SANDY CLAY				1370	24.5	96.1	119.7				
11	29.5	30.0	40.0	SOFT TO MEDIUM STIFF GRAY SANDY CLAY				855	25.2	97.0	121.5				
12	34.5	35.0													
13	39.5	40.0						955	33.5	87.5	116.8				

CLAY  
 SILT  
 SAND  
 ORGANIC  
 Predominant Type Bold    Modifying Type Light

\*140 lb. hammer dropped 30 inches on 2 inch splitspoon sampler after first being seated 6 inches.

REMARKS: Water Table Depth - 4.5 ft (after 30 hours)

