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Information To Build On
Engineering • Consulting • Testing

October 28, 2005

Dr. Eduardo J. Hernandez
1430 Lindberg Drive
Slidell, Louisiana 70458

Re: Geotechnical Engineering Report
Proposed La Quinta Inn
Cedar Lake Road
Biloxi, Mississippi
PSI File Number: 54-55107-1

Dear Mr. Hernandez:

Professional Service Industries, Inc. is pleased to submit our Geotechnical Engineering Report for the above referenced project. This report includes the results of field and laboratory testing, and recommendations for foundation and pavement design, as well as general site development for the proposed La Quinta Inn in Biloxi, Mississippi.

We appreciate the opportunity to perform this Geotechnical Study and look forward to continued participation during the design and construction phases of this project. If you have any questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Malay Ghose Hajra, Ph.D.
Department Manager
Geotechnical Services

Tony Y. Maroun, P.E.
Vice President

STATE OF LOUISIANA
TONY Y. MAROUN
License No. 26198
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

MGH/TYM:gsm

GEOTECHNICAL ENGINEERING REPORT

PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

PSI FILE NUMBER 254-55107-1

PREPARED FOR

DR. EDUARDO J. HERNANDEZ
1430 LINDBERG DRIVE
SLIDELL, LOUISIANA 70458

OCTOBER 28, 2005

BY

PROFESSIONAL SERVICE INDUSTRIES, INC.
724 CENTRAL AVENUE
JEFFERSON, LOUISIANA 70121

TABLE OF CONTENTS

EXECUTIVE SUMMARY

An exploration and evaluation of the subsurface conditions have been completed for the proposed La Quinta Inn Hotel on Cedar Lake Road in Biloxi, Mississippi. Two (2) borings (B-1 and B-2) were drilled within the proposed building footprint to a depth of 50 feet and four (4) shallow borings (P-1 through P-4) were drilled in the proposed parking area to a depth of six (6) feet.

Furnished information indicates that the site for the proposed development is currently an undeveloped area with natural vegetation and some scattered trees. The project includes the construction of a three (3) story wood frame structure having a footprint of approximately 10,608 square feet. In addition, a parking lot with 103 spaces will be constructed to accommodate the facility. Wall loads are not available at this time and are assumed to be on the order of three (3) kips per linear foot, respectively. Grading information is not available at the time this report was prepared. However, it is understood that about two (2) to three (3) feet of fill will be required to achieve the floor slab design grade.

Based on the borings, approximately 10 inches of silty sand topsoil with organic materials was encountered at the ground surface. This was generally followed by dense tannish brown silty sand to a depth of six (6) to 13 feet. The silty sand is underlain by medium to dense tannish gray poorly graded sand extending to a depth of 27 feet. Underlying the silty sand, firm to stiff light gray fat clay was encountered and extended to a depth of 42 to 46 feet. The building borings were terminated in firm to stiff gray sandy clay to clayey sand at 50 feet, the maximum depth explored. Groundwater was measured at a depth of about six (6) to 8.5 feet below existing grade in the building borings upon completion of drilling. No groundwater was encountered in the parking lot borings.

Considering the project information and the subsurface soil conditions, a shallow foundation and soil supported floor slab may be used to support the proposed La Quinta Inn facility, provided the site is prepared as recommended in the report. Continuous footings bearing in the compacted fill could be designed for a maximum allowable bearing capacity of 2,000 psf, based on dead loads and design live loads. Minimum dimensions of 18 inches for continuous footings should be used in foundation design to minimize the possibility of a localized bearing failure.

The owner/designer should not rely solely on this Executive Summary and must read and evaluate the entire contents of this report prior to utilizing our engineering recommendations in preparation of design/construction documents.

PROJECT INFORMATION

Project Authorization

Professional Service Industries, Inc. (PSI) has completed a geotechnical exploration for the proposed La Quinta Inn Hotel to be developed on Cedar Lake Road in Biloxi, Mississippi. This exploration was accomplished in general accordance with PSI Proposal No. 254-550145 dated June 24, 2005. Authorization to proceed was given by Mr. Eduardo Hernandez on July 5, 2005.

Project Description

The project includes the construction of a three (3) story wood frame structure with stucco walls having a footprint of approximately 10,608 square feet. In addition, a parking lot with 103 spaces will be constructed to accommodate the facility. Structural loading information is not available at this time. However, maximum wall loads are assumed to be on the order of three (3) kips per linear foot. We understand that a concrete deck is planned in the rear of the facility. The deck will be attached to the back wall extending partially over the pond and supported on shallow timber piles. Grading information is not available at the time this report was prepared. However, based on a conversation with Mr. Pete Dammon of Dammon Engineering, Inc., two (2) to three (3) feet of fill is anticipated in the building area.

The geotechnical recommendations presented in this report are based on the available project information, building location, and the subsurface materials described in this report. If any of the noted information is incorrect, please inform PSI in writing so that we may amend the recommendations presented in this report if appropriate and if desired by the client. PSI will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

Purpose and Scope of Services

The purpose of this study was to explore the subsurface conditions at the site to enable an evaluation of acceptable foundation and pavement systems for the proposed facility. Two (2) borings (B-1 and B-2) were drilled to a depth of 50 feet within the building footprint and four (4) shallow borings (P-1 through P-4) were drilled to a depth of six (6) feet in the proposed parking area. Our scope of services included a reconnaissance of the project site, drilling the soil borings, select laboratory testing, and preparation of this geotechnical report. This report briefly outlines the testing procedures, presents available project information, describes the site and subsurface conditions, and presents recommendations regarding the following:

- Site preparation procedures;
- Foundation type, allowable bearing capacity, and an estimate of settlement;
- General pavement design criteria and pavement subgrade preparation;
- Comments regarding factors that will impact construction and performance of the proposed construction.

The scope of geotechnical services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, surface water, groundwater, or air on or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes. Prior to development of this site, an environmental assessment is advisable.

PSI did not provide any service to investigate or detect the presence of moisture, mold, or other biological contaminates in or around any structure, or any service that was designed or intended to prevent or lower the risk of the occurrence of the amplification of the same. The client acknowledges that mold is ubiquitous to the environment with mold amplification occurring when building materials are impacted by moisture. The client further acknowledges that site conditions are outside of PSI's control, and that mold amplification will likely occur, or continue to occur, in the presence of moisture. As such, PSI cannot and shall not be held responsible for the occurrence or recurrence of mold amplification.

SITE AND SUBSURFACE CONDITIONS

Site Location and Description

The site of the proposed La Quinta Inn is located on Cedar Lake Road in Biloxi, Mississippi. The site is an undeveloped parcel of land covered with natural vegetation and some scattered trees. The property is flat and appears to drain to the west into an existing detention pond located approximately 15 feet from the facility.

Drilling, Sampling, and Laboratory Testing Procedures

The borings were drilled with a truck mounted drilling rig, and hollow stem drilling techniques were used to advance the borings. Samples were generally obtained continuously from the ground surface to a depth of ten feet and at maximum five feet intervals thereafter.

Undisturbed samples of cohesive soils were generally obtained using three (3) inch diameter thin-wall tube samplers (Shelby tubes) in general accordance with the procedures for "Thin-Walled Tube Geotechnical Sampling of Soils" (ASTM D1587). These samples were extruded in the field with a hydraulic ram.

Standard Penetration Tests (SPT) were performed in the cohesionless soils to obtain standard penetration values of the soil. The standard penetration value (N) is defined as the number of blows of a 140-pound hammer, falling 30 inches, required to advance the split-barrel sampler 1-foot into the soil. To perform the test and obtain a sample, the sampler is lowered to the bottom of the previously cleaned drill hole and advanced by blows from the hammer. The number of blows is recorded for each of three successive increments of six inches penetration. The "N" value is obtained by adding the second and third incremental numbers. The results of the standard penetration test indicate the relative consistency of semi-cohesive soils and relative density of cohesionless soils thereby provides a basis for estimating the relative strength and compressibility of the soil profile components.

The samples were identified according to the project number, boring number and depth, and placed in polyethylene plastic wrapping to protect against moisture loss.

In addition to the field exploration, a supplemental laboratory testing program was conducted to evaluate additional pertinent engineering characteristics of the foundation materials in analyzing the behavior of the foundation system. The laboratory testing program included supplementary visual classification and water content tests on all of the soil samples. In addition, selected samples were subjected to Atterberg Limits, unconfined compressive strength and percent passing the #200 sieve determinations. The laboratory testing program was conducted in general accordance with applicable ASTM Standard Procedures. The results of these tests can be found on the accompanying boring logs located in the Appendix.

Subsurface Conditions

Based on the borings, approximately 10 inches of silty sand topsoil with organic materials was encountered at the ground surface. This was generally followed by dense tannish brown silty sand to a depth of six (6) to 13 feet. The silty sand is underlain by medium to dense tannish gray poorly graded sand extending to a depth of 27 feet. Below this, firm to stiff light gray fat clay was encountered and extended to a depth of 42 to 46 feet. The building borings were terminated in firm to stiff gray sandy clay to clayey sand at 50 feet, the maximum depth explored.

The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the Appendix should be reviewed for specific information at the boring locations. These records

include soil descriptions, stratification, penetration resistances, and locations of the samples and laboratory test data. The stratification shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratification represents the approximate boundary between subsurface materials land the actual transition may be gradual. Water level information obtained during field operations is also shown on the boring logs. The samples, which were not altered by laboratory testing

Groundwater Conditions

Groundwater was measured at a depth of about six (6) to 8.5 feet below existing grade in the building borings upon completion of drilling. No groundwater was encountered in the parking lot borings. The groundwater levels presented in this report are the levels that were measured at the time of our field activities and may not have become fully static at the time of measurement. Groundwater could fluctuate due to seasonal precipitation, and weather variations. It is recommended that the actual groundwater levels be determined at the site at the time of the construction activities.

EVALUATION AND RECOMMENDATIONS

Site Preparation

Site preparation is expected to include, but not be limited to stripping vegetation and topsoil with organic materials, and removing any other deleterious material from the areas to be developed. Based on the borings, it is recommended that about 10 inches of topsoil with organics be stripped from the site and wasted. The actual stripping depth should be determined in the field by the Geotechnical Engineer or by his representative at the time of construction.

After stripping, the exposed subgrade in the building and parking areas should be proofrolled with a tandem axle dump truck or similar rubber tired vehicle. Soils, which are observed to rut or deflect excessively under the moving load should be undercut and replaced with properly compacted fill. The amount of undercutting will primarily depend on the site conditions at the time of construction. The proofrolling and undercutting activities should be witnessed by a representative of the geotechnical engineer and should be performed during a period of dry weather.

Fill needed to raise the building pad to design grade should be placed in relatively uniform horizontal lifts. The structural fill should be free of organic or other deleterious materials have a maximum particle size less than two (2) inches, a liquid limit less than 40 and a plasticity index more than eight (8) but less than 18 percent.

The structural fill should be compacted to at least 95 percent of the soil's maximum dry density as determined by ASTM Designation D698 (Standard Proctor). The fill should be placed in maximum lifts of eight inches of loose material and should be compacted within the range of one (1) percentage point below to three (3) percentage points above the optimum moisture content value. If water must be added, it should be uniformly applied and thoroughly mixed into the soil by disking or scarifying. Each lift of compacted structural fill should be tested by a representative of the geotechnical engineer prior to placement of subsequent lifts. The fill should extend at least five (5) feet beyond the building perimeter prior to sloping. Adequate drainage must be provided prior to and during site work. The site should be graded to promote rapid runoff.

Foundation Recommendations

Provided the site is prepared as described in the "Site Preparation" section of this report, the proposed La Quinta Inn Hotel may be supported on a shallow foundation system. Continuous footings placed on the compacted fill may be designed for a maximum allowable bearing capacity of 2,000 psf. The footings should be placed a minimum of 24 inches below final grade. Minimum dimensions of 18 inches for wall footings should be used in foundation design to minimize the possibility of a localized bearing failure.

We understand that an existing detention pond is located within 15 feet of the rear wall of the building. The pond's geometry and depth is not known at the time the report was prepared. Due to the sandy nature of the near surface soils and the pond's close distance to the building, consideration should be given to providing a bulkhead at the edge of the pond adjacent to the building to prevent erosion of the sand and eventually undermining of the wall footing.

The foundation excavations should be observed by a representative of PSI prior to steel or concrete placement to assess that the foundation materials are capable of supporting the design loads and are consistent with the materials discussed in this report. Soft or loose soil zones encountered at the bottom of the footing excavations should be removed to the level of firm/dense soils or adequately compacted fill as directed by the geotechnical engineer. Cavities formed as a result of excavation of soft or loose soil zones should be backfilled with compacted structural fill or graded compacted crushed stone, as determined by the Geotechnical Engineer.

Footing excavations should be observed and concrete placed as quickly as possible to avoid exposure of the footing bottoms to wetting and drying. Surface run-off water should be drained away from the excavations and not be allowed to pond. The foundation concrete should be placed during the same day the excavation is made. If it is required that footing excavations be left open for more than one day, they should be protected to reduce evaporation or entry of moisture.

Settlement

Provided the site is prepared in accordance with the recommendations provided in the site preparation section of this report, we estimate that the maximum post-construction foundation settlement will be less than one (1) inch. Differential settlement is expected to be 50 percent of the total settlement. While settlements of this magnitude are generally considered tolerable for structures of the type proposed, the design of masonry walls should include provisions for liberally spaced, vertical control joints to minimize the affects of "cosmetic" cracking.

Floor Slab

The floor slab should be soil supported on a minimum of 24 inches of compacted structural fill meeting the material and compaction requirements discussed in the *Site Preparation* section of this report. Polyethylene sheeting should be placed between the fill and the floor slab to act as a vapor barrier. The floor slab should have an adequate number of joints to reduce cracking resulting from any differential movement and shrinkage.

Pavement Recommendations

The performance of pavements depends upon several factors including (1) the characteristics of the supporting soils; (2) the magnitude and frequency of wheel load applications; (3) quality of construction materials; (4) the contractor's placement and workmanship abilities, and (5) the desired period of design life. PSI has evaluated both rigid and flexible pavements for this project.

The recommended pavement thicknesses presented are considered typical and minimum for the assumed parameters in the general site area and anticipated traffic condition. We understand that budgetary considerations sometimes warrant thinner pavement sections than those presented. However, the owner and the project designers should be aware that thinner pavement sections may result in increased maintenance costs and lower than anticipated pavement life. The pavement subgrade should be prepared as discussed in the site preparation section of this report.

Detailed grading information is not available at the time this report was prepared. However, based on conversations with Mr. Pete Dammon of Dammon Engineering, Inc., about one (1) foot of fill will be required to achieve the parking lot design grades.

Our scope of services did not include extensive sampling for determination of coefficient of subgrade reaction (k) and California Bearing Ratio (CBR) of existing subgrade or potential sources of imported fill for the specific purpose of a detailed pavement analysis. Instead, we have assumed pavement related design parameters that are considered to be typical for the area soil types. A California Bearing Ratio (CBR) of 4.0 and a modulus of subgrade reaction (k) of 125 psi/in were assumed for the near surface soils. Additionally, we assumed the following:

Reliability	85%
Standard Deviation	0.45 Asphalt, 0.35 Concrete
Initial Serviceability	4.2
Terminal Serviceability	2.0
Drainage Coefficient	1.0
Design Life	20 Years
Layer Coefficients	0.41 Asphalt, 0.14 Limestone Base, 0.08 Sand Fill

Considering the above assumptions and our previous experience with similar structures in the area, we recommend the following pavement sections:

FLEXIBLE PAVEMENT		
Pavement Materials	**Minimum Thickness, Inches**	
	Light Duty	**Heavy Duty**
Asphaltic Concrete Wearing Course	3	4
Compacted 610 Limestone Base	8	8
Compacted Sandy Subgrade or Compacted Structural Fill	12	12

RIGID PAVEMENT		
Pavement Materials	**Minimum Thickness, Inches**	
	Light Duty	**Heavy Duty**
Portland Cement Concrete	5	6
Compacted Sandy Subgrade or Compacted Structural Fill	12	12

Portland Cement Concrete pavements should be utilized where waste disposal containers are located. The concrete paved area should be sufficiently large so that the front wheels of the collection truck are supported on the rigid pavement. In this area and in areas which will be accessed by heavy trucks (solid waste trucks, delivery trucks), a minimum concrete pavement thickness of seven (7) inches underlain by 12 inches of compacted sandy subgrade or compacted structural fill is recommended.

The asphaltic concrete should meet the requirements of the latest edition of *the Mississippi Standard Specifications for Road and Bridge Construction, Sections 401 and 703* and should be compacted to a minimum of 95 percent of the density of the laboratory-molded specimen.

The Limestone base should consist of 610 limestone conforming to MDOT Specifications, and should be compacted to at least 95 percent of the maximum dry density as determined by ASTM D698 (Standard Proctor) within 3 percent of optimum moisture content.

Proper finishing of concrete pavement requires the use of appropriate construction joints to reduce the potential for cracking. Construction joints should be designed in accordance with current Portland Cement Association guidelines. Joints should be connected with smooth, greased or sleeved dowels and should be sealed to reduce the potential for water infiltration into pavement joints and subsequent infiltration into the supporting soils. The design of steel reinforcement should be in accordance with accepted codes. The concrete should have a minimum flexural strength of 650 psi at 28 days. The concrete should also be designed with 5±1 percent entrained air to improve workability and durability. It should be noted that normal maintenance will be required. Long-term pavement performance requires good drainage and performance of periodic maintenance activities.

Water should not be allowed to pond behind curbs and saturate the pavement base. In down grade areas, sand base should extend through the slope to allow any water entering the base a path to exit.

CONSTRUCTION CONSIDERATIONS

It is recommended that PSI be retained to provide observation and testing of construction activities involved in the foundations, pavements, and related activities of this project. PSI cannot accept any responsibility for any conditions, which deviate from those described in this report, nor for the performance of the foundations and pavements if not engaged to also provide construction observation and testing for this project.

Moisture Sensitive Soils/Weather Related Concerns

The upper soils encountered at this site are relatively sensitive to disturbances caused by construction traffic and changes in moisture content. During wet weather periods, an increase in the moisture content of the soil can cause significant reduction in the soil strength and support capabilities. In addition, soils that become wet may be slow to dry and thus significantly retard the progress of grading and compaction activities. It will, therefore, be advantageous to perform earthwork and foundation construction activities during dry weather.

Drainage and Groundwater Concerns

Water should not be allowed to collect in the foundation excavations, in the floor slab areas, or on prepared subgrades of the construction area either during or after construction. Undercut or excavated areas should be sloped toward one corner to facilitate removal of any collected rainwater, groundwater, or surface runoff. Positive site surface drainage should be provided to reduce infiltration of surface water around the building.

Groundwater was measured at a depth of about six (6) to 8.5 feet below existing grade upon completion of drilling. However, it is possible that seasonal variations will cause fluctuations, or a water table to be present in the upper soils at a later time. Any water accumulation should be removed from excavations by pumping. Should excessive and uncontrolled amounts of seepage occur, the geotechnical engineer should be consulted.

Excavations

In Federal Register, Volume 54, No. 209 (October 1989), the United Stated Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, part 1928, Subpart P". This document was issued to better ensure the safety of workmen entering trenches or excavations. It is mandated by this federal regulation that excavations, whether they be utility trenches, basement excavation or footing excavation, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. PSI does not assume responsibility for construction site safety or the contractor's or other parties compliance with local, state, and federal safety or other regulations.

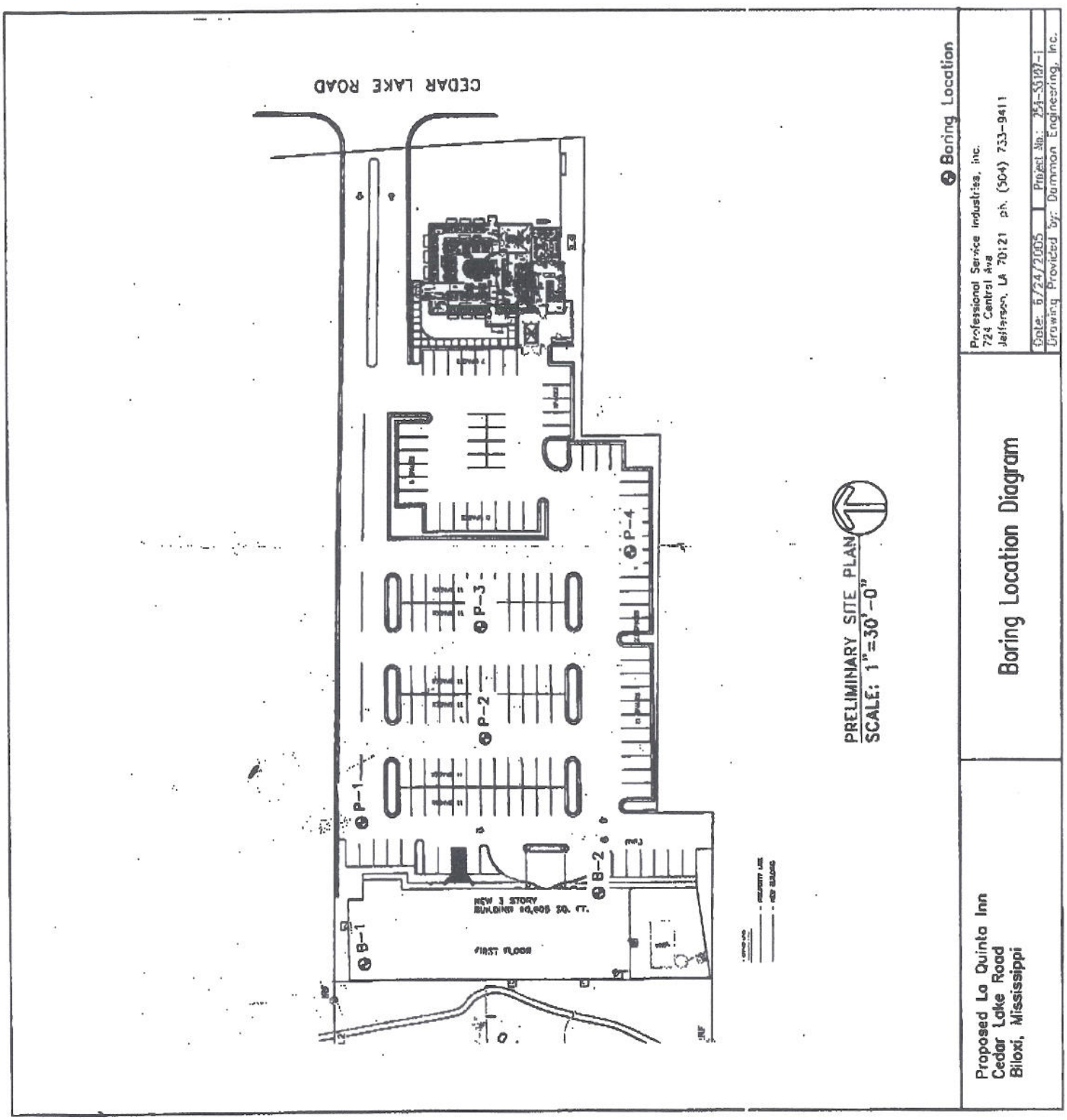
REPORT LIMITATIONS

The recommendations submitted in this report are based on the available subsurface information obtained by PSI and design details furnished by Dammon Engineering, Inc. If there are any revisions to the plans for this project, or if deviations from the subsurface conditions noted in this report are encountered during construction, PSI should be notified immediately to determine if changes in the foundation recommendations are required. If PSI is not notified of such changes, PSI will not be responsible for the impact of those changes on the project.

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the geotechnical engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At that time, it may be necessary to submit supplementary recommendations. If PSI is not retained to perform these functions, PSI will not be responsible for the impact of those conditions on the project. This report has been prepared for the exclusive use of Dr. Eduardo Hernandez for the specific application to the proposed La Quinta Inn Hotel to be re-constructed on Cedar Lake Road in Biloxi, Mississippi.

APPENDIX


CEDAR LAKE ROAD
Boring Location
P-1
P-2
P-3
P-4
B-1
B-2
NEW 3 STORY
FIRST FLOOR
PRELIMINARY SITE PLAN
SCALE: 1"=30'-0"
Professional Service Industries, inc.
724 Central Ave
Jefferson, LA 70121 ph. (504) 733-9411
Date: 6/24/2005
Project No.: 254-55107-1
Drawing Provided by: Dammon Engineering, Inc.
Boring Location Diagram
Proposed La Quinta Inn
Cedar Lake Road
Biloxi, Mississippi

LOG OF BORING B-1

PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: WET ROTARY | **LOCATION: BUILDING AREA** | **PSI PROJECT NO.: 254-55107-1**

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			10" brown silty sand topsoil with organics			4.50			8			8
			Medium dense tannish brown Silty Sand	18					8			
5				23					13			24
			▼	28					23			
			Dense tannish gray poorly graded Sand	30					22			
10												
			-becomes medium tannish red at 13'	13					28			5
15												
				19					31			
20												
				9					20			8
25												
			Firm light gray Fat Clay		0.66	0.75		86	36			
30												
			-stiff with ferrous nodules at 33'			2.0			32	58	36	
35												
					1.1	1.5		83	39			
40												
			Soft to firm gray Sandy Clay		0.36	1.5		90	36			
45												
			-becomes clayey sand at 47'				0.1		25			
50												
			boring terminated at 50'									

DEPTH OF BORING: 50 FEET | **GROUNDWATER: Measured at 11' upon completion**

DATE: 8/10/05

psi *Geotechnical Consulting Services*
Jefferson, Louisiana

LOG OF BORING B-2

PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: WET ROTARY | LOCATION: BUILDING AREA | PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			6" brown silty sand topsoil with organics				0.2		10			
			Medium dense tannish brown Silty Sand	24					8			24
5				22					8			
				25					16			
			▼	25					16			24
10												
			Medium dense reddish poorly graded Sand	21					24			
15												
			-becomes dense gray at 18'	43					24			4
20												
			-medium red sand at 23'	12					25			
25												
			Firm to stiff gray Fat Clay		1.04	1.25		90	33	73	55	
30			-with ferrous nodules, 30' to 35'									
					0.96	2.5		85	36			
35												
						2.0			39			
40												
					1.51	1.50		89	34			
45												
			Stiff gray Sandy Clay			1.75			28			
50												
			boring terminated at 50'									

DEPTH OF BORING: 50 FEET | GROUNDWATER: Measured at 3.5' upon completion
DATE: 8/10/05

psi Geotechnical Consulting Services
Jefferson, Louisiana

LOG OF BORING P-1

PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: HOLLOW STEM AUGER | LOCATION: PARKING AREA | PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			10" tannish brown silty sand topsoil with organics			2.50			11			
			Medium dense light brown Silty Sand	17					7			18
5				23					14			
			Boring Terminated at 6'									
10												
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 6 FEET
DATE: 8/10/2005

GROUNDWATER: Not encountered during drilling

psi Geotechnical Consulting Services
Jefferson, Louisiana

LOG OF BORING P-2

PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: HOLLOW STEM AUGER | LOCATION: PARKING AREA | PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			8" tannish brown sandy clay topsoil with organics			4.5			9			
			Medium dense Silty Sand			2.25			11			
5		X		18					10			26
			Boring Terminated at 6'									
10												
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 6 FEET | GROUNDWATER: Not encountered during drilling
DATE: 8/10/2005

psi Geotechnical Consulting Services
Jefferson, Louisiana

LOG OF BORING P-3

PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: HOLLOW STEM AUGER | LOCATION: PARKING AREA | PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			6" tan sandy clay topsoil with organics			4.5			9			
			Medium dense tan Silty Sand	22					11			
5				23					12			
			Boring Terminated at 6'									
10												
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 6 FEET | GROUNDWATER: Not encountered during drilling

DATE: 8/10/2005

psi *Geotechnical Consulting Services*
Jefferson, Louisiana

LOG OF BORING P-4

PROPOSED LA QUINTA INN
CEDAR LAKE ROAD
BILOXI, MISSISSIPPI

TYPE OF BORING: HAND AUGER | LOCATION: PARKING AREA | PSI PROJECT NO.: 254-55107-1

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	#-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			6" tannish brown sandy silt topsoil with organics			2.0			6			
			Medium dense tannish brown Silty Sand			2.0			9			
5		X		22					8			32
			Boring Terminated at 6'									
10												
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 6 FEET | GROUNDWATER: Not encountered during drilling
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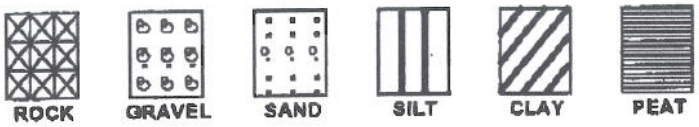
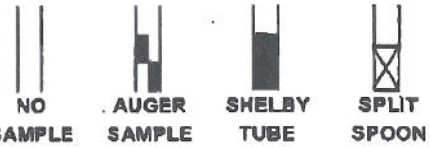
Jefferson, Louisiana

KEY TO TERMS AND SYMBOLS USED ON LOGS

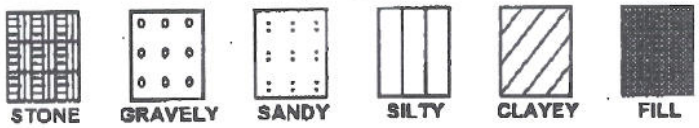
SOIL TYPE

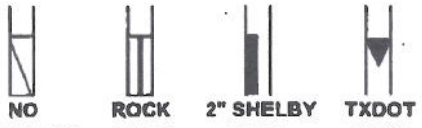


SAMPLER TYPE



MODIFIERS





UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D 2487 (1990)

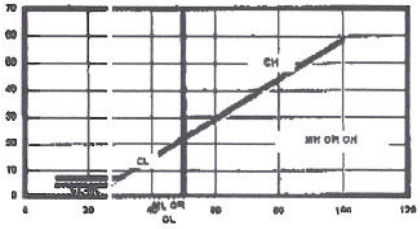
MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS LESS THAN 50% PASSING NO. 200 SIEVE	GRAVEL & GRAVELLY SOILS LESS THAN 50% PASSING NO. 4 SIEVE	CLEAN GRAVEL (LITTLE OR NO FINES)	GW	WELL GRADED GRAVEL, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
			GP	POORLY GRADED GRAVEL, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
		W/APPRECIA BLE FINES	GM	SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN 50% PASSING NO. 4 SIEVE	CLEAN SANDS (LITTLE FINES)	SW	WELL GRADED SAND, GRAVELLY SAND (LITTLE FINES)
			SP	POORLY GRADED SANDS, GRAVELLY SAND (LITTLE FINES)
		SANDS WITH APPREC. FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS & VERY FINE SANDS, ROCK FLOUR SILTY OR CLAYEY FINE SANDS OR CLAYEY SILT W/LOW PI
			CL	INORGANIC CLAY OF LOW TO MEDIUM PI LEAN CLAY GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS
			OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PI
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY FAT CLAYS
			OH	ORGANIC CLAYS OF MED TO HIGH PI, ORGANIC SILT
HIGHLY ORGANIC SOIL			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS
UNCLASSIFIED FILL MATERIALS				ARTIFICIALLY DEPOSITED AND OTHER UNCLASSIFIED SOILS AND MAN MADE SOIL MIXTURES

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	SHEAR STRENGTH IN TONS/FT²
VERY SOFT	0. TO 0.125
SOFT	0.125 TO 0.25
FIRM	0.25 TO 0.5
STIFF	0.5 TO 1.0
VERY STIFF	1.0 TO 2.0
HARD	> 2.0 OR 2.0+

RELATIVE DENSITY - GRANULAR SOILS

CONSISTENCY	N-VALUE (BLOWS/FOOT)
VERY LOOSE	0-4
LOOSE	4-9
MEDIUM DENSE	10-29
DENSE	30-49
VERY DENSE	> 50 OR 50+



ABBREVIATIONS

HP - HAND PENETROMETER
TV - TORVANE
MV - MINIATURE VANE
UC - UNCONFINED COMPRESSION TEST
UU - UNCONSOLIDATED UNDRAINED TRAIXIAL
CU - CONSOLIDATED UNDRAINED

NOTE: PLOT INDICATES SHEAR STRENGTH AS OBTAINED BY ABOVE TESTS

▽ DELAYED GROUNDWATER LVL

▽ LEVEL GROUNDWATER ENCOUNTERED

CLASSIFICATION OF GRANULAR SOILS

U.S. STANDARD SIEVE SIZE(S)

6"	3"	3/4"	4	10	40	200

BOULDERS	COBBLES	GRAVEL COARSE	GRAVEL FINE	SAND COARSE	SAND MEDIUM	SAND FINE	SILT OR CLAY	CLAY
152	76.2	19.1		4.76	2.0	0.42	0.074	0.002

GRAIN SIZE IN MM