

**PRELIMINARY GEOTECHNICAL REPORT**  
**PROPOSED DEVELOPMENT:**  
**TIMBERWALK SOUTH**  
**FORT MYERS, LEE COUNTY, FLORIDA**

**FOR:**



**PREPARED BY:**



**CAPRI Engineering LLC**  
1011 Shotgun Road ■ Sunrise, Florida 33326 ■ (954) 424-2520 ■ Fax: (954) 424-2580  
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December 20, 2005

Mr. Matthew Huber  
DR Horton Homes  
12771 Westlinks Drive, Suite 9  
Fort Myers, FL 33913

Re: Preliminary Geotechnical Report  
Proposed Development – Timberwalk South  
Vicinity of Three Oaks Blvd. and I-75  
Fort Myers, Lee County, Florida

Dear Mr. Huber:

We have completed the preliminary subsurface exploration for the above referenced project. This study was performed in general accordance with our proposal dated November 14, 2005 and your written authorization to proceed dated November 24, 2005. The purpose of our services on this project was to explore the subsurface conditions in order to provide preliminary foundation and site preparation recommendations.

#### **PROJECT INFORMATION AND SITE DESCRIPTION**

The site is located between Three Oaks Boulevard and I-75 in Fort Myers, Lee County, Florida. Based on information provided by D.R. Horton, the project will consist of constructing seven (7) four-story residential buildings with associated parking and roadways. The site location is presented on the Vicinity Location Map attached to this report.

At the time of this report, the property was an undeveloped parcel of land covered with grass and occasional trees. The property is bounded on the west by Three Oaks Boulevard, on the east by I-75, on the north by an existing residential development, and on the south by a parcel of undeveloped land. An aerial view of the site is presented in the Vicinity Aerial Photo attached to this report.

A site plan prepared by Banks Engineering, Inc. (not dated) illustrating the proposed building and pavement locations had been provided. The site plan is included in the Boring Location Plan attached to this report. Specific structural loading information was not available at the time of this report. We assume that the four-story structures will have wall loadings of 8 kips per lineal foot or less and column loads of 400 kips or less. CAPRI assumes that at least 2 feet of fill will be required to achieve final grade. If final design and construction conditions are different than these assumptions, the recommendations in this report will not be valid.

## **FIELD EXPLORATION**

The subsurface conditions were explored with Standard Penetration Test (SPT) borings and hand auger borings. Seven (7) SPT borings (B-1 through B-7) were performed to a depth of 50 feet below ground surface on December 10, 2005 and December 11, 2005. The SPT borings were performed in general accordance with the procedures recommended in ASTM D-1586, where a 2-inch O.D. split-tube sampler is driven using a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler the second and third 6-inch increments is the "N-value" in blows per foot. The SPT test was performed continuously to a depth of 10 feet, and then at 5 foot intervals for the remainder of the boring. The soil samples recovered from the soil borings were observed and visually classified. The result of standard penetration test and results of the soil classification are shown on the Boring Logs attached to this report. Boring locations are presented on the Boring Location Plan attached to this report.

Hand auger borings were performed to provide additional information. Seven (7) hand auger borings (HA-1 through HA-7) were performed to a depth of 5 feet below ground surface on December 9, 2005. The soil samples recovered from the hand auger borings were observed and visually classified. The result of this classification is shown on the Report of Hand Auger Borings attached to this report. Hand auger test locations are presented on the Boring Location Plan attached to this report.

## **SUBSURFACE CONDITIONS**

The site is mapped on sheet number 49 of The Soil Survey of Lee County, Florida, U.S. Department of Agriculture, Natural Resources Conservation Services (Issued December 1984). The site is mapped as having Hallandale fine sand (6) and Smyrna fine sand (43) for the site. It should be noted that the soil survey extends to a depth of 80 inches (6.7 feet) below ground surface and is not indicative of deeper soil types.

Hallandale fine sand (6) are nearly level, poorly drained sandy soils underlain by fractured limestone bedrock. In most years, under natural conditions, the water table is less than 10 inches below the surface for 1 to 3 months and recedes below the limestone for about 7 months. The high water table is at the ground surface to 1 foot below the ground surface. The permeability is moderate to moderately rapid.

Smyrna fine sand (43) are nearly level, poorly drained sandy soils. In most years, under natural conditions, the water table is within 10 inches of the surface for 1 to 3 months, 10 to 40 inches below the surface for 2 to 6 months, and recedes to a depth of more than 40 inches during extended dry periods. The high water table is at the ground surface to 1 foot below the ground surface. The permeability is rapid in the surface and subsurface layers and moderate to moderately rapid in the subsoil.

The generalized soil profile for the soils encountered in the borings can be described as very loose to loose sand that extended from the ground surface to about 9 feet, followed by very weathered and fractured limestone with hard layers and limestone fragments to about 20 feet, and then silty clay to the boring termination depth of 50 feet.

Groundwater was encountered at the boring locations at a depth of 4 feet below ground surface at the boring locations. Groundwater levels may fluctuate over time in response to local variations of precipitation, construction activities, site drainage features, and other factors, and these depths should not be relied upon for dewatering and construction purposes.

## DISCUSSION AND FOUNDATION RECOMMENDATIONS

Due to the loose sandy soils encountered in the borings, ground improvement is necessary prior to support on shallow foundations. The ground improvement can consist of heavy vibratory rolling of the subgrade and backfill soils after removal of the surface soils to a depth of 6 feet below ground surface existing at the time of this report. After excavation, the subgrade and backfill must be intensively densified with heavy vibratory rolling. The proofrolling and backfill compaction must be performed in the dry, so dewatering of the excavation must be anticipated with sumps or well points. Detailed site preparation recommendations are provided below in the section entitled Site Preparation Recommendations – Heavy Rolling.

After the foundation soils have been prepared in accordance with the site preparation recommendations detailed below, the site should be suitable for supporting the proposed structures on shallow foundations designed for an allowable bearing capacity of **3,500 pounds per square foot**.

The footings shall bear a minimum of 18 inches below final exterior grade to prevent localized shear of the foundation soils. Minimum footing dimensions for continuous footings should be 18 inches wide, and all individual column footings should have a minimum width of 36 inches. The floor slab may be ground supported.

If the site preparation recommendations as detailed below are followed, the total settlement is expected not to exceed one inch, with differential settlements between adjacent similarly loaded footings less than one half of the total settlement. Because of the granular nature of the subsurface soil, the majority of the settlements should occur during construction.

### SITE PREPARATION RECOMMENDATIONS (HEAVY ROLLING)

1. Clear and strip the area of the proposed structures and roadway construction of vegetation, root systems, organic soils, pavement, foundations, utilities, construction debris, and any deleterious debris to at least 5 feet beyond the perimeter of the exterior footings (enlarged footprint).
2. The building pads must be excavated to a depth of 6 feet prior to subgrade proofrolling and compaction. The Geotechnical Engineer or his representative must be present during the excavation operations to verify excavation to the required depth and the water table is lowered.
3. The area should then be compacted and backfilled to achieve final grade as described below.  
**Proofrolling subgrade and compaction operations must be performed in the dry.**
4. Prior to placement of any fill required to achieve final grade, building pad subgrade soils must be proofrolled until all the Field Density Tests indicate a density of **98%** or greater of the modified (ASTM D-1557) Proctor density for a depth of 2 feet below top of subgrade. Compaction must be performed with a self-propelled vibratory compactor that exerts a dynamic drum force of not less than 36,000 pounds. Sufficient passes should be made during the proof rolling operations to produce with a total of at least 12 overlapping passes (6 in each perpendicular direction) operating on full vibratory mode and moving at a speed not to exceed 1.5 ft./sec. Proofrolling and compaction operations within 75 feet of existing structures must be done with the vibratory mode off on vibratory compactors. At least one (1) field density test must be performed for every 2,500 square feet for the proofrolled subgrade to verify the degree of compaction obtained.
5. Backfill to achieve final grade should be placed and compacted in lifts not exceeding 12-inches and density tests performed on the compacted material until final grade is achieved. Backfill material must be well graded, non-plastic granular soils with 100% of the material passing a 3 ½ inch sieve and no more than 10% passing a #200 sieve (fines) and free of organic and deleterious materials. The percent compaction should equal or exceed **98%** of the modified (ASTM D-1557) Proctor density. At least one (1) field density test must be performed for every 2,500 square feet for each lift of fill to verify the degree of compaction obtained.
6. After excavating for building footings, the bottom of footings must be recompacted and retested to verify a compaction of **98%** criteria in accordance with the Florida Building Code. If the excavation extends below the water level, a rock fill approved by the Geotechnical Engineer should be placed until grade is approximately 12 inches above the water table.
7. After all utilities are placed, the trench backfill and fill surface for construction areas must be compacted and tested to verify the **98%** criteria. Fill lifts must be reduced to 6 inches when hand operated compaction equipment is utilized.
8. A vapor barrier should be placed on top of the structural fill before setting of any required reinforcing steel and the placing of concrete.

### **Fill Suitability**

Based on the soil samples obtained from the site, the sandy soils encountered in the borings to a depth of about 9 feet are suitable for use as general structural fill material beneath roadways, for utility trench backfill, and for landscaping purposes. Soils with organic contents greater than 5 percent shall not be used as engineered fill in building pads or roadway areas. They are slightly silty and will be difficult to dry and compact.

The fractured limestone encountered in the borings from about 9 feet to about 20 feet may be processed on-site for use as structural fill. If excavated limestone is to be used as fill, it must be processed and have individual fragments no larger than 3 inches. Very hard large limestone boulders and very hard layers that require additional effort to excavate should be anticipated.

The silty and clayey soils encountered in the borings from about 20 feet to the boring termination depth of 50 feet are not suitable for use as structural fill. For structural fill beneath building pads, the clayey soils (those that have more than 10% passing the No. 200 sieve) shall not be used for structural fill in building pad areas. For this reason, the sandy and clayey soils should be separated during excavation and stockpiled and distributed for fill requirements accordingly. Silty sandy soils may be used for fill but may be difficult to dry and compact. They may be processed with sand to produce workable backfill.

### **Subgrade and Fill Compaction Near Existing Structures**

Based on site visit observations and site development plans, construction activities including proofrolling and compaction with vibratory rollers will be performed in close proximity to existing structures. Extreme caution must be taken during compaction operations to avoid damaging existing structures. Compaction operations for proofrolling and fill compaction within 75 feet of existing structures must be performed with the vibratory mode off on the compactors. Lift thickness may need to be reduced to 6 inches in order to compact the fill to the required specification.

Vibration of the ground may be noticeable but not of the level to cause damage to structures during compaction operations, even when 75 or more feet away from the vibratory source (Vibratory Compactor). Sometimes these vibrations are noticed by nearby residents who then inspect their structure for cracking and other problems that may not have been noticed beforehand. Then they erroneously link the vibration as the source of the 'newly discovered' cracking or other problems. For this reason, condition surveys of the existing structures prior to construction activities might be considered beneficial to determine validity of possible claims due to vibrations during compaction and construction operations. Also, seismic monitoring in areas of concern during construction might be beneficial to determine if vibrations due to construction activities are possible sources of damage to existing structures.

## **PARKING AND ROADWAY CONSTRUCTION RECOMMENDATIONS**

Site preparation recommendations for pavement areas should be followed as described above in the section entitled Site Preparation Recommendations (Heavy Rolling), except that the soils do not need to be excavated four feet, and roadway fill must be compacted to a minimum density of 98 percent of the Modified Proctor maximum dry density (AASHTO T-180).

The following table depicts typical pavement sections used in this area. These sections are intended as a guideline only as the pavement should be designed specifically for the vehicle load intensities and frequencies during the life of the project.

Layer	Light Traffic	Heavy Traffic
Bituminous concrete surface course (Type S)	1.5 in	2 in
Limerock base course, crushed aggregate (LBR=100 Minimum)	6 in	8 in
Stabilized Subgrade material (LBR=40 Minimum)	12 in	12 in

### **Stabilized Subgrade**

The stabilized subgrade is located directly below the Base Course. The stabilized subgrade material should be compacted to a minimum density of 98% of the Modified Proctor maximum dry density (AASHTO T-180). The subgrade material should be stabilized to a minimum Limerock bearing Ratio (LBR) of 40.

### **Base Course**

The limerock base should meet FDOT standards, including a minimum Limerock Bearing Ratio (LBR) of 100. The limerock should be placed in lifts no greater than 6-inches and compacted to a minimum density of 98% of the Modified Proctor maximum dry density (AASHTO T-180).

If separation between the estimated wet seasonal high ground water table and the bottom of the base material is less than 18-inches, crushed limerock is not recommended. The Base Course should be of an asphaltic base (ABC-3 with a minimum Marshall Stability of 1,000 pound).

## REPORT LIMITATIONS

This report has been prepared for the exclusive use of D.R. Horton Homes, Inc. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty is expressed or implied.

The project owners/developers should recognize that this report is preliminary in nature and that additional soil investigation borings and test excavations may be necessary following the clearing of the vegetation and the topsoil but prior to the start of construction that could uncover concealed conditions.

CAPRI Engineering should be provided with the opportunity to review the final foundations plans and specifications in order to ascertain whether our recommendations have been properly interpreted and implemented. In the event changes are made in the nature, design or locations of buildings, the conclusions and recommendations contained in this Report shall not be considered valid unless the changes are reviewed and conclusions modified or verified in writing. The geotechnical report is prepared primarily to aid in the design of site work and structural foundations. Although the information in the report is expected to be sufficient for these purposes, it is not intended to determine the cost of construction or to stand alone as a construction specification.

Report recommendations are based primarily on data from test borings made at the locations shown on the test boring reports. Soil variations may exist between borings and may not become evident until construction. If variations are then noted, the geotechnical engineer should be contacted so that field conditions can be examined and recommendations revised if necessary. The transition between soils strata is often gradual. Also, the N-values may not represent the actual hardness of rock formations due to numerous solution holes within the formation.

If CAPRI Engineering is not afforded the opportunity to participate in construction-related aspects of foundation installation, then we accept no responsibility for the implementation of the recommendations or for foundation performance. The geotechnical engineer's field representative does not direct the contractor's construction means, methods, operations or personnel, and is not responsible for the safety of other personnel at the site.

We appreciate the opportunity to provide these services for you and look forward to completing this and other projects with you. If we can be of further assistance during the design phase, or if you need additional information, please feel free to contact us.

Respectfully submitted,  
**CAPRI Engineering LLC**

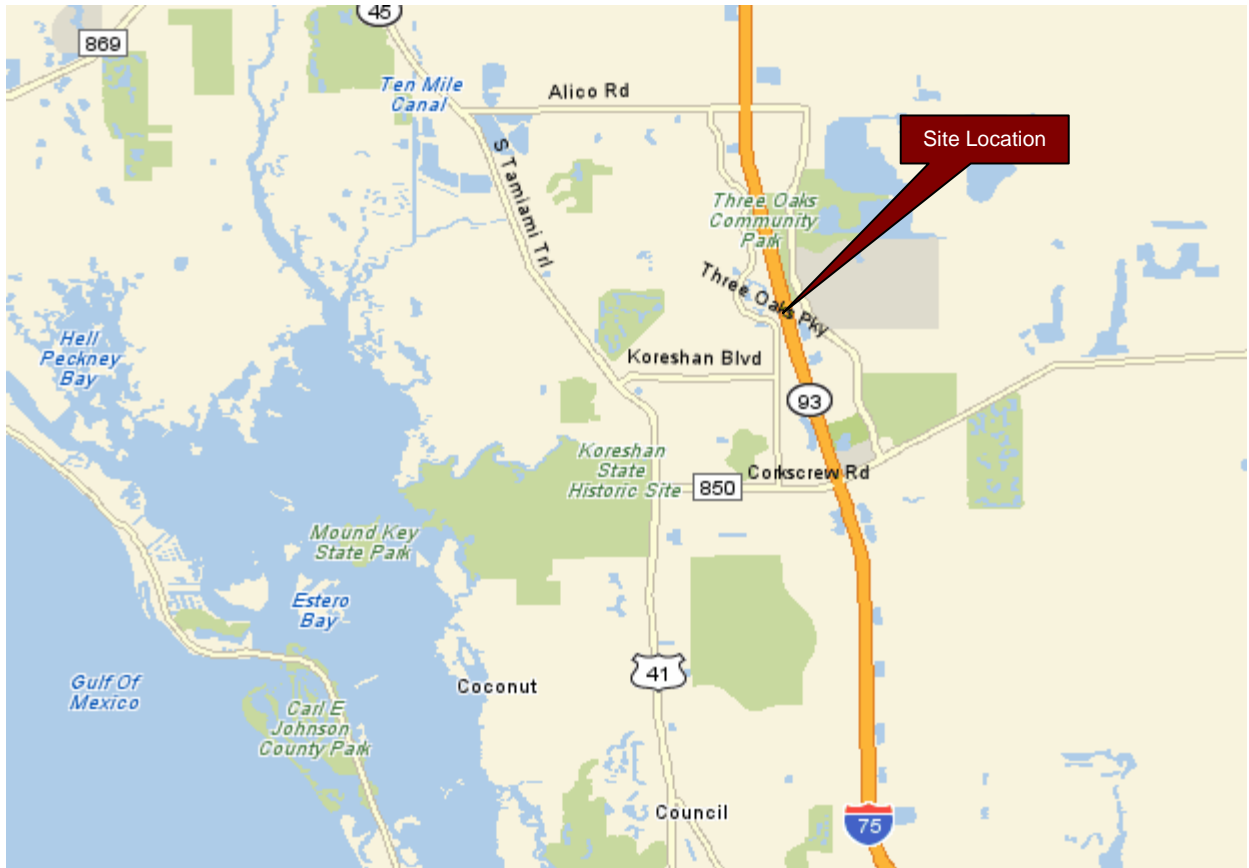
Donald W. Moler, P.E.  
Senior Project Engineer  
State of Florida:  
Registered Professional Engineer No: 60675

Attachments:      Vicinity Location Map (1)  
                         Vicinity Aerial Photo (1)  
                         Boring Location Plan (1)  
                         Boring Logs (7)  
                         Report of Hand Auger Borings (7)

Distribution:        3 copies to addressee via mail  
                         1 copy to addressee via email



## VICINITY LOCATION MAP



North  
Not to Scale

## VICINITY AERIAL PHOTO



**North**  
**Not to Scale**

[illegible]

**SPT Boring Location**   
**Hand Auger Boring Location**   
**All Test Locations Are Approximate**  
**Not to scale**

**PROJECT : Timberwalk South**

DRILLING METHOD : Truck mounted drill rig

DRILLING CONTRACTOR : I.C.

START : 12/10/2005














FINISH : 12/10/2005

LOGGER : S, I, and H

LOCATION : See boring location plan

LOCATION CON'T:

WATER LEVEL AND DATE (ft bgs): 4'

DEPTH BELOW SURFACE (FT)	WATER LEVEL	SAMPLE				SAMPLE DESCRIPTION	COMMENTS
		NUMBER	STANDARD PENETRATION 6"-6"-6" (N)	"N" VALUE	SYMBOL		
1	▼	1	1-2-2	4		Brown very fine sand with trace of roots (very loose)	
2		2	1-1-2	3		Dark brown very fine slightly silty sand (very loose to loose)	
3		3	4-4-5	9			
4		4	5-4-3	7			
5		5	1-0-50 3"			Very weathered and fractured limestone with very hard layers and limestone fragments	
6							
7							
8							
9							
10							
11							
12							
13							
14	▼	6	29-19-7	26			
15							
16							
17							
18							
19		7	6-6-8	14			
20							
21						Light tan silty sandy clay with shell fragments (firm)	
22							
23							
24		8	4-5-2	7			
25							
26							
27							
28							
29		9	3-3-3	6			
30							
31							
32							
33							
34	▼	10	3-2-2	4		Very silty grey clay (soft to firm)	
35							
36							
37							
38							
39		11	2-1-1	2			
40							
41							
42							
43							
44		12	3-3-3	6			
45							
46							
47							
48							
49		13	3-2-3	5			
50							
51						Boring terminated @ 50'	
52							
53							

**PROJECT : Timberwalk South**

DRILLING METHOD : Truck mounted drill rig

DRILLING CONTRACTOR : I.C.

START : 12/10/2005














FINISH : 12/10/2005

LOGGER : S, I, and H

LOCATION : See boring location plan

LOCATION CON'T:

WATER LEVEL AND DATE (ft bgs): 4'

DEPTH BELOW SURFACE (FT)	WATER LEVEL	SAMPLE				SAMPLE DESCRIPTION	COMMENTS
		NUMBER	STANDARD PENETRATION 6"-6"-6" (N)	"N" VALUE	SYMBOL		
1	▼	1	1-1-1	1		Brown silty very fine sand (very loose)	
2		2	1-2-2	4		Dark brown very fine slightly silty sand (loose)	
3		3	3-3-4	7			
4		4	3-4-4	8			
5		5	1-1-50 2"			Very weathered and fractured limestone with very hard layers and limestone fragments	
6							
7		6	30-20-6	26			
8							
9		7	6-7-7	14			
10						Light tan silty sandy clay with shell fragments (firm to stiff)	
11		8	7-6-6	12			
12							
13		9	4-4-3	7			
14							
15		10	1-3-4	7		Very silty greenish grey clay (very soft to firm)	
16							
17		11	1-0-1	1			
18							
19		12	4-4-5	9			
20							
21		13	2-2-4	6			
22							
23						Boring terminated @ 50'	

**PROJECT : Timberwalk South**

DRILLING METHOD : Truck mounted drill rig

DRILLING CONTRACTOR : I.C.

START : 12/10/2005

FINISH : 12/10/2005

LOGGER : S, I, and H

LOCATION : See boring location plan

LOCATION CON'T:

WATER LEVEL AND DATE (ft bgs): 4'

DEPTH BELOW SURFACE (FT)	WATER LEVEL	SAMPLE				SAMPLE DESCRIPTION	COMMENTS
		NUMBER	STANDARD PENETRATION 6"-6"-6" (N)	"N" VALUE	SYMBOL		
1	N	1	1-1-1	2		Brown silty very fine sand (very loose)	
2							
3		2	1-2-2	4		Dark brown very fine slightly silty sand (loose)	
4							
5		3	2-3-4	7			
6							
7		4	4-3-3	6			
8							
9		5	1-1-50 2"			Very weathered and fractured limestone with very hard layers and limestone fragments	
10							
11							
12							
13							
14		6	30-22-6	28			
15							
16							
17							
18							
19		7	6-6-6	12		Light tan silty sandy clay with shell fragments (firm)	
20							
21							
22							
23							
24	8	5-4-4	8		Very silty greenish grey clay (soft to firm)		
25							
26							
27							
28							
29	9	3-4-4	8		Very silty greenish grey clay (soft to firm)		
30							
31							
32							
33							
34	10	3-2-1	3		Very silty greenish grey clay (soft to firm)		
35							
36							
37							
38							
39	11	2-2-2	4		Very silty greenish grey clay (soft to firm)		
40							
41							
42							
43							
44	12	3-3-2	5		Very silty greenish grey clay (soft to firm)		
45							
46							
47							
48							
49	13	1-2-2	4		Boring terminated @ 50'		
50							
51							
52							
53							

**PROJECT : Timberwalk South**

DRILLING METHOD : Truck mounted drill rig

DRILLING CONTRACTOR : I.C.

START : 12/10/2005

FINISH : 12/10/2005

LOGGER : S, I, and H

LOCATION : See boring location plan

LOCATION CON'T:

WATER LEVEL AND DATE (ft bgs): 4'

DEPTH BELOW SURFACE (FT)	WATER LEVEL	SAMPLE				SAMPLE DESCRIPTION	COMMENTS
		NUMBER	STANDARD PENETRATION 6"-6"-6" (N)	"N" VALUE	SYMBOL		
1	▼	1	1-2-2	4		Brown silty very fine sand (very loose)	
2		2	1-2-1	3		Dark brown very fine slightly silty sand (very loose to loose)	
3		3	3-4-3	7			
4		4	4-3-4	7			
5		5	3-2-50 4"	52		Very weathered and fractured limestone with very hard layers and limestone fragments	
6							
7		6	26-25-19	34			
8							
9		7	7-8-8	16			
10							
11						Light tan silty sandy clay with shell fragments (firm)	
12		8	6-4-4	8			
13							
14		9	3-2-3	5			
15							
16		10	2-2-2	4		Very silty greenish grey clay (soft)	
17							
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20		12	1-2-2	4			
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22		13	2-1-2	3			
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24						Boring terminated @ 50'	
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**PROJECT : Timberwalk South**

DRILLING METHOD : Truck mounted drill rig

DRILLING CONTRACTOR : I.C.

START : 12/10/2005

FINISH : 12/10/2005

LOGGER : S, I, and H

LOCATION : See boring location plan

LOCATION CON'T:

WATER LEVEL AND DATE (ft bgs): 4'

DEPTH BELOW SURFACE (FT)	WATER LEVEL	SAMPLE				SAMPLE DESCRIPTION	COMMENTS
		NUMBER	STANDARD PENETRATION 6"-6"-6" (N)	"N" VALUE	SYMBOL		
1	▼	1	1-1-2	3		Brown very silty fine sand (very loose)	
2		2	2-1-1	2		Dark brown very fine slightly silty sand (very loose to loose)	
3		3	3-3-4	7			
4		4	3-4-4	8			
5		5	2-2-50 2"	52		Very weathered and fractured limestone with very hard layers and limestone fragments	
6							
7		6	26-19-7	26			
8							
9		7	7-7-7	14			
10							
11						Light tan silty sandy clay with shell fragments (soft to firm)	
12		8	3-4-4	8			
13							
14		9	2-2-1	3			
15							
16		10	1-1-1	2		Very silty greenish grey clay (soft to firm)	
17							
18		11	1-2-2	4			
19							
20		12	2-3-3	6			
21							
22		13	2-1-1	2			
23							
24						Boring terminated @ 50'	
25							
26							



SHEET 1 of 1

WATER LEVEL AND DATE (ft bgs): 4'

DEPTH BELOW SURFACE (FT)	WATER LEVEL	SAMPLE				SAMPLE DESCRIPTION	COMMENTS
		NUMBER	STANDARD PENETRATION 6"-6'-6" (N)	"N" VALUE	SYMBOL		
1	N	1	2-1-1	2		Brown very silty fine sand (very loose)	
2		2	1-1-2	3		Dark brown very fine slightly silty sand (very loose to loose)	
3		3	4-5-4	9			
4		4	4-3-3	6			
5		5	2-1-50 for 2	51			
6							
7		6	50 for 2	50			
8							
9		7	25-20-5	25		Light tan silty sandy clay with shell fragments (firm to stiff)	
10							
11		8	5-6-6	12			
12							
13		9	5-4-3	7		Very silty greenish grey clay (soft to firm)	
14							
15	10	3-2-1	3				
16							
17	11	1-1-1	2		Boring terminated @ 50'		
18							
19	12	2-3-3	6				
20							
21	13	2-2-2	4				
22							
23							

SHEET 1 of 1

WATER LEVEL AND DATE (ft bgs): 4'

DEPTH BELOW SURFACE (FT)	WATER LEVEL	SAMPLE				SAMPLE DESCRIPTION	COMMENTS
		NUMBER	STANDARD PENETRATION 6"-6'-6" (N)	"N" VALUE	SYMBOL		
1	N	1	1-2-1	3		Brown very silty fine sand (very loose)	
2		2	1-1-2	3		Dark brown very fine slightly silty sand (very loose to loose)	
3		3	3-4-4	8			
4		4	4-4-4	8			
5		5	50 2"	50		Very weathered and fractured limestone with very hard layers and limestone fragments	
6							
7		6	31-29-26	55			
8							
9		7	10-10-9	19			
10							
11							
12							
13							
14	8	6-6-7	12		Light tan silty sandy clay with shell fragments (firm to stiff)		
15							
16							
17	9	5-4-3	7				
18							
19							
20	10	3-2-1	3		Very silty greenish grey clay (soft to firm)		
21							
22							
23	11	1-2-2	4				
24							
25							
26	12	2-1-1	2				
27							
28							
29	13	1-2-3	5				
30							
31							
32							
33							
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53							



## REPORT OF HAND AUGER BORING

**CLIENT:** DR Horton

**PROJECT:** Timberwalk South

**LOCATION:** Fort Myers, Florida

**METHOD:** Hand Auger

**TECHNICIAN:** MG

**DATE:** 12/9/2005

**ORDER NO.:** \_\_\_\_\_

**Test No.:** HA-1

**Location of Test:** See Boring Location Plan

**Water Table elevation**

**from existing ground:**

4'

	Depth Below Ground Surface	Soil Description
First Layer:	0-1'	Brown sand with roots (Topsoil)
Second Layer:	1-5'	Brown slightly silty sand
Third Layer:		
Fourth Layer:		
Fifth Layer:		
Sixth Layer:		

**Remarks:** \_\_\_\_\_

\_\_\_\_\_



## REPORT OF HAND AUGER BORING

**CLIENT:** DR Horton

**PROJECT:** Timberwalk South

**LOCATION:** Fort Myers, Florida

**METHOD:** Hand Auger

**TECHNICIAN:** MG

**DATE:** 12/9/2005

**ORDER NO.:** \_\_\_\_\_

**Test No.:** HA-2

**Location of Test:** See Boring Location Plan

**Water Table elevation**

**from existing ground:**

4'

	Depth Below Ground Surface	Soil Description
First Layer:	0-1'	Brown sand with roots (Topsoil)
Second Layer:	1-5'	Brown slightly silty sand
Third Layer:		
Fourth Layer:		
Fifth Layer:		
Sixth Layer:		

**Remarks:** \_\_\_\_\_

\_\_\_\_\_



## REPORT OF HAND AUGER BORING

**CLIENT:** DR Horton

**PROJECT:** Timberwalk South

**LOCATION:** Fort Myers, Florida

**METHOD:** Hand Auger

**TECHNICIAN:** MG

**DATE:** 12/9/2005

**ORDER NO.:** \_\_\_\_\_

**Test No.:** HA-3

**Location of Test:** See Boring Location Plan

**Water Table elevation**

**from existing ground:**

4'

	Depth Below Ground Surface	Soil Description
First Layer:	0-1'	Brown sand with roots (Topsoil)
Second Layer:	1-5'	Brown slightly silty sand
Third Layer:		
Fourth Layer:		
Fifth Layer:		
Sixth Layer:		

**Remarks:** \_\_\_\_\_

\_\_\_\_\_



## REPORT OF HAND AUGER BORING

**CLIENT:** DR Horton

**PROJECT:** Timberwalk South

**LOCATION:** Fort Myers, Florida

**METHOD:** Hand Auger

**TECHNICIAN:** MG

**DATE:** 12/9/2005

**ORDER NO.:** \_\_\_\_\_

**Test No.:** HA-4

**Location of Test:** See Boring Location Plan

**Water Table elevation**

**from existing ground:**

4'

	Depth Below Ground Surface	Soil Description
First Layer:	0-1'	Brown sand with roots (Topsoil)
Second Layer:	1-5'	Brown slightly silty sand
Third Layer:		
Fourth Layer:		
Fifth Layer:		
Sixth Layer:		

**Remarks:** \_\_\_\_\_

\_\_\_\_\_



## REPORT OF HAND AUGER BORING

**CLIENT:** DR Horton

**PROJECT:** Timberwalk South

**LOCATION:** Fort Myers, Florida

**METHOD:** Hand Auger

**TECHNICIAN:** MG

**DATE:** 12/9/2005

**ORDER NO.:** \_\_\_\_\_

**Test No.:** HA-5

**Location of Test:** See Boring Location Plan

**Water Table elevation**

**from existing ground:**

4'

	Depth Below Ground Surface	Soil Description
First Layer:	0-1'	Brown sand with roots (Topsoil)
Second Layer:	1-5'	Brown slightly silty sand
Third Layer:		
Fourth Layer:		
Fifth Layer:		
Sixth Layer:		

**Remarks:** \_\_\_\_\_

\_\_\_\_\_



## REPORT OF HAND AUGER BORING

**CLIENT:** DR Horton

**PROJECT:** Timberwalk South

**LOCATION:** Fort Myers, Florida

**METHOD:** Hand Auger

**TECHNICIAN:** MG

**DATE:** 12/9/2005

**ORDER NO.:** \_\_\_\_\_

**Test No.:** HA-6

**Location of Test:** See Boring Location Plan

**Water Table elevation**

**from existing ground:**

4'

	Depth Below Ground Surface	Soil Description
First Layer:	0-1'	Brown sand with roots (Topsoil)
Second Layer:	1-5'	Brown slightly silty sand
Third Layer:		
Fourth Layer:		
Fifth Layer:		
Sixth Layer:		

**Remarks:** \_\_\_\_\_

\_\_\_\_\_





## REPORT OF HAND AUGER BORING

**CLIENT:** DR Horton

**PROJECT:** Timberwalk South

**LOCATION:** Fort Myers, Florida

**METHOD:** Hand Auger

**TECHNICIAN:** MG

**DATE:** 12/9/2005

**ORDER NO.:**

**Test No.:** HA-7

**Location of Test:** See Boring Location Plan

**Water Table elevation**

**from existing ground:**

4'

	Depth Below Ground Surface	Soil Description
First Layer:	0-1'	Brown sand with roots (Topsoil)
Second Layer:	1-5'	Brown slightly silty sand
Third Layer:		
Fourth Layer:		
Fifth Layer:		
Sixth Layer:		

**Remarks:**