Indian River County Purchasing Division
purchasing@ircgov.com

ADDENDUM NO. 2

Issue Date: September 18, 2019

Project Name: Hobart Park Baseball Field Project

Bid Number: 2020005

Bid Opening Date: October 2, 2019

This addendum is being released to answer questions received to date and to provide the Geotechnical Report. **Addendum 3 will follow to answer additional questions.**

The information and documents contained in this addendum are hereby incorporated in the invitation to bid. **This addendum must be acknowledged where indicated on the bid form, or the bid will be declared non-responsive.**

Attachments:
Geotechnical Report

Questions and Answers

1. Plan sheet 15 of 15 Pump Station "A" Details shows a typical control panel.
   Plan sheet EO.2 Electrical One Lines shows a sub panel LS that apparently feeds Pump Station A Control Panel. It is our experience that typically all one need to do is feed a control panel with appropriate size feeder and all sub breakers and controls are within that control panel. *Question: Is panel LS necessary as shown in this application?*
   Sub panel LS on E0.2 and Pump Station A Control Panel on Sheet 15 represent the same devices.

2. What will be the wind load for the fence?
   All fencing and flag pole will meet a minimum wind load of 150 mph Ultimate Risk Use Factor 1.

3. No warning track line item is on bid sheet?
   A warning track line item will be added to the bid sheet and issued with a new addendum.

4. Benches – on sheet 12/15, how many benches, how long?
   As shown on Sheet 12, dugout benches are to be 24' long, one bench per dugout.

5. Is lightning protection required?
   Lightning protection is provided for the stadium lighting by the manufacturer. No other lightning protection is proposed.

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KELLER, SCHLEICHER & MacWILLIAM ENGINEERING AND TESTING, INC.

MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

June 5, 2018

Mike Zito, Assistant County Administrator
Indian River County Parks Division
5500 77th Street
Vero Beach, FL 32967

Re: Hobart Park Baseball Complex – Project #: 18001
58th Avenue and 77th Street
Indian River County, Florida
IRC PO #: 80891-00, Requisition #: 2258
KSM Project #: 181813-b

Dear Mr. Zito:

As requested, KSM Engineering & Testing has performed a subsurface investigation at the referenced site. Presentation of the data gathered during the investigation, together with our geotechnical related opinions, are included in this report.

A. Project Description:

Two (2) new baseball fields including a concession building, dug outs and bleacher slabs are planned to be constructed on the site. Loads from the structures will be transferred to the ground by conventional shallow footings. We estimate the maximum loads for the concession building will be less than 2,000 pounds per linear foot along the wall foundation and the maximum loads for the bleacher slabs will be less than 150 psf.

Some site fill will be required to reach the desired grades.

Parking areas and dry retention areas will also be constructed for the project.

KSM
KELLER, SCHLEICHER & MacWILLIAM ENGINEERING AND TESTING, INC.
MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
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B. The scope of our study consisted of the following:

1. Performed Standard Penetration Test Borings, and hand-auger borings in the proposed construction area to estimate the subsoil relative density.

2. Measured the groundwater level at each boring.

3. Evaluated the existing soil conditions with respect to the proposed construction and provided recommendations for site preparation and foundation design.

4. Obtain shelby tube samples to determine "K" values in our Laboratory.

5. Prepared this report to document our findings.

C. Site Investigation:

The site investigation program consisted of performing five (5) Standard Penetration Test borings (SPT), and seventeen (17) hand-auger borings in the proposed construction area. The SPT borings were terminated at depths of 15 feet below grade. The hand-auger borings were terminated at 3 to 6 feet below existing grade. The locations of the borings are indicated on the attached boring Location Plan.

The SPT borings were completed in accordance with procedures described in ASTM D-1586. A standard 1.5 inch I.D., 2 inch O.D. split-spoon sampler is driven into the soil by successive blows of a 140 pound hammer freely falling 30 inches. The number of blows required to drive the sampler 1 foot, after seating 6 in., is designated the Penetration Resistance, or "N" value. At regular intervals the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. Also, the groundwater table was allowed to stabilize and the depth of the groundwater elevation recorded from existing grade.

The records of the soils encountered, the penetration resistances and groundwater level are shown on the attached logs.

The hand-auger borings were performed with a 3 inch diameter bucket auger with a cutting head. It is rotated by hand and at regular intervals is extracted from the ground and the sample visually inspected. During the hand augers, a shaft with a conical point is pushed through the soil and the thrust required to push the cone tip is measured on an attached calibrated gauge. The value of the bearing pressure exerted by the cone point allows the operator to estimate the existing soil density. After the thrust was measured, the hole was advanced with a hand-auger in 1-foot increments to permit a continuation of measurement of relative density versus depth.

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D. Engineering Evaluation and Conclusions:

Based on the information obtained from this site investigation, we are pleased to offer the following evaluation:

The boring logs indicate the subsurface soils consist mostly of fine-grained sand and fine-grained sand that is slightly clayed. No "muck" or other unsuitable material was found in the test borings except for the typical surface vegetation. "N" values recorded during the boring operation indicate the soil density is generally firm to medium dense. Please refer to the soil boring logs for specific information relative to the soil description.

Based on the existing soil conditions, the proposed structures can be supported on a shallow foundation system provided that the site is properly prepared.

The following sections provide recommendations for the site preparation and foundation design.

E. Site Preparation:

The proposed construction areas, plus a minimum margin of five feet beyond the proposed construction shall be stripped and grubbed of surface debris, including vegetation, roots and organic matter. Stumps shall be removed entirely. The building area should be graded level and proofrolled. Any soft yielding areas shall be excavated and replaced with clean compacted fill. Sufficient passes should be made during compaction operations to produce a density no less than 95 percent of its modified dry Proctor value (ASTM D 1557) to a depth of two feet.

After the exposed surface has been proofrolled, the building and slab areas may be filled to the desired grades. The fill material shall consist of clean granular sand containing less than 10% material passing the U.S. Standard No. 200 mesh sieve. Place structural fill in loose layers of 12 inches in thickness and compact each lift to at least 95 percent of its modified dry Proctor value.

After excavating for the footings, the disturbed footing subgrade should be recompacted to 95 percent (minimum) of its modified dry Proctor value. This can be best achieved by making several passes with a relatively light-weight walk-behind vibratory sled or roller.

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F. Foundation:

Provided that our recommendations for site preparation are followed, the proposed structures may be supported on conventional concrete steel reinforced footings designed for an allowable soil bearing pressure of 2,000 pounds per square foot, or less.

With the foundation properly designed and the site properly prepared, we anticipate total settlements less than ¾ of an inch and differential settlement of less than ¼ of an inch. The majority of the settlement should occur during construction.

G. Floor Slabs:

A conventional slab-on-grade can be used in the "at grade" portion of the building. We recommend the disturbed subgrade below the floor slab be re-compacted to 95 percent of the modified Proctor maximum dry density (ASTM D 1557) prior to placement of the concrete. An estimated modulus of subgrade reaction of 150 pounds per cubic inch (pci) can be used for design of the slab-on-grade. We recommend that expansion or control joints be incorporated in the slab at frequent intervals to control shrinkage cracks.

A moisture barrier is recommended beneath the floor slab to prevent moisture migration from the underlying soil resulting in dampness of the slab.

H. Drives and Parking Areas (Standard Duty Only):

We also performed two (2) hand-augers in the proposed parking area to evaluate the soils in relation to the proposed pavement. We did not find any "muck" or other unsuitable material in the test borings. Penetrometer readings recorded during the investigation indicates the existing soil density is medium dense.

Although a comprehensive pavement evaluation was not within the scope of this study the site may be prepared to support a flexible pavement or rigid concrete pavement. The pavement should be designed for the anticipated loads and frequencies. The minimum pavement design for standard duty asphalt should include the following:

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MELBOURNE (321) 768-8488
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Clear the parking area of any surface debris, including vegetation, roots and organic matter. Stumps shall be removed entirely. The cleared areas should be graded level and proofrolled. Any soft yielding areas shall be excavated and replaced with clean compacted fill. Sufficient passes should be made during compaction operations to produce a density no less than 95 percent of its modified dry Proctor value (AASHTO T180) to a depth of two feet.

Additional fill shall consist of clean granular sand containing less than 10% material passing the U.S. Standard No. 200 mesh sieve and placed in loose layers of 12 inches and compacted to the above densities.

Eight inches of suitable stabilized soil having a limerock bearing ratio (LBR of 40) should be used for the stabilized subgrade and compacted to 98 percent of its modified dry Proctor value (AASHTO T180).

The base course shall be six inches of cemented coquina rock (LBR 100) or limerock and compacted to 98 percent of its modified dry Proctor value (AASHTO T180). A minimum of 16 inches separation should be maintained between the bottom of the base and the high seasonal groundwater table.

The asphalt wearing surface should consist of 1 ½" of type S-3 in accordance with the Florida Department of Transportation Standard Specification for Road and Bridge Construction.

Where a concrete pavement section is used, a minimum thickness of 5 inches is recommended within light duty areas. The concrete should be reinforced to withstand the design traffic loads and sawcuts constructed for crack control. The concrete should have a minimum compressive strength of 4,000 psi. Six inches of suitable stabilized soil having a limerock bearing ratio (LBR of 20) and compacted to no less than 98 percent of its modified dry Proctor value (AASHTO T180) should be used as a base.

Standard duty pavement areas are considered car and pickup truck loading conditions and a few medium trucks such as delivery and garbage truck loading conditions.

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I. Dry Retention Areas:

The horizontal and vertical permeability flow rates were determined by excavating a test pit adjacent to the soil profiles (HA-16 and HA-17) and obtaining undisturbed shelby tube samples. We then performed a permeability test on the field samples in our laboratory.

The following table indicates the horizontal and vertical flow rates for each test location:

TEST LOCATION (See Location Plan)	HORIZONTAL FLOW RATE	VERTICAL FLOW RATE
HA-16, P-1	13.3 Ft/Day @ (0"-10") Depth	10.5 Ft/Day @ (0"-10") Depth
HA-16, P-1	21.5 Ft/Day @ (10"-60") Depth	16.2 Ft/Day @ (10"-60") Depth
HA-17, P-2	10.8 Ft/Day @ (0"-8") Depth	9.2 Ft/Day @ (0"-8") Depth
HA-17, P-2	18.4 Ft/Day @ (8"-48") Depth	13.3 Ft/Day @ (8"-48") Depth
HA-17, P-2	7.5 Ft/Day @ (48"-60") Depth	5.3 Ft/Day @ (48"-60") Depth

The following table indicates the measured water table along with our estimated normal wet season water table and normal dry season water table for each test location:

TEST LOCATION (See Location Plan)	MEASURED WATER TABLE	ESTIMATED WET SEASON WATER TABLE	ESTIMATED DRY SEASON WATER TABLE
HA16, P-1	42" Below Grade	18" Below Grade	54" Below Grade
HA-17, P-2	34" Below Grade	14" Below Grade	50" Below Grade

This estimate is based upon our interpretation of existing site conditions and a review of the USDA Soil Survey for Indian River County, Florida. The project soils are mapped as EauGallie fine sand (3), Myakka-Myakka wet fine sands, 0 to 12 percent slopes (5), and Pomello sand, 0 to 5 percent slopes (21), according to the Soil Survey Map of Indian River County, Florida.

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J. Existing Ball Field:

As requested, we performed three (3) hand-auger borings (HA-13, HA-14, and HA-15) in the existing ball field to determine depth of red clay. We found the depth of clay to be 4" to 5" in thickness.

K. Closure:

This report has been prepared in accordance with generally accepted soil and foundation engineering practices based on the results of the test borings and the assumed loading conditions. No warranties, either expressed or implied, are intended or made. This report does not reflect any variations which may occur between the borings. If variations appear evident during the course of construction, it would be necessary to re-evaluate the recommendations of this project.

Environmental conditions, wetland delineation, water quality, and municipal requirements are not a part of this report.

We are pleased to be of assistance to you on this phase of your project. When we may be of further service to you or should you have any questions, please feel free to contact us.

Respectfully,

JULIE E. KELLER LICENSE No. 68366 6/14/18 STATE OF FLORIDA PROFESSIONAL ENGINEER

Julie E. Keller, P.E.
President

JEK/jt

E-mail to: mvito@ircgov.com

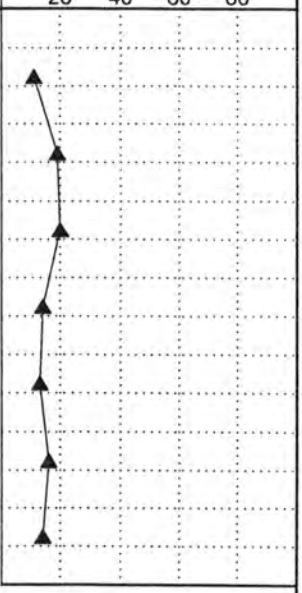
KSM Engineering & Testing
P.O. Box 78-1377
Sebastian, FL 32978
Tel: (772)-589-0712
Fax: (772)-589-6469

BORING NUMBER B-1

CLIENT Indian River County Parks Division - PO #80891-0
PROJECT NAME Hobart Park Baseball Complex
PROJECT NUMBER 181813-b
PROJECT LOCATION 58th Avenue and 77th Street, Indian River County, FL
DATE STARTED 5/31/18 **COMPLETED** 5/31/18
GROUND ELEVATION _____ **HOLE SIZE** inches
DRILLING CONTRACTOR _____
GROUND WATER LEVELS:
DRILLING METHOD Split Spoon Sample
▽ **AT TIME OF DRILLING** 3.58 ft
LOGGED BY SF/MS **CHECKED BY** JEK
AT END OF DRILLING ---
NOTES See Attached Location Plan
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)
0		Dark Gray Sand with Traces of Roots					
		Gray Sand	SS		4-6-5 (11)		
		Dark Gray Sand with Traces of Hardpan					
		▽	SS		7-8-11 (19)		
5		Light Brown Sand					
			SS		9-10-10 (20)		
		Light Brown Sand, Slightly Clayed	SS		8-7-7 (14)		
10		Light Brown Sand	SS		6-7-6 (13)		
			SS		8-8-8 (16)		
			SS		6-7-7 (14)		
15		Bottom of borehole at 15.0 feet.	SS		8		

▲ SPT N VALUE ▲
20 40 60 80
PL MC LL
20 40 60 80
☐ FINES CONTENT (%) ☐
20 40 60 80



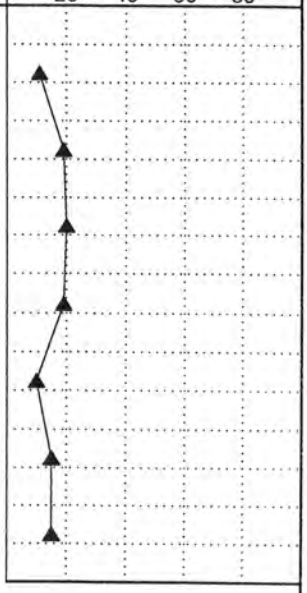
KSM Engineering & Testing
P.O. Box 78-1377
Sebastian, FL 32978
Tel: (772)-589-0712
Fax: (772)-589-6469

BORING NUMBER B-2

CLIENT Indian River County Parks Division - PO #80891-0
PROJECT NAME Hobart Park Baseball Complex
PROJECT NUMBER 181813-b
PROJECT LOCATION 58th Avenue and 77th Street, Indian River County, FL
DATE STARTED 5/31/18 **COMPLETED** 5/31/18
GROUND ELEVATION _____ **HOLE SIZE** inches
DRILLING CONTRACTOR _____
GROUND WATER LEVELS:
DRILLING METHOD Split Spoon Sample
▽ **AT TIME OF DRILLING** 3.50 ft
LOGGED BY SF/MS **CHECKED BY** JEK
AT END OF DRILLING ---
NOTES See Attached Location Plan
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)
0		Dark Gray Sand with Traces of Roots					
		Gray Sand	SS		5-5-6 (11)		
		Dark Brown Sand with Traces of Hardpan					
		▽	SS		7-8-11 (19)		
5		Light Brown Sand	SS		10-10-10 (20)		
		Light Brown Sand, Slightly Clayed	SS		7-9-10 (19)		
10		Light Brown Sand	SS		6-5-5 (10)		
			SS		5-7-8 (15)		
15			SS		7-7-8 (15)		
		Bottom of borehole at 15.0 feet.	SS		8		

▲ SPT N VALUE ▲
20 40 60 80
PL MC LL
20 40 60 80
☐ FINES CONTENT (%) ☐
20 40 60 80

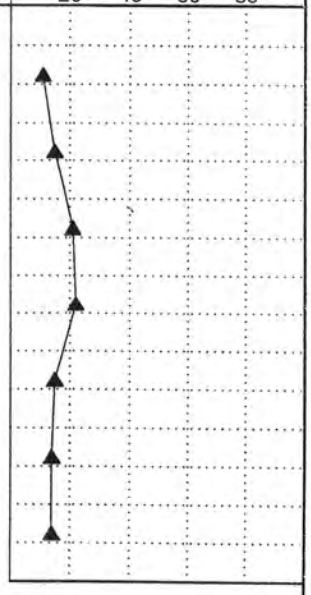


KSM Engineering & Testing
P.O. Box 78-1377
Sebastian, FL 32978
Tel: (772)-589-0712
Fax: (772)-589-6469

BORING NUMBER B-3

CLIENT Indian River County Parks Division - PO #80891-0
PROJECT NAME Hobart Park Baseball Complex
PROJECT NUMBER 181813-b
PROJECT LOCATION 58th Avenue and 77th Street, Indian River County, FL
DATE STARTED 5/31/18 **COMPLETED** 5/31/18
GROUND ELEVATION _____ **HOLE SIZE** inches
DRILLING CONTRACTOR _____
GROUND WATER LEVELS:
DRILLING METHOD Split Spoon Sample
▽ **AT TIME OF DRILLING** 3.33 ft
LOGGED BY SF/MS **CHECKED BY** JEK
AT END OF DRILLING ---
NOTES See Attached Location Plan
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)
0		Dark Gray Sand with Traces of Roots					
		Gray Sand	SS		5-6-5 (11)		
		Dark Gray and Brown Sand with Traces of Hardpan					
		▽	SS		7-6-9 (15)		
5		Light Brown Sand					
			SS		10-11-10 (21)		
		Brown Sand, Slightly Clayed					
			SS		13-11-11 (22)		
10			SS		8-7-8 (15)		
		Light Brown Sand					
			SS		6-7-7 (14)		
			SS		7-7-7 (14)		
15		Bottom of borehole at 15.0 feet.	SS		8		



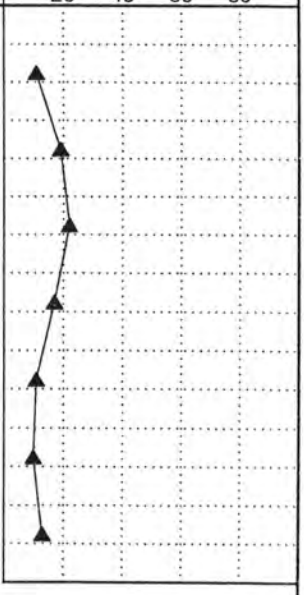
KSM Engineering & Testing
P.O. Box 78-1377
Sebastian, FL 32978
Tel: (772)-589-0712
Fax: (772)-589-6469

BORING NUMBER B-4

CLIENT Indian River County Parks Division - PO #80891-0
PROJECT NAME Hobart Park Baseball Complex
PROJECT NUMBER 181813-b
PROJECT LOCATION 58th Avenue and 77th Street, Indian River County, FL
DATE STARTED 5/31/18 **COMPLETED** 5/31/18
GROUND ELEVATION _____ **HOLE SIZE** inches
DRILLING CONTRACTOR _____
GROUND WATER LEVELS:
DRILLING METHOD Split Spoon Sample
▽ **AT TIME OF DRILLING** 3.75 ft
LOGGED BY SF/MS **CHECKED BY** JEK
AT END OF DRILLING ---
NOTES See Attached Location Plan
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)
0		Gray Sand with Traces of Roots					
		Gray Sand	SS		4-6-5 (11)		
		Dark Brown Sand with Some Hardpan					
		▽	SS		6-8-11 (19)		
5		Light Brown Sand					
			SS		10-11-11 (22)		
		Light Brown Sand, Slightly Clayed	SS		7-8-9 (17)		
10		Brown Sand, Slightly Clayed	SS		6-5-6 (11)		
			SS		5-5-5 (10)		
			SS		5-7-6 (13)		
15		Bottom of borehole at 15.0 feet.	SS		7		

▲ SPT N VALUE ▲
20 40 60 80
PL MC LL
20 40 60 80
☐ FINES CONTENT (%) ☐
20 40 60 80



KSM Engineering & Testing
P.O. Box 78-1377
Sebastian, FL 32978
Tel: (772)-589-0712
Fax: (772)-589-6469

BORING NUMBER B-5

CLIENT Indian River County Parks Division - PO #80891-0
PROJECT NAME Hobart Park Baseball Complex
PROJECT NUMBER 181813-b
PROJECT LOCATION 58th Avenue and 77th Street, Indian River County, FL
DATE STARTED 5/31/18 **COMPLETED** 5/31/18
GROUND ELEVATION _____ **HOLE SIZE** inches
DRILLING CONTRACTOR _____
GROUND WATER LEVELS:
DRILLING METHOD Split Spoon Sample
▽ **AT TIME OF DRILLING** 3.92 ft
LOGGED BY SF/MS **CHECKED BY** JEK
AT END OF DRILLING ---
NOTES See Attached Location Plan
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)
0		Gray Sand with Traces of Roots					
		Light Gray Sand	SS		5-5-5 (10)		
		Dark Brown Sand with Traces of Hardpan					
		▽	SS		6-8-10 (18)		
5		Light Brown Sand	SS		8-8-8 (16)		
		Light Brown Sand, Slightly Clayed	SS		7-9-9 (18)		
10		Light Brown Sand	SS		8-7-5 (12)		
			SS		4-4-5 (9)		
15			SS		5-6-5 (11)		
		Bottom of borehole at 15.0 feet.	SS		6		

▲ SPT N VALUE ▲
20 40 60 80
PL MC LL
20 40 60 80
☐ FINES CONTENT (%) ☐
20 40 60 80

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Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-1, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 10"		Gray Sand with Traces of Roots
-1-	10" - 20"	32	Light Gray Sand
-2-	20" - 28"	56	Dark Grayish Brown Sand with Traces of Hardpan
	28" - 52"		Brown Sand
-3-		48	
-4-		40	
	52" - 72"		Grayish Brown Sand
-5-		36	
-6-		41	

Water Table: 50" Below Existing Grade
Job #: KSM 181813-1ha

KSM

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MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-2, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 14"		Gray Sand with Roots
-1-		33	
	14" - 40"		Dark Brown Sand
-2-		38	
-3-		35	
	40" - 56"		Light Brown Sand
-4-		30	
-5-	56" - 72"	32	Grayish Brown Sand
-6-		35	

Water Table: 38" Below Existing Grade
Job #: KSM 181813-2ha

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PALM BEACH (561) 845-7445
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MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
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Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-3, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 10"		Dark Gray Sand with Traces of Roots
-1-	10" - 30"	28	Gray Sand
-2-		37	
-3-	30" - 48"	52	Dark Gray and Brown Sand with Traces of Hardpan
-4-		50	
	48" - 64"		Dark Brown Sand
-5-		47	
	64" - 72"		Light Brown Sand
-6-		51	

Water Table: 44" Below Existing Grade
Job #: KSM 181813-3ha

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MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
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Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-4, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 10"		Dark Gray Sand with Traces of Roots
-1-	10" - 18"	44	Gray Sand
-2-	18" - 50"	58	Dark Gray and Brown Sand with Traces of Hardpan
-3-		53	
-4-		56	
	50" - 62"		Light Brown Sand
-5-		54	
	62" - 72"		Brown Sand
-6-		59	

Water Table: 50" Below Existing Grade
Job #: KSM 181813-4ha

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MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-5, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0″ - 20″		Dark Gray Sand with Traces of Roots
-1-		34	
-2-	20″ - 30″	45	Gray Sand
-3-	30″ - 48″	59	Dark Brown and Gray Sand
-4-	48″ - 72″	61	Light Brown Sand
-5-		53	
-6-		50	

Water Table: 50″ Below Existing Grade
Job #: KSM 181813-5ha

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MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-6, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 14"		Dark Gray Sand with Roots
-1-		33	
	14" - 24"		Gray Sand
-2-		46	
	24" - 44"		Dark Grayish Brown Sand with Traces of Hardpan
-3-		60	
-4-	44" - 66"	55	Light Brown Sand
-5-		54	
	66" - 72"		Brown Sand
-6-		56	

Water Table: 50" Below Existing Grade
Job #: KSM 181813-6ha

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MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-7, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 20"		Dark Gray Sand with Some Roots
-1-		47	
-2-	20" - 52"	58	Dark Gray and Brown Sand with Traces of Hardpan
-3-		57	
-4-		59	
	52" - 72"		Light Brown Sand
-5-		50	
-6-		54	

Water Table: 46" Below Existing Grade
Job #: KSM 181813-7ha

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KELLER, SCHLEICHER & MacWILLIAM ENGINEERING AND TESTING, INC.
MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693
P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET
SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-8, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 6"		Dark Gray Sand with Roots
	6" - 20"		Gray Sand
-1-		30	
-2-	20" - 32"	50	Gray Sand with Traces of Hardpan
-3-	32" - 50"	56	Brown Sand
-4-		54	
	50" - 72"		Light Brown Sand
-5-		50	
-6-		50	

Water Table: 44" Below Existing Grade
Job #: KSM 181813-8ha

KSM

KELLER, SCHLEICHER & MacWILLIAM ENGINEERING AND TESTING, INC.
MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693
P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET
SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-9, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 20"		Gray Sand with Some Roots
-1-		36	
-2-	20" - 36"	54	Dark Gray Sand with Traces of Hardpan
-3-		50	
	36" - 60"		Light Brown Sand
-4-		48	
-5-		52	
	60" - 72"		Brown Sand
-6-		56	

Water Table: 46" Below Existing Grade
Job #: KSM 181813-9ha

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MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-10, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 6"		Gray Sand with Traces of Roots
	6" - 20"		Light Gray Sand
-1-		32	
-2-	20" - 36"	58	Dark Gray and Brown Sand with Traces of Hardpan
-3-		52	
	36" - 54"		Dark Brown Sand
-4-		48	
	54" - 72"		Light Brown Sand
-5-		47	
-6-		49	

Water Table: 52" Below Existing Grade
Job #: KSM 181813-10ha

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MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-11, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 8"		Gray Sand with Traces of Roots
-1-	8" - 20"	45	Light Gray Sand
-2-	20" - 30"	63	Dark Gray Sand with Traces of Hardpan
-3-	30" - 54"	56	Light Brown Sand
-4-		55	
-5-	54" - 72"	59	Brown Sand
-6-		58	

Water Table: 54" Below Existing Grade
Job #: KSM 181813-11ha

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KELLER, SCHLEICHER & MacWILLIAM ENGINEERING AND TESTING, INC.

MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-12, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 10"		Gray Sand with Traces of Roots
-1-	10" - 24"	47	Light Gray Sand
-2-	24" - 36"	60	Dark Gray Sand with Traces of Hardpan
-3-	36" - 60"	60	Light Brown Sand
-4-		56	
-5-	60" - 72"	60	Brown Sand
-6-		59	

Water Table: 54" Below Existing Grade
Job #: KSM 181813-12ha

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MARTIN (772) 337-7755
PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-13, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 5"		Red Clay
	5" - 24"		
-1-		68	Gray Sand
-2-	24" - 36"	60	Dark Gray Sand
-3-		63	

Water Table: 36"+ Below Existing Grade
Job #: KSM 181813-13ha

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PALM BEACH (561) 845-7445
FAX (561) 845-8876
C.A.: 5693

P.O. BOX 78-1377, SEBASTIAN, FL 32978-1377
www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

SEBASTIAN (772) 589-0712
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-14, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 4"		Red Clay
	4" - 24"		Light Gray Sand
-1-		70	
-2-		66	
	24" - 36"		Dark Gray Sand
-3-		64	

Water Table: 36"+ Below Existing Grade
Job #: KSM 181813-14ha

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PALM BEACH (561) 845-7445
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C.A.: 5693

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E-Mail: KSM@KSMENGINEERING.NET

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MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-15, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	PEN READINGS	DESCRIPTION OF SOILS
-0-	0" - 5"		Red Clay
	5" - 30"		Light Gray Sand
-1-		70	
-2-		70	
	30" - 36"		Dark Gray Sand
-3-		69	

Water Table: 36"+ Below Existing Grade
Job #: KSM 181813-15ha

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PALM BEACH (561) 845-7445
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C.A.: 5693

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MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
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Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-16, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	DESCRIPTION OF SOILS
-0-	0" - 10"	Gray Sand with Roots
-1-	10" - 60"	Light Gray Sand
-2-		
-3-		
-4-		
-5-	60" - 72"	Brown Sand
-6-		

Water Table: 42" Below Existing Grade
Job #: KSM 181813-16ha

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C.A.: 5693

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www.ksmengineering.net
E-Mail: KSM@KSMENGINEERING.NET

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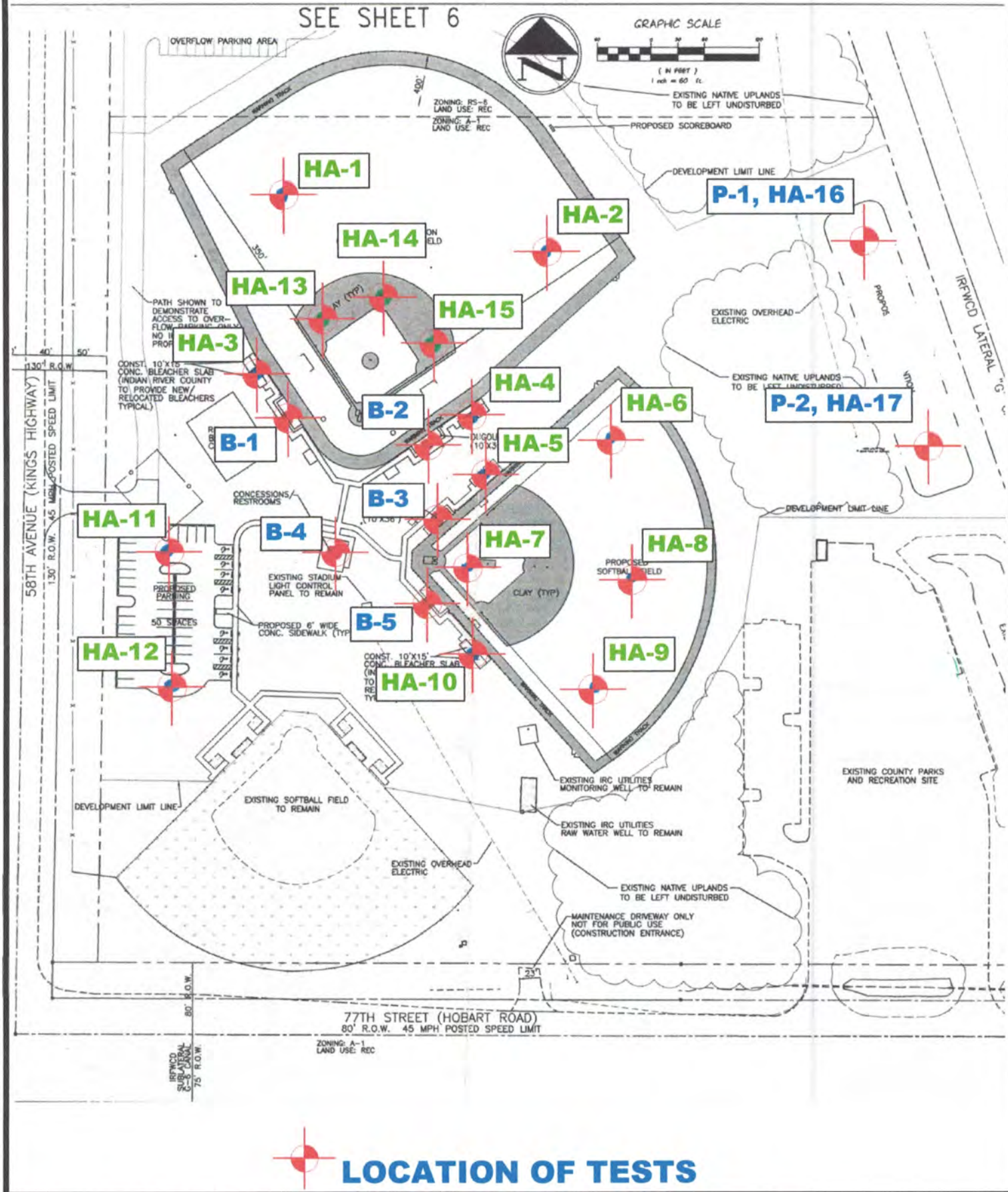
MELBOURNE (321) 768-8488
ST. LUCIE (772) 229-9093
FAX (772) 589-6469

Date : May 29, 2018

Location: Hobart Park Baseball Complex
58th Avenue and 77th Street
Indian River County, Florida
HA-17, See Attached Location Plan

DEPTH IN FEET	Strata FROM-TO	DESCRIPTION OF SOILS
-0-	0" - 8"	Gray Sand with Roots
-1-	8" - 48"	Light Brown Sand
-2-		
-3-		
-4-	48" - 72"	Brown Sand
-5-		
-6-		

Water Table: 42" Below Existing Grade
Job #: KSM 181813-17ha



LOCATION OF TESTS

PROJECT: Hobart Park Baseball Complex Project, 58th Avenue & 77th Street, Indian River County, Florida

SHEET 1 OF 1 PERMIT #: PROJECT #: 181813-b	KSM ENGINEERING AND TESTING	DRAWN BY: J.L. DESIGNED BY: J.K. DATE: 20180604 SCALE: NONE

USDA SOILS SURVEY

3-EauGallie fine sand
5-Myakka-Myakka, wet, fine sands, 0 to 2 percent slopes
21-Pomello sand, 0 to 5 percent slopes

PROJECT: Hobart Park Baseball Complex Project, 58th Avenue & 77th Street, Indian River County, Florida

SHEET 2 OF 2 PERMIT #: PROJECT #: 181813-soils	KSM ENGINEERING AND TESTING	DRAWN BY: J.L. DESIGNED BY: J.K. DATE: 20180508 SCALE: NONE