



Financial Management Department
Purchasing Division
1112 Manatee Avenue West, Ste 803
Bradenton, FL 34205

November 5, 2015

TO: All Interested Quoters

SUBJECT: **Request for Quotation # 16-0105-DS**
Ellenton Gillette Road Directional Drill Automated Traffic Management System (ATMS) Conduit (Phase 1)

ADDENDUM # 1

Quoters are hereby notified that this Addendum shall be acknowledged on page 22 of the Quote Form and made a part of the above named quoting and contract documents. Quotes submitted without acknowledgement of the Addendum will be considered incomplete.

The following items are issued to add to, modify, and clarify the Quote and contract documents. These items shall have the same force and effect as the original Quoting and contract documents, and cost involved shall be included in the bid prices. Quotes to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

The deadline for clarification of questions has been extended to **November 9, 2015 at 3:00 PM.** This deadline had been established to maintain fair treatment of all potential Quoters. Questions received after this date and time shall not be considered.

Quoters Note:

- Attached please find a copy of the Geotechnical Engineering Report for Moccasin Wallow Road at Ellenton-Gillette Road – Signal Poles dated January 20, 2015 (9 pages) to be made part of the Request for Quotation.
- Please find a copy of the revised Quote Form attached which supersedes the document provided with the original solicitation. The Addendum # 1 Quote Form shall be made a part of the Quoters offering.

Question # 1: Reference plan sheet T-4, Note 18, why do we have to have an I.M.S.A. Certified Level II (Electronics or Electrical Technician) on the job if this is just a directional drill job?

Response # 1: An I.M. S. A. certified Level II (Electronics or Electrical Technician) is not necessary for this component of the project.

Question # 2: Reference plan sheet "Typical Section" SR I-275, this drawing shows installing (1) 6" directional bore pipe with (2) 2" conduits, are we to include the 2-inch conduits in our bid? Are these two (2) 2-inch conduits being installed inside the 6-inch directional drilled pipe?

Response # 2: No, the project is to install 2 - 2 inch HDPE conduits for future ATMS needs. The 6" is for the back reamer with the two (2) 2" conduits.

Question # 3: There is no reference in specifications or on the plans as to what type of pipe the directional drill pipe is, are we bidding fusible HDPE or fusible PVC? If HDPE, we will need to know what Scheduled Dimension Ratio (SDR) is required and if the outside diameter is to match that for steel pipe or ductile iron pipe.

Response # 3: Quoters are to comply with FDOT 2015 Standard Specification Section 555 Directional Bore. HDPE with a SDR-11.

Question # 4: What are we to include in our bid for tracing wire on the directional drilled pipe?

Response # 4: Use Locate wire or metal tape so that conduit can be physically located in the future.

Question # 5: What color, or stripe color if HDPE, are we to furnish?

Response # 5: Provide Orange Conduit or Black with Orange Stripe.

Question # 6: I do not see the F.D.O.T. permit in the RFQ documents, please provide.

Response #6: See attached PDF (FDOT ATMS Utility Permit).

Question # 7: Reference specifications, SPECIAL PROVISIONS, page 6, par. MAINTENANCE OF TRAFFIC PLAN, signed and sealed drawings for this little job, is this necessary?

Response # 7: Maintenance of Traffic (MOT) will be required for any work within 2 ft. of the edge of pavement.

Question # 8: If it is determined that the 6-inch directional drill pipe will be HDPE, (SDR-11), make sure that two (2) 2-inch HDPE conduits will fit inside of it.

Response # 8: Not Applicable. The 6" is for the back reamer with the two (2) 2" conduits

The deadline date for submitting quotes has been changed, the time will remain the same

The new date for submitting quotes is November 18, 2015 at 4:00 PM.


END OF ADDENDUM # 1

Sincerely,

A handwritten signature in black ink that reads "Donna M. Stevens". The signature is written in a cursive, flowing style.

Donna M. Stevens
Contract Specialist
(Attachments)

UTILITY PERMIT

PERMIT NO.: <u>2015-H-194-B</u>	SECTION NO.: 13175	STATE ROAD 683
FDOT construction is proposed or underway.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is this work related to an approved Utility Work Schedule?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
PERMITTEE:	Manatee County Public Works	
ADDRESS:	1022 26th Avenue East	TELEPHONE NUMBER
CITY/STATE/ZIP:	Bradenton, Florida, 34208	
The above PERMITTEE requests permission from the State of Florida Department of Transportation, hereinafter operate and maintain the following: Two (2) - 2" HDPE conduits for ATMS fiber optic line for the inter signals along the Ellenton Gillette corridor. The work will consist of a directional bore at approx		
FROM:	<u>M.P. 1.502</u>	TO: <u>M.P. 1.502</u>
Submitted for the PERMITTEE by: Name and Company (Typed or Printed Legibly)	Contact Information Address/Telephone/E-Mail (if applicable)	Signature
Gerardo Traverso, PE Grinnall Crawford, Inc.	4600 W. Cypress St., Suite 550, Tampa, FL gtraverso@gc-inc.com	

- The Permittee declares that prior to filing this application, the location of all existing utilities that it owns or has an interest in are accurately shown on the plans and a letter of notification was mailed on April 14, 2014 to the following potentially impacted in the area of the proposed installation:
Peace River Electric, Manatee County (Water & Sewer), Verizon, FP&L, Bighthouse Natw
- The local Maintenance or Resident Engineer, hereafter referred to as the FDOT Engineer, shall be notified a minimum prior to starting work and again immediately upon completion of work. The FDOT's Engineer is Albert Rosen located at Sarasota Maintenance Office, Telephone Number 941-359-7. The Permittee's employee responsible for MOT is Gerardo Traverso, PE Telephone Number 813-732-1122. (This name may be provided at the time of the forty eighth starting work).
- All work, materials, and equipment shall be subject to inspection and approval by the FDOT Engineer.
- All plans and installations shall conform to the requirements of the FDOT's UAM in effect as of the date this permit is a part of this permit. This provision shall not limit the authority of the FDOT under Paragraph 8 of this Permit.
- This Permittee shall commence actual construction in good faith within 90 days after issuance of 30 days after the permitted work has begun. If the beginning date is more than sixty (60) days after the permitted construction. Permittee must review the permit with the FDOT Engineer to make sure no changes have occurred to the Transp permitted construction.
- The construction and maintenance of such utility shall not interfere with the property and rights of a prior Permittee.
- It is expressly stipulated that this permit is a license for permissive use only and that the placing of utilities upon public not operate to create or vest any property right in said holder, except as provided in executed subordination and Re
- Pursuant to Section 337.403, Florida Statutes, any utility placed upon, under, over, or along any public road or public FDOT to be unreasonably interfering in any way with the convenient, safe, or continuous use, or maintenance, impr such public road or publicly owned rail corridor shall, upon thirty (30) days written notice to the utility or its agent by FD utility at its own expense except as provided in Section 337.403(1), Florida Statutes, and except for reimbursement i subordination and Railroad Utility Agreements, and shall apply to all successors and assigns for the permitted facil
- It is agreed that in the event the relocation of said utilities are scheduled to be done simultaneously with the FDOT's coordinate with the FDOT before proceeding and shall cooperate with the FDOT's contractor to arrange the sequence the FDOT's contractor, defend any legal claims of the FDOT's contractor due to delays caused by the Permittee's schedule, and shall comply with all provisions of the law and the FDOT's current UAM. The Permittee shall not be res
- In the case of non-compliance with the FDOT's requirements in effect as of the date this permit is approved, this perm brought into compliance or removed from the RAW at no cost to the FDOT, except for reimbursement rights set forth in Railroad Utility Agreements. This provision shall not limit the authority of the FDOT under Paragraph 8 of this Perm
- It is understood and agreed that the rights and privileges herein set out are granted only to the extent of the State's ri entered upon and used by the Permittee, and the Permittee will, at all times, and to the extent permitted by law, ass and save harmless the State of Florida and the FDOT from and against any and all loss, damage, cost or expense an exercise or attempted exercises by said Permittee of the aforesaid rights and privileges.
- During construction, all safety regulations of the FDOT shall be observed and the Permittee must take measures, incl devices that may be necessary in order to safely conduct the public through the project area in accordance with the UAM.
- Should the Permittee be desirous of keeping its utilities in place and out of service, the Permittee, by execution of th and continuing ownership of its utilities located between N/A and within the FDOT's RAW as set forth above. Whenever the Permittee removes its facilities, it shall be at the Perm Permittee, at its sole expense, shall promptly remove said out of service utilities whenever the FDOT determines a
- In the event contaminated soil is encountered by the Permittee or anyone within the permitted construction limits, the Pi and notify the FDOT. The FDOT shall notify the Permittee of any suspension or revocation of the permit to allow contain Said suspension or revocation shall remain in effect until otherwise notified by FDOT
- For any excavation, construction, maintenance, or support activities performed by or on behalf of the FDOT, within its F the FDOT or its agents to perform the following activities with respect to a Permittee's facilities: physically expose or dir provide any necessary support to facilities and/or cover, de-energize or alter aerial facilities as deemed necessary i

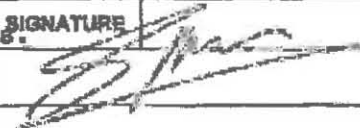

If a time closure is within the project limits, the Permittee MUST notify DBI Services 14 days prior to a time closure to allow DBI Services to inform the relevant parties. If no time closure is required, Permits 24 hours in advance of starting work. Failure to call may result in a delay to begin work.

UTILITY PERMIT

- 16. Pursuant to Section 337.401(2), Florida Statutes, the permit shall require the permit holder to be responsible for the permit. The FDOT may initiate injunctive proceedings as provided in s. 120.68 to enforce provisions of this subsection pursuant thereto.
- 17. Pursuant to Section 337.402, Florida Statutes, when any public road or publicly owned rail corridor is damaged installation, inspection, or repair of a utility located on such road or publicly owned rail corridor, the owner of the restores the road or publicly owned rail corridor to its original condition before such damage. If the owner fails to authorized to do so and charge the cost thereof against the owner under the provisions of s.337.404.
- 18. The Permittee shall comply with all provisions of Chapter 656, Florida Statutes, Underground Facilities Damage
- 19. Special FDOT Instructions: _____

it is understood and agreed that commencement by the Permittee is acknowledgment and acceptance of the bin conditions and special instructions.

- 20. By receipt of this permit, the Permittee acknowledges responsibility to comply with Section 119.07, Florida Statute
- 21. By the below signature, the Permittee hereby represents that no change to the FDOT's standard Utility Permit form 14-48.001, for this Utility Permit has been made which has not been previously called to the attention of the (appropriate box below) by a separate attached written document showing all changes and the written and dated as attachments reflecting change/s to the standard form? NO YES If Yes, _____ pages are attached.

PERMITTEE	Sri Mollanavar, P.E. Deputy Director, Engineering Svcs.	SIGNATURE 
	Name & Title of Authorized Permittee or Agent (Typed or Printed Legibly)	
APPROVED BY:		
	District Maintenance Engineer or Designee	

UTILITY PERMIT FINAL INSPECTION CERTIFICATION

DATE:
DATE WORK STARTED:
DATE WORK COMPLETED:
INSPECTED BY: (Permittee or Agent)
CHANGE APPROVED BY: District Maintenance Engineer or Designee

I the undersigned Permittee do hereby CERTIFY that the utility construction approved by the above numbered permit was the approved plans made a part of this permit and in accordance with the FDOT's current UAM. All plan changes have been attached to this permit. I also certify that the work area has been left in as good or better condition than when the v

PERMITTEE:	SIGNATURE:
Name & Title of Authorized Permittee or Agent (Typed or Printed Legibly)	

CC: District Permit Office
Permittee

• *Hazardous Waste Disposal*

Contact the Florida Department of Environmental Protection at (813) 744-6100.

• *Spill Reporting*

State Warning Point (800) 320-0519

Federal Response Center (800) 424-8802

• *Pesticides & Fertilizers*

Contact your Local County Agricultural Extension Service.

Charlotte (941) 764-4340

Collier (239) 353-4244

Desoto (863) 993-4846

Glades (863) 946-0244

Hardee (863) 773-2164

Hendry (863) 674-4094

Highlands (863) 402-6540

Lee (239) 461-7500

Manatee (941) 722-4524

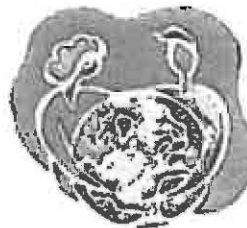
Okeechobee (863) 763-6469

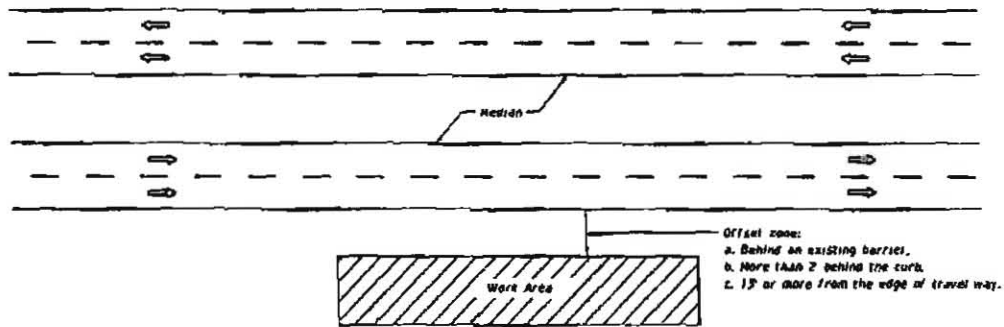
Polk (863) 519-8677

Sarasota (941) 316-1000

LET'S WORK TOGETHER TO KEEP OUR ENVIRONMENT CLEAN...

AND INVEST IN FLORIDA'S FUTURE







GENERAL NOTES

1. If the work operation (excluding establishing and terminating the work area), requires that two or more work vehicles cross the offset zone in any one hour, traffic control will be in accordance with Index No. 612.
2. No special signing is required.
3. This index also applies when work is being performed on a multilane undivided highway.
4. This index also applies to work performed in the median behind an existing barrier or more than 15' from the edge of travel way, both roadways. Work performed in the median behind curb and gutter shall be in accordance with Index No. 612.
5. When a side road intersects the highway within the work area, additional traffic control devices shall be placed in accordance with other applicable TCZ indexes.
6. When construction activities encroach on a sidewalk, refer to Index No. 660.
7. For general TCZ requirements and additional information, refer to Index No. 600.


SYMBOLS

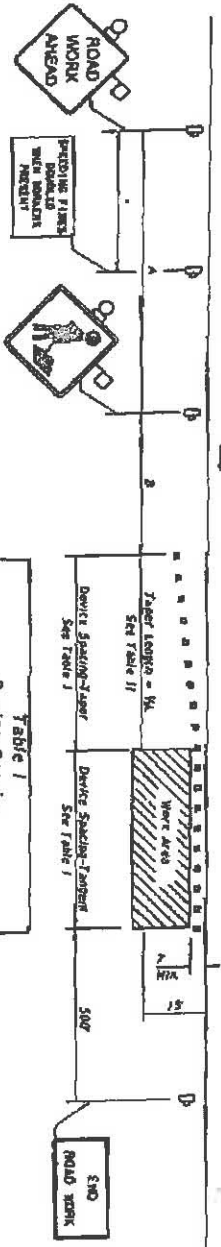
-  Work Area
-  Lane Identification + Direction of Traffic

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE BEHIND AN EXISTING BARRIER, MORE THAN 2' BEHIND THE CURB, OR 15' OR MORE FROM THE EDGE OF TRAVEL WAY.

C:\Users\jstiles\OneDrive\Documents\FDOT\611-11-14-15.dwg
 07/03/15
 07/03/15

LAST REVISION 07/03/15	DESCRIPTION: [Blank]	 FDOT 2014 DESIGN STANDARDS	MULTILANE WORK OUTSIDE SHOULDER	INDEX NO. 611	SHEET NO. 1 of 1
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DISTANCE BETWEEN SIGNS

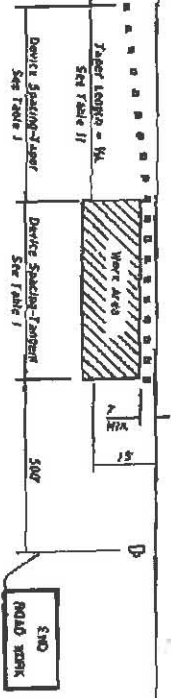
Speed	Spacing (ft.)
40 mph or less	A
45 mph	B
50 mph or greater	C

* 500' beyond the ROAD WORK AHEAD sign or midway between sign whichever is less.

Table 1

Device Spacing

Speed (mph)	Spacing of Taper Markers	Spacing of Panels or Devices	Taper Length
25	25	25	50
30 to 45	25	30	50
50 to 70	25	50	100



DURATION NOTES

1. Signs and equipment devices may be reduced if all of the following conditions are met:

- a. Work operations are on road or test.
- b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe light operation.

CONDITIONS

WHEN ANY VEHICLE EQUIPMENT, WORKERS ON THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 7' TO THE EDGE OF TRAVEL WAY.

Table II

Taper Length - Shoulder

Speed (mph)	8'	10'	12'	Notes
25	28	35	42	
30	40	50	60	WSP 60
35	55	68	82	WSP 60
40	72	90	107	
45	120	150	180	
50	133	167	200	
55	147	183	220	L-4975
60	160	200	240	
65	173	217	260	
70	187	233	280	

b - minimum shoulder width

W - length of shoulder clear in feet

W - width of road shoulder in feet (combined paved and unpaved widths)

S - Posted speed limit (mph)

SYMBOLS

- Work Area
- Sign with 18" x 18" (max) Orange Flare and Type B Light
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Lane Identification - Direction of Traffic

1. If the work operation encroaches on the through traffic lanes or when four or more work vehicles enter the through traffic lanes in a one hour period (including repositioning and terminating the work area), a flagger shall be provided with a FLAGGER sign shall be positioned for the WORKERS sign. The flagger shall be positioned at the point of vehicle entry or departure from the work area.
2. TCS TCS also applies to work performed on the median where shall 2 but less than 15' from the edge of travelway.
3. When work is being performed on a multilane undivided roadway the signs normally mounted in the median (as shown) shall be omitted.
4. WORKERS signs to be removed or fully covered when no work is being performed
5. SHOULDER WORK sign may be used as an alternative to the WORKERS sign
6. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCS indexes.
7. For general TCS requirements and additional information, refer to Index No. 600

LAST REVISION 07/01/07	DESCRIPTION	FDOT 2014 DESIGN STANDARDS	MULTILANE, WORK ON SHOULDER	JAN 21 NO. 612	SHEET NO. 1 of 1
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PERMIT VOID UNLESS DOT SARASOTA OPERATIONS OFFICE NOTIFIED 48 HOURS IN ADVANCE OF STARTING WORK.
PHONE: (888) 225-7200

IF A LANE CLOSURE IS WITHIN THE PROJECT LIMITS, THE PERMITTEE MUST NOTIFY THE DEPARTMENT 14 DAYS PRIOR TO A LANE CLOSURE TO ALLOW THE DEPARTMENT TO INFORM THE MOTORING PUBLIC. FAILURE TO CALL MAY RESULT IN A DELAY TO BEGIN WORK.

IF NO CLOSURES ARE REQUIRED THE SARASOTA OPERATIONS OFFICE MUST BE NOTIFIED 48 HOURS IN ADVANCE OF STARTING WORK. FAILURE TO CALL MAY RESULT IN A DELAY TO BEGIN WORK.

LANE CLOSURES AND OTHER WORK MAY BE RESTRICTED BY THE FDOT DUE TO HEAVY TRAFFIC AND POTENTIAL BACKUPS CAUSED BY THIS CONSTRUCTION. NIGHT WORK MAY BE REQUIRED.

DISTRICT ONE LANE CLOSURE POLICY MAY REQUIRE WORK TO BE PERFORMED DURING NIGHT TIME HOURS DUE TO LANE ANALYSIS AND/OR LANE RESTRICTIONS.

APPLICANT IS RESPONSIBLE FOR NOTIFYING OWNERS OF ALL EXISTING AERIAL AND BURIED UTILITIES OF PROPOSED DRIVEWAY AND RESOLVING ANY CONFLICTS BEFORE CONSTRUCTION BEGINS.

IN ACCORDANCE WITH FLORIDA STATUTE 351.18 PERMITTEE SHALL BE REQUIRED TO BEAR THE COST OF FUTURE ACCESS MODIFICATIONS, TRAFFIC CONTROL DEVICES OR OTHER IMPROVEMENTS WHEN DETERMINED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION TO BE IN CONJUNCTION WITH ACCEPTED ENGINEERING PRACTICES.

ALL CONSTRUCTION AND/OR MAINTENANCE ON THE DEPARTMENT'S RIGHT-OF-WAY SHALL CONFORM TO THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) THE DEPARTMENT'S ROADWAY AND TRAFFIC DESIGN STANDARDS AND BRIDGE CONSTRUCTION.

PERMITTEE/CONTRACTOR MUST WAIT 30 DAYS TO ALLOW ASPHALT FRICTION COURSE TO CURE BEFORE PLACING THERMOPLASTIC STRIPING.

OUR REVIEW COMMENTS ARE NOT INCLUDED TO BE INCLUSIVE OF ALL ERRORS AND OMISSIONS. OUR COMMENTS ARE ALSO NOT INTENDED TO AFFECT THE SCOPE OF WORK OR TO BE CONTRARY TO FHWA POLICY, FDOT DESIGN CRITERIA OR SOUND ENGINEERING PRACTICE. THE CONSULTANT/ENGINEER IS SOLELY RESPONSIBLE FOR THE TECHNICAL ACCURACY, ENGINEERING JUDGMENT, AND QUALITY OF HIS WORK.

ALL CONTRACTORS AND SUBS SHALL BE RESPONSIBLE FOR PERMITTED WLOT PLAN.

SOD ALL PORTIONS OF DIST

NOTE: ALL ABOVE GROUND LOCATED AT RIGHT-OF-WAY

DENSITY REPORTS ARE TO BE TO PLACEMENT OF PAVEME

*PRIOR TO EXCAVATING TO CIRCUMCUMPT FOR POSSIBL

THE APPLICANT SHALL NOT COMPLETION OF PERMITTEE INTRODUCE ANY FORM OR DISCHARGE INTO THE DRAIN DEPARTMENT OF TRANSPORTATION CASEMENT. ANY DISCHARGE THIS PERMIT.

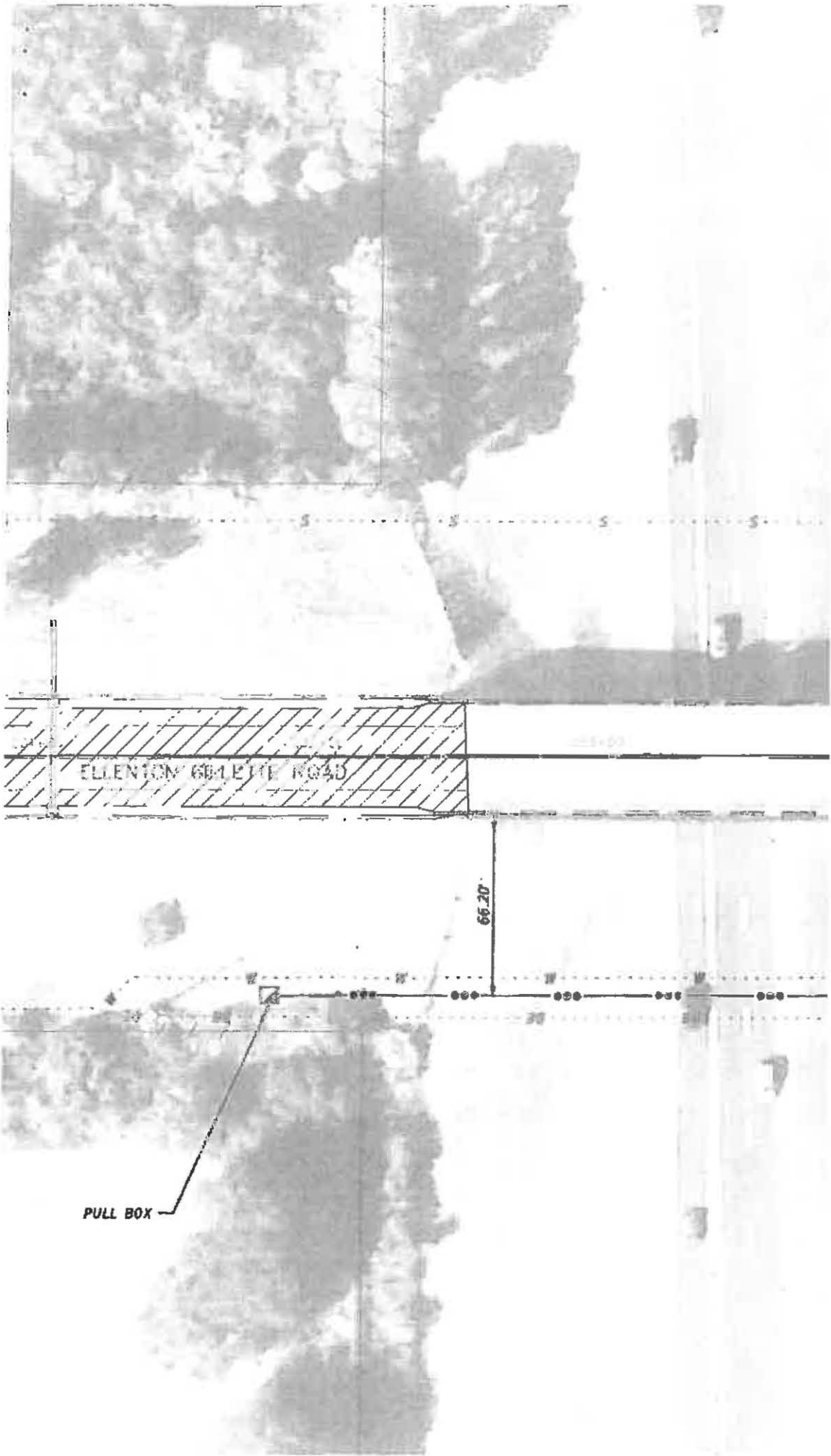
PERMITTEE IS CAUTIONED LOCATED WITHIN THE CONS

IT IS THE RESPONSIBILITY O DETERMINE AND COMPLY W MUNICIPAL ORDINANCES TO CONSTRUCTION OR OTHER / PERMIT AND ARE MORE STR OF TRANSPORTATION REQD

N.P.D.T.R. REQUIRES THAT ST MEASURES BE IMPLEMENTE PUBLIC TRANSPORTATION F INCLUDING, BUT NOT LIMITED TO FDOT STANDARD DESIGN NUMBERS 102, 103 AND 104.

*IF CONSTRUCTION, RECOMS MAINTENANCE ACTIVITY NE OF ONE OR MORE TRAVEL L- STATE PRIMARY, COUNTY OR SYSTEM, FOR A PERIOD OF T. THE PARTY PERFORMING SU RESPONSIBLE TO GIVE NOTH LOCAL LAW ENFORCEMENT JURISDICTION WHERE SUCH COMMENCING WORK ON TH 325.15 F.S. 91, 356.04 F.S. 91.

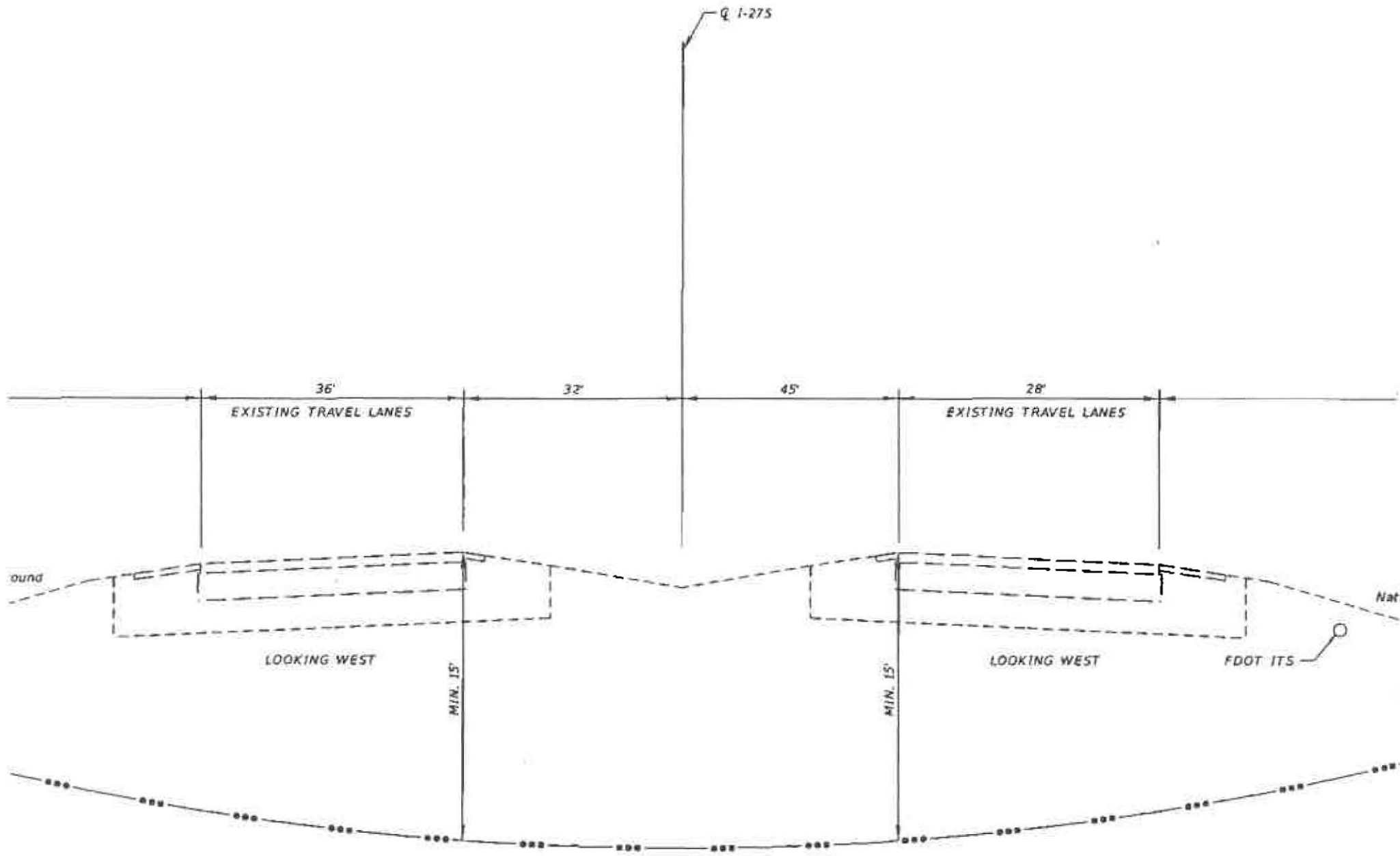




ELLENTON GOLETT ROAD

66.20'

PULL BOX



(1) 6" DIRECTIONAL BORE WITH TWO (2) 2" CONDUITS (HDPE)
 6" PULL BACK REMER. MIN. DEPTH 180" OR 15 FT. DEEP

TYPICAL SECTION
 SR I-275
 NTS

QUOTE FORM

RFQ#16-0105-DS

ADDENDUM # 1

PROJECT NAME: Ellenton Gillette Road Directional Drill, Automated Traffic Management System (ATMS) Conduit (Phase I)

PROJECT NUMBER: 6084560

PAY	FDOT			EST.	UNIT	EXTENDED
ITEM	ITEM	DESCRIPTION	U/M	QTY	PRICE	PRICE
	NO.				(\$)	(\$)
1	101-1	MOBILIZATION	LS	1		\$
2	102-1	MAINTENANCE OF TRAFFIC	LS	1		\$
3	104-10-3	SEDIMENT BARRIER	LF	100	\$	\$
4	570-1-2	PERFORMANCE TURF, SOD	SY	100	\$	\$
5	630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	555	\$	\$
6	633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA	2	\$	\$
7	635-2-12	PULL AND SPLICE BOX, FURNISH AND INSTALL (24" X 36") COVER SIZE (ADDENDUM # 1)	EA	2	\$	\$
8		Sub-Total Construction Cost				\$
9		Contract Contingency Work (Used only with County Approval)		10% OF TOTAL BASE QUOTE		\$
		TOTAL QUOTE AWARD FOR ELLENTON GILLETTE ROAD DIRECTIONAL DRILL (ATMS) CONDUIT (PHASE 1)				\$

QUOTER:

AUTHORIZED SIGNATURE:

Geotechnical Engineering Report

**Moccasin Wallow Road at Ellenton-Gillette Road – Signal Poles
Manatee County, Florida**

January 20, 2015

Dunkelberger Project No. HC145031

Prepared for:

Lombardo, Foley & Kolarik, Inc.

Palmetto, Florida

Prepared by:

Dunkelberger Engineering & Testing, a Terracon Company

Sarasota, Florida

DUNKELBERGER
engineering & testing, inc.

A Terracon COMPANY



Geotechnical



Environmental



Construction Materials



Facilities

January 20, 2015

Lombardo, Foley & Kolarik, Inc.
P.O. Box 188
Palmetto, Florida 34220

Attn: Mr. John Foley, P.E., Vice President
P: [941] 722-4561
F: [941] 729-6248
E-mail: jfoley@lfk-inc.net

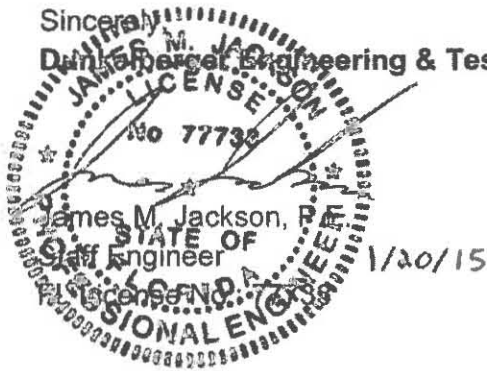
Re: Geotechnical Engineering Services
Moccasin Wallow Road at Ellenton-Gillette Road – Signal Poles
Manatee County, Florida
Dunkelberger Project Number: HC145031

Dear Mr. Foley:

Dunkelberger Engineering & Testing, a Terracon Company (DUNKELBERGER) has completed the geotechnical engineering services for the above referenced project. This study was performed in general accordance with our Proposal No. PHC140072, Revision No. 3, dated July 10, 2014. This report presents the findings of the geotechnical study in connection with planned new signal poles at the intersection of Moccasin Wallow Road and Ellenton-Gillette Road.

We appreciate the opportunity to be of service during this phase of the project. If you have any questions, please contact the undersigned at 941-379-0621.

Sincerely,
Dunkelberger Engineering & Testing, a Terracon Company



Scott Parrish
Scott N. Parrish, P.E.
Department Manager 1/20/15
FL License No.: 69091

Enclosures
cc: 1 – Client (PDF)
1 – File

Dunkelberger Engineering & Testing, A Terracon Company 8260 Vico Court, Unit B, Sarasota, Florida 34240

P [941] 379 0621 F [941] 379 5061 dunkelberger-engineering.com/

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APPENDIX A – FIELD EXPLORATION

Exhibit A-1

Report of Core Borings for Signal Poles

Geotechnical Engineering Report

Moccasin Wallow Rd. at Ellenton-Gillette Rd. ■ Manatee County, Florida

January 20, 2015 ■ Dunkelberger Project No. HC145031

DUNKELBERGER

engineering & testing, inc.

A Terracon COMPANY

EXECUTIVE SUMMARY

A geotechnical study has been completed for the new signal poles planned for the intersection of Moccasin Wallow Road and Ellenton-Gillette Road in Manatee County, Florida. Two (2) Standard Penetration Test (SPT) borings, designated B-1 and B-2, were drilled to a depth of 25 feet below the existing land surface (bls) at or near the proposed new signal pole locations. This report provides soil parameters to be used for the design of the signal pole foundations.

Based on the information obtained from our exploratory work, it appears that the site subsurface conditions are typical for the area and therefore should allow for a conventional approach to the design and construction of foundations for the proposed signal poles. The following geotechnical considerations were identified:

- In general, soil conditions consist of relatively clean sands to a depth of about 22 feet bls, followed by clayey fine sand to the borehole termination depth of 25 feet.
- The subsoils found at the site appear generally suitable for the use of drilled shaft foundation for support of the new signal poles. Recommended soil parameters to be used for the design of the drilled shaft foundations can be seen on Exhibit A-1 in Appendix A.
- Close monitoring of the construction operations discussed herein will be critical in achieving the design intentions. We therefore recommend that DUNKELBERGER be retained to monitor installation of the drilled shaft foundations.

This summary should be used in conjunction with the entire report for design purposes. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **GENERAL COMMENTS** should be read for an understanding of the report limitations.

**GEOTECHNICAL ENGINEERING REPORT
MOCCASIN WALLOW ROAD
AT ELLENTON-GILLETTE ROAD – SIGNAL POLES
MANATEE COUNTY, FLORIDA
Dunkelberger Project No. HC145031
January 20, 2015**

1.0 INTRODUCTION

A geotechnical study has been completed for the new signal poles planned for the intersection of Moccasin Wallow Road and Ellenton-Gillette Road in Manatee County, Florida. Two (2) Standard Penetration Test (SPT) borings, designated B-1 and B-2, were drilled to a depth of 25 feet below the existing land surface (bls) at or near the proposed new signal pole locations. Logs of the borings along with a boring location plan are included in Appendix A of this report.

The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- subsurface soil conditions
- groundwater conditions
- foundation design parameters for drilled shafts

2.0 PROJECT INFORMATION

2.1 Project Description

Item	Description
Site layout	See Appendix A, Exhibit A-1: Report of Core Borings for Signal Poles
Structure	New signal poles are planned for the northwest and southeast corners of the intersection of Moccasin Wallow Road and Ellenton-Gillette Road
Foundation Construction	Drilled shafts
Maximum loads	Unknown at the time that this report was prepared
Grading	We have assumed site grades are to remain relatively unchanged

2.2 Site Location and Description

Item	Description
Location	The intersection of Moccasin Wallow Road and Ellenton-Gillette Road in Manatee County, Florida

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Item	Description
Existing improvements	Existing asphalt paved roadways with shallow drainage swales (ditches).
Current ground cover	Asphalt pavement and short grasses.
Existing Topography	Based on review of Google Earth, the existing site elevation ranges from about +37 to +38 feet NGVD.

3.0 SUBSURFACE CONDITIONS

3.1 Surficial Soil Conditions (SCS Soil Survey)

The Soil Survey of Manatee County, Florida (i.e. Soil Survey), issued April 1983 and published by the Soil Conservation Service (U.S. Department of Agriculture), was reviewed to determine the surficial soil map units at this site. As shown on the following page, the site is mapped with Soil Unit 45.



Unit 45, Tavares fine sand, 0 to 5 percent slopes, is comprised of moderately well drained soil on ridges and knolls. The typical soil profile consists of fine sand to a depth of 80 inches or more.

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Under natural (pre-development) conditions, the Seasonal High Groundwater Table (SHGWT) is reported to lie at a depth of 40 to 60 inches for 6 to 12 months of the year.

It should be noted that the Soil Survey is not intended as a substitute for site-specific geotechnical exploration; rather it is a useful tool in planning a project scope in that it provides information on soil types likely to be encountered.

3.3 Field Explorations

The subsurface conditions of the site were explored with two (2) SPT borings drilled to a depth of 25 feet bls and positioned near the proposed new signal pole locations. The SPT borings were drilled using a track-mounted BR-2500 drill rig employing mud rotary procedures and SPT methodology, per ASTM D-1586, for the collection of soil samples. Representative portions of the recovered soil samples were collected in labeled glass jars and transported to our laboratory for visual-manual classification by a geotechnical engineer.

The groundwater level was measured in the boreholes just prior to them being backfilled with cement grout.

The locations of the borings are indicated on the *Report of Core Borings for Signal Poles* as Exhibit A-1 in Appendix A.

3.3 Typical Profile

Based on the results of the borings, subsurface conditions on the project site can be generalized as follows:

Stratum	Approximate Depth to Bottom of Stratum	Material Description	Consistency/Density
1	22 feet	Fine SAND with trace to slight amounts of silt (SP, SP-SM)	Very loose to dense
2	25 feet	Clayey fine SAND (SC)	Loose

Conditions encountered at each boring location and results of laboratory testing are indicated on the *Report of Core Borings for Signal Poles* on Exhibit A-1. Stratification boundaries on the boring logs represent the approximate location of changes in soil types; in-situ, the transition between materials may be gradual.

3.4 Groundwater

The depth to the groundwater measured during our field work was at about 5 feet bls. The groundwater measurements are influenced by the drilling process, existing site drainage features,

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and ambient weather conditions which have been seasonally dry. In general terms, the groundwater level should be assumed as shallow for both design and construction purposes.

3.5 Laboratory Analysis

Soil samples collected from the borings were reviewed in our laboratory by a geotechnical engineer and assigned a visual-manual classification using the Unified Soil Classification System (ASTM D2488; U.S.C.S.). Also, four (4) samples were selected for index property testing to aid in the classification. Four (4) moisture (water) content tests and four (4) percent finer than the U.S. No. 200 sieve (washes). The results of the laboratory testing are shown on the *Report of Core Borings for Signal Poles* on Exhibit A-1 in Appendix A.

4.0 CONCLUSIONS AND RECOMMENDATIONS

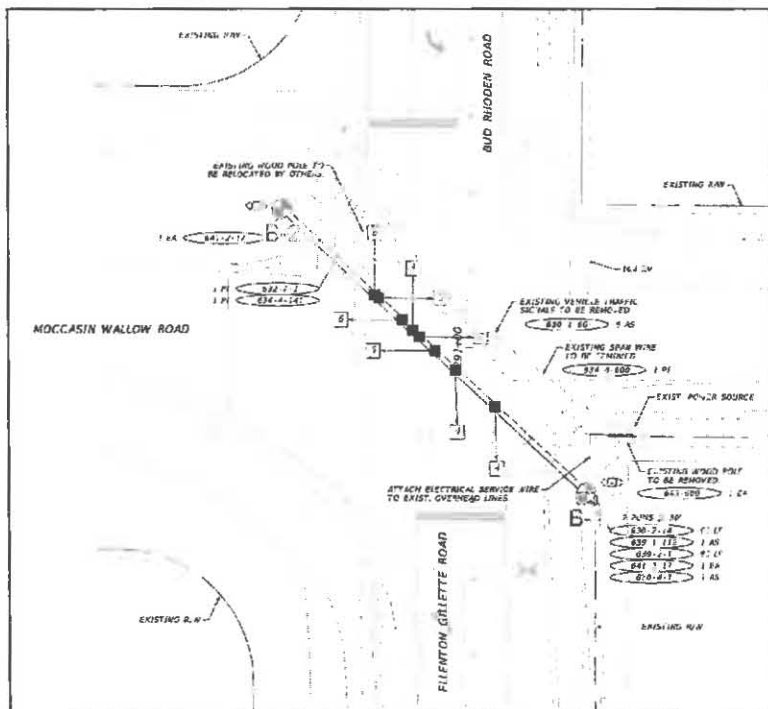
The table on Exhibit A-1 presents design parameters for the different soil strata encountered at the boring locations. It is our understanding that the pole foundations will be drilled shafts designed by others. The pole foundations should be designed using the soil parameters provided on Exhibit A-1.

5.0 GENERAL COMMENTS

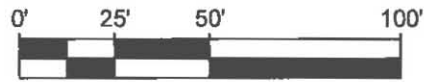
The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless DUNKELBERGER reviews the changes and either verifies or modifies the conclusions of this report in writing.

**APPENDIX A
FIELD EXPLORATION**



SOURCE: GRIMAIL CRAWFORD, INC.



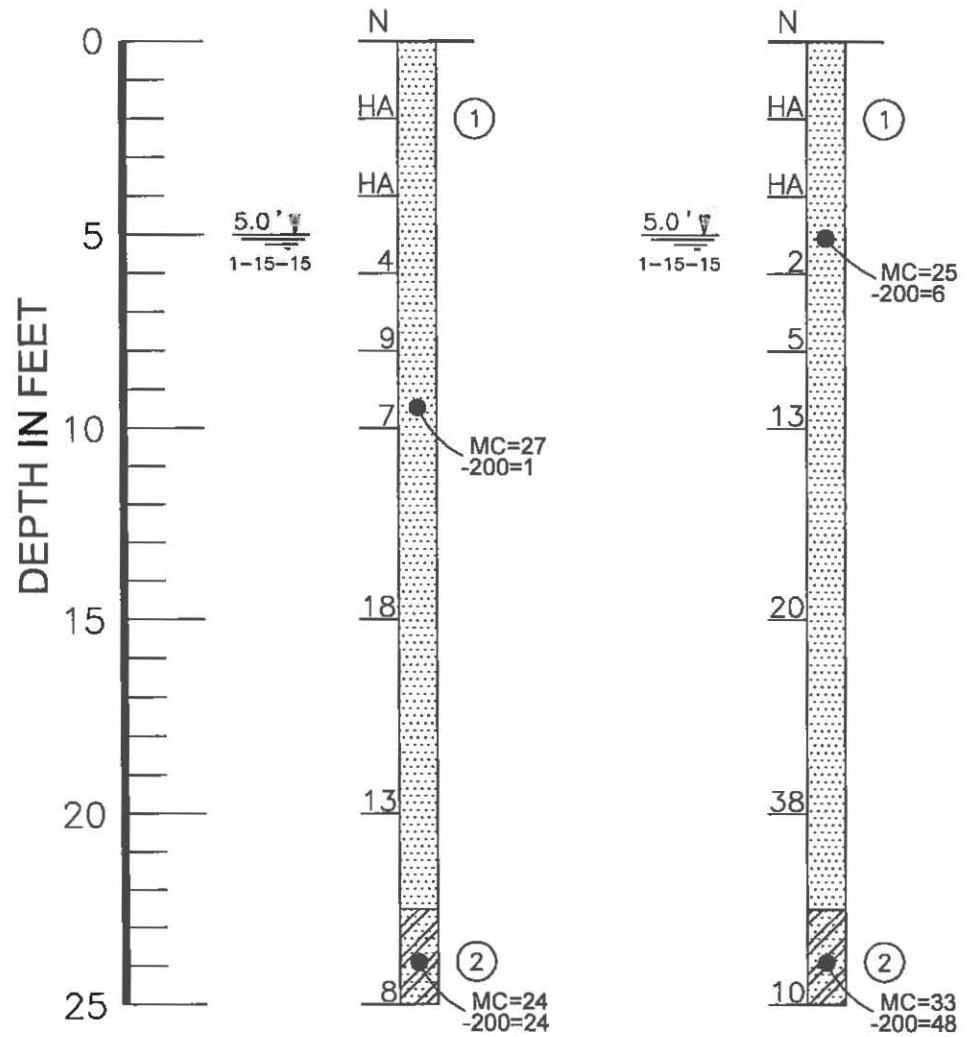
STANDARD PENETRATION TEST BORING LOCATION AND NUMBER



BORING NO.

B-1

B-2



NOTES

- (1) Borings were drilled on January 15, 2015 using a track-mounted BR-2500 drilling rig.

SUMMARY OF FOUNDATION DESIGN PARAMETERS

Boring No.	U.S.C.S.	Depth (feet)	Range of SPT - N	Unit Weights (PCF) Moist Submerged	Angle of Interval Friction (degrees)	Effective Cohesion (PSF)	Earth Pre: Ka
	SP, SP-SM	0 - 4	N/A	105 42.6	29	0	0.347