APOPKA CITY COUNCIL WORKSHOP AGENDA

NOVEMBER 02, 2021 6:00 PM

Apopka Amphitheater 3710 Jason Dwelley Parkway

CALL TO ORDER

DISCUSSION

1. Welcome/Introductions/Overview - Mayor Bryan Nelson
2. Rock Springs Ridge Land Swaps - Kurt Ardaman
3. Golf Course Owners Response to Land Swaps - David Evans
4. Comprehensive Plan and Land Development Code issues relating to private land swaps - Michael Rodriguez
5. Esler Golf Designs, LLC.
6. Council Discussion
7. Closing - Mayor Bryan Nelson

EXHIBITS

1. Exhibit A - Harmon Public Safety Tower Information
2. Exhibit B - Rock Springs Ridge Development Documents
3. Exhibit C - Florida Fish and Wildlife Conservation Commission Guidelines for accepting or releasing perpetual conservation easements
4. Exhibit D - Letter of Intent regarding Harmon Road from Benge Development Corporation
5. Exhibit E - Phase I Environmental Site Assessment Rock Springs Ridge Development

ADJOURNMENT

Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk at least two (2) working days in advance of the meeting date and time at (407) 703-1704. F.S. 286.0105 If a person decides to appeal any decision or recommendation made by Council with respect to any matter considered at this meeting, he will need record of the proceedings, and that for such purposes he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Any opening invocation that is offered before the official start of the Council meeting shall be the voluntary offering of a private person, to and for the benefit of the Council. The views or beliefs expressed by the invocation speaker have not been previously reviewed or approved by the City Council or the city staff, and the City is not allowed by law to endorse the religious or non-religious beliefs or views of such speaker. Persons in attendance at the City Council meeting are invited to stand during the opening ceremony. However, such invitation shall not be construed as a demand, order, or any other type of command. No person in attendance at the meeting shall be required to participate in any opening invocation that is offered or to participate in the Pledge of Allegiance. You may remain seated within the City Council Chambers or exit the City Council Chambers and return upon completion of the opening invocation and/or Pledge of Allegiance if you do not wish to participate in or witness the opening invocation and/or the recitation of the Pledge of Allegiance.

City of Apopka
CITY COUNCIL STAFF REPORT

Type of Form: Other: Informational
Meeting Date: November 2, 2021
Department: Information Technology

SUBJECT:
Harmon Road Public Safety Tower Discussion

REQUEST:
Review information to determine the need for a new Public Safety communications tower.

SUMMARY:
The Harmon Road Public Safety tower was initially designed in 1985 and construction started at the end of 1989. The tower was manufactured by PiRod Inc., who has since been acquired by Valmont Structures in 2001. The tower is in overall solid condition and is not in imminent danger of failure or collapse without undue stress applied by a catastrophic wind event or vandalism. The tower currently needs to be repainted as it's fading and is a requirement from the FAA for the tower to be visible during the day. At night it is illuminated with the required lighting for this same purpose. Maintenance and condition assessment recommendations call for three-year inspection intervals for guyed towers or/and after a severe wind storm.

The tower was initially designed for the radio antennas and microwave dishes used for communications of our Public Safety radio system. Additional equipment on the tower include our backhaul radios which are part of our wireless ring that provide voice and data to our off-network fire stations and recreation facilities. This location is one of two sites used to collect wireless water meter readings in the city using the Sensus FlexNet radios on the tower. Sprint became our first cellular tenant on November of 2000 and T-Mobile thereafter on November of 2006.

In the time since it was first commissioned, a minimum of six modifications have been conducted on the existing structure to strengthen it for the additional loading of our two tenant cellular carriers. The modifications as referenced on the Pate Engineering attachment include, but are not limited to additional concrete reinforcement to the guy anchors, three additional guy anchors, four sets of guy wires, larger guy wires and additional horizontal braces at various elevations of the tower to strengthen it for the additional loading of the collocated cellular carriers.

At the end of November 2018, the City was contacted by an AT&T contractor indicating the they were interested in collocating on our Harmon tower for their FirstNet nationwide dedicated First Responders network. They deemed this location "critical" for AT&T's ability to provide coverage for FirstNet. On April 24, 2019, I met with the AT&T representative at the site for a high-level review. It was discussed that the tower was at load capacity and that the tower in its current state would not allow for an additional antenna array. AT&T contracted with SMW Engineering Group to have a structural analysis completed on the

Harmon Road tower to determine its structural integrity.

On August 19, 2019, Apopka received the structural analysis report from AT&T that SMW Engineering Group had completed on their behalf. The report indicated that the tower does not have sufficient capacity to carry the existing loading as it is currently at 219% of its intended capacity. There was discussion by the AT&T contractor as to possibly adding additional structural bracing to accommodate the addition of the AT&T antenna array. Due to Apopka not having an additional communications tower in place at that time, the City deemed any additional loading of the tower as an unnecessary risk to our communications infrastructure and that the necessary upgrades were not worth the potential lease revenues.

AT&T again approached the City in October of 2020 about the possibility of collocation on our Harmon Road tower. With the recent merger of Sprint and T-Mobile, they were hoping that the Sprint antennas would be removed which could potentially allow AT&T to take their place. I had previously been in contact with a T-Mobile representative to inquire as to a time frame when they might remove the Sprint antennas. I was informed that there is no immediate plan to remove them as they are still in operation and they couldn't provide a foreseeable date when they might decommission them. The AT&T contractor also provided me with a site map identifying three parcels owned by the City and inquired if the City had any interest in allowing another tower site to be constructed on one of those parcels. The first site was further South on the same parcel of our existing tower on Harmon Road. The second and third sites of interest were located on property intended for the new Fire Station 6 build.

Subsequent conversations with the AT&T contractor occurred in December of 2020 discussing possible solutions. Due to the growth in the surrounding areas that AT&T was requesting to construct a new tower site, it was anticipated that it would not be well received by the adjacent property owners to add another communications tower in the area. I discussed AT&T's willingness to contribute to a new tower build on the existing Harmon Road site to accommodate all of the existing loading as well as their antenna array. I was informed they would discuss the matter internally and that this idea wasn't out of the question concerning a public/private partnership build. With the COVID-19 Pandemic in full swing, I was informed that they would get back to me with this information in the near future.

In or about May of 2021, I learned that the City may have interests in disposing of the Harmon Road parcel where the tower is located and the City may need to identify an alternate site suited for our communications needs. I provided several City owned parcels to Motorola Engineers for them to conduct subscriber coverage surveys of each location. Of the sites submitted, only one site was found to be suitable to meet our needs and it is the proposed site for the Fire Station 6 build. Motorola indicated we would receive the same coverage at this site with a 350' tower. During this same period, I was contacted by the AT&T contractor who informed me that AT&T had agreed to work with the City to construct a new tower and wanted to know how much funding Apopka would request of them for their contribution to the build. I informed the contractor that in light of the internal deliberations within the City's administration, Apopka may be required to relocate our tower site and at that time, a final decision of whether to build on or vacate and dispose of the current tower property had not yet been made.

In preparation for possibly having to relocate our tower site, I obtained a cost proposal from Motorola for a turn-key site to include a new self-supported tower structure, modular building, generator, wiring, equipment moves, cutover, engineering and all project management at a cost of $2,655,554.00. I obtained a second cost proposal from Motorola for just the tower replacement should the City decide to stay at the existing property at a cost of $1,500.000.00 which includes demolition of the old tower. This option would only be necessary if the City wanted to minimize the number of towers in the area and allow AT&T to collocate as a tenant on the new tower. If Apopka elects to remain status quo at the exiting Harmon Road

location and continue normal operations while performing the necessary preventive maintenance, the existing structure does not need to be replaced at this time.

Without an RFP being issued by the City's procurement staff to solicit a bid for a design and build of complete and fully functional, turn-key infrastructure improvements, I am unable to provide a true cost outside of the Motorola's proposals for the complete build on a new site or a replacement tower at the existing site. I reached out to Expert Construction Managers, Inc., who has successfully constructed several Public Safety communication towers in the local area for a budgetary cost proposal. I was provided budgetary numbers of $2,000,000.00 for a new site and approximately $1,300,000.00 for the existing site. With those budgetary estimates in hand, additional financial consideration must be afforded to the fact that there would also be a cost to have Motorola install the antenna transmission lines to our radio antennas and microwave dishes, move the equipment to the new site and calibrate the system after the setup is complete at a cost of around $875,000.00. If Apopka were to remain at the current site this cost would decrease due to Motorola not being required to perform migrations of the equipment.

Alternatively, there are other tower builders who could construct the site and manage the collocations while paying the City an appropriate revenue for the ground space. This would require that the City turns over the existing tenant lease agreements to the tower builder. This year, the City will receive a total of $69,389.50 from the Sprint and T-Mobile lease agreements. Adding AT&T as a tenant could result in lease revenues for FY2023 totaling $100,863.56 with a 3%-4% recurring annual increase for each carrier. The historical revenues received by the City over the previous 20 years generated from the tenant leases of this site is $943,704.12. The projected revenue over the next 20 years with the addition of AT&T as a tenant is $2,906,176.51.

FUNDING SOURCE:

Not applicable.

RECOMMENDED MOTION:

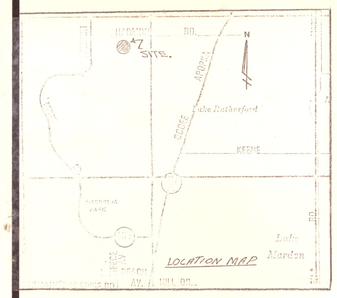
Not applicable.

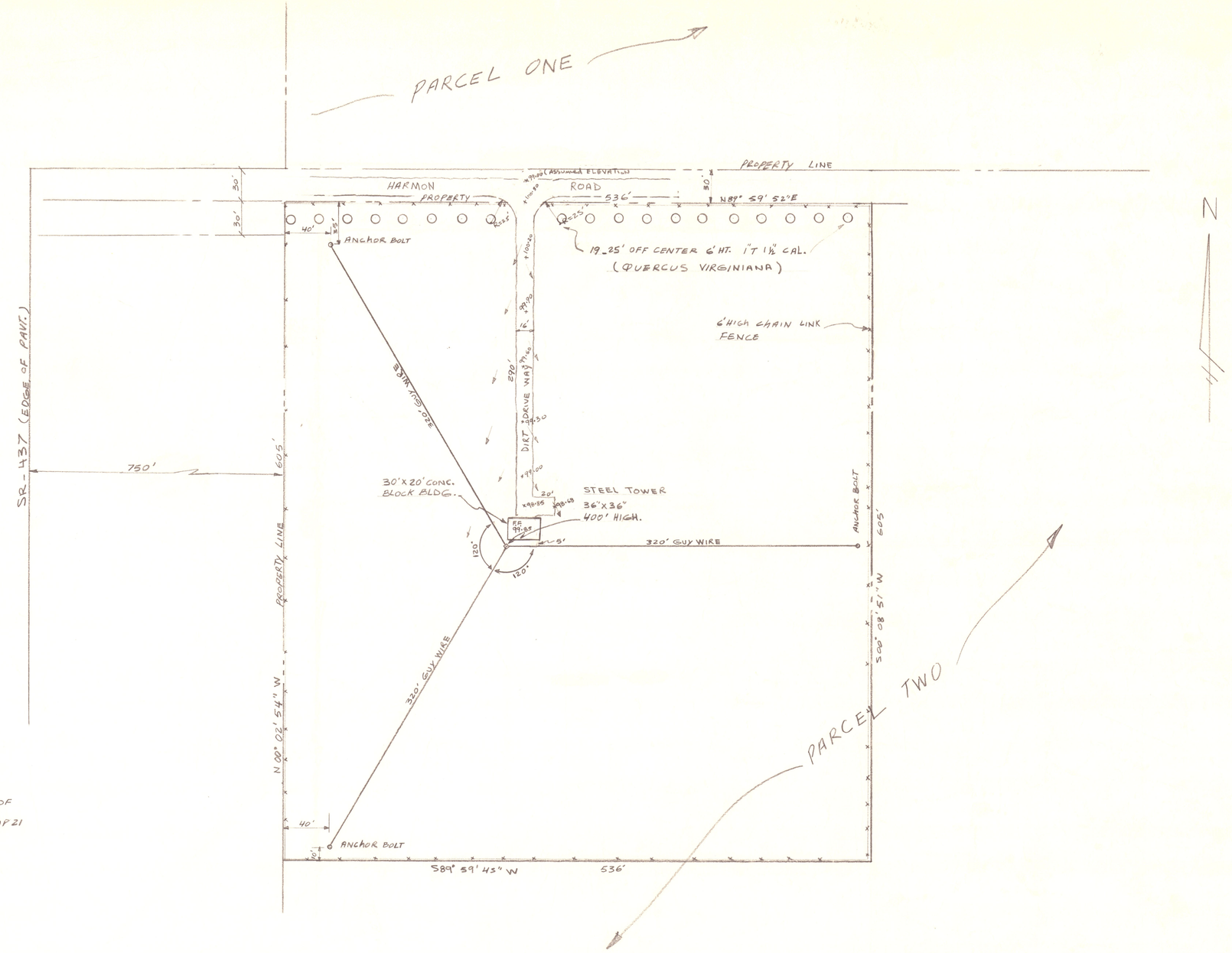
ATTACHMENTS:

- Apopka Communication Facility – Harmon Rd.PDF
- ANSI-TIA-222_May-June_2017.PDF
- Pate Engineering_19-119F_ApopkaHarmon.PDF
- SWM Engineering Group_ 07-15-2019.PDF
- AT&T Tower Location Request.PDF
- Harmon Road Public Safety Tower_Revised.PDF
- City of Apopka Coverage_Current Prime Site 5_25_21.PDF
- City of Apopka Coverage_Proposed Prime Site 5_25_21.PDF
- 10-15-2021 Proposal City of Apopka Harmon Road FS6 RF Site.PDF
- 10-15-2021 Proposal City of Apopka Harmon Replacement Tower.PDF
- Expert Construction Budgetary Quote.PDF
- Sprint Contract_Harmon.PDF
- T-Mobile Contract_Harmon.PDF
- Public Safety Tower Collocation Lease Revenues_Historical.PDF
- Public Safety Tower Collocation Lease Revenues_Projected.PDF

- AT&T Letter of Interest.PDF
- Harmon Tower Pictures.PDF

AF 41201B





LEGAL DESCRIPTION:

THE NORTH 605 FEET AND WEST 536 FEET OF THE SOUTHEAST ¼ OF THE NORTHEAST ¼ OF SECTION 19, TOWNSHIP 21 SOUTH, RANGE 28 EAST, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.
7.44 ACRES, MORE OR LESS.

THIS DRAWING DOES NOT CONSTITUTE A SURVEY.
THIS PLAN SERVES TO LOCATE THE PROPOSED TOWER ONLY.

REVISIONS	DATE

APOPKA COMMUNICATION FACILITY
APOPKA FLORIDA

CITY OF APOPKA FLORIDA

ENGINEERING DEPARTMENT
120 E. MAIN STREET
APOPKA, FLORIDA 32703
(305) 889-1718

DRAWN	JA
CHECKED	DSP
DATE	4-20-89
SCALE	1"=50'
JOB NO	
SHEET	1 OF 1 SHEETS

AMERICAN BLUEPRINTING & SUPPLY



ANSI/TIA-222 Maintenance and Condition Assessment of Telecommunication Towers

What is ANSI/TIA-222 and why is it important for the telecommunications industry? ANSI/TIA-222 is the "Structural Standard for Antenna Supporting Structures and Antennas". ANSI/TIA-222 is critically important to the telecommunications industry for many reasons. Some of which are as follows:

- Direct link to the International Building Code (IBC);
- Provides guidelines for the procurement of structures;
- Establishes design parameters for structures; and
- Provides criteria for Maintenance and Condition Assessment of these structures.

This Planning Advisory Notice (PAN) focuses primarily on Section 14 of the ANSI/TIA-222 Standard. Section 14 covers minimum criteria for a proper Maintenance and Condition Assessment of antenna supporting structures. The current version of ANSI/TIA-222 is G-2, however, throughout this PAN, we will also be referencing the draft version of ANSI/TIA-222-H to communicate upcoming changes in Section 14. In addition to Section 14, Annex J ***(Normative)*** provides checklists for maintenance and condition assessment, field mapping of appurtenances and structural components as well as charts for determining twist and out of plumb on guyed towers. We will also touch on Annex K, as it brings tension, twist, and plumb together. To add clarity, a

CONTINUED ON NEXT PAGE

Authors: **Scott Kisting** (EVP – Proactive Telecommunications Solutions) and **John Erichsen** (Principal EET PE, Chairman TIA committee TR 14). The members of the PAN Advisory Group who are involved in the writing and researching of each PAN topic include: **John Erichsen** (Principal EET PE, Chairman TIA committee TR 14), **Scott Kisting** (EVP – Proactive Telecommunications Solutions), **Richard Cullum** (Program Manager – Crown Castle), **Jeremy Buckles** (Safety and Compliance Officer – International, SBA Communications Corporation), **Craig Snyder** (President, Sioux Falls Tower & Communications), and **Stephanie Brewer** (Compliance Coordinator – MUTI-Sabre Industries Telecom Services).

Normative designation simply means that Annex J carries the same weight and merit as the body of the Standard. An annex allows the Committee to provide information as a narrative or list when it is more effective than using the language limitations placed upon the body of the standard such as the scope, requirements, and the maintenance and condition assessment cycles.

Revision H clarifies issues around safety climbs and inspection. ANSI/TIA-222-G Section 14 ***(Scope)*** states "This section addresses the maintenance and condition assessment of structures." The following note is included in ANSI/TIA-222-H – "Maintenance and condition assessment requirements for safety climb systems are not within the scope of the Standard." The safety climb system is an appurtenance while on the structure and does not become a safety climb system until a competent person uses it as part of a fall protection plan. So, while the safety climb may be assessed as a part of a maintenance and condition assessment of the structure it should not be considered usable as fall protection until inspected by a competent person as part of a complete fall protection plan. This logic also applies to any structural member (tower leg, diagonal, etc.) or connection considered for fall protection use by the competent person as part of their fall protection plan.

Proposed language in Revision H helps clarify recommended Intervals in section 14.4:

Maintenance and condition assessment recommendations are as follows:

1. Three-year intervals for guyed masts and five-year intervals for self-supporting structures.

   Note: The intervals recommended are based on industry experience for communication structures designed and installed per EIA or ANSI/TIA-222 Standards. More frequent inspection intervals were found to be unwarranted.





2. After severe wind and/or ice storms or other extreme conditions.
3. Shorter inspection intervals may be required for Risk Category III or IV structures and structures in coastal regions, in corrosive environments, and in areas subject to frequent vandalism.

It is important to note that these are recommended intervals that tower owners or engineers use to formulate a site-specific maintenance and condition assessment plan. The recommended intervals can change based on factors such as age of the structure and/or how often they are assessed and maintained. There are cases, based on the location and type of structure, as well as other factors that the maintenance and assessment cycle may be extended beyond five years. The inverse is also true. For example, a guyed tower located in corrosive environment may require intervals that are more frequent. It is up to the owner and their engineering professionals to use the TIA recommendations to create a program that incorporates site-specific information such as the structure type, location and the environment.

Note two (2), in Section 14.4 (Rev H) recommends that assessments after extreme weather events could be warranted. For example, in the event of a category five (V) hurricane, tower owners and carriers typically choose to deploy teams to determine the extent of damage to their wireless infrastructure.

Maintenance is emphasized by being the first word of the title for this section as it is a critical component. Typically, references are made to TIA maintenance and condition assessments as inspections only. This is a misinterpretation of Section 14, as it is very important



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to understand the critical nature of the word "Maintenance" as it is an actionable item. Depending on the types of maintenance issues discovered during a condition assessment, it is the expectation that the structure will be maintained in accordance with the owner's maintenance plan to assure structural integrity. Items discovered, that could adversely affect the structure, should be brought to the tower owners attention immediately so its engineers and operations teams can determine what maintenance or repairs, if any, are required. To perform a condition assessment (inspection) without performing a proper maintenance review is contrary to the intent of the Standard.

Annex J is a guideline and checklist for the maintenance and condition assessment.

ANSI/TIA-222-G-2 Annex J: Maintenance and Condition Assessment ***(Normative)*** – The preamble reads as follows:

"This annex provides checklists for: (a) maintenance and condition assessment and (b) field mapping of structures and appurtenances.

Note: This annex does not provide means and methods for RF protection."

Tower owners and their engineering support team(s) typically use Annex J as the baseline when creating site-specific maintenance and condition programs. ANSI/TIA-222 is a consensus standard based on best practices and comprised of committees, such as TIA TR-14. These individuals are subject matter experts voluntarily contributing their time and talent to the industry. Each subsequent ANSI/TIA Standard has been an improvement over the last. ANSI/TIA-222-H is no exception and TIA expects that earlier revisions will be superseded, except for the purposes outlined in the current published Standard. It is the TR-14 member's expectation that the development of ANSI/TIA-222-H will help the entire industry.

Some of the critical areas covered in ANSI/TIA-222-H Annex J:

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J.1 – Maintenance and Condition Assessment

A. Structure Condition

B. Finish

C. Lighting

D. Grounding

E. Appurtenances such as Mounts, Antennas and Lines

F. Other Appurtenances (walkways, platforms, sensors, floodlights, etc.)

G. Base Insulator Condition for AM Towers (AM detuning kits, fiberglass rods on broadcast towers, Phillystran, etc.)

H. Guys

I. Concrete Foundations

J. Structure Alignment

K. Previous Modifications to Structure

Annex J provides an excellent guide for tower owners and engineers to establish a site-specific condition and maintenance program. A properly managed maintenance and condition assessment program ensures that the structure is maintained in accordance with the manufacturer's recommendations and helps with the long-term performance of the structure. The annex also provides some base line information on mapping that should be considered by engineers when a mapping is required. The following is an overview of some of the subject area covered and in an upcoming PAN we will go into further detail on section J.2.

Section J.2 Provides guidelines for following:

A. Mapping of Appurtenances

   1. Mounting Systems

B. Mapping of Structural Members and Connections

   1. Self-Supporting Latticed Structures

   2. Guyed Masts

   3. Pole Structures

   4. Connections

C. Tolerances

D. Twist and Out-of-Plumb determination for Towers

Understanding Annex K ***(Informative)*** is recommended because it addresses the measurement of the guy wire tensions. Any adjustment to the tensions of the guy wires can also have an impact on the twist and plumb on the tower. Annex K provides the engineering equations and content related to measuring guy tensions, however it does not address the means and methods related to this type of work. As discussed in other PANs, ANSI/ASSE A10.48 should be considered for the means and methods. Annex K provides two basic methods for measuring guy wire tensions:

A. Direct Method (load cell)

B. Indirect Methods

   1. Pulse Method

   2. Tangent Intercept Method

Note that the approval of shunt dynamometers is a new addition as a method for measuring guy tensions for Revision H.

Once ANSI/TIA-222-H is approved (see process below), the PAN committee will delve further into these two annexes. Currently the TR-14 task group is finalizing the draft. Once the draft is finalized, the full committee will vote to approve. Once approved by the full committee there will be a public ANSI ballot/vote that will ultimately lead to the publication of ANSI/TIA-222-H - *Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Structures.* ■

PATE ENGINEERING INC.

13540 N. Florida Avenue, Suite 203
Tampa, Florida 33613
www.pateengineering.com
(813) 960-0002
FL CA #4524

TOWER ANALYSIS REPORT

July 19, 2019

T-Mobile South, LLC
5901 Benjamin Center Drive, Suite 110 A-B
Tampa, Florida 33634
Attn: Engineering / Jolene Ratliff

400-Ft Guyed Tower
Apopka Site (Harmon Road) - A2E2118A
Our Job # 19-119F (Revision #1)

AUTHORIZATION

As requested, Pate Engineering has visted the site and analyzed the 400' PiRod guyed tower located at 2102 Harmon Road, Apopka, Florida (Orange County).

REFERENCE MATERIALS

The following reference materials were used for this analysis:

- Pi-Rod, Inc. Tower & Foundation Drawings (Dwg. No. 113035), dated 6/20/1985.
- Pate Engineering, Inc. Anchor Reinforcement Drawing SK-A1, Rev. 0, dated 6/28/1989.
- Jacksonville Engineering & Testing Co. Soil Report (Order No. 89-258), dated 6/13/1989.
- Pate Engineering, Inc. Modification Drawing HR-1 of 1, Rev. 1, dated 11/16/2006 (Job No. 06-118).
- AW Solutions, Inc. Modification Drawing, dated 5/23/2007.
- Pate Engineering, Inc. Modification Drawing AP-1 of 1, Rev. 0, dated 9/23/2009 (Job No. 09-113).
- Pate Engineering, Inc. Modification Drawing AP-1 of 1, Rev. 0, dated 5/7/2010 (Job No. 10-117).
- Pate Engineering, Inc. Modification Drawing AP-1 of 1, Rev. A, dated 6/24/2013 (Job No. 12-174).
- Pate Engineering, Inc. Modification Drawing AH-1 to 4 of 4, Rev. 0, dated 6/24/2013 (Job No. 14-143).

INTRODUCTION

On 6/4/2019, the tower was visited to gather site specific data such as antenna & mount loading, and transmission line distribution. The tower was not climbed. A sketch of the tower has been included for reference. The purpose of this analysis was to investigate the tower for an additional microwave dish. (see tower loading section).

ANALYSIS CRITERIA

This tower has been analyzed using **ANSI/TIA-222-G-4** for the following criteria **(V_{3S} = 104 MPH, Exposure C/D, I = 1.0)**. This meets the requirements of the **Florida Building Code 6th Edition (2017)** for the following criteria **(V_{ULT} = 134 MPH, Exposure C/D, Risk Category II)**. It is the responsibility of the client to verify that this analysis criteria meets the requirements of the owner.

The wind was considered from (12) directions including winds on all tower faces, on all tower corners, and parallel to all tower faces. **Exposure D was used for the 180°, 210°, 240° and 270° wind directions due to Lake Apopka . Exposure C was used for all other wind directions.**

TOWER LOADING

The following is a list of the antennas, their elevations, and the transmission lines used in this analysis: (Note: The elevations are centerline for panel antennas and dishes. They are mounting heights for omni and whip antennas. All elevations are referenced to the base of the tower.)

Elevation	Notes	Description	Transmission Line
		Existing Antennas	
400'±		BMR12 (no reflector)	1-1/4"
400'±		BMR10 (no reflector)	1-1/4"
398'±		(2) 6' Side Arms	---
396'±		Unused Mount Angles	---
394'±		11'± Whip on Pipe Mount	1-1/4"
377'±		12'± Whip on 3' Side Arm	7/8"
373'±	**1.**	**(2) 20'± Whips & (1) Amplifier on (2) 6' Side Arms**	**(2) 7/8" & (1) 1/2"**
324'±		16'± Whip on 18" Side Arm	7/8"
276'±		DB408 (Similar) on 5' Side Arm	7/8"
211'±		(3) RRUS 31 - Sprint	(3) 1-1/8"φ Hybrid
211'±		(3) FWHR - Sprint	(1) 1-3/8"φ PVC Conduit
209'±		(2) APXVERR18-C - Sprint	(1) 1" SOOW Power
209'±		(1) APXV9ERR18-C - Sprint	(1) 1/4"φ
209'±		(3) AW3286 - Sprint	---
208'±		(1) Polycarbonate Junction Box - Sprint	---
206'±		(3) RRUS 11 - Sprint	---
206'±		(3) 800 ESMR Filters - Sprint	---
208'±		(3) Sector Mounts	---
179'±		2'φ Dish & Radio Box	(2) CAT-5
177'±		2'φ Dish & Radio Box	(2) CAT-5
176'± to 179'±		(4) 2'-6"± Panel Antennas	(4) CAT-5
177'±		(4) Small Boxes	(5) CAT-5
177'±		(6) Pipe Mounts	---
172'±		4'φ Dish with Radome, Radio Box & Mount	(2) CAT-5
168'±		Unused 18" Side Arm	---
164'±		Disconnected Transmission Line	1/2"
164'±		6'φ Dish with Radome & Mount	EW63
150'±	**2.**	**(3) FASB (with integrated radios) - Remove**	(6) 1-5/8"
148'±	**2.**	**(3) FRIJ - Remove**	(1) 1.585"φ HCF
148'±	2.	(1) Large COVP	(2) Grounds
148'±	2.	(3) Sector Mounts (p/n VFA12-HD)	---
131'±		Small Panel on 1' Side Arm	(2) CAT-5
126'±		Small Unknown Antenna	CAT-5
118'±		Small Unknown Antenna	CAT-5
85'±		21'± Whip on 18" Side Arm	7/8"
38'±		(3) Small Cameras	(3) CAT-5
15'±		(2) Motion Sensors	(2) 1/4"φ

TOWER LOADING (Continued...)

Elevation	Notes	Description	Transmission Line
		Proposed Final Equipment (T-Mobile)	
150'±	**2.**	**(3) HBXX-6517DS-A2M - New**	Re-Use Existing
150'±	**2.**	**(3) FFHH-65C-R3 - New**	(6) 1-5/8"
150'±	**2.**	**(3) AAHF (or AEHC) - New**	(1) 1.585"φ HCF
150'±	**2.**	**(3) AHLOA - New**	
150'±	**2.**	**(3) AHFIB - New**	Add
150'±	**2.**	**(3) FHFB- New**	**(1) 1.55"φ HCS 2.0**
148'±	**2.**	**(1) Pendant - New**	
148'±	2.	(1) Large COVP	
148'±	2.	(3) Sector Mounts (p/n VFA12-HD)	
		Future Antennas	
373'±	1.	(2) BMR12-A1 (no reflectors)	Re-Use Existing
195'±	3.	6'φ Dish with Radome & Mount (Az = 12.3°±)	E65

Notes: 1. The existing (2) 20' Whips at 373' are to be removed from the tower and replaced with the future (2) BMR12-A1 antennas. The existing side arms, amplifier, and transmission lines are to be re-used.

2. The existing T-Mobile equipment is to be removed, re-used, or added as required to obtain the final equipment listed above in the "Proposed Final Equipment (T-Mobile)" section above. All new T-Mobile equipment is to be installed on the existing sector mounts at 148'.

3. The future dish antenna is to be mounted on a vertical pipe mount and have (2) tie-back pipes.

METHOD OF ANALYSIS

This tower was analyzed in accordance with the requirements of the **Florida Building Code 6th Edition (2017)**, and **ANSI/TIA-222-G-4** (using the Ultimate Wind Speed specified by the FBC, converted for use with the ANSI/TIA-222-G-4 standard in accordance with section 1609.3.1). Computations were performed to account for all the vertical loads, and horizontal wind forces on the tower, antennas, and ancillary items. The structure was then analyzed using a computer program developed by Guymast, Inc.

The design strengths were calculated for the various tower components such as the tower legs, diagonals, guy wires, etc. These strengths were then compared with the actual factored loads determined by the computer program.

ASSUMPTIONS MADE

1.1 For the purposes of this analysis, it was assumed that all bolts, welds, members, etc. are in good condition and not degraded by rust, corrosion, or cracks.

1.2 The tower has been properly maintained in accordance with the original manufacturer's drawings and specifications.

ANALYSIS CONDITIONS

2.1 The proposed T-Mobile transmission line is to be installed on the Northeast (AB) face of the tower. See the attached sketch.

2.2 The existing T-Mobile equipment is to be removed, re-used, or added as required to obtain the final equipment listed above in the "Proposed Final Equipment (T-Mobile)" section above. All new T-Mobile equipment is to be installed on the existing sector mounts at 148'.

2.3 The future E65 transmission line is to be installed on the West (BC) face of the tower. See the attached sketch.

2.4 The existing (2) 20' Whips at 373' are to be removed from the tower and replaced with the proposed (2) BMR12-A1 antennas. The existing side arms, amplifier, and transmission lines are to be re-used.

2.5 The future dish antenna is to be mounted on a vertical pipe mount and have (2) tie-back pipes.

2.6 Except as shown above, no additional equipment was included for any other carrier.

RESULTS OF ANALYSIS

3.1 This analysis, as outlined herein, indicates that **the tower will support** the antennas, mounts, and lines listed in this report if all of the assumptions and analysis conditions listed above are observed. (The maximum stress ratio for any tower component is 0.97 - Leg Members 137' to 140').

3.1.1 The **guy wire** load ratios are as follow: (Note: The maximum load ratio (Tu / φTn) per ANSI/TIA-222-G-4 is 1.0.)

Elevation	Guy Type	Ratio (Tu / φTn)	Status
390'	9/16"φ EHS	0.84	Pass
330'	1/2"φ EHS	0.82	Pass
260'	9/16"φ EHS	0.74	Pass
187'	1/2"φ EHS	0.78	Pass
160'	3/8"φ EHS	0.91	Pass
120'	9/16"φ EHS	0.85	Pass
60'	7/16"φ EHS	0.79	Pass

3.2 The **base foundation** is a pier and pad type foundation. The **guy anchors** are deadman type foundations. Based on our analysis, **all foundations are adequate** for the proposed loading configuration. The anchor reactions for this analysis are as follows:

	Reaction
Base Axial	144.1 kip
Inner Guy Lateral	30.5 kip
Inner Guy Uplift	18.3 kip
Middle Guy Lateral	32.1 kip
Middle Guy Uplift	24.0 kip
Outer Guy Lateral	20.9 kip
Outer Guy Uplift	22.3 kip

3.3 This analysis is for the main tower (and all components) only. It does not include an analysis or approval of the existing or proposed antennas, or antenna mounts. However, the wind and dead loads imposed by these mounts has been included in this analysis.

RECOMMENDATIONS

4.1 If all of the requirements of this report are observed, the proposed and future equipment may be safely installed.

The information contained herein is for the use of the addressee, the tower owner, and Pate Engineering, Inc. Any use by others is prohibited except by express permission from Pate Engineering, Inc., and the addressee. All calculations, reports, sketches, and drawings, as well as any information on the tower, foundation, and soil gathered to complete this analysis are considered "Proprietary Information" and remain the sole property of Pate Engineering, Inc.

If you have any questions regarding this report, please call.

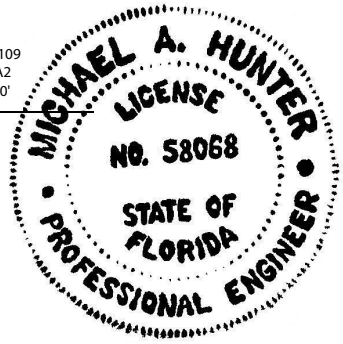
Pate Engineering, Inc.

Michael A. Hunter, PE
58068 State of Florida

Digitally signed by Michael A Hunter
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Date: 2019.07.19 11:16:56 -04'00'

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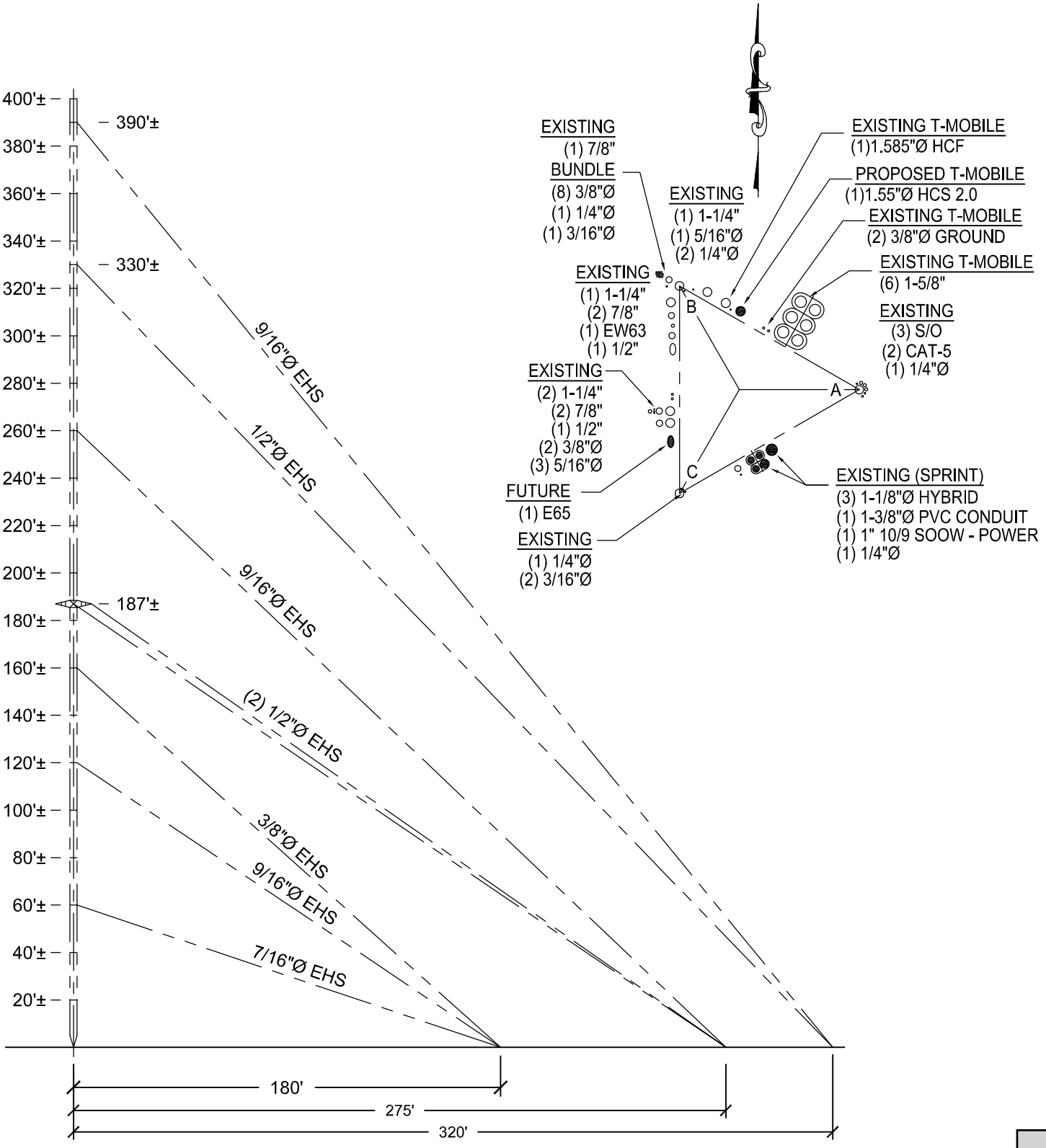
Michael A. Hunter, P.E.
Florida P.E. No. 58068



This item has been electronically signed and sealed by Michael A. Hunter, PE on 7/19/2019 using a Digital Signature.

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Pate Engineering, Inc. 13540 N. FLORIDA AVE. SUITE 203 TAMPA, FLORIDA 33613 813-960-0002			SITE: APOPKA (HARMON ROAD) A2E2118A	
REV	DATE	DESCRIPTION	ANSI/TIA-222-G-4, 104 MPH	
A	6/27/2019	SKETCH FOR REPORT	JOB NO.	19-119F
			DRAWN BY:	MH
			SHEET:	AH-1 OF 1



Date: **July 15, 2019**

Allyson Poe
High Performance Services. LLC
3001 Mills Street
Lafayette, LA. 70507

SMW Engineering Group, Inc.
158 Business Center Dr.
Birmingham Al. 35244
(205) 252-6985

Subject:	**Structural Analysis Report**
Site Name:	Lake Fuller
Engineering Firm Designation:	**SMW Engineering Group, Inc. Project Number:** 19-5095
Site Data:	**2101 Harmon Road, Apopka, FL. 32703 (Orange County)** **Latitude *28° 39' 0.25"*, Longitude *81° 32' 45.44"*** **400 Foot - Guyed Tower**

Dear Allyson Poe,

SMW Engineering Group, Inc. is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

Proposed Equipment Configuration **Insufficient Capacity**

This analysis has been performed in accordance with the 2017 Florida Building Code, 6th Edition, based upon an ultimate 3-second gust wind speed of 139 mph converted to a nominal 3-second gust wind speed of 108 mph per section 1609.3.1 as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category C and Risk Category II were used in this analysis.

Respectfully submitted by:

JEREMY D. SHARIT, FL PE 75137
SMW ENGINEERING GROUP, INC.



SEALED BY JEREMY SHARIT USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

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Jeremy Sharit
Location: FL PE lic # 75137
Date: 2019.07.15 15:34:28
-05'00'
Adobe Acrobat version:
2019.012.20035

Jeremy Sharit, P.E.
Project Engineer
FL CA# 28767

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1) INTRODUCTION

This tower is a 400 ft Guyed tower designed by an unknown manufacturer.

2) ANALYSIS CRITERIA

Building Code:	2017 FBC
TIA-222 Revision:	TIA-222-G
Risk Category:	II
Wind Speed:	139 mph
Exposure Category:	C
Topographic Factor:	1
Wind Speed with Ice:	30 mph
Service Wind Speed:	60 mph

Table 1 – Existing Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
400.0	402.0	1	-	Lightning Rod 4'	1	9/16
	401.0	1	-	Flash Beacon Lighting		
399.0	409.0	1	-	Bogner 21'	1	1 1/2
	399.0	1	-	Side Arm Mount		
398.0	408.0	1	-	Bogner 18'	1	1 1/2
	398.0	1	-	Standoff Mount		
393.5	398.5	1	-	10' Omni	1	1 1/2
	393.5	1	-	Standoff Mount		
385.0	390.0	1	-	10' Omni	1	1 1/2
	385.0	1	-	Standoff Mount		
382.0	394.0	2	-	25' Omni	2	7/8
	382.0	1	-	J-Box	1	1/2
		2	-	Standoff Mount		
327.0	336.0	1	-	18' Omni	1	7/8
	327.0	1	tower mounts	Standoff Mount		
276.0	281.0	1	-	10' Dipole	1	7/8
	276.0	1	-	Standoff Mount		
208.0	209.5	3		AW3286-R	1 1 1 1 1	1 1/8 1 1/4 1 1/4
		3	RFS Celwave	APXVERR18-C		
	208.0	3	-	Filter		
		3	-	J-Box		
		3	Ericsson	RRUS 11		
		3	Ericsson	RRUS 31		
		3	-	TMA		
		3	-	Sector Mounts		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
180.0	181.0	1	-	Panel Antenna	8	3/8
		1	-	VHLP2-11W		
	180.0	2	-	Panel Antenna		
		6	-	TMA		
		3	-	Pipe Mounts		
	179.0	1	-	Panel Antenna		
		1	-	VHLP2-11W		
171.5	171.5	1	-	SPD4-4.7	2 1	3/8 3/16
		1	-	TMA		
		1	-	Pipe Mounts		
165.0	165.0	1	-	PAR6-59-PXA Dish	1	EW64
		1	-	Pipe Mount		
149.0	149.0	3	-	Nokia RRU	7 1	1 5/8 1/2
		3	-	Panel Antenna		
		1	Raycap	RNSNDC-7771-PF-48		
		3	-	Sector Mounts		
132.0	132.0	1	-	Canopy w/ Mount	1	5/16
86.5	96.5	1	-	20' Omni	1	7/8
	86.5	1	-	Standoff Mount		

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Tower Mapping	Tower Engineering Professionals	Dated 05/14/19	SMW
Foundation Study	BJ Rock	Dated 06/10/19	SMW
Geotechnical Study	BJ Rock	Dated 06/10/19	SMW

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. SMW Engineering Group, Inc should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 3 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	400 - 380	Leg	1 1/2	2	-15.38	51.35	29.9	Pass
T2	380 - 360	Leg	1 1/2	62	-18.18	51.35	35.4	Pass
T3	360 - 340	Leg	1 1/2	122	-17.52	51.35	34.1	Pass
T4	340 - 320	Leg	1 1/2	182	-22.53	51.35	43.9	Pass
T5	320 - 300	Leg	1 1/2	242	-26.28	51.35	51.2	Pass
T6	300 - 280	Leg	1 1/2	302	-25.75	51.35	50.1	Pass
T7	280 - 262.5	Leg	1 1/2	362	-28.55	56.05	50.9	Pass
T8	262.5 - 260	Leg	1 1/2	419	-32.17	69.37	46.4	Pass
T9	260 - 240	Leg	1 1/2	436	-32.43	51.35	63.1	Pass
T10	240 - 220	Leg	1 1/2	498	-31.46	51.35	61.3	Pass
T11	220 - 200	Leg	1 1/2	558	-31.52	51.35	61.4	Pass
T12	200 - 195	Leg	1 1/2	618	-34.64	51.74	66.9	Pass
T13	195 - 190	Leg	1 1/2	636	-47.03	67.41	69.8	Pass
T14	190 - 185	Leg	1 1/2	657	-47.07	49.80	94.5	Pass
T15	185 - 180	Leg	1 1/2	676	-38.58	72.20	53.4	Pass
T16	180 - 170	Leg	1 1/2	701	-34.63	51.16	67.7	Pass
T17	170 - 160	Leg	1 1/2	740	-36.81	52.32	70.4	Pass
T18	160 - 140	Leg	1 1/2	773	-45.39	71.29	63.7	Pass
T19	140 - 135	Leg	1 1/2	857	-37.04	51.74	71.6	Pass
T20	135 - 127.5	Leg	1 1/2	877	-38.95	61.12	63.7	Pass
T21	127.5 - 120	Leg	1 1/2	914	-49.05	71.73	68.4	Pass
T22	120 - 112.5	Leg	1 1/2	956	-49.05	68.96	71.1	Pass
T23	112.5 - 102.5	Leg	1 1/2	988	-43.85	49.80	88.0	Pass
T24	102.5 - 100	Leg	1 1/2	1018	-38.51	68.83	56.0	Pass
T25	100 - 80	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1033	-46.66	72.66	64.2	Pass
T26	80 - 60	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1093	-46.06	72.66	63.4	Pass
T27	60 - 40	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1155	-53.54	72.66	73.7	Pass
T28	40 - 20	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1215	-55.73	72.66	76.7	Pass
T29	20 - 5.25	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1275	-54.03	74.11	72.9	Pass
T30	5.25 - 0	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1323	-47.01	86.80	54.2	Pass
T1	400 - 380	Diagonal	9/16	30	-2.22	3.86	57.4	Pass
T2	380 - 360	Diagonal	9/16	120	-1.09	3.86	28.2	Pass
T3	360 - 340	Diagonal	9/16	133	-1.86	3.86	48.1	Pass
T4	340 - 320	Diagonal	9/16	235	-3.17	3.86	82.2	Pass
T5	320 - 300	Diagonal	9/16	300	-1.26	3.86	32.7	Pass
T6	300 - 280	Diagonal	9/16	313	-1.79	3.86	46.4	Pass
T7	280 - 262.5	Diagonal	9/16	370	-2.86	4.09	69.9	Pass
T8	262.5 - 260	Diagonal	9/16	427	-4.65	4.20	110.8	Fail
T9	260 - 240	Diagonal	9/16	486	-2.41	3.86	62.4	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T10	240 - 220	Diagonal	9/16	553	-2.26	3.86	58.4	Pass
T11	220 - 200	Diagonal	9/16	573	-3.85	3.86	99.7	Pass
T12	200 - 195	Diagonal	9/16	633	-4.44	3.88	114.5	Fail
T13	195 - 190	Diagonal	9/16	651	-4.06	3.78	107.3	Fail
T14	190 - 185	Diagonal	9/16	665	-2.57	3.78	67.8	Pass
T15	185 - 180	Diagonal	9/16	685	-3.20	3.99	80.1	Pass
T16	180 - 170	Diagonal	9/16	736	-2.56	3.85	66.3	Pass
T17	170 - 160	Diagonal	9/16	749	-1.02	3.91	26.1	Pass
T18	160 - 140	Diagonal	9/16	785	-2.24	3.86	58.0	Pass
T19	140 - 135	Diagonal	9/16	871	-1.72	3.88	44.4	Pass
T20	135 - 127.5	Diagonal	9/16	883	-2.43	4.33	56.0	Pass
T21	127.5 - 120	Diagonal	9/16	922	-4.04	3.93	103.0	Fail
T22	120 - 112.5	Diagonal	9/16	984	-2.08	3.85	54.2	Pass
T23	112.5 - 102.5	Diagonal	9/16	1005	-1.66	3.78	43.8	Pass
T24	102.5 - 100	Diagonal	9/16	1026	-1.89	4.20	45.0	Pass
T25	100 - 80	Diagonal	9/16	1089	-1.33	3.94	33.8	Pass
T26	80 - 60	Diagonal	9/16	1106	-1.41	3.94	35.6	Pass
T27	60 - 40	Diagonal	9/16	1203	-1.31	3.94	33.3	Pass
T28	40 - 20	Diagonal	9/16	1229	-0.94	3.94	23.9	Pass
T29	20 - 5.25	Diagonal	9/16	1289	-1.98	4.01	49.3	Pass
T30	5.25 - 0	Diagonal	9/16	1330	-6.17	5.36	115.1	Fail
T14	190 - 185	Horizontal	1	660	1.75	25.45	6.9	Pass
T16	180 - 170	Horizontal	1	712	1.80	25.45	7.1	Pass
T20	135 - 127.5	Horizontal	1	891	1.61	25.45	6.3	Pass
T21	127.5 - 120	Horizontal	1	930	2.68	25.45	10.5	Pass
T30	5.25 - 0	Horizontal	1	1337	2.50	25.45	9.8	Pass
T8	262.5 - 260	Secondary Horizontal	1	433	-1.19	15.57	7.7	Pass
T13	195 - 190	Secondary Horizontal	1	644	-0.81	15.57	5.2	Pass
T15	185 - 180	Secondary Horizontal	1	689	-0.80	15.57	5.1	Pass
T18	160 - 140	Secondary Horizontal	1	790	-0.79	15.57	5.0	Pass
T21	127.5 - 120	Secondary Horizontal	1	931	-0.78	15.57	5.0	Pass
T22	120 - 112.5	Secondary Horizontal	1	969	-0.84	15.57	5.4	Pass
T24	102.5 - 100	Secondary Horizontal	1	1031	-0.65	15.57	4.2	Pass
T1	400 - 380	Top Girt	3/4	4	0.22	14.31	1.5	Pass
T2	380 - 360	Top Girt	3/4	66	0.43	14.31	3.0	Pass
T3	360 - 340	Top Girt	3/4	125	-0.14	5.98	2.3	Pass
T4	340 - 320	Top Girt	3/4	185	1.93	14.31	13.5	Pass
T5	320 - 300	Top Girt	3/4	246	0.40	14.31	2.8	Pass
T6	300 - 280	Top Girt	3/4	305	-0.10	5.98	1.7	Pass
T7	280 - 262.5	Top Girt	3/4	365	-0.46	5.98	7.8	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T8	262.5 - 260	Top Girt	1	423	0.94	25.45	3.7	Pass
T9	260 - 240	Top Girt	3/4	439	4.85	14.31	33.9	Pass
T10	240 - 220	Top Girt	3/4	500	-0.25	5.98	4.2	Pass
T11	220 - 200	Top Girt	3/4	561	0.11	14.31	0.8	Pass
T12	200 - 195	Top Girt	3/4	621	-1.49	5.98	24.9	Pass
T16	180 - 170	Top Girt	3/4	705	1.37	14.31	9.6	Pass
T17	170 - 160	Top Girt	1	742	1.01	25.45	4.0	Pass
T19	140 - 135	Top Girt	3/4	861	-0.49	5.98	8.3	Pass
T21	127.5 - 120	Top Girt	3/4	918	1.95	14.31	13.6	Pass
T22	120 - 112.5	Top Girt	3/4	960	5.09	14.31	35.6	Pass
T25	100 - 80	Top Girt	3/4	1038	0.69	14.31	4.8	Pass
T26	80 - 60	Top Girt	3/4	1098	0.19	14.31	1.3	Pass
T27	60 - 40	Top Girt	3/4	1158	3.53	14.31	24.7	Pass
T28	40 - 20	Top Girt	3/4	1218	0.31	14.31	2.2	Pass
T29	20 - 5.25	Top Girt	3/4	1278	0.66	14.31	4.6	Pass
T30	5.25 - 0	Top Girt	3/4	1325	5.90	14.31	41.2	Pass
T1	400 - 380	Bottom Girt	3/4	8	-0.27	5.98	4.5	Pass
T2	380 - 360	Bottom Girt	3/4	69	0.26	14.31	1.8	Pass
T3	360 - 340	Bottom Girt	3/4	129	0.69	14.31	4.8	Pass
T4	340 - 320	Bottom Girt	3/4	188	-0.25	5.98	4.3	Pass
T5	320 - 300	Bottom Girt	3/4	249	0.22	14.31	1.5	Pass
T6	300 - 280	Bottom Girt	3/4	309	0.61	14.31	4.3	Pass
T8	262.5 - 260	Bottom Girt	3/4	426	1.58	14.31	11.0	Pass
T9	260 - 240	Bottom Girt	3/4	443	-0.42	5.98	7.0	Pass
T10	240 - 220	Bottom Girt	3/4	504	0.15	14.31	1.1	Pass
T11	220 - 200	Bottom Girt	3/4	564	-0.99	5.98	16.6	Pass
T15	185 - 180	Bottom Girt	3/4	681	-0.65	5.98	10.9	Pass
T17	170 - 160	Bottom Girt	3/4	747	0.36	14.31	2.5	Pass
T18	160 - 140	Bottom Girt	3/4	780	-0.48	5.98	8.0	Pass
T19	140 - 135	Bottom Girt	3/4	863	0.82	14.31	5.7	Pass
T21	127.5 - 120	Bottom Girt	3/4	921	2.32	14.31	16.2	Pass
T24	102.5 - 100	Bottom Girt	3/4	1023	0.64	14.31	4.5	Pass
T25	100 - 80	Bottom Girt	3/4	1039	0.16	14.31	1.1	Pass
T26	80 - 60	Bottom Girt	3/4	1099	0.65	14.31	4.5	Pass
T27	60 - 40	Bottom Girt	3/4	1161	-0.16	6.13	2.6	Pass
T28	40 - 20	Bottom Girt	3/4	1219	0.34	14.31	2.4	Pass
T29	20 - 5.25	Bottom Girt	3/4	1281	2.90	14.31	20.2	Pass
T30	5.25 - 0	Bottom Girt	3/4	1327	2.05	14.31	14.3	Pass
T1	400 - 380	Mid Girt	3/4	10	4.58	14.31	32.0	Pass
T2	380 - 360	Mid Girt	3/4	70	0.22	14.31	1.6	Pass
T3	360 - 340	Mid Girt	3/4	131	0.22	14.31	1.5	Pass
T4	340 - 320	Mid Girt	3/4	190	1.55	14.31	10.8	Pass
T5	320 - 300	Mid Girt	3/4	250	0.24	14.31	1.6	Pass
T6	300 - 280	Mid Girt	3/4	310	0.20	14.31	1.4	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T7	280 - 262.5	Mid Girt	3/4	369	0.19	14.31	1.3	Pass
T9	260 - 240	Mid Girt	3/4	445	0.27	14.31	1.9	Pass
T10	240 - 220	Mid Girt	3/4	505	0.17	14.31	1.2	Pass
T11	220 - 200	Mid Girt	3/4	565	-0.21	5.98	3.6	Pass
T14	190 - 185	Mid Girt	3/4	663	-2.67	5.98	44.6	Pass
T18	160 - 140	Mid Girt	3/4	781	0.29	14.31	2.0	Pass
T20	135 - 127.5	Mid Girt	3/4	882	1.54	14.31	10.8	Pass
T23	112.5 - 102.5	Mid Girt	1	993	0.71	25.45	2.8	Pass
T25	100 - 80	Mid Girt	3/4	1044	0.28	14.31	1.9	Pass
T26	80 - 60	Mid Girt	3/4	1104	0.30	14.31	2.1	Pass
T27	60 - 40	Mid Girt	3/4	1164	0.40	14.31	2.8	Pass
T28	40 - 20	Mid Girt	3/4	1224	0.35	14.31	2.5	Pass
T29	20 - 5.25	Mid Girt	3/4	1284	0.69	14.31	4.8	Pass
T1	400 - 380	Guy A@390.125	9/16	1356	18.15	21.00	86.4	Pass
T4	340 - 320	Guy A@334.958	1/2	1359	14.28	16.14	88.5	Pass
T9	260 - 240	Guy A@259.792	9/16	1362	16.74	21.00	79.7	Pass
T14	190 - 185	Guy A@190	1/2	1376	11.49	16.14	71.2	Pass
T18	160 - 140	Guy A@159.792	3/8	1383	6.35	9.24	68.7	Pass
T22	120 - 112.5	Guy A@119.792	9/16	1386	13.66	21.00	65.0	Pass
T27	60 - 40	Guy A@59.7917	7/16	1389	7.58	12.48	60.8	Pass
T1	400 - 380	Guy B@390.125	9/16	1355	17.99	21.00	85.6	Pass
T4	340 - 320	Guy B@334.958	1/2	1358	14.24	16.14	88.2	Pass
T9	260 - 240	Guy B@259.792	9/16	1361	16.80	21.00	80.0	Pass
T14	190 - 185	Guy B@190	1/2	1369	11.91	16.14	73.8	Pass
T18	160 - 140	Guy B@159.792	3/8	1382	6.66	9.24	72.1	Pass
T22	120 - 112.5	Guy B@119.792	9/16	1385	14.00	21.00	66.7	Pass
T27	60 - 40	Guy B@59.7917	7/16	1388	7.53	12.48	60.3	Pass
T1	400 - 380	Guy C@390.125	9/16	1354	18.07	21.00	86.1	Pass
T4	340 - 320	Guy C@334.958	1/2	1357	14.23	16.14	88.2	Pass
T9	260 - 240	Guy C@259.792	9/16	1360	16.68	21.00	79.4	Pass
T14	190 - 185	Guy C@190	1/2	1364	10.93	16.14	67.7	Pass
T18	160 - 140	Guy C@159.792	3/8	1381	6.27	9.24	67.8	Pass
T22	120 - 112.5	Guy C@119.792	9/16	1384	13.50	21.00	64.3	Pass
T27	60 - 40	Guy C@59.7917	7/16	1387	7.54	12.48	60.4	Pass
T18	160 - 140	Top Guy Pull-Off@159.792	L2 1/2x2 1/2x5/16	775	2.06	47.30	4.4	Pass
T14	190 - 185	Torque Arm Top@190	1 3/4	1372	6.98	77.93	9.0	Pass
T14	190 - 185	Torque Arm Bottom@190	1 3/4	1374	-8.21	43.67	18.8	Pass
							Summary	
						Leg (T14)	94.5	Pass
						Diagonal (T30)	115.1	Fail
						Horizontal (T21)	10.5	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
						Secondary Horizontal (T8)	7.7	Pass
						Top Girt (T30)	41.2	Pass
						Bottom Girt (T29)	20.2	Pass
						Mid Girt (T14)	44.6	Pass
						Guy A (T4)	88.5	Pass
						Guy B (T4)	88.2	Pass
						Guy C (T4)	88.2	Pass
						Top Guy Pull-Off (T18)	4.4	Pass
						Torque Arm Top (T14)	9.0	Pass
						Torque Arm Bottom (T14)	18.8	Pass
						Bolt Checks	219.6	Fail
						Rating =	219.6	Fail

Table 4 - Tower Component Stresses vs. Capacity

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Base Foundation Soil Interaction	0	35.0	Pass
1	Guy Anchor Foundation Soil Interaction (Inner)	0	25.7	Pass
1	Guy Anchor Foundation Soil Interaction (Middle)	0	20.2	Pass
1	Guy Anchor Foundation Soil Interaction (Outer)	0	25.5	Pass

Structure Rating (max from all components) =	**219.6%**

Notes:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.

4.1) Recommendations

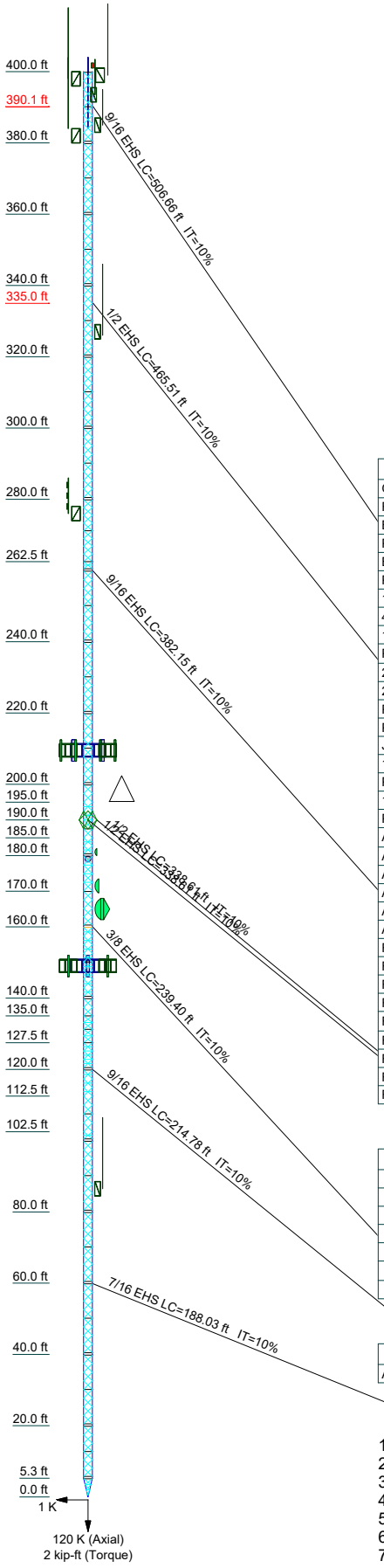
The tower does ***not*** have sufficient capacity to carry the existing loading, However the base foundation and the anchor blocks are adequate.

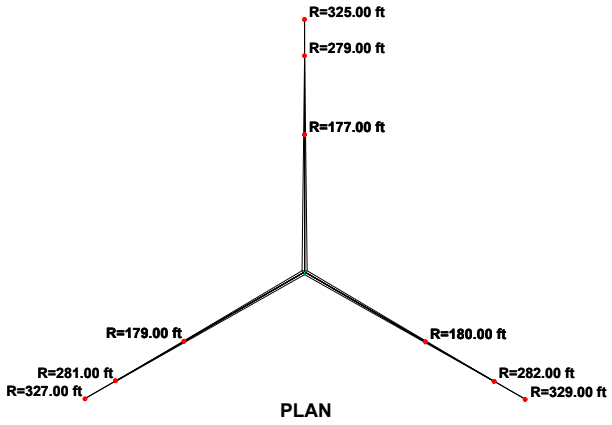
APPENDIX A

TNXTOWER OUTPUT

Section	T30	T29	T28	T27	T26	T25	T24	T23	T22	T21	T20	T19	T18	T17	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs			1.5 SR w/ 1.9x0.2 Half Pipe																				SR 1 1/2							
Leg Grade																					A572-50								
Diagonals																					SR 9/16								
Diagonal Grade																					A36								
Top Girts			SR 3/4			N.A.		SR 3/4		N.A.		B	N.A.	SR 1	B	N.A.		N.A.				SR 3/4	A						
Mid Girts	C		SR 3/4			C	SR 1	N.A.	B	C	SR 3/4		N.A.		B	N.A.		N.A.				SR 3/4	C						
Bottom Girts			SR 3/4		N.A.		N.A.		B	N.A.		SR 3/4		N.A.	C	A					N.A.								
Horizontals	A		N.A.				A	N.A.		SR 1	N.A.		SR 1		N.A.	A	C	A					A						
Sec. Horizontals			N.A.					N.A.	SR 1	N.A.		SR 1		N.A.							N.A.								
Top Guy Pull-Offs					N.A.							D												N.A.					
Face Width (ft)																													3
# Panels @ (ft)	N	M		32 @ 2.41667				E	@ 2.5	L	K	F	8 @ 2.41667	I	H	G	4 @ 2.5	F		24 @ 2.41667			B	@ 2.16146			48 @ 2.41667		
Weight (K)	0.2	0.5	0.7	0.7	0.7	0.7	0.1	0.3	0.3	0.3	0.3	0.2	0.8	0.3	0.3	0.2	0.8	0.2	0.1	0.6	0.6	0.6	0.1	0.5	0.6	0.6	0.6	0.6	0.6	0.6

12.9





DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Generic Lightning Rod 4' copper	400	TMA	208
Flash Beacon Lighting	400	TMA	208
Bogner 21'	399	TMA	208
Pirod 6-8' Box Arm (1)	399	J-Box	208
Bogner 18'	398	J-Box	208
Pirod 6' Side Mount Standoff (1)	398	J-Box	208
10' Omni	393.5	Sector Mount [SM 502-3]	208
4'x4" Pipe Mount	393.5	Panel Antenna	180
10' Omni	385	Panel Antenna	180
Pirod 4' Side Mount Standoff (1)	385	(2) Panel Antenna	180
25' Omni	382	4'x4" Pipe Mount	180
25' Omni	382	4'x4" Pipe Mount	180
Pirod 6' Side Mount Standoff (1)	382	4'x4" Pipe Mount	180
Pirod 6' Side Mount Standoff (1)	382	(2) TMA	180
J-Box	382	(2) TMA	180
18' Omni	327	(2) TMA	180
Pirod 4' Side Mount Standoff (1)	327	VHLP2-11W	180
10' Dipole	276	VHLP2-11W	180
Pirod 6' Side Mount Standoff (1)	276	4'x4" Pipe Mount	171.5
APXVERR18-C	208	TMA	171.5
APXVERR18-C	208	SPD4-4.7	171.5
APXVERR18-C	208	4'x4" Pipe Mount	165
AW3286-R	208	PAR6-59	165
AW3286-R	208	Nokia RRU	149
AW3286-R	208	Nokia RRU	149
RRUS 11	208	RNSNDC-7771-PF-48	149
RRUS 11	208	Sector Mount [SM 501-3]	149
RRUS 11	208	Panel Antenna	149
Filter	208	Panel Antenna	149
Filter	208	Panel Antenna	149
Filter	208	Nokia RRU	149
RRUS 31	208	Canopy w/ Mount	132
RRUS 31	208	Pirod 4' Side Mount Standoff (1)	86.5
RRUS 31	208	20' Omni	86.5

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	SR 1	H	4 @ 2.42708
B	SR 3/4	I	4 @ 2.36458
C	N.A.	J	4 @ 1.875
D	L2 1/2x2 1/2x5/16	K	3 @ 2.34722
E	1 @ 2.04167	L	3 @ 2.43056
F	2 @ 2.39583	M	6 @ 2.34722
G	2 @ 2.27083	N	3 @ 1.52778

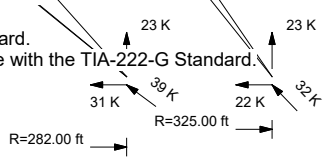
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in Orange County, Florida.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 108 mph basic wind in accordance with the TIA-222-G Standard.
4. Deflections are based upon a 60 mph wind.
5. Tower Structure Class II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 219.6%

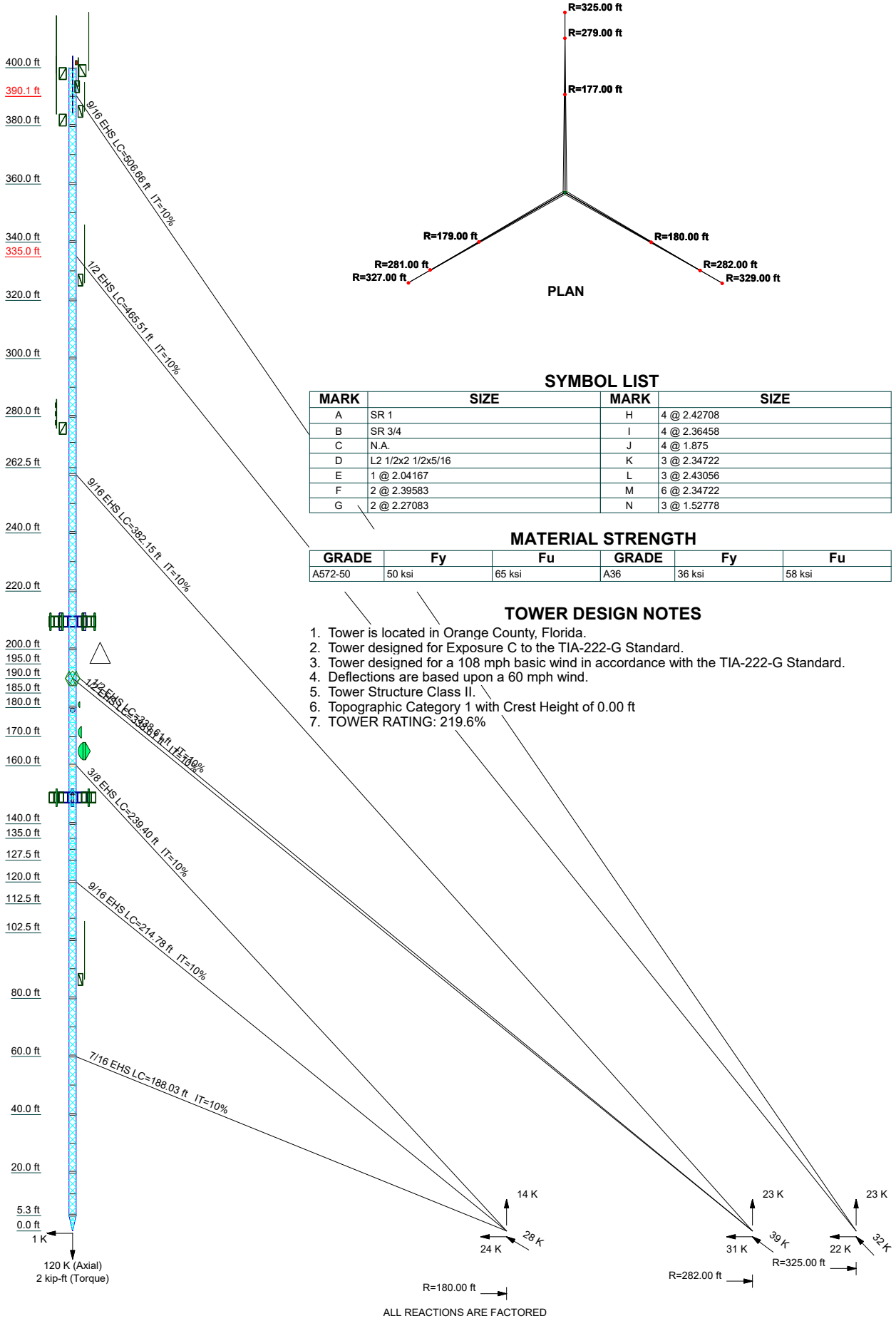
ALL REACTIONS ARE FACTORED



SMW Engineering Group, Inc.
158 Business Center Dr.
Birmingham Al. 35244
Phone: (205) 252-6985
FAX: (205) 795-7262
Consulting Engineers

Job: 19-5095			
Project: Lake Fuller As Is			
Client: HPS	Drawn by: Joe Mcallis	27	Scale: NTS
Code: TIA-222-G	Date: 07/15/19		
Path: C:\Work From Home\19-5095 Lake Fuller As Is\Risa Files\19-5095 LAKE FULLER SA AS IS 07122019.eri			Dwg No. E-1

Section	T30	T29	T28	T27	T26	T25	T24	T23	T22	T21	T20	T19	T18	T17	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs			1.5 SR w/ 1.9x0.2 Half Pipe																			SR 1 1/2								
Leg Grade																				A572-50										
Diagonals																				SR 9/16										
Diagonal Grade																				A36										
Top Girts				SR 3/4				N.A.	SR 3/4		N.A.	B	N.A.	SR 1	B	N.A.					SR 3/4		A							
Mid Girts	C			SR 3/4				C SR 1	N.A.	B	C	SR 3/4	N.A.	B	N.A.					SR 3/4		C		N.A.					
Bottom Girts				SR 3/4				N.A.		B	N.A.		SR 3/4	N.A.	B	C	A				SR 3/4							SR 3/4		
Horizontals	A			N.A.						SR 1			N.A.	SR 1	C	A				N.A.										
Sec. Horizontals				N.A.				A	N.A.	SR 1	N.A.		SR 1	N.A.	A	C	A				N.A.		A				N.A.			
Top Guy Pull-Offs					N.A.								D								N.A.									
Face Width (ft)																														3
# Panels @ (ft)	N	M		32 @ 2.41667				4 @ 2.5	L	K	J	F	8 @ 2.41667	I	H	G	4 @ 2.5F			24 @ 2.41667			B	48 @ 2.16146						
Weight (K)	12.9	0.5	0.7	0.7	0.7	0.7		0.3	0.3	0.3	0.3	0.2	0.8	0.3	0.3	0.2	0.6	0.2	0.1	0.6	0.6	0.6	0.1	0.5	0.6	0.6	0.6	0.6	0.6	0.6



SYMBOL LIST

MARK	SIZE	MARK	SIZE
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B	SR 3/4	I	4 @ 2.36458
C	N.A.	J	4 @ 1.875
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G	2 @ 2.27083	N	3 @ 1.52778

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A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

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3. Tower designed for a 108 mph basic wind in accordance with the TIA-222-G Standard.
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6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 219.6%

ALL REACTIONS ARE FACTORED

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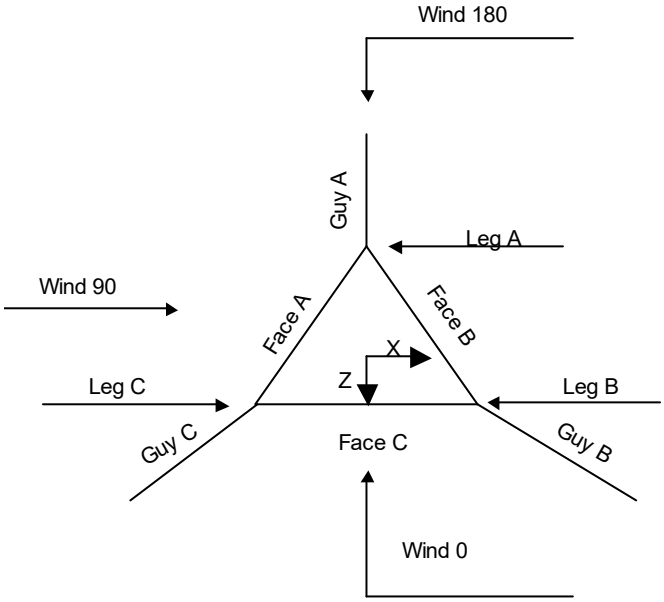
Tower Input Data

The main tower is a 3x guyed tower with an overall height of 400.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 3.00 ft at the top and tapered at the base.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

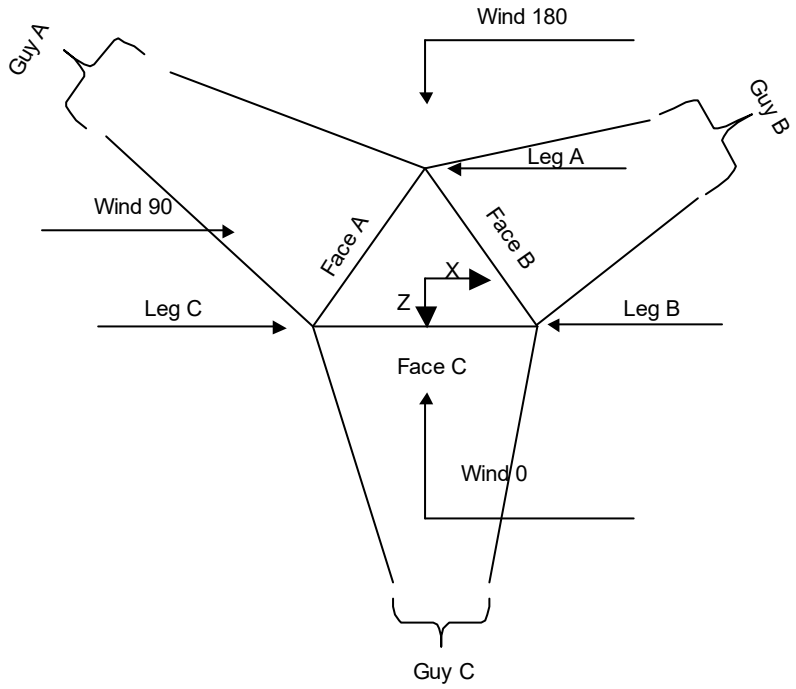
1) Tower is located in Orange County, Florida.
2) Basic wind speed of 108 mph.
3) Structure Class II.
4) Exposure Category C.
5) Topographic Category 1.
6) Crest Height 0.00 ft.
7) Deflections calculated using a wind speed of 60 mph.
8) Pressures are calculated at each section.
9) Safety factor used in guy design is 1.
10) Stress ratio used in tower member design is 1.
11) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	√ Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
√ Use Code Stress Ratios	√ Use Clear Spans For KL/r	√ All Leg Panels Have Same Allowable
√ Use Code Safety Factors - Guys	√ Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt.	Use TIA-222-G Bracing Resist. Exemption
Include Bolts In Member Capacity	√ Autocalc Torque Arm Areas	Use TIA-222-G Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Poles
√ Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	√ Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
√ SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
√ SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are Known



Corner & Starmount Guyed Tower



Face Guyed

Tower Section Geometry

Tower Section	*Tower Elevation*	*Assembly Database*	*Description*	*Section Width*	*Number of Sections*	*Section Length*
	ft			*ft*		*ft*
T1	400.00-380.00			3.00	1	20.00
T2	380.00-360.00			3.00	1	20.00
T3	360.00-340.00			3.00	1	20.00
T4	340.00-320.00			3.00	1	20.00
T5	320.00-300.00			3.00	1	20.00
T6	300.00-280.00			3.00	1	20.00
T7	280.00-262.50			3.00	1	17.50
T8	262.50-260.00			3.00	1	2.50
T9	260.00-240.00			3.00	1	20.00
T10	240.00-220.00			3.00	1	20.00
T11	220.00-200.00			3.00	1	20.00
T12	200.00-195.00			3.00	1	5.00
T13	195.00-190.00			3.00	1	5.00
T14	190.00-185.00			3.00	1	5.00
T15	185.00-180.00			3.00	1	5.00
T16	180.00-170.00			3.00	1	10.00
T17	170.00-160.00			3.00	1	10.00
T18	160.00-140.00			3.00	1	20.00
T19	140.00-135.00			3.00	1	5.00
T20	135.00-127.50			3.00	1	7.50
T21	127.50-120.00			3.00	1	7.50
T22	120.00-112.50			3.00	1	7.50
T23	112.50-102.50			3.00	1	10.00
T24	102.50-100.00			3.00	1	2.50

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T25	100.00-80.00			3.00	1	20.00
T26	80.00-60.00			3.00	1	20.00
T27	60.00-40.00			3.00	1	20.00
T28	40.00-20.00			3.00	1	20.00
T29	20.00-5.25			3.00	1	14.75
T30	5.25-0.00			3.00	1	5.25

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	400.00-380.00	2.42	X Brace	No	No	2.5000	5.5000
T2	380.00-360.00	2.42	X Brace	No	No	2.5000	5.5000
T3	360.00-340.00	2.42	X Brace	No	No	2.5000	5.5000
T4	340.00-320.00	2.42	X Brace	No	No	2.5000	5.5000
T5	320.00-300.00	2.42	X Brace	No	No	2.5000	5.5000
T6	300.00-280.00	2.42	X Brace	No	No	2.5000	5.5000
T7	280.00-262.50	2.16	X Brace	No	No	2.5000	0.0000
T8	262.50-260.00	2.04	X Brace	No	Yes	0.0000	5.5000
T9	260.00-240.00	2.42	X Brace	No	No	2.5000	5.5000
T10	240.00-220.00	2.42	X Brace	No	No	2.5000	5.5000
T11	220.00-200.00	2.42	X Brace	No	No	2.5000	5.5000
T12	200.00-195.00	2.40	X Brace	No	No	2.5000	0.0000
T13	195.00-190.00	2.50	X Brace	No	Yes	0.0000	0.0000
T14	190.00-185.00	2.50	X Brace	No	Yes	0.0000	0.0000
T15	185.00-180.00	2.27	X Brace	No	Yes	0.0000	5.5000
T16	180.00-170.00	2.43	X Brace	No	Yes	2.5000	1.0000
T17	170.00-160.00	2.36	X Brace	No	No	1.0000	5.5000
T18	160.00-140.00	2.42	X Brace	No	Yes	2.5000	5.5000
T19	140.00-135.00	2.40	X Brace	No	No	2.5000	0.0000
T20	135.00-127.50	1.88	X Brace	No	Yes	0.0000	0.0000
T21	127.50-120.00	2.35	X Brace	No	Yes	0.0000	5.5000
T22	120.00-112.50	2.43	X Brace	No	Yes	2.5000	0.0000
T23	112.50-102.50	2.50	X Brace	No	No	0.0000	0.0000
T24	102.50-100.00	2.04	X Brace	No	Yes	0.0000	5.5000
T25	100.00-80.00	2.42	X Brace	No	No	2.5000	5.5000
T26	80.00-60.00	2.42	X Brace	No	No	2.5000	5.5000
T27	60.00-40.00	2.42	X Brace	No	No	2.5000	5.5000
T28	40.00-20.00	2.42	X Brace	No	Yes	2.5000	5.5000
T29	20.00-5.25	2.35	X Brace	No	No	2.5000	5.5000
T30	5.25-0.00	1.53	X Brace	No	Yes	2.5000	5.5000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 400.00-380.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T2 380.00-360.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T3 360.00-340.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T4 340.00-320.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T5 320.00-300.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T6 300.00-280.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)

Tower Elevation ft	*Leg Type*	*Leg Size*	*Leg Grade*	*Diagonal Type*	*Diagonal Size*	*Diagonal Grade*
T7 280.00-262.50	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T8 262.50-260.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T9 260.00-240.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T10 240.00-220.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T11 220.00-200.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T12 200.00-195.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T13 195.00-190.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T14 190.00-185.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T15 185.00-180.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T16 180.00-170.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T17 170.00-160.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T18 160.00-140.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T19 140.00-135.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T20 135.00-127.50	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T21 127.50-120.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T22 120.00-112.50	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T23 112.50-102.50	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T24 102.50-100.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T25 100.00-80.00	Arbitrary Shape	1.5 SR w/ 1.9x0.2 Half Pipe	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T26 80.00-60.00	Arbitrary Shape	1.5 SR w/ 1.9x0.2 Half Pipe	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T27 60.00-40.00	Arbitrary Shape	1.5 SR w/ 1.9x0.2 Half Pipe	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T28 40.00-20.00	Arbitrary Shape	1.5 SR w/ 1.9x0.2 Half Pipe	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T29 20.00-5.25	Arbitrary Shape	1.5 SR w/ 1.9x0.2 Half Pipe	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)
T30 5.25-0.00	Arbitrary Shape	1.5 SR w/ 1.9x0.2 Half Pipe	A572-50 (50 ksi)	Solid Round	9/16	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	*Top Girt Type*	*Top Girt Size*	*Top Girt Grade*	*Bottom Girt Type*	*Bottom Girt Size*	*Bottom Girt Grade*
T1 400.00-380.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T2 380.00-360.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T3 360.00-340.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T4 340.00-320.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T5 320.00-300.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T6 300.00-280.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T7 280.00-262.50	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T8 262.50-260.00	Solid Round	1	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T9 260.00-240.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T10 240.00-220.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T11 220.00-200.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T12 200.00-195.00	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T15 185.00-180.00	Solid Round		A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T16 180.00-170.00	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T17 170.00-160.00	Solid Round	1	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T18 160.00-140.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T19 140.00-135.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T21 127.50-120.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T22 120.00-112.50	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T24 102.50-100.00	Solid Round		A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T25 100.00-80.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T26 80.00-60.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T27 60.00-40.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T28 40.00-20.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T29 20.00-5.25	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)
T30 5.25-0.00	Solid Round	3/4	A36 (36 ksi)	Solid Round	3/4	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 400.00-380.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T2 380.00-360.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T3 360.00-340.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T4 340.00-320.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T5 320.00-300.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T6 300.00-280.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T7 280.00-262.50	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T8 262.50-	1	Solid Round	3/4	A36	Solid Round	1	A36

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
260.00				(36 ksi)			(36 ksi)
T9 260.00-240.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T10 240.00-220.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T11 220.00-200.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T14 190.00-185.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round	1	A36 (36 ksi)
T16 180.00-170.00	None	Solid Round		A36 (36 ksi)	Solid Round	1	A36 (36 ksi)
T18 160.00-140.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T20 135.00-127.50	1	Solid Round	3/4	A36 (36 ksi)	Solid Round	1	A36 (36 ksi)
T21 127.50-120.00	None	Solid Round		A36 (36 ksi)	Solid Round	1	A36 (36 ksi)
T23 112.50-102.50	1	Solid Round	1	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T24 102.50-100.00	1	Solid Round	1	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T25 100.00-80.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T26 80.00-60.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T27 60.00-40.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T28 40.00-20.00	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T29 20.00-5.25	1	Solid Round	3/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T30 5.25-0.00	None	Solid Round		A36 (36 ksi)	Solid Round	1	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T8 262.50-260.00	Solid Round	1	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T13 195.00-190.00	Solid Round	1	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T15 185.00-180.00	Solid Round	1	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T18 160.00-140.00	Solid Round	1	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T21 127.50-120.00	Solid Round	1	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T22 120.00-112.50	Solid Round	1	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T24 102.50-100.00	Solid Round	1	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft^2	in					in	in	in
T1 400.00-380.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T2 380.00-360.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T3 360.00-340.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T4 340.00-320.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T5 320.00-300.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T6 300.00-280.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T7 280.00-262.50	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T8 262.50-260.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T9 260.00-240.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T10 240.00-220.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T11 220.00-200.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T12 200.00-195.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T13 195.00-190.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T14 190.00-185.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T15 185.00-180.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T16 180.00-170.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T17 170.00-160.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T18 160.00-140.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T19 140.00-135.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T20 135.00-127.50	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T21 127.50-120.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T22 120.00-112.50	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T23 112.50-102.50	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T24 102.50-100.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T25 100.00-80.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T26 80.00-60.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T27 60.00-40.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T28 40.00-20.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T29 20.00-5.25	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T30 5.25-0.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 400.00-380.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T2 380.00-360.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T3 360.00-340.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T4 340.00-320.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T5 320.00-300.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T6 300.00-280.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T7 280.00-262.50	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T8 262.50-260.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T9 260.00-240.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T10 240.00-220.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T11 220.00-200.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T12 200.00-195.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T13 195.00-190.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T14 190.00-185.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T15 185.00-180.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T16 180.00-170.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T17 170.00-160.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T18 160.00-140.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T19 140.00-135.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T20 135.00-127.50	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T21 127.50-120.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T22 120.00-112.50	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T23 112.50-102.50	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T24 102.50-100.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T25 100.00-80.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T26 80.00-60.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T27 60.00-40.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T28 40.00-20.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T29 20.00-5.25	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T30 5.25-0.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 400.00-380.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 380.00-360.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 360.00-340.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 340.00-320.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 320.00-300.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 300.00-280.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 280.00-262.50	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 262.50-260.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 260.00-240.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 240.00-220.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 220.00-200.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T12 200.00-195.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T13 195.00-190.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T14 190.00-185.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T15 185.00-180.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T16 180.00-170.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T17 170.00-160.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T18 160.00-140.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T19 140.00-135.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T20 135.00-127.50	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T21 127.50-120.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T22 120.00-112.50	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T23 112.50-102.50	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T24 102.50-100.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T25 100.00-80.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T26 80.00-60.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T27 60.00-40.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T28 40.00-20.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T29 20.00-5.25	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T30 5.25-0.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 400.00-380.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 380.00-360.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 360.00-340.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 340.00-320.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 320.00-300.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 300.00-280.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T7 280.00-262.50	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T8 262.50-260.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T9 260.00-240.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T10 240.00-220.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T11 220.00-200.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T12 200.00-195.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T13 195.00-190.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T14 190.00-185.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T15 185.00-180.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T16 180.00-170.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T17 170.00-160.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T18 160.00-140.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T19 140.00-135.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T20 135.00-127.50	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T21 127.50-120.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T22 120.00-112.50	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T23 112.50-102.50	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T24 102.50-100.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T25 100.00-80.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T26 80.00-60.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T27 60.00-40.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T28 40.00-20.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T29 20.00-5.25	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T30 5.25-0.00	Sleeve DS	0.5625 A325X	3	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0

Guy Data

Guy Elevation ft	Guy Grade		Guy Size	Initial Tension K	%	Guy Modulus ksi	Guy Weight plf	L_u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
390.125	EHS	A	9/16	3.50	10%	23000	0.671	506.32	325.00	0.0000	0.00	100%
		B	9/16	3.50	10%	23000	0.671	508.88	329.00	0.0000	0.00	100%
		C	9/16	3.50	10%	23000	0.671	507.60	327.00	0.0000	0.00	100%
334.958	EHS	A	1/2	2.69	10%	23000	0.517	465.20	325.00	0.0000	0.00	100%
		B	1/2	2.69	10%	23000	0.517	467.99	329.00	0.0000	0.00	100%
		C	1/2	2.69	10%	23000	0.517	466.60	327.00	0.0000	0.00	100%
259.792	EHS	A	9/16	3.50	10%	23000	0.671	379.70	279.00	0.0000	0.00	100%
		B	9/16	3.50	10%	23000	0.671	381.89	282.00	0.0000	0.00	100%
		C	9/16	3.50	10%	23000	0.671	381.16	281.00	0.0000	0.00	100%
190	EHS	A	1/2	2.69	10%	23000	0.517	335.91	279.00	0.0000	0.00	100%
		B	1/2	2.69	10%	23000	0.517	338.38	282.00	0.0000	0.00	100%
		C	1/2	2.69	10%	23000	0.517	337.56	281.00	0.0000	0.00	100%
159.792	EHS	A	3/8	1.54	10%	23000	0.273	236.98	177.00	0.0000	0.00	100%
		B	3/8	1.54	10%	23000	0.273	239.21	180.00	0.0000	0.00	100%
		C	3/8	1.54	10%	23000	0.273	238.46	179.00	0.0000	0.00	100%
119.792	EHS	A	9/16	3.50	10%	23000	0.671	212.14	177.00	0.0000	0.00	100%
		B	9/16	3.50	10%	23000	0.671	214.62	180.00	0.0000	0.00	100%
		C	9/16	3.50	10%	23000	0.671	213.79	179.00	0.0000	0.00	100%
59.7917	EHS	A	7/16	2.08	10%	23000	0.399	185.05	177.00	0.0000	0.00	100%
		B	7/16	2.08	10%	23000	0.399	187.89	180.00	0.0000	0.00	100%
		C	7/16	2.08	10%	23000	0.399	186.94	179.00	0.0000	0.00	100%

Guy Data*(cont'd)*

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
390.125	Corner						
334.958	Corner						
259.792	Corner						
190	Torque Arm	6.00	30.0000	Wing	A36 (36 ksi)	Solid Round	1 3/4
159.792	Corner						
119.792	Corner						
59.7917	Corner						

Guy Data *(cont'd)*

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
390.13	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Single Angle	
334.96	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Solid Round	
259.79	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Solid Round	
190.00	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Solid Round	
159.79	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x5/16
119.79	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Solid Round	

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
59.79	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Solid Round	

Guy Data *(cont'd)*

Guy Elevation ft	Cable Weight A K	Cable Weight B K	Cable Weight C K	Cable Weight D K	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
390.125	0.34	0.34	0.34		23.72 8.4 sec/pulse	23.96 8.5 sec/pulse	23.84 8.4 sec/pulse	
334.958	0.24	0.24	0.24		20.17 7.8 sec/pulse	20.41 7.8 sec/pulse	20.29 7.8 sec/pulse	
259.792	0.25	0.26	0.26		13.50 6.3 sec/pulse	13.65 6.4 sec/pulse	13.60 6.4 sec/pulse	
190	0.17	0.17	0.17		10.66 5.6 sec/pulse	10.82 5.7 sec/pulse	10.76 5.7 sec/pulse	
159.792	0.06	0.07	0.07		4.91 3.8 sec/pulse	5.01 3.9 sec/pulse	4.97 3.9 sec/pulse	
119.792	0.14	0.14	0.14		4.27 3.6 sec/pulse	4.37 3.6 sec/pulse	4.34 3.6 sec/pulse	
59.7917	0.07	0.07	0.07		3.27 3.1 sec/pulse	3.37 3.2 sec/pulse	3.34 3.2 sec/pulse	

Guy Data *(cont'd)*

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm K_x	Torque Arm K_y	Pull Off K_x	Pull Off K_y	Diagonal K_x	Diagonal K_y
390.125	No	No			1	1	1	1
334.958	No	No			1	1	1	1
259.792	No	No			1	1	1	1
190	No	No	1	1	1	1	1	1
159.792	No	No			1	1	1	1
119.792	No	No			1	1	1	1
59.7917	No	No			1	1	1	1

Guy Data *(cont'd)*

Guy Elevation ft	Torque-Arm Bolt Size in	Torque-Arm Number	Torque-Arm Net Width Deduct in	Torque-Arm U	Pull Off Bolt Size in	Pull Off Number	Pull Off Net Width Deduct in	Pull Off U	Diagonal Bolt Size in	Diagonal Number	Diagonal Net Width Deduct in	Diagonal U
390.125	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
334.958	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
259.792	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75

Guy Elevation ft	Torque-Arm				Pull Off				Diagonal			
	Bolt Size in	Number	Net Width Deduct in	U	Bolt Size in	Number	Net Width Deduct in	U	Bolt Size in	Number	Net Width Deduct in	U
190	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
159.792	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
119.792	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
59.7917	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q_z psf	q_z Ice psf	Ice Thickness in
390.125	A	195.06	37		
	B	195.06	37		
	C	195.06	37		
334.958	A	167.48	36		
	B	167.48	36		
	C	167.48	36		
259.792	A	129.90	34		
	B	129.90	34		
	C	129.90	34		
190	A	95.00	32		
	B	95.00	32		
	C	95.00	32		
159.792	A	79.90	31		
	B	79.90	31		
	C	79.90	31		
119.792	A	59.90	29		
	B	59.90	29		
	C	59.90	29		
59.7917	A	29.90	25		
	B	29.90	25		
	C	29.90	25		

Guy-Tensioning Information

Guy Elevation ft		H ft	V ft	Temperature At Time Of Tensioning: 0 F Initial Tension K	0 F Intercept ft	20 F Initial Tension K	20 F Intercept ft	40 F Initial Tension K	40 F Intercept ft	60 F Initial Tension K	60 F Intercept ft	80 F Initial Tension K	80 F Intercept ft	100 F Initial Tension K	100 F Intercept ft	120 F Initial Tension K	120 F Intercept ft
390.125	A	323.27	390.13	4.047	20.60	3.859	21.57	3.676	22.61	3.500	23.72	3.330	24.88	3.168	26.11	3.013	27.41
	B	327.27	390.13	4.053	20.78	3.862	21.78	3.678	22.83	3.500	23.96	3.329	25.14	3.165	26.40	3.010	27.71
	C	325.27	390.13	4.050	20.69	3.861	21.67	3.677	22.72	3.500	23.84	3.330	25.01	3.167	26.25	3.011	27.56
334.958	A	323.27	334.96	3.191	17.08	3.018	18.03	2.851	19.06	2.690	20.17	2.537	21.35	2.391	22.61	2.254	23.94
	B	327.27	334.96	3.195	17.26	3.020	18.24	2.852	19.29	2.690	20.41	2.536	21.62	2.390	22.90	2.252	24.25
	C	325.27	334.96	3.193	17.17	3.019	18.13	2.851	19.18	2.690	20.29	2.536	21.49	2.391	22.75	2.253	24.09
259.792	A	277.27	259.79	4.269	11.11	4.004	11.83	3.747	12.63	3.500	13.50	3.263	14.45	3.039	15.49	2.829	16.62
	B	280.27	259.79	4.274	11.23	4.007	11.96	3.749	12.77	3.500	13.65	3.262	14.63	3.037	15.68	2.827	16.82
	C	279.27	259.79	4.272	11.19	4.006	11.92	3.748	12.72	3.500	13.60	3.263	14.57	3.038	15.62	2.827	16.75
190	A	277.28	190.00	3.452	8.33	3.188	9.02	2.933	9.79	2.690	10.66	2.460	11.64	2.240	12.76	2.045	13.95
	B	280.28	190.00	3.455	8.45	3.190	9.15	2.934	9.93	2.690	10.82	2.460	11.81	2.239	12.95	2.045	14.16
	C	279.28	190.00	3.454	8.41	3.189	9.10	2.934	9.88	2.690	10.76	2.460	11.75	2.239	12.89	2.045	14.09
159.792	A	175.27	159.79	1.904	3.98	1.781	4.25	1.660	4.56	1.540	4.91	1.423	5.31	1.308	5.77	1.198	6.30
	B	178.27	159.79	1.909	4.05	1.784	4.33	1.661	4.64	1.540	5.01	1.421	5.42	1.306	5.89	1.194	6.43
	C	177.27	159.79	1.907	4.03	1.783	4.30	1.661	4.62	1.540	4.97	1.422	5.38	1.306	5.85	1.195	6.39
119.792	A	175.27	119.79	4.603	3.25	4.229	3.54	3.860	3.87	3.500	4.27	3.151	4.74	2.817	5.29	2.504	5.94
	B	178.27	119.79	4.613	3.32	4.235	3.62	3.863	3.96	3.500	4.37	3.149	4.85	2.814	5.42	2.499	6.09
	C	177.27	119.79	4.610	3.30	4.233	3.59	3.862	3.93	3.500	4.34	3.150	4.81	2.815	5.38	2.501	6.04
59.7917	A	175.27	59.79	2.948	2.31	2.653	2.57	2.362	2.88	2.080	3.27	1.809	3.75	1.556	4.36	1.328	5.11
	B	178.27	59.79	2.949	2.38	2.653	2.64	2.363	2.97	2.080	3.37	1.810	3.87	1.557	4.49	1.330	5.26
	C	177.27	59.79	2.949	2.36	2.653	2.62	2.362	2.94	2.080	3.34	1.810	3.83	1.557	4.45	1.329	5.21

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
LDF2-50(3/8)	A	No	No	Ar (CaAa)	179.00 - 7.00	0.0000	0.5	1	1	0.4400	0.4400		0.08
LDF2-50(3/8)	A	No	No	Ar (CaAa)	179.00 - 7.00	0.0000	0.48	1	1	0.4400	0.4400		0.08
LDF2-50(3/8)	A	No	No	Ar (CaAa)	181.00 - 7.00	0.0000	0.46	1	1	0.4400	0.4400		0.08
LDF2-50(3/8)	A	No	No	Ar (CaAa)	181.00 - 7.00	0.0000	0.44	1	1	0.4400	0.4400		0.08
LDF2-50(3/8)	A	No	No	Ar (CaAa)	181.00 - 7.00	0.0000	0.42	1	1	0.4400	0.4400		0.08
LDF2-50(3/8)	B	No	No	Ar (CaAa)	179.00 - 7.00	0.0000	-0.5	1	1	0.4400	0.4400		0.08
LDF2-50(3/8)	B	No	No	Ar (CaAa)	180.00 - 7.00	0.0000	-0.48	1	1	0.4400	0.4400		0.08
LDF2-50(3/8)	B	No	No	Ar (CaAa)	180.50 - 7.00	0.0000	-0.46	1	1	0.4400	0.4400		0.08
LDF5-50A(7/8)	B	No	No	Ar (CaAa)	277.00 - 7.00	0.6000	-0.48	1	1	1.0300	1.0300		0.33
FJ-2SM-001-35M(3/16")	B	No	No	Ar (CaAa)	75.00 - 7.00	0.6000	-0.42	1	1	0.2500	0.1890		0.02
RG-11 590609 (1 1/2 FOAM)	B	No	No	Ar (CaAa)	384.00 - 7.00	0.6000	-0.38	1	1	1.5900	1.5900		0.94
1 9/16"	B	No	No	Ar (CaAa)	150.50 - 7.00	0.6000	-0.32	1	1	1.5900	1.5900		0.94
FJ-2SM-001-35M(3/16")	B	No	No	Ar (CaAa)	171.60 - 7.00	0.6000	-0.25	1	1	0.2500	0.1890		0.02
9/16"	B	No	No	Ar (CaAa)	100.00 - 7.00	0.6000	0.46	1	1	0.6250	0.6250		0.15
9/16"	B	No	No	Ar (CaAa)	300.00 - 7.00	0.6000	0.48	1	1	0.6250	0.6250		0.15
9/16"	B	No	No	Ar (CaAa)	400.00 - 7.00	0.6000	0.5	1	1	0.6250	0.6250		0.15
ATCB-B01-001(5/16)	C	No	No	Ar (CaAa)	132.00 - 7.00	0.6000	-0.48	2	2	0.3150	0.3150		0.07
DBC078F5P (1-1/8 FOAM)	C	No	No	Ar (CaAa)	209.50 - 7.00	0.6000	0.2	3	2	1.0900	1.0900		0.33
LDF6-50A(1-1/4")	C	No	No	Ar (CaAa)	209.50 - 7.00	2.5000	0.24	1	1	1.5500	1.5500		0.66
LDF2-2R(1")	C	No	No	Ar (CaAa)	209.50 - 7.00	0.6000	0.4	1	1	0.9860	0.9860		0.30
FSJ1-50A(1/4")	C	No	No	Ar (CaAa)	400.00 - 7.00	0.6000	0.44	1	1	0.2900	0.2900		0.04
1/8"	A	No	No	Ar (CaAa)	160.00 - 7.00	0.6000	-0.44	2	2	0.2900	0.2900		0.04
RG-11 590609 (1 1/2 FOAM)	A	No	No	Ar (CaAa)	400.00 - 7.00	0.6000	-0.38	1	1	1.5900	1.5900		0.94
RG-11 590609 (1 1/2 FOAM)	A	No	No	Ar (CaAa)	399.00 - 7.00	0.6000	-0.32	1	1	1.5900	1.5900		0.94
LDF5-50A(7/8)	A	No	No	Ar (CaAa)	381.50 - 7.00	2.5000	-0.35	2	2	1.0300	1.0300		0.33
LDF4-50A(1/2")	A	No	No	Ar (CaAa)	381.60 - 7.00	3.8000	-0.32	1	1	0.6300	0.6300		0.15
FSJ1-50A(1/4")	A	No	No	Ar (CaAa)	37.00 - 7.00	4.5000	-0.32	4	2	0.2900	0.2900		0.04
LDF2-50(3/8)	A	No	No	Ar (CaAa)	171.50 - 7.00	0.3000	0	2	2	0.4400	0.4400		0.08
***													
LDF5-50A(7/8)	A	No	No	Ar (CaAa)	326.00 - 7.00	1.0000	0.2	1	1	1.0300	1.0300		0.33

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
LDF4-50A(1/2")	A	No	No	Ar (CaAa)	150.50 - 7.00	1.0000	0.27	1	1	0.6300	0.6300		0.15
LDF5-50A(7/8)	A	No	No	Ar (CaAa)	86.00 - 7.00	1.0000	0.24	1	1	1.0300	1.0300		0.33
RG-11 590609 (1 1/2 FOAM) ***	A	No	No	Ar (CaAa)	395.00 - 7.00	1.0000	0.31	1	1	1.5900	1.5900		0.94

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	400.00-380.00	A	0.000	0.000	8.996	0.000	0.05
		B	0.000	0.000	1.886	0.000	0.01
		C	0.000	0.000	0.580	0.000	0.00
T2	380.00-360.00	A	0.000	0.000	14.920	0.000	0.07
		B	0.000	0.000	4.430	0.000	0.02
		C	0.000	0.000	0.580	0.000	0.00
T3	360.00-340.00	A	0.000	0.000	14.920	0.000	0.07
		B	0.000	0.000	4.430	0.000	0.02
		C	0.000	0.000	0.580	0.000	0.00
T4	340.00-320.00	A	0.000	0.000	15.538	0.000	0.07
		B	0.000	0.000	4.430	0.000	0.02
		C	0.000	0.000	0.580	0.000	0.00
T5	320.00-300.00	A	0.000	0.000	16.980	0.000	0.08
		B	0.000	0.000	4.430	0.000	0.02
		C	0.000	0.000	0.580	0.000	0.00
T6	300.00-280.00	A	0.000	0.000	16.980	0.000	0.08
		B	0.000	0.000	5.680	0.000	0.02
		C	0.000	0.000	0.580	0.000	0.00
T7	280.00-262.50	A	0.000	0.000	14.858	0.000	0.07
		B	0.000	0.000	6.463	0.000	0.03
		C	0.000	0.000	0.507	0.000	0.00
T8	262.50-260.00	A	0.000	0.000	2.123	0.000	0.01
		B	0.000	0.000	0.967	0.000	0.00
		C	0.000	0.000	0.072	0.000	0.00
T9	260.00-240.00	A	0.000	0.000	16.980	0.000	0.08
		B	0.000	0.000	7.740	0.000	0.03
		C	0.000	0.000	0.580	0.000	0.00
T10	240.00-220.00	A	0.000	0.000	16.980	0.000	0.08
		B	0.000	0.000	7.740	0.000	0.03
		C	0.000	0.000	0.580	0.000	0.00
T11	220.00-200.00	A	0.000	0.000	16.980	0.000	0.08
		B	0.000	0.000	7.740	0.000	0.03
		C	0.000	0.000	6.096	0.000	0.02
T12	200.00-195.00	A	0.000	0.000	4.245	0.000	0.02
		B	0.000	0.000	1.935	0.000	0.01
		C	0.000	0.000	3.048	0.000	0.01
T13	195.00-190.00	A	0.000	0.000	4.245	0.000	0.02
		B	0.000	0.000	1.935	0.000	0.01
		C	0.000	0.000	3.048	0.000	0.01
T14	190.00-185.00	A	0.000	0.000	4.245	0.000	0.02
		B	0.000	0.000	1.935	0.000	0.01
		C	0.000	0.000	3.048	0.000	0.01
T15	185.00-180.00	A	0.000	0.000	4.377	0.000	0.02
		B	0.000	0.000	1.957	0.000	0.01
		C	0.000	0.000	3.048	0.000	0.01
T16	180.00-170.00	A	0.000	0.000	10.734	0.000	0.04
		B	0.000	0.000	5.176	0.000	0.02
		C	0.000	0.000	6.096	0.000	0.02
T17	170.00-160.00	A	0.000	0.000	11.570	0.000	0.05
		B	0.000	0.000	5.379	0.000	0.02

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		C	0.000	0.000	6.096	0.000	0.02
T18	160.00-140.00	A	0.000	0.000	24.962	0.000	0.09
		B	0.000	0.000	12.427	0.000	0.05
		C	0.000	0.000	12.192	0.000	0.04
T19	140.00-135.00	A	0.000	0.000	6.390	0.000	0.02
		B	0.000	0.000	3.484	0.000	0.01
		C	0.000	0.000	3.048	0.000	0.01
T20	135.00-127.50	A	0.000	0.000	9.585	0.000	0.04
		B	0.000	0.000	5.227	0.000	0.02
		C	0.000	0.000	4.856	0.000	0.02
T21	127.50-120.00	A	0.000	0.000	9.585	0.000	0.04
		B	0.000	0.000	5.227	0.000	0.02
		C	0.000	0.000	5.045	0.000	0.02
T22	120.00-112.50	A	0.000	0.000	9.585	0.000	0.04
		B	0.000	0.000	5.227	0.000	0.02
		C	0.000	0.000	5.045	0.000	0.02
T23	112.50-102.50	A	0.000	0.000	12.780	0.000	0.05
		B	0.000	0.000	6.969	0.000	0.03
		C	0.000	0.000	6.726	0.000	0.02
T24	102.50-100.00	A	0.000	0.000	3.195	0.000	0.01
		B	0.000	0.000	1.742	0.000	0.01
		C	0.000	0.000	1.682	0.000	0.01
T25	100.00-80.00	A	0.000	0.000	26.178	0.000	0.10
		B	0.000	0.000	15.188	0.000	0.06
		C	0.000	0.000	13.452	0.000	0.04
T26	80.00-60.00	A	0.000	0.000	27.620	0.000	0.10
		B	0.000	0.000	15.471	0.000	0.06
		C	0.000	0.000	13.452	0.000	0.04
T27	60.00-40.00	A	0.000	0.000	27.620	0.000	0.10
		B	0.000	0.000	15.566	0.000	0.06
		C	0.000	0.000	13.452	0.000	0.04
T28	40.00-20.00	A	0.000	0.000	29.592	0.000	0.10
		B	0.000	0.000	15.566	0.000	0.06
		C	0.000	0.000	13.452	0.000	0.04
T29	20.00-5.25	A	0.000	0.000	19.461	0.000	0.07
		B	0.000	0.000	10.118	0.000	0.04
		C	0.000	0.000	8.744	0.000	0.03
T30	5.25-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	400.00-380.00	-3.1164	0.0847	-3.1164	0.0847
T2	380.00-360.00	-4.4891	-0.8295	-4.4891	-0.8295
T3	360.00-340.00	-4.4891	-0.8295	-4.4891	-0.8295
T4	340.00-320.00	-4.5215	-0.9936	-4.5215	-0.9936
T5	320.00-300.00	-4.5933	-1.3587	-4.5933	-1.3587
T6	300.00-280.00	-3.9567	-1.0653	-3.9567	-1.0653
T7	280.00-262.50	-3.7394	-1.7648	-3.7394	-1.7648
T8	262.50-260.00	-3.0972	-1.5950	-3.0972	-1.5950
T9	260.00-240.00	-3.7264	-1.9173	-3.7264	-1.9173
T10	240.00-220.00	-3.7264	-1.9173	-3.7264	-1.9173
T11	220.00-200.00	-4.2574	-0.3960	-4.2574	-0.3960
T12	200.00-195.00	-4.6981	0.9491	-4.6981	0.9491
T13	195.00-190.00	-4.4914	0.9076	-4.4914	0.9076
T14	190.00-185.00	-4.5291	0.9152	-4.5291	0.9152
T15	185.00-180.00	-4.3652	0.6968	-4.3652	0.6968
T16	180.00-170.00	-4.1160	-1.1630	-4.1160	-1.1630
T17	170.00-160.00	-4.2971	-1.4235	-4.2971	-1.4235
T18	160.00-140.00	-3.9931	-1.6054	-3.9931	-1.6054
T19	140.00-135.00	-4.0592	-2.0706	-4.0592	-2.0706
T20	135.00-127.50	-3.7469	-1.9369	-3.7469	-1.9369

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T21	127.50-120.00	-3.4540	-1.8019	-3.4540	-1.8019
T22	120.00-112.50	-3.6101	-1.8834	-3.6101	-1.8834
T23	112.50-102.50	-3.8088	-1.9871	-3.8088	-1.9871
T24	102.50-100.00	-3.5356	-1.8445	-3.5356	-1.8445
T25	100.00-80.00	-2.8439	-1.6422	-2.8439	-1.6422
T26	80.00-60.00	-2.8771	-1.8834	-2.8771	-1.8834
T27	60.00-40.00	-2.8722	-1.9009	-2.8722	-1.9009
T28	40.00-20.00	-3.1801	-1.8166	-3.1801	-1.8166
T29	20.00-5.25	-3.0553	-1.7086	-3.0553	-1.7086
T30	5.25-0.00	0.0000	0.0000	0.0000	0.0000

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	11	RG-11 590609 (1 1/2 FOAM)	380.00 - 384.00	0.6000	0.6000
T1	16	9/16"	380.00 - 400.00	0.6000	0.6000
T1	21	FSJ1-50A(1/4")	380.00 - 400.00	0.6000	0.6000
T1	23	RG-11 590609 (1 1/2 FOAM)	380.00 - 400.00	0.6000	0.6000
T1	24	RG-11 590609 (1 1/2 FOAM)	380.00 - 399.00	0.6000	0.6000
T1	25	LDF5-50A(7/8)	380.00 - 381.50	0.6000	0.6000
T1	26	LDF4-50A(1/2")	380.00 - 381.60	0.6000	0.6000
T1	33	RG-11 590609 (1 1/2 FOAM)	380.00 - 395.00	0.6000	0.6000
T2	11	RG-11 590609 (1 1/2 FOAM)	360.00 - 380.00	0.6000	0.6000
T2	16	9/16"	360.00 - 380.00	0.6000	0.6000
T2	21	FSJ1-50A(1/4")	360.00 - 380.00	0.6000	0.6000
T2	23	RG-11 590609 (1 1/2 FOAM)	360.00 - 380.00	0.6000	0.6000
T2	24	RG-11 590609 (1 1/2 FOAM)	360.00 - 380.00	0.6000	0.6000
T2	25	LDF5-50A(7/8)	360.00 - 380.00	0.6000	0.6000
T2	26	LDF4-50A(1/2")	360.00 - 380.00	0.6000	0.6000
T2	33	RG-11 590609 (1 1/2 FOAM)	360.00 - 380.00	0.6000	0.6000
T3	11	RG-11 590609 (1 1/2 FOAM)	340.00 - 360.00	0.6000	0.6000
T3	16	9/16"	340.00 - 360.00	0.6000	0.6000
T3	21	FSJ1-50A(1/4")	340.00 - 360.00	0.6000	0.6000
T3	23	RG-11 590609 (1 1/2 FOAM)	340.00 - 360.00	0.6000	0.6000
T3	24	RG-11 590609 (1 1/2 FOAM)	340.00 - 360.00	0.6000	0.6000
T3	25	LDF5-50A(7/8)	340.00 - 360.00	0.6000	0.6000
T3	26	LDF4-50A(1/2")	340.00 - 360.00	0.6000	0.6000
T3	33	RG-11 590609 (1 1/2	340.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		FOAM)	360.00		
T4	11	RG-11 590609 (1 1/2 FOAM)	320.00 - 340.00	0.6000	0.6000
T4	16	9/16"	320.00 - 340.00	0.6000	0.6000
T4	21	FSJ1-50A(1/4")	320.00 - 340.00	0.6000	0.6000
T4	23	RG-11 590609 (1 1/2 FOAM)	320.00 - 340.00	0.6000	0.6000
T4	24	RG-11 590609 (1 1/2 FOAM)	320.00 - 340.00	0.6000	0.6000
T4	25	LDF5-50A(7/8)	320.00 - 340.00	0.6000	0.6000
T4	26	LDF4-50A(1/2")	320.00 - 340.00	0.6000	0.6000
T4	30	LDF5-50A(7/8)	320.00 - 326.00	0.6000	0.6000
T4	33	RG-11 590609 (1 1/2 FOAM)	320.00 - 340.00	0.6000	0.6000
T5	11	RG-11 590609 (1 1/2 FOAM)	300.00 - 320.00	0.6000	0.6000
T5	16	9/16"	300.00 - 320.00	0.6000	0.6000
T5	21	FSJ1-50A(1/4")	300.00 - 320.00	0.6000	0.6000
T5	23	RG-11 590609 (1 1/2 FOAM)	300.00 - 320.00	0.6000	0.6000
T5	24	RG-11 590609 (1 1/2 FOAM)	300.00 - 320.00	0.6000	0.6000
T5	25	LDF5-50A(7/8)	300.00 - 320.00	0.6000	0.6000
T5	26	LDF4-50A(1/2")	300.00 - 320.00	0.6000	0.6000
T5	30	LDF5-50A(7/8)	300.00 - 320.00	0.6000	0.6000
T5	33	RG-11 590609 (1 1/2 FOAM)	300.00 - 320.00	0.6000	0.6000
T6	11	RG-11 590609 (1 1/2 FOAM)	280.00 - 300.00	0.6000	0.6000
T6	15	9/16"	280.00 - 300.00	0.6000	0.6000
T6	16	9/16"	280.00 - 300.00	0.6000	0.6000
T6	21	FSJ1-50A(1/4")	280.00 - 300.00	0.6000	0.6000
T6	23	RG-11 590609 (1 1/2 FOAM)	280.00 - 300.00	0.6000	0.6000
T6	24	RG-11 590609 (1 1/2 FOAM)	280.00 - 300.00	0.6000	0.6000
T6	25	LDF5-50A(7/8)	280.00 - 300.00	0.6000	0.6000
T6	26	LDF4-50A(1/2")	280.00 - 300.00	0.6000	0.6000
T6	30	LDF5-50A(7/8)	280.00 - 300.00	0.6000	0.6000
T6	33	RG-11 590609 (1 1/2 FOAM)	280.00 - 300.00	0.6000	0.6000
T7	9	LDF5-50A(7/8)	262.50 - 277.00	0.6000	0.6000
T7	11	RG-11 590609 (1 1/2 FOAM)	262.50 - 280.00	0.6000	0.6000
T7	15	9/16"	262.50 - 280.00	0.6000	0.6000
T7	16	9/16"	262.50 - 280.00	0.6000	0.6000
T7	21	FSJ1-50A(1/4")	262.50 - 280.00	0.6000	0.6000
T7	23	RG-11 590609 (1 1/2 FOAM)	262.50 - 280.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T7	24	RG-11 590609 (1 1/2 FOAM)	262.50 - 280.00	0.6000	0.6000
T7	25	LDF5-50A(7/8)	262.50 - 280.00	0.6000	0.6000
T7	26	LDF4-50A(1/2")	262.50 - 280.00	0.6000	0.6000
T7	30	LDF5-50A(7/8)	262.50 - 280.00	0.6000	0.6000
T7	33	RG-11 590609 (1 1/2 FOAM)	262.50 - 280.00	0.6000	0.6000
T8	9	LDF5-50A(7/8)	260.00 - 262.50	0.6000	0.6000
T8	11	RG-11 590609 (1 1/2 FOAM)	260.00 - 262.50	0.6000	0.6000
T8	15	9/16"	260.00 - 262.50	0.6000	0.6000
T8	16	9/16"	260.00 - 262.50	0.6000	0.6000
T8	21	FSJ1-50A(1/4")	260.00 - 262.50	0.6000	0.6000
T8	23	RG-11 590609 (1 1/2 FOAM)	260.00 - 262.50	0.6000	0.6000
T8	24	RG-11 590609 (1 1/2 FOAM)	260.00 - 262.50	0.6000	0.6000
T8	25	LDF5-50A(7/8)	260.00 - 262.50	0.6000	0.6000
T8	26	LDF4-50A(1/2")	260.00 - 262.50	0.6000	0.6000
T8	30	LDF5-50A(7/8)	260.00 - 262.50	0.6000	0.6000
T8	33	RG-11 590609 (1 1/2 FOAM)	260.00 - 262.50	0.6000	0.6000
T9	9	LDF5-50A(7/8)	240.00 - 260.00	0.6000	0.6000
T9	11	RG-11 590609 (1 1/2 FOAM)	240.00 - 260.00	0.6000	0.6000
T9	15	9/16"	240.00 - 260.00	0.6000	0.6000
T9	16	9/16"	240.00 - 260.00	0.6000	0.6000
T9	21	FSJ1-50A(1/4")	240.00 - 260.00	0.6000	0.6000
T9	23	RG-11 590609 (1 1/2 FOAM)	240.00 - 260.00	0.6000	0.6000
T9	24	RG-11 590609 (1 1/2 FOAM)	240.00 - 260.00	0.6000	0.6000
T9	25	LDF5-50A(7/8)	240.00 - 260.00	0.6000	0.6000
T9	26	LDF4-50A(1/2")	240.00 - 260.00	0.6000	0.6000
T9	30	LDF5-50A(7/8)	240.00 - 260.00	0.6000	0.6000
T9	33	RG-11 590609 (1 1/2 FOAM)	240.00 - 260.00	0.6000	0.6000
T10	9	LDF5-50A(7/8)	220.00 - 240.00	0.6000	0.6000
T10	11	RG-11 590609 (1 1/2 FOAM)	220.00 - 240.00	0.6000	0.6000
T10	15	9/16"	220.00 - 240.00	0.6000	0.6000
T10	16	9/16"	220.00 - 240.00	0.6000	0.6000
T10	21	FSJ1-50A(1/4")	220.00 - 240.00	0.6000	0.6000
T10	23	RG-11 590609 (1 1/2 FOAM)	220.00 - 240.00	0.6000	0.6000
T10	24	RG-11 590609 (1 1/2 FOAM)	220.00 - 240.00	0.6000	0.6000
T10	25	LDF5-50A(7/8)	220.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			240.00		
T10	26	LDF4-50A(1/2")	220.00 - 240.00	0.6000	0.6000
T10	30	LDF5-50A(7/8)	220.00 - 240.00	0.6000	0.6000
T10	33	RG-11 590609 (1 1/2 FOAM)	220.00 - 240.00	0.6000	0.6000
T11	9	LDF5-50A(7/8)	200.00 - 220.00	0.6000	0.6000
T11	11	RG-11 590609 (1 1/2 FOAM)	200.00 - 220.00	0.6000	0.6000
T11	15	9/16"	200.00 - 220.00	0.6000	0.6000
T11	16	9/16"	200.00 - 220.00	0.6000	0.6000
T11	18	DBC078F5P (1-1/8 FOAM)	200.00 - 209.50	0.6000	0.6000
T11	19	LDF6-50A(1-1/4")	200.00 - 209.50	0.6000	0.6000
T11	20	LDF2-2R(1")	200.00 - 209.50	0.6000	0.6000
T11	21	FSJ1-50A(1/4")	200.00 - 220.00	0.6000	0.6000
T11	23	RG-11 590609 (1 1/2 FOAM)	200.00 - 220.00	0.6000	0.6000
T11	24	RG-11 590609 (1 1/2 FOAM)	200.00 - 220.00	0.6000	0.6000
T11	25	LDF5-50A(7/8)	200.00 - 220.00	0.6000	0.6000
T11	26	LDF4-50A(1/2")	200.00 - 220.00	0.6000	0.6000
T11	30	LDF5-50A(7/8)	200.00 - 220.00	0.6000	0.6000
T11	33	RG-11 590609 (1 1/2 FOAM)	200.00 - 220.00	0.6000	0.6000
T12	9	LDF5-50A(7/8)	195.00 - 200.00	0.6000	0.6000
T12	11	RG-11 590609 (1 1/2 FOAM)	195.00 - 200.00	0.6000	0.6000
T12	15	9/16"	195.00 - 200.00	0.6000	0.6000
T12	16	9/16"	195.00 - 200.00	0.6000	0.6000
T12	18	DBC078F5P (1-1/8 FOAM)	195.00 - 200.00	0.6000	0.6000
T12	19	LDF6-50A(1-1/4")	195.00 - 200.00	0.6000	0.6000
T12	20	LDF2-2R(1")	195.00 - 200.00	0.6000	0.6000
T12	21	FSJ1-50A(1/4")	195.00 - 200.00	0.6000	0.6000
T12	23	RG-11 590609 (1 1/2 FOAM)	195.00 - 200.00	0.6000	0.6000
T12	24	RG-11 590609 (1 1/2 FOAM)	195.00 - 200.00	0.6000	0.6000
T12	25	LDF5-50A(7/8)	195.00 - 200.00	0.6000	0.6000
T12	26	LDF4-50A(1/2")	195.00 - 200.00	0.6000	0.6000
T12	30	LDF5-50A(7/8)	195.00 - 200.00	0.6000	0.6000
T12	33	RG-11 590609 (1 1/2 FOAM)	195.00 - 200.00	0.6000	0.6000
T13	9	LDF5-50A(7/8)	190.00 - 195.00	0.6000	0.6000
T13	11	RG-11 590609 (1 1/2 FOAM)	190.00 - 195.00	0.6000	0.6000
T13	15	9/16"	190.00 - 195.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T13	16	9/16"	190.00 - 195.00	0.6000	0.6000
T13	18	DBC078F5P (1-1/8 FOAM)	190.00 - 195.00	0.6000	0.6000
T13	19	LDF6-50A(1-1/4")	190.00 - 195.00	0.6000	0.6000
T13	20	LDF2-2R(1")	190.00 - 195.00	0.6000	0.6000
T13	21	FSJ1-50A(1/4")	190.00 - 195.00	0.6000	0.6000
T13	23	RG-11 590609 (1 1/2 FOAM)	190.00 - 195.00	0.6000	0.6000
T13	24	RG-11 590609 (1 1/2 FOAM)	190.00 - 195.00	0.6000	0.6000
T13	25	LDF5-50A(7/8)	190.00 - 195.00	0.6000	0.6000
T13	26	LDF4-50A(1/2")	190.00 - 195.00	0.6000	0.6000
T13	30	LDF5-50A(7/8)	190.00 - 195.00	0.6000	0.6000
T13	33	RG-11 590609 (1 1/2 FOAM)	190.00 - 195.00	0.6000	0.6000
T14	9	LDF5-50A(7/8)	185.00 - 190.00	0.6000	0.6000
T14	11	RG-11 590609 (1 1/2 FOAM)	185.00 - 190.00	0.6000	0.6000
T14	15	9/16"	185.00 - 190.00	0.6000	0.6000
T14	16	9/16"	185.00 - 190.00	0.6000	0.6000
T14	18	DBC078F5P (1-1/8 FOAM)	185.00 - 190.00	0.6000	0.6000
T14	19	LDF6-50A(1-1/4")	185.00 - 190.00	0.6000	0.6000
T14	20	LDF2-2R(1")	185.00 - 190.00	0.6000	0.6000
T14	21	FSJ1-50A(1/4")	185.00 - 190.00	0.6000	0.6000
T14	23	RG-11 590609 (1 1/2 FOAM)	185.00 - 190.00	0.6000	0.6000
T14	24	RG-11 590609 (1 1/2 FOAM)	185.00 - 190.00	0.6000	0.6000
T14	25	LDF5-50A(7/8)	185.00 - 190.00	0.6000	0.6000
T14	26	LDF4-50A(1/2")	185.00 - 190.00	0.6000	0.6000
T14	30	LDF5-50A(7/8)	185.00 - 190.00	0.6000	0.6000
T14	33	RG-11 590609 (1 1/2 FOAM)	185.00 - 190.00	0.6000	0.6000
T15	3	LDF2-50(3/8)	180.00 - 181.00	0.6000	0.6000
T15	4	LDF2-50(3/8)	180.00 - 181.00	0.6000	0.6000
T15	5	LDF2-50(3/8)	180.00 - 181.00	0.6000	0.6000
T15	8	LDF2-50(3/8)	180.00 - 180.50	0.6000	0.6000
T15	9	LDF5-50A(7/8)	180.00 - 185.00	0.6000	0.6000
T15	11	RG-11 590609 (1 1/2 FOAM)	180.00 - 185.00	0.6000	0.6000
T15	15	9/16"	180.00 - 185.00	0.6000	0.6000
T15	16	9/16"	180.00 - 185.00	0.6000	0.6000
T15	18	DBC078F5P (1-1/8 FOAM)	180.00 - 185.00	0.6000	0.6000
T15	19	LDF6-50A(1-1/4")	180.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			185.00		
T15	20	LDF2-2R(1")	180.00 - 185.00	0.6000	0.6000
T15	21	FSJ1-50A(1/4")	180.00 - 185.00	0.6000	0.6000
T15	23	RG-11 590609 (1 1/2 FOAM)	180.00 - 185.00	0.6000	0.6000
T15	24	RG-11 590609 (1 1/2 FOAM)	180.00 - 185.00	0.6000	0.6000
T15	25	LDF5-50A(7/8)	180.00 - 185.00	0.6000	0.6000
T15	26	LDF4-50A(1/2")	180.00 - 185.00	0.6000	0.6000
T15	30	LDF5-50A(7/8)	180.00 - 185.00	0.6000	0.6000
T15	33	RG-11 590609 (1 1/2 FOAM)	180.00 - 185.00	0.6000	0.6000
T16	1	LDF2-50(3/8)	170.00 - 179.00	0.6000	0.6000
T16	2	LDF2-50(3/8)	170.00 - 179.00	0.6000	0.6000
T16	3	LDF2-50(3/8)	170.00 - 180.00	0.6000	0.6000
T16	4	LDF2-50(3/8)	170.00 - 180.00	0.6000	0.6000
T16	5	LDF2-50(3/8)	170.00 - 180.00	0.6000	0.6000
T16	6	LDF2-50(3/8)	170.00 - 179.00	0.6000	0.6000
T16	7	LDF2-50(3/8)	170.00 - 180.00	0.6000	0.6000
T16	8	LDF2-50(3/8)	170.00 - 180.00	0.6000	0.6000
T16	9	LDF5-50A(7/8)	170.00 - 180.00	0.6000	0.6000
T16	11	RG-11 590609 (1 1/2 FOAM)	170.00 - 180.00	0.6000	0.6000
T16	13	FJ-2SM-001-35M(3/16")	170.00 - 171.60	0.6000	0.6000
T16	15	9/16"	170.00 - 180.00	0.6000	0.6000
T16	16	9/16"	170.00 - 180.00	0.6000	0.6000
T16	18	DBC078F5P (1-1/8 FOAM)	170.00 - 180.00	0.6000	0.6000
T16	19	LDF6-50A(1-1/4")	170.00 - 180.00	0.6000	0.6000
T16	20	LDF2-2R(1")	170.00 - 180.00	0.6000	0.6000
T16	21	FSJ1-50A(1/4")	170.00 - 180.00	0.6000	0.6000
T16	23	RG-11 590609 (1 1/2 FOAM)	170.00 - 180.00	0.6000	0.6000
T16	24	RG-11 590609 (1 1/2 FOAM)	170.00 - 180.00	0.6000	0.6000
T16	25	LDF5-50A(7/8)	170.00 - 180.00	0.6000	0.6000
T16	26	LDF4-50A(1/2")	170.00 - 180.00	0.6000	0.6000
T16	28	LDF2-50(3/8)	170.00 - 171.50	0.6000	0.6000
T16	30	LDF5-50A(7/8)	170.00 - 180.00	0.6000	0.6000
T16	33	RG-11 590609 (1 1/2 FOAM)	170.00 - 180.00	0.6000	0.6000
T17	1	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000
T17	2	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T17	3	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000
T17	4	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000
T17	5	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000
T17	6	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000
T17	7	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000
T17	8	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000
T17	9	LDF5-50A(7/8)	160.00 - 170.00	0.6000	0.6000
T17	11	RG-11 590609 (1 1/2 FOAM)	160.00 - 170.00	0.6000	0.6000
T17	13	FJ-2SM-001-35M(3/16")	160.00 - 170.00	0.6000	0.6000
T17	15	9/16"	160.00 - 170.00	0.6000	0.6000
T17	16	9/16"	160.00 - 170.00	0.6000	0.6000
T17	18	DBC078F5P (1-1/8 FOAM)	160.00 - 170.00	0.6000	0.6000
T17	19	LDF6-50A(1-1/4")	160.00 - 170.00	0.6000	0.6000
T17	20	LDF2-2R(1")	160.00 - 170.00	0.6000	0.6000
T17	21	FSJ1-50A(1/4")	160.00 - 170.00	0.6000	0.6000
T17	23	RG-11 590609 (1 1/2 FOAM)	160.00 - 170.00	0.6000	0.6000
T17	24	RG-11 590609 (1 1/2 FOAM)	160.00 - 170.00	0.6000	0.6000
T17	25	LDF5-50A(7/8)	160.00 - 170.00	0.6000	0.6000
T17	26	LDF4-50A(1/2")	160.00 - 170.00	0.6000	0.6000
T17	28	LDF2-50(3/8)	160.00 - 170.00	0.6000	0.6000
T17	30	LDF5-50A(7/8)	160.00 - 170.00	0.6000	0.6000
T17	33	RG-11 590609 (1 1/2 FOAM)	160.00 - 170.00	0.6000	0.6000
T18	1	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	2	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	3	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	4	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	5	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	6	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	7	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	8	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	9	LDF5-50A(7/8)	140.00 - 160.00	0.6000	0.6000
T18	11	RG-11 590609 (1 1/2 FOAM)	140.00 - 160.00	0.6000	0.6000
T18	12	1 9/16"	140.00 - 150.50	0.6000	0.6000
T18	13	FJ-2SM-001-35M(3/16")	140.00 - 160.00	0.6000	0.6000
T18	15	9/16"	140.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T18	16	9/16"	160.00 140.00 - 160.00	0.6000	0.6000
T18	18	DBC078F5P (1-1/8 FOAM)	140.00 - 160.00	0.6000	0.6000
T18	19	LDF6-50A(1-1/4")	140.00 - 160.00	0.6000	0.6000
T18	20	LDF2-2R(1")	140.00 - 160.00	0.6000	0.6000
T18	21	FSJ1-50A(1/4")	140.00 - 160.00	0.6000	0.6000
T18	22	1/8"	140.00 - 160.00	0.6000	0.6000
T18	23	RG-11 590609 (1 1/2 FOAM)	140.00 - 160.00	0.6000	0.6000
T18	24	RG-11 590609 (1 1/2 FOAM)	140.00 - 160.00	0.6000	0.6000
T18	25	LDF5-50A(7/8)	140.00 - 160.00	0.6000	0.6000
T18	26	LDF4-50A(1/2")	140.00 - 160.00	0.6000	0.6000
T18	28	LDF2-50(3/8)	140.00 - 160.00	0.6000	0.6000
T18	30	LDF5-50A(7/8)	140.00 - 160.00	0.6000	0.6000
T18	31	LDF4-50A(1/2")	140.00 - 150.50	0.6000	0.6000
T18	33	RG-11 590609 (1 1/2 FOAM)	140.00 - 160.00	0.6000	0.6000
T19	1	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	2	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	3	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	4	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	5	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	6	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	7	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	8	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	9	LDF5-50A(7/8)	135.00 - 140.00	0.6000	0.6000
T19	11	RG-11 590609 (1 1/2 FOAM)	135.00 - 140.00	0.6000	0.6000
T19	12	1 9/16"	135.00 - 140.00	0.6000	0.6000
T19	13	FJ-2SM-001-35M(3/16")	135.00 - 140.00	0.6000	0.6000
T19	15	9/16"	135.00 - 140.00	0.6000	0.6000
T19	16	9/16"	135.00 - 140.00	0.6000	0.6000
T19	18	DBC078F5P (1-1/8 FOAM)	135.00 - 140.00	0.6000	0.6000
T19	19	LDF6-50A(1-1/4")	135.00 - 140.00	0.6000	0.6000
T19	20	LDF2-2R(1")	135.00 - 140.00	0.6000	0.6000
T19	21	FSJ1-50A(1/4")	135.00 - 140.00	0.6000	0.6000
T19	22	1/8"	135.00 - 140.00	0.6000	0.6000
T19	23	RG-11 590609 (1 1/2 FOAM)	135.00 - 140.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T19	24	RG-11 590609 (1 1/2 FOAM)	135.00 - 140.00	0.6000	0.6000
T19	25	LDF5-50A(7/8)	135.00 - 140.00	0.6000	0.6000
T19	26	LDF4-50A(1/2")	135.00 - 140.00	0.6000	0.6000
T19	28	LDF2-50(3/8)	135.00 - 140.00	0.6000	0.6000
T19	30	LDF5-50A(7/8)	135.00 - 140.00	0.6000	0.6000
T19	31	LDF4-50A(1/2")	135.00 - 140.00	0.6000	0.6000
T19	33	RG-11 590609 (1 1/2 FOAM)	135.00 - 140.00	0.6000	0.6000
T20	1	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	2	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	3	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	4	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	5	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	6	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	7	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	8	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	9	LDF5-50A(7/8)	127.50 - 135.00	0.6000	0.6000
T20	11	RG-11 590609 (1 1/2 FOAM)	127.50 - 135.00	0.6000	0.6000
T20	12	1 9/16"	127.50 - 135.00	0.6000	0.6000
T20	13	FJ-2SM-001-35M(3/16")	127.50 - 135.00	0.6000	0.6000
T20	15	9/16"	127.50 - 135.00	0.6000	0.6000
T20	16	9/16"	127.50 - 135.00	0.6000	0.6000
T20	17	ATCB-B01-001(5/16)	127.50 - 132.00	0.6000	0.6000
T20	18	DBC078F5P (1-1/8 FOAM)	127.50 - 135.00	0.6000	0.6000
T20	19	LDF6-50A(1-1/4")	127.50 - 135.00	0.6000	0.6000
T20	20	LDF2-2R(1")	127.50 - 135.00	0.6000	0.6000
T20	21	FSJ1-50A(1/4")	127.50 - 135.00	0.6000	0.6000
T20	22	1/8"	127.50 - 135.00	0.6000	0.6000
T20	23	RG-11 590609 (1 1/2 FOAM)	127.50 - 135.00	0.6000	0.6000
T20	24	RG-11 590609 (1 1/2 FOAM)	127.50 - 135.00	0.6000	0.6000
T20	25	LDF5-50A(7/8)	127.50 - 135.00	0.6000	0.6000
T20	26	LDF4-50A(1/2")	127.50 - 135.00	0.6000	0.6000
T20	28	LDF2-50(3/8)	127.50 - 135.00	0.6000	0.6000
T20	30	LDF5-50A(7/8)	127.50 - 135.00	0.6000	0.6000
T20	31	LDF4-50A(1/2")	127.50 - 135.00	0.6000	0.6000
T20	33	RG-11 590609 (1 1/2	127.50 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
		FOAM)	135.00		
T21	1	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	2	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	3	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	4	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	5	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	6	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	7	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	8	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	9	LDF5-50A(7/8)	120.00 - 127.50	0.6000	0.6000
T21	11	RG-11 590609 (1 1/2 FOAM)	120.00 - 127.50	0.6000	0.6000
T21	12	1 9/16"	120.00 - 127.50	0.6000	0.6000
T21	13	FJ-2SM-001-35M(3/16")	120.00 - 127.50	0.6000	0.6000
T21	15	9/16"	120.00 - 127.50	0.6000	0.6000
T21	16	9/16"	120.00 - 127.50	0.6000	0.6000
T21	17	ATCB-B01-001(5/16)	120.00 - 127.50	0.6000	0.6000
T21	18	DBC078F5P (1-1/8 FOAM)	120.00 - 127.50	0.6000	0.6000
T21	19	LDF6-50A(1-1/4")	120.00 - 127.50	0.6000	0.6000
T21	20	LDF2-2R(1")	120.00 - 127.50	0.6000	0.6000
T21	21	FSJ1-50A(1/4")	120.00 - 127.50	0.6000	0.6000
T21	22	1/8"	120.00 - 127.50	0.6000	0.6000
T21	23	RG-11 590609 (1 1/2 FOAM)	120.00 - 127.50	0.6000	0.6000
T21	24	RG-11 590609 (1 1/2 FOAM)	120.00 - 127.50	0.6000	0.6000
T21	25	LDF5-50A(7/8)	120.00 - 127.50	0.6000	0.6000
T21	26	LDF4-50A(1/2")	120.00 - 127.50	0.6000	0.6000
T21	28	LDF2-50(3/8)	120.00 - 127.50	0.6000	0.6000
T21	30	LDF5-50A(7/8)	120.00 - 127.50	0.6000	0.6000
T21	31	LDF4-50A(1/2")	120.00 - 127.50	0.6000	0.6000
T21	33	RG-11 590609 (1 1/2 FOAM)	120.00 - 127.50	0.6000	0.6000
T22	1	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000
T22	2	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000
T22	3	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000
T22	4	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000
T22	5	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000
T22	6	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T22	7	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000
T22	8	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000
T22	9	LDF5-50A(7/8)	112.50 - 120.00	0.6000	0.6000
T22	11	RG-11 590609 (1 1/2 FOAM)	112.50 - 120.00	0.6000	0.6000
T22	12	1 9/16"	112.50 - 120.00	0.6000	0.6000
T22	13	FJ-2SM-001-35M(3/16")	112.50 - 120.00	0.6000	0.6000
T22	15	9/16"	112.50 - 120.00	0.6000	0.6000
T22	16	9/16"	112.50 - 120.00	0.6000	0.6000
T22	17	ATCB-B01-001(5/16)	112.50 - 120.00	0.6000	0.6000
T22	18	DBC078F5P (1-1/8 FOAM)	112.50 - 120.00	0.6000	0.6000
T22	19	LDF6-50A(1-1/4")	112.50 - 120.00	0.6000	0.6000
T22	20	LDF2-2R(1")	112.50 - 120.00	0.6000	0.6000
T22	21	FSJ1-50A(1/4")	112.50 - 120.00	0.6000	0.6000
T22	22	1/8"	112.50 - 120.00	0.6000	0.6000
T22	23	RG-11 590609 (1 1/2 FOAM)	112.50 - 120.00	0.6000	0.6000
T22	24	RG-11 590609 (1 1/2 FOAM)	112.50 - 120.00	0.6000	0.6000
T22	25	LDF5-50A(7/8)	112.50 - 120.00	0.6000	0.6000
T22	26	LDF4-50A(1/2")	112.50 - 120.00	0.6000	0.6000
T22	28	LDF2-50(3/8)	112.50 - 120.00	0.6000	0.6000
T22	30	LDF5-50A(7/8)	112.50 - 120.00	0.6000	0.6000
T22	31	LDF4-50A(1/2")	112.50 - 120.00	0.6000	0.6000
T22	33	RG-11 590609 (1 1/2 FOAM)	112.50 - 120.00	0.6000	0.6000
T23	1	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	2	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	3	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	4	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	5	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	6	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	7	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	8	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	9	LDF5-50A(7/8)	102.50 - 112.50	0.6000	0.6000
T23	11	RG-11 590609 (1 1/2 FOAM)	102.50 - 112.50	0.6000	0.6000
T23	12	1 9/16"	102.50 - 112.50	0.6000	0.6000
T23	13	FJ-2SM-001-35M(3/16")	102.50 - 112.50	0.6000	0.6000
T23	15	9/16"	102.50 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T23	16	9/16"	112.50 102.50 - 112.50	0.6000	0.6000
T23	17	ATCB-B01-001(5/16)	102.50 - 112.50	0.6000	0.6000
T23	18	DBC078F5P (1-1/8 FOAM)	102.50 - 112.50	0.6000	0.6000
T23	19	LDF6-50A(1-1/4")	102.50 - 112.50	0.6000	0.6000
T23	20	LDF2-2R(1")	102.50 - 112.50	0.6000	0.6000
T23	21	FSJ1-50A(1/4")	102.50 - 112.50	0.6000	0.6000
T23	22	1/8"	102.50 - 112.50	0.6000	0.6000
T23	23	RG-11 590609 (1 1/2 FOAM)	102.50 - 112.50	0.6000	0.6000
T23	24	RG-11 590609 (1 1/2 FOAM)	102.50 - 112.50	0.6000	0.6000
T23	25	LDF5-50A(7/8)	102.50 - 112.50	0.6000	0.6000
T23	26	LDF4-50A(1/2")	102.50 - 112.50	0.6000	0.6000
T23	28	LDF2-50(3/8)	102.50 - 112.50	0.6000	0.6000
T23	30	LDF5-50A(7/8)	102.50 - 112.50	0.6000	0.6000
T23	31	LDF4-50A(1/2")	102.50 - 112.50	0.6000	0.6000
T23	33	RG-11 590609 (1 1/2 FOAM)	102.50 - 112.50	0.6000	0.6000
T24	1	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	2	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	3	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	4	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	5	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	6	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	7	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	8	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	9	LDF5-50A(7/8)	100.00 - 102.50	0.6000	0.6000
T24	11	RG-11 590609 (1 1/2 FOAM)	100.00 - 102.50	0.6000	0.6000
T24	12	1 9/16"	100.00 - 102.50	0.6000	0.6000
T24	13	FJ-2SM-001-35M(3/16")	100.00 - 102.50	0.6000	0.6000
T24	15	9/16"	100.00 - 102.50	0.6000	0.6000
T24	16	9/16"	100.00 - 102.50	0.6000	0.6000
T24	17	ATCB-B01-001(5/16)	100.00 - 102.50	0.6000	0.6000
T24	18	DBC078F5P (1-1/8 FOAM)	100.00 - 102.50	0.6000	0.6000
T24	19	LDF6-50A(1-1/4")	100.00 - 102.50	0.6000	0.6000
T24	20	LDF2-2R(1")	100.00 - 102.50	0.6000	0.6000
T24	21	FSJ1-50A(1/4")	100.00 - 102.50	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T24	22	1/8"	100.00 - 102.50	0.6000	0.6000
T24	23	RG-11 590609 (1 1/2 FOAM)	100.00 - 102.50	0.6000	0.6000
T24	24	RG-11 590609 (1 1/2 FOAM)	100.00 - 102.50	0.6000	0.6000
T24	25	LDF5-50A(7/8)	100.00 - 102.50	0.6000	0.6000
T24	26	LDF4-50A(1/2")	100.00 - 102.50	0.6000	0.6000
T24	28	LDF2-50(3/8)	100.00 - 102.50	0.6000	0.6000
T24	30	LDF5-50A(7/8)	100.00 - 102.50	0.6000	0.6000
T24	31	LDF4-50A(1/2")	100.00 - 102.50	0.6000	0.6000
T24	33	RG-11 590609 (1 1/2 FOAM)	100.00 - 102.50	0.6000	0.6000
T25	1	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T25	2	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T25	3	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T25	4	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T25	5	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T25	6	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T25	7	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T25	8	LDF2-50(3/8)	80.00 - 100.00	0.6000	0.6000
T25	9	LDF5-50A(7/8)	80.00 - 100.00	0.6000	0.6000
T25	11	RG-11 590609 (1 1/2 FOAM)	80.00 - 100.00	0.6000	0.6000
T25	12	1 9/16"	80.00 - 100.00	0.6000	0.6000
T25	13	FJ-2SM-001-35M(3/16")	80.00 - 100.00	0.6000	0.6000
T25	14	9/16"	80.00 - 100.00	0.6000	0.6000
T25	15	9/16"	80.00 - 100.00	0.6000	0.6000
T25	16	9/16"	80.00 - 100.00	0.6000	0.6000
T25	17	ATCB-B01-001(5/16)	80.00 - 100.00	0.6000	0.6000
T25	18	DBC078F5P (1-1/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T25	19	LDF6-50A(1-1/4")	80.00 - 100.00	0.6000	0.6000
T25	20	LDF2-2R(1")	80.00 - 100.00	0.6000	0.6000
T25	21	FSJ1-50A(1/4")	80.00 - 100.00	0.6000	0.6000
T25	22	1/8"	80.00 - 100.00	0.6000	0.6000
T25	23	RG-11 590609 (1 1/2 FOAM)	80.00 - 100.00	0.6000	0.6000
T25	24	RG-11 590609 (1 1/2 FOAM)	80.00 - 100.00	0.6000	0.6000
T25	25	LDF5-50A(7/8)	80.00 - 100.00	0.6000	0.6000
T25	26	LDF4-50A(1/2")	80.00 - 100.00	0.6000	0.6000
T25	28	LDF2-50(3/8)	80.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			100.00		
T25	30	LDF5-50A(7/8)	80.00 - 100.00	0.6000	0.6000
T25	31	LDF4-50A(1/2")	80.00 - 100.00	0.6000	0.6000
T25	32	LDF5-50A(7/8)	80.00 - 86.00	0.6000	0.6000
T25	33	RG-11 590609 (1 1/2 FOAM)	80.00 - 100.00	0.6000	0.6000
T26	1	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	2	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	3	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	4	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	5	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	6	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	7	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	8	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	9	LDF5-50A(7/8)	60.00 - 80.00	0.6000	0.6000
T26	10	FJ-2SM-001-35M(3/16")	60.00 - 75.00	0.6000	0.6000
T26	11	RG-11 590609 (1 1/2 FOAM)	60.00 - 80.00	0.6000	0.6000
T26	12	1 9/16"	60.00 - 80.00	0.6000	0.6000
T26	13	FJ-2SM-001-35M(3/16")	60.00 - 80.00	0.6000	0.6000
T26	14	9/16"	60.00 - 80.00	0.6000	0.6000
T26	15	9/16"	60.00 - 80.00	0.6000	0.6000
T26	16	9/16"	60.00 - 80.00	0.6000	0.6000
T26	17	ATCB-B01-001(5/16)	60.00 - 80.00	0.6000	0.6000
T26	18	DBC078F5P (1-1/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T26	19	LDF6-50A(1-1/4")	60.00 - 80.00	0.6000	0.6000
T26	20	LDF2-2R(1")	60.00 - 80.00	0.6000	0.6000
T26	21	FSJ1-50A(1/4")	60.00 - 80.00	0.6000	0.6000
T26	22	1/8"	60.00 - 80.00	0.6000	0.6000
T26	23	RG-11 590609 (1 1/2 FOAM)	60.00 - 80.00	0.6000	0.6000
T26	24	RG-11 590609 (1 1/2 FOAM)	60.00 - 80.00	0.6000	0.6000
T26	25	LDF5-50A(7/8)	60.00 - 80.00	0.6000	0.6000
T26	26	LDF4-50A(1/2")	60.00 - 80.00	0.6000	0.6000
T26	28	LDF2-50(3/8)	60.00 - 80.00	0.6000	0.6000
T26	30	LDF5-50A(7/8)	60.00 - 80.00	0.6000	0.6000
T26	31	LDF4-50A(1/2")	60.00 - 80.00	0.6000	0.6000
T26	32	LDF5-50A(7/8)	60.00 - 80.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T26	33	RG-11 590609 (1 1/2 FOAM)	60.00 - 80.00	0.6000	0.6000
T27	1	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	2	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	3	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	4	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	5	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	6	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	7	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	8	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	9	LDF5-50A(7/8)	40.00 - 60.00	0.6000	0.6000
T27	10	FJ-2SM-001-35M(3/16")	40.00 - 60.00	0.6000	0.6000
T27	11	RG-11 590609 (1 1/2 FOAM)	40.00 - 60.00	0.6000	0.6000
T27	12	1 9/16"	40.00 - 60.00	0.6000	0.6000
T27	13	FJ-2SM-001-35M(3/16")	40.00 - 60.00	0.6000	0.6000
T27	14	9/16"	40.00 - 60.00	0.6000	0.6000
T27	15	9/16"	40.00 - 60.00	0.6000	0.6000
T27	16	9/16"	40.00 - 60.00	0.6000	0.6000
T27	17	ATCB-B01-001(5/16)	40.00 - 60.00	0.6000	0.6000
T27	18	DBC078F5P (1-1/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T27	19	LDF6-50A(1-1/4")	40.00 - 60.00	0.6000	0.6000
T27	20	LDF2-2R(1")	40.00 - 60.00	0.6000	0.6000
T27	21	FSJ1-50A(1/4")	40.00 - 60.00	0.6000	0.6000
T27	22	1/8"	40.00 - 60.00	0.6000	0.6000
T27	23	RG-11 590609 (1 1/2 FOAM)	40.00 - 60.00	0.6000	0.6000
T27	24	RG-11 590609 (1 1/2 FOAM)	40.00 - 60.00	0.6000	0.6000
T27	25	LDF5-50A(7/8)	40.00 - 60.00	0.6000	0.6000
T27	26	LDF4-50A(1/2")	40.00 - 60.00	0.6000	0.6000
T27	28	LDF2-50(3/8)	40.00 - 60.00	0.6000	0.6000
T27	30	LDF5-50A(7/8)	40.00 - 60.00	0.6000	0.6000
T27	31	LDF4-50A(1/2")	40.00 - 60.00	0.6000	0.6000
T27	32	LDF5-50A(7/8)	40.00 - 60.00	0.6000	0.6000
T27	33	RG-11 590609 (1 1/2 FOAM)	40.00 - 60.00	0.6000	0.6000
T28	1	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T28	2	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T28	3	LDF2-50(3/8)	20.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			40.00		
T28	4	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T28	5	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T28	6	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T28	7	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T28	8	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T28	9	LDF5-50A(7/8)	20.00 - 40.00	0.6000	0.6000
T28	10	FJ-2SM-001-35M(3/16")	20.00 - 40.00	0.6000	0.6000
T28	11	RG-11 590609 (1 1/2 FOAM)	20.00 - 40.00	0.6000	0.6000
T28	12	1 9/16"	20.00 - 40.00	0.6000	0.6000
T28	13	FJ-2SM-001-35M(3/16")	20.00 - 40.00	0.6000	0.6000
T28	14	9/16"	20.00 - 40.00	0.6000	0.6000
T28	15	9/16"	20.00 - 40.00	0.6000	0.6000
T28	16	9/16"	20.00 - 40.00	0.6000	0.6000
T28	17	ATCB-B01-001(5/16)	20.00 - 40.00	0.6000	0.6000
T28	18	DBC078F5P (1-1/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T28	19	LDF6-50A(1-1/4")	20.00 - 40.00	0.6000	0.6000
T28	20	LDF2-2R(1")	20.00 - 40.00	0.6000	0.6000
T28	21	FSJ1-50A(1/4")	20.00 - 40.00	0.6000	0.6000
T28	22	1/8"	20.00 - 40.00	0.6000	0.6000
T28	23	RG-11 590609 (1 1/2 FOAM)	20.00 - 40.00	0.6000	0.6000
T28	24	RG-11 590609 (1 1/2 FOAM)	20.00 - 40.00	0.6000	0.6000
T28	25	LDF5-50A(7/8)	20.00 - 40.00	0.6000	0.6000
T28	26	LDF4-50A(1/2")	20.00 - 40.00	0.6000	0.6000
T28	27	FSJ1-50A(1/4")	20.00 - 37.00	0.6000	0.6000
T28	28	LDF2-50(3/8)	20.00 - 40.00	0.6000	0.6000
T28	30	LDF5-50A(7/8)	20.00 - 40.00	0.6000	0.6000
T28	31	LDF4-50A(1/2")	20.00 - 40.00	0.6000	0.6000
T28	32	LDF5-50A(7/8)	20.00 - 40.00	0.6000	0.6000
T28	33	RG-11 590609 (1 1/2 FOAM)	20.00 - 40.00	0.6000	0.6000
T29	1	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	2	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	3	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	4	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	5	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	6	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	7	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	8	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	9	LDF5-50A(7/8)	7.00 - 20.00	0.6000	0.6000
T29	10	FJ-2SM-001-35M(3/16")	7.00 - 20.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T29	11	RG-11 590609 (1 1/2 FOAM)	7.00 - 20.00	0.6000	0.6000
T29	12	1 9/16"	7.00 - 20.00	0.6000	0.6000
T29	13	FJ-2SM-001-35M(3/16")	7.00 - 20.00	0.6000	0.6000
T29	14	9/16"	7.00 - 20.00	0.6000	0.6000
T29	15	9/16"	7.00 - 20.00	0.6000	0.6000
T29	16	9/16"	7.00 - 20.00	0.6000	0.6000
T29	17	ATCB-B01-001(5/16)	7.00 - 20.00	0.6000	0.6000
T29	18	DBC078F5P (1-1/8 FOAM)	7.00 - 20.00	0.6000	0.6000
T29	19	LDF6-50A(1-1/4")	7.00 - 20.00	0.6000	0.6000
T29	20	LDF2-2R(1")	7.00 - 20.00	0.6000	0.6000
T29	21	FSJ1-50A(1/4")	7.00 - 20.00	0.6000	0.6000
T29	22	1/8"	7.00 - 20.00	0.6000	0.6000
T29	23	RG-11 590609 (1 1/2 FOAM)	7.00 - 20.00	0.6000	0.6000
T29	24	RG-11 590609 (1 1/2 FOAM)	7.00 - 20.00	0.6000	0.6000
T29	25	LDF5-50A(7/8)	7.00 - 20.00	0.6000	0.6000
T29	26	LDF4-50A(1/2")	7.00 - 20.00	0.6000	0.6000
T29	27	FSJ1-50A(1/4")	7.00 - 20.00	0.6000	0.6000
T29	28	LDF2-50(3/8)	7.00 - 20.00	0.6000	0.6000
T29	30	LDF5-50A(7/8)	7.00 - 20.00	0.6000	0.6000
T29	31	LDF4-50A(1/2")	7.00 - 20.00	0.6000	0.6000
T29	32	LDF5-50A(7/8)	7.00 - 20.00	0.6000	0.6000
T29	33	RG-11 590609 (1 1/2 FOAM)	7.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Generic Lightning Rod 4' copper	A	From Leg	0.00 0.00 2.00	0.0000	400.00	No Ice	0.50	0.50	0.00
Flash Beacon Lighting	B	From Leg	0.00 0.00 1.00	0.0000	400.00	No Ice	2.70	2.70	0.05
Bogner 21'	B	From Leg	6.00 0.00 10.00	0.0000	399.00	No Ice	6.40	6.40	0.10
Bogner 18'	C	From Leg	6.00 0.00 10.00	0.0000	398.00	No Ice	5.40	5.40	0.10
Pirod 6-8' Box Arm (1)	B	From Leg	3.00 0.00 0.00	0.0000	399.00	No Ice	4.50	4.50	0.21
Pirod 6' Side Mount Standoff (1)	C	From Leg	3.00 0.00 0.00	0.0000	398.00	No Ice	4.97	4.97	0.07
10' Omni	B	From Leg	1.00 0.00 5.00	0.0000	393.50	No Ice	3.34	3.34	0.03
4'x4" Pipe Mount	B	From Leg	0.50 0.00 0.00	0.0000	393.50	No Ice	1.00	1.00	0.04
10' Omni	B	From Leg	4.00 0.00	0.0000	385.00	No Ice	3.34	3.34	0.03

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* *°*	*Placement* *ft*		*C_AA_A Front* *ft^2*	*C_AA_A Side* *ft^2*	*Weight* *K*
			5.00						
Pirod 4' Side Mount Standoff (1)	B	From Leg	2.00 0.00 0.00	0.0000	385.00	No Ice	2.72	2.72	0.05
25' Omni	A	From Leg	6.00 0.00 12.00	0.0000	382.00	No Ice	4.08	4.08	0.04
25' Omni	C	From Leg	6.00 0.00 12.00	0.0000	382.00	No Ice	4.08	4.08	0.04
Pirod 6' Side Mount Standoff (1)	A	From Leg	3.00 0.00 0.00	0.0000	382.00	No Ice	4.97	4.97	0.07
Pirod 6' Side Mount Standoff (1)	C	From Leg	3.00 0.00 0.00	0.0000	382.00	No Ice	4.97	4.97	0.07
J-Box	C	From Leg	3.00 0.00 0.00	0.0000	382.00	No Ice	1.20	0.60	0.01
18' Omni	B	From Leg	4.00 0.00 9.00	0.0000	327.00	No Ice	4.08	4.08	0.04
Pirod 4' Side Mount Standoff (1)	B	From Leg	2.00 0.00 0.00	0.0000	327.00	No Ice	2.72	2.72	0.05
10' Dipole	C	From Leg	6.00 0.00 5.00	0.0000	276.00	No Ice	3.15	3.15	0.03
Pirod 6' Side Mount Standoff (1)	C	From Leg	3.00 0.00 0.00	0.0000	276.00	No Ice	4.97	4.97	0.07
******									
APXVERR18-C	A	From Leg	4.00 0.00 1.50	0.0000	208.00	No Ice	8.02	5.28	0.05
APXVERR18-C	B	From Leg	4.00 0.00 1.50	0.0000	208.00	No Ice	8.02	5.28	0.05
APXVERR18-C	C	From Leg	4.00 0.00 1.50	0.0000	208.00	No Ice	8.02	5.28	0.05
AW3286-R	A	From Leg	4.00 0.00 1.50	0.0000	208.00	No Ice	2.87	3.80	0.01
AW3286-R	B	From Leg	4.00 0.00 1.50	0.0000	208.00	No Ice	2.87	3.80	0.01
AW3286-R	C	From Leg	4.00 0.00 1.50	0.0000	208.00	No Ice	2.87	3.80	0.01
RRUS 11	A	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	2.78	1.19	0.05
RRUS 11	B	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	2.78	1.19	0.05
RRUS 11	C	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	2.78	1.19	0.05
Filter	A	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	1.60	0.38	0.02
Filter	B	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	1.60	0.38	0.02

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Filter	C	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	1.60	0.38	0.02
RRUS 31	A	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	2.02	1.79	0.06
RRUS 31	B	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	2.02	1.79	0.06
RRUS 31	C	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	2.02	1.79	0.06
TMA	A	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	0.96	0.41	0.02
TMA	B	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	0.96	0.41	0.02
TMA	C	From Leg	4.00 0.00 0.00	0.0000	208.00	No Ice	0.96	0.41	0.02
J-Box	A	From Leg	3.00 0.00 0.00	0.0000	208.00	No Ice	1.20	0.60	0.01
J-Box	B	From Leg	3.00 0.00 0.00	0.0000	208.00	No Ice	1.20	0.60	0.01
J-Box	C	From Leg	3.00 0.00 0.00	0.0000	208.00	No Ice	1.20	0.60	0.01
Sector Mount [SM 502-3] ******	C	None		0.0000	208.00	No Ice	33.02	33.02	1.67
Panel Antenna	A	From Leg	1.00 0.00 1.00	0.0000	180.00	No Ice	2.87	3.80	0.01
Panel Antenna	B	From Leg	1.00 0.00 -1.00	0.0000	180.00	No Ice	2.87	3.80	0.01
(2) Panel Antenna	C	From Leg	1.00 0.00 0.00	0.0000	180.00	No Ice	2.87	3.80	0.01
4'x4" Pipe Mount	A	From Leg	0.50 0.00 0.00	0.0000	180.00	No Ice	1.05	1.05	0.04
4'x4" Pipe Mount	B	From Leg	0.50 0.00 0.00	0.0000	180.00	No Ice	1.05	1.05	0.04
4'x4" Pipe Mount	C	From Leg	0.50 0.00 0.00	0.0000	180.00	No Ice	1.05	1.05	0.04
(2) TMA	A	From Leg	4.00 0.00 0.00	0.0000	180.00	No Ice	0.96	0.41	0.02
(2) TMA	B	From Leg	4.00 0.00 0.00	0.0000	180.00	No Ice	0.96	0.41	0.02
(2) TMA	C	From Leg	4.00 0.00 0.00	0.0000	180.00	No Ice	0.96	0.41	0.02
****** 4'x4" Pipe Mount	B	From Leg	0.50 0.00 0.00	0.0000	171.50	No Ice	1.05	1.05	0.04
TMA	B	From Leg	0.50 0.00	0.0000	171.50	No Ice	0.96	0.41	0.02

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
4'x4" Pipe Mount	B	From Leg	0.00 0.50 0.00 0.00	0.0000	165.00	No Ice	1.05	1.05	0.04
******									
Panel Antenna	A	From Leg	4.00 0.00 0.00	0.0000	149.00	No Ice	11.45	7.70	0.06
Panel Antenna	B	From Leg	4.00 0.00 0.00	0.0000	149.00	No Ice	11.45	7.70	0.06
Panel Antenna	C	From Leg	4.00 0.00 0.00	0.0000	149.00	No Ice	11.45	7.70	0.06
Nokia RRU	A	From Leg	4.00 0.00 0.00	0.0000	149.00	No Ice	2.39	0.97	0.06
Nokia RRU	B	From Leg	4.00 0.00 0.00	0.0000	149.00	No Ice	2.39	0.97	0.06
Nokia RRU	C	From Leg	4.00 0.00 0.00	0.0000	149.00	No Ice	2.39	0.97	0.06
RNSNDC-7771-PF-48	A	From Leg	2.00 0.00 0.00	0.0000	149.00	No Ice	3.20	1.03	0.02
Sector Mount [SM 501-3]	C	None		0.0000	149.00	No Ice	24.21	24.21	0.90
******									
Canopy w/ Mount	B	From Leg	1.00 0.00 0.00	0.0000	132.00	No Ice	0.79	0.79	0.01
20' Omni	B	From Leg	4.00 0.00 10.00	0.0000	86.50	No Ice	4.08	4.08	0.04
Pirod 4' Side Mount Standoff (1)	B	From Leg	2.00 0.00 0.00	0.0000	86.50	No Ice	2.72	2.72	0.05
******									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
VHLP2-11W	A	Paraboloid w/o Radome	From Leg	1.00 0.00 -1.00	0.0000		180.00	2.00	No Ice	3.14	0.03
VHLP2-11W	B	Paraboloid w/o Radome	From Leg	1.00 0.00 1.00	0.0000		180.00	2.00	No Ice	3.14	0.03
SPD4-4.7	B	Paraboloid w/o Radome	From Leg	1.00 0.00 0.00	0.0000		171.50	4.00	No Ice	12.57	0.06
PAR6-59	B	Paraboloid w/Radome	From Leg	1.00 0.00 0.00	0.0000		165.00	6.00	No Ice	28.27	0.38

Tower Pressures - No Ice

G_H = 0.850

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1 400.00-380.00	390.00	1.686	43	62.500	A	0.000	8.308	5.000	60.18	8.996	0.000
					B	0.000	8.308		60.18	1.886	0.000
					C	0.000	8.308		60.18	0.580	0.000
T2 380.00-360.00	370.00	1.667	42	62.500	A	0.000	8.308	5.000	60.18	14.920	0.000
					B	0.000	8.308		60.18	4.430	0.000
					C	0.000	8.308		60.18	0.580	0.000
T3 360.00-340.00	350.00	1.648	42	62.500	A	0.000	8.308	5.000	60.18	14.920	0.000
					B	0.000	8.308		60.18	4.430	0.000
					C	0.000	8.308		60.18	0.580	0.000
T4 340.00-320.00	330.00	1.627	41	62.500	A	0.000	8.308	5.000	60.18	15.538	0.000
					B	0.000	8.308		60.18	4.430	0.000
					C	0.000	8.308		60.18	0.580	0.000
T5 320.00-300.00	310.00	1.606	41	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	4.430	0.000
					C	0.000	8.308		60.18	0.580	0.000
T6 300.00-280.00	290.00	1.584	40	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	5.680	0.000
					C	0.000	8.308		60.18	0.580	0.000
T7 280.00-262.50	271.25	1.561	40	54.688	A	0.000	7.392	4.375	59.19	14.858	0.000
					B	0.000	7.392		59.19	6.463	0.000
					C	0.000	7.392		59.19	0.507	0.000
T8 262.50-260.00	261.25	1.549	39	7.813	A	0.000	1.610	0.625	38.82	2.123	0.000
					B	0.000	1.610		38.82	0.967	0.000
					C	0.000	1.610		38.82	0.072	0.000
T9 260.00-240.00	250.00	1.535	39	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	7.740	0.000
					C	0.000	8.308		60.18	0.580	0.000
T10 240.00-220.00	230.00	1.508	38	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	7.740	0.000
					C	0.000	8.308		60.18	0.580	0.000
T11 220.00-200.00	210.00	1.48	38	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	7.740	0.000
					C	0.000	8.308		60.18	6.096	0.000
T12 200.00-195.00	197.50	1.461	37	15.625	A	0.000	2.120	1.250	58.97	4.245	0.000
					B	0.000	2.120		58.97	1.935	0.000
					C	0.000	2.120		58.97	3.048	0.000
T13 195.00-190.00	192.50	1.453	37	15.625	A	0.000	2.431	1.250	51.42	4.245	0.000
					B	0.000	2.431		51.42	1.935	0.000
					C	0.000	2.431		51.42	3.048	0.000
T14 190.00-185.00	187.50	1.445	37	15.625	A	0.000	2.371	1.250	52.72	4.245	0.000
					B	0.000	2.371		52.72	1.935	0.000
					C	0.000	2.371		52.72	3.048	0.000
T15 185.00-180.00	182.50	1.436	36	15.625	A	0.000	2.585	1.250	48.36	4.377	0.000
					B	0.000	2.585		48.36	1.957	0.000
					C	0.000	2.585		48.36	3.048	0.000
T16 180.00-170.00	175.00	1.424	36	31.250	A	0.000	4.785	2.500	52.24	10.734	0.000
					B	0.000	4.785		52.24	5.176	0.000
					C	0.000	4.785		52.24	6.096	0.000
T17 170.00-160.00	165.00	1.406	36	31.250	A	0.000	4.292	2.500	58.25	11.570	0.000
					B	0.000	4.292		58.25	5.379	0.000
					C	0.000	4.292		58.25	6.096	0.000
T18 160.00-140.00	150.00	1.378	35	62.500	A	0.599	10.045	5.000	46.98	24.962	0.000
					B	0.599	10.045		46.98	12.427	0.000
					C	0.599	10.045		46.98	12.192	0.000
T19 140.00-135.00	137.50	1.353	34	15.625	A	0.000	2.299	1.250	54.37	6.390	0.000
					B	0.000	2.299		54.37	3.484	0.000
					C	0.000	2.299		54.37	3.048	0.000
T20 135.00-127.50	131.25	1.34	34	23.438	A	0.000	3.805	1.875	49.27	9.585	0.000
					B	0.000	3.805		49.27	5.227	0.000
					C	0.000	3.805		49.27	4.856	0.000
T21 127.50-	123.75	1.324	34	23.438	A	0.000	4.459	1.875	42.05	9.585	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
120.00					B	0.000	4.459		42.05	5.227	0.000
					C	0.000	4.459		42.05	5.045	0.000
T22 120.00-112.50	116.25	1.306	33	23.438	A	0.000	3.814	1.875	49.16	9.585	0.000
					B	0.000	3.814		49.16	5.227	0.000
					C	0.000	3.814		49.16	5.045	0.000
T23 112.50-102.50	107.50	1.285	33	31.250	A	0.000	4.143	2.500	60.34	12.780	0.000
					B	0.000	4.143		60.34	6.969	0.000
					C	0.000	4.143		60.34	6.726	0.000
T24 102.50-100.00	101.25	1.269	32	7.813	A	0.000	1.370	0.625	45.61	3.195	0.000
					B	0.000	1.370		45.61	1.742	0.000
					C	0.000	1.370		45.61	1.682	0.000
T25 100.00-80.00	90.00	1.238	31	63.333	A	6.667	3.260	6.667	67.16	26.178	0.000
					B	6.667	3.260		67.16	15.188	0.000
					C	6.667	3.260		67.16	13.452	0.000
T26 80.00-60.00	70.00	1.174	30	63.333	A	6.667	3.260	6.667	67.16	27.620	0.000
					B	6.667	3.260		67.16	15.471	0.000
					C	6.667	3.260		67.16	13.452	0.000
T27 60.00-40.00	50.00	1.094	28	63.333	A	6.667	3.260	6.667	67.16	27.620	0.000
					B	6.667	3.260		67.16	15.566	0.000
					C	6.667	3.260		67.16	13.452	0.000
T28 40.00-20.00	30.00	0.982	25	63.333	A	6.667	3.260	6.667	67.16	29.592	0.000
					B	6.667	3.260		67.16	15.566	0.000
					C	6.667	3.260		67.16	13.452	0.000
T29 20.00-5.25	12.63	0.85	22	46.708	A	4.917	2.555	4.917	65.81	19.461	0.000
					B	4.917	2.555		65.81	10.118	0.000
					C	4.917	2.555		65.81	8.744	0.000
T30 5.25-0.00	2.63	0.85	22	8.785	A	1.843	0.971	1.843	65.49	0.000	0.000
					B	1.843	0.971		65.49	0.000	0.000
					C	1.843	0.971		65.49	0.000	0.000

Tower Pressure - Service

G_H = 0.850

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1 400.00-380.00	390.00	1.686	13	62.500	A	0.000	8.308	5.000	60.18	8.996	0.000
					B	0.000	8.308		60.18	1.886	0.000
					C	0.000	8.308		60.18	0.580	0.000
T2 380.00-360.00	370.00	1.667	13	62.500	A	0.000	8.308	5.000	60.18	14.920	0.000
					B	0.000	8.308		60.18	4.430	0.000
					C	0.000	8.308		60.18	0.580	0.000
T3 360.00-340.00	350.00	1.648	13	62.500	A	0.000	8.308	5.000	60.18	14.920	0.000
					B	0.000	8.308		60.18	4.430	0.000
					C	0.000	8.308		60.18	0.580	0.000
T4 340.00-320.00	330.00	1.627	13	62.500	A	0.000	8.308	5.000	60.18	15.538	0.000
					B	0.000	8.308		60.18	4.430	0.000
					C	0.000	8.308		60.18	0.580	0.000
T5 320.00-300.00	310.00	1.606	13	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	4.430	0.000
					C	0.000	8.308		60.18	0.580	0.000
T6 300.00-280.00	290.00	1.584	12	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	5.680	0.000
					C	0.000	8.308		60.18	0.580	0.000
T7 280.00-262.50	271.25	1.561	12	54.688	A	0.000	7.392	4.375	59.19	14.858	0.000
					B	0.000	7.392		59.19	6.463	0.000
					C	0.000	7.392		59.19	0.507	0.000
T8 262.50-260.00	261.25	1.549	12	7.813	A	0.000	1.610	0.625	38.82	2.123	0.000
					B	0.000	1.610		38.82	0.967	0.000
					C	0.000	1.610		38.82	0.072	0.000
T9 260.00-240.00	250.00	1.535	12	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	7.740	0.000
					C	0.000	8.308		60.18	0.580	0.000

Section Elevation	z	K_Z	q_z	A_G	Face	A_F	A_R	A_{leg}	Leg %	C_AA_A In Face	C_AA_A Out Face
ft	ft		psf	ft^2		ft^2	ft^2	ft^2		ft^2	ft^2
T10 240.00-220.00	230.00	1.508	12	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	7.740	0.000
					C	0.000	8.308		60.18	0.580	0.000
T11 220.00-200.00	210.00	1.48	12	62.500	A	0.000	8.308	5.000	60.18	16.980	0.000
					B	0.000	8.308		60.18	7.740	0.000
					C	0.000	8.308		60.18	6.096	0.000
T12 200.00-195.00	197.50	1.461	11	15.625	A	0.000	2.120	1.250	58.97	4.245	0.000
					B	0.000	2.120		58.97	1.935	0.000
					C	0.000	2.120		58.97	3.048	0.000
T13 195.00-190.00	192.50	1.453	11	15.625	A	0.000	2.431	1.250	51.42	4.245	0.000
					B	0.000	2.431		51.42	1.935	0.000
					C	0.000	2.431		51.42	3.048	0.000
T14 190.00-185.00	187.50	1.445	11	15.625	A	0.000	2.371	1.250	52.72	4.245	0.000
					B	0.000	2.371		52.72	1.935	0.000
					C	0.000	2.371		52.72	3.048	0.000
T15 185.00-180.00	182.50	1.436	11	15.625	A	0.000	2.585	1.250	48.36	4.377	0.000
					B	0.000	2.585		48.36	1.957	0.000
					C	0.000	2.585		48.36	3.048	0.000
T16 180.00-170.00	175.00	1.424	11	31.250	A	0.000	4.785	2.500	52.24	10.734	0.000
					B	0.000	4.785		52.24	5.176	0.000
					C	0.000	4.785		52.24	6.096	0.000
T17 170.00-160.00	165.00	1.406	11	31.250	A	0.000	4.292	2.500	58.25	11.570	0.000
					B	0.000	4.292		58.25	5.379	0.000
					C	0.000	4.292		58.25	6.096	0.000
T18 160.00-140.00	150.00	1.378	11	62.500	A	0.599	10.045	5.000	46.98	24.962	0.000
					B	0.599	10.045		46.98	12.427	0.000
					C	0.599	10.045		46.98	12.192	0.000
T19 140.00-135.00	137.50	1.353	11	15.625	A	0.000	2.299	1.250	54.37	6.390	0.000
					B	0.000	2.299		54.37	3.484	0.000
					C	0.000	2.299		54.37	3.048	0.000
T20 135.00-127.50	131.25	1.34	10	23.438	A	0.000	3.805	1.875	49.27	9.585	0.000
					B	0.000	3.805		49.27	5.227	0.000
					C	0.000	3.805		49.27	4.856	0.000
T21 127.50-120.00	123.75	1.324	10	23.438	A	0.000	4.459	1.875	42.05	9.585	0.000
					B	0.000	4.459		42.05	5.227	0.000
					C	0.000	4.459		42.05	5.045	0.000
T22 120.00-112.50	116.25	1.306	10	23.438	A	0.000	3.814	1.875	49.16	9.585	0.000
					B	0.000	3.814		49.16	5.227	0.000
					C	0.000	3.814		49.16	5.045	0.000
T23 112.50-102.50	107.50	1.285	10	31.250	A	0.000	4.143	2.500	60.34	12.780	0.000
					B	0.000	4.143		60.34	6.969	0.000
					C	0.000	4.143		60.34	6.726	0.000
T24 102.50-100.00	101.25	1.269	10	7.813	A	0.000	1.370	0.625	45.61	3.195	0.000
					B	0.000	1.370		45.61	1.742	0.000
					C	0.000	1.370		45.61	1.682	0.000
T25 100.00-80.00	90.00	1.238	10	63.333	A	6.667	3.260	6.667	67.16	26.178	0.000
					B	6.667	3.260		67.16	15.188	0.000
					C	6.667	3.260		67.16	13.452	0.000
T26 80.00-60.00	70.00	1.174	9	63.333	A	6.667	3.260	6.667	67.16	27.620	0.000
					B	6.667	3.260		67.16	15.471	0.000
					C	6.667	3.260		67.16	13.452	0.000
T27 60.00-40.00	50.00	1.094	9	63.333	A	6.667	3.260	6.667	67.16	27.620	0.000
					B	6.667	3.260		67.16	15.566	0.000
					C	6.667	3.260		67.16	13.452	0.000
T28 40.00-20.00	30.00	0.982	8	63.333	A	6.667	3.260	6.667	67.16	29.592	0.000
					B	6.667	3.260		67.16	15.566	0.000
					C	6.667	3.260		67.16	13.452	0.000
T29 20.00-5.25	12.63	0.85	7	46.708	A	4.917	2.555	4.917	65.81	19.461	0.000
					B	4.917	2.555		65.81	10.118	0.000
					C	4.917	2.555		65.81	8.744	0.000
T30 5.25-0.00	2.63	0.85	7	8.785	A	1.843	0.971	1.843	65.49	0.000	0.000
					B	1.843	0.971		65.49	0.000	0.000
					C	1.843	0.971		65.49	0.000	0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
T1 400.00-380.00	0.06	0.56	A	0.133	2.835	43	1	1	4.702	0.73	36.75	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T2 380.00-360.00	0.10	0.56	A	0.133	2.835	42	1	1	4.702	0.91	45.48	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T3 360.00-340.00	0.10	0.56	A	0.133	2.835	42	1	1	4.702	0.90	44.95	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T4 340.00-320.00	0.10	0.56	A	0.133	2.835	41	1	1	4.702	0.90	45.04	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T5 320.00-300.00	0.10	0.56	A	0.133	2.835	41	1	1	4.702	0.92	45.95	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T6 300.00-280.00	0.10	0.56	A	0.133	2.835	40	1	1	4.702	0.93	46.60	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T7 280.00-262.50	0.10	0.49	A	0.135	2.827	40	1	1	4.185	0.84	47.99	A
			B	0.135	2.827		1	1	4.185			
			C	0.135	2.827		1	1	4.185			
T8 262.50-260.00	0.01	0.13	A	0.206	2.576	39	1	1	0.927	0.14	57.28	A
			B	0.206	2.576		1	1	0.927			
			C	0.206	2.576		1	1	0.927			
T9 260.00-240.00	0.11	0.56	A	0.133	2.835	39	1	1	4.702	0.94	47.21	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T10 240.00-220.00	0.11	0.56	A	0.133	2.835	38	1	1	4.702	0.93	46.39	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T11 220.00-200.00	0.13	0.56	A	0.133	2.835	38	1	1	4.702	1.02	50.79	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T12 200.00-195.00	0.04	0.14	A	0.136	2.825	37	1	1	1.200	0.28	56.26	A
			B	0.136	2.825		1	1	1.200			
			C	0.136	2.825		1	1	1.200			
T13 195.00-190.00	0.04	0.18	A	0.156	2.751	37	1	1	1.381	0.29	58.52	A
			B	0.156	2.751		1	1	1.381			
			C	0.156	2.751		1	1	1.381			
T14 190.00-185.00	0.04	0.17 TA 0.38	A	0.152	2.765	37	1	1	1.346	0.29	57.71	A
			B	0.152	2.765		1	1	1.346			
			C	0.152	2.765		1	1	1.346			
T15 185.00-180.00	0.04	0.19	A	0.165	2.716	36	1	1	1.472	0.30	59.66	A
			B	0.165	2.716		1	1	1.472			
			C	0.165	2.716		1	1	1.472			
T16 180.00-170.00	0.08	0.34	A	0.153	2.76	36	1	1	2.717	0.64	63.60	A
			B	0.153	2.76		1	1	2.717			
			C	0.153	2.76		1	1	2.717			
T17 170.00-160.00	0.08	0.30	A	0.137	2.819	36	1	1	2.431	0.63	62.74	A
			B	0.137	2.819		1	1	2.431			
			C	0.137	2.819		1	1	2.431			
T18 160.00-140.00	0.18	0.78	A	0.17	2.698	35	1	1	6.324	1.39	69.60	A
			B	0.17	2.698		1	1	6.324			
			C	0.17	2.698		1	1	6.324			
T19 140.00-135.00	0.05	0.16	A	0.147	2.782	34	1	1	1.304	0.33	66.46	A
			B	0.147	2.782		1	1	1.304			
			C	0.147	2.782		1	1	1.304			
T20 135.00-127.50	0.07	0.27	A	0.162	2.727	34	1	1	2.165	0.51	68.20	A
			B	0.162	2.727		1	1	2.165			
			C	0.162	2.727		1	1	2.165			
T21 127.50-120.00	0.07	0.34	A	0.19	2.629	34	1	1	2.554	0.53	70.86	A
			B	0.19	2.629		1	1	2.554			
			C	0.19	2.629		1	1	2.554			
T22 120.00-112.50	0.07	0.28	A	0.163	2.725	33	1	1	2.170	0.50	66.93	A
			B	0.163	2.725		1	1	2.170			
			C	0.163	2.725		1	1	2.170			
T23 112.50-	0.10	0.28	A	0.133	2.837	33	1	1	2.345	0.62	62.41	A

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
102.50			B	0.133	2.837		1	1	2.345			
			C	0.133	2.837		1	1	2.345			
T24 102.50-100.00	0.02	0.10	A	0.175	2.68	32	1	1	0.782	0.17	66.37	A
			B	0.175	2.68		1	1	0.782			
			C	0.175	2.68		1	1	0.782			
T25 100.00-80.00	0.20	0.66	A	0.157	2.747	31	1	1	8.519	1.50	75.10	A
			B	0.157	2.747		1	1	8.519			
			C	0.157	2.747		1	1	8.519			
T26 80.00-60.00	0.20	0.66	A	0.157	2.747	30	1	1	8.519	1.45	72.54	A
			B	0.157	2.747		1	1	8.519			
			C	0.157	2.747		1	1	8.519			
T27 60.00-40.00	0.20	0.66	A	0.157	2.747	28	1	1	8.519	1.35	67.65	A
			B	0.157	2.747		1	1	8.519			
			C	0.157	2.747		1	1	8.519			
T28 40.00-20.00	0.21	0.66	A	0.157	2.747	25	1	1	8.519	1.24	61.93	A
			B	0.157	2.747		1	1	8.519			
			C	0.157	2.747		1	1	8.519			
T29 20.00-5.25	0.13	0.50	A	0.16	2.735	22	1	1	6.369	0.74	50.14	A
			B	0.16	2.735		1	1	6.369			
			C	0.16	2.735		1	1	6.369			
T30 5.25-0.00	0.00	0.20	A	0.32	2.243	22	1	1	2.431	0.10	19.05	C
			B	0.32	2.243		1	1	2.431			
			C	0.32	2.243		1	1	2.431			
Sum Weight:	2.85	12.91								22.03		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
T1 400.00-380.00	0.06	0.56	A	0.133	2.835	43	0.8	1	4.702	0.73	36.75	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T2 380.00-360.00	0.10	0.56	A	0.133	2.835	42	0.8	1	4.702	0.91	45.48	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T3 360.00-340.00	0.10	0.56	A	0.133	2.835	42	0.8	1	4.702	0.90	44.95	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T4 340.00-320.00	0.10	0.56	A	0.133	2.835	41	0.8	1	4.702	0.90	45.04	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T5 320.00-300.00	0.10	0.56	A	0.133	2.835	41	0.8	1	4.702	0.92	45.95	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T6 300.00-280.00	0.10	0.56	A	0.133	2.835	40	0.8	1	4.702	0.93	46.60	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T7 280.00-262.50	0.10	0.49	A	0.135	2.827	40	0.8	1	4.185	0.84	47.99	B
			B	0.135	2.827		0.8	1	4.185			
			C	0.135	2.827		0.8	1	4.185			
T8 262.50-260.00	0.01	0.13	A	0.206	2.576	39	0.8	1	0.927	0.14	57.28	B
			B	0.206	2.576		0.8	1	0.927			
			C	0.206	2.576		0.8	1	0.927			
T9 260.00-240.00	0.11	0.56	A	0.133	2.835	39	0.8	1	4.702	0.94	47.21	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T10 240.00-220.00	0.11	0.56	A	0.133	2.835	38	0.8	1	4.702	0.93	46.39	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T11 220.00-200.00	0.13	0.56	A	0.133	2.835	38	0.8	1	4.702	1.02	50.79	B
			B	0.133	2.835		0.8	1	4.702			

Section Elevation	Add Weight	Self Weight	Face	e	C_F	q_z	D_F	D_R	A_E	F	w	Ctrl. Face
ft	K	K				psf			ft^2	K	plf	
			C	0.133	2.835		0.8	1	4.702			
T12 200.00-195.00	0.04	0.14	A	0.136	2.825	37	0.8	1	1.200	0.28	56.26	B
			B	0.136	2.825		0.8	1	1.200			
			C	0.136	2.825		0.8	1	1.200			
T13 195.00-190.00	0.04	0.18	A	0.156	2.751	37	0.8	1	1.381	0.29	58.52	B
			B	0.156	2.751		0.8	1	1.381			
			C	0.156	2.751		0.8	1	1.381			
T14 190.00-185.00	0.04	0.17 TA 0.38	A	0.152	2.765	37	0.8	1	1.346	0.29	57.71	B
			B	0.152	2.765		0.8	1	1.346			
			C	0.152	2.765		0.8	1	1.346			
T15 185.00-180.00	0.04	0.19	A	0.165	2.716	36	0.8	1	1.472	0.30	59.66	B
			B	0.165	2.716		0.8	1	1.472			
			C	0.165	2.716		0.8	1	1.472			
T16 180.00-170.00	0.08	0.34	A	0.153	2.76	36	0.8	1	2.717	0.64	63.60	B
			B	0.153	2.76		0.8	1	2.717			
			C	0.153	2.76		0.8	1	2.717			
T17 170.00-160.00	0.08	0.30	A	0.137	2.819	36	0.8	1	2.431	0.63	62.74	B
			B	0.137	2.819		0.8	1	2.431			
			C	0.137	2.819		0.8	1	2.431			
T18 160.00-140.00	0.18	0.78	A	0.17	2.698	35	0.8	1	6.204	1.38	69.12	B
			B	0.17	2.698		0.8	1	6.204			
			C	0.17	2.698		0.8	1	6.204			
T19 140.00-135.00	0.05	0.16	A	0.147	2.782	34	0.8	1	1.304	0.33	66.46	B
			B	0.147	2.782		0.8	1	1.304			
			C	0.147	2.782		0.8	1	1.304			
T20 135.00-127.50	0.07	0.27	A	0.162	2.727	34	0.8	1	2.165	0.51	68.20	B
			B	0.162	2.727		0.8	1	2.165			
			C	0.162	2.727		0.8	1	2.165			
T21 127.50-120.00	0.07	0.34	A	0.19	2.629	34	0.8	1	2.554	0.53	70.86	B
			B	0.19	2.629		0.8	1	2.554			
			C	0.19	2.629		0.8	1	2.554			
T22 120.00-112.50	0.07	0.28	A	0.163	2.725	33	0.8	1	2.170	0.50	66.93	B
			B	0.163	2.725		0.8	1	2.170			
			C	0.163	2.725		0.8	1	2.170			
T23 112.50-102.50	0.10	0.28	A	0.133	2.837	33	0.8	1	2.345	0.62	62.41	B
			B	0.133	2.837		0.8	1	2.345			
			C	0.133	2.837		0.8	1	2.345			
T24 102.50-100.00	0.02	0.10	A	0.175	2.68	32	0.8	1	0.782	0.17	66.37	B
			B	0.175	2.68		0.8	1	0.782			
			C	0.175	2.68		0.8	1	0.782			
T25 100.00-80.00	0.20	0.66	A	0.157	2.747	31	0.8	1	7.186	1.40	70.21	B
			B	0.157	2.747		0.8	1	7.186			
			C	0.157	2.747		0.8	1	7.186			
T26 80.00-60.00	0.20	0.66	A	0.157	2.747	30	0.8	1	7.186	1.36	67.90	B
			B	0.157	2.747		0.8	1	7.186			
			C	0.157	2.747		0.8	1	7.186			
T27 60.00-40.00	0.20	0.66	A	0.157	2.747	28	0.8	1	7.186	1.27	63.33	B
			B	0.157	2.747		0.8	1	7.186			
			C	0.157	2.747		0.8	1	7.186			
T28 40.00-20.00	0.21	0.66	A	0.157	2.747	25	0.8	1	7.186	1.16	58.05	B
			B	0.157	2.747		0.8	1	7.186			
			C	0.157	2.747		0.8	1	7.186			
T29 20.00-5.25	0.13	0.50	A	0.16	2.735	22	0.8	1	5.386	0.69	46.79	B
			B	0.16	2.735		0.8	1	5.386			
			C	0.16	2.735		0.8	1	5.386			
T30 5.25-0.00	0.00	0.20	A	0.32	2.243	22	0.8	1	2.062	0.08	16.16	C
			B	0.32	2.243		0.8	1	2.062			
			C	0.32	2.243		0.8	1	2.062			
Sum Weight:	2.85	12.91								21.60		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	Face	e	C_F	q_z	D_F	D_R	A_E	F	w	Ctrl. Face
ft	K	K				psf			ft^2	K	plf	
T1 400.00-380.00	0.06	0.56	A	0.133	2.835	43	0.85	1	4.702	0.73	36.75	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T2 380.00-360.00	0.10	0.56	A	0.133	2.835	42	0.85	1	4.702	0.91	45.48	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T3 360.00-340.00	0.10	0.56	A	0.133	2.835	42	0.85	1	4.702	0.90	44.95	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T4 340.00-320.00	0.10	0.56	A	0.133	2.835	41	0.85	1	4.702	0.90	45.04	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T5 320.00-300.00	0.10	0.56	A	0.133	2.835	41	0.85	1	4.702	0.92	45.95	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T6 300.00-280.00	0.10	0.56	A	0.133	2.835	40	0.85	1	4.702	0.93	46.60	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T7 280.00-262.50	0.10	0.49	A	0.135	2.827	40	0.85	1	4.185	0.84	47.99	C
			B	0.135	2.827		0.85	1	4.185			
			C	0.135	2.827		0.85	1	4.185			
T8 262.50-260.00	0.01	0.13	A	0.206	2.576	39	0.85	1	0.927	0.14	57.28	C
			B	0.206	2.576		0.85	1	0.927			
			C	0.206	2.576		0.85	1	0.927			
T9 260.00-240.00	0.11	0.56	A	0.133	2.835	39	0.85	1	4.702	0.94	47.21	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T10 240.00-220.00	0.11	0.56	A	0.133	2.835	38	0.85	1	4.702	0.93	46.39	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T11 220.00-200.00	0.13	0.56	A	0.133	2.835	38	0.85	1	4.702	1.02	50.79	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T12 200.00-195.00	0.04	0.14	A	0.136	2.825	37	0.85	1	1.200	0.28	56.26	C
			B	0.136	2.825		0.85	1	1.200			
			C	0.136	2.825		0.85	1	1.200			
T13 195.00-190.00	0.04	0.18	A	0.156	2.751	37	0.85	1	1.381	0.29	58.52	C
			B	0.156	2.751		0.85	1	1.381			
			C	0.156	2.751		0.85	1	1.381			
T14 190.00-185.00	0.04	0.17	A	0.152	2.765	37	0.85	1	1.346	0.29	57.71	C
		TA 0.38	B	0.152	2.765		0.85	1	1.346			
			C	0.152	2.765		0.85	1	1.346			
T15 185.00-180.00	0.04	0.19	A	0.165	2.716	36	0.85	1	1.472	0.30	59.66	C
			B	0.165	2.716		0.85	1	1.472			
			C	0.165	2.716		0.85	1	1.472			
T16 180.00-170.00	0.08	0.34	A	0.153	2.76	36	0.85	1	2.717	0.64	63.60	C
			B	0.153	2.76		0.85	1	2.717			
			C	0.153	2.76		0.85	1	2.717			
T17 170.00-160.00	0.08	0.30	A	0.137	2.819	36	0.85	1	2.431	0.63	62.74	C
			B	0.137	2.819		0.85	1	2.431			
			C	0.137	2.819		0.85	1	2.431			
T18 160.00-140.00	0.18	0.78	A	0.17	2.698	35	0.85	1	6.234	1.38	69.24	C
			B	0.17	2.698		0.85	1	6.234			
			C	0.17	2.698		0.85	1	6.234			
T19 140.00-135.00	0.05	0.16	A	0.147	2.782	34	0.85	1	1.304	0.33	66.46	C
			B	0.147	2.782		0.85	1	1.304			
			C	0.147	2.782		0.85	1	1.304			
T20 135.00-127.50	0.07	0.27	A	0.162	2.727	34	0.85	1	2.165	0.51	68.25	B
			B	0.162	2.727		0.85	1	2.165			
			C	0.162	2.727		0.85	1	2.165			
T21 127.50-120.00	0.07	0.34	A	0.19	2.629	34	0.85	1	2.554	0.53	70.93	B
			B	0.19	2.629		0.85	1	2.554			
			C	0.19	2.629		0.85	1	2.554			
T22 120.00-112.50	0.07	0.28	A	0.163	2.725	33	0.85	1	2.170	0.50	66.99	B
			B	0.163	2.725		0.85	1	2.170			
			C	0.163	2.725		0.85	1	2.170			
T23 112.50-102.50	0.10	0.28	A	0.133	2.837	33	0.85	1	2.345	0.62	62.48	B
			B	0.133	2.837		0.85	1	2.345			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
			C	0.133	2.837		0.85	1	2.345			
T24 102.50-100.00	0.02	0.10	A	0.175	2.68	32	0.85	1	0.782	0.17	66.43	B
			B	0.175	2.68		0.85	1	0.782			
			C	0.175	2.68		0.85	1	0.782			
T25 100.00-80.00	0.20	0.66	A	0.157	2.747	31	0.85	1	7.519	1.43	71.50	B
			B	0.157	2.747		0.85	1	7.519			
			C	0.157	2.747		0.85	1	7.519			
T26 80.00-60.00	0.20	0.66	A	0.157	2.747	30	0.85	1	7.519	1.38	69.12	B
			B	0.157	2.747		0.85	1	7.519			
			C	0.157	2.747		0.85	1	7.519			
T27 60.00-40.00	0.20	0.66	A	0.157	2.747	28	0.85	1	7.519	1.29	64.46	B
			B	0.157	2.747		0.85	1	7.519			
			C	0.157	2.747		0.85	1	7.519			
T28 40.00-20.00	0.21	0.66	A	0.157	2.747	25	0.85	1	7.519	1.18	59.07	B
			B	0.157	2.747		0.85	1	7.519			
			C	0.157	2.747		0.85	1	7.519			
T29 20.00-5.25	0.13	0.50	A	0.16	2.735	22	0.85	1	5.632	0.70	47.67	B
			B	0.16	2.735		0.85	1	5.632			
			C	0.16	2.735		0.85	1	5.632			
T30 5.25-0.00	0.00	0.20	A	0.32	2.243	22	0.85	1	2.154	0.09	16.88	C
			B	0.32	2.243		0.85	1	2.154			
			C	0.32	2.243		0.85	1	2.154			
Sum Weight:	2.85	12.91								21.72		

Tower Forces - Service - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1 400.00-380.00	0.06	0.56	A	0.133	2.835	13	1	1	4.702	0.23	11.34	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T2 380.00-360.00	0.10	0.56	A	0.133	2.835	13	1	1	4.702	0.28	14.04	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T3 360.00-340.00	0.10	0.56	A	0.133	2.835	13	1	1	4.702	0.28	13.87	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T4 340.00-320.00	0.10	0.56	A	0.133	2.835	13	1	1	4.702	0.28	13.90	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T5 320.00-300.00	0.10	0.56	A	0.133	2.835	13	1	1	4.702	0.28	14.18	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T6 300.00-280.00	0.10	0.56	A	0.133	2.835	12	1	1	4.702	0.29	14.38	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T7 280.00-262.50	0.10	0.49	A	0.135	2.827	12	1	1	4.185	0.26	14.81	A
			B	0.135	2.827		1	1	4.185			
			C	0.135	2.827		1	1	4.185			
T8 262.50-260.00	0.01	0.13	A	0.206	2.576	12	1	1	0.927	0.04	17.68	A
			B	0.206	2.576		1	1	0.927			
			C	0.206	2.576		1	1	0.927			
T9 260.00-240.00	0.11	0.56	A	0.133	2.835	12	1	1	4.702	0.29	14.57	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T10 240.00-220.00	0.11	0.56	A	0.133	2.835	12	1	1	4.702	0.29	14.32	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			
T11 220.00-200.00	0.13	0.56	A	0.133	2.835	12	1	1	4.702	0.31	15.68	A
			B	0.133	2.835		1	1	4.702			
			C	0.133	2.835		1	1	4.702			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
T12 200.00-195.00	0.04	0.14	A	0.136	2.825	11	1	1	1.200	0.09	17.36	A
			B	0.136	2.825		1	1	1.200			
			C	0.136	2.825		1	1	1.200			
T13 195.00-190.00	0.04	0.18	A	0.156	2.751	11	1	1	1.381	0.09	18.06	A
			B	0.156	2.751		1	1	1.381			
			C	0.156	2.751		1	1	1.381			
T14 190.00-185.00	0.04	0.17 TA 0.38	A	0.152	2.765	11	1	1	1.346	0.09	17.81	A
			B	0.152	2.765		1	1	1.346			
			C	0.152	2.765		1	1	1.346			
T15 185.00-180.00	0.04	0.19	A	0.165	2.716	11	1	1	1.472	0.09	18.41	A
			B	0.165	2.716		1	1	1.472			
			C	0.165	2.716		1	1	1.472			
T16 180.00-170.00	0.08	0.34	A	0.153	2.76	11	1	1	2.717	0.20	19.63	A
			B	0.153	2.76		1	1	2.717			
			C	0.153	2.76		1	1	2.717			
T17 170.00-160.00	0.08	0.30	A	0.137	2.819	11	1	1	2.431	0.19	19.36	A
			B	0.137	2.819		1	1	2.431			
			C	0.137	2.819		1	1	2.431			
T18 160.00-140.00	0.18	0.78	A	0.17	2.698	11	1	1	6.324	0.43	21.48	A
			B	0.17	2.698		1	1	6.324			
			C	0.17	2.698		1	1	6.324			
T19 140.00-135.00	0.05	0.16	A	0.147	2.782	11	1	1	1.304	0.10	20.51	A
			B	0.147	2.782		1	1	1.304			
			C	0.147	2.782		1	1	1.304			
T20 135.00-127.50	0.07	0.27	A	0.162	2.727	10	1	1	2.165	0.16	21.05	A
			B	0.162	2.727		1	1	2.165			
			C	0.162	2.727		1	1	2.165			
T21 127.50-120.00	0.07	0.34	A	0.19	2.629	10	1	1	2.554	0.16	21.87	A
			B	0.19	2.629		1	1	2.554			
			C	0.19	2.629		1	1	2.554			
T22 120.00-112.50	0.07	0.28	A	0.163	2.725	10	1	1	2.170	0.15	20.66	A
			B	0.163	2.725		1	1	2.170			
			C	0.163	2.725		1	1	2.170			
T23 112.50-102.50	0.10	0.28	A	0.133	2.837	10	1	1	2.345	0.19	19.26	A
			B	0.133	2.837		1	1	2.345			
			C	0.133	2.837		1	1	2.345			
T24 102.50-100.00	0.02	0.10	A	0.175	2.68	10	1	1	0.782	0.05	20.48	A
			B	0.175	2.68		1	1	0.782			
			C	0.175	2.68		1	1	0.782			
T25 100.00-80.00	0.20	0.66	A	0.157	2.747	10	1	1	8.519	0.46	23.18	A
			B	0.157	2.747		1	1	8.519			
			C	0.157	2.747		1	1	8.519			
T26 80.00-60.00	0.20	0.66	A	0.157	2.747	9	1	1	8.519	0.45	22.39	A
			B	0.157	2.747		1	1	8.519			
			C	0.157	2.747		1	1	8.519			
T27 60.00-40.00	0.20	0.66	A	0.157	2.747	9	1	1	8.519	0.42	20.88	A
			B	0.157	2.747		1	1	8.519			
			C	0.157	2.747		1	1	8.519			
T28 40.00-20.00	0.21	0.66	A	0.157	2.747	8	1	1	8.519	0.38	19.11	A
			B	0.157	2.747		1	1	8.519			
			C	0.157	2.747		1	1	8.519			
T29 20.00-5.25	0.13	0.50	A	0.16	2.735	7	1	1	6.369	0.23	15.47	A
			B	0.16	2.735		1	1	6.369			
			C	0.16	2.735		1	1	6.369			
T30 5.25-0.00	0.00	0.20	A	0.32	2.243	7	1	1	2.431	0.03	5.88	C
			B	0.32	2.243		1	1	2.431			
			C	0.32	2.243		1	1	2.431			
Sum Weight:	2.85	12.91								6.80		

Tower Forces - Service - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
T1 400.00-380.00	0.06	0.56	A	0.133	2.835	13	0.8	1	4.702	0.23	11.34	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T2 380.00-360.00	0.10	0.56	A	0.133	2.835	13	0.8	1	4.702	0.28	14.04	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T3 360.00-340.00	0.10	0.56	A	0.133	2.835	13	0.8	1	4.702	0.28	13.87	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T4 340.00-320.00	0.10	0.56	A	0.133	2.835	13	0.8	1	4.702	0.28	13.90	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T5 320.00-300.00	0.10	0.56	A	0.133	2.835	13	0.8	1	4.702	0.28	14.18	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T6 300.00-280.00	0.10	0.56	A	0.133	2.835	12	0.8	1	4.702	0.29	14.38	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T7 280.00-262.50	0.10	0.49	A	0.135	2.827	12	0.8	1	4.185	0.26	14.81	B
			B	0.135	2.827		0.8	1	4.185			
			C	0.135	2.827		0.8	1	4.185			
T8 262.50-260.00	0.01	0.13	A	0.206	2.576	12	0.8	1	0.927	0.04	17.68	B
			B	0.206	2.576		0.8	1	0.927			
			C	0.206	2.576		0.8	1	0.927			
T9 260.00-240.00	0.11	0.56	A	0.133	2.835	12	0.8	1	4.702	0.29	14.57	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T10 240.00-220.00	0.11	0.56	A	0.133	2.835	12	0.8	1	4.702	0.29	14.32	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T11 220.00-200.00	0.13	0.56	A	0.133	2.835	12	0.8	1	4.702	0.31	15.68	B
			B	0.133	2.835		0.8	1	4.702			
			C	0.133	2.835		0.8	1	4.702			
T12 200.00-195.00	0.04	0.14	A	0.136	2.825	11	0.8	1	1.200	0.09	17.36	B
			B	0.136	2.825		0.8	1	1.200			
			C	0.136	2.825		0.8	1	1.200			
T13 195.00-190.00	0.04	0.18	A	0.156	2.751	11	0.8	1	1.381	0.09	18.06	B
			B	0.156	2.751		0.8	1	1.381			
			C	0.156	2.751		0.8	1	1.381			
T14 190.00-185.00	0.04	0.17 TA 0.38	A	0.152	2.765	11	0.8	1	1.346	0.09	17.81	B
			B	0.152	2.765		0.8	1	1.346			
			C	0.152	2.765		0.8	1	1.346			
T15 185.00-180.00	0.04	0.19	A	0.165	2.716	11	0.8	1	1.472	0.09	18.41	B
			B	0.165	2.716		0.8	1	1.472			
			C	0.165	2.716		0.8	1	1.472			
T16 180.00-170.00	0.08	0.34	A	0.153	2.76	11	0.8	1	2.717	0.20	19.63	B
			B	0.153	2.76		0.8	1	2.717			
			C	0.153	2.76		0.8	1	2.717			
T17 170.00-160.00	0.08	0.30	A	0.137	2.819	11	0.8	1	2.431	0.19	19.36	B
			B	0.137	2.819		0.8	1	2.431			
			C	0.137	2.819		0.8	1	2.431			
T18 160.00-140.00	0.18	0.78	A	0.17	2.698	11	0.8	1	6.204	0.43	21.33	B
			B	0.17	2.698		0.8	1	6.204			
			C	0.17	2.698		0.8	1	6.204			
T19 140.00-135.00	0.05	0.16	A	0.147	2.782	11	0.8	1	1.304	0.10	20.51	B
			B	0.147	2.782		0.8	1	1.304			
			C	0.147	2.782		0.8	1	1.304			
T20 135.00-127.50	0.07	0.27	A	0.162	2.727	10	0.8	1	2.165	0.16	21.05	B
			B	0.162	2.727		0.8	1	2.165			
			C	0.162	2.727		0.8	1	2.165			
T21 127.50-120.00	0.07	0.34	A	0.19	2.629	10	0.8	1	2.554	0.16	21.87	B
			B	0.19	2.629		0.8	1	2.554			
			C	0.19	2.629		0.8	1	2.554			
T22 120.00-112.50	0.07	0.28	A	0.163	2.725	10	0.8	1	2.170	0.15	20.66	B
			B	0.163	2.725		0.8	1	2.170			
			C	0.163	2.725		0.8	1	2.170			
T23 112.50-102.50	0.10	0.28	A	0.133	2.837	10	0.8	1	2.345	0.19	19.26	B
			B	0.133	2.837		0.8	1	2.345			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
			C	0.133	2.837		0.8	1	2.345			
T24 102.50-100.00	0.02	0.10	A	0.175	2.68	10	0.8	1	0.782	0.05	20.48	B
			B	0.175	2.68		0.8	1	0.782			
			C	0.175	2.68		0.8	1	0.782			
T25 100.00-80.00	0.20	0.66	A	0.157	2.747	10	0.8	1	7.186	0.43	21.67	B
			B	0.157	2.747		0.8	1	7.186			
			C	0.157	2.747		0.8	1	7.186			
T26 80.00-60.00	0.20	0.66	A	0.157	2.747	9	0.8	1	7.186	0.42	20.96	B
			B	0.157	2.747		0.8	1	7.186			
			C	0.157	2.747		0.8	1	7.186			
T27 60.00-40.00	0.20	0.66	A	0.157	2.747	9	0.8	1	7.186	0.39	19.55	B
			B	0.157	2.747		0.8	1	7.186			
			C	0.157	2.747		0.8	1	7.186			
T28 40.00-20.00	0.21	0.66	A	0.157	2.747	8	0.8	1	7.186	0.36	17.92	B
			B	0.157	2.747		0.8	1	7.186			
			C	0.157	2.747		0.8	1	7.186			
T29 20.00-5.25	0.13	0.50	A	0.16	2.735	7	0.8	1	5.386	0.21	14.44	B
			B	0.16	2.735		0.8	1	5.386			
			C	0.16	2.735		0.8	1	5.386			
T30 5.25-0.00	0.00	0.20	A	0.32	2.243	7	0.8	1	2.062	0.03	4.99	C
			B	0.32	2.243		0.8	1	2.062			
			C	0.32	2.243		0.8	1	2.062			
Sum Weight:	2.85	12.91								6.67		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T1 400.00-380.00	0.06	0.56	A	0.133	2.835	13	0.85	1	4.702	0.23	11.34	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T2 380.00-360.00	0.10	0.56	A	0.133	2.835	13	0.85	1	4.702	0.28	14.04	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T3 360.00-340.00	0.10	0.56	A	0.133	2.835	13	0.85	1	4.702	0.28	13.87	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T4 340.00-320.00	0.10	0.56	A	0.133	2.835	13	0.85	1	4.702	0.28	13.90	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T5 320.00-300.00	0.10	0.56	A	0.133	2.835	13	0.85	1	4.702	0.28	14.18	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T6 300.00-280.00	0.10	0.56	A	0.133	2.835	12	0.85	1	4.702	0.29	14.38	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T7 280.00-262.50	0.10	0.49	A	0.135	2.827	12	0.85	1	4.185	0.26	14.81	C
			B	0.135	2.827		0.85	1	4.185			
			C	0.135	2.827		0.85	1	4.185			
T8 262.50-260.00	0.01	0.13	A	0.206	2.576	12	0.85	1	0.927	0.04	17.68	C
			B	0.206	2.576		0.85	1	0.927			
			C	0.206	2.576		0.85	1	0.927			
T9 260.00-240.00	0.11	0.56	A	0.133	2.835	12	0.85	1	4.702	0.29	14.57	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T10 240.00-220.00	0.11	0.56	A	0.133	2.835	12	0.85	1	4.702	0.29	14.32	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			
T11 220.00-200.00	0.13	0.56	A	0.133	2.835	12	0.85	1	4.702	0.31	15.68	C
			B	0.133	2.835		0.85	1	4.702			
			C	0.133	2.835		0.85	1	4.702			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	q_z psf	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
T12 200.00-195.00	0.04	0.14	A	0.136	2.825	11	0.85	1	1.200	0.09	17.36	C
			B	0.136	2.825		0.85	1	1.200			
			C	0.136	2.825		0.85	1	1.200			
T13 195.00-190.00	0.04	0.18	A	0.156	2.751	11	0.85	1	1.381	0.09	18.06	C
			B	0.156	2.751		0.85	1	1.381			
			C	0.156	2.751		0.85	1	1.381			
T14 190.00-185.00	0.04	0.17 TA 0.38	A	0.152	2.765	11	0.85	1	1.346	0.09	17.81	C
			B	0.152	2.765		0.85	1	1.346			
			C	0.152	2.765		0.85	1	1.346			
T15 185.00-180.00	0.04	0.19	A	0.165	2.716	11	0.85	1	1.472	0.09	18.41	C
			B	0.165	2.716		0.85	1	1.472			
			C	0.165	2.716		0.85	1	1.472			
T16 180.00-170.00	0.08	0.34	A	0.153	2.76	11	0.85	1	2.717	0.20	19.63	C
			B	0.153	2.76		0.85	1	2.717			
			C	0.153	2.76		0.85	1	2.717			
T17 170.00-160.00	0.08	0.30	A	0.137	2.819	11	0.85	1	2.431	0.19	19.36	C
			B	0.137	2.819		0.85	1	2.431			
			C	0.137	2.819		0.85	1	2.431			
T18 160.00-140.00	0.18	0.78	A	0.17	2.698	11	0.85	1	6.234	0.43	21.37	C
			B	0.17	2.698		0.85	1	6.234			
			C	0.17	2.698		0.85	1	6.234			
T19 140.00-135.00	0.05	0.16	A	0.147	2.782	11	0.85	1	1.304	0.10	20.51	C
			B	0.147	2.782		0.85	1	1.304			
			C	0.147	2.782		0.85	1	1.304			
T20 135.00-127.50	0.07	0.27	A	0.162	2.727	10	0.85	1	2.165	0.16	21.06	B
			B	0.162	2.727		0.85	1	2.165			
			C	0.162	2.727		0.85	1	2.165			
T21 127.50-120.00	0.07	0.34	A	0.19	2.629	10	0.85	1	2.554	0.16	21.89	B
			B	0.19	2.629		0.85	1	2.554			
			C	0.19	2.629		0.85	1	2.554			
T22 120.00-112.50	0.07	0.28	A	0.163	2.725	10	0.85	1	2.170	0.16	20.68	B
			B	0.163	2.725		0.85	1	2.170			
			C	0.163	2.725		0.85	1	2.170			
T23 112.50-102.50	0.10	0.28	A	0.133	2.837	10	0.85	1	2.345	0.19	19.28	B
			B	0.133	2.837		0.85	1	2.345			
			C	0.133	2.837		0.85	1	2.345			
T24 102.50-100.00	0.02	0.10	A	0.175	2.68	10	0.85	1	0.782	0.05	20.50	B
			B	0.175	2.68		0.85	1	0.782			
			C	0.175	2.68		0.85	1	0.782			
T25 100.00-80.00	0.20	0.66	A	0.157	2.747	10	0.85	1	7.519	0.44	22.07	B
			B	0.157	2.747		0.85	1	7.519			
			C	0.157	2.747		0.85	1	7.519			
T26 80.00-60.00	0.20	0.66	A	0.157	2.747	9	0.85	1	7.519	0.43	21.33	B
			B	0.157	2.747		0.85	1	7.519			
			C	0.157	2.747		0.85	1	7.519			
T27 60.00-40.00	0.20	0.66	A	0.157	2.747	9	0.85	1	7.519	0.40	19.90	B
			B	0.157	2.747		0.85	1	7.519			
			C	0.157	2.747		0.85	1	7.519			
T28 40.00-20.00	0.21	0.66	A	0.157	2.747	8	0.85	1	7.519	0.36	18.23	B
			B	0.157	2.747		0.85	1	7.519			
			C	0.157	2.747		0.85	1	7.519			
T29 20.00-5.25	0.13	0.50	A	0.16	2.735	7	0.85	1	5.632	0.22	14.71	B
			B	0.16	2.735		0.85	1	5.632			
			C	0.16	2.735		0.85	1	5.632			
T30 5.25-0.00	0.00	0.20	A	0.32	2.243	7	0.85	1	2.154	0.03	5.21	C
			B	0.32	2.243		0.85	1	2.154			
			C	0.32	2.243		0.85	1	2.154			
Sum Weight:	2.85	12.91								6.70		

Force Totals (Does not include forces on guys)

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Torques kip-ft
Leg Weight	7.76			
Bracing Weight	5.16			
Total Member Self-Weight	12.91			
Guy Weight	4.41			
Total Weight	25.87			
Wind 0 deg - No Ice		-0.75	-30.50	-5.82
Wind 30 deg - No Ice		14.40	-25.22	-2.48
Wind 60 deg - No Ice		25.60	-14.75	0.19
Wind 90 deg - No Ice		30.00	0.06	3.16
Wind 120 deg - No Ice		26.45	15.45	5.08
Wind 150 deg - No Ice		15.06	26.17	5.59
Wind 180 deg - No Ice		0.07	29.70	4.68
Wind 210 deg - No Ice		-14.54	25.19	2.34
Wind 240 deg - No Ice		-26.65	14.71	0.85
Wind 270 deg - No Ice		-30.46	-0.43	-1.84
Wind 300 deg - No Ice		-26.43	-15.32	-4.98
Wind 330 deg - No Ice		-15.65	-26.31	-6.77
Total Weight	25.87			
Wind 0 deg - Service		-0.23	-9.41	-1.80
Wind 30 deg - Service		4.44	-7.79	-0.77
Wind 60 deg - Service		7.90	-4.55	0.06
Wind 90 deg - Service		9.26	0.02	0.97
Wind 120 deg - Service		8.16	4.77	1.57
Wind 150 deg - Service		4.65	8.08	1.73
Wind 180 deg - Service		0.02	9.17	1.45
Wind 210 deg - Service		-4.49	7.78	0.72
Wind 240 deg - Service		-8.23	4.54	0.26
Wind 270 deg - Service		-9.40	-0.13	-0.57
Wind 300 deg - Service		-8.16	-4.73	-1.54
Wind 330 deg - Service		-4.83	-8.12	-2.09

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice+1.0 Guy
3	1.2 Dead+1.6 Wind 30 deg - No Ice+1.0 Guy
4	1.2 Dead+1.6 Wind 60 deg - No Ice+1.0 Guy
5	1.2 Dead+1.6 Wind 90 deg - No Ice+1.0 Guy
6	1.2 Dead+1.6 Wind 120 deg - No Ice+1.0 Guy
7	1.2 Dead+1.6 Wind 150 deg - No Ice+1.0 Guy
8	1.2 Dead+1.6 Wind 180 deg - No Ice+1.0 Guy
9	1.2 Dead+1.6 Wind 210 deg - No Ice+1.0 Guy
10	1.2 Dead+1.6 Wind 240 deg - No Ice+1.0 Guy
11	1.2 Dead+1.6 Wind 270 deg - No Ice+1.0 Guy
12	1.2 Dead+1.6 Wind 300 deg - No Ice+1.0 Guy
13	1.2 Dead+1.6 Wind 330 deg - No Ice+1.0 Guy
14	Dead+Wind 0 deg - Service+Guy
15	Dead+Wind 30 deg - Service+Guy
16	Dead+Wind 60 deg - Service+Guy
17	Dead+Wind 90 deg - Service+Guy
18	Dead+Wind 120 deg - Service+Guy
19	Dead+Wind 150 deg - Service+Guy
20	Dead+Wind 180 deg - Service+Guy
21	Dead+Wind 210 deg - Service+Guy
22	Dead+Wind 240 deg - Service+Guy
23	Dead+Wind 270 deg - Service+Guy
24	Dead+Wind 300 deg - Service+Guy
25	Dead+Wind 330 deg - Service+Guy

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	400 - 380	Leg	Max Tension	8	9.07	-0.02	0.01
			Max. Compression	12	-15.38	0.05	-0.00
			Max. Mx	4	-4.57	-0.36	0.11
			Max. My	3	-0.79	-0.08	-0.39
			Max. Vy	4	-0.80	-0.36	0.11
			Max. Vx	8	-0.63	-0.04	-0.30
		Diagonal	Max Tension	4	2.52	0.00	0.00
			Max. Compression	4	-2.22	-0.00	0.01
			Max. Mx	13	-0.97	-0.00	-0.00
			Max. My	5	-1.94	-0.00	0.01
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	5	-0.01	-0.00	0.01
		Top Girt	Max Tension	12	0.22	0.00	0.00
			Max. Compression	4	-0.02	0.00	0.00
			Max. Mx	8	0.01	0.00	0.00
			Max. My	6	0.03	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	6	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	0.42	0.00	0.00
			Max. Compression	4	-0.27	0.00	0.00
			Max. Mx	8	-0.22	0.00	0.00
			Max. My	6	0.05	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	6	0.00	0.00	0.00
		Mid Girt	Max Tension	13	4.58	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	8	1.54	0.00	0.00
			Max. My	6	2.00	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	6	0.00	0.00	0.00
		Guy A	Bottom Tension	8	17.89		
			Top Tension	8	18.15		
			Top Cable Vert	8	14.26		
			Top Cable Norm	8	11.22		
			Top Cable Tan	8	0.00		
			Bot Cable Vert	8	-13.38		
			Bot Cable Norm	8	11.88		
			Bot Cable Tan	8	0.00		
		Guy B	Bottom Tension	12	17.73		
			Top Tension	12	17.99		
			Top Cable Vert	12	14.07		
			Top Cable Norm	12	11.20		
			Top Cable Tan	12	0.01		
			Bot Cable Vert	12	-13.19		
			Bot Cable Norm	12	11.85		
			Bot Cable Tan	12	0.01		
		Guy C	Bottom Tension	4	17.82		
			Top Tension	4	18.07		
			Top Cable Vert	4	14.17		
			Top Cable Norm	4	11.22		
			Top Cable Tan	4	0.00		
			Bot Cable Vert	4	-13.29		
			Bot Cable Norm	4	11.87		
			Bot Cable Tan	4	0.00		
T2	380 - 360	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-18.18	-0.03	-0.01
			Max. Mx	12	-4.62	-0.19	-0.07
			Max. My	8	-13.23	0.01	0.17
			Max. Vy	4	-0.80	0.01	-0.01
			Max. Vx	4	0.62	0.04	-0.02
		Diagonal	Max Tension	4	1.09	0.00	0.00
			Max. Compression	4	-1.09	-0.00	0.00
			Max. Mx	13	0.37	-0.00	0.01
			Max. My	12	0.44	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	0.01

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	12	0.00	-0.00	-0.01
		Top Girt	Max Tension	12	0.43	0.00	0.00
			Max. Compression	4	-0.10	0.00	0.00
			Max. Mx	8	0.35	0.00	0.00
			Max. My	7	0.04	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
		Bottom Girt	Max Tension	13	0.26	0.00	0.00
			Max. Compression	2	-0.08	0.00	0.00
			Max. Mx	2	-0.08	0.00	0.00
			Max. My	7	0.14	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
		Mid Girt	Max Tension	13	0.22	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	2	0.04	0.00	0.00
			Max. My	7	0.21	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
T3	360 - 340	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-17.52	0.13	-0.08
			Max. Mx	12	-5.44	-0.42	-0.05
			Max. My	8	-4.99	-0.07	0.38
			Max. Vy	4	1.58	-0.32	0.14
			Max. Vx	8	1.47	0.04	-0.29
		Diagonal	Max Tension	12	2.00	0.00	0.00
			Max. Compression	12	-1.86	0.00	0.00
			Max. Mx	13	0.18	-0.00	0.00
			Max. My	11	-0.97	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	11	0.00	-0.00	-0.01
		Top Girt	Max Tension	12	0.26	0.00	0.00
			Max. Compression	4	-0.14	0.00	0.00
			Max. Mx	2	0.11	0.00	0.00
			Max. My	7	0.22	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	0.69	0.00	0.00
			Max. Compression	14	-0.00	0.00	0.00
			Max. Mx	2	0.25	0.00	0.00
			Max. My	13	0.14	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	13	0.22	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	2	0.03	0.00	0.00
			Max. My	13	0.22	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T4	340 - 320	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-22.53	-0.06	-0.08
			Max. Mx	2	-4.62	0.74	0.07
			Max. My	10	-10.95	-0.30	-0.68
			Max. Vy	4	1.59	-0.65	0.25
			Max. Vx	8	1.49	0.09	-0.59
		Diagonal	Max Tension	13	4.29	0.01	-0.01
			Max. Compression	12	-3.17	-0.00	-0.06
			Max. Mx	13	1.45	-0.01	-0.01
			Max. My	2	-0.78	0.01	-0.09
			Max. Vy	13	0.01	-0.01	-0.01
			Max. Vx	2	0.04	0.01	-0.09
		Top Girt	Max Tension	12	1.93	0.00	0.00
			Max. Compression	10	-0.05	0.00	0.00
			Max. Mx	2	-0.04	0.00	0.00
			Max. My	13	1.36	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	0.37	0.00	0.00
			Max. Compression	4	-0.25	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	2	0.18	0.00	0.00
			Max. My	13	0.27	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	12	1.55	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	2	0.08	0.00	0.00
			Max. My	13	1.15	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Guy A	Bottom Tension	8	14.11		
			Top Tension	8	14.28		
			Top Cable Vert	8	10.49		
			Top Cable Norm	8	9.68		
			Top Cable Tan	8	0.00		
			Bot Cable Vert	8	-9.85		
			Bot Cable Norm	8	10.10		
			Bot Cable Tan	8	0.00		
		Guy B	Bottom Tension	12	14.07		
			Top Tension	12	14.24		
			Top Cable Vert	12	10.41		
			Top Cable Norm	12	9.72		
			Top Cable Tan	12	0.00		
			Bot Cable Vert	12	-9.76		
			Bot Cable Norm	12	10.13		
			Bot Cable Tan	12	0.00		
		Guy C	Bottom Tension	4	14.06		
			Top Tension	4	14.23		
			Top Cable Vert	4	10.43		
			Top Cable Norm	4	9.68		
			Top Cable Tan	4	0.00		
			Bot Cable Vert	4	-9.79		
			Bot Cable Norm	4	10.10		
			Bot Cable Tan	4	0.00		
T5	320 - 300	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-26.28	0.06	-0.01
			Max. Mx	4	-9.85	0.29	-0.08
			Max. My	4	-22.29	0.08	-0.25
			Max. Vy	4	-0.89	0.11	-0.02
			Max. Vx	9	-0.75	0.02	0.08
		Diagonal	Max Tension	4	1.23	0.00	0.00
			Max. Compression	4	-1.26	0.00	0.00
			Max. Mx	13	-0.07	-0.00	0.00
			Max. My	6	0.31	-0.00	0.00
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	6	-0.00	-0.00	0.00
		Top Girt	Max Tension	12	0.40	0.00	0.00
			Max. Compression	10	-0.16	0.00	0.00
			Max. Mx	2	-0.15	0.00	0.00
			Max. My	13	0.10	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	13	0.22	0.00	0.00
			Max. Compression	3	-0.00	0.00	0.00
			Max. Mx	2	0.01	0.00	0.00
			Max. My	13	0.14	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	13	0.24	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	2	0.09	0.00	0.00
			Max. My	13	0.22	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T6	300 - 280	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-25.75	0.12	-0.11
			Max. Mx	12	-14.87	-0.38	-0.00
			Max. My	7	-13.03	0.16	0.33
			Max. Vy	12	-1.12	0.13	-0.01

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	7	1.03	-0.04	-0.14
		Diagonal	Max Tension	12	1.84	0.00	0.00
			Max. Compression	12	-1.79	0.00	0.00
			Max. Mx	13	0.17	-0.00	0.00
			Max. My	11	-1.68	-0.00	-0.00
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	11	0.00	-0.00	-0.00
		Top Girt	Max Tension	13	0.24	0.00	0.00
			Max. Compression	4	-0.10	0.00	0.00
			Max. Mx	2	0.09	0.00	0.00
			Max. My	13	0.19	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	0.61	0.00	0.00
			Max. Compression	3	-0.24	0.00	0.00
			Max. Mx	4	0.53	0.00	0.00
			Max. My	13	0.01	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	13	0.20	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.06	0.00	0.00
			Max. My	13	0.19	0.00	-0.00
			Max. Vy	2	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T7	280 - 262.5	Leg	Max Tension	12	7.05	0.03	0.02
			Max. Compression	6	-28.55	-0.00	-0.01
			Max. Mx	12	-14.87	0.37	-0.01
			Max. My	7	-13.70	-0.13	-0.36
			Max. Vy	12	-1.14	0.37	-0.01
			Max. Vx	7	1.03	-0.13	-0.36
		Diagonal	Max Tension	12	2.91	0.00	0.00
			Max. Compression	12	-2.86	0.00	0.00
			Max. Mx	13	-0.87	-0.00	-0.00
			Max. My	11	-2.20	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	11	0.00	-0.00	-0.01
		Top Girt	Max Tension	13	0.42	0.00	0.00
			Max. Compression	4	-0.46	0.00	0.00
			Max. Mx	4	-0.46	0.00	0.00
			Max. My	13	0.27	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	13	0.19	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.11	0.00	0.00
			Max. My	13	0.18	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T8	262.5 - 260	Leg	Max Tension	12	12.98	-0.90	-0.04
			Max. Compression	6	-32.17	-0.10	0.01
			Max. Mx	12	12.98	-0.90	-0.04
			Max. My	8	-29.51	0.15	0.80
			Max. Vy	12	-2.32	0.16	0.01
			Max. Vx	8	2.05	-0.01	-0.14
		Diagonal	Max Tension	12	4.03	0.00	0.00
			Max. Compression	12	-4.65	0.00	0.00
			Max. Mx	13	1.97	-0.00	-0.00
			Max. My	12	-4.65	0.00	-0.00
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	12	-0.00	0.00	-0.00
		Secondary Horizontal	Max Tension	12	1.67	0.00	-0.01
			Max. Compression	12	-1.19	-0.00	-0.01
			Max. Mx	13	-0.91	-0.00	-0.00
			Max. My	11	-1.11	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	11	0.01	0.00	0.00
		Top Girt	Max Tension	12	0.94	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.82	0.00	0.00
			Max. My	13	0.46	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	1.58	0.00	0.00
			Max. Compression	2	-0.18	0.00	0.00
			Max. Mx	4	1.51	0.00	0.00
			Max. My	13	0.28	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T9	260 - 240	Leg	Max Tension	12	12.98	0.16	0.01
			Max. Compression	11	-32.43	-0.11	-0.02
			Max. Mx	12	12.98	0.65	0.04
			Max. My	8	-29.52	-0.08	-0.57
			Max. Vy	12	-2.34	0.65	0.04
			Max. Vx	8	2.06	-0.08	-0.57
		Diagonal	Max Tension	12	2.44	0.00	0.00
			Max. Compression	12	-2.41	0.00	0.00
			Max. Mx	13	0.82	-0.00	-0.00
			Max. My	7	-2.32	-0.00	0.01
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	7	-0.00	-0.00	0.01
		Top Girt	Max Tension	13	4.85	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.65	0.00	0.00
			Max. My	13	3.22	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	0.37	0.00	0.00
			Max. Compression	4	-0.42	0.00	0.00
			Max. Mx	6	0.34	0.00	0.00
			Max. My	13	0.24	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	12	0.27	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	6	0.17	0.00	0.00
			Max. My	13	0.23	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Guy A	Bottom Tension	8	16.57		
			Top Tension	8	16.74		
			Top Cable Vert	8	11.64		
			Top Cable Norm	8	12.03		
			Top Cable Tan	8	0.00		
			Bot Cable Vert	8	-11.05		
			Bot Cable Norm	8	12.34		
			Bot Cable Tan	8	0.00		
		Guy B	Bottom Tension	12	16.63		
			Top Tension	12	16.80		
			Top Cable Vert	12	11.62		
			Top Cable Norm	12	12.14		
			Top Cable Tan	12	0.00		
			Bot Cable Vert	12	-11.03		
			Bot Cable Norm	12	12.45		
			Bot Cable Tan	12	0.00		
		Guy C	Bottom Tension	4	16.51		
			Top Tension	4	16.68		
			Top Cable Vert	4	11.56		
			Top Cable Norm	4	12.03		
			Top Cable Tan	4	0.00		
			Bot Cable Vert	4	-10.97		
			Bot Cable Norm	4	12.34		
			Bot Cable Tan	4	0.00		
T10	240 - 220	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	8	-31.46	0.11	0.04
			Max. Mx	12	-19.78	-0.52	-0.13
			Max. My	7	-19.62	-0.10	0.50

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	12	1.57	-0.20	-0.03
			Max. Vx	7	-1.53	-0.06	0.18
		Diagonal	Max Tension	7	2.24	0.00	-0.01
			Max. Compression	7	-2.26	0.00	0.00
			Max. Mx	13	-0.59	-0.00	0.00
			Max. My	7	-1.79	-0.00	0.01
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	7	-0.00	-0.00	0.01
		Top Girt	Max Tension	12	0.56	0.00	0.00
			Max. Compression	10	-0.25	0.00	0.00
			Max. Mx	6	-0.25	0.00	0.00
			Max. My	13	-0.04	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	5	0.15	0.00	0.00
			Max. Compression	4	-0.02	0.00	0.00
			Max. Mx	6	0.14	0.00	0.00
			Max. My	13	0.11	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	12	0.17	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	6	0.11	0.00	0.00
			Max. My	13	0.16	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T11	220 - 200	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	8	-31.52	0.02	0.05
			Max. Mx	12	-13.72	-0.88	-0.10
			Max. My	8	-24.72	0.18	0.99
			Max. Vy	12	-2.60	0.32	0.02
			Max. Vx	8	2.99	-0.02	-0.38
		Diagonal	Max Tension	8	4.17	-0.00	-0.00
			Max. Compression	8	-3.85	0.00	0.00
			Max. Mx	13	-2.63	-0.00	-0.00
			Max. My	4	-0.55	-0.00	0.01
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	4	0.01	0.00	0.00
		Top Girt	Max Tension	13	0.11	0.00	0.00
			Max. Compression	10	-0.01	0.00	0.00
			Max. Mx	6	-0.01	0.00	0.00
			Max. My	13	0.07	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	1.34	0.00	0.00
			Max. Compression	6	-0.99	0.00	0.00
			Max. Mx	6	-0.99	0.00	0.00
			Max. My	13	-0.06	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	12	0.41	0.00	0.00
			Max. Compression	2	-0.21	0.00	0.00
			Max. Mx	4	0.38	0.00	0.00
			Max. My	13	0.12	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T12	200 - 195	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	2	-34.64	-0.03	0.10
			Max. Mx	12	-13.72	0.86	0.08
			Max. My	8	-28.40	-0.11	-1.00
			Max. Vy	12	-2.61	0.86	0.08
			Max. Vx	8	2.98	-0.11	-1.00
		Diagonal	Max Tension	8	3.83	0.00	0.00
			Max. Compression	8	-4.44	0.00	0.00
			Max. Mx	13	1.71	-0.00	0.00
			Max. My	12	-4.36	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	12	0.01	-0.00	-0.01
		Top Girt	Max Tension	6	1.13	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	12	-1.49	0.00	0.00
			Max. Mx	6	1.13	0.00	0.00
			Max. My	13	0.24	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T13	195 - 190	Leg	Max Tension	12	1.02	0.11	0.02
			Max. Compression	2	-47.03	-0.00	0.19
			Max. Mx	8	-42.06	-0.39	-0.24
			Max. My	12	-42.00	0.01	0.46
			Max. Vy	8	-0.50	-0.39	-0.24
			Max. Vx	12	0.56	0.01	0.46
		Diagonal	Max Tension	8	3.60	0.00	0.00
			Max. Compression	8	-4.06	-0.00	0.00
			Max. Mx	12	1.57	-0.00	-0.00
			Max. My	8	-4.06	-0.00	0.00
			Max. Vy	12	0.00	-0.00	-0.00
			Max. Vx	8	-0.00	-0.00	0.00
		Secondary Horizontal	Max Tension	2	0.81	0.00	0.00
			Max. Compression	2	-0.81	-0.01	-0.00
			Max. Mx	12	0.70	0.03	0.00
			Max. My	11	-0.06	0.00	-0.01
			Max. Vy	12	0.02	0.00	0.00
			Max. Vx	11	0.01	0.00	0.00
T14	190 - 185	Leg	Max Tension	12	1.49	0.01	0.00
			Max. Compression	2	-47.07	0.00	0.07
			Max. Mx	12	-38.13	0.09	0.04
			Max. My	8	-36.64	-0.01	-0.09
			Max. Vy	11	0.11	0.01	0.01
			Max. Vx	8	-0.12	0.01	-0.01
		Diagonal	Max Tension	7	1.64	0.00	0.00
			Max. Compression	12	-2.57	-0.00	0.01
			Max. Mx	13	0.20	-0.00	-0.02
			Max. My	4	-0.74	-0.00	-0.02
			Max. Vy	13	0.00	-0.00	-0.02
			Max. Vx	4	-0.01	0.00	0.00
		Horizontal	Max Tension	6	1.75	0.00	0.00
			Max. Compression	12	-0.95	0.00	0.00
			Max. Mx	6	1.75	0.00	0.00
			Max. My	13	0.90	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	12	5.45	0.00	0.00
			Max. Compression	6	-2.67	0.00	0.00
			Max. Mx	6	-2.67	0.00	0.00
			Max. My	13	-0.10	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Guy A	Bottom Tension	8	11.39		
			Top Tension	8	11.49		
			Top Cable Vert	8	6.63		
			Top Cable Norm	8	9.38		
			Top Cable Tan	8	0.00		
			Bot Cable Vert	8	-6.26		
			Bot Cable Norm	8	9.52		
			Bot Cable Tan	8	0.00		
		Guy B	Bottom Tension	12	11.81		
			Top Tension	12	11.91		
			Top Cable Vert	12	6.81		
			Top Cable Norm	12	9.76		
			Top Cable Tan	12	0.00		
			Bot Cable Vert	12	-6.45		
			Bot Cable Norm	12	9.89		
			Bot Cable Tan	12	0.00		
		Guy C	Bottom Tension	4	10.83		
			Top Tension	4	10.93		
			Top Cable Vert	4	6.28		
			Top Cable Norm	4	8.94		
			Top Cable Tan	4	0.00		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Bot Cable Vert	4	-5.92		
			Bot Cable Norm	4	9.07		
			Bot Cable Tan	4	0.00		
		Torque Arm Top	Max Tension	13	6.98	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	5.74	0.01	0.00
			Max. My	13	4.53	0.00	-0.00
			Max. Vy	4	-0.01	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Torque Arm Bottom	Max Tension	13	6.14	0.00	0.00
			Max. Compression	12	-8.21	0.00	0.00
			Max. Mx	4	-0.10	0.01	0.00
			Max. My	13	-6.07	0.00	0.00
			Max. Vy	4	-0.01	0.00	0.00
			Max. Vx	13	-0.00	0.00	0.00
T15	185 - 180	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	9	-38.58	-0.11	0.04
			Max. Mx	11	-25.76	0.62	0.08
			Max. My	8	-32.21	0.04	-0.65
			Max. Vy	11	1.60	0.62	0.08
			Max. Vx	8	-1.66	0.04	-0.65
		Diagonal	Max Tension	8	2.31	0.00	0.00
			Max. Compression	7	-3.20	0.00	0.00
			Max. Mx	13	0.01	-0.00	0.00
			Max. My	11	-1.88	-0.00	-0.00
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Secondary Horizontal	Max Tension	6	0.93	0.00	0.00
			Max. Compression	8	-0.80	0.00	0.00
			Max. Mx	12	-0.63	-0.01	0.00
			Max. My	7	0.64	-0.01	-0.01
			Max. Vy	12	0.01	-0.01	0.00
			Max. Vx	7	-0.01	0.00	0.00
		Bottom Girt	Max Tension	6	1.18	0.00	0.00
			Max. Compression	12	-0.65	0.00	0.00
			Max. Mx	6	1.18	0.00	0.00
			Max. My	13	0.55	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T16	180 - 170	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-34.63	0.02	0.01
			Max. Mx	11	-24.68	-0.39	-0.07
			Max. My	8	-32.32	-0.02	0.41
			Max. Vy	12	1.66	0.16	0.11
			Max. Vx	8	-1.91	-0.05	-0.16
		Diagonal	Max Tension	7	1.11	0.00	0.00
			Max. Compression	8	-2.56	-0.00	0.02
			Max. Mx	13	-1.47	-0.00	-0.01
			Max. My	13	-2.17	-0.00	-0.02
			Max. Vy	13	0.00	-0.00	-0.01
			Max. Vx	13	0.01	-0.00	-0.02
		Horizontal	Max Tension	12	1.80	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	6	1.09	0.00	0.00
			Max. My	13	1.18	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Top Girt	Max Tension	13	1.37	0.00	0.00
			Max. Compression	6	-0.04	0.00	0.00
			Max. Mx	6	-0.04	0.00	0.00
			Max. My	13	0.45	0.00	-0.00
			Max. Vy	6	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T17	170 - 160	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-36.81	0.09	0.04
			Max. Mx	11	-33.41	-0.19	-0.00
			Max. My	4	-29.44	0.07	-0.17

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	12	1.66	0.02	0.01
			Max. Vx	8	-1.90	-0.04	-0.00
		Diagonal	Max Tension	11	0.82	0.00	0.00
			Max. Compression	4	-1.02	0.00	0.00
			Max. Mx	13	-0.56	-0.00	0.01
			Max. My	6	0.03	-0.00	0.01
			Max. Vy	13	0.00	-0.00	0.01
			Max. Vx	6	-0.00	-0.00	0.01
		Top Girt	Max Tension	12	1.01	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	10	0.68	0.00	0.00
			Max. My	13	0.71	0.00	-0.00
			Max. Vy	10	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	0.36	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	8	0.26	0.00	0.00
			Max. My	13	0.07	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T18	160 - 140	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-45.39	0.19	0.11
			Max. Mx	11	-26.01	-0.50	-0.12
			Max. My	8	-30.46	0.03	0.49
			Max. Vy	11	-1.28	0.09	0.01
			Max. Vx	8	1.26	-0.02	-0.08
		Diagonal	Max Tension	5	1.75	0.00	-0.00
			Max. Compression	4	-2.24	0.00	0.00
			Max. Mx	13	0.17	-0.00	0.00
			Max. My	11	-2.24	-0.00	-0.00
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	8	1.19	0.00	0.00
			Max. Compression	12	-0.79	-0.01	-0.00
			Max. Mx	12	-0.79	-0.01	-0.00
			Max. My	2	-0.63	-0.01	0.01
			Max. Vy	12	0.01	-0.01	-0.00
			Max. Vx	2	-0.01	-0.01	0.01
		Bottom Girt	Max Tension	12	0.71	0.00	0.00
			Max. Compression	6	-0.48	0.00	0.00
			Max. Mx	8	0.63	0.00	0.00
			Max. My	13	-0.12	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	2	0.29	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	8	0.06	0.00	0.00
			Max. My	13	0.20	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Guy A	Bottom Tension	8	6.31		
			Top Tension	8	6.35		
			Top Cable Vert	8	4.34		
			Top Cable Norm	8	4.63		
			Top Cable Tan	8	0.00		
			Bot Cable Vert	8	-4.15		
			Bot Cable Norm	8	4.74		
			Bot Cable Tan	8	0.00		
		Guy B	Bottom Tension	12	6.62		
			Top Tension	12	6.66		
			Top Cable Vert	12	4.51		
			Top Cable Norm	12	4.90		
			Top Cable Tan	12	0.00		
			Bot Cable Vert	12	-4.32		
			Bot Cable Norm	12	5.01		
			Bot Cable Tan	12	0.00		
		Guy C	Bottom Tension	4	6.23		
			Top Tension	4	6.27		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Top Cable Vert	4	4.26		
			Top Cable Norm	4	4.59		
			Top Cable Tan	4	0.00		
			Bot Cable Vert	4	-4.08		
			Bot Cable Norm	4	4.71		
			Bot Cable Tan	4	0.00		
		Top Guy Pull-Off	Max Tension	13	2.06	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	8	0.44	-0.01	0.00
			Max. My	13	1.56	0.00	0.00
			Max. Vy	8	-0.01	0.00	0.00
			Max. Vx	13	-0.00	0.00	0.00
T19	140 - 135	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-37.04	0.28	0.12
			Max. Mx	11	-28.70	0.36	0.07
			Max. My	8	-32.35	-0.04	-0.35
			Max. Vy	11	-1.28	0.36	0.07
			Max. Vx	8	1.27	-0.04	-0.35
		Diagonal	Max Tension	5	1.62	0.00	0.00
			Max. Compression	11	-1.72	-0.00	-0.01
			Max. Mx	13	-0.37	-0.00	-0.00
			Max. My	2	-0.15	0.00	0.01
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	2	0.00	0.00	0.00
		Top Girt	Max Tension	6	0.61	0.00	0.00
			Max. Compression	12	-0.49	0.00	0.00
			Max. Mx	8	-0.42	0.00	0.00
			Max. My	13	0.30	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	0.82	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.76	0.00	0.00
			Max. My	13	0.65	0.00	-0.00
			Max. Vy	8	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T20	135 - 127.5	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-38.95	-0.02	0.02
			Max. Mx	12	-34.13	0.05	-0.01
			Max. My	2	-29.75	0.00	0.05
			Max. Vy	12	0.04	0.05	-0.01
			Max. Vx	2	0.04	0.00	0.05
		Diagonal	Max Tension	11	1.07	0.00	0.00
			Max. Compression	12	-2.43	0.00	0.00
			Max. Mx	13	0.65	-0.00	-0.01
			Max. My	2	-0.73	0.00	0.01
			Max. Vy	13	0.00	-0.00	-0.01
			Max. Vx	2	0.01	0.00	0.00
		Horizontal	Max Tension	12	1.61	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	1.58	0.00	0.00
			Max. My	13	1.19	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	12	1.54	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	1.53	0.00	0.00
			Max. My	13	1.14	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T21	127.5 - 120	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	6	-49.05	-0.16	-0.07
			Max. Mx	12	-6.67	-0.68	-0.33
			Max. My	8	-6.55	0.01	0.70
			Max. Vy	12	-2.21	0.33	0.16
			Max. Vx	8	2.30	0.00	-0.35
		Diagonal	Max Tension	12	1.86	0.00	0.00
			Max. Compression	12	-4.04	0.00	0.00
			Max. Mx	13	0.34	-0.00	-0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	5	-1.75	-0.00	0.00
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	5	-0.00	-0.00	0.00
		Horizontal	Max Tension	12	2.68	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	2.61	0.00	0.00
			Max. My	13	1.69	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Secondary Horizontal	Max Tension	12	0.99	-0.00	-0.00
			Max. Compression	6	-0.78	-0.00	-0.00
			Max. Mx	12	-0.26	-0.00	-0.00
			Max. My	2	0.42	-0.00	0.01
			Max. Vy	12	0.00	-0.00	-0.00
			Max. Vx	2	0.01	0.00	0.00
		Top Girt	Max Tension	12	1.95	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	1.92	0.00	0.00
			Max. My	13	1.36	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	2.32	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	2.20	0.00	0.00
			Max. My	13	0.83	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T22	120 - 112.5	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	6	-49.05	-0.42	-0.19
			Max. Mx	12	-13.45	0.79	0.39
			Max. My	8	-6.56	-0.00	-0.83
			Max. Vy	12	-2.21	0.79	0.39
			Max. Vx	8	2.29	-0.00	-0.83
		Diagonal	Max Tension	4	1.67	0.00	-0.00
			Max. Compression	4	-2.08	0.00	0.00
			Max. Mx	13	0.40	-0.00	-0.00
			Max. My	12	-0.98	-0.00	-0.00
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	12	0.00	-0.00	-0.00
		Secondary Horizontal	Max Tension	6	0.93	0.00	-0.00
			Max. Compression	12	-0.84	0.00	0.00
			Max. Mx	12	0.82	0.01	0.00
			Max. My	13	0.71	-0.00	0.01
			Max. Vy	12	0.01	0.00	0.00
			Max. Vx	13	0.01	0.00	0.00
		Top Girt	Max Tension	6	5.09	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.49	0.00	0.00
			Max. My	13	3.20	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Guy A	Bottom Tension	8	13.58		
			Top Tension	8	13.66		
			Top Cable Vert	8	7.79		
			Top Cable Norm	8	11.21		
			Top Cable Tan	8	0.00		
			Bot Cable Vert	8	-7.53		
			Bot Cable Norm	8	11.30		
			Bot Cable Tan	8	0.00		
		Guy B	Bottom Tension	12	13.92		
			Top Tension	12	14.00		
			Top Cable Vert	12	7.90		
			Top Cable Norm	12	11.56		
			Top Cable Tan	12	0.00		
			Bot Cable Vert	12	-7.63		
			Bot Cable Norm	12	11.64		
			Bot Cable Tan	12	0.00		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Guy C	Bottom Tension	4	13.42		
			Top Tension	4	13.50		
			Top Cable Vert	4	7.65		
			Top Cable Norm	4	11.13		
			Top Cable Tan	4	0.00		
			Bot Cable Vert	4	-7.38		
			Bot Cable Norm	4	11.21		
			Bot Cable Tan	4	0.00		
T23	112.5 - 102.5	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	12	-43.85	-0.02	0.02
			Max. Mx	12	-39.76	0.05	-0.02
			Max. My	12	-41.28	0.00	0.05
			Max. Vy	12	0.04	0.04	0.03
			Max. Vx	8	-0.04	0.00	-0.05
		Diagonal	Max Tension	4	1.73	0.00	0.00
			Max. Compression	4	-1.66	0.00	0.00
			Max. Mx	13	-0.61	-0.00	0.00
			Max. My	2	-0.34	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	2	0.00	-0.00	-0.01
		Mid Girt	Max Tension	12	0.71	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	12	0.71	0.00	0.00
			Max. My	13	0.50	0.00	-0.00
			Max. Vy	12	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T24	102.5 - 100	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-38.51	0.12	-0.08
			Max. Mx	11	-35.04	0.31	0.11
			Max. My	8	-38.42	-0.01	-0.37
			Max. Vy	11	0.92	0.31	0.11
			Max. Vx	8	-1.11	-0.01	-0.37
		Diagonal	Max Tension	13	1.10	0.00	0.00
			Max. Compression	13	-1.89	0.00	0.00
			Max. Mx	13	-0.42	-0.00	-0.00
			Max. My	5	0.65	0.00	0.00
			Max. Vy	13	0.00	-0.00	-0.00
			Max. Vx	6	0.00	-0.00	0.00
		Secondary Horizontal	Max Tension	12	0.65	0.00	0.00
			Max. Compression	12	-0.65	-0.01	-0.00
			Max. Mx	12	-0.65	-0.01	-0.00
			Max. My	13	0.63	-0.01	0.01
			Max. Vy	12	0.01	-0.01	-0.00
			Max. Vx	13	0.01	0.00	0.00
		Bottom Girt	Max Tension	6	0.64	0.00	0.00
			Max. Compression	12	-0.23	0.00	0.00
			Max. Mx	12	-0.23	0.00	0.00
			Max. My	13	0.30	0.00	-0.00
			Max. Vy	12	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T25	100 - 80	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-46.66	-0.11	-0.04
			Max. Mx	12	-38.11	0.38	0.04
			Max. My	5	-35.55	0.02	-0.27
			Max. Vy	12	-1.13	0.15	0.02
			Max. Vx	5	0.84	0.02	-0.10
		Diagonal	Max Tension	13	1.16	0.00	0.00
			Max. Compression	13	-1.33	0.00	0.00
			Max. Mx	13	-0.30	-0.00	0.01
			Max. My	13	-0.19	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	0.01
			Max. Vx	13	0.00	-0.00	-0.01
		Top Girt	Max Tension	12	0.69	0.00	0.00
			Max. Compression	6	-0.24	0.00	0.00
			Max. Mx	12	0.69	0.00	0.00
			Max. My	13	0.11	0.00	-0.00
			Max. Vy	12	-0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	8	0.16	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.15	0.00	0.00
			Max. My	13	0.11	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	6	0.28	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.22	0.00	0.00
			Max. My	13	0.24	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T26	80 - 60	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-46.06	0.02	-0.09
			Max. Mx	8	-35.08	0.43	0.01
			Max. My	13	-37.97	0.04	-0.27
			Max. Vy	8	1.23	-0.13	-0.01
			Max. Vx	13	-0.90	0.06	0.14
		Diagonal	Max Tension	5	1.20	0.00	0.00
			Max. Compression	5	-1.41	0.00	0.00
			Max. Mx	13	-0.61	-0.00	0.01
			Max. My	13	0.18	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	0.01
			Max. Vx	13	0.00	-0.00	-0.01
		Top Girt	Max Tension	6	0.19	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.00	0.00	0.00
			Max. My	13	0.14	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	8	0.65	0.00	0.00
			Max. Compression	6	-0.17	0.00	0.00
			Max. Mx	4	0.64	0.00	0.00
			Max. My	13	0.11	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	6	0.30	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.22	0.00	0.00
			Max. My	13	0.24	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T27	60 - 40	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	8	-53.54	0.14	-0.01
			Max. Mx	8	-35.09	-0.39	-0.02
			Max. My	13	-37.97	0.07	0.33
			Max. Vy	8	1.22	-0.39	-0.02
			Max. Vx	13	-0.90	0.07	0.33
		Diagonal	Max Tension	13	1.26	0.00	0.00
			Max. Compression	13	-1.31	0.00	0.00
			Max. Mx	13	-0.06	-0.00	0.00
			Max. My	13	-0.59	-0.00	-0.01
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	13	0.00	-0.00	-0.01
		Top Girt	Max Tension	6	3.53	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.27	0.00	0.00
			Max. My	13	1.94	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	6	0.34	0.00	0.00
			Max. Compression	12	-0.16	0.00	0.00
			Max. Mx	4	-0.16	0.00	0.00
			Max. My	13	0.18	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	6	0.40	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	4	0.17	0.00	0.00
			Max. My	13	0.28	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Guy A	Bottom Tension	8	7.56		
			Top Tension	8	7.58		
			Top Cable Vert	8	2.49		
			Top Cable Norm	8	7.16		
			Top Cable Tan	8	0.00		
			Bot Cable Vert	8	-2.39		
			Bot Cable Norm	8	7.17		
			Bot Cable Tan	8	0.00		
		Guy B	Bottom Tension	12	7.51		
			Top Tension	12	7.53		
			Top Cable Vert	12	2.44		
			Top Cable Norm	12	7.13		
			Top Cable Tan	12	0.00		
			Bot Cable Vert	12	-2.33		
			Bot Cable Norm	12	7.13		
			Bot Cable Tan	12	0.00		
		Guy C	Bottom Tension	4	7.52		
			Top Tension	4	7.54		
			Top Cable Vert	4	2.45		
			Top Cable Norm	4	7.13		
			Top Cable Tan	4	0.00		
			Bot Cable Vert	4	-2.35		
			Bot Cable Norm	4	7.14		
			Bot Cable Tan	4	0.00		
T28	40 - 20	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	8	-55.73	0.12	-0.00
			Max. Mx	4	-53.89	0.23	-0.02
			Max. My	13	-36.60	0.06	-0.21
			Max. Vy	4	0.52	-0.00	0.01
			Max. Vx	13	-0.67	0.04	0.09
		Diagonal	Max Tension	2	0.68	0.00	0.00
			Max. Compression	2	-0.94	0.00	0.00
			Max. Mx	13	-0.36	-0.00	0.00
			Max. My	13	-0.09	-0.00	-0.00
			Max. Vy	13	0.00	-0.00	0.00
			Max. Vx	13	0.00	-0.00	-0.00
		Top Girt	Max Tension	12	0.31	0.00	0.00
			Max. Compression	11	-0.01	0.00	0.00
			Max. Mx	4	0.30	0.00	0.00
			Max. My	13	0.07	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	8	0.34	0.00	0.00
			Max. Compression	6	-0.07	0.00	0.00
			Max. Mx	4	0.34	0.00	0.00
			Max. My	13	0.15	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	6	0.35	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.16	0.00	0.00
			Max. My	13	0.26	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T29	20 - 5.25	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	8	-54.03	-0.11	-0.08
			Max. Mx	8	-44.89	-1.89	0.21
			Max. My	13	-37.51	0.29	-0.61
			Max. Vy	8	5.28	-1.89	0.21
			Max. Vx	13	-0.94	-1.48	-0.18
		Diagonal	Max Tension	8	1.29	0.00	0.00
			Max. Compression	2	-1.98	0.00	0.00
			Max. Mx	13	-1.20	-0.00	0.00
			Max. My	10	-0.37	0.00	0.00
			Max. Vy	13	0.00	-0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	2	0.00	-0.00	-0.00
		Top Girt	Max Tension	6	0.66	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.03	0.00	0.00
			Max. My	13	0.34	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	2.90	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	2.88	0.00	0.00
			Max. My	13	2.63	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Mid Girt	Max Tension	6	0.69	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	0.50	0.00	0.00
			Max. My	13	0.60	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
T30	5.25 - 0	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	8	-47.01	0.00	-0.05
			Max. Mx	8	-44.24	-1.89	0.20
			Max. My	13	-39.54	0.12	1.56
			Max. Vy	12	-9.27	-1.89	-0.12
			Max. Vx	13	-2.21	0.12	1.56
		Diagonal	Max Tension	13	0.18	0.00	0.00
			Max. Compression	13	-6.17	0.00	0.00
			Max. Mx	13	-6.16	-0.00	-0.02
			Max. My	13	-6.17	-0.00	-0.02
			Max. Vy	5	0.01	0.00	0.00
			Max. Vx	13	-0.06	0.00	0.00
		Horizontal	Max Tension	12	2.50	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	1.12	0.00	0.00
			Max. My	13	1.01	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Top Girt	Max Tension	12	5.90	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	4	4.90	0.00	0.00
			Max. My	13	5.32	0.00	-0.00
			Max. Vy	4	-0.00	0.00	0.00
			Max. Vx	13	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	2.05	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	10	1.94	0.00	0.00
			Max. Vy	10	0.00	0.00	0.00
			Max. Vx	13	-0.00	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Mast	Max. Vert	12	120.20	1.05	0.60
	Max. H_x	11	113.57	1.27	0.04
	Max. H_z	2	109.74	-0.02	1.45
	Max. M_x	1	0.00	-0.00	-0.00
	Max. M_z	1	0.00	-0.00	-0.00
	Max. Torsion	13	1.70	0.67	1.07
	Min. Vert	1	65.16	-0.00	-0.00
	Min. H_x	5	113.33	-1.29	0.05
	Min. H_z	8	120.11	-0.00	-1.23
	Min. M_x	1	0.00	-0.00	-0.00
	Min. M_z	1	0.00	-0.00	-0.00

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Min. Torsion	7	-1.44	-0.60	-1.14
Guy C @ 327 ft Elev 0 ft Azimuth 240 deg	Max. Vert	22	-3.04	-2.40	1.39
	Max. H_x	10	-3.35	-1.97	1.14
	Max. H_z	4	-23.07	-19.03	10.98
	Min. Vert	4	-23.07	-19.03	10.98
	Min. H_x	4	-23.07	-19.03	10.98
	Min. H_z	10	-3.35	-1.97	1.14
Guy B @ 329 ft Elev 0 ft Azimuth 120 deg	Max. Vert	18	-3.02	2.40	1.39
	Max. H_x	12	-22.94	19.04	10.98
	Max. H_z	12	-22.94	19.04	10.98
	Min. Vert	12	-22.94	19.04	10.98
	Min. H_x	6	-3.32	1.96	1.13
	Min. H_z	6	-3.32	1.96	1.13
Guy A @ 325 ft Elev 0 ft Azimuth 0 deg	Max. Vert	14	-3.08	-0.00	-2.79
	Max. H_x	11	-9.56	1.33	-8.71
	Max. H_z	2	-3.39	-0.00	-2.29
	Min. Vert	8	-23.23	0.01	-21.98
	Min. H_x	5	-9.52	-1.33	-8.68
	Min. H_z	8	-23.23	0.01	-21.98
Guy C @ 281 ft Elev 0 ft Azimuth 240 deg	Max. Vert	10	-1.45	-1.23	0.71
	Max. H_x	10	-1.45	-1.23	0.71
	Max. H_z	4	-22.72	-26.29	15.18
	Min. Vert	4	-22.72	-26.29	15.18
	Min. H_x	4	-22.72	-26.29	15.18
	Min. H_z	10	-1.45	-1.23	0.71
Guy B @ 282 ft Elev 0 ft Azimuth 120 deg	Max. Vert	6	-1.42	1.20	0.70
	Max. H_x	12	-23.27	27.07	15.61
	Max. H_z	12	-23.27	27.07	15.61
	Min. Vert	12	-23.27	27.07	15.61
	Min. H_x	6	-1.42	1.20	0.70
	Min. H_z	6	-1.42	1.20	0.70
Guy A @ 279 ft Elev 0 ft Azimuth 0 deg	Max. Vert	2	-1.48	-0.00	-1.44
	Max. H_x	11	-8.58	1.26	-11.42
	Max. H_z	2	-1.48	-0.00	-1.44
	Min. Vert	8	-23.01	0.01	-30.53
	Min. H_x	5	-8.74	-1.25	-11.64
	Min. H_z	8	-23.01	0.01	-30.53
Guy C @ 179 ft Elev 0 ft Azimuth 240 deg	Max. Vert	10	-0.49	-0.51	0.29
	Max. H_x	10	-0.49	-0.51	0.29
	Max. H_z	4	-13.81	-19.97	11.53
	Min. Vert	4	-13.81	-19.97	11.53
	Min. H_x	4	-13.81	-19.97	11.53
	Min. H_z	10	-0.49	-0.51	0.29
Guy B @ 180 ft Elev 0 ft Azimuth 120 deg	Max. Vert	6	-0.48	0.50	0.29
	Max. H_x	12	-14.28	20.60	11.89
	Max. H_z	12	-14.28	20.60	11.89
	Min. Vert	12	-14.28	20.60	11.89
	Min. H_x	6	-0.48	0.50	0.29
	Min. H_z	6	-0.48	0.50	0.29
Guy A @ 177 ft Elev 0 ft Azimuth 0 deg	Max. Vert	2	-0.50	-0.00	-0.59
	Max. H_x	11	-4.67	0.58	-7.77

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Max. H_z	2	-0.50	-0.00	-0.59
	Min. Vert	8	-14.07	0.00	-23.21
	Min. H_x	5	-4.80	-0.58	-7.94
	Min. H_z	8	-14.07	0.00	-23.21

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	65.16	0.00	0.00	0.00	0.00	0.00
1.2 Dead+1.6 Wind 0 deg - No Ice+1.0 Guy	109.74	0.02	-1.45	0.00	0.00	-1.22
1.2 Dead+1.6 Wind 30 deg - No Ice+1.0 Guy	112.51	0.69	-1.07	0.00	0.00	-0.81
1.2 Dead+1.6 Wind 60 deg - No Ice+1.0 Guy	119.48	1.08	-0.62	0.00	0.00	-0.56
1.2 Dead+1.6 Wind 90 deg - No Ice+1.0 Guy	113.33	1.29	-0.05	0.00	0.00	-0.03
1.2 Dead+1.6 Wind 120 deg - No Ice+1.0 Guy	110.30	1.26	0.72	0.00	0.00	0.47
1.2 Dead+1.6 Wind 150 deg - No Ice+1.0 Guy	113.95	0.60	1.14	0.00	0.00	1.44
1.2 Dead+1.6 Wind 180 deg - No Ice+1.0 Guy	120.11	0.00	1.23	0.00	0.00	1.33
1.2 Dead+1.6 Wind 210 deg - No Ice+1.0 Guy	112.90	-0.59	1.13	0.00	0.00	0.78
1.2 Dead+1.6 Wind 240 deg - No Ice+1.0 Guy	109.73	-1.25	0.74	0.00	0.00	0.77
1.2 Dead+1.6 Wind 270 deg - No Ice+1.0 Guy	113.57	-1.27	-0.04	0.00	0.00	0.32
1.2 Dead+1.6 Wind 300 deg - No Ice+1.0 Guy	120.20	-1.05	-0.60	0.00	0.00	-0.82
1.2 Dead+1.6 Wind 330 deg - No Ice+1.0 Guy	113.86	-0.67	-1.07	0.00	0.00	-1.70
Dead+Wind 0 deg - Service+Guy	67.37	0.01	-0.35	0.00	0.00	-0.31
Dead+Wind 30 deg - Service+Guy	67.44	0.17	-0.28	0.00	0.00	-0.16
Dead+Wind 60 deg - Service+Guy	67.56	0.29	-0.16	0.00	0.00	-0.12
Dead+Wind 90 deg - Service+Guy	67.45	0.34	0.00	0.00	0.00	-0.01
Dead+Wind 120 deg - Service+Guy	67.43	0.31	0.18	0.00	0.00	0.15
Dead+Wind 150 deg - Service+Guy	67.51	0.17	0.29	0.00	0.00	0.27
Dead+Wind 180 deg - Service+Guy	67.63	0.00	0.33	0.00	0.00	0.26
Dead+Wind 210 deg - Service+Guy	67.49	-0.16	0.28	0.00	0.00	0.16
Dead+Wind 240 deg - Service+Guy	67.40	-0.30	0.18	0.00	0.00	0.16
Dead+Wind 270 deg - Service+Guy	67.42	-0.33	0.00	0.00	0.00	0.07
Dead+Wind 300 deg - Service+Guy	67.54	-0.28	-0.16	0.00	0.00	-0.15
Dead+Wind 330 deg - Service+Guy	67.42	-0.16	-0.28	0.00	0.00	-0.32

Solution Summary

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
1	0.00	-25.87	0.00	-0.01	25.38	-0.02	1.901%
2	-1.18	-30.94	-60.46	1.32	30.60	49.71	15.843%
3	28.85	-30.16	-50.44	-34.45	29.38	42.48	14.928%
4	51.03	-29.38	-29.44	-54.82	28.66	31.73	6.814%
5	59.58	-30.16	0.09	-55.16	29.34	9.27	15.547%
6	52.38	-30.94	30.55	-43.12	30.60	-25.26	15.675%
7	29.88	-30.16	51.94	-19.55	29.35	-52.90	15.514%
8	0.11	-29.38	59.18	0.00	28.66	-63.64	6.838%
9	-29.08	-30.16	50.39	19.42	29.37	-51.30	14.852%
10	-52.71	-30.94	29.37	43.44	30.60	-23.93	15.855%
11	-60.32	-30.16	-0.68	56.06	29.34	10.12	15.396%
12	-52.35	-29.38	-30.33	56.36	28.67	32.62	6.942%
13	-30.83	-30.16	-52.16	36.96	29.36	43.75	15.427%
14	-0.23	-26.02	-11.66	0.23	25.88	11.22	1.613%
15	5.56	-25.87	-9.73	-5.45	25.62	9.42	1.442%
16	9.84	-25.72	-5.68	-9.59	25.34	5.55	1.665%
17	11.49	-25.87	0.02	-11.14	25.61	0.07	1.569%
18	10.10	-26.02	5.89	-9.70	25.87	-5.66	1.702%
19	5.76	-25.87	10.02	-5.51	25.60	-9.76	1.593%
20	0.02	-25.72	11.42	-0.01	25.33	-11.13	1.700%
21	-5.61	-25.87	9.72	5.39	25.62	-9.47	1.472%
22	-10.17	-26.02	5.67	9.78	25.88	-5.44	1.641%
23	-11.64	-25.87	-0.13	11.29	25.61	0.22	1.546%
24	-10.10	-25.72	-5.85	9.85	25.33	5.71	1.695%
25	-5.95	-25.87	-10.06	5.85	25.60	9.73	1.545%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	7	0.00334933	0.00532441
2	Yes	26	0.00699735	0.00278551
3	Yes	9	0.00575046	0.00652878
4	Yes	9	0.00313845	0.00628226
5	Yes	9	0.00616167	0.00681668
6	Yes	27	0.00688102	0.00272320
7	Yes	9	0.00653307	0.00690735
8	Yes	9	0.00350586	0.00656355
9	Yes	9	0.00570353	0.00652556
10	Yes	26	0.00699035	0.00278921
11	Yes	9	0.00608571	0.00680510
12	Yes	9	0.00391138	0.00657870
13	Yes	9	0.00662909	0.00696959
14	Yes	4	0.00307669	0.00149902
15	Yes	4	0.00135798	0.00224132
16	Yes	4	0.00132251	0.00336161
17	Yes	4	0.00212598	0.00242857
18	Yes	4	0.00370979	0.00164864
19	Yes	4	0.00288391	0.00257067
20	Yes	4	0.00177400	0.00346307
21	Yes	4	0.00135883	0.00229029
22	Yes	4	0.00229451	0.00144824
23	Yes	4	0.00199171	0.00244280
24	Yes	4	0.00231362	0.00354523
25	Yes	4	0.00300604	0.00256547

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	400 - 380	3.221	20	0.0409	1.4070
T2	380 - 360	3.125	20	0.0385	1.3863
T3	360 - 340	3.032	20	0.0267	1.3373
T4	340 - 320	2.903	20	0.0275	1.2672
T5	320 - 300	2.814	24	0.0274	1.2035
T6	300 - 280	2.669	24	0.0484	1.1395
T7	280 - 262.5	2.415	24	0.0648	1.0582
T8	262.5 - 260	2.180	24	0.0477	0.9568
T9	260 - 240	2.148	24	0.0417	0.9222
T10	240 - 220	2.044	24	0.0266	0.7743
T11	220 - 200	1.929	24	0.0447	0.6136
T12	200 - 195	1.701	24	0.0617	0.4351
T13	195 - 190	1.636	24	0.0553	0.3838
T14	190 - 185	1.588	24	0.0427	0.3647
T15	185 - 180	1.562	24	0.0311	0.3667
T16	180 - 170	1.555	24	0.0256	0.3716
T17	170 - 160	1.530	24	0.0238	0.3739
T18	160 - 140	1.481	24	0.0260	0.3765
T19	140 - 135	1.308	24	0.0524	0.3809
T20	135 - 127.5	1.245	24	0.0540	0.3803
T21	127.5 - 120	1.156	24	0.0487	0.3784
T22	120 - 112.5	1.075	24	0.0323	0.3740
T23	112.5 - 102.5	1.041	24	0.0177	0.3713
T24	102.5 - 100	1.020	24	0.0119	0.3667
T25	100 - 80	1.018	24	0.0125	0.3636
T26	80 - 60	0.945	24	0.0274	0.3493
T27	60 - 40	0.808	18	0.0360	0.3353
T28	40 - 20	0.657	18	0.0490	0.3172
T29	20 - 5.25	0.387	18	0.0794	0.2910
T30	5.25 - 0	0.106	18	0.0938	0.2539

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
400.00	Generic Lightning Rod 4' copper	20	3.221	0.0409	1.4070	455244
399.00	Bogner 21'	20	3.216	0.0410	1.4063	455244
398.00	Bogner 18'	20	3.211	0.0411	1.4056	455244
393.50	10' Omni	20	3.188	0.0413	1.4020	350188
390.13	Guy	20	3.172	0.0412	1.3990	230504
385.00	10' Omni	20	3.147	0.0404	1.3935	151748
382.00	25' Omni	20	3.134	0.0394	1.3894	125936
334.96	Guy	20	2.876	0.0264	1.2501	63909
327.00	18' Omni	24	2.841	0.0260	1.2245	145454
276.00	10' Dipole	24	2.360	0.0646	1.0468	259648
259.79	Guy	24	2.146	0.0412	0.9194	16082
208.00	APXVERR18-C	24	1.802	0.0601	0.5138	49912
190.00	Guy	24	1.588	0.0427	0.3647	13623
181.00	VHLP2-11W	24	1.556	0.0263	0.3708	92004
180.00	Panel Antenna	24	1.555	0.0256	0.3716	146076
179.00	VHLP2-11W	24	1.553	0.0251	0.3722	68208
171.50	SPD4-4.7	24	1.535	0.0237	0.3737	49399
165.00	PAR6-59	24	1.508	0.0241	0.3749	54714
159.79	Guy	24	1.480	0.0262	0.3766	55742
149.00	Panel Antenna	24	1.401	0.0419	0.3800	37530
132.00	Canopy w/ Mount	24	1.209	0.0532	0.3798	134824
119.79	Guy	24	1.073	0.0318	0.3739	12263
86.50	20' Omni	24	0.981	0.0220	0.3527	36409
59.79	Guy	18	0.806	0.0361	0.3351	112294

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	400 - 380	32.312	8	0.5192	5.4358
T2	380 - 360	31.289	8	0.4768	5.4073
T3	360 - 340	30.031	8	0.4729	5.2950
T4	340 - 320	28.284	8	0.4248	5.0670
T5	320 - 300	26.638	8	0.4245	4.9492
T6	300 - 280	24.590	8	0.5671	4.8441
T7	280 - 262.5	21.945	12	0.6596	4.6284
T8	262.5 - 260	19.614	12	0.5471	4.2430
T9	260 - 240	19.298	12	0.5078	4.0999
T10	240 - 220	17.730	12	0.3912	3.5912
T11	220 - 200	16.141	12	0.4829	3.0097
T12	200 - 195	13.919	12	0.5576	2.3205
T13	195 - 190	13.336	12	0.5131	2.1150
T14	190 - 185	12.850	12	0.4324	2.0387
T15	185 - 180	12.500	12	0.3569	2.0465
T16	180 - 170	12.267	12	0.3171	2.0628
T17	170 - 160	11.752	12	0.2918	2.0568
T18	160 - 140	11.113	12	0.3188	2.0516
T19	140 - 135	9.458	12	0.4447	2.0529
T20	135 - 127.5	8.955	6	0.4472	2.0425
T21	127.5 - 120	8.614	6	0.4070	2.0255
T22	120 - 112.5	8.312	6	0.3047	1.9885
T23	112.5 - 102.5	8.206	6	0.2100	1.9744
T24	102.5 - 100	8.148	6	0.1585	1.9507
T25	100 - 80	8.144	6	0.1565	1.9343
T26	80 - 60	7.707	6	0.2134	1.8556
T27	60 - 40	6.634	6	0.2899	1.7746
T28	40 - 20	5.227	6	0.4301	1.6872
T29	20 - 5.25	2.981	6	0.6307	1.5538
T30	5.25 - 0	0.811	6	0.7204	1.3552

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
400.00	Generic Lightning Rod 4' copper	8	32.312	0.5192	5.4358	85160
399.00	Bogner 21'	8	32.262	0.5164	5.4350	85160
398.00	Bogner 18'	8	32.212	0.5137	5.4342	85160
393.50	10' Omni	8	31.987	0.5016	5.4301	65508
390.13	Guy	8	31.816	0.4934	5.4263	43119
385.00	10' Omni	8	31.553	0.4831	5.4185	28387
382.00	25' Omni	8	31.396	0.4788	5.4123	23244
334.96	Guy	8	27.863	0.4086	5.0247	11587
327.00	18' Omni	8	27.221	0.4089	4.9780	26365
276.00	10' Dipole	12	21.402	0.6562	4.5954	20547
259.79	Guy	12	19.273	0.5046	4.0885	2456
208.00	APXVERR18-C	12	14.861	0.5595	2.6299	11474
190.00	Guy	12	12.850	0.4324	2.0387	2223
181.00	VHLP2-11W	12	12.311	0.3227	2.0606	12389
180.00	Panel Antenna	12	12.267	0.3171	2.0628	33394
179.00	VHLP2-11W	12	12.223	0.3123	2.0643	13098
171.50	SPD4-4.7	12	11.838	0.2933	2.0590	9440
165.00	PAR6-59	12	11.447	0.2952	2.0522	10853
159.79	Guy	12	11.099	0.3200	2.0516	11184
149.00	Panel Antenna	12	10.279	0.3973	2.0575	7648
132.00	Canopy w/ Mount	6	8.816	0.4388	2.0373	14677
119.79	Guy	6	8.306	0.3017	1.9877	2087
86.50	20' Omni	6	7.932	0.1899	1.8754	6356
59.79	Guy	6	6.621	0.2910	1.7737	22096

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	400	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T2	380	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T3	360	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T4	340	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T5	320	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T6	300	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T7	280	Leg	A325X	0.5625	3	2.35	24.60	0.096 ✓	1	Bolt DS
T8	262.5	Leg	A325X	0.5625	3	4.33	24.60	0.176 ✓	1	Bolt DS
T9	260	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T10	240	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T11	220	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T12	200	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T13	195	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T14	190	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T15	185	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T16	180	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T17	170	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T18	160	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T19	140	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T20	135	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T21	127.5	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T22	120	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T23	112.5	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T24	102.5	Leg	A325X	0.5625	3	0.00	24.60	0.000 ✓	1	Bolt DS
T25	100	Leg	A325X	0.5625	3	46.06	24.60	1.872 ✗	1	Bolt DS
T26	80	Leg	A325X	0.5625	3	39.60	24.60	1.610 ✗	1	Bolt DS
T27	60	Leg	A325X	0.5625	3	53.54	24.60	2.176 ✗	1	Bolt DS
T28	40	Leg	A325X	0.5625	3	54.03	24.60	2.196 ✗	1	Bolt DS
T29	20	Leg	A325X	0.5625	3	44.89	24.60	1.825 ✗	1	Bolt DS
T30	5.25	Leg	A325X	0.5625	3	46.64	24.60	1.896 ✗	1	Bolt DS

Guy Design Data

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T_u K	Allowable ϕT_n K	Required S.F.	Actual S.F.
T1	390.13 (A) (1356)	9/16 EHS	3.50	35.00	18.15	21.00	1.000	1.157 ✓
	390.13 (B) (1355)	9/16 EHS	3.50	35.00	17.99	21.00	1.000	1.168 ✓
	390.13 (C) (1354)	9/16 EHS	3.50	35.00	18.07	21.00	1.000	1.162 ✓
T4	334.96 (A) (1359)	1/2 EHS	2.69	26.90	14.28	16.14	1.000	1.131 ✓

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T_u K	Allowable ϕT_n K	Required S.F.	Actual S.F.
	334.96 (B) (1358)	1/2 EHS	2.69	26.90	14.24	16.14	1.000	1.133 ✔
	334.96 (C) (1357)	1/2 EHS	2.69	26.90	14.23	16.14	1.000	1.134 ✔
T9	259.79 (A) (1362)	9/16 EHS	3.50	35.00	16.74	21.00	1.000	1.254 ✔
	259.79 (B) (1361)	9/16 EHS	3.50	35.00	16.80	21.00	1.000	1.250 ✔
	259.79 (C) (1360)	9/16 EHS	3.50	35.00	16.68	21.00	1.000	1.259 ✔
T14	190.00 (A) (1375)	1/2 EHS	2.69	26.90	10.47	16.14	1.000	1.542 ✔
	190.00 (A) (1376)	1/2 EHS	2.69	26.90	11.49	16.14	1.000	1.405 ✔
	190.00 (B) (1369)	1/2 EHS	2.69	26.90	11.91	16.14	1.000	1.356 ✔
	190.00 (B) (1370)	1/2 EHS	2.69	26.90	10.72	16.14	1.000	1.505 ✔
	190.00 (C) (1363)	1/2 EHS	2.69	26.90	10.79	16.14	1.000	1.497 ✔
	190.00 (C) (1364)	1/2 EHS	2.69	26.90	10.93	16.14	1.000	1.477 ✔
T18	159.79 (A) (1383)	3/8 EHS	1.54	15.40	6.35	9.24	1.000	1.456 ✔
	159.79 (B) (1382)	3/8 EHS	1.54	15.40	6.66	9.24	1.000	1.388 ✔
	159.79 (C) (1381)	3/8 EHS	1.54	15.40	6.27	9.24	1.000	1.474 ✔
T22	119.79 (A) (1386)	9/16 EHS	3.50	35.00	13.66	21.00	1.000	1.538 ✔
	119.79 (B) (1385)	9/16 EHS	3.50	35.00	14.00	21.00	1.000	1.500 ✔
	119.79 (C) (1384)	9/16 EHS	3.50	35.00	13.50	21.00	1.000	1.555 ✔
T27	59.79 (A) (1389)	7/16 EHS	2.08	20.80	7.58	12.48	1.000	1.646 ✔
	59.79 (B) (1388)	7/16 EHS	2.08	20.80	7.53	12.48	1.000	1.657 ✔
	59.79 (C) (1387)	7/16 EHS	2.08	20.80	7.54	12.48	1.000	1.655 ✔

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	Mast Stability Index	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	400 - 380	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-15.38	51.35	0.299 [1] ✔
T2	380 - 360	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-18.18	51.35	0.354 [1] ✔
T3	360 - 340	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-17.52	51.35	0.341 [1] ✔
T4	340 - 320	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-22.53	51.35	0.439 [1] ✔
T5	320 - 300	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-26.28	51.35	0.512 [1] ✔
T6	300 - 280	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-25.75	51.35	0.501 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	Mast Stability Index	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T7	280 - 262.5	1 1/2	17.50	2.16	69.2 K=1.00	1.7672	1.00	-28.55	56.05	0.509 [1]
T8	262.5 - 260	1 1/2	2.50	1.02	32.7 K=1.00	1.7672	0.94	-32.17	69.37	0.464 [1]
T9	260 - 240	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-32.43	51.35	0.631 [1]
T10	240 - 220	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-31.46	51.35	0.613 [1]
T11	220 - 200	1 1/2	20.00	2.42	77.3 K=1.00	1.7672	1.00	-31.52	51.35	0.614 [1]
T12	200 - 195	1 1/2	5.00	2.40	76.7 K=1.00	1.7672	1.00	-34.64	51.74	0.669 [1]
T13	195 - 190	1 1/2	5.00	1.25	40.0 K=1.00	1.7672	0.95	-47.03	67.41	0.698 [1]
T14	190 - 185	1 1/2	5.00	2.50	80.0 K=1.00	1.7672	1.00	-47.07	49.80	0.945 [1]
T15	185 - 180	1 1/2	5.00	1.14	36.3 K=1.00	1.7672	1.00	-38.58	72.20	0.534 [1]
T16	180 - 170	1 1/2	10.00	2.43	77.7 K=1.00	1.7672	1.00	-34.63	51.16	0.677 [1]
T17	170 - 160	1 1/2	10.00	2.36	75.7 K=1.00	1.7672	1.00	-36.81	52.32	0.704 [1]
T18	160 - 140	1 1/2	20.00	1.21	38.7 K=1.00	1.7672	1.00	-45.39	71.29	0.637 [1]
T19	140 - 135	1 1/2	5.00	2.40	76.7 K=1.00	1.7672	1.00	-37.04	51.74	0.716 [1]
T20	135 - 127.5	1 1/2	7.50	1.88	60.0 K=1.00	1.7672	1.00	-38.95	61.12	0.637 [1]
T21	127.5 - 120	1 1/2	7.50	1.17	37.6 K=1.00	1.7672	1.00	-49.05	71.73	0.684 [1]
T22	120 - 112.5	1 1/2	7.50	1.22	38.9 K=1.00	1.7672	0.97	-49.05	68.96	0.711 [1]
T23	112.5 - 102.5	1 1/2	10.00	2.50	80.0 K=1.00	1.7672	1.00	-43.85	49.80	0.880 [1]
T24	102.5 - 100	1 1/2	2.50	1.02	32.7 K=1.00	1.7672	0.94	-38.51	68.83	0.560 [1]
T25	100 - 80	1.5 SR w/ 1.9x0.2 Half Pipe	20.00	2.42	69.1 K=1.00	2.2894	1.00	-46.66	72.66	0.642 [1]
T26	80 - 60	1.5 SR w/ 1.9x0.2 Half Pipe	20.00	2.42	69.1 K=1.00	2.2894	1.00	-46.06	72.66	0.634 [1]
T27	60 - 40	1.5 SR w/ 1.9x0.2 Half Pipe	20.00	2.42	69.1 K=1.00	2.2894	1.00	-53.54	72.66	0.737 [1]
T28	40 - 20	1.5 SR w/ 1.9x0.2 Half Pipe	20.00	2.42	69.1 K=1.00	2.2894	1.00	-55.73	72.66	0.767 [1]
T29	20 - 5.25	1.5 SR w/ 1.9x0.2 Half Pipe	14.75	2.35	67.1 K=1.00	2.2894	1.00	-54.03	74.11	0.729 [1]
T30	5.25 - 0	1.5 SR w/ 1.9x0.2 Half Pipe	5.53	1.61	46.0 K=1.00	2.2894	0.98	-47.01	86.80	0.542 [1]

[1] P_u / ϕP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	400 - 380	9/16	3.85	1.85	118.1 K=0.75	0.2485	-2.22	3.86	0.574 [1] ✓
T2	380 - 360	9/16	3.85	1.85	118.1 K=0.75	0.2485	-1.09	3.86	0.282 [1] ✓
T3	360 - 340	9/16	3.85	1.85	118.1 K=0.75	0.2485	-1.86	3.86	0.481 [1] ✓
T4	340 - 320	9/16	3.85	1.85	118.1 K=0.75	0.2485	-3.17	3.86	0.822 [1] ✓
T5	320 - 300	9/16	3.85	1.85	118.1 K=0.75	0.2485	-1.26	3.86	0.327 [1] ✓
T6	300 - 280	9/16	3.85	1.85	118.1 K=0.75	0.2485	-1.79	3.86	0.464 [1] ✓
T7	280 - 262.5	9/16	3.70	1.77	113.4 K=0.75	0.2485	-2.86	4.09	0.699 [1] ✓
T8	262.5 - 260	9/16	3.63	1.74	111.3 K=0.75	0.2485	-4.65	4.20	1.108 [1] ✗
		4.8.1 (1.11 CR) - 427							
T9	260 - 240	9/16	3.85	1.85	118.1 K=0.75	0.2485	-2.41	3.86	0.624 [1] ✓
T10	240 - 220	9/16	3.85	1.85	118.1 K=0.75	0.2485	-2.26	3.86	0.584 [1] ✓
T11	220 - 200	9/16	3.85	1.85	118.1 K=0.75	0.2485	-3.85	3.86	0.997 [1] ✓
T12	200 - 195	9/16	3.84	1.84	117.7 K=0.75	0.2485	-4.44	3.88	1.145 [1] ✗
		4.8.1 (1.14 CR) - 633							
T13	195 - 190	9/16	3.91	1.87	119.8 K=0.75	0.2485	-4.06	3.78	1.073 [1] ✗
		4.8.1 (1.07 CR) - 651							
T14	190 - 185	9/16	3.91	1.87	119.8 K=0.75	0.2485	-2.57	3.78	0.678 [1] ✓
T15	185 - 180	9/16	3.76	1.80	115.4 K=0.75	0.2485	-3.20	3.99	0.801 [1] ✓
T16	180 - 170	9/16	3.86	1.85	118.3 K=0.75	0.2485	-2.56	3.85	0.663 [1] ✓
T17	170 - 160	9/16	3.82	1.83	117.1 K=0.75	0.2485	-1.02	3.91	0.261 [1] ✓
T18	160 - 140	9/16	3.85	1.85	118.1 K=0.75	0.2485	-2.24	3.86	0.580 [1] ✓
T19	140 - 135	9/16	3.84	1.84	117.7 K=0.75	0.2485	-1.72	3.88	0.444 [1] ✓
T20	135 - 127.5	9/16	3.54	1.70	108.5 K=0.75	0.2485	-2.43	4.33	0.560 [1] ✓
T21	127.5 - 120	9/16	3.81	1.83	116.8 K=0.75	0.2485	-4.04	3.93	1.030 [1] ✗
		4.8.1 (1.03 CR) - 922							
T22	120 - 112.5	9/16	3.86	1.85	118.4 K=0.75	0.2485	-2.08	3.85	0.542 [1] ✓
T23	112.5 - 102.5	9/16	3.91	1.87	119.8 K=0.75	0.2485	-1.66	3.78	0.438 [1] ✓
T24	102.5 - 100	9/16	3.63	1.74	111.3 K=0.75	0.2485	-1.89	4.20	0.450 [1] ✓
T25	100 - 80	9/16	3.85	1.82	116.4 K=0.75	0.2485	-1.33	3.94	0.338 [1] ✓
T26	80 - 60	9/16	3.85	1.82	116.4 K=0.75	0.2485	-1.41	3.94	0.356 [1] ✓
T27	60 - 40	9/16	3.85	1.82	116.4 K=0.75	0.2485	-1.31	3.94	0.333 [1] ✓
T28	40 - 20	9/16	3.85	1.82	116.4 K=0.75	0.2485	-0.94	3.94	0.239 [1] ✓
T29	20 - 5.25	9/16	3.81	1.80	115.1 K=0.75	0.2485	-1.98	4.01	0.493 [1] ✓

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T30	5.25 - 0	9/16	1.70	1.19	87.9 K=0.87	0.2485	-6.17	5.36	1.151 [1] ✗
		4.8.1 (1.15 CR) - 1330							

[1] P_u / ϕP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T14	190 - 185	1	3.00	2.88	96.6 K=0.70	0.7854	-0.95	15.57	0.061 [1] ✓

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T8	262.5 - 260	1	3.00	2.88	96.6 K=0.70	0.7854	-1.19	15.57	0.077 [1] ✓
T13	195 - 190	1	3.00	2.88	96.6 K=0.70	0.7854	-0.81	15.57	0.052 [1] ✓
T15	185 - 180	1	3.00	2.88	96.6 K=0.70	0.7854	-0.80	15.57	0.051 [1] ✓
T18	160 - 140	1	3.00	2.88	96.6 K=0.70	0.7854	-0.79	15.57	0.050 [1] ✓
T21	127.5 - 120	1	3.00	2.88	96.6 K=0.70	0.7854	-0.78	15.57	0.050 [1] ✓
T22	120 - 112.5	1	3.00	2.88	96.6 K=0.70	0.7854	-0.84	15.57	0.054 [1] ✓
T24	102.5 - 100	1	3.00	2.88	96.6 K=0.70	0.7854	-0.65	15.57	0.042 [1] ✓

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	400 - 380	3/4	3.00	2.88	128.8 K=0.70	0.4418	-0.02	5.98	0.003 [1] ✓
T2	380 - 360	3/4	3.00	2.88	128.8 K=0.70	0.4418	-0.10	5.98	0.017 [1] ✓
T3	360 - 340	3/4	3.00	2.88	128.8 K=0.70	0.4418	-0.14	5.98	0.023 [1] ✓
T4	340 - 320	3/4	3.00	2.88	128.8 K=0.70	0.4418	-0.05	5.98	0.008 [1] ✓
T5	320 - 300	3/4	3.00	2.88	128.8	0.4418	-0.16	5.98	0.026 [1]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
					K=0.70				✔
T6	300 - 280	3/4	3.00	2.88	128.8	0.4418	-0.10	5.98	0.017 [1]
					K=0.70				✔
T7	280 - 262.5	3/4	3.00	2.88	128.8	0.4418	-0.46	5.98	0.078 [1]
					K=0.70				✔
T10	240 - 220	3/4	3.00	2.88	128.8	0.4418	-0.25	5.98	0.042 [1]
					K=0.70				✔
T11	220 - 200	3/4	3.00	2.88	128.8	0.4418	-0.01	5.98	0.002 [1]
					K=0.70				✔
T12	200 - 195	3/4	3.00	2.88	128.8	0.4418	-1.49	5.98	0.249 [1]
					K=0.70				✔
T16	180 - 170	3/4	3.00	2.88	128.8	0.4418	-0.04	5.98	0.006 [1]
					K=0.70				✔
T19	140 - 135	3/4	3.00	2.88	128.8	0.4418	-0.49	5.98	0.083 [1]
					K=0.70				✔
T25	100 - 80	3/4	3.00	2.83	126.9	0.4418	-0.24	6.13	0.039 [1]
					K=0.70				✔
T28	40 - 20	3/4	3.00	2.83	126.9	0.4418	-0.01	6.13	0.002 [1]
					K=0.70				✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	400 - 380	3/4	3.00	2.88	128.8	0.4418	-0.27	5.98	0.045 [1]
					K=0.70				✔
T2	380 - 360	3/4	3.00	2.88	128.8	0.4418	-0.08	5.98	0.013 [1]
					K=0.70				✔
T4	340 - 320	3/4	3.00	2.88	128.8	0.4418	-0.25	5.98	0.043 [1]
					K=0.70				✔
T5	320 - 300	3/4	3.00	2.88	128.8	0.4418	-0.00	5.98	0.000 [1]
					K=0.70				✔
T6	300 - 280	3/4	3.00	2.88	128.8	0.4418	-0.24	5.98	0.040 [1]
					K=0.70				✔
T8	262.5 - 260	3/4	3.00	2.88	128.8	0.4418	-0.18	5.98	0.030 [1]
					K=0.70				✔
T9	260 - 240	3/4	3.00	2.88	128.8	0.4418	-0.42	5.98	0.070 [1]
					K=0.70				✔
T10	240 - 220	3/4	3.00	2.88	128.8	0.4418	-0.02	5.98	0.003 [1]
					K=0.70				✔
T11	220 - 200	3/4	3.00	2.88	128.8	0.4418	-0.99	5.98	0.166 [1]
					K=0.70				✔
T15	185 - 180	3/4	3.00	2.88	128.8	0.4418	-0.65	5.98	0.109 [1]
					K=0.70				✔
T18	160 - 140	3/4	3.00	2.88	128.8	0.4418	-0.48	5.98	0.080 [1]
					K=0.70				✔
T24	102.5 - 100	3/4	3.00	2.88	128.8	0.4418	-0.23	5.98	0.039 [1]
					K=0.70				✔
T26	80 - 60	3/4	3.00	2.83	126.9	0.4418	-0.17	6.13	0.027 [1]
					K=0.70				✔
T27	60 - 40	3/4	3.00	2.83	126.9	0.4418	-0.16	6.13	0.026 [1]
					K=0.70				✔
T28	40 - 20	3/4	3.00	2.83	126.9	0.4418	-0.07	6.13	0.012 [1]
					K=0.70				✔

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	

[1] $P_u / \phi P_n$ controls

Mid Girt Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T11	220 - 200	3/4	3.00	2.88	128.8 K=0.70	0.4418	-0.21	5.98	0.036 [1] ✔
T14	190 - 185	3/4	3.00	2.88	128.8 K=0.70	0.4418	-2.67	5.98	0.446 [1] ✔

[1] $P_u / \phi P_n$ controls

Torque-Arm Bottom Design Data

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T14	190 - 185 (1367)	1 3/4	3.91	3.82	104.9 K=1.00	2.4053	-7.40	43.67	0.169 [1] ✔
T14	190 - 185 (1368)	1 3/4	3.91	3.82	104.9 K=1.00	2.4053	-7.62	43.67	0.174 [1] ✔
T14	190 - 185 (1373)	1 3/4	3.91	3.82	104.9 K=1.00	2.4053	-7.69	43.67	0.176 [1] ✔
T14	190 - 185 (1374)	1 3/4	3.91	3.82	104.9 K=1.00	2.4053	-8.21	43.67	0.188 [1] ✔
T14	190 - 185 (1379)	1 3/4	3.91	3.82	104.9 K=1.00	2.4053	-8.00	43.67	0.183 [1] ✔
T14	190 - 185 (1380)	1 3/4	3.91	3.82	104.9 K=1.00	2.4053	-7.74	43.67	0.177 [1] ✔

[1] $P_u / \phi P_n$ controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	400 - 380	1 1/2	20.00	2.42	77.3	1.7672	9.07	79.52	0.114 [1] # ✔
T7	280 - 262.5	1 1/2	17.50	2.16	69.2	0.8575	7.05	41.80	0.169 [1] # ✔
T8	262.5 - 260	1 1/2	2.50	1.02	32.7	0.8575	12.98	41.80	0.311 [1] # ✔
T9	260 - 240	1 1/2	20.00	2.42	77.3	1.7672	12.98	79.52	0.163 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T13	195 - 190	1 1/2	5.00	1.25	40.0	1.7672	1.02	79.52	0.013 [1] [#] ✔
T14	190 - 185	1 1/2	5.00	2.50	80.0	1.7672	1.49	79.52	0.019 [1] [#] ✔

[1] P_u / ϕP_n controls
[#] Based on net area of leg in section below

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	400 - 380	9/16	3.85	1.85	157.5	0.2485	2.52	8.05	0.313 [1] ✔
T2	380 - 360	9/16	3.85	1.85	157.5	0.2485	1.09	8.05	0.136 [1] ✔
T3	360 - 340	9/16	3.85	1.85	157.5	0.2485	2.00	8.05	0.249 [1] ✔
T4	340 - 320	9/16	3.85	1.85	157.5	0.2485	4.29	8.05	0.533 [1] ✔
T5	320 - 300	9/16	3.85	1.85	157.5	0.2485	1.23	8.05	0.153 [1] ✔
T6	300 - 280	9/16	3.85	1.85	157.5	0.2485	1.84	8.05	0.229 [1] ✔
T7	280 - 262.5	9/16	3.70	1.77	151.2	0.2485	2.91	8.05	0.361 [1] ✔
T8	262.5 - 260	9/16	3.63	1.74	148.4	0.2485	4.03	8.05	0.501 [1] ✔
T9	260 - 240	9/16	3.85	1.85	157.5	0.2485	2.44	8.05	0.303 [1] ✔
T10	240 - 220	9/16	3.85	1.85	157.5	0.2485	2.24	8.05	0.279 [1] ✔
T11	220 - 200	9/16	3.85	1.85	157.5	0.2485	4.17	8.05	0.519 [1] ✔
T12	200 - 195	9/16	3.84	1.84	157.0	0.2485	3.83	8.05	0.475 [1] ✔
T13	195 - 190	9/16	3.91	1.87	159.7	0.2485	3.60	8.05	0.447 [1] ✔
T14	190 - 185	9/16	3.91	1.87	159.7	0.2485	1.64	8.05	0.204 [1] ✔
T15	185 - 180	9/16	3.76	1.80	153.8	0.2485	2.31	8.05	0.287 [1] ✔
T16	180 - 170	9/16	3.86	1.85	157.8	0.2485	1.11	8.05	0.138 [1] ✔
T17	170 - 160	9/16	3.82	1.83	156.2	0.2485	0.82	8.05	0.101 [1] ✔
T18	160 - 140	9/16	3.85	1.85	157.5	0.2485	1.75	8.05	0.217 [1] ✔
T19	140 - 135	9/16	3.84	1.84	157.0	0.2485	1.62	8.05	0.201 [1] ✔
T20	135 - 127.5	9/16	3.54	1.70	144.7	0.2485	1.07	8.05	0.133 [1] ✔
T21	127.5 - 120	9/16	3.81	1.83	155.8	0.2485	1.86	8.05	0.231 [1] ✔
T22	120 - 112.5	9/16	3.86	1.85	157.9	0.2485	1.67	8.05	0.207 [1] ✔

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T23	112.5 - 102.5	9/16	3.91	1.87	159.7	0.2485	1.73	8.05	0.215 [1]
T24	102.5 - 100	9/16	3.63	1.74	148.4	0.2485	1.10	8.05	0.137 [1]
T25	100 - 80	9/16	3.85	1.82	155.2	0.2485	1.16	8.05	0.144 [1]
T26	80 - 60	9/16	3.85	1.82	155.2	0.2485	1.20	8.05	0.149 [1]
T27	60 - 40	9/16	3.85	1.82	155.2	0.2485	1.26	8.05	0.156 [1]
T28	40 - 20	9/16	3.85	1.82	155.2	0.2485	0.68	8.05	0.085 [1]
T29	20 - 5.25	9/16	3.81	1.80	153.5	0.2485	1.29	8.05	0.160 [1]
T30	5.25 - 0	9/16	2.89	1.51	129.2	0.2485	0.18	8.05	0.022 [1]

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T14	190 - 185	1	3.00	2.88	138.0	0.7854	1.75	25.45	0.069 [1]
T16	180 - 170	1	3.00	2.88	138.0	0.7854	1.80	25.45	0.071 [1]
T20	135 - 127.5	1	3.00	2.88	138.0	0.7854	1.61	25.45	0.063 [1]
T21	127.5 - 120	1	3.00	2.88	138.0	0.7854	2.68	25.45	0.105 [1]
T30	5.25 - 0	1	1.13	0.97	46.5	0.7854	2.50	25.45	0.098 [1]

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T8	262.5 - 260	1	3.00	2.88	138.0	0.7854	1.67	25.45	0.066 [1]
T13	195 - 190	1	3.00	2.88	138.0	0.7854	0.81	25.45	0.032 [1]
T15	185 - 180	1	3.00	2.88	138.0	0.7854	0.93	25.45	0.036 [1]
T18	160 - 140	1	3.00	2.88	138.0	0.7854	1.19	25.45	0.047 [1]
T21	127.5 - 120	1	3.00	2.88	138.0	0.7854	0.99	25.45	0.039 [1]
T22	120 - 112.5	1	3.00	2.88	138.0	0.7854	0.93	25.45	0.037 [1]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T24	102.5 - 100	1	3.00	2.88	138.0	0.7854	0.65	25.45	0.026 [1]

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	400 - 380	3/4	3.00	2.88	184.0	0.4418	0.22	14.31	0.015 [1]
T2	380 - 360	3/4	3.00	2.88	184.0	0.4418	0.43	14.31	0.030 [1]
T3	360 - 340	3/4	3.00	2.88	184.0	0.4418	0.26	14.31	0.018 [1]
T4	340 - 320	3/4	3.00	2.88	184.0	0.4418	1.93	14.31	0.135 [1]
T5	320 - 300	3/4	3.00	2.88	184.0	0.4418	0.40	14.31	0.028 [1]
T6	300 - 280	3/4	3.00	2.88	184.0	0.4418	0.24	14.31	0.017 [1]
T7	280 - 262.5	3/4	3.00	2.88	184.0	0.4418	0.42	14.31	0.029 [1]
T8	262.5 - 260	1	3.00	2.88	138.0	0.7854	0.94	25.45	0.037 [1]
T9	260 - 240	3/4	3.00	2.88	184.0	0.4418	4.85	14.31	0.339 [1]
T10	240 - 220	3/4	3.00	2.88	184.0	0.4418	0.56	14.31	0.039 [1]
T11	220 - 200	3/4	3.00	2.88	184.0	0.4418	0.11	14.31	0.008 [1]
T12	200 - 195	3/4	3.00	2.88	184.0	0.4418	1.13	14.31	0.079 [1]
T16	180 - 170	3/4	3.00	2.88	184.0	0.4418	1.37	14.31	0.096 [1]
T17	170 - 160	1	3.00	2.88	138.0	0.7854	1.01	25.45	0.040 [1]
T19	140 - 135	3/4	3.00	2.88	184.0	0.4418	0.61	14.31	0.042 [1]
T21	127.5 - 120	3/4	3.00	2.88	184.0	0.4418	1.95	14.31	0.136 [1]
T22	120 - 112.5	3/4	3.00	2.88	184.0	0.4418	5.09	14.31	0.356 [1]
T25	100 - 80	3/4	3.00	2.83	181.3	0.4418	0.69	14.31	0.048 [1]
T26	80 - 60	3/4	3.00	2.83	181.3	0.4418	0.19	14.31	0.013 [1]
T27	60 - 40	3/4	3.00	2.83	181.3	0.4418	3.53	14.31	0.247 [1]
T28	40 - 20	3/4	3.00	2.83	181.3	0.4418	0.31	14.31	0.022 [1]
T29	20 - 5.25	3/4	3.00	2.83	181.3	0.4418	0.66	14.31	0.046 [1]
T30	5.25 - 0	3/4	2.88	2.71	173.7	0.4418	5.90	14.31	0.412 [1]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	400 - 380	3/4	3.00	2.88	184.0	0.4418	0.42	14.31	0.030 [1] ✔
T2	380 - 360	3/4	3.00	2.88	184.0	0.4418	0.26	14.31	0.018 [1] ✔
T3	360 - 340	3/4	3.00	2.88	184.0	0.4418	0.69	14.31	0.048 [1] ✔
T4	340 - 320	3/4	3.00	2.88	184.0	0.4418	0.37	14.31	0.026 [1] ✔
T5	320 - 300	3/4	3.00	2.88	184.0	0.4418	0.22	14.31	0.015 [1] ✔
T6	300 - 280	3/4	3.00	2.88	184.0	0.4418	0.61	14.31	0.043 [1] ✔
T8	262.5 - 260	3/4	3.00	2.88	184.0	0.4418	1.58	14.31	0.110 [1] ✔
T9	260 - 240	3/4	3.00	2.88	184.0	0.4418	0.37	14.31	0.026 [1] ✔
T10	240 - 220	3/4	3.00	2.88	184.0	0.4418	0.15	14.31	0.011 [1] ✔
T11	220 - 200	3/4	3.00	2.88	184.0	0.4418	1.34	14.31	0.093 [1] ✔
T15	185 - 180	3/4	3.00	2.88	184.0	0.4418	1.18	14.31	0.083 [1] ✔
T17	170 - 160	3/4	3.00	2.88	184.0	0.4418	0.36	14.31	0.025 [1] ✔
T18	160 - 140	3/4	3.00	2.88	184.0	0.4418	0.71	14.31	0.050 [1] ✔
T19	140 - 135	3/4	3.00	2.88	184.0	0.4418	0.82	14.31	0.057 [1] ✔
T21	127.5 - 120	3/4	3.00	2.88	184.0	0.4418	2.32	14.31	0.162 [1] ✔
T24	102.5 - 100	3/4	3.00	2.88	184.0	0.4418	0.64	14.31	0.045 [1] ✔
T25	100 - 80	3/4	3.00	2.83	181.3	0.4418	0.16	14.31	0.011 [1] ✔
T26	80 - 60	3/4	3.00	2.83	181.3	0.4418	0.65	14.31	0.045 [1] ✔
T27	60 - 40	3/4	3.00	2.83	181.3	0.4418	0.34	14.31	0.024 [1] ✔
T28	40 - 20	3/4	3.00	2.83	181.3	0.4418	0.34	14.31	0.024 [1] ✔
T29	20 - 5.25	3/4	3.00	2.83	181.3	0.4418	2.90	14.31	0.202 [1] ✔
T30	5.25 - 0	3/4	0.26	0.10	6.1	0.4418	2.05	14.31	0.143 [1] ✔

[1] P_u / ϕP_n controls

Mid Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	400 - 380	3/4	3.00	2.88	184.0	0.4418	4.58	14.31	0.320 [1] ✔
T2	380 - 360	3/4	3.00	2.88	184.0	0.4418	0.22	14.31	0.016 [1] ✔
T3	360 - 340	3/4	3.00	2.88	184.0	0.4418	0.22	14.31	0.015 [1] ✔
T4	340 - 320	3/4	3.00	2.88	184.0	0.4418	1.55	14.31	0.108 [1] ✔
T5	320 - 300	3/4	3.00	2.88	184.0	0.4418	0.24	14.31	0.016 [1] ✔
T6	300 - 280	3/4	3.00	2.88	184.0	0.4418	0.20	14.31	0.014 [1] ✔
T7	280 - 262.5	3/4	3.00	2.88	184.0	0.4418	0.19	14.31	0.013 [1] ✔
T9	260 - 240	3/4	3.00	2.88	184.0	0.4418	0.27	14.31	0.019 [1] ✔
T10	240 - 220	3/4	3.00	2.88	184.0	0.4418	0.17	14.31	0.012 [1] ✔
T11	220 - 200	3/4	3.00	2.88	184.0	0.4418	0.41	14.31	0.029 [1] ✔
T14	190 - 185	3/4	3.00	2.88	184.0	0.4418	5.45	14.31	0.381 [1] ✔
T18	160 - 140	3/4	3.00	2.88	184.0	0.4418	0.29	14.31	0.020 [1] ✔
T20	135 - 127.5	3/4	3.00	2.88	184.0	0.4418	1.54	14.31	0.108 [1] ✔
T23	112.5 - 102.5	1	3.00	2.88	138.0	0.7854	0.71	25.45	0.028 [1] ✔
T25	100 - 80	3/4	3.00	2.83	181.3	0.4418	0.28	14.31	0.019 [1] ✔
T26	80 - 60	3/4	3.00	2.83	181.3	0.4418	0.30	14.31	0.021 [1] ✔
T27	60 - 40	3/4	3.00	2.83	181.3	0.4418	0.40	14.31	0.028 [1] ✔
T28	40 - 20	3/4	3.00	2.83	181.3	0.4418	0.35	14.31	0.025 [1] ✔
T29	20 - 5.25	3/4	3.00	2.83	181.3	0.4418	0.69	14.31	0.048 [1] ✔

[1] P_u / ϕP_n controls

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T18	160 - 140	L2 1/2x2 1/2x5/16	3.00	2.88	45.3	1.4600	2.06	47.30	0.044 [1] ✔

[1] P_u / ϕP_n controls

Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T14	190 - 185 (1365)	1 3/4	3.91	3.82	104.9	2.4053	6.90	77.93	0.088 [1] ✔
T14	190 - 185 (1366)	1 3/4	3.91	3.82	104.9	2.4053	5.76	77.93	0.074 [1] ✔
T14	190 - 185 (1371)	1 3/4	3.91	3.82	104.9	2.4053	5.70	77.93	0.073 [1] ✔
T14	190 - 185 (1372)	1 3/4	3.91	3.82	104.9	2.4053	6.98	77.93	0.090 [1] ✔
T14	190 - 185 (1377)	1 3/4	3.91	3.82	104.9	2.4053	5.52	77.93	0.071 [1] ✔
T14	190 - 185 (1378)	1 3/4	3.91	3.82	104.9	2.4053	5.42	77.93	0.070 [1] ✔

[1] P_u / ϕP_n controls

Torque-Arm Bottom Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T14	190 - 185 (1367)	1 3/4	3.91	3.82	104.9	2.4053	5.33	77.93	0.068 [1] ✔
T14	190 - 185 (1368)	1 3/4	3.91	3.82	104.9	2.4053	5.30	77.93	0.068 [1] ✔
T14	190 - 185 (1373)	1 3/4	3.91	3.82	104.9	2.4053	5.94	77.93	0.076 [1] ✔
T14	190 - 185 (1374)	1 3/4	3.91	3.82	104.9	2.4053	5.78	77.93	0.074 [1] ✔
T14	190 - 185 (1379)	1 3/4	3.91	3.82	104.9	2.4053	6.03	77.93	0.077 [1] ✔
T14	190 - 185 (1380)	1 3/4	3.91	3.82	104.9	2.4053	6.14	77.93	0.079 [1] ✔

[1] P_u / ϕP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T1	400 - 380	Leg	1 1/2	2	-15.38	51.35	29.9	Pass
T2	380 - 360	Leg	1 1/2	62	-18.18	51.35	35.4	Pass
T3	360 - 340	Leg	1 1/2	122	-17.52	51.35	34.1	Pass
T4	340 - 320	Leg	1 1/2	182	-22.53	51.35	43.9	Pass
T5	320 - 300	Leg	1 1/2	242	-26.28	51.35	51.2	Pass
T6	300 - 280	Leg	1 1/2	302	-25.75	51.35	50.1	Pass
T7	280 - 262.5	Leg	1 1/2	362	-28.55	56.05	50.9	Pass
T8	262.5 - 260	Leg	1 1/2	419	-32.17	69.37	46.4	Pass
T9	260 - 240	Leg	1 1/2	436	-32.43	51.35	63.1	Pass
T10	240 - 220	Leg	1 1/2	498	-31.46	51.35	61.3	Pass
T11	220 - 200	Leg	1 1/2	558	-31.52	51.35	61.4	Pass
T12	200 - 195	Leg	1 1/2	618	-34.64	51.74	66.9	Pass
T13	195 - 190	Leg	1 1/2	636	-47.03	67.41	69.8	Pass
T14	190 - 185	Leg	1 1/2	657	-47.07	49.80	94.5	Pass
T15	185 - 180	Leg	1 1/2	676	-38.58	72.20	53.4	Pass
T16	180 - 170	Leg	1 1/2	701	-34.63	51.16	67.7	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T17	170 - 160	Leg	1 1/2	740	-36.81	52.32	70.4	Pass
T18	160 - 140	Leg	1 1/2	773	-45.39	71.29	63.7	Pass
T19	140 - 135	Leg	1 1/2	857	-37.04	51.74	71.6	Pass
T20	135 - 127.5	Leg	1 1/2	877	-38.95	61.12	63.7	Pass
T21	127.5 - 120	Leg	1 1/2	914	-49.05	71.73	68.4	Pass
T22	120 - 112.5	Leg	1 1/2	956	-49.05	68.96	71.1	Pass
T23	112.5 - 102.5	Leg	1 1/2	988	-43.85	49.80	88.0	Pass
T24	102.5 - 100	Leg	1 1/2	1018	-38.51	68.83	56.0	Pass
T25	100 - 80	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1033	-46.66	72.66	64.2	Pass
T26	80 - 60	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1093	-46.06	72.66	63.4	Pass
T27	60 - 40	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1155	-53.54	72.66	73.7	Pass
T28	40 - 20	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1215	-55.73	72.66	76.7	Pass
T29	20 - 5.25	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1275	-54.03	74.11	72.9	Pass
T30	5.25 - 0	Leg	1.5 SR w/ 1.9x0.2 Half Pipe	1323	-47.01	86.80	54.2	Pass
T1	400 - 380	Diagonal	9/16	30	-2.22	3.86	57.4	Pass
T2	380 - 360	Diagonal	9/16	120	-1.09	3.86	28.2	Pass
T3	360 - 340	Diagonal	9/16	133	-1.86	3.86	48.1	Pass
T4	340 - 320	Diagonal	9/16	235	-3.17	3.86	82.2	Pass
T5	320 - 300	Diagonal	9/16	300	-1.26	3.86	32.7	Pass
T6	300 - 280	Diagonal	9/16	313	-1.79	3.86	46.4	Pass
T7	280 - 262.5	Diagonal	9/16	370	-2.86	4.09	69.9	Pass
T8	262.5 - 260	Diagonal	9/16	427	-4.65	4.20	110.8	Fail
T9	260 - 240	Diagonal	9/16	486	-2.41	3.86	62.4	Pass
T10	240 - 220	Diagonal	9/16	553	-2.26	3.86	58.4	Pass
T11	220 - 200	Diagonal	9/16	573	-3.85	3.86	99.7	Pass
T12	200 - 195	Diagonal	9/16	633	-4.44	3.88	114.5	Fail
T13	195 - 190	Diagonal	9/16	651	-4.06	3.78	107.3	Fail
T14	190 - 185	Diagonal	9/16	665	-2.57	3.78	67.8	Pass
T15	185 - 180	Diagonal	9/16	685	-3.20	3.99	80.1	Pass
T16	180 - 170	Diagonal	9/16	736	-2.56	3.85	66.3	Pass
T17	170 - 160	Diagonal	9/16	749	-1.02	3.91	26.1	Pass
T18	160 - 140	Diagonal	9/16	785	-2.24	3.86	58.0	Pass
T19	140 - 135	Diagonal	9/16	871	-1.72	3.88	44.4	Pass
T20	135 - 127.5	Diagonal	9/16	883	-2.43	4.33	56.0	Pass
T21	127.5 - 120	Diagonal	9/16	922	-4.04	3.93	103.0	Fail
T22	120 - 112.5	Diagonal	9/16	984	-2.08	3.85	54.2	Pass
T23	112.5 - 102.5	Diagonal	9/16	1005	-1.66	3.78	43.8	Pass
T24	102.5 - 100	Diagonal	9/16	1026	-1.89	4.20	45.0	Pass
T25	100 - 80	Diagonal	9/16	1089	-1.33	3.94	33.8	Pass
T26	80 - 60	Diagonal	9/16	1106	-1.41	3.94	35.6	Pass
T27	60 - 40	Diagonal	9/16	1203	-1.31	3.94	33.3	Pass
T28	40 - 20	Diagonal	9/16	1229	-0.94	3.94	23.9	Pass
T29	20 - 5.25	Diagonal	9/16	1289	-1.98	4.01	49.3	Pass
T30	5.25 - 0	Diagonal	9/16	1330	-6.17	5.36	115.1	Fail
T14	190 - 185	Horizontal	1	660	1.75	25.45	6.9	Pass
T16	180 - 170	Horizontal	1	712	1.80	25.45	7.1	Pass
T20	135 - 127.5	Horizontal	1	891	1.61	25.45	6.3	Pass
T21	127.5 - 120	Horizontal	1	930	2.68	25.45	10.5	Pass
T30	5.25 - 0	Horizontal	1	1337	2.50	25.45	9.8	Pass
T8	262.5 - 260	Secondary Horizontal	1	433	-1.19	15.57	7.7	Pass
T13	195 - 190	Secondary Horizontal	1	644	-0.81	15.57	5.2	Pass
T15	185 - 180	Secondary Horizontal	1	689	-0.80	15.57	5.1	Pass
T18	160 - 140	Secondary Horizontal	1	790	-0.79	15.57	5.0	Pass
T21	127.5 - 120	Secondary Horizontal	1	931	-0.78	15.57	5.0	Pass
T22	120 - 112.5	Secondary Horizontal	1	969	-0.84	15.57	5.4	Pass
T24	102.5 - 100	Secondary Horizontal	1	1031	-0.65	15.57	4.2	Pass
T1	400 - 380	Top Girt	3/4	4	0.22	14.31	1.5	Pass
T2	380 - 360	Top Girt	3/4	66	0.43	14.31	3.0	Pass
T3	360 - 340	Top Girt	3/4	125	-0.14	5.98	2.3	Pass
T4	340 - 320	Top Girt	3/4	185	1.93	14.31	13.5	Pass
T5	320 - 300	Top Girt	3/4	246	0.40	14.31	2.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T6	300 - 280	Top Girt	3/4	305	-0.10	5.98	1.7	Pass
T7	280 - 262.5	Top Girt	3/4	365	-0.46	5.98	7.8	Pass
T8	262.5 - 260	Top Girt	1	423	0.94	25.45	3.7	Pass
T9	260 - 240	Top Girt	3/4	439	4.85	14.31	33.9	Pass
T10	240 - 220	Top Girt	3/4	500	-0.25	5.98	4.2	Pass
T11	220 - 200	Top Girt	3/4	561	0.11	14.31	0.8	Pass
T12	200 - 195	Top Girt	3/4	621	-1.49	5.98	24.9	Pass
T16	180 - 170	Top Girt	3/4	705	1.37	14.31	9.6	Pass
T17	170 - 160	Top Girt	1	742	1.01	25.45	4.0	Pass
T19	140 - 135	Top Girt	3/4	861	-0.49	5.98	8.3	Pass
T21	127.5 - 120	Top Girt	3/4	918	1.95	14.31	13.6	Pass
T22	120 - 112.5	Top Girt	3/4	960	5.09	14.31	35.6	Pass
T25	100 - 80	Top Girt	3/4	1038	0.69	14.31	4.8	Pass
T26	80 - 60	Top Girt	3/4	1098	0.19	14.31	1.3	Pass
T27	60 - 40	Top Girt	3/4	1158	3.53	14.31	24.7	Pass
T28	40 - 20	Top Girt	3/4	1218	0.31	14.31	2.2	Pass
T29	20 - 5.25	Top Girt	3/4	1278	0.66	14.31	4.6	Pass
T30	5.25 - 0	Top Girt	3/4	1325	5.90	14.31	41.2	Pass
T1	400 - 380	Bottom Girt	3/4	8	-0.27	5.98	4.5	Pass
T2	380 - 360	Bottom Girt	3/4	69	0.26	14.31	1.8	Pass
T3	360 - 340	Bottom Girt	3/4	129	0.69	14.31	4.8	Pass
T4	340 - 320	Bottom Girt	3/4	188	-0.25	5.98	4.3	Pass
T5	320 - 300	Bottom Girt	3/4	249	0.22	14.31	1.5	Pass
T6	300 - 280	Bottom Girt	3/4	309	0.61	14.31	4.3	Pass
T8	262.5 - 260	Bottom Girt	3/4	426	1.58	14.31	11.0	Pass
T9	260 - 240	Bottom Girt	3/4	443	-0.42	5.98	7.0	Pass
T10	240 - 220	Bottom Girt	3/4	504	0.15	14.31	1.1	Pass
T11	220 - 200	Bottom Girt	3/4	564	-0.99	5.98	16.6	Pass
T15	185 - 180	Bottom Girt	3/4	681	-0.65	5.98	10.9	Pass
T17	170 - 160	Bottom Girt	3/4	747	0.36	14.31	2.5	Pass
T18	160 - 140	Bottom Girt	3/4	780	-0.48	5.98	8.0	Pass
T19	140 - 135	Bottom Girt	3/4	863	0.82	14.31	5.7	Pass
T21	127.5 - 120	Bottom Girt	3/4	921	2.32	14.31	16.2	Pass
T24	102.5 - 100	Bottom Girt	3/4	1023	0.64	14.31	4.5	Pass
T25	100 - 80	Bottom Girt	3/4	1039	0.16	14.31	1.1	Pass
T26	80 - 60	Bottom Girt	3/4	1099	0.65	14.31	4.5	Pass
T27	60 - 40	Bottom Girt	3/4	1161	-0.16	6.13	2.6	Pass
T28	40 - 20	Bottom Girt	3/4	1219	0.34	14.31	2.4	Pass
T29	20 - 5.25	Bottom Girt	3/4	1281	2.90	14.31	20.2	Pass
T30	5.25 - 0	Bottom Girt	3/4	1327	2.05	14.31	14.3	Pass
T1	400 - 380	Mid Girt	3/4	10	4.58	14.31	32.0	Pass
T2	380 - 360	Mid Girt	3/4	70	0.22	14.31	1.6	Pass
T3	360 - 340	Mid Girt	3/4	131	0.22	14.31	1.5	Pass
T4	340 - 320	Mid Girt	3/4	190	1.55	14.31	10.8	Pass
T5	320 - 300	Mid Girt	3/4	250	0.24	14.31	1.6	Pass
T6	300 - 280	Mid Girt	3/4	310	0.20	14.31	1.4	Pass
T7	280 - 262.5	Mid Girt	3/4	369	0.19	14.31	1.3	Pass
T9	260 - 240	Mid Girt	3/4	445	0.27	14.31	1.9	Pass
T10	240 - 220	Mid Girt	3/4	505	0.17	14.31	1.2	Pass
T11	220 - 200	Mid Girt	3/4	565	-0.21	5.98	3.6	Pass
T14	190 - 185	Mid Girt	3/4	663	-2.67	5.98	44.6	Pass
T18	160 - 140	Mid Girt	3/4	781	0.29	14.31	2.0	Pass
T20	135 - 127.5	Mid Girt	3/4	882	1.54	14.31	10.8	Pass
T23	112.5 - 102.5	Mid Girt	1	993	0.71	25.45	2.8	Pass
T25	100 - 80	Mid Girt	3/4	1044	0.28	14.31	1.9	Pass
T26	80 - 60	Mid Girt	3/4	1104	0.30	14.31	2.1	Pass
T27	60 - 40	Mid Girt	3/4	1164	0.40	14.31	2.8	Pass
T28	40 - 20	Mid Girt	3/4	1224	0.35	14.31	2.5	Pass
T29	20 - 5.25	Mid Girt	3/4	1284	0.69	14.31	4.8	Pass
T1	400 - 380	Guy A@390.125	9/16	1356	18.15	21.00	86.4	Pass
T4	340 - 320	Guy A@334.958	1/2	1359	14.28	16.14	88.5	Pass
T9	260 - 240	Guy A@259.792	9/16	1362	16.74	21.00	79.7	Pass
T14	190 - 185	Guy A@190	1/2	1376	11.49	16.14	71.2	Pass
T18	160 - 140	Guy A@159.792	3/8	1383	6.35	9.24	68.7	Pass
T22	120 - 112.5	Guy A@119.792	9/16	1386	13.66	21.00	65.0	Pass
T27	60 - 40	Guy A@59.7917	7/16	1389	7.58	12.48	60.8	Pass
T1	400 - 380	Guy B@390.125	9/16	1355	17.99	21.00	85.6	Pass
T4	340 - 320	Guy B@334.958	1/2	1358	14.24	16.14	88.2	Pass
T9	260 - 240	Guy B@259.792	9/16	1361	16.80	21.00	80.0	Pass
T14	190 - 185	Guy B@190	1/2	1369	11.91	16.14	73.8	Pass

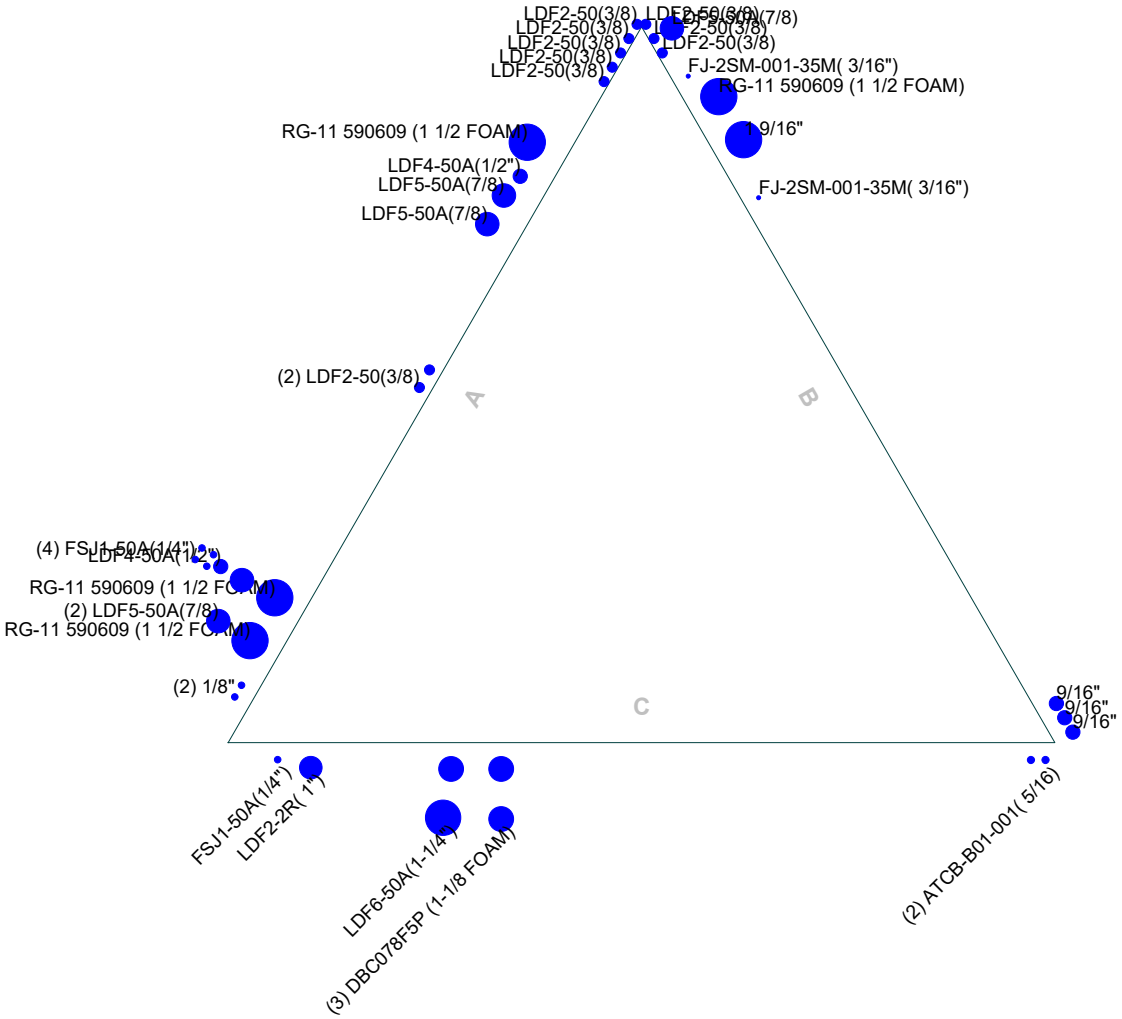
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T18	160 - 140	Guy B@159.792	3/8	1382	6.66	9.24	72.1	Pass
T22	120 - 112.5	Guy B@119.792	9/16	1385	14.00	21.00	66.7	Pass
T27	60 - 40	Guy B@59.7917	7/16	1388	7.53	12.48	60.3	Pass
T1	400 - 380	Guy C@390.125	9/16	1354	18.07	21.00	86.1	Pass
T4	340 - 320	Guy C@334.958	1/2	1357	14.23	16.14	88.2	Pass
T9	260 - 240	Guy C@259.792	9/16	1360	16.68	21.00	79.4	Pass
T14	190 - 185	Guy C@190	1/2	1364	10.93	16.14	67.7	Pass
T18	160 - 140	Guy C@159.792	3/8	1381	6.27	9.24	67.8	Pass
T22	120 - 112.5	Guy C@119.792	9/16	1384	13.50	21.00	64.3	Pass
T27	60 - 40	Guy C@59.7917	7/16	1387	7.54	12.48	60.4	Pass
T18	160 - 140	Top Guy Pull-Off@159.792	L2 1/2x2 1/2x5/16	775	2.06	47.30	4.4	Pass
T14	190 - 185	Torque Arm Top@190	1 3/4	1372	6.98	77.93	9.0	Pass
T14	190 - 185	Torque Arm Bottom@190	1 3/4	1374	-8.21	43.67	18.8	Pass
							Summary	
						Leg (T14)	94.5	Pass
						Diagonal (T30)	115.1	Fail ✗
						Horizontal (T21)	10.5	Pass
						Secondary Horizontal (T8)	7.7	Pass
						Top Girt (T30)	41.2	Pass
						Bottom Girt (T29)	20.2	Pass
						Mid Girt (T14)	44.6	Pass
						Guy A (T4)	88.5	Pass
						Guy B (T4)	88.2	Pass
						Guy C (T4)	88.2	Pass
						Top Guy Pull-Off (T18)	4.4	Pass
						Torque Arm Top (T14)	9.0	Pass
						Torque Arm Bottom (T14)	18.8	Pass
						Bolt Checks	219.6	Fail ✗
						RATING =	**219.6**	**Fail ✗**

APPENDIX B

BASE LEVEL DRAWING

Feed Line Plan

Round Flat App In Face App Out Face



SMW ENGINEERING GROUP, INC.
TOGETHER PLANNING A BETTER TOMORROW
Consulting Engineers

SMW Engineering Group, Inc.
158 Business Center Dr.
Birmingham Al. 35244
Phone: (205) 252-6985
FAX: (205) 795-7262

Job: ***19-5095***			
Project: ***Lake Fuller As Is***			
Client: HPS	Drawn by: Joe Mcalli		d:
Code: TIA-222-G	Date: 07/15/19		e: NTS
Path: C:\Work From Home\19-5095 Lake Fuller As Is\Risa Files\19-5095 LAKE FULLER SA AS IS 07122019.eri		Dwg No.	E-7

APPENDIX C

ADDITIONAL CALCULATIONS

Pier and Pad Foundation

Site Name:	Lake Fuller

TIA-222 Revision:	G
Tower Type:	Guyed

Block Foundation?:	☐

Superstructure Analysis Reactions		
Compression, P_{comp}:	120	kips
Base Shear, Vu_comp:	1	kips
Moment, M_u:	0	ft-kips
Tower Height, **H**:	400	ft
BP Dist. Above Fdn, bp_{dist}:	6	in

Foundation Analysis Checks				
	Capacity	**Demand**	**Rating**	**Check**
Lateral (Sliding) (kips)	63.60	1.00	**1.6%**	**Pass**
Bearing Pressure (ksf)	6.48	2.27	**35.0%**	**Pass**
*Overturning (kip*ft)*	528.57	6.50	**1.2%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	505.71	3.00	**0.6%**	**Pass**

Soil Rating:	**35.0%**
Structural Rating:	**N/A**

Pier Properties		
Pier Shape:	Square	
Pier Diameter, **dpier**:	2.5	ft
Ext. Above Grade, **E**:	0.00	ft
Pier Rebar Size, **Sc**:	8	
Pier Rebar Quantity, **mc**:	10	
Pier Tie/Spiral Size, **St**:		
Pier Tie/Spiral Quantity, **mt**:		
Pier Reinforcement Type:		
Pier Clear Cover, cc_{pier}:		in

Pad Properties		
Depth, **D**:	6.0	ft
Pad Width, **W**:	9.5	ft
Pad Thickness, **T**:	3.0	ft
Pad Rebar Size, **Sp**:		
Pad Rebar Quantity, **mp**:		
Pad Clear Cover, cc_{pad}:		in

Material Properties		
Rebar Grade, **Fy**:	60000	psi
Concrete Compressive Strength, **F'c**:	3000	psi
Dry Concrete Density, **δc**:	150	pcf

Soil Properties		
Total Soil Unit Weight, **γ**:	103	pcf
Ultimate Gross Bearing, Qult:	10.800	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, **ϕ**:	29	degrees
SPT Blow Count, N_{blows}:		
Base Friction, **μ**:	0.29	
Neglected Depth, **N**:	0.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	n/a	ft

<--Toggle between Gross and Net

Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site Name:	Lake Fuller (Inner)

TIA-222 Revision:	G

Design Reactions		
Shear, **S**:	24.00	kips
Uplift, **Ua**:	14.00	kips
Resultant Force, **Rf**:	27.8	kips
Tower Height, **H**:	400.00	ft
Guy Anchor Radius, **R**:	180.00	ft
Resultant Angle to Horizontal, **θ**:	30.3	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	9.0	ft
Anchor Width, **Wa**:	5.0	ft
Anchor Thickness, **Ta**:	4.5	ft
Anchor Length, **La**:	15.0	ft
Concrete Volume, **Vc**:	12.5	yd^3
Toe Width, **toe**:	0	ft

Material Properties		
Rebar Grade, **Fy**:	6000	psi
Concrete Strength, **F'c**:	3000	psi
Wt. Avg.Concrete Density, **δx**:	0.150	kcf
Clear Cover, **cc**:	3	in

Design Checks	*Capacity/ Availability*	*Demand/ Limits*	*%*	*Check*
Lateral Capacity (kips):	93.51	24.00	**25.7%**	**OK**
Uplift Capacity (kips):	97.87	14.00	**14.3%**	**OK**

Frost Depth, **Fd**:	0	ft
Groundwater Level, **gw**:	10	ft

Soil Properties:	**No. of Soil Layers?**			2		
Layer	**φ, deg**	**cu, ksf**	**δ, kcf**	**d, ft**	**Ultimate fs (ksf)**	**N (blows/ft)**
1	27	0.000	0.101	8.00	0.000	
2	29	0.000	0.103	9.00	0.000	

*key: φ = *Internal Angle of Friction*

cu = Cohesion / Undrained Shear Strength

δ = *Buoyant Soil Unit Weight*

d = Depth to Bottom of Layer

Ultimate fs = Geotechnical Report-provided skin friction / adhesion

N = SPT Blow Count

Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site Name:	Lake Fuller (Middle)

TIA-222 Revision:	G

Design Reactions		
Shear, **S**:	31.00	kips
Uplift, **Ua**:	23.00	kips
Resultant Force, **Rf**:	38.6	kips
Tower Height, **H**:	400.00	ft
Guy Anchor Radius, **R**:	279.00	ft
Resultant Angle to Horizontal, **θ**:	36.6	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	10.0	ft
Anchor Width, **Wa**:	6.0	ft
Anchor Thickness, **Ta**:	4.0	ft
Anchor Length, **La**:	23.0	ft
Concrete Volume, **Vc**:	20.4	yd^3
Toe Width, **toe**:	0	ft

Material Properties		
Rebar Grade, **Fy**:	6000	psi
Concrete Strength, **F'c**:	3000	psi
Wt. Avg.Concrete Density, **δx**:	0.150	kcf
Clear Cover, **cc**:	3	in

Design Checks				
	Capacity/ Availability	***Demand/ Limits***	***%***	***Check***
Lateral Capacity (kips):	153.75	31.00	**20.2%**	**OK**
Uplift Capacity (kips):	204.94	23.00	**11.2%**	**OK**

Frost Depth, **Fd**:	0	ft
Groundwater Level, **gw**:	10	ft

Soil Properties:	**No. of Soil Layers?**			2		
Layer	**φ, deg**	**cu, ksf**	**δ, kcf**	**d, ft**	**Ultimate fs (ksf)**	**N (blows/ft)**
1	27	0.000	0.101	8.00	0.000	
2	29	0.000	0.103	10.00	0.000	

*key: φ = *Internal Angle of Friction*

cu = Cohesion / Undrained Shear Strength

δ = *Buoyant Soil Unit Weight*

d = Depth to Bottom of Layer

Ultimate fs = Geotechnical Report-provided skin friction / adhesion

N = SPT Blow Count

Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Site Name:	Lake Fuller (Outer)

TIA-222 Revision:	G

Design Reactions		
Shear, **S**:	22.00	kips
Uplift, **Ua**:	23.00	kips
Resultant Force, **Rf**:	31.8	kips
Tower Height, **H**:	400.00	ft
Guy Anchor Radius, **R**:	325.00	ft
Resultant Angle to Horizontal, **θ**:	46.3	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	9.0	ft
Anchor Width, **Wa**:	5.0	ft
Anchor Thickness, **Ta**:	4.0	ft
Anchor Length, **La**:	15.0	ft
Concrete Volume, **Vc**:	11.1	yd^3
Toe Width, **toe**:	0	ft

Material Properties		
Rebar Grade, **Fy**:	6000	psi
Concrete Strength, **F'c**:	3000	psi
Wt. Avg.Concrete Density, **δx**:	0.150	kcf
Clear Cover, **cc**:	3	in

Design Checks				
	Capacity/ Availability	***Demand/ Limits***	***%***	***Check***
Lateral Capacity (kips):	86.32	22.00	**25.5%**	**OK**
Uplift Capacity (kips):	101.68	23.00	**22.6%**	**OK**

Frost Depth, **Fd**:	0	ft
Groundwater Level, **gw**:	10	ft

Soil Properties:	**No. of Soil Layers?**			2		
Layer	**φ, deg**	**cu, ksf**	**δ, kcf**	**d, ft**	**Ultimate fs (ksf)**	**N (blows/ft)**
1	27	0.000	0.101	8.00	0.000	
2	29	0.000	0.103	9.00	0.000	

*key: φ = *Internal Angle of Friction*

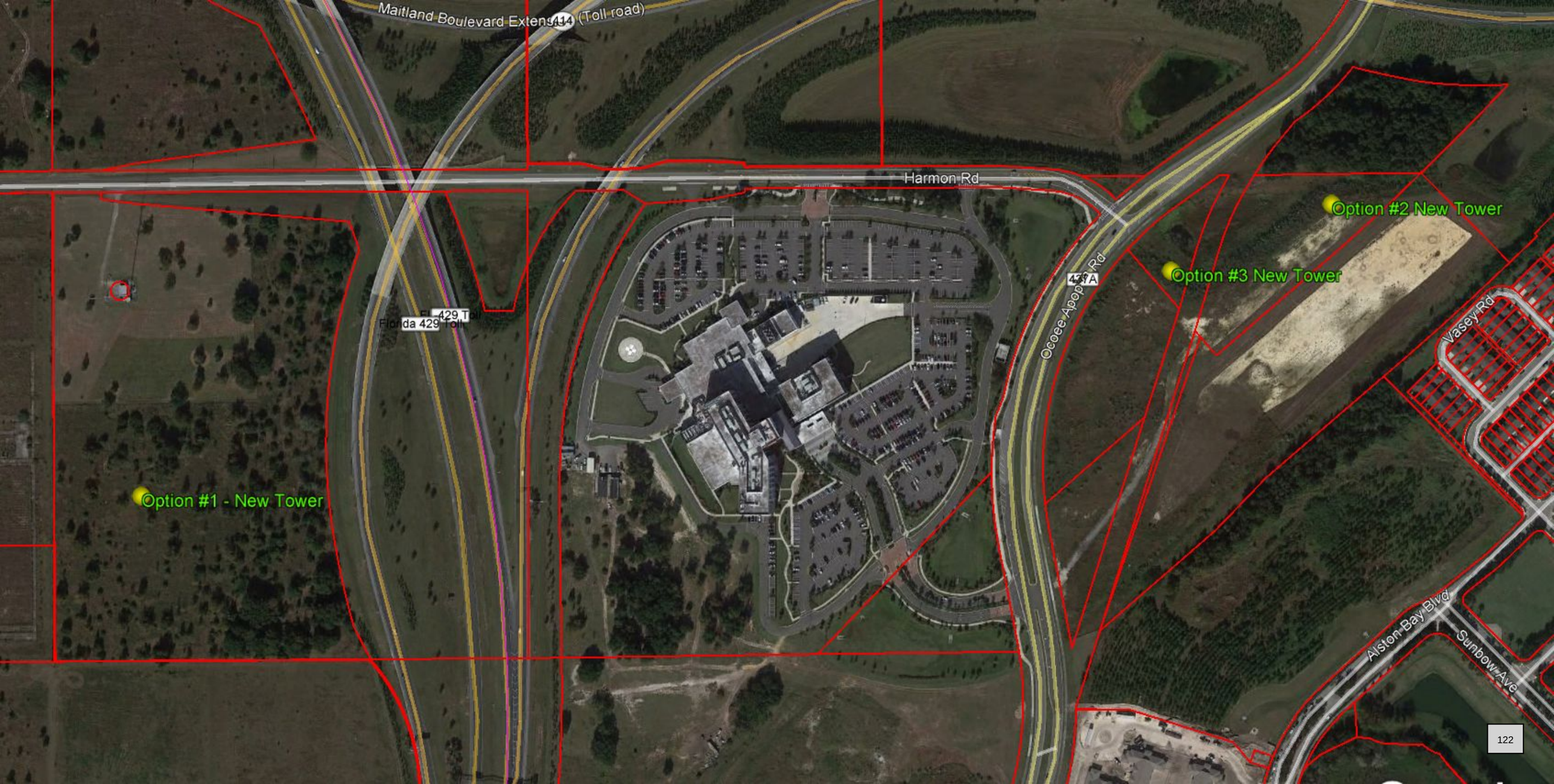
cu = Cohesion / Undrained Shear Strength

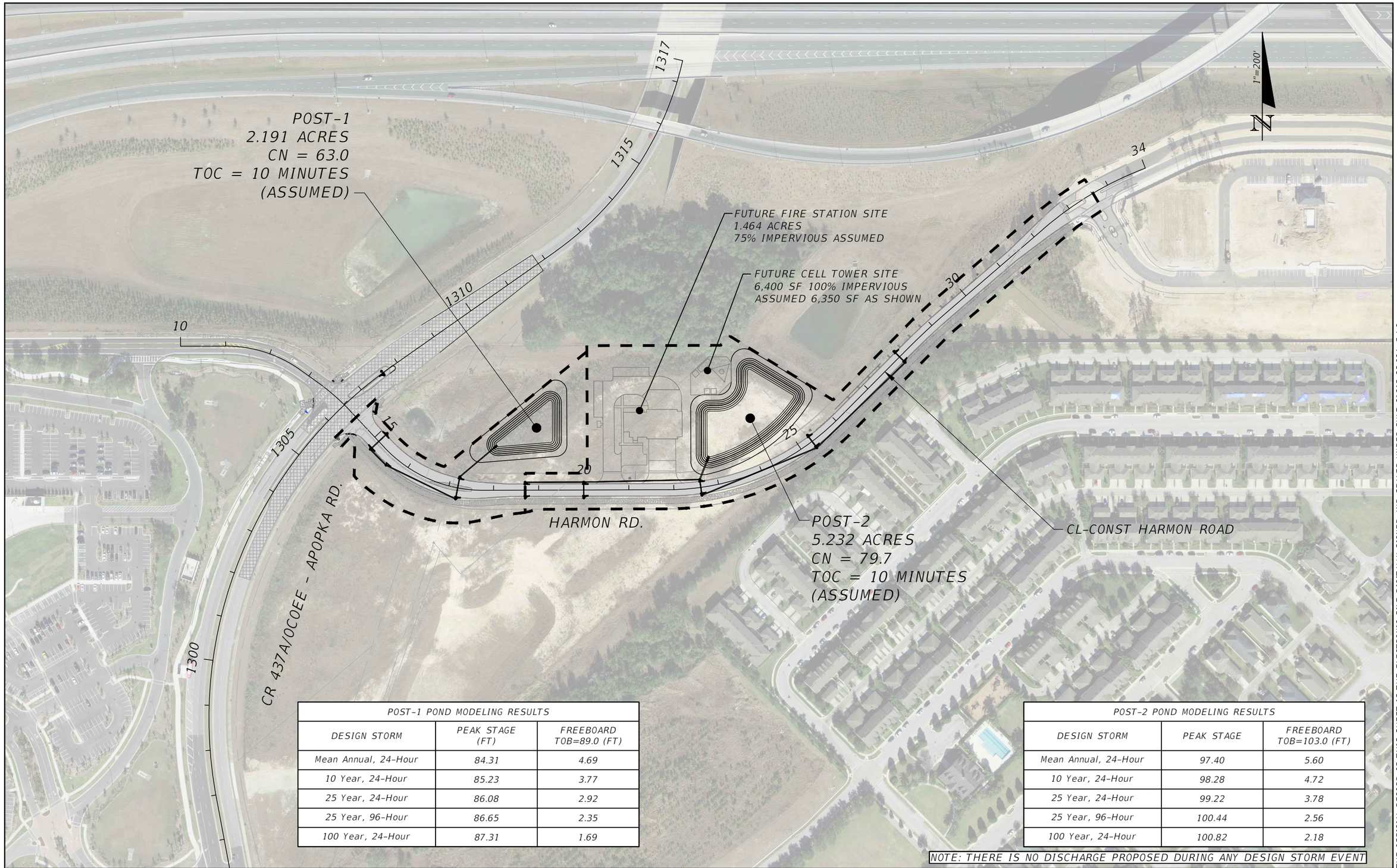
δ = *Buoyant Soil Unit Weight*

d = Depth to Bottom of Layer

Ultimate fs = Geotechnical Report-provided skin friction / adhesion

N = SPT Blow Count


Maitland Boulevard Extension (Toll road)
Harmon Rd
Florida 429 Toll
Ocoee Apopka Rd
Option #1 - New Tower
Option #2 New Tower
Option #3 New Tower
Vasey Rd
Alston Bay Blvd
Sunbow Ave
122



POST-1 POND MODELING RESULTS

DESIGN STORM	PEAK STAGE (FT)	FREEBOARD TOB=89.0 (FT)
Mean Annual, 24-Hour	84.31	4.69
10 Year, 24-Hour	85.23	3.77
25 Year, 24-Hour	86.08	2.92
25 Year, 96-Hour	86.65	2.35
100 Year, 24-Hour	87.31	1.69

POST-2 POND MODELING RESULTS

DESIGN STORM	PEAK STAGE	FREEBOARD TOB=103.0 (FT)
Mean Annual, 24-Hour	97.40	5.60
10 Year, 24-Hour	98.28	4.72
25 Year, 24-Hour	99.22	3.78
25 Year, 96-Hour	100.44	2.56
100 Year, 24-Hour	100.82	2.18

NOTE: THERE IS NO DISCHARGE PROPOSED DURING ANY DESIGN STORM EVENT

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
####	####	#	#
#	#	#	#
#	#	#	#
#	#	#	#

TYLER JEFFREY MALMBORG, P.E.
P.E. LICENSE NUMBER 75630
NEWKIRK ENGINEERING, INC.
1230 NORTH US-HIGHWAY 1, SUITE 3
ORMOND BEACH, FL 32174
CERTIFICATE OF AUTHORIZATION 30209

CITY OF APOPKA
HARMON ROAD
EXTENSION

DRAINAGE MAP (1 OF 2)

SHEET NO. 4

Michael Munier 8/26/2021 5:03:16 PM Y:\FDOT Design\Apopka GEC\Harmon Road Extension\Design\CADD\Drainage\DRMPRD01.dwg

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

1" = 40'

SILT FENCE

MATCHLINE WITH SHEET 50

FUTURE CELL TOWER SITE (6,350 SF)
FINAL DESIGN BY OTHERS

FUTURE FIRE STATION
CONCEPT HANDLE BY
OTHER PARTIES

PROPOSED R/W LINE

SILT FENCE

PROPOSED R/W LINE

POND 2

POND 2 STAGE DATA	
MEAN ANNUAL 24 HR STAGE EL	97.40
10 YEAR, 24-HOUR STAGE EL	98.26
25-YEAR, 24-HOUR STAGE EL	99.22
25-YEAR, 96-HOUR STAGE EL	100.44
100 YEAR, 24-HOUR STAGE EL	100.82

+59.84
246.39 LT.

+52.89
242.14 LT.

+66.15
220.20 LT.

+45.84
218.04 LT.

+15.72
200.57 LT.

+29.25
185.95 LT.

+63.06
177.56 LT.

+77.78
163.85 LT.

+59.98
221.97 LT.

+42.23
202.12 LT.

+93.93
114.83 LT.

+11.34
105.71 LT.

+58.42
180.18 LT.

+68.11
78.32 LT.

+86.92
70.17 LT.

+59.90
73.01 LT.

+44.22
59.39 LT.

+94.73
39.27 LT.

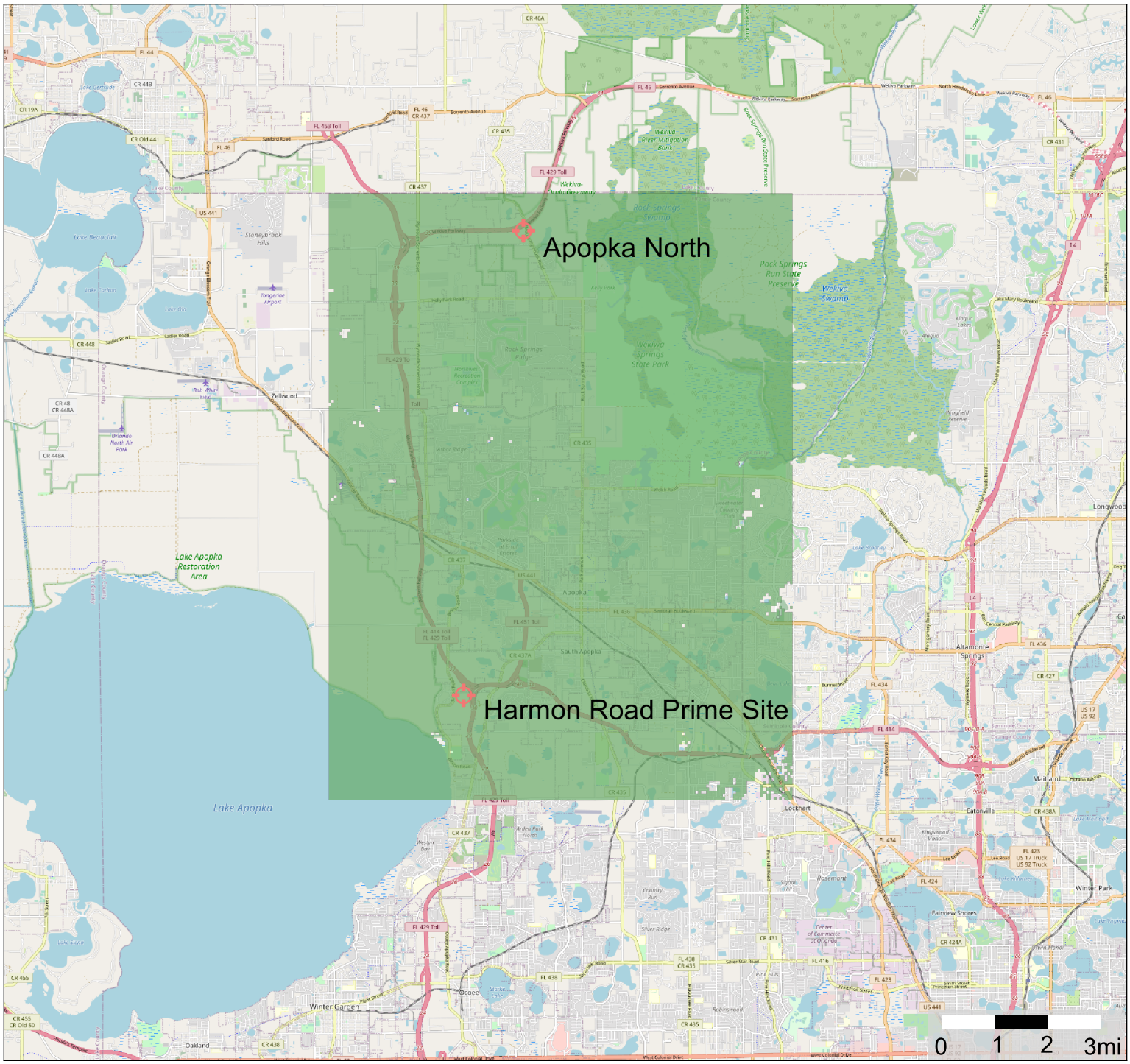
+77.75
26.48 LT.

R29' R5' R65' R325' R361'

32' 12' 12' 12

MOTOROLA

Apopka Current



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Scale 1 : 167939

Legend

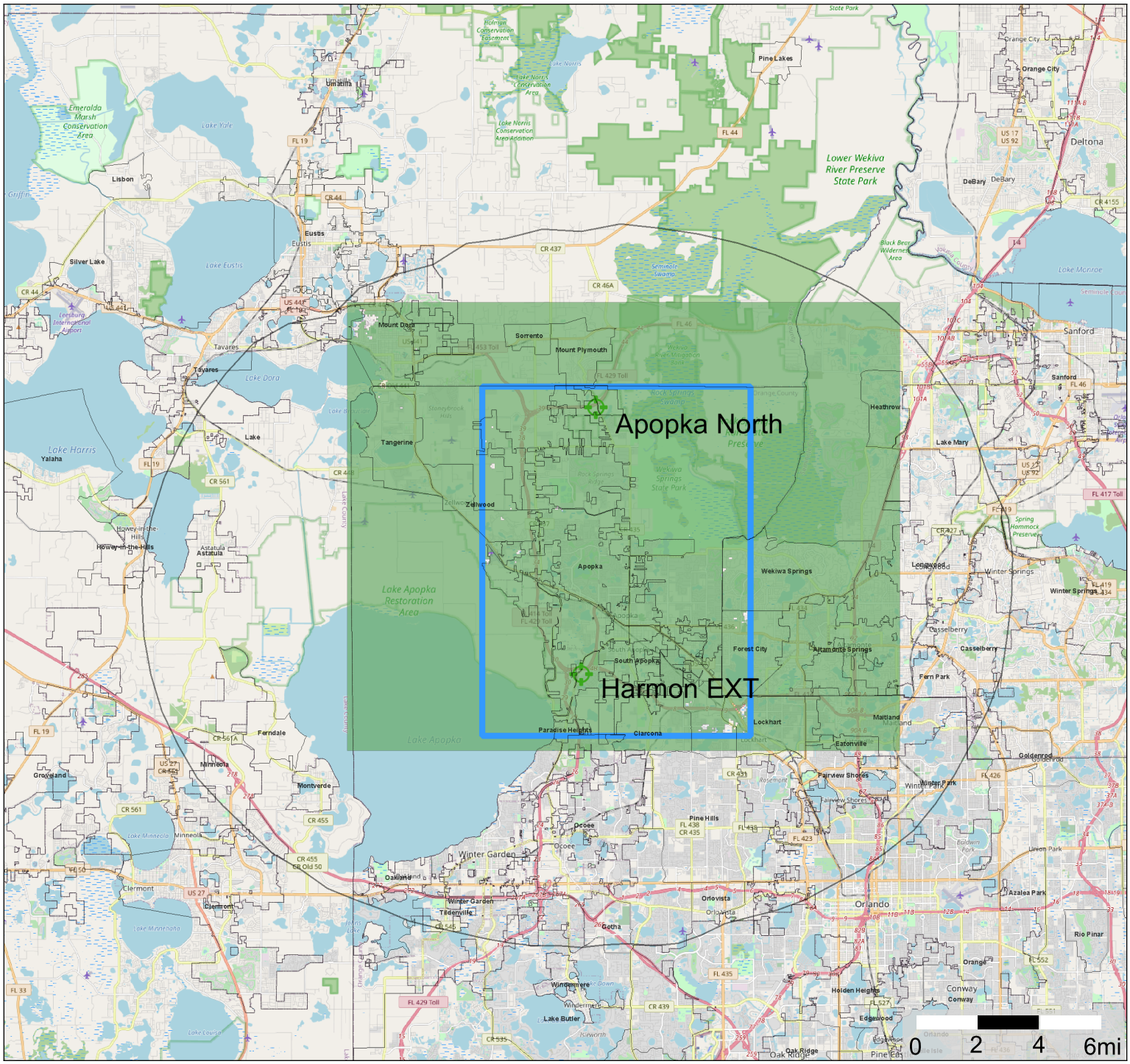
97% Area inbound Subscriber

This was the last Apopka coverage map build

Solution: City of Apopka Project: Apopka Design: Design 35 Apopka North

Job ID: 7977238821.1.Design 35 Apopka North v4 System version: 20210520, N/A, 2.7.2 Printed: 5/25/2021

Apopka Harmon EXT Add-on



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Scale 1 : 291689

Legend

R6602 Contour Harmon EXT Ch:1
desired [50,50] 40 dBu

97% Area outbound BER 402m
Subscriber

Coverage Map outbound w/ city overlay

Motorola Solutions, Inc.
8000 W. Sunrise Blvd.
Plantation, FL 33322

October 15, 2021

Robert Hippler, Information Technology Director
City of Apopka
150 East 5th Street
Apopka, FL 32703

Subject: Harmon Road Tower Project

Dear Mr. Hippler:

Motorola Solutions, Inc. is pleased to have the opportunity to provide The City of Apopka a proposal to enhance your public safety P25 system infrastructure by constructing a P25 simulcast trunking site for the Harmon Road FS6 RF tower location. This proposal includes a self-support tower, an RF shelter, site development work, new antenna and antenna lines, and relocation of the current RF and microwave equipment.

Our proposal focuses on turnkey pricing and an expedient project timeline while meeting and exceeding your site development requirements. Motorola Solutions has tremendous experience in the design and deployment of Project 25 simulcast systems, and has implemented more public safety simulcast systems than all other vendors combined. In addition to these capabilities, we have assembled a team of experienced and qualified subcontractors and plan to utilize our preferred suppliers to ensure a quality, accelerated implementation.

Motorola Solutions' combination of unmatched experience and proven mission-critical technology offers the lowest risk decision for the City. When augmented with the capabilities and knowledge of your needs, we believe this proposal also offers the best overall value for the County. Unique elements of our proposal include:

- Risk-Free Implementation-- Motorola Solutions' project team for the City opportunity has previously worked together to successfully deploy multiple systems consisting of tower/site development and P25 system implementation; therefore, providing the City with the knowledge and continuity required for a successful deployment for all phases of your project. We are familiar with your team and system, and are committed to provide a continued high level of service for the City.

- Accelerated Implementation- Motorola Solutions will leverage our team's experience to develop an implementation and cut-over schedule reflecting collaboration with the site construction, while keeping in mind the current system operation’s critical to public safety users in the city.

Motorola Solutions, Inc.
8000 W. Sunrise Blvd.
Plantation, FL 33322

- Single Partner advantages – Motorola will be responsible for the RF electronics removal, installation, optimization, and testing. When our team marries those tasks with the civil work for site preparation, implementation, and tower installation, Motorola can ensure quality metrics of installation and schedule performance to the benefit of the City

Motorola Solutions has been a partner with The City of Apopka for many years and we have been working together for the last 12 years on the P25 system implementation and operation. We look forward to your review of our proposal, any subsequent discussions, and to helping you achieve your goals and objectives. Questions can be directed to your Motorola Manufacturer's Representative, Bob Busch at 615-477-8245, or your Motorola Solutions Account Executive, Marcus Messura, at (321)228-6807.

Sincerely,
MOTOROLA SOLUTIONS, INC.



Danny Sanchez
Territory Vice President
North America Government Markets

MOTOROLA SOLUTIONS

CITY OF APOPKA

HARMON ROAD FS6 TOWER AND SHELTER REPLACEMENT

OCTOBER 15, 2021

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SECTION 1

SYSTEM DESCRIPTION

1.1 OVERVIEW

Motorola is proposing to replace the existing Harmon Road RF Site tower and shelter. The replacement for the tower and shelter will be in a new location. This proposal includes new RF antenna and line equipment, and the relocation of the equipment in the current RF shelter to the new shelter. Motorola has included the professional services to implement this project.

1.2 SITES

1.2.1 Harmon Road FS6 Site

The new proposed RF Site to replace the current Harmon Road RF Site on the City of Apopka Astro 25 Simulcast system will be located behind Fire station 6. Motorola will provide and erect a 350' self-support tower and provide and install a 12' x 32' communications shelter. This proposal includes supplying and installing new RF lines for the RF equipment at the current Harmon Road RF site and relocating that RF equipment in the current Harmon road site shelter to the newly constructed tower and shelter. Motorola has included some microwave components such as power systems and filters to expedite the re-optimization of those critical subsystems.

The relocation of the RF and microwave equipment will be referred to as a cut-over. During the cut-over, some normal system aspects and features will be unavailable until the completion of the re-installation of the systems into the Harmon Road FS6 site.

Motorola has included in this proposal the FCC license modifications necessary for the RF tower relocation. Motorola will also be updating the Microwave path surveys and microwave licenses as a part of this proposal.

The following devices are included in this proposal:

- 350' Self Support radio communications tower
- 12' x 32' radio communications shelter
- Shelter back up power system with UPS, Generator, and fuel tank
- Seven (7) independent antennas and lines that include the Astro RF Site antenna network
- Two (2) GPS antennas and lines for interface tot eh TRAK timing and frequency standard
- Microwave antenna and lines for the Astro site links, as well as, the City's Point to Point network
- Microwave DC power system

SECTION 2

EQUIPMENT LIST

QTY	NOMENCLATURE	DESCRIPTION
1	DSDS7M11PDAUD	764-805 MHZ, OFFSET ANTENNA, MAGNUM, 11 DB GAIN A-PATTERN, THIRD-ORDER
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DS716F50V12N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC4-50
350	DSEC650A	COAXIAL CABLE, "A" SERIES 1-1/4" 50 OHM CORRUGATED COPPER
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
8	DSGKC114	CLIP ON GROUND KIT FOR 1 1/4" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO H
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
1	DSGSAKITD	GROUND STRAP KIT - DIN
30	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
1	DSDS8M11PDAUD	806-869 MHZ, OFFSET ANTENNA, MAGNUM, 11 DB GAIN, A-PATTERN, THIRD-ORDE
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DS716F50V12N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC4-50
350	DSEC650A	COAXIAL CABLE, "A" SERIES 1-1/4" 50 OHM CORRUGATED COPPER
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
8	DSGKC114	CLIP ON GROUND KIT FOR 1 1/4" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO H
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
1	DSGSAKITD	GROUND STRAP KIT - DIN
30	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX

QTY	NOMENCLATURE	DESCRIPTION
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
1	DSDS7C12P36UD	764-869MHZ SINGLE 11.5DB GAIN SINGLE WITH DIN CONNECTOR,
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DS716F50V12N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC4-50
300	DSEC650A	COAXIAL CABLE, "A" SERIES 1-1/4" 50 OHM CORRUGATED COPPER
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
8	DSGKC114	CLIP ON GROUND KIT FOR 1 1/4" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO H
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
1	DSGSAKITD	GROUND STRAP KIT - DIN
30	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DSDS1G03P36UD	160-174MHZ 3DB GAIN OMNI ANTENNA, LOW PIM, HI PIP RATED DIN CONNECTOR
10	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V78N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC5-50-A
1	DS716F50V78N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC5-50-A
100	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
1	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
2	DSGSAKITD	GROUND STRAP KIT - DIN
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)

QTY	NOMENCLATURE	DESCRIPTION
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
2	DS716M50V78N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC5-50-A
1	DSDS4F08P36UD	450-470 MHZ, UHF ANTENNA, OMNIDIRECTIONAL, 8 DB GAIN,LOW-PIM/HI-PIP, D
10	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V78N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC5-50-A
1	DS716F50V78N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC5-50-A
300	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
1	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
6	DSGSAKITD	GROUND STRAP KIT - DIN
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSTRAKL70N	ANTENNA KIT FOR 9100 - 1 ANT, 100 FT OF CABLE/ WITH LIGHTNING PROT.
2	DSTRAKL70N	ANTENNA KIT FOR 9100 - 1 ANT, 100 FT OF CABLE/ WITH LIGHTNING PROT.
1	DSDS7C12P36UD	764-869MHZ SINGLE 11.5DB GAIN SINGLE WITH DIN CONNECTOR,
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
350	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
2	DSNF50V78N1	CONNECTOR, N FEMALE INTERFACE FOR EC5-50-A
8	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
1	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG
30	DSEC450HF	COAXIAL CABLE, 1/2" HIFLEX, 50 OHM WITH BLACK PE JACKET
2	DSNM50B12X	CONNECTOR, N MALE INTERFACE FOR EC4-50-HF
2	DSNF50V78N1	CONNECTOR, N FEMALE INTERFACE FOR EC5-50-A
1	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50
2	DSHG12	HG-12, LACE-UP HOISTING GRIP FOR 1/2" AIRCELL COAX

QTY	NOMENCLATURE	DESCRIPTION
13	DSSHS12	STACKABLE SNAP-IN HANGER FOR 1/2" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS78	STACKABLE SNAP-IN HANGER FOR 7/8" AIRCELL COAX (PACKAGE OF 10)
1	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DSDS7C12P36UD	764-869MHZ SINGLE 11.5DB GAIN SINGLE WITH DIN CONNECTOR,
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
350	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
2	DSNF50V78N1	CONNECTOR, N FEMALE INTERFACE FOR EC5-50-A
8	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
1	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG
30	DSEC450HF	COAXIAL CABLE, 1/2" HIFLEX, 50 OHM WITH BLACK PE JACKET
2	DSNM50B12X	CONNECTOR, N MALE INTERFACE FOR EC4-50-HF
2	DSNF50V78N1	CONNECTOR, N FEMALE INTERFACE FOR EC5-50-A
1	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50
2	DSHG12	HG-12, LACE-UP HOISTING GRIP FOR 1/2" AIRCELL COAX
13	DSSHS12	STACKABLE SNAP-IN HANGER FOR 1/2" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS78	STACKABLE SNAP-IN HANGER FOR 7/8" AIRCELL COAX (PACKAGE OF 10)
1	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DQMWAPOPKA FLT	Proteus MX Microwave Filters
1	DQMWAPOPKAANT	Antenna and Dehydrator Systems
1	DQMWAPOPKARK	Proteus MX Microwave Rack
1	DQMWAPOPKAPS	Power System
1	DQMWAPOPKABT	Batteries
1	Modified 12 x 32 Precast Shelter w/ Gen and Cam Locks	VFP Quotation: MOT-1736 12' x 32' x 9' Prefab Building W/ 100 KW Generator and 500 Gallon Diesel Skid Tank
1	U-34 x 350' Self Supporting Tower	Valmont Quote: 520188-02 350-foot self-supported tower, Including FTS370D Flash Technology Lightning Medium Stobe Kit and T-Brackets for all three legs
2	DSTQ34F7	N COUPLER TORQUE WRENCH

SECTION 3

STATEMENT OF WORK

3.1 OVERVIEW

This Statement of Work (SOW) describes the deliverables to be furnished to The City of Apopka (City). The tasks described herein will be performed by Motorola, its subcontractors, and the City to implement the solution described in the System Description. It describes the actual work involved in installation, identifies the installation standards to be followed, and clarifies the responsibilities for both Motorola and City during the project implementation.

This SOW provides the most current understanding of the work required by both parties to ensure a successful project implementation. In particular, Motorola has made assumptions of the sites to be used for the new system. Should any of the sites change, a revision to the SOW and associated pricing will be required. It is understood that this SOW is a working document, and that it will be revised as needed to incorporate any changes associated with contract negotiations, Contract Design Review (CDR), and any other change orders that may occur during the execution of the project.

Motorola will remove and relocate the current City owned RF equipment from the existing Harmon Road tower to the new Harmon Road FS6 Tower.

3.2 ASSUMPTIONS

Motorola has based the system design on information provided by the City and an analysis of their system requirements. All assumptions have been listed below for review. Should Motorola's assumptions be deemed incorrect or not agreeable to the City, a revised proposal with the necessary changes and adjusted costs may be required. Changes to the equipment or scope of the project after contract may require a change order

- All work is to be performed during normal work hours, Monday through Friday 8:00 a.m. to 5:00 p.m.
- Motorola is not responsible for interference caused or received by the Motorola provided equipment except for interference that is directly caused by the Motorola-provided transmitter(s) to the Motorola-provided receiver(s). Should the City's system experience interference, Motorola can be contracted to investigate the source and recommend solutions to mitigate the issue.
- The System Design is proposed solely as infrastructure only. No subscribers, consoles, logging, or encryption is included

3.2.1 Project Kickoff

Motorola Responsibilities:

- Conduct a project kickoff meeting during the CDR phase of the project.

- Ensure key project team participants attend the meeting.
- Review the overall project scope and objectives with the City.
- Review the resource and scheduling requirements with the City.
- Review the Project Schedule with the City to address upcoming milestones and/or events.
- Review the teams' interactions (Motorola and the City), meetings, reports, milestone acceptance, and the City's participation in particular phases.

City Responsibilities:

- The City's key project team participants attend the meeting.
- Review Motorola and City responsibilities.

Completion Criteria:

- Project kickoff meeting completed.
- Meeting notes identify the next action items.

3.3 CIVIL WORK

3.3.1 Site Development at New Harmon Road FS 6Tower Site

This is a new tower location for The City of Apopka, Florida and the current plan is to locate the tower on the Fire Station property off the back of the Fire Station Parking lot as the DOT is planning to construct a new bypass in the area and the Fire Station and new tower location will be off to the side of the new bypass.

Site Scope Summary

- Engineering services for site drawings and regulatory approvals – Included.
- Site acquisition services – Not included.
- Zoning Services – Not included.
- New fenced compound/expansion size – 80-foot x 70-foot.
- Clearing type – Medium.
- Construction Staging Area – 100 feet.
- New power run – 250 feet, Electrical service type – Underground, 400-amp - 120/240-volt, single-phase.
- New shelter size – 12-foot x 32-foot.
- New fuel tank size – 500 gallons- , Type – Diesel skid tank under generator.
- New generator size – 100 kW, Type – Outdoor.
- New tower to be used for antennas – 350-foot self-supported tower.
- New tower foundation size – 386 cubic yard, Type – Drilled Pier.

Motorola Responsibilities:

<u>Site Engineering</u>

- Prepare site construction drawings showing the layout of various new and existing site components.
- Conduct site walks to collect pertinent information from the sites (e.g., location of Telco, power, existing facilities, etc.).
- Perform a site and topographic survey for the property on which the communication site is located or will be located.

- Prepare a lease exhibit and sketch of the site to communicate to the property owner the proposed lease space and planned development at the particular site location.
- Prepare record drawings of the site showing the as-built information.
- Perform construction staking around the site to establish reference points for proposed construction.
- Perform NEPA Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 CFR Chapter 1, subsection 1.1307 that may potentially be impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility “may have a significant environmental impact” and thus require additional documentation, submittals, or work. Regional Environmental Review (RER) report submittals if required by FEMA have not been included. Perform Cultural Resource study as needed to identify sensitive historical and archaeological monuments that might be impacted by proposed construction
- Conduct up to 80-foot deep soil boring test at each tower leg, backfill holes with spoils and prepare geotechnical report of soil conditions at locations of the tower foundation. Grouting of boring holes or access by Automatic Traction Vehicle (ATV) - mounted rig is not included.
- Conduct construction inspection of foundation steel prior to pour, materials testing of concrete and field density tests of backfill to ensure quality construction.
- Check tower erection for plumbness, linearity and alignment after installation.
- Perform inspection of the site and the work performed by the Contractor to document that the site is built in accordance with the “Site Plans” and document any deviations or violations.
- Prepare, submit and track application for local permit fees (zoning, electrical, building etc.), prepare FAA filings and procure information necessary for filing.

Site Preparation

- Obtain the permits such as electrical, building, and construction permits, and coordinate any inspections with local authorities that may be needed to complete site development work.
- Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.
- Perform medium clearing, grubbing and disposal of vegetation and shrub growth in the site compound area and a 20-foot path around it (13200 square feet).
- Perform medium tree clearing (Trees up to 6” in diameter), grubbing and disposal of vegetation and shrub growth in a 15-foot wide access road to the site (not to exceed 100 feet in length).
- Grade the site compound and 10-foot path around it to provide a level, solid, undisturbed surface for installation of site components (not to exceed 9000 square feet).
- Supply and install gravel surfacing to a depth of 6 inches, including herbicide treatment and geo-textile fabric installation within the fenced in site compound area, and a 3-foot path around it (not to exceed 6536 square feet).
- Provide a construction staging area including surface grading and graveling.

- Provide silt fence around the compound to control soil erosion (not to exceed 300 linear feet).
- Supply and install 8-foot high chain-link fencing with a ten-foot wide gate around the shelter compound (not to exceed 300 linear feet).
- Perform site touch up (fertilize, seed and straw) disturbed areas not covered with gravel after completion of construction work. Landscaping, decorative fencing or any other aesthetic improvement that may be required by local jurisdictions has not been included and will be handled through a negotiated contract change notice.

Component Installation

- Construct 1 reinforced concrete foundation necessary for a 12-foot x 32-foot shelter.
- Construct 1 foundation for the 100 kW generator with reinforcing steel necessary to support generator and 500-gallon diesel skid tank.
- Supply and install 1 prefabricated concrete shelter 12-foot x 32-foot.
- Supply and install 1 standby power generator (100 kW) with 500-gallon diesel skid tank and install, located within 20 feet of the ATS, including interconnection wiring between the generator and transfer switch
- Supply and install 1 120/240-volt, 400-amp, single-phase meter pedestal and hookup for electrical service by the local utility.
- Provide all trenching, conduit, and cabling necessary for underground hookup of power to the shelter from nearby utility termination located within 250 cable feet of the shelter.
- Supply and install a perimeter grounding system around the compound and shelter. The ground system is to tie to the fence and all new metal structures within the compound to meet current Motorola's R56 standards.
- Conduct 1 three-point ground resistance test of the site. Should any improvements to grounding system be necessary after ground testing, the cost of such improvements shall be the responsibility of City of Apopka, Florida.
- Supply and install 1 freestanding 24-inch-wide cable/ice bridge from the tower to the shelter (up to 20 linear feet).

Tower Work

- Construct drilled pier type tower foundations including excavation, rebar and concrete (not to exceed 386 cubic yards).
- Provide and Erect 350' self supported tower.
- Supply and install grounding for the tower base for self-supported tower.

Antenna and Transmission Line Installation

- Install 3 Omni stick antenna(s) for the RF system.
- Install 4 Magnum antenna(s) for the RF system.
- Install 2 GPS antenna(s).
- Install 1 tower top amplifier(s).
- Install up to 380 linear feet of 1/2-inch transmission line.
- Install up to 785 linear feet of 7/8-inch transmission line.
- Install up to 1495 linear feet of 1-1/4-inch transmission line.
- Perform sweep tests on transmission lines.

- Supply and install 1 ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.

Miscellaneous Work

- Private Location to identify all utilities and piping located in the tower construction area prior to digging.
- Additional Slurry Tank required to install the drilled piers for the new tower.
- Removal of foundation spoils from site to qualified location for proper dispersal.

Customer Responsibilities:

- As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that is the **Customer's responsibility such as land acquisition and DOT permitting land use permit, etc., as required**.
- Pay for all utility connection, pole or line extensions, and any easement or usage fees.
- Review and approve site design drawings within 7 calendar days of submission by Motorola or its subcontractor(s). Should a re-submission be required, the Customer shall review and approve the re-submitted plans within 7 calendar days from the date of submittal.
- Pay for the usage costs of power and leased lines both during the construction/installation effort and on an on-going basis.
- Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- Provide personnel to observe construction progress and testing of site equipment according to the schedule provided by Motorola.
- Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering. This would include Fire Station and parking area drawings and engineering along with retention pond and storm drain location in the area adjacent to the tower location.
- Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- Conduct all the testing and documentation (balloon tests, photo simulations, zoning application, expert testimony, zoning drawings etc.) required for the zoning the proposed new tower sites.
- Secure power connection to the site, associated permitting and installation of a meter and disconnect within 50 feet of the proposed shelter location.
- Provide additional temporary space for staging of the construction equipment during the construction of new site facilities (tower, shelter, generator, fuel tank etc.).

Assumptions:

- No prevailing wage has been included as a part of this proposal.
- All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- All recurring and non-recurring utility costs [including, but not limited to, generator fuel (except first fill), electrical, Telco] will be borne by the Customer.
- All utility installations shall be coordinated and paid for by the site owner and located at jointly agreed to location within or around the new communications shelter or equipment room.

- Site will have adequate electrical service for the new shelter and tower. Utility transformer, transformer upgrades, line, or pole extensions have not been included.
- Pricing has been based on National codes such IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- Hazardous materials are not present at the work location. Testing and removal of hazardous materials, found during site investigations, construction or equipment installation will be the responsibility of the customer.
- A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- No improvements are required for concrete trucks, drill rigs, shelter delivery, and crane access.
- If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- In absence of geotechnical reports, foundations and subsurface conditions for tower design are based on Presumptive Sand soil parameters, as defined by EIA-222-G Annex H. Also, rock coring, piling, extensive dewatering of foundations, permanent casings or hazardous material removal has not been included.
- The new tower location will pass the FAA hazard study, zoning, FCC and environmental permitting.
- The restoration of the site surroundings by fertilizing, seeding and straw being placed in the disturbed areas will be adequate.
- Tower and foundation sizing is based on the tower loading requirements as a result of the RF Antenna System design and the Microwave Antenna System design (i.e. - dish sizes and locations obtained from paper path studies). If after physical path studies, the dish sizes and locations change, then Motorola will then review the impact to tower structure and foundations and revise applicable costs.
- If as a result of NEPA studies, any jurisdictional authority should determine that a proposed communications facility "may have a significant environmental impact", the environmental impact studies or field testing and evaluation related to such determination have not been included.
- For new towers greater than 200 feet in overall height, FAA obstruction lighting has been included. Painting of any new tower has not been included.
- The site location can be finalized and lease agreement can be reached with the property owner within 60 calendar days after the start of the site acquisition effort.
- A waiver to zoning requirements like setbacks, tower height limitations, etc. can be obtained and will be the responsibility of City of Apopka, Florida.
- The soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communications site grounding will be designed and installed per Motorola's Standards and Guidelines for Communications Sites (R56).
- Underground utilities are not present in the construction area, and as such no relocation will be required.
- Foundations for the compound, shelter, generator and fuel tank are based "normal soil" conditions as defined by TIA/EIA 222-H. Footings deeper than 30 inches, raised piers, rock coring, dewatering, hazardous material removal or wetland mitigation have not been included.
- AM tuning of existing towers has not been included in this proposal.

- Motorola's proposal is conditioned upon the ability of Motorola to complete the project at the prices set forth herein. Due to significant market volatility and material price fluctuations in raw materials such as steel, copper, finished wood, crushed stone and concrete, Motorola reserves the right to review all material pricing prior to placing any order for materials or equipment required for new towers or shelters and related civil materials at each site in order to verify price validity. In the event of a significant cost increase in material or equipment occurring during performance of the project through no fault of Motorola, the contract price, time of completion and/or contract requirements shall be equitably adjusted by Change Order in accordance with the procedures of the contract documents.

3.4 SYSTEM IMPLEMENTATION

3.4.1 System Installation

Motorola Responsibilities:

- Motorola and its subcontractors will remove and re-install each subsystem.
- Interface re-installed equipment to the newly installed antenna and line system.

City Responsibilities:

- Provide access/escort to the sites.

Completion Criteria:

System FNE install complete.

3.4.2 Optimize System FNE

Motorola Responsibilities:

- Motorola and its subcontractors optimize each subsystem.
- Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.
- Verify that all audio and data levels are at factory settings.
- Check forward and reflected power for all radio equipment, after connection to the antenna systems, to verify that power is within tolerances.
- Check audio and data levels to verify factory settings.
- Verify communication interfaces between devices for proper operation.
- Test features and functionality are in accordance with manufacturers' specifications and that they comply with the final configuration established during the CDR/system staging.

City Responsibilities:

- Provide access/escort to the sites.

Completion Criteria:

- System FNE optimization complete.

3.4.3 Optimization Complete

- System optimization is completed. Motorola and the City agree that the equipment is ready for acceptance testing.

3.4.4 Perform R56 Installation Audit

Motorola Responsibilities:

- Perform R56 site-installation quality audits, verifying proper physical installation and operational configurations.
- Create site evaluation report to verify site meets or exceeds requirements, as defined in Motorola's Standards and Guidelines for Communication Sites (R56).

City Responsibilities:

- Provide access/escort to the sites.
- Witness tests.

Completion Criteria:

- All R56 audits completed successfully.

3.4.5 Perform Equipment Testing

Motorola Responsibilities:

- Test individual components of the system to verify compliance to the equipment specifications.
- Repeat any failed test(s) once Motorola (or the City) has completed the corrective action(s).
- Prepare documentation of component tests to be delivered as part of the final documentation package.

City Responsibilities:

- Witness tests if desired.

Completion Criteria:

- Successful completion of equipment testing.

3.4.6 Perform Functional Testing

Motorola Responsibilities:

- Verify the operational functionality and features of the individual subsystems and the system supplied by Motorola, as contracted.
- If any major task as contractually described fails, repeat that particular task after Motorola determines that corrective action has been taken.
- Document all issues that arise during the acceptance tests.
- Document the results of the acceptance tests and present to the City for review.
- Resolve any minor task failures before Final System Acceptance.

City Responsibilities:

- Witness the functional testing.

Completion Criteria:

- Successful completion of the functional testing.
- City approval of the functional testing.

3.4.7 System Acceptance Test Procedures (Milestone)

- City approves the completion of all the required tests.

3.5 FINALIZE

3.5.1 Cutover

Motorola Responsibilities:

- Motorola and the City will develop a mutually agreed upon cutover plan based upon discussions held during the CDR.
- During cutover, follow the written plan and implement the defined contingencies, as required.

City Responsibilities:

- Attend cutover meetings and approve the cutover plan.

Completion Criteria:

- Successful migration from the old system to the new system.

3.5.2 Resolve Punchlist

Motorola Responsibilities:

- Work with the City to resolve punchlist items, documented during the Acceptance Testing phase, in order to meet all the criteria for final system acceptance.

City Responsibilities:

- Assist Motorola with resolution of identified punchlist items by providing support, such as access to the sites, equipment and system, and approval of the resolved punchlist item(s).

Completion Criteria:

- All punchlist items resolved and approved by the City.

3.5.3 Transition to Service/Project Transition Certificate

Motorola Responsibilities:

- Review the items necessary for transitioning the project to warranty support and service.

- Provide a City Support Plan detailing the warranty and post-warranty support, if applicable, associated with the Contract equipment.

City Responsibilities:

- Participate in the Transition Service/Project Transition Certificate (PTC) process.

Completion Criteria:

- All service information has been delivered and approved by the City.

3.5.4 Finalize Documentation

Motorola Responsibilities:

- Provide an electronic as-built system manual on a Compact Disc (CD). The documentation will include the following:
  - System-Level Diagram
  - Site Block Diagrams
  - Site Floor Plans
  - Site Equipment Rack Configurations
  - Antenna Network Drawings for RF Sites
  - ATP Test Checklists
  - Functional Acceptance Test Plan Test Sheets and Results
  - Equipment Inventory List

Drawings are created utilizing AutoCAD design software and will be delivered in Adobe PDF format. All other system manual documents converted from native format to Adobe PDF format to be included on the System Manual CD.

City Responsibilities:

- Receive and approve all documentation provided by Motorola.

Completion Criteria:

- All required documentation is provided and approved by the City.

3.5.5 Final Acceptance (Milestone)

- All deliverables completed, as contractually required.
- Final System Acceptance received from the City.

3.6 PROJECT ADMINISTRATION

3.6.1 Project Status Meetings

Motorola Responsibilities:

- As agreed, Motorola Project Manager, or designee, will attend all project status meetings with the City, as determined during the CDR. Record the meeting minutes and supply the report.
- The agenda will include the following:
  - Overall project status compared to the Project Schedule.

- Product or service related issues that may affect the Project Schedule.
- Status of the action items and the responsibilities associated with them, in accordance with the Project Schedule.
- Any miscellaneous concerns of either the City or Motorola.

City Responsibilities:

- Attend meetings.
- Respond to issues in a timely manner.

Completion Criteria:

- Completion of the meetings and submission of meeting minutes.

3.6.2 Progress Milestone Submittal

Motorola Responsibilities:

- Submit progress (non-payment) milestone completion certificate/documentation.

City Responsibilities:

- Approve milestone, which will signify confirmation of completion of the work associated with the scheduled task.

Completion Criteria:

- The City approval of the Milestone Completion document(s).

3.6.3 Change Order Process

- Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost, change in system configuration or adds time to the project's timeline required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

SECTION 4

PRICING SUMMARY

4.1 PROPOSED PRICING

Description	Discounted Price
NEW Equipment - 350’ Self Support RF tower - 12’ x 32’ RF communications shelter - 7 – RF antenna and line runs - 2 – GPS antenna and line runs - Microwave power and antenna systems	$1,146,767
Services: - Post-Sale Engineering - Project Management - System Technologist Support - Site Development - FCC licensing preparation - Microwave path survey and licensing services - Installation of Fixed Network Equipment - Audit and Acceptance Testing	$1,508,787
Total	$2,655,554

Motorola Solutions, Inc.
8000 W. Sunrise Blvd.
Plantation, FL 33322

October 15, 2021

Robert Hippler, Information Technology Director
City of Apopka
150 East 5th Street
Apopka, FL 32703

Subject: Harmon Road Tower Replacement

Dear Mr. Hippler:

Motorola Solutions, Inc. is pleased to have the opportunity to provide The City of Apopka a proposal to enhance your public safety P25 system infrastructure by constructing a radio communications tower for the Harmon Road RF site. This proposal includes a self-support tower and new antenna and antenna lines.

Our proposal focuses on turnkey pricing and an expedient project timeline while meeting and exceeding your site development requirements. Motorola Solutions has tremendous experience in the design and deployment of Project 25 simulcast systems, and has implemented more public safety simulcast systems than all other vendors combined. In addition to these capabilities, we have assembled a team of experienced and qualified subcontractors and plan to utilize our preferred suppliers to ensure a quality, accelerated implementation.

Motorola Solutions' combination of unmatched experience and proven mission-critical technology offers the lowest risk decision for the City. When augmented with the capabilities and knowledge of your needs, we believe this proposal also offers the best overall value for the County. Unique elements of our proposal include:

- Risk-Free Implementation-- Motorola Solutions' project team for the City opportunity has previously worked together to successfully deploy multiple systems consisting of tower/site development and P25 system implementation; therefore, providing the City with the knowledge and continuity required for a successful deployment for all phases of your project. We are familiar with your team and system, and are committed to provide a continued high level of service for the City.

- Accelerated Implementation- Motorola Solutions will leverage our team's experience to develop an implementation and cut-over schedule reflecting collaboration with the site construction, while keeping in mind the current system operation’s critical to public safety users in the city.

- Single Partner advantages – Motorola will be responsible for the RF electronics

Motorola Solutions, Inc.
8000 W. Sunrise Blvd.
Plantation, FL 33322

interface to the new antenna and line systems, optimization, and testing. When our team marries those tasks with the civil work for tower installation, Motorola can ensure quality metrics of installation and schedule performance to the benefit of the City.

Motorola Solutions has been a partner with The City of Apopka for many years and we have been working together for the last 12 years on the P25 system implementation and operation. We look forward to your review of our proposal, any subsequent discussions, and to helping you achieve your goals and objectives. Questions can be directed to your Motorola Manufacturer's Representative, Bob Busch at 615-477-8245, or your Motorola Solutions Account Executive, Marcus Messura, at (321)228-6807.

Sincerely,
MOTOROLA SOLUTIONS, INC.



Danny Sanchez
Territory Vice President
North America Government Markets

MOTOROLA SOLUTIONS

CITY OF APOPKA

HARMON ROAD TOWER REPLACEMENT

OCTOBER 15, 2021

The design, technical, and price information furnished with this proposal is proprietary information of Motorola Solutions, Inc. (Motorola). Such information is submitted with the restriction that it is to be used only for the evaluation of the proposal, and is not to be disclosed publicly or in any manner to anyone other than those required to evaluate the proposal, without the express written permission of Motorola Solutions, Inc.

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SECTION 1

SYSTEM DESCRIPTION

1.1 OVERVIEW

Motorola is proposing to replace the existing Harmon Road RF Site tower. The replacement for the tower will be at the same RF site location, as close to the current shelter as possible. This proposal includes new RF antenna and line equipment, and the removal of the current tower. Motorola has included the professional services to implement this project.

1.2 SITES

1.2.1 Harmon Road Site

Motorola will provide and erect a 350' self-support tower. This proposal includes supplying and installing new RF lines for the City's RF equipment at the current Harmon Road RF site.

The following devices are included in this proposal:

- 350' Self Support radio communications tower
- Seven (7) independent antennas and lines that include the Astro RF Site antenna network
- Two (2) GPS antennas and lines for interface tot eh TRAK timing and frequency standard
- Microwave antenna and lines for the Astro site links, as well as, the City's Point to Point network

SECTION 2

EQUIPMENT LIST

QTY	NOMENCLATURE	DESCRIPTION
1	DSDS7M11PDAUD	764-805 MHZ, OFFSET ANTENNA, MAGNUM, 11 DB GAIN A-PATTERN, THIRD-ORDER
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DS716F50V12N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC4-50
350	DSEC650A	COAXIAL CABLE, "A" SERIES 1-1/4" 50 OHM CORRUGATED COPPER
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
8	DSGKC114	CLIP ON GROUND KIT FOR 1 1/4" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO H
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
1	DSGSAKITD	GROUND STRAP KIT - DIN
30	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
1	DSDS8M11PDAUD	806-869 MHZ, OFFSET ANTENNA, MAGNUM, 11 DB GAIN, A-PATTERN, THIRD-ORDE
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DS716F50V12N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC4-50
350	DSEC650A	COAXIAL CABLE, "A" SERIES 1-1/4" 50 OHM CORRUGATED COPPER
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
8	DSGKC114	CLIP ON GROUND KIT FOR 1 1/4" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO H
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
1	DSGSAKITD	GROUND STRAP KIT - DIN
30	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX

QTY	NOMENCLATURE	DESCRIPTION
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
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13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
1	DSDS7C12P36UD	764-869MHZ SINGLE 11.5DB GAIN SINGLE WITH DIN CONNECTOR,
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DS716F50V12N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC4-50
300	DSEC650A	COAXIAL CABLE, "A" SERIES 1-1/4" 50 OHM CORRUGATED COPPER
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
8	DSGKC114	CLIP ON GROUND KIT FOR 1 1/4" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO H
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
1	DSGSAKITD	GROUND STRAP KIT - DIN
30	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
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13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DSDS1G03P36UD	160-174MHZ 3DB GAIN OMNI ANTENNA, LOW PIM, HI PIP RATED DIN CONNECTOR
10	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V78N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC5-50-A
1	DS716F50V78N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC5-50-A
100	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
1	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
2	DSGSAKITD	GROUND STRAP KIT - DIN
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)

QTY	NOMENCLATURE	DESCRIPTION
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
2	DS716M50V78N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC5-50-A
1	DSDS4F08P36UD	450-470 MHZ, UHF ANTENNA, OMNIDIRECTIONAL, 8 DB GAIN,LOW-PIM/HI-PIP, D
10	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DS716M50V78N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC5-50-A
1	DS716F50V78N1	CONNECTOR, 7/16 DIN FEMALE INTERFACE FOR EC5-50-A
300	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
1	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
1	DSTSXDFMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
6	DSGSAKITD	GROUND STRAP KIT - DIN
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
2	DSHG114	HG-114, LACE-UP HOISTING GRIP FOR 1-1/4" AIRCELL COAX
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS114	STACKABLE SNAP-IN HANGER FOR 114" AIRCELL COAX (PACKAGE OF 10)
2	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
2	DSTRAKL70N	ANTENNA KIT FOR 9100 - 1 ANT, 100 FT OF CABLE/ WITH LIGHTNING PROT.
2	DSTRAKL70N	ANTENNA KIT FOR 9100 - 1 ANT, 100 FT OF CABLE/ WITH LIGHTNING PROT.
1	DSDS7C12P36UD	764-869MHZ SINGLE 11.5DB GAIN SINGLE WITH DIN CONNECTOR,
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
350	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
2	DSNF50V78N1	CONNECTOR, N FEMALE INTERFACE FOR EC5-50-A
8	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
1	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG
30	DSEC450HF	COAXIAL CABLE, 1/2" HIFLEX, 50 OHM WITH BLACK PE JACKET
2	DSNM50B12X	CONNECTOR, N MALE INTERFACE FOR EC4-50-HF
2	DSNF50V78N1	CONNECTOR, N FEMALE INTERFACE FOR EC5-50-A
1	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50
2	DSHG12	HG-12, LACE-UP HOISTING GRIP FOR 1/2" AIRCELL COAX

QTY	NOMENCLATURE	DESCRIPTION
13	DSSHS12	STACKABLE SNAP-IN HANGER FOR 1/2" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS78	STACKABLE SNAP-IN HANGER FOR 7/8" AIRCELL COAX (PACKAGE OF 10)
1	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DSDS7C12P36UD	764-869MHZ SINGLE 11.5DB GAIN SINGLE WITH DIN CONNECTOR,
20	DSEC450	COAXIAL CABLE, 1/2" 50 OHM CORRUGATED COPPER WITH BLACK PE JACKET
350	DSEC550A	COAXIAL CABLE, "A" SERIES 7/8 IN 50 OHM CORRUGATED COPPER W/ BLACK PE
2	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
2	DSNF50V78N1	CONNECTOR, N FEMALE INTERFACE FOR EC5-50-A
8	DSGKC78	CLIP ON GROUND KIT FOR 7/8" CABLES, 5' LEAD W/ UNATTACHED 3/8" TWO HOL
1	DS1090501WA	RF SPD, 700-1000MHZ BROADBAND 15 VDC PASS NM ANT, NF EQUIP PIP, ASIG
30	DSEC450HF	COAXIAL CABLE, 1/2" HIFLEX, 50 OHM WITH BLACK PE JACKET
2	DSNM50B12X	CONNECTOR, N MALE INTERFACE FOR EC4-50-HF
2	DSNF50V78N1	CONNECTOR, N FEMALE INTERFACE FOR EC5-50-A
1	DSNM50V12	CONNECTOR, N MALE INTERFACE FOR EC4-50
2	DSHG12	HG-12, LACE-UP HOISTING GRIP FOR 1/2" AIRCELL COAX
13	DSSHS12	STACKABLE SNAP-IN HANGER FOR 1/2" AIRCELL COAX (PACKAGE OF 10)
13	DSSHS78	STACKABLE SNAP-IN HANGER FOR 7/8" AIRCELL COAX (PACKAGE OF 10)
1	DS716M50V12N1	CONNECTOR, 7/16 DIN MALE INTERFACE FOR EC4-50
1	DQMWAPOPKA FLT	Proteus MX Microwave Filters
1	DQMWAPOPKAANT	Antenna and Dehydrator Systems
1	U-34 x 350' Self Supporting Tower	Valmont Quote: 520188-02 350-foot self-supported tower, Including FTS370D Flash Technology Lightning Medium Stobe Kit and T-Brackets for all three legs
2	DSTQ34F7	N COUPLER TORQUE WRENCH

SECTION 3

STATEMENT OF WORK

3.1 OVERVIEW

This Statement of Work (SOW) describes the deliverables to be furnished to The City of Apopka (City). The tasks described herein will be performed by Motorola, its subcontractors, and the City to implement the solution described in the System Description. It describes the actual work involved in installation, identifies the installation standards to be followed, and clarifies the responsibilities for both Motorola and City during the project implementation.

This SOW provides the most current understanding of the work required by both parties to ensure a successful project implementation. In particular, Motorola has made assumptions of the sites to be used for the new system. Should any of the sites change, a revision to the SOW and associated pricing will be required. It is understood that this SOW is a working document, and that it will be revised as needed to incorporate any changes associated with contract negotiations, Contract Design Review (CDR), and any other change orders that may occur during the execution of the project.

3.2 ASSUMPTIONS

Motorola has based the system design on information provided by the City and an analysis of their system requirements. All assumptions have been listed below for review. Should Motorola's assumptions be deemed incorrect or not agreeable to the City, a revised proposal with the necessary changes and adjusted costs may be required. Changes to the equipment or scope of the project after contract may require a change order

- All work is to be performed during normal work hours, Monday through Friday 8:00 a.m. to 5:00 p.m.
- Motorola is not responsible for interference caused or received by the Motorola provided equipment except for interference that is directly caused by the Motorola-provided transmitter(s) to the Motorola-provided receiver(s). Should the City's system experience interference, Motorola can be contracted to investigate the source and recommend solutions to mitigate the issue.
- The System Design is proposed solely as infrastructure only. No subscribers, consoles, logging, or encryption is included

3.2.1 Project Kickoff

Motorola Responsibilities:

- Conduct a project kickoff meeting during the CDR phase of the project.
- Ensure key project team participants attend the meeting.
- Review the overall project scope and objectives with the City.
- Review the resource and scheduling requirements with the City.

- Review the Project Schedule with the City to address upcoming milestones and/or events.
- Review the teams' interactions (Motorola and the City), meetings, reports, milestone acceptance, and the City's participation in particular phases.

City Responsibilities:

- The City's key project team participants attend the meeting.
- Review Motorola and City responsibilities.

Completion Criteria:

- Project kickoff meeting completed.
- Meeting notes identify the next action items.

3.3 CIVIL WORK

3.3.1 Site Development at New Harmon Road FS 6Tower Site

This is a new tower at The City of Apopka, Florida's current Harmon Road RF site.

Site Scope Summary

- Engineering services for site drawings and regulatory approvals – Included.
- Site acquisition services – Not included.
- Zoning Services – Not included.
- New tower to be used for antennas – 350-foot self-supported tower.
- New tower foundation size – 386 cubic yard, Type – Drilled Pier.

Motorola Responsibilities:

Site Engineering

- Prepare site construction drawings showing the layout of various new and existing site components.
- Conduct site walks to collect pertinent information from the sites (e.g., location of Telco, power, existing facilities, etc.).
- Perform a site and topographic survey for the property on which the communication site is located or will be located.
- Prepare record drawings of the site showing the as-built information.
- Perform construction staking around the site to establish reference points for proposed construction.
- Perform NEPA Threshold Screening, including limited literature and records search and brief reporting, as necessary to identify sensitive natural and cultural features referenced in 47 CFR Chapter 1, subsection 1.1307 that may potentially be impacted by the proposed construction activity. This does not include the additional field investigations to document site conditions if it is determined that the proposed communication facility "may have a significant environmental impact" and thus require additional documentation, submittals, or work. Regional Environmental Review (RER) report submittals if required by FEMA have not been included. Perform Cultural Resource study as needed to identify sensitive historical and archaeological monuments that might be impacted by proposed construction

- Conduct up to 80-foot deep soil boring test at each tower leg, backfill holes with spoils and prepare geotechnical report of soil conditions at locations of the tower foundation. Grouting of boring holes or access by Automatic Traction Vehicle (ATV) - mounted rig is not included.
- Conduct construction inspection of foundation steel prior to pour, materials testing of concrete and field density tests of backfill to ensure quality construction.
- Check tower erection for plumbness, linearity and alignment after installation.
- Perform inspection of the site and the work performed by the Contractor to document that the site is built in accordance with the “Site Plans” and document any deviations or violations.
- Prepare, submit and track application for local permit fees (zoning, electrical, building etc.), prepare FAA filings and procure information necessary for filing.

Site Preparation

- Obtain the permits such as electrical, building, and construction permits, and coordinate any inspections with local authorities that may be needed to complete site development work.
- Provide one-time mobilization costs for the construction crews. Any remobilization due to interruptions/delays that are out of Motorola's control will result in additional costs.
- Perform site touch up (fertilize, seed and straw) disturbed areas not covered with gravel after completion of construction work. Landscaping, decorative fencing or any other aesthetic improvement that may be required by local jurisdictions has not been included and will be handled through a negotiated contract change notice.

Component Installation

- Conduct 1 three-point ground resistance test of the site. Should any improvements to grounding system be necessary after ground testing, the cost of such improvements shall be the responsibility of City of Apopka, Florida.
- Supply and install 1 freestanding 24-inch-wide cable/ice bridge from the new tower to the existing shelter (up to 20 linear feet).

Tower Work

- Construct drilled pier type tower foundations including excavation, rebar and concrete (not to exceed 386 cubic yards).
- Provide and Erect 350’ self supported tower.
- Supply and install grounding for the tower base for self-supported tower.

Antenna and Transmission Line Installation

- Install 3 Omni stick antenna(s) for the RF system.
- Install 4 Magnum antenna(s) for the RF system.
- Install 2 GPS antenna(s).
- Install 1 tower top amplifier(s).
- Install up to 380 linear feet of 1/2-inch transmission line.
- Install up to 785 linear feet of 7/8-inch transmission line.
- Install up to 1495 linear feet of 1-1/4-inch transmission line.
- Perform sweep tests on transmission lines.

- Supply and install 1 ground buss bar at the bottom of the antenna support structure for grounding RF cables before they make horizontal transition.

Miscellaneous Work

- Private Location to identify all utilities and piping located in the tower construction area prior to digging.
- Additional Slurry Tank required to install the drilled piers for the new tower.
- Removal of foundation spoils from site to qualified location for proper dispersal.

Customer Responsibilities:

- As applicable, coordinate, prepare, submit, and pay for all required permits and inspections for the work that is the **Customer's responsibility such as land acquisition and DOT permitting land use permit, etc., as required**.
- Pay for all utility connection, pole or line extensions, and any easement or usage fees.
- Review and approve site design drawings within 7 calendar days of submission by Motorola or its subcontractor(s). Should a re-submission be required, the Customer shall review and approve the re-submitted plans within 7 calendar days from the date of submittal.
- Pay for the usage costs of power and leased lines both during the construction/installation effort and on an on-going basis.
- Pay for application fees, taxes and recurring payments for lease/ownership of the property.
- Provide personnel to observe construction progress and testing of site equipment according to the schedule provided by Motorola.
- Provide property deed or lease agreement, and boundary survey, along with existing as-built drawings of the site and site components to Motorola for conducting site engineering. This would include Fire Station and parking area drawings and engineering along with retention pond and storm drain location in the area adjacent to the tower location.
- Provide a right of entry letter from the site owner for Motorola to conduct field investigations.
- Conduct all the testing and documentation (balloon tests, photo simulations, zoning application, expert testimony, zoning drawings etc.) required for the zoning the proposed new tower sites.
- Secure power connection to the site, associated permitting and installation of a meter and disconnect within 50 feet of the current shelter location.
- Provide additional temporary space for staging of the construction equipment during the construction of new site facilities (tower, etc.).

Assumptions:

- No prevailing wage has been included as a part of this proposal.
- All work is assumed to be done during normal business hours as dictated by time zone (Monday thru Friday, 7:30 a.m. to 5:00 p.m.).
- All recurring and non-recurring utility costs [including, but not limited to, generator fuel (except first fill), electrical, Telco] will be borne by the Customer.
- All utility installations shall be coordinated and paid for by the site owner and located at jointly agreed to location within or around the new communications shelter or equipment room.
- Site will have adequate electrical service for the new tower. Utility transformer, transformer upgrades, line, or pole extensions have not been included.

- Pricing has been based on National codes such IBC or BOCA. Local codes or jurisdictional requirements have not been considered in this proposal.
- Hazardous materials are not present at the work location. Testing and removal of hazardous materials, found during site investigations, construction or equipment installation will be the responsibility of the customer.
- A maximum of 30 days will be required for obtaining approved building permits from time of submission.
- No improvements are required for concrete trucks, drill rigs, shelter delivery, and crane access.
- If extremely harsh or difficult weather conditions delay the site work for more than a week, Motorola will seek excusable delays rather than risk job site safety.
- In absence of geotechnical reports, foundations and subsurface conditions for tower design are based on Presumptive Sand soil parameters, as defined by EIA-222-G Annex H. Also, rock coring, piling, extensive dewatering of foundations, permanent casings or hazardous material removal has not been included.
- The new tower location will pass the FAA hazard study, zoning, FCC and environmental permitting.
- The restoration of the site surroundings by fertilizing, seeding and straw being placed in the disturbed areas will be adequate.
- Tower and foundation sizing is based on the tower loading requirements as a result of the RF Antenna System design and the Microwave Antenna System design (i.e. - dish sizes and locations obtained from paper path studies). If after physical path studies, the dish sizes and locations change, then Motorola will then review the impact to tower structure and foundations and revise applicable costs.
- If as a result of NEPA studies, any jurisdictional authority should determine that a proposed communications facility "may have a significant environmental impact", the environmental impact studies or field testing and evaluation related to such determination have not been included.
- For new towers greater than 200 feet in overall height, FAA obstruction lighting has been included. Painting of any new tower has not been included.
- The site location can be finalized and lease agreement can be reached with the property owner within 60 calendar days after the start of the site acquisition effort.
- A waiver to zoning requirements like setbacks, tower height limitations, etc. can be obtained and will be the responsibility of City of Apopka, Florida.
- The soil resistivity at the site is sufficient to achieve resistance of ten (10) ohms or less. Communications site grounding will be designed and installed per Motorola's Standards and Guidelines for Communications Sites (R56).
- Underground utilities are not present in the construction area, and as such no relocation will be required.
- Foundations for the compound are based "normal soil" conditions as defined by TIA/EIA 222-H. Footings deeper than 30 inches, raised piers, rock coring, dewatering, hazardous material removal or wetland mitigation have not been included.
- AM tuning of existing towers has not been included in this proposal.
- Motorola’s proposal is conditioned upon the ability of Motorola to complete the project at the prices set forth herein. Due to significant market volatility and material price fluctuations in raw materials such as steel, copper, finished wood, crushed stone and concrete, Motorola reserves the right to review all material

pricing prior to placing any order for materials or equipment required for new towers or shelters and related civil materials at each site in order to verify price validity. In the event of a significant cost increase in material or equipment occurring during performance of the project through no fault of Motorola, the contract price, time of completion and/or contract requirements shall be equitably adjusted by Change Order in accordance with the procedures of the contract documents.

3.4 SYSTEM IMPLEMENTATION

3.4.1 System Installation

Motorola Responsibilities:

- Interface City's RF equipment to the newly installed antenna and line systems.

City Responsibilities:

- Provide access/escort to the sites.

Completion Criteria:

System FNE connections to Antennas systems complete.

3.4.2 Optimize System FNE

Motorola Responsibilities:

- Motorola and its subcontractors optimize each City subsystem.
- Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.
- Verify that all audio and data levels are at factory settings.
- Check forward and reflected power for all radio equipment, after connection to the antenna systems, to verify that power is within tolerances.
- Check audio and data levels to verify factory settings.
- Verify communication interfaces between devices for proper operation.
- Test features and functionality are in accordance with manufacturers' specifications and that they comply with the final configuration established during the CDR/system staging.

City Responsibilities:

- Provide access/escort to the sites.

Completion Criteria:

- System FNE optimization complete.

3.4.3 Optimization Complete

- System optimization is completed. Motorola and the City agree that the equipment is ready for acceptance testing.

3.4.4 Perform R56 Installation Audit

Motorola Responsibilities:

- Perform R56 site-installation quality audits, verifying proper physical installation and operational configurations.
- Create site evaluation report to verify site meets or exceeds requirements, as defined in Motorola's Standards and Guidelines for Communication Sites (R56).

City Responsibilities:

- Provide access/escort to the sites.
- Witness tests.

Completion Criteria:

- All R56 audits completed successfully.

3.4.5 Perform Equipment Testing

Motorola Responsibilities:

- Test individual components of the system to verify compliance to the equipment specifications.
- Repeat any failed test(s) once Motorola (or the City) has completed the corrective action(s).
- Prepare documentation of component tests to be delivered as part of the final documentation package.

City Responsibilities:

- Witness tests if desired.

Completion Criteria:

- Successful completion of equipment testing.

3.4.6 Perform Functional Testing

Motorola Responsibilities:

- Verify the operational functionality and features of the individual subsystems and the system supplied by Motorola, as contracted.
- If any major task as contractually described fails, repeat that particular task after Motorola determines that corrective action has been taken.
- Document all issues that arise during the acceptance tests.
- Document the results of the acceptance tests and present to the City for review.
- Resolve any minor task failures before Final System Acceptance.

City Responsibilities:

- Witness the functional testing.

Completion Criteria:

- Successful completion of the functional testing.
- City approval of the functional testing.

3.4.7 System Acceptance Test Procedures (Milestone)

- City approves the completion of all the required tests.

3.5 FINALIZE

3.5.1 Cutover

Motorola Responsibilities:

- Motorola and the City will develop a mutually agreed upon cutover plan based upon discussions held during the CDR.
- During cutover, follow the written plan and implement the defined contingencies, as required.

City Responsibilities:

- Attend cutover meetings and approve the cutover plan.

Completion Criteria:

- Successful migration from the old system to the new system.

3.5.2 Resolve Punchlist

Motorola Responsibilities:

- Work with the City to resolve punchlist items, documented during the Acceptance Testing phase, in order to meet all the criteria for final system acceptance.

City Responsibilities:

- Assist Motorola with resolution of identified punchlist items by providing support, such as access to the sites, equipment and system, and approval of the resolved punchlist item(s).

Completion Criteria:

- All punchlist items resolved and approved by the City.

3.5.3 Transition to Service/Project Transition Certificate

Motorola Responsibilities:

- Review the items necessary for transitioning the project to warranty support and service.

- Provide a City Support Plan detailing the warranty and post-warranty support, if applicable, associated with the Contract equipment.

City Responsibilities:

- Participate in the Transition Service/Project Transition Certificate (PTC) process.

Completion Criteria:

- All service information has been delivered and approved by the City.

3.5.4 Finalize Documentation

Motorola Responsibilities:

- Provide an electronic as-built system manual on a Compact Disc (CD). The documentation will include the following:
  - System-Level Diagram
  - Site Block Diagrams
  - Site Floor Plans
  - Site Equipment Rack Configurations
  - Antenna Network Drawings for RF Sites
  - ATP Test Checklists
  - Functional Acceptance Test Plan Test Sheets and Results
  - Equipment Inventory List

Drawings are created utilizing AutoCAD design software and will be delivered in Adobe PDF format. All other system manual documents converted from native format to Adobe PDF format to be included on the System Manual CD.

City Responsibilities:

- Receive and approve all documentation provided by Motorola.

Completion Criteria:

- All required documentation is provided and approved by the City.

3.5.5 Final Acceptance (Milestone)

- All deliverables completed, as contractually required.
- Final System Acceptance received from the City.

3.6 PROJECT ADMINISTRATION

3.6.1 Project Status Meetings

Motorola Responsibilities:

- As agreed, Motorola Project Manager, or designee, will attend all project status meetings with the City, as determined during the CDR. Record the meeting minutes and supply the report.
- The agenda will include the following:
  - Overall project status compared to the Project Schedule.

- Product or service related issues that may affect the Project Schedule.
- Status of the action items and the responsibilities associated with them, in accordance with the Project Schedule.
- Any miscellaneous concerns of either the City or Motorola.

City Responsibilities:

- Attend meetings.
- Respond to issues in a timely manner.

Completion Criteria:

- Completion of the meetings and submission of meeting minutes.

3.6.2 Progress Milestone Submittal

Motorola Responsibilities:

- Submit progress (non-payment) milestone completion certificate/documentation.

City Responsibilities:

- Approve milestone, which will signify confirmation of completion of the work associated with the scheduled task.

Completion Criteria:

- The City approval of the Milestone Completion document(s).

3.6.3 Change Order Process

- Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost, change in system configuration or adds time to the project's timeline required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

SECTION 4

PRICING SUMMARY

4.1 PROPOSED PRICING

Description	Discounted Price
NEW Equipment - 350' Self Support RF tower - 7 – RF antenna and line runs - 2 – GPS antenna and line runs - Antenna systems	$625,693
Services: - Post-Sale Engineering - Project Management - System Technologist Support - Audit and Acceptance Testing	$874,307
Total	$1,500,000

Robert Hippler

Subject: FW: City of Apopka Tower Budgetary Quote

From: Bill Brown <bill@brown.org>
Sent: Thursday, October 7, 2021 1:23 PM
To: Robert Hippler <rhippler@apopka.net>
Subject: RE: City of Apopka Tower Budgetary Quote

CAUTION: This Email originated from a source outside the City of Apopka. Do not click on links or open attachments unless you recognize the sender and you know the content is safe.

Hi Rob,

These budget numbers should give you a good idea of what you would be looking to spend:

350' SS Tower for City of Apopka		
General conditions	$111,000	
Sitework	$117,000	subgrade as is 100' x 90' compound, 100' driveway
Tower foundations	$245,000	
Concrete slabs	$50,000	
Tower	$634,000	
Antennas & lines	$150,000	LMR & MW only
Misc metals & supplies	$22,000	
LP tank	$49,000	Based on 2000 gallon tank
Precast Shelter	$319,000	12' x 36'
Electrical	$25,000	
Grounding	$127,000	
DC power	$0	
Generator	$78,000	40 kW
Sales tax	$78,000	
TOTAL	$2,005,000	

You can strike out the items you don't want. Feel free to call me with questions.

Thanks,

Bill Brown
815 S Kings Ave.
Brandon, FL 33511
813.335.4765 cell

From: Robert Hippler <rhippler@apopka.net>
Sent: Thursday, October 7, 2021 12:42 PM
To: bill@brown.org
Subject: City of Apopka Tower Budgetary Quote

Hi Bill,

Thanks for taking my call this morning. As discussed, the City of Apopka currently has a 400' Public Safety guyed tower located at 2180 Harmon Road (28.650147146242155, -81.54591036184532*)*. The tower has both T-Mobile and Sprint antennas collocated on it along with our Motorola radio and microwave antennas. I've been tasked with obtaining a budgetary cost to have a new self-support tower constructed at a new site about ½ mile to the east of our existing location (28.650381363026227, -81.5351944006246).

With the information I've provided to you, are you able to provide a budgetary quote for both sites as described above?

Thanks,
Rob

Robert Hippler, IT Director
City of Apopka
150 E. 5th St | Apopka, FL 32703
407.703.1620 | rhippler@apopka.net

Market: Central Florida
Site No.: FL 2046 C
Site Name: Lake Apopka E

OPTION AND LEASE AGREEMENT

THIS OPTION AND LEASE AGREEMENT ("Agreement"), dated as of the date below, is entered into by THE CITY OF APOPKA, a municipal corporation existing under the laws of the State of Florida, having its principal office at 120 East Main Street, Apopka, FL 32703 (hereinafter referred to as "Landlord") and NEXTEL SOUTH CORP., a Georgia corporation d/b/a NEXTEL COMMUNICATIONS with an office at 851 Trafalgar Court, Suite 300E, Maitland, FL 32751 (hereinafter referred to as "Tenant").

BACKGROUND

Landlord owns that certain plot, parcel or tract of land, together with all rights and privileges arising in connection therewith, located at intersection of Harmon Road and Binion Road, Apopka, FL, and more particularly described in **Exhibit "1"** attached hereto (the "Land") together with that certain guyed communications tower located on the Land (the "Structure"). The Land and the Structure are collectively referred to as the "Property". Tenant desires to use a portion of the Property in connection with its federally licensed communications business.

The parties agree as follows:

1. Option to Lease.

(a) Landlord hereby grants Tenant the option to lease a portion of the Property consisting of : (i) a ground space of approximately Six Hundred (600) square feet; and (ii) space on the Structure and such easements as are necessary for the antennas and initial installation as described on attached **Exhibit 2** (collectively the "Premises").

(b) During the Option period and any extension thereof, and during the term of this Agreement, Tenant and its agents, engineers, surveyors and other representatives will have the right to enter upon the Property to inspect, examine, conduct soil borings, drainage testing, material sampling, and other geological or engineering tests or studies of the Property ("Tests"), to apply for and obtain licenses, permits, approvals, or other relief required of or deemed necessary or appropriate at Tenant's sole discretion for its use of the Premises and include without limitation applications for zoning variances zoning ordinances, amendments, special use permits, and construction permits (collectively referred to as "Governmental Approvals"), and otherwise to do those things on or off the Property that, in the opinion of Tenant, are necessary in Tenant's sole discretion to determine the physical condition of the Property, the environmental history of the Property, Landlord's title to the Property and the feasibility or suitability of the Property for Tenant's Permitted Use, all at Tenant's expense. Tenant will not be liable to Landlord or any third party on account of any pre-existing defect or condition on or with respect to the Property, whether or not such defect or condition is disclosed by Tenant's inspection.

(c) Landlord covenants that during the Option and any extension thereof, Landlord shall not cause or allow any changes, alterations, or modifications to occur to the condition or status of the Property, including, but not limited to, zoning, land use designation, and status of title, that will adversely affect or impair Tenant's Permitted Use of Premises.

(d) In consideration of Landlord granting Tenant the Option, Tenant hereby agrees to pay Landlord the sum of Three Thousand 00/100 Dollars ($3,000.00), receipt of which is hereby

acknowledged as a non-refundable payment. The Option will be for an initial term of three (3) months (the "Initial Option Term") to commence upon full execution of this Agreement.

(e) During the Initial Option Term and any extension thereof, Tenant may exercise the Option by notifying Landlord in writing. If Tenant exercises the Option then Landlord leases the Premises to the Tenant subject to the following terms and conditions.

2. PERMITTED USE. Tenant may use the Premises for the following: (i) transmission and reception of communications signals and (ii) to construct, install, operate, maintain, repair, replace, protect and secure communication fixtures and related equipment, cables, accessories, and improvements (collectively, the "Communications Facility"); and (iii) any activities related to the foregoing (collectively, the "Tenant's Permitted Use"), (hereinafter referred to as **"Exhibit 2"**). Tenant is entitled to install on the Structure any number of antennas, and any other accessories appropriate to the successful and secure operation of the Communications Facility including but not limited to radio communications facilities, utility lines, transmission lines, air conditioned equipment shelter(s), electronic equipment, radio transmitting and receiving antennas and supporting equipment and structures thereto ("Tenant Facilities"). Title to the Tenant Facilities shall be held by Tenant. All of Tenant Facilities shall remain Tenant's personal property and are not fixtures. The location of the Premises including the location of the Antennas is substantially described herein on **Exhibit 2**. Landlord and Tenant agree that **Exhibit 2** shows the initial installation of Tenant's Communications Facility and that it does not limit Tenant's rights under this Paragraph. Landlord's execution of this Agreement will signify Landlord's approval of **Exhibit 2**. Tenant has the right to (i) install and operate transmission cables from the equipment to the antennas, electric lines from the main feed to the equipment, and communication lines from the main entry point to the equipment; and (ii) erect, construct or make Property improvements, alterations or additions ("Tenant's Changes") appropriate for Tenant's use. Tenant's Changes, if permitted by law, may include enclosing or sheltering equipment, capping or modifying any sprinkler system in the equipment space, adding HVAC, and storing sealed batteries in the equipment room/cabinet, on the structure, or at another location mutually agreed upon by the parties. Landlord warrants that it has not caused, nor will cause or allow the condition or status of the Property to be changed, altered, or modified in any manner that would adversely affect Tenant's Permitted Use of the Premises.

3. INSTALLATIONS. Tenant agrees to comply with all applicable governmental laws, rules, statutes and regulations, relating to its use of the Communications Facility on the Property. Tenant has the right to modify, supplement, replace, upgrade, expand the equipment, increase the number of antennas or relocate the Communications Facility within the Premises at any time during the term of this Agreement. Tenant will be allowed to make such alterations to the Property in order to accomplish Tenant's Changes or to insure that Tenant's Communications Facility complies with all applicable federal, state or local laws, rules or regulations. –

4. TERM.

(a) In the event Tenant exercises the Option, the initial lease term will be five (5) years ("Initial Term"), commencing upon the Commencement Date, as defined below. The Initial Term will terminate on the last day of the month in which the fifth annual anniversary of the Commencement Date occurred.

(b) This Agreement will automatically renew for five (5) additional five (5) year terms (collectively, the "Extension Term"), upon the same terms and conditions unless the Tenant notifies the Landlord in writing of Tenant's intention not to renew this Agreement at lease ninety (90) days prior to the expiration of the existing term.

(c) If Tenant remains in possession of the Premises after the termination or expiration of this Agreement then Tenant will be deemed to be occupying the Premises on a month to month basis (the "Holdover Term"), subject to the terms and conditions of this Agreement.

(d) The Initial Term, and the Extension Term and the Holdover Term are collectively referred to as the Term ("Term").

5. RENT.

(a) Commencing on the date that Tenant commences construction (the "Commencement Date"), Tenant will pay the Landlord a monthly rental payment of One Thousand Five Hundred and 00/100 Dollars ($1,500.00), plus any applicable tax, to Landlord, at the address set forth above, on or before the 5th day of each month in advance or to such other person, firm, or place as Landlord may, from time to time, designate in writing at least thirty (30) days in advance of any due date. Rent will be prorated for any partial month. Beginning with year two (2) of the Initial Term, and each year thereafter, including throughout any additional five (5) year terms exercised, the monthly rent will be increased by four percent (4%) over the previous year's rent.

(b) Tenant shall have the right to use a direct deposit system with regard to rent payments. Landlord agrees to cooperate with Tenant in providing requisite information to Tenant for such direct deposit. The implementation of the direct deposit system shall be at Tenant's expense.

6. TERMINATION. This Agreement may be terminated, without penalty or further liability, as follows:

(a) by either party on thirty (30) days prior written notice, if the other party remains in default under paragraph 15 of this Agreement after the applicable cure periods;

(b) by Tenant on sixty (60) days prior written notice, if Tenant is unable to obtain, maintain, or otherwise forfeits or cancels any required approval(s) or the issuance of a license or permit by any agency, board, court or other governmental authority necessary for the construction or operation of the Communications Facility as now and hereafter intended by Tenant; or if the Premises become unsuitable for Tenant's operation due to governmental regulations; or if Tenant determines in its sole discretion that the cost of obtaining or retaining the same is commercially unreasonable;

(c) by Tenant on sixty (60) days prior written notice, if Tenant determines in its sole discretion that Tenant's use of the Premises (as the same may have been modified from time to time) is no longer consistent with the optimal operation of Tenant's communications network based upon either technical or economic considerations in Tenant's sole discretion;

(d) by Tenant on sixty (60) days prior written notice, if Tenant determines that interference by or to Tenant's use of the Premises cannot be resolved to Tenant's satisfaction;

(e) by Tenant immediately upon notice, if destruction or damage to the Premises or the taking thereof (by partial condemnation or otherwise) is sufficient, in Tenant's reasonable judgment, to adversely affect Tenant's use of the Premises; or

(f) by Tenant immediately upon notice, if Tenant determines, in its sole discretion, due to the title results, survey results or Tests, that the condition of the Premises is unsatisfactory or Tenant believes that the leasing or continued leasing of the Premises would expose Tenant to undue risks of government action or intervention or third-party liability.

If this Agreement is terminated for any reason outlined in this Paragraph, any prepaid rent will be refunded on a prorata basis.

7. INSURANCE.

(a) Tenant will carry during the Term, at its own cost and expense, the following insurance: (i) "All Risk" property insurance for its property replacement cost with a $100,000 deductible; (ii) commercial general liability insurance with a minimum limit of liability of $1,000,000.00 combined single limit for bodily injury or death/property damage arising out of any one occurrence; and (iii) Workers' Compensation Insurance as required by law.

(b) Tenant will name the Landlord as an additional insured under its commercial general liability policy. Tenant will require its insurance company to give at least thirty (30) days prior written notice of termination or cancellation of the policy to the additional insured, except for termination or cancellation for non-payment of premium, which notice will be ten (10) days.

(c) Notwithstanding anything in this Agreement, with respect to all loss, damage, or destruction to the insured party's property (including rental value and business interruption) occurring during the term of this Agreement, each of Landlord and Tenant hereby releases and waives all claims (except for willful misconduct and negligence) against the other party, and against each of the other party's employees, agents, officers, and directors. Landlord and Tenant will make a reasonable effort to include in their property insurance policy or policies a waiver of subrogation provision whereby any such release does not adversely affect such policies or prejudice any right of the insured party to recover thereunder.

8. INTERFERENCE.

(a) Where there are prior existing radio frequency users on the Property, the Landlord will provide Tenant with a list of all prior existing radio frequency users (and their frequencies) on the Property (the "Prior Users") to allow Tenant to evaluate the potential for interference. Tenant warrants that its use of the Premises will not interfere with prior existing radio frequency users on the Property as long as the prior existing radio frequency users operate and continue to operate within their frequencies, and in accordance with all applicable laws and regulations. Nothing contained herein will restrict Landlord nor its successors and assigns from installing, modifying, or adding additional communications equipment.

(b) Tenant will not use, nor will Tenant permit its employees, licensees, invitees or agents to use, any portion of the Property in any way which interferes with the operations of

Landlord or the rights of Landlord under this Agreement. Should radio frequency interference develop at any time between the signals of Landlord and Tenant, the parties shall cooperate in the determination of the cause of such interference. Both parties shall endeavor to reach such determination within three (3) days, however, the parties shall continue to cooperate through resolution of the interference as necessary. Where it is determined that the interference is the result of Tenant's use of the Premises, Tenant will cause such interference to cease within twenty-four (24) hours of such determination (except for intermittent operation for the purpose of testing, after performing maintenance, repair, modification, replacement or other action taken for the purpose of correcting such interference) until such harmful interference can be corrected or eliminated, at which time Tenant may resume operation of Tenant Facilities. In the event any such interference is unable to be corrected or eliminated within sixty (60) days following the determination noted above the parties acknowledge that Landlord and the Public Safety of the residents will suffer irreparable injury, and, therefore, Landlord will have the right to terminate the Agreement pursuant to Paragraph 6(a).

(c) Landlord will not grant, after the date of this Agreement, a lease, license or any other right to any third party for use of the Property, if such use may in any way adversely affect or interfere with Tenant's Communications Facility. Nothing contained herein will restrict Tenant nor its successors and assigns from installing and modifying its/their communications equipment, so long as such changes are in compliance with Section 8 (b).

(d) Landlord will not use, nor will Landlord permit its employees, licensees, invitees or agents to use, any portion of the Property in any way which interferes with the operations of Tenant or the rights of Tenant under this Agreement. Should radio frequency interference develop at any time between the signals of Landlord and Tenant, the parties shall cooperate in the determination of the cause of such interference. Both parties shall endeavor to reach such determination within three (3) days, however, the parties shall continue to cooperate through resolution of the interference as necessary. Where it is determined that the interference is the result of Landlord's use of the Premises, Landlord will cause such interference to cease within twenty-four (24) hours of such determination (except for intermittent operation for the purpose of testing, after performing maintenance, repair, modification, replacement or other action taken for the purpose of correcting such interference) until such harmful interference can be corrected or eliminated, at which time Landlord may resume operation of its facilities. In the event any such interference is unable to be corrected or eliminated within sixty (60) days following the determination noted above the parties acknowledge that Tenant will suffer irreparable injury, and, therefore, Tenant will have the right to terminate the Agreement pursuant to Paragraph 6(d). Notwithstanding the foregoing, nothing in this subparagraph (d) shall prohibit the Prior Users from continuing their operations as long as they continue to operate within the frequencies within which they operated prior to the date of this Agreement, and in accordance with all applicable laws and regulations.

9. INDEMNIFICATION.

(a) Tenant agrees to indemnify, defend and hold Landlord harmless from and against any direct injury, loss, damage or liability (or any claims in respect to the foregoing), costs or expenses (including reasonable attorneys' fees and court costs) resulting from the installation, use, maintenance, repair or removal of the Communications Facility or the breach of any provision of

this Agreement, except to the extent attributable to the negligent or intentional act or omission of Landlord, its employees, agents or independent contractors.

(b) To the extent permitted by Florida Statute 768.28, Landlord agrees to indemnify, defend and hold Tenant harmless from and against any and all direct injury, loss, damage or liability (or any claims in respect of the foregoing), costs or expenses (including reasonable attorneys' fees and court costs) arising from the actions or failure to act of Landlord or its employees, or the breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Tenant, its employees, agents or independent contractors.

10. WARRANTIES.

(a) Tenant and Landlord each acknowledge and represent that it is duly organized, validly existing and in good standing and has all rights, power and authority to enter into this Agreement and bind itself hereto through the party set forth as signatory for the party below.

(b) Landlord represent and warrants that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license, unencumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or agreements of record or not of record, which would adversely affect Tenant's use and enjoyment of the Premises under this Agreement; (ii) as long as Tenant is not in default then Landlord grants to Tenant sole, actual, quiet and peaceful use, enjoyment and possession of the Premises; (iii) its execution and performance of this Agreement will not violate any laws, ordinances, covenants or the provisions of any mortgage, lease or other agreement binding on the Landlord; and (iv) if the Property is or becomes encumbered by a deed to secure a debt, mortgage or other security interest, Landlord will use best efforts to provide promptly to Tenant a Subordination, Non-Disturbance and Attornment Agreement in the form of **Exhibit 3.**

11. ENVIRONMENTAL.

Tenant agrees that it will not use, generate, store or dispose of any Hazardous Material on, under, about or within the Land in violation of any law or regulation. Landlord represents, warrants and agrees (1) that neither Landlord nor, to Landlord's knowledge, any third party has used, generated, stored or disposed of, or permitted the use, generation, storage or disposal of, any Hazardous Material (defined below) on, under, about or within the Land in violation of any law or regulation, and (2) that Landlord will not, and will not permit any third party to use, generate, store or dispose of any Hazardous Material on, under, about or within the Land in violation of any law or regulation. Landlord, to the extent permitted by Florida Statute Section 768.28, and Tenant each agree to defend, indemnify and hold harmless the other and the other's partners, affiliates, agents and employees against any and all losses, liabilities, claims and/or costs (including reasonable attorney's fees and costs) arising from any breach of any representation, warranty or agreement contained in this paragraph. As used in this paragraph, "Hazardous Material" shall mean petroleum or any petroleum product, asbestos, any substance known by the state in which the Land is located to cause cancer and/or reproductive toxicity, and/or any substance, chemical or waste that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. This paragraph shall survive the termination of this Agreement.

12. ACCESS. Landlord will be permitted access to the Premises: (i) for emergencies without prior notice to Tenant, so long as Tenant is notified as soon thereafter as reasonably practicable; and (ii) with reasonable prior notice to Tenant to make necessary repairs; in all cases provided that Tenant's equipment, technology and proprietary interests remain secure and the Communication Facility's operation is not adversely affected.

At all times throughout the term of this Agreement, and at no additional charge to Tenant, Landlord will provide, as further set forth in **Exhibit 2**, Tenant and its employees, agents, and subcontractors, with twenty-four hour, seven day access to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communications Facility and any utilities serving the Premises. Upon Tenant's request, Landlord will execute an easement evidencing this right. In the event any public utility is unable to use the access or easement provided to Tenant then the Landlord hereby agrees to grant an additional access or easement either to Tenant or to the public utility, for the benefit of Tenant, at no cost to Tenant.

13. REMOVAL/RESTORATION. All portions of the Communications Facility brought onto the Property by Tenant will be and remain Tenant's personal property and, at Tenant's option, may be removed by Tenant at any time during the Term. Landlord covenants and agrees that no part of the Communications Facility constructed, erected or place on the Premises by Tenant will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of the Landlord that all improvements of every kind and nature constructed, erected or placed by Tenant on the Premises will be and remain the property of the Tenant and may be removed by Tenant at any time during the Term. Within one hundred twenty (120) days of the termination of the Agreement, Tenant will remove all such improvements. Tenant will, to the extent reasonable, restore the Premises to its condition at the commencement of the Agreement, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted. Tenant will not be responsible for the replacement of any trees, shrubs, or other vegetation, nor will Tenant be required to remove from the Premises or the Property any foundations or underground utilities.

14. MAINTENANCE/UTILITIES.

(a) Tenant will, at Tenant's expense, keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access to the Property and to the Premises, in good and tenantable condition, subject to reasonable wear and tear and damage from the elements.

(b) Tenant will be solely responsible for and promptly pay all utilities charges for electricity, telephone service or any other utility used or consumed by Tenant on the Premises. Landlord will fully cooperate with any utility company requesting an easement over, under and across the Property in order for the utility company to provide service to the Tenant. During any application period the Tenant will have the right to temporarily use Landlord's electricity and will pay the Landlord the current local utility rate for electricity consumed by Tenant. In the event Tenant cannot secure its own metered electrical supply, Tenant will have the right, at its own cost and expense, to submeter from the Landlord. Tenant will pay on a monthly basis the current local utility company rate for submetered electricity, after the meter is read by the Landlord and billed

to Tenant. Landlord will not be responsible for interference with, interruption of or failure, beyond the reasonable control of Landlord, of such services to be furnished or supplied by Landlord.

15. DEFAULT AND RIGHT TO CURE.

(a) The following will be deemed a default by Tenant and a breach of this Agreement: (i) non-payment of Rent if such rent remains unpaid for more than thirty (30) days after receipt of written notice of such failure to pay from the Landlord; or (ii) Tenant's failure to perform any other term or condition under this Agreement within forty-five (45) days after receipt of written notice from Landlord specifying the failure. No such failure, however, will be deemed to exist if Tenant has commenced to cure such default within such period and provided that such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Tenant.

(b) The following will be deemed a default by Landlord and a breach of this Agreement. Landlord's failure to perform any term or condition under this Agreement within forty-five (45) days after receipt of written notice from Tenant specifying the failure, or Landlord is in breach of any warranty or covenant under this Agreement including the provisions of Paragraph 2 above. No such failure, or breach, however, will be deemed to exist if Landlord has commenced to cure the default within such period and provided such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Landlord.

16. ASSIGNMENT

(a) Landlord may assign this Agreement provided said assignee will assume, recognize and also become responsible to Tenant for, the performance of all of the terms and conditions to be performed by Landlord under this Agreement.

(b) Subject to Landlord's prior written permission, which shall not be unreasonably withheld, Tenant may assign all or any part of the Premises, and all or any rights, benefits, liabilities and obligations of this Agreement provided that the assignee assumes, recognizes and also agrees to become responsible to the Landlord for the performance of all terms and conditions of this Agreement. Upon notification to Landlord by Tenant of any such action, Tenant will be relieved of all future performance, liabilities and obligations under this Agreement to the extent of such assignment. Notwithstanding the foregoing, Tenant may assign its interest to its parent company, any subsidiary or affiliate of it or its parent company or to any successor-in-interest or entity acquiring fifty-one percent (51%) or more of its stock or assets, subject to any financing entity's interest, if any, in this Agreement as set forth in Paragraph 20. In addition, notwithstanding anything to the contrary contained in this Agreement, Tenant may assign, mortgage, pledge, hypothecate or otherwise transfer without consent its interest in this Agreement to any financing entity, or agent on behalf of any financing entity to whom Tenant (i) has obligations for borrowed money or in respect of guaranties thereof; (ii) has obligations evidenced by bonds, debentures, notes or similar instruments, or (iii) has obligations under or with respect to letters of credit, bankers acceptances and similar facilities or in respect of guaranties thereof.

17. NOTICES. All notices, requests, demands and communications hereunder will be given by first class certified or registered mail, return receipt requested, or by a recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notice will be addressed to the parties at the following addresses: (as to Tenant, Attn: Property Manager, Nextel South Corp., 851 Trafalgar Court, Suite 300 E, Maitland, FL 32751; with a copy to Nextel Communications, Inc., 2001 Edmund Halley Drive, Reston, VA 20191-3436, Sixth Floor, Mail Stop 6E630, Attn: Site Leasing Services, Contracts Manager; and as to Landlord, City of Apopka, 120 East Main Street, Apopka, FL 32703). Either party hereto may change the place for the giving of notice to it by written notice to the other as provided herein.

18. SEVERABILITY. If any term or condition of this Agreement is found unenforceable, the remaining terms and conditions will remain binding upon the parties as though said unenforceable provision were not contained herein. However, if the invalid, illegal or unenforceable provision materially affects this Agreement then the Agreement may be terminated by either party on ten (10) days prior written notice to the other party hereto.

19. TAXES. Tenant will pay all personal property taxes assessed on, or any portion of such taxes attributable to, the Communications Facility. Tenant, upon presentation of sufficient and proper documentation, will pay, within thirty (30) days, any increase in real property taxes levied against the Property (excluding any additional taxes that relate to the period prior to the Commencement Date, i.e., rollback taxes) which is directly attributable to Tenant's use of the Property, provided Tenant will be entitled to appeal any such increase payable by it. Landlord agrees that it will cooperate with an appeal of such taxes and will promptly pay when due all real estate taxes levied against the Property.

20. WAIVER OF LANDLORD'S LIEN.

(a) Landlord waives any lien rights it may have concerning the Tenant Facilities which are deemed Tenant's personal property and not fixtures, and Tenant has the right to remove the same at any time without Landlord's consent.

(b) Landlord acknowledges that Tenant has entered into a financing arrangement including promissory notes and financial and security agreements for the financing of the Tenant Facilities (the "Collateral") with a third party financing entity (and may in the future enter into additional financing arrangements with other (financing entities). In connection therewith, Landlord (i) consents to the installation of the Collateral; (ii) disclaims any interest in the Collateral, as fixtures or otherwise; and (iii) agrees that the Collateral shall be exempt from execution, foreclosure, sale, levy, attachment, or distress for any Rent due or to become due and that such Collateral may be removed at any time without recourse to legal proceedings.

21. RELOCATION. Provided service of Tenant's Facilities shall remain uninterrupted, Landlord shall have the right, upon 180 days' prior written notice (the "Notice Period") to Tenant, to require that Tenant relocate the Communications Facility to another location (the "Alternate Location") on the Premises, Property or any other property owned by Landlord and acceptable to Tenant, as the case may be, provided that (i) all costs associated with such relocation shall be borne by Tenant for the relocation of Tenant Facilities, (ii) the Alternate

Location must be similar in terms of size and suitability for Tenant's purposes; (iii) the Alternate Location must be mutually acceptable to Landlord and Tenant; (iv) all other terms and conditions of the Agreement, including Rent, shall remain unchanged; and (v) Landlord's right to require Tenant to relocate the Communications Facility or the Premises cannot be exercised more than one (1) time while this Agreement is in effect. In the event that Landlord requires Tenant to relocate, and Landlord and Tenant cannot mutually agree upon an Alternate Location, Tenant shall have the option to terminate this Agreement either upon thirty (30) days' prior written notice, or at the expiration of the Notice Period. Upon the relocation of the Communications Facility to the Alternate Location, any references in this Agreement to Communications Facilities, Land, Structure, Property or the Premises shall be deemed to be references to the Alternate Location. Following such relocation, Tenant may, at its expense, prepare plans delineating the Alternate Location which shall then replace Exhibit "B" of this Agreement.

22. TENANT REIMBURSEMENT OF TOWER UPGRADE. An engineering study will be completed prior to the installation of Tenant's equipment. This study will include the current capacity available on the structure and any improvements required to accommodate Tenant's proposed equipment to maintain stability at a minimum of 120 mph winds or the minimum jurisdicional requirements, whichever is less.

(a) The parties agree that, in the event Landlord desires to add or make modifications to its equipment presently installed or for future needs for their own internal, non-commercial purposes on the Structure (a "Landlord Modification"), and there is a question as to whether the structural integrity of the Structure will be affected by the Landlord Modification, Landlord will have the Structure inspected by a certified structural engineer, licensed by the State of Florida, and such engineer shall submit a written report to Landlord stating his or her conclusions and recommendations, if any, for upgrading the Structure such that it will accommodate the Landlord Modification without compromising its structural integrity (the "Structural Report").

(b). In the event that an upgrade of the Structure is determined necessary to accommodate the Landlord Modification, the structural engineer shall include in the Structural Report an estimate of (i) the percentage of the structural capacity of the Structure (after recommended upgrade) that will be used by Landlord after the Landlord Modification is installed; (ii) the individual percentage(s) of the structural capacity (after the recommended upgrade) of the Structure that will be used by each tenant or licensee with equipment on the Structure, including Tenant; and (iii) the percentage of the structural capacity (after the upgrade) of the Structure that remains for future use. The aforementioned percentages of the structural capacity of the Structure being used by any one party shall hereinafter be referred to as the applicable party's "Structural Capacity Use".

(c) Landlord shall provide Tenant and any other tenant(s) or licensee(s) of the Structure with a copy of the Structural Report and a written estimate from Landlord's contractor indicating the costs of the upgrade, if any. In the event that the Structural Report recommends that an upgrade to the Structure is required to accommodate the Landlord Modification, Tenant shall have thirty (30) days after receipt of the Structural Report and the written estimate to either (i) agree in writing to reimburse Landlord its pro rata share (based on Tenant's Structural Capacity Use) of the costs of such upgrade; or (ii) elect to terminate this Agreement pursuant to Paragraph 6, subsection (c).

(d) In the event Tenant elects to reimburse Landlord for its pro rata share of the costs of such upgrade, such sum shall be payable to Landlord within thirty (30) days following Tenant's receipt of a notice from Landlord for such sum and documentation indicating calculation of Tenant's pro rata share of said costs.

23. CONDEMNATION. In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within forty-eight (48) hours. If a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will be entitled to share in the condemnation proceeds in proportion to the values of their respective interests in the Property, which for Tenant will include, where applicable, the value of its Communications Facility, moving expenses, prepaid rent, and business dislocation expenses. Tenant will be entitled to reimbursement for any prepaid Rent on a prorata basis.

24. CASUALTY. Landlord will provide notice to Tenant of any casualty affecting the Property within forty-eight (48) hours of the casualty. If any part of the Communications Facility or Property is damaged by fire or other casualty so as to render the Premises unsuitable, in Tenant's sole determination, then Tenant may terminate this Agreement by providing written notice to the Landlord, which termination will be effective as of the date of such damage or destruction. Upon such termination, Tenant will be entitled to collect all insurance proceeds payable to Tenant on account thereof and to be reimbursed for any prepaid Rent on a prorata basis.

25. TOWER MARKING AND LIGHTING REQUIREMENTS. Landlord acknowledges that it, and not Tenant, shall be responsible for compliance with all tower marking and lighting requirements of the Federal Aviation Administration ("FAA") and the FCC. To the extent permitted by Florida Statute Section 768.28, Landlord shall indemnify and hold Tenant harmless from any fines or other liabilities caused by Landlord's failure to comply with such requirements. Should Tenant be cited by either the FCC or FAA because the Structure is not in compliance and, should Landlord fail to cure the conditions of noncompliance within the time frame allowed by the citing agency, Tenant may either terminate this Agreement immediately on notice to Landlord or proceed to cure the conditions of noncompliance at Landlord's expense, which amounts may be deducted from the Rent.

26. BROKER FEES. Landlord acknowledges and represents that no broker or other person was used by it in connection with this transaction. If any claims, actions or proceedings are brought against either party ("Indemnitee") by reason of any broker, finder or other person claiming to have dealt with the other party ("Indemnitor") in connection with this transaction and/or the Premises, then the Indemnitor hereby agrees to indemnify, hold harmless and defend the Indemnitee from and against all liabilities arising from such claims, and all reasonable costs and expenses incurred in connection therewith (including, without limitation, reasonable legal fees and disbursements). The provisions of this Paragraph will survive the termination of this Agreement.

27. MISCELLANEOUS.

(a) **Amendment/Waiver.** This Agreement cannot be amended, modified or revised unless done in writing and signed by an authorized agent of Landlord and Tenant. No provision may be waived except in writing signed by both parties.

(b) **Short Form/Memorandum of Agreement.** Either party will, at any time upon fifteen (15) days prior written notice from the other, execute, acknowledge and deliver to the other a recordable Short Form/Memorandum of Agreement in the form of Exhibit 4. Either party may record this memorandum at any time, in its absolute discretion.

(c) **Bind and Benefit.** The terms and conditions contained in this Agreement will run with the Property and inure to the benefit of the parties, their respective heirs, executors, administrators, successors and assigns.

(d) **Entire Agreement.** This Agreement and the exhibits attached hereto, all being a part hereof, constitute the entire agreement of the parties hereto and will supersede all prior offers, negotiations and agreements.

(e) **Governing Law.** This Agreement will be governed by the laws of the state in which the Premises are located, without regard to conflicts of law.

(f) **Interpretation.** Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited to"; (iii) whenever a party's consent is required under this Agreement, except as otherwise stated in the Agreement or as same may be duplicative, such consent will not be unreasonably withheld, conditioned or delayed; (iv) exhibits are an integral part of the Agreement and are incorporated by reference into this Agreement; (v) use of the terms "termination" or "expiration" are interchangeable, and (iv) reference to a default will take into consideration any applicable notice, grace and cure periods.

(g) **Estoppel.** Either party will, at any time upon fifteen (15) days prior written notice from the other, execute, acknowledge and deliver to the other a statement in writing (i) certifying that this Agreement is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying this Agreement, as so modified, is in full force and effect) and the date to which the rent and other charges are paid in advance, if any, and (ii) acknowledging that there are not, to such party's knowledge, and any uncured defaults on the part of the other party hereunder, or specifying such defaults if any are claimed. Any such statement may be conclusively relied upon by any prospective purchaser or encumbrancer of the Premises. Failure to deliver such a statement within such time will be conclusive upon the requesting party that (i) this Agreement is in full force and effect, without modification except as may be properly represented by the requesting party, (ii) there are no uncured defaults in either party's performance, and (iii) no more than one (1) month's rent has been paid in advance.

(h) **No Option.** The submission of this Agreement for examination or consideration does not constitute a reservation of or option for the Premises. This Agreement will

become effective as an Agreement only upon the legal execution, acknowledgment and delivery hereof by Landlord and Tenant.

(i) **Radon Gas.** In accordance with Florida law, the following notice is hereby given to Tenant: **"RADON GAS IS A NATURALLY OCCURRING RADIOACTIVE GAS THAT, WHEN IT HAS ACCUMULATED IN A BUILDING IN SUFFICIENT QUANTITIES, MAY PRESENT HEALTH RISKS TO PERSONS WHO ARE EXPOSED TO IT OVER TIME. LEVELS OF RADON THAT EXCEED FEDERAL AND STATE GUIDELINES HAVE BEEN FOUND IN BUILDINGS IN FLORIDA. ADDITIONAL INFORMATION REGARDING RADON AND RADON TESTING MAY BE OBTAINED FROM YOUR COUNTY HEALTH DEPARTMENT."**

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed with an effective date of _____, 2000.

WITNESSES:

"LANDLORD"

CITY OF APOPKA, a municipal corporation existing under the laws of the State of Florida

Print Name: Bea Franqui

Print Name: Lynn R. Pettingill

By: _____

Richard D. Anderson

LANDLORD

STATE OF FLORIDA

COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 21st day of November, 2000 by Richard D. Anderson, the Assistant City Administrator of the City of Apopka, a municipal corporation, on behalf of the corporation, (✓) who is personally known to me OR ( ) who has produced _____ as identification.

DONNA DAVIS
MY COMMISSION # CC 900943
EXPIRES: January 10, 2004
Bonded Thru Notary Public Underwriters

My Commission Expires: 1/10/2004

Notary Public

Donna Davis

Print Name

"TENANT"

NEXTEL SOUTH CORP., a Georgia Corporation d/b/a Nextel Communications

Christine Lakosk

Print Name: Christine Lakosk

Suzanna Parikh-Bahani

Print Name: Suzanna Parikh-Bahani

By: Thomas J. Gawronski

Thomas J. Gawronski, Area President

TENANT

STATE OF Florida

COUNTY OF Orange

The foregoing instrument was acknowledged before me this 21st day of November, 2000 by Thomas J. Gawronski, the Area President of Nextel South Corp., a Georgia corporation d/b/a Nextel Communications, on behalf of the corporation, ( ) who is personally known to me OR ( ) who has produced NOT as identification.

Maria Mayet
Notary Signature

My Commission Expires: 6-25-2002

STATE OF FLORIDA NOTARY PUBLIC
MARIA MAYET
My Comm Exp. 6/25/2002
No. CC 754466
[X] Personally Known [ ] Other I.D.

EXHIBIT 1

DESCRIPTION OF PROPERTY

to the Agreement dated _____, _____, by and between The City of Apopka, a municipal corporation as Landlord, and Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications as Tenant.

The Property is described and/or depicted as follows:

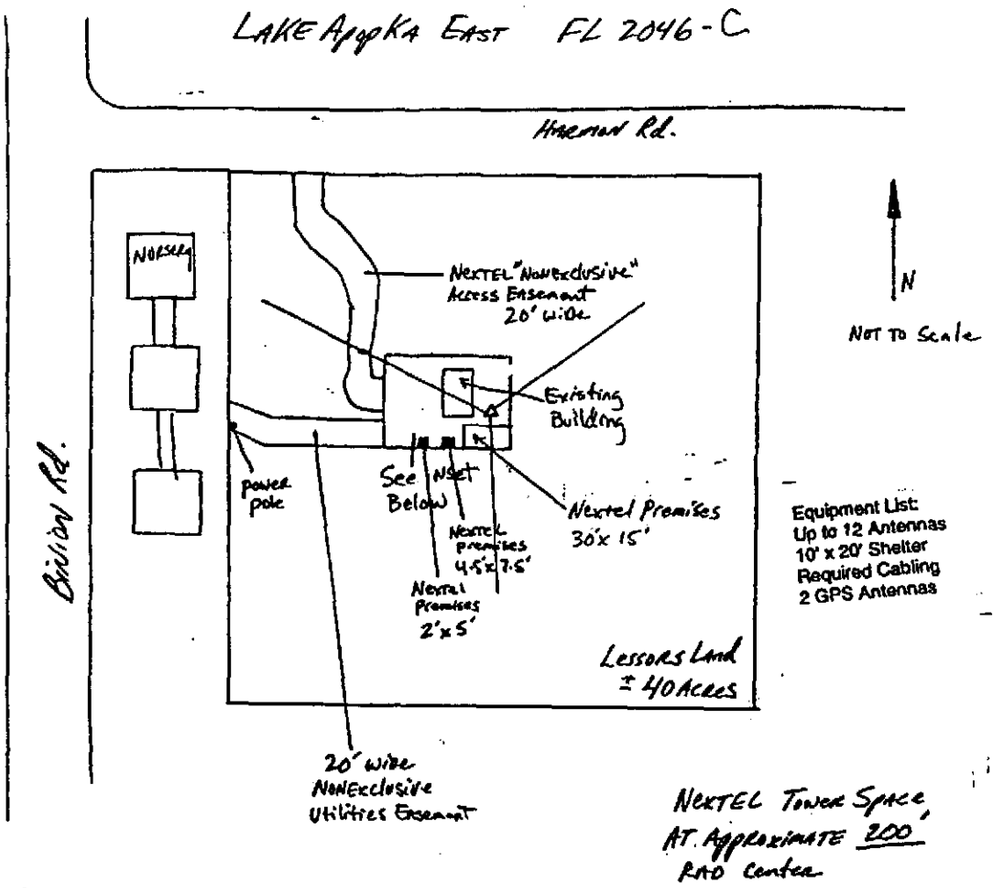
Begin at the SE corner of the SW ¼ of the NE ¼ of Section 19, Township 21 South, Range 28 East, run S 000 Deg. 43 min. and 40 sec. W along the East line of the West 17 ½ of the SE ¼ of said Section 19 for 2664.96 ft. to a point on the South line of said Section 19, also being on the North line of Section 30, Twp. 21 South, Range 28 East; thence run S 01 Deg. 12 min. 07 sec. W along the East line of the West ½ of the NE ¼ of said Section 30 for 244.30 ft; thence run N 89 Deg. 14 Min. 06 Sec. W parallel with the North line of said Section 30 for 1611.85 ft. to a point on the East right-of-way line of S.R. No. 437 (Binion Road); thence run N 44 Deg. 04 Min. 08 Sec. W for 236.70 ft. to the point of curvature of a curve concave to the Northeast, having a radius of 914.93 ft., thence run Northwesterly along the arc of said curve and said East right-of-way line, thru a central angle of 16 Deg. 06 Min. 17 Sec., for 416.74 ft.; thence departing said curve run S 89 Deg. 14 Min. 06 Sec. E parallel with the South line of previously mentioned Section 19 for 1876.92 ft. to a point which lies 122.00 ft. Westerly of the East line of the West ½ of the SE ¼ of said Section 19; thence run 00 Deg. 43 Min. 40 Sec. E parallel with said East line for 535.97 ft. (535.92 ft. Deed); thence run N 89 Deg. 14 Min. 06 Sec. W for 2337.13 ft.; thence run N 14 Deg. 11 Min. 31 Sec. W for 1118.94 ft. (1119.30 ft. Deed); thence run North for 500.00 ft; thence run N 08 Deg. 23 Min. 54 Sec. E for 325.73 ft.; thence run S 88 Deg. 59 Min. 02 Sec. E. for 740.88 ft. to a point on the North right-of-way line of S. R. No. 437 (Binion Road); thence run S 01 Deg. 00 Min. 59 Sec. W for 80.00 ft. to a point on the South right-of-way line of said S. R. 437; thence run S 99 Deg. 59 Min. 02 Sec. E along said South right-of-way line for 660.80 ft. to the point of curvature of a curve concave to the North, having a radius of 517.46 ft., thence run Northeasterly along the arc of said curve, thru a central angle of 22 Deg. 16 Min. 26 Sec., for 201.16 ft.; thence departing said curve run S 89 Deg. 12 Min. 38 Sec. E for 1112.51 ft. to the point of beginning.

Herein described property lies within Orange County, Florida.

EXHIBIT 2

DESCRIPTION OF PREMISES AND EASEMENTS

to the Agreement dated _____, _____, by and between The City of Apopka, a municipal corporation as Landlord, and Nextel South Corp., a Georgia corporation, *d/b/a Nextel Communications* as Tenant.



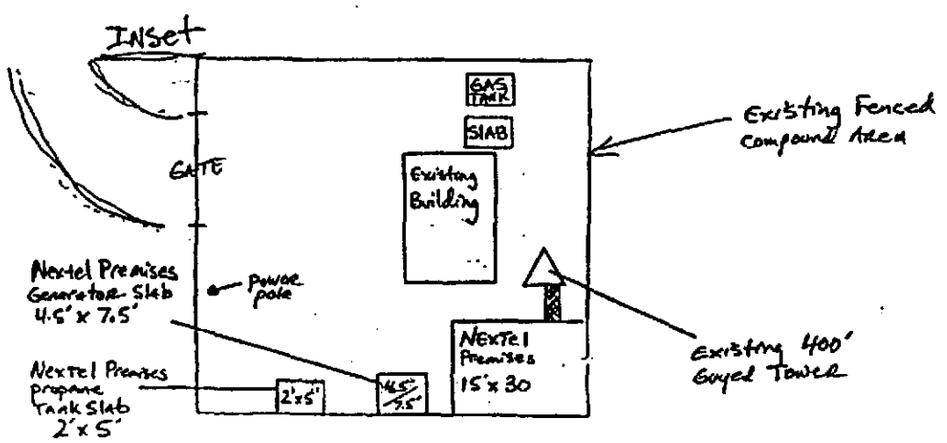


EXHIBIT 3

SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEEMNT

to the Agreement dated _____, _____, by and between The City of Apopka, a municipal corporation as Landlord, and Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications as Tenant.

SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT

This Agreement ("Agreement") is made this _____ day of _____, , by and between, (hereinafter called "Lender"), its successors and assigns, (including, but not limited to, the holder of the Note and Mortgage to secure the debt hereinafter described), and NEXTEL SOUTH CORP., a Georgia corporation, with an office at 851 Trafalgar Court, Suite 300E, Maitland, Florida 32751, doing business as Nextel Communications, (hereinafter called "Tenant"), which is the under a Communications Site Agreement between Tenant and , with an address of (hereinafter called "Landlord"), dated , (hereinafter referred to as "Lease"), pertaining to a portion of Landlord's property (hereinafter called the "Property") in the County of , State of Florida, commonly known as and more fully described in Exhibit "A" attached hereto, and to those certain portions of the Property, more particularly defined in the Lease as the Premises (hereinafter called "Premises") and more fully described in Exhibit "B" attached hereto.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Tenant and Lender hereby warrant and represent and agree with each other as of the date hereof, as follows (all capitalized terms not otherwise defined herein shall have the meanings ascribed to them in the Lease):

1. Lender hereby consents to and approves the Lease and all the terms and conditions thereof, including, without limitation, the construction and operation of Tenant's Facilities, as provided therein.

2. The Lease and any and all extensions, modifications and renewals thereof and all Tenant's rights and interest therein and thereunder are hereby subjected and subordinated to, and are declared to be subject and subordinate to that certain Mortgage to Secure Debt from Landlord or Landlord's predecessor in interest to Lender, and all extensions, modifications and renewals thereof or of the indebtedness secured thereby, given as security for certain loan obligations from Landlord or Landlord's predecessor in interest to lender and recorded in the Official Public Records of the County of , Florida, in Official Records Book , Page , pertaining to the Property (such Mortgage to Secure Debt and all extensions, modifications and renewals thereof are referred to herein as the "Mortgage").

3. Tenant's subordination is upon and subject to the express conditions that:

a. So long as Tenant continues to pay the rent as provided for in the lease and otherwise has not been determined by a court of competent jurisdiction to be in default under any of the material terms and provisions thereof, Lender shall not disturb the rights to possession and enjoyment of Tenant in and to the Premises, including the access and utility easements as set forth in the Lease (the "Easements"), nor shall the leasehold estate granted by the Lease be affected in any manner whatsoever, nor the obligation of the parties thereunder be modified or amended in any way, notwithstanding any foreclosure or proceeding in lieu thereof affecting the Premises and whether or not Tenant is made a party thereto; and

b. Upon passing of title to the Premises to the Lender or to any other party in any foreclosure or proceedings in lieu thereof, the party acquiring such title shall thereupon during the period of such party's ownership, by virtue of such acquisition of title and continued ownership and without the execution of any further instruments or documents, be deemed to be the landlord for all purposes of the Lease during the period of such ownership and be deemed to have assumed the full and complete performance of all the obligations of Landlord as set forth in the lease accruing during such period of possession.

4. Lender, by its execution and acceptance of this agreement, agrees that in the event Lender takes possession of the Property as note-holder-in-possession, by foreclosure of the Mortgage or by acquisition of title in lieu of foreclosure, not to affect or disturb Tenant's right to

possession of the Premises in the exercise of Lender's rights so long as the Lease has not expired by its terms, and Tenant has not been determined by a court of competent jurisdiction to be in default under any of the material terms, covenants or conditions of the Lease. In the event that Lender or any other party succeeds to the interest of Landlord under the Lease by foreclosure or by acquisition of title to the property in lieu of foreclosure, or any action taken under the Mortgage by Lender, or in the event that Lender exercises the rights granted to it by any assignment, Tenant hereby agrees to be bound to Lender or such other party under all of the terms, covenants and conditions of the Lease; and Tenant agrees that it shall attorn to and be liable and recognize Lender or such other party as Tenant's new landlord for the balance of the term of the Lease upon and subject to all the terms and conditions thereof, including such rights to the Easements, shall continue in full force and effect as a direct lease between Tenant and Lender or such other party upon all the terms, covenants and agreements set out in the Lease, and the rights of Tenant thereunder shall not be terminated or disturbed except in accordance with the terms and provisions of the Lease, and Tenant shall thereafter make the rental payments set out in the Lease as instructed by written notice by Lender or such other party, forwarded to Tenant by certified mail, return receipt requested or registered mail, postage prepaid. Such non-disturbance and attornment shall be effective and self operative without the execution of any further instrument by Lender and Tenant immediately upon the succession by Lender or such other party to the interest of Landlord under the Lease; and the respective rights and other party to the interest of Landlord under the Lease; and the respective rights and obligations of Tenant and Lender upon such attornment, to the extent of the then remaining balance of the term of the Lease and any extension of renewal permitted thereby, shall be and are the same as are now set forth in the Lease or as it may have been modified with Lender's consent, if required.

5. Lender understands, acknowledges and agrees that notwithstanding anything to the contrary contained in the Mortgage and/or any related financing documents; including, without limitation, any UCC-1 financing statement, Lender shall acquire no interest in any furniture, fixtures, equipment and/or other property installed by Tenant on the Property. Lender hereby expressly waives any interest which Lender may have or acquire with respect to furniture, fixtures, equipment and/or other property of Tenant now, or hereafter, located on or affixed to the Premises or any portion thereof and Lender hereby agrees that same do not constitute realty regardless of the manner in which same are attached or affixed to the Property.

This Agreement shall be binding on and inure to the Benefit of Tenant, Lender and their respective successors and assigns and successors in title.

Landlord joins in this Agreement for the purpose of consenting to the provision hereof and agrees to be bound hereby.

IN WITNESS WHEREOF, Tenant, Landlord and Lender have caused this Agreement to be executed the date first above written:

(SIGNATURES CONTINUED ON FOLLOWING PAGE)

IN THE PRESENCE OF:

LENDER:

ATTEST:

_____ By: _____

Witness
Print Name:_____ Print Name:_____

_____

_____ Title:_____

_____

Witness:
Print Name:_____

STATE OF _____
COUNTY OF _____

Personally appeared before me the undersigned authority in and for the jurisdiction above mentioned, the within named_____and _____ _____ corporation, who acknowledged to me that _____did sign and deliver the above and foregoing instrument of writing on behalf of said corporation on the day and for the purposes therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL on this _____ day of _____ _____, 2000.

_____

_____

NOTARY PUBLIC

My Commission Expires:

_____

(SIGNATURES CONTINUED ON FOLLOWING PAGE)

LANDLORD:

Signed, sealed and delivered in the presence of:

_____ By:_____

Witness
Print Name:_____ Print Name:_____

_____ Title:_____

Witness:
Print Name:_____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this_____day of _____, 2000, by _____, as_____ of _____, a _____, who is personally known to me or who has produced _____ as identification and who did (did not) take an oath.

WITNESS my hand and official seal.

_____
Notary Public

_____
Print Name

My commission expires:_____

(SIGNATURES CONTINUED ON FOLLOWING PAGE)

TENANT:

Signed, sealed and delivered in the presence of:

NEXTEL SOUTH CORP.,
a Georgia corporation d/b/a Nextel Communications

_____
Witness
Print Name:_____

By: _____

Print Name: John Cafaro

Title: Vice President

_____
Witness
Print Name:_____

STATE OF _____
COUNTY OF _____

Personally appeared before me the undersigned authority in and for the jurisdiction above mentioned, the within named John Cafaro known to me and known by me to be the Vice President of Nextel South Corp., a Georgia Corporation d/b/a Nextel Communications who acknowledged to me that he did sign and deliver the above and foregoing instrument of writing on behalf of said corporation on the day and for the purposes therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL on this ___ day of _____, 2000.

_____
NOTARY PUBLIC

My Commission Expires:

_____

EXHIBIT A

DESCRIPTION OF PROPERTY

to the Subordination, Non-Disturbance and Attornment Agreement dated _____, 2000, by and between , , as Lender, , as Landlord, and Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications, as Tenant.

The Property is described and/or depicted as follows (metes and bounds description):

Begin at the SE corner of the SW ¼ of the NE ¼ of Section 19, Township 21 South, Range 28 East, run S 000 Deg. 43 min. and 40 sec. W along the East line of the West 17 ½ of the SE ¼ of said Section 19 for 2664.96 ft. to a point on the South line of said Section 19, also being on the North line of Section 30, Twp. 21 South, Range 28 East; thence run S 01 Deg. 12 min. 07 sec. W along the East line of the West ½ of the NE ¼ of said Section 30 for 244.30 ft; thence run N 89 Deg. 14 Min. 06 Sec. W parallel with the North line of said Section 30 for 1611.85 ft. to a point on the East right-of-way line of S.R. No. 437 (Binion Road); thence run N 44 Deg. 04 Min. 08 Sec. W for 236.70 ft. to the point of curvature of a curve concave to the Northeast, having a radius of 914.93 ft., thence run Northwesterly along the arc of said curve and said East right-of-way line, thru a central angle of 16 Deg. 06 Min. 17 Sec., for 416.74 ft.; thence departing said curve run S 89 Deg. 14 Min. 06 Sec. E parallel with the South line of previously mentioned Section 19 for 1876.92 ft. to a point which lies 122.00 ft. Westerly of the East line of the West ½ of the SE ¼ of said Section 19; thence run 00 Deg. 43 Min. 40 Sec. E parallel with said East line for 535.97 ft. (535.92 ft. Deed); thence run N 89 Deg. 14 Min. 06 Sec. W for 2337.13 ft.; thence run N 14 Deg. 11 Min. 31 Sec. W for 1118.94 ft. (1119.30 ft. Deed); thence run North for 500.00 ft; thence run N 08 Deg. 23 Min. 54 Sec. E for 325.73 ft.; thence run S 88 Deg. 59 Min. 02 Sec. E. for 740.88 ft. to a point on the North right-of-way line of S. R. No. 437 (Binion Road); thence run S 01 Deg. 00 Min. 59 Sec. W for 80.00 ft. to a point on the South right-of-way line of said S. R. 437; thence run S 99 Deg. 59 Min. 02 Sec. E along said South right-of-way line for 660.80 ft. to the point of curvature of a curve concave to the North, having a radius of 517.46 ft., thence run Northeasterly along the arc of said curve, thru a central angle of 22 Deg. 16 Min. 26 Sec., for 201.16 ft.; thence departing said curve run S 89 Deg. 12 Min. 38 Sec. E for 1112.51 ft. to the point of beginning.

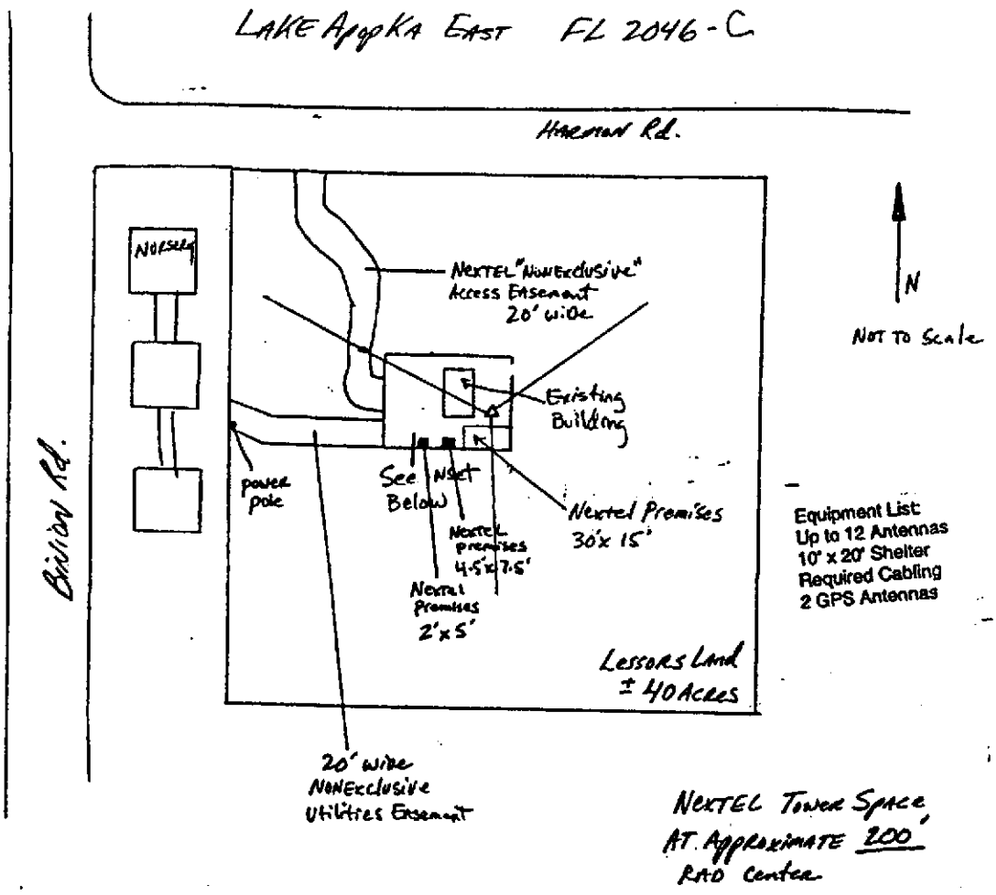
Herein described property lies within Orange County, Florida.

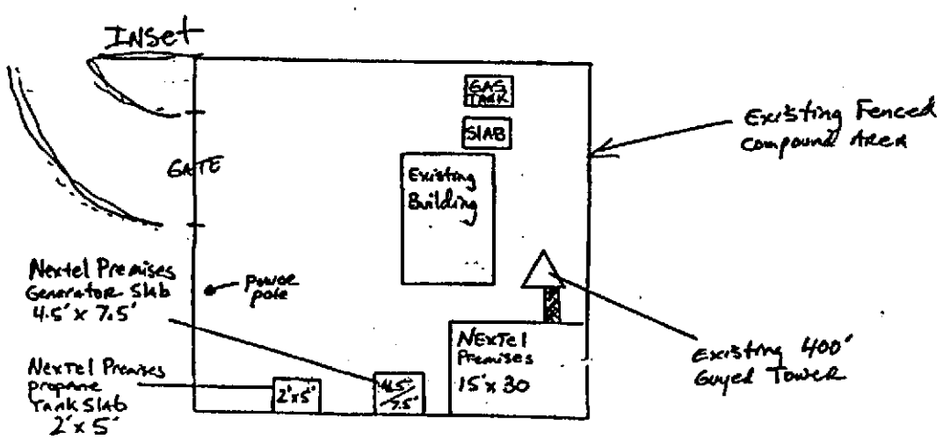
EXHIBIT B

DESCRIPTION OF PREMISES

to the Subordination, Non-Disturbance and Attornment Agreement dated _____, 2000, by and between , as Lender, , as Landlord, and Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications, as Tenant.

The Premises are described and/or depicted as follows:





Notes:

1) This Exhibit may be replaced by a land survey of the Premises once it is received by Lessee.
2) Setback of the Premises from the Land's boundaries shall be the distance required by the applicable governmental authorities.
3) Width of access road shall be the width required by the applicable governmental authorities, including police and fire departments.
4) The type, number and mounting positions and locations of antennas and transmission lines are illustrative only. Actual types, numbers, mounting positions may vary from what is shown above.

EXHIBIT 4

MEMORANDUM OF AGREEMENT

to the Agreement dated _____, _____, by and between The City of Apopka, a municipal corporation as Landlord, and Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications as Tenant.

PREPARED BY:
Paula Hickman, Esq.
Nextel South Corp.
2500 Maitland Center Parkway, Suite 300
Maitland, FL 32751

RETURN TO:
Nextel Communications
851 Trafalgar Court, Suite 300E
Maitland, FL 32751

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into on this _____ day of _____,2000, by and between The City of Apopka, a municipal corporation, with an address at 120 East Main Street, Apopka, FL 32703, (hereinafter referred to as "Lessor") and Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications with an office at 851 Trafalgar Court, Suite 300E, Maitland, FL 32751 (hereinafter referred to as "Lessee").

Lessor and Lessee entered into a Communications Site Lease Agreement ("Agreement") on the _____ day of _____, _____, for the purpose of installing, operating and maintaining a radio communications facility and other improvements. All of the foregoing are set forth in the Agreement.

The term of the Lease is for five (5) years commencing on _____, _____, ("Commencement Date") and terminating on the fifth anniversary of the Commencement Date with five (5) successive five (5) year options to renew.

The Land which is the subject of the Agreement is in Orange County, Florida, described in Exhibit A annexed hereto. The portion of the Land being leased to Lessee (the "Premises") is described in Exhibit B annexed hereto.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Agreement as of the day and year first above written.

LESSOR:

Signed, sealed and delivered in the presence of:

_____
Witness
Print Name:_____

By:_____

Print Name_____

Title:_____

_____
Witness
Print Name: _____

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this_____day of _____, _____, by _____, as_____ of _____, a _____, who is personally known to me or who has produced _____ as identification and who did (did not) take an oath.

WITNESS my hand and official seal.

_____
Notary Public

_____
Print Name

My commission expires:_____

(SIGNATURES CONTINUED ON FOLLOWING PAGE)

LESSEE:

Signed, sealed and delivered in the presence of:

Nextel South Corp., a Georgia Corporation d/b/a Nextel Communications

_____
Witness
Print Name:_____

By: _____

Print Name: John Cafaro

Title: Vice President

_____
Witness
Print Name: _____

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this_____day of _____, _____, by John Cafaro, as Vice President of Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications who is personally known to me or who has produced _____ as identification and who did (did not) take an oath.

WITNESS my hand and official seal.

_____
Notary Public

_____
Print Name

My commission expires:_____

Market: Central Florida
Site No.: FL 2046 C
Site Name: Lake Apopka E

MEMORANDUM OF AGREEMENT

EXHIBIT A

DESCRIPTION OF LAND

to the Memorandum of Agreement dated _____, 2000, by and between _____, a _____ _____ as Lessor, and Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications as Lessee.

The Land is described and/or depicted as follows:

Begin at the SE corner of the SW ¼ of the NE ¼ of Section 19, Township 21 South, Range 28 East, run S 000 Deg. 43 min. and 40 sec. W along the East line of the West 17 ½ of the SE ¼ of said Section 19 for 2664.96 ft. to a point on the South line of said Section 19, also being on the North line of Section 30, Twp. 21 South, Range 28 East; thence run S 01 Deg. 12 min. 07 sec. W along the East line of the West ½ of the NE ¼ of said Section 30 for 244.30 ft; thence run N 89 Deg. 14 Min. 06 Sec. W parallel with the North line of said Section 30 for 1611.85 ft. to a point on the East right-of-way line of S.R. No. 437 (Binion Road); thence run N 44 Deg. 04 Min. 08 Sec. W for 236.70 ft. to the point of curvature of a curve concave to the Northeast, having a radius of 914.93 ft., thence run Northwesterly along the arc of said curve and said East right-of-way line, thru a central angle of 16 Deg. 06 Min. 17 Sec., for 416.74 ft.; thence departing said curve run S 89 Deg. 14 Min. 06 Sec. E parallel with the South line of previously mentioned Section 19 for 1876.92 ft. to a point which lies 122.00 ft. Westerly of the East line of the West ½ of the SE ¼ of said Section 19; thence run 00 Deg. 43 Min. 40 Sec. E parallel with said East line for 535.97 ft. (535.92 ft. Deed); thence run N 89 Deg. 14 Min. 06 Sec. W for 2337.13 ft.; thence run N 14 Deg. 11 Min. 31 Sec. W for 1118.94 ft. (1119.30 ft. Deed); thence run North for 500.00 ft; thence run N 08 Deg. 23 Min. 54 Sec. E for 325.73 ft.; thence run S 88 Deg. 59 Min. 02 Sec. E. for 740.88 ft. to a point on the North right-of-way line of S. R. No. 437 (Binion Road); thence run S 01 Deg. 00 Min. 59 Sec. W for 80.00 ft. to a point on the South right-of-way line of said S. R. 437; thence run S 99 Deg. 59 Min. 02 Sec. E along said South right-of-way line for 660.80 ft. to the point of curvature of a curve concave to the North, having a radius of 517.46 ft., thence run Northeasterly along the arc of said curve, thru a central angle of 22 Deg. 16 Min. 26 Sec., for 201.16 ft.; thence departing said curve run S 89 Deg. 12 Min. 38 Sec. E for 1112.51 ft. to the point of beginning.

Herein described property lies within Orange County, Florida.

Market: Central Florida
Site No.: FL 2046 C
Site Name: Lake Apopka E

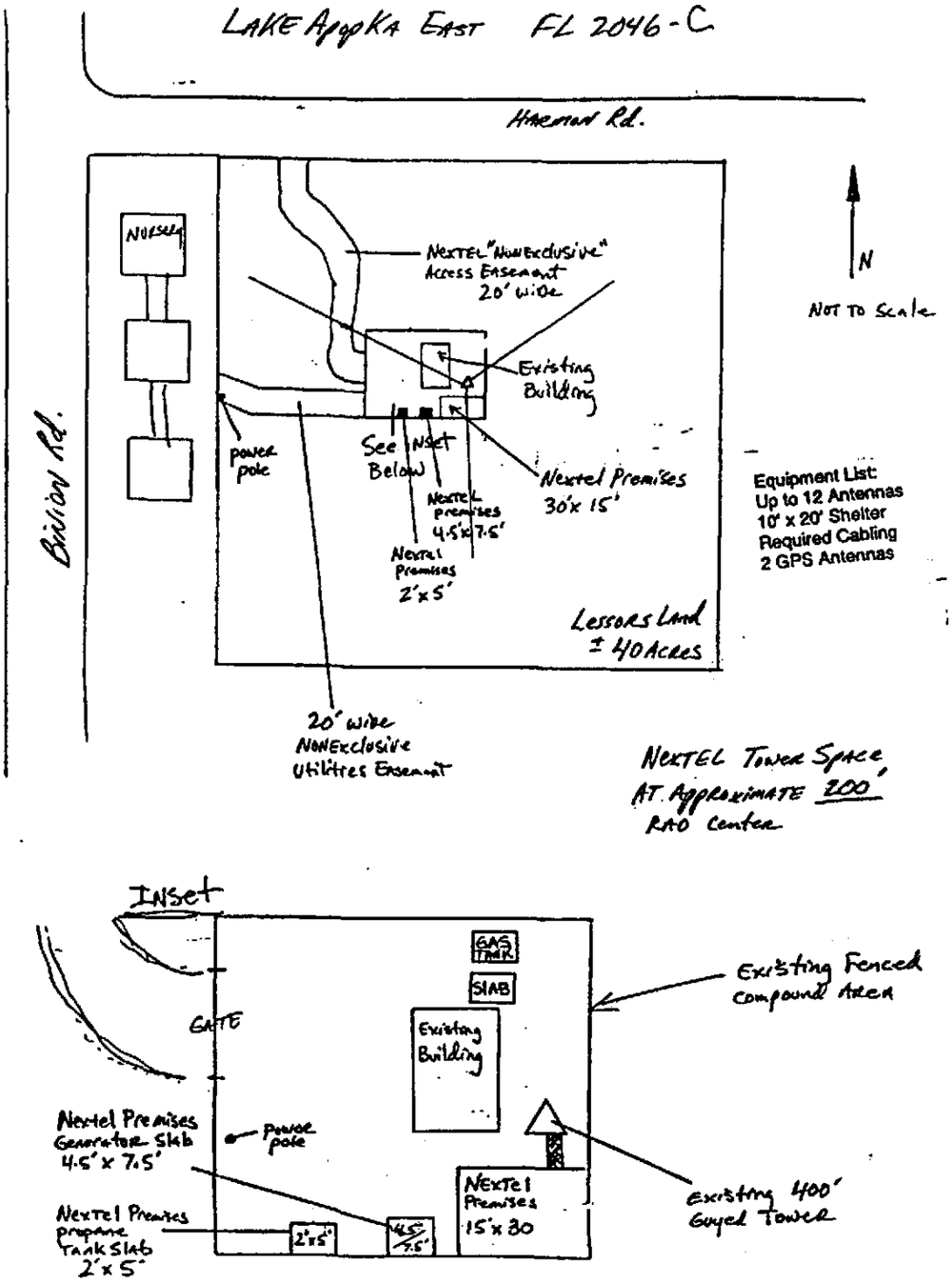
MEMORANDUM OF AGREEMENT

EXHIBIT B

DESCRIPTION OF PREMISES

to the Memorandum of Agreement dated _____, 2000, by and between _____, a _____ as Lessor, and Nextel South Corp., a Georgia corporation, d/b/a Nextel Communications as Lessee.[1]

The Nextel Premises consists of approximately _____ square feet that includes but is not limited to shelter space, antenna space, easements, and cable runs which are described and/or depicted as follows:



Notes:

1. This Exhibit may be replaced by a land survey of the Premises once it is received by Lessee.
2. Setback of the Premises from the Land's boundaries shall be the distance required by the applicable governmental authorities.
3. Width of access road shall be the width required by the applicable governmental authorities, including police and fire departments.
4. The type, number and mounting positions and locations of antennas and transmission lines are illustrative only. Actual types, numbers, mounting positions may vary from what is shown above.

COMMUNICATIONS SITE LEASE AGREEMENT

THIS COMMUNICATIONS SITE LEASE AGREEMENT ("Lease Agreement") dated as of 11-30-06, is made by and between Royal Street Communications, LLC, a Delaware limited liability company ("Lessee") and City Of Apopka, ("Lessor").

RECITALS

This Lease Agreement is entered into based upon the following facts, circumstances and understandings:

A. Lessor owns certain real property legally described in Exhibit "A" attached hereto and commonly known as 2102 Harmon Road Apopka, Florida; Assessor's Parcel Number 19-21-28-0000-00-008 ("Lessor's Real Property"). Lessee desires to lease a portion of Lessor's Real Property with any necessary easements over other portions of Lessor's Real Property and/or shared use of Lessor's easements over other real property necessary for Lessee's access and utilities to the leased area (altogether the "Premises"), as described on Exhibit "B" attached hereto. Lessor represents and warrants that it has the right to grant the rights set forth herein and that it has full rights of ingress to and egress from the Premises from a public roadway.

B. Lessee is a communications carrier that desires to construct and operate a wireless communications site at the Premises as part of its communications network.

C. Based on the Premises set forth herein and on the terms and conditions set forth below, Lessor is willing to lease the Premises to Lessee for Lessee's proposed use subject to the terms and conditions of this Lease Agreement.

WHEREFORE, in consideration of the Premises set forth above and the terms and conditions set forth herein, the parties, intending to be legally bound, hereto agree as follows:

1. **Grant of Lease.** Lessor hereby leases to Lessee the Premises for Lessee's proposed use, subject to the following terms and conditions for the Term.

2. **Permitted Uses.** The Premises may be used by Lessee for the operation of a wireless communications site. Under this Lease Agreement, Lessee may install, place, use and operate on the Premises such antennas, radio transmitting and receiving equipment, conduits, wires, batteries, back-up generators, utility lines and facilities, supporting structures, storage facilities, telephone facilities, microwave equipment, and related equipment (collectively "Lessee's Facilities") as Lessee deems necessary for the operation of its wireless communications site at the Premises. Further, Lessee may perform construction, maintenance, repairs, additions to, and replacement of Lessee's Facilities as necessary and appropriate for its ongoing business and has the right to do all work necessary to prepare, modify and maintain the Premises to accommodate Lessee's Facilities and as required for Lessee's communications operations at the Premises. Lessee's construction on the Premises shall be in accordance with acceptable land development codes; must not interfere with original construction and function of Lessor's facility for public safety purposes; and all proposed work will need review by the Lessor. Lessor shall not unreasonably withhold approval of the proposed work. Lessor shall approve or request changes

to Lessee's proposed work within fifteen (15) days of receipt of Lessee's plans. In the event Lessor does not approve or request changes within such fifteen (15) day period, the plans shall be deemed approved.

3. **Conditions Precedent: Prior Approvals.** This Lease Agreement is conditioned upon Lessee obtaining all governmental licenses, permits and approvals enabling Lessee to construct and operate wireless communications facilities on the Premises without conditions which are not standard or typical for premises where wireless communications facilities are located. Lessor agrees to cooperate with Lessee's reasonable requests for Lessor's signatures as real property owner on permit applications, for allowing site inspections by governmental agencies required in connection with reviewing permit applications, and for assistance in obtaining such necessary approvals, provided that such cooperation and assistance shall be at no expense to Lessor.

4. **Term.** The term of this Lease Agreement ("Term") shall be five (5) years commencing with the issuance of a local governmental building permit allowing Lessee to construct Lessee's Facilities on the Premises or three (3) months from the date of full execution of this Lease Agreement, whichever occurs first ("Commencement Date"). Lessee shall promptly deliver written notice to Lessor of the Commencement Date. Lessee shall have the right to extend the Term of this Lease Agreement for four (4) additional terms (each a "Renewal Term") of five (5) years each. The terms and conditions for each Renewal Term shall be the same terms and conditions as in this Lease Agreement, except that the Rent shall be increased as set forth hereinbelow. This Lease Agreement shall automatically be extended for each successive five (5) year Renewal Term unless Lessee notifies Lessor in writing of Lessee's intention not to extend this Lease Agreement at least thirty (30) days prior to the expiration of the first Term or any Renewal Term.

5. **Rent.** Within fifteen (15) days of the Commencement Date, Lessee shall pay Lessor, as rent, the sum of one thousand six hundred fifty dollars ($1650.00) ("Rent") per month. Rent shall be payable on the first day of each month, in advance, to Lessor or Lessor's alternate payee specified in Section 22, Notices and Deliveries. If the Commencement Date of this Lease Agreement is other than the first day of a calendar month, Lessee may pay on the first day of the Term the prorated Rent for the remainder of the calendar month in which the Term commences, and thereafter Lessee shall pay a full month's Rent on the first day of each calendar month, except that payment shall be prorated for the final fractional month of this Lease Agreement, or if this Lease Agreement is terminated before the expiration of any month for which Rent should have been paid. Rent shall be adjusted annually as of each anniversary of the Commencement Date of the Term by an increase of three percent (3%) of the Rent paid during the previous year.

6. **Due Diligence Contingency and Pre-Commencement Date Access to Premises.** Lessee shall have the right (but not the obligation) at any time following the full execution of this Lease Agreement and prior to the Commencement Date, to enter the Premises for the purpose of making necessary inspections, taking measurements and conducting engineering surveys (and soil tests where applicable) and other reasonably necessary tests to determine the suitability of the Premises for Lessee's Facilities ("Due Diligence"), and for the purpose of preparing the Premises for the installation or construction of Lessee's Facilities. During any Due Diligence activities or pre-construction work, Lessee shall have insurance which covers such activities as set forth in Section16, Insurance. Lessee will notify Lessor of any proposed tests, measurements or pre-construction work and will coordinate the scheduling of such activities with Lessor. If in the course of its Due Diligence Lessee determines that the Premises are unsuitable for Lessee's contemplated use, then Lessee shall have the right to terminate this Lease Agreement prior to the Commencement Date by delivery of written notice thereof to Lessor as set forth in Section 13, Termination.

7. **Ongoing Access to Premises.** Throughout the Term and any Renewal Term of this Lease Agreement, Lessee shall have the right of access without escort to the Premises for its employees and agents twenty-four (24) hours a day, seven (7) days per week, at no additional charge to Lessee. In exercising its right of access to the Premises herein, Lessee agrees to cooperate with any reasonable security procedures utilized by Lessor at Lessor's Real Property and further agrees not to unduly disturb or interfere with the business or other activities of Lessor or of other tenants or occupants of Lessor's Real Property. Lessor shall maintain all existing access roadways or driveways extending from the nearest public roadway to the Premises in a manner sufficient to allow for Lessee's access to the Premises. Lessor shall be responsible for maintaining and repairing such roadways and driveways at Lessor's sole expense, except for any damage caused by Lessee's use of such roadways or driveways. If Lessee causes any such damage, Lessee shall promptly repair the same at its sole expense. Except those constructed by Lessee, Lessor, not Lessee, shall be responsible for the maintenance and compliance with laws of all towers and structures located on the Premises, including compliance with Part 17 of the Federal Communications Commissions' Rules.

8. **Lessee's Work, Maintenance and Repairs.** All of Lessee's construction and installation work at the Premises shall be performed at Lessee's sole cost and expense and in a good and workmanlike manner. Lessee shall submit copies of the site plan and specifications to the Lessor for prior approval, which approval will not be unreasonably withheld, conditioned or delayed. Lessor shall give such approval or provide Lessee with its requests for changes within five (5) business days of Lessor's receipt of Lessee's plans. If Lessor does not provide such approval or request for changes within such five (5) business day period, Lessor shall be deemed to have approved the plans. Lessor shall not be entitled to receive any additional consideration in exchange for giving its approval of Lessee's plans. Lessee shall maintain Lessee's Facilities and the Premises in neat and safe condition in compliance with all applicable codes and governmental regulations. Lessee shall not be required to make any repairs to the Premises except for damages to the Premises caused by Lessee, its employees, agents, contractors or subcontractors. Upon the expiration, cancellation or termination of this Lease Agreement, Lessee shall surrender the Premises in good condition, less ordinary wear and tear. Lessee is required to make the Lessor's Real Property whole and in comparable condition as was found prior to execution of the Lease, reasonably wear and tear and damage from casualty excepted.

9. **Title to Lessee's Facilities.** Title to Lessee's Facilities and any equipment placed on the Premises by Lessee shall be held by Lessee. All of Lessee's Facilities shall remain the property of Lessee and are not fixtures. Lessee has the right to remove all Lessee's Facilities at its sole expense on or before the expiration or termination of this Lease Agreement. Lessor acknowledges that Lessee may enter into financing arrangements including promissory notes and financial and security agreements for the financing of Lessee's Facilities (the "Collateral") with a third party financing entity and may in the future enter into additional financing arrangements with other financing entities. In connection therewith, Lessor (i) consents to the installation of the Collateral to the extent that the Collateral is part of the approved Lessee's Facilities; (ii) disclaims any interest in the Collateral, as fixtures or otherwise, whether arising at law or otherwise, including, but not limited to any statutory landlord's lien; and (iii) agrees that the Collateral shall be exempt from execution, foreclosure, sale, levy, attachment, or distress for any Rent due or to become due and that such Collateral may be removed at any time without recourse to legal proceedings.

10. **Utilities.** Lessee shall have the right to install utilities, at Lessee's expense, and to improve the present utilities on or near the Premises (including, but not limited to the installation of emergency back-up power). Subject to Lessor's approval of the location, which approval shall not be

unreasonably withheld, conditioned, or delayed, Lessee shall have the right to place utilities on (or to bring utilities across) Lessor's Real Property in order to service the Premises and Lessee's Facilities. Upon Lessee's request, Lessor shall execute recordable easement(s) evidencing this right. Lessee shall fully and promptly pay for all utilities furnished to the Premises for the use, operation and maintenance of Lessee's Facilities. Lessee shall enter into an independent agreement with the power company and shall not install a sub-meter on Lessee's Facility. Lessee shall have no claim to generator power provided at Lessor's facility that is for Lessor's use. Any generator provided by Lessee shall be installed in accordance with state and local laws and Lessee is required to prevent or mitigate any environmental hazard associated with the installation, use, or failure of such generator or fuel source for such generator.

11. **Interference with Communications.** Lessee's Facilities and operations shall not interfere with the communications configurations, frequencies or operating equipment which exist on Lessor's Real Property on the effective date of this Lease Agreement ("Pre-existing Communications"), and Lessee's Facilities and operations shall comply with all non-interference rules of the Federal Communications Commission ("FCC"). Upon written notice from Lessor of apparent interference by Lessee with Pre-existing Communications, Lessee shall have the responsibility to promptly terminate such interference or demonstrate to Lessor with competent information that the apparent interference in fact is not caused by Lessee's Facilities or operations. Lessor shall not, nor shall Lessor permit any other tenant or occupant of any portion of Lessor's Real Property to, engage in any activities or operations which interfere with the communications operations of Lessee described in Section 2, above. Such interference with Lessee's communications operations shall be deemed a material breach by Lessor, and Lessor shall have the responsibility to promptly terminate said interference. In the event any such interference does not cease promptly, the parties acknowledge that continuing interference will cause irreparable injury to Lessee, and therefore Lessee shall have the right to bring a court action to enjoin such interference or to terminate this Lease Agreement immediately upon notice to Lessor. Lessor agrees to incorporate equivalent provisions regarding non-interference with Pre-existing Communications into any subsequent leases, licenses or rental agreements with other persons or entities for any portions of Lessor's Real Property.

12. **Taxes.** Lessee shall pay personal property taxes assessed against Lessee's Facilities, and Lessor shall pay when due all real property taxes and all other taxes, fees and assessments attributable to the Premises and this Lease Agreement.

13. **Termination.** This Lease Agreement may be terminated by Lessee effective immediately without further liability by delivery of written notice thereof to Lessor prior to the Commencement Date for any reason resulting from Lessee's Due Diligence, or if a title report obtained by Lessee for Lessor's Real Property shows any defects of title or any liens or encumbrances which may adversely affect Lessee's use of the Premises for Lessee's intended use, or for any other or no reason. This Lease may be terminated without further liability on thirty (30) days prior written notice as follows: (i) by either party upon a default of any covenant, condition, or term hereof by the other party, which default is not cured within sixty (60) days of receipt of written notice of default; (ii) by Lessee if it does not obtain licenses, permits or other approvals necessary to the construction or operation of Lessee's Facilities ("Permits"), is unable to obtain such Permits without conditions which are not standard or typical for premises where wireless communications facilities are located or is unable to maintain such licenses, permits or approvals despite reasonable efforts to do so; (iii) by Lessee if Lessee is unable to occupy or utilize the Premises due to ruling or directive of the FCC or other governmental or regulatory agency, including, but not limited to, a take back of frequencies; or (iv) by Lessee if Lessee determines that the Premises are not appropriate for its operations for economic, environmental or technological reasons, including, without limitation, signal strength or interference; or (v) by Lessor, upon one hundred eighty (180) days written notice, if required to further a bonafide public purpose. Other than as stated herein, Lessor shall not have the right to terminate, revoke or cancel this Lease Agreement.

14. **Destruction of Premises.** If the Premises or Lessor's Property is destroyed or damaged so as in Lessee's judgment to hinder its effective use of Lessor's Property for the ongoing operation of a wireless communications site, Lessee may elect to terminate this Lease Agreement without further liability of Lessee as of the date of the damage or destruction by so notifying Lessor no more than thirty (30) days following the date of damage or destruction. In such event, all rights and obligations of the parties which do not survive the termination of this Lease Agreement shall cease as of the date of the damage or destruction.

15. **Condemnation.** If a condemning authority takes all of Lessor's Real Property, or a portion which in Lessee's reasonable opinion is sufficient to render the Premises unsuitable for Lessee's ongoing operation of a wireless communications site, then this Lease Agreement shall terminate without further liability of Lessee as of the date when possession is delivered to the condemning authority. In any condemnation proceeding each party shall be entitled to make a claim against the condemning authority for just compensation recoverable under applicable condemnation law. Sale of all or part of the Premises to a purchaser with the power of eminent domain in the face of the exercise of its power of eminent domain shall be treated as a taking by a condemning authority.

16. **Insurance.** Lessee shall maintain the following insurance: (1) Commercial General Liability with limits of One Million Dollars ($1,000,000.00) per occurrence, (2) Automobile Liability with a combined single limit of One Million Dollars ($1,000,000.00) per accident, (3) Workers Compensation as required by law, and (4) Employer's Liability with limits of One Million Dollars ($1,000,000.00) per occurrence. Lessee shall provide Lessor a certificate of insurance evidencing the coverage required by this paragraph within thirty (30) days of the Commencement Date and have Lessor named as an additional insured on Lessee's policy. Each party waives any rights of recovery against the other for injury or loss due to hazards covered by their property insurance, and each party shall require such insurance policies to contain a waiver of recovery against the other.

17. **Assignments or Transfers.** Lessor may assign or transfer this Lease Agreement to any person or entity without any requirement for prior approval by Lessee, provided that such assignee or transferee agrees in writing to fulfill the duties and obligations of the Lessor in said Lease Agreement, including the obligation to respect Lessee's rights to nondisturbance and quiet enjoyment of the Premises during the remainder of the Term and any Renewal Term hereof. Lessee may assign or transfer this Lease Agreement without prior approval by Lessor to any of Lessee's partners, shareholders, members, subsidiaries, or affiliates, to any entity in which Lessee or any of its affiliates holds an ownership interest, or to a person or entity acquiring by purchase, merger or operation of law a majority of the value of the assets of Lessee. Lessee shall not assign or transfer this Lease Agreement to any other person or entity without the prior written approval of Lessor, which approval shall not be unreasonably withheld, conditioned, or delayed. Lessee may assign, mortgage, pledge, hypothecate or otherwise transfer without consent its interest in this Agreement to any financing entity, or agent on behalf of any financing entity to whom Lessee (i) has obligations for borrowed money or in respect of guaranties thereof, (ii) has obligations evidenced by loans, bonds, debentures, notes or similar instruments, or (iii) has obligations under or with respect to letters of credit, bankers acceptances and similar facilities or in respect of guaranties thereof..

18. **Subleases.** Lessee shall not have the right to sublease or otherwise allow any other communications provider to occupy space on any antenna structure or equipment enclosure installed by Lessee at the Premises.

19. **Nondisturbance and Quiet Enjoyment; Subordination; Estoppel Certificates.**

(a) So long as Lessee is not in default under this Lease Agreement, Lessee shall be entitled to quiet enjoyment of the Premises during the term of this Lease Agreement or any Renewal Term, and Lessee shall not be disturbed in its occupancy and use of the Premises.

(b) This Lease Agreement shall be subordinate to each and every deed of trust, mortgage or other security instrument which may now or hereafter affect Lessor's Real Property and to any renewals, extensions, supplements, amendments, modifications or replacements thereof. In confirmation of such subordination, Lessee shall execute and deliver promptly any certificate of subordination that Lessor may reasonably request, provided that such certificate acknowledges that this Lease Agreement remains in full force and effect, recognizes Lessee's right to nondisturbance and quiet enjoyment of the Premises so long as Lessee is not in default under this Lease Agreement, only contains true and accurate statements and Lessee's liability shall be capped at the remaining rent under this Lease Agreement. If any mortgagee or lender succeeds to Lessor's interest in Lessor's Real Property through a foreclosure proceeding or by a deed in lieu of foreclosure, Lessee shall attorn to and recognize such successor as Lessor under this Lease Agreement.

(c) At any time upon not less than ten (10) days' prior written notice by Lessor, Lessee shall execute, acknowledge and deliver to Lessor or any other party specified by Lessor a statement in writing certifying that this Lease Agreement is in full force and effect, if true, and the status of any continuing defaults under this Lease Agreement.

20. Indemnifications.

(a) **Lessee's Indemnity.** Lessee hereby agrees to indemnify and hold Lessor and Lessor's officers, directors, partners, shareholders, employees, agents, contractors or subcontractors harmless from and against any and all losses, claims, liabilities, damages, costs and expenses (including reasonable attorney's fees and costs) and injuries (including personal injuries or death) arising from or in connection with Lessee's use, operation, maintenance or repair of Lessee's Facilities at the Premises or access over Lessor's Real Property or Lessee's shared use of Lessor's easements for access to the Premises, except those resulting from the negligence or willful misconduct of Lessor or Lessor's officers, directors, partners, shareholders, employees, agents, contractors or subcontractors.

(b) **Lessor's Indemnity.** Lessor hereby agrees to indemnify and hold Lessee and Lessee's officers, directors, partners, shareholders, employees, agents, contractors or subcontractors harmless from and against any and all losses, claims, liabilities, damages, costs and expenses (including reasonable attorney's fees and costs) and injuries (including personal injuries or death) arising from or in connection with Lessor's use, operation, maintenance or repair of improvements on Lessor's Real Property, Lessor's shared use of easements for access to Lessor's Real Property, any violation of governmental regulations relating to the Premises and any towers used by Lessee (including the lighting or painting for aviation pathways), except those resulting from the negligence or willful misconduct of Lessee or Lessee's officers, directors, partners, shareholders, employees, agents, contractors or subcontractors.

(c) **Survival of Indemnity Provisions.** The indemnity provisions of this section shall survive the expiration, cancellation or expiration of this Lease Agreement.

21. Hazardous Materials. Lessee agrees that it will not use, generate, store or dispose of any Hazardous Material on, under, about or within the Lessor's Real Property in violation of any law or regulation. Lessor represents, warrants and agrees (1) that neither Lessor nor, to Lessor's knowledge, any third party has used, generated, stored or disposed of, or permitted the use, generation, storage or disposal of, any Hazardous Material (defined below) on, under, about or within Lessor's Real Property in violation

of any law or regulation, and (2) that Lessor will not, and will not permit any third party to use, generate, store or dispose of any Hazardous Material on, under, about or within Lessor's Real Property in violation of any law or regulation. Lessor and Lessee each agree to defend, indemnify and hold harmless the other and the other's partners, affiliates, agents and employees against any and all losses, liabilities, claims and/or costs (including reasonable attorneys' fees and costs) arising from any breach of any representation, warranty or agreement contained in this paragraph. As used in this paragraph, "Hazardous Material" shall mean petroleum or any petroleum product, asbestos, any substance known by the state in which Lessor's Real Property is located to cause cancer and/or reproductive toxicity, and/or any substance, chemical or waste that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. This paragraph shall survive the termination of this Agreement.

22. Notices and Deliveries. Any notice or demand required to be given herein shall be made by certified or registered mail, return receipt requested, confirmed fax, or reliable overnight delivery service to the address of the respective parties set forth below:

Lessor: City Of Apopka
175 East 5th Street
Apopka, Florida 32703
Attn: Assistant Fire Chief
Telephone: 407-703-1708
Facsimile: 407-703-1716
Federal Taxpayer ID Number: N/A

Lessee: Royal Street Communications, LLC
511 South U.S. Hwy. 301
Tampa, Florida 33619
Attn: Leasing / Zoning Manager
Telephone: 813 830-5500
Facsimile: 813 830-5501

With copy to: Royal Street Communications, LLC
7557 Rambler Road Suite 700
Dallas, Texas 75231
Attn: Property Manager
Telephone: 214-265-6509
Facsimile: 214-265-6510

Lessor or Lessee may from time to time designate any other address for notices or deliveries by written notice to the other party.

23. Miscellaneous.

(a) Severability. If any provision of the Lease Agreement is held to be invalid or unenforceable by a court of competent jurisdiction with respect to any party, the remainder of this Lease Agreement or the application of such provision to persons other than those as to whom it is held invalid or unenforceable shall not be affected, each provision of this Lease Agreement shall be valid and enforceable to the fullest extent permitted by law, and the parties shall negotiate in good faith to amend this Lease Agreement to retain the economic effect of the invalid or unenforceable provisions.

(b) Binding Effect. Each party represents and warrants that said party has full power and authority, and the person(s) executing this Lease Agreement have full power and authority, to

execute and deliver this Lease Agreement, and that this Lease Agreement constitutes a valid and binding obligation of each party, enforceable in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting the enforcement of creditor's rights generally and by general equitable principles (whether enforcement is sought in proceedings in equity or at law). This Lease Agreement shall be binding on and inure to the benefit of the successors and permitted assignees of the respective parties.

(c) **Waivers.** No provision of this Lease Agreement shall be deemed to have been waived by a party unless the waiver is in writing and signed by the party against whom enforcement of the waiver is attempted. No custom or practice which may develop between the parties in the implementation or administration of the terms of this Lease Agreement shall be construed to waive or lessen any right to insist upon strict performance of the terms of this Lease Agreement.

(d) **Governing Law.** This Lease shall be governed by and construed in accordance with the laws of the State in which the Premises are located.

(e) **Attorneys' Fees and Costs.** The prevailing party in any legal claim arising hereunder shall be entitled to its reasonable attorneys' fees and court costs.

(f) **Survival.** Terms and conditions of this Lease Agreement which by their sense and context survive the termination, cancellation or expiration of this Lease Agreement will so survive.

(g) **Memorandum of Lease.** Lessor acknowledges that a Memorandum of Agreement substantially in the form annexed hereto as Exhibit C will be recorded by Lessee in the Official Records of the County where the Property is located.

(h) **Entire Agreement; Amendments.** This Lease Agreement constitutes the entire agreement and understanding between the parties regarding Lessee's lease of the Premises and supersedes all prior and contemporaneous offers, negotiations and other agreements concerning the subject matter contained herein. There are no representations or understandings of any kind not set forth herein. Any amendments to this Lease Agreement must be in writing and executed by duly authorized representatives of both parties.

(i) **No Presumptions Regarding Preparation of Lease Agreement.** The parties acknowledge and agree that each of the parties has been represented by counsel or has had full opportunity to consult with counsel and that each of the parties has participated in the negotiation and drafting of this Lease Agreement. Accordingly it is the intention and agreement of the parties that the language, terms and conditions of this Lease Agreement are not to be construed in any way against or in favor of any party hereto by reason of the roles and responsibilities of the parties or their counsel in connection with the preparation of this Lease Agreement.

24. **Lessee Reimbursement Of Tower Upgrade.** An engineering study will be completed prior to the installation of Lessee's equipment. This study will include the current capacity available on the structure and any improvements required to accommodate Lessee's proposed equipment to maintain stability at a minim um of 120mph winds or the minimum jurisdictional requirements, whichever is less. Any improvements indicated as required by the engineering study shall be the sole responsibility of the lessee.

(a). The parties agree that, in the event Lessor desires to add or make modifications to its equipment presently installed or for future needs for their own internal, non-commercial purposes on the structure (a "Lessor Modification"), and there is a question as to whether the structural

integrity of the structure will be affected by the Lessor Modification, Lessor will, at its own expense, have the structure inspected by a certified structural engineer, licensed by The State Of Florida, and such engineer shall submit a written report to Lessor stating his or her conclusions and recommendations, if any, for upgrading the structure such that it will accommodate the Lessor Modification without compromising its structural integrity (the "Structural Report").

(b). In the event that an upgrade to the structure is determined necessary to accommodate the Lessor Modification, the structural engineer shall include in the Structural Report can estimate of (i) the percentage of the structural capacity of the structure (after recommended upgrade) that will be used by Lessor after the Lessor Modification is installed; (ii) the individual percentage(s) of the structural capacity (after the recommended upgrade) of the structure that will be used by each tenant or licensee with equipment on the structure, including Lessee; and (iii) the percentage of the structural capacity (after the upgrade) of the structure that remains for future use. The aforementioned percentages of the structural capacity of the structure being used by any one party shall hereinafter be referred to as the applicable party's "Structural Capacity Use".

(c). Lessor shall provide Lessee and any other tenant(s) or licensee(s) of the structure with a copy of the structural report and a written estimate from Lessor's contractor indicating the cost of the upgrade, if any. In the event that the structural report recommends that an upgrade to the structure is required to accommodate the Lessor Modification, Lessee shall have thirty (30) days after receipt of the structural report and the written estimate to either (i) agree in writing to reimburse Lessor its pro rata share (based on Lessee's structural capacity use) of the cost of such upgrade, or (ii) elect to terminate this agreement pursuant to paragraph 13, subsection (v).

(d). In the event Lessee elects to reimburse Lessor for its pro rat share of the costs of such upgrade, such sum shall be payable to Lessor within thirty (30) days following Lessee's receipt of a notice from Lessor for such sum and documentation indicating calculation of Lessee's pro rat share of said costs.

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the parties have caused this Lease Agreement to be executed by their duly authorized representatives on the dates set forth below and acknowledge that this Lease Agreement is effective as of the date first above written.

LESSOR:

City of Apopka

By: _____
(Signature)

Print Name: Richard D. Anderson

Title: Chief Administrative Officer

Date: 11/28/2006

By: _____
(Signature)

Print Name: _____

Title: _____

Date: _____

LESSEE:

Royal Street Communications, LLC, a Delaware limited liability company

By: _____
(Signature)

Print Name: Linda Carlile

Title: Network Development Manager

Date: 11/30/06

Harmon Tower - Historical Cellular Carrier Collocation Revenues

Carrier	Lease Agreement - Initial Terms	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	20 Year Totals
Sprint	11/1/2000 $1,500.00/Monthly +4% Annually	$ 18,000.00	$ 18,720.00	$ 19,468.80	$ 20,247.55	$ 21,057.45	$ 21,899.75	$ 22,775.74	$ 23,686.77	$ 24,634.24	$ 25,619.61	$ 26,644.40	$ 27,710.17	$ 28,818.58	$ 29,971.32	$ 31,170.18	$ 32,416.98	$ 33,713.66	$ 35,062.21	$ 36,464.70	$ 37,923.29	$ 39,440.22	$ 575,445.62
T-Mobile	11/1/2006 $1,650.00/Monthly +3% Annually							$ 19,800.00	$ 20,394.00	$ 21,005.82	$ 21,635.99	$ 22,285.07	$ 22,953.63	$ 23,642.24	$ 24,351.50	$ 25,082.05	$ 25,834.51	$ 26,609.54	$ 27,407.83	$ 28,230.07	$ 29,076.97	$ 29,949.28	$ 368,258.50
	Historical Revenues - Annually	$ 18,000.00	$ 18,720.00	$ 19,468.80	$ 20,247.55	$ 21,057.45	$ 21,899.75	$ 42,575.74	$ 44,080.77	$ 45,640.06	$ 47,255.60	$ 48,929.47	$ 50,663.80	$ 52,460.82	$ 54,322.82	$ 56,252.23	$ 58,251.49	$ 60,323.20	$ 62,470.04	$ 64,694.77	$ 67,000.26	$ 69,389.50	$ 943,704.12

Harmon Tower - Projected Cellular Carrier Collocation Revenues

Carrier	Current Annual Lease	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Sprint	$39,440.22 +4%	$41,017.83	$42,658.54	$44,364.88	$46,139.48	$47,985.06	$49,904.46	$51,900.64	$53,976.66	$56,135.73	$58,381.16	$60,716.40	$63,145.06	$65,670.87	$68,297.70	$71,029.61	$73,870.79	$76,825.62	$79,898.65	$83,094.60	$86,418.38	$89,875.12
T-Mobile	$29,949.28 +3%	$30,878.66	$31,805.02	$32,759.17	$33,741.94	$34,754.20	$35,796.83	$36,870.73	$37,976.85	$39,116.16	$40,289.65	$41,498.33	$42,743.28	$44,025.58	$45,346.35	$46,706.74	$48,107.94	$49,551.18	$51,037.72	$52,568.85	$54,145.92	$55,770.29
AT&T - Proposed	1/1/2023 $2,200.00/Monthly +3% Annually		$26,400.00	$27,192.00	$28,007.76	$28,847.99	$29,713.43	$30,604.84	$31,522.98	$32,468.67	$33,442.73	$34,446.01	$35,479.39	$36,543.77	$37,640.09	$38,769.29	$39,932.37	$41,130.34	$42,364.25	$43,635.18	$44,944.23	$46,292.56
	Projected Revenues - Annually	$71,896.49	$100,863.56	$104,316.05	$107,889.18	$111,587.25	$115,414.72	$119,376.21	$123,476.49	$127,720.56	$132,113.54	$136,660.74	$141,367.73	$146,240.22	$151,284.14	$156,505.64	$161,911.10	$167,507.14	$173,300.62	$179,298.63	$185,508.53	$191,937.97

20 Year Totals
$1,311,307.24
$885,491.39
$709,377.88
$2,906,176.51

AT&T Mobility
3210 Lake Emma Road
Lake Mary, FL 32746
Office: (321) 388-9421
Cell: (407) 353-4967

October 20, 2021

Robert Hippler, IT Director
City of Apopka
150 E. 5th Street
Apopka, Florida 32703

RE: Lake Fuller FA 12874239 (aka Harmon Road) – Proposed Tower Replacement

Dear Mr. Hippler:

New Cingular Wireless PCS, LLC, a Delaware limited liability corporation, managed by AT&T Mobility Corporation, a Delaware corporation (collectively "AT&T") is interested in collocating on the above referenced City of Apopka ("City") property.

Since the existing tower fails significantly, AT&T would like to secure space on a new tower built by one of AT&T's build to suit vendors ("BTS Vendor"). AT&T would like the City to consider entering into an agreement with our BTS Vendor for the construction of a new tower assuming that terms and conditions are mutually acceptable to all parties.

If there are any questions or concerns related to the above information, please feel free to contact me at the telephone number or email address listed above.

Sincerely,

Connie Chapman

Connie Chapman
Sr. Real Estate and Construction Manager





HARMON TOWER

Located at 2180 Harmon Road in Apopka, FL

CITY OF APOPKA FLORIDA













Exhibit B Rock Springs Ridge Development

Deed of Conservation Easement (4-29-2002)

Gopher Tortoise Relocation Permit Documents (1997 +)

City of Apopka – Annexation Ordinance 978 (11-20-1996)

Storage Agreement for Reclaimed Water (2-23-2001)

Rock Springs Ridge Golf Course – Plat Book 63, Pages 113-119 (City signed 11-16-2005)

Rock Springs Ridge PUD Master Plan – Original. See notes below.

NOTES

1) Easements shall be maintained by the Homeowner's Association or golf course, respectively.

2) Gopher tortoise mitigation areas shall be owned and maintained by the Homeowner's Association.

ZONING HISTORY TABLE

	NUMBER	DATED
1.) Annexation – PUD Ordinance	978	11–20–96
2.) 1st PUD Master Amendment Ordinance	1220	09–01–99
3.) 2nd PUD Master Amendment Ordinance	1380	12–06–00

OR Bk 6512 Pg 1213
Orange Co FL 2002-0204949
04/29/2002 08:53:51am
Rec 51.00

THIS DOCUMENT PREPARED BY AND RETURN TO:
DONALD J. CUROTTO, ESQUIRE
ALLEN, LANG, CUROTTO & PEED, P.A.
14 EAST WASHINGTON STREET - SUITE 600
ORLANDO, FLORIDA 32801

---- ABOVE SPACE FOR RECORDING INFORMATION ONLY ----

DEED OF CONSERVATION EASEMENT

THIS DEED OF CONSERVATION EASEMENT is given as of this 29th day of April, 2002, by **ROCK SPRINGS RIDGE, LTD.**, a Florida limited partnership, whose mailing address is 401 W. Colonial Drive, Suite 7, Orlando, Florida 32804 ("Grantor"), to the **FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION**, a public agency of the State of Florida, with its principal office at 620 South Meridian Street, Tallahassee, Florida 32301 ("Grantee").

WITNESSETH:

WHEREAS, the Grantor is the owner of certain lands situated in Orange County, Florida (hereinafter referred to as the "Property," more specifically described in Exhibit A-1 and Exhibit A-2 attached hereto and incorporated herein by this reference; and

WHEREAS, the Grantor desires to protect and conserve certain upland preserve areas; and

WHEREAS, the Grantor, in consideration of the consents of the Grantee to Permit No. ORA-85 issued by the Grantee on June 29, 2001 ("Permit"), in favor of **ROCK SPRINGS RIDGE, LTD.**, for the incidental take of gopher tortoises, is required to grant and secure the enforcement of a perpetual conservation easement as defined in Section 704.06, Florida Statutes (1991), over the Property.

NOW, THEREFORE, consistent with the issuance of the Permit, Grantor hereby grants, creates, and establishes a perpetual conservation easement upon the Property described in Exhibit A-1 and Exhibit A-2 attached and incorporated herein by reference, which shall run with the land and be binding upon the Grantor, its heirs, successors and assigns, and remain in full force and effect forever.

1. The scope, nature and character of this Conservation Easement is to ensure that protected and/or uplands preserve areas shall be used as conservation areas pursuant to Section 704.06, Florida Statutes, consistent with the Property's Habitat Management Plan, dated April 12, 1996, within "**GOPHER TORTOISE (GOPHERUS POLYPHEMUS) SURVEY, SITE SPECIFIC CONVERSION FACTOR, AND MITIGATION/ HABITAT MANAGEMENT**

PLAN FOR ROCK SPRINGS RIDGE, ORANGE COUNTY, FLORIDA," SECTION II, MITIGATION/HABITAT MANAGEMENT PLAN, HABITAT MANAGEMENT PLAN FOR ON-SITE PRESERVATION AREAS (the "Plan"). A copy of the Plan is attached hereto as Exhibit B and incorporated herein by reference. To carry out this purpose, the following rights are conveyed to the Grantee by this easement:

(a) To enter upon the Property at reasonable times to enforce the rights herein granted upon prior written notice to Grantor, its heirs, successors or assigns, in a manner that will not unreasonably interfere with the use and quiet enjoyment of the Property by Grantor, its heirs, successors or assigns at the time of such entry; and

(b) After prior notice to the Grantor, its heirs, successors or assigns, to enjoin any activity on or use of the Property that is inconsistent with the purpose of this Conservation Easement and to enforce the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.

2. Grantor reserves to itself, its heirs, successors or assigns (i) all rights as owner of the Property including the right to engage in all uses of the Property, that are not expressly prohibited herein and are not inconsistent with the purpose of this Conservation Easement as set forth in Section 704.06, Florida Statutes; and (ii) all rights to transfer the Property or the obligations under this Easement (subject to the terms of this Easement) to a homeowner's association (the "Homeowner's Association") or other entity, created by Grantor which has among its responsibilities the duty to maintain the Property in accordance with the Permit. Unless expressly authorized within Exhibit B of this Deed, the following are prohibited activities:

(a) Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;

(b) Dumping or placing of soil or other substance or material as landfill or dumping or placing of trash, waste, or unsightly or offensive materials;

(c) Removal or destruction of trees, shrubs, or other vegetation;

(d) Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such a manner as to effect the surface;

(e) Surface use except for purposes that permit the land or water area to remain predominantly in its natural condition;

(f) Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation;

(g) Acts or uses detrimental to such retention of land or water areas;

(h) Acts or uses detrimental to the preservation of structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance;

(i) Alteration of the preserve areas except in compliance with the Plan.

3. [Intentionally Deleted]

4. No right of access by the general public to any portion of the Property is conveyed by the Conservation Easement.

5. Grantor agrees to bear all reasonable costs related to the operation, upkeep and maintenance of the Property. Nothing contained in this Conservation Easement shall be construed to entitle the Grantee to bring any action against the Grantor of this Deed for any injury to or change in the Property resulting from natural causes beyond their control, including, without limitation, fire, flood, storm and earth movement, or from any action taken under emergency conditions to prevent, abate or mitigate significant injury to the Property resulting from such causes. All costs relating to the operation, upkeep and maintenance of the Property shall be borne by the Grantor, or assignee, including, but not limited to, a homeowners association or other related entity created by the Grantor for the purpose of and administering community properties and enforcing covenants and restrictions within the development.

6. Grantor agrees to pay any and all real property taxes and assessments levied by competent authority on the Property.

7. Grantor intends that enforcement of the terms and provisions of the Conservation Easement and the Plan shall be at the discretion of Grantee and that any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, its heirs, successors, personal representatives or assigns, shall not be deemed or construed to be a waiver of Grantee's rights hereunder in the event of a subsequent breach.

8. Grantee agrees that it will hold this Conservation Easement exclusively for conservation purposes and that it will not assign its right and obligations under this Conservation Easement except to another organization qualified to hold such interests under the applicable state and federal laws and committed to holding this Conservation Easement exclusively for conservation purposes. Not later than thirty (30) days after recordation in the Public Records of Orange County, Florida, of title to the Property which is the subject of this easement, Grantor agrees to give written notice to Grantee of such transfer.

9. If any provision of this Conservation Easement or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of the Conservation Easement, and the applications of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

10. All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed property given if sent by United States certified mail, return receipt

requested, addressed to the appropriate party or successor-in-interest, at the addresses above set forth or such new addresses as either party may in writing deliver to the other.

11. This Conservation Easement may be amended, altered, released or revoked only by written agreement between the parties hereto, their successors or assigns. Notwithstanding the foregoing, the Grantor may at any time assign and delegate all or a portion of the Grantor's rights, title, interest, duties or obligations created by this Conservation Easement to a homeowner's association or other similar entity. It is understood that the association will be formed as a property owner's association in order to effectuate the intent of the Grantor for the proper development, operation, and maintenance of the property known as ***Rock Springs Ridge***.

TO HAVE AND TO HOLD unto Grantee, its respective successors and assigns forever. The covenants, terms, conditions, restrictions and purposes imposed with this easement shall not only be binding upon Grantor but also its agents, personal representatives, heirs, assigns and all other successors to it in interest, and shall continue as a servitude running in perpetuity with the Property.

IN WITNESS WHEREOF Grantor has set its hand on the day and year first above written.

Signed, Sealed and Delivered
in the Presence of:

Sign _____
Print DONALD CURETO

Sign _____
Print DEBORAH A. LAMOTHE

ROCK SPRINGS RIDGE, LTD.,
A Florida Limited Partnership

By: ROCK SPRINGS RIDGE, INC.,
A Florida Corporation
Its Sole General Partner

By: _____
James H. Fant, Senior Vice President

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 22nd day of April, 2002, by **JAMES H. FANT**, Senior Vice President of **ROCK SPRINGS RIDGE, INC.**, a Florida corporation, as sole general partner of **ROCK SPRINGS RIDGE, LTD.**, a Florida limited partnership, on behalf of the corporation. He is personally known to me or produced _____ as identification.

My Commission Expires:

DEBORAH A. LAMOTHE
MY COMMISSION # DD 056794
EXPIRES: October 7, 2005
Bonded Thru Notary Public Underwriters

_____
Notary Public
Print DEBORAH A. LAMOTHE

Legal Description Mitigation Area B :

A portion of the NW 1/4 of Section 16, Township 20 South, Range 28 East, Orange County, Florida, being more particularly described as follows :

The West 1/2 of the NW 1/4 of Section 16, Township 20 South, Range 28 East, Orange County, Florida; Less that part platted as Rock Springs Ridge Phase III, as recorded in Plat Book 47, Pages 3 – 6, and less that part platted as Rock Springs Ridge Phase III, Replat, as recorded in Plat Book 48, Page 106, Public Records of Orange County, Florida and less the right–of–way of Kelly Park Road.

Containing 51.13 acres, more or less.

OR Bk 6512 Pg 1217
Orange Co FL 2002-0204949

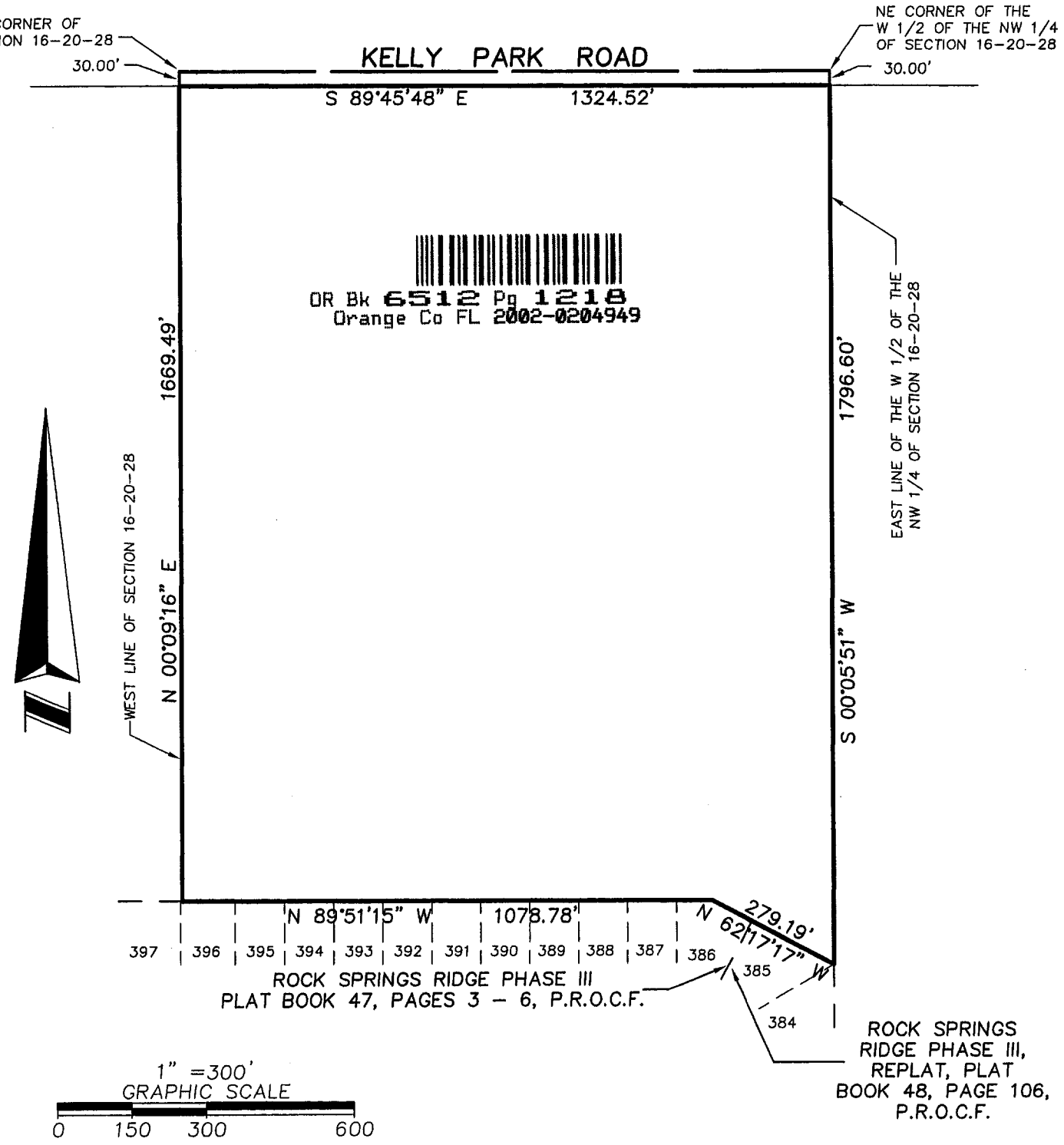
Notes :

1 Bearings as shown hereon are based on the North line of Rock Springs Ridge, Phase III, as recorded in Plat Book 47, Pages 3 – 6, Public Records of Orange County, Florida, being N 89°51'15" W.

SHEET 1 OF 2
SEE SHEET 2 FOR SKETCH

LEGAL DESCRIPTION	Date: 01/24/2002 KR	CERT. NO. LB2108 44991083
FOR	Job No.: 44991 / Scale: 1" = 300'	Southeastern Surveying
Rock Springs Ridge, Ltd.	CH. 61G17–6, Florida Administrative Code requires that a legal description drawing bear the notation that **THIS IS NOT A SURVEY.**	SOUTHEASTERN SURVEYING & MAPPING CORP. 324 North Orlando Avenue Maitland, Florida 32751 (407)647–8898 fax(407)647–1667 email: info@southeasternsurveying.com
		GARY B. KRICK REGISTERED LAND SURVEYOR NO. 4245

SKETCH OF DESCRIPTION



ABBREVIATIONS:
P.R.O.C.F. = PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA

Drawing No. 44991084
Job No. 44991
Date: January 24, 2002
Sheet 2 of 2
See Sheet 1 for Description

SOUTHEASTERN SURVEYING & MAPPING CORP.
324 North Orlando Avenue
Maitland, Florida 32751-4702
(407)647-8898 fax(407)647-166
Cert. No. LB-2108
email: info@southeasternsurveying.co

Legal Description 0.64 acre Mitigation Area :

A portion of the S 1/2 of the NW 1/4 of Section 17, Township 20 South, Range 28 East, Orange County, Florida, being more particularly described as follows :

Commence at the NW corner of said S 1/2 of the NW 1/4 of Section 17; thence S 89°43'40" E along the North line of said S 1/2 of the NW 1/4 a distance of 588.72 feet to the Point of Beginning; thence continue S 89°43'40" E along said North line a distance of 53.20 feet; thence S 00°16'19" W a distance of 524.93 feet; thence N 89°00'00" W a distance of 53.20 feet; thence N 00°16'19" E a distance of 524.25 feet to the Point of Beginning.

Containing 0.64 acres, more or less.

OR Bk 6512 Pg 1219
Orange Co FL 2002-0204949

Notes :

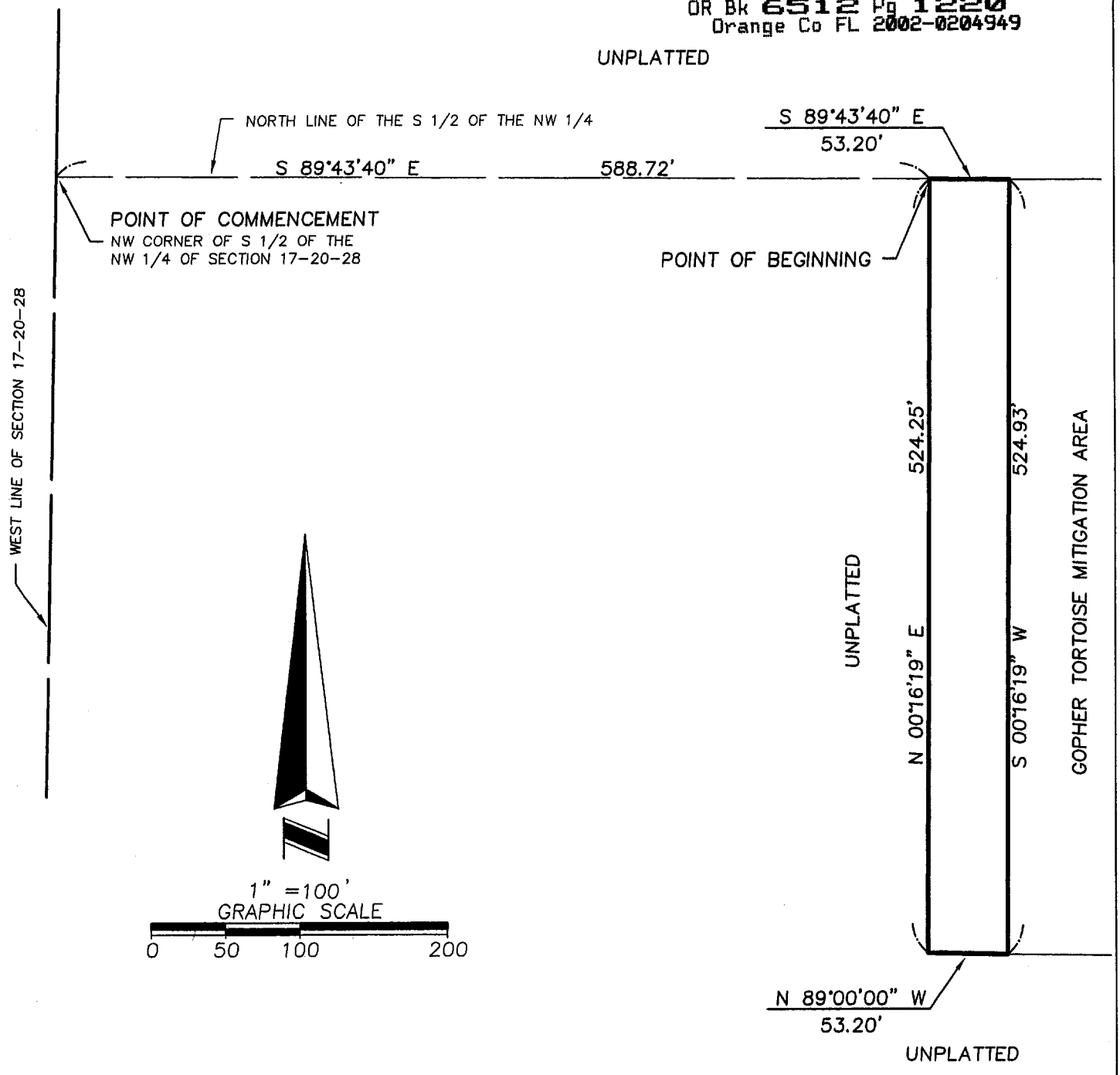
1 Bearing as shown hereon are based on the North line of the S 1/2 of the NW 1/4 of Section 17, Township 20 South, Range 28 East, Orange County, Florida, being S 89°43'40" E, assumed.

SHEET 1 OF 2
SEE SHEET 2 FOR SKETCH

LEGAL DESCRIPTION	Date: 02/14/2002 KR	CERT. NO. LB2108 44991085
FOR	Job No.: 44991 / Scale: 1" = 100'	Southeastern Surveying
Rock Springs Ridge, LTD., A Florida limited Partnership	CH. 61G17-6, Florida Administrative Code requires that a legal description drawing bear the notation that **THIS IS NOT A SURVEY.**	SOUTHEASTERN SURVEYING & MAPPING CORP. 324 North Orlando Avenue Maitland, Florida 32751 (407)647-8898 fax(407)647-1667 email: info@southeasternsurveying.com
		GARY B. KRICK REGISTERED LAND SURVEYOR NO. 4245

SKETCH OF DESCRIPTION

OR Bk 6512 Pg 1220
Orange Co FL 2002-0204949



SOUTHEASTERN SURVEYING & MAPPING CORP.
324 North Orlando Avenue
Maitland, Florida 32751-4702
(407)647-8898 fax(407)647-1667
Cert. No. LB-2108
email: info@southeasternsurveying.co

Drawing No. 44991086
Job No. 44991
Date: February 14, 2002
Sheet 2 of 2
See Sheet 1 for Description

EXHIBIT B

PROPERTY HABITAT MANAGEMENT PLAN

Any applicable report titled "Gopher Tortoise (*Gopherus polyphemus*) Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida" dated April 12, 1996, which pertain to the Property.

OR Bk 6512 Pg 1222
Orange Co FL 2002-0204949

JOINDER AND CONSENT TO EASEMENT

The undersigned hereby certifies that it is the holder of an indenture of mortgage upon the property described herein or any portion thereof dated December 27, 1995, and recorded December 27, 1995, in Official Records Book 4992, Page 2356, in the original principal amount of $7,500,000.00; as modified by that certain Future Advance and Mortgage Modification Agreement in the amount of $500,000.00 dated November 25, 1996, and recorded November 27, 1996, in Official Records Book 5161, Page 4133; as further modified by that certain Future Advance and Mortgage Modification Agreement in the amount of $3,775,000.00 dated December 16, 1996, and recorded December 23, 1996, in Official Records Book 5174, Page 3939; as further modified by that certain Future Advance and Mortgage Modification Agreement in the amount of $4,730,000.00 dated July 29, 1997, and recorded July 30, 1997, in Official Records Book 5300, Page 1676; as further modified by that certain Future Advance and Mortgage Modification Agreement in the principal amount of $4,117,000.00 dated November 4, 1998, and recorded November 5, 1998, in Official Records Book 5609, Page 1049; as further modified by that certain Future Advance and Mortgage Modification Agreement in the principal amount of $ 525,000.00 dated April 15, 1999, and recorded April 16, 1999, in Official Records Book 5729, Page 1572; as further modified by that certain Future Advance and Mortgage Modification Agreement in the principal amount of $ 500,000.00 dated September 23, 1999, and recorded October 1, 1999, in Official Records Book 5849, Page 2894; as further modified by that certain Sixth Modification of Note and Mortgage dated February 16, 2000, and recorded February 21, 2000, in Official Records Book 5946, Page 1955; as further modified by that certain Seventh Notice of Future Advance, Mortgage and Spreader Agreement dated April 3, 2000, and recorded April 7, 2000, in Official Records Book 5977, Page 4416; as further modified by that certain Eighth Notice of Future Advance, Mortgage and Spreader Agreement dated October 19, 2000, and recorded October 20, 2000, in Official Records Book 6113, Page 577; as further modified by that certain Notice of Future Advance and Ninth Modification of Note and Mortgage dated April 17, 2001, and recorded April 18, 2001, in Official Records Book 6238, Page 4398; as further modified by that certain Notice of Future Advance and Tenth Modification of Note and Mortgage dated August 16, 2001, and recorded August 20, 2001, in Official Records Book 6327, Page 1166; all in the Public Records of Orange County, Florida, and the undersigned for and in consideration of valuable consideration hereby joins in and consents to the execution of the above easement and agrees that the lien of its said mortgage shall be subordinated to the above easement.

ATTEST:

By: Albert McCowan Jr.
Print ALBERT McCOWAN JR.
Its VICE-PRESIDENT

FIRST UNION NATIONAL BANK OF FLORIDA
A Florida Banking Association

By: W. M. Buckley
Print W. M. BUCKLEY
Its VICE-PRESIDENT

(CORPORATE SEAL)

Signed, Sealed and Delivered in the Presence of:

Print Milly Carreras

Print Sue Montgomery

OR Bk 6512 Pg 1223
Orange Co FL 2002-0204949
Recorded - Martha O. Haynie

STATE OF FLORIDA
COUNTY OF Orange

The foregoing instrument was acknowledged before me this 22nd day of April, 2002, by W. M. Bleakley and Albert McCowen, Jr., the Vice President and Vice President, respectively, of **FIRST UNION NATIONAL BANK OF FLORIDA**, a national banking association on behalf of the Bank. They are personally known to me or have produced _____ as identification.

My Commission Expires:

Notary Public
Print Milagros Carreras

Milagros Carreras
My Commission CC761425
Expires October 7, 2002



OR Bk 6512 Pg 1213
Orange Co FL 2002-0204949
04/29/2002 08:53:51am
Rec $1.00

THIS DOCUMENT PREPARED BY AND RETURN TO:
DONALD J. CUROTTO, ESQUIRE
ALLEN, LANG, CUROTTO & PEED, P.A.
14 EAST WASHINGTON STREET - SUITE 600
ORLANDO, FLORIDA 32801

---- ABOVE SPACE FOR RECORDING INFORMATION ONLY ----

DEED OF CONSERVATION EASEMENT

THIS DEED OF CONSERVATION EASEMENT is given as of this 25th day of April, 2002, by **ROCK SPRINGS RIDGE, LTD.**, a Florida limited partnership, whose mailing address is 401 W. Colonial Drive, Suite 7, Orlando, Florida 32804 ("Grantor"), to the **FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION**, a public agency of the State of Florida, with its principal office at 620 South Meridian Street, Tallahassee, Florida 32301 ("Grantee").

WITNESSETH:

WHEREAS, the Grantor is the owner of certain lands situated in Orange County, Florida (hereinafter referred to as the "Property," more specifically described in Exhibit A-1 and Exhibit A-2 attached hereto and incorporated herein by this reference; and

WHEREAS, the Grantor desires to protect and conserve certain upland preserve areas; and

WHEREAS, the Grantor, in consideration of the consents of the Grantee to Permit No. ORA-85 issued by the Grantee on June 29, 2001 ("Permit"), in favor of **ROCK SPRINGS RIDGE, LTD.**, for the incidental take of gopher tortoises, is required to grant and secure the enforcement of a perpetual conservation easement as defined in Section 704.06, Florida Statutes (1991), over the Property.

NOW, THEREFORE, consistent with the issuance of the Permit, Grantor hereby grants, creates, and establishes a perpetual conservation easement upon the Property described in Exhibit A-1 and Exhibit A-2 attached and incorporated herein by reference, which shall run with the land and be binding upon the Grantor, its heirs, successors and assigns, and remain in full force and effect forever.

1. The scope, nature and character of this Conservation Easement is to ensure that protected and/or uplands preserve areas shall be used as conservation areas pursuant to Section 704.06, Florida Statutes, consistent with the Property's Habitat Management Plan, dated April 12, 1996, within "**GOPHER TORTOISE (GOPHERUS POLYPHEMUS) SURVEY, SITE SPECIFIC CONVERSION FACTOR, AND MITIGATION/ HABITAT MANAG**

PLAN FOR ROCK SPRINGS RIDGE, ORANGE COUNTY, FLORIDA," SECTION H. MITIGATION/HABITAT MANAGEMENT PLAN, HABITAT MANAGEMENT PLAN FOR ON-SITE PRESERVATION AREAS (the "Plan"). A copy of the Plan is attached hereto as Exhibit B and incorporated herein by reference. To carry out this purpose, the following rights are conveyed to the Grantee by this easement:

(a) To enter upon the Property at reasonable times to enforce the rights herein granted upon prior written notice to Grantor, its heirs, successors or assigns, in a manner that will not unreasonably interfere with the use and quiet enjoyment of the Property by Grantor, its heirs, successors or assigns at the time of such entry; and

(b) After prior notice to the Grantor, its heirs, successors or assigns, to enjoin any activity on or use of the Property that is inconsistent with the purpose of this Conservation Easement and to enforce the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.

2. Grantor reserves to itself, its heirs, successors or assigns (i) all rights as owner of the Property including the right to engage in all uses of the Property, that are not expressly prohibited herein and are not inconsistent with the purpose of this Conservation Easement as set forth in Section 704.06, Florida Statutes; and (ii) all rights to transfer the Property or the obligations under this Easement (subject to the terms of this Easement) to a homeowner's association (the "Homeowner's Association") or other entity, created by Grantor which has among its responsibilities the duty to maintain the Property in accordance with the Permit. Unless expressly authorized within Exhibit B of this Deed, the following are prohibited activities:

(a) Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;

(b) Dumping or placing of soil or other substance or material as landfill or dumping or placing of trash, waste, or unsightly or offensive materials;

(c) Removal or destruction of trees, shrubs, or other vegetation;

(d) Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such a manner as to effect the surface;

(e) Surface use except for purposes that permit the land or water area to remain predominantly in its natural condition;

(f) Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation;

(g) Acts or uses detrimental to such retention of land or water areas;

(h) Acts or uses detrimental to the preservation of structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance;

(i) Alteration of the preserve areas except in compliance with the Plan.

3. [Intentionally Deleted]

4. No right of access by the general public to any portion of the Property is conveyed by the Conservation Easement.

5. Grantor agrees to bear all reasonable costs related to the operation, upkeep and maintenance of the Property. Nothing contained in this Conservation Easement shall be construed to entitle the Grantee to bring any action against the Grantor of this Deed for any injury to or change in the Property resulting from natural causes beyond their control, including, without limitation, fire, flood, storm and earth movement, or from any action taken under emergency conditions to prevent, abate or mitigate significant injury to the Property resulting from such causes. All costs relating to the operation, upkeep and maintenance of the Property shall be borne by the Grantor, or assignee, including, but not limited to, a homeowners association or other related entity created by the Grantor for the purpose of and administering community properties and enforcing covenants and restrictions within the development.

6. Grantor agrees to pay any and all real property taxes and assessments levied by competent authority on the Property.

7. Grantor intends that enforcement of the terms and provisions of the Conservation Easement and the Plan shall be at the discretion of Grantee and that any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, its heirs, successors, personal representatives or assigns, shall not be deemed or construed to be a waiver of Grantee's rights hereunder in the event of a subsequent breach.

8. Grantee agrees that it will hold this Conservation Easement exclusively for conservation purposes and that it will not assign its right and obligations under this Conservation Easement except to another organization qualified to hold such interests under the applicable state and federal laws and committed to holding this Conservation Easement exclusively for conservation purposes. Not later than thirty (30) days after recordation in the Public Records of Orange County, Florida, of title to the Property which is the subject of this easement, Grantor agrees to give written notice to Grantee of such transfer.

9. If any provision of this Conservation Easement or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of the Conservation Easement, and the applications of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

10. All notices, consents, approvals or other communications hereunde in writing and shall be deemed property given if sent by United States certified mail, retu

Legal Description Mitigation Area B :

A portion of the NW 1/4 of Section 16, Township 20 South, Range 28 East, Orange County, Florida, being more particularly described as follows :

The West 1/2 of the NW 1/4 of Section 16, Township 20 South, Range 28 East, Orange County, Florida; Less that part platted as Rock Springs Ridge Phase III, as recorded in Plat Book 47, Pages 3 – 6, and less that part platted as Rock Springs Ridge Phase III, Replat, as recorded in Plat Book 48, Page 106, Public Records of Orange County, Florida and less the right–of–way of Kelly Park Road.

Containing 51.13 acres, more or less.

OR Bk 6512 Pg 1217
Orange Co FL 2002-0204949

Notes :

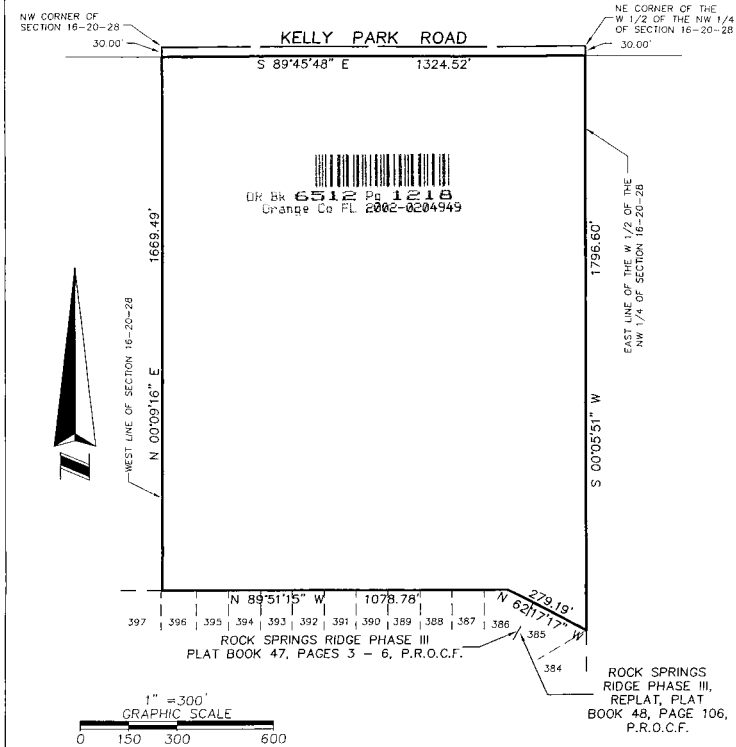
1 Bearings as shown hereon are based on the North line of Rock Springs Ridge, Phase III, as recorded in Plat Book 47, Pages 3 – 6, Public Records of Orange County, Florida, being N 89°51'15" W.

SHEET 1 OF 2
SEE SHEET 2 FOR SKETCH

LEGAL DESCRIPTION	Date: 01/24/2002 KR	CERT. NO. LB2108 44991083
FOR	Job No.: 44991 Scale: 1" = 300'	SOUTHEASTERN SURVEYING & MAPPING CORP. 324 North Orlando Avenue Maitland, Flori 57 (407)647-8898 fax email: info@southeast om
Rock Springs Ridge, Ltd.	CH. 61G17-6, Florida Administrative Code requires that a legal description drawing bear the notation that THIS IS NOT A SURVEY.	GARY B. KRICK REGISTERED LAND SURVEYOR NO. 4245

236

SKETCH OF DESCRIPTION



ABBREVIATIONS:
P.R.O.C.F. = PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA

SOUTHEASTERN SURVEYING CORP.
324 North Orlando Avenue
Maitland, Florida
(407)647-8838 FAX (407)647-1667
Cert. No. LB-2108
email: info@southeasternsurveying.com

237

Drawing No. 44991084
Job No. 44991
Date: January 24, 2002
Sheet 2 of 2
See Sheet 1 for Description

Legal Description 0.64 acre Mitigation Area :

A portion of the S 1/2 of the NW 1/4 of Section 17, Township 20 South, Range 28 East, Orange County, Florida, being more particularly described as follows :

Commence at the NW corner of said S 1/2 of the NW 1/4 of Section 17; thence S 89°43'40" E along the North line of said S 1/2 of the NW 1/4 a distance of 588.72 feet to the Point of Beginning; thence continue S 89°43'40" E along said North line a distance of 53.20 feet; thence S 00°16'19" W a distance of 524.93 feet; thence N 89°00'00" W a distance of 53.20 feet; thence N 00°16'19" E a distance of 524.25 feet to the Point of Beginning.

Containing 0.64 acres, more or less.

OR Bk 6512 Pg 1219
Orange Co FL 2002-0204949

Notes :

1 Bearing as shown hereon are based on the North line of the S 1/2 of the NW 1/4 of Section 17, Township 20 South, Range 28 East, Orange County, Florida, being S 89°43'40" E, assumed.

SHEET 1 OF 2
SEE SHEET 2 FOR SKETCH

LEGAL DESCRIPTION	Date: 02/14/2002 KR	CERT. NO. LB2108 44991085
FOR	Job No.: 44991 / Scale: 1" = 100'	Southeastern Surveying
Rock Springs Ridge, LTD., A Florida limited Partnership	CH. 61G17-6, Florida Administrative Code requires that a legal description drawing bear the notation that THIS IS NOT A SURVEY.	SOUTHEASTERN SURVEYING & MAPPING CORP. 324 North Orlando Avenue Maitland, Florid (407)647-8998 fax email: info@southeaste om
		GARY B. KRICK REGISTERED LAND SURVEYOR NO. 4245

238

SKETCH OF DESCRIPTION

OR BK 6512 Pg 1220
Orange Co FL 2002-0204943

UNPLATTED

NORTH LINE OF THE S 1/2 OF THE NW 1/4

S 89°43'40" E 588.72'

POINT OF COMMENCEMENT
NW CORNER OF S 1/2 OF THE
NW 1/4 OF SECTION 17-20-28

S 89°43'40" E
53.20'

POINT OF BEGINNING

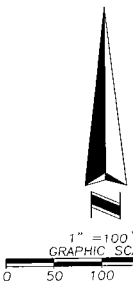
WEST LINE OF SECTION 17-20-28

524.25'
N 00°16'19" E

UNPLATTED

524.93'
S 00°16'19" W

GOPHER TORTOISE MITIGATION AREA



N 89°00'00" W
53.20'

UNPLATTED

Southeastern Surveying

SOUTHEASTERN SURVEYING
324 North Orland
Maitland, Florida
(407)647-8898 fax(
Cert. No. LB-
email: info@southeaster

239

Drawing No. 44991086
Job No. 44991
Date: February 14, 2002
Sheet 2 of 2
See Sheet 1 for Description

EXHIBIT B

PROPERTY HABITAT MANAGEMENT PLAN

Any applicable report titled "Gopher Tortoise (*Gopherus polyphemus*) Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida" dated April 12, 1996, which pertain to the Property.

OR Bk 6512 Pg 1222
Orange Co FL 2002-0204949

JOINDER AND CONSENT TO EASEMENT

The undersigned hereby certifies that it is the holder of an indenture of mortgage upon the property described herein or any portion thereof dated December 27, 1995, and recorded December 27, 1995, in Official Records Book 4992, Page 2356, in the original principal amount of $7,500,000.00; as modified by that certain Future Advance and Mortgage Modification Agreement in the amount of $500,000.00 dated November 25, 1996, and recorded November 27, 1996, in Official Records Book 5161, Page 4133; as further modified by that certain Future Advance and Mortgage Modification Agreement in the amount of $3,775,000.00 dated December 16, 1996, and recorded December 23, 1996, in Official Records Book 5174, Page 3939; as further modified by that certain Future Advance and Mortgage Modification Agreement in the amount of $4,730,000.00 dated July 29, 1997, and recorded July 30, 1997, in Official Records Book 5300, Page 1676; as further modified by that certain Future Advance and Mortgage Modification Agreement in the principal amount of $4,117,000.00 dated November 4, 1998, and recorded November 5, 1998, in Official Records Book 5609, Page 1049; as further modified by that certain Future Advance and Mortgage Modification Agreement in the principal amount of $ 525,000.00 dated April 15, 1999, and recorded April 16, 1999, in Official Records Book 5729, Page 1572; as further modified by that certain Future Advance and Mortgage Modification Agreement in the principal amount of $ 500,000.00 dated September 23, 1999, and recorded October 1, 1999, in Official Records Book 5849, Page 2894; as further modified by that certain Sixth Modification of Note and Mortgage dated February 16, 2000, and recorded February 21, 2000, in Official Records Book 5946, Page 1955; as further modified by that certain Seventh Notice of Future Advance, Mortgage and Spreader Agreement dated April 3, 2000, and recorded April 7, 2000, in Official Records Book 5977, Page 4416; as further modified by that certain Eighth Notice of Future Advance, Mortgage and Spreader Agreement dated October 19, 2000, and recorded October 20, 2000, in Official Records Book 6113, Page 577; as further modified by that certain Notice of Future Advance and Ninth Modification of Note and Mortgage dated April 17, 2001, and recorded April 18, 2001, in Official Records Book 6238, Page 4398; as further modified by that certain Notice of Future Advance and Tenth Modification of Note and Mortgage dated August 16, 2001, and recorded August 20, 2001, in Official Records Book 6327, Page 1166; all in the Public Records of Orange County, Florida, and the undersigned for and in consideration of valuable consideration hereby joins in and consents to the execution of the above easement and agrees that the lien of its said mortgage shall be subordinated to the above easement.

ATTEST:

By: _____
Print Albert McCormick
Its Vice-President

FIRST UNION NATIONAL BANK OF FLORIDA
A Florida Banking Association

By: _____
Print W. M. BUCKLEY
Its VICE-PRESIDENT

(CORPORATE SEAL)

Signed, Sealed and Delivered in the Presence of:

_____
Print Molly Carreras

_____
Print _____

K:\Rock Springs\Phase 4\Conservation Easement ORA-85
04/22/02

OR Bk 6512 Pg 1223
Orange Co FL 2002-0204949
Recorded - Martha O. Haynie

STATE OF FLORIDA
COUNTY OF Orange

The foregoing instrument was acknowledged before me this 22nd day of April, 2002, by W. M. Bleakley and Albert McEowen, Jr., the Vice President and Vice President, respectively, of **FIRST UNION NATIONAL BANK OF FLORIDA**, a national banking association on behalf of the Bank. They are personally known to me or have produced _____ as identification.

My Commission Expires:

Notary Public
Print Milagros Carreras

Milagros Carreras
My Commission CC781425
Expires October 7, 2002

GOPHER TORTOISE RELOCATION PERMIT DOCUMENTS



FOR THE ROCK SPRINGS RIDGE PROJECT 98035

Table of Contents

Yvonne Froscher's Report

2 Original Golf Course & Entrance Road

3 Phase I

4 Phase II

5 Nine-Hole Golf Course

6 Phase III A

7 FINAL ITP (entire site)

8

9

10

BDA
ENVIRONMENTAL CONSULTANTS

FACSIMILE TRANSMITTAL

PROJECT NO.: 98035
DATE: September 22, 1998

TO: Doug Rillstone, Esquire
COMPANY: Greenberg, Traurig, Hoffman, Lipoff, Rosen & Quentel, P.A.
FAX NO.: 850-681-0207

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
BDA FAX NO.: (407) 657-7008
PROJECT NAME: **Rock Springs Ridge**

RE: Gopher Tortoise Permitting History for the Rock Springs Ridge Project Site

NUMBER OF PAGES (including cover sheet): 2

HARD COPY TO FOLLOW: ☐ YES ☒ NO

MESSAGES / REMARKS

Doug – Per your request, please find the gopher tortoise permitting history for this project. Once you get this, please call me to discuss.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

cc: Jim Fant (fax = 425-6841)
Mike Dennis

Revised #'s based on current info/acreage

Brad Hartman

T c w/ Doug 9/24

1. Confirm w/ Millsap - on site not primary
2. No objection to select. to be considered area - to reach 2nd density, & no primary required

1. Mat. EIA to include Phase II
- Set aside 27.55 out of 54.30 acres
- preserve 54.3 ac + could

BREEDLOVE, DENNIS & ASSOCIATES, INC.
P.O. BOX 720037 / ORLANDO, FLORIDA 32872-0037
4501 METRIC DRIVE / WINTER PARK, FLORIDA 32792 / (407) 677-1882 / FAX (407) 657-7008

98035-20.1

GOPHER TORTOISE PERMITTING HISTORY
ON THE ROCK SPRINGS RIDGE PRJECT SITE

Permit ORA-36 Dated January 10, 1997

- Condition 1. Protect 37.3 acres within Mitigation Area B.
- Condition 2. Provide irrevocable letter of credit for $250,544.00 to the Florida Game and Fresh Water Fish Commission (FGFWFC) for the preservation of 37.3 acres.
- Condition 4. The FGFWFC will draw upon the entire amount of the letter if the conservation easement is not sent to the FGFWFC within 11 months from the date of the permit.

Permit ORA 39 Dated May 22, 1997

- Condition 1. Protect 26.43 acres within Mitigation Area A of which 16.7 acres is for current mitigation and the remaining 9.73 acres is for mitigation for future phases.
- Condition 1. Submit a conservation easement to the FGFWFC.
- Condition 3. If requested by the permittee, the FGFWFC will notify ORA-36 to reflect that the area subject to conservation consists of 27.57 acres in Mitigation Area B and 9.73 acres in Mitigation Area A.

Permit Mod. ORA-36 Dated January 16, 1998

- Modification of Condition 3 regarding the notification period. No changes in mitigation acreage or areas.

Permit Mod. ORA-36 Dated March 25, 1998

- Modification of Conditions 1 and 2.
    1. Permittee shall protect 37.3 acres on-site, 27.55 acres within Mitigation Area B and the balance will be the utilization of the remaining 9.75 acres within Mitigation Area A.

    2. Permittee will provide an irrevocable letter of credit to the FGFWFC in the amount of $180,053.35 for 27.55 acres of preservation. If the permittee has not satisfied Condition No. 1 by December 10, 1998, FGFWFC shall be entitled to draw upon the entire value of the submitted letter of credit to purchase gopher tortoise habitat.

Therefore:

- The entire 26.43 acres within Mitigation Area A has been utilized for mitigation
- 27.55 acres of the 54.30 acres available within Mitigation Area B has been utilized for mitigation (therefore 26.75 acres remaining as potential mitigation)

113 ac with right/use

****
*** ACTIVITY REPORT ***
****

TRANSMISSION OK

TX/RX NO.	4362
CONNECTION TEL	18506810207
CONNECTION ID	
START TIME	09/22 16:50
USAGE TIME	01'13
PAGES	2
RESULT	OK

Yvonne J. Froscher
Environmental Consultant

GOPHER TORTOISE (*GOPHERUS POLYPHEMUS*) SURVEY, SITE SPECIFIC CONVERSION FACTOR, AND MITIGATION/HABITAT MANAGEMENT PLAN FOR ROCK SPRINGS RIDGE ORANGE COUNTY, FLORIDA

Prepared for:

Rock Springs Ridge, LTD.
c/o Brooksville Development Company
401 West Colonial Drive, Suite 7
Orlando, FL 32804

April 12, 1996
Revised December 23, 1996

P.O. BOX 195305 • WINTER SPRINGS, FLORIDA 32719-5305 • (407) 327-2020 • FAX (407)

GOPHER TORTOISE (*GOPHERUS POLYPHEMUS*) SURVEY, SITE SPECIFIC CONVERSION FACTOR, AND MITIGATION/HABITAT MANAGEMENT PLAN FOR ROCK SPRINGS RIDGE ORANGE COUNTY, FLORIDA

April 12, 1996
Revised December 23, 1996

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GOPHER TORTOISE (*GOPHERUS POLYPHEMUS*) SURVEY

INTRODUCTION

A gopher tortoise survey has been conducted by Yvonne I. Froscher on the site approximately shown as Rock Springs Ridge on Figure 1: Vicinity Map. The assessment supports a consulting team effort to further quantify potential development constraints. A preliminary on-site inspection was conducted during late August and the first week of September 1995. Edaphic and vegetative characteristics are very suitable for gopher tortoises on the Rock Springs Ridge Site. Except in sand live oak thickets (pockets of the xeric oak association), laurel oak forests, and wetlands, many burrows were observed during the on-site reconnaissance. The gopher tortoise (*Gopherus polyphemus*) is listed as a species of special concern by the Florida Game and Fresh Water Fish Commission (FGFWFC). FGFWFC follows certain mitigation guidelines for documented gopher tortoise habitat based on tortoise densities. Field work for a detailed gopher tortoise assessment was conducted during the third week of October 1995.

SITE LOCATION

913.8

The project site encompasses approximately 914 acres in the vicinity of the intersection of Kelly Park Road (Rock Springs Road on Figure 1: Vicinity Map) and Rock Springs Road (C.R. 435). Topographic relief ranges from elevation 52 at Fox Lake to elevation 100 at the western edge of the property. As late as 1980, when the last photorevisions of the U.S. Geological Survey quadrangle maps for Sorrento and Apopka were done, the majority of the site was citrus grove. Presently, no citrus production occurs on the site and native vegetative associations are at various stages of succession.

HABITAT DESCRIPTIONS

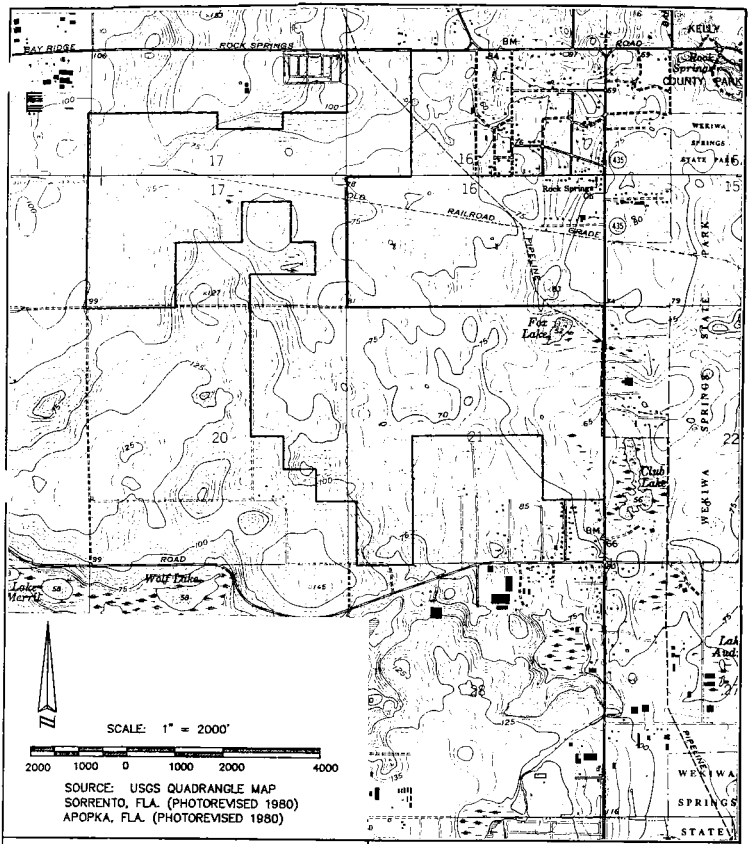
On-site habitat types and land uses are in accordance with "The Land Use and Cover Classification System: A Technical Report,"(Florida Department of Administration, 1976). Habitat types shown on Figure 2: Approximate Transect and Burrow Locations for Gopher Tortoise Survey--October 1995 are based on aerial interpretation and ground-truthing. Following are brief descriptions of those mapped land uses.

Major Long Distance Transmission Lines (150)

This land use encompasses on-site power and gas easements. Species present are the same as those listed below for "Other Agricultural."

Other Agricultural (260)

This designation encompasses those former grove areas where herbaceous, some shrubby and very widely scattered canopy species are present. Cover is quite dense with small sandy patches interspersed. Species include natalgrass (*Rhynchelytrum repens*), cottonweed (*Froelichia floridana*), devil's walkingstick (*Aralia spinosa*), maypop (*Passiflora incarnata*), rosary pea (*Abrus precatorius*), dwarf horseweed (*Conyza canadensis*), spotted beebalm (*Monarda punctata*) , camphor weed (*Heterotheca subaxillaris*), silk-grass (*Pityopsis gramnifolia*), large-headed carphephorus (*Carphephorus corymbosus*), partridge-pea (*Cassia chamaecrista*), shrub verbena (*Lantana camara*), wild buckwheat (*Eriogonum tomentosum*), false indigo (*Indigofera hirsuta*), *Richardia brasiliensis*, prickly pear (*Opuntia humifusa*), ragweed (*Ambrosia artemisiifolia*), Adam's needle (*Yucca filamentosa*), butterfly-weed (*Aesclepias tuberosa*), winged sumac (*Rhus copallina*), Florida elephant's-foot (*Elaphantopus elatus*), bracken fern (*Pteridium aquilinum*), persimmon (*Diospyros virginiana*), beggar-ticks (*Bidens alba*) and *Liatris tenuifolia*.



ROCK SPRINGS RIDGE
ORANGE COUNTY, FLORIDA

DATE: SEPTEMBER 1995

FIGURE 1:
VICINITY MAP

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

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Xeric Oak (421)

The xeric oak association has a canopy of sand live oak (*Quercus geminata*), live oak (*Quercus virginiana*) with occasional wild cherry (*Prunus serotina*). Species listed for "Other Agricultural" are also present in a less dense format. Some areas are sand live oak thickets with almost no understory at all.

Other Hardwood (422)

This designation has been assigned to areas dominated by a canopy with a strong laurel oak (*Quercus laurifolia*) presence. Other canopy includes wild cherry and widely scattered live oak (*Quercus virginiana*). Understory is very sparse but includes Virginia creeper (*Parthenocissus quinquefolia*), American beauty berry (*Callicarpa americana*), muscadine (*Vitis rotundifolia*), and *Smilax laurifolia*.

Upland Mixed Forest (431)

Longleaf pine (*Pinus palustris*) shares dominance almost equally with oaks (laurel oak, live oak, and sand live oak). Other species present are those listed for "Other Agricultural"

Freshwater Marsh (641)

Depressional pockets identified on the U.S. Geological Survey quadrangle maps were field inspected. Three areas are shown as ponded. According to the Soil Conservation Service, Basinger fine sand, depressional soils are mapped in the three areas. These soils are very poorly drained and "under natural conditions, the water table is above the surface for 6 to 9 months or more each year is within 12 inches of the surface for the rest of the year." (SCS, 1989)

Fox Lake is the only location where inundation was observed within the Rock Springs Ridge site. A lake is defined by the Florida Department of Environmental Protection as a water body The "lake" is more appropriately defined as a marsh and is characterized by a dominant cover of maidencaine (*Panicum hemitomon*) which extends considerably outside the immediate zone of inundation. Within the zones of saturation, other wetland species include Carolina willow (*Salix caroliniana*), buttonbush (*Cephalanthus occidentalis*), *Ludwigia alterniflora*, *Juncus* sp., meadow beauty (*Rhexia marianna*), and redroot (*Lacnanthes caroliniana*). Species present within the topographically higher zones include *Euthmia minor*, maypop (*Passiflora incarnata*), *Sida cordifolia*, and sand blackberry (*Rubus cuneifolius*).

The other two depressions are dominantly maidencane. No inundation or saturation was observed within these two smaller areas. Whether the hydrology is present in these locations is questionable, since on September 9, 1995, no water was present within eighteen inches of the surface within the northernmost depression and upland species including *Opuntia humifusa* are present. No water table investigation was done within the southern small depression in September. Since September, geotechnical work by Universal Engineering Sciences has provided water table data supporting the initial opinion that these two areas are not presently wetlands due to lack of hydrology.

SURVEY

Methodology

The non-game division, in *Ecology and Habitat Protection Needs of Gopher Tortoise (Gopherus polyphemus) Populations Found on Lands Slated for Large-Scale Development*, outlines a methodology for a formal gopher tortoise survey. The methodology dictates that one transect per eight acres be sampled . The transects are each 250 meters (820') long and assumed to be 20 meters (32.8') wide. Densities of tortoises within the sampled area are calculated using the number of active and inactive burrows mu by 0.614, a Florida Game and Freshwater Fish Commission approved conversion factor used to estim number of occupied burrows.

On-site surveying was done October 16, 17, 18, 20 and 22. Except for the 18th, sampling days were sunny and warm (75-85 degrees). The 18th was warm and overcast. When rain began, sampling was

discontinued. Transects were oriented by compass bearing and color aerial locations. The transects which were traversed are shown Figure 2: Approximate Transect and Burrow Locations for Gopher Tortoise Survey--October 1995 (in packet at back of report). Burrows along the transect have been field classified as active, inactive, or abandoned as follows:

- Active-obvious tortoise tracks or shell scraping signs at the burrow mouth
- Inactive-no tracks or shell scrapings, burrow unoccluded by debris, but recent use apparent
- Abandoned-burrow covered with sticks, weeds, grass; burrow collapsed, dilapidated

Results

Individual transect findings are summarized in Appendix A: Gopher Tortoise Transect Data. Each transect is divided into segments representative of mapped vegetative associations. Numbers of burrows are shown for each association. as active, inactive or abandoned according to the definitions in the referenced methodology. Figure 2: Approximate Transect and Burrow Locations for Gopher Tortoise Survey--October 1995 shows the approximate transect orientation on the site as well as the approximate location of each burrow with its classification. Appendix B: Gopher Tortoise Data Summary by Vegetative Association represents the Appendix A data sorted by land use classification with tortoise densities calculated for each land use.

Table 1: Summary of Gopher Tortoise Survey Data represents the summary of Appendix B information. The table shows the amount of habitat sampled as well as tortoise densities calculated for each land use. Appendix C: Aerial Photograph is a color aerial of the site.

MODIFICATION OF SITE SPECIFIC CONVERSION FACTOR

INTRODUCTION

After completion of the initial survey, Yvonne I. Froscher was retained to collect and present data to establish a site specific conversion factor. Unless a site specific conversion factor is established, the 0.614 conversion factor approved by the Florida Game and Fresh Water Fish Commission must be used to calculate the estimated number of occupied active and inactive burrows. Auffenberg and Franz (1982) recommended the 0.614 factor which was a site specific factor established for a study they conducted. Some studies have supported factors as high and higher; others have found conversion factors to be as low as 0.21 (FGFWFC, 1987). Mitigation acreage is typically calculated from population densities based on the estimated number of occupied burrows. If a lower site specific conversion factor could be established, the amount of habitat mitigation may, in turn, be reduced.

METHODOLOGY

The effort to change the site specific conversion factor focused only toward the Other Agricultural (260) land use. These lands were typically used for citrus production historically and are described in more detail in the October report referenced above. The October tortoise survey resulted in a sampling of 15.5 percent of the Other Agricultural (260) land use. The calculated tortoise density using the 0.614 conversion factor was 0.98 gopher tortoises per acre. Assuming the typical FGFWFC requirement that 25 percent of habitat with tortoise densities $\geq$ 0.8 per acre be mitigated for, approximately 109.2 acres of mitigation would be required for the 436.7 acres (if one hundred percent of the site were developed) of Other Agricultural (260) land use.

The burrow locations and transects for the original survey were used for selection of burrows to be scoped. All transect entry numbers (the same as for Appendix B) for the Other Agricultural (260) land use were written on paper slips which were randomly selected from a bowl to initially determine the transect se to be used for scoping burrows. First entry numbers for transect segments with inactive burrows were selected until 25 inactive burrows were selected. Then entry numbers for transect segments with acti burrows were selected until 25 inactive burrows were selected.

Table 1: Summary of Gopher Tortoise Survey Data--October 1995

Rock Springs Ridge
Orange County, Florida

Land Use and Cover Classification[a]	Acreage of Land Use Type[b]	Total Length of Transects Sampled	Total Area Sampled (ft^2)[c]	Acres Sampled	Percent of Land Use Sampled	Active Plus Inactive Burrows	Gopher Tortoise Density (number/acre)[d]
Other Agricultural -260	440.5	45,095	2,958,232	67.9	15.4	108	0.98
Xeric Oak-421	368.3	37,595	2,266232	56.6	15.4	65	0.70
Other Hardwood-422	42.0	6,760	443,456	10.2	24.3	2	0.12
Upland Mixed Forest-431	58.0	8,425	552,680	12.7	21.9	8	0.39
Freshwater Marsh-641	5.0	297	19,483.2	0.4	0.8	0	0
TOTAL	913.8	98,172	6,240,083.2	147.8	16.2	183	

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)
[b] Acreages have changed slightly from the October 27, 1995, report due to a surveyed acreage for Freshwater Marsh and slight changes in the property boundary.
[c] Assuming transect width of 65.6 feet (10 meters on each side of transect)
[d] Assuming use of the Florida Game and Fresh Water Fish Commission correction factor 0.614 for active and inactive burrows

In the field, a few active burrows were longer than the available scoping cable and three inactive burrows were reclassified as abandoned. Therefore, several active and inactive burrows were selected from Figure 2: Approximate Transect and Burrrow Locations for Gopher Tortoise Survey--October to replace those burrows unsuitable for scoping.

A cold front passed through the area just prior to the two consecutive days of scoping activities. Early morning temperatures of November 15 and 16, 1995, were cool (50-55 degrees F) but warmed (65-75 degrees F) as the days progressed. Days were sunny.

Land Planning Group provided the fiber optic scope with a skilled technician to scope the burrows selected by Yvonne I. Froscher. Table 2: Data Summary for Fiber Optic Viewing of Gopher Tortoise Burrows within Other Agricultural (260) Land Use summarizes the field data collected. Except for EX2, which is just outside the 10m limits of the transect between M24-3 and M24-4, all burrows were identified during the initial survey.

Appendix C: Aerial Photograph has been included a the end of this report to assist reviewers.

RESULTS

Of the twenty-five active burrows scoped, twelve (12) were occupied. Five (5) of the twenty-five inactive burrows scoped were occupied. As a result, **the data support the establishment of a more accurate conversion factor of 0.34 for the Other Agricultural (260) land use.** This conversion factor results in the density change as follows:

Land Use and Cover Classification[a]	Acreage of Land Use Type [b]	Total Length of Transects Sampled	Total Area Sampled (ft^2)[c]	Acres Sampled	Percent of Land Use Sampled	Active Plus Inactive Burrows	Gopher Tortoise Density (number/acre)[d]
Other Agricultural - 260	440.5	45,095	2,958,232	67.9	15.4	108	0.54

MITIGATION REQUIREMENTS

Mitigation for documented gopher tortoise habitat is required by FGFWFC and may be on-site or off-site. Mitigation requirements are based as follows upon tortoise densities:

For lands with $\geq$ 0.8 gopher tortoises per acre, mitigation must be provided for 25% of the habitat.

For lands with < 0.8 and $\geq$ 0.4 gopher tortoises per acre, mitigation must be provided for 15% of the habitat.

For lands with < 0.4 gopher tortoises per acre, mitigation must be provided on a prorated basis between 0 and 15 percent.

Requirements for the Rock Springs Ridge Site are summarized on Table 3: Mitigation Acreage Potentially Required by Florida Game and Fresh Water Fish Commission. These requirements assume development of one hundred percent of the site and are based on the property boundary with site plan provided March 26, 1996, by Commonwealth Engineering Associates. The densities are highest in the Other Agricultural (260) land use as one would expect, based on the edaphic characteristics and abundant herbaceous material for foraging. Forested areas with more open canopy have higher densities than topographically lower and those forested areas with more closed canopies.

Table 2: Data Summary for Fiber Optic Viewing of Gopher Tortoise Burrows within Other Agricultural (260) Land Use

Rock Springs Ridge
Orange County, FL

	Burrow ID	Status (AC = Active, IA=Inactive)	Selection Process	Date Scoped	Occupied by Gopher Tortoise
1	M17-2	AC	Random-office	11/15/95	No
2	F20-2	AC	Replaces F18-5	11/15/95	Yes
3	M16-1	AC	Replaces F18-7	11/15/95	Yes
4	M16-3	AC	Replaces M15-5	11/15/95	Yes
5	F17-3	AC	Replaces F16-1	11/15/95	Yes
6	F18-1	AC	Random-office	11/15/95	No
7	F18-2	AC	Random-office	11/15/95	Yes
8	F18-4	AC	Random-office	11/15/95	Yes
9	F18-8	AC	Random-office	11/15/95	Yes
10	M15-2	AC	Random-office	11/15/95	No
11	M15-6	AC	Random-office	11/15/95	No
12	F16-3	AC	Random-office	11/15/95	Yes
13	M6-2	AC	Random-office	11/15/95	No
14	M6-3	AC	Random-office	11/15/95	No
15	F7-1	AC	Random-office	11/15/95	No
16	M28-5	AC	Random-office	11/16/95	No
17	M28-6	AC	Random-office	11/16/95	No
18	M28-9	AC	Random-office	11/16/95	No
19	M29-3	AC	Random-office	11/16/95	No
20	F42-2	AC	Random-office	11/16/95	Yes
21	F3-2	AC	Random-office	11/16/95	Yes
22	M24-1	AC	Random-office	11/16/95	Yes
23	M24-2	AC	Random-office	11/16/95	No
24	M24-5	AC	Random-office	11/16/95	Yes
25	EX2	AC (just off M24 transect)	Replace M24-3	11/16/95	No
1	F21-1	IA	Random-office	11/15/95	No
2	M16-8	IA	Random-office	11/15/95	No
3	M16-9	IA	Random-office	11/15/95	No
4	F17-4	IA	Random-office	11/15/95	No
5	F18-3	IA	Random-office	11/15/95	No
6	F18-6	IA	Random-office	11/15/95	Yes
7	M15-1	IA	Random-office	11/15/95	No
8	M15-3	IA	Random-office	11/15/95	No
9	M15-4	IA	Random-office	11/15/95	No
10	M14-2	IA *	Random-office	11/15/95	No
11	M14-3	IA	Random-office	11/15/95	No
12	M14-4	IA	Random-office	11/15/95	Yes
13	M19-2	IA	Random-office	11/15/95	Yes
14	M5-3	IA	Random-office	11/15/95	Yes
15	F7-2	IA	Replaces F16-2	11/16/95	No
16	F7-3	IA	Replaces M5-6	11/16/95	No
17	M29-1	IA	Random-office	11/16/95	No
18	M29-2	IA	Random-office	11/16/95	No
19	F42-1	IA	Random-office	11/16/95	No
20	M4-1	IA	Random-office	11/16/95	Yes

Table 2: Data Summary for Fiber Optic Viewing of Gopher Tortoise Burrows within Other Agricultural (260) Land Use (Continued)

Rock Springs Ridge
Orange County, FL

21	F3-1	IA	Random-office	11/16/95	No
22	F3-3	IA	Random-office	11/16/95	No
23	M24-4	IA	Random-office	11/16/95	No
24	F30-2	IA	Random-office	11/16/95	No
25	F2-4	IA	Random-office	11/16/95	No
	M15-5	AC (longer than scoping cable)	Random-office		
	F18-5	AC (longer than scoping cable)	Random-office		
	F18-7	AC (longer than scoping cable)	Random-office		
	F19-4	IA (caved in,not scoped)	Random-office		
	F16-1	AC (longer than scoping cable)	Random-office		
	F16-2	IA (abandoned, not scoped)	Random-office		
	M5-6	IA (caved in, not scoped)	Random-office		
	M24-3	AC (longer than scoping cable)	Random-office		

* M14-2 is graphically shown in 421, but was actually in a very open 260 area.

Table 3: Mitigation Acreage Required by Florida Game and Fresh Water Fish Commission Assuming 100% Development of Habitat.

Rock Springs Ridge
Orange County, Florida

Land Use and Cover Classification[a]	Acreage of Land Use Type	Gopher Tortoise Density (number/acre)[b]	Basis for Mitigation Acreage	Mitigation Acreage
Other Agricultural -260	440.5	0.54	15% for lands with tortoise densities $\geq$ 0.4/acre and < 0.80/acre	66.1
Xeric Oak-421	368.3	0.70	15% for lands with tortoise densities $\geq$ 0.4/acre and < 0.80/acre	55.2
Other Hardwood-422	42.0	0.12	% prorated between 0 and 15% for lands with tortoise densities < 0.4	1.8
Upland Mixed Forest-431	58.0	0.39	15% for lands with tortoise densities $\geq$ 0.4/acre and < 0.80/acre	8.5
Freshwater Marsh-641	5.0	0	No mitigation required	0
TOTAL	913.8			131.6

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)

[b] Assuming use of the Florida Game and Fresh Water Fish Commission correction factor 0.614, EXCEPT FOR the Other Agricultural (260) land use where a site specific conversion factor 0.34 has been established.

SECTION II

MITIGATION/HABITAT MANAGEMENT PLAN

MITIGATION REQUIRED BASED ON DECEMBER 1996 SITE PLAN

Development phases in relationship to existing habitat cover are shown on Figure 3: Overlay of Proposed Site Plan on Land Use and Cover Map. Acreages are based on the December 1996 development plan (updated with minor revisions from the March 1996 site plan used for the April 17, 1995, submittal to FGFWFC) provided by Commonwealth Engineering Associates, Inc. Proposed impacts by land use and phase are summarized on Table 4: Land Use and Cover Acreages by Phase According to the December 1996 site plan.

Total mitigation acreages are summarized on Table 5: Mitigation Acreage Required by Phase According to December 1996 Site Plan. Note that mitigation requirement subtotals for the Golf Course and the Main Entrance Road (as highlighted in yellow on Figure 3: Overlay of Proposed Site Plan on Land Use and Cover Map) have been provided. A total of 120.4 acres will be required for habitat mitigation, based on acreages of occupied habitats which are proposed for impact for development of the total. No mitigation will be required for wetlands or for the preserved habitat.

On-site preservation of gopher tortoise habitat has been chosen to provide partial mitigation for the loss of gopher tortoise habitat due to proposed development. All mitigation for Phase 1, Phase 2, Phase 3, part of Phase 4, and the Golf Course is proposed on-site habitat preservation/management.

No construction will occur without FGFWFC approval of the gopher tortoise mitigation plans as development proceeds.

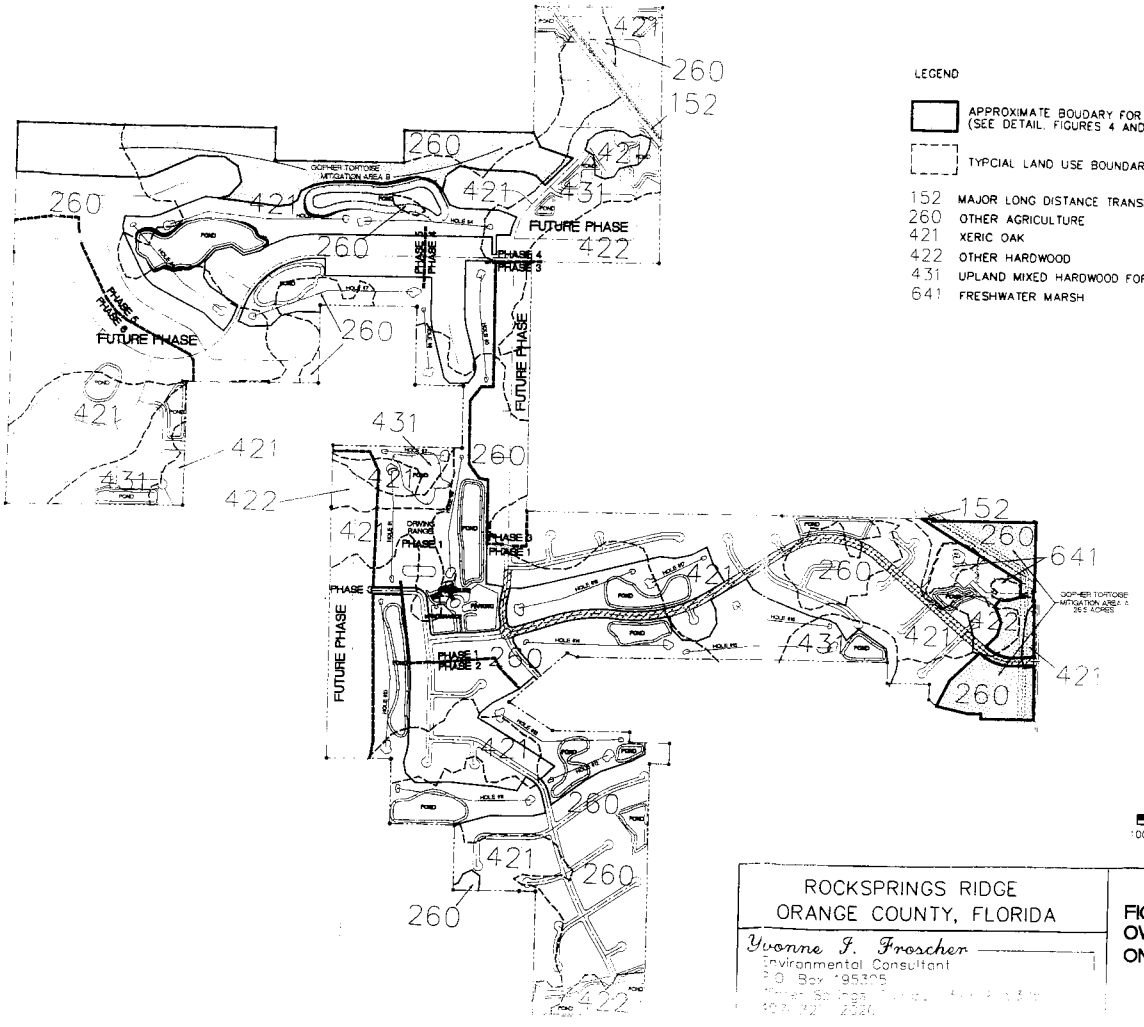
MITIGATION REQUIRED FOR THE GOLF COURSE AND THE MAIN ENTRANCE ROAD

Mitigation proposed at this time is for the Golf Course and the Main Entrance Road only—those activities which have been permitted through the St. Johns River Water Management District.

Two on-site mitigation areas have been set aside as shown on Figure 3: Overlay of Proposed Site Plan on Land Use and Cover Map. They are labeled as Mitigation Area A (eastern edge of site) and Mitigation Area B (northern edge of site) and are shown in detail on Figure 4: Mitigation Area A and on Figure 5: Mitigation Area B. Note that the acreage for Mitigation Area A does not include the entrance road, the wetlands, or the compensating storage areas. For informative purposes, impacts are not proposed in either of the wetlands. Gas, drainage, and power easements on that side of the site are included within the Mitigation Area A boundary.

A gopher tortoise tunnel will be constructed beneath the entrance road to connect the northern and southern portions of Mitigation Area A. The location is shown on Figure 4: Mitigation Area A and the detail is shown on Figure 6: Gopher Tortoise Tunnel Detail. Additionally, physical barriers will be placed along the both edges of the entrance road through Mitigation Area A and will tie into the wing walls of the gopher tortoise tunnel. These low barriers will keep tortoises from crossing the road, except at the tunnel. Mitigation Area A (though shown for information purposes) is not relevant to proposed mitigation for the Golf Course and the Main Entrance Road.

Mitigation Area B totals 54.1 acres. A portion of Mitigation Area B will provide the required 37.1 acres of mitigation for the Golf Course and the Main Entrance Road as highlighted in yellow on Figure 3: Ov Proposed Site Plan on Land Use and Cover Map. The mitigation acreages calculated are summarized Table 5: Mitigation Required by Phase according to December 1996 Site Plan. The portion of Mitig Area B over which a conservation easement is proposed—37.1 acres--is detailed graphically on Figur Mitigation Area B.



ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719
(407) 327-2520

DATE: APRIL 1996
REVISED: DECEMBER 1996

FIGURE 3:
OVERLAY OF PROPOSED SITE PLAN ON LAND USE AND COVER MAP

Table 4: Land Use Acreages by Phase According to December 1996 Site Plan.

Rock Springs Ridge
Orange County, Florida

Land Use and Cover Classification[a]	Golf Course	Portion of Phase 1 Entrance Road	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Mitigation Area A	Mitigation Area B	Totals for Site[b]
Other Agricultural -260	123.4	**7.4**	**45.3**	72.1	37.8	20.4	43.8	47.5	23.0	22.7	443.4
Xeric Oak-421	**94.8**	**6.1**	**63.1**	33.2	19.9	43.7	**35.2**	39.0	1.3	**31.0**	367.3
Other Hardwood-422	4.0	**0.5**	**3.3**	8.7	7.2	16.1	0	0	2.1	0	41.9
Upland Mixed Forest-431	14.4	**0**	3.1	0	0.7	23.2	0	14.8	0	0.4	56.6
Freshwater Marsh-641	0	**0**	4.8	0	0	0	0	0	0.1	0	4.9
TOTAL	**236.6**	**14.0**	**119.6**	114.0	65.6	103.4	**79.0**	101.3	26.5	**54.1**	914.1

Darker numbers represent revisions (different from April 1996 submittal to FGFWFC) based on changes in development plan within Phase 5 and the vicinity of fairways #4 and #5/pond at the northwestern portion of the site. Additionally, the colored portion of the entrance roadway (Figure 3) has been removed from Phase 1 acreages.

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)
[b] Based on site plan provided by Commonwealth Engineering Associates 12/20/96

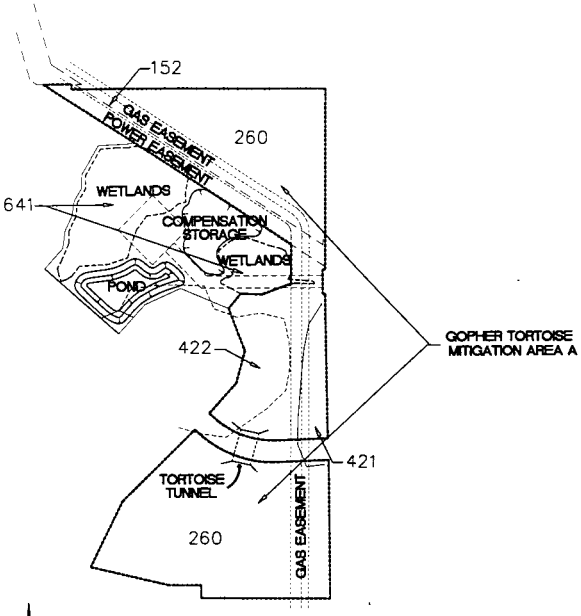
Table 5: Mitigation Acreage Required by Phase According to December 1996 Site Plan.

Rock Springs Ridge
Orange County, Florida

Land Use and Cover Classification[a]	Golf Course	Phase 1 Entrance Road	Subtotals for Golf Course and Entrance Road	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Site Totals
Other Agricultural -260	18.5	**1.1**	**19.6**	**6.8**	10.8	5.7	3.1	6.6	7.1	**59.7**
Xeric Oak-421	**14.2**	**0.9**	**15.1**	**9.5**	5.0	3.0	6.6	**5.3**	5.9	**50.4**
Other Hardwood-422	0.2	**0**	**0.2**	0.2	0.4	0.3	0.7	0	0	1.8
Upland Mixed Forest-431	2.2	**0**	**2.2**	0.5	0	0.1	3.5	0	2.2	8.5
Freshwater Marsh-641	0	**0**	**0**	0	0	0	0	0	0	0
TOTAL	**35.1**	**2.0**	**37.1**	**17.0**	16.2	9.1	13.9	**11.9**	15.2	**120.4**

Darker numbers represent revisions (different from April 1996 submittal to FGFWFC) based on changes in development plan within Phase 5 and the vicinity of fairways #4 and #5/pond at the northwestern portion of the site. Additionally, the colored portion of the entrance roadway (Figure 3) has been removed from Phase 1 acreages.

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)
[b] Based on site plan provided by Commonwealth Engineering Associates 12/20/96



LEGEND

APPROXIMATE BOUNDARY FOR MITIGATION AREA A

152	MAJOR LONG DISTANCE TRANSMISSION LINES
260	OTHER AGRICULTURE
421	XERIC OAK
422	OTHER HARDWOOD
641	FRESHWATER MARSH

N

SCALE: 1" = 400'

400 200 0 200 400 800

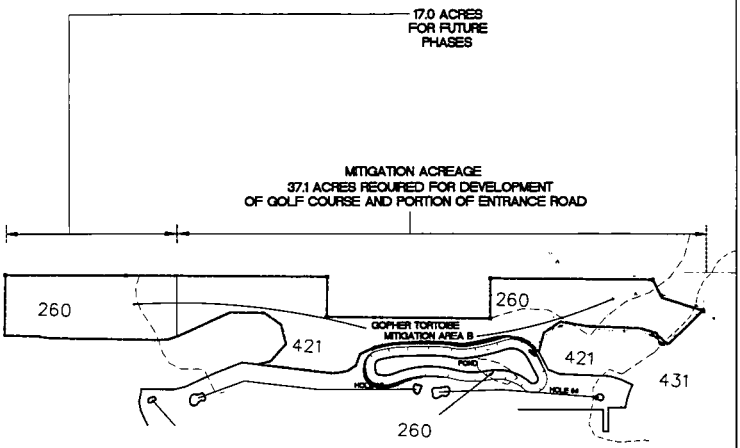
ROCKSPRINGS RIDGE
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FIGURE: 4
MITIGATION AREA A

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Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020



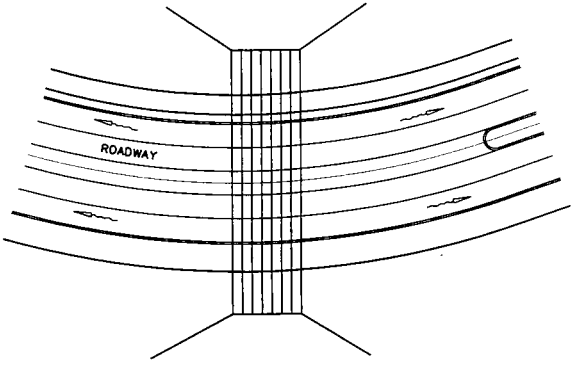
ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

DATE: APRIL 1996
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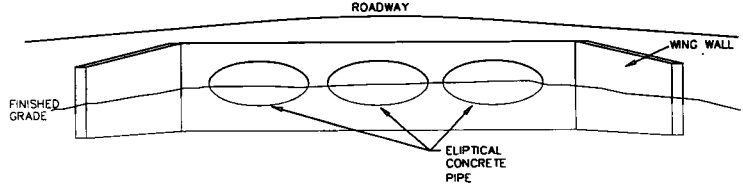
FIGURE 5:
MITIGATION AREA B

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Yvonne I. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020



PLAN VIEW
NTS



CROSS SECTION
NTS

ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

DATE: APRIL 1996

FIGURE 6:
GOPHER TORTOISE TUNNEL

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Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

HABITAT MANAGEMENT PLAN FOR ON-SITE PRESERVATION AREAS

Fire is generally considered to be the preferable tool for gopher tortoise habit management in open field areas and pine associations. Within dense oak associations, exacting burn conditions are required to create a fire of the intensity required to put the association into less advanced successional stage. Factors contributing to burn conditions include relative humidity, temperature, wind, precipitation, atmospheric stability, and moisture content of the fuel. Burning is most effective in controlling hardwoods less than three inches (3") in diameter at the ground line. Once oaks are larger, control of hardwoods may require mechanical removal and/or chemical treatment. (Basic Prescribed Fire Training Manual for 1991 Basic Prescribed Fire Course at Wekiva Springs State Park)

Portions of the xeric oak (421) and Other Hardwood (422) are oak stands, where fire management would be difficult. Many trees within the Xeric Oak (421) areas are more than three inches in diameter at the ground line. Smoke management during a burn event would be a major concern with a highway abutting the eastern edge of Mitigation Area A as well as existing homes immediately north and south of the area. Following development, homes will be present immediately west of Mitigation Area A. Smoke management would be an issue for Mitigation Area B as well, since homes abut the northern boundary of the area. Prevailing winds are typically from the south during summer months when the temperatures are warm enough to result in an intense fire; so finding an appropriate weather "window" with appropriate prevailing winds would be another challenge. For the reasons stated above, burn management will not be used on the Rock Springs Ridge Site.

During 1997, at least 30 percent of the canopy will be removed from the Xeric Oak (421) and Other Hardwood (422) areas by pushing trees over with a bulldozer and pushing them into piles for on-site burning. Burning the debris in piles will have several benefits. Burning will be done in a controlled setting away from residences. The nutrient "bank" bound within the cleared vegetation will remain on the property. After the initial clearing, annual habitat management within the cleared corridors will be accomplished with biennial winter mowing to begin in winter 1997.

All Other Agricultural (260) habitat will be mowed during the cold winter months (January-February) on a biennial basis beginning in 1997 to discourage encroachment of larger shrubs and canopy into the open field zones. Biennial mowing is proposed in all open areas, so that prickly pear cactus, a known tortoise food item abundant within Other Agricultural (260) areas of the site, will not be overtaken with grass species encouraged by frequent mowing. Biennial mowing will still inhibit recruitment of canopy and shrub species.

IMPORTANT: A single area (approximately 250' X 300') within the southern portion of Mitigation Area A is presently vegetated with dense blackberry (*Rubus* sp.) cover and SHALL NOT BE MOWED until a one-time spring application of an herbicide has been conducted. The area will be treated one time with Remedy (or equivalent) by a professional applicator according to the manufacturer's directions. The application shall be done in spring just after the blackberry is green and growing (Telecon with Don Cox, University of Florida, Forestry Department). Following the eradication of the blackberry during Spring 1997, the biennial mowing will be incorporated into this area, also.

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows
1	F01	16-Oct	TOTAL	1100	72160.0				0
2	F01	16-Oct	260	208					0
3	F01	16-Oct	422	892			1		1
4	F02	16-Oct	TOTAL	1135	74456.0				0
5	F02	16-Oct	260	884		1	1	2	2
6	F02	16-Oct	421	250		1	1		2
7	F03	16-Oct	TOTAL	1164	76358.4				0
8	F03	16-Oct	421	283					0
9	F03	16-Oct	260	881		1	2		3
10	F04	16-Oct	TOTAL	1164	76358.4				0
11	F04	16-Oct	260	1044		3			3
12	F04	16-Oct	421	120					0
13	F05	17-Oct	TOTAL	1673	109748.8				0
14	F05	17-Oct	421	232					0
15	F05	17-Oct	260	403					0
16	F05	17-Oct	421	152		2			2
17	F05	17-Oct	260	507					0
18	F05	17-Oct	421	379					0
19	F06	17-Oct	TOTAL	380	24928.0				0
20	F06	17-Oct	421	380		2			2
21	F07	17-Oct	TOTAL	1535	100696.0				0
22	F07	17-Oct	421	332					0
23	F07	17-Oct	260	792		1	2		3
24	F07	17-Oct	421	411					0
25	F08	17-Oct	TOTAL	2255	147928.0				0
26	F08	17-Oct	431	235		1			1
27	F08	17-Oct	421	381			1		1
28	F08	17-Oct	431	1370		1			1
29	F08	17-Oct	421	269			1		1
30	F09	17-Oct	TOTAL	1300	85280.0				0
	F09	17-Oct	422	1300			1		1
	F10	17-Oct	TOTAL	1192	78195.2				0
	F10	17-Oct	422	568					0
	F10	17-Oct	431	624			1		1

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows
35	F11	17-Oct	TOTAL	530	34768.0				0
36	F11	17-Oct	421	207					0
37	F11	17-Oct	260	323					0
38	F12	17-Oct	TOTAL	667	43755.2				0
39	F12	17-Oct	260	303					0
40	F12	17-Oct	421	364					0
41	F13	17-Oct	TOTAL	645	42312.0				0
42	F13	17-Oct	421	645		3	2		5
43	F14	17-Oct	TOTAL	1450	95120.0				0
44	F14	17-Oct	421	1326		1	1		2
45	F14	17-Oct	431	124					0
46	F15	17-Oct	TOTAL	660	43296.0				0
47	F15	17-Oct	431	294					0
48	F15	17-Oct	421	322		2			2
49	F15	17-Oct	260	44					0
50	F16	17-Oct	TOTAL	1416	92889.6				0
51	F16	17-Oct	260	1163		2	1		3
52	F16	17-Oct	421	253					0
53	F17	17-Oct	TOTAL	1401	91905.6				0
54	F17	17-Oct	421	157					0
55	F17	17-Oct	260	98					0
56	F17	17-Oct	421	213			1		1
57	F17	17-Oct	260	933		2	1		3
58	F18	17-Oct	TOTAL	1400	91840.0				0
59	F18	17-Oct	260	1400		6	2		8
60	F19	17-Oct	TOTAL	525	34440.0				0
61	F19	17-Oct	260	525		5	1		6
62	F20	17-Oct	TOTAL	532	34899.2				0
63	F20	17-Oct	260	532		3			3
64	F21	17-Oct	TOTAL	1620	106272.0				0
	F21	17-Oct	260	189			1		1
	F21	17-Oct	421	1431		1			1
	F22	17-Oct	TOTAL	183	12004.8				0
	F22	17-Oct	421	183					0

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Number of Burrows			Total Number of Active and Inactive Burrows
						Active	Inactive	Abandoned	
69	F23	17-Oct	TOTAL	1284	84230.4				0
70	F23	17-Oct	421	1284		1		1	1
71	F24	20-Oct	TOTAL	300	19680.0				0
72	F24	20-Oct	260	300					0
73	F25	20-Oct	TOTAL	2490	163344.0				0
74	F25	20-Oct	260	494		1		1	1
75	F25	20-Oct	421	1996			1		1
76	F26	20-Oct	TOTAL	1379	90462.4				0
77	F26	20-Oct	421	314			1		1
78	F26	20-Oct	641	226					0
79	F26	20-Oct	260	126					0
80	F26	20-Oct	421	542		1			1
81	F26	20-Oct	260	79				1	0
82	F26	20-Oct	421	92					0
83	F27	20-Oct	TOTAL	1045	68552.0				0
84	F27	20-Oct	421	699			1		1
85	F27	20-Oct	431	346					0
86	F28	20-Oct	TOTAL	590	38704.0				0
87	F28	20-Oct	431	590					0
88	F29	20-Oct	TOTAL	3271	214577.6				0
89	F29	20-Oct	260	84					0
90	F29	20-Oct	421	362		1			1
91	F29	20-Oct	422	173					0
92	F29	20-Oct	421	619		2			2
93	F29	20-Oct	260	2005		3			3
94	F29	20-Oct	421	28					0
95	F30	20-Oct	TOTAL	2664	174758.4				0
96	F30	20-Oct	260	47					0
97	F30	20-Oct	421	425		1			1
[illegible]	F30	20-Oct	260	1935		1	1		2
	F30	20-Oct	421	182				1	0
	F30	20-Oct	260	75					0
	F31	22-Oct	TOTAL	300	19680.0				0
	F31	22-Oct	260	300					0

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows
103	F32	22-Oct	TOTAL	2467	161835.2				0
104	F32	22-Oct	260	1450		3			3
105	F32	22-Oct	421	1017					0
106	F33	22-Oct	TOTAL	900	59040.0				0
107	F33	22-Oct	421	400					0
108	F33	22-Oct	260	500					0
109	F34	22-Oct	TOTAL	1218	79900.8				0
110	F34	22-Oct	421	764				0	0
111	F34	22-Oct	422	454				0	0
112	F35	22-Oct	TOTAL	862	56547.2				0
113	F35	22-Oct	260	862		1		1	1
114	F36	22-Oct	TOTAL	260	17056.0				0
115	F36	22-Oct	260	260				0	0
116	F37	22-Oct	TOTAL	1325	86920.0				0
117	F37	22-Oct	260	325					0
118	F37	22-Oct	431	1000					0
119	F38	22-Oct	TOTAL	1370	89872.0				0
120	F38	22-Oct	421	64					0
121	F38	22-Oct	269	795		1			1
122	F38	22-Oct	421	458		2			2
123	F38	22-Oct	260	53					0
124	F39	22-Oct	TOTAL	400	26240.0				0
125	F39	22-Oct	421	196					0
126	F39	22-Oct	260	204					0
127	F40	22-Oct	TOTAL	2441	160129.6				0
128	F40	22-Oct	260	2441		3			3
129	F41	22-Oct	TOTAL	680	44608.0				0
130	F41	22-Oct	260	680		3			3
131	F42	22-Oct	TOTAL	1912	125236.0				0
132	F42	22-Oct	260	695		1	1		2
	F42	22-Oct	421	1217		3			3
	M01	16-Oct	TOTAL	1049	68814.4				0
	M01	16-Oct	421	23					0
	M01	16-Oct	260	306					0

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft²)[b]	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows
137	M01	16-Oct	422	720				1	0
138	M02	16-Oct	TOTAL	1128	73996.8				0
139	M02	16-Oct	422	254					0
140	M02	16-Oct	260	228					0
141	M02	16-Oct	422	106					0
142	M02	16-Oct	260	258		2			2
143	M02	16-Oct	421	285					0
144	M03	16-Oct	TOTAL	1164	76358.4				0
145	M03	16-Oct	421	264		1			1
146	M03	16-Oct	260	881		1			1
147	M04	16-Oct	TOTAL	1154	75702.4				0
148	M04	16-Oct	260	958		1	1		2
149	M04	16-Oct	421	195					0
150	M05	17-Oct	TOTAL	1660	108896.0				0
151	M05	17-Oct	421	282			2		2
152	M05	17-Oct	260	351		1	1	1	2
153	M05	17-Oct	421	174					0
154	M05	17-Oct	260	403			1		1
155	M05	17-Oct	421	451					0
156	M06	17-Oct	TOTAL	1483	97284.8				0
157	M06	17-Oct	421	273			1		1
158	M06	17-Oct	260	872		2			2
159	M06	17-Oct	421	338					0
160	M07	17-Oct	TOTAL	2298	150748.8				0
161	M07	17-Oct	431	412					0
162	M07	17-Oct	421	158					0
163	M07	17-Oct	431	306				1	0
164	M07	17-Oct	421	791			1		1
165	M07	17-Oct	431	208					0
166	M07	17-Oct	421	418					0
	M08	17-Oct	TOTAL	1300	85280.0				0
	M08	17-Oct	431	27					0
	M08	17-Oct	422	1273					0
	M09	17-Oct	TOTAL	1138	74652.8				0

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows
171	M09	17-Oct	422	578					0
172	M09	17-Oct	431	560			1		1
173	M10	17-Oct	TOTAL	858	56284.8				0
174	M10	17-Oct	421	853			1		1
175	M11	17-Oct	TOTAL	1848	121228.8				0
176	M11	17-Oct	421	545					0
177	M11	17-Oct	431	956					0
178	M11	17-Oct	421	347					0
179	M12	17-Oct	TOTAL	1247	81803.2				0
180	M12	17-Oct	421	422				1	0
181	M12	17-Oct	431	96		1	1	1	2
182	M12	17-Oct	421	254			1		1
183	M12	17-Oct	431	404		2			2
184	M12	17-Oct	421	50					0
185	M12	17-Oct	260	21					0
186	M13	17-Oct	TOTAL	1269	83246.4				0
187	M13	17-Oct	260	1207		2			2
188	M13	17-Oct	421	62					0
189	M14	17-Oct	TOTAL	1463	95972.8				0
190	M14	17-Oct	421	758		1	1		2
191	M14	17-Oct	260	705		1	2	2	3
192	M15	17-Oct	TOTAL	1082	70979.2				0
193	M15	17-Oct	260	1082		3	3		6
194	M16	17-Oct	TOTAL	649	42574.4				0
195	M16	17-Oct	260	649		6	2	1	8
196	M17	17-Oct	TOTAL	1699	111454.4				0
197	M17	17-Oct	260	122		1		1	1
198	M17	17-Oct	421	1577		4	1	1	5
199	M18	17-Oct	TOTAL	1538	100892.8				0
200	M18	17-Oct	421	1116		4	2		6
	M18	17-Oct	260	422					0
	M19	20-Oct	TOTAL	2646	173577.6				0
	M19	20-Oct	260	617		1	1		2
	M19	20-Oct	421	1823		4		1	4

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows
205	M19	20-Oct	260	206		1			1
206	M20	20-Oct	TOTAL	328	21516.8				0
207	M20	20-Oct	641	71					0
208	M20	20-Oct	260	50		1			1
209	M20	20-Oct	421	207					0
210	M21	20-Oct	TOTAL	852	55891.2				0
211	M21	20-Oct	421	91					0
212	M21	20-Oct	260	751			1		1
213	M21	20-Oct	421	10					0
214	M22	20-Oct	TOTAL	1689	110798.4				0
215	M22	20-Oct	421	917			2		2
216	M22	20-Oct	431	772					0
217	M23	20-Oct	TOTAL	2885	189256.0				0
218	M23	20-Oct	260	110					0
219	M23	20-Oct	422	185					0
220	M23	20-Oct	421	467			1		1
221	M23	20-Oct	260	2123		3		1	3
222	M24	20-Oct	TOTAL	2670	175152.0				0
223	M24	20-Oct	421	396					0
224	M24	20-Oct	260	2274		4	1		5
225	M25	22-Oct	TOTAL	5348	350828.8				0
226	M25	22-Oct	260	1539		4		2	4
227	M25	22-Oct	421	1612			1		1
228	M25	22-Oct	431	101					0
229	M25	22-Oct	421	895		1			1
230	M25	22-Oct	421	601					0
231	M25	22-Oct	422	257					0
232	M25	22-Oct	260	343					0
233	M26	22-Oct	TOTAL	915	60024.0				0
234	M26	22-Oct	260	915					0
	M27	22-Oct	TOTAL	1355	88888.0				0
	M27	22-Oct	260	1355		1		1	1
	M28	22-Oct	TOTAL	2476	162425.6				0
	M28	22-Oct	421	321		1	1		2

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows
239	M28	22-Oct	260	11					0
240	M28	22-Oct	421	198		1			1
241	M28	22-Oct	260	195					0
242	M28	22-Oct	421	542					0
243	M28	22-Oct	260	1209		3		2	3
244	M29	22-Oct	TOTAL	1923	126148.8				0
245	M29	22-Oct	260	861		1	2		3
246	M29	22-Oct	421	815					0
247	M29	22-Oct	260	132					0
248	M29	22-Oct	421	115					0
			SITE TOTALS		6441663.2	125	58	24	183

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)

260 Other Agricultural
421 Xeric Oak
422 Other Hardwood
431 Upland Mixed Forest
641 Freshwater Marsh

[b] Assuming transect width of 65.6 feet (10 meters on each side of transect)

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Acres Sampled	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows	Gopher Tortoise Density (#/acre)[c]
2	F01	16-Oct	260	208	13644.8					0	
5	F02	16-Oct	260	884	57990.4		1	1	2	2	
9	F03	16-Oct	260	881	57793.6		1	2		3	
11	F04	16-Oct	260	1044	68486.4		3			3	
15	F05	17-Oct	260	403	26436.8					0	
17	F05	17-Oct	260	507	33259.2					0	
23	F07	17-Oct	260	792	51955.2		1	2		3	
37	F11	17-Oct	260	323	21188.8					0	
39	F12	17-Oct	260	303	19876.8					0	
49	F15	17-Oct	260	44	2886.4					0	
51	F16	17-Oct	260	1163	76292.8		2	1		3	
55	F17	17-Oct	260	98	6428.8					0	
57	F17	17-Oct	260	933	61204.8		2	1		3	
59	F18	17-Oct	260	1400	91840		6	2		8	
61	F19	17-Oct	260	525	34440		5	1		6	
63	F20	17-Oct	260	532	34899.2		3			3	
65	F21	17-Oct	260	189	12398.4			1		1	
72	F24	20-Oct	260	300	19680					0	
74	F25	20-Oct	260	494	32406.4		1		1	1	
79	F26	20-Oct	260	126	8265.6					0	
81	F26	20-Oct	260	79	5182.4				1	0	
89	F29	20-Oct	260	84	5510.4					0	
93	F29	20-Oct	260	2005	131528		3			3	
96	F30	20-Oct	260	47	3083.2					0	
98	F30	20-Oct	260	1935	126936		1	1		2	
100	F30	20-Oct	260	75	4920					0	
102	F31	22-Oct	260	300	19680					0	
104	F32	22-Oct	260	1450	95120		3			3	
108	F33	22-Oct	260	500	32800					0	
	F35	22-Oct	260	862	56547.2		1		1	1	
	F36	22-Oct	260	260	17056				0	0	
	F37	22-Oct	260	325	21320					0	
	F38	22-Oct	260	795	52152		1			1	

APPENDIX B: GOPHER TORTOISE DATA SUMMARY BY VEGETATIVE ASSOCIATION
ROCK SPRINGS RIDGE

OCTOBER 1995

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Acres Sampled	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows	Gopher Tortoise Density (#/acre)[c]
123	F38	22-Oct	260	53	3476.8					0	
126	F39	22-Oct	260	204	13382.4					0	
128	F40	22-Oct	260	2441	160129.6		3			3	
130	F41	22-Oct	260	680	44608		3			3	
132	F42	22-Oct	260	695	45592		1	1		2	
136	M01	16-Oct	260	306	20073.6					0	
140	M02	16-Oct	260	228	14956.8					0	
142	M02	16-Oct	260	258	16924.8		2			2	
146	M03	16-Oct	260	881	57793.6		1			1	
148	M04	16-Oct	260	958	62844.8		1	1		2	
152	M05	17-Oct	260	351	23025.6		1	1	1	2	
154	M05	17-Oct	260	403	26436.8			1		1	
158	M06	17-Oct	260	872	57203.2		2			2	
185	M12	17-Oct	260	21	1377.6					0	
187	M13	17-Oct	260	1207	79179.2		2			2	
191	M14	17-Oct	260	705	46248		1	2	2	3	
193	M15	17-Oct	260	1082	70979.2		3	3		6	
195	M16	17-Oct	260	649	42574.4		6	2	1	8	
197	M17	17-Oct	260	122	8003.2		1		1	1	
201	M18	17-Oct	260	422	27683.2					0	
203	M19	20-Oct	260	617	40475.2		1	1		2	
205	M19	20-Oct	260	206	13513.6		1			1	
208	M20	20-Oct	260	50	3280		1			1	
212	M21	20-Oct	260	751	49265.6			1		1	
218	M23	20-Oct	260	110	7216					0	
221	M23	20-Oct	260	2123	139268.8		3		1	3	
224	M24	20-Oct	260	2274	149174.4		4	1		5	
226	M25	22-Oct	260	1539	100958.4		4		2	4	
[illegible]	M25	22-Oct	260	343	22500.8					0	
[illegible]	M26	22-Oct	260	915	60024					0	
[illegible]	M27	22-Oct	260	1355	88888		1		1	1	
[illegible]	M28	22-Oct	260	11	721.6					0	
[illegible]	M28	22-Oct	260	195	12792					0	

APPENDIX B GOPHER TORTOISE DATA SUMMARY BY VEGETATIVE ASSOCIATION
ROCK SPRINGS RIDGE

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[1]	Transect Length (ft)	Transect Area (ft^2)[b]	Acres Sampled	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows	Gopher Tortoise Density (#/acre)[c]
243	M28	22-Oct	260	1209	79310.4		3		2	3	
245	M29	22-Oct	260	861	56481.6		1	2		3	
247	M29	22-Oct	260	132	8659.2					0	
			260 TOTAL	**45095**	**2958232**	**67.9**	**80**	**28**	**16**	**108**	**0.98**
6	F02	16-Oct	421	250	16400		1	1		2	
8	F03	16-Oct	421	283	18564.8					0	
12	F04	16-Oct	421	120	7872					0	
14	F05	17-Oct	421	232	15219.2					0	
16	F05	17-Oct	421	152	9971.2		2			2	
18	F05	17-Oct	421	379	24862.4					0	
20	F06	17-Oct	421	380	24928		2			2	
22	F07	17-Oct	421	332	21779.2					0	
24	F07	17-Oct	421	411	26961.6					0	
27	F08	17-Oct	421	381	24993.6			1		1	
29	F08	17-Oct	421	269	17646.4			1		1	
36	F11	17-Oct	421	207	13579.2					0	
40	F12	17-Oct	421	364	23878.4					0	
42	F13	17-Oct	421	645	42312		3	2		5	
44	F14	17-Oct	421	1326	86985.6		1	1		2	
48	F15	17-Oct	421	322	21123.2		2			2	
52	F16	17-Oct	421	253	16596.8					0	
54	F17	17-Oct	421	157	10299.2					0	
56	F17	17-Oct	421	213	13972.8			1		1	
66	F21	17-Oct	421	1431	93873.6		1			1	
68	F22	17-Oct	421	183	12004.8					0	
70	F23	17-Oct	421	1284	84230.4		1		1	1	
75	F25	20-Oct	421	1996	130937.6			1		1	
[illegible]	F26	20-Oct	421	314	20598.4			1		1	
[illegible]	F26	20-Oct	421	542	35555.2		1			1	
[illegible]	F26	20-Oct	421	92	6035.2					0	
[illegible]	F27	20-Oct	421	699	45854.4			1		1	

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Acres Sampled	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows	Gopher Tortoise Density (#/acre)[c]
90	F29	20-Oct	421	362	23747.2		1			1	
92	F29	20-Oct	421	619	40606.4		2			2	
94	F29	20-Oct	421	28	1836.8					0	
97	F30	20-Oct	421	425	27880		1			1	
99	F30	20-Oct	421	182	11939.2				1	0	
105	F32	22-Oct	421	1017	66715.2					0	
107	F33	22-Oct	421	400	26240					0	
110	F34	22-Oct	421	764	50118.4				0	0	
120	F38	22-Oct	421	64	4198.4					0	
122	F38	22-Oct	421	458	30044.8		2			2	
125	F39	22-Oct	421	196	12857.6					0	
133	F42	22-Oct	421	1217	79835.2		3			3	
135	M01	16-Oct	421	23	1508.8					0	
143	M02	16-Oct	421	285	18696					0	
145	M03	16-Oct	421	264	17318.4		1			1	
149	M04	16-Oct	421	195	12792					0	
151	M05	17-Oct	421	282	18499.2			2		2	
153	M05	17-Oct	421	174	11414.4					0	
155	M05	17-Oct	421	451	29585.6					0	
157	M06	17-Oct	421	273	17908.8			1		1	
159	M06	17-Oct	421	338	22172.8					0	
162	M07	17-Oct	421	158	10364.8					0	
164	M07	17-Oct	421	791	51889.6			1		1	
166	M07	17-Oct	421	418	27420.8					0	
174	M10	17-Oct	421	853	55956.8			1		1	
176	M11	17-Oct	421	545	35752					0	
178	M11	17-Oct	421	347	22763.2					0	
180	M12	17-Oct	421	422	27683.2				1	0	
[illegible]	M12	17-Oct	421	254	16662.4			1		1	
[illegible]	M12	17-Oct	421	50	3280					0	
[illegible]	M13	17-Oct	421	62	4067.2					0	
[illegible]	M14	17-Oct	421	758	49724.8		1	1		2	
[illegible]	M17	17-Oct	421	1577	103451.2		4	1	1	5	

Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft²)[b]	Acres Sampled	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows	Gopher Tortoise Density (#/acre)[c]
200	M18	17-Oct	421	1116	73209.6		4	2		6	
204	M19	20-Oct	421	1823	119588.8		4		1	4	
209	M20	20-Oct	421	207	13579.2					0	
211	M21	20-Oct	421	91	5969.6					0	
213	M21	20-Oct	421	10	656					0	
215	M22	20-Oct	421	917	60155.2			2		2	
220	M23	20-Oct	421	467	30635.2			1		1	
223	M24	20-Oct	421	396	25977.6					0	
227	M25	22-Oct	421	1612	105747.2			1		1	
229	M25	22-Oct	421	895	58712		1			1	
230	M25	22-Oct	421	601	39425.6					0	
238	M28	22-Oct	421	321	21057.6		1	1		2	
240	M28	22-Oct	421	198	12988.8		1			1	
242	M28	22-Oct	421	542	35555.2					0	
246	M29	22-Oct	421	815	53464					0	
248	M29	22-Oct	421	115	7544					0	
			421 TOTAL	**37595**	**2466232**	**56.6**	**40**	**25**	**5**	**65**	**0.70**
3	F01	16-Oct	422	892	58515.2			1		1	
31	F09	17-Oct	422	1300	85280			1		1	
33	F10	17-Oct	422	568	37260.8					0	
91	F29	20-Oct	422	173	11348.8					0	
111	F34	22-Oct	422	454	29782.4				0	0	
137	M01	16-Oct	422	720	47232				1	0	
139	M02	16-Oct	422	254	16662.4					0	
141	M02	16-Oct	422	106	6953.6					0	
169	M08	17-Oct	422	1273	83508.8					0	
171	M09	17-Oct	422	578	37916.8					0	
	M23	20-Oct	422	185	12136					0	
	M25	22-Oct	422	257	16859.2					0	
			422 TOTAL	**6760**	**443456**	**10.2**	**0**	**2**	**1**	**2**	**0.12**

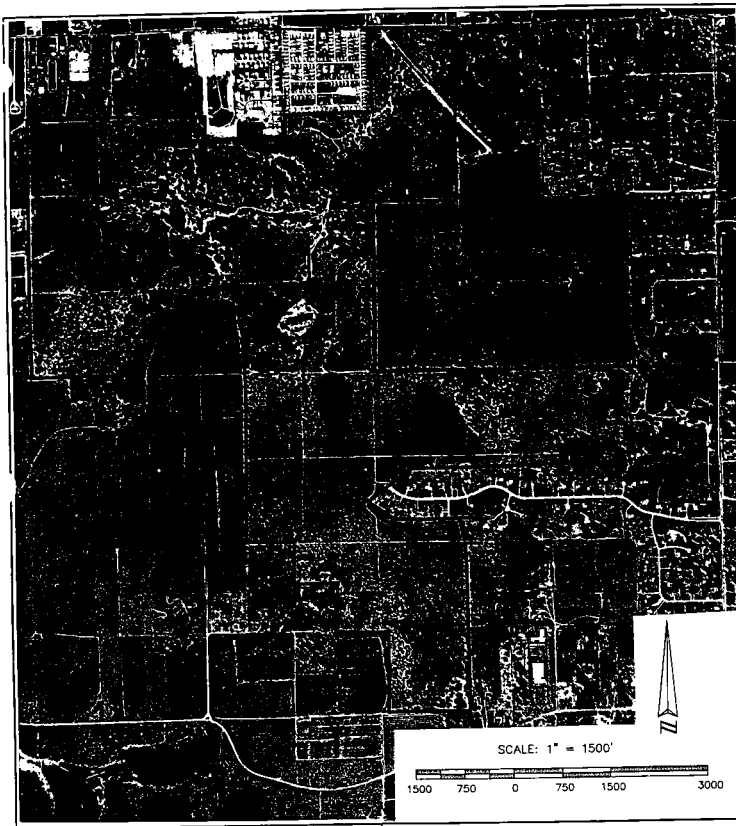
Entry #	Transect ID	1995 Date	TOTAL or Land Use and Cover Classification[a]	Transect Length (ft)	Transect Area (ft^2)[b]	Acres Sampled	Number of Burrows: Active	Inactive	Abandoned	Total Number of Active and Inactive Burrows	Gopher Tortoise Density (#/acre)[c]
26	F08	17-Oct	431	235	15416		1			1	
28	F08	17-Oct	431	1370	89872		1			1	
34	F10	17-Oct	431	624	40934.4			1		1	
45	F14	17-Oct	431	124	8134.4					0	
47	F15	17-Oct	431	294	19286.4					0	
85	F27	20-Oct	431	346	22697.6					0	
87	F28	20-Oct	431	590	38704					0	
118	F37	22-Oct	431	1000	65600					0	
161	M07	17-Oct	431	412	27027.2					0	
163	M07	17-Oct	431	306	20073.6				1	0	
165	M07	17-Oct	431	208	13644.8					0	
168	M08	17-Oct	431	27	1771.2					0	
172	M09	17-Oct	431	560	36736			1		1	
177	M11	17-Oct	431	956	62713.6					0	
181	M12	17-Oct	431	96	6297.6		1	1	1	2	
183	M12	17-Oct	431	404	26502.4		2			2	
216	M22	20-Oct	431	772	50643.2					0	
228	M25	22-Oct	431	101	6625.6					0	
			431 TOTALS	**8425**	**552680**	**12.7**	**5**	**3**	**2**	**8**	**0.39**
78	F26	20-Oct	641	226	14825.6					0	
207	M20	20-Oct	641	71	4657.6					0	
			641 TOTALS	**297**	**19483.2**	**0.4**	**0**	**0**	**0**	**0**	**0.00**

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)

260 Other Agricultural
421 Xeric Oak
422 Other Hardwood
431 Upland Mixed Forest
641 Freshwater Marsh

[b] ng transect width of 65.6 feet (10 meters on each side of transect)

[c] ng use of the Florida Game and Freshwater Fish Commission correction factor 0.614 for active and inactive burrows



ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

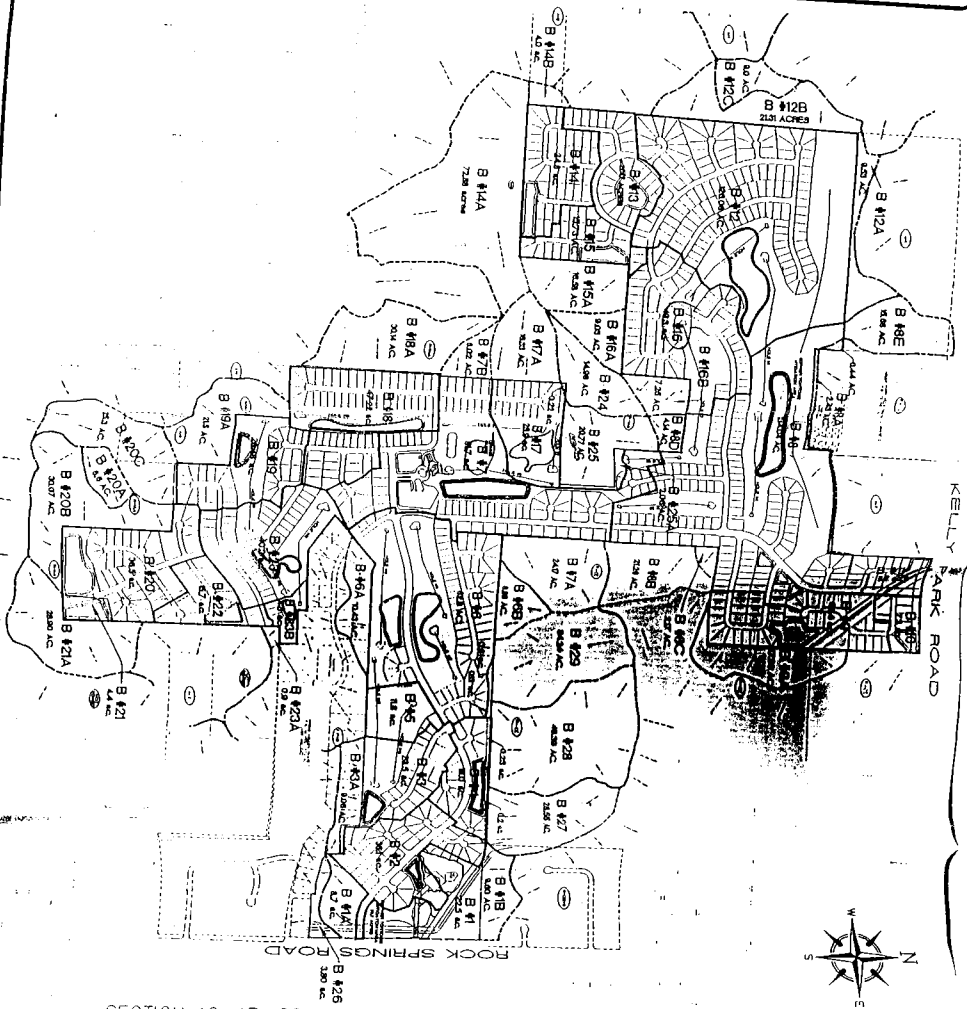
DATE: APRIL 1996

APPENDIX C:
AERIAL PHOTOGRAPH

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

LAT. = 28°43'45" to 28°45'30"
LONG. = 81°30'30" to 81°32'30"

POST-BASIN MAP



SECTION 16, 17 ,20 ,& 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST
ORANGE COUNTY, FLORIDA

ALLEN, LANG, MORRISON & CUROTTO, P.A.
ATTORNEYS AT LAW
105 EAST ROBINSON STREET - SUITE 201
ORLANDO, FLORIDA 32801

JUL 15 1998

98035

MAILING ADDRESS:
POST OFFICE BOX 3628

PHONE: 407/422-8250
FAX: 407/422-8262 DDD, DJM

FACSIMILE TRANSMISSION COVER SHEET 7/15

FROM: Tim Fast

DATE: 7/14
OF PAGES:
MATTER ID:
FAX #:

TO: Dale Dowling

RE: 657-[illegible]8

DOCUMENT(S): [illegible]

REMARKS:

FG+FWFC Permit
for Rock Springs

ORIGINAL: ___ SENT REGULAR MAIL ___ SENT BY COURIER
___ OVERNIGHT DELIVERY ___ PICKUP ___ NOT SENT

CONFIDENTIALITY NOTICE
THE DOCUMENTS ACCOMPANYING THIS FACSIMILE TRANSMISSION CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF THE INDIVIDUAL TO WHOM ADDRESSED. IF THE READER OF THIS DOCUMENT IS NOT THE ADDRESSEE, YOU ARE HEREBY NOTIFIED THAT ANY COPYING, DISCLOSURE, DISSEMINATION OR DISTRIBUTION OF THESE DOCUMENTS OR THEIR CONTENTS TO ANYONE OTHER THAN THE ADDRESSEE IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION DUE TO TRANSMISSION ERROR, PLEASE IMMEDIATELY NOTIFY THE SENDER BY TELEPHONE, AND RETURN THE ORIGINAL DOCUMENTS TO US AT OUR ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU.

IF YOU ENCOUNTER PROBLEMS WITH THIS TRANSMISSION, PLEASE CONTACT _____ AT 407/422-8250.

PERMIT FOR TAKING OF GOPHER TORTOISES AND THEIR BURROWS

Chapter 39-27.002(4) FAC

STATE OF FLORIDA GAME AND FRESH WATER FISH COMMISSION

Issuance Date: January 10, 1997

Permittee: Rock Springs Ridge, Ltd.
Street Address: c/o Brooksville Development Company
401 West Colonial Drive, Suite 7
Orlando, Florida 32804
ATTN: Mr. James H. Fant

Authorized Agent: Ms. Yvonne I. Froscher
Address: Environmental Consultant
P. O. Box 195305
Winter Springs, Florida 32719-5305

Permit Number: ORA-36

Location of Affected Site: Proposed Rock Springs Ridge golf course and entrance road development sites, consisting of approximately 252.0 acres, entirely comprised of gopher tortoise habitat, within Sections 17, 20, and 21, Township 20S , and Range 28E , Orange County. See the attached location maps (Attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. The applicant shall protect 37.3 acres of gopher tortoise habitat within Mitigation Area B located in the northwest corner of the project site (See Attachment 2). The applicant shall submit a draft copy of the conservation easement to the Florida Game and Fresh Water Fish Commission (GFC) for review and approval prior to recording. A certified copy of the recorded easement shall be provided to the GFC at the Office of Environmental Services, 620 South Meridian Street, Tallahassee, Florida, 32399-1600. The areas covered by conservation easements shall be surveyed and clearly marked on the ground with boundary markers that are maintained for the duration of the easement.

2. To provide interim assurance that Condition #1 will be accomplished, the [illegible] will provide an irrevocable letter of credit for $250,544.00 ($6,717.00 X [illegible] acres), valid for twelve months, to the GFC - Office of Environmental Se[illegible] (OES), 620 South Meridian Street, Tallahassee, Florida 32399-1600.

3. The permit will not go into effect until latter effective date of either:

   a) 21 days from the date that the permittee receives this notice, or if a petition for Administrative Hearing is timely filed, until the petition is resolved; or

   b) the date the permittee has obtained a receipt from the GFC that the Letter of Credit has been received.

4. If the permittee has not satisfied Condition #1 within eleven months from the date of this permit, the GFC shall be entitled to draw upon the entire value of the submitted Letter of Credit to purchase gopher tortoise habitat. If the permittee complies with the terms described in Condition #1 within the specified timeframe, the GFC shall return the Letter of Credit to the permittee.

5. The applicant shall have the obligation to manage and maintain the protected 37.3 acres for gopher tortoises in accordance with the habitat management plan included in the document: Gopher Tortoise Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida (revised December 23, 1996).

6. The permittee shall keep written records of the habitat management activities conducted and provide a copy of said records upon request of the GFC.

7. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the GFC as to other listed species. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.

8. The permittee, or authorized agents of the permittee, are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its authorized agent(s) to possess or move tortoises off the contiguous ownership of the permittee or to move tortoises into areas previously authorized as a relocation site by GFC permit. A separate relocation permit from GFC shall be required for those activities.

9. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of animals addressed in Condition #8. Any other form of taking or relocation will require a separate permit from the Executive Director.

10. This permit must be available for inspection at all times while engaged in permitted activity.

11. This permit is transferrable to subsequent owners of the property.

Notice of Rights Statement: In accordance with Rules 28-5.111 and 28.6.008, Florida Administrative Code, and Section 120.60, Florida Statutes, any party may request a hearing on this matter pursuant to Section 120.57, Florida Statutes by filing a completed Election of Rights form (copy attached) by certified mail, return receipt requested, with the undersigned within twenty-one (21) days of receipt of this permit and notice. If timely requested and a hearing is granted, the hearing will be conducted under the procedures established by Section 120.57, Florida Statutes. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

Allan L. Egbert, Ph.D.
Executive Director

By: Bradley J Hartman

ENV 3-2/5
Attachments:
1. General location map
2. Location of mitigation area and areas authorized for incidental taking of gopher tortoises
3. Election of Rights form
ROCKSP.GT

****
*** ACTIVITY REPORT ***
****

RECEPTION OK

TX/RX NO.	2947
CONNECTION TEL	1 407 422 8262
CONNECTION ID	A L M & C
START TIME	07/15 09:35
USAGE TIME	02'00
PAGES	4
RESULT	OK

BDA

ENVIRONMENTAL CONSULTANTS

FACSIMILE TRANSMITTAL

PROJECT NO.: 98035
DATE: September 25, 1998

TO:	Doug Rillstone, Esquire
COMPANY:	Greenberg, Traurig, Hoffman, Lipoff, Rosen & Quentel, P.A.
FAX NO.:	850-681-0207
FROM:	Ms. Darla J. Miller
E-MAIL:	darla@bda-inc.com
BDA FAX NO.:	(407) 657-7008
PROJECT NAME:	**Rock Springs Ridge**

RE: Gopher Tortoise Information for the Rock Springs Ridge Project Site

NUMBER OF PAGES (including cover sheet): 8

HARD COPY TO FOLLOW: ☐ YES ☒ NO

MESSAGES / REMARKS

Doug – Please find a copy of the permit modifications you requested, as well as the revised text and table from our ITP application. Modified text or numbers have been underlined. Please call me if you have any questions.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

cc: Mike Dennis

TC w/ Doug 10/5
Tom Logan (Brians out)
* no objections going to C. Areas
* need a permit - call Angela (djm)
(850) 921 - 5950 = Angela

To discuss w/ Angela
1. Submitted to Steve Law he had objections
2. want to do on-site reloc + IT of resp - how
3. date will be > 2 mo. old - problem? (June 2.)
4. We will update census as we do relocation
5. how to expedite?

10/6/98
2 separate permits needed

P:\ADMIN\PROJECTS\98035\FAXES\RILLSTONE2.DOC

BREEDLOVE, DENNIS & ASSOCIATES, INC.
P.O. BOX 720057 / ORLANDO, FLORIDA 32872-0057
4301 METRIC DRIVE / WINTER PARK, FLORIDA 32792 / (407) 677-1882 / FAX (407) 657-7008

FLORIDA GAME AND FRESH WATER FISH COMMISSION

JULIE K. MORRIS Sarasota
QUINTON L. HEDGEPETH, DDS Miami
MRS. GILBERT W. HUMPHREY Miccosukee
THOMAS B. KIDDER Lakeland
JOE BRUNER Destin

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

January 16, 1997

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, Director
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(904) 488-6661
SUNCOM 278-6661
FAX (904) 922-5679
TDD (904) 488-9542

Mr. James H. Fant
Rock Springs Ridge, Ltd.
c/o Brooksville Development Company
401 West Colonial Drive, Suite 7
Orlando, FL 32804

RE: Modification to Gopher Tortoise Incidental Take Permit ORA-36, Orange County

Dear Mr. Fant:

We have received a written request on your behalf, from Mr. Douglas Rillstone, to modify condition 3 of the referenced permit. The proposed modification would allow construction to begin within the Rock Springs Ridge project during the 21-day permit appeal period. Mr. Rillstone provided a synopsis of previous governmental review processes which provided avenues for public input and objections regarding the proposed development. He further indicated that all major concerns identified through those processes have been addressed and resolved. We have therefore agreed to modify condition 3 of the permit, to read as follows:

3. **The permit will not go into effect until the permittee has obtained a receipt from the GFC to acknowledge receipt of the letter of credit specified in Condition 2. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC. Upon such notification, the permittee shall cease all work authorized under this permit until the petition is resolved.**

Except for this modification, all other provisions of the original permit remain in full force. No actions are authorized by permit ORA-36 until such time as the conditions and provisio this permit are complied with.

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Mr. James H. Fant
Modification to Gopher Tortoise Incidental Take Permit ORA-36
January 16, 1997
Page 2

Please keep this notification of permit modification with the original ORA-36 permit.

If you have any questions, please contact Mr. Rick McCann at (904)488-6661.

Sincerely,

Bradley J. Hartman, Director
Office of Environmental Services

BJH/RDM
ENV 3-2/5
gtora-36.mod
cc: Orange County Planning Department
Ms. Julie Hovis, Central Region, GFC
Major David Starling, Central Region, GFC
Mr. Steve Lau, OES, GFC
Ms. Yvonne Froscher
Ms. Angela Williams, Division of Wildlife, GFC
Mr. Douglas Rillstone, Greenberg, Traurig, Hoffman, Lipoff, Rosen & Quentel, P.A.

FLORIDA GAME AND FRESH WATER FISH COMMISSION

QUINTON L. HEDGEPETH, DDS Miami
MRS. GILBERT W. HUMPHREY Miccosukee
THOMAS B. KIBLER Lakeland
JAMES L. "JAMIE" ADAMS JR. Bushnell
JULIE K. MORRIS Sarasota

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

March 25, 1998

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, Director
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-6661
SUNCOM 278-6661
FAX (850) 922-5679
TDD (850) 488-9542

Mr. James H. Fant
Rock Springs Ridge, Ltd.
c/o Brooksville Development Company
401 West Colonial Drive, Suite 7
Orlando, FL 32804

RE: Second Modification to Gopher Tortoise Incidental Take Permit ORA-36, Orange County

Dear Mr. Fant:

We have received a written request on your behalf, from Mr. Donald Curotto, to modify conditions 1, 2, and 4 of the referenced permit. The proposed modifications would allow the application of 9.75 acre-credits of the 26.445-acre gopher tortoise habitat Mitigation Area A, preserved under permit ORA-39, towards the mitigation requirements of the referenced permit, reduce the monetary value of the required letter-of-credit by a corresponding amount, and extend the time frame for submitting an approved conservation easement for the remaining 27.55 acres of gopher tortoise habitat mitigation. We have therefore agreed to modify portions of conditions 1, 2, and 4 of the permit, with changes noted in bold typeface.

The first sentence of condition #1 shall be replaced with the following three sentences:

1. The permittee shall protect at least 37.3 acres of gopher tortoise habitat **on site. At least 27.55 acres shall be protected under a perpetual conservation easement** within Mitigation Area B located in the northwest corner of the project site (see Attachment 2). **The mitigation balance has been met through utilization of 9.75 acre-credits of habitat preservation within the 26.445-acre Mitigation Area A, placed under a perpetual conservation easement as a condition of permit ORA-39.**

Amended condition #2 shall read:

2. To provide interim assurance that Condition #1 will be accomplished, the applicant shall provide an irrevocable letter of credit for **$180,053.35 (27.55 acres X $6,717.00)**, valid until **10 January 1999**, to the GFC-Office of Environmental Services (OES), 620 Meridian Street, Tallahassee, FL 32399-1600.

294

The first sentence of condition #4 is also modified to stipulate, "(I)f the permittee has not satisfied Condition #1 by **10 December 1998**, the GFC shall be entitled to draw upon the entire value of the submitted letter of credit to purchase gopher tortoise habitat."

Except for these modifications, all other provisions of the original permit remain in full force. Please keep this notification of permit modification with the original ORA-36 permit.

If you have any questions, please contact Mr. Rick McCann at (904)488-6661.

Sincerely,

Brian Barnett, for

Bradley J. Hartman, Director
Office of Environmental Services

BJH/RDM
ENV 3-2/5
gtora-36.mo2
cc: Orange County Planning Department
Ms. Julie Hovis, Central Region, GFC
Major Charles Love, Central Region, GFC
Mr. Steve Lau, OES, GFC
Ms. Yvonne Froscher
Ms. Angela Williams, Division of Wildlife, GFC
Mr. Donald Curotto, Allen, Lang, Morrison & Curotto, P.A.

RECEIVED MAR 3 1 1998

4.2 On-Site Preservation

Mitigation Area A is 26.43 acres of which 0.0 acre has not been used for mitigation, and Mitigation Area B is 54.30 acres of which 26.75 acres has not been used. Therefore, a total of 26.75 acres remains on-site as potential gopher tortoise mitigation (Table 3.1.1-1).

A total of 371 "active" and "inactive" gopher tortoise burrows were located during the 100% census, resulting in a potential for 127 gopher tortoises (371 x 0.34) within the 113.96-acre Phase II site. If a total of 97 gopher tortoises are relocated from Phase II into Mitigation Areas A and B (34 into A and 63 into B), an estimated 30 gopher tortoises would remain on Phase II (Table 3.2.3-1)

The total estimated density on Phase II is 1.11 gopher tortoises per acre (127 gopher tortoises/113.96 acres). Therefore, if a total of 97 gopher tortoises are relocated on-site, mitigation would be required for the remaining 30 gopher tortoises and the acreage occupied by these gopher tortoises (27.03 acres = 30 gopher tortoises/1.11 gopher tortoises per acre). This remaining 27.03 acres would require 25% mitigation, or a total of 6.75 acres of preservation, in combination with the on-site relocation to completely offset the impacts to the gopher tortoises within Phase II. An additional 6.75 acres within Mitigation Area A will be added to the already-preserved areas to serve as on-site mitigation for impacts to the tortoises within Phase II. Therefore, 20.00 acres of potential mitigation will remain within Mitigation Area B for future phases.

4.3 Maintenance

Maintenance within the on-site preservation area will be consistent with the requirements within Permit Nos. ORA-36 and ORA-39. Thirty percent (30%) of the canopy coverage will be removed to increase the open space area and to encourage growth of herbaceous vegetation. As prescribed burning in residential areas is very difficult and not recommended, biennial maintenance of the mitigation areas will include mowing within the mitigation areas in the winter months.

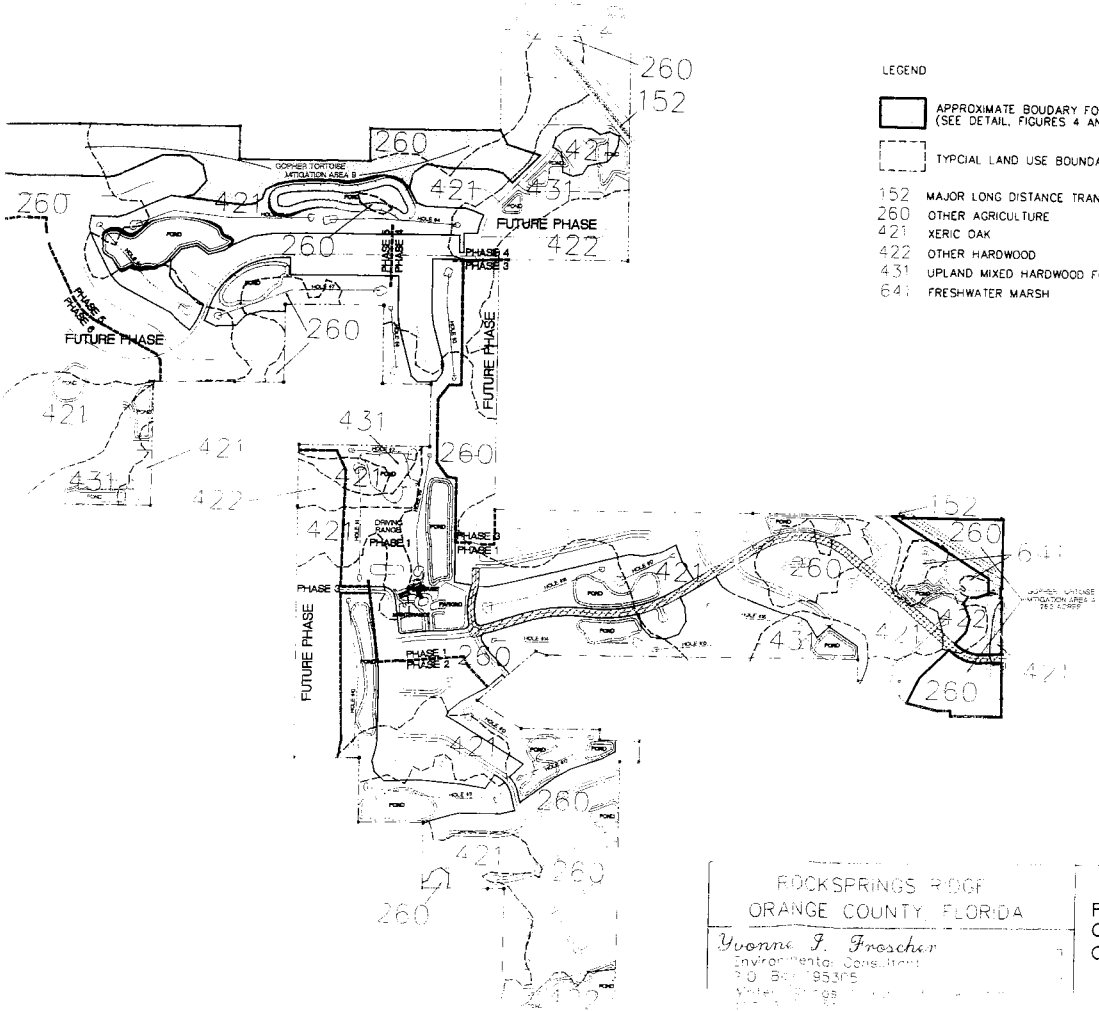
5.0 SUMMARY

On behalf of Mr. Fant of Rock Springs Ridge, Ltd., BDA requests an ITP with the option to relocate a total of 97 gopher tortoises into the on-site areas (34 gopher tortoises into Mitigation Area A and 63 gopher tortoises into Mitigation Area B) and the on-site preservation and maintenance of an additional 6.75 acres of upland habitat within Mitigation Area B to offset impacts to this SSC.

****
*** ACTIVITY REPORT ***
****

TRANSMISSION OK

TX/RX NO.	4451
CONNECTION TEL	18506810207
CONNECTION ID	
START TIME	09/25 13:45
USAGE TIME	04'14
PAGES	8
RESULT	OK



ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

Yvonne J. Froschar
Environmental Consultant
P.O. Box 953365
Lake Mary, Florida

DATE: APR. 1996
REVISED: SEPTEMBER 1996

FIGURE 3:
OVERLAY OF PROPOSED SITE PLAN ON LAND USE AND COVER MAP

PAGE

GREENBERG
ATTORNEYS AT LAW
TRAURIG

Douglas J. Rillstone
Direct Dial: (850) 425-8523
E-mail: RillstoneD@Gtlaw.com

98035
DJM, WRD

December 8, 1998

Bradley J. Hartman
Director
Office of Environmental Services
Florida Game and Fresh Water Fish Commission
620 South Meridian Street, Room 235
Tallahassee, FL 32301

VIA HAND DELIVERY THIS DATE

RE: Gopher Tortoise Incidental Take Permit
Permit No. ORA-36
Florida Game and Fresh Water Fish Commission

Rock Springs Ridge
Orange County, Florida

Dear Brad:

In accordance with Permit Condition No. 1 of the above-referenced permit ("Permit"), enclosed please find an original executed document entitled *Deed of Conservation Easement* impressing a conservation easement over 27.55 acres of Mitigation Area B within the above-referenced project. As we discussed during our December 7, 1998 telephone conference, our client is ready to record the Conservation Easement upon receipt of the signed document from the Florida Game and Fresh Water Fish Commission ("FGFWFC"). As you know, pursuant to Condition No. 4 the FGFWFC is entitled to draw upon the entire value of the Letter of Credit ("LC") delivered to the FGFWFC in accordance with Condition No. 1 to purchase gopher tortoise habitat. Our client is concerned that there is not sufficient time to receive, record and provide the FGFWFC a certified copy of the recorded Conservation Easement before December 10, 1998. During our telephone conference, you advised the FGFWFC would not draw upon the LC since we are delivering the executed Conservation Easement which has been approved for form by the FGFWFC, Office of General Counsel. As you know, our client cannot record the Conservation Easement consistent with Condition No. 1 until the executed Conservation Easement receives final approval from the FGFWFC staff.. Accordingly, we would request that Condition No. 4 of the Permit be modified as follows: (the additions have been underlined and the deletions have been ~~stricken through~~).

4. **If the permittee has not satisfied Condition #1 by ~~10 December, 1998~~ 01 January, 1999, the GFC shall be entitled to draw upon the entire value of the submitted letter of credit to purchase gopher tortoise habitat. If the permittee complies with the terms describing Condition #1 within the specified timeframe, the GFC shall return the letter of credit to the permittee.**

We would request your timely consideration of the above proposed modification to the Permit. If you have any questions regarding the attached or the foregoing, please do not hesitate to contact our office.

Sincerely yours,

GREENBERG TRAURIG, P.A.

Douglas J. Rillstone

Enclosure

cc: Jim Fant
Senior Vice President
Brooksville Development Corporation

Jeff Fuqua
President
Amick Construction Company

Donald Curotto
Allen, Lang, Curotto & Peed, P.A.

Michael Dennis, Ph.D.
President
Breedlove, Dennis & Associates, Inc.

122285

THIS DOCUMENT PREPARED BY AND RETURN TO:
DONALD J. CUROTTO, ESQUIRE
ALLEN, LANG, CUROTTO & PEED, P.A.
105 E. ROBINSON STREET - SUITE 201
ORLANDO, FLORIDA 32801

---- ABOVE SPACE FOR RECORDING INFORMATION ONLY ----

DEED OF CONSERVATION EASEMENT

THIS DEED OF CONSERVATION EASEMENT is given this 3rd day of December, 1998, by **ROCK SPRINGS RIDGE, LTD.**, a Florida limited partnership, whose mailing address is 401 W. Colonial Drive, Suite 7, Orlando, Florida 32804 ("Grantor"), to the **FLORIDA GAME AND FRESH WATER FISH COMMISSION**, a public agency of the State of Florida, with its principal office at 620 South Meridian Street, Tallahassee, Florida 32301 ("Grantee").

WITNESSETH:

WHEREAS, the Grantor is the owner of certain lands situated in Orange County, Florida (hereinafter referred to as the "Property," more specifically described in Exhibit A attached hereto and incorporated herein by this reference; and

WHEREAS, the Grantor desires to protect and conserve certain upland preserve areas; and

WHEREAS, the Grantor, in consideration of the consents of the Grantee to Permit No. ORA-36 issued by the Grantee on January 10, 1997 ("Permit"), in favor of **ROCK SPRINGS RIDGE, LTD.**, for the incidental take of gopher tortoises, is required to grant and secure the enforcement of a perpetual conservation easement as defined in Section 704.06, Florida Statutes (1991), over the Property.

NOW, THEREFORE, consistent with the issuance of the Permit, Grantor hereby grants, creates, and establishes a perpetual conservation easement upon the Property described in Exhibit A attached and incorporated herein by reference, which shall run with the land and be binding upon the Grantor, its heirs, successors and assigns, and remain in full force and effect forever.

1. The scope, nature and character of this Conservation Easement is to ensure that protected and/or uplands preserve areas shall be used as conservation areas pursuant to Section 704.06, Florida Statutes, consistent with the Property's Habitat Management Plan, dated April 12, 1996, within "**GOPHER TORTOISE (GOPHERUS POLYPHEMUS) SURV[illegible] SPECIFIC CONVERSION FACTOR, AND MITIGATION/ HABITAT MANA[illegible]**

PLAN FOR ROCK SPRINGS RIDGE, ORANGE COUNTY, FLORIDA." SECTION II, MITIGATION/HABITAT MANAGEMENT PLAN, HABITAT MANAGEMENT PLAN FOR ON-SITE PRESERVATION AREAS (the "Plan"). A copy of the Plan is attached hereto as Exhibit B and incorporated herein by reference. To carry out this purpose, the following rights are conveyed to the Grantee by this easement:

(a) To enter upon the Property at reasonable times to enforce the rights herein granted upon prior written notice to Grantor, its heirs, successors or assigns, in a manner that will not unreasonably interfere with the use and quiet enjoyment of the Property by Grantor, its heirs, successors or assigns at the time of such entry; and

(b) After prior notice to the Grantor, its heirs, successors or assigns, to enjoin any activity on or use of the Property that is inconsistent with the purpose of this Conservation Easement and to enforce the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.

2. Grantor reserves to itself, its heirs, successors or assigns (i) all rights as owner of the Property including the right to engage in all uses of the Property, that are not expressly prohibited herein and are not inconsistent with the purpose of this Conservation Easement as set forth in Section 704.06, Florida Statutes; and (ii) all rights to transfer the Property or the obligations under this Easement (subject to the terms of this Easement) to a homeowner's association (the "Homeowner's Association") or other entity, created by Grantor which has among its responsibilities the duty to maintain the Property in accordance with the Permit. Unless expressly authorized within Exhibit B of this Deed, the following are prohibited activities:

(a) Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;

(b) Dumping or placing of soil or other substance or material as landfill or dumping or placing of trash, waste, or unsightly or offensive materials;

(c) Removal or destruction of trees, shrubs, or other vegetation;

(d) Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such a manner as to effect the surface;

(e) Surface use except for purposes that permit the land or water area to remain predominantly in its natural condition;

(f) Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation;

(g) Acts or uses detrimental to such retention of land or water areas;

(h) Acts or uses detrimental to the preservation of structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance;

(i) Alteration of the preserve areas except in compliance with the Plan.

3. [Intentionally Deleted]

4. No right of access by the general public to any portion of the Property is conveyed by the Conservation Easement.

5. Grantor agrees to bear all reasonable costs related to the operation, upkeep and maintenance of the Property. Nothing contained in this Conservation Easement shall be construed to entitle the Grantee to bring any action against the Grantor of this Deed for any injury to or change in the Property resulting from natural causes beyond their control, including, without limitation, fire, flood, storm and earth movement, or from any action taken under emergency conditions to prevent, abate or mitigate significant injury to the Property resulting from such causes. All costs relating to the operation, upkeep and maintenance of the Property shall be borne by the Grantor, or assignee, including, but not limited to, a homeowners association or other related entity created by the Grantor for the purpose of and administering community properties and enforcing covenants and restrictions within the development.

6. Grantor agrees to pay any and all real property taxes and assessments levied by competent authority on the Property.

7. Grantor intends that enforcement of the terms and provisions of the Conservation Easement and the Plan shall be at the discretion of Grantee and that any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, its heirs, successors, personal representatives or assigns, shall not be deemed or construed to be a waiver of Grantee's rights hereunder in the event of a subsequent breach.

8. Grantee agrees that it will hold this Conservation Easement exclusively for conservation purposes and that it will not assign its right and obligations under this Conservation Easement except to another organization qualified to hold such interests under the applicable state and federal laws and committed to holding this Conservation Easement exclusively for conservation purposes. Not later than thirty (30) days after recordation in the Public Records of Orange County, Florida, of title to the Property which is the subject of this easement, Grantor agrees to give written notice to Grantee of such transfer.

9. If any provision of this Conservation Easement or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of the Conservation Easement, and the applications of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

10. All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed property given if sent by United States certified mail, re

requested, addressed to the appropriate party or successor-in-interest, at the addresses above set forth or such new addresses as either party may in writing deliver to the other.

11. This Conservation Easement may be amended, altered, released or revoked only by written agreement between the parties hereto, their successors or assigns. Notwithstanding the foregoing, the Grantor may at any time assign and delegate all or a portion of the Grantor's rights, title, interest, duties or obligations created by this Conservation Easement to a homeowner's association or other similar entity. It is understood that the as a property owner's association in order to effectuate the intent of the Grantor for the proper development, operation, and maintenance of the property known as ***Rock Springs Ridge***.

TO HAVE AND TO HOLD unto Grantee, its respective successors and assigns forever. The covenants, terms, conditions, restrictions and purposes imposed with this easement shall not only be binding upon Grantor but also its agents, personal representatives, heirs, assigns and all other successors to it in interest, and shall continue as a servitude running in perpetuity with the Property.

IN WITNESS WHEREOF Grantor has set its hand on the day and year first above written.

Signed, Sealed and Delivered
in the Presence of:

Sign [illegible]
Print [illegible]

Sign Kathy Moorehead
Print Kathy Moorehead

ROCK SPRINGS RIDGE, LTD.,
A Florida Limited Partnership

By: ROCK SPRINGS RIDGE, INC.,
A Florida Corporation
Its Sole General Partner

By: [signature]
James H. Fant, Senior Vice President

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 3rd day of December, 1998, by **JAMES H. FANT**, Senior Vice President of **ROCK SPRINGS RIDGE, INC.**, a Florida corporation, as sole general partner of **ROCK SPRINGS RIDGE, LTD.**, a Florida limited partnership, on behalf of the corporation. He is personally known to me or produced _____ as identification.

My Commission Expires:

KATHY MOORLEHEAD
Notary Public, State of Florida
My Comm. Expires April 22, 1999
Comm. No. CC451727

Kathy Moorehead
Notary Public
Print Kathy Moorehead

K:\dcl\rocksprg\golfcourse\phase 1 deed of conservation easement ORA-36
12-3-98

GRANTEE'S ACCEPTANCE

The **FLORIDA GAME AND FRESH WATER FISH COMMISSION** hereby approves the foregoing Deed of Conservation Easement and agrees to all of the terms and provisions thereof.

FLORIDA GAME AND FRESH WATER
FISH COMMISSION

By:_____
Print_____
As_____

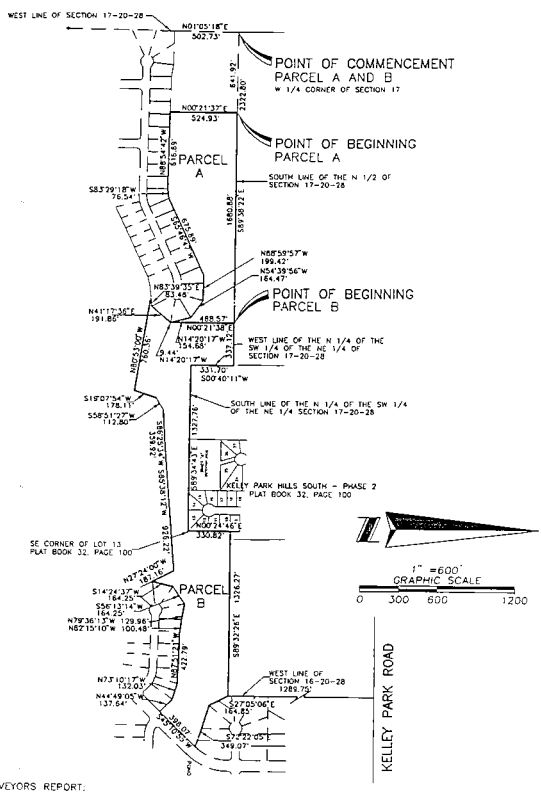
EXHIBIT A

CONSERVATION AREA FOR GOPHER TORTOISE MITIGATION

27.55 acres, more or less, located in the northeast corner of Section 17, Township 20 South, Range 28 East, more particularly described as follows:

PARCEL B

COMMENCING at the West 1/4 corner of Section 17, Township 20 South, Range 28 East, Orange County, Florida; thence South 89°38'22" East along the South line of the North 1/2 of said Section 17 a distance of 2322.80 feet to the POINT OF BEGINNING; thence continuing along said South line South 89°38'22" East a distance of 337.12 feet to a point on the West line of the North 1/4 of the Southwest 1/4 of the Northeast 1/4 of said Section 17; thence South 00°40'11" West along said line a distance of 331.70 feet to a point on the South line of the North 1/4 of the Southwest 1/4 of the Northeast 1/4 of said Section 17, said line also being the south line of Kelly Park Hills South, Phase 2 as recorded in Plat Book 32, Page 100 of the Public Records of Orange County, Florida ; thence South 89°34'43" East along said south line a distance of 1327.76 feet to the Southeast corner of Lot 13 in the aforesaid Kelly Park Hills South, Phase 2; thence North 00°24'46" East along the East lot lines of Lots 12, 11 and 10 of aforesaid plat a distance of 330.82 feet; thence leaving said plat line South 89°32'26" East a distance of 1326.27 feet to the West line of Section 16, Township 20 South, Range 28 East, Orange County, Florida, said point being 1289.75 feet south of the South Right of Way line of Kelley Park Road; thence South 27°05'06" East a distance of 164.85 feet; thence South 72°22'05" East a distance of 349.07 feet; thence South 45°10'55" West a distance of 398.07 feet; thence North 44°49'05" West a distance of 137.64 feet; thence North 73°10'17" West a distance of 132.03 feet; thence North 87°51'21" West a distance of 422.79 feet; thence North 82°15'10" West a distance of 100.48 feet; thence North 79°36'13" West a distance of 129.96 feet; thence South 56°13'14" West a distance of 164.25 feet; thence South 14°24'37" West a distance of 164.25 feet; thence North 27°24'00" West a distance of 187.16 feet; thence South 85°38'12" West a distance of 926.22 feet; thence South 86°25'34" West a distance of 359.92 feet; thence; South 58°51'27" West a distance of 112.80 feet; thence South 19°07'54" West a distance of 178.11 feet; thence North 80°53'00" West a distance of 760.36 feet; thence North 83°39'35" East a distance of 83.48 feet; thence North 41°17'36" West a distance of 191.86 feet; thence North 14°20'17" West a distance of 9.44 feet; thence North 00°21'38" East a distance of 488.57 feet to the POINT OF BEGINNING. CONTAINING 27.55 acres more or less.



SURVEYORS REPORT:
1. The bearings shown hereon are based on the West line of Section 17, Township 20 South, Range 28 East, Orange County, Florida, being North 01°05'18" East.

SHEET 2 OF 2

Sketch of Description	Date: Nov. 20, 1998 CS	4499103
For	Job No. 44991035 Scale 1"=600'	Southeastern Surveying
Rock Springs Ridge, LTD., A Florida Limited Partnership	CH. 61G17-6, Florida Administrative Code requires that a legal description drawing bear the notation that THIS IS NOT A SURVEY.	SOUTHEASTERN SURVEYING & MAPPING CORP. 324 North Orlando Avenue Maitland, Florida 32751-4702 CERT. NO. LB3108 (407) 647-8998 e-mail: asmc96@aol.com
	Revised:	GARY D. KITCH REGISTERED LAND SURVEYOR NO. 4745

JOINDER AND CONSENT TO EASEMENT

The undersigned hereby certifies that it is the holder of an indenture of mortgage upon the property described herein or any portion thereof dated December 27, 1995, and recorded December 28, 1995, in Official Records Book 4992, Page 2356; as modified by that certain Future Advance and Mortgage Modification Agreement dated November 25, 1996, and recorded November 27, 1996, in Official Records Book 5161, Page 4133; as further modified by that certain Future Advance and Mortgage Modification Agreement dated December 16, 1996, and recorded December 23, 1996, in Official Records Book 5174, Page 3939; as further modified by that certain Future Advance and Mortgage Modification Agreement dated July 29, 1997, and recorded July 30, 1997, in Official Records Book 5300, Page 1676; as further modified by that certain Future Advance and Mortgage Modification Agreement dated November 4, 1998, and recorded November 5, 1998, in Official Records Book 5609, Page 1049; all in the Public Records of Orange County, Florida, and the undersigned for and in consideration of valuable consideration hereby joins in and consents to the execution of the above easement and agrees that the lien of its said mortgage shall be subordinated to the above easement.

ATTEST:

By: _____
Print JIM GRAY
Its SVP

FIRST UNION NATIONAL BANK OF FLORIDA
A Florida Banking Association

By: _____
Print W. M. BLEAKLEY
Its VICE PRESIDENT

(CORPORATE SEAL)

Signed, Sealed and Delivered
in the Presence of:

_____
Print Lisa Bott

_____
Print Lynn Golemme

STATE OF FLORIDA
COUNTY OF Florida

The foregoing instrument was acknowledged before me this 3rd day of December, 1998, by W. M. BLEAKLEY and Jim Gray, the VICE PRESIDENT and SR. VICE PRESIDENT, respectively, of **FIRST UNION NATIONAL BANK OF FLORIDA**, a national banking association on behalf of the Bank. They are personally known to me or have produced _____ as identification.

My Commission Expires:

_____
Notary Public
Print _____

MARILYN GOLEMME
My Commission CC569836
Expires Oct. 20, 2000

ALLEN, LANG, MORRISON & CUROTTO, P.A.
ATTORNEYS AT LAW
105 EAST ROBINSON STREET - SUITE 201
ORLANDO, FLORIDA 32801

JUL 14 1998

MAILING ADDRESS:
POST OFFICE BOX 3628

PHONE: 407/422-8250
FAX: 407/422-8262

FACSIMILE TRANSMISSION COVER SHEET

FROM: Tim Fast

DATE: 7/14
OF PAGES:
MATTER ID:
FAX #:

TO: Dale Downing

RE: 65[redacted]8

DOCUMENT(S): [redacted]

REMARKS:

FG+FWFC Permit
for Rock Springs

ORIGINAL: ___ SENT REGULAR MAIL ___ SENT BY COURIER
___ OVERNIGHT DELIVERY ___ PICKUP ___ NOT SENT

CONFIDENTIALITY NOTICE
THE DOCUMENTS ACCOMPANYING THIS FACSIMILE TRANSMISSION CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF THE INDIVIDUAL TO WHOM ADDRESSED. IF THE READER OF THIS DOCUMENT IS NOT THE ADDRESSEE, YOU ARE HEREBY NOTIFIED THAT ANY COPYING, DISCLOSURE, DISSEMINATION OR DISTRIBUTION OF THESE DOCUMENTS OR THEIR CONTENTS TO ANYONE OTHER THAN THE ADDRESSEE IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION DUE TO TRANSMISSION ERROR, PLEASE IMMEDIATELY NOTIFY THE SENDER BY TELEPHONE, AND RETURN THE ORIGINAL DOCUMENTS TO US AT OUR ABOVE ADDRESS VIA THE U.S. POSTAL SERVICE. THANK YOU.

IF YOU ENCOUNTER PROBLEMS WITH THIS TRANSMISSION, PLEASE CONTACT _____ AT 407/422-8250.

FLORIDA GAME AND FRESH WATER FISH COMMISSION

JULIE K. MORRIS, Sarasota
QUINTON L. HEDGEPETH, DDS, Miami
MRS. GILBERT W. HUMPHREY, Micanopy
THOMAS B. KIBLER, Lakeland
JOE BRUNER, Destin

May 22, 1997

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, Director
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(904) 488-6661
SUNCOM 278-6661
FAX (904) 922-5679
TDD (904) 488-9542

Mr. James H. Fant
Rock Springs Ridge, Ltd.
c/o Brookside Development Company
401 West Colonial Drive, Suite 7
Orlando, FL 32804

Re: Gopher Tortoise Incidental Take Permit
#ORA-39, Orange County

Dear Mr. Fant:

Enclosed is permit ORA-39 for the incidental taking of gopher tortoises, their eggs and their burrows within the development boundaries specified. The application for this permit was complete as of April 15, 1997.

Please contact me or Mr. Steve Lau at (561) 778-5094 if you have any questions regarding this permit.

Sincerely,

Bradley J. Hartman, Director
Office of Environmental Services

BJH/tgw
ENV 3-2/5
Enclosure
gtpermit.ltr
cc: Orange County Planning Department
Ms. Julie Hovis, Central Region, GFC
Major Love, Central Region, GFC
Mr. Steve Lau, OES, GFC
Ms. Yvonne I. Froscher, Environmental Consultant
Ms. Angela Williams, Division of Wildlife, GFC

PERMIT FOR TAKING OF GOPHER TORTOISES AND

THEIR BURROWS

Chapter 39-27.002(4) FAC

STATE OF FLORIDA GAME AND FRESH WATER FISH COMMISSION

Issuance Date: May 22, 1997

Permittee: Rock Springs Ridge, Ltd.
Street Address: c/o Brookside Development Company
401 West Colonial Drive, Suite 7
Orlando, Florida 32804
ATTN: Mr. James H. Fant

Authorized Agent: Ms. Yvonne I. Froscher
Address: Environmental Consultant
P. O. Box 195305
Winter Springs, FL 32719-5305

Permit Number: ORA-39

Location of Affected Site: Proposed 117.6 acres of Rock Springs Ridge, Phase I development site, including 112.8 of gopher tortoise habitat, within Sections 20 and 21, Township 20S, Range 28E, Orange County. See the attached location maps. (Attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. The applicant shall protect 26.43 acres of gopher tortoise habitat within Mitigation Area A, located in the eastern edge of the project site (see Attachment 2), by placing the acreage under a perpetual conservation easement granted to the Florida Game and Fresh Water Fish Commission (GFC). A mortgage subordination clause must be included in the easement. This permit requires 16.7 acres of mitigation, leaving 9.73 acres within the easement to be applied to future development phases. The applicant shall submit a draft copy of the conservation easement to the GFC for review and approval prior to executing and recording it in the Orange County property records book. A certified as recorded copy of the easement shall be provided to the GFC at the Office of Environmental Services, 620 South Meridian Street, Tallahassee, Florida, 32399-1600. The areas covered by conservat easements shall be surveyed and clearly marked on the ground with perma markers. These markers shall be maintained for the duration of the easem

2. The permit will not go into effect until the date that the permittee has received confirmation that the GFC has received the previously approved and recorded conservation easement for the area described in Condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

3. The applicant shall have the obligation to manage and maintain the protected 26.43 acres for gopher tortoises in accordance with the habitat management plan ("Plan") included with the document: *Gopher Tortoise Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida* (revised 20 March 1997). This Plan shall be made part of the aforementioned conservation easement. **The applicant shall relocate tortoises to this easement area as necessary to assure that, at the time of any future use of Mitigation Area A for gopher tortoise mitigation, the tortoise population of this area contains a minimum of 40 individuals.** If requested by the applicant and after the applicant has relocated tortoises to Mitigation Area A in accordance with the above, the GFC will modify Permit No. ORA-36 to reflect that the area subject to the above Plan and onsite preservation required in Condition No. 1 consists of 27.57 acres in Mitigation Area B and 9.73 acres in Mitigation Area A.

4. The permittee shall keep written records of the habitat management activities conducted and provide a copy of said records upon request of the GFC.

5. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the GFC as to other listed species. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.

6. **The permittee, or authorized agents of the permittee, are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its authorized agent(s) to possess or move tortoises off the contiguous ownership of the permittee or to move tortoises into areas previously authorized as a relocation site by GFC permit. A separate relocation permit from GFC shall be required for those activities.**

7. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of animal addressed in Condition #6 . Any other form of taking or relocation will re separate permit from the Executive Director.

8. This permit must be available for inspection at all times while engaged in the permitted activity.

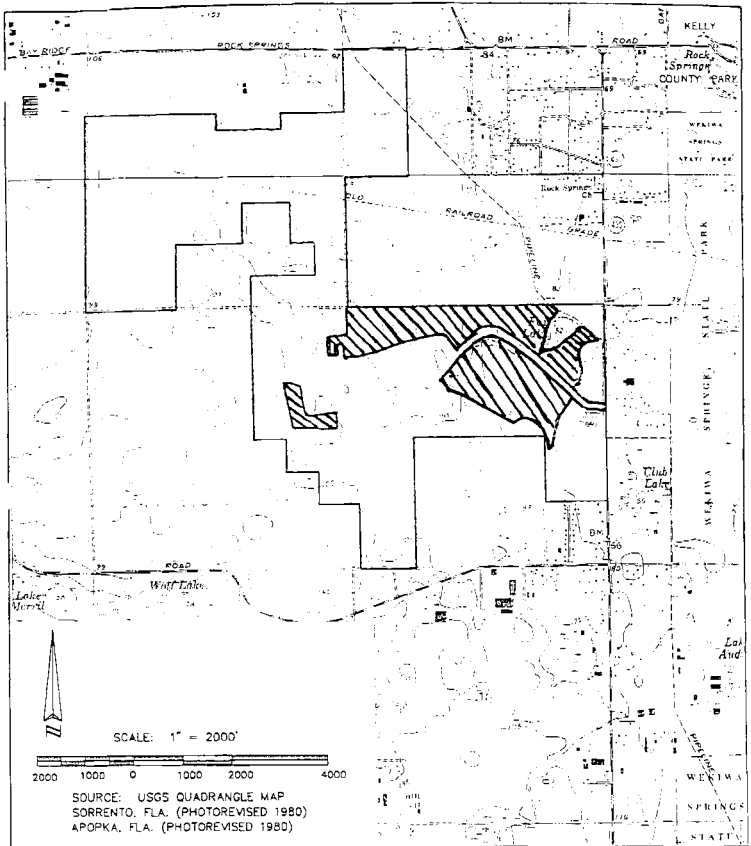
9. This permit is transferrable to subsequent owners of the property.

Notice of Rights Statement: In accordance with Rules 28-5.111 and 28.6.008, Florida Administrative Code, and Section 120.60, Florida Statutes, any party may request a hearing on this matter pursuant to Section 120.57, Florida Statutes by filing a completed Election of Rights form (copy attached) by certified mail, return receipt requested, with the undersigned within twenty-one (21) days of receipt of this permit and notice. If timely requested and a hearing is granted, the hearing will be conducted under the procedures established by Section 120.57, Florida Statutes. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

Allan L. Egbert, Ph.D.
Executive Director

By: Bradley J. Hartman

ALE/SL
ENV 3-2/5
Attachments:
1. General location map
2. Property location map
3. Election of Rights form
rockrid.gt



ROCK SPRINGS RIDGE
ORANGE COUNTY, FLORIDA

DATE: SEPTEMBER 1995

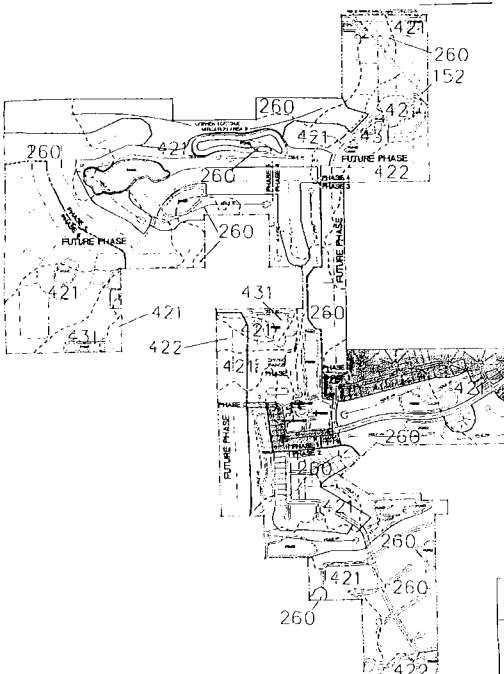
FIGURE 1:
VICINITY MAP

315

Approximate project authorized under permit ORA-39 (see Attachment 2 for details)

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

PSRV.DWG



LEGEND

APPROXIMATE BOUNDARY FOR MITIGATION AREAS A (SEE DETAIL FIGURES 4 AND 5)

Only Phase I areas authorized for gopher tortoise incidental take under permit ORA-39

152 MAJOR LONG DISTANCE TRANSMISSION LINES (260 TYPE VEGETATION)
260 OTHER AGRICULTURE
421 XERIC OAK
422 OTHER HARDWOOD
431 UPLAND MIXED HARDWOOD FOREST
641 FRESHWATER MARSH

SCALE 1" = 1000'

1000 500 0 500 1000 2000

ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

Yvonne I. Froscher
Environmental Consultant
P.O. Box 195105
Winter Springs, Florida 32719-5105
407-327-2020

DATE APRIL 1996
REVISED DECEMBER 1996
REVISED JANUARY 1997

FIGURE 3:
OVERLAY OF PROPOSED SITE PLAN ON LAND USE AND COVER MAP

SHEET 11

PERMIT #ORA-39

STATE OF FLORIDA
GAME AND FRESH WATER FISH COMMISSION

ELECTION OF RIGHTS

I have read the Explanation of Rights form and understand my options. (You may select one of the options below and return with this form to the Florida Game and Fresh Water Fish Commission (Commission) no later than twenty one (21) days from the receipt of the Notice of Agency Action).

1. ( ) I do not dispute the allegations of fact in the Notice of Agency Action but do wish to be accorded an informal hearing or proceeding, pursuant to Section 120.57(2), Florida Statutes, at which time I will be permitted to submit oral or written evidence in mitigation of the complaint to the agency head or his representative.

2. ( ) I do dispute the allegations of fact contained in the Notice of Agency Action, submit an attached statement of all disputed allegations of fact, and request a formal hearing, pursuant to Section 120.57(1), Florida Statutes, before a hearing officer appointed by the Division of Administrative Hearings.

3. ( ) I do not dispute the allegations of fact in the Notice of Agency Action and waive my right to object or to be heard.

I have read and understand the Election of Rights form and understand that I have the right to be represented by counsel at either an informal or formal

hearing. I also understand that I must attach a petition or written statement of the disputed issues of fact to this request if I have requested a formal hearing.

Please sign and state your current address and telephone number:

Date	Signature
Attorney's name and address	Address

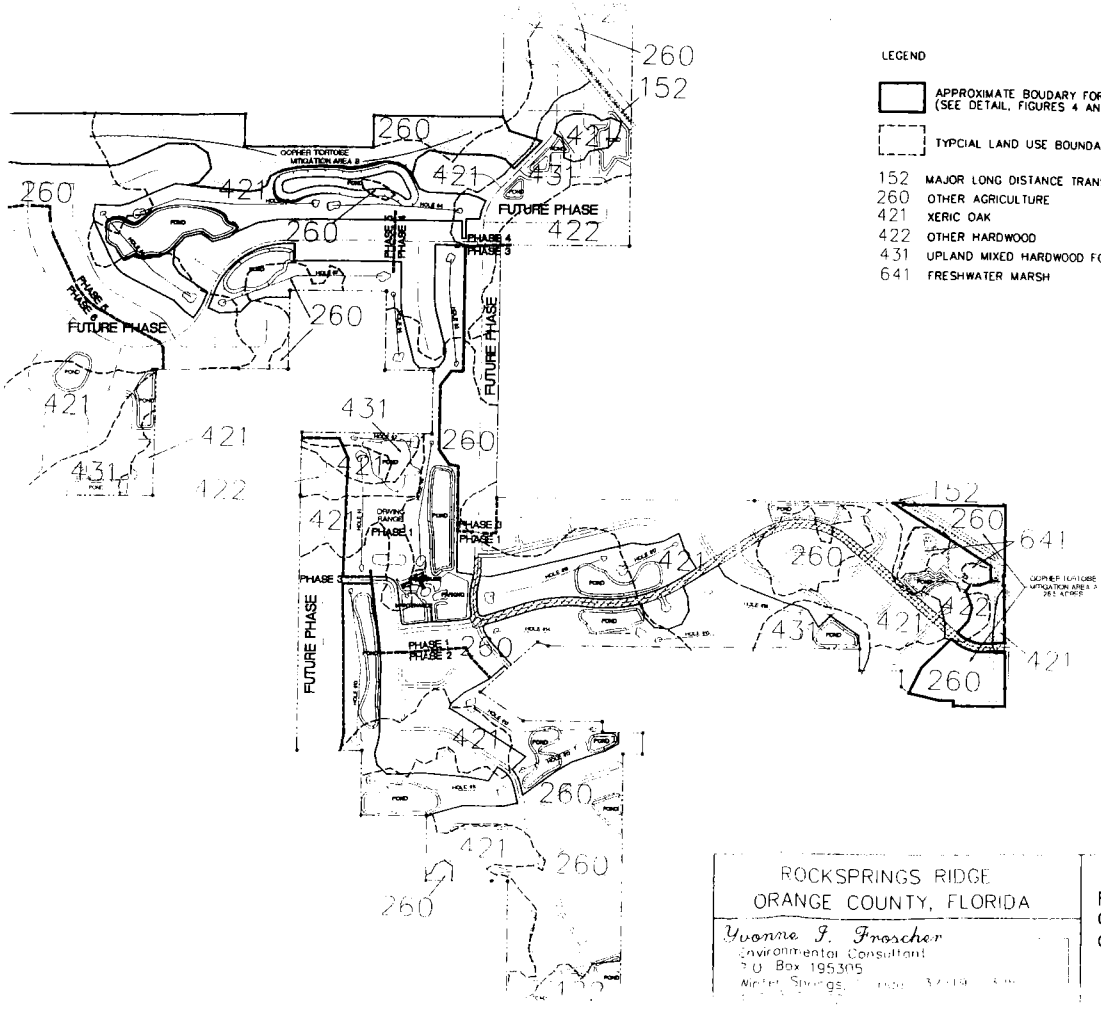
Please mail form to:

Office of the General Counsel
Florida Game and Fresh Water
Fish Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600

****
*** ACTIVITY REPORT ***
****

RECEPTION OK

TX/RX NO.	2916
CONNECTION TEL	1 407 422 8262
CONNECTION ID	A L M & C
START TIME	07/14 09:34
USAGE TIME	04'27
PAGES	9
RESULT	OK



LEGEND

APPROXIMATE BOUDARY FOR MITIGATION AREAS A AND B (SEE DETAIL, FIGURES 4 AND 5)

TYPCIAL LAND USE BOUNDARIES

152 MAJOR LONG DISTANCE TRANSMISSION LINES (260 TYPE VEGETATION)
260 OTHER AGRICULTURE
421 XERIC OAK
422 OTHER HARDWOOD
431 UPLAND MIXED HARDWOOD FOREST
641 FRESHWATER MARSH

N

SCALE 1" = 1000'

1000 500 0 500 1000 2000

ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

Yvonne I. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, [illegible]

DATE: APRIL 1996
REVISED: DECEMBER 1996

FIGURE 3:
OVERLAY OF PROPOSED SITE PLAN ON LAND USE AND COVER MAP

PAGE 11

FLORIDA GAME AND FRESH WATER FISH COMMISSION

QUINTON L. HEDGEPETH, DDS, Miami
MRS. GILBERT W. HUMPHREY, Micanopy
THOMAS B. KIBLER, Lakeland
JAMES L. "JAMIE" ADAMS, JR., Bushnell
JULIE K. MORRIS, Sarasota

December 1, 1998

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, DIRECTOR
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-6661
SUNCOM 278-6661
FAX (850) 922-5679
TDD (850) 488-9542

Mr. James H. Fant
Rock Springs Ridge, Ltd.
c/o Brookside Development Company
401 West Colonial Drive, Suite 7
Orlando, FL 32804

Re: Gopher Tortoise Incidental Take Permit
#ORA-54, Orange County

Dear Mr. Fant:

Enclosed is permit ORA-54 for the incidental taking of gopher tortoises, their eggs and their burrows within the development boundaries specified. The application for this permit was complete as of November 23, 1998.

Please contact me or Mr. Steve Lau at (561) 778-5094 if you have any questions regarding this permit.

Sincerely,

Bradley J. Hartman, Director
Office of Environmental Services

BJH/tgw
ENV 3-2/5
Enclosure
gtpermit.ltr
cc: Orange County Planning Department
Ms. Julie Hovis, Central Region, GFC
Major Love, Central Region, GFC
Mr. Steve Lau, OES, GFC
Ms. Darla J. Miller, Breedlove, Dennis & Associates, Inc.
Ms. Angela Williams, Division of Wildlife, GFC

PERMIT FOR TAKING OF GOPHER TORTOISES AND

THEIR BURROWS

Chapter 39-27.002(4) FAC

STATE OF FLORIDA GAME AND FRESH WATER FISH COMMISSION

Issuance Date: December 1, 1998

Permittee: Rock Springs Ridge, Ltd.
Street Address: c/o Brookside Development Company
401 West Colonial Drive, Suite 7
Orlando, Florida 32804
ATTN: Mr. James H. Fant

Authorized Agent: Ms. Darla J. Miller
Address: Breedlove, Dennis & Associates, Inc.
P.O. Box 720037
Orlando, Florida 32872-0037

Permit Number: ORA-54

Location of Affected Site: Proposed 113.96-acre Rock Springs Ridge, Phase II, development site, entirely comprised of gopher tortoise habitat, within Sections 20 and 21, Township 20S, and Range 28E, Orange County. See the attached location maps (Attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. The applicant shall protect 16.2 acres of gopher tortoise habitat within Mitigation Area B (Attachment 3), and grant a perpetual conservation easement over these lands to the Florida Game and Fresh Water Fish Commission (GFC). The applicant shall submit a draft copy of the conservation easement to the GFC for review and approval prior to recording. A certified as recorded copy of the easement shall be provided to the GFC at the Office of Environmental Services, 620 South Meridian Street, Tallahassee, Florida, 32399-1600. The areas covered by conservation easement shall be surveyed and clearly marked on the ground, with the boundary markers maintained for the duration of the easement.

2. The permit will not go into effect until latter effective date of either:

   a) 21 days from the date that the permittee receives this notice, or if a for Administrative Hearing is timely filed, until the petition is resol

b) the date that the permittee has received a receipt from the GFC for the certified as recorded copy of the previously approved conservation easement described in Condition #1.

3. The applicant shall have the obligation to manage and maintain the protected 16.2 acres for gopher tortoises in accordance with the habitat management plan included in the document: Gopher Tortoise Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida (revised December 23, 1996). This plan shall be made part of the aforementioned conservation easement.

4. The permittee shall keep written records of the habitat management activities conducted and provide a copy of said records upon request of the GFC.

5. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the GFC as to other listed species. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.

6. The permittee, or authorized agents of the permittee, are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its authorized agent(s) to possess or move tortoises off the contiguous ownership of the permittee or to move tortoises into areas previously authorized as a relocation site by GFC permit. A separate relocation permit from GFC shall be required for those activities.

7. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of animals addressed in Condition #6. Any other form of taking or relocation will require a separate permit from the Executive Director.

8. This permit must be available for inspection at all times while engaged in the permitted activity.

9. This permit is transferrable to subsequent owners of the property.

Notice of Rights Statement: In accordance with Rules 28-5.111 and 28.6.008, Florida Administrative Code, and Section 120.60, Florida Statutes, any party may request a hearing on this matter pursuant to Section 120.57, Florida Statutes by filing a completed Election of form (copy attached) by certified mail, return receipt requested, with the undersigned wit twenty-one (21) days of receipt of this permit and notice. If timely requested and a heari granted, the hearing will be conducted under the procedures established by Section 120.57,

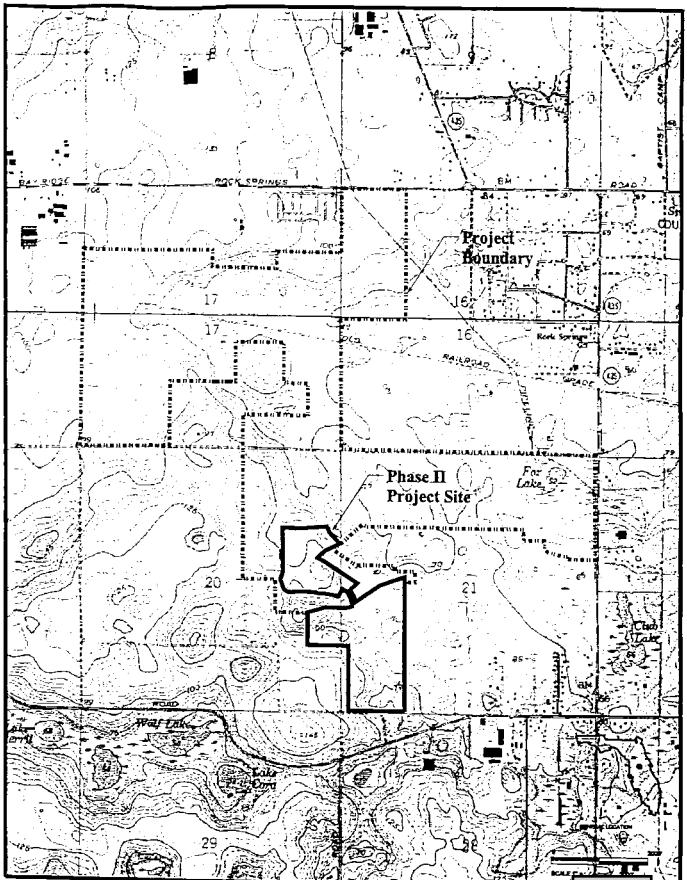
Florida Statutes. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

Allan L. Egbert, Ph.D.
Executive Director

By: Bradley J. Hartman

ENV 3-2/5
Attachments
1. General location map
2. Property location map
3. Location of mitigation area
4. Election of Rights form

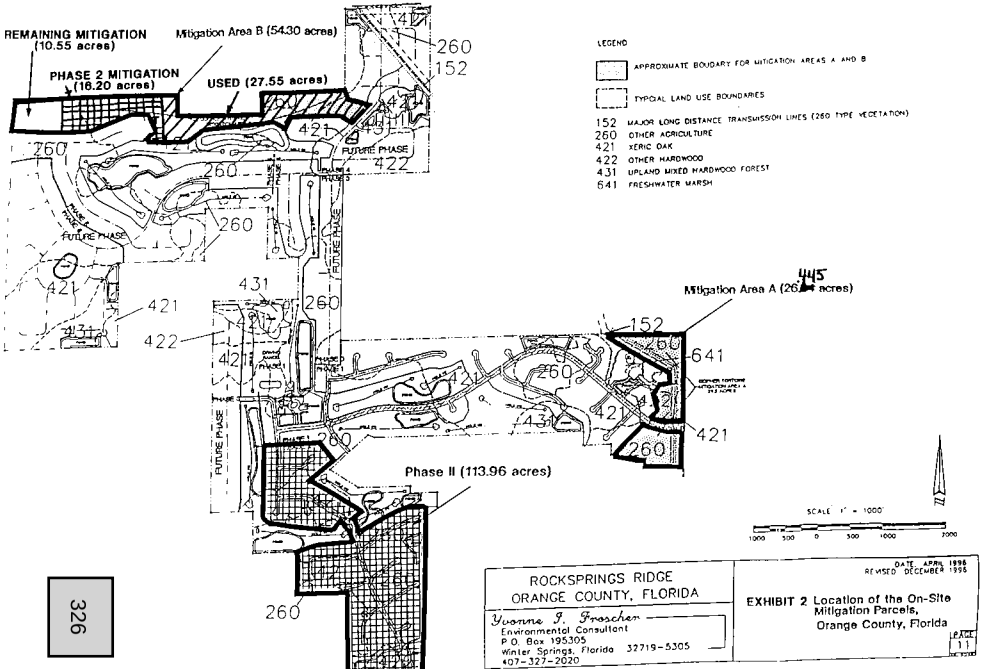
ora-54.wpd



Source: SureMAPS Raster Digital Quad, Copyright, 1997.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL 32792 (407)677-188

FIGURE: 1.0-1 LOCATION MAP OF THE ROCK SPRINGS RIDGE (PHASE II) PROJECT SITE, ORANGE COUNTY, FLORIDA (SECTIONS 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST.)



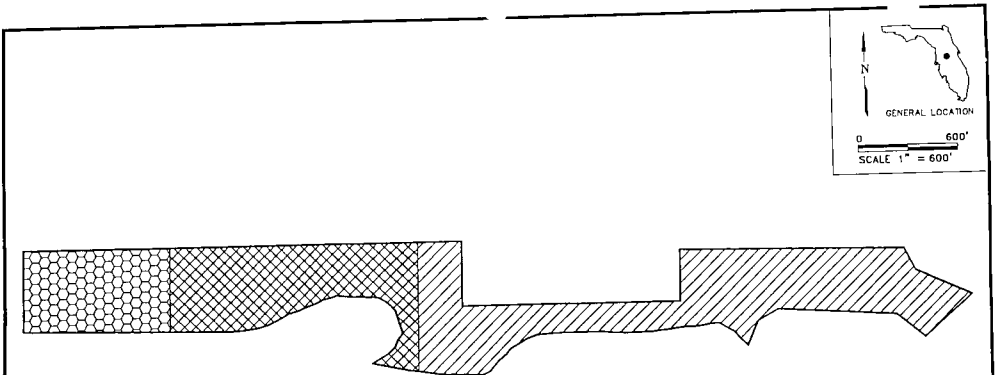
ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

DATE APRIL 1996
REVISED DECEMBER 1996

EXHIBIT 2 Location of the On-Site Mitigation Parcels, Orange County, Florida

PAGE 11



BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882 Fax:657-7008

98035-20.1 / MitArea_B.dwg
11/12/98 / LDP

327

EXHIBIT: 5 MITIGATION AREA B, ROCK SPRINGS RIDGE, ORANGE COUNTY, FLORIDA.

PERMIT #ORA-54

STATE OF FLORIDA
GAME AND FRESH WATER FISH COMMISSION

ELECTION OF RIGHTS

I have read the Explanation of Rights form and understand my options. (You may select one of the options below and return with this form to the Florida Game and Fresh Water Fish Commission (Commission) no later than twenty one (21) days from the receipt of the Notice of Agency Action).

1. ( ) I do not dispute the allegations of fact in the Notice of Agency Action but do wish to be accorded an informal hearing or proceeding, pursuant to Section 120.57(2), Florida Statutes, at which time I will be permitted to submit oral or written evidence in mitigation of the complaint to the agency head or his representative.

2. ( ) I do dispute the allegations of fact contained in the Notice of Agency Action, submit an attached statement of all disputed allegations of fact, and request a formal hearing, pursuant to Section 120.57(1), Florida Statutes, before a hearing officer appointed by the Division of Administrative Hearings.

3. ( ) I do not dispute the allegations of fact in the Notice of Agency Action and waive my right to object or to be heard.

I have read and understand the Election of Rights form and understand that I have the right to be represented by counsel at either an informal or formal

328

hearing. I also understand that I must attach a petition or written statement of the disputed issues of fact to this request if I have requested a formal hearing.

Please sign and state your current address and telephone number:

Date	Signature
Attorney's name and address	Address

Please mail form to:

Office of the General Counsel
Florida Game and Fresh Water
Fish Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600

GREENBERG
ATTORNEYS AT LAW
TRAURIG

Douglas J. Rillstone
Direct Dial (850) 425-8523
E-mail: RillstoneD@Gtlaw.com

98035

December 14, 1998

James H. Fant
Senior Vice President
Brooksville Development Corporation
401 West Colonial Drive, Suite 7
Orlando, Florida 32804

Via Overnight Federal Express This Date

RE: Gopher Tortoise Incidental Take Permit
Permit Nos. ORA-36 and ORA-54
Florida Game and Fresh Water Fish Commission

Rock Springs Ridge, Phase II
Orange County, Florida

Dear Jim:

Enclosed as Exhibit "A", please find a copy of correspondence dated December 11, 1998 from Bradley J. Hartman, Director, Office of Environmental Services, Florida Game and Fresh Water Fish Commission ("FGFWFC"), granting the requested modification to Condition No. 2 of Permit No. ORA-54 for Rock Springs Ridge, Phase II. Under this modification, the permit becomes effective once the permittee receives a receipt from the FGFWFC for the submittal of the certified copy of the recorded conservation easement. Our office provided certified copies of the recorded conservation easement for ORA-54 and ORA-36 to the FGFWFC and obtained the necessary receipts, copies enclosed as Exhibit "B." In addition, we have enclosed the original "First Union National Bank of Florida Irrevocable Standby Letter of Credit" dated January 16, 1997 and "First Union National Bank Amendment to Irrevocable Standby Letter of Credit," dated February 12, 1998 required by Permit No. ORA-36.

If you have any questions regarding the attached or the foregoing, please do not hesitate to contact our office.

Sincerely yours,

GREENBERG TRAURIG, P.A.

Douglas J. Rillstone
J. Todd Sumner

Enclosures

cc: Jeff Fuqua
President
Amick Construction Company

Donald Curotto
Allen, Lang, Curotto & Peed, P.A.

Michael Dennis, Ph.D.
President
Breedlove, Dennis & Associates, Inc.

122248

Postal Fax Note — Date 12/14 — # of pages 1
To Linda
Co./Dept. 681-0207
From Traci Wallace
Phone# 488-6661

FLORIDA GAME AND FRESH WATER FISH COMMISSION

MRS. GILBERT W. HUMPHREY, Micanopy
THOMAS B. KIBLER, Lakeland
JAMES L. "JAMIE" ADAMS, JR., Bushnell
JULIE K. MORRIS, Sarasota

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

December 11, 1998

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, DIRECTOR
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-6661
SUNCOM 278-6661
FAX (850) 922-5679
TDD (850) 488-9542

Mr. Douglas J. Rillstone
Greenberg Traurig, P.A.
Post Office Drawer 1838
Tallahassee, FL 32302

Dear Mr. Rillstone:

Per your 7 December 1998 request, we are amending Condition #2 of Permit #ORA-54 to read as follows:

2. This permit will not go into effect until the permittee has obtained a receipt from the GFC for the mitigation funds specified under condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

All other conditions remain unchanged.

Sincerely,

Bradley J. Hartman, Director
Office of Environmental Services

BJH/tgw
ENV 1-2-5

cc: Orange County Planning Department

RECEIVED
DEC 14 1998
GREENS[illegible]

EXHIBIT 331

FLORIDA GAME AND FRESH WATER FISH COMMISSION

QUINTON L. HEDGEPETH, DDS Miami
MRS. GILBERT W. HUMPHREY Miccosukee
THOMAS B. KIBLER Lakeland
JAMES L. "JAMIE" ADAMS JR. Bushnell
JULIE K. MORRIS Sarasota

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, Director
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-6661
SUNCOM 278-6661
FAX (850) 922-5679
TDD (850) 488-9542

GOPHER TORTOISE TAKE PERMIT RECEIPT

Chapter 39-37.002(4), FAC

PERMIT NUMBER: ORA-36

APPLICANT: Rock Springs Ridge

DATE: December 14, 1998

THIS RECEIPT ACKNOWLEDGES THAT THE EASEMENT CONSIDERATION SPECIFIED IN THE ABOVE-REFERENCED PERMIT HAS BEEN MET.

DEBORAH ROBERTS-WILLIAMS
(Staff Assistant)

OR

Traci Wallace

TRACI WALLACE
(Executive Secretary)

cc: OES Field Office – Vero

EXHIBIT 332

FLORIDA GAME AND FRESH WATER FISH COMMISSION

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DEBORAH ROBERTS-WILLIAMS
(Staff Assistant)

OR

Traci Wallace

TRACI WALLACE
(Executive Secretary)

cc: OES Field Office – Vero

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FIRST UNION NATIONAL BANK
AMENDMENT TO IRREVOCABLE STANDBY LETTER OF CREDIT
FEBRUARY 12, 1998

FLORIDA GAME AND FRESH WATER FISH COMMISSION
C/O ALLAN L. EGBERT, PH.D.
EXECUTIVE DIRECTOR
FARRIS BRYANT BUILDING
620 SOUTH MERIDIAN STREET
TALLAHASSEE, FLORIDA 32399-1600

FEB 13 1998

LETTER OF CREDIT NO. S539944
AMENDMENT NO. 001

GENTLEMEN:

WE AMEND OUR ABOVE REFERENCED LETTER OF CREDIT ISSUED IN YOUR FAVOR ON JANUARY 16, 1997, FOR THE ACCOUNT OF ROCK SPRINGS RIDGE, LTD., AS FOLLOWS:

EXPIRY DATE EXTENDED TO JANUARY 10, 1999

THE AMOUNT OF THIS LETTER OF CREDIT HAS BEEN DECREASED BY $70,490.65.

THE NEW BALANCE OF THIS LETTER OF CREDIT IS $180,053.35.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

THIS LETTER IS TO BE ATTACHED TO AND TO BECOME AN INTEGRAL PART OF THE ORIGINAL CREDIT INSTRUMENT.

UNLESS OTHERWISE EXPRESSLY STATED HEREIN, THIS CREDIT IS SUBJECT TO UNIFORM CUSTOMS AND PRACTICES FOR DOCUMENTARY CREDITS (1993 REVISION), INTERNATIONAL CHAMBER OF COMMERCE PUBLICATION NO. 500.

SINCERELY,

AUTHORIZED SIGNATURE
FIRST UNION NATIONAL BANK
200 SOUTH BISCAYNE BLVD. 12TH FL
MIAMI, FL 33131

FIRST UNION

FIRST UNION NATIONAL BANK OF FLORIDA
IRREVOCABLE STANDBY LETTER OF CREDIT

JANUARY 16, 1997

FLORIDA GAME AND FRESH WATER FISH COMMISSION
C/O ALLAN L. EGBERT, PH.D.
EXECUTIVE DIRECTOR
FARRIS BRYANT BUILDING
620 SOUTH MERIDIAN STREET
TALLAHASSEE, FLORIDA 32399-1600

LETTER OF CREDIT NO
S539944

RE: GOPHER TORTOISE INCIDENTAL TAKE PERMIT NO. ORA-36
ROCK SPRINGS RIDGE
ORANGE COUNTY, FLORIDA

GENTLEMEN:

WE HEREBY OPEN OUR IRREVOCABLE STANDBY LETTER OF CREDIT IN FAVOR OF THE FLORIDA GAME AND FRESH WATER FISH COMMISSION, FOR THE ACCOUNT OF ROCK SPRINGS RIDGE, LTD., 401 W. COLONIAL DRIVE, E/ ORLANDO, FLORIDA 32804 IN THE AGGREGATE OF: $250,544.00 UNITED STATES DOLLARS (TWO HUNDRED FIFTY THOUSAND FIVE HUNDRED FORTY FOUR AND NO ONE HUNDREDTHS) AVAILABLE BY PAYMENT OF YOUR DRAFT(S) AT SIGHT DRAWN ON OURSELVES WHEN ACCOMPANIED BY THE LOWING DOCUMENT(S):

AN AFFIDAVIT SIGNED BY THE FLORIDA GAME AND FRESH WATER FISH COMMISSION, READING AS FOLLOWS:

ON JANUARY 10, 1997, THE FLORIDA GAME AND FRESH WATER FISH COMMISSION ("COMMISSION") ISSUED ROCK SPRINGS RIDGE, LTD. ("PERMITTEE") GOPHER TORTOISE INCIDENTAL TAKE PERMIT NO. ORA 36 ("PERMIT") COPY ATTACHED AS EXHIBIT "A" FOR THE PROJECT KNOWN AS ROCK SPRINGS RIDGE LOCATED IN ORANGE COUNTY, FLORIDA. ACCORDING TO CONDITION NO. 1, THE PERMITTEE WAS OBLIGATED TO RECORD A CONSERVATION EASEMENT APPROVED BY THE COMMISSION OVER A 37.3 ACRE PARCEL OF LAND DESIGNATED AS AREA B IN THE PERMIT NO LATER THAN DECEMBER 10, 1997. THE COMMISSION APPROVED THE CONSERVATION EASEMENT AND THE PERMITTEE HAS NOT RECORDED THE CONSERVATION EASEMENT AS REQUIRED IN CONDITION NO. 1.

PURSUANT TO CONDITION NO. 2, THE PERMITTEE PROVIDED THE COMMISSION AN IRREVOCABLE LETTER OF CREDIT ("LC") IN THE AMOUNT OF $250,544.00 AS INTERIM ASSURANCE THAT THE CONSERVATION EASEMENT REFERENCED ABOVE WOULD BE RECORDED NO LATER THAN DECEMBER 10, 1997. CONDITION NO. 4 PROVIDED THAT THE COMMISSION MAY DRAW UPON THE ENTIRE VALUE OF THE ("LC") IF THE CONSERVATION EASEMENT REQUIRED BY CONDITION NO. 1 WAS NOT RECORDED BY DECEMBER 10, 1997. THE COMMISSION HEREBY REPRESENTS AND WARRANTS

FIRST UNION

TO FIRST UNION NATIONAL BANK OF FLORIDA THAT THE PERMITTEE HAS NOT RECORDED THE CONSERVATION EASEMENT REQUIRED IN CONDITION NO. 1 AND PURSUANT TO CONDITON NO. 4 DRAWS UPON THE ENTIRE VALUE OF THE ("LOC")

COPY OF ATTACHED EXHIBIT "A" IS FOR INFORMATION AND GUIDANCE ONLY. WITHOUT ANY RESPONSIBILITY OR ENGAGEMENT ON THE PART OF FIRST UNION NATIONAL BANK OF FLORIDA, FOR ITS CONTENTS.

ALL BANKING CHARGES ARE FOR ROCK SPRINGS RIDGE, LTD., ACCOUNT

DRAFT(S) DRAWN UNDER THIS CREDIT MUST STATE ON THEIR FACE "DRAWN UNDER FIRST UNION NATIONAL BANK OF FLORIDA IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER S539944 DATED JANUARY 16, 1997."

HEREBY AGREE THAT FLORIDA GAME AND FRESH WATER FISH MMISSION DRAFT(S) DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT SHALL BE DULY HONORED IF PRESENTED TOGETHER WITH DOCUMENT(S) AS SPECIFIED AND THE ORIGINAL OF THIS CREDIT, AT OUR OFFICE LOCATED AT 200 SOUTH BISCAYNE BOULEVARD, 12TH FLOOR, MIAMI, FLORIDA 33131 FL 6042 ATTN: INTERNATIONAL SUPPORT SERVICES ON OR BEFORE JANUARY 10, 1998. DRAWINGS PRIOR TO DECEMBER 10, 1997 ARE PROHIBITED.

EXCEPT AS OTHERWISE EXPRESSLY STATED HEREIN, THIS LETTER OF CREDIT IS SUBJECT TO THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS, ESTABLISHED BY THE INTERNATIONAL CHAMBER OF COMMERCE, AS IN EFFECT ON THE DATE OF ISSUANCE OF THIS CREDIT.

SINCERELY,

JOAN OLIVER
AUTHORIZED SIGNATURE
FIRST UNION NATIONAL BANK OF FLORIDA

PLEASE DIRECT ALL INQUIRIES REGARDING THIS TRANSACTION TO OUR INT'L SUPPORT SERVICE AT (305) 789-6975

Exhibit "A"

PERMIT FOR TAKING OF GOPHER TORTOISES AND

THEIR BURROWS

Chapter 39-27.002(4) FAC

STATE OF FLORIDA GAME AND FRESH WATER FISH COMMISSION

Issuance Date: January 10, 1997

Permittee: Rock Springs Ridge, Ltd.
Street Address: c/o Brooksville Development Company
401 West Colonial Drive, Suite 7
Orlando, Florida 32804
ATTN: Mr. James H. Fant

Authorized Agent: Ms. Yvonne I. Froscher
Address: Environmental Consultant
P. O. Box 195305
Winter Springs, Florida 32719-5305

Permit Number: ORA-36

Location of Affected Site: Proposed Rock Springs Ridge golf course and entrance road development sites, consisting of approximately 252.0 acres, entirely comprised of gopher tortoise habitat, within Sections 17, 20, and 21, Township 20S , and Range 28E , Orange County. See the attached location maps (Attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. The applicant shall protect 37.3 acres of gopher tortoise habitat within Mitigation Area B located in the northwest corner of the project site (See Attachment 2). The applicant shall submit a draft copy of the conservation easement to the Florida Game and Fresh Water Fish Commission (GFC) for review and approval prior to recording. A certified copy of the recorded easement shall be provided to the GFC at the Office of Environmental Services, 620 South Meridian Street, Tallahassee, Florida, 32399-1600. The areas covered by conservation easements shall be surveyed and clearly marked on the ground with boundary markers that are maintained for the duration of the easement.

2. To provide interim assurance that Condition #1 will be accomplished, the applicant will provide an irrevocable letter of credit for $250,544.00 ($6,717.00 X 37.3 acres), valid for twelve months, to the GFC - Office of Environmental Services (OES), 620 South Meridian Street, Tallahassee, Florida 32399-1600.

3. The permit will not go into effect until latter effective date of either:

   a) 21 days from the date that the permittee receives this notice, or if a petition for Administrative Hearing is timely filed, until the petition is resolved; or

   b) the date the permittee has obtained a receipt from the GFC that the Letter of Credit has been received.

4. If the permittee has not satisfied Condition #1 within eleven months from the date of this permit, the GFC shall be entitled to draw upon the entire value of the submitted Letter of Credit to purchase gopher tortoise habitat. If the permittee complies with the terms described in Condition #1 within the specified timeframe, the GFC shall return the Letter of Credit to the permittee.

5. The applicant shall have the obligation to manage and maintain the protected 37.3 acres for gopher tortoises in accordance with the habitat management plan included in the document: Gopher Tortoise Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida (revised December 23, 1996).

6. The permittee shall keep written records of the habitat management activities conducted and provide a copy of said records upon request of the GFC.

7. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the GFC as to other listed species. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.

8. The permittee, or authorized agents of the permittee, are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its authorized agent(s) to possess or move tortoises off the contiguous ownership of the permittee or to move tortoises into areas previously authorized as a relocation site by GFC permit. A separate relocation permit from GFC shall be required for those activities.

9. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of animals addressed in Condition #8 . Any other form of taking or relocation will require a separate permit from the Executive Director.

10. This permit must be available for inspection at all times while engaged in the permitted activity.

11. This permit is transferrable to subsequent owners of the property.

Notice of Rights Statement: In accordance with Rules 28-5.111 and 28.6.008, Florida Administrative Code, and Section 120.60, Florida Statutes, any party may request a hearing on this matter pursuant to Section 120.57, Florida Statutes by filing a completed Election of Rights form (copy attached) by certified mail, return receipt requested, with the undersigned within twenty-one (21) days of receipt of this permit and notice. If timely requested and a hearing is granted, the hearing will be conducted under the procedures established by Section 120.57, Florida Statutes. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

Allan L. Egbert, Ph.D.
Executive Director

By: Bradley J. Hartman

ENV 3-2/5
Attachments:
1. General location map
2. Location of mitigation area and areas authorized for incidental taking of gopher tortoises
3. Election of Rights form
ROCKRP.OT

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

DATE: AUGUST 26, 1998

TO: Mr. Bradley J. Hartman, Director, Office of Environmental Services
COMPANY: Florida Game and Fresh Water Fish Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
PROJECT NO.: 98035
PROJECT NAME: **Rock Springs Ridge (Phase II)**

RE: Application for Gopher Tortoise Incidental Take Permit

☐ Pick-up ☐ Courier ☐ U.S. Mail ☒ Overnight

Copies	*Dated*	*Description*
2	8/25/98	Application for Gopher Tortoise Incidental Take Permit for the Rock Springs Ridge (Phase II) Project Site, Orange County, Florida

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☐ For your use ☐ As requested ☐ For review and comment ☒ For approval

Other:

cc: Jim Fant
Douglas J. Rillstone

Signed: Darla J. Miller, B.S.
Associate Scientist III

P:\ADMIN\PROJECTS\98035\LOTS\CD LOT.DOC

BREEDLOVE, DENNIS & ASSOCIATES, INC.
P.O. BOX 720037 / ORLANDO, FLORIDA 32872-0037
4301 METRIC DRIVE / WINTER PARK, FLORIDA 32792 / (407) 677-1882 / FAX (407) 657-7008

BDA
ENVIRONMENTAL CONSULTANTS

98035-20.1

APPLICATION FOR
GOPHER TORTOISE INCIDENTAL TAKE PERMIT
FOR THE ROCK SPRINGS RIDGE (PHASE II) PROJECT SITE
ORANGE COUNTY, FLORIDA

Submitted to:

Mr. Bradley J. Hartman
Director, Office of Environmental Services
Florida Game and Fresh Water Fish Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-6661
FAX: (850) 922-5679

Submitted on behalf of:

Mr. James H. Fant
Rock Springs Ridge, Ltd.
Rock Springs, Inc. G.P.
401 West Colonial Drive
Suite 7
Orlando, Florida 32804
TEL: (407) 425-8276
FAX: (407) 425-8571

August 25, 1998

Submitted by:

Darla J. Miller, B.S.
Associate Scientist III

Mark W. Christopher, M.S., C.W.B., P.W.S.
Senior Project Manager

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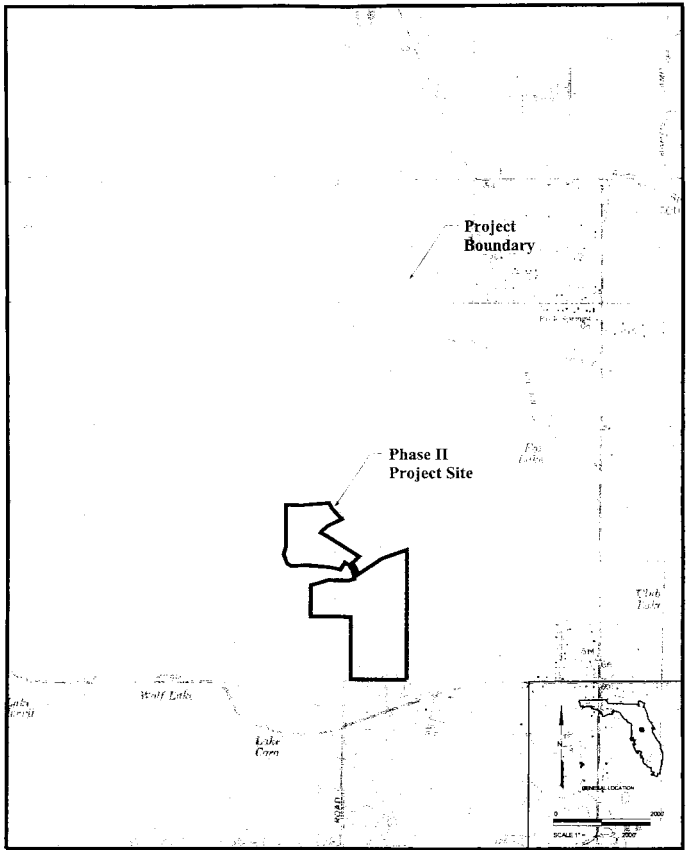
1.0 INTRODUCTION

The Rock Springs Ridge (Phase II) project site is located in Sections 20 and 21, Township 20 South, Range 28 East in Orange County, Florida (Figure 1.0-1). A gopher tortoise (*Gopherus polyphemus*) census was conducted of 100% of the suitable habitat on May 27, 1998 and June 2, 1998 to determine the location and density of gopher tortoises on the project site. Three-hundred and seventy-one (371) gopher tortoise burrows were found during this census, which equates to a population estimate of 127 gopher tortoises.

Proposed development of the project site includes single-family housing and the related master stormwater drainage system. Other permitting approvals are being sought for development of this site. Development of the site will occur as soon as all state and local approvals are obtained.

Breedlove, Dennis & Associates, Inc. (BDA) requests an Incidental Take Permit (ITP) from the Florida Game and Fresh Water Fish Commission (FGFWFC). Mitigation of the impacts to the gopher tortoises will include on-site relocation of 97 gopher tortoises into previously-approved mitigation areas, and additional on-site habitat preservation and management, 9.30 acres. The project site is comprised of 113.96 acres of upland cover types. The Applicant requests authorization for the on-site relocation of gopher tortoises to the previously-approved mitigation parcel and additional on-site habitat preservation and management. This application is being submitted on behalf of Mr. James H. Fant (Applicant) and BDA will serve as the permittee, attention to Ms. Darla J. Miller

Chapter 39-77.002(4), Florida Administrative Code, provides for the protection of wildlife designated by FGFWFC as a Species of Special Concern (SSC). The current FGFWFC policies prohibit the taking of gopher tortoises without a permit from the FGFWFC. On-site relocation and habitat preservation of gopher tortoises is one of the options available to a landowner to mitigate for an incidental taking of this SSC.



Source: SureMAPS Raster Digital Quad, Copyright, 1997

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.

98035-10.3 / erp.apr / loc_map.ps

4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882

FIGURE: 1.0-1 LOCATION MAP OF THE ROCK SPRINGS RIDGE (PHASE II) PROJECT SITE, ORANGE COUNTY, FLORIDA (SECTIONS 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST.)

2.0 PHASE II

2.1 Response

The FGFWFC gopher tortoise policy allows five options for the developer that conducts land-clearing activities that may "incidentally take" gopher tortoises. These options include:

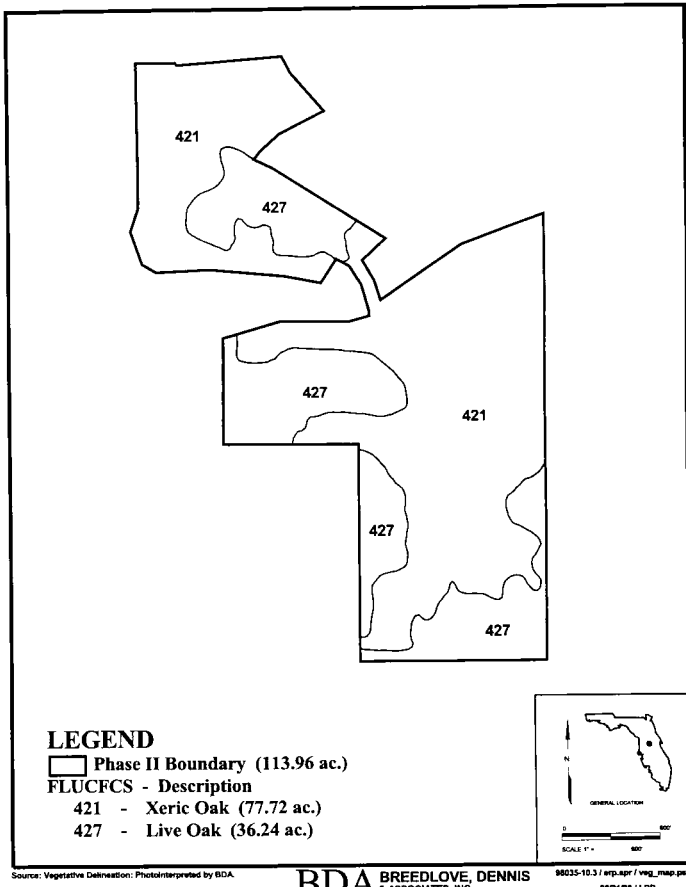
- Avoidance of an area occupied by gopher tortoises.
- Avoiding individual burrows.
- Application for an ITP.
- Gopher tortoise relocation off-site.
- Gopher tortoise relocation on-site.

All five options were considered during the construction planning for the Rock Springs Ridge (Phase II) project site. Of these options, a combination of on-site relocation and on-site habitat preservation and maintenance was considered to be the most viable for the project. Therefore, the Applicant requests issuance of a ITP with conditions for an on-site relocation.

2.2 Ecological Conditions

2.2.1 Vegetation

The cover types on the Rock Springs Ridge (Phase II) project site consists of Xeric Oak (421) and Live Oak (427) (Figure 2.2.1-1). A description of the upland habitats is as follows.



Source: Vegetative Delineation: Photointerpreted by BDA.

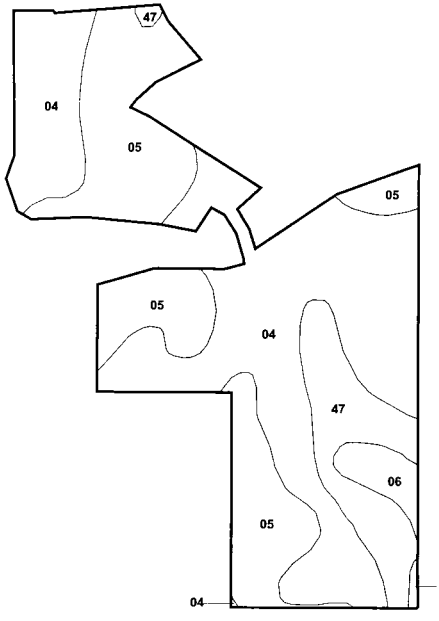
BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.

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08/21/98 / LDP

4301 Metric Dr. Winter Park, FL. 32792 (407)677-188[illegible]08

FIGURE: 2.2.1-1 FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYS[illegible]OR THE ROCK SPRINGS RIDGE (PHASE II) PROJECT SITE, ORANGE COUNTY, FLORIDA.

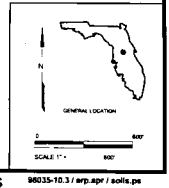


LEGEND

Phase II Boundary

NRCS Soils Type and Description

04 - Candler fine sand, 0 to 5% slopes
05 - Candler fine sand, 5 to 12% slopes
06 - Candler-Apopka fine sand, 5 to 12% slopes
28 - Florahome fine sand, 0 to 5% slopes
47 - Tavares-Urban land complex, 0 to 5% slopes



Source: SJRWMD Digital Data Library

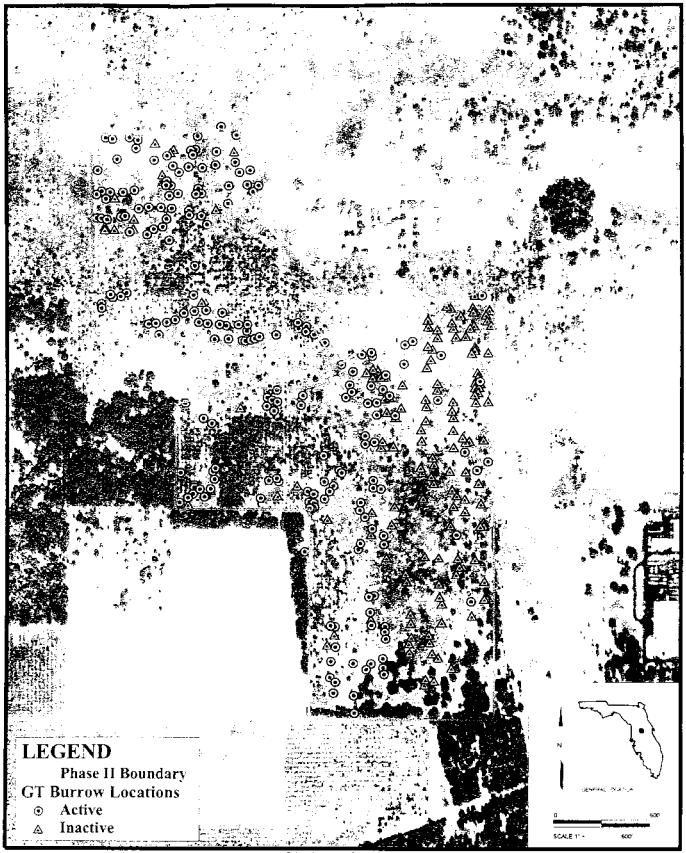
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96035-10.3 / arp.apr / soils.ps
08/21/96 / LDP

FIGURE: 2.2.2-1 SOILS MAP FOR THE ROCK SPRINGS RIDGE (PHASE II) PROJEC
ORANGE COUNTY, FLORIDA.

2.3 Survey Methodology

Pedestrian transect surveys were conducted on May 27 and June 2, 1998 to assess the occurrence of gopher tortoises on the Rock Springs Ridge (Phase II) project site. FGFWFC guidelines (Cox et al. 1987) were followed in order to determine gopher tortoise density within the project site. A census of 100% of the suitable habitat was conducted; resulting in 45 transects of varying widths, based on vegetative cover density (Figure 2.3-1). As a 100% census was conducted, the transects were not shown on Figure 2.3-1; however, the burrow locations are depicted therein. All "active" and "inactive" burrows observed were counted and their location along the transect recorded (Figure 2.3-1). A total of 371 active and inactive burrows were located. This count equates to an estimate of 127 gopher tortoises.



Source: Gopher Tortoise Census by BDA.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882

98035-10.3 / erp.apr / GTloc_map.ps

350

FIGURE: 2.3-1 GOPHER TORTOISE BURROW LOCATIONS ON THE ROCK SPRINGS RIDGE (PHASE II) PROJECT SITE, ORANGE COUNTY, FLORIDA.

3.0 MITIGATION PARCELS

3.1 Situation

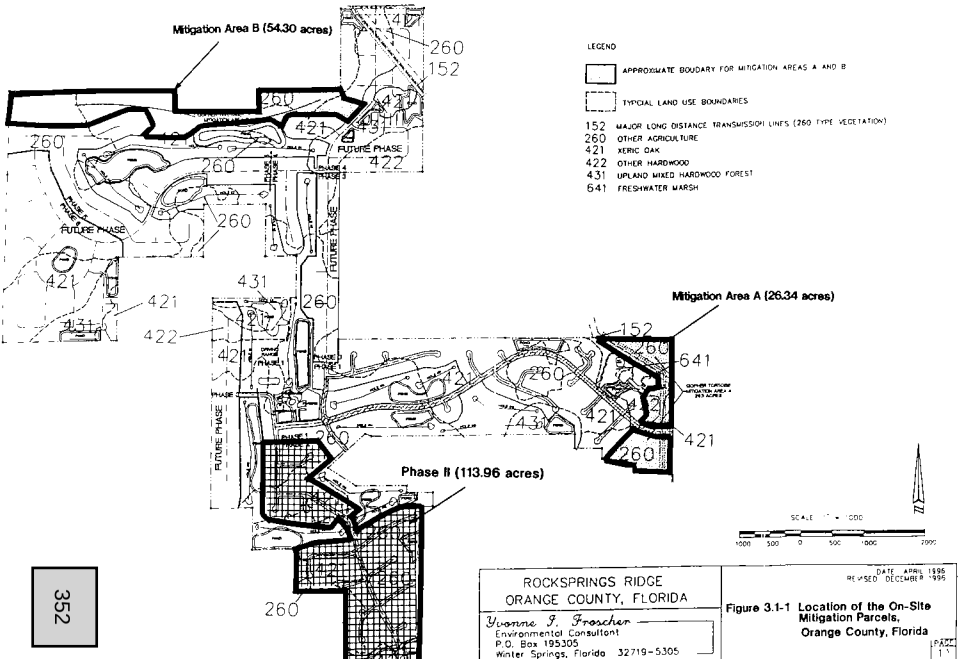
Two previous ITPs were issued for Rock Springs Ridge (for work within Phase I and to construct the golf course and entrance road). The applications for these permits included two potential mitigation areas (Areas A and B) which were reviewed and approved by the FGFWFC as on-site mitigation areas (Figure 3.1-1). Portions of each of these parcels have been used in previous ITPs for the first phase of work.

3.1.1 Permit No. ORA-36

A portion of Mitigation Area B (Figure 3.1.1-1) was used in this permit (Appendix A) to offset gopher tortoise impacts. The total acreage of Mitigation Area B is 54.30 acres, of which 37.30 acres have been utilized for gopher tortoise mitigation; therefore, 17.00 acres remain as a potential mitigation area (Table 3.1.1-1). There is no stipulation in this permit for an on-site density for this parcel.

3.1.2. Permit No. ORA-39

A portion of Mitigation Area A (Figure 3.1.2-1) was used in this permit (Appendix B) to offset gopher tortoise impacts. The total acreage of Mitigation Area A is 26.34 acres, of which 17.13 acres have been utilized for gopher tortoise mitigation; therefore, 9.21 acres remain as a potential mitigation area (Table 3.1.1-1). This permit requires a population of at least 40 individuals in this parcel.



352

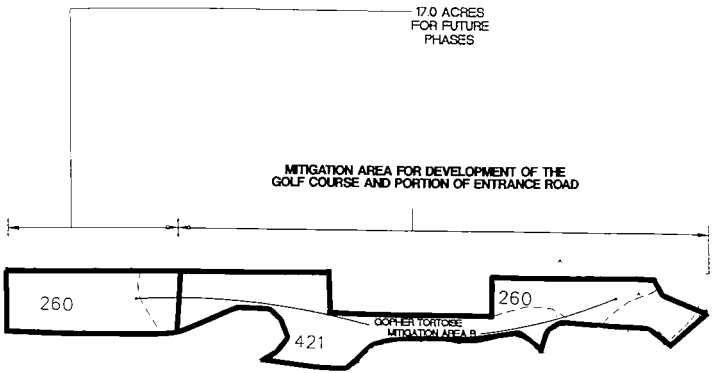
ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

DATE APRIL 1995
REVISED DECEMBER 1995

Figure 3.1-1 Location of the On-Site Mitigation Parcels, Orange County, Florida

PART 1 OF



LEGEND

APPROXIMATE BOUNDARY FOR MITIGATION AREA B

260 OTHER AGRICULTURE

421 XERIC OAK

N

SCALE: 1" = 800'

800 400 0 400 800 1600

ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

DATE: APRIL 1996
REVISED: DECEMBER 1996

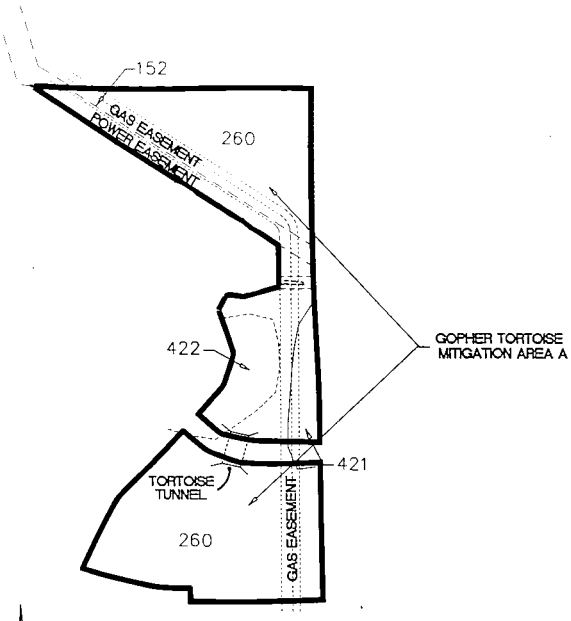
Figure 3.1.1-1
Mitigation Area B, Rock Springs Ridge Project Site, Orange County, Florida

Ivonne J. Froschen
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

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Table 3.1.1-1 Mitigation Acreage Summary on the Rock Springs Ridge (Phase II) Project Site, Orange County, Florida.

Area Use	Mitigation Area A (Acreage)	Mitigation Area B (Acreage)	Total (By Use, Acreage)
Used	17.13	37.30	54.43
Not used	9.21	17.00	26.21
Total acreage (by mitigation area)	26.34	54.30	80.64



ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

DATE: APRIL 1996
REVISED: DECEMBER 1996

Figure 3.12-1

Mitigation Area A, Rock Springs Ridge Project Site, Orange County, Florida

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

3.1.3 Site-Specific Conversion Factor

Ms. Yvonne I. Froscher conducted an on-site study to determine if the standard inter-burrow conversion factor (0.614) applies to this site. It was determined that a more accurate site-specific conversion factor (SSCF) for this site is 0.34. This SSCF has been approved by the FGFWFC and used in the previously-issued ITPs. This SSCF is valid and has been used for this application.

3.2 Ecological Conditions

3.2.1 Vegetation

Vegetative communities within Mitigation Areas A and B are consistent with those described for Phase II.

3.2.2 Soils

Soils within Mitigation Area A primarily includes Basinger fine sand, depressional (3), St. Johns fine sand (37), and Tavares-Millhopper fine sands, 0 to 5% slopes (47). Soils within Mitigation Area B includes primarily Candler fine sand, 0 to 5% slopes (4), Candler fine sands, 5 to 12% slopes (5), and Tavares-Millhopper fine sands, 0 to 5% slopes (47).

3.2.3 Survey Methodology

In order to determine the current population status within each of the mitigation areas, pedestrian transects were conducted on July 15 and 17, 1998 within Mitigation Area A and July 17, 1998 within Mitigation Area B. FGFWFC guidelines (Cox, et al. 1987) were followed in order to determine the gopher tortoise density within the relocation area.

A survey of 100% of the suitable habitat was conducted. A total of 56 "inactive" and "active" burrows were located within Mitigation A and 135 "inactive" and "active" burrows were located in Mitigation Area B.

Based on the 100% census, using the SSCF (0.34), Mitigation Area A potentially contains 19 individuals and Mitigation Area B potentially contains 46 individuals. Therefore, Mitigation Area A has 0.72 gopher tortoises per acre (56 burrows x 0.34/26.43 acres) and Mitigation Area B has 0.85 gopher tortoises per acre (135 burrows x 0.34/54.3 acres) (Table 3.2.3-1).

Table 3.2.3-1 Gopher Tortoise Densities on the Rock Springs Ridge (Phase II) Project Site, Orange County, Florida.

Area	Present Condition				No. of Gopher Tortoises Relocated	Remaining No. of Gopher Tortoises	Density (Gopher Tortoise/Acre)
	Acreage	No. of Burrows (Active & Inactive)	Estimated No. of Gopher Tortoises[1]	Density (Gopher Tortoise/Acre)			
Mitigation Area A	26.45	56	19	0.72	34	53	2.0
Mitigation Area B	54.30	135	46	0.85	63[2]	109	2.0
Phase II	113.96	371	127	1.11	97[3]	30	1.11[4]

[1]Using the site-specific conversion factor of 0.34

[2]34 and 63 = Number of gopher tortoises relocated to Mitigation Areas A and B, respectively.

[3]97 = Number of gopher tortoises (*Gopherus polyphemus*) relocated from Phase II.

[4]The density is presumed to be consistent within Phase II. Therefore, there would be no density change as a result of the relocation. However, the acreage of mitigation required will be calculated using the remaining number of gopher tortoises.

4.0 MITIGATION ALTERNATIVE

The results of the 100% census of suitable gopher tortoise habitat on the Rock Springs Ridge (Phase II) project site reveal that there are 371 "inactive" and "active" gopher tortoise burrows. Mitigation proposed for impacts to this SSC is a combination of on-site relocation and on-site preservation.

4.1 On-Site Relocation

Pursuant to Permit No. ORA-39, Mitigation Area A is required to have at least 40 individuals. Currently, it is estimated that there are 19 individuals in this 26.34-acre area. Therefore, the Applicant requests that a total of 34 gopher tortoises be relocated from Phase II into this area to increase the population to 2.0 gopher tortoises per acre and to increase the number of individuals to at least the permitted level.

Additionally, a census was conducted within Mitigation Area B to determine the status of the density within this area. A total of 135 "active" and "inactive" burrows with an estimated 46 individuals (0.85 gopher tortoises per acre). The FGFWFC currently allows up to 2.0 gopher tortoises per acre within the recipient site. Therefore, the Applicant requests that an additional 63 gopher tortoises be relocated into this parcel to optimize the density within this area.

The Applicant requests that a total of 34 gopher tortoises be relocated into Mitigation Area A and 63 gopher tortoises be relocated into Mitigation Area B, as part of the mitigation for this ITP.

4.2 On-Site Preservation

Mitigation Area A is 26.43 acres of which ~~9.21~~ acres has not been used for mitigation, and Mitigation Area B is 54.30 acres of which ~~17.00~~ acres has not been used. Therefore, a total of 26.~~34~~ acres remains on-site as potential gopher tortoise mitigation (Table 3.1.1-1).

A total of 371 "active" and "inactive" gopher tortoise burrows were located during the 100% census, resulting in a potential for 127 gopher tortoises (371 x 0.34) within the 113.96-acre Phase II site. If a total of 97 gopher tortoises are relocated from Phase II into Mitigation Areas A and B (34 into A and 63 into B), an estimated 30 gopher tortoises would remain on Phase II (Table 3.2.3-1)

The total estimated density on Phase II is 1.11 gopher tortoises per acre (127 gopher tortoises/113.96 acres). Therefore, if a total of 97 gopher tortoises are relocated on-site, mitigation would be required for the remaining 30 gopher tortoises and the acreage occupied by these gopher tortoises (27.03 acres = 30 gopher tortoises/1.11 gopher tortoises per acre). This remaining 27.03 acres would require 25% mitigation, or a total of 6.75 acres of preservation, in combination with the on-site relocation to completely offset the impacts to the gopher tortoises within Phase II. ~~The 9.21 acres remaining in Mitigation Area A~~ will be added to the already-preserved areas to serve as on-site mitigation.

4.3 Maintenance

Maintenance within the on-site preservation area will be consistent with the requirements within Permit Nos. ORA-36 and ORA-39. Thirty percent (30%) of the canopy coverage will be removed to increase the open space area and to encourage growth of herbaceous vegetation. As prescribed burning in residential areas is very difficult and not recommended, biennial maintenance of the mitigation areas will include mowing within the mitigation areas in the winter months.

5.0 SUMMARY

On behalf of Mr. Fant of Rock Springs Ridge, Ltd., BDA requests an ITP with the option to relocate a total of 97 gopher tortoises into the on-site areas (34 gopher tortoises into Mitigation Area A and 63 gopher tortoises into Mitigation Area B) and the on-site preservation and maintenance of ~~the remaining~~ 9.21 ~~acres~~ of upland habitat within Mitigation Area A to offset impacts to this SSC.

APPENDIX A

PERMIT No. ORA-36

PERMIT FOR TAKING OF GOPHER TORTOISES AND

THEIR BURROWS

Chapter 39-27.002(4) FAC

STATE OF FLORIDA GAME AND FRESH WATER FISH COMMISSION

Issuance Date: January 10, 1997

Permittee: Rock Springs Ridge, Ltd.
Street Address: c/o Brooksville Development Company
401 West Colonial Drive, Suite 7
Orlando, Florida 32804
ATTN: Mr. James H. Farr

Authorized Agent: Ms. Yvonne I. Froscher
Address: Environmental Consultant
P. O. Box 195305
Winter Springs, Florida 32719-5305

Permit Number: ORA-36

Location of Affected Site: Proposed Rock Springs Ridge golf course and entrance road development sites, consisting of approximately 252.0 acres, entirely comprised of gopher tortoise habitat, within Sections 17, 20, and 21, Township 20S , and Range 28E , Orange County. See the attached location maps (Attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. The applicant shall protect 37.3 acres of gopher tortoise habitat within Mitigation Area B located in the northwest corner of the project site (See Attachment 2). The applicant shall submit a draft copy of the conservation easement to the Florida Game and Fresh Water Fish Commission (GFC) for review and approval prior to recording. A certified copy of the recorded easement shall be provided to the GFC at the Office of Environmental Services, 620 South Meridian Street, Tallahassee, Florida, 32399-1600. The areas covered by conservation easements shall be surveyed and clearly marked on the ground with boundary markers that are maintained for the duration of the easement.

2. To provide interim assurance that Condition #1 will be accomplished, the ... will provide an irrevocable letter of credit for $250,544.00 ($6,717.00 X ... acres), valid for twelve months, to the GFC - Office of Environmental Se... (OES), 620 South Meridian Street, Tallahassee, Florida 32399-1600.

3. The permit will not go into effect until latter effective date of either:

   a) 21 days from the date that the permittee receives this notice, or if a petition for Administrative Hearing is timely filed, until the petition is resolved; or

   b) the date the permittee has obtained a receipt from the GFC that the Letter of Credit has been received.

4. If the permittee has not satisfied Condition #1 within eleven months from the date of this permit, the GFC shall be entitled to draw upon the entire value of the submitted Letter of Credit to purchase gopher tortoise habitat. If the permittee complies with the terms described in Condition #1 within the specified timeframe, the GFC shall return the Letter of Credit to the permittee.

5. The applicant shall have the obligation to manage and maintain the protected 37.3 acres for gopher tortoises in accordance with the habitat management plan included in the document: Gopher Tortoise Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida (revised December 23, 1996).

6. The permittee shall keep written records of the habitat management activities conducted and provide a copy of said records upon request of the GFC.

7. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the GFC as to other listed species. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.

8. The permittee, or authorized agents of the permittee, are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its authorized agent(s) to possess or move tortoises off the contiguous ownership of the permittee or to move tortoises into areas previously authorized as a relocation site by GFC permit. A separate relocation permit from GFC shall be required for those activities.

9. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of animals addressed in Condition #8. Any other form of taking or relocation will require a separate permit from the Executive Director.

10. This permit must be available for inspection at all times while engaged in permitted activity.

11. This permit is transferrable to subsequent owners of the property.

Notice of Rights Statement: In accordance with Rules 28-5.111 and 28.6.008, Florida Administrative Code, and Section 120.60, Florida Statutes, any party may request a hearing on this matter pursuant to Section 120.57, Florida Statutes by filing a completed Election of Rights form (copy attached) by certified mail, return receipt requested, with the undersigned within twenty-one (21) days of receipt of this permit and notice. If timely requested and a hearing is granted, the hearing will be conducted under the procedures established by Section 120.57, Florida Statutes. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

Allan L. Egbert, Ph.D.
Executive Director

By: Bradley J. Hartman

ENV 3-2/5
Attachments:
1. General location map
2. Location of mitigation area and areas authorized for incidental taking of gopher tortoises
3. Election of Rights form

ROCKSP.GT

APPENDIX B

PERMIT No. ORA-39

FLORIDA GAME AND FRESH WATER FISH COMMISSION

JULIE K. MORRIS, Sarasota
QUINTON L. HEDGEPETH, DDS, Miami
MRS. GILBERT W. HUMPHREY, Milwaukee
THOMAS B. KIBLER, Lakeland
JOE BRUNER, Destin

May 22, 1997

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, Director
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(904) 488-6661
SUNCOM 278-6661
FAX (904) 922-5679
TDD (904) 488-9542

Mr. James H. Fant
Rock Springs Ridge, Ltd.
c/o Brookside Development Company
401 West Colonial Drive, Suite 7
Orlando, FL 32804

Re: Gopher Tortoise Incidental Take Permit #ORA-39, Orange County

Dear Mr. Fant:

Enclosed is permit ORA-39 for the incidental taking of gopher tortoises, their eggs and their burrows within the development boundaries specified. The application for this permit was complete as of April 15, 1997.

Please contact me or Mr. Steve Lau at (561) 778-5094 if you have any questions regarding this permit.

Sincerely,

Bradley J. Hartman

Bradley J. Hartman, Director
Office of Environmental Services

BJH/tgw
ENV 3-2/5
Enclosure
gtpermit.ltr
cc: Orange County Planning Department
Ms. Julie Hovis, Central Region, GFC
Major Love, Central Region, GFC
Mr. Steve Lau, OES, GFC
Ms. Yvonne I. Froscher, Environmental Consultant
Ms. Angela Williams, Division of Wildlife, GFC

PERMIT FOR TAKING OF GOPHER TORTOISES AND

THEIR BURROWS

Chapter 39-27.002(4) FAC

STATE OF FLORIDA GAME AND FRESH WATER FISH COMMISSION

Issuance Date: May 22, 1997

Permittee: Rock Springs Ridge, Ltd.
Street Address: c/o Brookside Development Company
401 West Colonial Drive, Suite 7
Orlando, Florida 32804
ATTN: Mr. James H. Fant

Authorized Agent: Ms. Yvonne I. Froscher
Address: Environmental Consultant
P. O. Box 195305
Winter Springs, FL 32719-5305

Permit Number: ORA-39

Location of Affected Site: Proposed 117.6 acres of Rock Springs Ridge, Phase I development site, including 112.8 of gopher tortoise habitat, within Sections 20 and 21, Township 20S, Range 28E, Orange County. See the attached location maps. (Attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. The applicant shall protect 26.43 acres of gopher tortoise habitat within Mitigation Area A, located in the eastern edge of the project site (see Attachment 2), by placing the acreage under a perpetual conservation easement granted to the Florida Game and Fresh Water Fish Commission (GFC). A mortgage subordination clause must be included in the easement. This permit requires 16.7 acres of mitigation, leaving 9.73 acres within the easement to be applied to future development phases. The applicant shall submit a draft copy of the conservation easement to the GFC for review and approval prior to executing and recording it in the Orange County property records book. A certified as recorded copy of the easement shall be provided to the GFC at the Office of Environmental Services, 620 South Meridian Street, Tallahassee, Florida, 32399-1600. The areas covered by conservation easements shall be surveyed and clearly marked on the ground with perm markers. These markers shall be maintained for the duration of the easen

2. The permit will not go into effect until the date that the permittee has received confirmation that the GFC has received the previously approved and recorded conservation easement for the area described in Condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

3. The applicant shall have the obligation to manage and maintain the protected 26.43 acres for gopher tortoises in accordance with the habitat management plan ("Plan") included with the document: *Gopher Tortoise Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida* (revised 20 March 1997). This Plan shall be made part of the aforementioned conservation easement. The applicant shall relocate tortoises to this easement area as necessary to assure that, at the time of any future use of Mitigation Area A for gopher tortoise mitigation, the tortoise population of this area contains a minimum of 40 individuals. If requested by the applicant and after the applicant has relocated tortoises to Mitigation Area A in accordance with the above, the GFC will modify Permit No. ORA-36 to reflect that the area subject to the above Plan and onsite preservation required in Condition No. 1 consists of 27.57 acres in Mitigation Area B and 9.73 acres in Mitigation Area A.

4. The permittee shall keep written records of the habitat management activities conducted and provide a copy of said records upon request of the GFC.

5. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the GFC as to other listed species. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.

6. The permittee, or authorized agents of the permittee, are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its authorized agent(s) to possess or move tortoises off the contiguous ownership of the permittee or to move tortoises into areas previously authorized as a relocation site by GFC permit. A separate relocation permit from GFC shall be required for those activities.

7. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of anima addressed in Condition #6. Any other form of taking or relocation will r separate permit from the Executive Director.

8. This permit must be available for inspection at all times while engaged in the permitted activity.

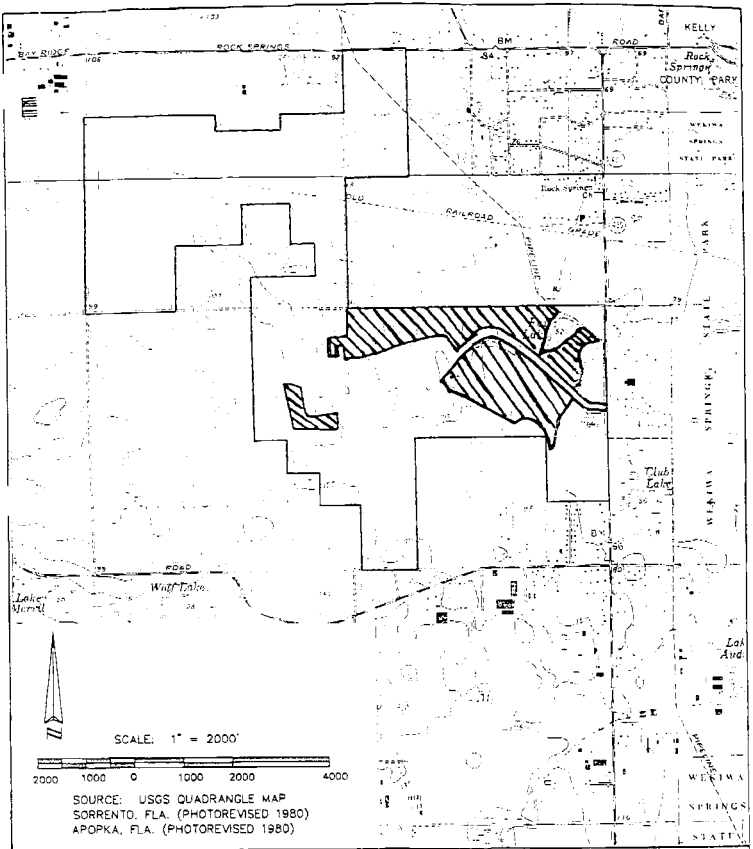
9. This permit is transferrable to subsequent owners of the property.

Notice of Rights Statement: In accordance with Rules 28-5.111 and 28.6.008, Florida Administrative Code, and Section 120.60, Florida Statutes, any party may request a hearing on this matter pursuant to Section 120.57, Florida Statutes by filing a completed Election of Rights form (copy attached) by certified mail, return receipt requested, with the undersigned within twenty-one (21) days of receipt of this permit and notice. If timely requested and a hearing is granted, the hearing will be conducted under the procedures established by Section 120.57, Florida Statutes. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

Allan L. Egbert, Ph.D.
Executive Director

By: Bradley J. Hartman

ALE/SL
ENV 3-2/5
Attachments:
1. General location map
2. Property location map
3. Election of Rights form
rockrid.gt



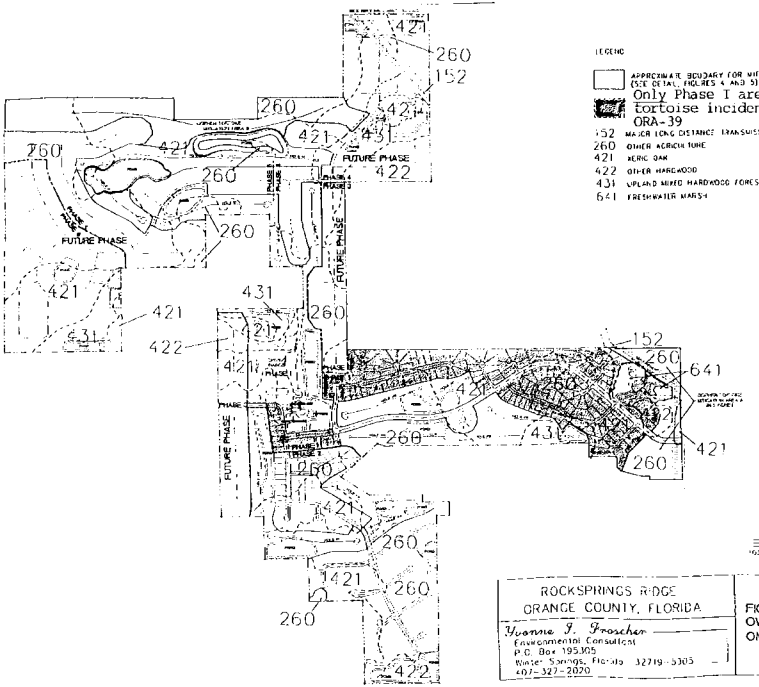
ROCK SPRINGS RIDGE
ORANGE COUNTY, FLORIDA

DATE: SEPTEMBER 1995

FIGURE 1:
VICINITY MAP

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

- Approximate project authorized under permit ORA-39 (see Attachment 2 for details)



ROCKSPRINGS RIDGE ORANGE COUNTY, FLORIDA	DATE APRIL 1996 REVISED DECEMBER 1996 REVISED JANUARY 1997
Yvonne I. Froscher Environmental Consultant P.O. Box 195305 Winter Springs, Florida 32719-5305 407-327-2020	FIGURE 3: OVERLAY OF PROPOSED SITE PLAN ON LAND USE AND COVER MAP SHEET 11

PERMIT #ORA-39

STATE OF FLORIDA
GAME AND FRESH WATER FISH COMMISSION

ELECTION OF RIGHTS

I have read the Explanation of Rights form and understand my options. (You may select one of the options below and return with this form to the Florida Game and Fresh Water Fish Commission (Commission) no later than twenty one (21) days from the receipt of the Notice of Agency Action).

1. ( ) I do not dispute the allegations of fact in the Notice of Agency Action but do wish to be accorded an informal hearing or proceeding, pursuant to Section 120.57(2), Florida Statutes, at which time I will be permitted to submit oral or written evidence in mitigation of the complaint to the agency head or his representative.

2. ( ) I do dispute the allegations of fact contained in the Notice of Agency Action, submit an attached statement of all disputed allegations of fact, and request a formal hearing, pursuant to Section 120.57(1), Florida Statutes, before a hearing officer appointed by the Division of Administrative Hearings.

3. ( ). I do not dispute the allegations of fact in the Notice of Agency Action and waive my right to object or to be heard.

I have read and understand the Election of Rights form and understand that I have the right to be represented by counsel at either an informal or formal

hearing. I also understand that I must attach a petition or written statement of the disputed issues of fact to this request if I have requested a formal hearing.

Please sign and state your current address and telephone number:

Date	Signature
Attorney's name and address	Address

Please mail form to:

Office of the General Counsel
Florida Game and Fresh Water
Fish Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600

BDA

ENVIRONMENTAL CONSULTANTS

PF

LETTER OF TRANSMITTAL

DATE: NOVEMBER 12, 1998

TO: Mr. Stephen Lau
COMPANY: Florida Game and Fresh Water Fish Commission
255 154th Avenue
Vero Beach, Florida 32968

Mail
Look-in
Page

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
PROJECT NO.: 98035
PROJECT NAME: **Rock Springs Ridge (Phase II)**

RE: Gopher Tortoise Incidental Take Permit Application No. ORA-54

☐ Pick-up ☐ Courier ☐ U.S. Mail ☒ Overnight

Copies	*Dated*	*Description*
2	11/12/98	Gopher Tortoise Incidental Take Permit No. ORA-54 Rock Springs Ridge, Phase II Orange County, Florida

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☐ For your use ☐ As requested ☐ For review and comment ☒ For approval

Other:

cc: Brad Hartman
Doug Rillstone
Jim Fant
Jeff Fuqua

Signed: Darla J. Miller
Darla J. Miller, B.S.
Associate Scientist III

\\BDA\PROJECTS\ADMIN\PROJECTS\98035\LOTS\GT-RPT_LOT3.DOC

November 12, 1998
File: 98035-20.1

Mr. Stephen R. Lau
Biological Administrator
Florida Game and Fresh Water Fish Commission
255 154th Avenue
Vero Beach, Florida 32968
Phone: 561-778-5094
Fax: 561-778-7227

RE: Gopher Tortoise Incidental Take Permit
No. ORA-54
Rock Springs Ridge, Phase II
Orange County, Florida

Dear Mr. Lau:

Pursuant to your letter, dated September 2, 1998, we are providing the following information regarding the request for an Incidental Take Permit (ITP) for the above-referenced project. On October 21, 1998, Douglas J. Rillstone, Esquire, Greenberg Traurig, P.A., met with Mr. Bradley J. Hartman, director, Environmental Services, Florida Game and Fresh Water Fish Commission (FGFWFC), to review the various options to address impacts to the gopher tortoise (*Gopherus polyphemus*) population within the Rock Springs Ridge project (Project). It is our understanding that the FGFWFC has no objection to our client relying on the gopher tortoise population density data for the Project collected by Ms. Yvonne I. Froscher, president, Yvonne I. Froscher, Inc. and presented to the FGFWFC in the report dated April 12, 1996 (Report) as the base density data to support applications for ITP for Phase II of the Project, and future ITP applications for subsequent phases within the Project submitted to the FGFWFC within the next five years. It is also our understanding that Mr. Hartman and Mr. Rillstone will exchange correspondence to confirm this understanding.

Mr. Stephen R. Lau
November 12, 1998
Page 2

I. Background Information

By way of background, the FGFWFC has issued two ITPs for the incidental takes associated with development of the Rock Springs Ridge Golf Course and Phase I, ORA-36 and ORA-39 respectively. The FGFWFC has also issued two modifications to ORA-36. Permit ORA-36 was issued by the FGFWFC on January 10, 1997. Condition No. 1 required preservation of 27.3 acres of gopher tortoise habitat within Mitigation Area B, a 54.3-acre tract within the Project set aside for on-site gopher tortoise ITP mitigation. Condition No. 2 provided that as interim assurance for the required mitigation, the permittee could provide the FGFWFC a $180,053.35 Letter of Credit (LC). Pursuant to Condition No. 4, the FGFWFC could draw on the LC in the event the on-site preservation area was not encumbered by a conservation easement on or before December 10, 1998.

Permit ORA-39 was issued by the FGFWFC on May 22, 1997, authorizing the incidental take of gopher tortoise associated with the construction of Phase I. Condition No. 1 required that the 26.43 acres within Mitigation Area A be encumbered with a conservation easement. According to Condition No. 1, 16.7 acres within Mitigation Area A would constitute the mitigation for the Phase I ITP and the remaining 9.73 acres in Mitigation Area A would be available for ITP mitigation in future phases. Condition No. 3, provided that ORA-36 would be amended to reflect that the remaining 9.73 acres within Mitigation Area A could be utilized as the mitigation for the ORA-36 ITP.

On March 25, 1998, the FGFWFC issued a modification to Permit ORA-36. Condition No. 1 was amended to provide that the requirement to set aside 37.3 acres of on-site habitat could be satisfied by placing a conservation easement over 27.55 acres within Mitigation Area B and utilizing 9.75 acres of on-site mitigation within Mitigation Area A, a ~~26.43~~ 26.445 acre preservation tract located on the east side of the project.

II. Phase II Incidental Take Permit Application

As you know, this application is for an ITP for the development of Phase II, the location and boundaries of which are reflected on Exhibit 1. Consistent with Table 4 of the Report, copy attached as Exhibit 2, Phase II contains 113.96 acres of upland cover types. Table 3 of the Report, copy attached as Exhibit 3, reflects the per acre gopher tortoise density for each land use and cover classification. Finally, Table 5 reflects that 16.2 acres of habitat protection would be required for the incidental takes of gopher tortoise associated with the development of Phase II, Exhibit 4 and summarized below:

Mr. Stephen R. Lau
November 12, 1998
Page 3

Phase of Development	Mitigation Required (Acreage)	Mitigation Area Utilized and Acreage
Golf Course and Entrance Road	37.1	Mitigation Area B = 27.55 acres Mitigation Area A = 9.75 acres
1	17.0	Mitigation Area A = 16.7 acres
2	16.2	Proposed within the Addition to Mitigation Area B = 16.2 acres
3	9.1	Not Yet Required
4	13.9	Not Yet Required
5	11.9	Not Yet Required
6	15.2	Not Yet Required

Development of Phase II will require either the off-site purchase of 16.2 acres of upland habitat, the purchase of 16.2 acres within an approved mitigation bank (with a payment of $108,815.40 to the FGFWFC), or the preservation and management of 16.2 acres within the on-site conservation areas. Mitigation Area A has been fully utilized through the issuance of ORA-39 and the second modification to ORA-36. As noted above, Mitigation Area B consists of 54.30 acres of upland habitat, which has been set aside for on-site gopher tortoise ITP mitigation. Our client is in the process of encumbering 27.55 acres of land within Mitigation Area B to comply with the requirements of ORA-36. Therefore, there are 26.75 acres within Mitigation Area B available as gopher tortoise ITP mitigation for Phase II and future phases within the Project.

In order to mitigate the gopher tortoise incidental takes associated with the development of Phase II, our client will impress with a conservation easement 16.2 acres within Mitigation Area B, as reflected on Exhibit 5. The conservation easement document would be identical in all relevant terms to the conservation easement to be recorded for ORA-36. This 16.2-acre parcel will be subject to the maintenance plan for Mitigation Area B previously approved by the FGFWFC. The 10.55 acres remaining within Mitigation Area B will be available for gopher tortoise ITPs for future phases of the Project.

Thank you for your review of this application. If you have any questions regarding this information, please do not hesitate to call us.

Sincerely yours,

Darla J. Miller, B.S.
Associate Scientist III

W. Michael Dennis, Ph.D.
President

DJM/WMD/smc

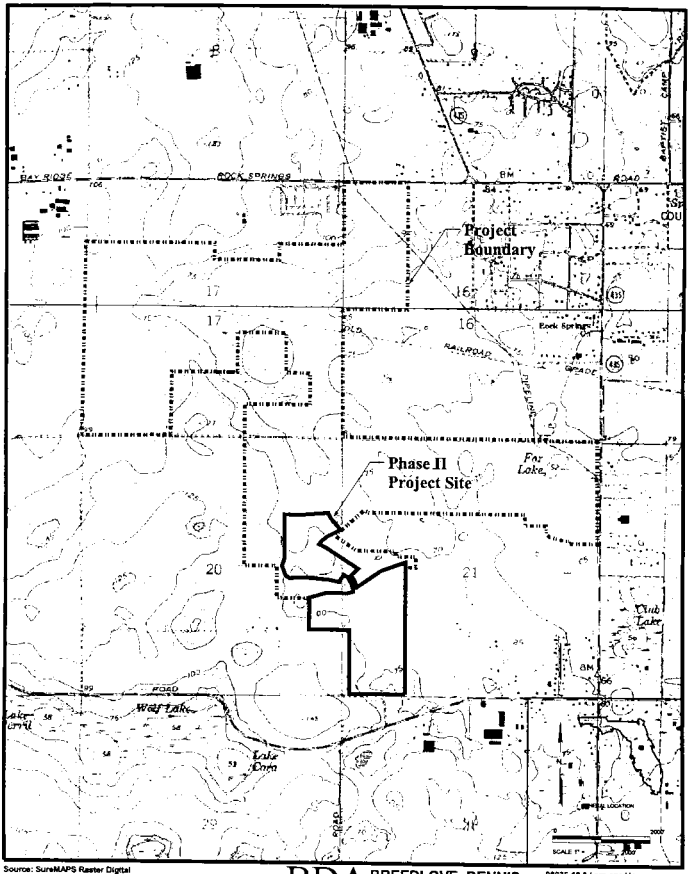
Attachments

cc: Bradley J. Hartman
Director, Environmental Services
Florida Game and Freshwater Fish Commission

Doug Rillstone, Esquire
Greenberg Traurig, P.A.

James H. Fant
Senior Vice President
Rock Springs Ridge, Ltd.

Jeffry B. Fuqua
President
Amick Construction Company



Source: SureMAPS Raster Digital Quad, Copyright, 1997.

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98035-10.3 / erp.apr / loc_map.ps

4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882

380

EXHIBIT 1 LOCATION MAP OF THE ROCK SPRINGS RIDGE (PHASE II) PROJEC[illegible]NGE COUNTY, FLORIDA (SECTIONS 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST.)

Table 4: Land Use Acreages by Phase According to December 1996 Site Plan.

Rock Springs Ridge
Orange County, Florida

22.9

Land Use and Cover Classification[a]	Golf Course	Portion of Phase 1 Entrance Road	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Mitigation Area A	Mitigation Area B	Totals for Site[b]
Other Agricultural -260	123.4	7.4	45.3	72.1	37.8	20.4	43.8	47.5	23.0	22.7	443.4
Xeric Oak-421	94.8	6.1	63.1	33.2	19.9	43.7	35.2	39.0	1.3	31.0	367.3
Other Hardwood-422	4.0	0.5	3.3	8.7	7.2	16.1	0	0	2.1	0	41.9
Upland Mixed Forest-431	14.4	0	3.1	0	0.7	23.2	0	14.8	0	0.4	56.6
Freshwater Marsh-641	0	0	4.8	0	0	0	0	0	0.1	0	4.9
TOTAL	236.6	14.0	119.6	114.0	65.6	103.4	79.0	101.3	26.5	54.1	914.1

26.4

Darker numbers represent revisions (different from April 1996 submittal to FGFWFC) based on changes in development plan within Phase 5 and the vicinity of fairways #4 and #5/pond at the northwestern portion of the site. Additionally, the colored portion of the entrance roadway (Figure 3) has been removed from Phase 1 acreages.

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)
[b] Based on site plan provided by Commonwealth Engineering Associates 12/20/96

Revised 12/23/96

Table 3: Mitigation Acreage Required by Florida Game and Fresh Water Fish Commission Assuming 100% Development of Habitat.

Rock Springs Ridge
Orange County, Florida

Land Use and Cover Classification[a]	Acreage of Land Use Type	Gopher Tortoise Density (number/acre)[b]	Basis for Mitigation Acreage	Mitigation Acreage
Other Agricultural -260	440.5	0.54	15% for lands with tortoise densities $\geq$ 0.4/acre and < 0.80/acre	66.1
Xeric Oak-421	368.3	0.70	15% for lands with tortoise densities $\geq$ 0.4/acre and < 0.80/acre	55.2
Other Hardwood-422	42.0	0.12	% prorated between 0 and 15% for lands with tortoise densities < 0.4	1.8
Upland Mixed Forest-431	58.0	0.39	15% for lands with tortoise densities $\geq$ 0.4/acre and < 0.80/acre	8.5
Freshwater Marsh-641	5.0	0	No mitigation required	0
TOTAL	913.8			131.6

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)
[b] Assuming use of the Florida Game and Fresh Water Fish Commission correction factor 0.614, EXCEPT FOR the Other Agricultural (260) land use where a site specific conversion factor 0.34 has been established.

Table 5: Mitigation Acreage Required by Phase According to December 1996 Site Plan.

Rock Springs Ridge
Orange County, Florida

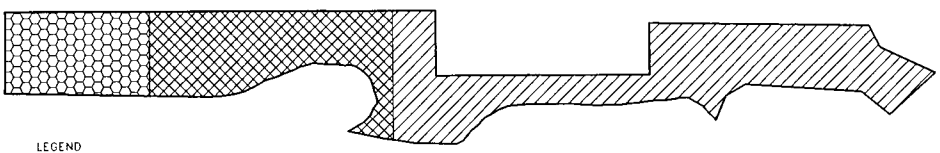
Land Use and Cover Classification[a]	Golf Course	Phase 1 Entrance Road	Subtotals for Golf Course and Entrance Road	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Site Totals
Other Agricultural -260	18.5	**1.1**	**19.6**	**6.8**	10.8	5.7	3.1	6.6	7.1	**59.7**
Xeric Oak-421	**14.2**	**0.9**	**15.1**	**9.5**	5.0	3.0	6.6	**5.3**	5.9	**50.4**
Other Hardwood-422	0.2	**0**	**0.2**	0.2	0.4	0.3	0.7	0	0	1.8
Upland Mixed Forest-431	2.2	**0**	**2.2**	0.5	0	0.1	3.5	0	2.2	8.5
Freshwater Marsh-641	0	**0**	**0**	0	0	0	0	0	0	0
TOTAL	**35.1**	**2.0**	**37.1**	**17.0**	16.2	9.1	13.9	**11.9**	15.2	**120.4**

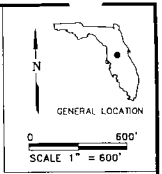
Darker numbers represent revisions (different from April 1996 submittal to FGFWFC) based on changes in development plan within Phase 5 and the vicinity of fairways #4 and #5/pond at the northwestern portion of the site. Additionally, the colored portion of the entrance roadway (Figure 3) has been removed from Phase 1 acreages.

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)
[b] Based on site plan provided by Commonwealth Engineering Associates 12/20/96

Revised 12/23/96

EXHIBIT 4





LEGEND

- Mitigation Area B Boundary (54.30 ac.)
- Previously Used Mitigation Area (27.55 ac.)
- Area Proposed in this Application (16.20 ac.)
- Remaining Mitigation Area (10.55 ac.)

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC. 98035-20.1 / MitArea_B.dwg 11/12/98 / LDP

4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882 Fax:657-7008

384

EXHIBIT: 5 MITIGATION AREA B, ROCK SPRINGS RIDGE, ORANGE COUNTY, FLORIDA.

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

DATE: NOVEMBER 23, 1998

TO: Mr. Rick McCann
COMPANY: Florida Game and Fresh Water Fish Commission
Division of Wildlife
620 South Meridian Street
Tallahassee, Florida 32399-1600

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
PROJECT NO.: 98035
PROJECT NAME: **Rock Springs Ridge (Phase II)**

RE: Gopher Tortoise Incidental Take Permit Application No. ORA-54

☐ Pick-up ☐ Courier ☐ U.S. Mail ☒ Overnight

Pursuant to our conversation on November 23, 1998, attached are the revised pages of our letter previously sent to Mr. Stephen R. Lau dated November 12, 1998. We have revised the acreage of Mitigation Area A to 26.445.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☐ For your use ☐ As requested ☐ For review and comment ☒ For approval

Other:

cc: Brad Hartman
Stephen R. Lau
Doug Rillstone
Jim Fant
Jeff Fuqua

Signed: Darla J. Miller, B.S.
Associate Scientist III

\\BDA\PROJECTS\ADMIN\PROJECTS\98035\LOTS\GT-RPT_LOT3.DOC

BREEDLOVE, DENNIS & ASSOCIATES, INC.
P.O. BOX 720037 / ORLANDO, FLORIDA 32872-0037
4301 METRIC DRIVE / WINTER PARK, FLORIDA 32792 / (407) 677-1882 / FAX (407) 657-7008

I. Background Information

By way of background, the FGFWFC has issued two ITPs for the incidental takes associated with development of the Rock Springs Ridge Golf Course and Phase I, ORA-36 and ORA-39 respectively. The FGFWFC has also issued two modifications to ORA-36. Permit ORA-36 was issued by the FGFWFC on January 10, 1997. Condition No. 1 required preservation of 27.3 acres of gopher tortoise habitat within Mitigation Area B, a 54.3-acre tract within the Project set aside for on-site gopher tortoise ITP mitigation. Condition No. 2 provided that as interim assurance for the required mitigation, the permittee could provide the FGFWFC a $180,053.35 Letter of Credit (LC). Pursuant to Condition No. 4, the FGFWFC could draw on the LC in the event the on-site preservation area was not encumbered by a conservation easement on or before December 10, 1998.

Permit ORA-39 was issued by the FGFWFC on May 22, 1997, authorizing the incidental take of gopher tortoise associated with the construction of Phase I. Condition No. 1 required that the 26.43 acres within Mitigation Area A be encumbered with a conservation easement. According to Condition No. 1, 16.7 acres within Mitigation Area A would constitute the mitigation for the Phase I ITP and the remaining 9.73 acres in Mitigation Area A would be available for ITP mitigation in future phases. Condition No. 3. provided that ORA-36 would be amended to reflect that the remaining 9.73 acres within Mitigation Area A could be utilized as the mitigation for the ORA-36 ITP.

On March 25, 1998, the FGFWFC issued a modification to Permit ORA-36. Condition No. 1 was amended to provide that the requirement to set aside 37.3 acres of on-site habitat could be satisfied by placing a conservation easement over 27.55 acres within Mitigation Area B and utilizing 9.75 acres of on-site mitigation within Mitigation Area A, a **26.445** acre preservation tract located on the east side of the project.

II. Phase II Incidental Take Permit Application

As you know, this application is for an ITP for the development of Phase II, the location and boundaries of which are reflected on Exhibit 1. Consistent with Table 4 of the Report, copy attached as Exhibit 2, Phase II contains 113.96 acres of upland cover types. Table 3 of the Report, copy attached as Exhibit 3, reflects the per acre gopher tortoise density for each land use and cover classification. Finally, Table 5 reflects that 16.2 acres of habitat protection would be required for the incidental takes of gopher tortoise associated with the development of Phase II, Exhibit 4 and summarized below.

Mr. Stephen R. Lau
November 12, 1998
Page 3

Phase of Development	Mitigation Required (Acreage)	Mitigation Area Utilized and Acreage
Golf Course and Entrance Road	37.1	Mitigation Area B = 27.55 acres Mitigation Area A = 9.7 acres
1	17.0	Mitigation Area A = 16.7 acres
2	16.2	Proposed within the Addition to Mitigation Area B = 16.2 acres
3	9.1	Not Yet Required
4	13.9	Not Yet Required
5	11.9	Not Yet Required
6	15.2	Not Yet Required

Development of Phase II will require either the off-site purchase of 16.2 acres of upland habitat, the purchase of 16.2 acres within an approved mitigation bank (with a payment of $108,815.40 to the FGFWFC), or the preservation and management of 16.2 acres within the on-site conservation areas. Mitigation Area A has been fully utilized through the issuance of ORA-39 and the second modification to ORA-36. As noted above, Mitigation Area B consists of 54.30 acres of upland habitat, which has been set aside for on-site gopher tortoise ITP mitigation. Our client is in the process of encumbering 27.55 acres of land within Mitigation Area B to comply with the requirements of ORA-36. Therefore, there are 26.75 acres within Mitigation Area B available as gopher tortoise ITP mitigation for Phase II and future phases within the Project.

In order to mitigate the gopher tortoise incidental takes associated with the development of Phase II, our client will impress with a conservation easement 16.2 acres within Mitigation Area B, as reflected on Exhibit 5. The conservation easement document would be identical in all relevant terms to the conservation easement to be recorded for ORA-36. This 16.2-acre parcel will be subject to the maintenance plan for Mitigation Area B previously approved by the FGFWFC. The 10.55 acres remaining within Mitigation Area B will be available for gopher tortoise ITPs for future phases of the Project.

Table 4: Land Use Acreages by Phase According to December 1996 Site Plan.

Rock Springs Ridge
Orange County, Florida

Land Use and Cover Classification[a]	Golf Course	Portion of Phase 1 Entrance Road	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Mitigation Area A	Mitigation Area B	Totals for Site[b]
Other Agricultural -260	123.4	**7.4**	**45.3**	72.1	37.8	20.4	43.8	47.5	**22.9**	22.7	443.4
Xeric Oak-421	**94.8**	**6.1**	**63.1**	33.2	19.9	43.7	**35.2**	39.0	1.3	**31.0**	367.3
Other Hardwood-422	4.0	**0.5**	**3.3**	8.7	7.2	16.1	0	0	2.1	0	41.9
Upland Mixed Forest-431	14.4	**0**	3.1	0	0.7	23.2	0	14.8	0	0.4	56.6
Freshwater Marsh-641	0	**0**	4.8	0	0	0	0	0	0.1	0	4.9
TOTAL	**236.6**	**14.0**	**119.6**	114.0	65.6	103.4	**79.0**	101.3	**26.4**	**54.1**	914.1

Darker numbers represent revisions (different from April 1996 submittal to FGFWFC) based on changes in development plan within Phase 5 and the vicinity of fairways #4 and #5/pond at the northwestern portion of the site. Additionally, the colored portion of the entrance roadway (Figure 3) has been removed from Phase 1 acreages.

[a] According to *The Florida Land Use and Cover Classification System, A Technical Report*, April 1976 (DOA)
[b] Based on site plan provided by Commonwealth Engineering Associates 12/20/96

BDA
ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

PROJECT NO.: 98035-20.1
Date: November 20, 1998

TO: **Mr. Stephen R. Lau**
Biological Administrator
Florida Game and Fresh Water Fish Commission
255 154th Avenue
Vero Beach, Florida 32968

FROM: **Ms. Darla J. Miller**

RE: **Rock Springs Ridge Phase II**

___ Pickup ___ Courier ___ U.S. Mail X Overnight

DESCRIPTION/REMARKS

Gopher Tortoise Incidental Take Permit
Requested Information
No. ORA-54
Rock Springs Ridge, Phase II
Orange County, Florida

___ For your use X As requested ___ For review and comment

___ For approval ___ Other

FOR Darla J. Miller
Associate Scientist III

cc: Brad Hartman
Doug Rillstone
Jim Fant
Jeff Fuqua
Mike Dennis

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BDA
ENVIRONMENTAL CONSULTANTS

November 20, 1998
File: 98035-20.1

Mr. Stephen R. Lau
Biological Administrator
Florida Game and Fresh Water Fish Commission
255 154th Avenue
Vero Beach, Florida 32968
Phone: 561-778-5094
Fax: 561-778-7227

RE: Gopher Tortoise Incidental Take Permit
Requested Information
No. ORA-54
Rock Springs Ridge, Phase II
Orange County, Florida

Dear Mr. Lau:

Pursuant to our telephone conversation on November 19, 1998, please find the additional information that you requested.

The table which was previously submitted (in our letter to you dated November 12, 1998), has been revised to exclude previously permitted phases. This table now reflects only the current and future phases.

Phase of Development	Mitigation Required (Acreage)	Mitigation Area Utilized and Acreage
2	16.2	Proposed within the Addition to Mitigation Area B = 16.2 acres
3	9.1	Not Yet Required
4	13.9	Not Yet Required
5	11.9	Not Yet Required
6	15.2	Not Yet Required

BREEDEN, DENNIS & ASSOCIATES, INC.
[illegible]
[illegible]

Mr. Stephen R. Lau
November 20, 1998
Page 2

Additionally, your requested the proposed site plan for Phase 2 (attached as Exhibit 1) and a figure depicting the location of Mitigation Area B in relation to the project boundary and Phase 2 (attached as Exhibit 2). Douglas J. Rillstone, Esquire is coordinating the Conservation Easement documents.

Based on our conversation, this should be all of the information required for this permit application. We will contact you to determine when the permit may be issued.

Thank you for your review of this application. If you have any questions regarding this information, please do not hesitate to call us.

Sincerely yours,

Darla J. Miller, B.S.
Associate Scientist III

William F. Grey, D.A
Senior Scientist

DJM/MWC/las

Attachments

cc: Bradley J. Hartman
Director, Environmental Services
Florida Game and Freshwater Fish Commission

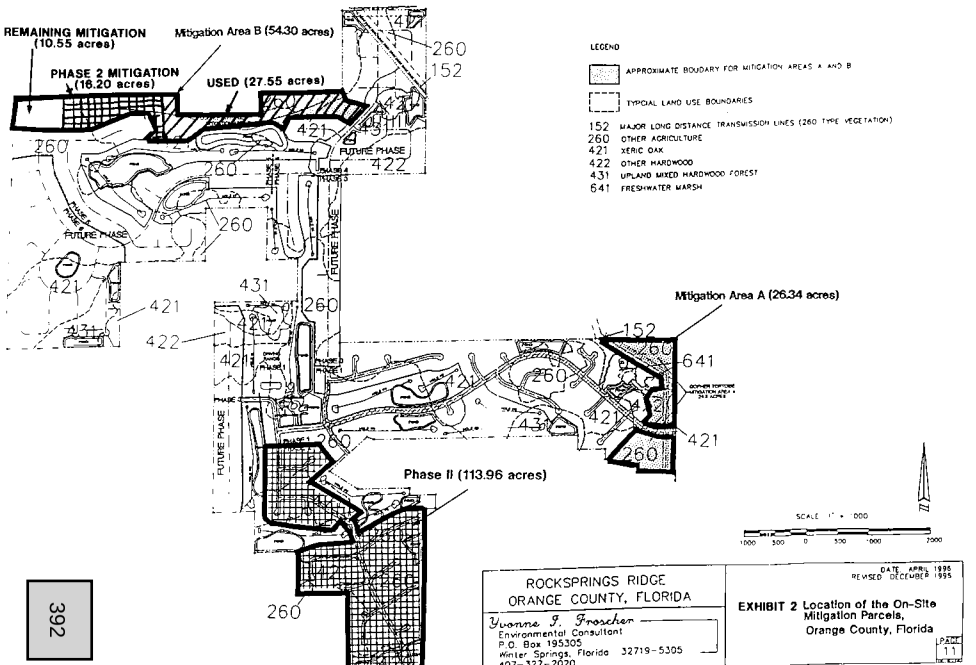
Doug Rillstone, Esquire — w/o Exhibit 1
Greenberg Traurig, P.A.

James H. Fant — w/o Exhibit 1
Senior Vice President
Rock Springs Ridge, Ltd.

Jeffry B. Fuqua — w/o Exhibit 1
President
Amick Construction Company

W. Michael Dennis — w/o Exhibit 1
President
Breedlove, Dennis & Associates, Inc.

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ROCKSPRINGS RIDGE
ORANGE COUNTY, FLORIDA

Yvonne J. Froscher
Environmental Consultant
P.O. Box 195305
Winter Springs, Florida 32719-5305
407-327-2020

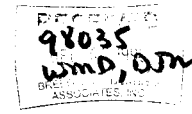
DATE APRIL 1995
REVISED DECEMBER 1995

EXHIBIT 2 Location of the On-Site Mitigation Parcels, Orange County, Florida

PAGE 11

GREENBERG
ATTORNEYS AT LAW
TRAURIG

Douglas J. Rillstone
Direct Dial: (850) 425-8523
E-mail: RillstoneD@Gtlaw.com



December 7, 1998

Bradley J. Hartman
Director
Office of Environmental Services
Florida Game and Fresh Water Fish Commission
620 South Meridian Street, Room 235
Tallahassee, FL 32301

VIA HAND DELIVERY

RE: ***Gopher Tortoise Incidental Take Permit***
Application No. ORA-54
Florida Game and Fresh Water Fish Commission

Rock Springs Ridge
Orange County, Florida

Dear Brad:

Pursuant to Condition No. 1 of the above-reference permit ("Permit"), enclosed please find the original executed document entitled *Deed of Conservation Easement* impressing a conservation easement over 16.2 acres of land within Mitigation Area B of the Rock Springs Ridge project. Our office on behalf of our client, Rock Springs Ridge, Ltd., would request a modification to Condition No. 2 of the Permit. In particular, we would request Condition No. 2 be revised to reflect that the twenty-one (21) day notice period would run concurrent with the effective date of the Permit. In order to accomplish this, we would recommend the following modifications to Condition No. 2. For your convenience, we have underlined additions and ~~stricken through~~ proposed deletions.

2. The permit will not go into effect until the earlier ~~latter~~ effective date of either:

(a) 21 days from the date the permittee receives this notice, or if a petition for Administrative Hearing is timely filed, until the petition is resolved; or

(b) the date that the permittee has received a receipt from the GFC for the certified as recorded copy of the previously approved conservation easement described in Condition #1.

As we discussed, no other revisions to the Permit proposed by our client.

GREENBERG, TRAURIG, HOFFMAN LIPOFF, ROSEN & QUENTEL, P.A.
101 EAST COLLEGE AVENUE · POST OFFICE DRAWER 1838 TALLAHASSEE, FLORIDA 32302
850-222-6891 · FAX 850.681.0207
MIAMI · NEW YORK · WASHINGTON, D.C. · PHILADELPHIA · SAN PACIFIC
FORT LAUDERDALE · WEST PALM BEACH · ORLANDO · TALLAHASSEE · BOCA RATON

As we previously advised, our client has obtained all of the governmental approvals necessary to undertake activities which may result in the incidental take of gopher tortoise associated with the construction of Rock Springs Ridge Phase II. The governmental approval process for the Rock Springs Ridge project commenced in 1985 with the final governmental approval necessary to move forward on the project issued on December 16, 1996. A summary of the governmental approvals obtained for the Rock Springs Ridge project are set forth below:

1. **October 14, 1985**. Orange County Board of County Commissioners approve Rock Springs Ridge as a Planned Development ("PD") with up to 530 single family units with a density of 0.5 dwelling units per acre.

2. **January 17, 1991**. Orange County Board of County Commissioners approve a Land Use Plan amendment for the Rock Springs Ridge PD to increase the approved density up to 635 units or one dwelling unit for each 1.4 acres.

3. **June 27, 1995**. Orange County Board of County Commissioners approve a Land Use Plan amendment to increase the density from 635 lots to 914 lots (i.e., one unit per acre) and add the golf course facility.

4. **December 21, 1995**. Orange County Board of County Commissioners recognize Rock Springs Ridge, Ltd., as the Applicant of Record for the Rock Springs Ridge PD and issue conceptual site approval for the entire project.

5. **August 27, 1996**. Orange County Board of County Commissioners issue preliminary subdivision plan approval for the entire project.

6. **November 12, 1996**. St. Johns River Water Management District Governing Board authorizes the construction of the surface water management system to serve the golf course area, construction of the backbone surface water management system for the entire project and the consumptive use of water for golf course irrigation.

7. **November 20, 1996**. City of Apopka City Commission approves the voluntary annexation of Rock Springs Ridge PD into the City of Apopka by enacting City Ordinances Nos. 978 and 979.

8. **December 9, 1996**. City of Apopka and Rock Springs Ridge, Ltd., enter into an Annexation Agreement which approves the development of the project on the same terms and conditions as approved by Orange County and provides for utility services for the project.

9. **December 16, 1996.** City of Apopka issues final plan approval for the golf course layout.

Each of the above approvals required a notice and were subject to public hearings. In addition to the above, our client has received final plan approval from the City of Apoka, and construction authorization from the SJRWMD for Phase I and II. During the approval process for the approvals issued in 1995 to date, the issues with the Rock Springs Ridge PD articulated by concerned individuals were limited to drive-through traffic in an adjacent residential neighborhood, use of septic systems and potential reduction in the minimum flows and levels at Rock Springs. Our client addressed these issues by eliminating a street which would have connected Rock Springs Ridge PD to the adjacent neighborhood and annexing into the City of Apopka to accelerate the availability of a central sewer system and reclaimed water for golf course irrigation.

Accordingly, we would request your timely consideration of this matter.

Sincerely yours,

GREENBERG TRAURIG, P.A.

Douglas J. Rillstone

Enclosure

cc: Jim Fant
Senior Vice President
Brooksville Development Corporation

Jeff Fuqua
President and Owner
Amick Construction Company

Donald Curotto
Allen, Lang, Curotto & Peed, P.A.

Michael Dennis, Ph.D.
President
Breedlove, Dennis & Associates, Inc.

THIS DOCUMENT PREPARED BY AND RETURN TO:
DONALD J. CUROTTO, ESQUIRE
ALLEN, LANG, CUROTTO & PEED, P.A.
105 E. ROBINSON STREET - SUITE 201
ORLANDO, FLORIDA 32801

---- ABOVE SPACE FOR RECORDING INFORMATION ONLY ----

DEED OF CONSERVATION EASEMENT

THIS DEED OF CONSERVATION EASEMENT is given this 3rd day of December, 1998, by **ROCK SPRINGS RIDGE, LTD.**, a Florida limited partnership, whose mailing address is 401 W. Colonial Drive, Suite 7, Orlando, Florida 32804 ("Grantor"), to the **FLORIDA GAME AND FRESH WATER FISH COMMISSION**, a public agency of the State of Florida, with its principal office at 620 South Meridian Street, Tallahassee, Florida 32301 ("Grantee").

WITNESSETH:

WHEREAS, the Grantor is the owner of certain lands situated in Orange County, Florida (hereinafter referred to as the "Property," more specifically described in Exhibit A attached hereto and incorporated herein by this reference; and

WHEREAS, the Grantor desires to protect and conserve certain upland preserve areas; and

WHEREAS, the Grantor, in consideration of the consents of the Grantee to Permit No. ORA-54 issued by the Grantee on _____ ("Permit") in favor of **ROCK SPRINGS RIDGE, LTD.**, for the incidental take of gopher tortoises, is required to grant and secure the enforcement of a perpetual conservation easement as defined in Section 704.06, Florida Statutes (1991), over the Property.

NOW, THEREFORE, consistent with the issuance of the Permit, Grantor hereby grants, creates, and establishes a perpetual conservation easement upon the Property described in Exhibit A attached and incorporated herein by reference, which shall run with the land and be binding upon the Grantor, its heirs, successors and assigns, and remain in full force and effect forever.

1. The scope, nature and character of this Conservation Easement is to ensure that protected and/or uplands preserve areas shall be used as conservation areas pursuant to Section 704.06, Florida Statutes, consistent with the Property's Habitat Management Plan, dated April 12, 1996, within "**GOPHER TORTOISE (GOPHERUS POLYPHEMUS) SURVEY, SITE SPECIFIC CONVERSION FACTOR, AND MITIGATION/ HABITAT MANA**

PLAN FOR ROCK SPRINGS RIDGE, ORANGE COUNTY, FLORIDA," SECTION II, MITIGATION/HABITAT MANAGEMENT PLAN, HABITAT MANAGEMENT PLAN FOR ON-SITE PRESERVATION AREAS (the "Plan"). A copy of the Plan is attached hereto as Exhibit B and incorporated herein by reference. To carry out this purpose, the following rights are conveyed to the Grantee by this easement:

(a) To enter upon the Property at reasonable times to enforce the rights herein granted upon prior written notice to Grantor, its heirs, successors or assigns, in a manner that will not unreasonably interfere with the use and quiet enjoyment of the Property by Grantor, its heirs, successors or assigns at the time of such entry; and

(b) After prior notice to the Grantor, its heirs, successors or assigns, to enjoin any activity on or use of the Property that is inconsistent with the purpose of this Conservation Easement and to enforce the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.

2. Grantor reserves to itself, its heirs, successors or assigns (i) all rights as owner of the Property including the right to engage in all uses of the Property, that are not expressly prohibited herein and are not inconsistent with the purpose of this Conservation Easement as set forth in Section 704.06, Florida Statutes; and (ii) all rights to transfer the Property or the obligations under this Easement (subject to the terms of this Easement) to a homeowner's association (the "Homeowner's Association") or other entity, created by Grantor which has among its responsibilities the duty to maintain the Property in accordance with the Permit. Unless expressly authorized within Exhibit B of this Deed, the following are prohibited activities:

(a) Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;

(b) Dumping or placing of soil or other substance or material as landfill or dumping or placing of trash, waste, or unsightly or offensive materials;

(c) Removal or destruction of trees, shrubs, or other vegetation;

(d) Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such a manner as to effect the surface;

(e) Surface use except for purposes that permit the land or water area to remain predominantly in its natural condition;

(f) Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation;

(g) Acts or uses detrimental to such retention of land or water areas;

(h) Acts or uses detrimental to the preservation of structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance;

(i) Alteration of the preserve areas except in compliance with the Plan.

3. [Intentionally Deleted]

4. No right of access by the general public to any portion of the Property is conveyed by the Conservation Easement.

5. Grantor agrees to bear all reasonable costs related to the operation, upkeep and maintenance of the Property. Nothing contained in this Conservation Easement shall be construed to entitle the Grantee to bring any action against the Grantor of this Deed for any injury to or change in the Property resulting from natural causes beyond their control, including, without limitation, fire, flood, storm and earth movement, or from any action taken under emergency conditions to prevent, abate or mitigate significant injury to the Property resulting from such causes. All costs relating to the operation, upkeep and maintenance of the Property shall be borne by the Grantor, or assignee, including, but not limited to, a homeowners association or other related entity created by the Grantor for the purpose of and administering community properties and enforcing covenants and restrictions within the development.

6. Grantor agrees to pay any and all real property taxes and assessments levied by competent authority on the Property.

7. Grantor intends that enforcement of the terms and provisions of the Conservation Easement and the Plan shall be at the discretion of Grantee and that any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, its heirs, successors, personal representatives or assigns, shall not be deemed or construed to be a waiver of Grantee's rights hereunder in the event of a subsequent breach.

8. Grantee agrees that it will hold this Conservation Easement exclusively for conservation purposes and that it will not assign its right and obligations under this Conservation Easement except to another organization qualified to hold such interests under the applicable state and federal laws and committed to holding this Conservation Easement exclusively for conservation purposes. Not later than thirty (30) days after recordation in the Public Records of Orange County, Florida, of title to the Property which is the subject of this easement, Grantor agrees to give written notice to Grantee of such transfer.

9. If any provision of this Conservation Easement or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of the Conservation Easement, and the applications of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

10. All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed property given if sent by United States certified mail, ret

requested, addressed to the appropriate party or successor-in-interest, at the addresses above set forth or such new addresses as either party may in writing deliver to the other.

11. This Conservation Easement may be amended, altered, released or revoked only by written agreement between the parties hereto, their successors or assigns. Notwithstanding the foregoing, the Grantor may at any time assign and delegate all or a portion of the Grantor's rights, title, interest, duties or obligations created by this Conservation Easement to a homeowner's association or other similar entity. It is understood that the as a property owner's association in order to effectuate the intent of the Grantor for the proper development, operation, and maintenance of the property known as ***Rock Springs Ridge***.

TO HAVE AND TO HOLD unto Grantee, its respective successors and assigns forever. The covenants, terms, conditions, restrictions and purposes imposed with this easement shall not only be binding upon Grantor but also its agents, personal representatives, heirs, assigns and all other successors to it in interest, and shall continue as a servitude running in perpetuity with the Property.

IN WITNESS WHEREOF Grantor has set its hand on the day and year first above written.

Signed, Sealed and Delivered
in the Presence of:

Sign _____
Print _____

Sign _____
Print _____

ROCK SPRINGS RIDGE, LTD.,
A Florida Limited Partnership

By: ROCK SPRINGS RIDGE, INC.,
A Florida Corporation
Its Sole General Partner

By: _____
James H. Fant, Senior Vice President

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 3rd day of December, 1998, by **JAMES H. FANT**, Senior Vice President of **ROCK SPRINGS RIDGE, INC.**, a Florida corporation, as sole general partner of **ROCK SPRINGS RIDGE, LTD.**, a Florida limited partnership, on behalf of the corporation. He is personally known to me or produced _____ as identification.

My Commission Expires:

KATHY MOOREHEAD
Notary Public, State of Florida
My Comm. Expires April 22, 1999
Comm. No. CC [illegible]1727

_____
Notary Public
Print _____

GRANTEE'S ACCEPTANCE

The **FLORIDA GAME AND FRESH WATER FISH COMMISSION** hereby approves the foregoing Deed of Conservation Easement and agrees to all of the terms and provisions thereof.

FLORIDA GAME AND FRESH WATER
FISH COMMISSION

By:_____
Print_____
As_____

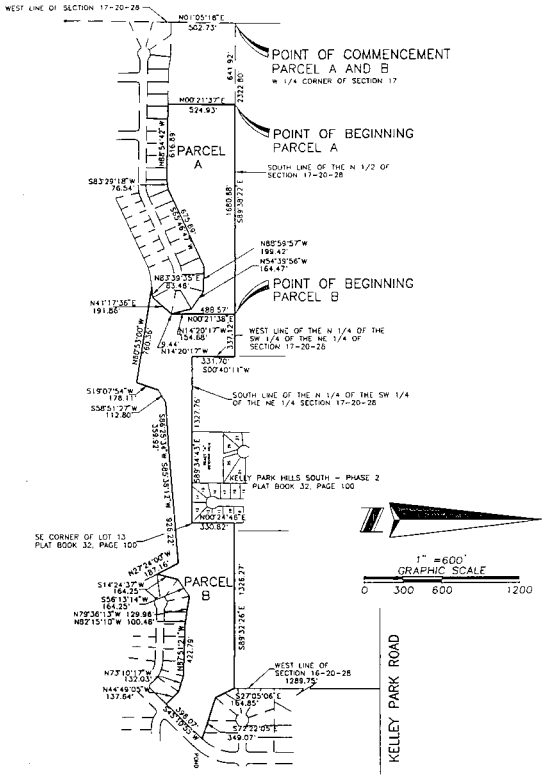
EXHIBIT A

CONSERVATION AREA FOR GOPHER TORTOISE MITIGATION

16.20 acres, more or less, located in the northeast corner of Section 17, Township 20 South, Range 28 East, more particularly described as follows:

PARCEL A

COMMENCING at the West 1/4 corner of Section 17, Township 20 South, Range 28 East, Orange County, Florida; thence South 89°38'22" East along the South line of the North 1/2 of said Section 17 a distance of 641.92 feet to the POINT OF BEGINNING; thence continuing along said South line South 89°38'22" East a distance of 1680.88 feet; thence leaving said South line South 00°21'38" West a distance of 488.57 feet; thence North 14°20'17" West a distance of 154.68 feet; thence North 54°39'56" West a distance of 164.47 feet; thence North 88°59'57" West a distance of 199.42 feet; thence South 65°46'47" West a distance of 675.89 feet; thence South 83°29'18" West a distance of 76.54 feet; thence North 88°54'42" West a distance of 616.89 feet; thence North 00°21'37" East a distance of 524.93 feet to the POINT OF BEGINNING. CONTAINING 16.20 acres more or less.



SURVEYORS REPORT:

1. The bearings shown hereon are based on the West line of Section 17, Township 20 South, Range 28 East, Orange County, Florida, being North 01°05'18" East

SHEET 2 OF 2

Sketch of Description	Date: Nov. 20, 1998 CS	4499103
For	Job No. 44991035 Scale 1" =600'	Southeastern Surveying
Rock Springs Ridge, LTD., A Florida Limited Partnership	CH. 61G17-6, Florida Administrative Code requires that a legal description drawing bear the notation that: THIS IS NOT A SURVEY.	SOUTHEASTERN SURVEYING & MAPPING CORP 324 North Orlando Avenue Maitland, Florida 32751-4702 CERT. NO. LB2106 (407) 647-8998 e-mail: sams96@aol.com
	Revised	GARY F. KNOX REGISTERED LAND SURVEYOR NO. 4245

EXHIBIT B

PROPERTY HABITAT MANAGEMENT PLAN

Any applicable report titled "Gopher Tortoise (*Gopherus polyphemus*) Survey, Site Specific Conversion Factor, and Mitigation/Habitat Management Plan for Rock Springs Ridge, Orange County, Florida" dated April 12, 1996, which pertain to the Property.

JOINDER AND CONSENT TO EASEMENT

The undersigned hereby certifies that it is the holder of an indenture of mortgage upon the property described herein or any portion thereof dated December 27, 1995, and recorded December 28, 1995, in Official Records Book 4992, Page 2356; as modified by that certain Future Advance and Mortgage Modification Agreement dated November 25, 1996, and recorded November 27, 1996, in Official Records Book 5161, Page 4133; as further modified by that certain Future Advance and Mortgage Modification Agreement dated December 16, 1996, and recorded December 23, 1996, in Official Records Book 5174, Page 3939; as further modified by that certain Future Advance and Mortgage Modification Agreement dated July 29, 1997, and recorded July 30, 1997, in Official Records Book 5300, Page 1676; as further modified by that certain Future Advance and Mortgage Modification Agreement dated November 4, 1998, and recorded November 5, 1998, in Official Records Book 5609, Page 1049; all in the Public Records of Orange County, Florida, and the undersigned for and in consideration of valuable consideration hereby joins in and consents to the execution of the above easement and agrees that the lien of its said mortgage shall be subordinated to the above easement.

ATTEST:

By: _____
Print Jim Gray
Its SVP

FIRST UNION NATIONAL BANK OF FLORIDA
A Florida Banking Association

By: _____
Print W.M. Bleakley
Its Vice President

(CORPORATE SEAL)

Signed, Sealed and Delivered
in the Presence of:

_____
Print Lisa Bott

_____
Print Lynn Golemme

STATE OF FLORIDA
COUNTY OF Orange

The foregoing instrument was acknowledged before me this 3rd day of December, 1998, by W.M. Bleakley and Jim Gray, the Vice President and Sr. Vice President, respectively, of **FIRST UNION NATIONAL BANK OF FLORIDA**, a national banking association on behalf of the Bank. They are personally known to me or have produced _____ as identification.

My Commission Expires:

_____
Notary Public
Print ___

MARILYN GOLEMME
My Commission CC569836
Expires Oct. 20, 2000

BDA
ENVIRONMENTAL CONSULTANTS

March 15, 2000
File: 98035-50.1

Mr. Brian A. Millsap
Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Results of the Gopher Tortoise Relocation on the Proposed Nine Hole Golf Course Project Site (Permit No. WR00017), Orange County, Florida

Dear Mr. Millsap:

Please find attached results of the gopher tortoise (*Gopherus polyphemus*) relocation on the above-referenced project site, a copy of the signed permit, the Letters of Authorization (per Permit Condition No. 4), and the recipient area boundary map. Thank you for your assistance during this permitting process.

If you have any questions, please call us.

Sincerely yours,

Darla J. Miller, B.S.
Associate Scientist IV

DJM/lgh

Attachments

cc: Angela T. Williams
Tim Breen
James H. Fant
William L. Colbert, Esquire
Clyde E. Owens, Jr.

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REPORT FORM FOR GOPHER TORTOISE RELOCATIONS

PERMITTEE: Ms. Darla J. Miller PERMIT NO: WR00017
PERMIT ISSUANCE: 1/19/00

ADDRESS: Breedlove Dennis & Associates, Inc.

330 W. Canton Avenue

Winter Park, Florida 32789

PHONE NO: (407) 677-1882

DONOR SITE: County: Orange Township: 20S Range: 28E Section: 17 & 20

NAME OF DEVELOPMENT: Nine Hole Golf Course
NO. ACTIVE PLUS INACTIVE BURROWS: 108 NO. TORTOISES CAPTURED: 59
METHOD OF CAPTURE: Excavation by backhoe
CAPTURE DATE: 1/28, 2/10, 11, and 12/00 RELEASE DATE: 1/28, 2/12 and 17/00
NUMBER OF MALES: 10 MEAN CARAPACE LENGTH[1]: 245
NUMBER OF FEMALES: 26 MEAN CARAPACE LENGTH[2]: 253
NUMBER OF IMMATURES: 23 MEAN CARAPACE LENGTH: 189

RECIPIENT SITE: County: Volusia Township: 20S Range: 30E Section: 26

OWNER: William L. Colbert, Esquire, Trustee
HABITAT TYPE: Pine Flatwoods
ACREAGE AVAILABLE TORTOISES: 32.0 acres
NUMBER OF TORTOISES PRESENT: <2.0 tortoises/acre

TYPE OF PROPOSED MANAGEMENT: The recipient site will be control burned at least once every five years under the management plan.

COMMENTS: The permit application requested the relocation of up to 60 gopher tortoises (*Gopherus polyphemus*) to 32.0 acres within the Colbert/Cameron Volusia County Mitigation Parcel.

[1]For comparison purposes, include only tortoises greater than 170 mm CL with concave plastrons.

[2]For comparison purposes, include only tortoises greater than 220 mm CL with flat plastrons.

W666

GT_RELOC.FRM Revised March 20, 1995

PERMIT

Issued Under Authority of the Wildlife Code of the State of Florida
(Title 68A, Florida Administrative Code) by the

STATE OF FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Division of Wildlife, 620 South Meridian Street, Tallahassee, FL 32399-1600, 850/488-3831

Permit No. WR00017 Issuance Date 19 January 2000 Expiration Date 13 April 2000
Permit Type Tortoise Relocation Specific Rule Authority 68A-25.002; 68A-27.005
Permittee Darla Miller Affiliation Breedlove, Dennis & Associates, Inc.
4301 Metric Drive
Winter Park, FL 32792
Signature

*Signature indicates acceptance and understanding of the provisions/conditions listed below. Please return a signed copy to this office.

Provisions/Conditions:

1. Up to 60 gopher tortoises (*Gopherus polyphemus)* may be captured by nonharmful means in association with development of the Nine Hole Golf Course project site (T20S,R28E,S17&20), in Orange County, relocated to and released at Colbert-Cameron Volusia County Mitigation Parcel (T20S,R30E,S26), in Volusia County, Florida. Any gopher tortoise burrow commensals encountered in the capture operation may likewise be live-captured, relocated and released. However, no more than one indigo snake *(Drymarchon corais couperi)*, or 10 each of Florida mice *(Podomys floridanus)* and gopher frogs *(Rana capito)* may be relocated. Should additional specimens of those listed species be encountered, the capture operation is to be suspended and this office contacted for instructions.

2. Tortoises may be captured/relocated only on days for which the overnight low temperature is forecast by the U.S. National Weather Service to be above 50°F, and only when such days precede at least two consecutive days thereafter for which overnight lows are likewise forecast to exceed 50°F. Authorizing the capture/relocation is otherwise predicated and conditioned on the information and assurances provided in the permittee's 9 December 1999 application, the assurances of which are herein incorporated by reference.

3. This permit does not authorize Permittee access to any public or private properties. Any required permission accordingly must be secured from the appropriate landholders prior to undertaking any work on such properties.

4. Captures/relocations may be undertaken only subsequent to all other permits for the project which may be required by local, state and/or federal agencies being issued. This permit is subject to revocation at any time pursuant to Chapter 120, Florida Statutes. It is nontransferable and must be readily available for inspection at all times while engaging in the permitted activities. Other qualified personnel may assist in the permitted activities, but when any such assistance is to be provided in the absence of the permittee's direct supervision, those assistants are to be designated by letter of authorization from the permittee to each designee, with this office provided a copy of such letter(s).

5. The Permittee shall notify the Protected Species Permit Coordinator by fax at (850) 92 phone at (850) 921-5990 within 24 hours of initiating the tortoise relocation effort.

407

PERMIT

Permit No. WR00017

Provisions/Conditions: Continued

6. The Permittee by signing this permit, specifically agrees to allow authorized Commission personnel, upon presentation of credentials as may be required by law, access to the donor and recipient sites, at reasonable times, for the purpose of inspecting the capture/relocation activities authorized under this permit.

7. The Permittee shall submit a report detailing the capture/relocation to the Commission's regional contact person, with copies provided to the recipient site landowner and this office, within 30 days of release of the captured/relocated tortoises involved. A report form is attached for use in that regard. Any request for permit renewal or extension shall be submitted at least 30 days prior to the expiration date of this permit.

Allan L. Egbert, Ph.D.
Executive Director

By: Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife

W1067/BAM/klb
LIC 6-20
wr00017.per
Attachment

cc: Colonel Robert Edwards
Mr. Brad Hartman
Lt. Col. Robert B. Butler
Major Andy Love
Mr. Mike Abbott
Ms. Julie Hovis

408

BDA
ENVIRONMENTAL CONSULTANTS

January 19, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Lloyd Lewis, a representative from TLS Equipment, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/djm

cc: Jim H. Fant
W. Michael Dennis

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BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-2008

BDA
ENVIRONMENTAL CONSULTANTS

January 19, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. James D. Cutler, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

99007\LETTERS\AUTORIZATION.DOC

BDA
ENVIRONMENTAL CONSULTANTS

January 19, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Dr. William F. Grey, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

99007\LETTERS\AUTORIZATION.DOC

BDA
ENVIRONMENTAL CONSULTANTS

January 19, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Ms. Jolie M. Sciturro, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

99007\LETTERS\AUTORIZATION.DOC

BDA
ENVIRONMENTAL CONSULTANTS

January 19, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. Clyde E. Owens, Jr., is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

99007\LETTERS\AUTORIZATION.DOC

BDA
ENVIRONMENTAL CONSULTANTS

January 19, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. Dale Dowling, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

99007\LETTERS\AUTORIZATION DOC

BDA
ENVIRONMENTAL CONSULTANTS

January 19, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Ms. Kim M. Garcia, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

99007\LETTERS\AUTORIZATION.DOC

BDA
ENVIRONMENTAL CONSULTANTS

January 27, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. Christopher D. Shanks, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/djm

cc: Jim H. Fant
W. Michael Dennis

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BDA
ENVIRONMENTAL CONSULTANTS

January 27, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. Mark W. Christopher, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/djm

cc: Jim H. Fant
W. Michael Dennis

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January 27, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. Bruce A. Biltgen is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/djm

cc: Jim H. Fant
W. Michael Dennis

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January 27, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Ms. Kim M. Garcia, is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/djm

cc: Jim H. Fant
W. Michael Dennis

P:\ADMIN\PROJECTS\98035\LETTERS\AUTHOR-KMG.DOC

BDA
ENVIRONMENTAL CONSULTANTS

January 27, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. George Hand, Jr., is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla Miller
Associate Scientist IV

DJM/djm

cc: Jim H. Fant
W. Michael Dennis

P:\ADMIN\PROJECTS\98035\LETTERS\AUTHOR-JR.DOC

BDA
ENVIRONMENTAL CONSULTANTS

January 27, 2000
File: 98035-50.1

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00017
Proposed Nine Hole Golf Course Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Ms. Georgina Gerlich-Trotta., is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Proposed Nine Hole Golf Course project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00017 issued on January 19, 2000 through the expiration date of April 13, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

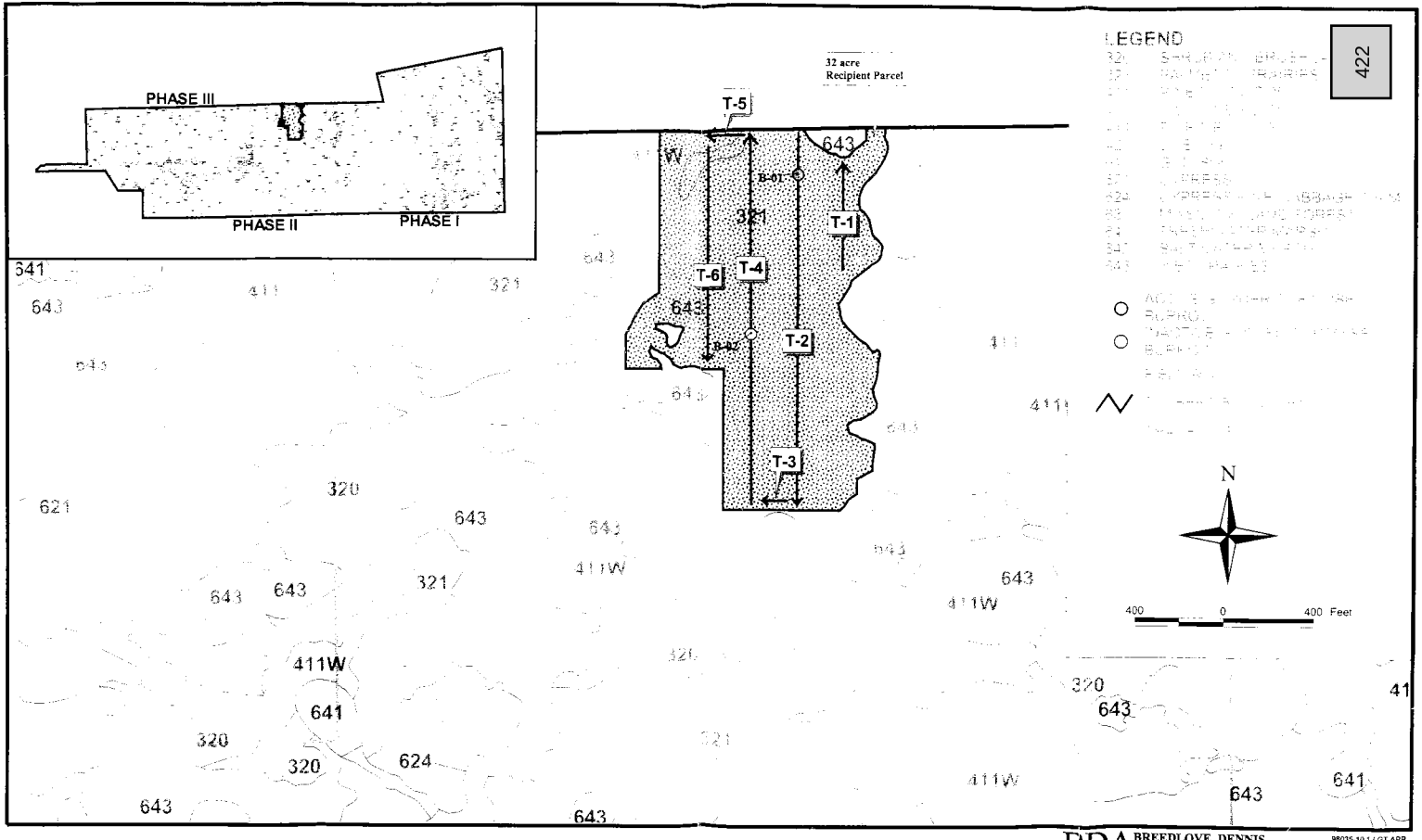
Darla Miller
Associate Scientist IV

DJM/djm

cc: Jim H. Fant
W. Michael Dennis

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BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7006



BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL 32792 (407)677-1882 Fax:657-7008

98035-10.1 / GT.APR
12-8-1999 / CBT / PARCEL.PS

EXHIBIT 10 LOCATION OF THE GOPHER TORTOISE RECIPIENT PARCEL ON THE COLBERT/CAMERON VOLUSIA COUNTY IRRIGATION PARCEL VOLUSIA COUNTY, FLORIDA.

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

DATE: December 9, 1999

TO: Mr. Tim Breen
COMPANY: Florida Fish and Wildlife Conservation Commission

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
PROJECT NO.: 98035-50.1
PROJECT NAME: **Nine Hole Golf Course**

RE: Application for a Gopher Tortoise Relocation Permit (GTRP)

☐ Pick-up ☐ Courier ☐ U.S. Mail ☒ Overnight ☐ Hand-deliver

Copies	*Dated*	*Description*
2	Dec. 9, 1999	This letter application for a GTRP on the Proposed Nine Hole Golf Course replaces the letter you received yesterday.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☒ For your use ☐ As requested ☐ For review and comment ☐ For approval

Other: _____

cc: Douglas J. Rillstone, Esquire
W. Michael Dennis
DJM/PF

Signed: Darla Miller/kh
Darla J. Miller, B.S.
Associate Scientist IV

\\BDA\PROJECTS\ADMIN\PROJECTS\98035\LOTS\BREEN GTRP APP.DOC

BREEDLOVE, DENNIS & ASSOCIATES, INC.
P.O. BOX 720037 / ORLANDO, FLORIDA 32872-0037
4301 METRIC DRIVE / WINTER PARK, FLORIDA 32792 / (407) 677-1882 / FAX (407) 657-7008

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

DATE: December 9, 1999

TO: Mr. James H. Fant, Senior Vice President
COMPANY: Brooksville Development Corporation

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
PROJECT NO.: 98035-50.1
PROJECT NAME: **Nine Hole Golf Course**

RE: Application for a Gopher Tortoise Relocation Permit (GTRP)

☐ Pick-up ☒ Courier ☐ U.S. Mail ☐ Overnight ☐ Hand-deliver

Copies	*Dated*	*Description*
1	Dec. 9, 1999	This letter application for a GTRP on the Proposed Nine Hole Golf Course replaces the letter you received yesterday. All reference to "Rock Springs Ridge" have been eliminated from the report and from the exhibits.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☒ For your use ☐ As requested ☐ For review and comment ☐ For approval

Other: _____

cc: Larry T. Ray (courier)
W. Michael Dennis
DJM/PF

Signed: Darla Miller/kt
Darla J. Miller, B.S.
Associate Scientist IV

P:\ADMIN\PROJECTS\98035\LOTS\FANT GTRP APP.DOC

BREEDLOVE, DENNIS & ASSOCIATES, INC.
P.O. BOX 720037 / ORLANDO, FLORIDA 32872-0037
4301 METRIC DRIVE / WINTER PARK, FLORIDA 32792 / (407) 677-1882 / FAX (407) 657-7008

BDA
ENVIRONMENTAL CONSULTANTS

Revised December 9, 1999
December 8, 1999
File: 98035-50.1

Mr. Tim Breen
Florida Fish and Wildlife Conservation Commission
1239 Southwest 10th Street
Ocala, Florida 34474
Phone: 352-732-1225
Fax: 352-620-7627

RE: Application for a Gopher Tortoise Relocation Permit on the Proposed Nine Hole Golf Course Project Site, Apopka, Florida

Dear Mr. Breen:

Breedlove, Dennis & Associates, Inc. (BDA) is applying for a gopher tortoise (*Gopherus polyphemus*) relocation permit (GTRP) on behalf of Mr. James H. Fant to relocate up to 58 gopher tortoises from the project site. The Proposed Nine Hole Golf Course project site (Project Site) is located in Sections 17 and 20, Township 20 South, Range 28 East in Orange County, Florida (see Exhibit 1). Other regulatory approvals are being sought for development of this site, and it is anticipated that construction will begin immediately after permits are obtained. This site is not part of a Development of Regional Impact.

Ecological Conditions on the Donor Site

The vegetative communities present on the 85.25-acre Project Site were classified using the Florida Land Use, Cover, and Forms Classification System developed by the Florida Department of Transportation in September of 1985 (see Exhibit 2). The Natural Resources Conservation Service (NRCS) soil survey for the Project Site is included in Exhibit 3.

Xeric Oak (421) is the dominant upland community on the Project Site (52.90 acres). Canopy vegetation within these areas consist of laurel oak (*Quercus laurifolia*), sand live oak (*Quercus virginiana* var. *geminata*), longleaf pine (*Pinus palustris*), and black cherry (*Prunus serotina*) with scattered occurrences of blackjack oak (*Quercus marilandica*), laurel cherry (*Prunus caroliniana*), Hercules-club (*Zanthoxylum clava-herculis*), and scrub oak (*Quercus inopina*) within the subcanopy. Vegetation within the groundcover consists of wiregrass (*Aristida stricta*), prickly-pear cactus (*Opuntia humifusa*), dog fennel (*Eupatorium capillifolium*), and bahiagrass (*Paspalum notatum*). Grape (*Vitis* sp.) and natalgrass

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(*Rhynchelytrum repens*) also occur within portions of these upland areas. These areas are underlain by Candler fine sand (0 to 5% slopes), Candler fine sand (5 to 12% slopes), Candler-Apopka fine sand (5 to 12% slopes), and Tavares-Urban land complex (0 to 5% slopes).

Improved Pastures (211) comprises 20.54 of the Project Site. Vegetation within these areas consists of a dense growth of bahiagrass, with scattered prickly-pear cactus, and occasional dog fennel. These areas are predominantly underlain by Candler fine sand (0 to 5% slopes) and Candler fine sand (5 to 12% slopes).

The Fallow Crop Land (261) represents 4.19 acres of the Project Site. Vegetation within this area consists of black cherry and laurel oak within the canopy and sapling size citrus (*Citrus* sp.) within the subcanopy. Vegetation within the groundcover consists of a mixture of bahiagrass, natalgrass, prickly-pear cactus, shrub verbena (*Lantana camara*), and Hercules-club. Candler fine sand (0 to 5% slopes) is the predominant soil type in these areas.

A Coniferous Plantation (441) comprises 4.06 acres within the western portion of the Project Site. Vegetation in this area is typically dominated by planted pine (*Pinus* sp.), slash pine (*Pinus elliottii*) and scattered live oak (*Quercus virginiana*). Additional species associated with this area include prickly-pear cactus, bahiagrass, and wiregrass. Candler fine sand (0 to 5% slopes) is the predominant soil type in this area.

A manmade borrow pit (0.72 acre) is located in the eastern portion of the Project Site. The remaining 2.84 acres of the Project Site is composed of Barren Land (700) which surrounds the borrow pit. These areas are underlain by Basinger fine sand, depressional.

Donor Site Census

The 85.25-acre Project Site is comprised of 84.53 acres of upland vegetative communities. Pedestrian and vehicular transect surveys were conducted on October 29 and November 2, 1999 to assess the occurrence of gopher tortoises on the Project Site. FWC guidelines (Nongame Wildlife Program Technical Report No. 4) were followed in order to determine the gopher tortoise density within the Project Site. A census of 100% of the suitable habitat was conducted; resulting in 50 transects of varying widths, based on vegetative cover density. All "active" and "inactive" burrows observed were counted and their location along the transect recorded. A total of 88 active and inactive burrows were found on the Project Site during this census (see Exhibit 4). Therefore, it is estimated that the population for the Project Site is 54 gopher tortoises (88 burrows * 0.614 = 54 gopher tortoises).

Recipient Site Description

The recipient site for the relocation of gopher tortoises from the Project Site will be the Colbert-Cameron Volusia County Mitigation Parcel (CCVCMP) (Exhibit 5). This site was approved as a recipient site by the FWC per their June 9, 1998 letter (Exhibit 6). The recipient site is located approximately one mile south and 30 miles east of the Project Site. The landowner is currently managing the property per the St. Johns River Water Management District (SJRWMD) mitigation banking permit conditions and management conditions (see Exhibit 7). The CCVCMP consists of 2,625 acres located in Sections 24, 25, 26, 27, 28, and 29, Township 20 South, Range 33 East, Volusia County, Florida (see Exhibit 5). The Project Site is bordered by the St. Johns River to the west, State Road 46 and SJRWMD-owned lands to the south, and the Brevard County line to the east. Alderman Road cuts through the Project Site in Section 28.

Upland vegetative communities on the Colbert-Cameron site total approximately 1,358.16 acres and consist of Pine Flatwoods (411), Pine-Mesic Oak (414), Shrub and Brushland (320), Palmetto Prairies (321), and Live Oak (427) (Exhibit 8).

The proposed recipient area on the Colbert-Cameron site is approximately 32.0 acres located in the north central portion of the property. The majority of this parcel was previously classified as a Pine Flatwoods (411) community; however, due to timbering activities, this area should now be classified as a Palmetto Prairie (321) community. The remainder of this parcel is classified as a wet Pine Flatwoods (411W) community.

The Palmetto Prairie (321) community is characterized by scattered longleaf pine and slash pine. This area is dominated by saw palmetto (*Serenoa repens*), and includes other species such as gallberry (*Ilex glabra*), fetterbush (*Lyonia lucida*), wiregrass, bluestem (*Andropogon* sp.), wax myrtle (*Myrica cerifera*), running oak (*Quercus pumila*), and tarflower (*Befaria racemosa*).

The Pine Flatwoods (411W) communities include the same species as the Palmetto Prairie (321), but have a higher density of slash pine and longleaf pine and, in some areas, a lower density of saw palmetto. The groundwater in this area is slightly higher than in the Palmetto Prairie (321) areas, but it is still suitable for gopher tortoises.

The NRCS soil survey for the upland areas within the recipient site within the CCVCMP is included in Exhibit 9.

Recipient Site Management

Proposed management within the recipient site includes prescribed burns within each of the vegetative communities. One-third of the site will be burned each year establishing a three-year burn rotation. Small parcels scheduled for control burn will be randomly located throughout the larger mitigation parcel and bound by the existing dirt roads. The entire site has recently been managed via prescribed burns and wildfires. A letter from the owner describing future property management is attached as Exhibit 7.

Management (i.e., prescribed burning) of the recipient site has been implemented with issuance of the banking permit. Therefore, it is anticipated that the upland communities will improve as habitat for gopher tortoises. A low density of gopher tortoises was documented through previous censuses within the upland communities. The low density may be a result of past non-management of the upland communities and legal harvesting of gopher tortoises prior to restriction of consumptive use of gopher tortoises. Gopher tortoises have been seen throughout the mitigation parcel during the many field assessments of the site. Some old, inactive, and active burrows have also been observed.

Recipient Site Survey Methodology

Pedestrian transect surveys were conducted on December 7, 1999 to assess the occurrence of gopher tortoises on the recipient area within the CCVCMP. FWC guidelines were followed in order to determine gopher tortoise density within the relocation area.

A 19.3% survey [six transects totalling 4,489 linear feet, each 60 feet wide (two pedestrians), which totals 6.18 acres], was conducted across approximately 32.0 acres of suitable gopher tortoise habitat (Exhibit 10). Two "active" and "inactive" burrows were observed within the transects.

The results of the 19.3% survey on the 32.0-acre parcel indicates that the gopher tortoise population is approximately six gopher tortoises (0.614 inter-burrow conversion factor extrapolated to 100% of the recipient area) within the 32.0 acres of suitable habitat, or 0.19 tortoise per acre. The area chosen as a recipient location contains less than 2.0 gopher tortoises per acre, and the density may be increased to the 2.0 gopher tortoises per acre threshold through this relocation effort. Therefore, this recipient area can receive up to 58 gopher tortoises (32.0 acres x 2.0 gopher tortoises/acre – 6 gopher tortoises = 58 gopher tortoises). The final density will be determined by the total number of tortoises that are captured on the donor site.

Although the estimated population for the donor site is 54 gopher tortoises, the recipient site has the capacity for up to 58 gopher tortoises. Therefore, the Applicant requests authorization for the relocation of up to 58 gopher tortoises.

Relocation Procedure

FWC relocation protocol will be followed during the relocation procedure. Excavation of the burrows will be completed using a backhoe and hand digging. It is estimated that the relocation effort will take ten days to complete. Techniques such as marking the tortoises by notching or drilling holes in one or a combination of the eight rearmost scutes are standard procedure and will be utilized.

The gopher tortoises will be transported to the recipient site by vehicle in five-gallon buckets or a trailer with high sides and an open top. Starter burrows will be excavated for the tortoises released within this area if no old or inactive burrows are found. This methodology has been used and approved under other approved relocation permits.

A summary report will be submitted to Bureau of Nongame Wildlife, Division of Wildlife, FWC within 30 days of conclusion of gopher tortoise activities conducted on the Project Site, if required. The summary report shall include the date of relocation activities, an explanation of methods of capture, the number given to each tortoise relocated, and the total number of gopher tortoises captured and relocated.

Conclusions

On behalf of Mr. Fant of BDC Golf Course, Ltd., BDA requests a GTRP for the Project Site. Although the gopher tortoise population on the donor site is estimated to be 54 gopher tortoises (based on the 100% census, 88 burrows * 0.614), the recipient site has the capacity for up to 58 gopher tortoises. Therefore, the Applicant requests authorization for the relocation of up to 58 gopher tortoises. The recipient site has been utilized for several other relocation permits. BDA will follow the appropriate relocation procedure for capturing and relocating the gopher tortoises, and a summary report will be submitted within 30 days of conclusion of the relocation activity. Applications for an Environmental Resource Permit and development approval from the City of Apopka have been submitted to the SJRWMD and the City of Apopka, respectively. In order to get the golf course graded and seeded before spring 2000, the relocation activities for the Project Site need to begin during December 1999.

Mr. Tim Breen
Revised December 9, 1999
December 8, 1999
Page 6

If you have any questions or need any additional information, please do not hesitate to contact us.

Sincerely yours,

Darla J. Miller, B.S.
Associate Scientist IV

Mark W. Christopher, M.S., C.W.B., P.W.S.
Director of Ecological Services

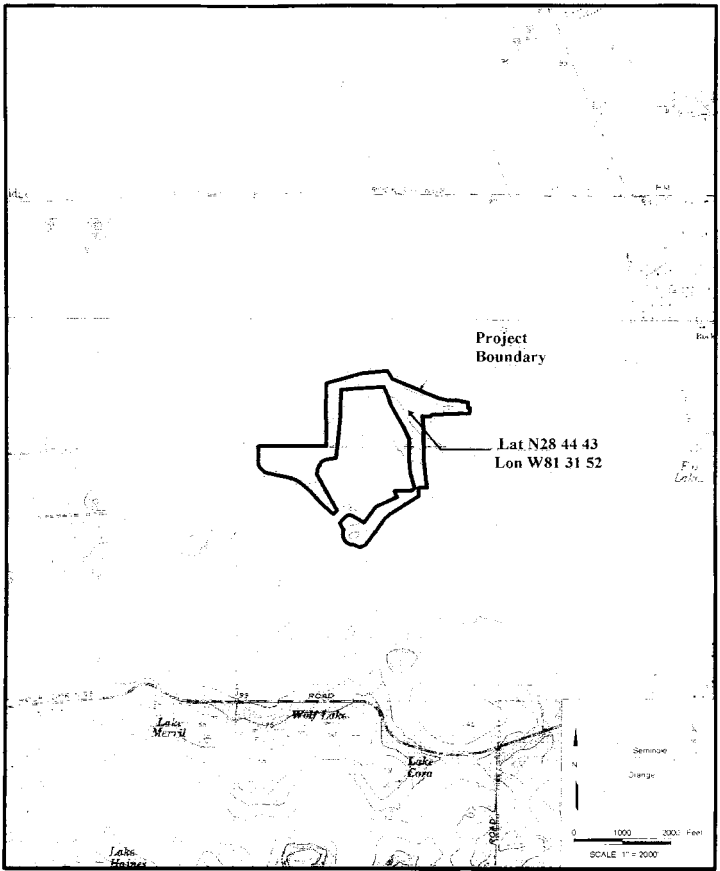
DJM/MWC/kah

Attachments

cc: James H. Fant
Larry T. Ray
Douglas J. Rillstone, Esquire
W. Michael Dennis, Ph.D.

EXHIBIT 1

LOCATION MAP OF THE NINE HOLE GOLF COURSE PROJECT SITE, ORANGE COUNTY, FLORIDA (SECTIONS 17 AND 20, TOWNSHIP 20 SOUTH, RANGE 28 EAST)



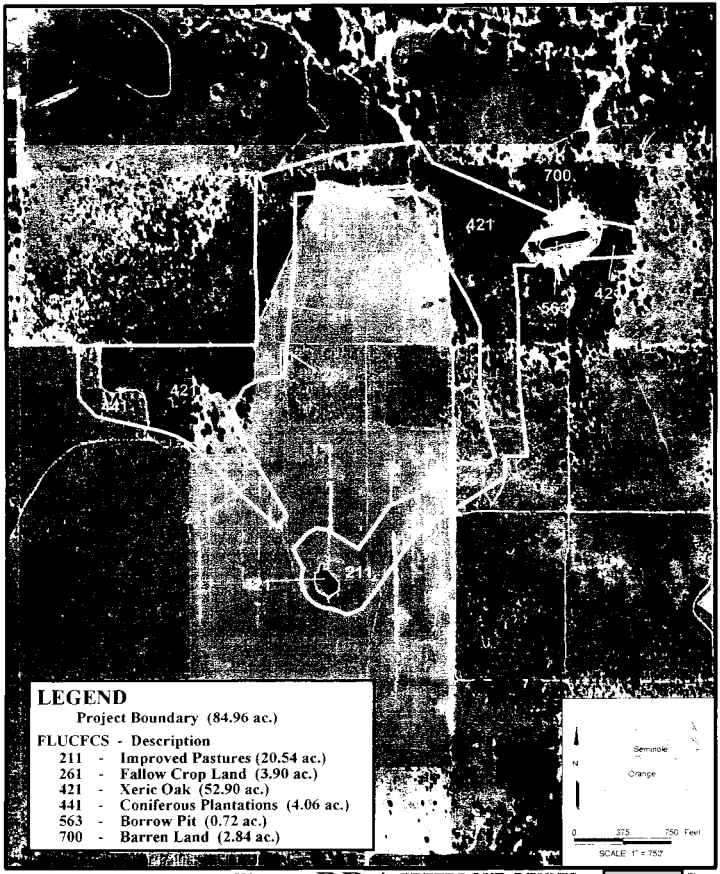
Source: SureMAPS Raster Digital Quad, Copyright, 1997.
Project boundary provided by Engineering & Environmental Design, Inc., 11/99

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-186

EXHIBIT 1 LOCATION MAP OF THE PROPOSED NINE HOLE GOLF COURSE PROJECT SITE.
ORANGE COUNTY, FLORIDA (SECTIONS 17 AND 20, TOWNSHIP 20 SOUTH, RANGE 28 EAST)

EXHIBIT 2

FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM MAP FOR THE NINE HOLE GOLF COURSE PROJECT SITE, ORANGE COUNTY, FLORIDA



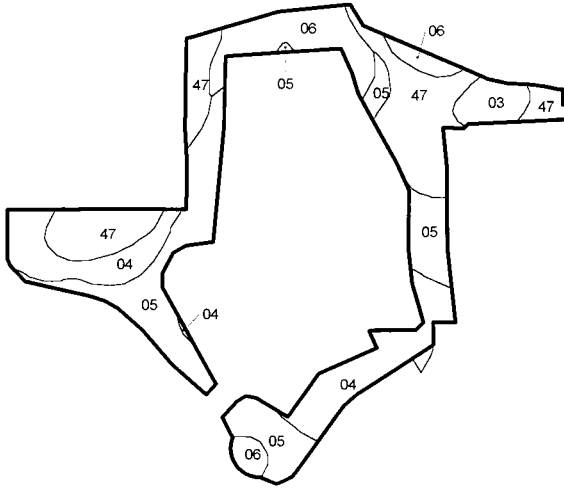
Source: Vegetative Delineation: Photointerpreted by BDA.
Project boundary provided by Engineering & Environmental Design, Inc., 11/99.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-186

EXHIBIT 2 FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM MAP FOR THE P
NINE HOLE GOLF COURSE PROJECT SITE. ORANGE COUNTY, FLORIDA.

EXHIBIT 3

SOILS MAP FOR THE NINE HOLE GOLF COURSE PROJECT SITE, ORANGE COUNTY, FLORIDA

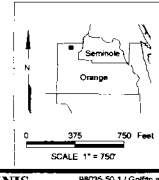


LEGEND

Project Boundary

NRCS Soils Type and Description

03 - Basinger fine sand, depressional
04 - Candler fine sand, 0 to 5% slopes
05 - Candler fine sand, 5 to 12% slopes
06 - Candler-Apopka fine sand, 5 to 12% slopes
47 - Tavares-Urban land complex, 0 to 5% slopes



Source: SJRWMD Digital Data Library.
Project boundary provided by Engineering & Environmental Design, Inc., 11/99.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.

98035-50.1 / Golftp.apr
BN, RJK

4201 Metric Dr. Winter Park, FL 32792 (407)677-18 008

436

EXHIBIT 3 **SOILS MAP FOR THE PROPOSED NINE HOLE GOLF COURSE PROJECT SITE, ORANGE COUNTY, FLORIDA.**

EXHIBIT 4

GOPHER TORTOISE BURROW LOCATIONS ON THE PROPOSED NINE HOLE GOLF COURSE PROJECT SITE, ORANGE COUNTY, FLORIDA



Source: USGS Apopka DOQQ (NE Quarter Quad), 2/95.
GT burrow locations based on photointerpretation and selective groundtruthing by BDA

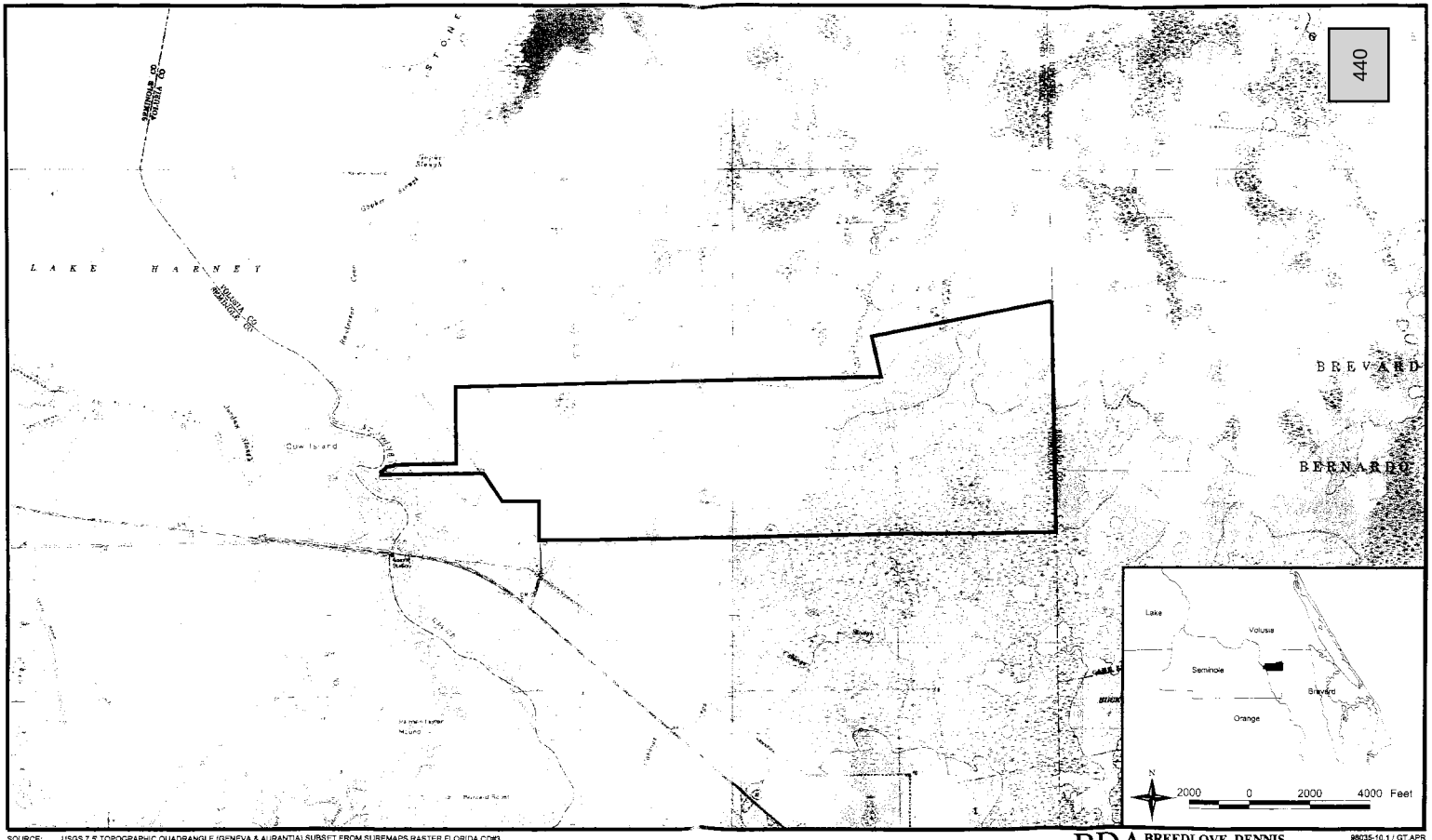
BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL 32792 (407)677-1882 Fax:657-7008

98035-50.1 / Golfns.apr
GT_130.prt / 11-15-99 / RJK

EXHIBIT 4 GOPHER TORTOISE BURROW LOCATIONS ON THE PROPOSED NINE HOLE GOLF COURSE PROJECT SITE.
ORANGE COUNTY, FLORIDA.

EXHIBIT 5

LOCATION OF THE COLBERT-CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA



SOURCE: USGS 7.5' TOPOGRAPHIC QUADRANGLE (GENEVA & AURANTIA) SUBSET FROM SUREMAPS RASTER FLORIDA CD#3

EXHIBIT 5. LOCATION OF THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882 Fax:657-7008

98035-10.1 / GT.APR
12-8-1999 / CBT / LOCATION.PS

EXHIBIT 6

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION LETTER APPROVING COLBERT-CAMERON RECIPIENT SITE

FLORIDA GAME AND FRESH WATER FISH COMMISSION

MRS. GILBERT W. HUMPHREY, Miccosukee | THOMAS B. KIBLER, Lakeland | JAMES L. "JAMIE" ADAMS JR., Bushnell | JULIE K. MORRIS, Sarasota | QUINTON L. HEDGEPETH, DDS, Miami

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

CENTRAL REGION
LTC. ROBERT D. BUTLER, Director
1239 SW 10th Street
Ocala, FL 34474-22
(352) 732-12

98014

DJM, WMD, PF

June 9, 1998

Ms. Darla Miller
Associate Scientist III
Breedlove, Dennis & Associates, Inc.
P.O. Box 720037
Orlando, FL 32872-0037

RE: Colbert/Cameron Gopher Tortoise Recipient Site Proposal.

Dear Ms. Miller:

This letter shall serve as preliminary approval of the Colbert/Cameron Gopher Tortoise Recipient Site. Initial inspection of the property located in Sections 24,25,26,27,28 and 29 in Township 20 South and Range 33 East in Volusia County indicates suitable gopher tortoise habitat is present. The majority of the uplands included in the parcel are Pine Flatwoods, as you stated in your April 16 letter. While this ecotype does not normally produce high Habitat Suitability indices and is not identified as one of the seven habitat types considered as potentially important gopher tortoise habitat, gopher tortoises do use South Florida Flatwoods at lower densities.

Any relocation of gopher tortoises must be approved by permit and this, as you are aware, requires a permit application. I have forwarded copies of your request to Mr. Mark Asleson and Ms. Angela Williams so that they will be aware of the property before you submit your first permit application.

Please call if you have any questions.

Sincerely,

Rick Spratt
Biological Scientist III

cc: Mark Asleson
Angela Williams

EXHIBIT 7

COLBERT-CAMERON MITIGATION BANK FOREST RESTORATION AND MANAGEMENT PLAN

STENSTROM, McINTOSH, COLBERT, WHIGHAM & SIMMONS, P.A.
ATTORNEYS AND COUNSELLORS AT LAW

SUNTRUST BANK - SUITE 22
200 WEST FIRST STREET
POST OFFICE BOX 4848
SANFORD, FLORIDA 32772-4848
SANFORD (407) 322-2171
ORLANDO (407) 834-5119
FAX (407) 330-2379
HTTP://WWW.STENSTROM.COM

WILLIAM L. COLBERT
FRANK C. WHIGHAM
CLAYTON D. SIMMONS
ROBERT K. McINTOSH
DONNA L.S. McINTOSH
WILLIAM E. REISCHMANN, JR.
CATHERINE D. REISCHMANN
JAMES J. PARTLOW

KENNETH W. McINTOSH
S. KIRBY MONCRIEF
OF COUNSEL

DOUGLAS STENSTROM
RETIRED

THOMAS E. WHIGHAM
(1932-1988)

June 22, 1998

Dr. W. Michael Dennis
Breedlove, Dennis & Assoc., Inc.
P.O. Box 720037
Orlando, FL 32872-0037

VIA FAX 407-657-7008
& U.S. MAIL

Re: Colbert/Cameron Mitigation Bank, Volusia County - Gopher Tortoise Recipient Site

Dear Dr. Dennis:

This letter is to document the commitment of Colbert/Cameron Mitigation Bank to act as a recipient site for gopher tortoises *(Gopherus polyphemus)* captured on off-site lands proposed for development. Tortoise relocations will be coordinated through Breedlove, Dennis & Associates, Inc., and all tortoises accepted will be placed in ecologically suitable habitat.

We understand that it will be necessary to conduct land management which will maintain the recipient site habitat suitable for gopher tortoises. This will be accomplished through periodic control burns which are already incorporated into our present management plan. A copy of the Forest Restoration and Management Plan for the Colbert/Cameron Mitigation Bank is attached hereto as Exhibit A.

We understand that as part of the relocation process, it will be necessary for Breedlove, Dennis & Associates, Inc., to enter the property to complete annual surveys to document the success of the relocation efforts.

There are no plans to develop the recipient site in the future. The site has been divided into three phases. A copy of our phase map is attached hereto as Exhibit B. Phase I has been placed under a Conservation Easement per our St. Johns River Water Management District mitigation permit No. 4-127-0314ERP and the other phases will be placed under easements as they are required for the mitigation bank. A copy of the Phase I Conservation Easement is attached hereto as Exhibit C.

Should you have any questions or require further information, please do not hesitate to contact us.

Sincerely,

William L. Colbert

William L. Colbert, Trustee
Colbert/Cameron Mitigation Bank

Enclosures
f:\files\wlc\colbert cameron\dennis.ltr:nah

Long Leaf Forest Service, Inc.
P.O. Box 1995
DeLeon Springs, Florida 32130-1995
(904) 985-5047

COLBERT / CAMERON MITIGATION BANK

FOREST RESTORATION AND MANAGEMENT PLAN



COLBERT CAMERON MITIGATION BANK

FOREST MANAGEMENT PLAN

Objectives

This tract is to be managed as a mitigation bank. The primary objective is to restore and maintain the original plant and animal communities. Listed species will be favored. The property will be used to offset the negative effects of development on native plant and animal species. This will be accomplished by creating the native plant communities which are becoming extremely rare in Central Florida. The uplands will be managed to become a large diameter pine overstory with diverse age classes and frequently burned understory. The wetlands will be managed to maintain existing successional vegetation trend toward a climax vegetative community. A 25 foot harvesting boundary will be maintained around forested wetlands.

Tract Description

This property is located in Volusia County, Florida south of Lake Harney and north of State highway 46. A detailed location and map can be found in the beginning of this application. The property consists of wet flatwoods interspersed with mixed cypress ponds and strands. Live oak, cedar and cabbage palm hammocks combine with river marsh to offer a habitat combination unique to the St. Johns River system.

The flatwoods soils along the upper St. Johns support south Florida slash pine almost exclusively little evidence of north Florida slash or longleaf pine can be found on this tract. South Florida slash pine mixed with some pond pine make up the overstory on this tract. The stands are all natural in origin re-seeding after the harvest from uncut trees. Timber harvesting and hot control fires for cattle production have reduced the overstory to a scattered open grown condition. Cattle grazing was the primary use of this property

for many years. Cattle selectively eat some plants, passing over others. The effect of 100 years of cattle activity on the property is an understory missing important components, especially annuals, legumes and many of the native grasses. These plants are important because of their food value to wildlife. Fortunately these plants have not been eliminated from the site, just reduced to a minor component dominated by unpalatable species such as palmetto, gallberry and wiregrass.

If the cattle are removed, experience has shown an immediate improvement and gradual recovery of the understory. Tandem chopping has demonstrated understory recovery in a much shorter time frame by interrupting the palmetto/gallberry dominance.

Pine species do not produce seed each year especially longleaf pine. Planting the overstory in conjunction with understory treatment will provide for rapid recovery of both plant components.

The original overstory, consisted of primarily South Florida slash pine. The trees were 12 to 30 inches in diameter and ranged in basal areas 60 to 100 square feet per acre. These trees tended to reproduce in patches with stands of trees in one age class. In order to reproduce these stands, in the shortest time possible, thinning is prescribed. This also prevents the pine from excessively shading the understory.

In summary past use of the property has shifted the vegetative balance but the original components are still present. We can restore the original vegetative balance with the understory recovering in a few years. The overstory will take longer where absent, 60 years with proper thinning. In many places the existing younger stands will shorted this recovery period significantly

Restoration

The uplands are to be restored in 50 acre management units called stands. Initially under phase 1 one 50 acre stand will be harvested every 5 years on a 60 year rotation. Five to ten wildlife trees will be marked and protected from the harvest to provi

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perch and snag trees. Wildlife trees will be selected for large diameters, hollow cavities, nest supporting branch structure and esthetic appeal. Younger trees will be selected if larger trees are lacking.

The stand will then be chopped to restore the understory and hand planted with 500 trees per acre. At age 15 the stand will be thinned to protect the understory from excessive shading. As other phases are added, the period between the harvesting reduces to 2 years and the length of time a particular stand is growing increases from 50 to 70 years.

The end result will be mature large diameter diverse forest with 2% of the upland acreage in open condition at any one time.

The best standing example of this forest type can be found in the longleaf islands on the Ocala National Forest. In the following portions of this report each phase is described and specific management recommendations given.

Reforestation Protocol

UNSTOCKED MANAGEMENT UNITS

In those 50 acre management units that are currently unstocked (fewer than 12 suitable well distributed 10" DBH slash pine per acre)

1. Prepare the site using fire, 1 pass drum chopping either or both.
2. Plant 600 South Florida slash or Longleaf pine seedlings per acre
3. Begin prescribed fire program at age 7 burning every 2 to 3 years.
4. Begin to assess stand for thinning at age 15
5. Thin every 5 to 10 years to maintain a basal area between 50 and 90 square feet per acre.
7. At age 90 begin to naturally regenerate stands using seed tree system.

UNDERSTOCKED MANAGEMENT UNITS

In those 50 acre management units that are understocked (less than 450 well distributed seedlings or sapling slash pine per acre or older merchantable stands with less than 30 square feet of basal area)

1. Prepare a seed bed using single pass drum chopping and or prescribed fire as necessary. Drum chopping must be done with care to avoid damage to residual seed trees.
2. Monitor stand for seed catch. Once adequate seedlings are established, protect from fire for 7 years.
3. Begin prescribed fire program when seedlings are 7 years old. Burn on a 2 to 5 years basis depending on fuels.
4. Assess stand for thinning, thin beginning at age 15 every 5-10 years to maintain a basal area between 50 and 90.
5. At age 90 begin to naturally regenerate the stand using seed trees or shelter wood.

STOCKED MANAGEMENT UNITS

In those areas that are currently stocked (Stands with 450- 1000 well distributed seedlings or sapling slash pine per acre or merchantable stands with 30 to 100 square feet of basal area per acre)

1. Begin prescribed fire program (if seedlings are present delay burning until the trees are at least age 7)
2. Assess stand for thinning. Thin every 5 to 10 years to maintain a basal area range of 50 to 90.
3. At age 90 begin to naturally regenerate stand using seed trees or shelterwood.

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OVER STOCKED MANAGEMENT UNITS

In those areas that are currently overstocked (stands with more than 1000 well distributed seedlings or sapling slash pine per acre or older stands having grater than 100 square feet of basal area)

1. Thin stand to 50 square feet of basal area as soon as trees are merchantable. If trees require thinning prior to becoming merchantable apply prescribed fire using a well trained fire specialist to thin saplings.
2. Begin prescribed fire program. Burns should occur every 2-5 years based upon fuels.
3. Thin every 5-10 years to maintain basal area between 50 and 90 square feet
4. At age 90 begin to naturally regenerate stand using seed tree or shelterwood system.

PHASE I

Description

This phase occurs at the eastern portion of the tract. It consists of a 370 acre fresh water marsh to the south with hammock and cypress wetlands draining into the marsh from the north. The uplands are flatwoods with a fairly dense 10 year old natural stand of South Florida slash pine. The understory is a heavy palmetto/gallberry rough in the north with a more open and better burned understory to the south.

Management Prescription

The heavy understory should be reduced without killing the young pine overstory. This is possible only with careful winter burning. The pine should be thinned at age 15 together with older stands to the south. Thin to a basal area of 50 square feet per acre with particular attention to nest trees and cavity trees and snags.

A 60 to 90 year rotation harvesting and restoring 50 acres every 5 years is prescribed. The size of the harvest should not exceed 50 acres. This will provid

diameter pine, clearings and a diversity of age structure. Stand boundaries should be irregularly shaped and separated by disked fire lines.

Control Burning

Understory reduction is the first priority. Wide disked perimeter fire lines should be established and maintained annually. A backing winter burn with a 10 mph north wind and high ground moisture is prescribed for the entire phase initially. Following this the phase should be separated along future stand lines into 3 burn units. Spring to summer burning is then recommended as permitted by the understory and weather. Burn 1 of the 250 acre units each year on a 3 year rotational basis. The marsh should be burned in the winter prior to nesting season on a 3 to 5 year rotation.

Fire lines will be kept as natural as possible. Trails, roads and natural boundaries will be used as in the past. Where new lines are required, a re-work plow will be used to restore the original grade. The lines will be maintained using a flat plowing disk harrow.

PHASE II

This phase is located in the center of the tract. It consists of flatwoods and scattered cypress ponds. The upland overstory is scattered open grown South Florida slash pine averaging 12 to 15 inches in diameter. The basal area averages 10 to 20 square feet per acre. The understory is low palmetto and wiregrass with limited diversity.

Management Recommendations

With the addition of this phase the 50 acre management unit remains the same but the frequency of the upland restoration is increased to one 50 acre stand every 2 years. five to ten trees per acre will be marked and protected from harvest to provide future perch, nesting and snag trees. The understory should be chopped with a heavy tandem offset chopper. The stand will then be planted with pine at 500 trees per acre.

to a basal area of 50 at age 15 is anticipated. The forested wetlands should be protected from fire. No harvesting is recommended in the swamps or hammocks.

Burning Recommendations

This phase should be divided into 3 burning units along future stand boundaries. One unit should be burned each year with the corresponding phase 1 unit. The forested wetlands will require fire lines in the uplands to protect them from fire.

PHASE III

Description

This phase is located in the northwest portion of the tract. It is similar to phase 2, slightly dryer with 5 to 10 mature slash pine per acre and a palmetto understory. Most of the understory here needs restoration. The wetlands are mostly cypress pond with scattered sedge ponds.

Management Recommendations

The final addition to the bank will allow the upland rotational age to be increased to 90 years. The 50 acre management unit remains constant as does the 2 year harvest and restoration schedule. Patches of natural regeneration may be substituted for restoration acreage if the understory contains good diversity. Care should be used to prevent the natural stands from becoming too dense. Stem counts in excess of 700 trees per acre will need to be thinned using carefully regulated fire. Chopping and planting recommendations remain constant with phase 1 and 2.

Control Burning

This phase should be separated into 3 units of approximately 130 acres. One phase should be burned each year with the corresponding units in phases 1 and 2.

Hunting Requirements

Hunting has occurred on this tract from prehistoric times. Bone fragments, and pottery shards confirm the presence of hunter-gathers on the property. Under today's conditions in the absence of large predators managed hunting can prevent overpopulation and the resulting damage to the supporting vegetation.

Illegal hunting is perhaps the most serious threat to both game and non game species on the property. The existing wildlife populations are a direct result of generations of protection. Experience has demonstrated there is no better protection from poaching than a well managed legal hunting presence with a vested interest in the property.

It is clear that the past hunting and protection practices on the property have had beneficial effects on both the game and non game species. To quantify these practices for future generations the following hunting rules will be observed:

1. The game lows of the State of Florida will be strictly observed. Wildlife officers will always be welcome to observe and patrol the tract.

2. A maximum of 20 white tale deer and 15 turkey will be harvested from the tract each year.

3. No non game species will be harmed or molested on the property excepting non native invading species such as are listed by the Florida fish and game.



Long Leaf Forest Service, Inc.
P.O. Box 1995
DeLeon Springs, Florida 32130-1995
(904) 985-5047

April 08, 1997

Mr. Bill Colbert
Sun Bank Building Suite 22
200 West First St.
Sanford, FL 32772-4848

Dear Mr. Colbert:

The following are quotes to perform management services on your property in South Volusia County.

Control burning	$5.00 per acre
Heavy tandem chopping	$55.00 per acre
Hand tree planting	$45.00 per acre

South Florida Slash pine $25.00 per acre @ 725 trees per acre bare root.

Do not hesitate to call me with any questions.

Yours in Stewardship,

Steve Edgar
President

SE/se

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PHASE I
PHASE II
PHASE III
LAKE HARNEY WOODS (40-96)
(41-156)
(41-157 & 158)
St. Johns River
Lake

Ex B

03/20/1998 12:04
Doc stamps 0.70
Transfer Amt $ 10)
Instrument # 98048539
Book: 4287
Page: 4239

This instrument prepared by
and return recorded instrument to:
WILLIAM L. COLBERT, ESQUIRE
Post Office Box 4848
Sanford, FL 32772-4848
Parcel Nos. 0326-00-00-0010; 0325-00-00-0010; 0337-00-00-0020

DEED OF CONSERVATION EASEMENT
PHASE I

THIS DEED OF CONSERVATION EASEMENT is made this 19 day of March 1998, by WILLIAM L. COLBERT and HAL E. COLBERT as trustees of that certain trust known as COLBERT/CAMERON TRUST NO. 1, dated February 28, 1996, having an address of P.O. Box 4848, Sanford, FL 32772-4848, ("Grantor"), in favor of the ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT, public body existing under Chapter 373, Florida Statutes, having a mailing address of P.O. Box 1429, Palatka, Florida 32078-1429 and DEPARTMENT OF ENVIRONMENTAL PROTECTION having an address of 3900 Commonwealth Blvd., Mail Station 10, Tallahassee, FL 32399-3000 ("Grantee").

WITNESSETH

WHEREAS, Grantor solely owns in fee simple certain real Property in Volusia County, Florida, more particularly described in Exhibit "A" attached hereto and incorporated by this reference (the "Property"); and

WHEREAS, the Property possesses environmental value of great importance to Grantor and to the people of the State of Florida; and

WHEREAS, Grantor intends, as the Property Owner, to convey to Grantee the right to preserve and protect the environmental value of the Property in perpetuity; and

WHEREAS, Grantee agrees, by accepting this grant, to honor Grantor's intentions stated herein and to preserve and protect in perpetuity the environmental value of the Property for the benefit of this generation and the generations to come.

WHEREAS, the Grantor intends to operate a public mitigation bank on the Property pursuant to Department of Army Permit No. 1996-02586 ("DA Permit") and pursuant to that Federal Mitigation Banking Instrument ("MBI") issued March 19, 1998, to Grantor by Mitigation Banking Review Team ("MBRT") members, the U.S. Army Corps of Engineers ("Corps"), the U.S. Environmental Protection Agency ("EPA"), and the U.S. Fish and Wildlife Service ("FWS"); and

WHEREAS, the aforementioned MBI and DA Permit require that the Property be retained perpetually in a conservation easement in accordance with Chapter 704.06, Florida Statutes, and this Dead of Conservation Easement.

NOW, THEREFORE, in consideration of the above and the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the provisions of §704.06, Fla. Stat., Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property of the nature and character and to the extent hereinafter set forth (the "Easement").

1. Purpose. The purpose of this Easement is to assure that the Property will be retained forever, except as herein provided, in its existing natural condition and to prevent any use of the Property that will impair or interfere with the environmental value of the Property.

2. Rights of Grantee. To accomplish the purposes stated above, the following rights are conveyed to Grantee by this Easement:

(a) To preserve and protect the environmental value of the Property;

(b) To prevent any activity on or use of the Property that is inconsistent with the purpose of this Easement, and to require the restoration of areas or features of the Property that may be damaged by any inconsistent activity or use;

(c) To enter upon and inspect the Property in a reasonable manner and at

reasonable times to determine if Grantor or its successors and assigns are complying with the covenants and prohibitions contained in this Conservation Easement (to be done only with authorized employees of the Water Management District, Department of Environmental Protection or Corps, easement not including public access); and

(d) To proceed at law or in equity to enforce the provisions of this Conservation Easement and the covenants set forth herein, and to prevent the occurrence of any of the prohibited activities hereinafter set forth.

3. Rights of Corps. To accomplish the purposes stated above and in addition to those rights retained under the MBI and the DA Permit, the following rights are conveyed to the Corps by this Easement:

(a) To enter upon and inspect the Property in a reasonable manner and at reasonable times to determine if Grantor or its successors and assigns are complying with the covenants and prohibitions contained in the MBI, the DA Permit, and this Conservation Easement (to be done only with authorized employees and agents of the Corps).

(b) To proceed at law or in equity to enforce the provisions of this Conservation Easement and the covenants set forth herein, and to prevent the occurrence of any of the prohibited activities hereinafter set forth.

4. Prohibited Uses. Except rights reserved in Paragraph 5, any activity on or use of the Property inconsistent with the purpose of this Easement is prohibited. Without limiting the generality of the foregoing, the following activities and uses are expressly prohibited:

(a) Construction or placing of buildings, roads, billboards or other advertising, utilities or other structures on or above the ground unless authorized by district permit, except reserved rights described in Paragraph 5;

(b) Dumping or placing of soil or other substance or material as landfill or dumping or placing of trash, waste, or unsightly or offensive materials;

(c) Removal or destruction of trees, shrubs, or other vegetation except reserved rights described in Paragraph 5;

(d) Excavation, dredging or removal of loam, peat, gravel, soil, rock or other material substances in such a manner as to affect the surface except as authorized by district and DA permits;

(e) Surface use, except for purposes that permit the land or water area to remain predominantly in its natural condition except reserved rights described in Paragraph 5;

(f) Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation or fish and wildlife habitat preservation, except reserved rights described in Paragraph 5; and

(g) Acts or uses detrimental to such retention of land or water areas except reserved rights described in Paragraph 5; and

(h) Acts or uses detrimental to the preservation of any features or aspects of the property having historical, archeological, or cultural significance.

5. Reserved Rights. Grantor reserves unto itself, and its successors and assigns, all rights accruing from its ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not expressly prohibited herein and are not inconsistent with the purpose of the Easement, and specifically the right to use the Property described herein for use by Grantor, its successors and assigns in the following manner:

(a) Private, non-commercial, recreational uses including, but not limited to, hunting, fishing, swimming, hiking and camping provided that such recreational uses are not inconsistent with the requirements of permit number 4-127-0314ERP on file with the St. Johns River Water Management District ("District"). Hunting uses shall be in accordance with the Colbert/Cameron Mitigation Bank Forest Restoration and Management Plan received by the

District on July 3, 1996, and the terms of the July 29, 1996, Memorandum from the District's Land Management Coordinator, both of which are contained in permit file number 4-127-0314ERP.

(b) Silvaculture uses in accordance with the Colbert/Cameron Mitigation Bank Forest Restoration and Management Plan received by the District on July 3, 1996, and the terms of the July 29, 1996, Memorandum from the District's Land Management Coordinator, both of which are contained in permit file number 4-127-0314ERP.

(c) Any change or modification to the aforementioned Forest Restoration and Management Plan must be approved by the Grantee and the Corps.

6. Discretion of Grantee and Corps. Grantee and the Corps may enforce the terms of this Easement at their discretion, but if Grantor breaches any term of this Easement and neither Grantee nor the Corps exercises its rights under this Easement, such forbearance shall not be construed to be a waiver by either of such term, or of any subsequent breach of the same, or any other term of this Easement, or of any of the rights of Grantee or the Corps under this Easement.

7. Acts Beyond the Control of Grantor. Nothing in this Easement shall be construed to entitle Grantee to bring an y action against Grantor for any injury to or change in the Property resulting from natural causes beyond the control of Grantor, including, without limitation, fire, flood, storm and earth movement, or from any action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes.

8. Successors. The covenants, terms, conditions, and restrictions of this Easement shall be binding upon and inure to the benefit of the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property.

IN WITNESS WHEREOF, Grantors have set their hand on the day and year first above written.

Witnesses:

Juliet Lynn Larrea
Printed Name: _____

Nancy A. Ham
Printed Name: _____

Juliet Lynn Larrea
Printed Name: _____

Nancy A. Ham
Printed Name: _____

WILLIAM L. COLBERT, as Trustee
of that certain trust known as
COLBERT/CAMERON TRUST NO. 1
DATED FEBRUARY 28, 1996

HAL E. COLBERT, as Trustee of that certain trust known as
COLBERT/CAMERON TRUST NO. 1
DATED FEBRUARY 28, 1996
ADDRESS: P.O. Box 4848
Sanford, FL 32772-4848

STATE OF FLORIDA,)
COUNTY OF SEMINOLE)

The foregoing instrument was acknowledged before me this 11 day of March, 1998, by WILLIAM L. COLBERT, as Trustee of the COLBERT/CAMERON TRUST NO. 1 DATED FEBRUARY 28, 1996, who is personally known to me or who has produced the following form of identification: Personally Known

Nancy A. Ham
Printed Name:
Notary Public, State of Florida

NANCY A. HAM
MY COMMISSION # CC 421100
EXPIRES: November 15, 1998
Bonded Thru Notary Public Underwriters

STATE OF FLORIDA,)
COUNTY OF SEMINOLE)

The foregoing instrument was acknowledged before me this 19 day of March 1998, by HAL E. COLBERT, as Trustee of the COLBERT/CAMERON TRUST NO. 1 DATED FEBRUARY 28, 1996, who is personally known to me or who has produced the following form of Identification: Driver's Lic.

Printed Name:
Notary Public, State of Florida

NANCY A. HAAS
MY COMMISSION # CC 421000
EXPIRES: November 16, 1998
Bonded Thru Notary Public Underwriters

EXHIBIT "A"
LEGAL DESCRIPTION

PARCEL 4: Government Lots 1,2, 3 and 4, of Section 26, Township 20 South, Range 33 East;

PARCEL 5: Government Lot 1 of Section 25, Township 20 South, Range 33 East, containing 9.44 acres, more or less;

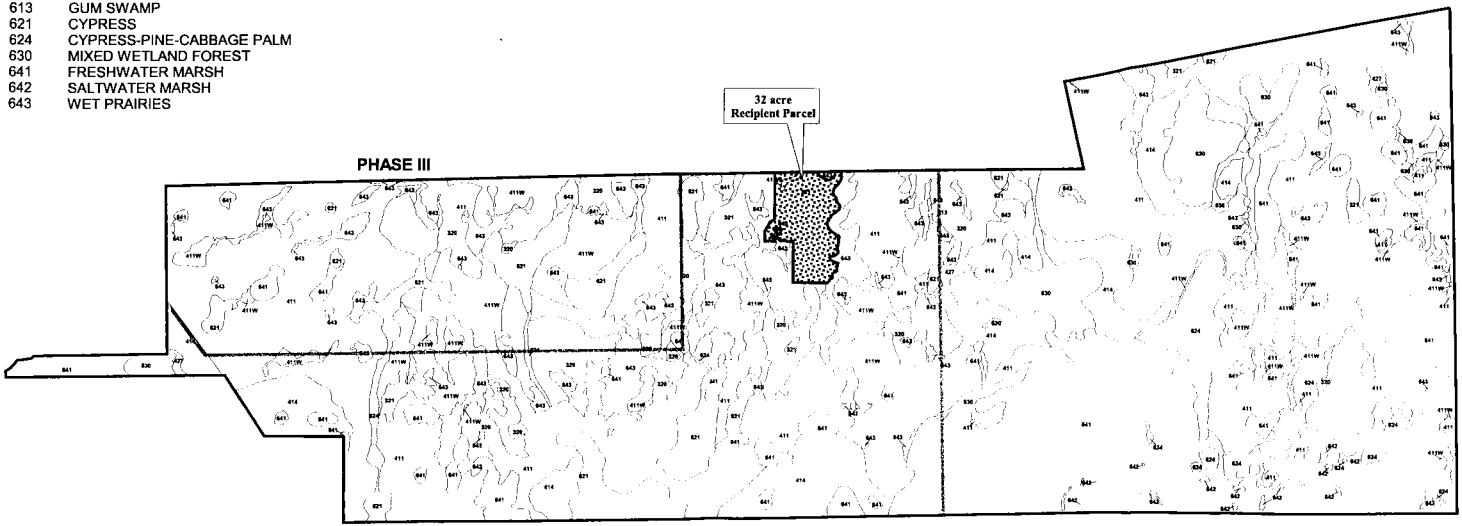
PARCEL 6: Beginning at the NE corner of Government Lot 1, Section 26, Township 20 South, Range 33 East, run North 09° West 18.60 chains along Westerly boundary line of B. Seugi Grant, North 79° East 91.19 chains along Northerly boundary line of said Grant to East Boundary of Township 20 South, Range 33 East, to a point 42.72 chains South of NE Corner of Section 24, Township 20 South Range 33 East, thence South along Township line 117.28 chains, thence West 75.24 chains more or less to SE Corner of Government Lot 1, Section 25, Township 20 South, Range 33 East, thence North along said Westerly Grant Line to point of beginning, containing 943.78 acres, more or less.

EXHIBIT 8

FLORIDA LAND USE AND COVER CLASSIFICATION SYSTEM MAP FOR THE COLBERT-CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA

LEGEND

320	SHRUB AND BRUSHLAND
321	PALMETTO PRAIRIES
411	PINE FLATWOODS
411W	WET PINE FLATWOODS
414	PINE-MESIC OAK
427	LIVE OAK
613	GUM SWAMP
621	CYPRESS
624	CYPRESS-PINE-CABBAGE PALM
630	MIXED WETLAND FOREST
641	FRESHWATER MARSH
642	SALTWATER MARSH
643	WET PRAIRIES



N

0 800 1600 2400 Feet

SOURCE: LAND USE AND COVER MAPPING BY MCINTOSH & ASSOCIATES, INC. REVISED BY BDA 6/11/98 USING PHOTOINTERPRETATION AND SELECTIVE GROUNDTRUTHING

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882 Fax:657-7008

98035-10.1 / GT APR
12-8-1999 / CBT / VEG.PS

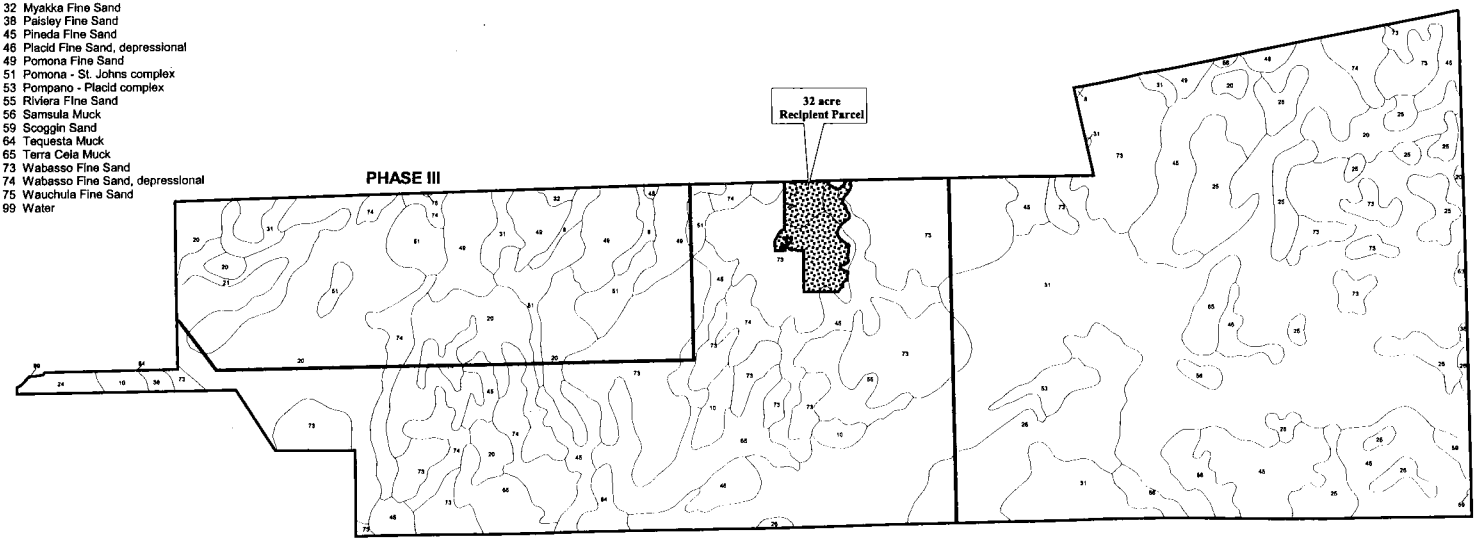
EXHIBIT 8. **FLORIDA LAND USE AND COVER CLASSIFICATION SYSTEM MAP FOR THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA.**

EXHIBIT 9

SOILS MAP FOR THE COLBERT-CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA

LEGEND

8 Bassinger Fine Sand, 0 to 5 percent slopes
10 Bluff Sandy Clay Loam
20 EauGallie Fine Sand
21 EauGallie Fine Sand, depressional
24 Fluvaquents
25 Gator Muck
26 Holopaw Sand
31 Malabar Fine Sand
32 Myakka Fine Sand
38 Paisley Fine Sand
45 Pineda Fine Sand
46 Placid Fine Sand, depressional
49 Pomona Fine Sand
51 Pomona - St. Johns complex
53 Pompano - Placid complex
55 Riviera Fine Sand
56 Samsula Muck
59 Scoggin Sand
64 Tequesta Muck
65 Terra Ceia Muck
73 Wabasso Fine Sand
74 Wabasso Fine Sand, depressional
75 Wauchula Fine Sand
99 Water



N

0 800 1600 2400 Feet

SOURCE: SJRWMD Reference Library (SSURGO - Volusia County)

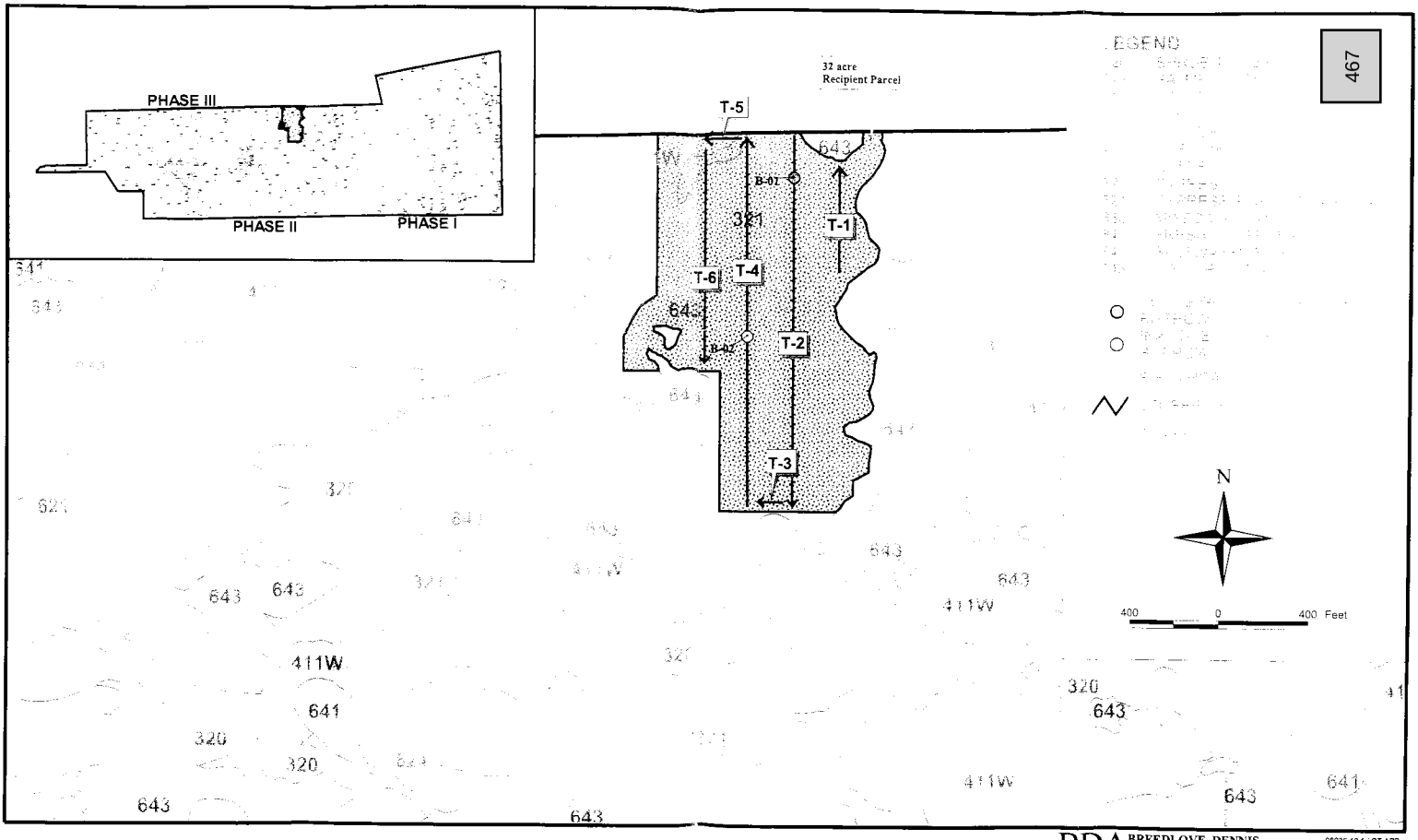
EXHIBIT 9. **SOILS MAP FOR THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA.**

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882 Fax:657-7008

98035-10 1 / GT.APR
12-8-1999 / CBT / SOILS.PS

EXHIBIT 10

LOCATION OF THE GOPHER TORTOISE RECIPIENT PARCEL ON THE COLBERT-CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA



BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882 Fax:657-7008

98035-10.1 / GT.APR
12-8-1999 / GBT / PARCEL PS

EXHIBIT 10. LOCATION OF THE GOPHER TORTOISE RECIPIENT PARCEL ON THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA

RECEIVED
APR 17 2000
BREEDLOVE, DENNIS & ASSOCIATES, INC.
98035

PERMIT

Issued Under Authority of the Wildlife Code of the State of Florida (Title 68A, Florida Administrative Code) by the

STATE OF FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
Division of Wildlife, 620 South Meridian Street, Tallahassee, FL 32399-1600, 850/488-3831

Permit No. WR00138 **Issuance Date** 13 April 2000 **Expiration Date** 14 July 2000
Permit Type Tortoise Relocation **Specific Rule Authority** 68A-25.002; 68A-27.005
Permittee Darla Miller **Affiliation** Breedlove, Dennis & Associates, Inc.
Phone no. (407) 677-1882 330 W. Canton Avenue
Winter Park, FL 32789
Signature
*Signature indicates acceptance and understanding of the provisions/conditions listed below. Please return a signed copy to this office.

Provisions/Conditions:

1. Up to 25 gopher tortoises (*Gopherus polyphemus)* may be captured by nonharmful means in association with development of the Rock Springs Ridge Phase III A project site (T20S,R28E,S16,17 & 20), in Orange County, relocated to and released at Colbert-Cameron Volusia County Mitigation Parcel, 120-acre site in Phase I (T20S,R33E,Bernardo Spanish Acquisition Area), in Volusia County, Florida. Any gopher tortoise burrow commensals encountered in the capture operation may likewise be live-captured, relocated and released. However, no more than one indigo snake *(Drymarchon corais couperi)*, or 10 each of Florida mice *(Podomys floridanus)* and gopher frogs *(Rana capito)* may be relocated. Should additional specimens of those listed species be encountered, the capture operation is to be suspended and this office contacted for instructions.

2. Tortoises may be captured/relocated only on days for which the overnight low temperature is forecast by the U.S. National Weather Service to be above 50°F, and only when such days precede at least two consecutive days thereafter for which overnight lows are likewise forecast to exceed 50°F. Authorizing the capture/relocation is otherwise predicated and conditioned on the information and assurances provided in the permittee's 29 February 2000 application, the assurances of which are herein incorporated by reference.

3. This permit does not authorize Permittee access to any public or private properties. Any required permission accordingly must be secured from the appropriate landholders prior to undertaking any work on such properties.

4. Captures/relocations may be undertaken only subsequent to all other permits for the project which may be required by local, state and/or federal agencies being issued. This permit is subject to revocation at any time pursuant to Chapter 120, Florida Statutes. It is nontransferable and must be readily available for inspection at all times while engaging in the permitted activities. Other qualified personnel may assist in the permitted activities, but when any such assistance is to be provided in the absence of the permittee's direct supervision, those assistants are to be designated by letter of authorization from the permittee to each designee, with this office provided a copy of such letter(s).

5. The Permittee shall notify the Protected Species Permit Coordinator by fax at (850) 921-1847 or by phone at (850) 921-5990 within 24 hours of initiating the tortoise relocation effort.

PERMIT

Permit No. WR00138

Provisions/Conditions: Continued

6. The Permittee by signing this permit, specifically agrees to allow authorized Commission personnel, upon presentation of credentials as may be required by law, access to the donor and recipient sites, at reasonable times, for the purpose of inspecting the capture/relocation activities authorized under this permit.

7. The Permittee shall submit a report detailing the capture/relocation to the Commission's regional contact person, with copies provided to the recipient site landowner and this office, within 30 days of release of the captured/relocated tortoises involved. A report form is attached for use in that regard. Any request for permit renewal or extension shall be submitted at least 30 days prior to the expiration date of this permit.

Allan L. Egbert, Ph.D.
Executive Director

By: B.A. Millsap
Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife

W1067/BAM/atw
LIC 6-20
WR00138.per
Attachment

cc: Colonel Robert Edwards
Mr. Brad Hartman
Lt. Col. Robert B. Butler
Major Andy Love
Mr. Mike Abbott
Ms. Julie Hovis

EXPLANATION OF RIGHTS

In response to the allegations set forth in the Notice of Agency Action issued by the Florida Fish and Wildlife Conservation Commission, hereinafter referred to as the Commission, you may make any one of the following elections on the attached Election of Rights Form and file the form within twenty-one (21) days from the date you receive the Notice. Please return the Election of Rights form with the necessary attachments fully executed to the address listed on the form.

1. If the allegations as set forth in the Notice of Agency Action contain no disputed issue(s) of material fact you may request an informal hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes. An informal hearing will be conducted by the agency head or representative of the agency. In the event that your request for an informal hearing is granted, you will be given the opportunity to present both written and oral evidence in mitigation of the alleged violations. Any request for an informal proceeding in this matter should be directed to the Commission by checking the appropriate space marked as 1 on the Election of Rights form and filing the form with the Commission within twenty-one (21) days from the date of receipt of the Notice of Agency Action.

2. If you determine that the allegations as set forth in the Notice of Agency Action contain any disputed issue(s) of material fact, you may request a formal hearing under Sections 120.569 and 120.57(1), Florida Statutes. If there is a disputed issue of material fact, a hearing officer will be furnished by the Division of Administrative Hearings of the Department of Management Services pursuant to Sections 120.569 and 120.57(1), Florida Statutes. You may check the appropriate space marked as 2 on the Election of Rights form and file it and the statement of disputed facts with the Commission within twenty-one (21) days of the date of receipt of the Notice of Agency Action. You must state every fact in the Notice of Agency Action that you disagree with and explain why you disagree with the fact; also, list the name of any witnesses you wish to call at the hearing.

   Failure to state disputed issues of material fact will result in the Agency Action of your request for formal hearing. At a formal hearing, you may personally, or through legal counsel, present evidence and argument on the issues involved, conduct cross-examination, submit proposed findings of facts and orders, and file exceptions to the hearing officer's recommended order.

3. Failure to make a proper election in this matter as enumerated in and required by paragraphs 1 and 2, above, within twenty-one (21) days from the date you received the Notice of Agency Action shall be considered as a waiver of your rights to elect the forum and the Commission shall proceed to enter a final order if necessary.

DIVISION OF WILDLIFE
Permit no. WR00138

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
ELECTION OF RIGHTS

I have read the Explanation of Rights form and understand my options. (You may select one of the options below and return with this form to the Florida Fish and Wildlife Conservation Commission (Commission) no later than twenty-one (21) days from the receipt of the Notice of Agency Action.)

☐ 1. I do not dispute the allegations of the fact in the Notice of Agency Action but do wish to be accorded an informal hearing of proceeding, pursuant to Sections 120.569 and 120.57(2), Florida Statutes, at which time I will be permitted to submit oral or written evidence in mitigation of the complaint to the agency head or his representative.

☐ 2. I do dispute the allegations of fact contained in the Notice of Agency Action, submit an attached statement of all disputed allegations of fact, and request a formal hearing, pursuant to Sections 120.569 and 120.57(1), Florida Statutes, before a hearing officer appointed by the Division of Administrative Hearings.

☐ 3. I do not dispute the allegations of fact in the Notice of Agency Action and waive my right to object or to be heard.

I have read and understand the Election of Rights form and understand that I have the right to be represented by counsel at either an informal or formal hearing. I also understand that I must attach a petition or written statement of the disputed issues of fact to this request if I have requested a formal hearing.

Please sign and state your current address and telephone number:

Signature	Date
Address	Attorney's name and address

Please mail form to: Office of the General Counsel
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600

Rev 9/99
DOW
LEGAL:EOR-EOR.FRM

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FLORIDA GAME AND FRESH WATER FISH COMMISSION

QUINTON L. HEDGEPETH, DDS Miami
MRS. GILBERT W. HUMPHREY Miccosukee
THOMAS B. KIBLER Lakeland
JAMES L. "JAMIE" ADAMS JR. Bushnell
JULIE K. MORRIS Sarasota

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

DIVISION OF WILDLIFE
FRANK MONTALBANO, Director
TIM BREAULT, Assistant Director
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-3831
TDD (850) 488-9542
FAX (850) 921-7793

TO: Gopher Tortoise Relocation Permittee

FROM: Brian A. Millsap, Chief, Bureau of Wildlife Diversity Conservation

SUBJECT: Testing Tortoises for Upper Respiratory Tract Disease

You recently submitted an application for a permit to relocate gopher tortoises (*Gopherus polyphemus*) from lands which are scheduled for development. The application addressed testing and/or examination of relocated tortoises for symptoms of Upper Respiratory Tract Disease (URTD). Presently the Florida Game and Fresh Water Fish Commission does not have an approved policy for dealing with URTD symptomatic tortoises, hence at this time we do not require URTD testing or examination.

We expect that should you voluntarily test and subsequently discover symptomatic tortoises, we will deal with the matter as we have in the past by giving you advice similar to that described below:

1. Handling of the symptomatic tortoises remains the responsibility of the Permittee along with all other activities executable under the permit.

2. The Permittee has the following options,
   a. Relocate the diseased tortoises on-site provided that a sufficient amount of suitable habitat will remain undeveloped/disturbed.*
   b. Find a recipient site which is willing to accept symptomatic tortoises.*
   c. Find a permitted individual or facility which is either currently permitted or willing to apply for a permit to possess the tortoises in captivity, as non-releasable wildlife.*
   d. Voluntarily withdraw the application to relocate tortoises and apply for a permit to incidentally take the tortoises.

* - Options a-c require a permit amendment from this office.

W1067/BAM/atw
LIC 6-20
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REPORT FORM FOR GOPHER TORTOISE RELOCATIONS

PERMITTEE: _____ PERMIT NO: _____

ADDRESS: _____

_____

_____

PHONE NO: _____

PROJECT NAME: _____

DONOR SITE: County: _____ Township: _____ Range: _____ Section: _____

NO. ACTIVE PLUS INACTIVE BURROWS: _____ NO. TORTOISES CAPTURED: _____

METHOD OF CAPTURE: _____

CAPTURE DATE: RELEASE DATE: _____

NUMBER OF MALES[1]: _____ MEAN CARAPACE LENGTH: _____ mm

NUMBER OF FEMALES[2]: _____ MEAN CARAPACE LENGTH: _____ mm

NUMBER OF IMMATURES: _____ MEAN CARAPACE LENGTH: _____ mm

RECIPIENT SITE: County: _____ Township: _____ Range: _____ Section: _____

PROPERTY NAME: _____

OWNER: _____

HABITAT TYPE: _____

ACREAGE AVAILABLE TO TORTOISES: _____

NUMBER OF ACTIVE AND INACTIVE BURROWS PRESENT: _____

TYPE OF PROPOSED MANAGEMENT: _____

_____

COMMENTS : _____

_____

_____

_____

[1]For comparison purposes, include only tortoises greater than 170 mm CL with concave plastrons.
[2]For comparison purposes, include only tortoises greater than 220 mm CL with flat plastrons.

BDA

ENVIRONMENTAL CONSULTANTS

FACSIMILE TRANSMITTAL

PROJECT NO.: 98035-50.1
DATE: July 6, 2000

TO: Mr. Brian A. Millsap
COMPANY: Florida Fish and Wildlife Conservation Commission
FAX NO.: (850) 921-7793

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
BDA FAX NO.: (407) 657-7008
PROJECT NAME: **Rock Springs Ridge Phase IIIA**

RE: Results of the Gopher Tortoise Relocation WR00138

NUMBER OF PAGES (including cover sheet): 6 | 5

HARD COPY TO FOLLOW: ☒ YES ☐ NO

MESSAGES / REMARKS

Attached please find the results of the gopher tortoise relocation on the Rock Springs Ridge Phase IIIA project site. A hard copy will be sent to your office via Federal Express.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

cc:

BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FLORIDA 32789 / (407) 677-1882 / FAX (407) 657-7008

BDA
ENVIRONMENTAL CONSULTANTS

July 18, 2000
File: 98035-50.1

Mr. Brian A. Millsap
Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Results of the Gopher Tortoise Relocation on the Rock Springs Ridge Phase IIIA Project Site (Permit No. WR00138), Orange County, Florida

Dear Mr. Millsap:

Please find attached results of the gopher tortoise (*Gopherus polyphemus*) relocation on the above-referenced project site, a copy of the signed permit, the Letters of Authorization (per Permit Condition No. 4), and the recipient area boundary map. Thank you for your assistance during this permitting process.

If you have any questions, please call us.

Sincerely yours,

Darla J. Miller, B.S.
Senior Scientist

DJM/lgh

Attachments

cc: Angela T. Williams
Tim Breen
James H. Fant
William L. Colbert, Esquire
Clyde E. Owens, Jr.
W. Michael Dennis, Ph.D.

\\BDA\PROJECTS\ADMIN\PROJECTS\98035\LETTERS\MILLSAP\RESULTS2.DOC

BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7008

REPORT FORM FOR GOPHER TORTOISE RELOCATIONS

PERMITTEE: Ms. Darla J. Miller PERMIT NO: WR00138
PERMIT ISSUANCE: 4/13/00

ADDRESS: Breedlove Dennis & Associates, Inc.

330 W. Canton Avenue

Winter Park, Florida 32789

PHONE NO: (407) 677-1882

DONOR SITE: County: Orange Township: 20S Range: 28E Section: 17 & 20

NAME OF DEVELOPMENT: Phase IIIA Rock Springs Ridge
NO. ACTIVE PLUS INACTIVE BURROWS: 61 NO. TORTOISES CAPTURED: 25
METHOD OF CAPTURE: Excavation by backhoe
CAPTURE DATE: 6/14, 6/15 and 6/16 RELEASE DATE: 6/16
NUMBER OF MALES: 3 MEAN CARAPACE LENGTH[1]: 229
NUMBER OF FEMALES: 9 MEAN CARAPACE LENGTH[2]: 253
NUMBER OF IMMATURES: 13 MEAN CARAPACE LENGTH: 169

RECIPIENT SITE: County: Volusia Township: 20S Range: 30E Section: 26

OWNER: William L. Colbert, Esquire, Trustee
HABITAT TYPE: Pine Flatwoods
ACREAGE AVAILABLE TORTOISES: 12.5 acres
NUMBER OF TORTOISES PRESENT: 0 tortoises/acre

TYPE OF PROPOSED MANAGEMENT: The recipient site will be control burned at least once every five years under the management plan.

COMMENTS: Other commensal species relocated - 1 pine snake (*Pituophis melanoleucus*), 2 southern hognose snakes (*Heterodon simus*), 1 spadefoot (*Scaphiopus* sp.), and 1 blind snake (*Leptotyphlops* sp.)

[1]For comparison purposes, include only tortoises greater than 170 mm CL with concave plastrons.

[2]For comparison purposes, include only tortoises greater than 220 mm CL with flat plastrons.

W666

GT_RELOC.FRM Revised March 20, 1995

RECEIVED
APR 17 2000
BREEDLOVE, DENNIS & ASSOCIATES, INC.
98035

PERMIT

Issued Under Authority of the Wildlife Code of the State of Florida (Title 68A, Florida Administrative Code) by the

STATE OF FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
Division of Wildlife, 620 South Meridian Street, Tallahassee, FL 32399-1600, 850/488-3831

Permit No. WR00138 **Issuance Date** 13 April 2000 **Expiration Date** 14 July 2000
Permit Type Tortoise Relocation **Specific Rule Authority** 68A-25.002; 68A-27.005
Permittee Darla Miller **Affiliation** Breedlove, Dennis & Associates, Inc.
Phone no. (407) 677-1882 330 W. Canton Avenue
Winter Park, FL 32789
Signature
*Signature indicates acceptance and understanding of the provisions/conditions listed below. Please return a signed copy to this office.

Provisions/Conditions:

1. Up to 25 gopher tortoises (*Gopherus polyphemus)* may be captured by nonharmful means in association with development of the Rock Springs Ridge Phase III A project site (T20S,R28E,S16,17 & 20), in Orange County, relocated to and released at Colbert-Cameron Volusia County Mitigation Parcel, 120-acre site in Phase I (T20S,R33E,Bernardo Spanish Acquisition Area), in Volusia County, Florida. Any gopher tortoise burrow commensals encountered in the capture operation may likewise be live-captured, relocated and released. However, no more than one indigo snake *(Drymarchon corais couperi)*, or 10 each of Florida mice *(Podomys floridanus)* and gopher frogs *(Rana capito)* may be relocated. Should additional specimens of those listed species be encountered, the capture operation is to be suspended and this office contacted for instructions.

2. Tortoises may be captured/relocated only on days for which the overnight low temperature is forecast by the U.S. National Weather Service to be above 50°F, and only when such days precede at least two consecutive days thereafter for which overnight lows are likewise forecast to exceed 50°F. Authorizing the capture/relocation is otherwise predicated and conditioned on the information and assurances provided in the permittee's 29 February 2000 application, the assurances of which are herein incorporated by reference.

3. This permit does not authorize Permittee access to any public or private properties. Any required permission accordingly must be secured from the appropriate landholders prior to undertaking any work on such properties.

4. Captures/relocations may be undertaken only subsequent to all other permits for the project which may be required by local, state and/or federal agencies being issued. This permit is subject to revocation at any time pursuant to Chapter 120, Florida Statutes. It is nontransferable and must be readily available for inspection at all times while engaging in the permitted activities. Other qualified personnel may assist in the permitted activities, but when any such assistance is to be provided in the absence of the permittee's direct supervision, those assistants are to be designated by letter of authorization from the permittee to each designee, with this office provided a copy of such letter(s).

5. The Permittee shall notify the Protected Species Permit Coordinator by fax at (850) 921-1 phone at (850) 921-5990 within 24 hours of initiating the tortoise relocation effort.

477

PERMIT

Permit No. WR00138

Provisions/Conditions: Continued

6. The Permittee by signing this permit, specifically agrees to allow authorized Commission personnel, upon presentation of credentials as may be required by law, access to the donor and recipient sites, at reasonable times, for the purpose of inspecting the capture/relocation activities authorized under this permit.

7. The Permittee shall submit a report detailing the capture/relocation to the Commission's regional contact person, with copies provided to the recipient site landowner and this office, within 30 days of release of the captured/relocated tortoises involved. A report form is attached for use in that regard. Any request for permit renewal or extension shall be submitted at least 30 days prior to the expiration date of this permit.

Allan L. Egbert, Ph.D.
Executive Director

By: B.A. Millsap
Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife

W1067/BAM/atw
LIC 6-20
WR00138.per
Attachment

cc: Colonel Robert Edwards
Mr. Brad Hartman
Lt. Col. Robert B. Butler
Major Andy Love
Mr. Mike Abbott
Ms. Julie Hovis

478

EXPLANATION OF RIGHTS

In response to the allegations set forth in the Notice of Agency Action issued by the Florida Fish and Wildlife Conservation Commission, hereinafter referred to as the Commission, you may make any one of the following elections on the attached Election of Rights Form and file the form within twenty-one (21) days from the date you receive the Notice. Please return the Election of Rights form with the necessary attachments fully executed to the address listed on the form.

1. If the allegations as set forth in the Notice of Agency Action contain no disputed issue(s) of material fact you may request an informal hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes. An informal hearing will be conducted by the agency head or representative of the agency. In the event that your request for an informal hearing is granted, you will be given the opportunity to present both written and oral evidence in mitigation of the alleged violations. Any request for an informal proceeding in this matter should be directed to the Commission by checking the appropriate space marked as 1 on the Election of Rights form and filing the form with the Commission within twenty-one (21) days from the date of receipt of the Notice of Agency Action.

2. If you determine that the allegations as set forth in the Notice of Agency Action contain any disputed issue(s) of material fact, you may request a formal hearing under Sections 120.569 and 120.57(1), Florida Statutes. If there is a disputed issue of material fact, a hearing officer will be furnished by the Division of Administrative Hearings of the Department of Management Services pursuant to Sections 120.569 and 120.57(1), Florida Statutes. You may check the appropriate space marked as 2 on the Election of Rights form and file it and the statement of disputed facts with the Commission within twenty-one (21) days of the date of receipt of the Notice of Agency Action. You must state every fact in the Notice of Agency Action that you disagree with and explain why you disagree with the fact; also, list the name of any witnesses you wish to call at the hearing.

   Failure to state disputed issues of material fact will result in the Agency Action of your request for formal hearing. At a formal hearing, you may personally, or through legal counsel, present evidence and argument on the issues involved, conduct cross-examination, submit proposed findings of facts and orders, and file exceptions to the hearing officer's recommended order.

3. Failure to make a proper election in this matter as enumerated in and required by paragraphs 1 and 2, above, within twenty-one (21) days from the date you received the Notice of Agency Action shall be considered as a waiver of your rights to elect the forum and the Commission shall proceed to enter a final order if necessary.

479

DIVISION OF WILDLIFE
Permit no. WX00138

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
ELECTION OF RIGHTS

I have read the Explanation of Rights form and understand my options. (You may select one of the options below and return with this form to the Florida Fish and Wildlife Conservation Commission (Commission) no later than twenty-one (21) days from the receipt of the Notice of Agency Action.)

☐ 1. I do not dispute the allegations of the fact in the Notice of Agency Action but do wish to be accorded an informal hearing of proceeding, pursuant to Sections 120.569 and 120.57(2), Florida Statutes, at which time I will be permitted to submit oral or written evidence in mitigation of the complaint to the agency head or his representative.

☐ 2. I do dispute the allegations of fact contained in the Notice of Agency Action, submit an attached statement of all disputed allegations of fact, and request a formal hearing, pursuant to Sections 120.569 and 120.57(1), Florida Statutes, before a hearing officer appointed by the Division of Administrative Hearings.

☐ 3. I do not dispute the allegations of fact in the Notice of Agency Action and waive my right to object or to be heard.

I have read and understand the Election of Rights form and understand that I have the right to be represented by counsel at either an informal or formal hearing. I also understand that I must attach a petition or written statement of the disputed issues of fact to this request if I have requested a formal hearing.

Please sign and state your current address and telephone number:

Signature	Date
Address	Attorney's name and address

Please mail form to: Office of the General Counsel
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600

480

Rev 9/99
DOW
LEGAL:EOR-EOR.FRM

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FLORIDA GAME AND FRESH WATER FISH COMMISSION

QUINTON L. HEDGEPETH, DDS Miami
MRS. GILBERT W. HUMPHREY Miccosukee
THOMAS B. KIBLER Lakeland
JAMES L. "JAMIE" ADAMS JR. Bushnell
JULIE K. MORRIS Sarasota

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

DIVISION OF WILDLIFE
FRANK MONTALBANO, Director
TIM BREAULT, Assistant Director
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-3831
TDD (850) 488-9542
FAX (850) 921-7793

TO: Gopher Tortoise Relocation Permittee

FROM: Brian A. Millsap, Chief, Bureau of Wildlife Diversity Conservation

SUBJECT: Testing Tortoises for Upper Respiratory Tract Disease

You recently submitted an application for a permit to relocate gopher tortoises (*Gopherus polyphemus*) from lands which are scheduled for development. The application addressed testing and/or examination of relocated tortoises for symptoms of Upper Respiratory Tract Disease (URTD). Rresently the Florida Game and Fresh Water Fish Commission does not have an approved policy for dealing with URTD symptomatic tortoises, hence at this time we do not require URTD testing or examination.

We expect that should you voluntarily test and subsequently discover symptomatic tortoises, we will deal with the matter as we have in the past by giving you advice similar to that described below:

1. Handling of the symptomatic tortoises remains the responsibility of the Permittee along with all other activities executable under the permit.

2. The Permittee has the following options,
   a. Relocate the diseased tortoises on-site provided that a sufficient amount of suitable habitat will remain undeveloped/disturbed.*
   b. Find a recipient site which is willing to accept symptomatic tortoises.*
   c. Find a permitted individual or facility which is either currently permitted or willing to apply for a permit to possess the tortoises in captivity, as non-releasable wildlife.*
   d. Voluntarily withdraw the application to relocate tortoises and apply for a permit to incidentally take the tortoises.

* - Options a-c require a permit amendment from this office.

W1067/BAM/atw
LIC 6-20
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481

BDA
ENVIRONMENTAL CONSULTANTS

June 8, 2000
File: 98035-60.3

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00138
Rock Springs Ridge Phase IIIA Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Ms. Kim M. Garcia is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Rock Springs Ridge Phase IIIA project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00138 issued on April 13, 2000 through the expiration date of July 14, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla J. Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7008

BDA
ENVIRONMENTAL CONSULTANTS

June 8, 2000
File: 98035-60.3

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00138
Rock Springs Ridge Phase IIIA Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. Bruce A. Biltgen is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Rock Springs Ridge Phase IIIA project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00138 issued on April 13, 2000 through the expiration date of July 14, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla J. Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

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BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7008

BDA
ENVIRONMENTAL CONSULTANTS

June 8, 2000
File: 98035-60.3

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00138
Rock Springs Ridge Phase IIIA Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Ms. Jolie M. Sciturro is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Rock Springs Ridge Phase IIIA project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00138 issued on April 13, 2000 through the expiration date of July 14, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla J. Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

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BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7008

BDA
ENVIRONMENTAL CONSULTANTS

June 8, 2000
File: 98035-60.3

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00138
Rock Springs Ridge Phase IIIA Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. D. Dale Dowling is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Rock Springs Ridge Phase IIIA project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00138 issued on April 13, 2000 through the expiration date of July 14, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,



Darla J. Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7008

BDA
ENVIRONMENTAL CONSULTANTS

June 8, 2000
File: 98035-60.3

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00138
Rock Springs Ridge Phase IIIA Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. Clyde E. Owens, Jr. is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Rock Springs Ridge Phase IIIA project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00138 issued on April 13, 2000 through the expiration date of July 14, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

Darla J. Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

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BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7008

BDA
ENVIRONMENTAL CONSULTANTS

June 8, 2000
File: 98035-60.3

Mr. Brian A. Millsap, Chief
Bureau of Wildlife Diversity Conservation
Division of Wildlife
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
TEL: (850) 488-3831
FAX: (850) 488-6988

RE: Letter of Authorization
Gopher Tortoise Relocation
Permit No. WR00138
Rock Springs Ridge Phase IIIA Project Site
Orange County, Florida

Dear Mr. Millsap:

The bearer of this letter, Mr. J. Thomas Kunneke is authorized to conduct gopher tortoises (*Gopherus polyphemus*) relocations on the Rock Springs Ridge Phase IIIA project site in Orange County in accordance with the conditions of the State of Florida Fish and Wildlife Conservation Commission Permit No. WR00138 issued on April 13, 2000 through the expiration date of July 14, 2000 and in the absence of Ms. Darla J. Miller, the Permittee of the aforementioned permit.

Should you have any questions, please do not hesitate to contact our office.

Sincerely yours,

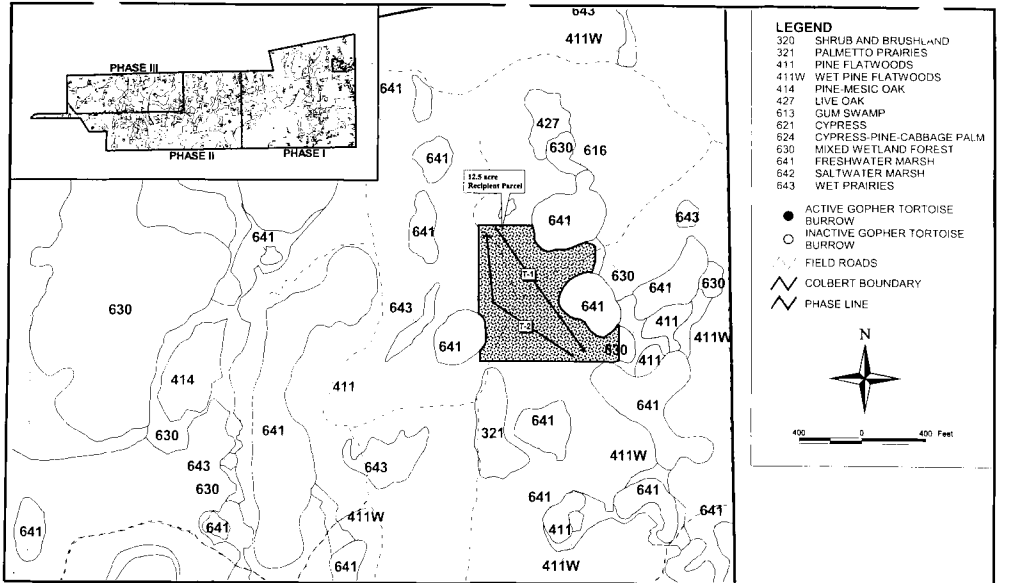
Darla J. Miller
Associate Scientist IV

DJM/lgh

cc: Jim H. Fant
W. Michael Dennis

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BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7008



BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W Canton Ave. Winter Park, FL 32789 Tel 407 677 1892 Fax 407 657 7008

EXHIBIT 11 LOCATION OF THE GOPHER TORTOISE RECIPIENT PARCEL ON THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA.

****
*** ACTIVITY REPORT ***
****

ACTY#	MODE		CONNECTION TEL	CONNECTION ID	START TIME	USAGE T.	PAGES	RESULT
#8313	AUTO RX	ECM	9047918953		07/18 15:06	00'29	1	OK
#8314	TX	ECM	14077407166		07/18 15:07	03'09	7	OK
#8315	TX		18635247599		07/18 15:23	00'00	0	NG
							0	STOP
#8317	B'CAST	ECM	4078572267		07/18 15:37	05'11	17	OK
#8317	B'CAST	ECM	4078943693		07/18 15:43	05'10	17	OK
#8318	TX	ECM	4072245540		07/18 15:50	03'31	7	OK
#8319	AUTO RX	ECM			07/18 15:54	01'04	1	OK
#8320	AUTO RX	ECM			07/18 16:23	00'33	2	OK
#8321	TX	G3	18104242659		07/18 16:27	01'43	2	OK
#8322	TX		18635347599		07/18 16:39	00'00	0	NG
							0	STOP
#8324	MEMORY RX	ECM			07/18 16:41	00'26	1	OK
#8323	TX	ECM	18635347599		07/18 16:42	01'21	2	OK
#8325	TX	ECM	15614649497		07/18 16:45	05'11	8	OK
#8326	TX	G3	18509217793		07/18 17:04	09'11	15	OK
#8327	TX		4074440156		07/18 17:18	00'00	0	NG
							0	STOP
#8328	TX	ECM	4074440533	TWC Alaqua Lakes	07/18 17:25	04'04	7	OK
#8329	AUTO RX	ECM			07/18 18:16	01'14	3	OK
#8330	AUTO RX	ECM			07/19 05:54	00'22	1	OK
8331	AUTO RX	ECM			07/19 08:07	04'03	9	OK
8332	AUTO RX	ECM	630 469 3128	GLEN ELLYN PUBLI	07/19 09:49	06'41	5	OK
333	AUTO RX	ECM			07/19 10:34	01'24	3	OK
8334	AUTO RX	ECM			07/19 10:55	00'26	1	OK
8335	TX		16155991998		07/19 11:06	00'00	0	NG
							0	#018
8337	TX		16155991998		07/19 11:17	00'00	0	NG
							0	#018
8339	TX	ECM	19413948410		07/19 12:29	04'17	8	OK
8340	TX	ECM	16155991998		07/19 13:14	01'32	4	OK
8341	TX	ECM	18506810207		07/19 13:26	02'54	6	OK
8342	AUTO RX	ECM			07/19 13:29	00'42	2	OK
8343	AUTO RX	ECM			07/19 13:43	00'46	1	OK
8344	AUTO RX	ECM			07/19 13:55	00'46	1	OK
8345	TX	ECM	19087881662		07/19 13:56	02'23	4	OK
8346	AUTO RX	ECM			07/19 14:13	00'45	1	OK
8347	TX	ECM	13527355990	HANDEX ENVIRONME	07/19 14:38	03'06	5	OK
8348	AUTO RX	ECM	9192123103		07/19 15:28	00'43	2	OK
8349	AUTO RX	ECM			07/19 15:30	00'46	1	OK
8351	TX	ECM	19192123103		07/19 15:41	01'11	3	OK
8352	AUTO RX	ECM			07/19 15:47	00'47	2	OK
8353	TX	ECM	19087881662		07/19 16:06	01'49	3	OK
8354	AUTO RX	ECM	561 439 0026		07/19 16:25	02'06	3	OK
8355	TX	G3	4078974354		07/19 16:30	05'06	9	OK

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

PROJECT NO.: 98035
Date: February 28, 2000

TO: **Mr. Tim Breen**
Florida Game and Fresh Water Fish Commission
1239 Southwest 10th Street
Ocala, Florida 34474

FROM: **Ms. Darla J. Miller**

RE: **Phase IIIA of the Rock Springs Ridge Project Site**

___ Pickup ___ Courier ___ U.S. Mail X Overnight

MESSAGES/REMARKS

Enclosed please find an Application for a Gopher Tortoise Relocation Permit for the Phase IIIA of the Rock Springs Ridge Project Site, Orange County, Florida (2 copies).

___ For your use ___ As requested X For your review

___ For approval ___ Other

Darla J. Miller
Associate Scientist IV

CC: James H. Fant
Larry T. Ray
Douglas J. Rillstone, Esquire
W. Michael Dennis, Ph.D.

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Breedlove, Dennis & Associates, Inc.
P.O. Box 720037/Orlando, Florida 32872-0037
4301 Metric Dr./Winter Park, Florida 32792/(407) 677-1882/FAX (407) 657-7008

BDA
ENVIRONMENTAL CONSULTANTS

February 28 2000
File: 98035-60.3

Mr. Tim Breen
Florida Fish and Wildlife Conservation Commission
1239 Southwest 10th Street
Ocala, Florida 34474
Phone: 352-732-1225
Fax: 352-620-7627

RE: Application for a Gopher Tortoise Relocation Permit for the Rock Springs Ridge Phase IIIA Project Site, Apopka, Florida

Dear Mr. Breen:

Breedlove, Dennis & Associates, Inc. (BDA) is applying for a gopher tortoise (*Gopherus polyphemus*) relocation permit (GTRP) on behalf of Mr. James H. Fant to relocate up to 25 gopher tortoises from the above referenced project site. The Rock Springs Ridge Phase IIIA project site (Project Site) is located in Sections 16, 17, and 20, Township 20 South, Range 28 East in northwest Orange County, Florida (Exhibit 1). The project site will be developed for single-family residential homes, Surface Water Management System, and infrastructure. Other regulatory approvals are being sought for development of this site, and it is anticipated that construction will begin immediately after permits are obtained. This site is not part of a Development of Regional Impact.

Ecological Conditions on the Donor Site

The vegetative communities present on the 64.02-acre project site were classified using the Florida Land Use, Cover, and Forms Classification System (FLUCFCS) developed by the Florida Department of Transportation in September of 1985 (Exhibit 2). The Natural Resources Conservation Service (NRCS) soil survey for the Project Site is included as Exhibit 3.

There are no wetland or surface water communities on the Project Site. The FLUCFCS cover types present on-site consist of Other Agriculture (260), Xeric Oak (421), Other Hardwood (422), and Upland Mixed Hardwood Forest (431).

BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FL 32789
PHONE 407-677-1882 / FAX 407-657-7008

Other Agriculture (260) represents 16.25 acres of the Project Site and is characterized as a former citrus grove. Vegetation within this area consist primarily of bahiagrass (*Paspalum notatum*), dog fennel (*Eupatorium capillifolium*), broomsedge (*Andropogon virginicus*), scattered prickly-pear cactus (*Opuntia humifusa*), shrub verbena (*Lantana camara*), natalgrass (*Rhynchelytrum repens*), ragweed (*Ambrosia artemisiifolia*), begger-ticks (*Bidens alba*), and partridge-pea (*Cassia chamaecrista*). Soils are classified as Tavares-Urban land complex (Exhibit 3).

Xeric Oak (421) comprise 13.14 acres of the Project Site. Vegetation within these areas consists of upland laurel oak (*Quercus hemisphaerica*), sand live oak (*Quercus virginiana* var. *geminata*), longleaf pine (*Pinus palustris*), and black cherry (*Prunus serotina*) within the canopy with scattered occurrences of blackjack oak (*Quercus marilandica*), laurel cherry (*Prunus caroliniana*), Hercules-club (*Zanthoxylum clava-herculis*), and scrub oak (*Quercus inopina*) within the subcanopy. Vegetation within the groundcover consists of wiregrass (*Aristida stricta*), prickly-pear cactus, dog fennel, and bahiagrass. Grape (*Vitis* sp.) and natalgrass also occur within portions of these upland areas.

Other Hardwood (422) communities represent 22.81 acres of the Project Site. Vegetation within this area is dominated by dense upland laurel oak with scattered live oak (*Quercus virginiana*) and scrub oak vegetation within the groundcover is limited and consists of scattered wiregrass, prickly-pear cactus, dog fennel, bahiagrass, and natalgrass.

Upland Mixed Hardwood Forest (431) comprises 11.82 acres of the Project Site. Vegetation within this area consists of longleaf pine, laurel oak, live oak, sand live oak, and blackjack oak. Additional vegetation within this area consists of wiregrass, prickly-pear cactus, dog fennel, and bahiagrass.

Soils within the three forested upland communities include Candler fine sand, Candler-Apopka fine sand and Tavares-Urban land complex (Exhibit 3).

Donor Site Census

The 64.02-acre project site is comprised entirely of upland vegetative communities. Pedestrian transect surveys were conducted on February 7, 2000 to assess the occurrence of gopher tortoises on the project site. Florida Fish and Wildlife Conservation Commission (FWC) guidelines (Nongame Wildlife Program Technical Report No. 4) were followed in order to determine the gopher tortoise density within the project site. A 46% census of the suitable habitat was conducted; resulting in seven transects of varying widths, based on vegetative cover density (Exhibit 4). All "active" and "inactive" burrows observed were counted and their location along the transect recorded. A total of 18 active and inactive burrows were found on the project site during this census (Exhibit 5). Therefore, it is estimated that the population for the project site is 25 gopher tortoises (40 burrows * 0.614 ≈ 25 gopher tortoises).

Recipient Site Description

The recipient site for the relocation of gopher tortoises from the Project Site will be the Colbert/Cameron Volusia County Mitigation Parcel (CCVCMP) (Exhibit 6). This site was approved as a recipient site by the FWC per their June 9, 1998 letter (Exhibit 7). The recipient site is located approximately one mile south and 30 miles east of the Project Site. The landowner is currently managing the property per the St. Johns River Water Management District (SJRWMD) mitigation banking permit conditions and management conditions (see Exhibit 8). The CCVCMP consists of 2,625 acres located in Sections 24, 25, 26, 27, 28, and 29, Township 20 South, Range 33 East, Volusia County, Florida (see Exhibit 6). The Project Site is bordered by the St. Johns River to the west, State Road 46 and SJRWMD-owned lands to the south, and the Brevard County line to the east. Alderman Road cuts through the Project Site in Section 28.

Upland vegetative communities on the Colbert/Cameron site total approximately 1,358.16 acres and consist of Pine Flatwoods (411), Pine-Mesic Oak (414), Shrub and Brushland (320), Palmetto Prairies (321), and Live Oak (427) (Exhibit 9).

The proposed recipient area on the Colbert/Cameron site is approximately 12.5 acres located in the northeastern portion of the property. This parcel is classified as a Pine Flatwoods (411) community.

The Pine Flatwoods (411) communities include slash pine (*Pinus elliottii*) and longleaf pine in the canopy. The subcanopy and groundcover species include saw palmetto (*Serenoa repens*), gallberry (*Ilex glabra*), wiregrass, bluestem (*Andropogon* sp.), wax myrtle (*Myrica cerifera*), running oak (*Quercus pumila*), and tarflower (*Befaria racemosa*).

The NRCS soil survey for the upland areas within the recipient site within the CCVCMP is included in Exhibit 10.

Recipient Site Management

Proposed management within the recipient site includes prescribed burns within each of the vegetative communities. One-third of the site will be burned each year establishing a three-year burn rotation. Small parcels scheduled for control burn will be randomly located throughout the larger mitigation parcel and bound by the existing dirt roads. The entire site has recently been managed via prescribed burns and wildfires. A letter from the owner describing future property management is attached as Exhibit 8.

Management (i.e., prescribed burning) of the recipient site has been implemented with issuance of the banking permit. Therefore, it is anticipated that the upland communities will improve as habitat for

gopher tortoises. A low density of gopher tortoises was documented through previous censuses within the upland communities. The low density may be a result of past non-management of the upland communities and legal harvesting of gopher tortoises prior to restriction of consumptive use of gopher tortoises. Gopher tortoises have been seen throughout the mitigation parcel during the many field assessments of the site. Some old, inactive, and active burrows have also been observed.

Recipient Site Survey Methodology

Pedestrian transect surveys were conducted on February 8, 2000 to assess the occurrence of gopher tortoises on the recipient area within the CCVCMP. FWC guidelines were followed in order to determine gopher tortoise density within the relocation area.

A 36.8% survey [two transects totalling 2,006 linear feet, each 50 feet wide (two pedestrians), which totals 4.61 acres], was conducted across approximately 12.5 acres of suitable gopher tortoise habitat (Exhibit 11). No "active" or "inactive" burrows were observed within the transects.

The results of the 36.8% survey on the 12.5-acre parcel indicate that the gopher tortoise population is 0.0 gopher tortoises (0.614 inter-burrow conversion factor extrapolated to 100% of the recipient area). The area chosen as a recipient location contains less than 2.0 gopher tortoises per acre, and the density may be increased to the 2.0 gopher tortoises per acre threshold through this relocation effort. Therefore, this recipient area can receive up to 25 gopher tortoises (12.5 acres x 2.0 gopher tortoises/acre = 25 gopher tortoises). Therefore, the Applicant requests authorization for the relocation of up to 25 gopher tortoises. The final density will be determined by the total number of tortoises that are captured on the donor site.

Relocation Procedure

FWC relocation protocol will be followed during the relocation procedure. Excavation of the burrows will be completed using a backhoe and hand digging. It is estimated that the relocation effort will take one week to complete. Techniques such as marking the tortoises by notching or drilling holes in one or a combination of the eight rearmost scutes are standard procedure and will be utilized.

The gopher tortoises will be transported to the recipient site by vehicle in five-gallon buckets or a trailer with high sides and an open top. Starter burrows will be excavated for the tortoises released within this area if no old or inactive burrows are found. This methodology has been used and approved under other approved relocation permits.

A summary report will be submitted to Bureau of Nongame Wildlife, Division of Wildlife, FWC within 30 days of conclusion of gopher tortoise activities conducted on the Project Site, if required. The

summary report shall include the date of relocation activities, an explanation of methods of capture, the number given to each tortoise relocated, and the total number of gopher tortoises captured and relocated.

Conclusions

On behalf of Mr. Fant of Brooksville Development Corporation, BDA requests a GTRP for the Project Site. The gopher tortoise population on the donor site is estimated to be 25 gopher tortoises (based on the 46% census). Therefore, the Applicant requests authorization for the relocation of up to 25 gopher tortoises. The recipient site has been utilized for several other relocation permits. BDA will follow the appropriate relocation procedure for capturing and relocating the gopher tortoises, and a summary report will be submitted within 30 days of conclusion of the relocation activity. Applications for an Environmental Resource Permit and development approval from the City of Apopka have been submitted to the SJRWMD and the City of Apopka, respectively.

If you have any questions or need any additional information, please do not hesitate to contact us.

Sincerely yours,

Darla J. Miller, B.S.
Associate Scientist IV

for Mark W. Christopher, M.S., C.W.B., P.W.S.
Director of Ecological Services

DJM/MWC/smc

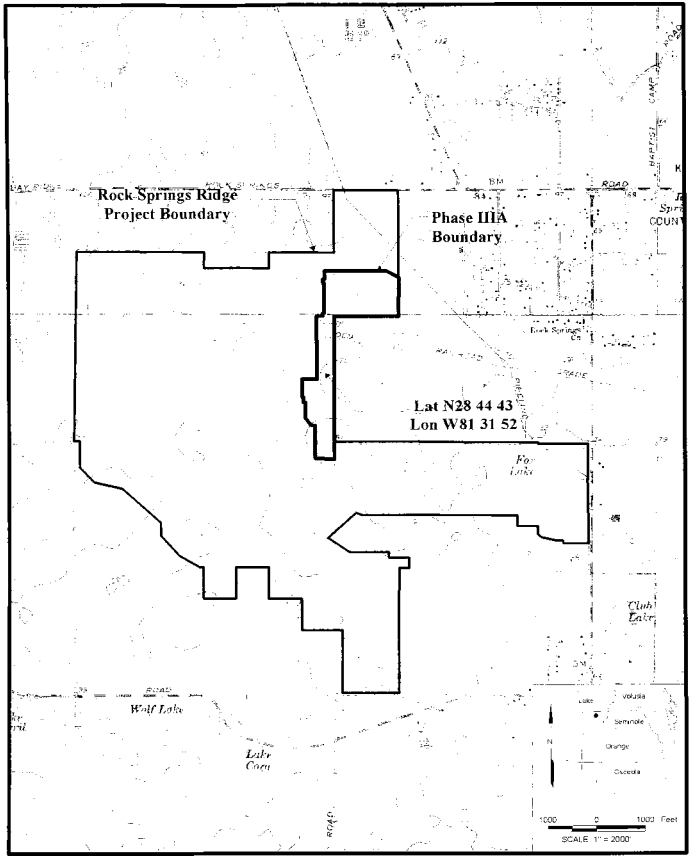
Attachments

cc: James H. Fant
Larry T. Ray
Douglas J. Rillstone, Esquire
W. Michael Dennis, Ph.D.

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EXHIBIT 1

LOCATION MAP OF PHASE IIIA OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA (SECTIONS 16, 17 AND 20, TOWNSHIP 20 SOUTH, RANGE 28 EAST)



Source: SureMAPS Raster Digital Quad. Copyright, 1997.
Project Boundary: Engineering & Environmental Design, Inc.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.

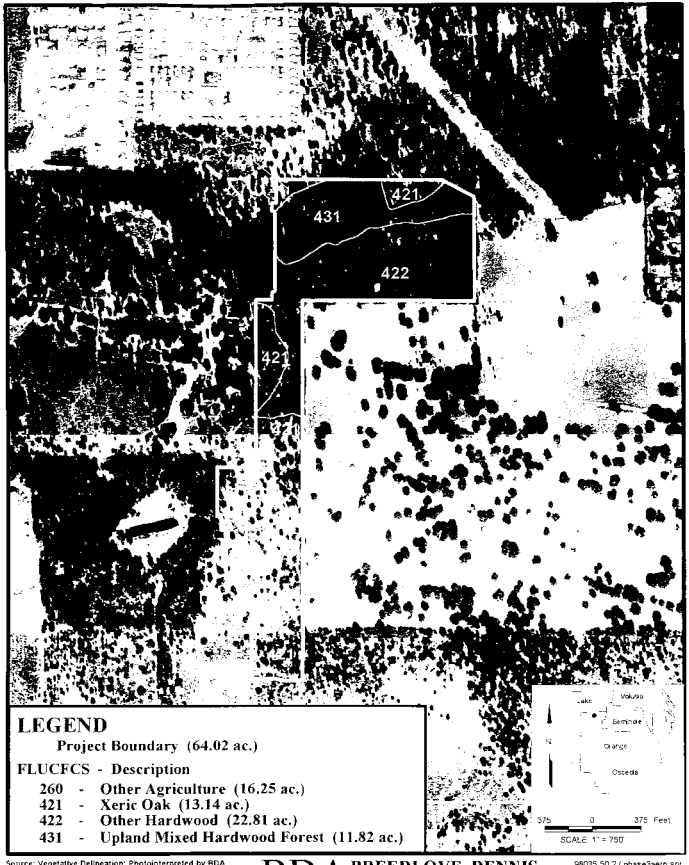
98035-90 2 / phase3aerp.dgn
2-24-2000 / cad / bpc.prt

330 W. Canton Ave. Winter Park, FL. 32789 Tel:407.677.18 7 7008

EXHIBIT 1. LOCATION MAP OF PHASE IIIA OF THE ROCK SPRINGS RIDGE PROJECT SITE, OR COUNTY, FLORIDA (SECTIONS 16, 17 AND 20, TOWNSHIP 20 SOUTH, RANGE 28 EAST.)

EXHIBIT 2

FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM MAP FOR PHASE IIIA OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA



Source: Vegetative Delineation: Photointerpreted by BDA.
Project Boundary: Engineering & Environmental Design, Inc

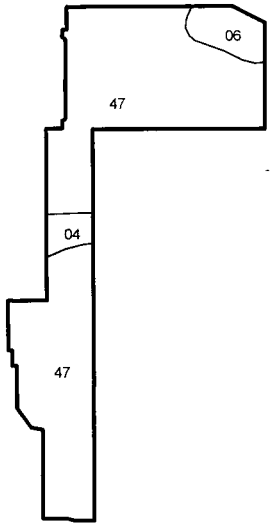
BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave. Winter Park, FL. 32789 Tel.407.677.18 7.7008

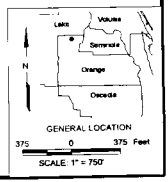
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2-24-2010 / ptt / veg.prt

EXHIBIT 2. FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM MAP FOR PH
OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA.

EXHIBIT 3

SOILS MAP FOR PHASE IIIA OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA





LEGEND

Project Boundary

NRCS Soils Type and Description

04 - Candler fine sand, 0 to 5% slopes
06 - Candler-Apopka fine sand, 5 to 12% slopes
47 - Tavares-Urban land complex, 0 to 5% slopes

Source: SJRWMD Digital Data Library
Project Boundary: Engineering & Environmental Design, Inc.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave. Winter Park, FL. 32789 Tel:407.67 7.657.700

95035-50.2 / phase3serp apr 2-24-2000 / cbt / soils.prt

EXHIBIT3. SOILS MAP FOR PHASE IIIA OF THE ROCK SPRINGS RIDGE PROJECT SIT ORANGE COUNTY, FLORIDA.

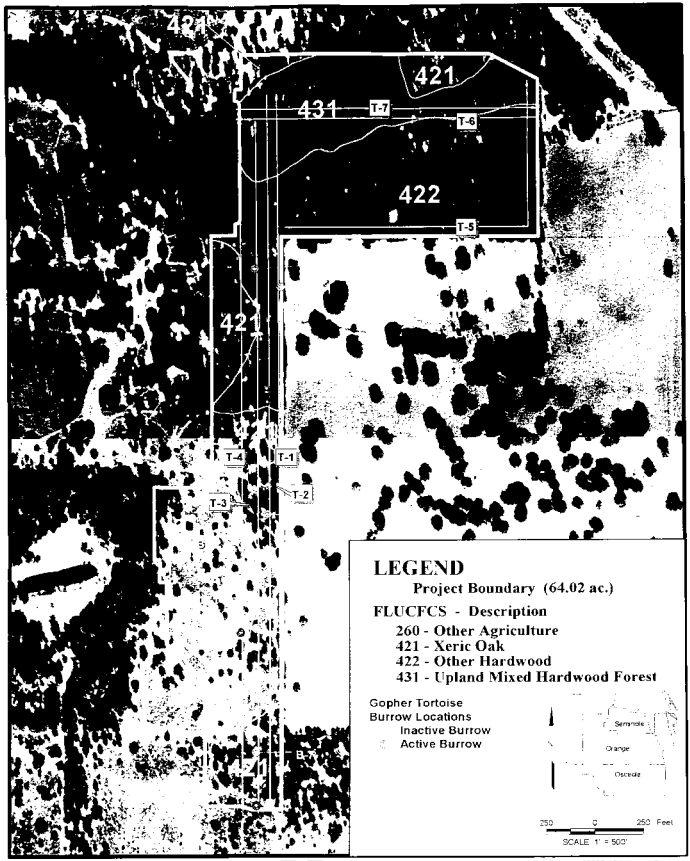
EXHIBIT 4

GOPHER TORTOISE TRANSECT DATA FOR PHASE IIIA OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

Exhibit 4. Gopher Tortoise Transect Data for Phase IIIA of the Rock Springs Ridge Project Site, Orange County, Florida

Transect No.	Length (feet)	Width (feet)	Burrow No.	Status	Personnel[1]
1	750	40	1	Inactive	CDS
	2750	40	-	-	-
2	1040	40	2	Inactive	CDS
	1513	40	3	Active	CDS
	1625	40	4	Active	CDS
	2113	40	5	Inactive	CDS
	2875	40	6	Inactive	CDS
	3750	40	-	-	-
3	275	80	7	Inactive	CEO
	930	80	8	Inactive	CEO
	1180	80	9	Inactive	CDS
	1180	80	10	Inactive	CDS
	2830	80	11	Inactive	CEO
	3595	80	-	-	-
4	2279	80	12	Inactive	CEO
	2412	80	13	Inactive	CDS
	2511	80	14	Inactive	CEO
	2692	80	15	Active	CDS
	3110	80	16	Inactive	CEO
	3111	80	17	Inactive	CEO
	3605	80	18	Active	CEO
5a	750(east)	50	-	-	-
5b	1250(north)	50	-	-	-
6	1545	100	-	-	-
7	1565	100	-	-	-

[1]CEO = Mr. Clyde E. Owens, Jr.; CDS = Mr. Christopher D. Shanks



Source: Vegetative Delineation: PhotoInterpreted by BDA.
Project Boundary: Engineering & Environmental Design, Inc.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave. Winter Park, FL. 32789 Tel:407.677.1882

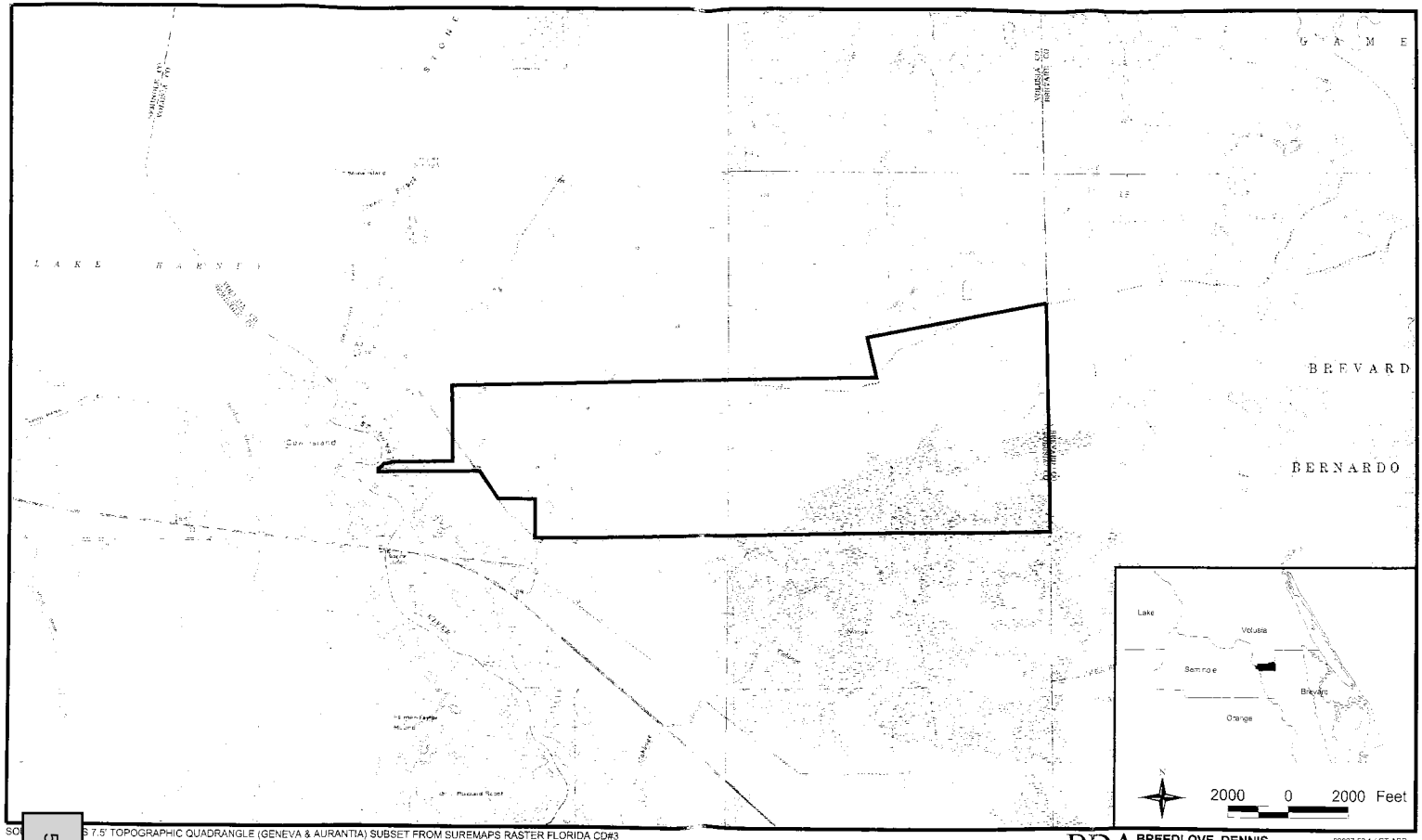
88035.10.1 / phase3_gt.apr
2-8-2030 / cbt / phase3gt.prt

504

EXHIBIT 5 GOPHER TORTOISE BURROW AND TRANSECT LOCATIONS ON THE PHASE IIIA OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA.

EXHIBIT 6

LOCATION OF THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA



SO... S 7.5' TOPOGRAPHIC QUADRANGLE (GENEVA & AURANTIA) SUBSET FROM SUREMAPS RASTER FLORIDA CD#3

506

E... LOCATION OF THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
4301 Metric Dr. Winter Park, FL. 32792 (407)677-1882 Fax:657-7008

99007-53.1 / GT.APR
5-6-1999 / CBT

EXHIBIT 7

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION LETTER APPROVING COLBERT/CAMERON RECIPIENT SITE

EXHIBIT 8

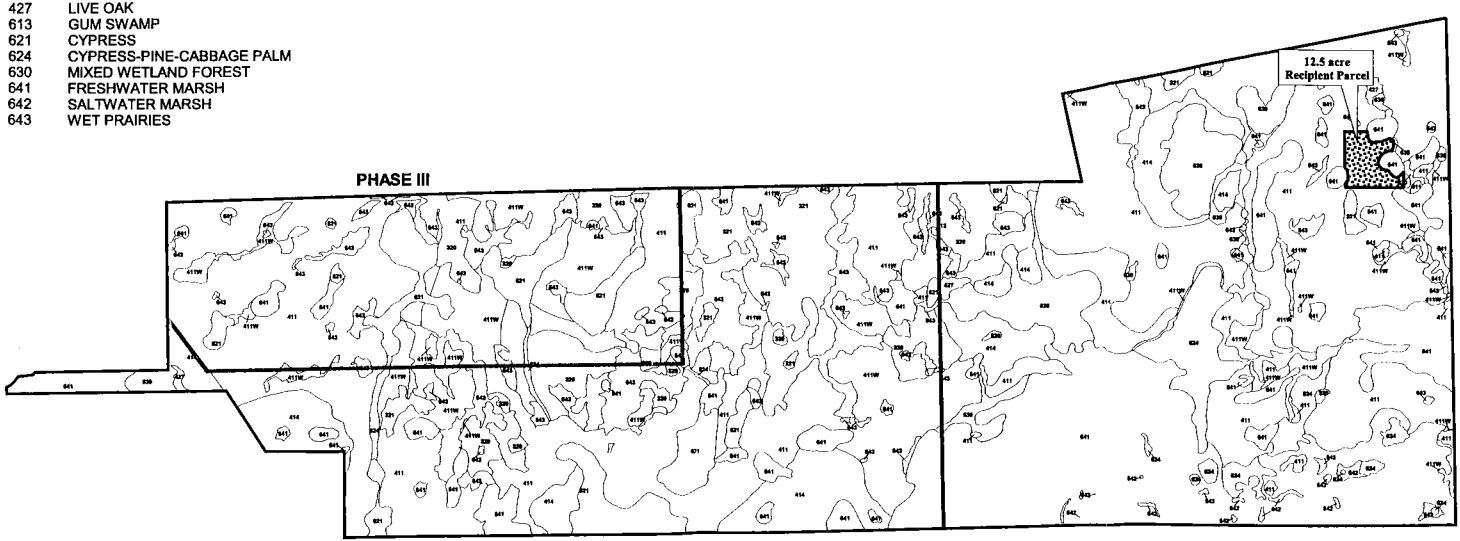
COLBERT/CAMERON MITIGATION BANK FOREST RESTORATION AND MANAGEMENT PLAN

EXHIBIT 9

FLORIDA LAND USE AND COVER CLASSIFICATION SYSTEM MAP FOR THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA

LEGEND

320	SHRUB AND BRUSHLAND
321	PALMETTO PRAIRIES
411	PINE FLATWOODS
411W	WET PINE FLATWOODS
414	PINE-MESIC OAK
427	LIVE OAK
613	GUM SWAMP
621	CYPRESS
624	CYPRESS-PINE-CABBAGE PALM
630	MIXED WETLAND FOREST
641	FRESHWATER MARSH
642	SALTWATER MARSH
643	WET PRAIRIES



N

0 800 1600 2400 Feet

SOURCE: LAND USE AND COVER MAPPING BY MCINTOSH & ASSOCIATES, INC. REVISED BY BDA 8/11/98 USING PHOTOINTERPRETATION AND SELECTIVE GROUNDTRUTHING

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W Canton Ave. Winter Park, FL. 32789 Tel:407.677.1882 Fax:407.657.700

98035-60.1 / gt.apr
2-24-2000 / cbt / ph3veg pt

EXHIBIT 9

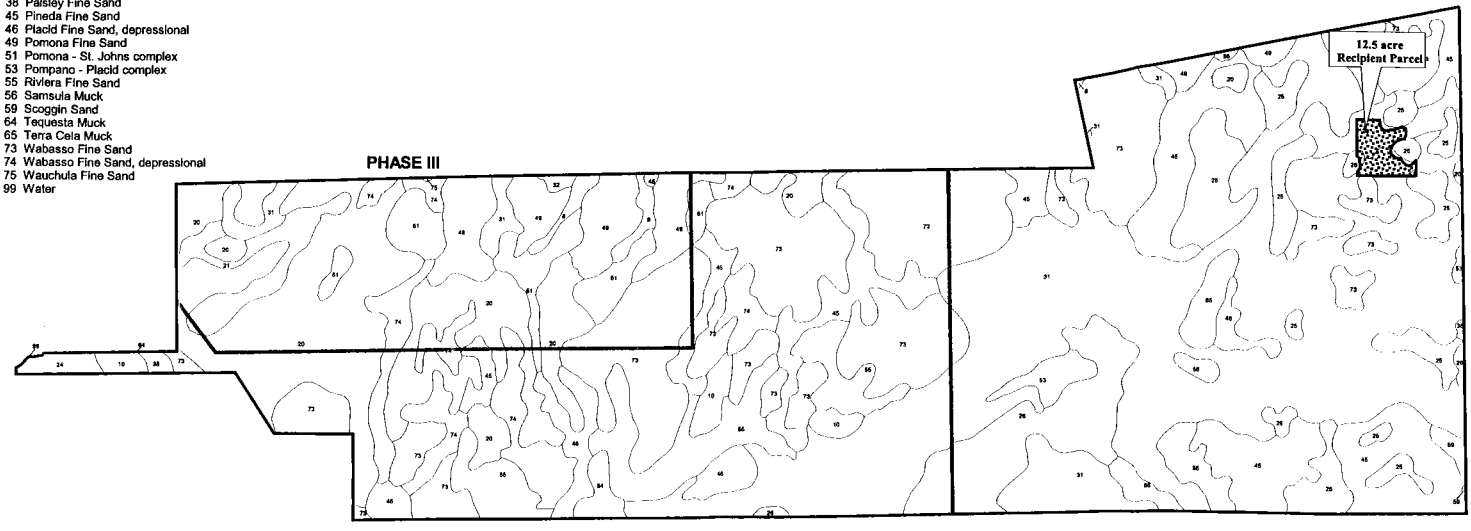
FLORIDA LAND USE AND COVER CLASSIFICATION SYSTEM MAP FOR THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA.

EXHIBIT 10

SOILS MAP FOR THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA

LEGEND

8 Bassinger Fine Sand, 0 to 5 percent slopes
10 Bluff Sandy Clay Loam
20 EauGallie Fine Sand
21 EauGallie Fine Sand, depressional
24 Fluvaquents
25 Gator Muck
26 Holopaw Sand
31 Malabar Fine Sand
32 Myakka Fine Sand
38 Palsley Fine Sand
45 Pineda Fine Sand
46 Placid Fine Sand, depressional
49 Pomona Fine Sand
51 Pomona - St. Johns complex
53 Pompano - Placid complex
55 Riviera Fine Sand
56 Samsula Muck
59 Scoggin Sand
64 Tequesta Muck
65 Terra Ceia Muck
73 Wabasso Fine Sand
74 Wabasso Fine Sand, depressional
75 Wauchula Fine Sand
99 Water



N

0 800 1600 2400 Feet

SOURCE: SJRWMD Reference Library (SSURGO - Volusia County)

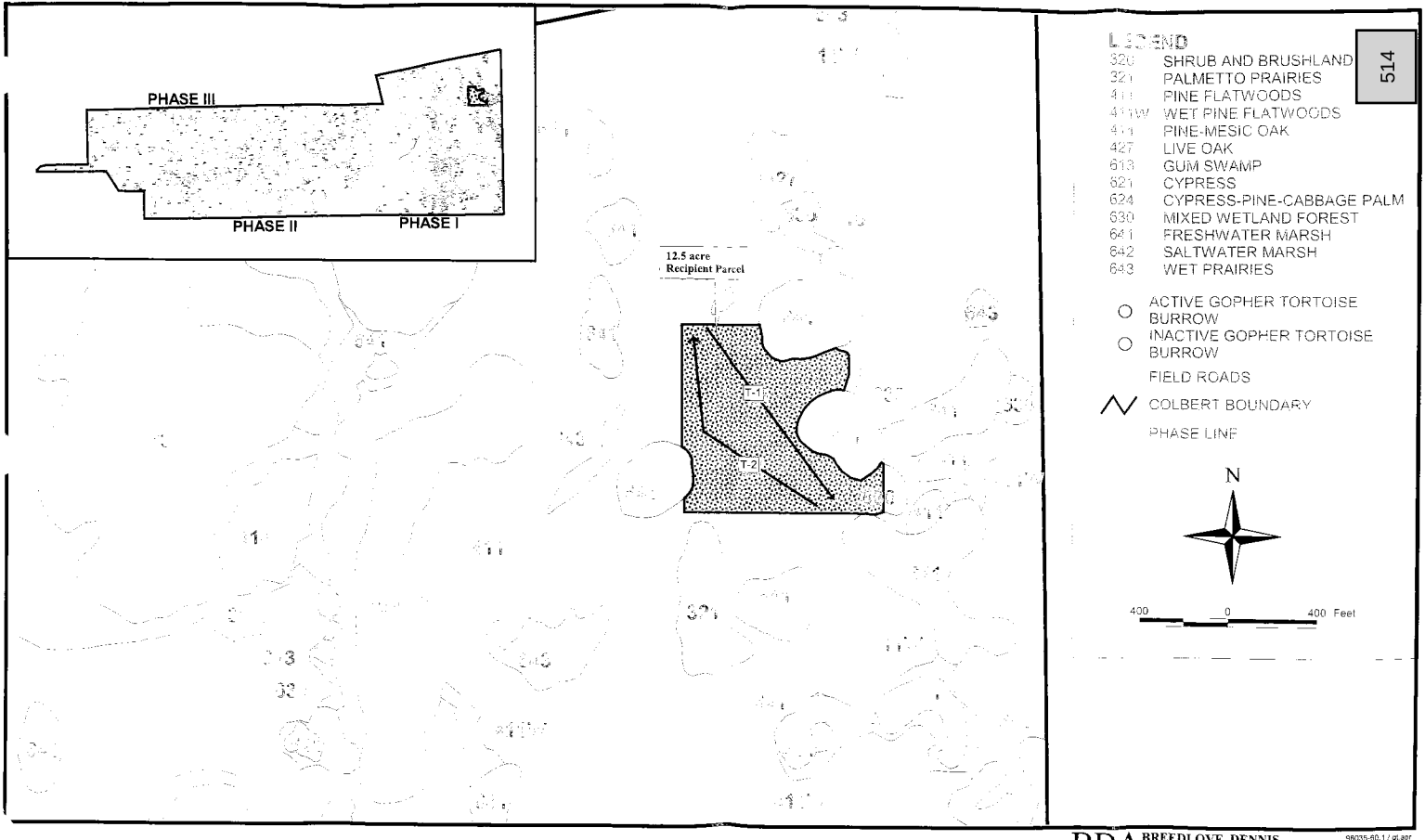
EXHIBIT 10 SOILS MAP FOR THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W Canton Ave. Winter Park, FL. 32789 Tel:407.677.1882 Fax:407.657.7008

96035-60 1 / gf.apr
2-11-2000 / cbt / ph3soils.ps

EXHIBIT 11

LOCATION OF THE GOPHER TORTOISE RECIPIENT PARCEL ON THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA



514

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC. 98035-60.1 / gl.apr 2-11-2000 / cbt / ph3parcel.ps
330 W. Canton Ave. Winter Park, FL. 32789 Tel:407.677.1882 Fax:407.657.7008

EXHIBIT 11 LOCATION OF THE GOPHER TORTOISE RECIPIENT PARCEL ON THE COLBERT/CAMERON VOLUSIA COUNTY MITIGATION PARCEL, VOLUSIA COUNTY, FLORIDA.

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

BARBARA C. BARSH
Jacksonville

QUINTON L. HEDGEPETH, DDS
Miami

H.A. "HERKY" HUFFMAN
Deltona

DAVID K. MEEHAN
St. Petersburg

JULIE K. MORRIS
Sarasota

TONY MOSS
Miami

EDWIN P. ROBERTS, DC
Pensacola

JOHN D. ROOD
Jacksonville

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

98035
RECEIVED
JUL 05 2001

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, DIRECTOR
(850)488-6661 TDD (850)488-9542
FAX (850)922-5679

June 29, 2001

BDA
DSM, WMD - PF

Mr. James H. Fant
Rock Springs, Ltd.
Rock Springs, Inc. G.P.
401 West Colonial Drive, Suite 7
Orlando, Florida 32804

Re: Gopher Tortoise Incidental Take Permit
#ORA-85, Orange County

Dear Mr. Fant:

Enclosed is permit #ORA-85 for the incidental taking of gopher tortoises, their eggs and their burrows within the development boundaries specified. The application for this permit was complete as of June 14, 2001.

Please contact me, or Mr. Steve Lau at (561) 778-5094 if you have any questions regarding this permit.

Sincerely,

Brian Barnett, for
Bradley J. Hartman, Director
Office of Environmental Services

BJH/ps
ENV 3-2/5
Enclosure
gtpermit.ltr
cc: Ms. Darla J. Miller, Breedlove, Dennis & Associates, Inc.
Orange County Planning Department
Mr. Tim Breen Northeast Region, FWC
Major Love, Northeast Region, FWC
Mr. Steve Lau, OES, Vero Beach, FWC
Ms. Angela Williams, Division of Wildlife, FWC

515

PERMIT FOR TAKING OF GOPHER TORTOISES AND

THEIR BURROWS

Chapter 39-27.002(4) FAC

STATE OF FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Issuance Date:	June 29, 2001
Permittee:	Rock Springs Ridge, Ltd.
Street Address:	Rock Springs, Inc. G.P. 401 West Colonial Drive, Suite 7 Orlando, Florida 32804 Attn: Mr. James H. Fant
Authorized Agent:	Ms. Darla J. Miller
Address:	Breedlove, Dennis & Associates, Inc. 330 W. Canton Avenue Winter Park, Florida 32789
Permit Number:	ORA-85

Location of Affected Site: Proposed 381.14-acre Rock Springs Ridge Phases IIIB, IV, V, VI, and VII project site, entirely comprised of gopher tortoise habitat, situated southeast of the intersection of SR 435 and Rock Springs Road within Sections 16, 17, and 20 Township 20S, and Range 28E, Orange County. See the attached location maps (Attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. a) The permittee shall protect 51.77 acres of gopher tortoise habitat Including 1.02 acres adjacent to the western end of existing Mitigation Area B, and 50.75 acres in the northeastern corner of the project site on the east side of existing Mitigation Area B (Attachment 3), and grant a perpetual conservation easement over these lands to the Florida Fish and Wildlife Conservation Commission (FWC). The permittee shall submit a draft copy of the conservation easement to the FWC for review and approval prior to executing and recording the document. A certified as recorded copy of the recorded easement shall be provided to the FWC at the Office of Environmental Services, 620 South Meridian Street, Tallahassee, Florida, 32399-1600. The areas covered by conservation easement shall be surveyed, with the boundaries clearly marked on the ground; th

boundary markers shall be maintained for the duration of the easement; and

b) The permittee shall contribute to the acquisition of 6.52 acres of tortoise habitat by paying $43,795.00 ($6,717.00 X 6.52 acres) to the FWC - Land Acquisition Trust Fund, East Central Florida account, of the FWC. Payment shall be sent to the Florida Fish and Wildlife Conservation Commission, P.O. Box 6150, Tallahassee, Florida 32314-6150.

2. This permit will not go into effect until the permittee has obtained receipts from the FWC for the conservation easement and funds specified under Condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the FWC. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

3. The applicant shall have the obligation to manage and maintain the protected 51.77 acres for gopher tortoises in accordance with the Habitat Management Plan, provided in the permittee's environmental consultant's correspondence dated 13 June 2001 (Attachment 4).

4. The permittee shall keep written records of the habitat management activities conducted and provide a copy of said records upon request of the FWC.

5. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the FWC as to other listed species. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.

6. The permittee, or authorized agents of the permittee, are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its authorized agent(s) to possess or move tortoises off the contiguous ownership of the permittee or to move tortoises into areas previously authorized as a relocation site by FWC permit. A separate relocation permit from FWC shall be required for those activities.

7. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of animals addressed in Condition # 6. Any other form of taking or relocation will re separate permit from the Executive Director.

8. This permit must be available for inspection at all times while engaged in the permitted activity.

9. This permit is transferable to subsequent owners of the property.

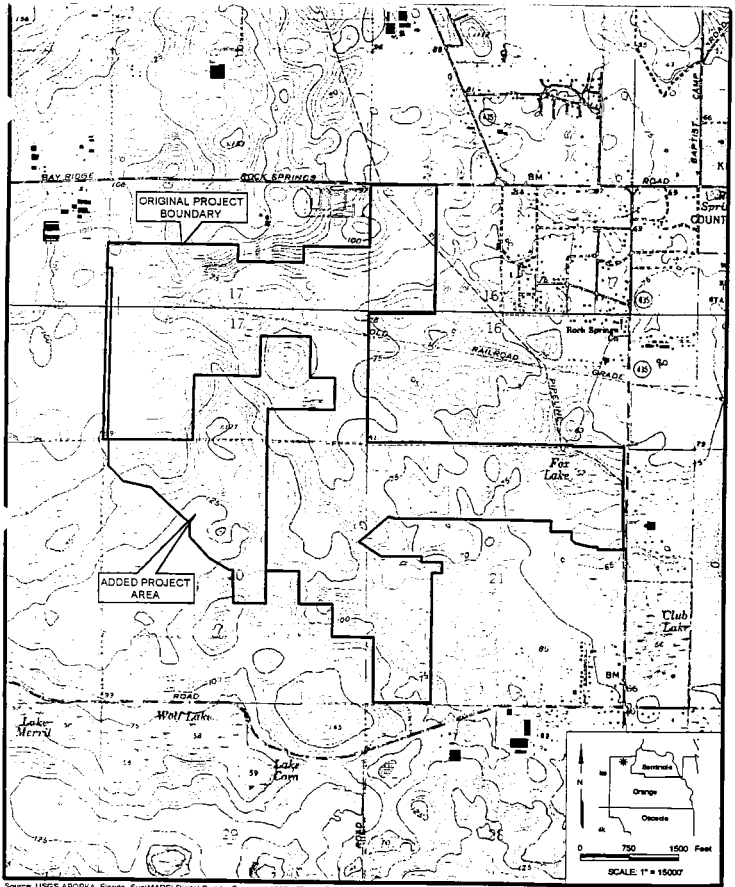
Notice of Rights Statement: In accordance with Rules 28-5.111 and 28.6.008, Florida Administrative Code, and Section 120.60, Florida Statutes, any party may request a hearing on this matter pursuant to Section 120.57, Florida Statutes by filing a completed Election of Rights form (copy attached) by certified mail, return receipt requested, with the undersigned within twenty-one (21) days of receipt of this permit and notice. If timely requested and a hearing is granted, the hearing will be conducted under the procedures established by Section 120.57, Florida Statutes. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

Allan L. Egbert, Ph.D
Executive Director

By: Brian Barnett

ENV 3-2/5
Attachments:
1. General location map
2. Site location map
3. On-site mitigation parcel location map
4. Habitat management plan for on-site mitigation parcel
5. Election of Rights form

ora-85

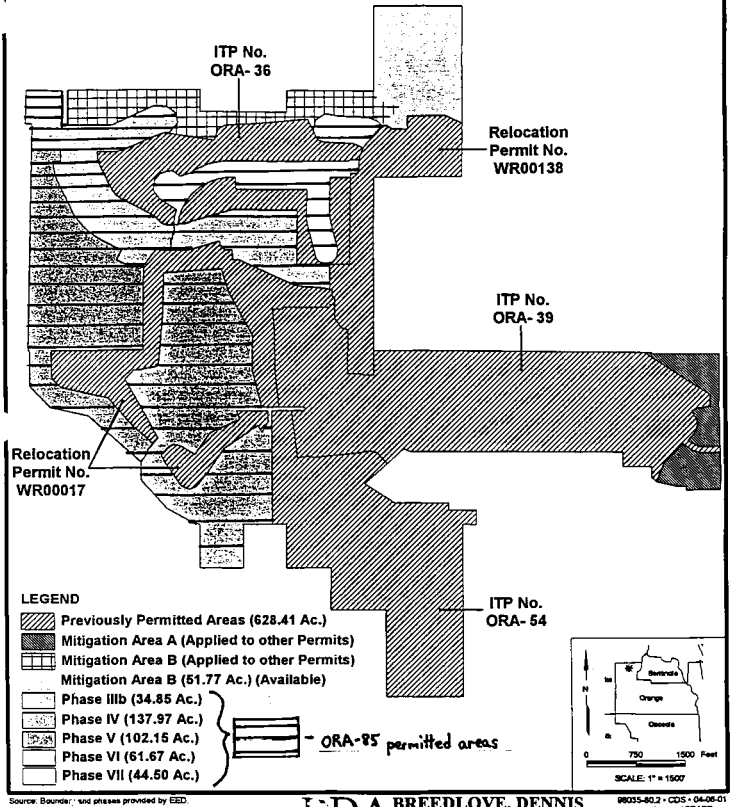


Source: USGS 7.5 TOPKA, Florida, SuperMAPS/Digital Quads, Copyright 1997
Source: Boundary provided by EED

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-1888

98035-80.2 • CDS - 04-06-01
Arcview/AGTAPP_ITP.apr
Plots/AGTAPPLOC.prt
008

EXHIBIT 1 GENERAL LOCATION OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA
(SECTIONS 16, 17, 20, & 21, TOWNSHIP 20, RANGE 28 EAST.)

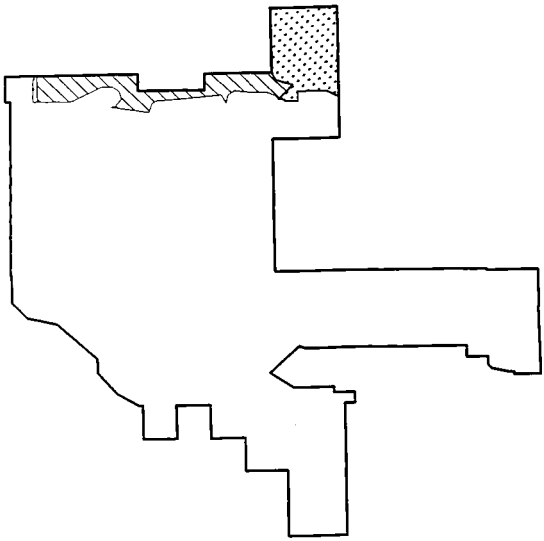


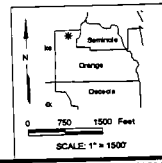
Source: Boundary and phases provided by EED.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-188 7008

98035-80.2 • CDS • 04-06-01
Acrs:new\GTAPP.apr
Plots\GTAPP\CURR_PERM.prt

EXHIBIT 2 PREVIOUSLY PERMITTED AND REMAINING AREAS ON THE ROCK SPRINGS RIDGE PRO
ORANGE COUNTY, FLORIDA.





LEGEND

Previously Used Portion of Mitigation Area B (43.84 Ac.)

Available Portion of Mitigation Area B (51.77 Ac.)

Source: Boundary provided by EED.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-188

98035-80.2 - CDS - 04-06-01
ArcviewAGTAPP.apr

008

521

EXHIBIT 3 LOCATION OF THE ON-SITE MITIGATION PARCEL, ROCK SPRINGS RIDGE PROJECT SIT
ORANGE COUNTY, FLORIDA.

Attachment 4

Habitat Management Plan

Prescribed burning is a preferable method of habitat management for gopher tortoises. However, because of the location of residential areas and major roadways adjacent to the Project, smoke management would be a major concern. For this reason, prescribed burning cannot be used as a management tool within the mitigation areas on the Project.

The canopies in Xeric Oak (421), Other Hardwood (422), Upland Mixed Forest (431), and Coniferous Plantations (441) communities have dense growth of pine (*Pinus* sp.) and oak (*Quercus* sp.) that will be partially cleared. Trees in these communities will be pushed over with a bulldozer, and the piles will be control burned on-site away from residential areas. Selective clearing to open approximately 20% of the canopy is proposed and biennial mowing of vegetative growth in the open areas will be implemented.

The Improved Pasture (211) and Other Agricultural (260) communities will be mowed biennially during the winter months to encourage the growth of prickly-pear cactus (*Opuntia humifusa*), an important tortoise food source. Mowing also discourages overgrowth of grass species and larger shrubs that are not important food sources for the gopher tortoise. This upland habitat enhancement will improve available habitat for gopher tortoises

PERMIT # ORA-85

STATE OF FLORIDA
FISH AND WILDLIFE CONSERVATION COMMISSION

ELECTION OF RIGHTS

I have read the Explanation of Rights form and understand my options.

(You may select one of the options below and return with this form to the Florida Fish and Wildlife Conservation Commission (Commission) no later than twenty-one (21) days from the receipt of the Notice of Agency Action).

1. ( ) I do not dispute the allegations of fact in the Notice of Agency Action but do wish to be accorded an informal hearing or proceeding, pursuant to Section 120.57(2), Florida Statutes, at which time I will be permitted to submit oral or written evidence in mitigation of the complaint to the agency head or his representative.

2. ( ) I do dispute the allegations of fact contained in the Notice of Agency Action, submit an attached statement of all disputed allegations of fact, and request a formal hearing, pursuant to Section 120.57(1), Florida Statutes, before a hearing officer appointed by the Division of Administrative Hearings.

3. ( ) I do not dispute the allegations of fact in the Notice of Agency Action and waive my right to object or to be heard.

I have read and understand the Election of Rights form and understand that I have the right to be represented by counsel at either the informal or formal hearing. I also

understand that I must attach a petition or written statement of the disputed issues of fact to this request if I have requested a formal hearing.

Please sign and state your current address and telephone number:

Date	Signature
Attorney's name and address	Address

Please mail form to:

Office of the General Counsel
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

DATE: June 13, 2001

TO: Mr. Stephen Lau
COMPANY: Florida Fish and Wildlife Conservation Commission

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
PROJECT NO.: 98035-80.2
PROJECT NAME: **Rock Springs Ridge**

RE: Requested Information for the Gopher Tortoise Incidental Take Permit Application

☐ Pick-up ☐ Courier ☐ U.S. Mail ☒ Overnight ☐ Hand-deliver

Copies	*Dated*	*Description*
1	June 13, 2001	Per your request, enclosed please find the additional information regarding the gopher tortoise incidental take permit application for the above referenced project site. If you have any questions, please contact our office.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☐ For your use ☐ As requested ☒ For review and comment ☐ For approval

Other: _____

cc: James H. Fant
PF

Signed: E. Amaro
for Darla J. Miller, B.S.
Senior Scientist

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525

BDA
ENVIRONMENTAL CONSULTANTS

June 13, 2001
File: 98035-80.2

Mr. Stephen Lau
Florida Fish and Wildlife Conservation Commission
255 154th Avenue
Vero Beach, Florida 32968
Phone: 561-778-5094
Fax: 561-778-7227

RE: Requested Information for the Gopher Tortoise Incidental Take Permit Application
Rock Springs Ridge, Phases IIIB, IV, V, VI, VII
Orange County, Florida

Dear Mr. Lau:

Pursuant to your request, we are providing the additional information regarding the gopher tortoise (*Gopherus polyphemus*) Incidental Take Permit (ITP) application for the remaining phases of the Rock Springs Ridge project site (Project).

Census Information

The population density data for the Project was collected by Ms. Yvonne I. Froscher, president, Yvonne I. Froscher, Inc. and presented to the Florida Fish and Wildlife Conservation Commission (FWC) in the report dated April 12, 1996 as the base density data to support applications for ITP for Phase II of the Project and future ITP applications for subsequent phases within the Project. However, certain cover types were not included within Ms. Froscher's report. The calculated density for the Improved Pastures (211) includes data from a 100% census for the Nine-Hole Golf Course relocation permit combined with a 20.0% census of the remaining areas. The calculated density for the Coniferous Plantations (441) is based on a 31.8% census of these areas. The density of the Barren Land (700) cover type is based on data collected during the 100% census of this area. Attachment 1 presents the census data for these cover types.

BREEDLOVE, DENNIS & ASSOCIATES, INC.
332 W. CANTON AVENUE WINTER PARK, FL 32789
PHONE 407-677-1882 FAX 407-657-7035

The Improved Pasture (211) cover type comprises 99.63 acres of the Project, located in Phases IV and V. Based on the above-referenced data, the density of gopher tortoises in this cover type is 0.42 gopher tortoises per acre (15% mitigation required). This is slightly different than previously provided, but the mitigation requirement is the same.

The Coniferous Plantations (441) cover type comprises 12.77 acres of the Project and is located in Phase V only. Based on the above-referenced data, the density of gopher tortoises in this cover type is 1.36 gopher tortoises per acre (25% mitigation required).

The Barren Land (700) cover type comprises 0.73 acre of the Project, located in Phase IIIB. Based on the above-referenced data, the density of gopher tortoises is 0.87 gopher tortoise per acre (15% mitigation required).

Habitat Management Plan

Prescribed burning is a preferable method of habitat management for gopher tortoises. However, because of the location of residential areas and major roadways adjacent to the Project, smoke management would be a major concern. For this reason, prescribed burning cannot be used as a management tool within the mitigation areas on the Project.

The canopies in Xeric Oak (421), Other Hardwood (422), Upland Mixed Forest (431), and Coniferous Plantations (441) communities have dense growth of pine (*Pinus* sp.) and oak (*Quercus* sp.) that will be partially cleared. Trees in these communities will be pushed over with a bulldozer, and the piles will be control burned on-site away from residential areas. Selective clearing to open approximately 20% of the canopy is proposed and biennial mowing of vegetative growth in the open areas will be implemented.

The Improved Pasture (211) and Other Agricultural (260) communities will be mowed biennially during the winter months to encourage the growth of prickly-pear cactus (*Opuntia humifusa*), an important tortoise food source. Mowing also discourages overgrowth of grass species and larger shrubs that are not important food sources for the gopher tortoise. This upland habitat enhancement will improve available habitat for gopher tortoises

Ownership of the Transmission Line

You requested that we determine the ownership of the transmission line and if a conservation easement could be placed over this area in order to assure that the areas will be preserved and that the management activities will be completed. The Project attorney reviewed the utility easement language and determined that none of these instruments prohibits the placement of a conservation easement over the area. Each document contains language that reserves the rights of the Applicant to use the property for the purposes contemplated in a typical conservation easement. Therefore, these areas may remain within the acreage offered as mitigation.

Local Approval of the Project

You also requested that we provide you the regulatory approval for the Project from the local agency. At the time of our conversation, it was our understanding that the approval from the City of Apopka would be obtained when each phase was developed. However, the Applicant has provided herein the evidence that the City of Apopka has approved the Master Plan for the entire site, as evidenced in Attachment 2. Therefore, this document should satisfy this requirement.

Requested Permit Language

Enclosed, as Attachment 3 is documentation of the proposed permit language in regard to the 21-day petition period. This attachment includes a copy of a letter from Mr. Bradley J. Hartman, to Douglas J. Rillstone, Esquire dated December 11, 1998 in regard to the amendment of Condition No. 2 of Permit No. ORA-54. The approved language within Condition No. 2 of said permit is as follows:

> This permit will not go into effect until the permittee has obtained a receipt from the GFC [*sic*-currently FWC] for the mitigation funds specified under condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC [*sic*]. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.
>
> All other conditions remain unchanged.

As shown, this language was approved by FWC for Permit No. ORA-54 for the Project. We respectfully request that the language with regard to the 21-day petition period be applied to the permit to be issued for the remaining phases of the Project. Therefore, we request that the permit condition for this permit read:

> As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC [*sic*]. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

Thank you for your review of this application. If you have any questions regarding this information, please do not hesitate to call us.

Sincerely yours,

Darla J. Miller, B.S.
Senior Scientist

W. Jeffrey Pardue, C.E.P., M.S., M.B.A.
Senior Vice President

DJM/WJP/ea

Attachments

cc: James H. Fant

Attachment 1. **Census Data for the Improved Pastures, Coniferous Plantations, and Barren Land Cover Types on the Rock Springs Ridge Project Site, Orange County, Florida.**

Cover Type	Total Acreage	Acreage Censused	Number of Burrows Found	Resultant Density
Improved Pastures (211)				
9-Hole Golf Course (100% census)	20.54	20.54	10	
Added Land (20.0% census)	79.09	15.80	15	
Totals:	99.63	36.34	25	0.42
Coniferous Plantations (441) (31.8% census)	12.77	4.06	9	1.36
Barren Land (700) (100% census)	2.84	2.84	4	0.87

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING THE ADOPTED ROCK SPRINGS RIDGE PLANNED UNIT DEVELOPMENT (PUD) MASTER PLAN, ORDINANCE NO. 1220, TO REPLACE IN ITS ENTIRETY; PROVIDING FOR DIRECTION TO THE CITY CLERK; FOR SEVERABILITY; FOR CONFLICTS; AND AN EFFECTIVE DATE.

WHEREAS, the City of Apopka, Florida, recognizes that it is on the brink of a period of rapid growth; and

WHEREAS, to manage the growth, the City of Apopka, Florida, finds it in the best interest of the public health, safety and welfare of its citizens to establish zoning classifications for the properties within the City; and

WHEREAS, the owners of record of the property described herein, have requested that certain items included in Ordinance No. 1220, designating the zoning for said property as PUD, be amended; and

WHEREAS, on September 1, 1999, City Council approved the 1st Amendment to the Rock Springs Ridge PUD Master Plan, Ordinance No. 1220; and

WHEREAS, said ordinance No. 1380 shall replace in it's entirety the previous adopted Rock Springs Ridge PUD Master Plan.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Apopka, Florida, as follows:

SECTION I: That the zoning classification of the following described property, being situated in the City of Apopka, Florida, is hereby designated as Planned Unit Development (PUD) as defined in the Apopka Land Development Code.

Legal Description:

Commencing at the Southwest corner of Section 21, Township 20 South, Range 28 East, Orange County, Florida; thence along the South line of said section run South 89 degrees 45' 49" East a distance of 166.22 feet; thence North 00 degrees 09' 06" East a distance of 1328.50 feet; thence North 89 degrees 42' 09" West a distance of 166.18 feet; thence South 89 degrees 57' 32" West a distance of 667.91 feet; thence North 00 degrees 05' 28" East a distance of 665.30 feet; thence North 89 degrees 52' 23" West a distance of 668.61 feet; thence North 00 degrees 01' 51" East a distance of 668.26 feet; thence North 89 degrees 42' 20" West a distance of 669.31 feet; thence North 00 degrees 01' 31" West a distance of 100.00 feet along the West line of the East 3/4 of the Northeast 1/4 of Section 20, Township 20 South, Range 28 East to the POINT OF BEGINNING; thence continue North 00 degrees 01' 31" West a distance of 2564.30 feet; thence North 00 degrees 32' 09" East a distance of 658.61 feet; thence South 89 degrees 33' 53" East a distance of 1341.44 feet; thence North 00 degrees 16' 07" East a distance of 659.60 feet; thence North 89 degrees 36' 26" West a distance of 501.67 feet; thence North 00 degrees 22' 08" East a distance of 824.03 feet; thence North 89 degrees 40' 48" West a distance of 1000.89 feet; thence South 00 degrees 34' 47" West a distance of 822.76 feet; thence North 89 degrees 36' 26" West a distance of 501.96 feet; thence North 89 degrees 54' 17" West a distance of 837.28 feet; thence South 00 degrees 47' 58" West a distance of 1319.35 feet; thence South 89 degrees 53' 05" West a distance of 1848.65 feet along the South line of Section 17, Township 20 South, Range 28 East, Orange County, Florida; thence along the West line of said Section 17 North 01 degrees 04' 57" East a distance of 2652.47 feet and North 01 degrees 05' 18" East a distance of 1329.39 feet; thence South 89 degrees 38' 22" East a distance of 2659.92 feet along the South line of the North 1/4 of said Section 17; thence South 00 degrees 40' 11" West a distance of 331.70 feet; thence South 89 degrees 34' 43" East a distance of 1327.76 feet; thence North 00 degrees 24' 46" East a distance of 330.82 feet; thence South 89 degrees 32' 26" East a distance of 1326.27 feet, thence North 00 degrees 09' 16" East a distance of 1289.75 feet; thence South 89 degrees 45' 48" East a distance of 1324.52 feet along the South R/W line of Kelley Park Road (60 foot R/W); thence South 00 degrees 05' 51" West a distance of 2607.39 feet along the East line of the West ½ of the Northwest 1/4 of Section 16, Township 20 South, Range 28 East, Orange County, Florida; thence North 89 degrees 51' 15" West a distance of 1327.11 feet; thence South 00 degrees 08' 08" West a distance of 2640.42 feet along the East line of said Section 17; thence South 89 degrees 32' 44" East a distance of 2658.65 feet and South 89 degrees 33' 01" East a distance of 1544.13 feet along the North line of said Section 21; thence South 00 degrees 26' 59" West a distance of 20.00 feet; thence South 89 degrees 33' 01" East a distance of 1044.15 feet; thence along the West R/W line of State Road 435 (Rock Springs Road) South 00 degrees 23' 28" West a distance of 738.70 feet; thence North 89 degrees 36' 32" West a distance of 10.00 feet; thence South 00 degrees 23' 28" West a distance of 100.00 feet; thence South 89 degrees 36' 32" East a distance of 10.00 feet; thence South 00 degrees 23' 27" West a distance of [illegible] feet; thence along said R/W and a curve concave to the East having a radius of 11509.16 f[illegible] angle of 2 degrees 23' 38", and an arc length of 480.87 feet; thence along the R/W and a curv[illegible] the West having a radius of 11409.16 feet, a central angle of 2 degrees 23' 38", and an arc len[illegible]

48" East a distance of 1000.89 feet; thence South 00 degrees 22' 08" West a distance of 824.03 feet to a point on the North line of the Northwest 1/4 of the Southeast 1/4 of the Southeast 1/4 of said Section 17; thence along said north line South 89 degrees 36' 26" East a distance of 501.67 feet to a point on the East line of the Northwest 1/4 of the Southeast 1/4 of the Southeast 1/4 of said Section 17; thence along said east line South 00 degrees 16' 07" West a distance of 659.60 feet to a point on the South line of the North ½ of the South ½ of the Southeast 1/4 of said Section 17; thence along said South line; North 89 degrees 33' 53" West a distance of 1341.44 feet to a point on the East line of the West ½ of the Southwest 1/4 of the Southeast 1/4 of said Section 17; thence along said East line; South 00 degrees 32' 09" West a distance of 658.61 feet to the POINT OF BEGINNING

SECTION II: That the Rock Springs Ridge PUD Master Plan (entitled 2nd P.U.D. Master Plan Amendment) attached hereto, as Exhibit "A" and incorporated herein by reference, shall establish the zoning criteria for the property described in Section I of this Ordinance.

SECTION III: That the property being so designated is subject to the purposes and uses designated for the Planned Unit Development (PUD) Zoning classification.

SECTION IV: That the zoning classification is consistent with the Comprehensive Plan of the City of Apopka, Florida.

SECTION V: That the City Clerk, or the Clerk's designee, is hereby authorized to amend, alter and implement the official zoning maps of the City of Apopka, Florida, to include said designation.

SECTION VI: That if any section or portion of a section or subsection of this Ordinance proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force or effect of any other section or portion of a section or subsection or part of this ordinance.

SECTION VII: That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION VIII: That this ordinance shall take effect upon passage and adoption or at any subsequent date as dictated by Florida Statutes.

READ FIRST TIME: November 15, 2000

READ SECOND TIME
AND ADOPTED: December 6, 2000

John H. Land, Mayor

ATTEST:

Connie V. Meyer, City Clerk
Libby Tyler, Deputy City Clerk

APPROVED AS TO FORM:

Frank C. Rupprecht, City Attorney

DULY ADVERTISED FOR PUBLIC HEARING: October 27, 2000
November 24, 2000

Postal Fax Note 7671 Date 12/14 Pages 1
To Doug Rillstone From Brad Hartman
Co./Dept. Greenberg Traurig Co. GFC
Phone # 681-0207 Phone # 488-9730
Fax # Trac Walker @ 488-9660

FLORIDA GAME AND FRESH WATER FISH COMMISSION

ALLEN C. BEHRENDT, W. HUMPHREY — Vice-Chairman
THOMAS R. KIBLER — Lakeland
JAMES T. HAMIL — Bradley
ADAMS, III — Bradley
JULIE K. MORRIS — Sarasota

ALLAN L. EGBERT, Ph.D. — Executive Director
VICTOR J. HELLER — Assistant Executive Director

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, DIRECTOR
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-6661
SUNCOM 278-6661
FAX (850) 922-5679
TDD (850) 488-9542

December 14, 1998

Mr. Douglas J. Rillstone
Greenberg Traurig, P.A.
Post Office Drawer 1838
Tallahassee, FL 32302

Dear Mr. Rillstone

Per your 7 December 1998 request, we are amending Condition #2 of Permit #ORA-54 to read as follows

2. This permit will not go into effect until the permittee has obtained a receipt from the GFC for the mitigation funds specified under condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

All other conditions remain unchanged

Sincerely,

Bradley J. Hartman, Director
Office of Environmental Services

BJH/gw
ENV 1-3-3
cc: Orange County Planning Department

RECEIVED
DEC 14 1998
GREEN [illegible]

533
EXHIBIT

ATTACHMENT 3

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

DATE: July 6, 2001

TO: Mr. James H. Fant
COMPANY: Rock Springs Ridge, Inc.

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
PROJECT NO.: 98035-80.2
PROJECT NAME: **Rock Springs Ridge**

RE: Final Incidental Take Permit

☐ Pick-up ☐ Courier ☐ U.S. Mail ☒ Overnight ☐ Hand-deliver

Copies	*Dated*	*Description*
1	July 5, 2001	Enclosed please find a copy of the Final Incidental Take Permit for the above referenced project site. If you have any questions, please contact our office.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☒ For your use ☐ As requested ☐ For review and comment ☐ For approval

Other: _____

cc: Douglas J. Rillstone *(via Fed Ex)*
W. Michael Dennis
PF

Signed: Elizabeth Amaro
for Darla J. Miller, B.S.
Senior Scientist

P:\ADMIN\PROJECTS\98035\LOTS\J-FANT.DOC

534

BDA
ENVIRONMENTAL CONSULTANTS

MEMORANDUM

DELIVERED VIA FEDERAL EXPRESS

TO: Mr. James H. Fant

FROM: Ms. Darla J. Miller djm

FILE: 98035-80.2

DATE: July 6, 2001

SUBJECT: Final Incidental Take Permit for the Rock Springs Ridge Project Site, Apopka, Florida

Congratulations! Please find attached the final Incidental Take Permit for your project.

Provision/Condition Nos. 1(a) and 1(b) must be satisfied prior to the taking of gopher tortoises (*Gopherus polyphemus*) found on your site (Provision/Condition No. 2). I assume that you will have Don J. Curotto, Esquire handle Provision/Condition No. 1(a) and you will handle Provision/Condition No. 1(b). If you need any assistance on these requirements, however, please let me know.

We can assist you with the management activities as required by this permit. Please call me at your convenience to discuss how we can help you satisfy Provision/Condition No. 3.

Again – congratulations!

/djm

cc: Douglas J. Rilistone (via Federal Express)
W. Michael Dennis

P:\ADMIN\PROJECTS\98035\MEMOS\FANT_FINAL_ITP.DOC

BREEDLOVE, DENNIS & ASSOCIATES, INC.
1500 W. CANTON AVENUE WINTER PARK, FL 32789
PHONE 407-677-1882 FAX 407-657-7008

BARBARA C. BARSH
Jacksonville

JULIE K. MORRIS
Sarasota

QUINTON L. HEDGEPETH, DDS
Miami

TONY MOSS
Miami

H.A. "HERKY" HUFFMAN
Deltona

EDWIN P. ROBERTS, DC
Pensacola

DAVID K. MEEHAN
St. Petersburg

JOHN D. ROOD
Jacksonville

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

98036
RECEIVED
JUL 05 2001
BDA

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, DIRECTOR
(850)488-6661 TDD (850)488-9542
FAX (850)922-5679

June 29, 2001

DSM; WMD-DF

Mr. James H. Fant
Rock Springs, Ltd.
Rock Springs, Inc. G.P.
401 West Colonial Drive, Suite 7
Orlando, Florida 32804

Re: Gopher Tortoise Incidental Take Permit
#ORA-85, Orange County

Dear Mr. Fant:

Enclosed is permit #ORA-85 for the incidental taking of gopher tortoises, their eggs and their burrows within the development boundaries specified. The application for this permit was complete as of June 14, 2001.

Please contact me, or Mr. Steve Lau at (561) 778-5094 if you have any questions regarding this permit.

Sincerely,

Brian Barnett, for
Bradley J. Hartman, Director
Office of Environmental Services

BJH/ps
ENV 3-2/5
Enclosure
gtpermit.ltr
cc: Ms. Darla J. Miller, Breedlove, Dennis & Associates, Inc.
Orange County Planning Department
Mr. Tim Breen Northeast Region, FWC
Major Love, Northeast Region, FWC
Mr. Steve Lau, OES, Vero Beach, FWC
Ms. Angela Williams, Division of Wildlife, FWC

PERMIT FOR TAKING OF GOPHER TORTOISES AND

THEIR BURROWS

Chapter 39-27.002(4) FAC

STATE OF FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Issuance Date: June 29, 2001

Permittee: Rock Springs Ridge, Ltd.
Street Address: Rock Springs, Inc. G.P.
401 West Colonial Drive, Suite 7
Orlando, Florida 32804
Attn: Mr. James H. Fant

Authorized Agent: Ms. Darla J. Miller
Address: Breedlove, Dennis & Associates, Inc.
330 W. Canton Avenue
Winter Park, Florida 32789

Permit Number: ORA-85

Location of Affected Site: Proposed 381.14-acre Rock Springs Ridge Phases IIIB, IV, V, VI, and VII project site, entirely comprised of gopher tortoise habitat, situated southeast of the intersection of SR 435 and Rock Springs Road within Sections 16, 17, and 20 Township 20S, and Range 28E, Orange County. See the attached location maps (Attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. a) The permittee shall protect 51.77 acres of gopher tortoise habitat including 1.02 acres adjacent to the western end of existing Mitigation Area B, and 50.75 acres in the northeastern corner of the project site on the east side of existing Mitigation Area B (Attachment 3), and grant a perpetual conservation easement over these lands to the Florida Fish and Wildlife Conservation Commission (FWC). The permittee shall submit a draft copy of the conservation easement to the FWC for review and approval prior to executing and recording the document. A certified as recorded copy of the recorded easement shall be provided to the FWC at the Office of Environmental Services, 620 South Meridian Street, Tallahass Florida, 32399-1600. The areas covered by conservation easeme be surveyed, with the boundaries clearly marked on the ground;

boundary markers shall be maintained for the duration of the easement; and

b) The permittee shall contribute to the acquisition of 6.52 acres of tortoise habitat by paying $43,795.00 ($6,717.00 X 6.52 acres) to the FWC - Land Acquisition Trust Fund, East Central Florida account, of the FWC. Payment shall be sent to the Florida Fish and Wildlife Conservation Commission, P.O. Box 6150, Tallahassee, Florida 32314-6150.

2. This permit will not go into effect until the permittee has obtained receipts from the FWC for the conservation easement and funds specified under Condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the FWC. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

3. The applicant shall have the obligation to manage and maintain the protected 51.77 acres for gopher tortoises in accordance with the Habitat Management Plan, provided in the permittee's environmental consultant's correspondence dated 13 June 2001 (Attachment 4).

4. The permittee shall keep written records of the habitat management activities conducted and provide a copy of said records upon request of the FWC.

5. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the FWC as to other listed species. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.

6. The permittee, or authorized agents of the permittee, are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its authorized agent(s) to possess or move tortoises off the contiguous ownership of the permittee or to move tortoises into areas previously authorized as a relocation site by FWC permit. A separate relocation permit from FWC shall be required for those activities.

7. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of animals addressed in Condition # 6. Any other form of taking or relocation will require a separate permit from the Executive Director.

8. This permit must be available for inspection at all times while engaged in the permitted activity.

9. This permit is transferable to subsequent owners of the property.

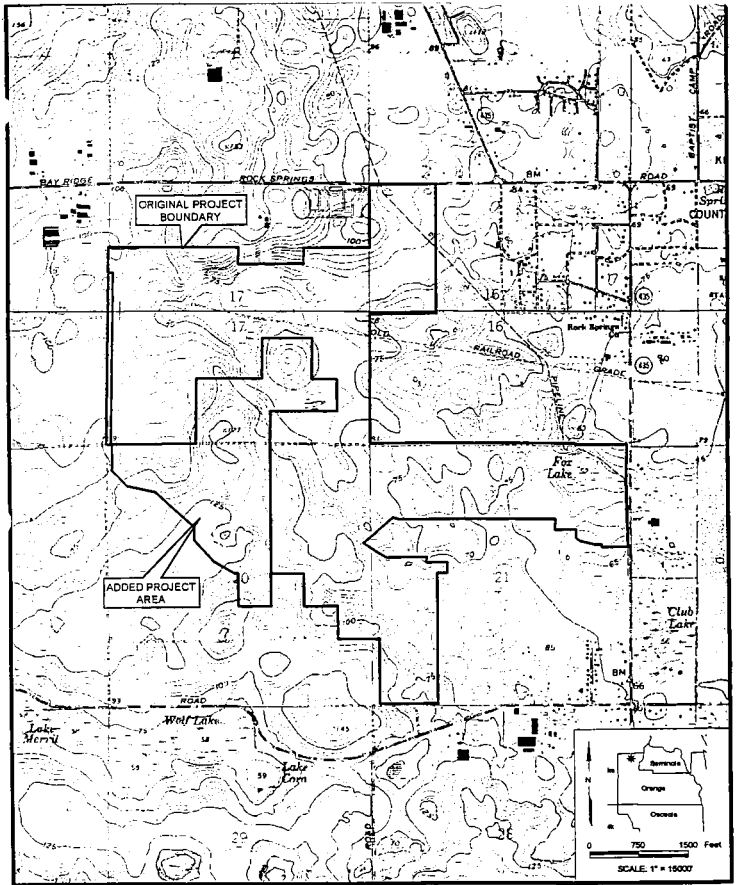
Notice of Rights Statement: In accordance with Rules 28-5.111 and 28.6.008, Florida Administrative Code, and Section 120.60, Florida Statutes, any party may request a hearing on this matter pursuant to Section 120.57, Florida Statutes by filing a completed Election of Rights form (copy attached) by certified mail, return receipt requested, with the undersigned within twenty-one (21) days of receipt of this permit and notice. If timely requested and a hearing is granted, the hearing will be conducted under the procedures established by Section 120.57, Florida Statutes. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

Allan L. Egbert, Ph.D
Executive Director

By: Brian Barnett

ENV 3-2/5
Attachments:
1. General location map
2. Site location map
3. On-site mitigation parcel location map
4. Habitat management plan for on-site mitigation parcel
5. Election of Rights form

ora-85

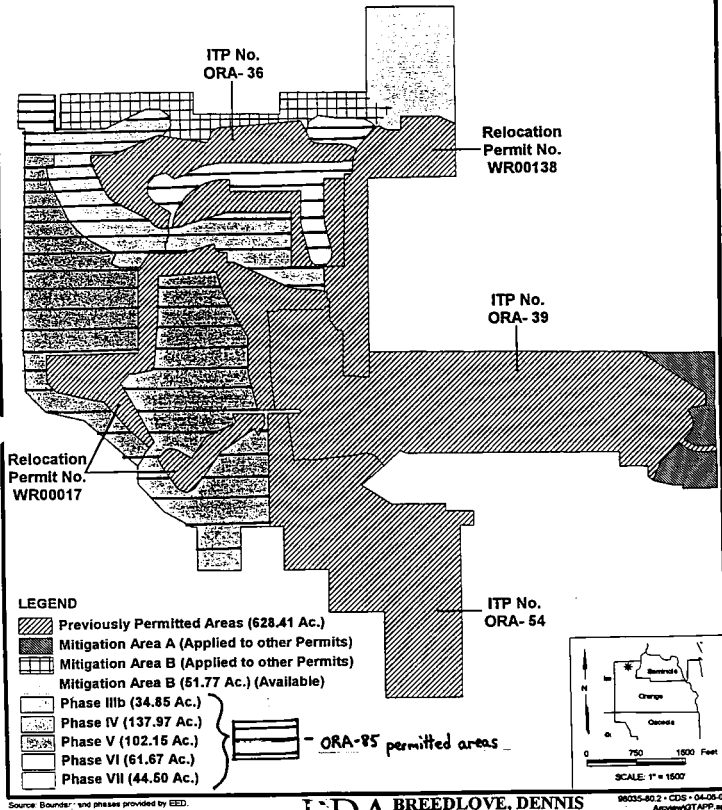


Source: USGS 7.5' DOPKA, Florida, SuelMAPS!,Digital Quads, Copyright 1997
Source: Boundary provided by EED.

BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-18 -7008

98035-80.2 • CDS • 04-08-01
Arc4view\GTAPP_ITP.apr
Plots\GTAPP\LOC.jnt

EXHIBIT 1 GENERAL LOCATION OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORID
(SECTIONS 16, 17, 20, & 21, TOWNSHIP 20, RANGE 28 EAST.)

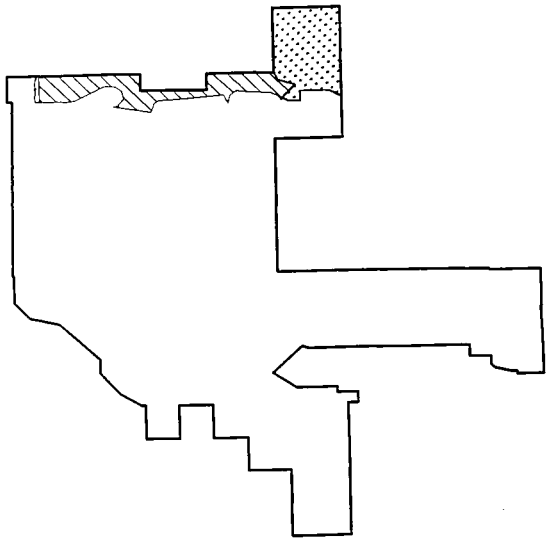


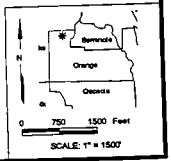
Source: Boundary and phases provided by EED.

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-18 -7008

96035-80.2 • CDS • 04-05-01
Answers\GTAPP.apr
Plots\GTAPPCURR_PERM.prt

EXHIBIT 2 PREVIOUSLY PERMITTED AND REMAINING AREAS ON THE ROCK SPRINGS RIDGE PR
ORANGE COUNTY, FLORIDA.





LEGEND

Previously Used Portion of Mitigation Area B (43.84 Ac.)

Available Portion of Mitigation Area B (51.77 Ac.)

Source: Boundary provided by EED

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-1882

98035-80.2 • CDS • 04-06-01
ArcviewAGTAPP.apr
PlotAGTADDMET_8.prt
008

EXHIBIT 3 LOCATION OF THE ON-SITE MITIGATION PARCEL, ROCK SPRINGS RIDGE PROJECT SIT
ORANGE COUNTY, FLORIDA.

Attachment 4

Habitat Management Plan

Prescribed burning is a preferable method of habitat management for gopher tortoises. However, because of the location of residential areas and major roadways adjacent to the Project, smoke management would be a major concern. For this reason, prescribed burning cannot be used as a management tool within the mitigation areas on the Project.

The canopies in Xeric Oak (421), Other Hardwood (422), Upland Mixed Forest (431), and Coniferous Plantations (441) communities have dense growth of pine (*Pinus* sp.) and oak (*Quercus* sp.) that will be partially cleared. Trees in these communities will be pushed over with a bulldozer, and the piles will be control burned on-site away from residential areas. Selective clearing to open approximately 20% of the canopy is proposed and biennial mowing of vegetative growth in the open areas will be implemented.

The Improved Pasture (211) and Other Agricultural (260) communities will be mowed biennially during the winter months to encourage the growth of prickly-pear cactus (*Opuntia humifusa*), an important tortoise food source. Mowing also discourages overgrowth of grass species and larger shrubs that are not important food sources for the gopher tortoise. This upland habitat enhancement will improve available habitat for gopher tortoises

PERMIT # ORA-85

STATE OF FLORIDA
FISH AND WILDLIFE CONSERVATION COMMISSION

ELECTION OF RIGHTS

I have read the Explanation of Rights form and understand my options.

(You may select one of the options below and return with this form to the Florida Fish and Wildlife Conservation Commission (Commission) no later than twenty-one (21) days from the receipt of the Notice of Agency Action).

1. ( ) I do not dispute the allegations of fact in the Notice of Agency Action but do wish to be accorded an informal hearing or proceeding, pursuant to Section 120.57(2), Florida Statutes, at which time I will be permitted to submit oral or written evidence in mitigation of the complaint to the agency head or his representative.

2. ( ) I do dispute the allegations of fact contained in the Notice of Agency Action, submit an attached statement of all disputed allegations of fact, and request a formal hearing, pursuant to Section 120.57(1), Florida Statutes, before a hearing officer appointed by the Division of Administrative Hearings.

3. ( ) I do not dispute the allegations of fact in the Notice of Agency Action and waive my right to object or to be heard.

I have read and understand the Election of Rights form and understand that I have the right to be represented by counsel at either the informal or formal hearing. I also

understand that I must attach a petition or written statement of the disputed issues of fact to this request if I have requested a formal hearing.

Please sign and state your current address and telephone number:

Date	Signature
Attorney's name and address	Address

Please mail form to:

Office of the General Counsel
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

DATE: June 13, 2001

TO: Mr. Stephen Lau
COMPANY: Florida Fish and Wildlife Conservation Commission

FROM: Ms. Darla J. Miller
E-MAIL: [redacted]
PROJECT NO.: [redacted]
PROJECT NAME: **Rock Springs Ridge**

327 5336 181

RE: Requested Information for the Gopher Tortoise Incidental Take Permit Application

☐ Pick-up ☐ Courier ☐ U.S. Mail ☒ Overnight ☐ Hand-deliver

Copies	*Dated*	*Description*
1	June 13, 2001	Per your request, enclosed please find the additional information regarding the gopher tortoise incidental take permit application for the above referenced project site. If you have any questions, please contact our office.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☐ For your use ☐ As requested ☒ For review and comment ☐ For approval

Other: _____

cc: James H. Fant
PF

Signed: E. Amaro
for Darla J. Miller, B.S.
Senior Scientist

P:\ADMIN\PROJECTS\98035\LOTS\LAU_2.DOC

546

BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FLORIDA 32789 / (407) 677-1882 / FAX (407) 657-7008

BDA
ENVIRONMENTAL CONSULTANTS

June 13, 2001
File: 98035-80.2

Mr. Stephen Lau
Florida Fish and Wildlife Conservation Commission
255 154th Avenue
Vero Beach, Florida 32968
Phone: 561-778-5094
Fax: 561-778-7227

RE: Requested Information for the Gopher Tortoise Incidental Take Permit Application
Rock Springs Ridge, Phases IIIB, IV, V, VI, VII
Orange County, Florida

Dear Mr. Lau:

Pursuant to your request, we are providing the additional information regarding the gopher tortoise (*Gopherus polyphemus*) Incidental Take Permit (ITP) application for the remaining phases of the Rock Springs Ridge project site (Project).

Census Information

The population density data for the Project was collected by Ms. Yvonne I. Froscher, president, Yvonne I. Froscher, Inc. and presented to the Florida Fish and Wildlife Conservation Commission (FWC) in the report dated April 12, 1996 as the base density data to support applications for ITP for Phase II of the Project and future ITP applications for subsequent phases within the Project. However, certain cover types were not included within Ms. Froscher's report. The calculated density for the Improved Pastures (211) includes data from a 100% census for the Nine-Hole Golf Course relocation permit combined with a 20.0% census of the remaining areas. The calculated density for the Coniferous Plantations (441) is based on a 31.8% census of these areas. The density of the Barren Land (700) cover type is based on data collected during the 100% census of this area. Attachment 1 presents the census data for these cover types.

BREEDLOVE, DENNIS & ASSOCIATES, INC
1030 W. CANTON AVENUE • WINTER PARK, FL 32789
PHONE 407-677-1881 • FAX 407-657-7008

The Improved Pasture (211) cover type comprises 99.63 acres of the Project, located in Phases IV and V. Based on the above-referenced data, the density of gopher tortoises in this cover type is 0.42 gopher tortoises per acre (15% mitigation required). This is slightly different than previously provided, but the mitigation requirement is the same.

The Coniferous Plantations (441) cover type comprises 12.77 acres of the Project and is located in Phase V only. Based on the above-referenced data, the density of gopher tortoises in this cover type is 1.36 gopher tortoises per acre (25% mitigation required).

The Barren Land (700) cover type comprises 0.73 acre of the Project, located in Phase IIIB. Based on the above-referenced data, the density of gopher tortoises is 0.87 gopher tortoise per acre (15% mitigation required).

Habitat Management Plan

Prescribed burning is a preferable method of habitat management for gopher tortoises. However, because of the location of residential areas and major roadways adjacent to the Project, smoke management would be a major concern. For this reason, prescribed burning cannot be used as a management tool within the mitigation areas on the Project.

The canopies in Xeric Oak (421), Other Hardwood (422), Upland Mixed Forest (431), and Coniferous Plantations (441) communities have dense growth of pine (*Pinus* sp.) and oak (*Quercus* sp.) that will be partially cleared. Trees in these communities will be pushed over with a bulldozer, and the piles will be control burned on-site away from residential areas. Selective clearing to open approximately 20% of the canopy is proposed and biennial mowing of vegetative growth in the open areas will be implemented.

The Improved Pasture (211) and Other Agricultural (260) communities will be mowed biennially during the winter months to encourage the growth of prickly-pear cactus (*Opuntia humifusa*), an important tortoise food source. Mowing also discourages overgrowth of grass species and larger shrubs that are not important food sources for the gopher tortoise. This upland habitat enhancement will improve available habitat for gopher tortoises

Ownership of the Transmission Line

You requested that we determine the ownership of the transmission line and if a conservation easement could be placed over this area in order to assure that the areas will be preserved and that the management activities will be completed. The Project attorney reviewed the utility easement language and determined that none of these instruments prohibits the placement of a conservation easement over the area. Each document contains language that reserves the rights of the Applicant to use the property for the purposes contemplated in a typical conservation easement. Therefore, these areas may remain within the acreage offered as mitigation.

Local Approval of the Project

You also requested that we provide you the regulatory approval for the Project from the local agency. At the time of our conversation, it was our understanding that the approval from the City of Apopka would be obtained when each phase was developed. However, the Applicant has provided herein the evidence that the City of Apopka has approved the Master Plan for the entire site, as evidenced in Attachment 2. Therefore, this document should satisfy this requirement.

Requested Permit Language

Enclosed, as Attachment 3 is documentation of the proposed permit language in regard to the 21-day petition period. This attachment includes a copy of a letter from Mr. Bradley J. Hartman, to Douglas J. Rillstone, Esquire dated December 11, 1998 in regard to the amendment of Condition No. 2 of Permit No. ORA-54. The approved language within Condition No. 2 of said permit is as follows:

> This permit will not go into effect until the permittee has obtained a receipt from the GFC [*sic*-currently FWC] for the mitigation funds specified under condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC [*sic*]. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.
>
> All other conditions remain unchanged.

As shown, this language was approved by FWC for Permit No. ORA-54 for the Project. We respectfully request that the language with regard to the 21-day petition period be applied to the permit to be issued for the remaining phases of the Project. Therefore, we request that the permit condition for this permit read:

> As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC [*sic*]. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

Thank you for your review of this application. If you have any questions regarding this information, please do not hesitate to call us.

Sincerely yours,

Darla J. Miller, B.S.
Senior Scientist

W. Jeffrey Pardue, C.E.P., M.S., M.B.A.
Senior Vice President

DJM/WJP/ea

Attachments

cc: James H. Fant

Attachment 1. **Census Data for the Improved Pastures, Coniferous Plantations, and Barren Land Cover Types on the Rock Springs Ridge Project Site, Orange County, Florida.**

Cover Type	Total Acreage	Acreage Censused	Number of Burrows Found	Resultant Density
Improved Pastures (211)				
9-Hole Golf Course (100% census)	20.54	20.54	10	
Added Land (20.0% census)	79.09	15.80	15	
Totals:	99.63	36.34	25	0.42
Coniferous Plantations (441) (31.8% census)	12.77	4.06	9	1.36
Barren Land (700) (100% census)	2.84	2.84	4	0.87

ORDINANCE NO. 1380

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING THE ADOPTED ROCK SPRINGS RIDGE PLANNED UNIT DEVELOPMENT (PUD) MASTER PLAN, ORDINANCE NO. 1220, TO REPLACE IN ITS ENTIRETY; PROVIDING FOR DIRECTION TO THE CITY CLERK; FOR SEVERABILITY; FOR CONFLICTS; AND AN EFFECTIVE DATE.

WHEREAS, the City of Apopka, Florida, recognizes that it is on the brink of a period of rapid growth; and

WHEREAS, to manage the growth, the City of Apopka, Florida, finds it in the best interest of the public health, safety and welfare of its citizens to establish zoning classifications for the properties within the City; and

WHEREAS, the owners of record of the property described herein, have requested that certain items included in Ordinance No. 1220, designating the zoning for said property as PUD, be amended; and

WHEREAS, on September 1, 1999, City Council approved the 1st Amendment to the Rock Springs Ridge PUD Master Plan, Ordinance No. 1220; and

WHEREAS, said ordinance No. 1380 shall replace in it's entirety the previous adopted Rock Springs Ridge PUD Master Plan.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Apopka, Florida, as follows:

SECTION I: That the zoning classification of the following described property, being situated in the City of Apopka, Florida, is hereby designated as Planned Unit Development (PUD) as defined in the Apopka Land Development Code.

Legal Description:

Commencing at the Southwest corner of Section 21, Township 20 South, Range 28 East, Orange County, Florida; thence along the South line of said section run South 89 degrees 43' 49" East a distance of 166.22 feet; thence North 00 degrees 09' 06" East a distance of 1328.50 feet; thence North 89 degrees 42' 09" West a distance of 166.18 feet; thence South 89 degrees 57' 32" West a distance of 667.91 feet; thence North 00 degrees 05' 28" East a distance of 666.30 feet; thence North 89 degrees 52' 23" West a distance of 668.61 feet; thence North 00 degrees 01' 51" East a distance of 668.26 feet; thence North 89 degrees 42' 20" West a distance of 669.31 feet; thence North 00 degrees 01' 31" West a distance of 2564.30 feet; thence North 00 degrees 32' 09" East a distance of 658.61 feet; thence South 89 degrees 33' 53" East a distance of 1341.44 feet; thence North 00 degrees 16' 07" East a distance of 659.60 feet; thence North 89 degrees 36' 26" West a distance of 501.67 feet; thence North 00 degrees 22' 08" East a distance of 824.03 feet; thence North 89 degrees 40' 48" West a distance of 1000.89 feet; thence South 00 degrees 34' 47" West a distance of 822.76 feet; thence North 89 degrees 36' 26" West a distance of 501.96 feet; thence North 89 degrees 54' 17" West a distance of 837.28 feet; thence South 00 degrees 47' 58" West a distance of 1319.35 feet; thence South 89 degrees 53' 05" West a distance of 1848.65 feet along the South line of Section 17, Township 20 South, Range 28 East, Orange County, Florida; thence along the West line of said Section 17 North 01 degrees 04' 57" East a distance of 2652.47 feet and North 01 degrees 05' 18" East a distance of 1329.39 feet; thence South 89 degrees 38' 22" East a distance of 2659.92 feet along the South line of the North 1/4 of said Section 17; thence South 00 degrees 40' 11" West a distance of 331.70 feet; thence South 89 degrees 34' 43" East a distance of 1327.76 feet; thence North 00 degrees 24' 46" East a distance of 330.82 feet; thence South 89 degrees 32' 26" East a distance of 1326.27 feet; thence North 00 degrees 09' 16" East a distance of 1289.75 feet; thence South 89 degrees 45' 48" East a distance of 1324.52 feet along the South R/W line of Kelley Park Road (60 foot R/W); thence South 00 degrees 05' 51" West a distance of 2607.39 feet along the East line of the West ½ of the Northwest 1/4 of Section 16, Township 20 South, Range 28 East, Orange County, Florida; thence North 89 degrees 51' 15" West a distance of 1327.11 feet; thence South 00 degrees 08' 08" West a distance of 2640.42 feet along the East line of said Section 17; thence South 89 degrees 32' 44" East a distance of 2658.65 feet and South 89 degrees 33' 01" East a distance of 1544.13 feet along the North line of said Section 21; thence South 00 degrees 26' 59" West a distance of 20.00 feet; thence South 89 degrees 33' 01" East a distance of 1044.15 feet; thence along the West R/W line of State Road 435 (Rock Springs Road) South 00 degrees 23' 28" West a distance of 738.70 feet; thence North 89 degrees 36' 32" West a distance of 10.00 feet; thence South 00 degrees 23' 28" West a distance of 100.00 feet; thence South 89 degrees 36' 32" East a distance of 10.00 feet; thence South 00 degrees 23' 27" West a dista[illegible] feet; thence along said R/W and a curve concave to the East having a radius of 11509.16 [illegible] angle of 2 degrees 23' 38", and an arc length of 480.87 feet; thence along the R/W and a cur[illegible] the West having a radius of 11409.16 feet, a central angle of 2 degrees 23' 38", and an arc le[illegible]

48" East a distance of 1000.89 feet; thence South 00 degrees 22' 08" West a distance of 824.03 feet to a point on the North line of the Northwest 1/4 of the Southeast 1/4 of the Southeast 1/4 of said Section 17; thence along said north line South 89 degrees 36' 26" East a distance of 501.67 feet to a point on the East line of the Northwest 1/4 of the Southeast 1/4 of the Southeast 1/4 of said Section 17; thence along said east line South 00 degrees 16' 07" West a distance of 659.60 feet to a point on the South line of the North ½ of the South ½ of the Southeast 1/4 of said Section 17; thence along said South line, North 89 degrees 33' 53" West a distance of 1341.44 feet to a point on the East line of the West ½ of the Southwest 1/4 of the Southeast 1/4 of said Section 17; thence along said East line, South 00 degrees 32' 09" West a distance of 658.61 feet to the POINT OF BEGINNING.

SECTION II: That the Rock Springs Ridge PUD Master Plan (entitled 2nd P.U.D. Master Plan Amendment) attached hereto, as Exhibit "A" and incorporated herein by reference, shall establish the zoning criteria for the property described in Section I of this Ordinance.

SECTION III: That the property being so designated is subject to the purposes and uses designated for the Planned Unit Development (PUD) Zoning classification.

SECTION IV: That the zoning classification is consistent with the Comprehensive Plan of the City of Apopka, Florida.

SECTION V: That the City Clerk, or the Clerk's designee, is hereby authorized to amend, alter and implement the official zoning maps of the City of Apopka, Florida, to include said designation.

SECTION VI: That if any section or portion of a section or subsection of this Ordinance proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force or effect of any other section or portion of a section or subsection or part of this ordinance.

SECTION VII: That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION VIII: That this ordinance shall take effect upon passage and adoption or at any subsequent date as dictated by Florida Statutes.

READ FIRST TIME: November 15, 2000

READ SECOND TIME
AND ADOPTED: December 6, 2000

John H. Land, Mayor

ATTEST:

Connie V. Mayor, City Clerk
Libby Tyler, Deputy City Clerk

APPROVED AS TO FORM

Frank C. Kruppenbacher, City Attorney

DULY ADVERTISED FOR PUBLIC HEARING: October 27, 2000
November 24, 2000

Post-it Fax Note 7671 Date 12/14 # of pages 1
To Gina
Dept. 681-0247
From Traci Walker
Phone # 488-6661

FLORIDA GAME AND FRESH WATER FISH COMMISSION

MRS. GILBERT W. HUMPHREY, Chairman, McClenny
THOMAS B. KIBLER, Tampa
T. ALLEN, Lakeland
TAMI ADAMS, JR., Bushnell
JULIE K. MORRIS, Sarasota

ALLEN L. EGBERT, JR., Executive Director
VICTOR J. HELLER, Assistant Executive Director

December 11, 1998

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, DIRECTOR
FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, FL 32399-1600
(850) 488-6661
SUNCOM 278-6661
FAX (850) 922-5679
TDD (850) 488-9542

Mr. Douglas J. Rillstone
Greenberg Traurig, P.A.
Post Office Drawer 1838
Tallahassee, FL 32302

Dear Mr. Rillstone

Per your 7 December 1998 request, we are amending Condition #2 of Permit #ORA-54 to read as follows:

2. This permit will not go into effect until the permittee has obtained a receipt from the GFC for the mitigation funds specified under condition #1. As described in the permit Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within this prescribed time period, the permittee will be notified by the GFC. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.

All other conditions remain unchanged.

Sincerely,

Bradley J. Hartman, Director
Office of Environmental Services

BJH/tgw
ENC: [illegible]
cc: Orange County Planning Department

RECEIVED
DEC 14 1998
GAE [illegible]

554
EXHIBIT

ATTACHMENT 3

BDA

ENVIRONMENTAL CONSULTANTS

LETTER OF TRANSMITTAL

DATE: May 15, 2001

TO: Mr. Stephen Lau
COMPANY: Florida Fish and Wildlife Conservation Commission

FROM: Ms. Darla J. Miller
E-MAIL: darla@bda-inc.com
PROJECT NO.: 98035-80.2
PROJECT NAME: **Rock Springs Ridge**

RE: Application for Gopher Tortoise Incidental Take Permit

☐ Pick-up ☐ Courier ☐ U.S. Mail ☒ Overnight ☐ Hand-deliver

Copies	*Dated*	*Description*
1	May 15, 2001	Enclosed please find the application for a gopher tortoise incidental take permit for the above referenced project site. If you have any questions, please contact our office.

If you have any problems with this transmittal, please feel free to contact us at (407) 677-1882.

Thank you.

Remarks: ☐ For your use ☐ As requested ☒ For review and comment ☐ For approval

Other: _____

cc: James H. Fant
Douglas J. Rillstone
W. Michael Dennis
PF

Signed: Elizabeth Arnett for Darla J. Miller, B.S.
Senior Scientist

P:\ADMIN\PROJECTS\98035-80\TS LAU GT-TP.DOC

BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. CANTON AVENUE / WINTER PARK, FLORIDA 32789 (407) 677-1882 FAX (407) 657-7008

BDA
ENVIRONMENTAL CONSULTANTS

98035-80.2

APPLICATION FOR GOPHER TORTOISE INCIDENTAL TAKE PERMIT FOR THE REMAINING PORTIONS OF THE ROCK SPRINGS RIDGE PROJECT SITE ORANGE COUNTY, FLORIDA

Submitted to:

Mr. Stephen Lau
Florida Fish and Wildlife Conservation Commission
255 154th Avenue
Vero Beach, Florida 32968
Phone: 561-778-5094
Fax: 561-778-7227

Submitted on behalf of:

Rock Springs Ridge, Ltd.
Rock Springs, Inc. G.P.
401 West Colonial Drive
Suite 7
Orlando, Florida 32804
Phone: 407-425-8276
Fax: 407-425-8571

May 15, 2001

Submitted by:

Darla J. Miller, B.S.
Senior Scientist

W. Michael Dennis, Ph.D.
President

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EXHIBIT 2 PREVIOUSLY PERMITTED AND REMAINING AREAS ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

EXHIBIT 3 LOCATION OF THE ON-SITE MITIGATION PARCEL, ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

EXHIBIT 4 ORIGINAL FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM FOR THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

EXHIBIT 5 FLORIDA LAND USE AND COVER CLASSIFICATION SYSTEM MAP FOR THE REMAINING PORTIONS OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

EXHIBIT 6 SOILS ON THE REMAINING UNPERMITTED PORTIONS OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

EXHIBIT 7 MITIGATION ACREAGE SUMMARY ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

EXHIBIT 8 NOVEMBER 2, 1999 CENSUS OF THE 50.75-ACRE MITIGATION PARCEL ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

EXHIBIT 9 MARCH/APRIL 2001 CENSUS OF THE 50.75-ACRE MITIGATION PARCEL ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

1.0 INTRODUCTION

The Rock Springs Ridge project (Project) site is located in Sections 16, 17, 20, and 21, Township 20 South, Range 28 East in Orange County, Florida. The original project included approximately 914 acres. Subsequently, approximately 227 acres was added to the Project site, so that the overall project now totals approximately 1,141 acres. Exhibit 1 reflects both the original and new project boundaries. Permits for the incidental take or the relocation of gopher tortoises (*Gopherus polyphemus*) have been obtained for portions of the Project site (Exhibit 2). Three Incidental Take Permits (ITPs) have been issued for three phases of work on this site (Permit Nos. ORA-36, ORA-39, and ORA-54) and two relocation permits have been issued for other phases of work on this site (Permit Nos. WR00017 and WR00138). Development within those areas subject to the ITPs and the relocation permits has been either commenced or completed. The remaining undeveloped area within the Project site includes a total of 432.91 acres (Exhibit 2).

On October 21, 1998, Douglas J. Rillstone, Esquire, Greenberg Traurig, P.A., met with Mr. Bradley J. Hartman, director, Office of Environmental Services, Florida Fish and Wildlife Conservation Commission (FWC), to review the various options to address impacts to the gopher tortoise population within the Project. It is our understanding that the FWC has no objection to the Applicant relying on the gopher tortoise population density data for the Project collected by Ms. Yvonne I. Froscher, president, Yvonne I. Froscher, Inc. and presented to the FWC in the report dated April 12, 1996. It was apparent that the gopher tortoise population had dramatically changed following the first two ITPs issued for the site (the densities increased significantly). Therefore, it was agreed that these data would be the base density data to support applications for future ITP applications submitted to the FWC. It was also agreed upon at this meeting that the data would be accepted for a period of five years from the date of the meeting (i.e. until October 21, 2003). Therefore, the densities described herein are based either upon the data collected by Ms. Froscher or upon

data collected by Breedlove, Dennis & Associates, Inc. (BDA) during specific site surveys (for other applications). The Applicant increased the overall Project area through a land purchase and the additional land included some land use codes not described by Ms. Froscher. Therefore, the data from the 100% census of the cover types, for the gopher tortoise relocation permits, were used for these areas.

Proposed development of the Project site includes single-family housing and the related master stormwater drainage system. The St. Johns River Water Management District (SJRWMD) has issued a Mass Grading Permit for the remaining phases on the Project site (Appendix). In order to address the gopher tortoise population within the remaining portions of the Project site, BDA is requesting an ITP from the FWC. Mitigation of the impacts to the gopher tortoises will include on-site habitat preservation and management of 51.77 acres and the donation of funds to the FWC. This Application is being submitted on behalf of Rock Springs Ridge, Ltd. (Applicant and Permittee).

2.0 PROJECT SITE

2.1 Response

Chapter 68A-27.005(1)(a), Florida Administrative Code, provides for the protection of wildlife designated by FWC as a Species of Special Concern (SSC). The current FWC policies prohibit the incidental take of a gopher tortoise without a permit from the FWC and allows five options for the developer that conducts land-clearing activities that may "incidentally take" gopher tortoises. These options include:

- Avoidance of an area occupied by gopher tortoises (on-site preservation).
- Avoiding individual burrows.
- Application for an ITP.
- Gopher tortoise relocation off-site.
- Gopher tortoise relocation on-site.

All five options were considered during the construction planning for the remaining portions of the Project. Of these options, a combination of on-site habitat preservation and maintenance and a monetary donation was considered the most viable for the Project. Two areas have been targeted to be preserved as part of the overall mitigation plan. These areas are directly adjacent to the previously provided mitigation areas and will serve to increase the 43.84-acre area designated as Mitigation Area B (Exhibit 3) by adding 1.02 acres to the westernmost boundary and 50.75 acres to the easternmost boundary.

2.2 Ecological Conditions

2.2.1 Vegetation

The land use data that were presented in Ms. Froscher's report are depicted on Exhibit 4. The cover types on the remaining portions of the Project site consists of Major Long Distant Transmission Lines (152), Improved Pasture (211), Other Agricultural (260), Xeric Oak (421), Other Hardwood (422), Upland Mixed Forest (431), Coniferous Plantations (441), and Barren Land (700) (Exhibit 5). The acreages as presented below, for each of the upland habitats include the entire remaining Project site, which includes those areas proposed as on-site preservation.

Major Long Distant Transmission Lines (152) comprises 6.82 acres and is located within the easternmost portion of Mitigation Area B. This area is routinely maintained and contains primarily pastures grasses such as bahiagrass (*Paspalum notatum*).

Improved Pasture (211) comprises 99.63 acres and is located primarily within the southwestern portion of the Project site. These areas are maintained grassy areas. The primary species within these areas include bahiagrass.

Other Agricultural (260) is scattered throughout the Project site and includes those areas that were historically grove areas. These areas comprise a total of 137.60 acres. Vegetation within these areas consist primarily of black cherry (*Prunus serotina*) and laurel oak (*Quercus laurifolia*) within the canopy and sapling size citrus (*Citrus* sp.) within the subcanopy. Vegetation within the groundcover consists of a mixture of bahiagrass, natalgrass (*Rhynchelytrum repens*), prickly-pear cactus (*Opuntia humifusa*), shrub verbena (*Lantana camara*), and Hercules-club (*Zanthoxylum clava-herculis*).

The Xeric Oak (421) cover type comprises 148.35 acres. The primarily vegetation found within this area consists of sapling-size black cherry, live oak (*Quercus virginiana*), persimmon (*Diospyros virginiana*), and scattered Hercules-club. The groundcover consists of prickly-pear cactus, broomsedge (*Andropogon virginicus*), natalgrass, grape (*Vitis* sp.), and catbrier (*Smilax* sp.).

Other Hardwood (422) accounts for 1.54 acres and includes vegetation such as dense laurel oak with scatted live oak and scrub oak (*Quercus inopina*). Vegetation within the groundcover is limited and consists of scattered wiregrass (*Aristida stricta*), prickly-pear cactus, dog fennel (*Eupatorium capillifolium*), bahiagrass, and natalgrass.

Upland Mixed Forest (431) comprises 25.47 acres and is scattered throughout the Project. Vegetation within these areas include longleaf pine (*Pinus palustris*) which share an almost equal dominance with laurel oak, live oak, and sand live oak (*Quercus virginiana* var. *geminata*).

Coniferous Plantations (441), includes vegetation that is typically dominated by planted pine (*Pinus* sp.), slash pine (*Pinus elliottii*) and scattered live oak. Additional species associated with this area include prickly-pear cactus, bahiagrass, and wiregrass. This cover type comprises a total of 12.77 acres.

Barren Land (700) is devoid of much vegetation. This is a 0.73 acre area adjacent to an old borrow pit. This land use includes the old spoil that was cast to the side from the borrow pit.

2.2.2 Soils

The Natural Resources Conservation Service soil survey for the Project (Exhibit 6) includes the following map units:

03	Basinger fine sand, depressional
04	Candler fine sand, 0 to 5% slopes
05	Candler fine sand, 5 to 12% slopes
06	Candler-Apopka fine sand, 5 to 12% slopes
08	Candler-Urban land complex, 5 to 12% slopes
47	Tavares-Urban land complex, 0 to 5% slopes

2.3 Survey Methodology

As previously described, Mr. Rillstone met with Mr. Hartman on October 21, 1998 to review the various options to address impacts to the gopher tortoise population within the Project. It is our understanding that the FWC has no objection to the Applicant relying on the gopher tortoise population density data for the Project collected by Ms. Froscher, and presented to the FWC in the report dated April 12, 1996. It was apparent that the gopher tortoise population had dramatically changed following the first two ITPs issued for the site (the densities increased significantly). Therefore, it was agreed that these data would be the base density data to support applications for future ITP applications submitted to the FWC. It was also agreed upon at this meeting that the data would be accepted until October 21, 2003. Therefore, the densities described herein are based either upon the data collected by Ms. Froscher or upon data collected by BDA during specific site surveys (for other applications). Therefore, no additional surveys were required for this Application.

3.0 MITIGATION PARCEL

3.1 Situation

Three previous ITPs were issued for the Project, Permit No. ORA-39 for Phase I, Permit No. ORA-36 for the golf course and entrance road, and Permit No. ORA-54 for Phase II (Exhibit 2). The mitigation included within these permits included two mitigation areas (Mitigation Areas A and B) (Exhibit 2). A 1.02-acre portion along the western end of Mitigation Area B has not been previously dedicated as mitigation as well as a 50.75-acre tract in the northeastern corner of the Project site (Exhibit 3). Therefore, a total of 51.77 acres remain on site for use as mitigation for this Application. By adding these areas to the previously dedicated piece of Mitigation Area B (43.84 acres), a total of 95.61 acres will be preserved within this portion of the Project (Exhibit 3).

3.1.1 Site-Specific Conversion Factor

Ms. Froscher conducted an on-site study to determine if the standard inter-burrow conversion factor (0.614) applies to this site. It was determined that a more accurate site-specific conversion factor (SSCF) for this site is 0.34 within the Other Agriculture (260) cover type. This SSCF has been approved by the FWC and used in the previously issued ITPs. This SSCF is valid and has been used for this Application.

3.2 Ecological Conditions

3.2.1 Vegetation

Vegetative communities within the areas within Mitigation Area B proposed as mitigation includes the following cover types: Major Long Distant Transmission Lines (152) (6.82 acres), Other Agricultural (260) (10.90 acres), Xeric Oak (421) (25.23 acres), and Upland Mixed Forest (431) (8.82 acres) (Exhibit 5). These land use cover types have been described above.

3.2.2 Soils

Soils within Mitigation Area B are depicted on Exhibit 6. The soil types found on-site primarily includes Candler fine sand, 0 to 5% slopes (04), Candler fine sands, 5 to 12% slopes (05), Candler-Apopka fine sands, 5 to 12% slopes (06), Candler-Urban land complex, 5 to 12% slopes (08), and Tavares-Millhopper fine sands, 0 to 5% slopes (47).

3.2.3 Survey Methodology

In order to determine the population status within the mitigation area, pedestrian transects were conducted on November 2, 1998 and again in March/April 2001 within Mitigation Area B. FWC guidelines (Cox, et al. 1987) were followed in order to determine the gopher tortoise density within the relocation area.

A survey of 15% of the suitable habitat was conducted during the 1998 census and a total of 20 "inactive" and "active" burrows were found within Mitigation Area B (Exhibits 7 and 8). A survey of 15% of the suitable habitat was conducted during the 1998 census and a total of 28 "inactive" and "active" burrows were found within Mitigation Area B during the 2001 census (Exhibit 9). The change in status of

"active" to "inactive" and "inactive" to "old" and the presence of "new" burrows and evidence of juvenile burrows and shells, indicate that this area is currently well suited gopher tortoise habitat.

4.0 MITIGATION ALTERNATIVE

Based on the previous work conducted on-site by both BDA and Ms. Froscher, a total of 58.29 acres of mitigation will be required to offset the "incidental take" of gopher tortoises within the remaining phases of the Project. Mitigation proposed for impacts to this SSC is a combination of on-site preservation and donation of funds to the FWC.

4.1 On-Site Preservation

A total of 43.84 acres have been previously used as mitigation within Mitigation Area B under Permit No. ORA-36 and Permit No. ORA-54. A total of 51.77 acres adjacent to Mitigation Area B has not been used as mitigation for the other ITPs (Exhibit 3). As noted above a total of 58.29 acres are needed to offset the "incidental take" of gopher tortoises within the remaining phases of the Project. Therefore, an additional 6.52 acres of mitigation is needed to fully offset the proposed impacts.

4.2 Donation of Funds

The remaining 6.52 acres will be offset through the donation of funds to the FWC. The FWC has, in the past, required a total of $6,717.00 per acre of mitigation to offset the taking of gopher tortoise burrows and their habitat. Therefore, if a total of 6.52 acres remain unmitigated, the Applicant proposes to provide the FWC a total of $43,794.84 to complete the mitigation required for the remaining phases of the Project.

5.0 SUMMARY

On behalf of Rock Springs Ridge, Ltd., BDA requests an ITP for the remaining phases of the Project. Based on previous studies conducted on the site, a total of 58.29 acres of mitigation would be required for the remaining phases of the Project. On-site preservation has been permitted for other ITPs issued for this site. The Applicant proposes to extend Mitigation Area B to include an additional 51.77 acres of preservation. The remaining 6.52 acres of needed mitigation will be offset through the donation of funds to the FWC. The FWC has, in the past, required a total of $6,717.00 per acre of mitigation to offset the taking of gopher tortoise burrows and their habitat. Therefore, if a total of 6.52 acres remain unmitigated, the Applicant proposes to provide the FWC a total of $43,794.84 to complete the mitigation required for the remaining phases of the Project.

This ITP includes all of the remaining phases of development within the ownership of the Applicant. Therefore, once this ITP is issued, no further permitting should be required by the FWC for this SSC on this site.

APPENDIX

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT PERMIT

WATER MANAGEMENT DISTRICT

POST OFFICE BOX 1429 PALATKA, FLORIDA 32178-142
TELEPHONE 904-329-4500 1-800-451-7106 SUNCOM 904-860-500
TDD 904-329-4450 TDD SUNCOM 860-4450
FAX (Executive) 329-4125 (Legal) 329-4495 (Permitting) 329-4315 (Administration/Finance) 329-45

SERVICE CENTERS

618 E. South Street
Orlando, Florida 32801
407-897-4300
1-800-225-1658
FAX 407-897-4351
TDD 407-897-5960

7775 Baymeadows Way
Suite 102
Jacksonville, Florida 32256
904-730-6270
1-800-852-1563
FAX 904-730-6287
TDD 904-448-7900

PERMITTING:
525 Community College
Parkway
Palm Bay, Florida 32907
321-984-4940
FAX 321-984-4937

OPERATIONS:
525 Community College
Parkway
Palm Bay, Florida 32907
321-409-2100

CERTIFIED # 70000600002336413724

Rock Springs Ridge, LTD.
401 W. Colonial Dr. Suite 7
Orlando, FL 32804

RE: Written Notice of Intended District Decision on Permit Application 4-095-20965-4
In Orange County

Dear Sir/Madam:

The staff of the St. Johns River Water Management District has completed its review of the above-referenced application. Enclosed is a copy of the Technical Staff Report (TSR) which states that staff will recommend approval of the application with those conditions contained in the TSR. This TSR constitutes a notice of the District's intent to grant the permit application. If you disagree with any part of the TSR, you should immediately contact the District staff to discuss your concerns. Please refer to the enclosed Notice of Rights which describes any rights you may have and important time frames regarding the proposed agency action.

You are entitled to address the Governing Board concerning the application. However, whether you do so or not is solely your decision. The staff recommendation, any presentation by you or others, and any objections will be considered in the Board's final permit decision.

The Governing Board will consider your application at 1:00 p.m. on February 13, 2001, or as soon thereafter as it may come to be heard at: St. Johns River Water Management District Headquarters, 4049 Reid St., Palatka, FL 32178. Agenda items scheduled for action on Tuesday, February 13, 2001, may be postponed for consideration at the Governing Board meeting which begins at 9:00 a.m. on February 14, 2001.

Sincerely,

Gloria Lewis, Director
Division of Permit Data Services

Enclosures: Technical Staff Report
Notice of Rights

January 30, 2001

cc: District File

William Kerr, CHAIRMAN, MELBOURNE BEACH
Ometrias D. Long, VICE CHAIRMAN, APOPKA
Jeff K. Jennings, SECRETARY, MAITLAND
Duane Ottenstroer, TREASURER, SWITZERLAND
Dan Roach, FERNANDINA BEACH
William M. Segal, MAITLAND
Ora Mason, ST. AUGUSTINE
Clay Albright, EASTLAKE WEIR
Reid Hughes, DAYTONA BEACH

Notice Of Rights

1. A person whose substantial interests are or may be determined has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District), or may choose to pursue mediation as an alternative remedy under Sections 120.569 and 120.573, Florida Statutes, before the deadline for filing a petition. Choosing mediation will not adversely affect the rights to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth in Sections 120.569 and 120.57, Florida Statutes, and Rules 28-106.111 and 28-106.401-.405, Florida Administrative Code. Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka, Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) within twenty-six (26) days of the District depositing notice of District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail actual notice). A petition must comply with Chapter 28-106, Florida Administrative Code.

2. If the Governing Board takes action which substantially differs from the notice of District decision, a person whose substantial interests are or may be determined has the right to request an administrative hearing or may choose to pursue mediation as an alternative remedy as described above. Pursuant to District Rule 40C-1.1007, Florida Administrative Code,the petition must be filed at the office of the District Clerk at the address described above, within twenty-six (26) days of the District depositing notice of final District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of its final agency action (for those persons to whom the District does not mail actual notice). Such a petition must comply with Rule Chapter 28-106, Florida Administrative Code.

3. A substantially interested person has the right to a formal administrative hearing pursuant to Section 120.569 and 120.57(1), Florida Statutes, where there is a dispute between the District and the party regarding an issue of material fact. A petition for formal hearing must comply with the requirements set forth in Rule 28-106.201, Florida Administrative Code.

4. A substantially interested person has the right to an informal hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.

5. A petition for an administrative hearing is deemed filed upon delivery of the petition to the District Clerk at the District headquarters in Palatka, Florida.

Notice Of Rights

6. Failure to file a petition for an administrative hearing, within the requisite time frame shall constitute a waiver of the right to an administrative hearing (Section 28-106.111, Florida Administrative Code).

7. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, and Chapter 28-106, Florida Administrative Code and Section 40C-1.1007, Florida Administrative Code.

8. An applicant with a legal or equitable interest in real property who believes that a District permitting action is unreasonable or will unfairly burden the use of his property, has the right to, within 30 days of receipt of notice of the District's written desision regarding a permit application, apply for a special master proceeding under Section 70.51, Florida Statutes, by filing a written request for relief at the office of the District Clerk located at District headquarters, P. O. Box 1429, Palatka, FL 32178-1429 (4049 Reid St., Palatka, Florida 32177). A request for relief must contain the information listed in Subsection 70.51(6), Florida Statutes.

9. A timely filed request for relief under Section 70.51, Florida Statutes, tolls the time to request an administrative hearing under paragraph no. 1 or 2 above (Paragraph 70.51(10)(b), Florida Statutes). However, the filing of a request for an administrative hearing under paragraph no. 1 or 2 above waives the right to a special master proceeding (Subsection 70.51(10)(b), Florida Statutes).

10. Failure to file a request for relief within the requisite time frame shall constitute a waiver of the right to a special master proceeding (Subsection 70.51(3), Florida Statutes).

11. Any substantially affected person who claims that final action of the District constitutes an unconstitutional taking of property without just compensation may seek review of the action in circuit court pursuant to Section 373.617, Florida Statutes, and the Florida Rules of Civil Procedures, by filing an action in circuit court within 90 days of the rendering of the final District action, (Section 373.617, Florida Statutes).

12. Pursuant to Section 120.68, Florida Statutes, a person who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to the Florida Rules of Appellate Procedure within 30 days of the rendering of the final District action.

13. A party to the proceeding before the District who claims that a District order is inconsistent with the provisions and purposes of Chapter 373, Florida Statutes, may seek review of the order pursuant to Section 373.114, Florida Statutes, by the Florida Land and Water Adjudicatory Commission, by filing a request for review with the Commission and serving a copy on the Department of Environmental Protection and any person named in the order within 20 days of adoption of a rule or the rendering of the District order.

Notice Of Rights

14. For appeals to the District Court of Appeal, a District action is considered rendered after it is signed on behalf of the District, and is filed by the District Clerk.

15. Failure to observe the relevant time frames for filing a petition for judicial review described in paragraphs #11 and #12, or for Commission review as described in paragraph #13, will result in waiver of that right to review.

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent by U.S. Mail to:

Rock Springs Ridge, LTD.
401 W. Colonial Dr. Suite 7
Orlando, FL 32804

at 4:00 p.m. this 30th day of January, 2001.

Gloria Lewis

Division of Permit Data Services
Gloria Lewis, Director

St. Johns River Water Management District
Post Office Box 1429
Palatka, FL 32178-1429
(904) 329-4152

Permit Number: 4-095-20965-4

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT
TECHNICAL STAFF REPORT
January 30, 2001
APPLICATION #: 4-095-20965-4

Applicant:

Rock Springs Ridge, LTD.
C/O James H. Fant
401 W. Colonial Dr. Suite 7
Orlando, FL
32804

Consultant:

Engineering and Environmental Design, Inc.
C/O Larry T. Ray
122 E. Colonial Drive Suite 200
Orlando, FL
32801

Mrs Darla Miller
C/O Breedlove, Dennis, Associates
330 West Canton Avenue
Winter Park, FL
32789

Project Name: Rock Springs Ridge Master Drainage Plan
Acres Owned: 1141.330
Project Acreage: 1141.330
County: Orange
Section(s): 16, 17, 20, 21 **Township(s):** 20S **Range(s):** 28E
Authority: 40C-4.041(2)(b)2, 40C-4.041(2)(b)5

Existing Land Use: herbaceous and forested uplands
Planning Unit: Wekiva River
Receiving Water Body: Groundwater **Class:** III Fresh
Final O&M Entity: Homeowners/Property Owners Association
O&M Submitted to General Counsel: Yes
ERP Conservation Easements/Restrictions: Yes

LOCATION AND BRIEF DESCRIPTION OF SYSTEM:

The Rock Springs Ridge project is located in the vicinity of Kelly Park Road (a.k.a. Rocks Springs Road) and CR. 435 (a.k.a. Park Avenue), in northwestern Orange County. The site is within the Wekiva River Hydrologic Basin, and lies just west and outside of the Wekiva River Protection Area. The site is not located within any of the zones specified in Section 11.3.3, AH/MSSW but because the site is greater than 120 acres. Water Quality Protection Zone criteria specified in Section 11.3.3(a)2 applies. Permits 4-095-0527-ERP, 40-095-0597-ERP through 40-095-0597M2-ERP have been issued for the master

surface water management system and Phase I and Phase II, respectively.

This application is for the modification of the master surface water management system previously permitted by Permit Number 4-095-0527-ERP for Rock Springs Ridge. The proposed modification includes the construction of liners within Ponds 7, 8, and 16 for golf course irrigation, the addition of approximately 227.33 acres within the associated master surface water management system, and the mass grading of Phases IV through VIII.

STAFF COMMENTS:

On November 12, 1996, the District issued Permit Number 4-095-0527-ERP for the construction of a master surface water management system for a 914.0 acre golf course residential development, as well as an 18-hole golf course, known as Rock Springs Ridge. The master surface water management system incorporated the existing land-locked basins, formed by the rolling topography, to provide storage of the water quality and water quantity volumes, and to meet the Most Effective Recharge standard (11.3, A.H.).

Standard General Environmental Resource Permits have been issued for subsequent residential phases that are consistent with the assumptions made under the master permit.

On January 6, 2000, the District issued Permit Number 40-095-62994-1 for the construction of an adjacent 85.25-acre 9-hole golf course. The surface water management system was designed to retain and percolate the runoff from the 25-year 96-hour storm event. Pond 2A previously permitted within the 9-hole golf course is a lined retention pond for golf course irrigation.

The project currently has Phases I and 2, an 18-hole golf course, and a clubhouse developed. Phase IIIA and the adjacent 9-hole golf course are currently under construction.

This application is for the modification of the previously issued permit to:

1. construct liners within Ponds 7, 8, and 16 for golf course irrigation;
2. incorporate an additional 227.33-acres into the project area boundary, with an associated master surface water management system; and
3. mass grade Phases IV through VIII.

Construction of Liners within Ponds 7, 8, and 16:
A modification to the permit is being requested to line Ponds 7, 8, and 16 in order to store reuse water for golf course irrigation. The reuse water will be imported below the initial stage assumed in the surface water management system design. A modification of the Consumptive Use Permit is currently und review.

Additional Property:
Since the issuance of this permit, additional property has been purchased. The property includes the adjacent 85.25-acre 9-hole golf course currently under construction pursuant to Permit 40-095-62994-1 and surrounding undeveloped areas. This application includes the modification of the master surface water management system to incorporate the additional 227.33-acres, based on the assumed built out condition of the total 1141.33-acre project area.

Mass Grading :
This application includes the mass grading of approximately 400-acres of the project site in preparation for future development. Material will be removed from an approximately 50.27-acre ridge within the future Phase IV development and stockpiled on individual lots within future Phases IV through VIII.

Master Surface Water Management System Design:
Stormwater runoff from the proposed project site will be conveyed to onsite retention basins that utilize the natural topography and existing land-locked basins. The design of the surface water management system for each drainage basin depends on the groundwater conditions in that basin. The majority of the basins will contain dry retention ponds, which will provide water quality storage, water quantity storage for the runoff from a 25-year 96-hour storm event, and recovery of the volumes by percolation. In some cases, based on information furnished by the applicant, the water quantity volume will not recover within the required 14-days following the 25-year 96-hour storm event; however, the applicant demonstrated that the basin could contain the volume for a second 25-year 96-hour design storm. In some areas, the golf course provides the storage area for the excess drainage.

Though this application does not include the placement of impervious surfaces, the master surface water management system is design based on the assumed built out condition of the basin. Staff recommends the placement of Other Condition Number 3 which would allow the applicant to obtain Standard General Environmental Resource Permits for subsequent phases that are consistent with the assumptions made under this permit.

There are no wetlands within the additional site area. The proposed project will have no unacceptable adverse secondary and cumulative impacts to wetlands, water quality, and upland habitat for aquatic and wetland dependent fish or wildlife "listed" as endangered, threatened, or of special concern. The proposed project is consistent with the wetland review criteria in sections 12.2 - 12.3.8, A.H./MSSW,ERP.

Wetland Summary Table Rock Springs Ridge Master Drainage Plan Residential

acres

Total Wetlands or Surface Waters On-site	0.00
Impacts that Require Mitigation	0.00
Impacts that Require No Mitigation	0.00
Mitigation	0.00

Recommendation: Approval

Conditions for Application Number 4-095-20965-4:

ERP General Conditions by Rule (October 03, 1995) :
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

ERP/MSSW/Stormwater Special Conditions (November 09, 1995) :
1, 4, 10, 13, 23, 28

OTHER CONDITIONS:

1. The surface water management system must be constructed and operated in accordance with the plans received by the District on November 29, 2000, as amended by Sheets 4 and 7, received by the District on December 22, 2000.

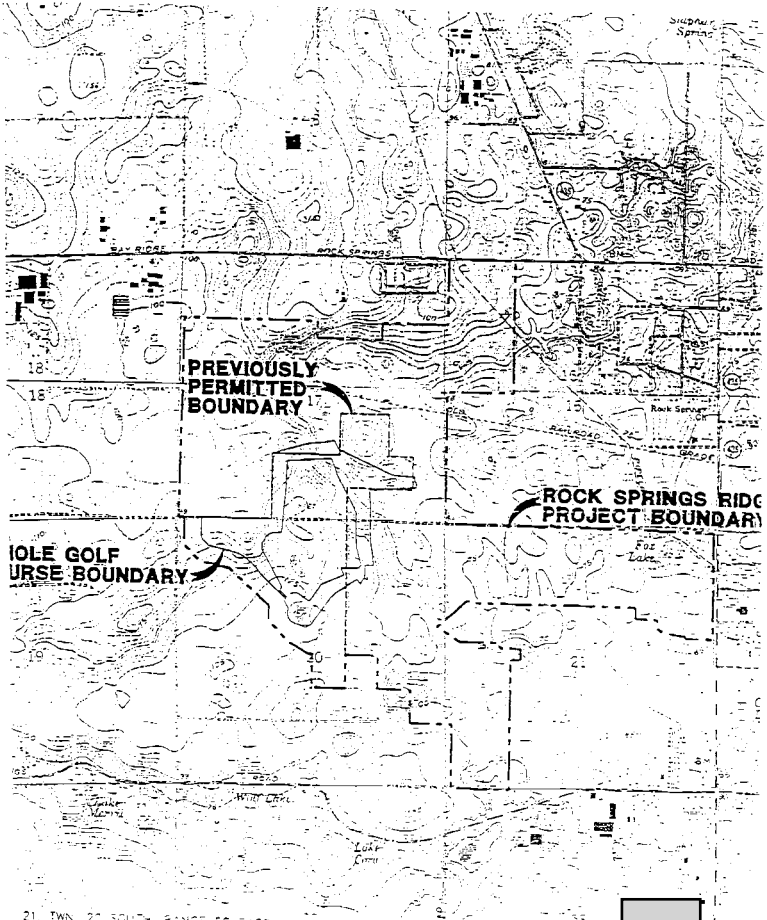
   The mass grading must be constructed in accordance with the plans entitled Rock Springs Ridge Mass Grading, received by the District on December 22, 2000.

2. This permit does not authorize encroachments into wetlands.

3. Prior to placement of impervious areas within the future residential tracts, the Permittee must obtain a General or Individual Environmental Resource Permit from the District. The permittee may obtain a Standard General Environmental Resource Permit for phases that are consistent with the assumptions made under this permit, and do not, in itself exceed the permitting thresholds of 40C-40.302, F.A.C.

4. The volume of water within the lined portions of Ponds 2A, 7, 8, and 16 may be augmented with water from other sources, subject to an allocation obtained under a Consumptive Use Permit. However, under no circumstances shall the level in the pond be increased by augmentation to a level above elevation 125 feet within Pond 2A, above elevation 67 feet within the lined portion of Pond 7, and above elevation 57 feet within the lined portion of Ponds 8 and 1

REVIEWERS: ELIZABETH JOHNS ARNOLD
MARJORIE D COOK



579

4-095-20965-4

ENVIRONMENTAL RESOURCE PERMITTING
GENERAL CONDITIONS
OCTOBER 3, 1995

1. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activities and the conditions for undertaking that activity shall constitute a violation of this permit.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which do not cause violations of state water quality standards.

4. Prior to and during construction, the permittee shall implement and maintain all erosion and sediment control measures (best management practices) required to retain sediment on-site and to prevent violations of state water quality standards. All practices must be in accordance with the guidelines and specifications in Chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988), which are incorporated by reference, unless a project specific erosion and sediment control plan is approved as part of the permit, in which case the practices must be in accordance with the plan. If site specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediment, beyond those specified in the erosion and sediment control plan, the permittee shall implement additional best management practices as necessary, in accordance with the specifications in chapter 6 of the Florida Land Development Manual: A Guide To Sound Land and Water Management (Florida Department of Environmental Regulation 1988). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

5. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.

6. At least 48 hours prior to commencement of activity authorized by this per permittee shall submit to the District a Construction Commencement Noti No. 40C-4.900(3) indicating the actual start date and the expected comple

to reflect any changes made during construction. Both the original and any revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor. The following information, at a minimum, shall be certified on the as-built drawings:

A. Dimensions and elevations of all discharge structures including all weirs, slots, gates, pumps, pipes, and oil and grease skimmers;

B. Locations, dimensions, and elevations of all filter, exfiltration, or underdrain systems including cleanouts, pipes, connections to control structures, and points of discharge to the receiving waters;

C. Dimensions, elevations, contours, or cross-sections of all treatment storage areas sufficient to determine stage-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems, when appropriate;

D. Dimensions, elevations, contours, final grades, or cross-sections of the system to determine flow directions and conveyance of runoff to the treatment system;

E. Dimensions, elevations, contours, final grades, or cross-sections of all conveyance systems utilized to convey off-site runoff around the system;

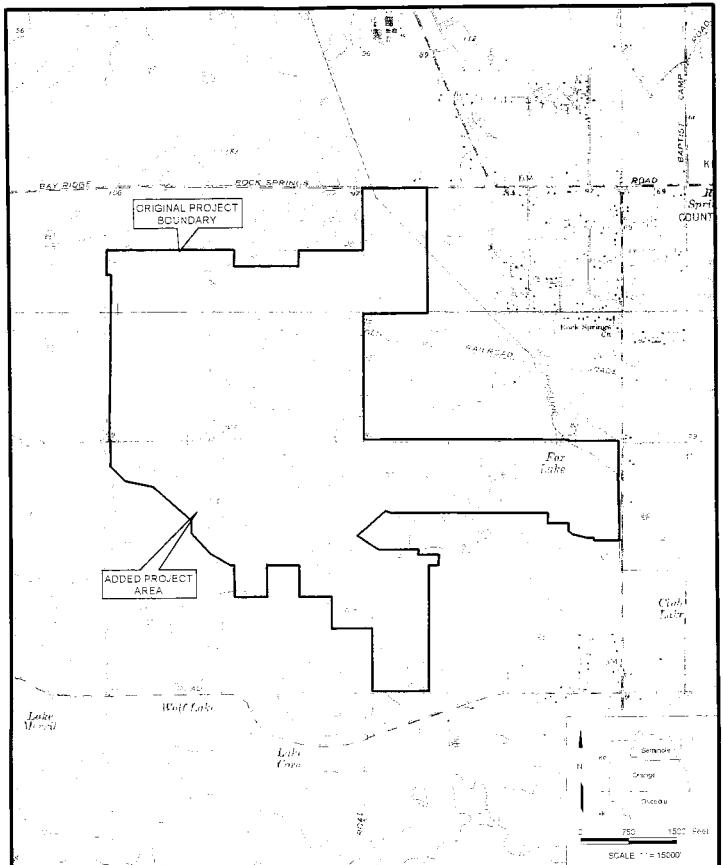
F. Existing water elevation(s) and the date determined; and

G. Elevation and location of benchmark(s) for the survey.

11. The operation phase of this permit shall not become effective until the permittee has complied with the requirements of general condition no. 9 above, the District determines the system to be in compliance with the permitted plans, and the entity approved by the District in accordance with subsections 7.1.1 through 7.1.4 of the Applicants Handbook: Management and Storage of Surface Waters, accepts responsibility for operation and maintenance of the system. The permit may not be transferred to such an approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall request trans: : of the permit to the responsible approved operation and maintenance entity, if different from the permittee. Until the permit is transferred pursuant to section 7.1 of the Applicants Handbook: Management and Storage of Surface Waters, the permittee shall be liable for compliance with the terms of the permit.

EXHIBIT 1

LOCATION OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA (SECTIONS 16, 17, 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST)



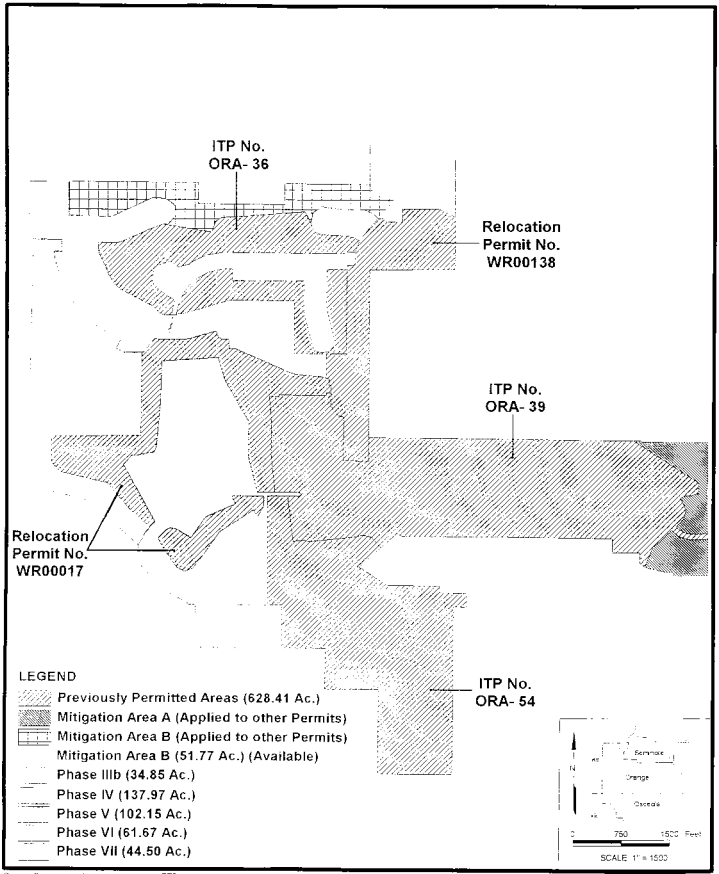
Source: USGS ARCPKA, Florida Sue MAPS! Digital Quads, Copyright 1997
Source: Boundary provided by EED

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P 407-677-1[illegible]

EXHIBIT 1 LOCATION OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORID
(SECTIONS 16, 17, 20, & 21, TOWNSHIP 20, RANGE 28 EAST.)

EXHIBIT 2

PREVIOUSLY PERMITTED AND REMAINING AREAS ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA



Source: Boundary and phases provided by EED

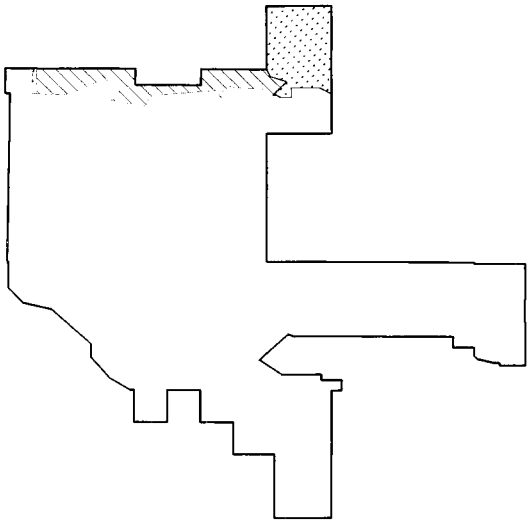
BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-18

585

EXHIBIT 2 PREVIOUSLY PERMITTED AND REMAINING AREAS ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA.

EXHIBIT 3

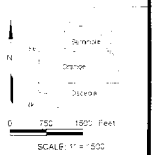
LOCATION OF THE ON-SITE MITIGATION PARCEL, ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA



LEGEND

Previously Used Portion of Mitigation Area B (43.84 Ac.)

Available Portion of Mitigation Area B (51.77 Ac.)



Source: Boundary provided by ESC

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.

330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-18

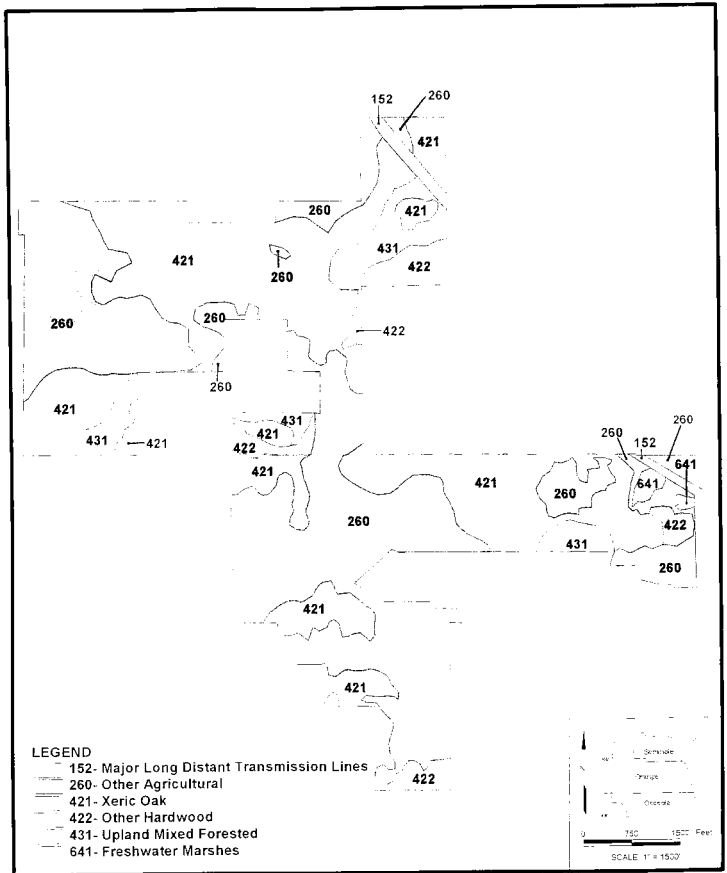
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7008

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EXHIBIT 3 LOCATION OF THE ON-SITE MITIGATION PARCEL, ROCK SPRINGS RIDGE PROJECT SI
ORANGE COUNTY, FLORIDA.

EXHIBIT 4

ORIGINAL FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM FOR THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA



Source: Boundary provided by EED. Vegetation Descriptions from Yvonne Fischer

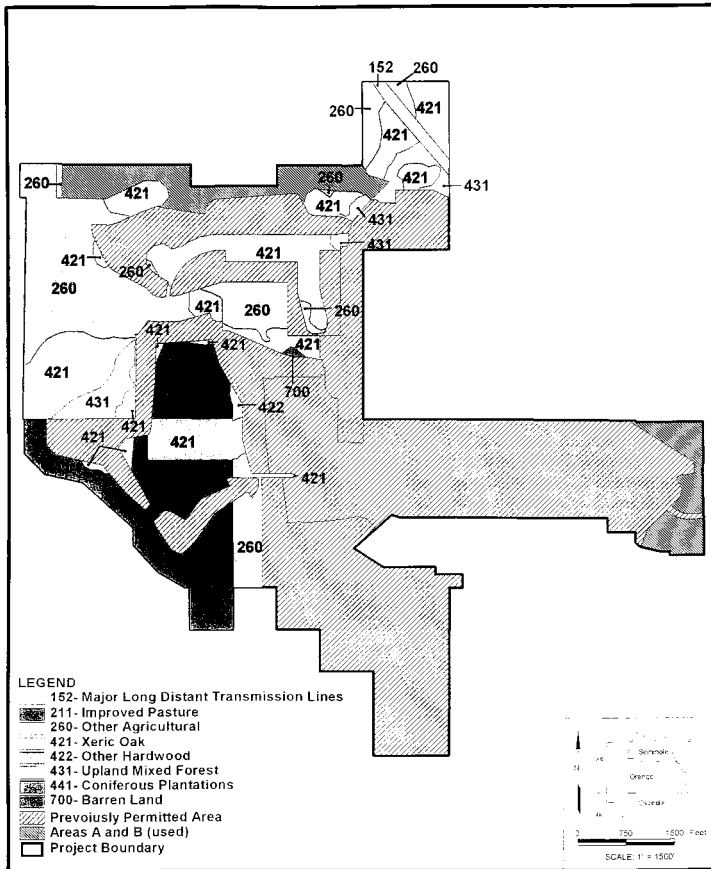
BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-1

589

EXHIBIT 4 ORIGINAL FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM MAP FOR THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA.

EXHIBIT 5

FLORIDA LAND USE AND COVER CLASSIFICATION SYSTEM MAP FOR THE REMAINING PORTIONS OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA



Source: Boundary provided by SED, FLUCFCS Based on Groundtruthing

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-18

Pla

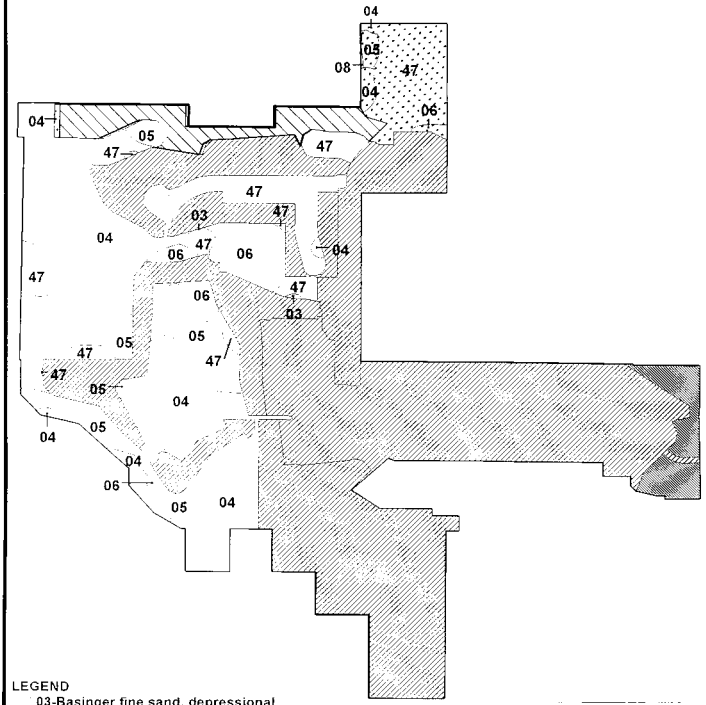
06-01
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ACS.prj
7008

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EXHIBIT 5 FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM MAP FOR THE RE PORTIONS OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA.

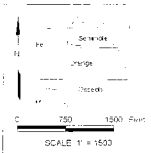
EXHIBIT 6

SOILS ON THE REMAINING UNPERMITTED PORTIONS OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA



LEGEND

- 03-Basinger fine sand, depressional
- 04- Candler fine sand, 0 to 5 percent slopes
- 05- Candler fine sand, 5 to 12 percent slopes
- 06- Candler-Apopka fine sands, 5 to 12 percent slopes
- 08- Candler-Urban land complex, 5 to 12 percent slopes
- 47- Tavares-Millhopper fine sands, 0 to 5 percent slopes
- Previously Permitted Areas
- Mitigation Area A
- Mitigation Area B (available)
- Mitigation Area B (used)
- Project Boundary



Source: FDOL, USDA-NRCS, 1998 Soil Survey Geographic (SSURGO) Database. Boundary provided by EE?

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-18

EXHIBIT 6 SOILS ON THE REMAINING UNPERMITTED PORTIONS OF THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA.

EXHIBIT 7

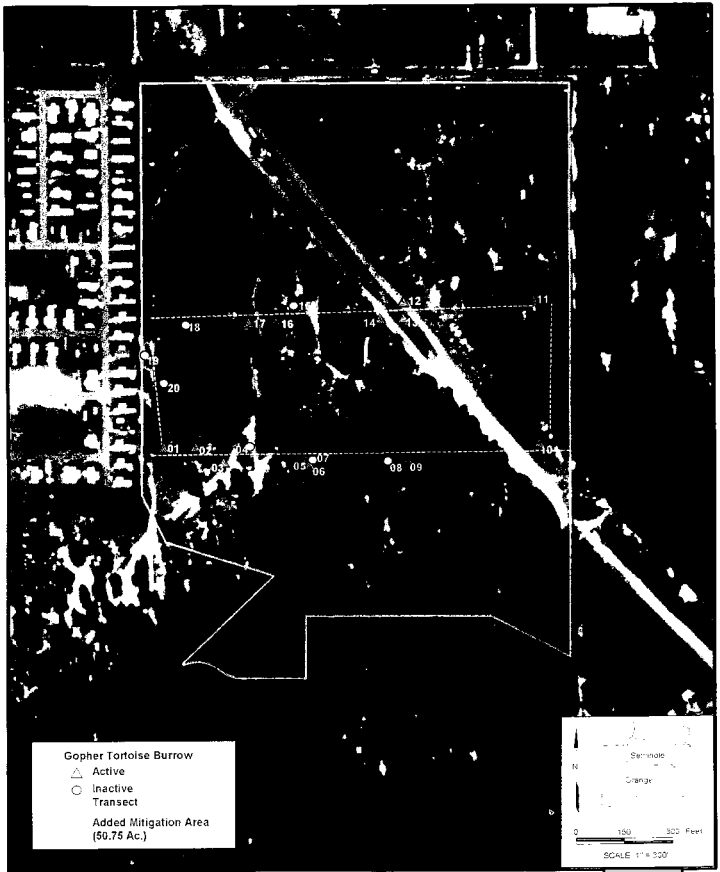
MITIGATION ACREAGE SUMMARY ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA

Exhibit 7. Mitigation Acreage Summary on the Rock Springs Ridge Project Site, Orange County, Florida.

Cover Type	Acreage	Gopher Tortoise Density	Basis for Mitigation Acreage	Mitigation Acreage	Mitigation Acreage Available	Remaining Mitigation Needed	Incidental Take Permit Cost
211	99.63	0.63	15%	14.94			
260	126.7	0.54	15%	19.01			
421	123.12	0.70	15%	18.47			
422	1.54	0.12	4.5%	0.07			
431	16.65	0.39	15%	2.50			
441	12.77	1.36	25%	3.19			
700	0.73	0.87	15%	0.11			
	381.14			58.29	51.77	6.52	$43,794.84

EXHIBIT 8

NOVEMBER 2, 1999 CENSUS OF THE 50.75-ACRE MITIGATION PARCEL ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA



Source: USGS APOPKA (NE Quater Quad 1:02/95
Source: Boundary provides by EED

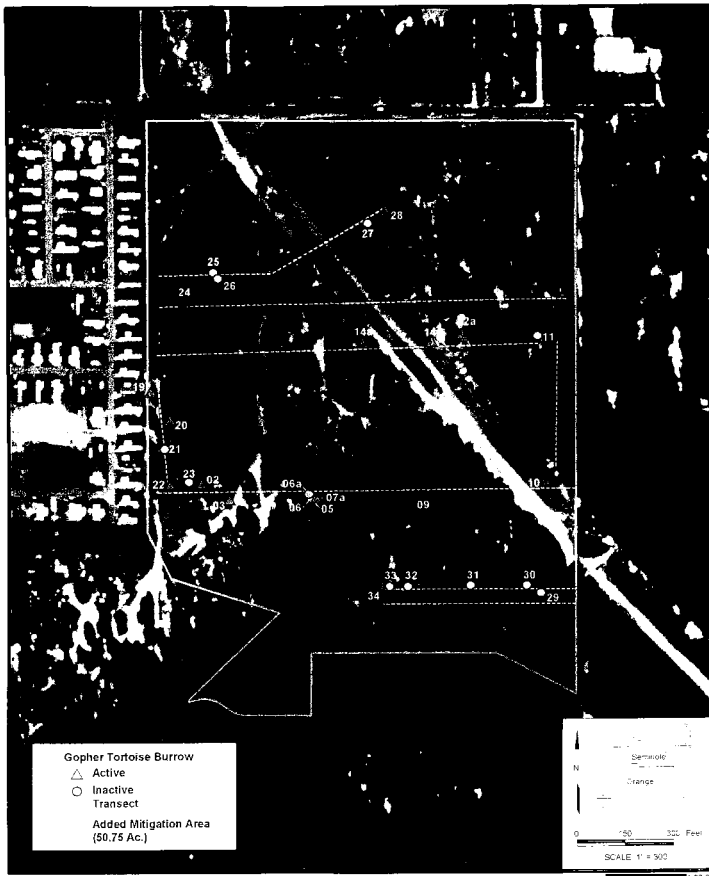
BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-1

597

EXHIBIT 8 NOVEMBER 2, 1999 CENSUS OF THE 50.75 ACRE MITIGATION PARCEL, ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA.

EXHIBIT 9

MARCH/APRIL 2001 CENSUS OF THE 50.75-ACRE MITIGATION PARCEL ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA



Source: USGS APOPKA, (NE Quarter Quad.) 02/95
Source: Boundary provided by EEC

BDA BREEDLOVE, DENNIS & ASSOCIATES, INC.
330 W. Canton Ave., Winter Park, FL 32789 P: 407-677-1[illegible]

4-05-01
PS per
031 pr.
7008

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EXHIBIT 9

APRIL, 2001 CENSUS OF THE 50.75 ACRE MITIGATION PARCEL, ON THE ROCK SPRINGS RIDGE PROJECT SITE, ORANGE COUNTY, FLORIDA.

STORAGE AGREEMENT FOR RECLAIMED WATER

THIS STORAGE AGREEMENT FOR RECLAIMED WATER (the "Agreement") is entered into this 23rd day of February, 2001 (the "Effective Date"), by and between **ROCK SPRINGS RIDGE, LTD.**, a Florida limited partnership, as the owner of an existing eighteen (18) hole golf course and **BDC GOLF COURSE, L.L.C.**, a Florida limited liability company, as the developer of an additional contiguous nine (9) hole facility (collectively, the "OWNERS"), and **THE CITY OF APOPKA**, a body politic of the State of Florida (the "CITY"), as the supplier of reclaimed water for the Rock Springs Master PUD. The parties desire to set forth their agreement concerning the construction, operation, and maintenance of reclaimed water storage facilities within the Rock Springs Master PUD. The OWNERS and CITY have agreed as follows:

1. Completed Construction and Connection of Holding Ponds. As of the Effective Date, the OWNERS have constructed and completed the following:

(a) A holding pond (**Pond #2**) adequately sized and lined to collectively accommodate reclaimed water storage capacity of approximately 4,990,000 gallons; and

(b) The piping, pumps, electrical and other facilities necessary to connect **Pond #2** and another holding pond (**Pond #8 East**); and

(c) The piping, pump, and valving necessary for the CITY to distribute reclaimed water from **Pond #2** to its existing recreational facility.

2. Future Construction and Connection of Holding Ponds. The OWNERS will construct and complete the following:

(a) A holding pond (**Pond #8 West**) adequately sized and lined to collectively accommodate reclaimed water storage capacity of approximately 7,060,000 gallons; and

(b) A holding pond (**Pond #7**) adequately sized and lined to collectively accommodate reclaimed water storage capacity of approximately 4,160,000 gallons; and

(c) A holding pond (**Pond #16**) adequately sized and lined to collectively accommodate reclaimed water storage capacity of approximately 4,150,000 gallons; and

(d) The piping, pumps, electrical and other facilities necessary to connect **Pond #7** to **Pond #8 West**; and

(e) The piping, pumps, electrical and other facilities necessary to connect **Pond #16** to **Pond #8 West**; and

(f) The piping, electrical and other facilities necessary to connect **Pond #8 West** to **Pond #2**.

3. Allocation of Construction Costs for Holding Ponds.

(a) Subject to subparagraphs (b) and (c) below, the parties will share construction costs equally;

(b) The CITY's share of the construction costs shall be limited as follows:

(i) For sizing and lining **Pond #7** and **Pond #8 West** and for connecting **Pond #7** to **Pond #8 West**, the CITY shall pay a fifty percent (50%) pro rata share not to exceed $215,900.00; and

(ii) For sizing and lining **Pond #16** and for connecting **Pond #16** to **Pond #8**, the CITY shall pay fifty percent (50%) pro rata share not to exceed $60,442.00; and

(iii) For pumps necessary for **Pond #7** and **Pond #8 West**, the CITY shall pay a fifty percent (50%) pro rata share not to exceed $8,000.00; and

(iv) For the general costs associated with (i), (ii) and (iii) above, such as for power to all pumps, detail and pricing, and design, permitting, and construction phase services, the CITY shall pay a fifty percent (50%) pro rata share not to exceed $130,225.00.

(c) The other fifty percent (50%) of the construction costs associated with (b)(i)-(iv) above, plus any excess construction costs shall be paid by the OWNERS.

(d) Notwithstanding Paragraph 3(b) above, the CITY's prorata share for the completed construction (Paragraph 1 above) and for the future construction (Paragraph 2 above) shall not exceed $483,113.50.

4. Allocation of Maintenance Costs for all Holding Ponds. Pump operations that are for the common use of both parties to this Agreement consist of those pipes, pumps, and equipment utilized to transport re-use water between the ponds that is for the use and benefit of both parties. For all facilities that are jointly utilized, maintenance expenses (i.e., costs of power and ordinary maintenance of pump systems meters and liners, including periodic repair and replacement of the same) shall be allocated one-half (1/2) to the CITY and one-half (1/2) to the OWNERS.

Maintenance expenses for pump operations that are used exclusively by one party (such as for golf course purposes in the case of the OWNERS and for recreational facility purposes in the case of the CITY) shall be at the sole cost and expense of the using party.

5. Construction and Payment Schedule. It is the intention of the parties that the sums due from the CITY under this Agreement will not be paid by the CITY until such time as the construction costs are actually incurred by the OWNERS. Construction costs associated with

the Completed Construction (**Pond #2** and the connection to **Pond #8 East**) have already been incurred and agreed upon with payment to be made by the CITY on or before February 15, 2001. It is anticipated that the construction costs for the Future Construction will be incurred pursuant to the following construction development schedule:

Items referenced in 3(b)(iv) above	Items associated with design, permitting and construction phase services are already being incurred and will be submitted to the CITY on a periodic basis.
Items referenced in 3(b)(i) above	February, 2001 to July, 2001
Items referenced in 3(b)(ii) above	July, 2001, to July, 2002
Items referenced in 3(b)(iii) above	February, 2001, to July, 2001.

OWNERS will submit invoices for actual construction costs incurred to the CITY whereupon payment consistent with the limitations of Paragraph 3 above will be provided within thirty (30) days of receipt of completed invoices provided that the OWNERS have completed the respective work.

6. Storage and Use Rights. It is understood by both parties that pond construction contemplated in Paragraph 1(a) through (c) and Paragraph 2(a) through (e) of this Agreement is designed to store supplemental reclaimed water up to 20 million gallons and that additional stormwater contained in these ponds above 20 million gallons will provide additional supplemental water for use by both parties. Both parties recognize that adverse weather conditions or unforeseen circumstances may result in a need for reclaimed water greater than that set forth. Each party shall have the right to draw additional water, subject to availability.

For the existing 18-hole facility, the CITY reaffirms its existing commitment to the OWNERS to provide 320,000 gallons per day, on a withdrawal basis from the holding ponds. During the seeding and grow-in period for the additional 9-hole facility for four (4) months (generally between May, 2001 to October, 2001), the CITY shall provide to the OWNERS an additional 530,000 gallons per day of reclaimed water on a withdrawal basis from the holding ponds. The OWNERS will not draw re-use water from the holding ponds for the grow-in period until thirty (30) days after the OWNERS have completed either **Pond #8 West** or **Pond #7**.

Thereafter, for the entire 27-hole facility, the CITY shall provide to the OWNERS, on a withdrawal basis from the holding ponds, 227,030,000 gallons of re-use water on an annual basis which shall be delivered to the OWNERS at monthly intervals of 18,919,166 gpm, and an average daily basis of 622,000 gpd. For any single day the minimum amount of re-use provided from the CITY to the OWNERS shall not be less than 350,000 gpd.

7. Reclaimed Water Charges. The rate charged to the OWNERS for reclaimed water used by the OWNERS shall remain fixed at its current rate (.36 per 1,000 gallons) for a

period of five (5) years from the Effective Date except in the circumstance whereby the St. Johns River Water Management District promulgates procedures/requirements which mandate that the CITY increase the current rate charged to its users.

8. Metering and Billing.

The re-use water drawn from **Pond #8 West** will be used for two purposes (i) a portion will be used for the existing 18 hole facility and (ii) a portion will be deposited into **Pond #2**. All re-use water drawn from **Pond #8 West** will be metered upon withdrawal and the portion of said withdrawn re-use water that is deposited into **Pond #2** will be metered. The flow used by the OWNERS for the 18 hole facility will then be determined by calculating the difference between the two metered readings, with the difference charged to the OWNERS at the above rate. Both parties will draw re-use water from **Pond #2** with withdrawals metered separately and each party being charged based on the meter readings.

9. Limitation of Connections.

Unless agreed to in writing by both parties, the number of connections from the CITY's re-use main shall be limited to the three (3) connections, to wit: (i) the existing connection to **Pond #2**; (ii) a future connection to **Pond #7**; and (iii) the existing connection to **Pond #8 East** to be extended to **Pond #8 West.**.

10. Right of Access.

The CITY has a right of access to perform its obligations and exercise the rights under this Agreement such as to inspect the facilities and read the meters. At any time after the execution of this Agreement, upon request by the CITY, if deemed necessary by the CITY the parties will enter into an easement agreement setting forth such rights and obligations..

11. Rights of Parties. The rights and obligations created by this Agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, executors, receivers, trustees, successors and assigns. Whenever used the singular number shall include the plural, the plural the singular, and the use of any gender shall include all genders, as the context requires.

12. No Other Agreement. This Agreement supercedes all prior and contemporaneous agreements, contracts or understandings by, between or among the parties and their agents concerning the items referenced above. Any and all such matters are merged and consolidated into this Agreement.

13. Incorporation. This Agreement incorporates the Annexation Agreement between the parties recorded at Official Records Book 5174, Page 3932, Public Records of Orange County, Florida. The Annexation Agreement remains in full force and effect as amplified by the terms herein.

14. No Amendment. This Agreement shall not be amended or supplemented except by a written instrument executed by both parties.

15. Emergency Moratorium/Act of God. If the St. John's Water Management District invokes a moratorium on the City's rights to provide reclaimed water to its customers then the City's obligation to deliver reclaimed water under Paragraph 6 above shall be stayed until the moratorium is lifted or alternative measures are available. If an Act of God occurs to the City's reclaimed water plant which prohibits the City's ability to provide reclaimed water, then the City's obligation to deliver reclaimed water under Paragraph 6 above shall be stayed until normal plant operations are reinstated or alternative measures are available.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date set forth below.

CITY OF APOPKA,
A Body Politic of the
State of Florida

By: _____
Print JOHN H. LAND
Its MAYOR
Date 2-23-01

ROCK SPRINGS RIDGE, LTD.,
A Florida Limited Partnership

By: ROCK SPRINGS RIDGE, INC.,
A Florida Corporation
Its General Partner

By: _____
James H. Fant
Senior Vice President
Date: 2-22, 2001

STORAGE AGREEMENT FOR RECLAI

Original to City Clerk
cc's: John J.
Ron L.

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CITY OF APOPKA,
A Body Politic of the
State of Florida

By: _____
Print JOHN H. LAND
Its MAYOR
Date 2/23/01

ROCK SPRINGS RIDGE, LTD.,
A Florida Limited Partnership

By: ROCK SPRINGS RIDGE, INC.,
A Florida Corporation
Its General Partner

By: _____
James H. Fant
Senior Vice President
Date: FEB 22, 2001

ROCK SPRINGS RIDGE GOLF COURSE

A PORTION OF SECTIONS 16, 17, 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

DESCRIPTION

TRACT " A "

A portion of Sections 16, 17, 20 and 21, Township 20 South, Range 28 East, City of Apopka, Orange County, Florida; being more particularly described as follows:

Begin at the Southeast corner of Lot 517, Rock Springs Ridge Phase IV–A, as recorded in Plat Book 51, Pages 37 through 39, Public Records of Orange County, Florida; thence N 00°01'31" W along the Easterly line of said Rock Springs Ridge Phase IV–A a distance of 1713.69 feet to the Point of Curvature of a curve, concave Southeasterly, having a central angle of 90°00'00" and a radius of 25.00 feet; thence Northeasterly along the arc of said curve a distance of 39.27 feet to the Point of Tangency of said curve, said point being on the South right–of–way line of Kilmarnock Drive as shown on said plat; thence N 89°58'29" E along said South right–of–way line a distance of 275.83 feet to a point on the Westerly line of Rock Springs Ridge Phase I, as recorded in Plat Book 39, Pages 59 through 64, Public Records of Orange County, Florida; thence along said Westerly line and along the Westerly line of Rock Springs Ridge Phase II, as recorded in Plat Book 42, Pages 55–59, Public Records of Orange County, Florida, the following courses and distances : S 07°09'47" E a distance of 734.14 feet; thence S 05°02'02" E a distance of 84.85 feet; thence S 02°18'35" E a distance of 84.86 feet; thence S 00°08'03" W a distance of 84.99 feet, thence S 00°32'21" W a distance of 595.00 feet; thence S 10°56'48" W a distance of 86.42 feet; thence S 16°06'17" W a distance of 111.22 feet; thence S 12°50'57" E a distance of 119.37 feet; thence S 46°09'41" E a distance of 137.62 feet to a point on the South line of Lot 191 as shown on said plat of Rock Springs Ridge Phase II; thence along the South line of said Lot 191 and along the South line of Lots 192, 199, 200, 203, 204 and 205 as shown on said plat the following courses and distances : N 87°41'27" E a distance of 358.10 feet; thence S 84°47'56" E a distance of 445.98 feet; thence S 80°29'04" E a distance of 237.96 feet to the Southeast corner of said Lot 205; thence N 32°31'31" E along the East line of said Lot 205 a distance of 171.39 feet to a point on the Westerly right–of–way line of Mt. Berwick Drive as shown on said Plat; thence along said Westerly right–of–way line the following courses and distances : S 57°28'29" E a distance of 61.16 feet to the Point of Curvature of a curve, concave Southwesterly, having a central angle of 43°45'44" and a radius of 265.00 feet; thence Southeasterly along the arc of said curve and along said Westerly right–of–way line a distance of 202.41 feet to the Point of Tangency of said curve; thence continue along said right–of–way line S 13°42'45" E a distance of 182.30 feet to the Northeast corner of Lot 206 as shown on said plat; thence along the North line of said Lot 206 and along the North line of Lots 207 through 214 as shown on said Plat the following courses and distances : S 76°17'15" W a distance of 142.08 feet; thence S 89°57'32" W a distance of 425.00 feet; thence S 74°08'27" W a distance of 377.54 feet to the Most Westerly corner of said Lot 214; said point being on the South line of the NW 1/4 of the NE 1/4 of the SE 1/4 of said Section 20; thence N 89°52'23" W along the South line of said NW 1/4 of the NE 1/4 of the SE 1/4 a distance of 668.60 feet to the Southeast corner of the NE 1/4 of the NW 1/4 of the SE 1/4 of said Section 20; thence N 00°01'51" E along the East line of said NE 1/4 of the NW 1/4 of the SE 1/4 a distance of 668.26 feet to point on the North line of said SE 1/4; thence N 89°42'20" W along the North line of said SE 1/4 a distance of 219.31 feet to the Point of Beginning.

Containing 29.39 acres more or less.

AND

TRACT " B "

Begin at the Northeast corner of Lot 320, Rock Springs Ridge Phase II as recorded in Plat Book 42, Pages 55 through 59, Public Records of Orange County, Florida; thence along the North line of said Lot 320 and along the North line of Lots 321 through 329 the following courses and distances : N 57°28'29" W a distance of 808.28 feet; thence N 61°41'46" W a distance of 145.75 feet to the Northwest corner of said Lot 329, said point being on the Southeasterly line of Lot 337 as shown on said Plat; thence along the Southeasterly line of said Lot 327 and along the Southeasterly line of Lots 338 through 340 the following courses and distances : N 36°54'24" E a distance of 63.12 feet; thence N 49°28'59" E a distance of 160.88 feet; thence N 63°50'55" E a distance of 310.33 feet to the most Easterly corner of said Lot 340; thence along the Northeasterly line of said Lot 340 and along the Northeasterly line of Lots 341 and 342, as shown on said Plat, the following courses and distances : N 41°41'56" W a distance of 240.59 feet; thence N 40°47'33" W a distance of 79.66 feet; thence N 26°05'05" W a distance of 108.21 feet to a point on the Southerly line of Lot 110, Rock Springs Ridge Phase I as recorded in Plat Book 39, Pages 59 through 64, Public Records of Orange County, Florida; thence along the Southerly line of said Lot 110 and along the Southerly line of Lot 109 as shown on said Plat the following courses and distances : N 81°07'28" E a distance of 75.27 feet; thence N 79°12'20" E a distance of 105.24 feet to the Southeast corner of said Lot 109; thence N 12°31'17" W a distance of 201.02 feet to a point on the Southerly right–of–way of Rock Ridge Boulevard as shown on said Plat; said point being on a non tangent curve, concave Northwesterly, having a central angle of 05°03'25" and a radius of 2045.00 feet; thence Northeasterly along the arc of said curve and along said Southerly right–of–way line a distance of 180.49 feet to the Point of Tangency of said curve (chord bearing and distance between said points being N 74°57'00" E 180.43 feet); thence continue along said right–of–way line the following courses and distances : N 72°25'18" E a distance of 330.12 feet to the Point of Curvature of a curve, concave Southerly, having a central angle of 24°33'22" and a radius of 1455.00 feet; thence Northeasterly and Southeasterly along the arc of said curve and along said right–of–way line a distance of 623.59 feet to the Point of Reverse Curvature of a curve; concave Northwesterly, having a central angle of 20°38'10" and a radius of 1545.00 feet; thence Southeasterly and Northeasterly along the arc of said curve and along said right–of–way line a distance of 556.46 feet to the Northwest corner of Lot 108 as shown on said plat (chord bearing and distance between said points being N 86°39'35" E 553.46 feet); thence S 13°39'30" E along the West line of said Lot 108 a distance of 110.67 feet to the Northwest corner of Lot 107 as shown on said Plat; thence S 38°35'02" E along the West line of said Lot 107 a distance of 167.30 feet to the Southwest corner of Lot 106 as shown on said Plat; thence S 76°36'11" E along the Southerly line of said Lot 106 a distance of 167.44 feet to the Southwest corner of Lot 105 as shown on said Plat; thence N 65°56'49" E along the Southerly line of said Lot 105 a distance of 155.34 feet to the most Southerly corner of Lot 104 as shown on said Plat; thence N 22°19'36" E along the Easterly line of said Lot 104 a distance of 160.71 feet to the Southeast corner of Lot 103 as shown on said Plat; thence N 06°45'01" W along the East line of said Lot 103 a distance of 154.87 feet to the most Easterly corner of Lot 102 as shown on said Plat; thence N 30°49'23" W along the Easterly line of said Lot 102 a distance of 99.99 feet to a point on said right–of–way line, said point being on a non tangent curve, concave Northwesterly, having a central angle of 01°08'21" and a radius of 1545.00 feet; thence Northeasterly along the arc of said curve and along said right–of–way line a distance of 30.72 feet to the Point of Tangency of said curve (chord bearing and distance between said points being N 58°36'26" E 30.72 feet); thence N 58°02'16" E along said right–of–way line a distance of 406.35 feet to a point on the Westerly line of Lot 88 as shown on said Plat; thence along the Westerly line of said Lot 88 and along the Westerly line of Lots 76 through 87 as shown on said Plat and along the Westerly line of Tract E as shown on said Plat the following courses and distances : S 31°57'44" E a distance of 132.31 feet; thence S 55°57'01" E a distance of 130.74 feet; thence S 67°40'53" E a distance of 536.84 feet; thence S 77°36'27" E a distance of 203.04 feet; thence S 60°30'04" E a distance of 74.39 feet; thence S 27°33'33" E a distance of 104.57 feet; thence S 44°33'23" E a distance of 100.00 feet; thence S 33°07'22" E a distance of 277.46 feet to a point on the North line of Spring Hollow Phase I as recorded in Plat Book 18, Pages 137 through 140, Public Records of Orange County, Florida; thence along the North line of said Spring Hollow Phase I the following courses and distances : N 89°38'30" W a distance of 2956.51 feet; thence N 69°11'19" W a distance of 114.02 feet to a point on the Westerly line of said Spring Hollow Phase I; thence S 48°05'12" W along said Westerly line a distance of 785.50 feet to a point on the Southerly line of said Spring Hollow Phase I; thence along said Southerly line the following courses and distances : S 56° 34'18" E a distance of 534.17 feet; thence S 89°38'30" E a distance of 810.00 feet; thence S 00°21'30" W a distance of 110.00 feet; thence S 89°38'30" E a distance of 194.42 feet to the Northwest corner of Lot 307 as shown on said Plat of Rock Springs Ridge Phase II; thence S 00°21'30" W along the West line of said Lot 307 a distance of 101.68 feet to a point on the Northerly line of Lot 308 as shown on said Plat; thence along the Northerly line of said Lot 308 and along the Northerly line of Lots 309 through 319 as shown on said Plat the following courses and distances : S 60°58'40" W a distance of 186.74 feet; thence S 71°27'45" W a distance of 233.13 feet; thence S 70°43'07" W a distance of 116.72 feet; thence S 60°11'13" W a distance of 184.24 feet; thence S 53°18'30" W a distance of 434.96 feet to a point on the Easterly right–of–way line of Mt. Berwick Drive as shown on said Plat; thence N 13°42'45" W along said Easterly right–of–way line a distance of 115.94 feet to the Point of Curvature of a curve, concave Southwesterly, having a central angle of 37°28'54" and a radius of 265.00 feet; thence Northwesterly along the arc of said curve and along said Easterly right–of–way line a distance of 173.36 feet to a point on the Easterly line of said Lot 320 (chord bearing and distance between said points being N 28°26'09" W 170.28 feet); thence N 46°50'27" E along the Easterly line of said Lot 320 a distance of 196.50 feet to the Point of Beginning.

Containing 54.61 acres more or less.

AND

TRACT " C "

Begin at the Southwest corner of Lot 130, Rock Springs Ridge Phase I as recorded in Plat Book 39, Pages 59 through 64, Public Records of Orange County, Florida; thence along the Southerly line of said Lot 130 and along the Southerly line of Lots 131 through 151 the following courses and distances : S 89°51'52" E a distance of 134.62 feet; thence N 75°50'14" E a distance of 1447.59 feet; thence S 85°46'28" E a distance of 80.97 feet; thence S 85°32'23" E a distance of 88.57 feet; thence N 78°02'27" E a distance of 134.66 feet; thence N 68°02'40" E a distance of 219.80 feet to a point on the Westerly line of Lot 98 as shown on said Plat; thence along the Westerly line of said Lot 98 and along the Westerly line of Lots 99–101 as shown on said Plat the following courses and distances : S 20°22'37" E a distance of 167.99 feet; thence S 31°57'44" E a distance of 237.66 feet to a point on the Northerly right–of–way line of Rock Ridge Boulevard as shown on said Plat; thence along said Northerly right–of–way line the following courses and distances : S 58°02'16" W a distance of 198.54 feet to the Point of Curvature of a curve, concave Northwesterly, having a central angle of 38°56'25" and a radius of 1455.00 feet; thence Southwesterly and Northwesterly along the arc of said curve and along said right–of–way line a distance of 988.87 feet to the Point of Reverse Curvature of a curve, concave Southeasterly, having a central angle of 24°33'22" and a radius of 1545.00 feet; thence Northwesterly and Southwesterly along the arc of said curve and along said right–of–way line a distance of 662.16 feet to the Point of Tangency of said curve; thence S 72°25'18" W along said right–of–way line a distance of 330.12 feet to the Point of Curvature of a curve, concave Northerly, having a central angle of 01°23'59" and a radius of 1955.00 feet; thence Southwesterly along the arc of said curve and along said right–of–way line a distance of 47.76 feet to the Point of Reverse Curvature of a curve, concave Northeasterly, having a central angle of 100°06'46" and a radius of 100.00 feet; thence Northwesterly and Northeasterly along the arc of said curve a distance of 174.73 feet to the Point of Compound Curvature of a curve, concave Easterly, having a central angle of 20°04'14" and a radius of 715.00 feet, said point being on the easterly right–of–way line of Caledonia Avenue as shown on said Plat; thence Northeasterly along the arc of said curve and along said Easterly right–of–way line a distance of 250.46 feet to the Point of Reverse Curvature of a curve, concave Westerly, having a central angle of 04°42'17" and a radius of 785.00 feet; thence Northeasterly along the arc of said curve and along said right–of–way line a distance of 64.46 feet to the Point of Beginning (chord bearing and distance between said points being N 11°39'09" E 64.44 feet).

Containing 22.10 acres more or less.

AND

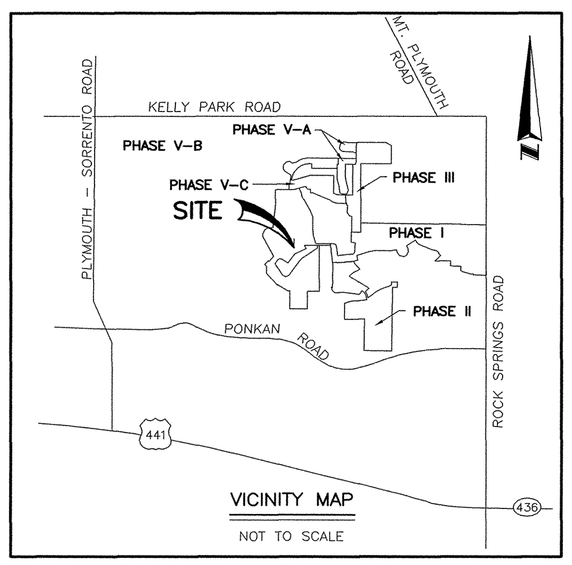
(Legal description continued on Sheet 2)

LEGEND & ABBREVIATIONS:

■	=	DESIGNATES A PERMANENT REFERENCE MONUMENT, BEING A SET 4"X4" CONCRETE MONUMENT WITH BRASS DISC STAMPED "P.R.M. LB2108", UNLESS OTHERWISE NOTED.	NE	=	NORTHEAST
⊙	=	DESIGNATES A PERMANENT CONTROL POINT, BEING A SET PK NAIL & DISK STAMPED "PCP LB2108", UNLESS OTHERWISE NOTED.	SE	=	SOUTHEAST
Δ	=	CENTRAL ANGLE/DELTA	NW	=	NORTHWEST
R	=	RADIUS	SW	=	SOUTHWEST
L	=	LENGTH	SEC.	=	SECTION
C	=	CHORD DISTANCE	TWP.	=	TOWNSHIP
CB	=	CHORD BEARING	RGE.	=	RANGE
ESM'T.	=	EASEMENT	P.C.	=	POINT OF CURVATURE
FND.	=	FOUND	PG.(S)	=	PAGE/PAGES
GIS	=	GEODETIC INFORMATION SYSTEM	P.I.	=	POINT OF INTERSECTION
LB	=	LICENSED BUSINESS	P.O.C.	=	POINT ON CURVE
N.R.	=	NON–RADIAL	P.T.	=	POINT OF TANGENCY
O.R.	=	OFFICIAL RECORDS	R/W	=	RIGHT OF WAY
P.C.	=	POINT OF CURVATURE	P.R.C.	=	POINT OF REVERSE CURVATURE
P.T.	=	POINT OF TANGENCY			
P.C.C.	=	POINT OF COMPOUND CURVATURE			

Southeastern Surveying

GARY B KRICK, P.S.M. NO. 4245
SOUTHEASTERN SURVEYING & MAPPING CORP.
6500 All American Boulevard
Orlando, Florida 32810–4350
(407)292–8580 fax(407)292–0141
Cert. No. LB–2108
e–mail:info@southeasternsurveying.com



VICINITY MAP
NOT TO SCALE

GENERAL NOTES:

1. Bearings shown hereon are based on the Easterly line of Rock Springs Ridge Phase IV–A, as recorded in Plat Book 51, Pages 37 through 39, Public Records of Orange County, Florida being N 00°01'31" W.
2. The residential subdivision (Rock Springs Ridge Phases I through Phase VII inclusive) is not part of this plat and the lands platted hereby are not part of the residential subdivision.
3. Sheet flow drainage shall not be prohibited from any adjacent residential lots that have been graded in accordance with an approved drainage plan that is on file with the City of Apopka.
4. Maintenance of the land areas comprising drainage and utility easements designated within platted lands shall be the responsibility of the owner of Rock Springs Ridge Golf Course.

NOTICE

This plat, as recorded in its graphic form, is the official depiction of the subdivided lands described herein and will in no circumstances be supplanted in authority by any other graphic or digital form of the plat. There may be additional restrictions that are not recorded on this plat that may be found in the public records of this county.

PLAT BOOK 63 PAGE 113

ROCK SPRINGS RIDGE GOLF COURSE
DEDICATION

KNOW ALL MEN BY THESE PRESENTS, that the Party named below, being the owner in fee simple of the lands described in the fore–going caption to this plat, hereby dedicates the drainage and utility easements designated within the platted lands to the perpetual use of the City of Apopka for drainage and utility purposes associated with the public rights of way previously platted and dedicated to the City.

IN WITNESS WHEREOF, has caused the presents to be signed and attested to by the owners named below.

BDC Golf Course, LLC, A Limited Liability Company

By: Rock Springs Ridge, LTD., A Florida Limited Partnership, Sole Member

By: Rock Springs Ridge, Inc., A Florida Corporation, Sole General Partner

By: _____
James H. Fant, Senior Vice President

Signed, sealed and delivered in the presence of:

Michael Aldrich
Print name

Richard Dunn
Print name

STATE OF FLORIDA COUNTY OF ORANGE

THIS IS TO CERTIFY, That on Nov. 28 2005 before me, an officer duly authorized to take acknowledgments in the State and County aforesaid, personally appeared, James H. Fant, Manager of the above limited liability company, formed under the laws of the State of Florida, who did/did not take an oath and who is personally known to me to be the individual and officer described in and who executed the foregoing Dedication and severally acknowledged the execution thereof to be of his free act and deed as such officer thereunto duly authorized and that said Dedication is the act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the above date.

Robert Steele
My Commission DD518965
Expires May 02, 2008

_____
Notary Public
Robert Steele
Printed Name
Notary Public State of Florida
May 02, 2008
My Commission Expires
DD315393
Commission Number

CERTIFICATE OF SURVEYOR

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, being a licensed and registered land surveyor & mapper, does hereby certify that on 5/02/02 he completed the survey of the lands therein described and platted or subdivided and made under my responsible direction and supervision; that permanent reference monuments have been placed as shown thereon as required by Chapter 177, Florida Statutes; and that said land is located in the City of Apopka, Orange County, Florida.

Signature _____ Dated 11/28/2005
GARY B. KRICK
Southeastern Surveying & Mapping Corp.
324 N. Orlando Avenue
Maitland, Florida 32751
Registration No. 4245

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY, That on NOVEMBER 16, 2005 the CITY OF APOPKA, CITY COUNCIL approved the foregoing plat.

_____ MAYOR
ATTEST: JOHN H. LAND

_____ CITY CLERK
JANICE G. GOEBEL

CERTIFICATE OF APPROVAL BY CITY ENGINEER

Examined and Approved: _____ City Engineer 11-30-05 Date
R. JAY DAVOLL

CERTIFICATE OF APPROVAL BY APOPKA LAND DEVELOPMENT REVIEW BOARD

THIS IS TO CERTIFY, That on NOVEMBER 8, 2005 the Apopka Land Development Review Board approved the foregoing plat.

_____, STEVEN G. HOOKS Chairman

CERTIFICATE OF REVIEW BY CITY SURVEYOR

Reviewed for conformity to Florida Statute 177

_____ 11/29/05
City Surveyor Dennis J. Lewis PSM # LS 3993 Date

CERTIFICATE OF COUNTY COMPTROLLER

I HEREBY CERTIFY, That I have examined the foregoing plat and find that it complies in form with all the requirements of Chapter 177, Florida Statutes, and was filed for record on 12/01/2005 at _____ File: _____

_____ County Comptroller
Martha O. Haynie
in and for Orange County, Florida.

By: _____

COMPTROLLER SEAL ORANGE COUNTY FLORIDA

PLAT BOOK 63 PAGE 114

ROCK SPRINGS RIDGE GOLF COURSE

A PORTION OF SECTIONS 16, 17, 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

DESCRIPTION (CONTINUED FROM SHEET NO. 1)

AND

TRACT " D "

Begin at the most Northerly corner of Lot 578, Rock Springs Ridge Phase IV–A as recorded in Plat Book 51, Pages 37 through 39, Public Records of Orange County, Florida, said point being on the South right–of–way line of Kilmarnock Drive as shown on said Plat, said point also being on the arc of a non tangent curve, concave Southeasterly, having a central angle of 13°46'11" and a radius of 300.00 feet; thence Northeasterly along the arc of said curve and along said South right–of–way line a distance of 72.10 feet to the Point of Tangency of said curve (chord bearing and distance between said points being N 83°05'24" E 71.92 feet); thence N 89°58'29" E along said South right–of–way line a distance of 397.65 feet to the Point of Curvature of a curve, concave Southwesterly, having a central angle of 90°00'00" and a radius of 25.00 feet; thence Southeasterly along the arc of said curve a distance of 39.27 feet to the Point of Tangency of said curve, said point being on the Westerly right–of–way line of Rochelle Lane as shown on said Plat; thence S 00°01'31" E along said Westerly right–of–way line a distance of 165.32 feet to the Point of Curvature of a curve, concave Northwesterly, having a central angle of 56°39'09" and a radius of 170.00 feet; thence Southwesterly along the arc of said curve and along said Westerly right–of–way line a distance of 168.09 feet to the Point of Tangency of said curve; thence S 56°37'37" W along said Westerly right–of–way line a distance of 14.22 feet; thence N 32°55'47" W a distance of 137.33 feet to a point on the Northwesterly line of Lot 456 as shown on said Plat; thence along the Northwesterly line of said Lot 456 and along the Northwesterly line of Lots 457 through 471 as shown on said Plat the following courses and distances : S 57°04'13" W a distance of 510.00 feet; thence S 47°57'47" W a distance of 135.51 feet; thence S 35°30'27" W a distance of 510.00 feet; thence S 36°23'13" W a distance of 85.01 feet; thence S 38°54'48" W a distance of 85.00 feet; thence S 62°55'15" W a distance of 85.00 feet; thence S 69°50'27" W a distance of 44.12 feet to a point on the Northerly line of said Lot 471; thence N 67°07'23" W along the Northerly line of said Lot 471 and along the Northerly line of Lots 473 and 474 as shown on said Plat a distance of 132.63 feet to a point on the Northeasterly line of said Lot 474; thence along the Northeasterly line of said Lot 474 and along the Northerly line of Lots 475 through 480 the following courses and distances : N 34°22'30" W a distance of 402.41 feet; thence N 26°44'09" W a distance of 122.17 feet; thence N 17°29'28" E a distance of 61.29 feet to a point on the Northeasterly line of said Lot 480; thence N 48°06'53" W along said Northeasterly line of Lot 480 a distance of 149.46 feet to a point on the Southeasterly right–of–way line of said Kilmarnock Drive; thence N 41°53'07" E along said Southeasterly right–of–way line a distance of 35.00 feet to a point on the Southwesterly line of Lot 590 as shown on said plat; thence S 48°06'53" E along said Southwesterly line a distance of 149.65 feet to a point on the Easterly line of said Lot 590; thence along the Easterly line of Lots 588 through 590 the following courses and distances : N 42°11'19" E a distance of 85.30 feet; thence N 60°38'37" E a distance of 82.13 feet to a point on the Southerly line of said Lot 588; thence along the Southerly line of said Lot 588 and along the Southerly line of Lots 586 through 588 the following courses and distances : S 80°24'04" E a distance of 80.28 feet; thence S 58°24'46" E a distance of 284.29 feet to a point on the Easterly line of Lot 585 as shown on said Plat; thence along the Easterly line of said Lot 585 and along the Easterly line of Lots 578 through 584 as shown on said Plat the following courses and distances : N 35°30'56" E a distance of 415.91 feet; thence N 65°58'20" E a distance of 486.66 feet to the most Easterly corner of said Lot 578; thence N 24°01'40" W along the Northeasterly line of said Lot 478 a distance of 145.23 feet to the Point of Beginning.

Containing 14.79 acres more or less.

AND

TRACT " E "

Begin at the Southeast corner of Lot 591, Rock Springs Ridge Phase IV–B as recorded in Plat Book 55, Pages 103 through 109, Public Records of Orange County, Florida, thence along the Easterly line of said Rock Springs Ridge Phase IV–B the following courses and distances : N 15°38'14" W a distance of 308.45 feet; thence N 06°02'58" W a distance of 259.01 feet; thence N 00°13'47" E a distance of 462.36 feet; thence N 23°59'16" W a distance of 245.07 feet; thence N 29°17'50" W a distance of 425.00 feet; thence N 28°31'48" W a distance of 170.02 feet; thence N 17°20'37" W a distance of 164.09 feet; thence N 23°35'36" W a distance of 210.59 feet to a point on the North line of said Rock Springs Ridge Phase IV–B, thence S 86°07'59" W along said North line a distance of 892.90 feet to a point on the Westerly Line of said Rock Springs Ridge Phase IV–B; thence along said Westerly line the following courses and distances : S 01°13'23" W a distance of 555.84 feet; thence S 05°20'54" W a distance of 879.85 feet; thence S 81°37'14" W a distance of 214.69 feet; thence S 59°58'36" W a distance of 109.86 feet; thence S 28°49'22" W a distance of 175.05 feet; thence S 01°29'42" W a distance of 111.36 feet; thence S 29°01'46" E a distance of 855.72 feet to a point on the Northeasterly right–of–way line of Kilmarnock Drive as shown on the Plat of Rock Springs Ridge Phase IV–A as recorded in Plat Book 51, Pages 37 through 39, Public Records of Orange County, Florida, said point being on a non tangent curve, concave Southeasterly, having a central angle of 01°15'00" and a radius of 360.00 feet; thence Southwesterly along the arc of said curve and along said Northwesterly right–of–way line a distance of 7.85 feet to the Point of Tangency of said curve (chord bearing and distance between said points being S 42°30'37" W 7.85 feet); thence S 41°53'07" W along said right–of–way line a distance of 103.18 feet; thence N 48°06'53" W a distance of 355.00 feet; thence N 41°24'17" W a distance of 342.34 feet; thence N 48°06'53" W a distance of 255.00 feet; thence N 60°26'17" W a distance of 116.17 feet; thence N 71°35'07" W a distance of 521.58 feet; thence N 44°08'35" W a distance of 168.52 feet; thence N 23°56'41" W a distance of 56.95 feet; thence N 00°05'19" E a distance of 383.65 feet; thence N 89°50'06" E a distance of 1388.66 feet; thence N 00°47'58" E a distance of 364.13 feet; thence N 03°24'50" W a distance of 255.69 feet; thence N 00°47'58" E a distance of 700.22 feet; thence N 74°29'44" E a distance of 59.30 feet; thence N 73°57'37" E a distance of 395.31 feet; thence N 00°05'08" E a distance of 78.01 feet; thence S 89°54'52" E a distance of 200.62 feet to the Point of Curvature of a curve, concave Northwesterly, having a central angle of 16°14'23" and a radius of 485.00 feet; thence Northeasterly along the arc of said curve a distance of 137.47 feet to the Point of Tangency of said curve; thence N 73°50'45" E a distance of 406.71 feet; thence S 16°09'15" E a distance of 13.70 feet; thence S 73°50'45" W a distance of 55.71 feet; thence S 16°09'15" E a distance of 50.36 feet; thence N 73°50'45" E a distance of 56.31 feet to a point on a curve, concave Northeasterly, having a central angle of 87°51'57" and a radius of 110.00 feet; thence Southeasterly along the arc of said curve a distance of 130.29 feet to the Point of Tangency of said curve (chord bearing and distance between said points being S 56°04'02" E 122.81 feet); thence N 90°00'00" E a distance of 74.21 feet; thence S 00°00'00" E a distance of 150.00 feet; thence N 90°00'00" E a distance of 98.79 feet; thence S 66°30'22" E a distance of 837.90 feet; thence S 56°57'18" E a distance of 87.96 feet; thence S 69°52'54" E a distance of 159.04 feet; thence S 82°37'16" E a distance of 135.52 feet; thence S 87°55'05" E a distance of 288.68 feet; thence N 00°08'08" E a distance of 9.02 feet to a point on the Westerly line of Rock Springs Ridge Phase III as recorded in Plat Book 47, Pages 3 through 6, Public Records of Orange County, Florida; thence along said Westerly line the following courses and distances : S 89°51'52" E a distance of 30.00 feet; thence S 00°08'08" W a distance of 117.84 feet; thence S 89°51'52" E a distance of 36.24 feet; thence S 00°08'08" W a distance of 325.00 feet; thence S 35°31'40" E a distance of 186.18 feet; thence S 79°07'56" E a distance of 91.82 feet; thence S 00°08'08" W along said Westerly line and along the Westerly line of Rock Springs Ridge Phase I as recorded in Plat Book 39, Pages 59 through 64, Public Records of Orange County, Florida a distance of 1111.63 feet to the Southwest corner of Lot 125 as shown on said plat of Rock Springs Ridge Phase I; thence S 81°23'33" E along the South line of said Lot 125 a distance of 174.10 feet to a point on the Westerly right–of–way line of Caladania Avenue as shown on said Plat; said point being on a non tangent curve, concave Westerly, having a central angle of 05°23'50" and a radius of 715.00 feet; thence Southerly along the arc of said curve and along said Westerly right–of–way line a distance of 67.35 feet to the Point of Reverse Curvature of a curve (chord bearing and distance between said points being S 11°18'22" W a distance of 67.33 feet), having a central angle of 21°51'17" and a radius of 785.00 feet; thence Southerly along the arc of said curve and along said right–of–way line a distance of 299.43 feet to the Point of Reverse Curvature of a curve, concave Northwesterly, having a central angle of 90°25'35" and a radius of 100.00 feet; thence Southwesterly along the arc of said curve a distance of 157.82 feet to the Point of Compound Curvature of a curve, concave Northerly, having a central angle of 06°44'31" and a radius of 2215.57 feet, said point being on the North right–of–way line of Rock Ridge Boulevard as shown on said Plat; thence Westerly along the arc of said curve and along said North right–of–way line a distance of 260.71 feet to the Point of Reverse Curvature of a curve, concave Southerly, Having a central angle of 07°02'15" and a radius of 1045.00 feet; thence Southwesterly along the arc of said curve a distance of 128.36 feet to the Point of Tangency of said curve; thence S 82°49'26" W along said North right–of–way line a distance of 208.15 feet to the Point of Curvature of a curve, concave Northeasterly, having a central angle of 90°00'00" and a radius of 25.00 feet; thence Southwesterly and Northwesterly along the arc of said curve a distance of 39.27 feet to the Point of Tangency of said curve, said point being on the Easterly right–of–way line of Kilmarnock Drive as shown on said Plat of Rock Springs Ridge Phase I; thence N 07°10'34" W along the Easterly right–of–way line of said Kilmarnock Drive a distance of 360.42 feet to the Point of Curvature of a curve, concave Southwesterly, having a central angle of 82°50'57" and a radius of 135.00 feet; thence Northwesterly along the arc of said curve and along said Easterly right–of–way line a distance of 195.21 feet to a point (chord bearing and distance between said points being N 48°36'02" W 178.64 feet); thence S 00°01'31" E a distance of 10.00 feet to a point on said North right–of–way line of Kilmarnock Drive; thence S 89°58'29" W along said North right–of–way line a distance of 564.49 feet to the Point of Beginning.

Containing 116.04 acres more or less.

AND
E 122
TRACT " F "

Begin at the Northwest corner of Lot 420, Rock Springs Ridge Phase III as recorded in Plat Book 47, Pages 3 through 6, Public Records of Orange County, Florida; thence S 00°08'08" W along the West line of said Rock Springs Ridge Phase III a distance of 1325.00 feet to the Northeast corner of Lot 435 as shown on said Plat; thence along the North line of said Lot 435 and along the North line of Lot 436 and Tract B as shown on said Plat the following courses and distances : N 89°51'52" W a distance of 220.00 feet; thence N 86°51'48" W a distance of 50.07 feet; thence S 00°08'08" W a distance of 22.64 feet; thence N 89°51'52" W a distance of 228.22 feet; thence N 84°06'21" W a distance of 183.16 feet; thence N 65°38'43" W a distance of 142.74 feet; thence N 00°22'08" W a distance of 772.17 feet; thence N 89°40'48" W a distance of 996.60 feet; thence S 73°50'45" W a distance of 750.79 feet; thence N 89°53'12" W 106.73 feet to a point on a non tangent curve, concave Southeasterly, having a central angle of 85°02'03" and a radius of 770.00 feet; thence Northeasterly along the arc of said curve a distance of 1142.78 feet to the Point of Tangency of said curve (chord bearing and distance between said points being N 47°37'06" E 1040.75 feet); thence S 89°51'52" E a distance of 99.35 feet; thence S 00°08'08" W a distance of 185.00 feet; thence S 89°51'52" E a distance of 1105.00 feet to a point on the West line of Lot 775 as shown on the Plat of Rock Springs Ridge Phase V–A as recorded in Plat Book 54, Page 44 through 46, Public Records of Orange County, Florida; thence along the West line of said Lot 775 and along the West line of Lots 776 through 785 the following courses and distances : S 00°08'08" W a distance of 436.75 feet; thence S 08°14'40" E a distance of 107.04 feet; thence S 14°14'04" E a distance of 211.33 feet; thence S 08°52'01" E a distance of 214.38 feet; thence S 14°36'06" E a distance of 102.97 feet to a point on the Southerly line of said Lot 785; thence along the Southerly line of said Lot 785 and along the Southerly line of Lots 786 through 787 the following courses and distances : S 56°08'40" E a distance of 95.15 feet; thence S 89°36'26" E a distance of 109.99 feet; thence N 82°57'23" E a distance of 85.25 feet to a point on the Easterly line of said Lot 787; thence along the Easterly line of said Lot 787 and along the Easterly line of Lots 788 through 798 as shown on said Plat the following courses and distances : N 35°43'48" E a distance of 97.24 feet; thence N 12°02'15" E a distance of 91.24 feet; thence N 14°14'04" W a distance of 335.68 feet; thence N 13°59'38" W a distance of 97.71 feet; thence N 09°13'43" W a distance of 92.07 feet; thence N 02°49'34" W a distance of 92.36 feet; thence N 00°08'08" E a distance of 515.00 feet to a point on the South right–of–way line of Gulf Land Drive as shown on said Plat of Rock Springs Ridge Phase V–A; thence S 89°51'52" E along said South right–of–way line a distance of 310.00 feet to the Point of Beginning.

Containing 29.56 acres more or less.

AND

TRACT " G "

Begin at the Southeast corner of Lot 799, Rock Springs Ridge Phase V–A as recorded in Plat Book 54, Pages 44 through 46, Public Records of Orange County, Florida, said point being on the West line of Rock Springs Ridge Phase III as recorded in Plat Book 47, Pages 3 through 6, Public Records of Orange County, Florida; thence along the West line of said Rock Springs Ridge Phase III the following courses and distances : S 00°08'08" W a distance of 98.80 feet; thence N 90°00'00" W a distance of 40.00 feet; thence S 00°08'08" W a distance of 50.00 feet; thence N 90°00'00" E a distance of 40.00 feet; thence S 00°08'08" W a distance of 60.05 feet to the Northeast corner of Lot 773 as shown on said Plat of Rock Springs Ridge Phase V–A, thence N 89°51'52" W along the North line of said Lot 773 a distance of 147.00 feet to the Northwest corner of said Lot 773; thence S 00°08'08" W along the West line of said Lot 773 a distance of 26.00 feet to a point on the North line of Tract A as shown on said Rock Springs Ridge Phase V–A; thence N 89°51'52" W along the North line of said Tract A and along a Westerly projection thereof a distance of 1938.18 feet; thence S 81°34'25" W a distance of 213.19 feet; thence S 66°10'33" W a distance of 218.19 feet; thence S 57°03'13" W a distance of 108.69 feet; thence S 74°07'04" W a distance of 171.31 feet; thence N 53°37'17" W a distance of 149.43 feet; thence S 76°26'45" W a distance of 164.48 feet; thence S 41°47'09" W a distance of 159.16 feet; thence S 05°03'53" W a distance of 159.16 feet; thence S 34°32'34" E a distance of 127.21 feet; thence S 56°23'15" E a distance of 335.08 feet to a point on a non tangent curve, concave Southeasterly, having a central angle of 15°52'32" and a radius of 830.00 feet; thence Southwesterly along the arc of said curve a distance of 229.98 feet to a point (chord bearing and distance between said points being S 11°13'16" W 229.24 feet); thence N 89°54'17" W a distance of 109.10 feet; thence N 64°54'21" W a distance of 94.11 feet; thence N 49°09'30" W a distance of 72.98 feet; thence N 44°34'06" W a distance of 66.76 feet; thence N 62°11'07" W a distance of 531.05 feet; thence N 59°18'38" W a distance of 72.73 feet; thence N 49°08'16" W a distance of 69.17 feet; thence N 38°49'46" W a distance of 69.17 feet; thence N 28°43'14" W a distance of 73.39 feet; thence N 26°05'20" W a distance of 341.91 feet; thence N 22°04'42" W a distance of 69.18 feet; thence N 11°50'26" W a distance of 69.17 feet; thence N 00°51'14" W a distance of 104.44 feet; thence S 88°54'42" E a distance of 290.82 feet; thence N 76°52'08" E a distance of 97.90 feet; thence N 66°31'14" E a distance of 505.11 feet; thence N 69°47'31" E a distance of 171.31 feet; thence S 80°53'00" E a distance of 760.36 feet; thence N 19°07'53" E a distance of 178.11 feet; thence N 58°51'27" E a distance of 112.80 feet; thence N 86°25'34" E a distance of 359.92 feet; thence N 85°38'12" E a distance of 926.22 feet; thence S 27°24'00" E a distance of 187.16 feet to a point on the West line of Lot 805 as shown on said Plat of Rock Springs Ridge Phase V–A; thence along the Westerly line of Lot 805 the following courses and distances : S 14°24'37" W a distance of 30.02 feet; thence S 27°35'22" E a distance of 119.93 feet to a point on the Southerly line of said Lot 805; thence along the Southerly line of said Lot 805 and along the Southerly line of Lots 799 through 804 the following courses and distances : S 69°12'37" E a distance of 131.21 feet; thence S 87°51'21" E a distance of 411.65 feet; thence S 72°06'15" E a distance of 137.46 feet to the Point of Beginning.

Containing 51.89 acres more or less.

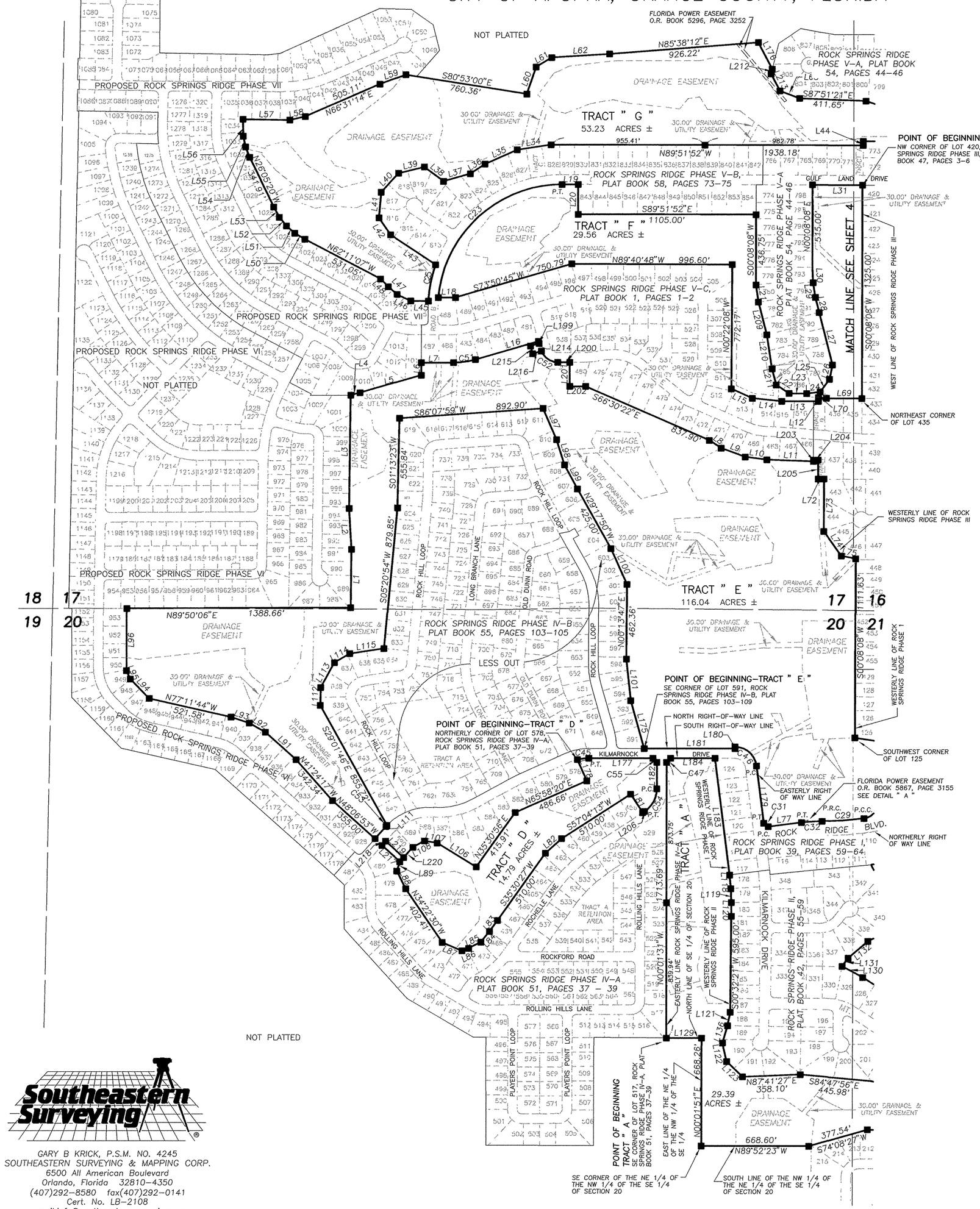
Total acreage 318.38 acres more or less.

Southeastern Surveying

GARY B KRICK, P.S.M. NO. 4245
SOUTHEASTERN SURVEYING & MAPPING CORP.
6500 All American Boulevard
Orlando, Florida 32810–4350
(407)292–8580 fax(407)292–0141
Cert. No. LB–2108
e–mail:info@southeasternsurveying.com

ROCK SPRINGS RIDGE GOLF COURSE

A PORTION OF SECTIONS 16, 17, 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA



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LINE TABLE

LINE	DISTANCE	BEARING
L1	364.13'	N00°47'58"E
L2	255.69'	N03°24'50"W
L3	700.22'	N00°47'58"E
L4	59.30'	N74°29'44"E
L5	395.31'	N73°57'37"E
L6	78.01'	N00°05'08"E
L7	200.62'	S89°54'52"E
L8	87.96'	S56°57'18"E
L9	159.04'	S69°52'54"E
L10	135.52'	S82°37'16"E
L11	288.68'	S87°55'05"E
L12	22.64'	S00°08'08"W
L13	228.22'	N89°51'52"W
L14	183.16'	N84°06'21"W
L15	142.74'	N65°38'43"W
L16	406.71'	N73°50'45"E
L18	106.73'	N89°53'12"W
L19	99.35'	S89°51'52"E
L20	185.00'	S00°08'08"W
L21	107.04'	S08°14'40"E
L22	95.15'	S56°08'40"E
L23	109.99'	S89°36'26"E
L24	85.25'	N82°57'23"E
L25	97.24'	N35°43'48"E
L26	91.24'	N12°02'15"E

LINE TABLE

LINE	DISTANCE	BEARING
L27	335.68'	N14°14'04"W
L28	97.71'	N13°59'38"W
L29	92.07'	N09°13'43"W
L30	92.36'	N02°49'34"W
L31	310.00'	S89°51'52"E
L34	213.19'	S81°34'25"W
L35	218.19'	S66°10'33"W
L36	108.69'	S57°03'13"W
L37	171.31'	S74°07'04"W
L38	149.43'	N53°37'17"W
L39	164.48'	S76°26'45"W
L40	159.16'	S41°47'09"W
L41	159.16'	S05°03'53"W
L42	127.21'	S34°32'34"E
L43	335.08'	S56°23'15"E
L44	26.00'	S00°08'08"W
L45	109.10	N89°54'17"W
L46	94.11'	N64°54'21"W
L47	72.98'	N49°09'30"W
L48	66.76'	N44°34'06"W
L50	72.73'	N59°18'36"W
L51	69.17'	N49°08'16"W
L52	69.17'	N38°49'46"W
L53	73.39'	N28°43'14"W
L54	69.18'	N22°04'42"W

LINE TABLE

LINE	DISTANCE	BEARING
L55	69.17'	N11°50'28"W
L56	104.44'	N00°51'14"W
L57	290.82'	S88°54'42"E
L58	97.90'	N76°52'08"E
L59	171.31'	N69°47'31"E
L60	178.11'	N19°07'53"E
L61	112.80'	N58°51'27"E
L62	359.92'	N86°25'34"E
L63	131.21'	S69°12'37"E
L69	220.00'	N89°51'52"W
L70	50.07'	N86°51'48"W
L72	36.24'	S89°51'52"E
L73	325.00'	S00°08'08"W
L74	186.18'	S35°31'40"E
L75	91.82'	S79°07'56"E
L77	208.15'	S82°49'26"W
L81	137.33'	N32°55'47"W
L82	135.51'	S47°57'47"W
L83	85.01'	S36°23'13"W
L84	85.00'	S38°54'48"W
L85	85.00'	S62°55'15"W
L86	44.12'	S69°50'27"W
L87	132.63'	N67°07'23"W
L88	122.17'	N26°44'09"W
L89	61.29'	N17°29'28"E

LINE TABLE

LINE	DISTANCE	BEARING
L91	255.00'	N48°06'53"W
L92	116.17'	N60°26'17"W
L93	118.87'	N71°35'07"W
L94	168.52'	N44°08'35"W
L95	56.95'	N23°56'41"W
L96	383.65'	N00°05'19"E
L97	210.59'	N23°35'36"W
L98	164.09'	N17°20'37"W
L99	170.02'	N28°31'48"W
L100	245.07'	N23°59'16"W
L101	259.01'	N06°02'58"W
L106	284.29'	S58°24'48"E
L107	80.28'	S80°24'04"E
L108	82.13'	N60°38'37"E
L111	103.18'	S41°53'07"W
L112	111.36'	S01°29'42"W
L113	175.05'	S28°49'22"W
L114	109.86'	S59°58'36"W
L115	214.69'	S81°37'14"W
L118	84.85'	S05°02'02"E
L119	84.86'	S02°18'35"E
L120	84.99'	S00°08'03"W
L121	86.42'	S10°56'48"W
L122	119.37'	S12°50'57"E
L123	137.62'	S46°09'41"E

LINE TABLE

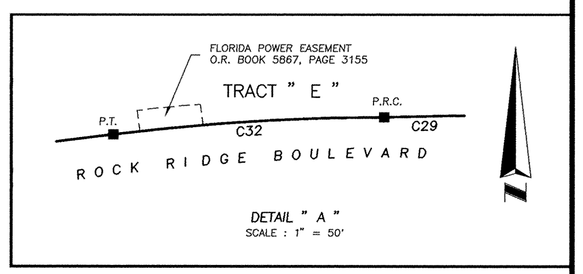
LINE	DISTANCE	BEARING
L129	219.31'	N89°42'20"W
L130	145.75'	N61°41'46"W
L131	63.12'	N36°54'24"E
L132	160.88'	N49°28'59"E
L136	111.22'	S16°06'17"W
L175	308.45'	N15°38'14"W
L176	187.16'	S27°24'00"E
L177	397.65'	S89°58'29"W
L178	145.23'	N24°01'40"W
L179	360.42'	N07°10'34"W
L180	10.00'	S00°01'31"E
L181	564.49'	S89°58'29"W
L182	165.32'	S00°01'31"E
L183	734.14'	S07°09'47"E
L184	275.83'	N89°58'29"E
L199	13.70'	S16°09'15"E
L200	74.21'	N90°00'00"E
L201	150.00'	S00°00'00"E
L202	98.79'	N90°00'00"E
L203	9.02'	N00°08'08"E
L204	30.00'	S89°51'52"E
L205	117.84'	S00°08'08"W
L206	14.22'	S56°37'37"E
L209	211.33'	S14°14'04"E
L210	214.58'	S08°52'01"E
L211	102.97'	S14°36'06"E

LINE TABLE

LINE	DISTANCE	BEARING
L212	30.02'	S14°24'37"W
L213	119.93'	S27°35'22"E
L214	55.71'	S73°50'45"W
L215	50.36'	S16°09'15"E
L216	56.31'	N73°50'45"E
L217	149.46'	N48°06'53"W
L218	35.00'	N41°53'07"E
L219	149.65'	S48°06'53"E
L220	85.30'	N42°11'19"E

CURVE TABLE

Curve	Radius	Length	Chord	Bearing	Delta
C23	770.00'	1142.78'	1040.75'	N47°37'06"E	85°02'03"
C25	830.00'	229.98'	229.24'	S11°13'16"W	15°52'32"
C29	2215.57'	260.71'	260.56'	S85°56'52"W	06°44'31"
C31	25.00'	39.27'	35.36'	N52°10'34"W	90°00'00"
C32	1045.00'	128.36'	128.28'	S86°20'34"W	07°02'15"
C46	300.00'	72.10'	71.92'	N83°05'24"E	13°46'11"
C46	135.00'	195.21'	178.64'	N48°36'02"W	82°50'57"
C47	25.00'	39.27'	35.36'	N44°58'29"E	90°00'00"
C51	485.00'	137.47'	137.01'	N81°57'57"E	16°14'23"
C52	110.00'	130.29'	122.81'	S56°04'02"E	67°51'57"
C53	360.00'	7.85'	7.85'	S42°30'37"W	01°15'00"
C54	170.00'	168.09'	161.33'	S28°18'03"W	56°39'09"
C55	25.00'	39.27'	35.36'	S45°01'31"E	90°00'00"



DETAIL " A "
SCALE : 1" = 50'

NOTES :

EASEMENT DETAILS FOR TRACTS " A ", " B ", " D " AND " F " ARE ON SHEET 5.

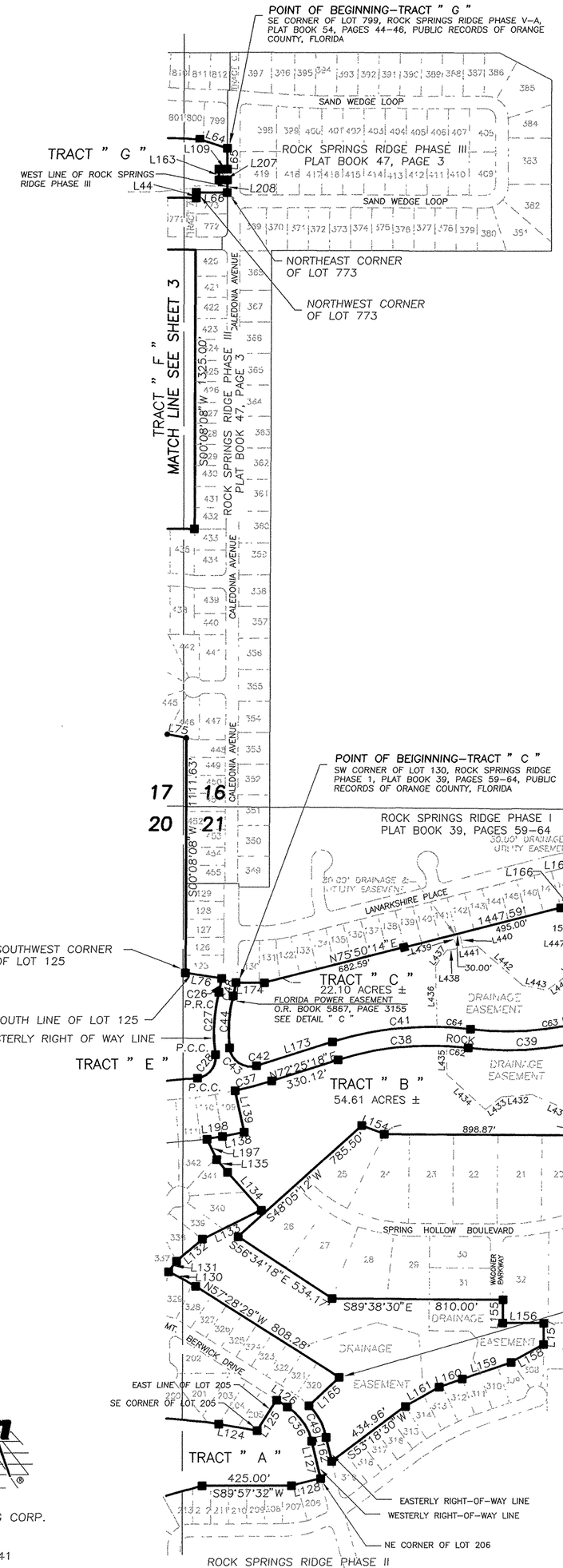
EASEMENT DETAILS FOR TRACT " E " IS ON SHEET 6.

EASEMENT DETAILS FOR TRACT " G " IS ON SHEET 7.

1" = 400'
GRAPHIC SCALE
0 200 400 800

ROCK SPRINGS RIDGE GOLF COURSE

A PORTION OF SECTIONS 16, 17, 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA



LINE TABLE

LINE	DISTANCE	BEARING
L64	137.46'	S72°06'15"E
L65	98.80'	S00°08'08"W
L66	147.00'	N89°51'52"W
L67	205.00'	S00°08'08"W
L68	60.21'	S04°53'57"W
L75	91.82'	S79°07'56"E
L76	174.10'	S81°23'33"E
L109	40.00'	N90°00'00"W
L124	237.96'	S80°29'04"E
L125	171.39'	N32°31'31"E
L126	61.16'	S57°28'29"E
L127	182.30'	S13°42'45"E
L128	142.08'	S76°17'15"W
L130	145.75'	N61°41'46"W
L131	63.12'	N36°54'24"E
L132	160.88'	N49°28'59"E
L133	310.33'	N63°50'55"E
L134	240.59'	N41°41'56"W
L135	79.66'	N40°47'33"W
L136	111.22'	S16°06'17"W
L138	105.24'	N79°12'20"E
L139	201.02'	N12°31'17"W
L140	110.67'	S13°39'30"E
L141	167.30'	S38°35'02"E
L142	167.44'	S76°36'11"E

LINE TABLE

LINE	DISTANCE	BEARING
L143	155.34'	N65°56'49"E
L144	160.71'	N22°19'36"E
L145	154.87'	N06°45'01"W
L146	99.99'	N30°49'23"W
L147	132.31'	S31°57'44"E
L148	130.74'	S55°57'01"E
L149	203.04'	S77°36'27"E
L150	74.39'	S60°30'04"E
L151	104.57'	S27°33'33"E
L152	100.00'	S44°33'23"E
L153	277.46'	S33°07'22"E
L154	114.02'	N69°11'19"W
L155	110.00'	S00°21'30"W
L156	194.42'	S89°38'30"E
L157	101.68'	S00°21'30"W
L158	186.74'	S60°58'40"W
L159	233.13'	S71°27'45"W
L160	116.72'	S70°43'07"W
L161	184.24'	S60°11'13"W
L162	115.94'	N13°42'45"W
L163	50.00'	S00°08'08"W
L165	196.50'	N46°50'27"E
L166	80.97'	S85°46'28"E
L167	88.57'	S85°32'23"E
L168	134.66'	N78°02'27"E

LINE TABLE

LINE	DISTANCE	BEARING
L169	219.80'	N68°02'40"E
L170	167.99'	S20°22'37"E
L171	237.66'	S31°57'44"E
L172	198.54'	S58°02'16"W
L173	330.12'	S72°25'18"W
L174	134.62'	S89°51'52"E
L197	108.21'	N26°05'05"W
L198	75.27'	N81°07'28"E
L207	40.00'	N90°00'00"E
L208	60.05'	S00°08'08"W

CURVE TABLE

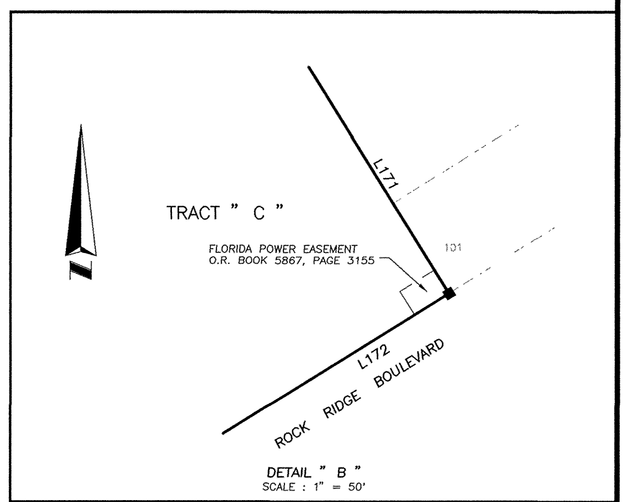
Curve	Radius	Length	Chord	Bearing	Delta
C26	715.00'	67.35'	67.33'	S11°18'22"W	05°23'50"
C27	785.00'	299.43'	297.61'	S03°04'39"W	21°51'17"
C28	100.00'	157.82'	141.95'	S37°21'49"W	90°25'35"
C36	265.00'	202.41'	197.52'	S35°35'37"E	43°45'44"
C37	2045.00'	180.49'	180.43'	N74°57'00"E	05°03'25"
C38	1455.00'	623.59'	618.83'	N84°41'59"E	24°33'22"
C39	1545.00'	556.46'	553.46'	N86°39'35"E	20°38'10"
C40	1455.00'	988.87'	969.95'	S77°30'28"W	38°56'25"
C41	1545.00'	662.16'	657.11'	S84°41'59"W	24°33'22"
C42	1955.00'	47.76'	47.76'	S73°07'18"W	01°23'59"
C43	100.00'	174.73'	153.34'	N56°07'20"W	100°06'46"
C44	715.00'	250.46'	249.19'	N03°58'10"E	20°04'14"
C48	785.00'	64.46'	64.44'	N11°39'09"E	04°42'17"
C49	265.00'	173.36'	170.28'	N28°26'09"W	37°28'54"
C50	1545.00'	30.72'	30.72'	N58°36'26"E	01°08'21"

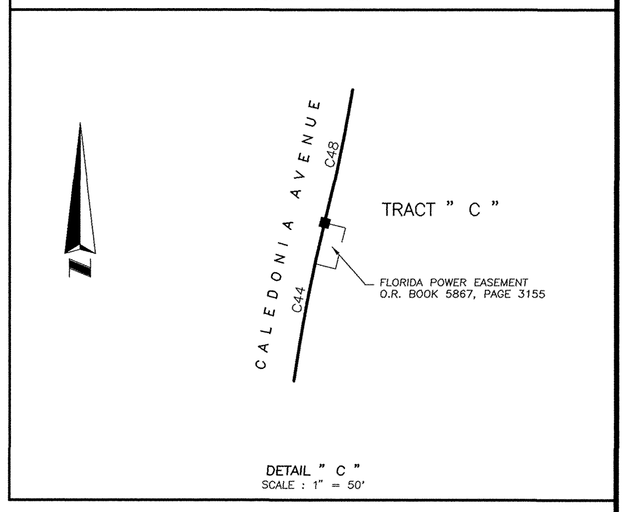
LINE TABLE

LINE	LENGTH	BEARING
L430	177.28'	S43°26'47"W
L431	281.08'	N86°34'27"W
L432	146.50'	S85°45'59"W
L433	95.21'	S52°42'52"W
L434	246.33'	N47°41'24"W
L435	134.50'	N00°00'00"E
L436	292.96'	N01°26'32"W
L437	88.02'	N35°00'43"E
L438	49.80'	N82°21'49"E
L439	67.64'	S14°09'46"E
L440	71.07'	S14°09'46"E
L441	69.22'	N82°21'49"E
L442	286.32'	S49°06'21"E
L443	116.01'	S78°20'51"E
L444	121.18'	N53°29'29"E
L445	116.89'	N26°34'52"E
L446	81.26'	N66°15'52"E
L447	170.80'	S02°04'34"E
L448	169.06'	S02°04'34"E
L449	98.42'	S77°04'57"E
L450	82.37'	S23°12'51"E
L451	195.68'	S00°00'00"E
L452	200.00'	N31°57'44"W
L453	30.00'	N58°02'16"E
L454	200.00'	S31°57'44"E

CURVE TABLE

CURVE	LENGTH	RADIUS	CHORD	BEARING	DELTA
C62	101.25'	1455.00'	101.23'	N85°00'56"W	03°59'13"
C63	760.90'	1455.00'	752.26'	N81°59'46"E	29°57'48"
C64	158.98'	1545.00'	158.91'	N85°58'12"W	05°53'44"





Southeastern Surveying

GARY B KRICK, P.S.M. NO. 4245
SOUTHEASTERN SURVEYING & MAPPING CORP.
6500 All American Boulevard
Orlando, Florida 32810-4350
(407)292-8580 fax(407)292-0141
Cert. No. LB-2108
e-mail:info@southeasternsurveying.com

NOTES :

EASEMENT DETAILS FOR TRACTS " A ", " B ", " D " AND " F " ARE ON SHEET 5.

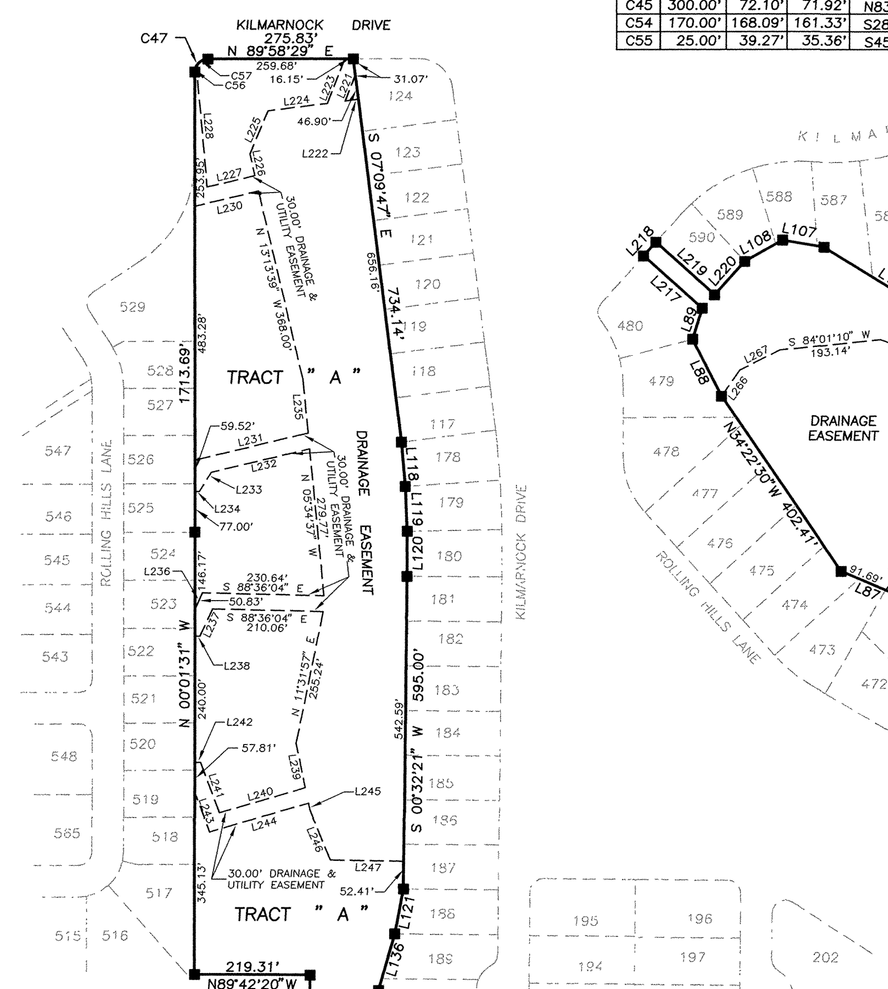
EASEMENT DETAILS FOR TRACT " E " IS ON SHEET 6.

EASEMENT DETAILS FOR TRACT " G " IS ON SHEET 7.

1" = 400'
GRAPHIC SCALE
0 200 400 800

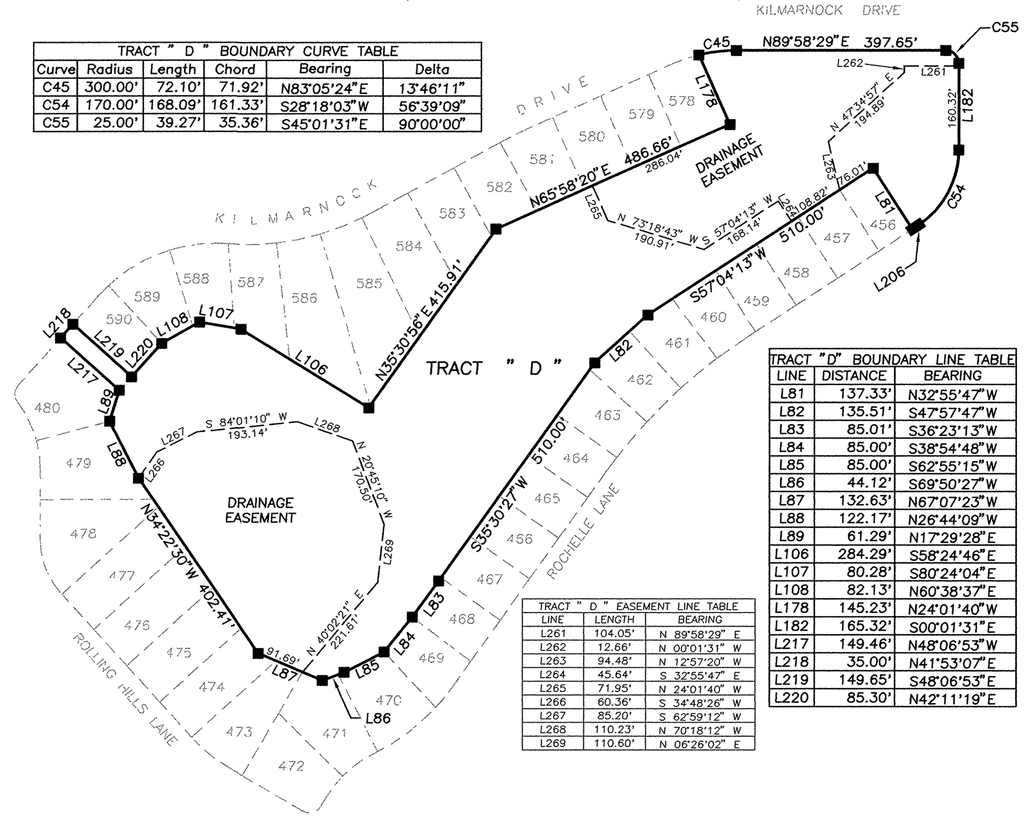
ROCK SPRINGS RIDGE GOLF COURSE

A PORTION OF SECTIONS 16, 17, 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA



TRACT " A " EASEMENT LINE TABLE		
LINE	LENGTH	BEARING
L221	53.55'	S21°41'53"W
L222	25.85'	N82°50'13"E
L223	91.33'	S21°41'53"W
L224	113.00'	N82°50'13"E
L225	87.90'	N23°05'06"E
L226	42.68'	N13°13'39"W
L227	93.08'	S76°43'11"W
L228	229.94'	N05°10'42"W
L230	124.16'	S76°43'11"W
L231	220.85'	N76°35'17"E
L232	192.11'	N76°35'17"E
L233	42.52'	S32°09'55"W
L234	8.30'	N89°58'29"E
L235	102.83'	N05°34'37"W
L236	34.09'	S24°43'27"W
L237	56.49'	S24°43'27"W
L238	9.60'	N89°58'29"E
L239	86.84'	N11°36'55"W
L240	169.78'	N73°35'56"E
L241	103.49'	S20°32'15"E
L242	10.40'	N89°58'29"E
L243	80.90'	S20°32'15"E
L244	195.17'	N73°35'56"E
L245	13.62'	N11°36'55"W
L246	102.70'	N27°28'52"W
L247	139.71'	N88°53'38"W
L248	139.68'	S00°07'37"W
L249	74.83'	N90°00'00"W
L250	139.05'	S04°57'46"E
L251	140.26'	S04°57'46"E
L252	89.25'	N90°00'00"W
L253	143.36'	N55°42'56"W
L254	61.01'	N55°42'56"W
L255	159.85'	N06°43'51"E

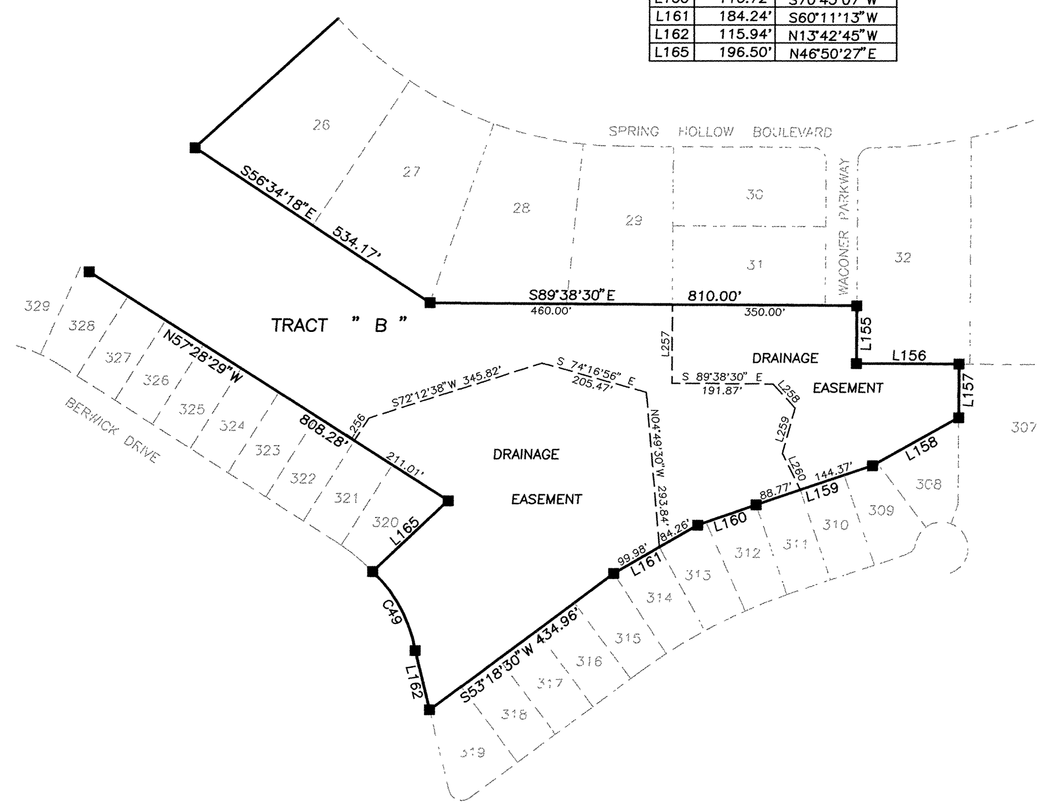
TRACT "A" BOUNDARY LINE TABLE		
LINE	DISTANCE	BEARING
L118	84.85'	S05°02'02"E
L119	84.86'	S02°18'35"E
L120	84.99'	S00°08'03"W
L121	86.42'	S10°56'48"W
L122	119.37'	S12°50'57"E
L123	137.62'	S46°09'41"E
L136	111.22'	S16°06'17"W



TRACT " D " BOUNDARY CURVE TABLE					
Curve	Radius	Length	Chord	Bearing	Delta
C45	300.00'	72.10'	71.92'	N83°05'24"E	13°46'11"
C54	170.00'	168.09'	161.33'	S28°18'03"W	56°39'09"
C55	25.00'	39.27'	35.36'	S45°01'31"E	90°00'00"

TRACT " D " EASEMENT LINE TABLE		
LINE	LENGTH	BEARING
L261	104.05'	N 89°58'29" E
L262	12.66'	N 00°01'31" W
L263	94.48'	N 12°57'20" W
L264	45.64'	S 32°55'47" E
L265	71.95'	N 24°01'40" W
L266	60.36'	S 34°48'26" W
L267	85.20'	S 62°59'10" W
L268	110.23'	N 70°18'12" W
L269	110.60'	N 06°26'02" E

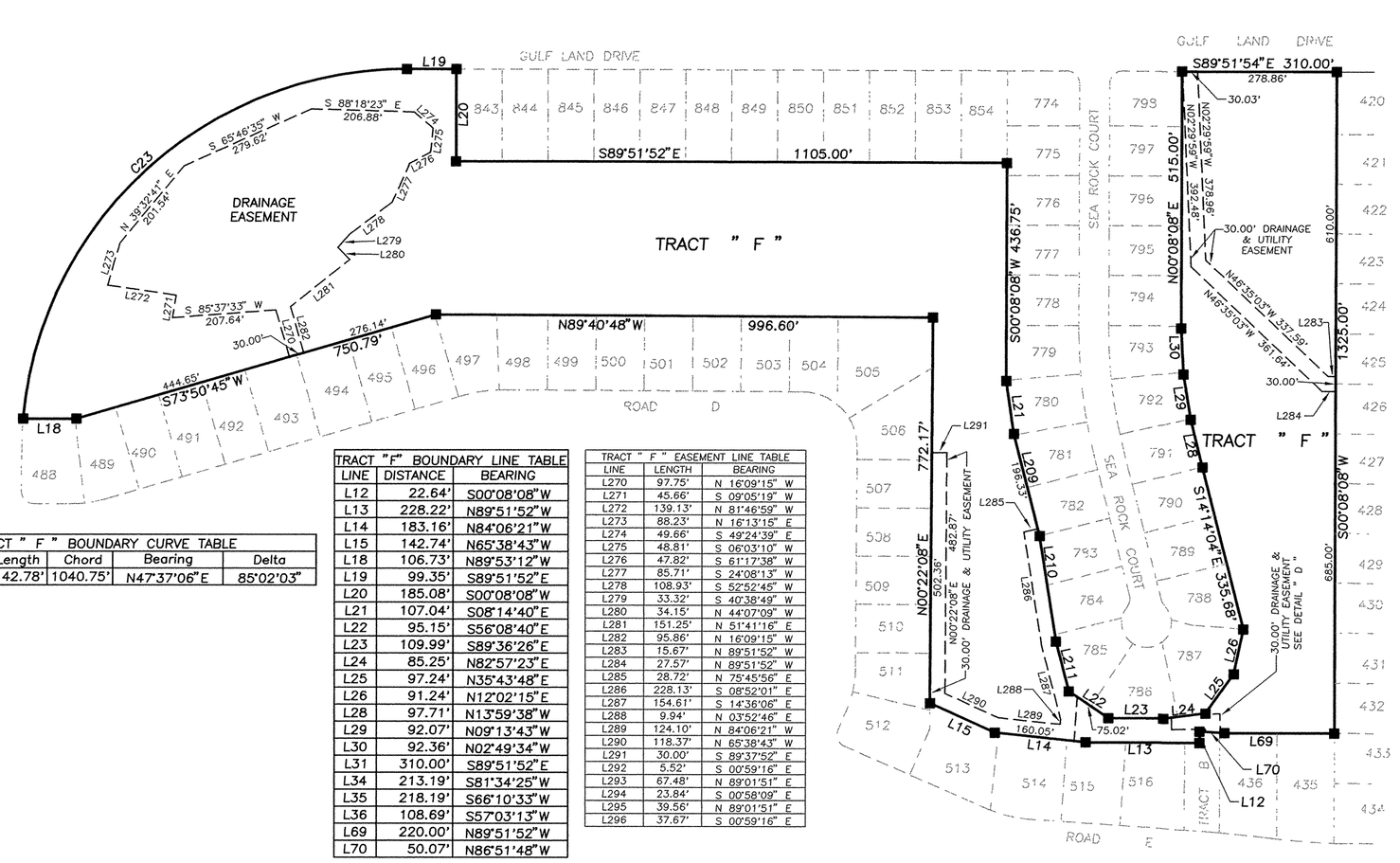
TRACT "D" BOUNDARY LINE TABLE		
LINE	DISTANCE	BEARING
L81	137.33'	N32°55'47"W
L82	135.51'	S47°57'47"W
L83	85.01'	S36°23'13"W
L84	85.00'	S38°54'48"W
L85	85.00'	S62°55'15"W
L86	44.12'	S69°50'27"W
L87	132.63'	N67°07'23"W
L88	122.17'	N26°44'09"W
L89	61.29'	N17°29'28"E
L106	284.29'	S58°24'46"E
L107	80.28'	S80°24'04"E
L108	82.13'	N60°38'17"E
L178	145.23'	N24°01'40"W
L182	165.32'	S00°01'31"E
L217	149.46'	N48°06'53"W
L218	35.00'	N41°53'07"E
L219	149.65'	S48°06'53"E
L220	85.30'	N42°11'19"E



TRACT " B " BOUNDARY CURVE TABLE					
Curve	Radius	Length	Chord	Bearing	Delta
C49	265.00'	173.36'	170.28'	N28°26'09"W	37°28'54"

TRACT " B " EASEMENT LINE TABLE		
LINE	LENGTH	BEARING
L256	50.00'	N 32°31'31" E
L257	150.00'	S 00°21'30" W
L258	52.62'	N 42°07'45" W
L259	88.61'	N 15°46'40" E
L260	76.64'	N 26°23'24" W

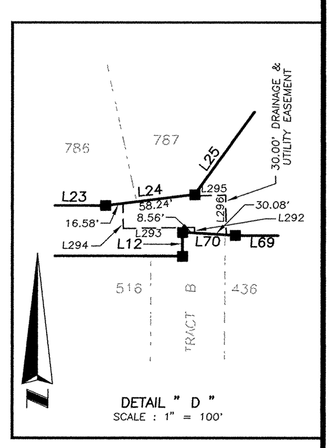
TRACT "B" BOUNDARY LINE TABLE		
LINE	DISTANCE	BEARING
L155	110.00'	S00°21'30"W
L156	194.42'	S89°38'30"E
L157	101.68'	S00°21'30"W
L158	186.74'	S60°58'40"W
L159	233.13'	S71°27'45"W
L160	116.72'	S70°43'07"W
L161	184.24'	S60°11'13"W
L162	115.94'	N13°42'45"W
L165	196.50'	N46°50'27"E

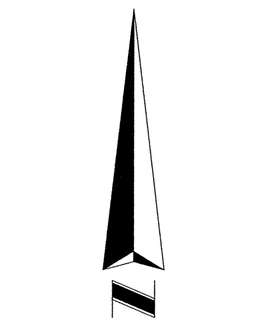


TRACT " F " BOUNDARY CURVE TABLE					
Curve	Radius	Length	Chord	Bearing	Delta
C23	770.00'	1142.78'	1040.75'	N47°37'06"E	85°02'03"

TRACT "F" BOUNDARY LINE TABLE		
LINE	DISTANCE	BEARING
L12	22.64'	S00°08'08"W
L13	228.22'	N89°51'52"W
L14	183.16'	N84°06'21"W
L15	142.74'	N65°38'43"W
L18	106.73'	N89°53'12"W
L19	99.35'	S89°51'52"E
L20	185.08'	S00°08'08"W
L21	107.04'	S08°14'40"E
L22	95.15'	S56°08'40"E
L23	109.99'	S89°36'26"E
L24	85.25'	N82°57'23"E
L25	97.24'	N35°43'48"E
L26	91.24'	N12°02'15"E
L28	97.71'	N13°59'38"W
L29	92.07'	N09°13'43"W
L30	92.36'	N02°49'34"W
L31	310.00'	S89°51'52"E
L34	213.19'	S81°34'25"W
L35	218.19'	S66°10'33"W
L36	108.69'	S57°03'13"W
L69	220.00'	N89°51'52"W
L70	50.07'	N86°51'48"W

TRACT " F " EASEMENT LINE TABLE		
LINE	LENGTH	BEARING
L270	97.75'	N 16°09'15" W
L271	45.66'	S 09°05'19" W
L272	139.13'	N 81°46'59" W
L273	88.23'	N 16°13'15" E
L274	49.66'	S 49°24'39" E
L275	48.81'	S 06°03'10" W
L276	47.82'	S 61°17'38" W
L277	85.71'	S 24°08'13" W
L278	108.93'	S 52°52'45" W
L279	33.32'	S 40°38'49" W
L280	34.15'	N 44°07'09" W
L281	151.25'	N 51°41'16" E
L282	95.86'	N 16°09'15" W
L283	15.67'	N 89°51'52" W
L284	27.57'	N 89°51'52" W
L285	28.72'	N 75°45'56" E
L286	228.13'	S 08°52'01" E
L287	154.61'	S 14°36'06" E
L288	9.94'	N 03°52'46" E
L289	124.10'	N 84°06'21" W
L290	118.37'	N 65°38'43" W
L291	30.00'	S 89°37'52" E
L292	5.52'	S 00°59'16" E
L293	67.48'	N 89°01'51" E
L294	23.84'	S 00°58'09" E
L295	39.56'	N 89°01'51" E
L296	37.67'	S 00°59'16" E





Southeastern Surveying

GARY B KRICK, P.S.M. NO. 4245
SOUTHEASTERN SURVEYING & MAPPING CORP.
6500 All American Boulevard
Orlando, Florida 32810-4350
(407)292-8580 fax(407)292-0141
Cert. No. LB-2108
e-mail:info@southeasternsurveying.com

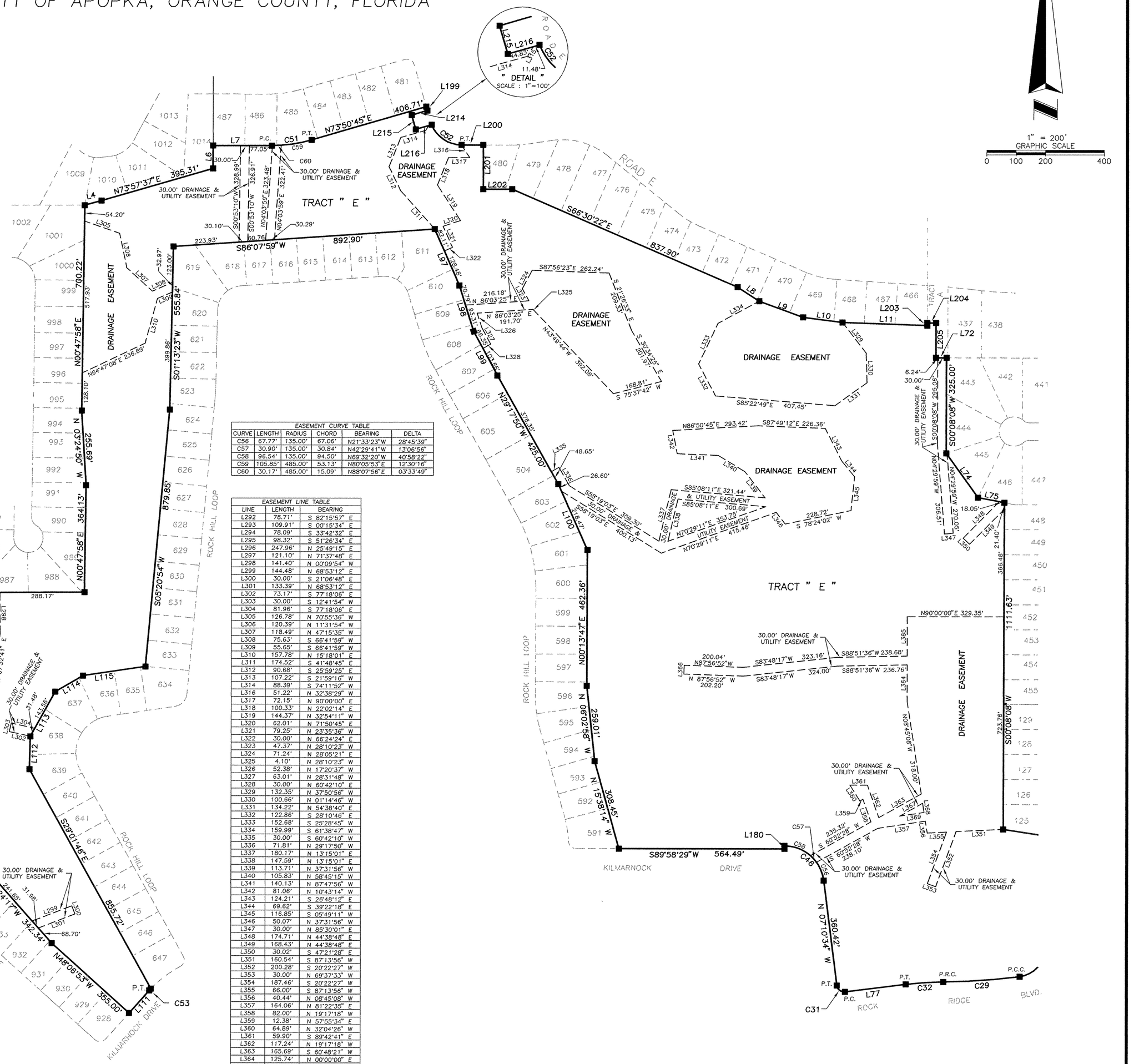
ROCK SPRINGS RIDGE GOLF COURSE

A PORTION OF SECTIONS 16, 17, 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

TRACT " E " BOUNDARY LINE CURVE TABLE					
Curve	Radius	Length	Chord	Bearing	Delta
C29	2215.57'	260.71'	260.56'	S85°56'52"W	06°44'31"
C31	25.00'	39.27'	35.36'	N52°10'34"W	90°00'00"
C32	1045.00'	128.36'	128.28'	S86°20'34"W	07°02'15"
C46	135.00'	195.21'	178.64'	N48°36'02"W	82°50'57"
C51	485.00'	137.47'	137.01'	N81°57'57"E	16°14'23"
C52	110.00'	130.29'	122.81'	S56°04'02"E	67°51'57"
C53	360.00'	7.85'	7.85'	S42°30'37"W	01°15'00"

TRACT "E" BOUNDARY LINE TABLE		
LINE	DISTANCE	BEARING
L4	59.30'	N74°29'44"E
L5	395.31'	N73°57'37"E
L6	78.01'	N00°05'08"E
L7	200.62'	S89°54'52"E
L8	87.96'	S56°57'18"E
L9	159.04'	S69°52'54"E
L10	135.52'	S82°37'16"E
L11	288.68'	S87°55'05"E
L72	36.24'	S89°51'52"E
L74	186.18'	S35°31'40"E
L75	91.82'	S79°07'56"E
L77	208.15'	S82°49'26"W
L92	116.17'	N60°26'17"W
L93	118.87'	N71°35'07"W
L94	168.52'	N44°08'35"W
L95	56.95'	N23°56'41"W
L97	210.59'	N23°35'36"W
L98	164.09'	N17°20'37"W
L99	170.02'	N28°31'48"W
L100	245.07'	S23°59'16"E
L111	103.18'	S41°53'07"W
L112	111.36'	S01°29'42"W
L113	175.05'	S28°49'22"W
L114	109.86'	S59°58'36"W
L115	214.69'	S81°37'14"W

TRACT "E" BOUNDARY LINE TABLE		
LINE	DISTANCE	BEARING
L180	10.00'	S00°01'31"E
L199	13.70'	S16°09'15"E
L200	74.21'	N90°00'00"E
L201	150.00'	S00°00'00"E
L202	98.79'	N90°00'00"E
L203	9.02'	N00°08'08"E
L204	30.00'	S89°51'52"E
L205	117.84'	S00°08'08"W
L214	55.71'	S73°50'45"W
L215	50.36'	S16°09'15"E
L216	56.31'	N73°50'45"E



EASEMENT CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD	BEARING	DELTA
C56	67.77'	135.00'	67.06'	N21°33'23"W	28°45'39"
C57	30.99'	135.00'	30.84'	N42°29'41"W	13°09'56"
C58	96.54'	135.00'	94.50'	N69°32'20"W	40°58'22"
C59	105.85'	485.00'	53.13'	N80°05'53"E	12°30'16"
C60	30.17'	485.00'	15.09'	N88°07'56"E	03°33'49"

EASEMENT LINE TABLE		
LINE	LENGTH	BEARING
L292	78.71'	S 82°15'57" E
L293	109.91'	S 00°15'34" E
L294	78.09'	S 33°42'35" E
L295	98.32'	S 51°26'34" E
L296	247.96'	N 25°49'15" E
L297	121.10'	N 71°37'48" E
L298	141.40'	N 00°09'54" W
L299	144.48'	N 68°53'12" E
L300	30.00'	S 21°06'48" E
L301	133.39'	N 68°53'12" E
L302	73.17'	S 77°18'06" E
L303	30.00'	S 12°41'54" W
L304	81.96'	S 77°18'06" E
L305	126.78'	N 70°55'36" W
L306	120.39'	N 11°31'54" W
L307	118.49'	N 47°15'35" W
L308	75.63'	S 66°41'59" W
L309	55.65'	S 66°41'59" W
L310	157.78'	N 15°18'01" E
L311	174.52'	S 41°48'45" E
L312	90.68'	S 25°59'25" E
L313	107.22'	S 21°59'16" W
L314	88.39'	S 74°11'52" W
L316	51.22'	N 32°36'29" W
L317	72.15'	N 90°00'00" E
L318	100.33'	N 22°02'14" E
L319	144.37'	N 32°54'11" W
L320	62.01'	N 71°50'45" E
L321	79.25'	N 23°36'36" W
L322	30.00'	N 66°24'24" E
L323	47.37'	N 28°10'23" W
L324	71.24'	N 28°05'21" E
L325	4.10'	N 28°10'23" W
L326	52.38'	N 17°20'37" W
L327	63.01'	N 28°31'48" W
L328	30.00'	N 60°42'10" E
L329	132.35'	N 37°50'56" W
L330	100.66'	N 01°14'46" W
L331	134.22'	N 54°38'40" E
L332	122.86'	S 28°10'46" E
L333	152.68'	S 25°28'45" W
L334	159.99'	S 61°36'47" W
L335	30.00'	S 60°42'10" W
L336	71.81'	N 29°17'50" W
L337	180.17'	N 13°15'01" E
L338	147.59'	N 13°15'01" E
L339	113.71'	N 37°31'56" W
L340	105.83'	N 58°45'15" W
L341	140.13'	N 87°47'56" W
L342	81.06'	N 17°43'14" W
L343	124.21'	S 26°48'12" E
L344	69.62'	S 39°22'18" E
L345	116.85'	S 05°49'11" W
L346	50.07'	N 37°31'56" W
L347	30.00'	N 85°30'01" E
L348	174.71'	N 44°38'48" E
L349	168.43'	N 44°38'48" E
L350	30.02'	S 47°21'28" E
L351	160.54'	S 87°13'56" W
L352	200.28'	S 20°22'27" W
L353	30.00'	N 69°37'33" W
L354	187.46'	S 20°22'27" W
L355	66.00'	S 87°13'56" W
L356	40.44'	N 08°45'08" W
L357	164.06'	N 81°22'35" E
L358	82.00'	N 19°17'18" W
L359	12.38'	N 57°55'34" E
L360	64.89'	N 32°04'26" W
L361	59.90'	S 89°42'41" E
L362	117.24'	N 19°17'18" W
L363	165.69'	S 60°48'21" W
L364	125.74'	N 00°00'00" E
L365	133.82'	N 00°00'00" W
L366	30.00'	N 02°03'08" E
L367	89.70'	S 60°48'21" W
L368	31.52'	N 08°45'08" W
L369	84.05'	N 81°22'35" E

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GARY B KRICK, P.S.M. NO. 4245
SOUTHEASTERN SURVEYING & MAPPING CORP.
6500 All American Boulevard
Orlando, Florida 32810-4350
(407)292-8580 fax(407)292-0141
Cert. No. LB-2108
e-mail:info@southeasternsurveying.com

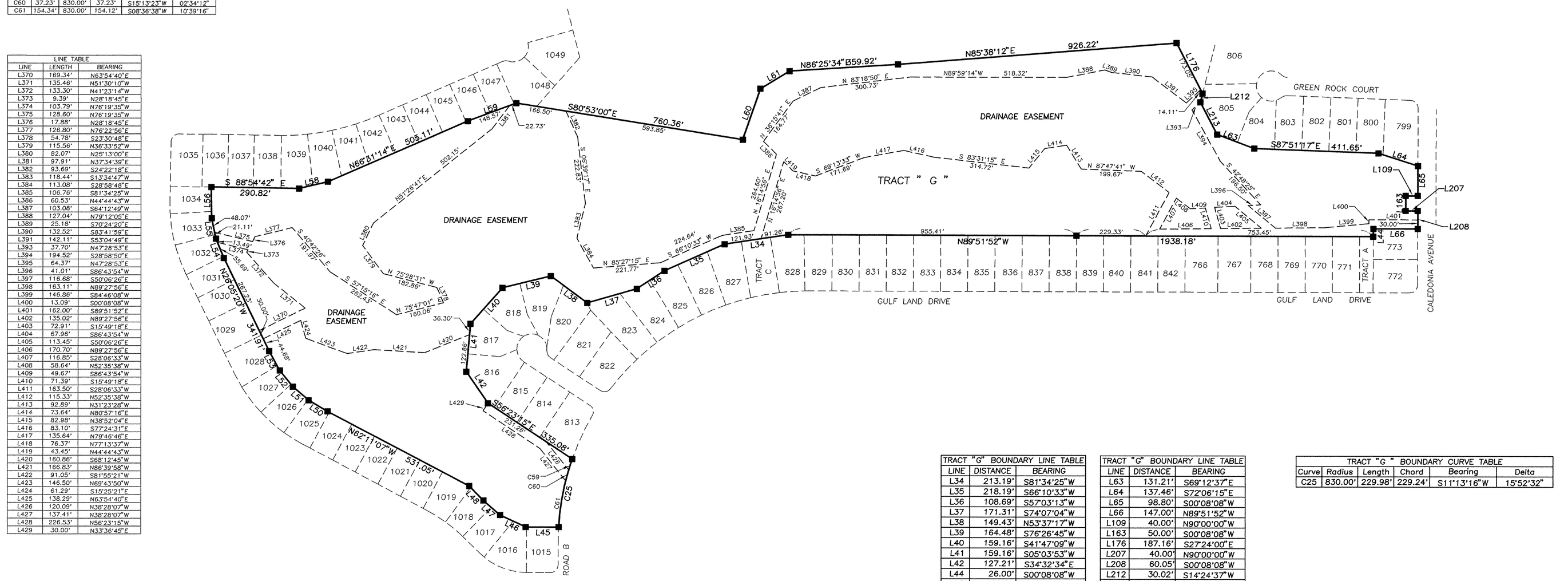
PLAT BOOK 63 PAGE 119

ROCK SPRINGS RIDGE GOLF COURSE

A PORTION OF SECTIONS 16, 17, 20 AND 21, TOWNSHIP 20 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD	BEARING	DELTA
C59	38.40'	830.00'	38.40'	S17°50'00"W	02°39'03"
C60	37.23'	830.00'	37.23'	S15°13'23"W	02°34'12"
C61	154.34'	830.00'	154.12'	S08°36'38"W	10°39'16"

LINE TABLE		
LINE	LENGTH	BEARING
L370	169.34'	N63°54'40"E
L371	135.46'	N51°30'10"W
L372	133.30'	N41°23'14"W
L373	9.39'	N28°18'45"E
L374	103.79'	N76°19'35"W
L375	128.60'	N76°19'35"W
L376	17.88'	N28°18'45"E
L377	126.80'	N76°22'56"E
L378	54.78'	S23°30'48"E
L379	115.56'	N36°33'52"W
L380	82.07'	N28°13'00"E
L381	97.91'	N37°34'39"E
L382	93.69'	S24°22'18"E
L383	118.44'	S12°34'47"W
L384	113.08'	S28°58'48"E
L385	106.76'	S81°34'25"W
L386	60.53'	N44°44'43"W
L387	103.08'	S64°12'49"W
L388	127.04'	N79°12'05"E
L389	25.18'	S70°24'20"E
L390	132.52'	S83°41'59"E
L391	142.11'	S53°04'49"E
L393	37.70'	N47°28'53"E
L394	194.52'	S28°58'50"E
L395	64.37'	N47°28'53"E
L396	41.01'	S86°43'54"W
L397	116.68'	S50°06'26"E
L398	163.11'	N89°27'56"E
L399	146.86'	S84°46'08"W
L400	13.09'	S00°08'08"W
L401	162.00'	S89°51'52"E
L402	135.02'	N89°27'56"E
L403	72.91'	S15°49'18"E
L404	67.96'	S86°43'54"W
L405	113.45'	S50°06'26"E
L406	170.70'	N89°27'56"E
L407	116.85'	S28°06'33"W
L408	58.64'	N52°35'38"W
L409	49.67'	S86°43'54"W
L410	71.39'	S15°49'18"E
L411	163.50'	S28°06'33"W
L412	115.33'	N52°35'38"W
L413	92.89'	N31°23'26"W
L414	73.64'	N80°57'16"E
L415	82.98'	N38°52'04"E
L416	83.10'	S77°24'31"E
L417	135.64'	N79°46'46"E
L418	76.37'	N77°13'37"W
L419	43.45'	N44°44'43"W
L420	160.86'	S68°12'45"W
L421	166.83'	N86°39'58"W
L422	91.05'	S81°55'21"W
L423	146.50'	N69°43'50"W
L424	61.29'	S15°25'21"E
L425	138.29'	N63°54'40"E
L426	120.09'	N38°28'07"W
L427	137.41'	N38°28'07"W
L428	226.53'	N56°23'15"W
L429	30.00'	N33°36'45"E



TRACT "G" BOUNDARY LINE TABLE		
LINE	DISTANCE	BEARING
L34	213.19'	S81°34'25"W
L35	218.19'	S66°10'33"W
L36	108.69'	S57°03'13"W
L37	171.31'	S74°07'04"W
L38	149.43'	N53°37'17"W
L39	164.48'	S76°26'45"W
L40	159.16'	S41°47'09"W
L41	159.16'	S05°03'53"W
L42	127.21'	S34°32'34"E
L44	26.00'	S00°08'08"W
L45	109.10	N89°54'17"W
L46	94.11'	N64°54'21"W
L47	72.98'	N49°09'30"W
L48	66.76'	N44°34'06"W
L50	72.73'	N59°18'38"W
L51	69.17'	N49°08'16"W
L52	69.17'	N38°49'46"W
L53	73.39'	N28°43'14"W
L54	69.18'	N22°04'42"W
L55	69.17'	N11°50'28"W
L56	104.44'	N00°51'14"W
L58	97.90'	N76°52'08"E
L59	171.31'	N69°47'31"E
L60	178.11'	N19°07'53"E
L61	112.80'	N58°51'27"E

TRACT "G" BOUNDARY LINE TABLE		
LINE	DISTANCE	BEARING
L63	131.21'	S69°12'37"E
L64	137.46'	S72°06'15"E
L65	98.80'	S00°08'08"W
L66	147.00'	N89°51'52"W
L109	40.00'	N90°00'00"W
L163	50.00'	S00°08'08"W
L176	187.16'	S27°24'00"E
L207	40.00'	N90°00'00"W
L208	60.05'	S00°08'08"W
L212	30.02'	S14°24'37"W
L213	119.93'	S27°35'22"E

TRACT "G" BOUNDARY CURVE TABLE					
Curve	Radius	Length	Chord	Bearing	Delta
C25	830.00'	229.98'	229.24'	S11°13'16"W	15°52'32"

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1" = 200' GRAPHIC SCALE
0 100 200 400

ORDINANCE NO. 978

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, TO EXTEND ITS TERRITORIAL AND MUNICIPAL LIMITS TO ANNEX PURSUANT TO FLORIDA STATUTE 171.044 THE HEREINAFTER DESCRIBED LANDS SITUATED AND BEING IN ORANGE COUNTY, FLORIDA, OWNED BY ROCK SPRINGS RIDGE, LTD., LOCATED BETWEEN KELLY PARK ROAD AND PONKAN ROAD, WEST OF ROCK SPRINGS ROAD; PROVIDING FOR DIRECTIONS TO THE CITY CLERK; FOR SEVERABILITY; FOR CONFLICTS AND AN EFFECTIVE DATE.

WHEREAS, Rock Springs Ridge, Ltd. owner thereof, has petitioned the City Council of the City of Apopka, Florida, to annex the property located between Kelly Park Road and Ponkan Road, West of Rock Springs Road; and

WHEREAS, Florida Statute 171.044 of the General Laws of Florida provides that a municipal corporation may annex property into its corporate limits, upon voluntary petition of the owners, by passing and adopting a non-emergency ordinance to annex said property; and

WHEREAS, the City Council of the City of Apopka, Florida is desirous of annexing and redefining the boundaries of the municipality to include the subject property pursuant to Florida Statutes 171.044.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Apopka, Florida, as follows:

SECTION I: That the following described property, being situated in Orange County, Florida, totaling 835.565 +/- acres, and graphically depicted by the attached Exhibit "A", is hereby annexed to the City of Apopka, Florida, pursuant to the voluntary annexation provisions of Chapter 171.044, Florida Statutes, and other applicable laws:

Legal Description:

Commencing at the Southwest corner of Section 21, Township 20 South, Range 28 East, Orange County, Florida; thence along the South line of said section run South 89 degrees 45'49" East a distance of 166.22 feet; thence North 00 degrees 09'06" East a distance of 1328.50 feet; thence North 89 degrees 42'09" West a distance of 166.18 feet; thence South 89 degrees 57'32" West a distance of 667.91 feet; thence North 00 degrees 05'28" East a distance of 666.30 feet; thence North 89 degrees 52'23" West a distance of 668.61 feet; thence North 00 degrees 01'51" East a distance of 668.26 feet; thence North 89 degrees 42'20" West a distance of 669.31 feet; thence North 00 degrees 01'31" West a distance of 100.00 feet along the West line of the East 3/4 of the Northeast 1/4 of Section 20, Township 20 South, Range 28 East to the POINT OF BEGINNING; thence continue North 00 degrees 01'31" West a distance of 2564.30 feet; thence North 00 degrees 32'09" East a distance of 658.61 feet; thence South 89 degrees 33'53" East a distance of 1341.44 feet; thence North 00 degrees 16'07" East a distance of 659.60 feet; thence North 89 degrees 36'26" West a distance of 501.67 feet; thence North 00 degrees 22'08" East a distance of 824.03 feet; thence North 89 degrees 40'48" West a distance of 1000.89 feet; thence South 00 degrees 34'47" West a distance of 822.76 feet; thence North 89 degrees 36'26" West a distance of 501.96 feet; thence North 89 degrees 54'17" West a distance of 837.28 feet; thence South 00 degrees 47'58" West a distance of 1319.35 feet; thence South 89 degrees 53'05" West a distance of 1848.65 feet along the South line of Section 17, Township 20 South, Range 28 East, Orange County, Florida; thence along the West line of said Section 17 North 01 degrees 04'57" East a distance of 2652.47 feet and North 01 degrees 05'18" East a distance of 1329.39 feet; thence South 89 degrees 38'22" East a distance of 2659.92 feet along the South line of the North 1/4 of said Section 17; thence South

00 degrees 40'11" West a distance of 331.70 feet; thence South 89 degrees 34'43" East a distance of 1327.76 feet; thence North 00 degrees 24'46" East a distance of 330.82 feet; thence South 89 degrees 32'26" East a distance of 1326.27 feet; thence North 00 degrees 09'16" East a distance of 1289.75 feet; thence South 89 degrees 45'48" East a distance of 1324.52 feet along the South R/W line of Kelly Park Road (60 foot R/W); thence South 00 degrees 05'51" West a distance of 2607.39 feet along the East line of the West 1/2 of the Northwest 1/4 of Section 16, Township 20 South, Range 28 East, Orange County, Florida; thence North 89 degrees 51'15" West a distance of 1327.11 feet; thence South 00 degrees 08'08" West a distance of 2640.42 feet along the East line of said Section 17; thence South 89 degrees 32'44" East a distance of 2658.65 feet and South 89 degrees 33'01" East a distance of 1544.13 feet along the North line of said Section 21; thence South 00 degrees 26'59" West a distance of 20.00 feet; thence South 89 degrees 33'01" East a distance of 1044.15 feet; thence along the West R/W line of State Road 435 (Rock Springs Road) South 00 degrees 23'28" West a distance of 738.70 feet; thence North 89 degrees 36'32" West a distance of 10.00 feet; thence South 00 degrees 23'28" West a distance of 100.00 feet; thence South 89 degrees 36'32" East a distance of 10.00 feet; thence South 00 degrees 23'27" West a distance of 117.90 feet; thence along said R/W and a curve concave to the East having a radius of 11509.16 feet, a central angle of 2 degrees 23'38", and an arc length of 480.87 feet; thence along the R/W and a curve concave to the West having a radius of 11409.16 feet, a central angle of 2 degrees 23'38", and an arc length of 476.69 feet; thence South 00 degrees 23'30" West a distance of 185.35 feet; thence leaving the R/W and running sixteen courses along the North, West, and South boundaries of Spring Hollow Phase 1, according to the plat thereof recorded in Plat Book 18, Pages 137 to 140 inclusive, in the Public Records of Orange County, Florida; thence North 89 degrees 36'33" West a distance of 530.00 feet; thence North 00 degrees 23'27" East a distance of 53.27 feet; thence North 89 degrees 36'33" West a distance of 133.98 feet; thence North 76 degrees 30'19" West a distance of 330.00 feet; thence North 48 degrees 04'14" West a distance of 100.00 feet; thence North 00 degrees 21'30" East a distance of 165.00 feet; thence North 89 degrees 38'30" West a distance of 430.00 feet; thence North 00 degrees 21'30" East a distance of 220.00 feet; thence North 89 degrees 38'30" West a distance of 3220.00 feet; thence North 69 degrees 11'19" West a distance of 114.02 feet; thence South 48 degrees 05'12" West a distance of 785.50 feet; thence South 56 degrees 34'18" East a distance of 534.17 feet; thence South 89 degrees 38'30" East a distance of 810.00 feet; thence South 00 degrees 21'30" West a distance of 110.00 feet; thence South 89 degrees 38'30" East a distance of 112.58 feet; thence South 00 degrees 09'15" West a distance of 779.36 feet; thence North 89 degrees 52'23" West a distance of 2466.87 feet; thence North 00 degrees 01'51" East a distance of 667.97 feet; thence North 89 degrees 42'20" West a distance of 769.41 feet to the POINT OF BEGINNING.

SECTION II: That the corporate territorial limits of the City of Apopka, Florida, are hereby redefined to include said land herein described and annexed.

SECTION III: That the City Council will designate the land use classification and zoning category of these annexed lands in accordance with applicable City ordinances and State laws.

SECTION IV: That the land herein described and future inhabitants of the land herein described shall be liable for all debts and obligations and be subject to all species of taxation, laws, ordinances and regulations of the City.

SECTION V: That if any section or portion of a section or subsection of this Ordinance proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or portion of a section or subsection or part of this ordinance.

SECTION VI: That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION VII: That this ordinance shall take effect upon passage and adoption.

READ FIRST TIME: November 6, 1996

READ SECOND TIME
AND ADOPTED: November 20, 1996

John H. Land, Mayor

ATTEST:

Connie V. Major, City Clerk

APPROVED AS TO FORM:

Frank J. Knippenbacher, City Attorney

DULY ADVERTISED FOR PUBLIC HEARING: October 20, 1996
November 8, 1996

EXHIBIT "A"

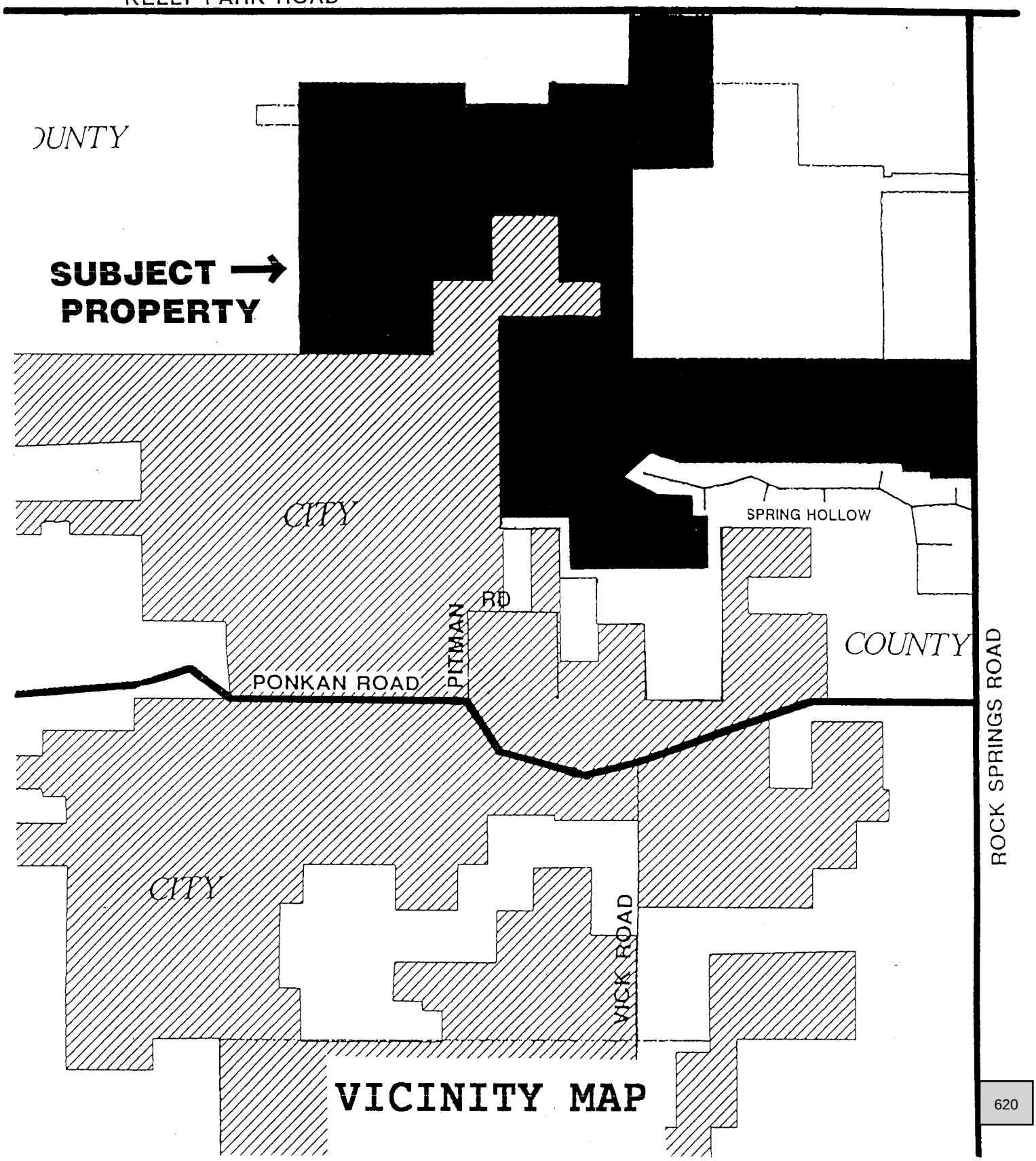


Rock Springs Ridge Ltd.

SCALE: 1" = 2,000'

Annexation Ord. No.: 978

ACRES: 835.565 +/-



DIVISIONS OF FLORIDA DEPARTMENT OF STATE
Office of the Secretary
Division of Administrative Services
Division of Corporations
Division of Cultural Affairs
Division of Elections
Division of Historical Resources
Division of Library and Information Services
Division of Licensing

MEMBER OF THE FLORIDA CABINET

HISTORIC PRESERVATION BOARDS
Historic Florida Keys Preservation Board
Historic Palm Beach County Preservation Board
Historic Pensacola Preservation Board
Historic St. Augustine Preservation Board
Historic Tallahassee Preservation Board
Historic Tampa/Hillsborough County Preservation Board

RINGLING MUSEUM OF ART

FLORIDA DEPARTMENT OF STATE
Sandra B. Mortham
Secretary of State
DIVISION OF ELECTIONS

December 3, 1996

Ms. Connie V. Major
City Clerk
City of Apopka
Post Office Box 1229
Apopka, Florida 32704-1229

Dear Ms. Major:

This will acknowledge your letter of recent date and certified copy each of Ordinance Nos. 977, 978, and 979 annexing lands into the City of Apopka, which were filed in this office on December 2, 1996.

As per our telephone conversation with your staff, we are returning the extra copy of Ordinance No. 979 and understand that you will send us No. 971, which was inadvertently left out of the above mentioned package of ordinances.

Sincerely,

Liz Cloud mw

Liz Cloud, Chief
Bureau of Administrative Code

LC/mw

BUREAU OF ADMINISTRATIVE CODE
The Elliot Building • 401 South Monroe Street • Tallahassee, Florida 32399-0250 • (904) 488-8427
FAX: (904) 488-7868 • WWW Address **http://www.dos.state.fl.us** • E-Mail: *election@mail.dos.state.fl.us*

Florida Fish and Wildlife Conservation Commission
620 South Meridian Street, Tallahassee, FL 32399

Policy, Position Statement, or Guideline (PPG)

TYPE OF PPG: Guidelines for Accepting or Releasing Perpetual Conservation Easements

ORIGIN: Division of Habitat and Species Conservation

APPROVAL AUTHORITY: Executive Director

EFFECTIVE DATE: June 4, 2019

INTENT OF PERPETUAL CONSERVATION EASEMENTS

Acceptance of conservation easements by the Florida Fish and Wildlife Conservation Commission (FWC) is a transfer of property rights intended to protect and conserve habitat for wildlife in perpetuity. Perpetual easements are commonly provided for mitigation and conservation purposes to offset impacts. When a landowner grants FWC an easement, it is understood that the transfer of title interest is permanent, and that both parties to the easement understand the intent is for permanent conservation. As stewards for wildlife, FWC accepts these permanent easements with the understanding that the habitat will be permanently protected from development or as otherwise specified in the easement.

PURPOSE OF THE GUIDELINES

The following guidelines are to guide Florida Fish and Wildlife Conservation Commission (FWC) staff in the review, approval, monitoring, and tracking process for the acceptance of a conservation easement by the FWC on private or public land (real property) for the conservation of fish and wildlife habitat to further FWC's mission and purpose. It is meant to provide a standard set of criteria to consider across FWC, except where existing protocol exists.

Similarly, these guidelines establish criteria for FWC to consider when evaluating requests for release of conservation easements, or a part thereof, granted to FWC through a gift, donation, or any other conveyance for the purposes of conservation and/or mitigation of impacts to fish and wildlife and their habitat, where a release or a replacement protocol has not previously been approved, or as provided in a Commission-approved management plan specific to the release of conservation easements. These guidelines provide a standard set of criteria to consider across FWC programs. These criteria and procedures for releasing and replacing conservation easements where FWC is the grantee, are meant to provide for consistent, responsive decisions to landowners requesting release of an easement.

A. CONSERVATION EASEMENT ACCEPTANCE GUIDELINES

Conservation easements convey an interest in land from the landowner to the grantee accepting the easement, and as such, are a powerful tool to protect wildlife habitat. However, without proper vetting, an easement can become a burden on the holder. In order to meet its mission, FWC accepts easements that provide enduring benefits to conservation, and for which the continual management is ensured. Factors that staff must consider before recommending acceptance of an easement include:

1. Whether the easement is located in one of FWC's Priority Habitat Areas. Conservation easements proposed for lands outside FWC Priority Habitat Areas may be considered with documentation by FWC staff that the easement would provide perpetual enduring benefits for fish and wildlife resources. Forty (40) acres is the minimum size of contiguous acres that FWC will typically accept under easement; properties smaller than 40 contiguous acres require Acquisition and Restoration Council review to qualify for the tax exemption under s. 196.26, F.S. Smaller parcels may be accepted on a case-by-case basis with justification.
2. Whether the property is likely to have consistent, appropriate management. Staff should consider factors such as: whether the landowner has a management plan, if a trust or some other financial product exists to provide management funding into the future, and if the easement location is adjacent to property being managed by a governmental agency that is willing to undertake the management to protect the conservation benefits of the property.
3. Whether the FWC program recommending the easement has the structure and resources necessary to ensure monitoring and compliance. Conservation easements include terms specific to the property, landowner, or purpose for which the easement was granted. When FWC accepts an easement, it is accepting the responsibility of monitoring the property for compliance, and, if that compliance is not occurring, either accepting the responsibility for management or for enforcement of the terms of the easement.

Since easement requirements are different depending on the program accepting them, each program desiring to accept easements shall create an easement protocol, which shall be submitted to the HSC Division Director or designee(s) for approval. Conservation easement protocols shall adhere to the requirements and guidance described in these guidelines and shall explain the details of how the easement program will be implemented. Elements to be addressed include, but are not limited to, the identification of staff to run the program, program purpose and objectives, selection criteria, success measures, reporting requirements, and internal tracking and reporting. The Conservation Easement Protocol Form (available on SharePoint) shall be used to prepare and submit all protocols. Identified staff will be responsible for implementing all aspects of each approved protocol, including processing individual easements, tracking compliance, entering appropriate data into a conservation easement database, and providing relevant program status information for annual reviews. The Land Conservation Planning subsection (LCP) in the Division of Habitat and Species Conservation shall periodically review the status of all conservation easement protocols and institute changes as needed based on the respective annual program review reports. Specific characteristics of conservation easement programs that may deviate from these guidelines must be approved by the LCP.

All easements accepted by the agency shall be included in a geodatabase managed by the LCP. The LCP shall review title documents and be included and have commenting authority in the creation of easements that will be held by the agency. Initial site visit and subsequent site reviews shall be the responsibility of the Division originating the easement, with reports provided to LCP.

1. Staff **shall require** the following (referenced forms available on SharePoint) in order to start a review of a potential conservation easement:
    a. FWC Conservation Easement Application: Submittal of an FWC Conservation Easement Application by the landowner and, if applicable, an FWC permit application.
    b. Baseline Report: Completion of a baseline easement report and resource inventory or equivalent acceptable to FWC that documents the condition and type of habitat along with any improvements on the property.
    c. Management Plan: Include existing habitat management plan, Landowner Assistance Program (LAP) Conservation Plan, Forest Stewardship Plan, grazing plan or equivalent. The habitat management plan accepted by FWC must include a commitment by the landowner to manage the property in perpetuity in compliance with the habitat management plan to ensure the long-term conservation of the habitat and associated fish and wildlife resources.
    d. Endowment: The landowner must provide an endowment or equivalent FWC-approved financial assurance instrument such as FWC Species Permitting - Financial Assurance Guidelines for funding perpetual management and monitoring requirements of the proposed conservation easement. Financial assurance requirements can be waived for properties that otherwise meet FWC conservation goals.
    e. Due Diligence: The landowner is responsible for all costs of the conservation easement grant or donation including a Title Commitment and Policy (TCP), Environmental Site Assessment (ESA), Property Boundary Survey (PBS), documentary stamp taxes, and recording fees. A waiver of the TCP and ESA or PBS may be approved by the HSC Division Director according to each conservation easement program protocol. *
    f. No subdivision: Landowners must agree in the conservation easement documents that they will not subdivide the land held under the easement.

    *Due diligence products (title work and policies, boundary surveys, Environmental Site Assessment, etc.) are to be ordered from companies on the State of Florida's approved list of contractors, but may be contracted from companies not on the State's list if approved by the FWC Land Conservation and Planning Administrator.

2. Conservation Easement Application Review
    a. Responsibilities of the Conservation Easement Project Coordinator
        i. Each application shall be assigned to a Conservation Easement Project Coordinator who shall coordinate the preparation of the Conservation Easement Application.

ii. The Coordinator shall document the submittal of a Conservation Easement Application by the landowner along with a copy of the recorded deed verifying ownership in the landowner's name, tax ID number of proposed conservation easement parcel, property appraiser aerial photo and/or tax map of proposed donation parcel, and a legal description and/or existing survey of the proposed conservation easement parcel.

iii. The Coordinator shall coordinate completion of a Conservation Geographic Information Systems (GIS) Environmental Resource Analysis of the property and obtain a shapefile or digitized boundary of the property.

iv. The Coordinator shall distribute the FWC Conservation GIS Environmental Resource Analysis and Conservation Easement Application for the proposed conservation easement to the appropriate FWC region and Division or Office for evaluation of the potential long-term benefits and to ensure consistency with FWC's Conservation Easement Guidelines.

b. Each Protocol shall state which staff are responsible for document review, who shall respond to and correspond with the applicant regarding application or due diligence deficiencies, and how the final recommendation of approval or denial shall be processed and provided to the HSC Division Director.

c. The HSC Division Director, in consultation with the Executive Director, shall approve or deny Conservation Easement requests.

3. Upon approval, FWC staff will proceed with coordination and preparation of the conservation easement and associated documents, obtain FWC legal approval of the easement and associated documents, and then forward them to the landowner for execution. FWC staff will include an easement acceptance page for agency signature prior to the easement being recorded in the county where the property is located. This is to make sure that FWC agrees and accepts the responsibility of monitoring and enforcing the easement into the future.

   a. Conservation easements shall be treated as contracts and routed, and a copy of the recorded easement archived in FWC's Contracts archive, unless an alternative routing and archiving process is created specifically for easements.

   b. The Executive Director or Designee shall sign for acceptance of the easement.

   c. In certain instances, FWC may negotiate conservation easements that may be held by other agencies or organizations. In those cases, each of those agencies or organizations policies for review and approval of conservation easements would also apply.

B. CONSERVATION EASEMENT RELEASE GUIDELINES

Conservation easements are an interest in land held for the public and a conservation purpose and are supposed to protect these interests in perpetuity. However, when landowners request the release of conservation easements, commission staff shall use the following guidelines to determine whether release is appropriate. Requestors shall provide compensation that provides a net conservation benefit. Following the guidelines will ensure that the release meets the requirement of a net conservation benefit, minimizes risks to the agency, and is treated consistently with other release requests.

1. Release Requests: Requestors must provide mitigation to permanently offset the impacts to the habitat/species due to their requested alteration to the conservation easement, even if mitigation requirements have been met for species impacts.

    a. Avoidance – Landowner must avoid development within a conservation easement unless no other practical and prudent alternative is available, and all steps to minimize impacts as set forth below are implemented. A request to release and replace a conservation easement must include a comparison of the social, economic, and environmental effects of the alternative locations considered for the development impact and why these alternatives were not practical and/or prudent.

    b. Minimization – Landowners requesting to release and replace a conservation easement, or part thereof, must show that adverse impacts to lands under the conservation easement will be minimized through reasonable measures where applicable by: locating the project in areas where less adverse impacts are expected, such as areas which have already been altered/impacted and are less sensitive than other areas; avoiding significant wildlife habitats, natural aquatic areas, wetlands, or other valuable natural resources; selecting areas to minimize impact to native habitat; employing best management practices in construction and operation activities; designing access roads and site preparation to avoid interference with hydrologic conditions that benefit wildlife and their habitat and reduce impacts on other wildlife resources; selecting areas that will not increase undesirable human activities on the lands under a conservation easement; and generally, not adversely impacting the habitat and species management on such lands.

2. Ideal replacement properties are the same habitat type or habitat that supports the species for which the easement was originally given and are contiguous to the effected parcel or in the same FWC region as the original easement. Replacement habitat shall be in the same condition as the easement property or better. Additional acreage may be required when the easement property being released fragments existing land under an easement, and/or is in better condition than the replacement property.

3. Compensation – If the easement replacement or modification request is accepted by FWC, monetary compensation plus habitat replacement resulting in a net conservation benefit must be received by FWC in conjunction with easement release/replacement acceptance. For example, if a landowner requests to be released from 10 ac of a 100 ac easement, the landowner must pay FWC an amount not less than the fair market value of the 10 ac, plus provide a property interest in similar or like habitat replacement according to the following criteria.
    a. The applicant will pay the FWC an amount not less than the fair market value of the interest acquired in the parcel on which the linear or non-linear facility and related appurtenances will be located.

i. Funds provided to FWC or a 3rd party non-governmental organization for management and/or in-kind services in lieu of habitat replacement, will not be considered as a "net conservation benefit."

b. The applicant will provide to FWC the appropriate measure of additional land necessary to offset the actual acres of habitat proposed for release. FWC permits may also be required if impacts to protected species are likely by the proposed work.
   i. Where habitat and wildlife corridor(s) will still exist (post- easement modification), the preferred "net conservation benefit" is 1.5 times the released acreage of like-habitat contiguous to the easement or lands managed by FWC (or other approved public agency) that yields a conservation benefit to wildlife (refer to the Conservation Easement Acceptance Guidelines above for easement acceptance criteria).
   ii. Where habitat and wildlife corridor(s) will not exist (post- easement modification), the preferred "net conservation benefit" is 3 times the released acreage of like-habitat contiguous to the easement or lands managed by FWC (or other approved public agency) that yields a conservation benefit to wildlife (refer to the Conservation Easement Acceptance Guidelines above for easement acceptance criteria).
   iii. In both scenarios, FWC will consider the replacement habitat ratio with the quality of the release habitat compared to replacement habitat, adjacency to other managed protected lands, and wildlife occurrences on the proposed property for release and replacement property.
   iv. Requestor shall work with staff to determine suitable replacement property.

c. Compensation requirements specific to linear facilities – Only after all efforts to avoid and minimize impacts (see 1a and b above) to the lands protected under the conservation easement have been exhausted, FWC will consider easement modification requests for linear facilities and related appurtenances (e.g., electric, telecommunications or pipeline transmission and distribution facilities) for the purposes of providing services for public benefit based on the following criteria.
   i. If the end result **will not** result in a permanent loss of habitat and the land will continue to provide wildlife habitat and corridors which retain prohibitions on development and conversion, the request must include a proposal for the compensation described in a. The existing easement must also be modified, and the allowable future use of the linear facility must be incorporated into the existing easement.
   ii. If the end result **will** result in a loss of habitat or impact to the wildlife, the request must include a proposal for compensation described in a. *and* b. The existing easement must also be modified, and the allowable future use of the linear facility must be incorporated into the existing easement.

4. Violations - In cases where there has been a violation of the conservation easement, a release request will only be considered if the landowner provides compensation at a minimum as listed in both 3a and 3bii above.

5. Temporary impacts - Where the landowner is requesting a release due to an impact that is temporary and does not result in permanent loss of habitat, FWC and the landowner may agree to a temporary easement modification with appropriate mitigation for the habitat impacts, in lieu of release.

6. Incentive-based easements - FWC will not consider a release if the easement is provided through an FWC conservation incentive or regulatory program and the landowner has received any portion of the incentive or benefit (e.g., 3rd party mitigation income, or conservation incentive payments) under that easement from that program. If the landowner has not received any portion of the incentive or benefit (e.g., 3rd party mitigation income, or conservation incentive payments), FWC will consider the release in accordance with 1 above.

C. APPLICABLE CONSTITUTIONAL PROVISIONS, STATUTES AND RULES

1. Article XII, Section 28, Florida Constitution; Sections 193.501, 196.26, 259.105, 379.212
2. 704.06 Florida Statutes (F.S.).
3. FWC Internal Management Policies and Procedures (IMPP) 4.2. Contract Routing

D. DEFINITIONS

- **Conservation Easement Project Coordinator** - Conservation Easement Project Coordinators are the lead staff within each respective program office designated for coordinating evaluation and consideration of conservation easements.
- **Conservation easement tracking system** – LCP shall develop and maintain a centralized Geographic Information Systems database to record specific data sets related to all conservation easements held by FWC. This database shall be used for documenting, managing and monitoring conservation easements.
- **FWC Priority Habitat Areas:** FWC priority conservation areas are those areas identified by FWC as meriting strategic conservation priority and include, but are not limited to, Strategic Habitat Conservation Areas (SHCA), Critical Lands and Waters Identification Project (CLIP Priority I and II areas), Florida Forever Project Boundaries, other approved Public Conservation Acquisition Project Boundaries, FWC Florida Forever List Lands, FWC Optimum Conservation Planning Boundaries, FWC Wildlife Conservation Prioritization and Recovery (WCPR) Focal Species Habitat, FWC Landowner Assistance Program (LAP) Focal Areas, U.S. Fish and Wildlife Service's (USFWS) Critical Habitat, FWC Critical Wildlife Areas, USFWS or FWC Conservation Banks, FWC Mitigation Banks, Wetland Mitigation Banks, Species Specific Management Plans and Priority Habitats (for example; Bald Eagle Protection Sites and Gopher Tortoise Priority Habitats and Recipient Sites), and State Wildlife Action Plan Priority Habitats.

- **Net conservation benefit** - any effective action or transaction which promotes the overall characteristics of protected land under a conservation easement to benefit wildlife and their habitat. It is compensation over and above the market value of the affected parcel to offset any requested use or activity which would preclude or affect, in whole or in part, current or future uses of the natural resource lands. With regard to these guidelines, net conservation benefit shall not be solely monetary compensation, but shall include monetary compensation and at least 1.5 acres for every acre released of wildlife habitat in similar or better condition.
- **Perpetual conservation easement** – means a right or interest in real property which is appropriate to retaining land or water areas predominantly in their natural, scenic, open, agricultural, or wooded condition; retaining such areas as suitable habitat for fish, plants, or wildlife in perpetuity and without an expiration date. Because perpetual conservation easements are binding on future owners, the resource values of these properties are protected in perpetuity

E. IMPLEMENTATION PROCEDURES

Once reviewed by the appropriate program/contract manager where the easement applies, the program/contract manager must consult with the Legal Office for consistency with these guidelines and other applicable laws and rules prior to presenting to their Division for approval. Once the release or modification is approved, the amended conservation easement or release approval letter must be routed through LCP and the legal office and signed by the Executive Director or their delegate.

APPROVED:

Thomas H. Ean — Executive Director or Designee

6/4/19 — Date

BENGE DEVELOPMENT
CORPORATION
Development Consulting Brokerage

October 18, 2021

Mr. Edward Bass
City Administrator
City of Apopka
120 East Main Street
Apopka, FL 32703

RE: City of Apopka land on Harmon Road

Dear Edward:

Standard Investments and Holdings, LLC, and/or assigns, agent for an entity to be formed, (the "Purchaser") is interested in purchasing the above-described property (the "Property") as outlined below. This letter (this "Letter") is intended as a letter of intent to form the basis of some of the terms and conditions on which to draft a formal written Purchase and Sale Agreement (the "Contract").

Property: The Property consists of +/- 31 acres attached hereto as Exhibit "A". .

Purchase Price: The Purchase Price shall be Six Million Five Hundred Thousand ($6,500,000), to be paid all cash at closing, less customary prorations and credits to Purchaser for the Earnest Money.

Zoning: The Property is to be rezoned PD

Inspection Period: Purchaser shall have a period of One Hundred Eighty (180) days from the execution of a Contract as described below (the "Inspection Period") within which to review, inspect and evaluate all aspects of the Property including, without limitation, conducting and/or obtaining appraisals, market feasibility studies, engineering reports, zoning investigations, surveys, title examinations, environmental audits, geotechnical reports, and related investigations and reports. Seller shall be responsible for providing Purchaser with all items listed on Exhibit "B" attached hereto (the "Due Diligence Information") within five (5) business days of the execution of the Contract. Purchaser may begin its inspections that require access to the Property immediately upon the execution of the Contract. Purchaser agrees to provide to Seller, upon request, copies of all appraisals, market feasibility studies and other reports prepared by third parties in connection with Purchaser's inspections of the Property. If Purchaser elects not to proceed with the closing, Purchaser shall deliver to Seller all original reports and documents

related to Purchaser's inspections, together with reliance letters in favor of Seller, at Seller's expense.

Purchaser may, at any time on or before the end of the Inspection Period and in Purchaser's sole discretion, terminate the Contract for any reason whatsoever by giving written notice to Seller. If Purchaser does terminate the Contract, then Purchaser and Seller shall have no further rights or obligations under the Contract and all Earnest Money and interest thereon shall immediately be refunded by Escrow Agent to Purchaser.

Closing Date: The closing shall occur within fifteen (15) days after the end of the Inspection Period, provided that Purchaser shall have the option to extend the Closing Date for two (2) additional periods of thirty (30) days each. In the event Purchaser elects to extend the Closing Date, purchaser shall pay directly to Seller $15,000.00 for each such extension. Purchaser agrees that the two (2) extension price payments referenced above are fees paid to Seller in consideration for the grant of each extension, are non-refundable, and shall not be applicable to the Purchase Price.

Earnest Money: Purchaser shall deposit $25,000.00 (the "Initial Deposit") with Romanello & Goode as Escrow Agent upon the execution of a Contract by Seller and Purchaser. An additional $75,000.00 (the "Additional Deposit") shall be deposited with the Escrow Agent within five (5) business days after the end of the Inspection Period unless Purchaser has elected to terminate the Contract. Upon the end of the Inspection Period, the Initial Deposit and the Additional Deposit (collectively the "Earnest Money") shall become non-refundable but applicable to the Purchase Price at Closing. All interest, if any, on the Earnest Money shall be the sole property of Purchaser. Purchaser will be expending substantial amounts of funding to complete market studies, feasibility analysis, etc., necessary to substantiate the viability of the project reports, analysis, etc. All of which will be made available to the Seller.

Title. Seller shall convey to Purchaser by limited [or special] warranty deed insurable fee simple title to the Property, free and clear of all liens and encumbrances other than those imposed by the Master Declaration and those not objected to Purchaser ("Permitted Encumbrances"). Insurable title shall mean fee simple title that is insurable without exception, other than the standard pre-printed exceptions and the Permitted Encumbrances, by a national title insurance company acceptable to Purchaser at standard rates;

Possession. Possession of the Property shall be delivered to Purchaser on the Closing Date subject only to the Permitted Encumbrances; and

Representations and Warranties. Seller shall provide limited representations and warranties regarding items to which Seller has knowledge of and which are not discoverable by Purchaser in the course of Purchaser's inspections. Said representations and warranties shall be true and correct as of the Closing Date and shall survive closing for a period of six (6) months after Closing.

Closing Costs
And Cash Adjustments: Real estate taxes for the year of Closing shall be prorated as of the Closing Date. All liens or assessments against the Property as of the Closing Date shall be paid in full by Seller. All charges for utilities or other services furnished to the Property through the

Closing Date shall be paid by Seller. Seller shall pay for its attorneys' fees and the cost of obtaining a title commitment for an owner's title insurance policy and the premiums for such policy, provided however, that if Purchaser is obtaining a simultaneous issue lender's policy, the costs of the title premium for both policies shall be shared equally between Purchaser and Seller. Purchaser shall pay all transfer taxes and documentary stamp taxes, the cost of any endorsements to the title policies requested by Purchaser or its lender, the cost of obtaining a current ALTA survey of the Property, Purchaser's attorney's fees and all costs associated with Purchaser's construction financing.

Brokerage Fees: Purchaser is represented by Benge Development Corporation and shall receive a commission of 3% paid by Seller. Purchaser and Seller represent and warrant that they have not dealt with any real estate broker or agent in connection with this transaction other than. Purchaser and Seller will each indemnify one another against any claims from other third-party brokers with whom they have had any dealings in connection with this transaction.

Contract: Immediately upon the execution of this Letter by both parties, Seller will proceed with having a formal Contract drafted by its legal counsel incorporating the terms of this Letter and such other terms as may be mutually acceptable to Seller and Purchaser. If a Contract is not agreed to and executed by both parties within thirty (30) days after the signing of this Letter, then this Letter shall be deemed to have terminated and there shall be no further obligations between the parties.

Assignability: Upon the written consent of Seller (which is not to be unreasonably withheld, conditioned or delayed), Purchaser may assign its interests in this Letter and a subsequent Contract, provided however, that Purchaser shall have the right to assign its interest in the Contract to a party controlled by Purchaser.

Confidentiality: Purchaser agrees not to disclose any information regarding the Property, the Landings Project, Seller or Seller's involvement in the proposed transaction to any person or entity other Seller's advisors, agents and consultants who will assist Seller in the transaction, and Seller will inform them of the confidentiality agreements of this Letter and their duty to comply with its terms.

THIS LETTER SHALL SERVE AS THE BASIS FOR A FORMAL CONTRACT BETWEEN PURCHASER AND SELLER AND IS INTENDED TO OUTLINE THE BASIC TERMS AND CONDITIONS OF A CONTRACT. BOTH PURCHASER AND SELLER UNDERSTAND THAT, EXCEPT FOR THE PROVISIONS OF THE LAST PARAGRAPH HEREOF, THIS LETTER IS NOT INTENDED TO BE A LEGAL AND/OR BINDING AGREEMENT UNTIL SUCH TIME AS A FORMAL CONTRACT IS FULLY EXECUTED BY BOTH PARTIES.

If this Letter is acceptable to the Seller, please indicate so by signing and dating below. This Letter will expire at the close of business on November 06, 2021 if this Letter has not been signed by the Seller and returned to us by that date.

If this Letter is accepted by Seller then Seller agrees that the Property will be taken off the market for so long as this Letter or the Contract is in effect, and, to that end, neither the Seller nor any agent, representative or employee of Seller will seek to sell or otherwise market the Property during such period. From and after Seller's execution of the Contract, Seller will

provide Purchaser and its agents and representatives with full and free access to the Property and to all financial, marketing and operating records pertaining to the Property. Purchaser agrees to use such records and information solely in connection with the transactions contemplated by this Letter.

SIGNATURE PAGE ATTACHED

Sincerely,

Tony Benge
Manager

ACCEPTED AND AGREED TO AS OF
THIS _____ DAY OF OCTOBER 2021

BY:_____

NAME: _____

ITS: _____

EXHIBIT "A"

PROPERTY

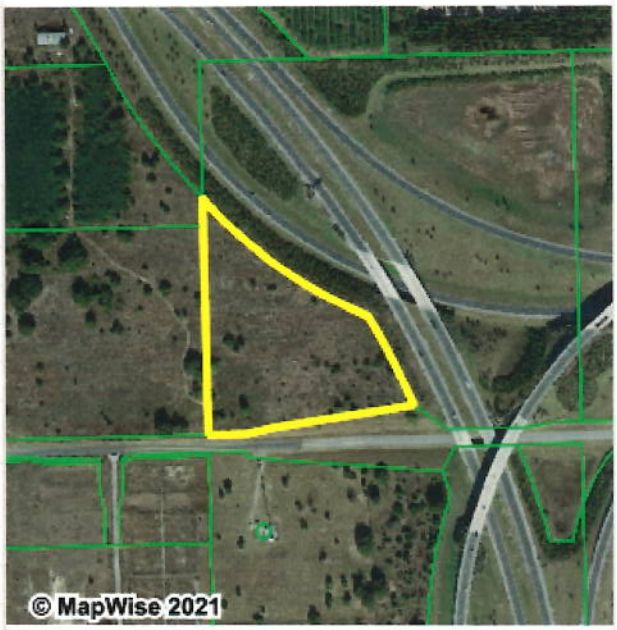
[see attached]

Exhibit "A"

Owner and Property Description

Owner Name:	CITY OF APOPKA
Mailing Address:	120 E MAIN ST APOPKA FL 32703
Site Address:	2139 HARMON RD APOPKA FL 32703
Subdivision:	
County:	ORANGE
Land Use Code:	8000
Land Use Desc:	Open Code
Land Use FDOR Code:	80
Land Use FDOR Desc:	Undefined
Zoning:	MU-ES-GT
Acres:	8.04
PIN:	28-21-19-0000-00-009
PIN2:	19-21-28-0000-00-009
ALTKEY:	
Last Data Update:	09/22/2021

Parcel Map



Legal Description (not official)

COMM SW COR OF NE1/4 OF NE1/4 OF SEC 19- 21-28 TH RUN N00-01-36E 30 FT TO POB TH CONT RUN N00-01-36E 837.39 FT TO NON-TA NGENT CURVE CONCAVE NELY CHORD BEARING S NELY CHORD BEARING S53-10-45E FOR 728.26

Building Summary

Actual Year Built:	
Effect. Year Built:	
Living SqFt:	0
Total SqFt:	0
Adjusted SqFt:	
Beds:	0
Baths:	
Stories:	
Num. of Buildings:	

2021 Preliminary Values

Land:	$172,166
Land Agricultural:	$0
Building:	$0
Misc:	$0
Just Value:	$172,166
Assessed Value:	$172,166

Recent Sales

Sale Date	Book/Page	Docnum	Price	Instrument	Qualified	Vac. or Impr.	Grantor
1988-03-01		19882970431	$159,800	WD	U	V	
1983-11-01		19832032539	$210,000	WD	U	V	
1978-12-01		19781326846	$100,000	WD	Q	V	

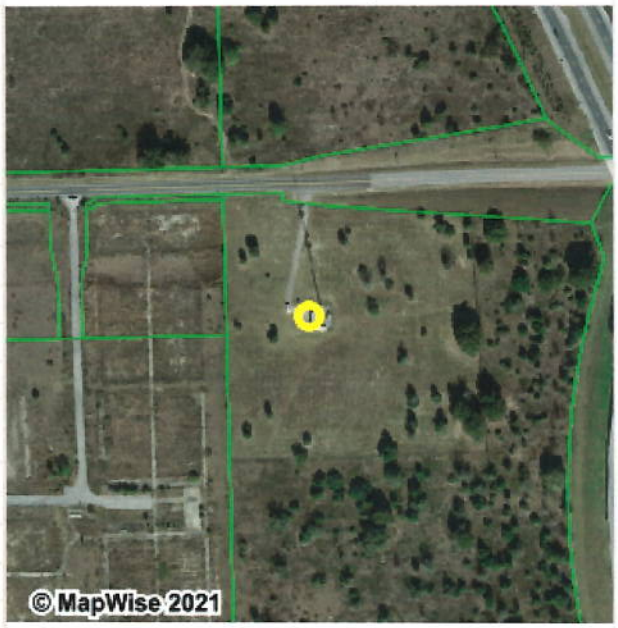
Sunbiz Corporate Data

Title	Name	Address1	City	State	Zip Code

Owner and Property Description

Owner Name:	CITY OF APOPKA C/O NEXTEL SOUTH CORP
Mailing Address:	120 E MAIN ST APOPKA FL 32703
Site Address:	HARMON RD APOPKA FL 32703
Subdivision:	
County:	ORANGE
Land Use Code:	9000
Land Use Desc:	Lease Interest
Land Use FDOR Code:	90
Land Use FDOR Desc:	Leasehold interests (government owned leased by non-government)
Zoning:	MU-ES-GT
Acres:	0.05
PIN:	28-21-19-0000-10-001
PIN2:	19-21-28-0000-10-001
ALTKEY:	
Last Data Update:	09/22/2021

Parcel Map



Legal Description (not official)

PT OF SE1/4 OF NE1/4 OF SEC 19-21-28 FOR CELL TOWER LEASE SITE SEE 2591/1678 396 4660-07-01

Building Summary

Actual Year Built:	
Effect. Year Built:	
Living SqFt:	0
Total SqFt:	0
Adjusted SqFt:	
Beds:	0
Baths:	
Stories:	
Num. of Buildings:	

2021 Preliminary Values

Land:	$200,000
Land Agricultural:	$0
Building:	$0
Misc:	$0
Just Value:	$200,000
Assessed Value:	$194,872

Recent Sales

Sale Date	Book/Page	Docnum	Price	Instrument	Qualified	Vac. or Impr.	Grantor

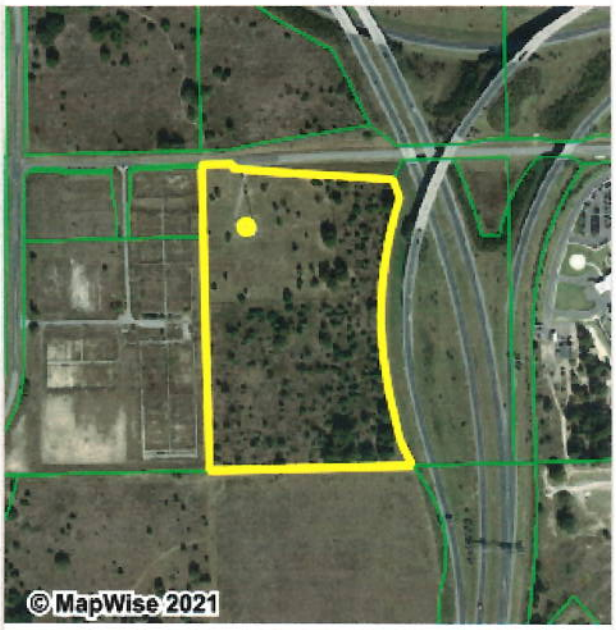
Sunbiz Corporate Data

Title	Name	Address1	City	State	Zip Code

Owner and Property Description

Owner Name:	CITY OF APOPKA
Mailing Address:	120 E MAIN ST APOPKA FL 32703
Site Address:	2102 HARMON RD APOPKA FL 32703
Subdivision:	
County:	ORANGE
Land Use Code:	8900
Land Use Desc:	Municipal (Other Than Parks, Rec Areas, Colleges, Hospitals)
Land Use FDOR Code:	89
Land Use FDOR Desc:	Municipal Use
Zoning:	MU-ES-GT
Acres:	23.02
PIN:	28-21-19-0000-00-008
PIN2:	19-21-28-0000-00-008
ALTKEY:	
Last Data Update:	09/22/2021

Parcel Map



Legal Description (not official)

BEG SW COR OF SE1/4 OF NE1/4 OF SEC 19-2 1-28 RUN N00-01-36E 1303.18 FT TH N89-55 -35E 134.77 FT TH S00-04-25E 18.70 FT TH S82-29-02E 102.37 FT TH S85-03-45E 592. T TH S85-03-45E 592.87 FT TO NON-TANGENT

Building Summary

Actual Year Built:	1989
Effect. Year Built:	1989
Living SqFt:	600
Total SqFt:	600
Adjusted SqFt:	
Beds:	0
Baths:	
Stories:	
Num. of Buildings:	

2021 Preliminary Values

Land:	$492,943
Land Agricultural:	$0
Building:	$26,767
Misc:	$0
Just Value:	$519,710
Assessed Value:	$519,710

Recent Sales

Sale Date	Book/Page	Docnum	Price	Instrument	Qualified	Vac. or Impr.	Grantor
1988-03-01		19882970436	$400,000	WD	U	V	
1974-06-01		19740854505	$170,000	WD	U	I	
1974-06-01		19740767459	$151,000	WD	U	V	

Sunbiz Corporate Data

Title	Name	Address1	City	State	Zip Code

EXHIBIT "B"

DUE DILIGENCE INFORMATION

1. Copy of most current and last years tax bill and assessment.

2. Copy of Seller's title insurance policy and most recent title report, endorsement and/or commitment and copies of all as-built and boundary surveys of the Property in Seller's possession.

3. Copies of all zoning certificates, zoning resolutions, variances and other zoning or land use approvals relating to the Property in Seller's possession including any development orders, development agreements or planned unit development plans or related documents.

4. Copies of all existing licenses, permits, utility or other easements, restrictive covenants or other title encumbrances, access agreements or special assessment arrangements relating to the Property.

5. All prior soil or boring reports, engineering, and environmental studies and reports of the Property.

UNIVERSAL ENGINEERING SCIENCES
Consultants In: Geotechnical Engineering • Environmental Sciences
Geophysical Services • Construction Materials Testing • Threshold Inspection
Building Inspection • Plan Review • Building Code Administration

LOCATIONS:
- Atlanta
- Daytona Beach
- DC Metro
- Fort Myers
- Fort Pierce
- Gainesville
- Jacksonville
- Miami
- Ocala
- Orlando (Headquarters)
- Palm Coast
- Panama City
- Pensacola
- Rockledge
- Sarasota
- St. Petersburg
- Tampa
- Tifton
- West Palm Beach

July 21, 2020

The Golf Group
4100 Wekiva Club Court
Longwood, FL 32779

Attention: Mr. Bob Dello Russo, Owner
Bob@delair.com

Reference: Phase I Environmental Site Assessment
Rock Springs Ridge Development
Rock Ridge Boulevard
Apopka, Orange County, Florida 32712
UES Project No. 0140.2000237.0000
UES Report No. 1784960.1

Dear Mr. Dello Russo:

Universal Engineering Sciences (UES) has completed a Phase I Environmental Site Assessment (ESA) in compliance with the American Society for Testing and Materials (ASTM) Standard E1527-13 for the above-referenced site (the "subject property"). The purpose of this assessment was to identify recognized environmental conditions (RECs) in association with the subject property as defined in ASTM E1527-13. Based on the conclusions of the Phase I ESA UES finds evidence of the following RECs in connection with the subject property:

1. The subject property has operated as a golf course from circa 1999 until 2016. Repair and maintenance of golf course maintenance equipment and the use and storage of petroleum products and hazardous substances on the subject property has possibly occurred for more than 17 years. UES considers the historic operation as a golf course and the application of agricultural products to be evidence of RECs.

2. The facility currently maintains three ASTs containing unleaded gasoline, vehicular diesel fuel, and used oil. UES observed evidence of vehicle repair and/or maintenance activities in the golf course maintenance area. Staining of the concrete floor appeared to extend to the edge of the pavement, where asphalt pavement was observed. The historic repair and/or maintenance activities are considered to be a REC.

3. A vehicle wash down area was observed within the golf course maintenance area the day of the site visit. The depressed area is drained, but the outfall of the drain was not ascertained. The historic discharge of agricultural residue is considered to be a REC.

CONTINUING OBLIGATIONS

The User of this report is required to ensure that continuing obligations are followed after purchase or acquisition of the subject property. Any land use restrictions in effect at the subject property must be maintained. The User should ensure that all parties at the subject property are following best management practices and taking "reasonable steps" with respect to preventing and limiting exposure to any hazardous substance releases on the subject property. In the event of a future release on the subject property, the property owner or responsible party should report it to the appropriate regulatory agency. Full cooperation must be provided to any parties authorized to conduct assessments or responses to the subject property.

Please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E1527-13, it is the responsibility of the User of this report to confirm that there are no environmental liens or activity and use limitations filed for the subject property. In the event that any are identified, please contact UES immediately for further evaluation.

Universal Engineering Sciences, Inc. appreciates this opportunity to provide environmental services to you and we look forward to future endeavors. Please contact the undersigned if you have any questions regarding this report.

Respectfully submitted,
Universal Engineering Sciences, Inc.



Dan Townsend
Project Specialist
Orlando Office
(407) 423-0504
dtownsend@universalengineering.com

UNIVERSAL
ENGINEERING
SCIENCES

PHASE I ENVIRONMENTAL SITE ASSESSMENT

ROCK SPRINGS RIDGE DEVELOPMENT
ROCK RIDGE BOULEVARD
APOPKA, ORANGE COUNTY, FLORIDA 32712

UES PROJECT NO. 0140.2000237.0000
UES REPORT NO. 1784960.1

REPORT DATE: JULY 21, 2020

Prepared For:

The Golf Group
4100 Wekiva Club Court
Longwood, FL 32779

Prepared By:

Universal Engineering Sciences
3532 Maggie Boulevard
Orlando, Florida 32811
(407) 423-0504



ENVIRONMENTAL PROFESSIONAL CERTIFICATION

PHASE I ENVIRONMENTAL SITE ASSESSMENT

ROCK SPRINGS RIDGE DEVELOPMENT
ROCK RIDGE BOULEVARD
APOPKA, ORANGE COUNTY, FLORIDA 32712

UES PROJECT NO. 0140.2000237.0000
UES REPORT NO. 1784960

This Environmental Site Assessment (ESA) was conducted in accordance with the guidelines of the ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, and therefore, the federal Environmental Protection Agency's All Appropriate Inquiry Rule. The accuracy, correctness and completeness of the ESA are provided with the knowledge of ASTM E1527-13.

This assessment was completed by Mr. Daniel Townsend, Environmental Project Manager, and reviewed by Mr. Michael J. Geden, Professional Geologist, both employees of Universal Engineering Sciences. We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312 and we have specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

Dan Townsend
Environmental Project Manager
Orlando Office

Reviewed by:

MICHAEL J. GEDEN LICENSE NO. 408 STATE OF FLORIDA PROFESSIONAL GEOLOGIST

Michael J. Geden, P.G.
Senior Project Geologist
Orlando Office
Date: 7/21/20
Florida License No. 0000408

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EXECUTIVE SUMMARY

Universal Engineering Sciences (UES) has completed a Phase I Environmental Site Assessment (ESA) in compliance with the American Society for Testing and Materials (ASTM) Standard E1527-13 for the property located on the west side of Rock Springs Road, south of West Kelly Park Road in Apopka, Orange County, Florida (the "subject property"). The purpose of this assessment was to identify recognized environmental conditions (RECs) in association with the subject property as defined in ASTM E1527-13. The subject property evaluated for this Phase I ESA consists of approximately 300.2 acres of land developed with a golf course. Please refer to the Site Location Map and the Site Plan presented in **Appendix A** for additional information pertaining to the location of the subject property.

NOTE: Please carefully review this report in its entirety for a full description of our evaluation procedures and findings.

Based on UES' field observations, historical research, public records review and interviews conducted in accordance with ASTM format E1527-13, the findings of this Phase I ESA are as follows:

1. The subject property has operated as a golf course from circa 1999 until 2016. Repair and maintenance of golf course maintenance equipment and the use and storage of petroleum products and hazardous substances on the subject property has possibly occurred for more than 17 years. UES considers the historic operation as a golf course and the application of agricultural products to be evidence of RECs.

2. The facility currently maintains three ASTs containing unleaded gasoline, vehicular diesel fuel, and used oil. UES observed evidence of vehicle repair and/or maintenance activities in the golf course maintenance area. Staining of the concrete floor appeared to extend to the edge of the pavement, where asphalt pavement was observed. The historic repair and/or maintenance activities are considered to be a REC.

3. A vehicle wash down area was observed within the golf course maintenance area the day of the site visit. The depressed area is drained, but the outfall of the drain was not ascertained. The historic discharge of agricultural residue is considered to be a REC.

CONTINUING OBLIGATIONS

The User of this report is required to ensure that continuing obligations are followed after purchase or acquisition of the subject property. Any land use restrictions in effect at the subject property must be maintained. The User should ensure that all parties at the subject property are following best management practices and taking "reasonable steps" with respect to preventing and limiting exposure to any hazardous substance releases on the subject property. In the event of a future release on the subject property, the property owner or responsible party should report it to the appropriate regulatory agency. Full cooperation must be provided to any parties authorized to conduct assessments or responses to the subject property.

Please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E1527-13, it is the responsibility of the User of this report to confirm that there are no environmental liens or activity and use limitations filed for the subject property. In the event that any are identified, please contact UES immediately for further evaluation.

1.0 INTRODUCTION

1.1 PURPOSE

Universal Engineering Sciences, Inc. (UES) has completed a Phase I Environmental Site Assessment (ESA) in compliance with the American Society for Testing and Materials (ASTM) Standard E1527-13 for the property located on the west side of Rock Springs Road, south of West Kelly Park Road in Apopka, Orange County, Florida (the "subject property"). The primary purpose of this assessment is to conduct an evaluation of the subject property and surrounding properties to identify recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs), historical recognized environmental conditions (HRECs), de minimis conditions, vapor encroachment conditions (VECs), and business environmental risks (BERs) associated with the past or present uses of the subject property and surrounding properties. ASTM E1527-13 defines these conditions as follows:

- REC: the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; (3) under conditions that pose a material threat of a future release to the environment.

- CREC: a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority. The hazardous substances or petroleum products are allowed to remain in place and are subject to the implementation of required controls.

- HREC: a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.

- *De minimis* Condition: a condition that generally does not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies.

- VEC: the presence or likely presence of "chemical of concern" vapors in the subsurface of the Target Property caused by the release of vapors from contaminated soil or groundwater or both either on or near the Target Property as identified by the Tier 1 or Tier 2 procedures.

- BER: a risk which can have a material environmental or environmentally driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice.

This environmental assessment was conducted in accordance with the guidelines of the ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. This assessment was also intended to identify potential off-site contaminant sources within the distances set forth in ASTM E1527-13 guidelines.

Methodology followed good commercial and customary practice with a goal to identify RECs that would be subject to an enforcement action if brought to the attention of appropriate government agencies.

1.2 Detailed Scope Of Services

The contracted scope of services consists of the preparation of a Phase I ESA of the subject property in accordance with the guidelines set forth in ASTM E1527-13. The accuracy, correctness and completeness of this Phase I ESA is provided with knowledge of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as set forth in 42 United States Code Section 9601 et seq., as amended.

The scope of services does not include an evaluation of asbestos containing building materials, lead based paint, lead in drinking water, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, indoor air quality, radon, vapor intrusion, site geotechnics (soils, foundations, site retention, etc.), wetlands, endangered species, or construction materials testing, unless specified in the approved contract between UES and the client. UES can provide these additional services if requested.

1.3 Limitations And Exceptions

The findings of this report represent our professional judgment; UES offers or extends no warranty, express or implied. These findings are relevant to the dates of our property evaluation and the information cited herein. This report should not be relied upon to represent property conditions on other dates or at locations other than those specifically cited within the report. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with the subject property.

Due to changing environmental regulatory conditions and potential on-site or adjacent activities occurring after this Phase I ESA, the client may not presume the continuing applicability to the subject property of the conclusions in this assessment for more than 180 days after the report's issuance date, per ASTM E1527-13.

1.4 Data Gaps

ASTM E1527-13 defines a "Data Gap" as a lack of, or inability to, obtain information despite good faith efforts that may affect the findings of the Phase I ESA. The Environmental Professional is to identify "*significant"* Data Gaps found in the Phase I ESA process, while *"insignificant"* Data Gaps do not have to be included in this evaluation. For both the ASTM Standard and the All Appropriate Inquiry (AAI) Final Rule, the Environmental Professional must identify what was done to address the Data Gap. The Environmental Professional should provide an opinion regarding appropriate further investigations, if any, necessary to address Data Gaps. A Phase I ESA which includes Data Gaps is still considered as compliant with the Standard and the AAI Final Rule, as long as the Data Gaps are addressed as outlined above.

No Significant Data Gaps were encountered during completion of this Phase I ESA.

1.5 Special Terms And Conditions

This report, and the information contained herein, shall be the sole property of UES until payment of any unpaid balance is made in full. The Golf Group, hereinafter referred to as the "User" of this Phase I ESA report, agrees that until payment is made in full, the User shall not have a proprietary interest in this report or the information contained herein. UES shall have the absolute right to request the return of any and all copies of this report submitted to other parties, public or private, on behalf of the User in the event of nonpayment of outstanding fees by the UES General Conditions that govern this assessment (**Appendix B**).

1.6 USER RELIANCE

This report is intended for the sole use of The Golf Group. Its contents may not be relied upon by other parties without the explicit written consent of UES. This is not a statement of suitability of the subject property for any use or purpose. In accepting this report, all parties herein mentioned agree to the General Conditions of the Agreement between UES and the User. A copy of the UES General Conditions is presented in **Appendix B**.

2.0 SITE DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

The subject property is comprised of the following Orange County tax parcel numbers: 17-20-28-7404-00-005, 17-20-28-7404-00-007, 17-20-28-7404-00-006, 17-20-28-7404-00-004, 17-20-28-7404-00-001, 17-20-28-7404-00-002, and 17-20-28-7404-00-003 known as the Rock Springs Ridge Golf Club. It totals approximately 300.2 acres of land developed with a golf course located on the west side of Rock Springs Road, south of West Kelly Park Road in Apopka, Orange County, Florida (the "subject property"). The subject property is located within Sections 16, 17, 20, and 21, Township 20 South, Range 28 East, as referenced in the USGS topographic quadrangle maps titled "Apopka, Florida" and “Sorrento, Florida” provided in **Appendix A-1**. Please refer to the Site Plan / 2019 Aerial Photograph in **Appendix A-2.** Three examples of the property appraiser information are presented in **Appendix C**.

2.2 PROPERTY AND VICINITY CHARACTERISTICS

At the time of our evaluation, the subject property was developed with a golf course. The property vicinity is characterized as being developed with residential homes, plant nurseries, and undeveloped properties. Please refer to the Site Location Map in **Appendix A-1** and to the Site Plan / 2019 Aerial Photograph in **Appendix A-2** for additional details pertaining to the subject and surrounding properties.

2.3 CURRENT USE OF THE SITE

At the time of the site reconnaissance, the subject property was developed with a golf course.

2.4 STRUCTURES, ROADS, AND / OR OTHER IMPROVEMENTS WITHIN THE SITE

At the time of our evaluation, the subject property was developed with golf course areas, a club house, a golf course maintenance area, and undeveloped areas.

2.5 CURRENT USES OF ADJOINING PARCELS

Currently, the parcels adjoining the subject property are used as follows:

TABLE 1
DESCRIPTION OF ADJOINING PARCELS

DIRECTION FROM SUBJECT PROPERTY	DESCRIPTION OF CURRENT USE
North	Residential homes, plant nurseries, and West Kelly Park Road, followed by residential homes, plant nurseries, and undeveloped property.
East	Residential homes, undeveloped properties, and Rock Springs Road, followed by residential homes and undeveloped property.
South	Residential homes and undeveloped properties.
West	Undeveloped properties, a water treatment plant, and an elementary school.

3.0 USER PROVIDED INFORMATION

A completed User Interview Questionnaire was provided by Mr. Bob Della Russo with Rock Springs Golf Club, Inc., a User of this report.

3.1 TITLE RECORDS

The User did not provide a copy of the historical property ownership chain-of-title report. According to the Orange County Property Appraiser report, the current owners of the subject property are Rock Springs Ridge Golf Club, Inc. The User did not contract UES to acquire a chain-of-title report for the subject property, which typically contains information regarding historical site ownership.

3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

Please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E1527-13, it is the responsibility of the User of this report to confirm that there are no environmental liens or activity and use limitations filed for the subject property. In the event that any are identified, please contact UES immediately for further evaluation.

3.3 SPECIALIZED KNOWLEDGE

The User did not provide any specialized knowledge or experience that may pertain to recognized environmental conditions in connection to the subject property.

3.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The User did not provide any information pertaining to the value of the subject property. Information pertaining to the assessed value of the site is included in a copy of the property appraiser information presented in **Appendix C.**

3.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

According to the Orange County Property Appraiser report, the current owner of the subject property is listed as Rock Springs Ridge Golf Club, Inc. A property manager was not identified.

3.6 REASON FOR PERFORMING PHASE I ESA

The User indicated the reason for performing the Phase I ESA is for a potential development of the subject property.

3.7 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION ABOUT THE PROPERTY

The User did not provide any information regarding any specific chemicals that are present or were once present at the subject property, spills or other chemical releases that have taken place at the subject, or any environmental cleanups that have taken place at the subject property.

3.8 ADDITIONAL INFORMATION

No other information was provided in preparation of this Phase I ESA.

4.0 RECORDS REVIEW

The purpose of the records review is to obtain and review records that will help identify RECs in connection with the subject property. Accuracy and completeness of record information varies among information sources, including governmental sources. Record information is often inaccurate or incomplete. Standard sources that are reasonably ascertainable were reviewed by UES for this Phase I ESA.

4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

As a part of this assessment, we reviewed information sources to obtain existing information pertaining to a release of hazardous substances or petroleum products on or near the subject property. UES obtained an ASTM regulatory database report from Environmental Data Resources (EDR) which is provided in **Appendix D**. UES also reviewed other available standard environmental record sources at the Florida Department of Environmental Protection (FDEP), as needed.

Table 2 lists the approximate minimum search distances used during this assessment in review of the regulatory database, as set forth in ASTM E1527-13.

TABLE 2
APPROXIMATE MINIMUM SEARCH DISTANCES - ASTM E1527-13

SOURCE	SEARCH DISTANCE
Federal NPL Site List (National Priorities List)	1.0 mile
Federal Delisted NPL Site List	0.5 mile
Federal CERCLIS List (Comprehensive Environmental Response Compensation and Liability Act of 1980)	0.5 mile
Federal CERCLIS NFRAP Site List	0.5 mile
Federal RCRA CORRACTS Facilities List (Resource Conservation and Recovery Act)	1.0 mile
Federal RCRA non-CORRACTS TSD Facilities List	0.5 mile
Federal RCRA Generators List	Site and adjoining parcels
Federal Institutional Control/Engineering Control Registries	Site only
Federal ERNS List (Emergency Response Notification System)	Site only
States and Tribal Lists of Hazardous Waste Sites identified for investigation or remediation: State- and Tribal-equivalent NPL; State- and Tribal-equivalent CERCLIS	1.0 mile 0.5 mile
State and Tribal Landfill and/or Solid Waste Disposal Site Lists	0.5 mile
State and Tribal Leaking Storage Tanks Lists	0.5 mile
State and Tribal Registered Storage Tank Lists	Site and adjoining properties
State and Tribal Institutional Control/Engineering Control Registries	Site only
State and Tribal Voluntary Cleanup Sites	0.5 mile
State and Tribal Brownfield Sites	0.5 mile

4.1.1 FEDERAL, STATE, AND COUNTY RECORDS REVIEW

EDR's report did not identify the subject property. It did identify multiple off-site facilities. Pertinent identified facilities are discussed in the following section and in **Table 3**. The remaining facilities are unlikely to have adversely impacted the environmental condition of the subject property based on factors including, but not limited to:

- The nature of the listing and site usage;
- The current status;
- The separation distance between the listed sites and the subject property as related to the distance that releases are likely to migrate based on local surface and subsurface conditions; and,
- The inferred groundwater movement.

TABLE 3
FACILITIES IDENTIFIED WITHIN MINIMUM SEARCH DISTANCES

FACILITY	APPROXIMATE LOCATION	DATABASE	RECORDS REVIEW SUMMARY
Pro Line Cleaners, Inc. 617 Green Rock Court	Subject Property	Historic Drycleaner	According to the EDR report, this address is the address of a private home located on the subject property that was observed to first be developed in 2004. Prior to that date, this location was undeveloped property. The address is apparently associated with the owner of the business operating at another address. As such, this listing is not considered to be a REC in connection with the subject property.
Rock Springs Ridge FLR10QK27	Subject Property	NPDES ECHO	According to the EDR report and documents found in OCULUS (FDEP's online document management system), a National Pollutant Discharge Elimination System (NPDES) permit was issued in August 2016 to DR Horton for the discharge of stormwater during the construction of Rock Springs Ridge Phase VIIB-2. The permit is due to expire in August 2021. No violations have been reported. As such, this listing is not considered to be a REC in connection with the subject property.
3910 Jason Dwelley Pkwy	Adjoining west	SWF/LF	According to the EDR report and documents found in OCULUS, this location was reported to have been pre-authorized as a permitted disaster debris management site in May 2012. It was pre-authorized again in May 2016. A January 2018 routine closure inspection of the site indicated that no debris was observed and advised that waste materials were no longer authorized to be stored or processed at this location. Pre-authorization was also granted in 2018, 2019, and 2020, as well. Given the available information, this listing is not considered to be a REC.

TABLE 3
FACILITIES IDENTIFIED WITHIN MINIMUM SEARCH DISTANCES

FACILITY	APPROXIMATE LOCATION	DATABASE	RECORDS REVIEW SUMMARY
City of Apopka Water Treatment Plant 3426 Recreation Way	Approx. 460 feet southwest	AST	According to the EDR report and documents found in OCULUS, this facility currently maintains one 2,000-gallon capacity AST containing emergency generator diesel fuel installed in March 1999. The most recently available storage tanks compliance inspection conducted in January 2019 indicated that the facility was out of compliance at that time for not maintaining the exterior coating of the AST. The facility cleaned and painted the tank to come back into compliance in February 2019. No releases have been reported. As such, the presence of this AST is not considered to be a REC in connection with the subject property.

In addition to reviewing the regulatory database report, UES performed reconnaissance of the subject property vicinity to identify any sites not mapped by EDR due to inadequate or inaccurate address information and to look for unregistered facilities. No additional petroleum storage facilities or facilities suspected to use or generate hazardous materials were observed in the near vicinity of the subject property during field reconnaissance performed by UES.

4.2 ADDITIONAL ENVIRONMENTAL RECORDS

UES searched the FDEP Map Direct Application for Waste Management Division facilities (e.g. solid waste facilities, storage tanks, dry cleaning sites, hazardous waste generators, etc.) located at the subject property and adjoining properties. No additional facilities were identified.

UES searched the Map Direct website to determine if the subject property was located within an area where Ethylene Dibromide (EDB)-impacted groundwater has not been identified. EDB was formerly used in citrus grove applications as a fumigant against nematodes and is a known carcinogen. The online map indicates that the subject property is not located within a delineated area of EDB-impacted groundwater.

4.3 PHYSICAL SETTING SOURCES

The "Apopka, Florida" and “Sorrento, Florida” USGS topographic quadrangle maps, Orange County Soil Survey, and regulatory files available regarding properties of environmental concern in the property vicinity were reviewed as sources for obtaining information regarding the physical setting of the subject property and surrounding vicinity.

4.3.1 TOPOGRAPHY

The USGS topographic quadrangle maps titled “Apopka, Florida” and “Sorrento, Florida” were referenced as a source for obtaining information regarding the physical setting of the subject property and surrounding vicinity. The subject property is located at elevations ranging from 55 feet to 135 feet above sea level. The existing topography slopes down to the east-northeast, toward John’s Lake. A copy of the USGS Quadrangle Map is provided as the Site Location Map in **Appendix A**.

4.3.2 SOILS/GEOLOGY

The general geology of Orange County is characterized by 30 to 50 feet of undifferentiated fine to medium grained sands and clayey sands of Holocene age overlying the Miocene age Hawthorn Group. The Hawthorn is approximately 100 feet thick and is comprised of interbedded layers of clay, clayey sand, sandy clay, and phosphatic carbonates. The underlying Tertiary age carbonates gently dip east under an increasing thickness of younger sediments. According to the United States Department of Agriculture, Soil Conservation Service, Orange County Soil Survey, surficial soils at the subject property are classified as Basinger fine sand, frequently ponded, 0 to 1 percent slopes; Candler fine sand, 0 to 5 percent slopes; Candler fine sand, 5 to 12 percent slopes; Candler-Apopka fine sands, 5 to 12 percent slopes; Ona fine sand, 0 to 2 percent slopes; St. Johns fine sand; and Tavares-Millhopper complex, 0 to 5 percent slopes.

4.3.3 HYDROGEOLOGY

The general hydrogeology of Orange County includes an unconfined surficial aquifer separated from the Floridan aquifer by the Hawthorn Group. The surficial aquifer is recharged by rainfall and can yield small to moderate amounts of water to small diameter wells. The Floridan aquifer may reach 2,000 feet in thickness and is the primary source of the public water supply. Based solely on the topographic map, the direction of the shallow groundwater flow at the subject property is likely to the east, toward lower elevations.

4.3.4 VAPOR MIGRATION

Vapor migration refers to the movement of *hazardous substances* or *petroleum products* in vapor in the subsurface. A vapor encroachment condition is defined as the presence or likely presence of chemicals of concern (COCs) vapors in the subsurface of the subject property caused by the release of vapors from contaminated soil or groundwater or both either on or near the subject property.

UES conducted a Tier 1 Vapor Encroachment Screening (VES) for the subject property in accordance with ASTM E 2600-10. The Tier 1 screening process utilizes the information collected as part of this Phase I ESA. The Area of Concern (AOC) for the purpose of this VES is 1/3 mile (1,760 feet) for non-petroleum COCs and 1/10 mile (528 feet) for petroleum hydrocarbon COCs. Based upon the results of the Tier 1 screening, there does not appear to be vapor encroachment conditions (VECs) located within the area of concern. The approximate minimum search distances for Federal, Tribal and State-listed facilities surrounding the subject property are presented in **Table 4.**

TABLE 4
APPROXIMATE MINIMUM SEARCH DISTANCE SURROUNDING THE SUBJECT PROPERTY (ASTM E2600-15)

SOURCE	NON-PETROLEUM COCS	PETROLEUM HYDROCARBON COCS
Federal NPL Site List	1/3 mile	1/10 mile
Federal CERCLIS List	1/3 mile	1/10 mile
Federal RCRA CORRACTS Facilities List	1/3 mile	1/10 mile
Federal RCRA Non-CORRACTS TSD Facilities List	1/3 mile	1/10 mile
Federal RCRA Generators List	Subject property only	Subject property only

TABLE 4
APPROXIMATE MINIMUM SEARCH DISTANCE SURROUNDING THE SUBJECT PROPERTY (ASTM E2600-15)

SOURCE	NON-PETROLEUM COCS	PETROLEUM HYDROCARBON COCS
Federal Institutional Control/Engineering Control Registries	Subject property only	Subject property only
Federal ERNS List	Subject property only	Subject property only
State and Tribal Equivalent NPL	1/3 mile	1/10 mile
State and Tribal Equivalent CERCLIS	1/3 mile	1/10 mile
State and Tribal Landfill and/or Solid Waste Disposal Site Lists	1/3 mile	1/10 mile
State and Tribal Leaking UST/AST Lists	1/3 mile	1/10 mile
State and Tribal UST/AST Lists	Subject property only	Subject property only
State and Tribal Institutional Control/Engineering Control Registries	Subject property only	Subject property only
State and Tribal Voluntary Cleanup Sites	1/3 mile	1/10 mile
State and Tribal Brownfield Sites	1/3 mile	1/10 mile

4.4 HISTORICAL USE OF THE PROPERTY AND SURROUNDING AREA

According to the earliest available aerial photograph (1941), the subject property and adjoining properties appear to be undeveloped, sparsely vegetated land. No structures were observed. In 1958, portions of the subject property appeared to be utilized for agricultural purposes; other portions remained undeveloped. In 1969, the majority of the subject property appeared to be planted with citrus trees; adjoining properties and the surrounding area appeared to be planted with citrus, undeveloped, or developed with residential homes. Residential homes were observed on one of the adjoining north properties in 1974. In 1990, the subject property no longer appeared to be utilized for agricultural purposes; additional residential and commercial structures were observed in the vicinity. In 1999, the subject property appeared to be developed with a golf course; maintenance buildings were observed south of the golf course area near the central portion of the subject property. Additional residential homes adjoining the subject property appeared to be in the beginning stages of development in 2004. Additional residential homes adjoining the subject property were observed in the 2019 aerial photograph.

4.4.1 AERIAL PHOTOGRAPH REVIEW

In order to evaluate the previous land uses of the subject property and surrounding area, a series of aerial photographs was reviewed. The aerial photographs provide a progressive overview of the subject property and adjoining properties. UES reviewed aerial photographs available from the University of Florida Digital Collections website, the Florida Department of Transportation website and Google Earth. The Site Plan / 2019 Aerial Photograph is available for review in **Appendix A-2**. Descriptions of UES observations are outlined in **Table 3**.

TABLE 5
SUMMARY OF AERIAL PHOTOGRAPHS OBSERVATIONS

PHOTOGRAPH DATE	OBSERVATIONS
1941, 1947, 1954	The subject property and adjoining properties appear to be undeveloped, sparsely vegetated land. No structures were observed.
1958	Portions of the subject property appeared to be utilized for agricultural purposes. Other portions remained undeveloped. No structures were apparent.
1969	The majority of the subject property appeared to be planted with citrus trees. Adjoining properties and the surrounding area appeared to be planted with citrus, undeveloped, or developed with residential homes.
1974, 1978, 1984	No significant changes were observed to the subject property or adjoining east, south, or west properties since the previous aerial photograph. Residential homes were observed on one of the adjoining north properties.
1990, 1994	The subject property no longer appeared to be utilized for agricultural purposes. Additional residential and commercial structures were observed in the vicinity.
1999	The subject property appeared to be developed with a golf course and residential homes. Maintenance buildings were observed south of the golf course area near the central portion of the subject property.
2004, 2008, 2012, 2016	No significant changes were observed to the subject property since the previous aerial photograph. Additional residential homes adjoining the subject property appeared to be in the beginning stages of development.
2019	No significant changes were observed to the subject property since the previous aerial photograph. Additional residential homes adjoining the subject property were observed in the 2019 aerial photograph.

4.4.2 PROPERTY OWNERSHIP RECORDS

According to the Orange County Property Appraiser report, the current owner of the subject property is listed as Rock Springs Ridge Golf Club, Inc. A copy of the Orange County Property Appraiser card is presented in **Appendix C**. The User did not contract UES to acquire a chain-of-title for the parcel, which typically contains information regarding historical site ownership.

4.4.3 FIRE INSURANCE MAP REVIEW

Sanborn fire insurance maps for the subject property were not requested, due to the rural nature of the property vicinity.

4.4.4 CITY DIRECTORY REVIEW

Historical street directories that list the former businesses at the street addresses of the subject property and the adjoining properties were not reviewed by UES due to the historically rural nature of the subject property vicinity.

4.4.5 LAND USE RECORDS

According to the Orange County Property Appraiser records, the tax parcel description is 3800 – Golf Course.

4.4.6 OTHER HISTORICAL SOURCES

No other historical sources were reviewed in preparation of this Phase I ESA.

5.0 INFORMATION FROM SITE RECONNAISSANCE

On July 17, 2020, a site reconnaissance of the subject property was completed by a representative UES. The purpose was to evaluate the current conditions of the subject property and to obtain information indicating the likelihood of identifying RECs in connection with the subject property.

5.1 METHODOLOGY

The reconnaissance included walking and/or driving the accessible portions of the subject property and the site perimeter. Property use and significant features are indicated on the Site Plan contained in **Appendix A**. Representative site photographs are included in **Appendix H**.

5.2 GENERAL SITE SETTING

The general site setting is characterized primarily by a mixed usage of residential and undeveloped properties.

5.3 SITE OBSERVATIONS

Site features observed, encountered, or suspected during our site visit are summarized in **Table 6** and discussed in the following sections.

TABLE 6
SITE RECONNAISSANCE SUMMARY

REPORT SECTION	SECTION INFORMATION/DETAIL	OBSERVED OR ENCOUNTERED		
		YES	NO	SUSPECT
5.3.1	Limiting Conditions	✓		
5.3.2	Floor Drains	✓		
5.3.3	Buildings	✓		
5.3.4	Heating And Cooling Sources	✓		
5.3.5	Drinking Water Source	✓		
5.3.6	Wastewater Discharge Source	✓		
5.3.7	Current Tenant Operations	✓		
5.3.8	Past Tenant Operations	✓		
5.3.9	Polychlorinated Biphenyls			✓
5.3.10	Hazardous Substances And Petroleum Products	✓		
5.3.11	Storage Tanks	✓		
5.3.12	Odors		✓	
5.3.13	Pools Of Liquids	✓		
5.3.14	Drums And Containers	✓		
5.3.15	Unidentified Substance Containers		✓	
5.3.16	Stains Or Corrosion On Floors, Walls Or Ceilings	✓		
5.3.17	Sumps		✓	
5.3.18	Pits, Ponds Or Lagoons		✓	
5.3.19	Stained Soil Or Pavement	✓		
5.3.20	Stressed Vegetation		✓	

TABLE 6
SITE RECONNAISSANCE SUMMARY

REPORT SECTION	SECTION INFORMATION/DETAIL	OBSERVED OR ENCOUNTERED		
		YES	NO	SUSPECT
5.3.21	Wells	✓		
5.3.22	Adjacent And Nearby Properties	✓		
5.3.23	Solid Waste, Construction Debris and/or Imported Soil Stockpile		✓	
5.3.24	Additional Notable Site Features		✓	

5.3.1 LIMITING CONDITIONS

The entirety of the golf course areas was not observed the day of the site visit.

5.3.2 FLOOR DRAINS

Floor drains were observed in the restroom located in the golf course maintenance building the day of the site visit. Drains were also observed at the vehicle wash down area in the courtyard of the maintenance area. The outfall of the drains was not ascertained.

5.3.3 BUILDINGS

The subject property was developed with a club house, cart storage building, and a vehicle maintenance building the day of the site visit.

5.3.4 HEATING AND COOLING SOURCES

No heating or cooling sources were observed at the maintenance building or cart storage building. Electrically powered split units were observed at the clubhouse.

5.3.5 DRINKING WATER SOURCE

Drinking water is supplied to the subject property by the City of Apopka.

5.3.6 WASTEWATER DISCHARGE SOURCE

Wastewater from the subject property reportedly discharges to the City of Apopka municipal sanitary sewer system.

5.3.7 CURRENT TENANT OPERATIONS

At the time of the site reconnaissance, the golf course operation at the subject property was vacant.

5.3.8 PAST TENANT OPERATIONS

Portions of the subject property, and later the majority of the subject property appeared to be utilized for agricultural purposes from sometime prior to 1958 until circa 1990.

5.3.9 POLYCHLORINATED BIPHENYLS

Pad-mounted electrical transformers were observed throughout the property; the transformers appeared to be the dry type; therefore, no PCBs are suspected. Pole-mounted electrical transformers were observed in the right-of-way of Rock Springs Road and West Kelly Park Road, no leaks were observed.

5.3.10 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

Agricultural products were observed in a caged area located in the grove maintenance area. Automotive products were also observed on shelving in the vehicle maintenance building. Three aboveground storage tanks were observed at the grove maintenance area.

5.3.11 STORAGE TANKS

Three (3) approximately 500-gallon capacity aboveground storage tanks were observed in the golf course maintenance area located on the subject property. The ASTs reportedly formerly contained unleaded gasoline, vehicular diesel fuel, and used oil. The two fuel ASTs were situated inside a secondary containment structure; the used oil AST was located on an asphalt-paved area.

5.3.12 ODORS

No unusual odors were noted by UES during the site reconnaissance.

5.3.13 POOLS OF LIQUIDS

A pool of hydraulic fluid was observed by UES inside the vehicle maintenance building. The liquid did not extend to the edge of pavement or to any method of transport.

5.3.14 DRUMS AND CONTAINERS

Several 55-gallon drums containing trash, used oil filters, and used oil were observed by UES during the site reconnaissance. Small containers (less than 5 gallons) of automotive products were observed on shelving units in the vehicle maintenance building.

5.3.15 UNIDENTIFIED SUBSTANCE CONTAINERS

Several empty unidentified substance containers were observed by UES during the site reconnaissance.

5.3.16 STAINS OR CORROSION ON FLOORS, WALLS OR CEILINGS

Staining of the floor in the vehicle maintenance area was observed by UES during the site reconnaissance. Staining of the concrete floor appeared to extend to the edge of the pavement, where asphalt pavement was observed.

5.3.17 SUMPS

UES observed a depressed concrete area located in the courtyard of the golf course maintenance area. The outfall from this vehicle wash down area was not ascertained.

5.3.18 PITS, PONDS OR LAGOONS

No pits or lagoons were observed on the subject property during the site reconnaissance. Stormwater retention ponds were observed throughout the subject property.

5.3.19 STAINED SOIL OR PAVEMENT

UES did not observe evidence of stained soil at the subject property during the site reconnaissance. Staining of the asphalt pavement in the grove maintenance area was apparent.

5.3.20 STRESSED VEGETATION

UES did not observe stressed vegetation at the subject property during the site reconnaissance.

5.3.21 WELLS

UES did not personally observe wells at the subject property during the site reconnaissance. A remote well was reportedly located on the northern portion of the subject property.

5.3.22 ADJACENT AND NEARBY PROPERTIES

UES observed residential homes, plant nurseries, and undeveloped properties in the vicinity of the subject property.

5.3.23 SOLID WASTE, CONSTRUCTION DEBRIS AND / OR IMPORTED SOIL STOCKPILE

No solid waste, construction debris, or imported soil stockpiles were observed the day of the site visit.

5.3.24 ADDITIONAL NOTABLE SITE FEATURES

A vehicle wash down area was observed in the golf course maintenance area. The outfall of the drain was not ascertained.

6.0 INTERVIEWS

6.1 INTERVIEW WITH OWNER

A completed Owner Interview Questionnaire was not provided to UES; however, the property owner is also the User of this report.

6.2 INTERVIEW WITH SITE MANAGER

No site manager was identified during the conduct of this assessment.

6.3 INTERVIEWS WITH OCCUPANTS

The subject property was vacant the day of the site visit; therefore, no occupants were available to interview.

6.4 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

UES did not personally contact any local government officials in regards to the subject property. Governmental agency records were available on the FDEP OCULUS and Map Direct websites.

6.5 INTERVIEW WITH USER

A completed User Interview Questionnaire was provided by Mr. Bob Della Russo with Rock Springs Golf Club, Inc., a User of this report. Interview documentation is included in **Appendix I**.

6.6 INTERVIEW WITH OTHERS

No additional interviews were conducted in connection with this Phase I ESA.

7.0 FINDINGS AND OPINIONS

Based on UES' field observations, historical research, public records review and interviews conducted in accordance with ASTM format E1527-13, the findings of this Phase I ESA are as follows:

1. The subject property has operated as a golf course from circa 1999 until 2016. Repair and maintenance of golf course maintenance equipment and the use and storage of petroleum products and hazardous substances on the subject property has possibly occurred for more than 17 years. UES considers the historic operation as a golf course and the application of agricultural products to be evidence of RECs.

2. The facility currently maintains three ASTs containing unleaded gasoline, vehicular diesel fuel, and used oil. UES observed evidence of vehicle repair and/or maintenance activities in the golf course maintenance area. Staining of the concrete floor appeared to extend to the edge of the pavement, where asphalt pavement was observed. The historic repair and/or maintenance activities are considered to be a REC.

3. A vehicle wash down area was observed within the golf course maintenance area the day of the site visit. The depressed area is drained, but the outfall of the drain was not ascertained. The historic discharge of agricultural residue is considered to be a REC.

CONTINUING OBLIGATIONS

The User of this report is required to ensure that continuing obligations are followed after purchase or acquisition of the subject property. Any land use restrictions in effect at the subject property must be maintained. The User should ensure that all parties at the subject property are following best management practices and taking "reasonable steps" with respect to preventing and limiting exposure to any hazardous substance releases on the subject property. In the event of a future release on the subject property, the property owner or responsible party should report it to the appropriate regulatory agency. Full cooperation must be provided to any parties authorized to conduct assessments or responses to the subject property.

Please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E1527-13, it is the responsibility of the User of this report to confirm that there are no environmental liens or activity and use limitations filed for the subject property. In the event that any are identified, please contact UES immediately for further evaluation.

8.0 CONCLUSIONS

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 of the property located on the west side of Rock Springs Road, south of West Kelly Park Road in Apopka, Orange County, Florida. Any exceptions to or deletions from this practice are described in Sections 1.2, 1.3, and 1.4 of this report. This assessment has revealed no evidence of any RECs in connection with the subject property.

9.0 DEVIATIONS

UES prepared this Phase I ESA in compliance with ASTM E1527-13. Please refer to Section 1.4 above for a discussion of data gaps encountered in the preparation of this Phase I ESA.

10.0 ADDITIONAL SERVICES

Under the terms of the agreement between UES and the User, no additional services are being provided in association with this Phase I ESA.

11.0 REFERENCES

References reviewed during the Phase I ESA are documented in **Appendix J**.

12.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

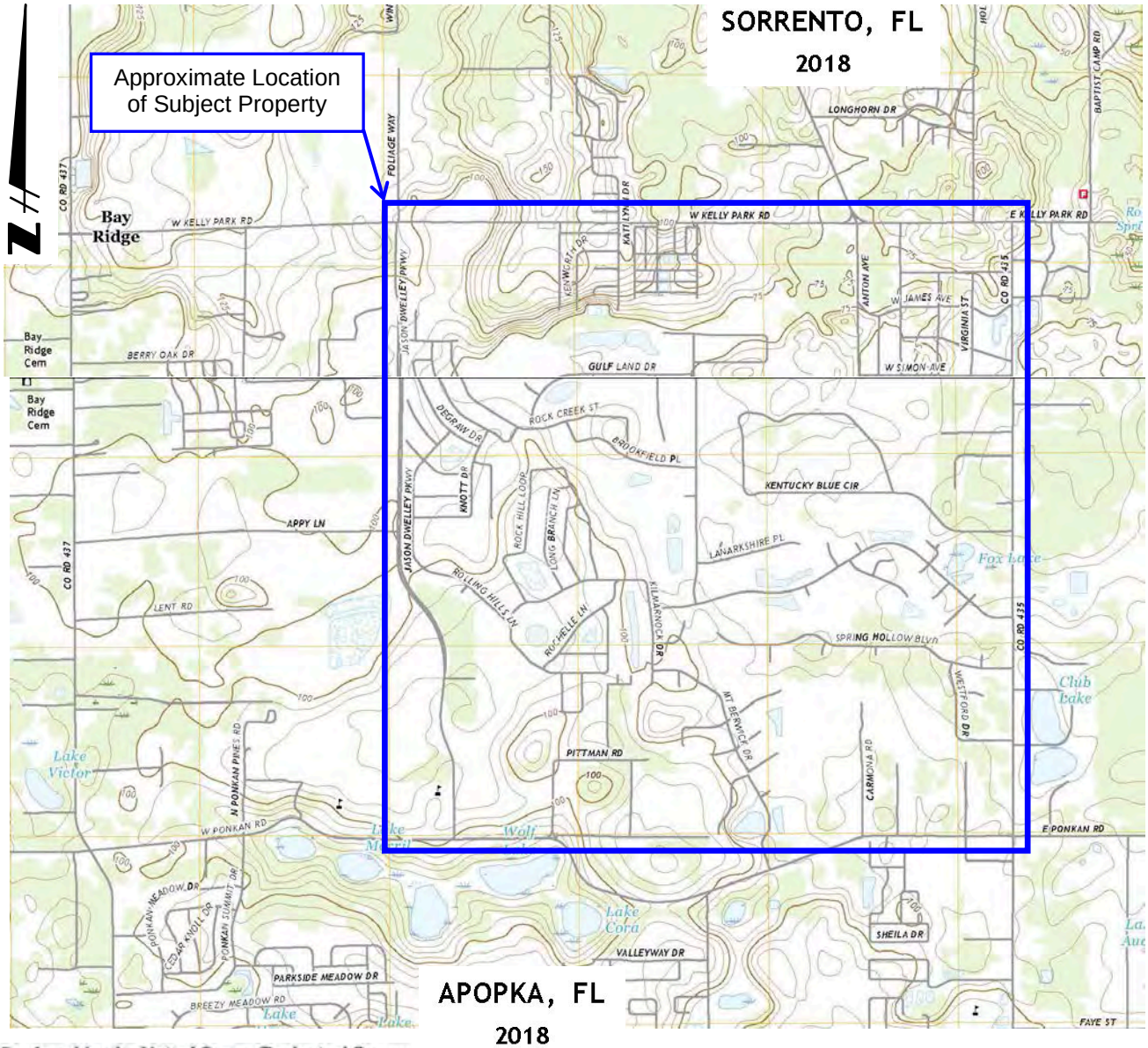
Please refer to the certification page for signatures of the environmental professionals who prepared and reviewed this Phase I ESA.

13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

This assessment was completed by Mr. Dan Townsend, Environmental Project Manager, and reviewed by Mr. Michael J. Geden, P.G., both employees of Universal Engineering Sciences, Inc. We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312 and we have specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. Qualifications of personnel participating in this assessment are provided in **Appendix K**.

APPENDIX A

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Produced by the United States Geological Survey

Topography compiled 1956. Planimetry derived from imagery taken 1994 and other sources. Public Land Survey System and survey control current as of 1956

North American Datum of 1983 (NAD 83). Projection and 1 000-meter grid: Universal Transverse Mercator, zone 17
2 500-meter ticks: Florida Coordinate System of 1983 (east zone)

North American Datum of 1927 (NAD 27) is shown by dashed corner ticks. The values of the shift between NAD 83 and NAD 27 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

There may be private inholdings within the boundaries of the National or State reservations shown on this map

Landmark buildings verified 1956

ROAD CLASSIFICATION

Primary highway hard surface .....
Secondary highway hard surface .....
Light-duty road, hard or improved surface .....
Unimproved road .....
Interstate Route
U.S. Route
State Route

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
ROCKS SPRINGS RIDGE DEVELOPMENT
ROCK RIDGE BOULEVARD
APOPKA, ORANGE COUNTY, FLORIDA

SITE LOCATION MAP

DRAWN BY: DJT	DATE: 07/20/20	CHECKED BY:	DATE:
SCALE: Not To Scale	PROJECT NO: 0140.2000237.0000	REPORT NO: 1784960	PAGE NO: A-1

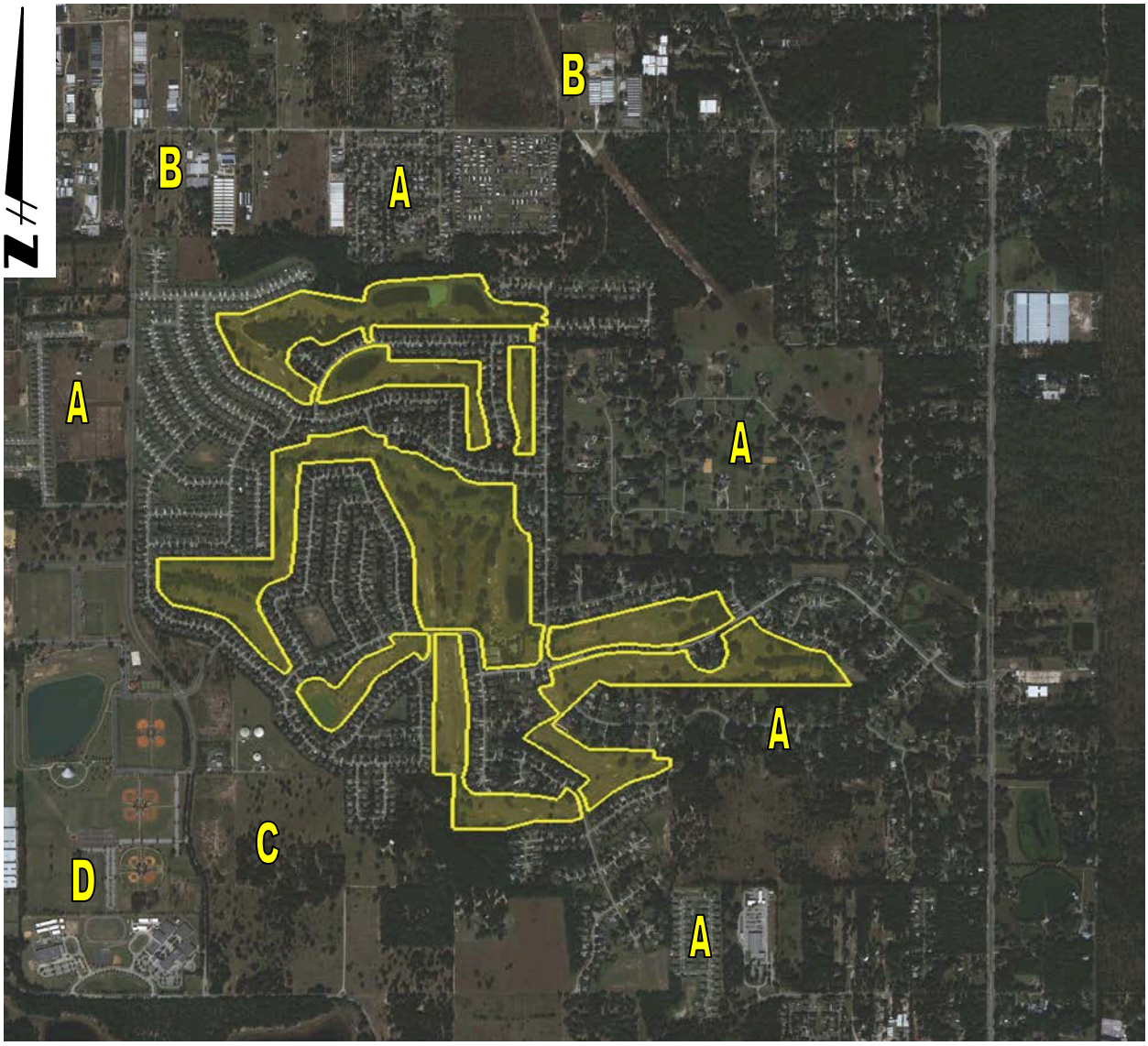


IMAGE SOURCE: Google Earth

Legend

- - Subject Property

A. – Residential
B. – Plant Nursery
C. – Undeveloped
D. – Wolf Lake Elementary School

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PHASE I ENVIRONMENTAL SITE ASSESSMENT
ROCKS SPRINGS RIDGE DEVELOPMENT
ROCK RIDGE BOULEVARD
APOPKA, ORANGE COUNTY, FLORIDA

SITE PLAN/2018 AERIAL PHOTOGRAPH

DRAWN BY: DJT	DATE: 07/20/20	CHECKED BY:	DATE:
SCALE: No Scale	PROJECT NO: 0140.2000237.0000	REPORT NO: 1784960	PAGE NO: A-2

APPENDIX B

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Universal Engineering Sciences, LLC
GENERAL CONDITIONS

SECTION 1: RESPONSIBILITIES

1.1 *Universal Engineering Sciences, LLC, Universal Engineering Inspections, LLC, and GFA International Inc. ("UES"), have the responsibility for providing the services described under the Scope of Services section. The work is to be performed according to accepted standards of care and is to be completed in a timely manner. The term "UES" as used herein includes all of Universal Engineering Sciences, LLC, Universal Engineering Inspections, LLC, GFA International, Inc., its' agents, employees, professional staff, and subcontractors.*

1.2 The Client or a duly authorized representative is responsible for providing UES with a clear understanding of the project nature and scope. The Client shall supply UES with sufficient and adequate information, including, but not limited to, maps, site plans, reports, surveys and designs, to allow UES to properly complete the specified services. The Client shall also communicate changes in the nature and scope of the project as soon as possible during performance of the work so that the changes can be incorporated into the work product.

1.3 The Client acknowledges that UES's responsibilities in providing the services described under the Scope of Services section is limited to those services described therein, and the Client hereby assumes any collateral or affiliated duties necessitated by or for those services. Such duties may include, but are not limited to, reporting requirements imposed by any third party such as federal, state, or local entities, the provision of any required notices to any third party, or the securing of necessary permits or permissions from any third parties required for UES's provision of the services so described, unless otherwise agreed upon by both parties.

1.4 Universal will not be responsible for scheduling our services and will not be responsible for tests or inspections that are not performed due to a failure to schedule our services on the project or any resulting damages.

1.5 **PURSUANT TO FLORIDA STATUTES §558.0035, ANY INDIVIDUAL EMPLOYEE OR AGENT OF UES MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.**

SECTION 2: STANDARD OF CARE

2.1 Services performed by UES under this Agreement will be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of UES's profession practicing contemporaneously under similar conditions in the locality of the project. No other warranty, express or implied, is made.

2.2 The Client recognizes that subsurface conditions may vary from those observed at locations where borings, surveys, or other explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by UES will be based solely on information available to UES at the time of service. UES is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.

2.3 Execution of this document by UES is not a representation that UES has visited the site, become generally familiar with local conditions under which the services are to be performed, or correlated personal observations with the requirements of the Scope of Services. It is the Client's responsibility to provide UES with all information necessary for UES to provide the services described under the Scope of Services, and the Client assumes all liability for information not provided to UES that may affect the quality or sufficiency of the services so described.

2.4 Should UES be retained to provide threshold inspection services under Florida Statutes §553.79, Client acknowledges that UES's services thereunder do not constitute a guarantee that the construction in question has been properly designed or constructed, and UES's services do not replace any of the obligations or liabilities associated with any architect, contractor, or structural engineer. Therefore it is explicitly agreed that the Client will not hold UES responsible for the proper performance of service by any architect, contractor, structural engineer or any other entity associated with the project.

SECTION 3: SITE ACCESS AND SITE CONDITIONS

3.1 Client will grant or obtain free access to the site for all equipment and personnel necessary for UES to perform the work set forth in this Agreement. The Client will notify any and all possessors of the project site that Client has granted UES free access to the site. UES will take reasonable precautions to minimize damage to the site, but it is understood by Client that, in the normal course of work, some damage may occur, and the correction of such damage is not part of this Agreement unless so specified in the Proposal.

3.2 The Client is responsible for the accuracy of locations for all subterranean structures and utilities. UES will take reasonable precautions to avoid known subterranean structures, and the Client waives any claim against UES, and agrees to defend, indemnify, and hold UES harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, Client agrees to compensate UES for any time spent or expenses incurred by UES in defense of any such claim with compensation to be based upon UES's prevailing fee schedule and expense reimbursement policy.

SECTION 4: SAMPLE OWNERSHIP AND DISPOSAL

4.1 Soil or water samples obtained from the project during performance of the work shall remain the property of the Client.

4.2 UES will dispose of or return to Client all remaining soils and rock samples 60 days after submission of report covering those samples. Further storage or transfer of samples can be made at Client's expense upon Client's prior written request.

4.3 Samples which are contaminated by petroleum products or other chemical waste will be returned to Client for treatment or disposal, consistent with all appropriate federal, state, or local regulations.

SECTION 5: BILLING AND PAYMENT

5.1 UES will submit invoices to Client monthly or upon completion of services. Invoices will show charges for different personnel and expense classifications.

5.2 Payment is due 30 days after presentation of invoice and is past due 31 days from invoice date. Client agrees to pay a finance charge of one and one-half percent (1 ½ %) per month, or the maximum rate allowed by law, on past due accounts.

5.3 If UES incurs any expenses to collect overdue billings on invoices, the sums paid by UES for reasonable attorneys' fees, court costs, UES's time, UES's expenses, and interest will be due and owing by the Client.

SECTION 6: OWNERSHIP AND USE OF DOCUMENTS

6.1 All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by UES, as instruments of service, shall remain the property of UES.

6.2 Client agrees that all reports and other work furnished to the Client or his agents, which are not paid for, will be returned upon demand and will not be used by the Client for any purpose.

6.3 UES will retain all pertinent records relating to the services performed for a period of five years following submission of the report, during which period the records will be made available to the Client at all reasonable times.

6.4 All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by UES, are prepared for the sole and exclusive use of Client, and may not be given to any other party or used or relied upon by any such party without the express written consent of UES.

SECTION 7: DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS

7.1 Client warrants that a reasonable effort has been made to inform UES of known or suspected hazardous materials on or near the project site.

7.2 Under this agreement, the term hazardous materials include hazardous materials (40 CFR 172.01), hazardous wastes (40 CFR 261.2), hazardous substances (40 CFR 300.6), petroleum products, polychlorinated biphenyls, and asbestos.

7.3 Hazardous materials may exist at a site where there is no reason to believe they could or should be present. UES and Client agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work. UES and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for UES to take immediate measures to protect health and safety. Client agrees to compensate UES for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous waste.

7.4 UES agrees to notify Client when unanticipated hazardous materials or suspected hazardous materials are encountered. Client agrees to make any disclosures required by law to the appropriate governing agencies. Client also agrees to hold UES harmless for any and all consequences of disclosures made by UES which are required by governing law. In the event the project site is not owned by Client, Client recognizes that it is the Client's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.

7.5 Notwithstanding any other provision of the Agreement, Client waives any claim against UES, and to the maximum extent permitted by law, agrees to defend, indemnify, and save UES harmless from any claim, liability, and/or defense costs for injury or loss arising from UES's discovery of unanticipated hazardous materials or suspected hazardous materials including any costs created by delay of the project and any cost associated with possible reduction of the property's value. Client will be responsible for ultimate disposal of any samples secured by UES which are found to be contaminated.

SECTION 8: RISK ALLOCATION

8.1 Client agrees that UES's liability for any damage on account of any breach of contract, error, omission or other professional negligence will be limited to a sum not to exceed $50,000 or UES's fee, whichever is greater. If Client prefers to have higher limits on contractual or professional liability, UES agrees to increase the limits up to a maximum of $1,000,000.00 upon Client's written request at the time of accepting our proposal provided that Client agrees to pay an additional consideration of four percent of the total fee, or $400.00, whichever is greater. The additional charge for the higher liability limits is because of the greater risk assumed and is not strictly a charge for additional professional liability insurance.

SECTION 9: INSURANCE

9.1 UES represents and warrants that it and its agents, staff and consultants employed by it, is and are protected by worker's compensation insurance and that UES has such coverage under public liability and property damage insurance policies which UES deems to be adequate. Certificates for all such policies of insurance shall be provided to Client upon request in writing. Within the limits and conditions of such insurance, UES agrees to indemnify and save Client harmless from and against loss, damage, or liability arising from negligent acts by UES, its agents, staff, and consultants employed by it. UES shall not be responsible for any loss, damage or liability beyond the amounts, limits, and conditions of such insurance or the limits described in Section 8, whichever is less. The Client agrees to defend, indemnify and save UES harmless for loss, damage or liability arising from acts by Client, Client's agent, staff, and other UESs employed by Client.

SECTION 10: DISPUTE RESOLUTION

10.1 All claims, disputes, and other matters in controversy between UES and Client arising out of or in any way related to this Agreement will be submitted to alternative dispute resolution (ADR) such as mediation or arbitration, before and as a condition precedent to other remedies provided by law, including the commencement of litigation.

10.2 If a dispute arises related to the services provided under this Agreement and that dispute requires litigation instead of ADR as provided above, then:

(a) the claim will be brought and tried in judicial jurisdiction of the court of the county where UES's principal place of business is located and Client waives the right to remove the action to any other county or judicial jurisdiction, and

(b) The prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees, and other claim related expenses.

SECTION 11: TERMINATION

11.1 This agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, UES shall be paid for services performed to the termination notice date plus reasonable termination expenses.

11.2 In the event of termination, or suspension for more than three (3) months, prior to completion of all reports contemplated by the Agreement, UES may complete such analyses and records as are necessary to complete its files and may also complete a report on the services performed to the date of notice of termination or suspension. The expense of termination or suspension shall include all direct costs of UES in completing such analyses, records and reports.

SECTION 12: ASSIGNS

12.1 Neither the Client nor UES may delegate, assign, sublet or transfer their duties or interest in this Agreement without the written consent of the other party.

SECTION 13. GOVERNING LAW AND SURVIVAL

13.1 The laws of the State of Florida will govern the validity of these Terms, their interpretation and performance.

13.2 If any of the provisions contained in this Agreement are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this Agreement for any cause.

SECTION 14. INTEGRATION CLAUSE

14.1 This Agreement represents and contains the entire and only agreement and understanding among the parties with respect to the subject matter of this Agreement, and supersedes any and all prior and contemporaneous oral and written agreements, understandings, representations, inducements, promises, warranties, and conditions among the parties. No agreement, understanding, representation, inducement, promise, warranty, or condition of any kind with respect to the subject matter of this Agreement shall be relied upon by the parties unless expressly incorporated herein.

14.2 This Agreement may not be amended or modified except by an agreement in writing signed by the party against whom the enforcement of any modification or amendment is sought.

APPENDIX C

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Property Record - 17-20-28-7404-00-005

Orange County Property Appraiser •
http://www.ocpafl.org

Property Summary

Property Name
Rock Spgs Ridge Golf Course

Names
Rock Springs Ridge Golf Club Inc

Municipality
APK - Apopka

Property Use
3800 - Golf Course

Mailing Address
625 Rock Ridge Blvd
Apopka, FL 32712-4702

Physical Address
625 Rock Ridge Blvd
Apopka, FL 32712

QR Code For Mobile Phone





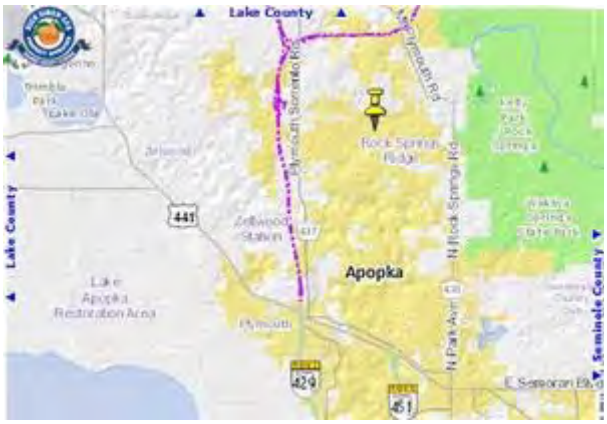





282017740400005 02/12/2007


282017740400005 02/12/2007


282017740400005 02/12/2007



Value and Taxes

Historical Value and Tax Benefits

Tax Year Values		Land		Building(s)		Feature(s)		Market Value	Assessed Value
2019	W MKT	$308,980	+	$416,448	+	$121,202	=	$846,630 (-27%)	**$846,630** (-23%)
2018	✓ MKT	$617,893	+	$413,073	+	$121,202	=	$1,152,168 (15%)	**$1,104,078** (10%)
2017	✓ MKT	$561,727	+	$373,485	+	$68,495	=	$1,003,707 (1.2%)	**$1,003,707** (1.2%)
2016	✓ MKT	$550,168	+	$373,553	+	$68,495	=	$992,216	**$992,216**

Tax Year Benefits		Tax Savings
2019	W	$0
2018	✓ $	**$438**
2017	✓	$0
2016	✓	$0

2019 Taxable Value and Estimate of Proposed Taxes

Taxing Authority	Assd Value	Exemption	Tax Value	Millage Rate	Taxes	%
Public Schools: By State Law (Rle)	$846,630	$0	$846,630	3.8610 (-4.69%)	**$3,268.84**	24 %
Public Schools: By Local Board	$846,630	$0	$846,630	3.2480 (0.00%)	**$2,749.85**	20 %
Orange County (General)	$846,630	$0	$846,630	4.4347 (0.00%)	**$3,754.55**	27 %
City Of Apopka	$846,630	$0	$846,630	4.0376 (0.00%)	**$3,418.35**	25 %
Library - Operating Budget	$846,630	$0	$846,630	0.3748 (0.00%)	**$317.32**	2 %
St Johns Water Management District	$846,630	$0	$846,630	0.2414 (-5.78%)	**$204.38**	1 %
				16.1975	**$13,713.29**	

2019 Non-Ad Valorem Assessments

Levying Authority	Assessment Description	Units	Rate	Assessment
CITY OF APOPKA	APOPKA STORM - DRAINAGE - (407)703-1731	95.00	$1.00	**$95.00**
				$95.00

Property Features

Property Description

ROCK SPRINGS RIDGE GOLF COURSE 63/113 TRACT E

Total Land Area

5,046,107 sqft (+/-) | 115.84 acres (+/-) GIS Calculated

Land

Land Use Code	Zoning	Land Units	Unit Price	Land Value	Class Unit Price	Class Value
3800 - Golf Course	PUD	109.06 ACRE(S)	$2,832.50	$308,912	$0.00	$308,912
9950 - Storm/Ret/Drain	PUD	6.78 ACRE(S)	$10.00	$68	$0.00	$68

Buildings

Model Code	06 - Warehouse	Subarea Description	Sqft	Value
Type Code	4800 - Warehousing	AOF - Avg Office	1008	$97,991
Building Value	$186,472	BAS - Base Area	4200	$214,914
Estimated New Cost	$358,600	UCP - Unf Carprt	2232	$45,695
Actual Year Built	1998			
Beds	0			
Baths	0.0			
Floors	1			

Gross Area	7440 sqft
Living Area	5208 sqft
Exterior Wall	Modl.Metal
Interior Wall	Minimum



Model Code	06 - Warehouse
Type Code	4800 - Warehousing
Building Value	$114,866
Estimated New Cost	$220,896
Actual Year Built	1998
Beds	0
Baths	0.0
Floors	1
Gross Area	5800 sqft
Living Area	4000 sqft
Exterior Wall	Modl.Metal
Interior Wall	Minimum

Subarea Description	Sqft	Value
BAS - Base Area	4000	$187,200
UCP - Unf Carprt	1800	$33,696



Model Code	04 - Commercial
Type Code	3800 - Golf Course
Building Value	$115,110
Estimated New Cost	$359,719
Actual Year Built	1998
Beds	0
Baths	0.0
Floors	1
Gross Area	7640 sqft
Living Area	6554 sqft
Exterior Wall	Cb.Stucco
Interior Wall	Dec.Wall.C

Subarea Description	Sqft	Value
BAS - Base Area	1686	$91,297
BAS - Base Area	4868	$263,602
FOP - F/Opn Prch	86	$2,112
PTO - Patio	1000	$2,708



Extra Features

Description	Date Built	Units	Unit Price	XFOB Value
6002 - Wall Concrete Block 3	01/01/1998	287 Unit(s)	$15.00	$4,305
6030 - Paved Asphalt	01/01/1998	17158 Unit(s)	$3.50	$45,040

675

6040 - Paved Concrete	01/01/1998	1936 Unit(s)	$4.50	$8,712
6220 - Parking Space	01/01/1998	122 Unit(s)	$1,000.00	$61,000
6002 - Wall Concrete Block 3	01/01/1998	98 Unit(s)	$15.00	$1,470
5320 - Canopy Cover Aluminum 1	01/01/1998	270 Unit(s)	$2.50	$675
5592 - Shed No Value	01/01/1998	2 Unit(s)	$0.00	$0

Sales

Sales History

Sale Date	Sale Amount	Instrument #	Book/Page	Deed Code	Seller(s)	Buyer(s)	Vac/Imp
12/01/2005	$1,476,700	20050824612	08345 / 2360	Special Warranty Multiple	Bdc Golf Course LLC	Rock Springs Ridge Golf Club Inc	Improved

APPENDIX D

UNIVERSAL
ENGINEERING SCIENCES

Rock Springs Ridge Development
Rock Springs Ridge Development
Apopka, FL 32712

Inquiry Number: 06119167.2r
July 13, 2020

EDR Area / Corridor Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Government Records Searched/Data Currency Tracking	GR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

SUBJECT PROPERTY INFORMATION

ADDRESS

ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifcations refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

FINDS: Facility Index System/Facility Registry System

A review of the FINDS list, as provided by EDR, and dated 02/03/2020 has revealed that there are 3 FINDS sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
ROCK SPRINGS RIDGE Registry ID:: 110021025344	***ROCK SPRINGS RIDGE R***	***A3 / 5***	***25***
ROCK SPRINGS RD STOR Registry ID:: 110020546514	***ROCK SPRINGS RD***	***A4 / 5***	***25***
ROCK SPRINGS RIDGE Registry ID:: 110040320621	***UNKNOWN***	***5 / 5***	***26***

ECHO: Enforcement & Compliance History Information

A review of the ECHO list, as provided by EDR, and dated 04/04/2020 has revealed that there are 3 ECHO sites within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
ROCK SPRINGS RIDGE Registry ID: 110021025344	***ROCK SPRINGS RIDGE R***	***A3 / 5***	***25***
ROCK SPRINGS RD STOR	***ROCK SPRINGS RD***	***A4 / 5***	***25***

Registry ID: 110020546514

ROCK SPRINGS RIDGE	***UNKNOWN***	***5 / 5***	***26***
Registry ID: 110040320621			

TIER 2: Tier 2 Facility Listing

A review of the TIER 2 list, as provided by EDR, and dated 12/31/2018 has revealed that there is 1 TIER 2 site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
ROCK SPRINGS RIDGE G Facility Id: 4789423	625 ROCK RIDGE BOULE	6 / 5	26

NPDES: Wastewater Facility Regulation Database

A review of the NPDES list, as provided by EDR, and dated 02/03/2020 has revealed that there is 1 NPDES site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
ROCK SPRINGS RIDGE Status: A Facility ID: FLR10QK27		2 / 5	24

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within the requested target property.

Site	Address	Map ID / Focus Map(s)	Page
PRO LINE CLEANERS IN	617 GREEN ROCK CT	1 / 5	24

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Page Numbers and Map Identifcations refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

A review of the RCRA-VSQG list, as provided by EDR, and dated 03/23/2020 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
APOPKA OPERATIONS CE	***275 W PONKAN ROAD***	***E 1/8 - 1/4 (0.226 mi.)***	***14 / 8***	***36***
EPA ID:: FLD981922214				

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facility Database

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
3910 JASON DWELLEY P	3910 JASON DWELLEY P	W 0 - 1/8 (0.009 mi.)	7 / 4	27
Database: SWF/LF, Date of Government Version: 04/13/2020				
Facility-Site Id: 99921				
Class Status: PRE-AUTHORIZED (B)				

State and tribal registered storage tank lists

UST: Storage Tank Facility Information

A review of the UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
BRIGHTWOOD MANOR MOB	838 KELL PARK RD	W 1/8 - 1/4 (0.147 mi.)	9 / 2	29
Database: UST, Date of Government Version: 03/09/2020				
Tank Status: B				
Facility-Site Id: 9502175				
Facility Status: CLOSED				
PROGRESS ENERGY FL-A	***275 PONKAN RD***	***E 1/8 - 1/4 (0.208 mi.)***	***B13 / 5***	***33***
Database: UST, Date of Government Version: 03/09/2020				
Tank Status: B				
Facility-Site Id: 8521834				
Facility Status: CLOSED				

AST: Storage Tank Facility Information

A review of the AST list, as provided by EDR, has revealed that there are 5 AST sites within approximately 0.25 miles of the requested target property.

Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
APOPKA CITY-NW WTP Database: AST, Date of Government Version: 03/09/2020 Facility-Site Id: 9801760 Facility Status: OPEN Facility Status: OPEN	3426 RECREATION WY	SW 0 - 1/8 (0.109 mi.)	8 / 5	28
APOPKA CITY-NORTH RE Database: AST, Date of Government Version: 03/09/2020 Facility-Site Id: 9806874 Facility Status: OPEN Facility Status: OPEN	1665 RECREATION WAY	SW 1/8 - 1/4 (0.189 mi.)	10 / 4	30
PROGRESS ENERGY FL-A Database: AST, Date of Government Version: 03/09/2020 Facility-Site Id: 8521834 Facility Status: CLOSED Facility Status: CLOSED	275 PONKAN RD	E 1/8 - 1/4 (0.208 mi.)	B12 / 5	32
PROGRESS ENERGY FL-A Database: AST, Date of Government Version: 03/09/2020 Facility-Site Id: 9805917 Facility Status: CLOSED Facility Status: CLOSED	***275 PONKAN RD***	***E 1/8 - 1/4 (0.208 mi.)***	***B13 / 5***	***33***
US PLANTS Database: AST, Date of Government Version: 03/09/2020 Facility-Site Id: 9602174 Facility Status: OPEN Facility Status: OPEN	2000 W KELLY PARK RD	N 1/8 - 1/4 (0.245 mi.)	15 / 1	39

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

DEDB: Ethylene Dibromide Database Results

A review of the DEDB list, as provided by EDR, and dated 04/09/2020 has revealed that there is 1 DEDB site within approximately 0.25 miles of the requested target property.

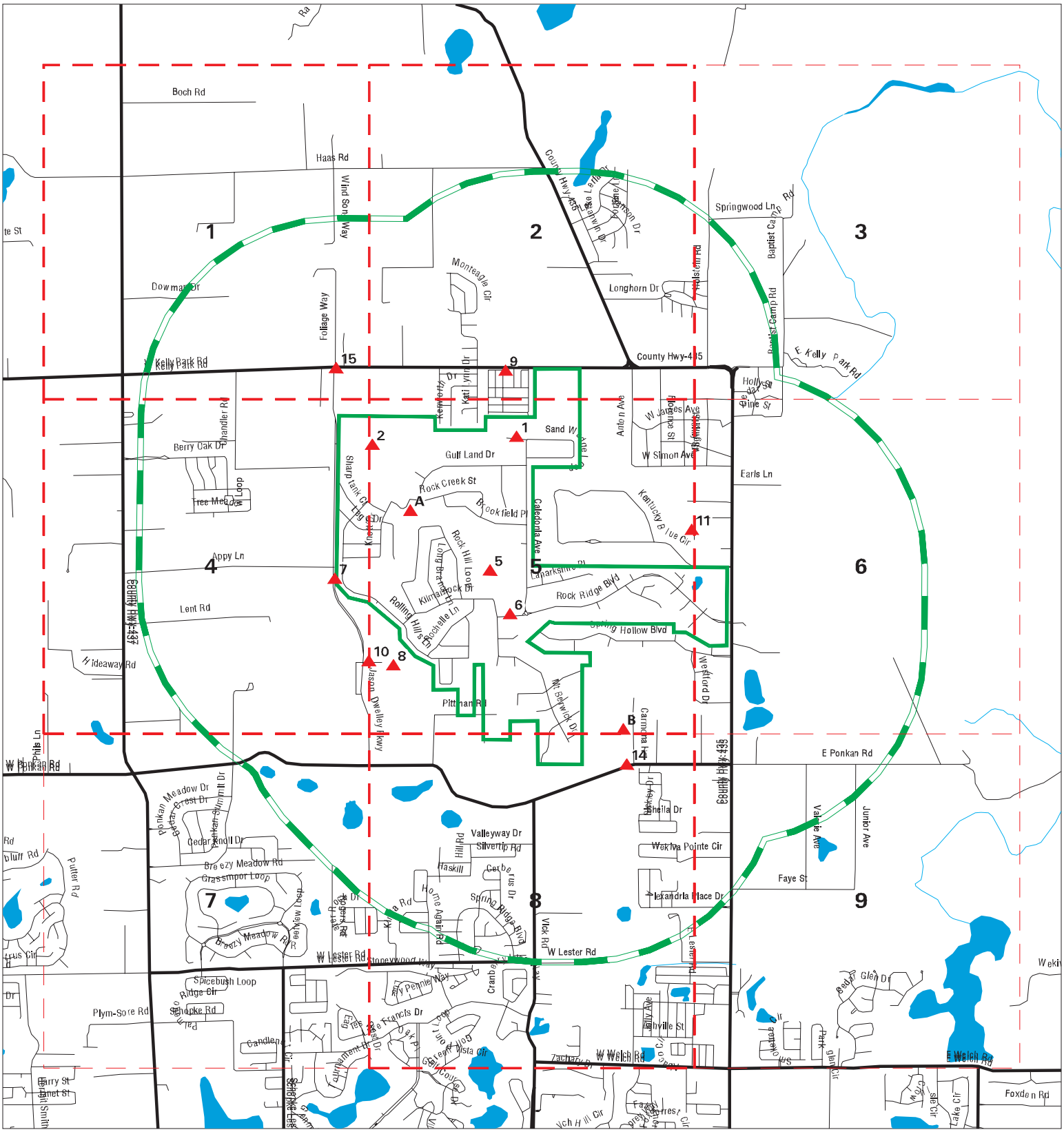
Site	Address	Direction / Distance	Map ID / Focus Map(s)	Page
Not reported Well Id: 480344601 Status: A	31 OAK HOLLOW DRIVE	N 1/8 - 1/4 (0.191 mi.)	11 / 5	31

MAPPED SITES SUMMARY

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
1 / 5	PRO LINE CLEANERS IN	617 GREEN ROCK CT	EDR Hist Cleaner	TP
2 / 5	ROCK SPRINGS RIDGE		NPDES	TP
A3 / 5	ROCK SPRINGS RIDGE	ROCK SPRINGS RIDGE R	FINDS, ECHO	TP
A4 / 5	ROCK SPRINGS RD STOR	ROCK SPRINGS RD	FINDS, ECHO	TP
5 / 5	ROCK SPRINGS RIDGE	UNKNOWN	FINDS, ECHO	TP
6 / 5	ROCK SPRINGS RIDGE G	625 ROCK RIDGE BOULE	TIER 2	TP
7 / 4	3910 JASON DWELLEY P	3910 JASON DWELLEY P	SWF/LF	46 0.009 West
8 / 5	APOPKA CITY-NW WTP	3426 RECREATION WY	AST	578 0.109 SW
9 / 2	BRIGHTWOOD MANOR MOB	838 KELL PARK RD	UST	775 0.147 West
10 / 4	APOPKA CITY-NORTH RE	1665 RECREATION WAY	AST	998 0.189 SW
11 / 5		31 OAK HOLLOW DRIVE	DEDB	1010 0.191 North
B12 / 5	PROGRESS ENERGY FL-A	275 PONKAN RD	AST	1099 0.208 East
B13 / 5	PROGRESS ENERGY FL-A	275 PONKAN RD	UST, AST, Financial Assurance	1099 0.208 East
14 / 8	APOPKA OPERATIONS CE	275 W PONKAN ROAD	RCRA-VSQG, FINDS, ECHO	1191 0.226 East
15 / 1	US PLANTS	2000 W KELLY PARK RD	AST	1293 0.245 North

Key Map - 06119167.2r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/2 1 Miles

SITE NAME:	Rock Springs Ridge Development
ADDRESS:	Rock Springs Ridge Development
CITY/STATE:	Apopka FL
ZIP:	32712

CLIENT:	Universal Engineering Sciences
CONTACT:	Daniel Townsend
INQUIRY #:	06119167.2r
DATE:	07/13/20 11:50 AM

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	1	NR	NR	NR	1
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		1	0	0	NR	NR	1
State and tribal leaking storage tank lists								
LAST	0.500		0	0	0	NR	NR	0
LUST	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FF TANKS	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	2	NR	NR	NR	2
AST	0.250		1	4	NR	NR	NR	5
INDIAN UST	0.250		0	0	NR	NR	NR	0
TANKS	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
PRIORITYCLEANERS	0.500		0	0	0	NR	NR	0
Fl Sites	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
SPILLS 80	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	3	NR	NR	NR	NR	NR	3
UXO	1.000		0	0	0	0	NR	0
ECHO	TP	3	NR	NR	NR	NR	NR	3
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
CLEANUP SITES	TP		NR	NR	NR	NR	NR	0
DEDB	0.250		0	1	NR	NR	NR	1
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
DWM CONTAM	0.500		0	0	0	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
FL Cattle Dip. Vats	0.250		0	0	NR	NR	NR	0
HW GEN	0.250		0	0	NR	NR	NR	0
RESP PARTY	0.500		0	0	0	NR	NR	0
SITE INV SITES	0.500		0	0	0	NR	NR	0
TIER 2	TP	1	NR	NR	NR	NR	NR	1
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP	1	NR	NR	NR	NR	NR	1
MINES MRDS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125	1	0	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		9	2	8	0	0	0	19

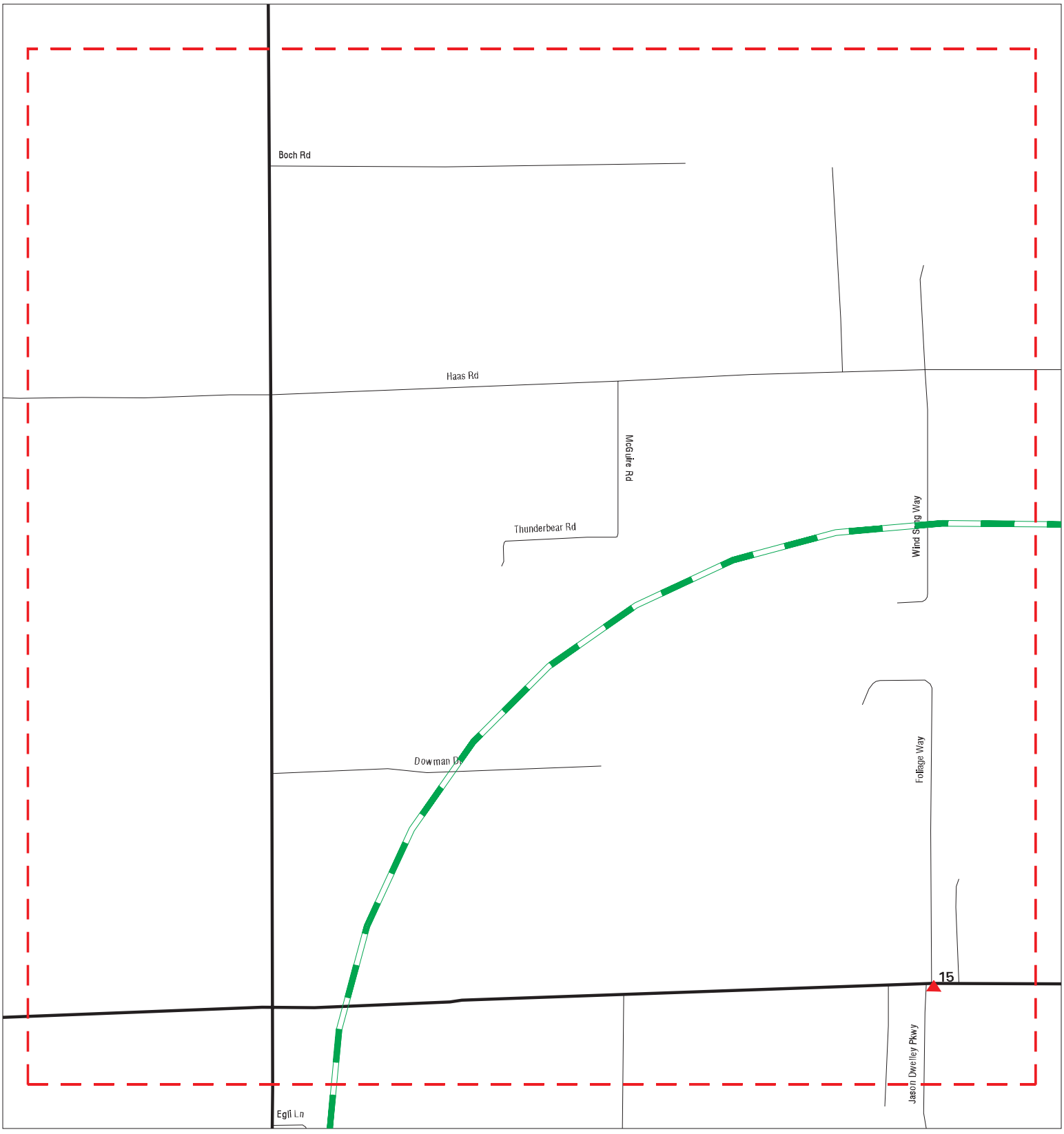
NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Focus Map - 1 - 06119167.2r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME: Rock Springs Ridge Development	CLIENT: Universal Engineering Sciences
ADDRESS: Rock Springs Ridge Development	CONTACT: Daniel Townsend
CITY/STATE: Apopka FL	INQUIRY #: 06119167.2r
ZIP: 32712	DATE: 07/13/20

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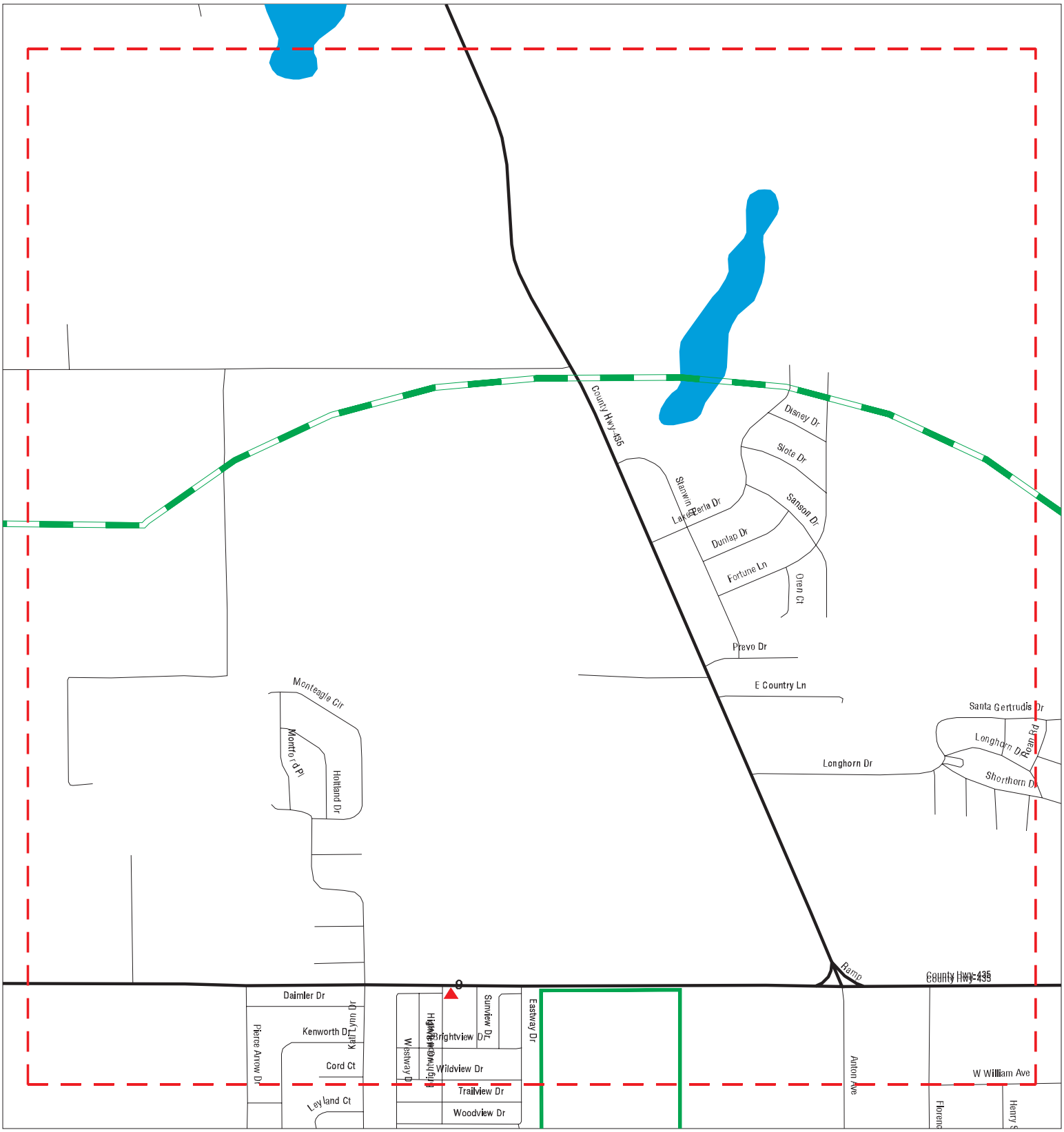
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MAPPED SITES SUMMARY - FOCUS MAP 1

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
15 / 1	US PLANTS	2000 W KELLY PARK RD	AST	1293 0.245 North

Focus Map - 2 - 06119167.2r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME:	Rock Springs Ridge Development
ADDRESS:	Rock Springs Ridge Development
CITY/STATE:	Apopka FL
ZIP:	32712
CLIENT:	Universal Engineering Sciences
CONTACT:	Daniel Townsend
INQUIRY #:	06119167.2r
DATE:	07/13/20

692

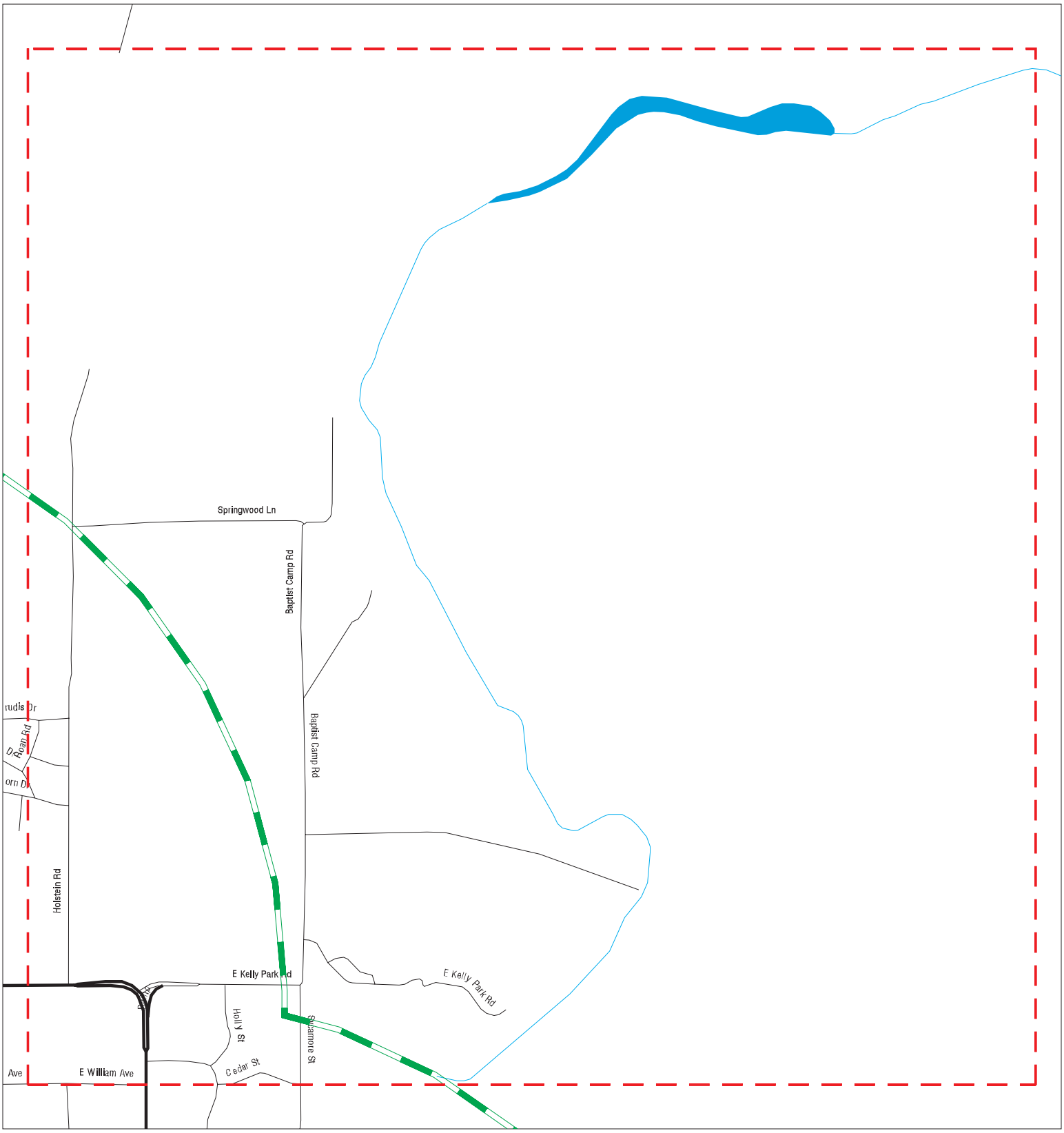
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MAPPED SITES SUMMARY - FOCUS MAP 2

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
9 / 2	BRIGHTWOOD MANOR MOB	838 KELL PARK RD	UST	775 0.147 West

Focus Map - 3 - 06119167.2r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME: Rock Springs Ridge Development	CLIENT: Universal Engineering Sciences
ADDRESS: Rock Springs Ridge Development	CONTACT: Daniel Townsend
CITY/STATE: Apopka FL	INQUIRY #: 06119167.2r
ZIP: 32712	DATE: 07/13/20

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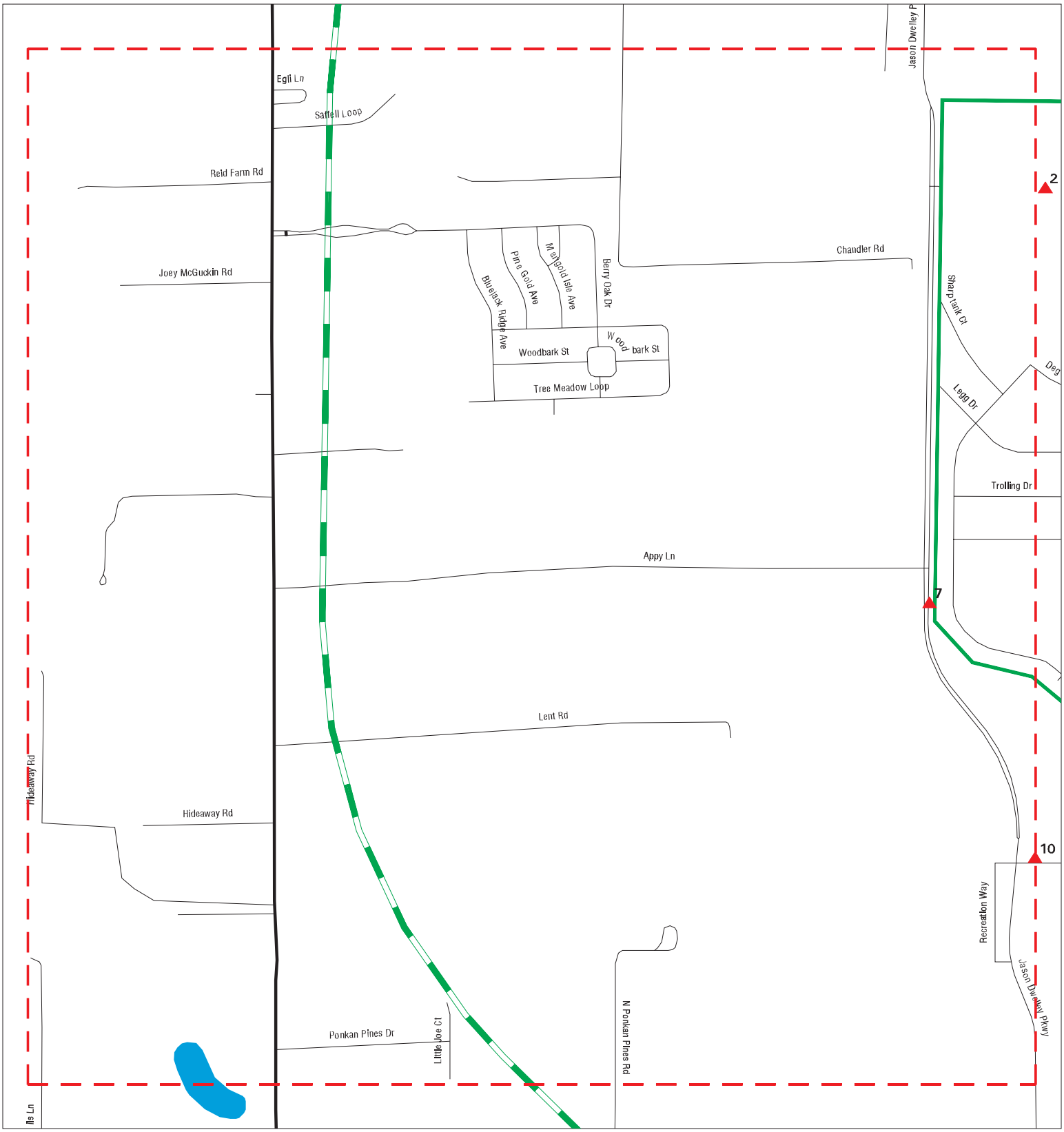
MAPPED SITES SUMMARY - FOCUS MAP 3

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 4 - 06119167.2r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME:	Rock Springs Ridge Development
ADDRESS:	Rock Springs Ridge Development
CITY/STATE:	Apopka FL
ZIP:	32712
CLIENT:	Universal Engineering Sciences
CONTACT:	Daniel Townsend
INQUIRY #:	06119167.2r
DATE:	07/13/20

696

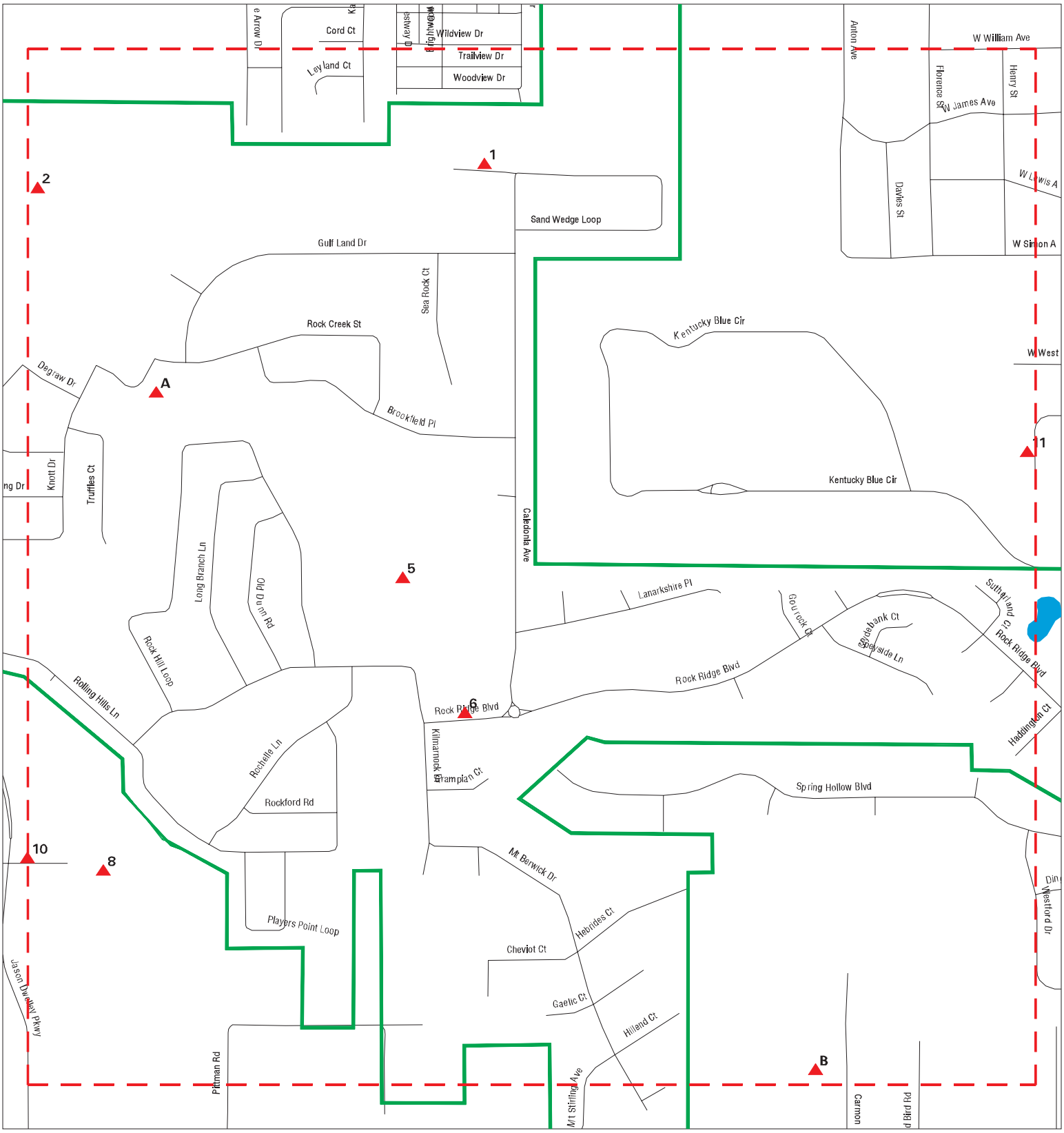
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MAPPED SITES SUMMARY - FOCUS MAP 4

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
7 / 4	3910 JASON DWELLEY P	3910 JASON DWELLEY P	SWF/LF	46 0.009 West
10 / 4	APOPKA CITY-NORTH RE	1665 RECREATION WAY	AST	998 0.189 SW

Focus Map - 5 - 06119167.2r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME:	Rock Springs Ridge Development
ADDRESS:	Rock Springs Ridge Development
CITY/STATE:	Apopka FL
ZIP:	32712

CLIENT:	Universal Engineering Sciences
CONTACT:	Daniel Townsend
INQUIRY #:	06119167.2r
DATE:	07/13/20

698

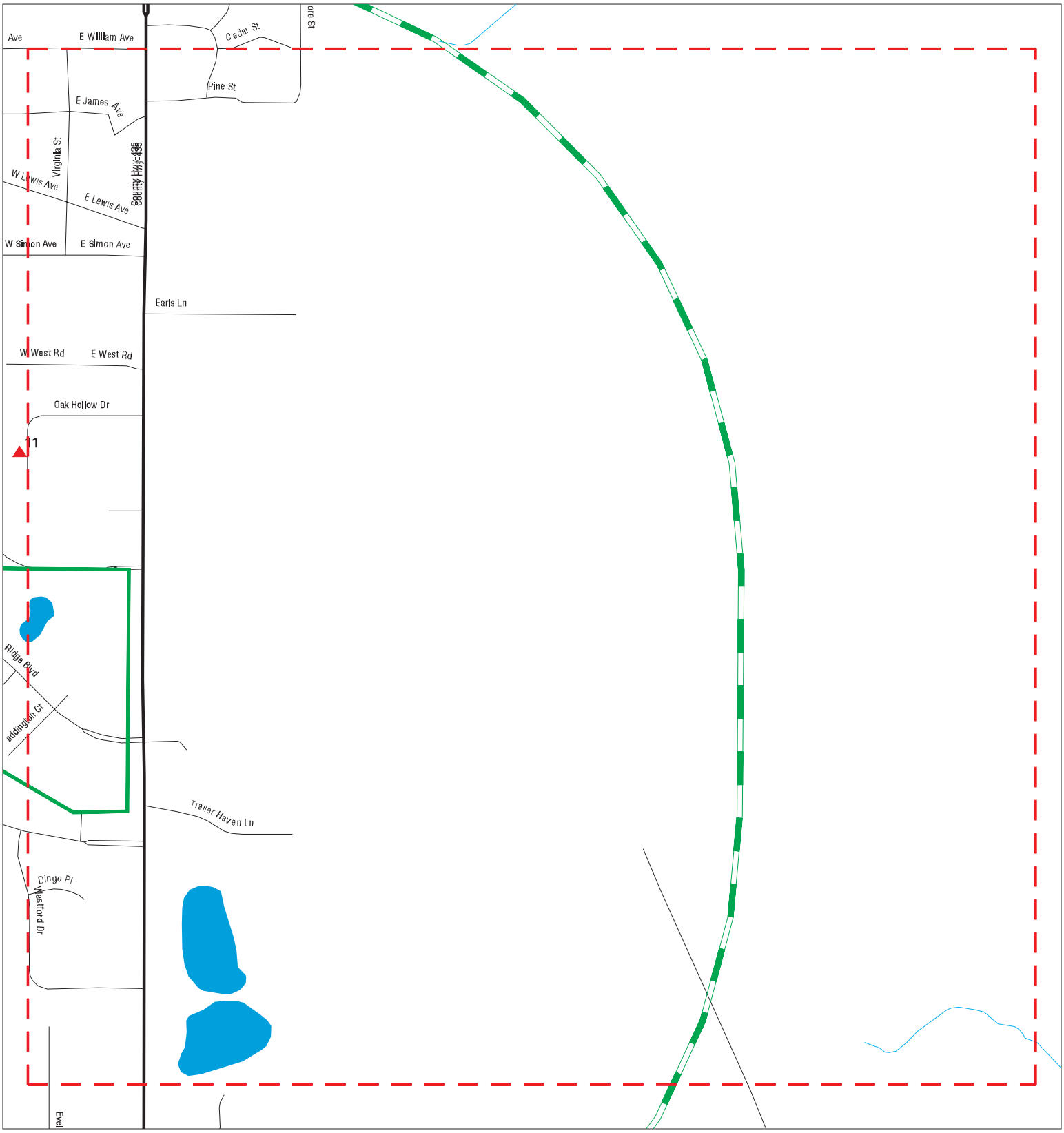
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MAPPED SITES SUMMARY - FOCUS MAP 5

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
1 / 5	PRO LINE CLEANERS IN	617 GREEN ROCK CT	EDR Hist Cleaner	TP
2 / 5	ROCK SPRINGS RIDGE		NPDES	TP
A3 / 5	ROCK SPRINGS RIDGE	ROCK SPRINGS RIDGE R	FINDS, ECHO	TP
A4 / 5	ROCK SPRINGS RD STOR	ROCK SPRINGS RD	FINDS, ECHO	TP
5 / 5	ROCK SPRINGS RIDGE	UNKNOWN	FINDS, ECHO	TP
6 / 5	ROCK SPRINGS RIDGE G	625 ROCK RIDGE BOULE	TIER 2	TP
8 / 5	APOPKA CITY-NW WTP	3426 RECREATION WY	AST	578 0.109 SW
11 / 5		31 OAK HOLLOW DRIVE	DEDB	1010 0.191 North
B12 / 5	PROGRESS ENERGY FL-A	275 PONKAN RD	AST	1099 0.208 East
B13 / 5	PROGRESS ENERGY FL-A	275 PONKAN RD	UST, AST, Financial Assurance	1099 0.208 East

Focus Map - 6 - 06119167.2r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME: Rock Springs Ridge Development	CLIENT: Universal Engineering Sciences
ADDRESS: Rock Springs Ridge Development	CONTACT: Daniel Townsend
CITY/STATE: Apopka FL	INQUIRY #: 06119167.2r
ZIP: 32712	DATE: 07/13/20

700

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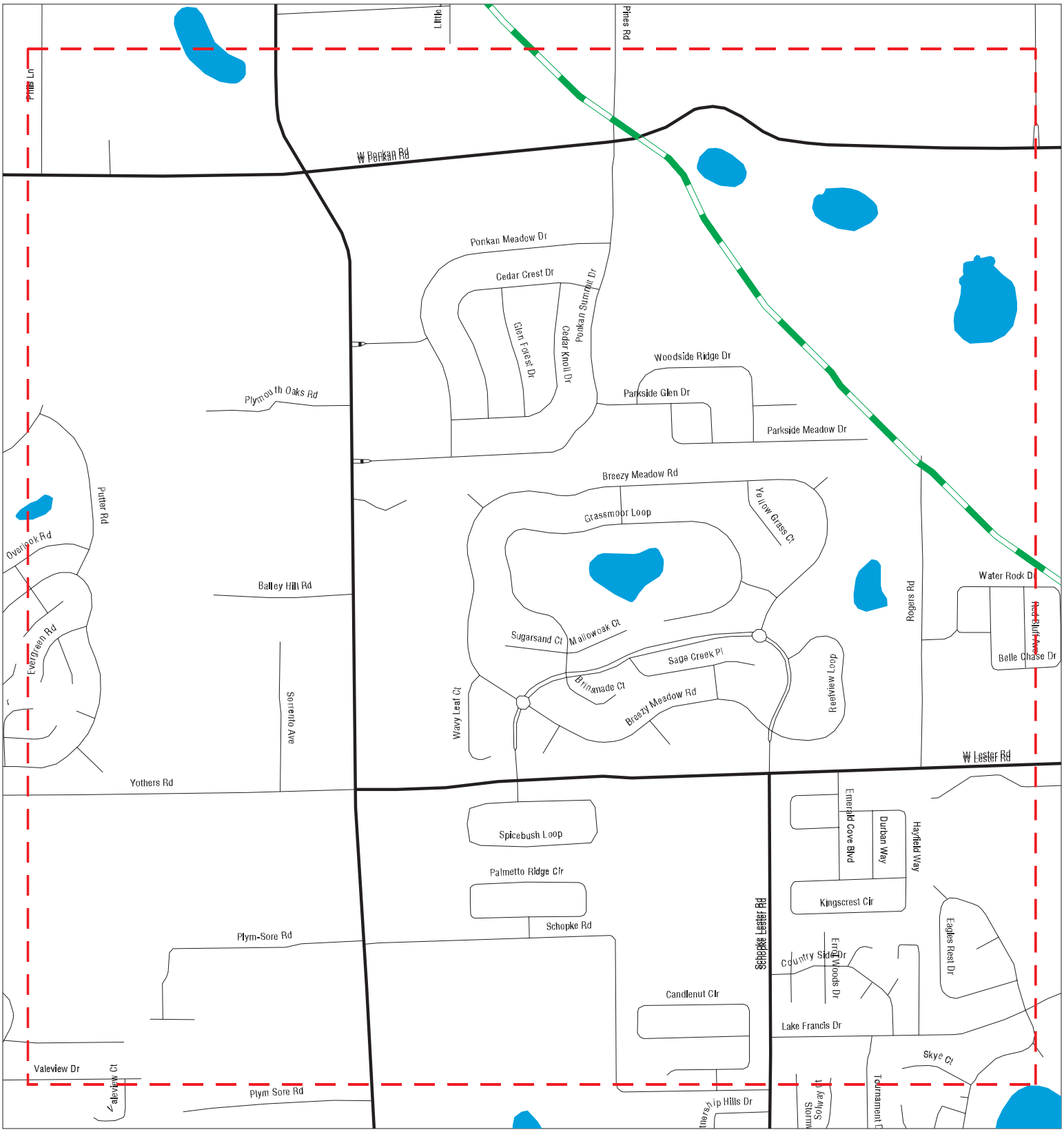
MAPPED SITES SUMMARY - FOCUS MAP 6

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 7 - 06119167.2r



- Sites
- Target Property
- Search Buffer
- Focus Map - No Sites
- Focus Map - Sites
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- FL Brownfield

SITE NAME:	Rock Springs Ridge Development
ADDRESS:	Rock Springs Ridge Development
CITY/STATE:	Apopka FL
ZIP:	32712

CLIENT:	Universal Engineering Sciences
CONTACT:	Daniel Townsend
INQUIRY #:	06119167.2r
DATE:	07/13/20

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MAPPED SITES SUMMARY - FOCUS MAP 7

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

Focus Map - 8 - 06119167.2r



SITE NAME: Rock Springs Ridge Development	CLIENT: Universal Engineering Sciences
ADDRESS: Rock Springs Ridge Development	CONTACT: Daniel Townsend
CITY/STATE: Apopka FL	INQUIRY #: 06119167.2r
ZIP: 32712	DATE: 07/13/20

704

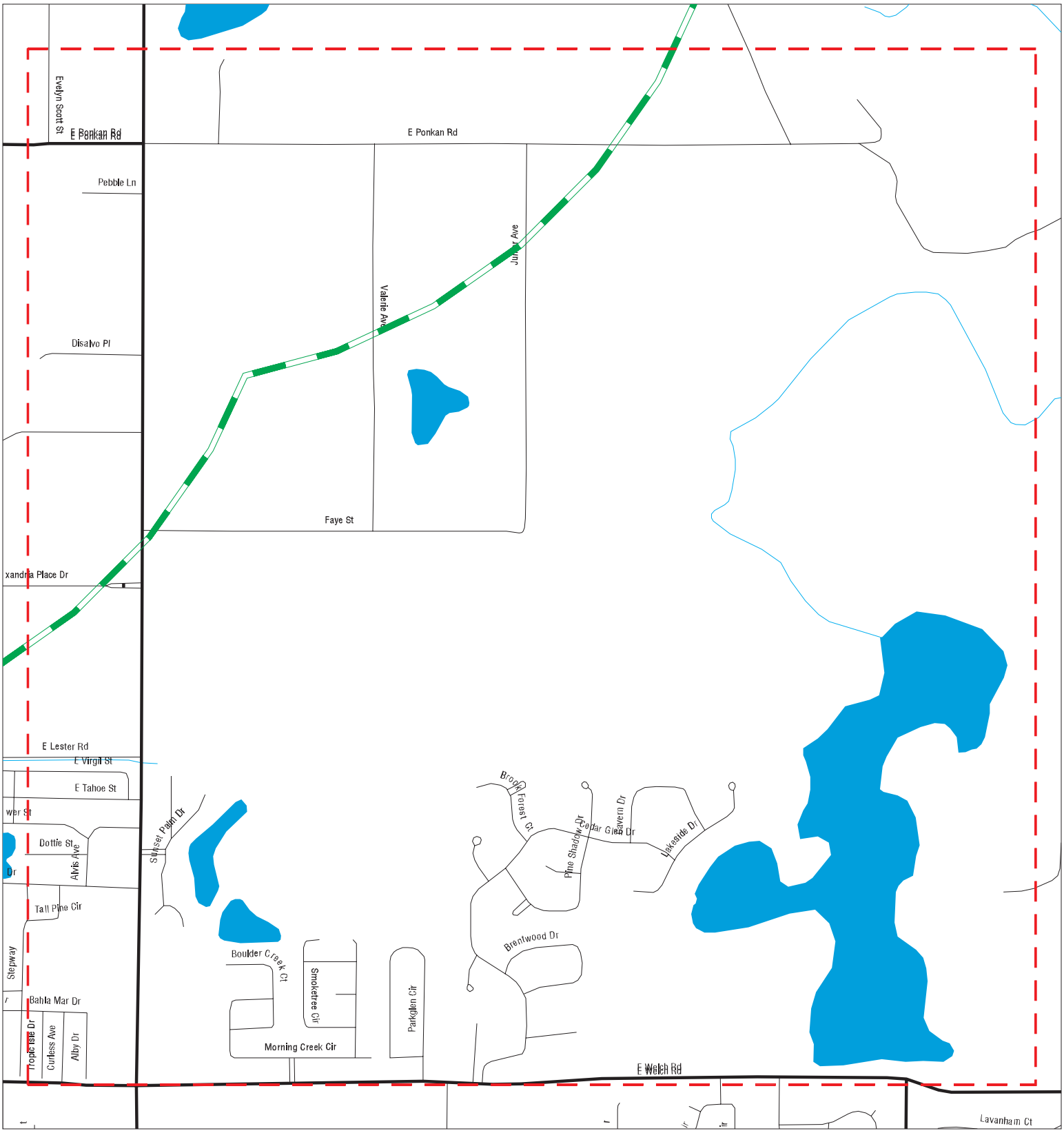
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MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
14 / 8	APOPKA OPERATIONS CE	275 W PONKAN ROAD	RCRA-VSQG, FINDS, ECHO	1191 0.226 East

Focus Map - 9 - 06119167.2r



Sites
Target Property
Search Buffer
Focus Map - No Sites
Focus Map - Sites
National Priority List Sites
Dept. Defense Sites
Indian Reservations BIA
FL Brownfield

0 1/8 1/4 Miles

SITE NAME:	Rock Springs Ridge Development
ADDRESS:	Rock Springs Ridge Development
CITY/STATE:	Apopka FL
ZIP:	32712
CLIENT:	Universal Engineering Sciences
CONTACT:	Daniel Townsend
INQUIRY #:	06119167.2r
DATE:	07/13/20

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MAPPED SITES SUMMARY - FOCUS MAP 9

Target Property:
ROCK SPRINGS RIDGE DEVELOPMENT
APOPKA, FL 32712

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

1 PRO LINE CLEANERS INC **EDR Hist Cleaner** **1020067380**
Target 617 GREEN ROCK CT **N/A**
Property APOPKA, FL 32712

EDR Hist Cleaner

Actual: 76 ft.
Focus Map: 5

Year:	Name:	Type:
2006	PRO LINE CLEANERS INC	Drycleaning Plants, Except Rugs, NEC
2007	PRO LINE CLEANERS INC	Drycleaning Plants, Except Rugs, NEC
2008	PRO LINE CLEANERS INC	Drycleaning Plants, Except Rugs, NEC
2009	PRO LINE CLEANERS INC	Drycleaning Plants, Except Rugs, NEC
2010	PRO LINE CLEANERS INC	Drycleaning Plants, Except Rugs, NEC
2011	PRO LINE CLEANERS INC	Drycleaning Plants, Except Rugs, NEC
2012	PRO LINE CLEANERS INC	Drycleaning Plants, Except Rugs, NEC

---

2 ROCK SPRINGS RIDGE **NPDES** **S118895843**
Target **N/A**
Property APOPKA, FL

WASTEWATER:

Actual: 82 ft.
Focus Map: 5

Name:	ROCK SPRINGS RIDGE
Address:	Not reported
City,State,Zip:	APOPKA, FL
Facility ID:	FLR10QK27
Facility Type:	Construction Stormwater GP
Status:	Active - Existing, permitted facility/site for which effluent, reclaimed water or wastewater residual discharge into the environment and/or monitoring is taking place.
District Office:	TLST
NPDES Permitted Site:	Not reported
Environmental Interest:	Not reported
Owner Type:	Unknown
Permit Capacity:	Not reported
Party Name:	Ben Shoemaker, Vice President
Company Name:	DR Horton Inc
RP Address:	6200 Lee Vista Blvd
RP Address 2:	Not reported
RP City,Stat,Zip:	Orlando FL 32822-4410
Telephone:	4078505228
Email:	BShoemaker@drhorton.com
Issue Date:	08/22/2016
Effective Date:	08/22/2016
Expiration Date:	08/21/2021
DOC Description:	Generic Permit
Latitude Degrees:	28
Latitude Minutes:	45
Latitude Seconds:	6.29
Longitude Degrees:	81
Longitude Minutes:	32
Longitude Seconds:	20.36
Treatment:	Not reported
Decode For Fstatus:	Active

A3 **ROCK SPRINGS RIDGE** **FINDS** **1008230238**
Target **ROCK SPRINGS RIDGE RD** **ECHO** **N/A**
Property **APOPKA, FL 32712**

Site 1 of 2 in cluster A

Actual: **92 ft.**

FINDS:
Registry ID: 110021025344

Focus Map: **5**

Click Here:

Environmental Interest/Information System:
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.
Florida Environmental System Today Application (FIESTA) Data Maintenance (FDM) system maintains entity, environmental interest and affiliation data for the State of Florida.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1008230238
Registry ID: 110021025344
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110021025344
Name: ROCK SPRINGS RIDGE
Address: ROCK SPRINGS RIDGE RD
City,State,Zip: APOPKA, FL 32712

A4 **ROCK SPRINGS RD STORM SEWER TR** **FINDS** **1008158175**
Target **ROCK SPRINGS RD** **ECHO** **N/A**
Property **APOPKA, FL 32703**

Site 2 of 2 in cluster A

Actual: **92 ft.**

FINDS:
Registry ID: 110020546514

Focus Map: **5**

Click Here:

Environmental Interest/Information System:
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.
Florida Environmental System Today Application (FIESTA) Data Maintenance (FDM) system maintains entity, environmental interest and affiliation data for the State of Florida.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ROCK SPRINGS RD STORM SEWER TR (Continued) **1008158175**

ECHO:
Envid: 1008158175
Registry ID: 110020546514
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110020546514
Name: ROCK SPRINGS RD STORM SEWER TR
Address: ROCK SPRINGS RD
City,State,Zip: APOPKA, FL 32703

---

5 **ROCK SPRINGS RIDGE** **FINDS** **1012231367**
Target Property **UNKNOWN** **ECHO** **N/A**
APOPKA, FL 32712

Actual: 76 ft.

Focus Map: 5

FINDS:
Registry ID: 110040320621

Click Here:

Environmental Interest/Information System:
US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1012231367
Registry ID: 110040320621
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110040320621
Name: ROCK SPRINGS RIDGE
Address: UNKNOWN
City,State,Zip: APOPKA, FL 32712

---

6 **ROCK SPRINGS RIDGE GOLF CLUB INC** **TIER 2** **S117873023**
Target Property **625 ROCK RIDGE BOULEVARD** **N/A**
APOPKA, FL 32712

Actual: 85 ft.

Focus Map: 5

TIER 2:
Name: ROCK SPRINGS RIDGE GOLF CLUB INC
Address: 625 ROCK RIDGE BOULEVARD
City,State,Zip: APOPKA, FL 32712

Year: 2013
Facility Id: 4789423
Active Date: Not reported
Inactive Date: Not reported
Sale Pending: Not reported
Original Date: Not reported
PLOT Source: Not reported
Latitude: 28.7398
Longitude: -81.52845
LEPC District: Not reported

ROCK SPRINGS RIDGE GOLF CLUB INC (Continued) **S117873023**

Counties:	Not reported
SERC:	Not reported
Program Level:	Not reported
PRIME:	Not reported
SIC Code:	7997
SIC Code 2:	Not reported
NAICS Code:	713910
Last Modified Date:	09/29/2014
First Submit Date:	09/29/2014
Data Submitted By:	Cynthia A. Dexter, Office Manager
Company Name:	Rock Springs Ridge Golf Club Inc
Comments:	Not reported

Contact:

Contact ID:	Not reported
Year:	2013
Facility Id:	4789423
Contact Type:	Emergency Contact
Contact Name:	Chris Cyr
Contact Title:	Not reported
Contact Phone:	352-455-3186
Contact 24Hr Phone:	Not reported
Contact Telephone 2:	352-455-3186
Contact Telephone 3:	Not reported
Contact Telephone 4:	Not reported
Contact Telephone 5:	Not reported
Contact Telephone 6:	Not reported
Contact Email:	Cdexter@GolfGroupFL.com

---

7 **3910 JASON DWELLEY PKWY** **SWF/LF** **S111278804**
West **3910 JASON DWELLEY PKWY** **N/A**
< 1/8 **APOPKA, FL 32712**
0.009 mi.
46 ft.

Actual:
98 ft.

Focus Map:
4

SWF/LF:

Name:	3910 JASON DWELLEY PKWY
Address:	3910 JASON DWELLEY PKWY
City,State,Zip:	APOPKA, FL 32712
Facility ID:	99921
District:	CD
Lat/Long:	28:44:31.68 / 81:32:54.07
Class Type:	910
Classification:	DISASTER DEBRIS MANAGEMENT SITE
Class Status:	PRE-AUTHORIZED (B)
Section:	Not reported
Township:	Not reported
Range:	Not reported
Responsible Authority Name:	Not reported
Responsible Authority Address:	Not reported
Responsible Authority City,St,Zip:	Not reported
Responsible Authority Phone:	Not reported
EMail Address1:	Not reported
EMail Address2:	Not reported
Site Supervisor Name:	Not reported

3910 JASON DWELLEY PKWY (Continued) **S111278804**

Site Supervisor Addr:	Not reported
Site Supervisor City/State/Zip:	Not reported
Site Supervisor Telephone:	Not reported
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City/State/Zip:	Not reported
Land Owner Telephone:	Not reported

Click here for Florida Oculus:

8
SW
< 1/8
0.109 mi.
578 ft.

APOPKA CITY-NW WTP **AST** **A100161527**
3426 RECREATION WY **N/A**
APOPKA, FL 32712

Actual:
128 ft.

Focus Map:
5

AST:

Name:	APOPKA CITY-NW WTP
Address:	3426 RECREATION WY
Facility ID:	9801760
Facility Status:	OPEN
Type Description:	Local Government
Facility Phone:	4077031787
DEP Contractor Own:	P
Region:	STATE
Positioning Method:	AGPS
Lat/Long (dms):	28 44 8 / 81 32 14

Owner:

Owner Id:	935
Owner Name:	APOPKA CITY
Owner Address:	120 E MAIN ST
Owner Address 2:	ATTN: STORAGE TANK REGIS
Owner City,St,Zip:	APOPKA, FL 32703
Owner Contact:	DANIEL RIBNIKAR
Owner Phone:	4077031731

Tank Id:	1
Status:	In service
Status Date:	03/01/1999
Install Date:	3/1/1999
Substance:	Diesel-emergen generator
Content Description:	Emerg Generator Diesel
Gallons:	2000
Tank Location:	ABOVEGROUND

Construction:

Tank Id:	1
Construction Category:	Primary Construction
Construction Description:	Steel

Tank Id:	1
Construction Category:	Secondary Containment
Construction Description:	Double wall

Tank Id:	1
Construction Category:	Overfill/Spill

APOPKA CITY-NW WTP (Continued) **A100161527**

Construction Description: Spill containment bucket

Tank Id: 1
Construction Category: Overfill/Spill
Construction Description: Level gauges/alarms

Monitoring:
Tank ID: 1
Monitoring Description: Monitor dbl wall tank space

Piping:
Tank ID: 1
Piping Category: Miscellaneous Attributes
Piping Description: Abv, no soil contact

Tank ID: 1
Piping Category: Primary Construction
Piping Description: Steel/galvanized metal

Click here for Florida Oculus:

---

9 **BRIGHTWOOD MANOR MOBIL HOME PARK** **UST** **U003333267**
West **838 KELL PARK RD** **N/A**
1/8-1/4 **APOPKA, FL 32712**
0.147 mi.
775 ft.

Actual:
99 ft.

Focus Map:
2

UST:
Facility Id: 9502175
Facility Status: CLOSED
Type Description: Fuel user/Non-retail
Facility Phone: 4078864747
Region: STATE
Positioning Method: ADDM
Lat/Long (dms): 28 45 26.5300000 / 81 31 27.6299999

Owner:
Owner Id: 40879
Owner Name: LEGGE, MARLENE
Owner Address: BRIGHTWOOD AVENUE
Owner Address 2: Not reported
Owner City,St,Zip: APOPKA, FL 32712
Owner Contact: MARLENE LEGGE
Owner Phone: 4078895303

Tank Info:
Name: BRIGHTWOOD MANOR MOBIL HOME PARK
Address: 838 KELL PARK RD
City: APOPKA
Zip: 32712
Tank Id: 1
Status: Removed
Status Date: 05/01/1995
Install Date: Not reported
Substance: Diesel-emergen generator
Content Description: Emerg Generator Diesel

BRIGHTWOOD MANOR MOBIL HOME PARK (Continued) **U003333267**

Gallons: 560
Vessel Indicator: TANK
Tank Location: UNDERGROUND
DEP Contractor: P

Click here for Florida Oculus:

---

10 SW 1/8-1/4 0.189 mi. 998 ft. **APOPKA CITY-NORTH REUSE PUMP STATION** **AST** **A100269920**
1665 RECREATION WAY **N/A**
APOPKA, FL 32712

Actual: 130 ft.

Focus Map: 4

AST:
Name: APOPKA CITY-NORTH REUSE PUMP STATION
Address: 1665 RECREATION WAY
Facility ID: 9806874
Facility Status: OPEN
Type Description: Local Government
Facility Phone: 4077031782
DEP Contractor Own: P
Region: STATE
Positioning Method: Not reported
Lat/Long (dms): Not reported

Owner:
Owner Id: 935
Owner Name: APOPKA CITY
Owner Address: 120 E MAIN ST
Owner Address 2: ATTN: STORAGE TANK REGIS
Owner City,St,Zip: APOPKA, FL 32703
Owner Contact: DANIEL RIBNIKAR
Owner Phone: 4077031731

Tank Id: 1
Status: In service
Status Date: 08/01/2004
Install Date: 8/1/2004
Substance: Diesel-emergen generator
Content Description: Emerg Generator Diesel
Gallons: 1000
Tank Location: ABOVEGROUND

Construction:
Tank Id: 1
Construction Category: Primary Construction
Construction Description: Concrete

Tank Id: 1
Construction Category: Overfill/Spill
Construction Description: Spill containment bucket

Tank Id: 1
Construction Category: Overfill/Spill
Construction Description: Level gauges/alarms

APOPKA CITY-NORTH REUSE PUMP STATION (Continued) **A100269920**

Tank Id: 1
Construction Category: Secondary Containment
Construction Description: Double wall - tank jacket

Monitoring:
Tank ID: 1
Monitoring Description: Monitor dbl wall tank space

Piping:
Tank ID: 1
Piping Category: Corrosion Protection
Piping Description: External protective coating

Tank ID: 1
Piping Category: Miscellaneous Attributes
Piping Description: Abv, no soil contact

Tank ID: 1
Piping Category: Primary Construction
Piping Description: Steel/galvanized metal

Click here for Florida Oculus:

11
North **31 OAK HOLLOW DRIVE** **DEDB** **S112283935**
1/8-1/4 **APOPKA, FL** **N/A**
0.191 mi.
1010 ft.

Actual:
66 ft.

Focus Map:
5

DEDB:
Name: Not reported
Address: 31 OAK HOLLOW DRIVE
City,State,Zip: APOPKA, FL
Well Id: 480344601
Location Method: AGPS
Florida Id: AAH3037
Latitude: 28.745278
Longitude: -81.5127
Well Depth: 0
Case depth: 0
Diameter: 4
Well Type: Private well
Long DD: 81
Long MM: 30
Long SS: 46
Lat DD: 28
Lat MM: 44
Lat SS: 43
Permit No: Not reported
Directions: Not reported
Comments: Not reported
Status: A
Recheck: Not reported
Reimbursement: Not reported
Tagged: Not reported
Exchange: Not reported

(Continued) **S112283935**

Alb X:	642442.19
Alb Y:	529008.32
Username:	Not reported
Time Stamp:	Not reported
Datum:	Not reported
Scale:	0
Accuracy:	0
QA Method:	NOT REVIEWED
Created:	03/27/2003
Filter status:	Not reported
Resample:	Not reported
Oculus:	Not reported
Sample ID:	030225-011
Sample Date:	02/24/2003
Analysis:	ORAN-02
Discharge:	0
Chemical:	ETHYLENE DIBROMIDE (EDB)
Value:	0.0058
Res Qual:	E
Units:	ug/L
CAS Number:	106-93-4
Facility Zip Ext:	Not reported
Method:	0
Sample Type:	Not reported
FLUWID:	Not reported
Resident Last Name:	Not reported
Job Name:	Not reported
Customer ID:	Not reported

B12 **PROGRESS ENERGY FL-APOPKA OPER CTR SITE A** **AST** **A100379768**
East **275 PONKAN RD** **N/A**
1/8-1/4 **APOPKA, FL 32712**
0.208 mi.
1099 ft. **Site 1 of 2 in cluster B**

Actual:
93 ft.

Focus Map:
5

AST:

Name:	PROGRESS ENERGY FL-APOPKA OPER CTR SITE A
Address:	275 PONKAN RD
Facility ID:	8521834
Facility Status:	CLOSED
Type Description:	Fuel user/Non-retail
Facility Phone:	4076468592
DEP Contractor Own:	P
Region:	STATE
Positioning Method:	AGPS
Lat/Long (dms):	28 43 51 / 81 31 5

Owner:

Owner Id:	54079
Owner Name:	DUKE ENERGY FL INC
Owner Address:	4306 E HWY 462
Owner Address 2:	ATTN: STORAGE TANK REGIS
Owner City,St,Zip:	WILDWOOD, FL 34785
Owner Contact:	ROBERT STAFFORD
Owner Phone:	7278205538

Tank Id: 5

PROGRESS ENERGY FL-APOPKA OPER CTR SITE A (Continued) **A100379768**

Status: Deleted
Status Date: 07/09/2003
Install Date: 9/1/1995
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 1500
Tank Location: ABOVEGROUND

Tank Id: 6
Status: Deleted
Status Date: 07/09/2003
Install Date: 2/1/1989
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 1000
Tank Location: ABOVEGROUND

Click here for Florida Oculus:

B13 **PROGRESS ENERGY FL-APOPKA OPER CTR SITE A** **UST** **U001364296**
East **275 PONKAN RD** **AST** **N/A**
1/8-1/4 **APOPKA, FL 32712** **Financial Assurance**
0.208 mi.
1099 ft. **Site 2 of 2 in cluster B**

Actual:
93 ft.

Focus Map:
5

UST:
Facility Id: 8521834
Facility Status: CLOSED
Type Description: Fuel user/Non-retail
Facility Phone: 4076468592
Region: STATE
Positioning Method: AGPS
Lat/Long (dms): 28 43 51 / 81 31 5

Owner:
Owner Id: 54079
Owner Name: DUKE ENERGY FL INC
Owner Address: 4306 E HWY 462
Owner Address 2: ATTN: STORAGE TANK REGIS
Owner City,St,Zip: WILDWOOD, FL 34785
Owner Contact: ROBERT STAFFORD
Owner Phone: 7278205538

Tank Info:
Name: PROGRESS ENERGY FL-APOPKA OPER CTR SITE A
Address: 275 PONKAN RD
City: APOPKA
Zip: 32712
Tank Id: 1
Status: Removed
Status Date: 02/01/2004
Install Date: 12/1/1983
Substance: Unleaded gas
Content Description: Unleaded Gas
Gallons: 10000
Vessel Indicator: TANK
Tank Location: UNDERGROUND

PROGRESS ENERGY FL-APOPKA OPER CTR SITE A (Continued) **U001364296**

DEP Contractor: P

Name: PROGRESS ENERGY FL-APOPKA OPER CTR SITE A
Address: 275 PONKAN RD
City: APOPKA
Zip: 32712
Tank Id: 2
Status: Removed
Status Date: 02/01/2004
Install Date: 12/1/1983
Substance: Vehicular diesel
Content Description: Vehicular Diesel
Gallons: 10000
Vessel Indicator: TANK
Tank Location: UNDERGROUND
DEP Contractor: P

Name: PROGRESS ENERGY FL-APOPKA OPER CTR SITE A
Address: 275 PONKAN RD
City: APOPKA
Zip: 32712
Tank Id: 3
Status: Removed
Status Date: 08/05/1997
Install Date: 12/1/1983
Substance: Diesel-emergen generator
Content Description: Emerg Generator Diesel
Gallons: 550
Vessel Indicator: TANK
Tank Location: UNDERGROUND
DEP Contractor: P

Name: PROGRESS ENERGY FL-APOPKA OPER CTR SITE A
Address: 275 PONKAN RD
City: APOPKA
Zip: 32712
Tank Id: 4
Status: Removed
Status Date: 12/31/1987
Install Date: 1/1/1984
Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 250
Vessel Indicator: TANK
Tank Location: UNDERGROUND
DEP Contractor: P

Click here for Florida Oculus:

AST:
Name: PROGRESS ENERGY FL-APOPKA OPER CTR SITE B
Address: 275 PONKAN RD
Facility ID: 9805917
Facility Status: CLOSED
Type Description: Fuel user/Non-retail
Facility Phone: 4076468537

PROGRESS ENERGY FL-APOPKA OPER CTR SITE A (Continued) **U001364296**

DEP Contractor Own: P
Region: STATE
Positioning Method: Not reported
Lat/Long (dms): Not reported

Owner:
Owner Id: 54858
Owner Name: DUKE ENERGY FL LLC
Owner Address: 3250 BONNET CREEK RD
Owner Address 2: ATTN: STORAGE TANK REGIS
Owner City,St,Zip: LAKE BUENA VISTA, FL 32830
Owner Contact: ROBERT STAFFORD
Owner Phone: 7278205538

Tank Id: 5
Status: Removed
Status Date: 01/01/2005
Install Date: 9/1/1995
Substance: New/lube oil
Content Description: New/Lube Oil
Gallons: 1500
Tank Location: ABOVEGROUND

Tank Id: 6
Status: Removed
Status Date: 01/01/2005
Install Date: 2/1/1989
Substance: Waste oil
Content Description: Waste Oil
Gallons: 1500
Tank Location: ABOVEGROUND

Click here for Florida Oculus:

FL Financial Assurance 3:
Name: PROGRESS ENERGY FL-APOPKA OPER CTR SITE A
Address: 275 PONKAN RD
City,State,Zip: APOPKA, FL 32712
Region: 3
Facility ID: 8521834
Facility Phone: 4076468592
Facility Status: CLOSED
Facility Type: C
Type Description: Fuel user/Non-retail
DEP CO: P
Finaincial Responsibility: SELF-INSURANCE - LETTER FROM CHIEF FINANCIAL OFFIC
Insurance Company: Not reported
Effective Date: 03/23/2004
Expire Date: 04/30/2005
Owner ID: 54079
Onwer Name: DUKE ENERGY FL INC
Owner Address: 4306 E HWY 462
Owner Address2: ATTN: STORAGE TANK REGIS
Owner City,St,Zip: WILDWOOD, FL 34785
Contact: ROBERT STAFFORD

PROGRESS ENERGY FL-APOPKA OPER CTR SITE A (Continued) **U001364296**

Resp Party Phone: 7278205538

Name: PROGRESS ENERGY FL-APOPKA OPER CTR SITE B
Address: 275 PONKAN RD
City,State,Zip: APOPKA, FL 32712
Region: 3
Facility ID: 9805917
Facility Phone: 4076468537
Facility Status: CLOSED
Facility Type: C
Type Description: Fuel user/Non-retail
DEP CO: P
Finaincial Responsibility: SELF-INSURANCE - LETTER FROM CHIEF FINANCIAL OFFIC
Insurance Company: Not reported
Effective Date: 03/23/2004
Expire Date: 04/30/2005
Owner ID: 54858
Onwer Name: DUKE ENERGY FL LLC
Owner Address: 3250 BONNET CREEK RD
Owner Address2: ATTN: STORAGE TANK REGIS
Owner City,St,Zip: LAKE BUENA VISTA, FL 32830
Contact: ROBERT STAFFORD
Resp Party Phone: 7278205538

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14 **APOPKA OPERATIONS CENTER** **RCRA-VSQG** **1000347821**
East **275 W PONKAN ROAD** **FINDS** **FLD981922214**
1/8-1/4 **APOPKA, FL 32703** **ECHO**
0.226 mi.
1191 ft.

Actual:
85 ft.

Focus Map:
8

RCRA-VSQG:
Date form received by agency: 2017-05-02 00:00:00.0
Facility name: APOPKA OPERATIONS CENTER
Facility address: 275 W PONKAN ROAD
APOPKA, FL 32703-0000
EPA ID: FLD981922214
Contact: BRANDON BARR
Contact address: 517 INDEPENDENCE HWY
INVERNESS, FL 34453-3743
Contact country: US
Contact telephone: 321-402-8671
Contact email: BRANDON.BARR@DUKE-ENERGY.COM
EPA Region: 04
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

APOPKA OPERATIONS CENTER (Continued) **1000347821**

Owner/Operator Summary:

Owner/operator name:	FLORIDA POWER CORP
Owner/operator address:	410 S WILMINGTON ST PEB 17B5 RALEIGH, NC 27601
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	2001-07-18 00:00:00.
Owner/Op end date:	2017-05-11 00:00:00.

Owner/operator name:	FPC - APOPKA TRUCK WASH
Owner/operator address:	275 PONKAN RD APOPKA, FL 32703
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	2009-07-02 00:00:00.
Owner/Op end date:	2017-05-11 00:00:00.

Owner/operator name:	J SHEPHERD
Owner/operator address:	275 PONCAN ROAD APOPKA, FL 32712
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	2001-07-18 00:00:00.
Owner/Op end date:	2001-07-19 00:00:00.

Owner/operator name:	DUKE ENERGY FLORIDA INC
Owner/operator address:	299 1ST AVE N SAINT PETERSBURG, FL 33701
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	1966-01-20 00:00:00.
Owner/Op end date:	Not reported

Owner/operator name:	DUKE ENERGY FLORIDA INC
Owner/operator address:	275 W PONKAN RD APOPKA, FL 32712
Owner/operator country:	US

APOPKA OPERATIONS CENTER (Continued) **1000347821**

Owner/operator telephone: 321-402-8671
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 1966-01-20 00:00:00.
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 2009-06-02 00:00:00.0
Site name: FLORIDA POWER CORP - APOPKA OP CTR
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

APOPKA OPERATIONS CENTER (Continued) **1000347821**

FINDS:
Registry ID: 110002553683

Click Here:

Environmental Interest/Information System:
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.
Florida Environmental System Today Application (FIESTA) Data Maintenance (FDM) system maintains entity, environmental interest and affiliation data for the State of Florida.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000347821
Registry ID:	110002553683
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002553683
Name:	APOPKA OPERATIONS CENTER
Address:	275 PONKAN ROAD
City,State,Zip:	APOPKA, FL 32712

15
North
1/8-1/4
0.245 mi.
1293 ft.

Actual:
104 ft.

Focus Map:
1

US PLANTS **AST** **A100092579**
2000 W KELLY PARK RD **N/A**
APOPKA, FL 32712

AST:

Name:	US PLANTS
Address:	2000 W KELLY PARK RD
Facility ID:	9602174
Facility Status:	OPEN
Type Description:	Fuel user/Non-retail
Facility Phone:	Not reported
DEP Contractor Own:	P
Region:	STATE
Positioning Method:	ADDM
Lat/Long (dms):	28 45 26.7800000 / 81 32 38.5900000

Owner:

Owner Id:	44668
Owner Name:	US PLANTS INC
Owner Address:	2000 W KELLY PARK RD
Owner Address 2:	Not reported
Owner City,St,Zip:	APOPKA, FL 32712
Owner Contact:	GREG LUGERING
Owner Phone:	4078890337

Tank Id:	1
Status:	In service
Status Date:	01/01/1988
Install Date:	1/1/1988

US PLANTS (Continued) **A100092579**

Substance: Fuel oil-on site heat
Content Description: Fuel Oil - Onsite Heat
Gallons: 6000
Tank Location: ABOVEGROUND

Click here for Florida Oculus:

Count: 9 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
APOPKA	2019252671		ROCK SPRINGS PARK		ERNS
APOPKA	S109142584		END OF PITTMAN RD., NEXT TO 3105 PITTMAN RD. IN THE FIELD & WOODS EDGE		SPILLS
APOPKA	S105459243		INTERSECTION OF PONKAN ROAD AND ROCK SPRINGS ROAD		SPILLS
APOPKA	S110472645		INTERSECTION OF PONKAN RD. ROCK SPRINGS RD.		SPILLS
APOPKA	S125403839		ROCK SPRINGS KELLY PARK		SPILLS
APOPKA	S109007512		ROCK SPRINGS ROAD		SPILLS
APOPKA	1012310959	ROCK SPRINGS RIDGE PHAS VI-B	OFF ROCK SPRINGS ROAD BETWEEN W KELLY PARK ROAD	32712	FINDS
APOPKA	S121157732	429 EXPANSION WEKIVA PARKWAY PHASE 2	3305, 3366, & 3434 W KELLY PARK RD.	32712	ASBESTOS
APOPKA	S120728478	APOPKA RETAIL	1624 & 1616 ROCK SPRINGS RD.	32712	ASBESTOS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 07/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 07/27/2020
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 30

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Florida's State-Funded Action Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 01/13/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 04/28/2020
Number of Days to Update: 69

Source: Department of Environmental Protection
Telephone: 850-488-0190
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facility Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/13/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 79

Source: Department of Environmental Protection
Telephone: 850-922-7121
Last EDR Contact: 04/14/2020
Next Scheduled EDR Contact: 07/27/2020
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Petroleum Contamination Detail Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/27/2020
Date Data Arrived at EDR: 01/29/2020
Date Made Active in Reports: 04/10/2020
Number of Days to Update: 72

Source: Department of Environmental Protection
Telephone: 850-245-8839
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

LAST: Leaking Aboveground Storage Tank Listing

The file for Leaking Aboveground Storage Tanks. Please remember STCM does not track the source of the discharge so the agency provides a list of facilities with an aboveground tank and an open discharge split by facilities with aboveground tanks only and facilities with aboveground and underground tanks.

Date of Government Version: 04/22/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/06/2020
Number of Days to Update: 74

Source: Department of Environmental Protection
Telephone: 850-245-8799
Last EDR Contact: 04/16/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019
Date Data Arrived at EDR: 12/17/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 55
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

State and tribal registered storage tank lists

FF TANKS: Federal Facilities Listing
A listing of federal facilities with storage tanks.

Date of Government Version: 06/18/2020
Date Data Arrived at EDR: 06/19/2020
Date Made Active in Reports: 06/30/2020
Number of Days to Update: 11

Source: Department of Environmental Protection
Telephone: 850-245-8250
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

UST: Storage Tank Facility Information
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/12/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 69

Source: Department of Environmental Protection
Telephone: 850-245-8839
Last EDR Contact: 04/27/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

AST: Storage Tank Facility Information
Registered Aboveground Storage Tanks.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/12/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 69

Source: Department of Environmental Protection
Telephone: 850-245-8839
Last EDR Contact: 04/27/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 72

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019
Date Data Arrived at EDR: 12/05/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 67

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/04/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/27/2020
Number of Days to Update: 85

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 68

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/20/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

TANKS: Storage Tank Facility List

This listing includes storage tank facilities that do not have tank information. The tanks have either be closed or removed from the site, but the facilities were still registered at some point in history.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/12/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 69

Source: Department of Environmental Protection
Telephone: 850-245-8841
Last EDR Contact: 04/27/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

State and tribal institutional control / engineering control registries

ENG CONTROLS: Institutional Controls Registry

The registry is a database of all contaminated sites in the state of Florida which are subject to engineering controls. Engineering Controls encompass a variety of engineered remedies to contain and/or reduce contamination, and/or physical barriers intended to limit access to property. ECs include fences, signs, guards, landfill caps, provision of potable water, slurry walls, sheet pile (vertical caps), pumping and treatment of groundwater, monitoring wells, and vapor extraction systems.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 06/29/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

Inst Control: Institutional Controls Registry

The registry is a database of all contaminated sites in the state of Florida which are subject to institutional and engineering controls.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 06/29/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Sites

Listing of closed and active voluntary cleanup sites.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 21

Source: Department of Environmental Protection
Telephone: 850-245-8705
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BSRA: Brownfield Site Rehabilitation Agreements Listing

The BSRA provides DEP and the public assurance that site rehabilitation will be conducted in accordance with Florida Statutes and DEP's Contaminated Site Cleanup Criteria rule. In addition, the BSRA provides limited liability protection for the voluntary responsible party. The BSRA contains various commitments by the voluntary responsible party, including milestones for completion of site rehabilitation tasks and submittal of technical reports and plans.
It also contains a commitment by DEP to review technical reports according to an agreed upon schedule. Only those brownfield sites with an executed BSRA are eligible to apply for a voluntary cleanup tax credit incentive pursuant to Section 376.30781, Florida Statutes.

Date of Government Version: 02/05/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Department of Environmental Protection
Telephone: 850-245-8934
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

BROWNFIELDS: Brownfields Sites Database

Brownfields are defined by the Florida Department of Environmental Protection (FDEP) as abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 06/29/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

BROWNFIELDS AREAS: Brownfields Areas Database

A "brownfield area" means a contiguous area of one or more brownfield sites, some of which may not be contaminated, that has been designated as such by a local government resolution. Such areas may include all or portions of community redevelopment areas, enterprise zones, empowerment zones, other such designated economically deprived communities and areas, and Environmental Protection Agency (EPA) designated brownfield pilot projects. This layer provides a polygon representation of the boundaries of these designated Brownfield Areas in Florida.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Department of Environmental Protection
Telephone: 850-245-8934
Last EDR Contact: 06/29/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Centers

A listing of recycling centers located in the state of Florida.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/14/2019
Number of Days to Update: 58

Source: Department of Environmental Protection
Telephone: 850-245-8718
Last EDR Contact: 04/17/2020
Next Scheduled EDR Contact: 07/27/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/16/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/09/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 05/01/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: No Update Planned

PRIORITYCLEANERS: Priority Ranking List

The Florida Legislature has established a state-funded program to cleanup properties that are contaminated as a result of the operations of a drycleaning facility.

Date of Government Version: 01/15/2020
Date Data Arrived at EDR: 02/11/2020
Date Made Active in Reports: 04/22/2020
Number of Days to Update: 71

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

FL SITES: Sites List

This summary status report was developed from a number of lists including the Eckhardt list, the Moffit list, the EPA Hazardous Waste Sites list, EPA's Emergency & Remedial Response information System list (RCRA Section 3012) & existing department lists such as the obsolete uncontrolled Hazardous Waste Sites list. This list is no longer updated.

Date of Government Version: 12/31/1989
Date Data Arrived at EDR: 05/09/1994
Date Made Active in Reports: 08/04/1994
Number of Days to Update: 87

Source: Department of Environmental Protection
Telephone: 850-245-8705
Last EDR Contact: 03/24/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Quarterly

PFAS: PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid

PFOS and PFOA stand for perfluorooctane sulfonate and perfluorooctanoic acid, respectively. Both are fluorinated organic chemicals, part of a larger family of compounds referred to as perfluoroalkyl substances (PFASs).

Date of Government Version: 03/17/2020
Date Data Arrived at EDR: 03/18/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: 850-245-8690
Last EDR Contact: 04/16/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/27/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/23/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

SPILLS: Oil and Hazardous Materials Incidents

Statewide oil and hazardous materials inland incidents.

Date of Government Version: 03/27/2020
Date Data Arrived at EDR: 03/27/2020
Date Made Active in Reports: 06/12/2020
Number of Days to Update: 77

Source: Department of Environmental Protection
Telephone: 850-245-2010
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 12/10/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/04/2013
Number of Days to Update: 60

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 09/01/2001
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/06/2013
Number of Days to Update: 62

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (404) 562-8651
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/28/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 85

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/04/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/08/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 79

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 84

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/21/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/05/2019
Date Data Arrived at EDR: 11/20/2019
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 149

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/15/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/10/2020
Next Scheduled EDR Contact: 07/20/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 10/25/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 82

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/10/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/05/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/01/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/08/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/24/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80
Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/28/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/17/2020
Date Made Active in Reports: 03/06/2020
Number of Days to Update: 49

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/22/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/11/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 86

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 03/31/2020
Date Data Arrived at EDR: 04/01/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 50

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 02/28/2020
Date Made Active in Reports: 05/22/2020
Number of Days to Update: 84

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/05/2020
Date Data Arrived at EDR: 03/06/2020
Date Made Active in Reports: 05/29/2020
Number of Days to Update: 84

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/19/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 86

Source: EPA
Telephone: (404) 562-9900
Last EDR Contact: 06/02/2020
Next Scheduled EDR Contact: 09/14/2020
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 74

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2020
Date Data Arrived at EDR: 04/07/2020
Date Made Active in Reports: 06/26/2020
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 05/14/2020
Number of Days to Update: 85

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/19/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

AIRS: Permitted Facilities Listing

A listing of Air Resources Management permits.

Date of Government Version: 05/14/2019
Date Data Arrived at EDR: 05/16/2019
Date Made Active in Reports: 06/14/2019
Number of Days to Update: 29

Source: Department of Environmental Protection
Telephone: 850-921-9558
Last EDR Contact: 04/14/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Varies

ASBESTOS: Asbestos Notification Listing

Asbestos sites

Date of Government Version: 02/19/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/28/2020
Number of Days to Update: 68

Source: Department of Environmental Protection
Telephone: 850-717-9086
Last EDR Contact: 05/07/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Varies

CLEANUP SITES: DEP Cleanup Sites - Contamination Locator Map Listing

This listing includes the locations of waste cleanup sites from various programs. The source of the cleanup site data includes Hazardous Waste programs, Site Investigation Section, Compliance and Enforcement Tracking, Drycleaning State Funded Cleanup Program (possibly other state funded cleanup), Storage Tank Contamination Monitoring.

Date of Government Version: 02/23/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/01/2020
Number of Days to Update: 66

Source: Department of Environmental Protection
Telephone: 866-282-0787
Last EDR Contact: 05/26/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Quarterly

DEDB: Ethylene Dibromide Database Results

Ethylene dibromide (EDB), a soil fumigant, that has been detected in drinking water wells. The amount found exceeds the maximum contaminant level as stated in Chapter 62-550 or 520. It is a potential threat to public health when present in drinking water.

Date of Government Version: 04/09/2020
Date Data Arrived at EDR: 04/09/2020
Date Made Active in Reports: 06/30/2020
Number of Days to Update: 82

Source: Department of Environmental Protection
Telephone: 850-245-8335
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 09/28/2020
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Facilities

The Drycleaners database, maintained by the Department of Environmental Protection, provides information about permitted dry cleaner facilities.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/06/2020
Number of Days to Update: 76

Source: Department of Environmental Protection
Telephone: 850-245-8927
Last EDR Contact: 04/21/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Semi-Annually

DWM CONTAM: DWM CONTAMINATED SITES

A listing of active or known sites. The listing includes sites that need cleanup but are not actively being working on because the agency currently does not have funding (primarily petroleum and drycleaning).

Date of Government Version: 03/12/2020
Date Data Arrived at EDR: 03/13/2020
Date Made Active in Reports: 05/26/2020
Number of Days to Update: 74

Source: Department of Environmental Protection
Telephone: 850-245-7503
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

A list of hazardous waste facilities required to provide financial assurance under RCRA.

Date of Government Version: 03/06/2020
Date Data Arrived at EDR: 03/06/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 75

Source: Department of Environmental Protection
Telephone: 850-245-8793
Last EDR Contact: 04/16/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Semi-Annually

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities.

Date of Government Version: 01/24/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/09/2020
Number of Days to Update: 72

Source: Department of Environmental Protection
Telephone: 850-245-8743
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Semi-Annually

Financial Assurance 3: Financial Assurance Information Listing

A listing of financial assurance information for storage tanks sites.

Date of Government Version: 03/09/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/21/2020
Number of Days to Update: 71

Source: Department of Environmental Protection
Telephone: 850-245-8853
Last EDR Contact: 04/27/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

FL Cattle Dip. Vats: Cattle Dipping Vats

From the 1910's through the 1950's, these vats were filled with an arsenic solution for the control and eradication of the cattle fever tick. Other pesticides, such as DDT, were also widely used. By State law, all cattle, horses, mules, goats, and other susceptible animals were required to be dipped every 14 days. Under certain circumstances, the arsenic and other pesticides remaining at the site may present an environmental or public health hazard.

Date of Government Version: 09/27/2019
Date Data Arrived at EDR: 01/10/2020
Date Made Active in Reports: 02/11/2020
Number of Days to Update: 32

Source: Department of Environmental Protection
Telephone: 850-245-4444
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: No Update Planned

HW GEN: Hazardous Waste Generators

-> Description here.

Date of Government Version: 03/23/2020
Date Data Arrived at EDR: 03/24/2020
Date Made Active in Reports: 06/05/2020
Number of Days to Update: 73

Source: -> Agency name here.
Telephone: -> Phone here.
Last EDR Contact: 06/23/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Quarterly

RESP PARTY: Responsible Party Sites Listing
Open, inactive and closed responsible party sites

Date of Government Version: 03/28/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Department of Environmental Protection
Telephone: 850-245-8758
Last EDR Contact: 06/29/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

SITE INV SITES: Site Investigation Section Sites Listing
Statewide coverage of Site Investigation Section (SIS) sites. Site Investigation is a Section within the Bureau of Waste Cleanup, Division of Waste Management. SIS provides technical support to FDEP District Waste Cleanup Programs and conducts contamination assessments throughout the state.

Date of Government Version: 02/16/2020
Date Data Arrived at EDR: 02/19/2020
Date Made Active in Reports: 04/28/2020
Number of Days to Update: 69

Source: Department of Environmental Protection
Telephone: 850-245-8953
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Quarterly

TIER 2: Tier 2 Facility Listing
A listing of facilities which store or manufacture hazardous materials that submit a chemical inventory report.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 08/27/2019
Number of Days to Update: 75

Source: Department of Environmental Protection
Telephone: 850-413-9970
Last EDR Contact: 06/03/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

UIC: Underground Injection Wells Database Listing
A listing of Class I wells. Class I wells are used to inject hazardous waste, nonhazardous waste, or municipal waste below the lowermost USDW.

Date of Government Version: 04/10/2020
Date Data Arrived at EDR: 04/10/2020
Date Made Active in Reports: 05/12/2020
Number of Days to Update: 32

Source: Department of Environmental Protection
Telephone: 850-245-8655
Last EDR Contact: 04/09/2020
Next Scheduled EDR Contact: 08/03/2020
Data Release Frequency: Varies

WASTEWATER: Wastewater Facility Regulation Database
Domestic and industrial wastewater facilities.

Date of Government Version: 02/03/2020
Date Data Arrived at EDR: 02/04/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 73

Source: Department of Environmental Protection
Telephone: 850-245-8600
Last EDR Contact: 05/05/2020
Next Scheduled EDR Contact: 08/17/2020
Data Release Frequency: Quarterly

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/08/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 07/01/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/10/2014
Number of Days to Update: 193

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Protection in Floridia.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALACHUA COUNTY:

FACILITY LIST ALACHUA: Facility List

List of all regulated facilities in Alachua County.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 35

Source: Alachua County Environmental Protection Department
Telephone: 352-264-6800
Last EDR Contact: 06/17/2020
Next Scheduled EDR Contact: 10/05/2020
Data Release Frequency: Annually

BROWARD COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AST BROWARD: Aboveground Storage Tanks
Aboveground storage tank locations in Broward County.

Date of Government Version: 01/29/2020
Date Data Arrived at EDR: 01/29/2020
Date Made Active in Reports: 04/13/2020
Number of Days to Update: 75

Source: Broward County Environmental Protection Department
Telephone: 954-818-7509
Last EDR Contact: 05/18/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

EDIEAR BROWARD: Semi-Annual Inventory Report on Contaminated Locations
Early Detection Incentive/Environmental Assessment Remediation. This report monitors the status and remediation progress of known contaminated locations within Broward County. Sites listed by the US EPA, the Florida Department of Environmental Protection, and sites licensed for contamination assessment and cleanup by the Division of Pollution Prevention and Remediation Programs of the Department.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/04/2020
Number of Days to Update: 69

Source: Broward County Environmental Protection Department
Telephone: 954-818-7509
Last EDR Contact: 05/26/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

UST BROWARD: Underground Storage Tanks
All known regulated storage tanks within Broward County, including those tanks that have been closed

Date of Government Version: 01/29/2020
Date Data Arrived at EDR: 01/29/2020
Date Made Active in Reports: 04/13/2020
Number of Days to Update: 75

Source: Broward County Environmental Protection Department
Telephone: 954-818-7509
Last EDR Contact: 05/15/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

HILLSBOROUGH COUNTY:

LF HILLSBOROUGH: Hillsborough County LF
Hillsborough county landfill sites.

Date of Government Version: 05/02/2019
Date Data Arrived at EDR: 05/03/2019
Date Made Active in Reports: 06/06/2019
Number of Days to Update: 34

Source: Hillsborough County Environmental Protection Commission
Telephone: 813-627-2600
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

MIAMI-DADE COUNTY:

DADE CO AP: Air Permit Sites
Facilities that release or have a potential to release pollutants.

Date of Government Version: 02/23/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/01/2020
Number of Days to Update: 66

Source: Department of Environmental Resources Management
Telephone: 305-372-6755
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

DADE CO AW: Agricultural Waste Listing
A listing of agricultural waste sites

Date of Government Version: 02/23/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/01/2020
Number of Days to Update: 66

Source: Miami-Dade County Division of Environmental Resources Management
Telephone: 305-372-6715
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Varies

DADE CO LW: Liquid Waste Transporter List

The Liquid Waste Transporter permit regulates the transportation of various types of liquid and solid waste, including hazardous waste, waste oil and oily waste waters, septic and grease trap waste, biomedical waste, spent radiator fluid, photo chemical waste, dry sewage sludge, and other types of non-hazardous industrial waste. The Liquid Waste Transporter permits needed to protect the environment and the public from improperly handled and transported waste.

Date of Government Version: 02/23/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/01/2020
Number of Days to Update: 66

Source: DERM
Telephone: 305-372-6755
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Quarterly

DADE GTO: Grease Trap Sites

Any non-residential facility that discharges waste to a sanitary sewer.

Date of Government Version: 02/23/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/01/2020
Number of Days to Update: 66

Source: Dade County Dept. of Env. Resources Mgmt.
Telephone: 305-372-6508
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

DADE MOP: Marine Facilities Operating Permit

What is this permit used for? Miami-Dade County Ordinance 89-104 and Section 24-18 of the Code of Miami-Dade County require the following types of marine facilities to obtain annual operating permits from DERM: All recreational boat docking facilities with ten (10) or more boat slips, moorings, davit spaces, and vessel tie-up spaces. All boat storage facilities contiguous to tidal waters in Miami-Dade County with ten (10) or more dry storage spaces including boatyards and boat manufacturing facilities.

Date of Government Version: 02/23/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/04/2020
Number of Days to Update: 69

Source: DERM
Telephone: 305-372-3576
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Quarterly

DADE MRE: Maimi River Enforcement

The Miami River Enforcement database files were created for facilities and in some instances vessels that were inspected by a workgroup within the Department that was identified as the Miami River Enforcement Group. The files do not all necessarily reflect enforcement cases and some were created for locations that were permitted by other Sections within the Department.

Date of Government Version: 06/05/2013
Date Data Arrived at EDR: 06/06/2013
Date Made Active in Reports: 08/06/2013
Number of Days to Update: 61

Source: DERM
Telephone: 305-372-3576
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Quarterly

DADE_IWP: Industrial Waste Permit Sites

Facilities that either generate more than 25,000 of wastewater per day to sanitary sewers or are pre-defined by EPA.

Date of Government Version: 02/23/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/04/2020
Number of Days to Update: 69

Source: Department of Environmental Resources Management
Telephone: 305-372-6700
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

ENF: Enforcement Case Tracking System Sites

Enforcement cases monitored by the Dade County Department of Environmental Resources Management.

Date of Government Version: 02/23/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/04/2020
Number of Days to Update: 69

Source: Department of Environmental Resources Management
Telephone: 305-372-6755
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

SPILLS DADE: Fuel Spills Cases

DERM documents fuel spills of sites that are not in a state program.

Date of Government Version: 01/08/2009
Date Data Arrived at EDR: 01/13/2009
Date Made Active in Reports: 02/05/2009
Number of Days to Update: 23

Source: Department of Environmental Resources Management
Telephone: 305-372-6755
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

UST DADE: Storage Tanks

A listing of aboveground and underground storage tank site locations.

Date of Government Version: 02/26/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/30/2019
Number of Days to Update: 63

Source: Department of Environmental Resource Management
Telephone: 305-372-6700
Last EDR Contact: 05/21/2020
Next Scheduled EDR Contact: 09/07/2020
Data Release Frequency: Semi-Annually

PALM BEACH COUNTY:

LF PALM BEACH: Palm Beach County LF

Palm Beach County Inventory of Solid Waste Sites.

Date of Government Version: 09/01/2011
Date Data Arrived at EDR: 09/20/2011
Date Made Active in Reports: 10/10/2011
Number of Days to Update: 20

Source: Palm Beach County Solid Waste Authority
Telephone: 561-640-4000
Last EDR Contact: 06/11/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/30/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 39

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/12/2020
Next Scheduled EDR Contact: 08/24/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/29/2020
Next Scheduled EDR Contact: 08/10/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/14/2020
Next Scheduled EDR Contact: 08/31/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/04/2020
Next Scheduled EDR Contact: 09/21/2020
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Department of Children & Families
Source: Provider Information
Telephone: 850-488-4900

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Environmental Protection
Telephone: 850-245-8238

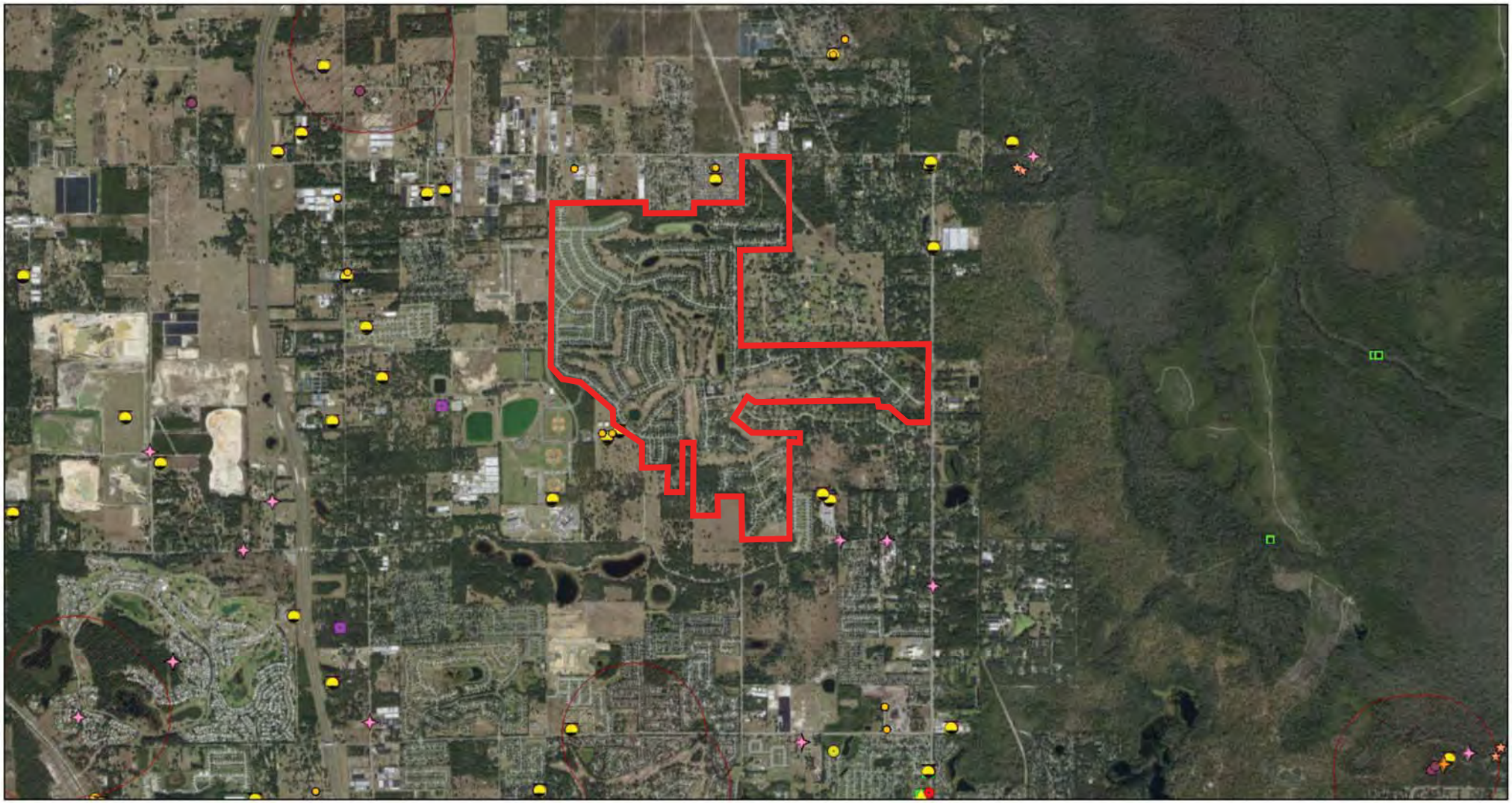
STREET AND ADDRESS INFORMATION

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APPENDIX E

UNIVERSAL
ENGINEERING SCIENCES

Map Direct



July 13, 2020

- Waste Cleanup INACTIVE Responsible Party Sites
- Waste Cleanup CLOSED Responsible Party Sites
- Waste Cleanup OPEN Responsible Party Sites
- State Funded Cleanup Sites
- Public Water Supply (PWS) Wells (Non-Federal)
- State Funded Cleanup Sites
- Site Investigation Section Sites
- State-Owned Lands Cleanup Program (SOLCP) Sites

Sampled Stations (Generalized Water Information System)

- Unknown Resource
- Karst window
- Estuary

1:36,112

0 0.4 0.8 1.6 mi

0 0.5 1 2 km

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, DEAR, FDEP, DWM, FDEP,DWM, FDEP/DWM/BWC, FDEP,WRM, WRM

Florida Department of Environmental Protection makes no warranty,expressed or implied,or assumes any legal liability or responsibility for the accuracy,completeness,or usefulness of any information,apparatus,product,or process disclosed,or represents that its use would not infringe privately owned rights.

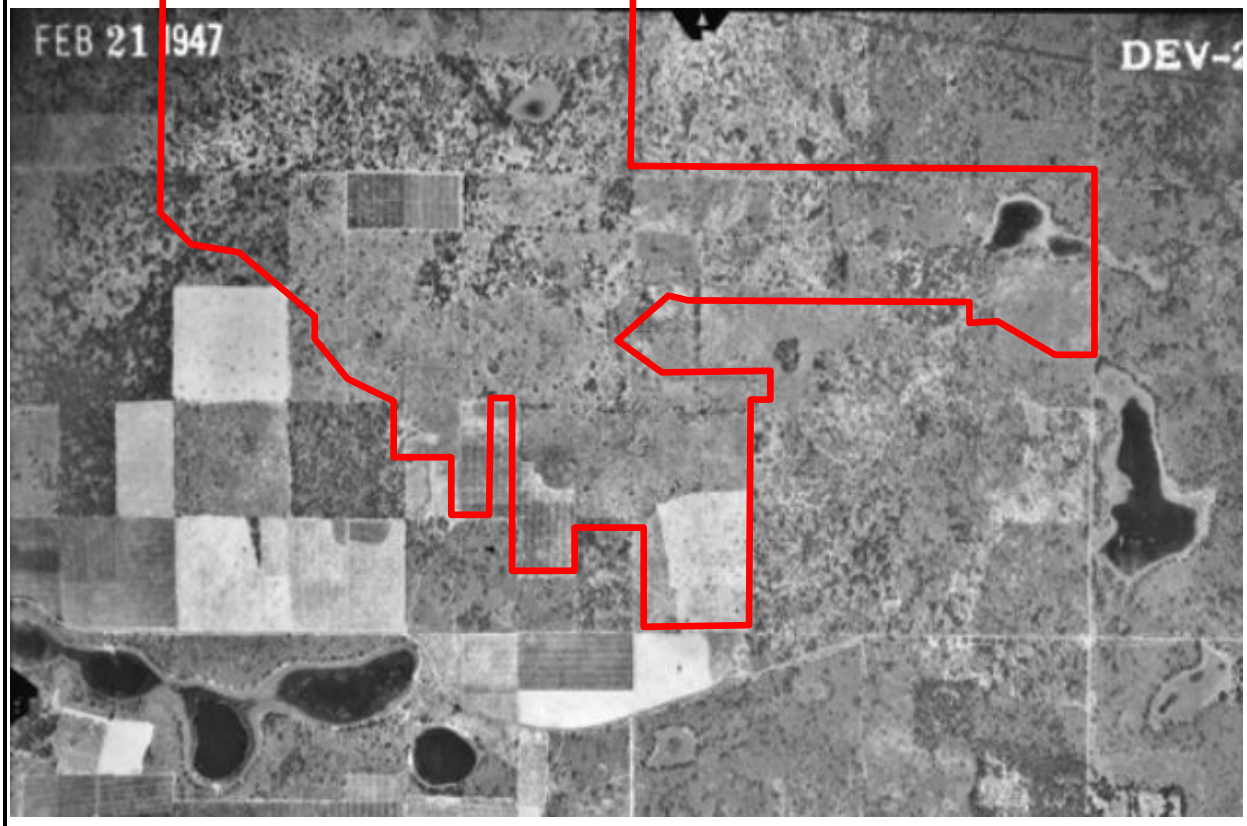
Map created by Map Direct, powered by ESRI.

APPENDIX F

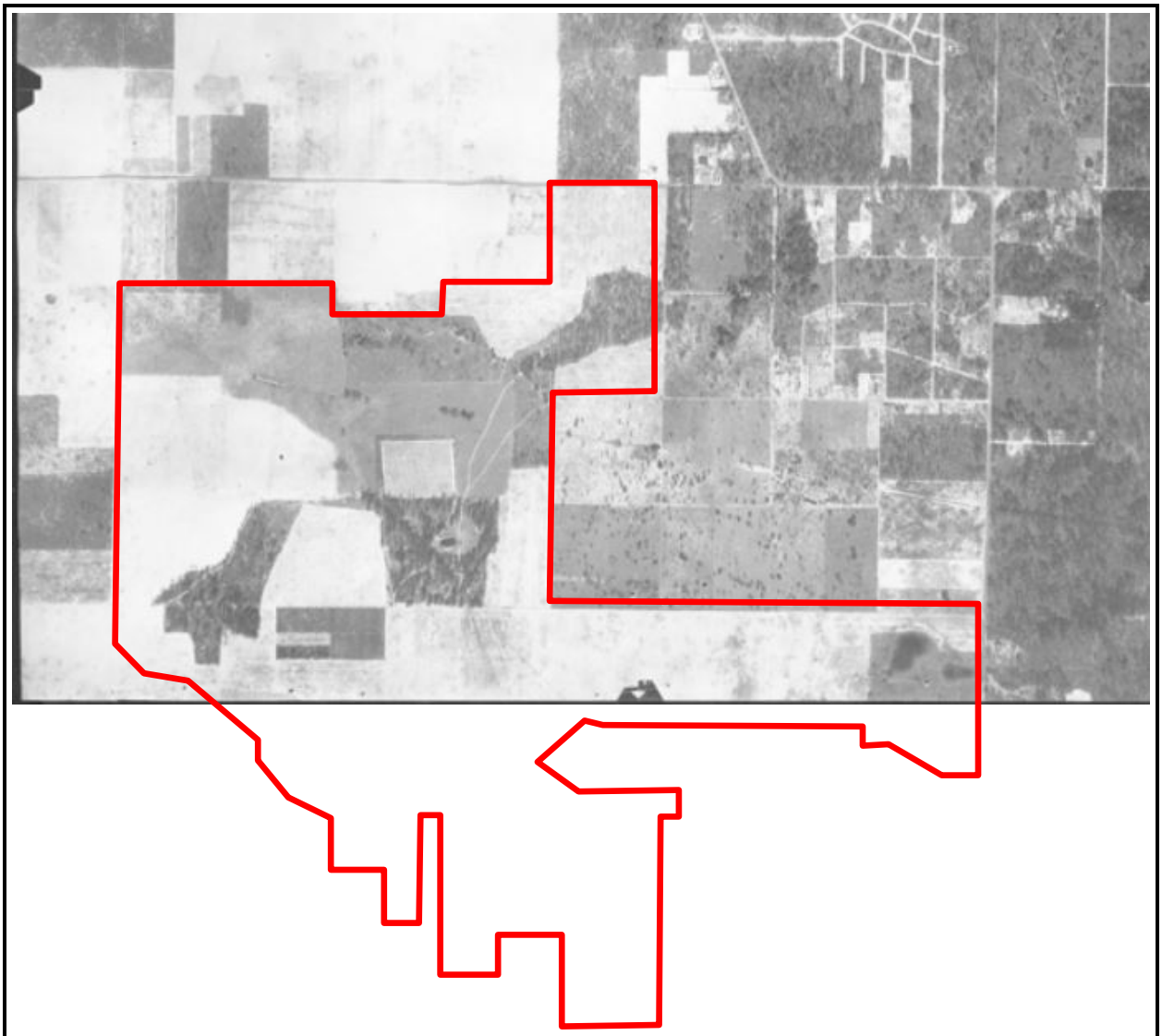
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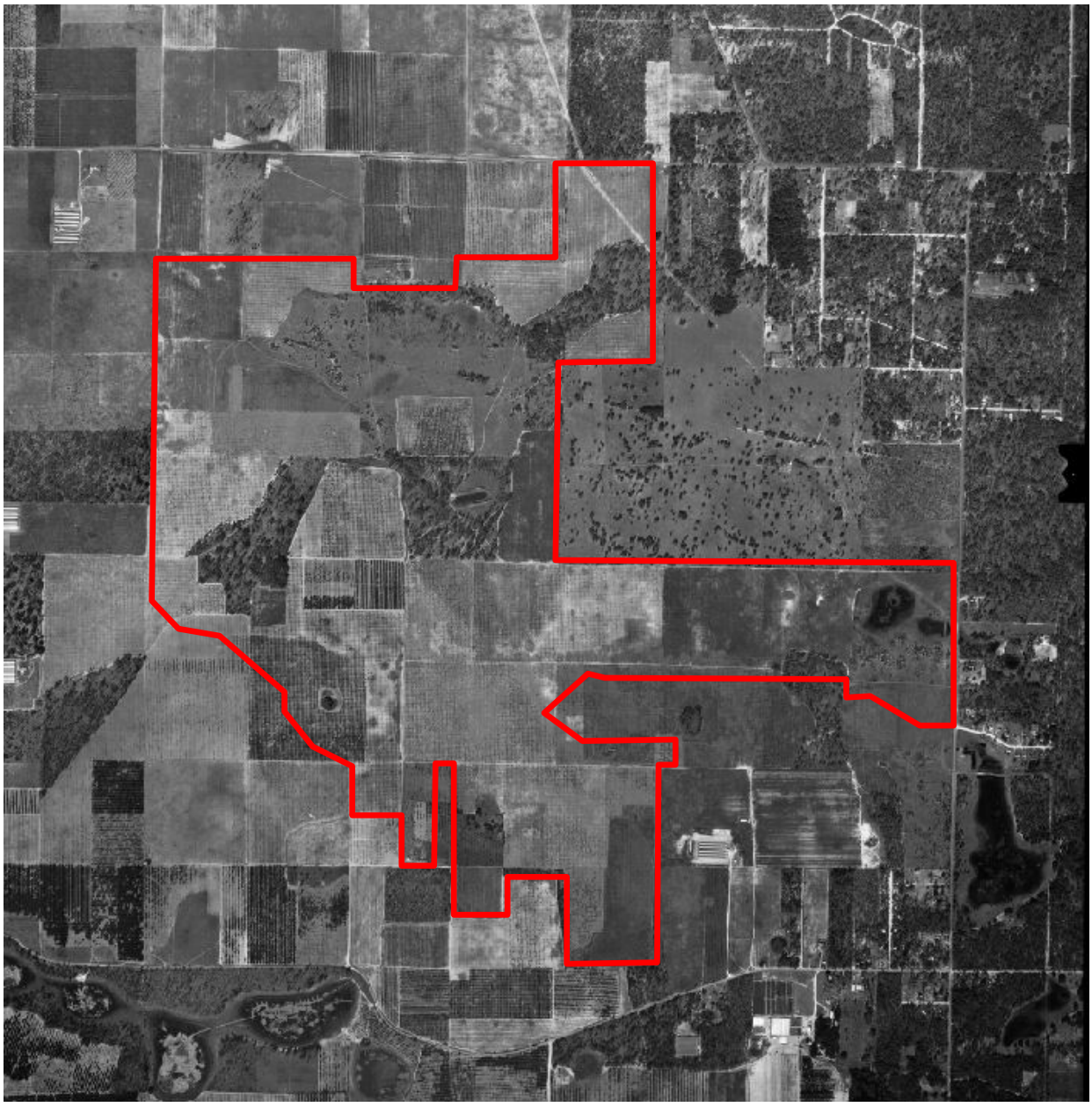
1941 Aerial Photograph



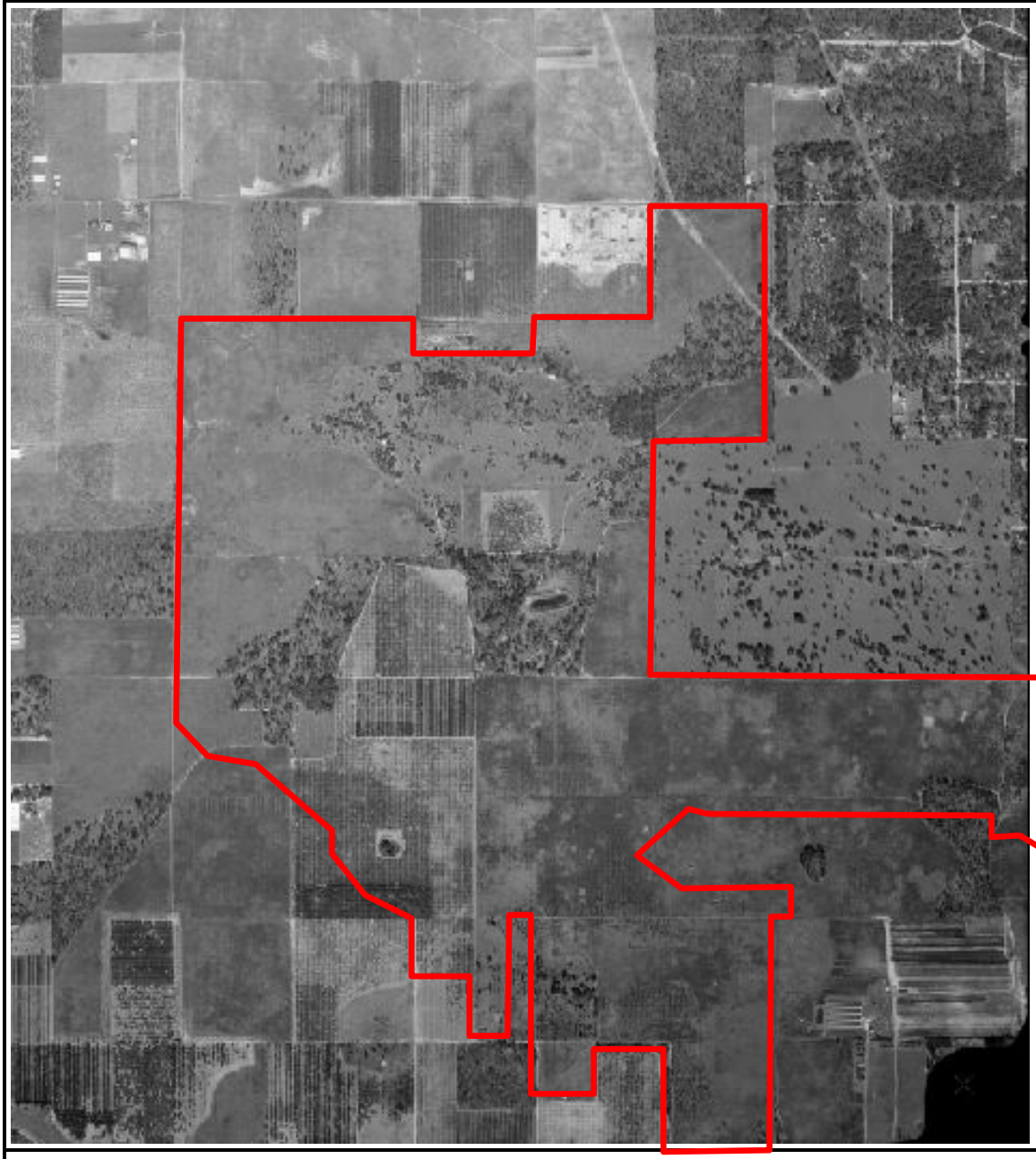
1947 Aerial Photograph



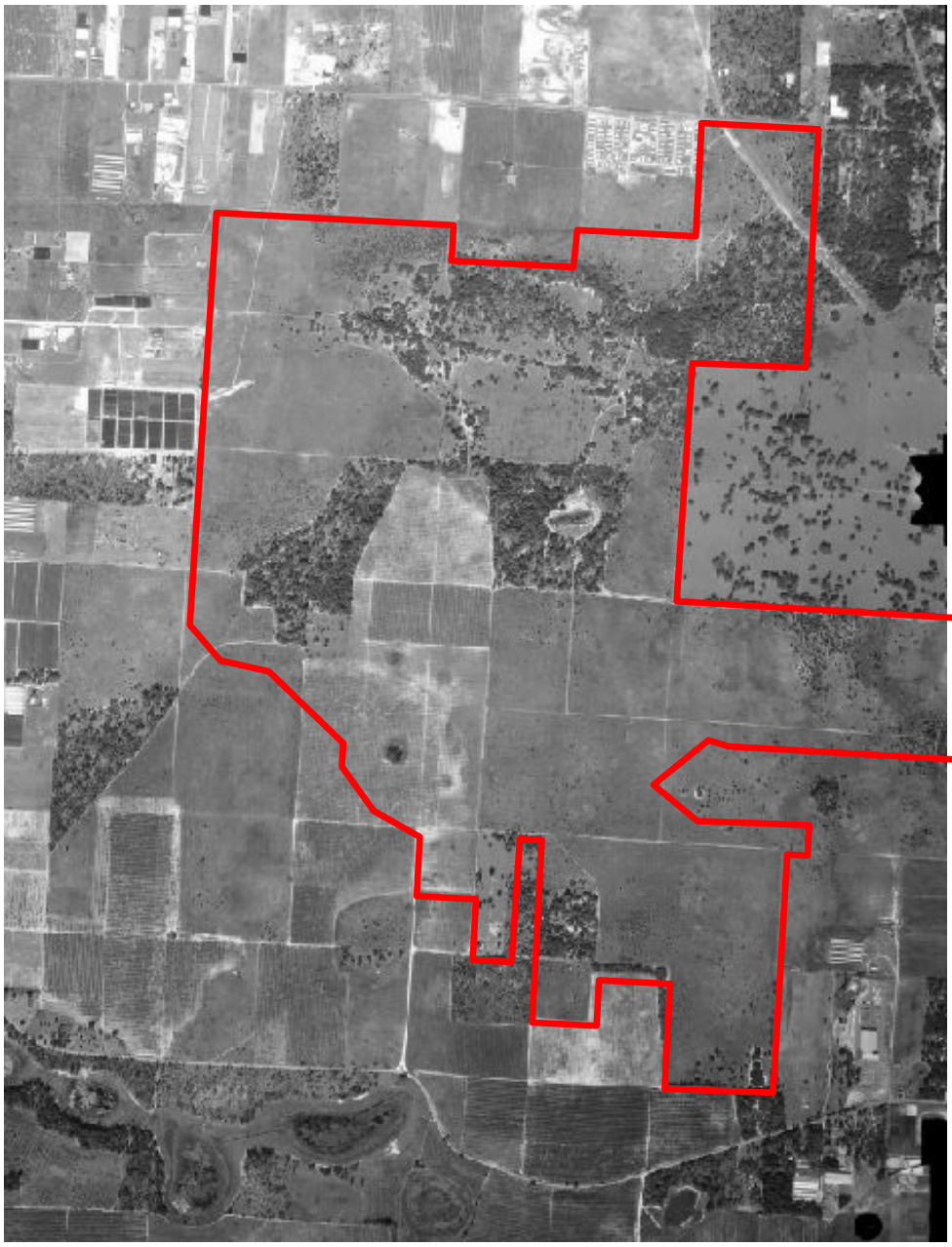
1958 Aerial Photograph



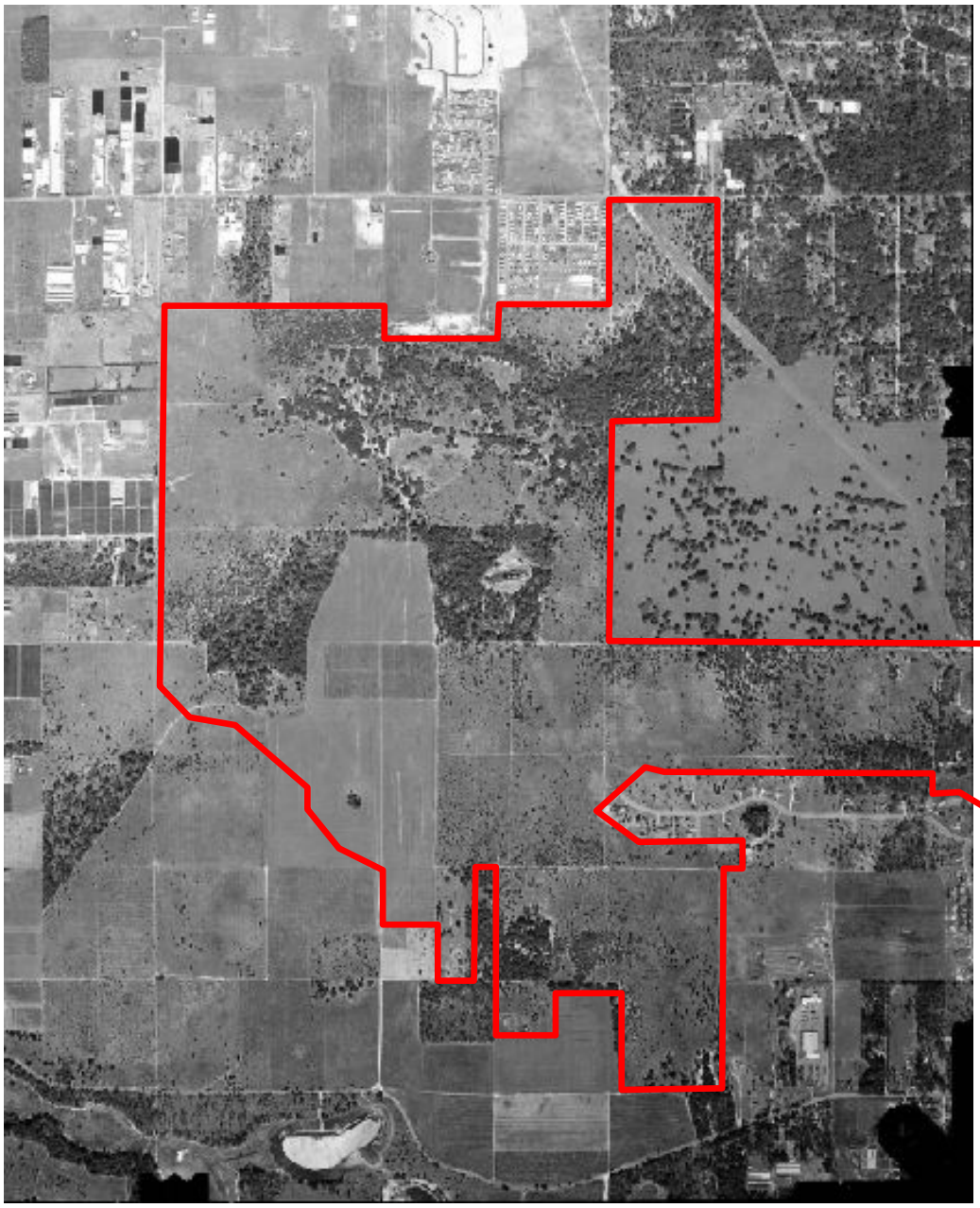
1969 Aerial Photograph



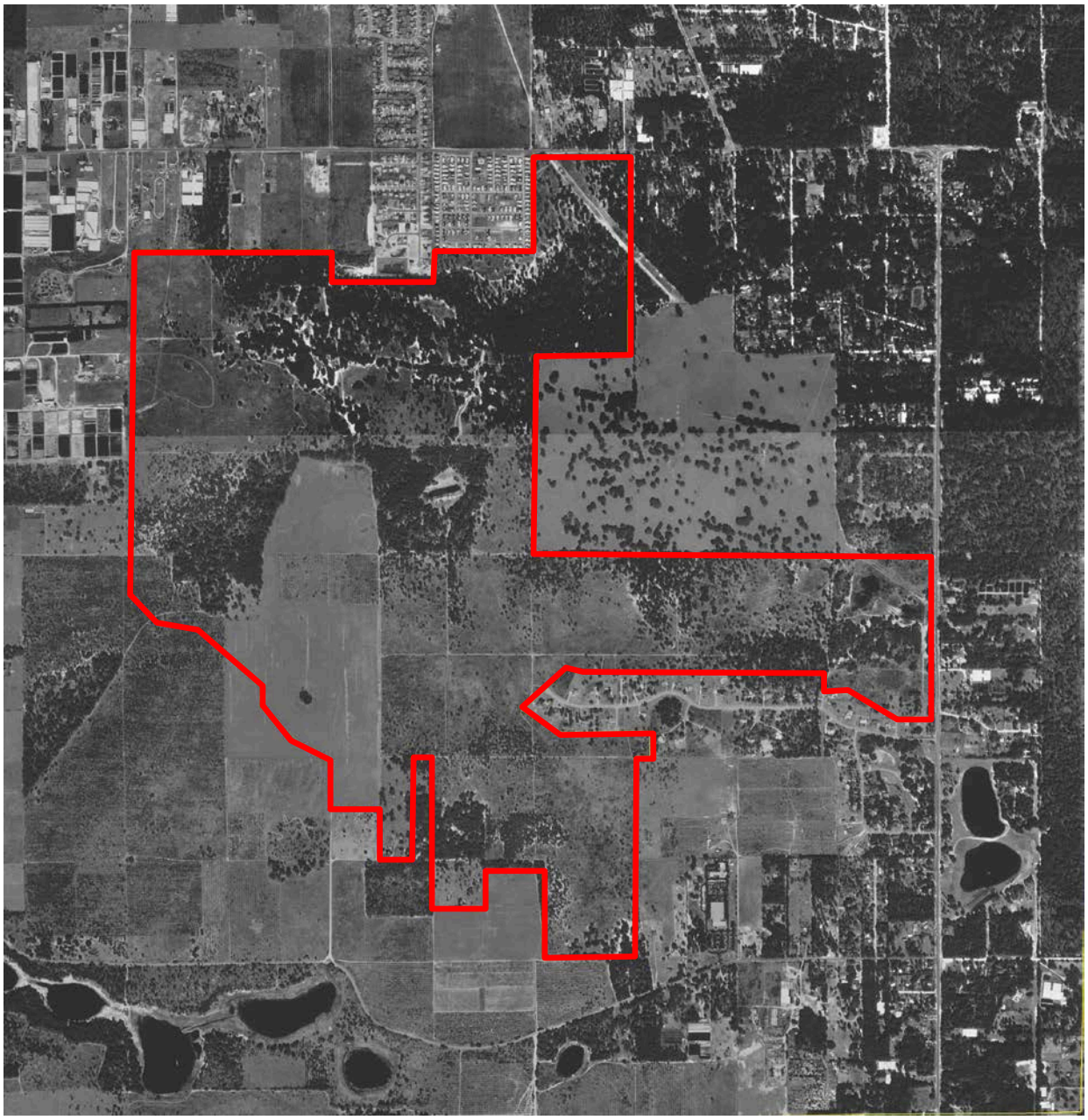
1974 Aerial Photograph



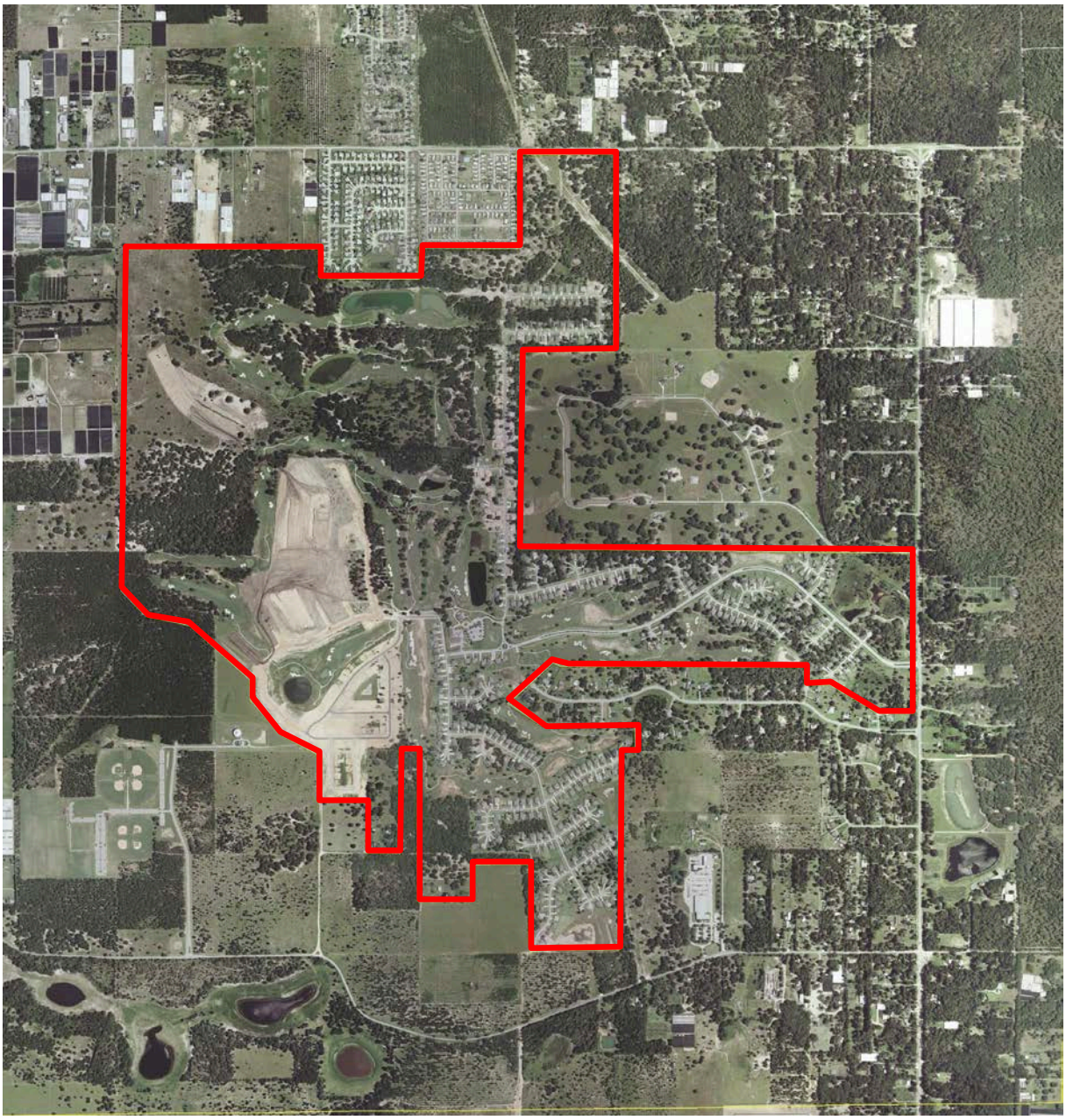
1984 Aerial Photograph



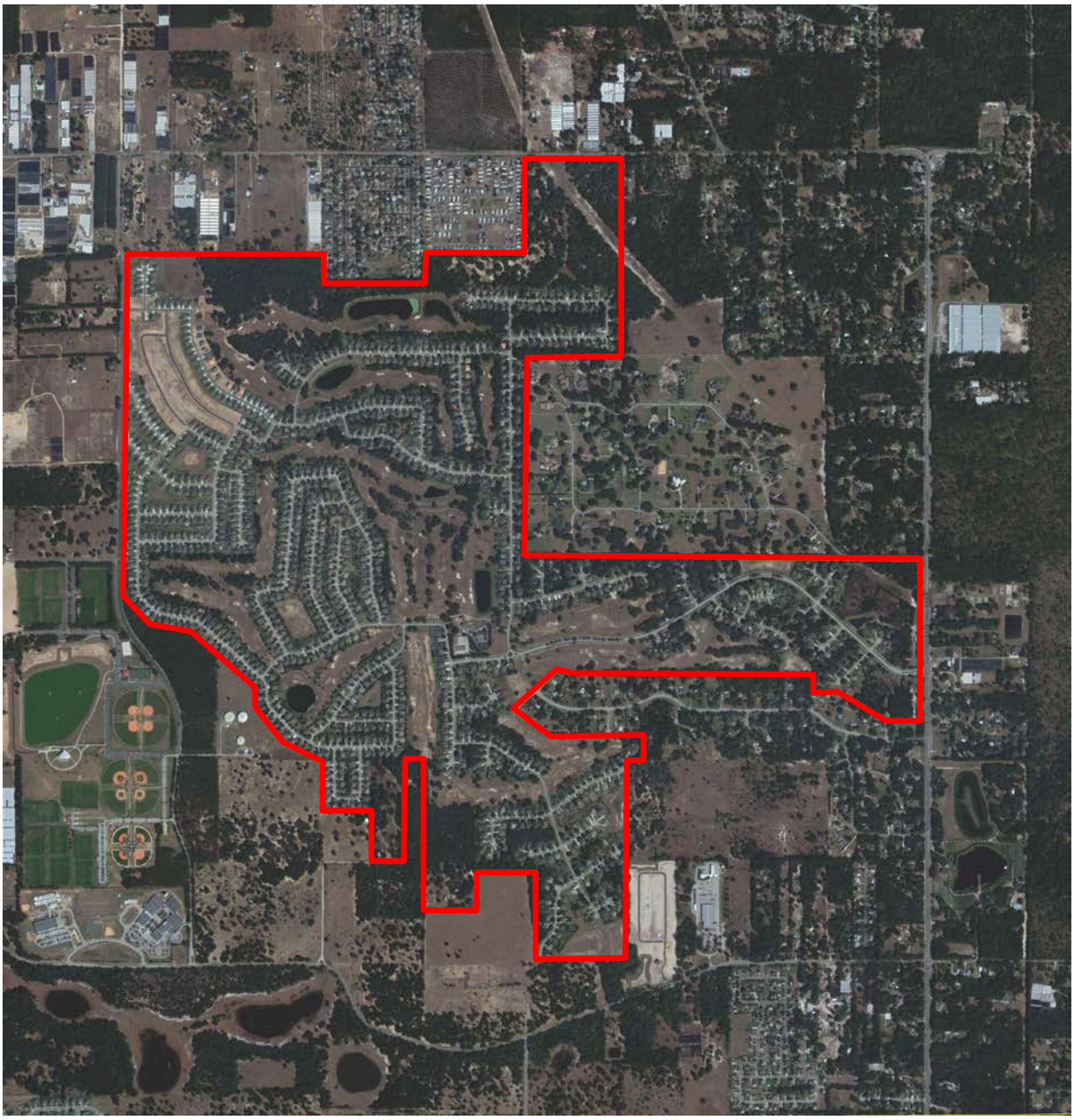
1990 Aerial Photograph



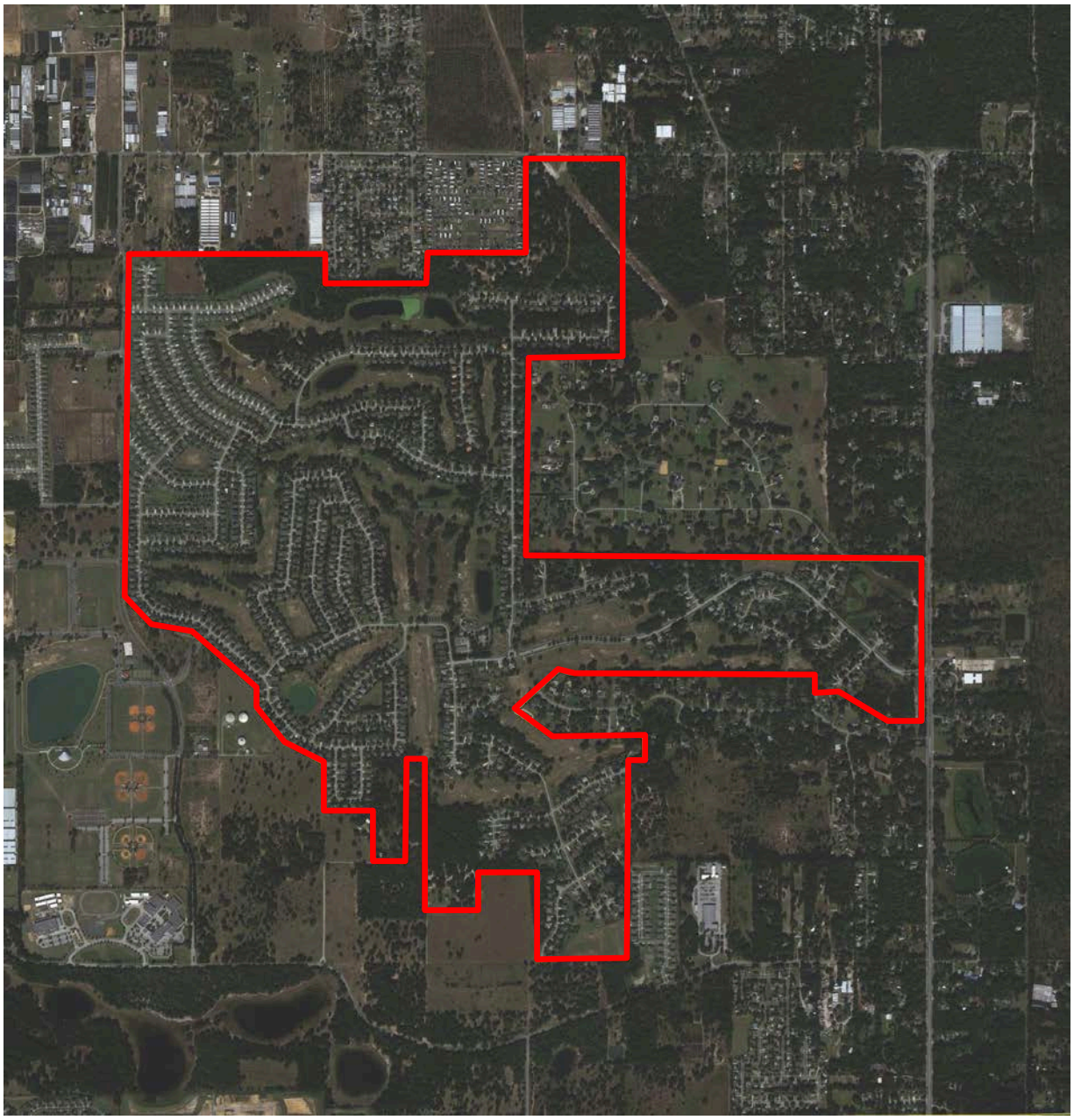
1999 Aerial Photograph



2004 Aerial Photograph



2016 Aerial Photograph



2019 Aerial Photograph

APPENDIX G

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INTERVIEW IMAGES UNAVAILABLE

APPENDIX H

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Photograph 1: Typical view of the subject property.



Photograph 2: Another view of the subject property.



Photograph 3: Yet another view of the subject property.



Photograph 4: View of the vehicle maintenance building located in the golf course maintenance area located on the subject property.



Photograph 5: View of two approximately 500-gallon capacity ASTs formerly containing unleaded gasoline and vehicular diesel fuel.



Photograph 6: View of an approximately 500-gallon capacity AST formerly containing waste oil.



Photograph 7: View of the interior of the maintenance building located on the subject property.



Photograph 8: View of trash drums and a 55-gallon drum used to drain motor oil.



Photograph 9: View of the storage of petroleum products and automotive products.



Photograph 10: View of the disposal of used oil filters in a 55-gallon drum.



Photograph 11: View of the agricultural products locked in a cage area.



Photograph 12: View of additional agricultural products locked in the cage area.

APPENDIX I

UNIVERSAL
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UNIVERSAL ENGINEERING SCIENCES, INC.
3532 Maggie Boulevard
Orlando, FL 32811
Phone: 407-423-0504 Fax: 407-423-3106

ASTM E1527-13 USER INTERVIEW RECORD

Project:
Project No:
Date:
Interviewee:
Relationship to Project:

Comment: The *User* (client) must provide the following information (if available) to the *Environmental Professional.* Information provided below is intended to assist the *Environmental Professional* in gathering information from the User that may be material to identifying *recognized environmental* conditions in connection with the subject property. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

Please provide additional details if the answer is "yes" to any of the questions. If answer is "no" to any of the questions, please indicate what information the answer was based on.

1. Did a search of *recorded land title records* (or judicial records where appropriate) identify that environmental liens (ELs) filed or recorded against the *property* under federal, tribal, state, or local law (40 CFR 312.26)?

NO

2. Did a search of *recorded land title records* (or judicial records where appropriate) identify any activity and use limitations (AULs), such as engineering controls, land use restrictions, or *institutional controls* that are in place at the *property* and/or have been filed or recorded against the *property* under federal, tribal, state, or local law (40 CFR 312.26)?

NO

3. Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business (40 CFR 312.28)?

NO

4. Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property* (40 CFR 312.29)?

NO

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3532 Maggie Boulevard
Orlando, FL 32811
Phone: 407-423-0504 Fax: 407-423-3106

ASTM E1527-13 USER INTERVIEW RECORD

5. Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *Environmental Professional* to identify conditions indicative of releases or threatened releases (40 CFR 312.30)?

NO

a.) Do you know any of the past uses of the *property*?

NO

b.) Do you know of specific chemicals that are present or once were present at the *property*?

NO JUST FERTILIZER

c.) Do you know of spills or other chemical releases that have taken place at the *property*?

NO

d.) Do you know of any environmental cleanups that have taken place at the *property*?

NO

e) Can you provide contact information for any of the past owners or occupants of the subject property?

NO

6. Based on your knowledge and experience related to the *property*, are there any *obvious* indicators that point to the presence or likely presence of releases at the *property* (40 CFR 312.31)?

NO

7. Are you aware of any other knowledge or experience with the *property* that may be pertinent to the *Environmental Professional*, such as copies of any available prior *environmental site assessment reports*, documents (ex: Material Safety Data Sheets, environmental permits, geotechnical evaluations, safety plans, preparedness and prevention plans, spill prevention, countermeasure, and control plans, Community Right-to-Know Plan, risk assessments, recorded activity use limitations, hazardous waste generator notices/reports, hydrogeologic reports), correspondence, etc., concerning the *property* and its environmental condition. If so, can you provide a copy?

NO

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3532 Maggie Boulevard
Orlando, FL 32811
Phone: 407-423-0504 Fax: 407-423-3106

ASTM E1527-13 USER INTERVIEW RECORD

8. Please provide all entities that will need reliance on the Phase I ESA.

ALSO NEEDED:

(a) the reason why the Phase I ESA is required;
CITY

(b) the type of *property* and type of *property* transaction, for example, sale, purchase, refinance, foreclosure, exchange, etc.;
Development

(c) the site address for the *property*, site location map, tax parcel identification numbers;

(d) the scope of services desired for the Phase I ESA (including whether any parties to the *property* transaction may have a required standard scope of services on whether any considerations beyond the requirements of Practice E 1527 are to be considered);
?

(e) identification of the site contact and how the contact can be reached;
NO

(f) any special terms and conditions which must be agreed upon by the Environmental Professional
NO

Interviewer

APPENDIX J

UNIVERSAL
ENGINEERING SCIENCES

REFERENCES

American Society of Testing and Materials, November 2013, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E 1527-13.

Florida Department of Community Affairs, Radon Protection Map. Available on-line at: http://www.myfloridaeh.com/community/radon/index.html

Florida Department of Environmental Protection, Waste Cleanup Application, Contamination Locator Map. Available on-line at: http://webapps.dep.state.fl.us/DepClnup/welcome.do

Florida Department of Environmental Protection, Water Resource Management Section, Water Data Central, Map Direct. Available on-line at: http://www.dep.state.fl.us/water/datacentral/

OCULUS Electronic Document Management System, FDEP Regulatory Files Review for Storage Tanks, Hazardous Waste, Solid Waste and Waste Cleanup Program Areas. Available on-line at: http://www.dep.state.fl.us/waste/default.htm

Sites with Institutional and Engineering Controls, FDEP Division of Waste Management / Institutional Controls Registry. Available online at: http://www.dep.state.fl.us/waste/quick_topics/database_reports/documents/ICR-Sites.pdf

University of Florida Digital Collections website, Aerial Photograph Collection, photograph dated 1941, 1947, 1954, 1958, and 1969. Available online at: http://ufdc.ufl.edu/aerials.

Florida Department of Transportation website, Aerial Photograph Collection dated: 1969, 1973, 1974, 1978, 1984, 1990, 1994, and 1997. Available online at: http://www.dot.state.fl.us/surveyingandmapping/apac.shtm.

Google Earth photographs dated 1999, 2004, 2008, 2012, 2016, and 2019.

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS). Available online at http://websoilsurvey.nrcs.usda.gov/app/.

United States Geological Survey, Digital US Topographic Maps, 7.5-Minute Quadrangle Map. Available on-line at: http://www.usgs.gov/

APPENDIX K

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ENGINEERING SCIENCES

Biographical Data

DANIEL J. TOWNSEND

Project Manager / Environmental Specialist

Expertise Environmental Site Assessments, Groundwater Quality/Hazardous Waste, Asbestos Consulting; Drafting/Design and Graphic Information Systems (GIS)

Academic Background
B.S. Business Management, University of Florida, 1992
A.S. Drafting Design, Brevard Community College, 1983

Certifications
EPA AHERA Asbestos Abatement Supervisor, May 2019
EPA AHERA Asbestos Inspector, May 2019
Lead Inspector
Certified 40-Hour Hazardous Waste Operations and Emergency Response Training, April 2019
Attendance of Hands-On Field School for Petroleum Contamination Cleanup, March 2001
NIOSH 582 Equivalent Microscopy, 1995
Certified Advanced ARC/INFO Training, 1992

Experience Mr. Townsend has over 32 years of experience in performing a wide variety of environmental services including: soil and groundwater quality, hazardous waste, environmental site assessments (ESAs) - phase one and phase two, site rehabilitation (including source removal and in-situ groundwater treatment), asbestos inspections and abatement supervision, drafting/design and GIS projects. Mr. Townsend is accomplished in the following programs, equipment, and procedures: Computer Aided Drafting and Design (CADD), AutoCAD, Geographic Information Systems (GIS), ARC/INFO Version 6.1; Phase Contract Microscope; pumps-centrifugal, submersible, and peristaltic; organic vapor analyzers (both PID and FID); PetroFlag hydrocarbon test equipment; surveying level; water quality meters; oil/water interface probe; soil and groundwater sampling and decontamination protocol; and health and safety procedures for field work.

GROUNDWATER QUALITY / HAZARDOUS WASTE

- Operations and Maintenance Supervision of an industrial facility Superfund site. Performed all duties necessary to comply with the requirements of and Operations and Maintenance (O&M) Plan implemented over a five-year period by an EPA Record of Decision (ROD). Services include: weekly visits to record performance data and perform visual inspection of system components; monthly visits which focus on preventative maintenance; quarterly visits involving the inspection and cleaning of the groundwater recovery system equipment; and bi-annual groundwater sampling efforts.

- Conducted cleanup and site rehabilitations for numerous Florida projects including soil remediation, groundwater recovery and treatment, and air sparging for petroleum and chlorinated hydrocarbon contaminated sites.

- Performed storage tank closures at numerous Florida sites, including providing technical oversight of tank excavation contractors as well as abandonment-in-place of storage tanks, soil organic vapor screening, surface water and groundwater sampling, and preparation of Storage Tank Closure Assessment Forms and project technical drawings.

- Conducted oversight of petroleum delivery system upgrades including the installation of overfill protection, sump containment, secondary containment of underground supply piping and abandonment (in-place) of several waste product tanks.

MISCELLANEOUS ENVIRONMENTAL PROJECTS

- Conducted Phase I Environmental Site Assessments of various Florida and Georgia project locations, including ground and aerial site reconnaissance, review and interpretation of aerial photographs, personal information-gathering interviews, and city directory searches.

- Conducted Phase II ESAs of various Florida project locations employing the use of Geoprobe® equipment for soil and groundwater sampling, mobile laboratory analysis, soil borings, hand auger and OVA screening, well installation, sampling and well abandonment.

- Operations and Maintenance (O&M) supervision of an industrial facility Superfund site. Services included: weekly visits to record performance data and perform visual inspection of system components; monthly visits which focused on preventative maintenance; quarterly visits involving the inspection and cleaning of the groundwater recovery system equipment; and bi-annual groundwater sampling efforts.

- Conducted cleanup and site rehabilitations for numerous Florida projects including soil remediation; groundwater recovery and treatment; air sparging for petroleum; and chlorinated hydrocarbon contaminated sites.

- Supervised and performed installation of groundwater monitoring wells and supervised the abandonment of groundwater supply wells at multiple sites in Florida.

- Performed storage tank closures at numerous Florida sites, including providing technical oversight of tank excavation contractors as well as abandonment-in-place of storage tanks; soil organic vapor screening; surface water and groundwater sampling; and preparation of Storage Tank Closure Assessment Forms and project technical drawings.

- Conducted oversight of petroleum delivery system upgrades including the installation of overfill protection; sump containment; secondary containment of underground supply piping; and abandonment (in-place) of several waste product tanks.

- Conducted constant rate aquifer pumping tests, step drawdown pumping tests and slug tests using pressure transducers and manual measurements.

PHASE ONE ENVIRONMENTAL SITE ASSESSMENTS

- Conducted a Phase I Environmental Site Assessment (ESA) of a 738+/- acre tract of undeveloped pasture land in Osceola County for Lennar Homes. The report identified an aboveground storage tank.

- Conducted a Phase I ESA of a 400+/- acre tract of pasture land in Polk County for Polk County Natural Resources Department. The assessment identified waste fertilizer storage areas, petroleum storage and vehicle maintenance area, and a sod farm area.

- Conducted a Phase I ESA of an 80+/- acre tract of undeveloped pasture land in Osceola County for Lennar Homes. The report identified four petroleum storage tanks.

- Conducted Phase I ESAs of various Florida and Georgia project locations, including ground and aerial site reconnaissance, review and interpretation of aerial photographs, personal information-gathering interviews, and city directory searches.

- Conducted a Phase I ESA on a 9.5-acre parcel of land developed with a plant nursery. The property had operated as a plant nursery for more than 30 years. Areas of concern were identified as the historical operation as a plant nursery and the storage, mixing and use of pesticides and herbicides on the property.

- Conducted multiple Phase I ESAs for existing automotive dealerships which maintained petroleum storage systems, automotive repair and maintenance areas, and vehicle wash areas. Areas of concern were identified as existing in-ground hydraulic vehicle lifts, oil/water separators, former and current petroleum storage systems and dispensers, and chemical storage.

Related Projects

- **Phase I Environmental Site Assessment, 3438-3482 Maggie Boulevard, Orlando, Orange County, Florida.** Mr. Townsend was responsible for the Phase I Environmental Site Assessment (ESA) at the subject property. The subject property was developed with an approximately 103,400 square foot single-story commercial office/warehouse structure that was constructed in 1987. The balance of the property was improved with concrete driveway and parking areas and minimal landscaped areas. Mr. Townsend conducted an evaluation of the site and surrounding properties to identify recognized environmental conditions associated with the past or present uses of the site and neighboring properties and prepared a detailed report.

- **Limited Phase II Soil and Groundwater Assessment, Bob's Transmissions, Winter Park, Orange County, Florida.** Mr. Townsend performed a Phase II Soil and Groundwater Assessment on this facility which performs repairs and maintenance on automotive transmissions. As the project manager, Mr. Townsend was responsible for all observations, site reconnaissance, documentation including soil vapor screening and laboratory analysis, groundwater sampling, conclusions and recommendations.

- **Transaction Screening Process, Rohka Retail Center, Kissimmee, Florida.** As the project manager, Mr. Townsend was responsible for providing and interpreting a regulatory database report to identify any federal or state listed contaminated sites located within the minimum search distances established by the American Society for Testing & Materials (ASTM) E1528-00 Standard. Mr. Townsend performed site reconnaissance and completed a Transaction Screen Questionnaire (TSQ).

Professional Affiliations
National Groundwater Association (NGWA)
Central Florida Environmental Discussion Network (CFEDN)
Central Florida Association of Environmental Professionals (CFAEP)

Universal Office
Orlando, Florida

Years with Universal
11

Years with Other Firms
21

Biographical Data

MICHAEL J. GEDEN, P.G.

Senior Project Manager

Expertise Environmental Project Management, Feasibility Studies, Site Remedial Actions

Academic Background B.S., Earth Science, Northeastern Illinois University, Chicago, Illinois

Registrations
Professional Geologist, Florida No. (PG408), (1988)
Professional Geologist, Indiana (1985)
Professional Geologist, Arkansas (1988)
Professional Geologist, North Carolina (1987)

Certifications
Employee Development Course in Hazardous Materials and Site Investigations
Trained in Hazardous Waste Cleanup and Disposal Techniques, 1983
Short Course, Ground Water Modeling, NWWA, 1985
Short Course, RCRA Rules and Regulations, Government Institutes, 1991

Experience Mr. Geden has over thirty-nine (39) years of professional experience in conducting and managing multiple groundwater investigations, site assessments, risk assessments, feasibility studies and site remedial actions. Project components have included literature and record searches, design and implementation of field assessment programs including installation and sampling of soil borings and groundwater monitor wells, geophysical investigations, single and multiple well aquifer testing, groundwater modeling and report preparation. Sites involved include those on the National Priorities List (NPL), RCRA, industrial, residential and open land. Clients have included the federal government, state, county and municipal governments and private industrial concerns.

Related Projects

PETROLEUM SITES

- **Managed Assessment and Remedial Actions, Former Defense Fuels Supply Point, Lynn Haven, Florida.** This facility formerly provided bulk fuels to Tyndell Air Force Base, but is currently being decommissioned. Site activities included removal of bulk fuel storage tanks and the railroad network, delineation of petroleum contamination within the soils and groundwater and the installation of groundwater and soil remediation systems. Active remediation at the site includes dual-phase groundwater recovery, standard recovery wells, and air sparging. Soils at the site are also underwent enhanced bio-remediation. Recovered groundwater was treated in an air stripper and returned via infiltration and spray fields.

- **Petroleum Cleanup Program -** Managing assessment and remedial actions at former gas station sites in Seminole County, Orange County, Osceola County and Polk County under the FDEP Petroleum Cleanup Program. All sites had been redeveloped for other usage and investigations and remedial actions had to be designed to be minimally disruptive to the current usage of the properties

- **Managed Assessment and Remedial Actions, Defense Fuels Supply Point, MacDill Air Force Base, Tampa, Florida.** This operational facility provides bulk fuels to the Air Force Base. Site activities have included delineation of petroleum contamination within the soils and groundwater and the installation of groundwater remediation systems. Refurbishing of the bulk storage tanks by the Air Force allowed for the installation of an air sparging system under the tanks which are currently operational. Contaminated soils in the basins and at the pumping facility are being addressed as the refurbishing of the facility continues. Product recovery has been completed at two locations and the installation of additional groundwater remedial systems are progressing.

HAZARDOUS WASTE SITE ADMINISTRATION/ASSESSMENTS/REMEDIATION

- **Industrial Site Assessment, Volusia County, Florida.** Mr. Geden is managing assessment of former manufacturing facility which utilized tetrachloroethene (PCE) in its process. This 1950's era site disposed of wastewater into an adjacent dry well. During the due diligence process to sell the property contamination was noted in the groundwater beneath the site. Subsequent investigations have detected PCE up to 1500 feet off-site and the adjacent residential neighborhood has been placed on a community water supply. Currently finishing the delineation of impact in three water bearing units above the Floridan aquifer and it is expected that the Floridan has been impacted as well.

- **NPL Site, Alabama Army Ammunition Plant, Childersburg, Alabama.** Mr. Geden was associated with the assessment and remediation of this site for over 25 years. He managed remedial investigation and cleanup activities at the site which were initiated following the completion of an initial records search in 1979. The site was placed on the NPL in 1987 and a portion of the property (Area A) was sold to private owners in 1990 following successful remedial actions. Investigations included sampling of soil, sediments, surface water and groundwater and several phases of remedial actions have been completed. A close working relationship with the regulatory agencies (EPA and Alabama Department of Environmental Management) allowed for the quick delineation of operable units based on analytical results and remediation under interim RODs.

- **Soil Vapor Study and Vapor Intrusion Risk Assessment, NPL Cleanup Site, Deland, Florida.** Completed Soil Vapor Survey at NPL cleanup site at the request of the USEPA. Contaminant concentrations detected in the groundwater below the operating facility posed the potential for possible vapor intrusion into the manufacturing facility. While vapor concentrations were very high beneath the buildings and paved portions of the property, risk assessment modeling showed that exposure to the potential vapors was with acceptable levels.

- **Supplemental Field Investigation, NPL Cleanup Site, DeLand, Florida.** Mr. Geden is currently managing supplemental field investigation at NPL Cleanup site. EPA requested the collection of additional data to better define extent of contamination. Effort requires collection of groundwater data utilizing the GeoProbe Membrane Interface Probe and Electron Capture Detector, completion of multi-aquifer pumping test, installation of deep aquifer monitoring points and the collection of discrete depth groundwater samples utilizing dispersion sampling equipment. Second phase of effort requires installation of FLUTe sampling technology to determine location of DNAPL within the interbedded sands, silts and clays of the confining layer.

- **Brownfield Redevelopment Project, Orlando, Florida.** Project Geologist for a general assessment of the soil and groundwater quality associated with two railroad tracks that traversed a former lumber yard which was being redeveloped as a multi-tenant residential development. Petroleum-impacted soil, specifically benzo (a) pyrene and its equivalents, in addition to arsenic, were identified in the soil beneath the former railroad tracks at concentrations that exceed the State of Florida cleanup criteria for residential use properties. Universal has developed a remedial strategy for removal of the estimated 8,800 cubic yards of contaminated soils. In April 2007, the City of Orlando designated the property as a Brownfield Site (BF480702000) and Universal is awaiting authorization to implement the remedial action.

- **Remedial Action Operations and Maintenance, Sherwood Medical Industries NPL Site, Deland, Florida.** Mr. Geden is responsible for total operation of all selected remedies at the Sherwood Medical NPL site in accordance with two approved Records of Decision (ROD). As Project Manager, Mr. Geden represents the interests of the client directly to the EPA in operational matters. Additionally, Mr. Geden is responsible for instrumentation of operating remediation system, installation of telemetry system to allow remote monitoring of system operation, weekly, monthly and quarterly O&M and preventative maintenance operations, preparation and implementation of a new O&M manual, semi-annual sampling of all monitoring points and regulatory reporting All data is compiled into semi-annual reports which are submitted to the Florida Department of Environmental Protection and the United States Environmental Protection Agency, Region IV.

Publications

Denahan, S. A., Gregory, R. G., and Geden, M. J. *The Slug Test--A Ground Water Quality Management Tool.* National Water Works Association, Conservation and Regulation of Ground Water Resources Conference, 1983.

Isaac, R. B., Spariosu, D., Samson, C., Gray, K. F., Cox, C. H., Geden, M. J. *A Partnering Effort that Expedited the Remedial Action Process at the Alabama Army Ammunition Plant.* National Defense Preparedness Association, 22nd Environmental Symposium and Exhibition, 1996.

Geden, M. J. *Partial Delisting of the Alabama Army Ammunition Plant.* National Defense Industrial Association, 24th Environmental Symposium and Exhibition, 1998.

Geden, M. J. *Alabama Army Ammunition Plant - Area A, A CERCLA Case Study.* Executive Enterprises Environmental Regulation Course, 1998.

Geden, M.J., Nadolishny, A. *Application of the Toolbox Approach and a Dynamic Workplan for Expedited Delineation of a Solvent Plume.* Florida Remediation Conference, 2002.

Geden, M.J., *Accelerated Bioremediation of Chlorinated Ethenes with a Controlled-Release Electron Donor at an Industrial Site in Deland, FL*. Florida Remediation Conference, 2006

Universal Office Orlando, Florida

Years with Universal 15 (2005)

Years with Other Firms 24