GROWTH AND RESOURCE MANAGEMENT DEPARTMENT
PLANNING AND DEVELOPMENT SERVICES DIVISION
CURRENT PLANNING ACTIVITY
123 W. Indiana Avenue, Room 202, DeLand, FL 32720
(386) 943-7059

PUBLIC HEARING:	May 13, 2014 - Planning and Land Development Regulation Commission (PLDRC)
CASE NO:	S-14-044
SUBJECT:	Special exception for a communication tower on Conservation (C) zoned property.
LOCATION:	Sawmill Road, DeLand
APPLICANT:	Terry Thomas, Crown Castle LLC
OWNER:	St. Johns River Water Management District
STAFF:	Carol McFarlane, AICP, Planner II

I. SUMMARY OF REQUEST

The applicant is requesting approval of a 190-foot monopole communication tower on a 561-acre parcel. This property is located northeast of the city of DeLand, just south of Interstate 4. AT&T will be the first tenant on the tower, and the tower will be able to accommodate up to three carriers.

Specifically, the applicant is requesting a:

Special exception for a communication tower exceeding 70 feet (190 feet) in height above ground level on Conservation (C) zoned property.

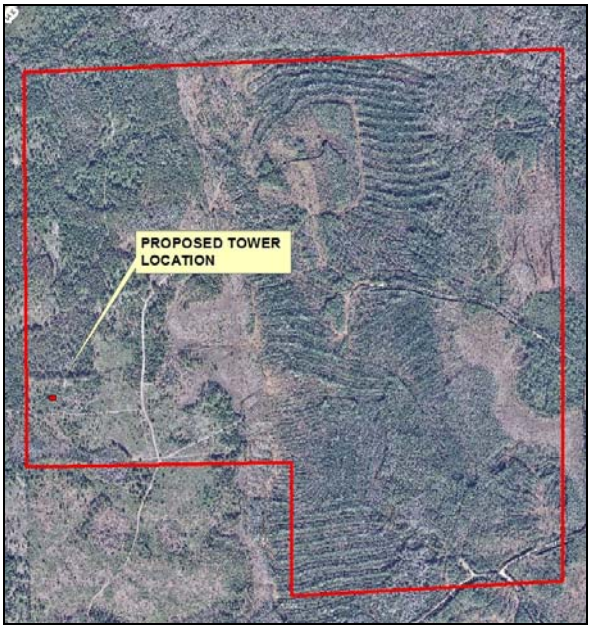
Staff Recommendation: Forward to county council with a recommendation to approve with conditions.

II. SITE INFORMATION

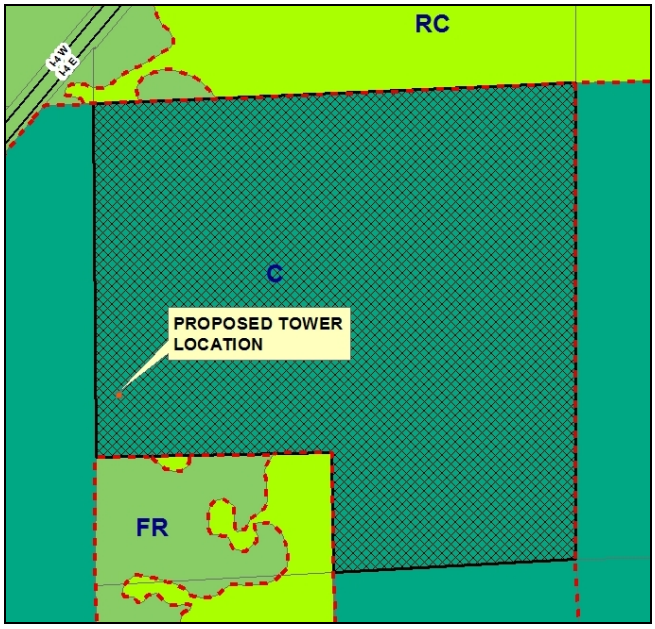
1. Location: At the terminus of Sawmill Road, northeast of the city of DeLand.
2. Parcel Number(s): 6135-00-00-0010
3. Property Size: ± 561 acres
4. Council District: 3
5. Zoning: Conservation (C)
6. Future Land Use: Conservation (Con)
7. ECO Map: No
8. NRMA Overlay: Yes
9. Adjacent Zoning and Land Use:

DIRECTION	ZONING	FUTURE LAND USE	CURRENT USE
North:	FR & RC	FR & ESC	Conservation Lands
East:	C	Con	Conservation Lands
South:	C, FR & RC	Con, FR & ESC	Conservation Lands
West:	C, FR & RC	Con, FR & ESC	Conservation Lands

10. Location Maps



Aerial Map



Zoning Map

III. BACKGROUND AND PREVIOUS ACTIONS

A private owner gave the subject property to the St. Johns River Water Management District in 2004 for conservation purposes. The property is undeveloped and managed by the County. The site is immediately adjacent to the Longleaf Pine Preserve.

IV. REVIEW CRITERIA AND ANALYSIS

Special Exception Site Plan

The applicant is requesting a special exception for a communication tower exceeding 70 feet (190 feet) in height. The site plan submitted by the applicant shows a ground lease area of 70 feet by 70 feet located in the southwest area of the parcel. According to the applicant's submitted plans, the proposed communication tower and lease area can accommodate at least three tenants and their equipment. AT&T will be the initial tenant. The lease area is to be fenced with a locked entry gate, and will have a landscaped perimeter as required by code.

Communication Tower Requirements

Section 72-293(23) of the zoning code contains a list of requirements and conditions that an applicant must meet to find this special exception request in compliance with the ordinance. Below is an analysis of Section 72-293(23) of the zoning code.

d. Factors considered in the granting of special exceptions. The Planning and Land Development Regulation Commission or the County Council as the case may be, shall consider the following factors in determining whether to issue a special exception, although the Planning and Land Development Regulation Commission or the County Council as the case may be, may waive or reduce the burden of one or more of these criteria as to the applicant if the Planning and Land Development Regulation Commission or the County Council as the case may be, concludes that the goals of this article are better served thereby.

1. Height of the proposed communication tower;

The height of the proposed communication tower is 190 feet, as shown on the plan. The applicant has submitted a statement from an independent radio frequency (RF) engineer stating that a minimum height of 180 feet is required to connect to the signals of area towers.

2. Proximity of the communication tower to residential structures;

According to the survey submitted by the applicant, the nearest residence to the proposed communication tower site is located approximately 4,041 feet to the southwest (640 Old Sawmill Road). The required distance separation between a communication tower and a residential unit is 1,000 feet. Since conservation lands surround the property, no residential neighborhoods are anticipated near the tower.

3. *Nature of uses on adjacent and nearby properties;*

All of the surrounding parcels are conservation lands. There are no plans for development in the immediate vicinity.

4. *Surrounding topography;*

The subject parcel is generally flat and characterized as wetlands and protected uplands.

5. *Surrounding tree coverage and foliage;*

The site is heavily treed and wetlands are the dominating vegetative pattern. The submitted special exception site plan shows landscaping around the perimeter of the lease area.

6. *Design of the communication tower, with particular reference to design characteristics that have the effect of reducing or eliminating visual obtrusiveness;*

The tower will be a monopole structure with antennas that will protrude from the pole. The proposal by the applicant is to have a galvanized steel finish to help reduce visual appearance and help it blend with the sky.

7. *Proposed ingress and egress;*

The ingress and egress is shown to be provided from State Road 44 to Old Sawmill Road, and private easements to be granted to the applicant at the terminus of Old Sawmill Road. The existing access primarily consists of soft sand, and the applicant will be improving some parts of the easements with gravel.

8. *Safety aspects relating to the proposed communication tower; and*

The tower will be required to meet all applicable Florida Building Codes and other applicable standards at the time of permit review. The applicant has submitted an engineer's statement demonstrating that the tower will have a fall radius of 95 feet in the event of a catastrophic storm.

9. *Availability of suitable existing communication towers and other structures. No new communication towers shall be permitted unless the applicant demonstrates to the reasonable satisfaction of the planning and land development regulation commission (PLDRC) or the county council as the case may be, that no existing communication tower or structure can accommodate the applicant's proposed tower. Evidence submitted to the county to demonstrate that no existing communication tower or structure can accommodate the applicant's proposed antenna shall be for any of the reasons provided as follows:*

    i. *No existing communication towers or structures are located within the geographic area required to meet applicant's engineering requirements; or*
    ii. *Existing communication towers or structures are not of sufficient height to meet applicant's engineering requirements; or*

ii. Existing communication towers or structures do not have sufficient structural strength to support applicant's proposed antenna and related equipment; or

iv. The applicant's proposed antenna would cause electromagnetic interference with the antenna on the existing communication towers or structures, or the antenna on the existing communication towers or structures would cause interference with the applicant's proposed antenna; or

v. The applicant demonstrates that there are other limiting factors, including adverse economic reasons that render existing communication towers and structures unsuitable.

The applicant has submitted coverage maps for the area created by an RF engineer with AT&T showing coverage with and without the proposed tower. The coverage maps show a gap along Interstate 4 between the cities of DeLand and Daytona Beach. This proposed tower will fill that a portion of that coverage gap.

e. *Setbacks and separation.*

Under this section, communication towers must be set back a distance equal to one-half of the height of the communication tower from the property line. At a proposed height of 190 feet, the required distance separation is 95 feet. The special exception site plan submitted with this application is showing a separation of approximately 200 feet from the tower to the west property line, and 600 feet from the tower to the south property line.

Also under this section, communication towers must be separated as listed in the table Tower to Tower Separation Requirements. The distance separation requirement between a monopole tower and another tower is ten times the height of the proposed tower, or in this case 1,900 feet. The nearest communication tower to the site is 1.7 miles to the south, and the next nearest tower is 3.6 miles to the northwest.

f. *Design and lighting standards.*

The proposed monopole tower will have a galvanized steel finish to blend the visual appearance of the tower with the sky. At 190 feet in height, this tower is not required to meet FAA lighting standards. However, Section 72-292(h)(2)a allows communications tower to increase their height by 25 feet. An increase to 200 feet would require that the tower meet FAA lighting standards. Therefore, staff is recommending a condition of approval that if the tower is ever increased in height to 200 feet or beyond, it must meet all FAA lighting standards during building permit review.

g. *Security fencing.*

The site plan submitted shows a six-foot high security fence topped with barbed wire and a locked vehicular access gate.

h. *Landscaping.*

The applicant has submitted a landscaping plan that demonstrates compliance with the county's zoning code requirements which includes a perimeter row of shrubs and trees. At

the time of site plan submittal, the site will be required to meet section 72-284 of the zoning code, Landscaping requirements.

i. *Camouflaged towers.*

The tower is not proposed to be camouflaged.

Special Exception Review Criteria

Under subsection 72-415(8) *Reasons for denial*, the commission may recommend denial of any application for a special exception, and the county council may deny the application for one or more of the following reasons:

(a) It is inconsistent with the purpose or intent of this article.

Construction of a tower would have a de minimis effect on traffic patterns and fire safety, will not affect the availability of light and air. The special exception will have no effect on the provision of essential governmental services. If the application is approved, staff is recommending certain conditions, such as lighting consistent with FAA requirements, and requiring that all applicable permitting be issued, to be applied to the approval of this request in order to meet this criterion. This tower is located approximately ½ mile from Interstate 4. While the tower may be slightly visible from the interstate, the visual disturbance is anticipated to be minimal.

(b) It is inconsistent with any element of the comprehensive plan.

The comprehensive plan does not contain any specific goals, objectives, or policies that apply to this special exception request. However, the plan does provide the following Land Use Location Criteria:

Towers and Antennae:

(1) Towers and antennae shall be located in accordance with Part 77, Subchapter E, Airspace, of Title 14 of the Code of Federal Regulations and County Land Development Regulations.

(2) The Airport Height Restrictions shall be used as a guide in determining the height of towers and antennae surrounding a public airport.

The tower site is more four statute miles from the nearest public or private airport or helipad of record.

(c) It will adversely affect the public interest.

The proposed special exception will have a positive impact on the public interest, as it will provide cellular service to the traveling public along Interstate 4.

(d) It does not meet the expressed requirements of the applicable special exception.

As evidenced in the above paragraphs, this application can meet all the requirements of the

special exception.

(e) The applicant will not be able to meet all requirements imposed by federal, state or local governments, or by the county council.

There is no evidence that the application cannot meet the federal or state requirements.

(f) Notwithstanding the provisions of article XIV of the land development code [appendix A], it will generate undue traffic congestion.

The proposed unmanned communication tower site will not cause undue traffic congestion as it will not be open to the public. After initial tower construction, site generated traffic will be limited to occasional service checks and installation of new equipment cabinets.

(g) It will create a hazard or a public nuisance, or be dangerous to individuals or to the public.

The proposed special exception is unlikely to create a public hazard or be dangerous to individuals or to the public with imposition of appropriate special exception conditions.

(h) It will materially alter the character of surrounding neighborhoods or adversely affect the value of surrounding land, structures or buildings.

The subject property is located in a sparsely populated area of the county that is predominantly used as conservation lands. The tower will have a minimal visual impact to the traveling public along Interstate 4.

(i) It will adversely affect the natural environment, natural resources or scenic beauty, or cause excessive pollution.

The special exception is not anticipated to have an impact on the scenic beauty of the area. The development proposal is subject to the minimum environmental protections established in the Land Development Code and shall be reviewed for compliance at the time of site plan and building permit review.

V. STAFF RECOMMENDATION

Staff recommends that the commission approve with conditions this request for a special exception for a communication tower exceeding 70 feet (190 feet) in height above ground level on Conservation (C) zoned property with the following conditions:

1. The special exception approval is for a single, self-supported monopole tower with a maximum height not to exceed 190 feet (AGL), and structurally designed for collocation of at least three carriers.

2. The proposed tower shall be generally located on the parcel in accordance with the submitted special exception site plan prepared by Infinigy Engineering and Surveying, Inc., dated March 26, 2014, subject to applicable regulations of the Volusia County Code of Ordinances.

3. All permits shall be obtained from the Federal Aviation Administration (FAA), and Federal Communications Commission (FCC) and/or any other applicable federal, state, or local governmental agencies as required and submitted to the Growth and Resource Management Department (GRM). The facility shall be maintained and operated in full accordance with all applicable federal, state, and local regulations and permits.

4. Development of the parcel shall be subject to submittal of a site plan to the Land Development Division for review and approval prior to building permit application. The site plan must comply with applicable zoning and land development code requirements. The tower site shall be developed in accordance with the site plans prepared by Infinigy Engineering and Surveying, Inc., dated March 26, 2014, as may be modified by these conditions and/or modified by further County review and/or modified by the FAA/FCC and/or other permitting requirements. In addition, any environmental issues with regard to tree clearing and gopher tortoise burrows shall be resolved prior to an issuance of a site plan approval and/or building permit.

VI. ATTACHMENTS

- Written Petition
- AT&T Statement of Need and Coverage Maps
- Special Exception Site Plan
- Engineer's Statement
- Survey
- Site Photos
- Reviewers Comments
- Maps

VII. AUTHORITY AND PROCEDURE

Pursuant to Section 72-415, the County Council shall hold a public hearing after due public notice on all recommendations from the commission. It may accept, reject, modify, return, or seek additional information on those recommendations. No approval of a special exception application shall be made unless, upon motion, four members of the county council concur. The county council will thereafter forward its decision to the applicant.

Any new information to be presented at the planning and land development regulation commission for any application will be grounds to continue an application to the next planning and land development regulation commission. Applicants shall inform and provide staff with the new information prior to the planning and land development regulation commission.

Any new information to be presented at the county council meeting that was not previously presented to the planning and land development regulation commission for any application will be grounds to return an application to the planning and land development regulation commission for further review. Applicants shall inform and provide staff with the new information prior to the council meeting.

E.M. ENTERPRISES GENERAL CONTRACTORS, INC.
STATE LICENSES • CGCA40381 / EC0001833

March 28, 2014

Ms. Carol McFarlane
Volusia County &Development Services
123 W. Indiana Ave
Deland, Fl 32720

Re: Narrative- Special Exception Application-Cell Tower-Crown Castle Towers LLC
Parcel ID# 35 1631 00 00 0010, Sawmill Rd, Deland , Fl 32724

Dear Ms. McFarlane,

Crown Castle Towers LLC has entered into an Option/Lease Agreement with St. John's River Water Management District for a cell site. The parent tract ,parcel ID# 35 1631 00 00 0010, is managed and maintained by Volusia County Growth and Resource Management Department/Land Management and Acquisition Division/Randall Sleister/Land Management supervisor. The proposed tower is to be a monopole type with a height of 190' above ground level. AT&T Mobility is the anchor tenant on the tower. The tower will be designed to accommodate a minimum of three cell phone carriers and with a designed fall radius of 50% of the tower height. The cell site compound will be approximately 70'X70'. It will be fenced and locked and surrounded by a 15' wide landscape buffer. The parent tract is now zoned conservation and it's current and contemplated future use is conservation. Current access to the site is via Sawmill Road that is an improved road with gravel roadbed that stops approximately at the FP&L Transmission Line ROW. An access/utility easement is being worked on by County Assistant Attorney Ms. Mary Jolley and Brandon Bordeaux of the Parker/Poe Law Firm representing Crown Castle. The existing gravel road will be extended over to the proposed site, via the proposed access/utility easement, using an existing unimproved roadbed that will be improved with gravel and necessary substrate to make it usable on a 24/7 basis. AT&T Mobility is the anchor tenant on the tower.

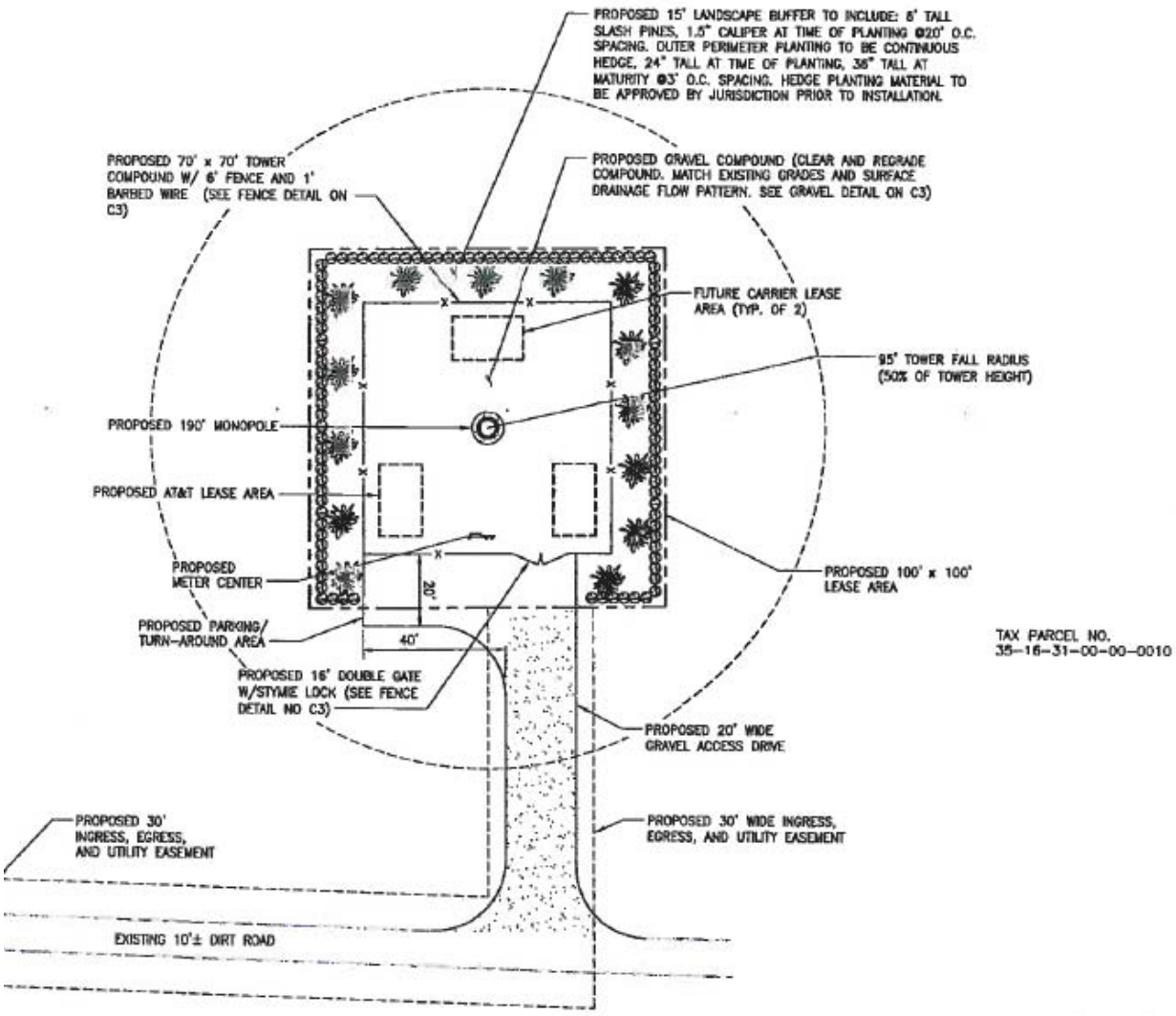
Electronic copies will be provided to you upon request and please see enclosed the following documents in hard copy:

(1) Pre Application Meeting Form
(2) Special Exception Application and application fee check in the amount of $766.00
(3) 1 Notarized authorization of Owner
(4) 5 sets of certified survey
(5) 1 set of legal descriptions in Microsoft word
(6) 3 copies of airport map –coordinates of tower is center-radius 4 miles-no airports are within 4 miles
(7) 3 copies of map and aerial showing nearest existing tower (9,262 feet south) and the nearest single family residence (4,041 feet to the south southwest)
(8) 3 copies of AT&T Mobility RF Package....need letter, propagation maps, search ring, engineers resume
(9) 5 copies signed/sealed site plan

Thank you for your consideration and assistance.

Terry M. Thomas

Terry Thomas
Site Development Manager
E.M. Enterprises General Contractors, Inc.
3615 E. Lake Ave.
Tampa, Fl 33610
Cell (727)254-7458
Fax (813)241-9001
terry.thomas@emegc.com



Special Exception Site Plan

March 23rd, 2014

City of Deland
Volusia County

Board Members,

I respectfully submit this letter as an explanation of our need for a new telecommunications site in Deland. As the system design engineer for AT&T Mobility responsible for this area I have performed a thorough analysis of this area of east Deland and the interaction of the sites within that area. My study included field visits and computer analysis with sophisticated RF modeling that takes into account the following variables: (A) The physical characteristics of the frequencies allotted by the FCC to AT&T; (B) The allowable power outputs of those frequencies; (C) The AT&T Mobility equipment specifications; (D) The location of existing AT&T Mobility and other facilities; (E) The topography and building density of the area; (F) The optimum coverage using the minimum use of new tower sites. There was no existing structure within the area to meet AT&T Mobility's coverage objective and AT&T is pursuing a raw land candidate. These factors were quantified and values extrapolated using RF modeling software to arrive at a design objective or search area. The site identified as AT&T Mobility's Tiger Bay site would be located approximately 1 mile south of Interstate 4 and 2 miles north of SR 44 to fit the capacity and coverage objective. The search area was based on the proposed site's location relative to the current surrounding sites and capacity enhancement needed within this area. After running numerous propagation modules, the minimum height of 180 feet was selected in order to provide adequate capabilities between the surrounding sites and sufficient capacity to meet the needs of the area.

The frequency plan for this site is also in accordance with FCC requirements and will not interfere with Public Safety bands assigned by the FCC. AT&T is licensed by the FCC to use the A and B bands in Volusia County. Specific frequencies are as follows:

- A band frequencies: RX - 824.2 MHz to 846.4 MHz and TX - 869.2 MHz to 891.4 MHz.
- B band frequencies: RX - 835 MHz to 849 MHz and TX - 880.0 MHz to 894 MHz.

Based on FCC licensing of spectrum there is sufficient frequency separation between the licensed AT&T spectrum and the licensed county and city Public Safety spectrum to ensure they will not be interferers with one another. In my professional opinion as a radio frequency design engineer there are no other facilities, in the proper location and at the required height, which will provide the coverage to meet our requirement of providing excellent service to your citizens in this area.

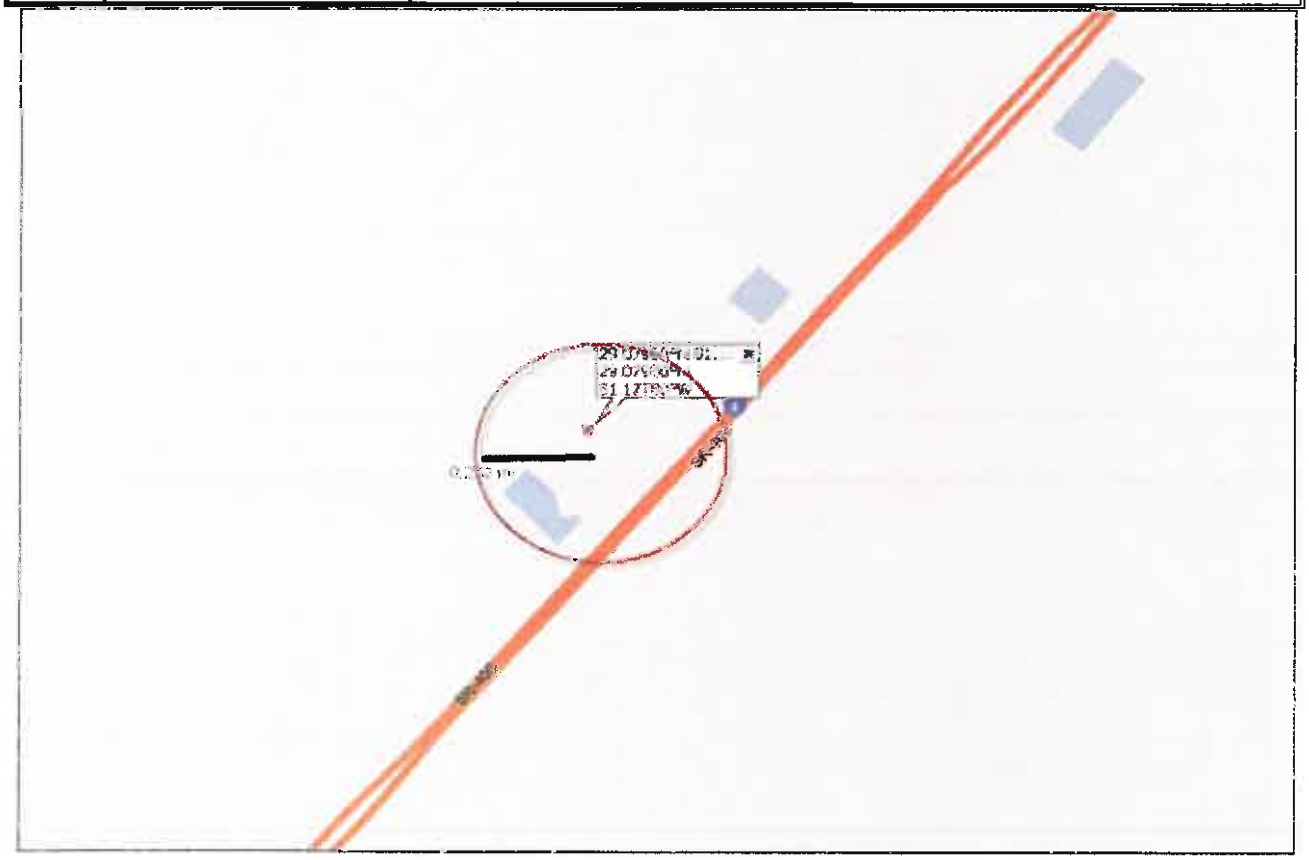
Sincerely,

Jim Graf
RF Design & Performance Engineer
AT&T Mobility

Rethink Possible

North Florida RAN Engineering
Search Area Request Form (SARF) and
Preliminary Design for Tower Loading

	Site Name		Tiger Bay	FA Code	10579313		
Cell Id	DATNFLU0269	RF Eng	Jim Graf	Latitude (DMS)	29	4	46.2
County	Volusia	Redirect	No	Longitude (DMS)	81	10	40.08
Market	Daytona	Cell Type	Coverage	Date Issued	2/7/2013		
Band	700; 850; 1700; 1900						



Rethink Possible	North Florida RAN Engineering Search Area Request Form (SARF) and Preliminary Design for Tower Loading						
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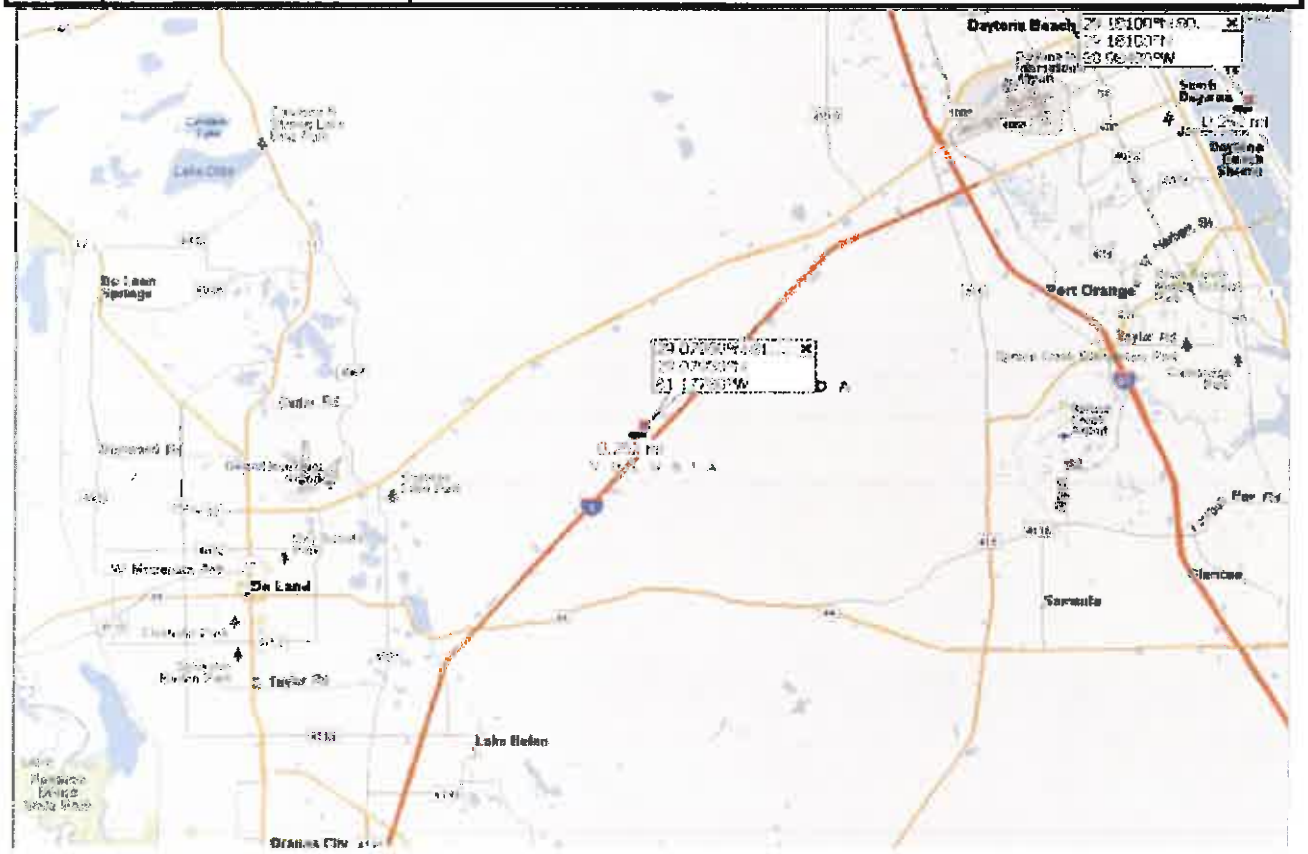
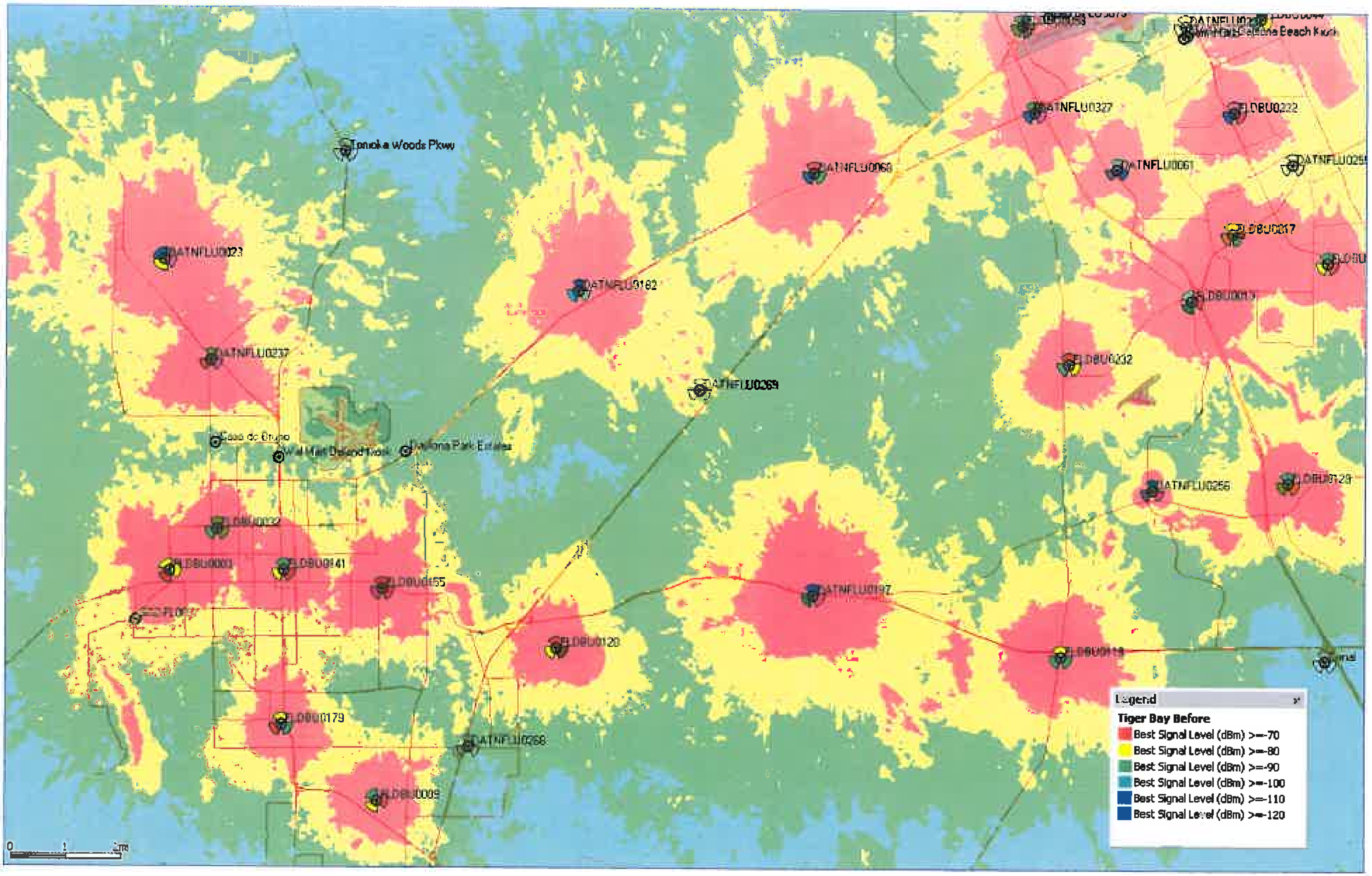
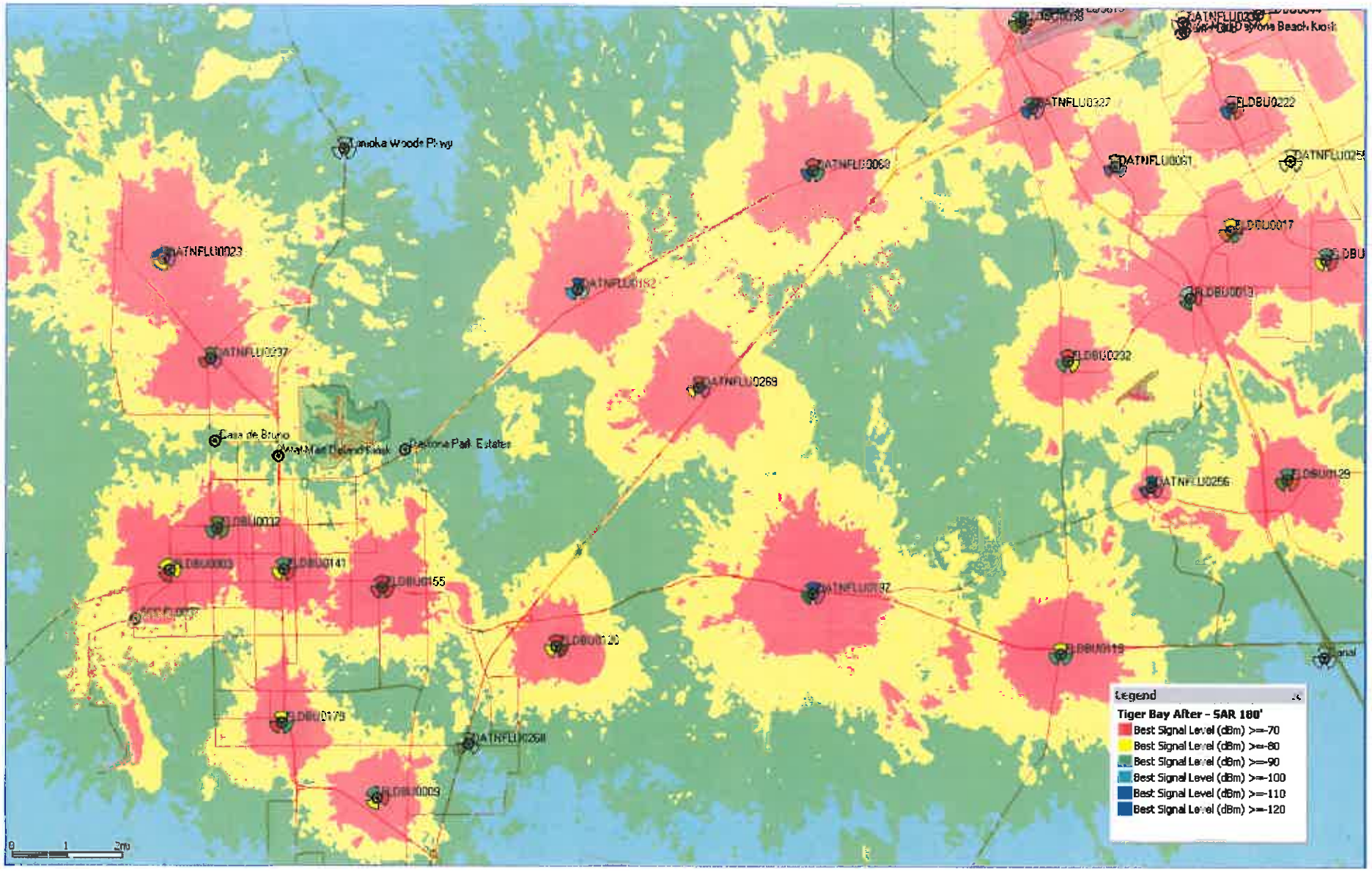


Before AT&T's Tiger Bay Site (DATNFLU0269)



AT&T's SAR for Tiger Bay Site (DATNFLU0269) @ 180'



3141 ATWATER DRIVE • ORLANDO, FL 32825-7116
PHONE 407.579.0688 • FAX 866.284.7349 • E-MAIL JIM.GRAF@ATT.COM

JAMES T. GRAF

OBJECTIVE

Seeking a challenging executive position that will enable me to fully utilize my vast technical, managerial and leadership experience in several professional and technical disciplines to exceed company objectives and goals.

HIGHLIGHTS

♦Over thirty years experience in electronic systems, marketing and sales project management including developing operational strategies and budget management.

♦Over eighteen years in the wireless industry including managing the North Florida handset repair centers, positions within the Network organization with Design and Performance as well as the Market RF Safety Coordinator.

♦Exceptional leadership, management, and organizational skills.

♦Enthusiastic mission oriented team player.

WORK EXPERIENCE

August 2005 – Present AT&T Lake Mary, Florida

Professional – RAN Engineer

Assigned to RF Design and Performance teams for the North Florida Region since July 2005. Presently UMTS Bronze and Silver Certified and LTE Bronze Certified.

-Represent RF Design at all Deployment meetings and improved the working relationship with all departments, both within AT&T and with our vendors.

-Submitted all approved Search Areas, Preliminary RF Design Sheets, Notices to Proceed, and Final RF Design Sheets ahead of schedule.

-In addition to normal network monitoring, troubleshooting and fault correction, RF Performance collateral responsibilities have included Trouble Ticket tracking and PCU Balancing. We were routinely green on metrics while tracking trouble tickets and have consistently been green on all PCU reports.

-Assigned as NFL Market-RF Safety Coordinator responsible for RF Exposure Surveys for all rooftop/water tower sites, FCC RF Exposure compliance and reporting, and personnel RF Safety Training.

January 2005 – July 2005

Retail Store Manager – Daytona and Altamonte Springs

Managed two retail stores while in a surplus status after the service departments were out-sourced. Responsible for the day-to-day operation of two retail stores to include hiring, training, scheduling and, when necessary, the firing of personnel; inventory and cash receipt accountability; and adherence to the COR store policies. Specific accomplishments include:

-Brought the Daytona location from middle of the pack performance to the most profitable retail store in NFL in less than three months.

-Improved individual performance of assigned personnel across the board. Attainment increased more than 15% for most employees.

-Identified and corrected an ongoing shrinkage problem at the Altamonte Store. A policy change to improve the checks-and-balances of BRE assets saved the store an estimated $5000.00 per month.

1998 - 2004 Cingular Wireless Orlando, Florida

North Florida Service Director

Manage the total operation of twenty-seven Installation/Repair Centers in North Florida including budgets, manpower and schedules in order to meet customer commitments and company objectives. Provide technical training and oversee the service programs in support of forty-five retail locations and the Direct and Indirect Sales Teams in North Florida's Cellular and PCS markets.

-Analyze problems and implement positive solutions/programs to address customer handset troubles, increase customer satisfaction and reduce churn to fully support the company's operational and fiscal commitments.

-Implemented programs and policies to better support Sales Team by cross-training technical staff on company's Expectations and sales courses. The shop team consistently achieved 100% completion of mandatory sales courses ahead of required deadlines while maintaining excellent service levels.

-Reduced overtime expense from in excess of 20% to below 2% in all locations without negatively impacting customer satisfaction or productivity.

-Interview, hire, train and evaluate the performance of subordinate managers and technicians. The North Florida shops were routinely used by vendors to beta test services and products prior to their release to all Authorized Service Centers nationally.

1995 - 1998 BELLSOUTH Mobility Jacksonville, Florida

Installation Shop Manager II

Responsible for the day-to-day operation of the four Installation/Repair Centers in the Jacksonville market including budgets, manpower and scheduling of personnel.

-Worked closely with all sales channels to implement programs using the available technical staff to create traffic for stores and assist at B2B tabletops and shows.

-Significantly reduced operating expenses by increasing individual productivity and eliminating temporary personnel. These two steps resulted in over a $100,000.00 decrease to the expense budget the first year of implementation.

1975 - 1995 United States Navy Various

Chief Electronics Technician (Submarines/Surface Warfare)

Twenty-year career that included assignments onboard five nuclear attack submarines, one auxiliary support ship, and three major training commands. Examples of some specific assignments included:

-Division Officer and Operations Supervisor, Naval Nuclear Power Training Command, Orlando, FL. Manager for the total operation of twenty-four buildings housing over three thousand students including billeting, preventive and corrective maintenance, and operations. Saved over $400,000.00 by reutilizing available assets for a renovation project carried out locally.

-Electronic Repair Assistant Division Officer, USS Fulton (AS-11), Groton, CT. Managed the repair of Electronic Navigation, Surveillance, Communication and Sonar equipment onboard the seven nuclear submarines supported by Fulton. Developed a "water borne" sonar transducer replacement procedure that now saves $250,000.00 in dry docking fees each time utilized.

EDUCATION AND REFERENCES AVAILABLE ON REQUEST

Michael F. Plahovinsak, P.E.

March 28, 2014

Crown Castle

Re: Proposed 190-ft Monopole
Located in Volusia Co., FL: Site #818092 – Tiger Bay
MFP #23514-193 r1 / TAPP TP-12296

I understand that there may be some concern on the part of local building officials regarding the potential for failure of the proposed communication monopole. Communication structures are designed in accordance with the Telecommunications Industry Association ANSI/TIA-222-G, "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures".

I have designed this monopole to withstand a basic wind speed of 105 mph as recommended by ANSI/TIA-222-G for Volusia County. The design also conforms to the requirements of the 2010 Florida Building Code for an equivalent 136 mph V_{ult} wind speed.

This monopole has been intentionally designed to accommodate a theoretical fall radius. The upper 95' of the pole has been designed to meet the wind loads of the design, however, the lower portion of the pole has been designed with a minimum 10% extra capacity. Assuming the pole has been fabricated according to our design and well maintained, in the event of a failure due to extreme wind and a comparable appurtenance antenna loads (winds in excess of the design wind load), it would yield at the 95' elevation, resulting in a maximum 95' fall radius.

The structure has been designed with all of the applicable factors as required by the code. Communication poles are safe structures with a long history of reliable operation.

I hope this review of the monopole design has given you a greater degree of comfort regarding the design capacity inherent in pole structures. If you have any additional questions please call me at 614-398-6250 or email *mike@mfpeng.com*.

Sincerely,

Michael F. Plahovinsak, P.E.
Professional Engineer

18301 State Route 161 - Plain City, OH 43064
(614) 398-6250 - mike@mfpeng.com

TransAmerican
Power Products, Inc.
2427 Kelly Lane
Houston, Texas 77066
PH: 281-444-8277 / FX: 281-444-7270

Page 1 of 1		Job Number:	23514-0193
Eng: MFP		Customer Ref:	TP-12296
		Date:	3/26/2014
Structure:	190-FT MONOPOLE		
Site:	818092 TIGER BAY		
Location:	VOLUSIA CO., FL / 29°3'55", -81°10'30"		
Owner:	CROWN CASTLE		
Revision No.: 1	Revision Date: 3/28/2014		

DESIGN

Building Code: 2010 FLORIDA BUILDING CODE			
Design Standard: ANSI/TIA-222-G-2			
Wind Speed Load Cases: 3-SEC. GUSTED WIND SPEED			
Load Case #1: 105 MPH Design Wind Speed			
Load Case #2: 60 MPH Service Wind Speed			
POLE DESIGNED FOR AN EQUIVALENT (V_{ult}) 136 MPH ULTIMATE WIND SPEED			
Structure Class	Exposure Cat.	Topography Cat.	Crest Height
II	C	1	

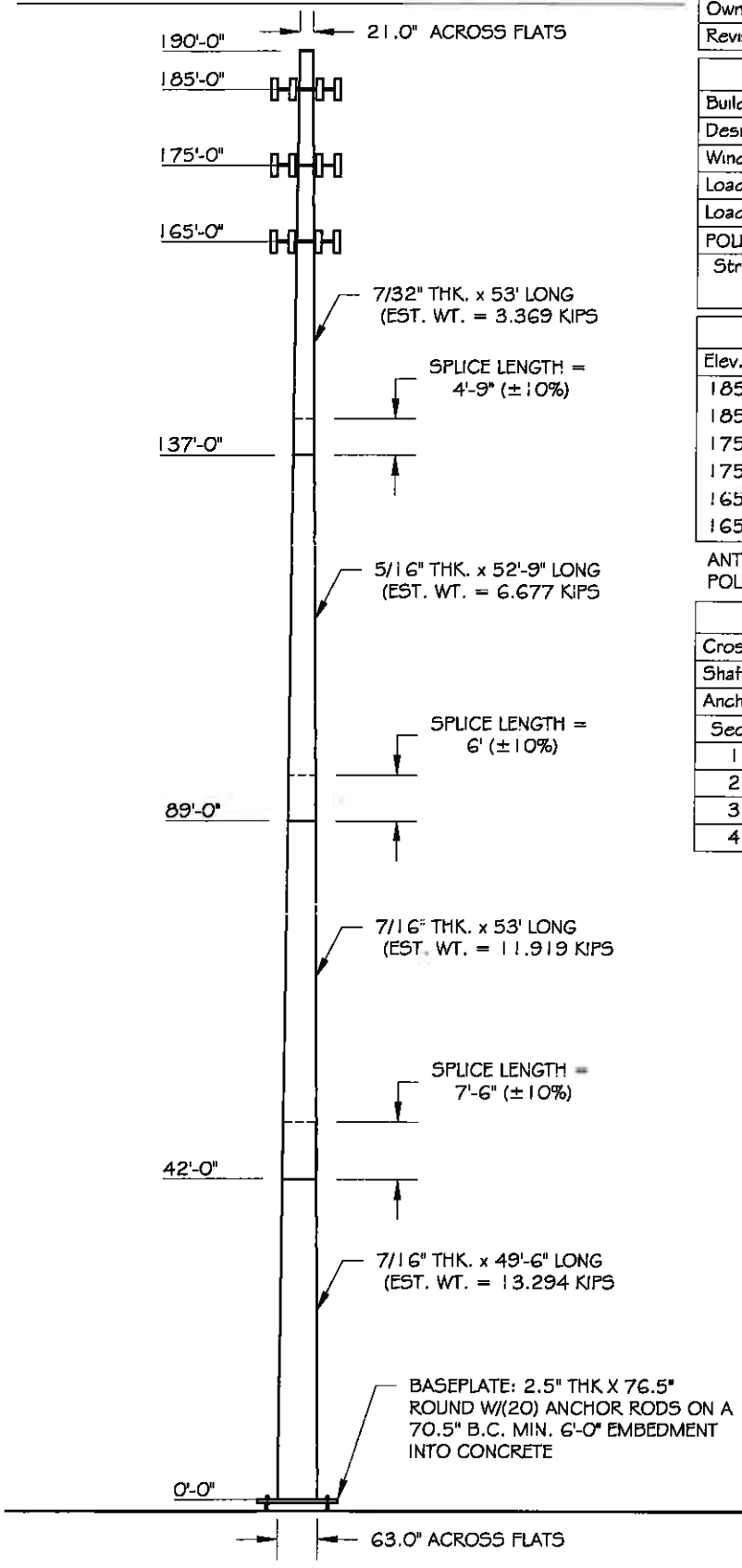
EQUIPMENT LIST

Elev.	Description
185	(12) ALLGON 7272.01 + (6) TMA'S
185	15-FT SECTOR FRAME
175	(12) ALLGON 7272.01 + (6) TMA'S
175	15-FT SECTOR FRAME
165	(12) ALLGON 7272.01 + (6) TMA'S
165	15-FT SECTOR FRAME

ANTENNA FEED LINES ROUTED ON THE INSIDE OF THE POLE
POLE DESIGNED FOR A MAX 95' FALL RADIUS.

STRUCTURE PROPERTIES

Cross-Section: 18-SIDED			Taper: 0.23125 in/ft		
Shaft Steel: ASTM A572 GR 65			Baseplate Steel: ASTM A572 GR 50		
Anchor Rods: 2.25 in. A615 GR. 75 X 7'-0" LONG					
Sect.	Length (ft)	Thickness (in)	Splice (ft)	Top Dia. (in)	Bot Dia. (in)
1	53.00	0.2188	4.75	21.00	33.26
2	52.75	0.3125	6.00	31.72	43.92
3	53.00	0.4375	7.50	41.91	54.16
4	49.50	0.4375	0.00	51.55	63.00



3.28.2014

MICHAEL F. PLAHOVINSAK, P.E. - FLORIDA LICENSE #66723
18301 SR 161, PLAIN CITY, OH 43064 / 614.398.6250

BASE REACTIONS FOR FOUNDATION DESIGN

Moment:	7250 ft-kip
Shear:	53 kip
Axial:	61 kip

tnxTower	**Job** 190-ft Monopole - MFP #23514-193 r1	**Page** 1 of 5
Michael F. Plahovinsak, P.E. 18301 State Route 161 W Plain City, OH 43064 Phone: 614-398-6250 FAX: mike@mfpeng.com	**Project** 818092 Tiger Bay	**Date** 12:09:46 03/28/14
	Client TAPP (TP-12296)	**Designed by** Mike

Tower Input Data

This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Tower is located in Volusia County, Florida.
Basic wind speed of 105 mph.
Structure Class II.
Exposure Category C.
Topographic Category 1.
Crest Height 0.00 ft.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	190.00-137.00	53.00	4.75	18	21.0000	33.2600	0.2188	0.8750	A572-65 (65 ksi)
L2	137.00-89.00	52.75	6.00	18	31.7237	43.9200	0.3125	1.2500	A572-65 (65 ksi)
L3	89.00-42.00	53.00	7.50	18	41.9077	54.1600	0.4375	1.7500	A572-65 (65 ksi)
L4	42.00-0.00	49.50		18	51.5512	63.0000	0.4375	1.7500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	21.3240	14.4287	787.2405	7.3773	10.6680	73.7946	1575.5169	7.2157	3.3110	15.136
	33.7731	22.9410	3164.1848	11.7296	16.8961	187.2733	6332.5331	11.4727	5.4688	25
L2	33.3283	31.1560	3883.7302	11.1510	16.1157	240.9912	7772.5708	15.5810	5.0334	16.107
	44.5975	43.2532	10391.4933	15.4807	22.3114	465.7490	20796.6600	21.6307	7.1799	22.976
L3	43.9627	57.5866	12512.1593	14.7219	21.2891	587.7251	25040.7824	28.7988	6.6058	15.099
	54.9955	74.6004	27201.3885	19.0715	27.5133	988.6640	54438.5693	37.3073	8.7622	20.028
L4	54.1079	70.9777	23427.9417	18.1454	26.1880	894.6058	46886.7104	35.4956	8.3030	18.978
	63.9719	86.8759	42960.0437	22.2097	32.0040	1342.3336	85976.6153	43.4462	10.3180	23.584

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
1 5/8"	C	No	Inside Pole	185.00 - 0.00	18	No Ice	0.00	0.92
1 5/8"	C	No	Inside Pole	175.00 - 0.00	18	No Ice	0.00	0.92
1 5/8"	C	No	Inside Pole	165.00 - 0.00	18	No Ice	0.00	0.92

tnxTower	Job: 190-ft Monopole - MFP #23514-193 r1	Page: 2 of 5
Michael F. Plahovinsak, P.E. 18301 State Route 161 W Plain City, OH 43064 Phone: 614-398-6250 FAX: mike@mfpeng.com	Project: 818092 Tiger Bay	Date: 12:09:46 03/28/14
	Client: TAPP (TP-12296)	Designed by: Mike

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
(4) Allgon 7273.01 w/Mount Pipe	A	From Face	3.00 0.00 0.00	0.0000	185.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	A	From Face	3.00 0.00 0.00	0.0000	185.00	No Ice	3.40	3.40	0.03
(4) Allgon 7273.01 w/Mount Pipe	B	From Face	3.00 0.00 0.00	0.0000	185.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	B	From Face	3.00 0.00 0.00	0.0000	185.00	No Ice	3.40	3.40	0.03
(4) Allgon 7273.01 w/Mount Pipe	C	From Face	3.00 0.00 0.00	0.0000	185.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	C	From Face	3.00 0.00 0.00	0.0000	185.00	No Ice	3.40	3.40	0.03
Crown 15' Sector Frame (EPA 20.5 ft2) **	C	None		0.0000	185.00	No Ice	20.50	20.50	1.00
(4) Allgon 7273.01 w/Mount Pipe	A	From Face	3.00 0.00 0.00	0.0000	175.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	A	From Face	3.00 0.00 0.00	0.0000	175.00	No Ice	3.40	3.40	0.03
(4) Allgon 7273.01 w/Mount Pipe	B	From Face	3.00 0.00 0.00	0.0000	175.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	B	From Face	3.00 0.00 0.00	0.0000	175.00	No Ice	3.40	3.40	0.03
(4) Allgon 7273.01 w/Mount Pipe	C	From Face	3.00 0.00 0.00	0.0000	175.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	C	From Face	3.00 0.00 0.00	0.0000	175.00	No Ice	3.40	3.40	0.03
Crown 15' Sector Frame (EPA 20.5 ft2) **	C	None		0.0000	175.00	No Ice	20.50	20.50	1.00
(4) Allgon 7273.01 w/Mount Pipe	A	From Face	3.00 0.00 0.00	0.0000	165.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	A	From Face	3.00 0.00 0.00	0.0000	165.00	No Ice	3.40	3.40	0.03
(4) Allgon 7273.01 w/Mount Pipe	B	From Face	3.00 0.00 0.00	0.0000	165.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	B	From Face	3.00 0.00 0.00	0.0000	165.00	No Ice	3.40	3.40	0.03

tnxTower	Job: 190-ft Monopole - MFP #23514-193 r1	Page: 3 of 5
Michael F. Plahovinsak, P.E. 18301 State Route 161 W Plain City, OH 43064 Phone: 614-398-6250 FAX: mike@mfpeng.com	Project: 818092 Tiger Bay	Date: 12:09:46 03/28/14
	Client: TAPP (TP-12296)	Designed by: Mike

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
(4) Allgon 7273.01 w/Mount Pipe	C	From Face	3.00 0.00 0.00	0.0000	165.00	No Ice	10.86	5.41	0.08
(2) TMA (EPA 3.4 ft2)	C	From Face	3.00 0.00 0.00	0.0000	165.00	No Ice	3.40	3.40	0.03
Crown 15' Sector Frame (EPA 20.5 ft2)	C	None		0.0000	165.00	No Ice	20.50	20.50	1.00

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 90 deg - No Ice
5	0.9 Dead+1.6 Wind 90 deg - No Ice
6	1.2 Dead+1.6 Wind 180 deg - No Ice
7	0.9 Dead+1.6 Wind 180 deg - No Ice
8	Dead+Wind 0 deg - Service
9	Dead+Wind 90 deg - Service
10	Dead+Wind 180 deg - Service

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
L1	190 - 137	Pole	Max Tension	6	0.00	0.00	0.00
			Max. Compression	1	-11.14	0.00	0.00
			Max. Mx	4	-9.49	-926.47	0.00
			Max. My	6	-9.49	0.00	-926.47
			Max. Vy	4	29.37	-926.47	0.00
			Max. Vx	6	29.37	0.00	-926.47
L2	137 - 89	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	2	-20.81	0.00	2440.85
			Max. Mx	4	-20.81	-2440.85	0.00
			Max. My	6	-20.81	0.00	-2440.85
			Max. Vy	4	35.43	-2440.85	0.00
			Max. Vx	6	35.43	0.00	-2440.85
L3	89 - 42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-37.75	-4198.58	0.00
			Max. Mx	4	-37.75	-4198.58	0.00
			Max. My	6	-37.75	0.00	-4198.58
			Max. Vy	4	41.72	-4198.58	0.00
			Max. Vx	6	41.72	0.00	-4198.58
L4	42 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	6	-60.41	0.00	-6411.91
			Max. Mx	4	-60.41	-6411.91	0.00
			Max. My	2	-60.41	0.00	6411.91
			Max. Vy	4	47.27	-6411.91	0.00
			Max. Vx	2	-47.27	0.00	6411.91

tnxTower	Job: 190-ft Monopole - MFP #23514-193 r1	Page: 4 of 5
Michael F. Plahovinsak, P.E. 18301 State Route 161 W Plain City, OH 43064 Phone: 614-398-6250 FAX: mike@mfpeng.com	Project: 818092 Tiger Bay	Date: 12:09:46 03/28/14
	Client: TAPP (TP-12296)	Designed by: Mike

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	190 - 137	35.472	8	1.7956	0.0000
L2	141.75 - 89	18.566	8	1.3924	0.0000
L3	95 - 42	7.738	8	0.7901	0.0000
L4	49.5 - 0	2.082	8	0.3844	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
185.00	(4) Allgon 7273.01 w/Mount Pipe	8	33.592	1.7612	0.0000	36015
175.00	(4) Allgon 7273.01 w/Mount Pipe	8	29.865	1.6906	0.0000	12004
165.00	(4) Allgon 7273.01 w/Mount Pipe	8	26.239	1.6142	0.0000	7202

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	190 - 137	194.309	2	9.8522	0.0000
L2	141.75 - 89	101.910	2	7.6471	0.0000
L3	95 - 42	42.533	2	4.3438	0.0000
L4	49.5 - 0	11.448	2	2.1141	0.0000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
185.00	(4) Allgon 7273.01 w/Mount Pipe	2	184.040	9.6646	0.0000	6928
175.00	(4) Allgon 7273.01 w/Mount Pipe	2	163.682	9.2786	0.0000	2306
165.00	(4) Allgon 7273.01 w/Mount Pipe	2	143.867	8.8608	0.0000	1379

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	190 - 137 (1)	TP33.26x21x0.2188	53.00	0.00	0.0	22.1781	-9.49	1457.82	0.007
L2	137 - 89 (2)	TP43.92x31.7237x0.3125	52.75	0.00	0.0	41.8772	-20.81	2837.87	0.007
L3	89 - 42 (3)	TP54.16x41.9077x0.4375	53.00	0.00	0.0	72.1928	-37.75	5111.12	0.007
L4	42 - 0 (4)	TP63x51.5512x0.4375	49.50	0.00	0.0	86.8759	-60.41	5759.48	0.010

tnxTower	Job: 190-ft Monopole - MFP #23514-193 r1	Page: 5 of 5
Michael F. Plahovinsak, P.E. 18301 State Route 161 W Plain City, OH 43064 Phone: 614-398-6250 FAX: mike@mfpeng.com	Project: 818092 Tiger Bay	Date: 12:09:46 03/28/14
	Client: TAPP (TP-12296)	Designed by: Mike

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	190 - 137 (1)	TP33.26x21x0.2188	926.47	958.52	0.967	0.00	958.52	0.000
L2	137 - 89 (2)	TP43.92x31.7237x0.3125	2440.85	2464.93	0.990	0.00	2464.93	0.000
L3	89 - 42 (3)	TP54.16x41.9077x0.4375	4198.58	5461.07	0.769	0.00	5461.07	0.000
L4	42 - 0 (4)	TP63x51.5512x0.4375	6411.91	7415.90	0.865	0.00	7415.90	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	190 - 137 (1)	TP33.26x21x0.2188	29.37	720.95	0.041	0.00	1919.38	0.000
L2	137 - 89 (2)	TP43.92x31.7237x0.3125	35.43	1407.45	0.025	0.00	4935.88	0.000
L3	89 - 42 (3)	TP54.16x41.9077x0.4375	41.72	2538.35	0.016	0.00	10935.50	0.000
L4	42 - 0 (4)	TP63x51.5512x0.4375	47.27	2865.59	0.016	0.00	14849.92	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	190 - 137 (1)	0.007	0.967	0.000	0.041	0.000	0.975	1.000	4.8.2
L2	137 - 89 (2)	0.007	0.990	0.000	0.025	0.000	0.998	1.000	4.8.2
L3	89 - 42 (3)	0.007	0.769	0.000	0.016	0.000	0.776	1.000	4.8.2
L4	42 - 0 (4)	0.010	0.865	0.000	0.016	0.000	0.875	1.000	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	190 - 137	Pole	TP33.26x21x0.2188	1	-9.49	1457.82	97.5	Pass
L2	137 - 89	Pole	TP43.92x31.7237x0.3125	2	-20.81	2837.87	99.8	Pass
L3	89 - 42	Pole	TP54.16x41.9077x0.4375	3	-37.75	5111.12	77.6	Pass
L4	42 - 0	Pole	TP63x51.5512x0.4375	4	-60.41	5759.48	87.5	Pass
						Summary		
						Pole (L2)	99.8	Pass
						RATING =	**99.8**	**Pass**

Michael F. Plahovinsak, P.E.
18301 State Route 161 W
Plain City, OH 43064
Phone: 614-398-6250
email: mike@mfpeng.com

Job	Page
190-ft monopole - MFP #23514-0193	BP-G
Project	**Date**
818092 Tiger Bay	3/28/2014
Client	**Designed by**
TAPP TP-12296	Mike

Anchor Rod and Base Plate Calculation

ANSI/TIA-222-G-2

Factored Base Reactions:		*Pole Shape:*	*Anchor Rods:*	*Base Plate:*
Moment:	6412 ft-kips	18-Sided	(20) 2.25 in. A615 GR. 75	2.5 in. x 76.5 in. Round
Shear:	47 kips	*Pole Dia. (D_f):*	Anchor Rods Evenly Spaced	fy = 50 ksi
Axial:	60 kips	63.00 in	On a 70.5 in Bolt Circle	

Anchor Rod Calculation According to TIA-222-G section 4.9.9

ϕ = 0.80 TIA 4.9.9
I_{bolts} = 12425.63 in^2 Momet of Inertia
P_u = 218 kips Tension Force
V_u = 2 kips Shear Force
R_{nt} = 325.00 kips Nominal Tensile Strength
η = 0.50 for detail type (d)

The following Interation Equation Shall Be Satisfied:

$$\left(\frac{P_u + \frac{V_u}{\eta}}{\phi R_{nt}} \right) \leq 1.0$$

$$0.858 \leq 1$$

Base Plate Calculation According to TIA-222-G

ϕ = 0.90 TIA 4.7
M_{PL} = 580.9 in-kip Plate Moment
L = 9.9 in Section Length
Z = 15.5 Plastic Section Modulus
M_P = 773.1 in-kip Plastic Moment
ϕM_n = 695.8 in-kip Factored Resistance

Calculated Moment vs Factored Resistance

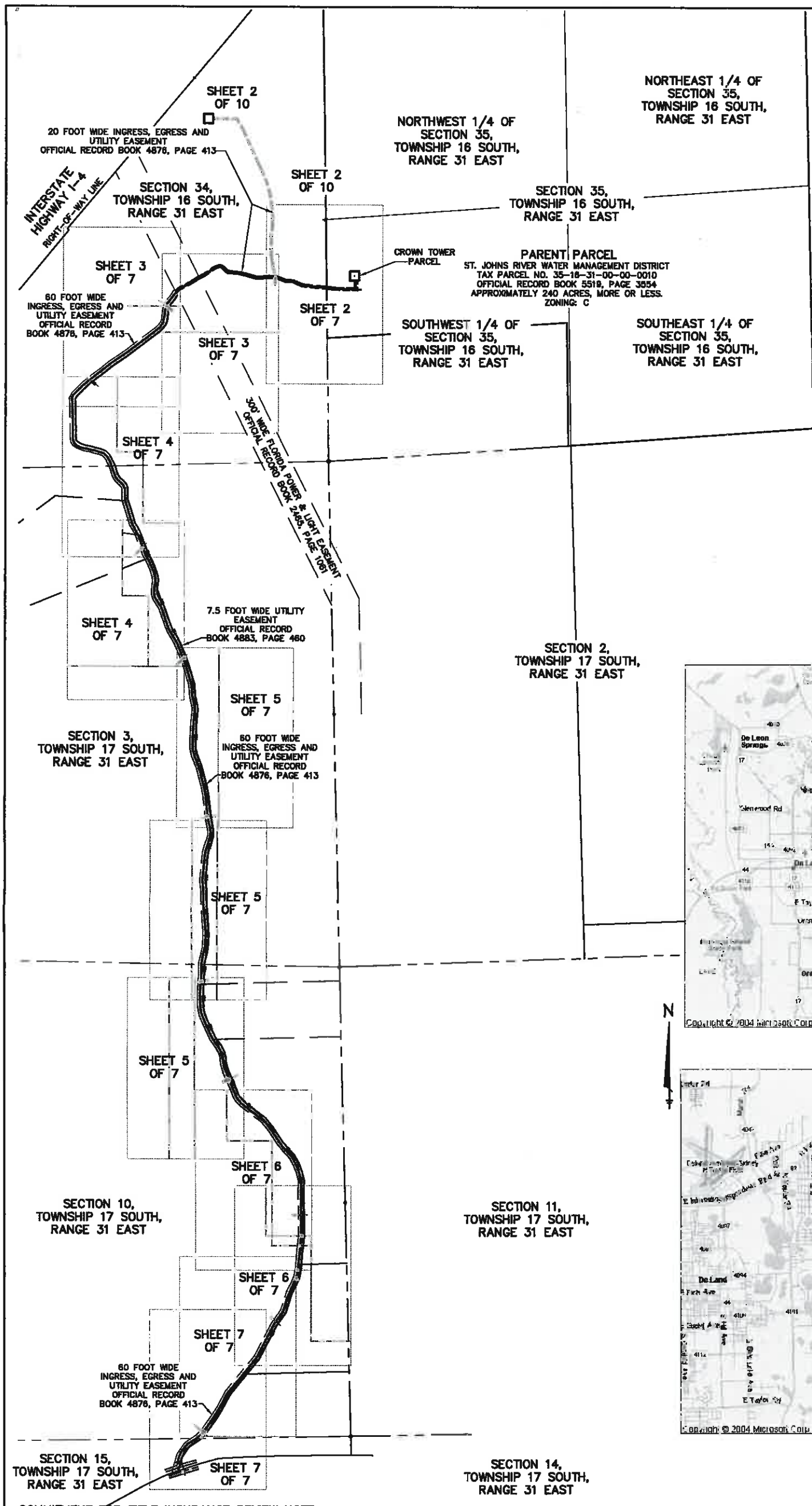
580.86 in-kip $\leq$ 696 in-kip

Anchor Rods Are Adequate	**85.8%**
Base Plate is Adequate	**83.5%**

BOUNDARY AND TOPOGRAPHIC SURVEY

IN SECTIONS 34, AND 35 TOWNSHIP 16 SOUTH, RANGE 31 EAST, AND SECTIONS 3, 10 AND 15 TOWNSHIP 17 SOUTH, RANGE 31 EAST VOLUSIA COUNTY, FLORIDA

FOR: E. M. ENTERPRISES GENERAL CONTRACTORS, INC.



SURVEYOR'S NOTES

1. BEARINGS HEREON ARE REFERENCED TO GRID NORTH AS ESTABLISHED BY THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, NAD'83 ADJUSTMENT AS REFERENCED BY THE BEARING OF SOUTH 00°48'10" EAST ALONG THE WEST LINE OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 16 SOUTH, RANGE 31 EAST, ALSO BEING THE WEST LINE OF THE PARENT PARCEL.

2. UNDERGROUND UTILITIES SHOWN HEREON ARE LIMITED TO AND ARE PER OBSERVED, ABOVEGROUND INDICATIONS SET BY OTHERS. NO SUB-SURFACE INVESTIGATION WAS PERFORMED BY THIS OFFICE.

3. THE BOUNDARY & TOPOGRAPHIC SURVEY SHOWN HEREON IS BASED ON ACTUAL FIELD MEASUREMENTS AND OBSERVATIONS DATED FEBRUARY 2, 2014.

4. REPRODUCTIONS OF THIS SKETCH ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND THE RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

5. THE PURPOSE OF THIS SURVEY IS TO ESTABLISH AND DESCRIBE A TOWER PARCEL AND ASSOCIATED EASEMENTS. THIS IS NOT A BOUNDARY SURVEY OF THE PARENT PARCEL.

6. LATITUDE AND LONGITUDE VALUES DEPICTED HEREON ARE BASED UPON GPS OBSERVATIONS MADE WITH AN ASHTECH LOCUS RECEIVER THAT WERE POST PROCESSED WITH CORS DATA FILES AND ARE REFERENCED TO THE NAD83 DATUM.

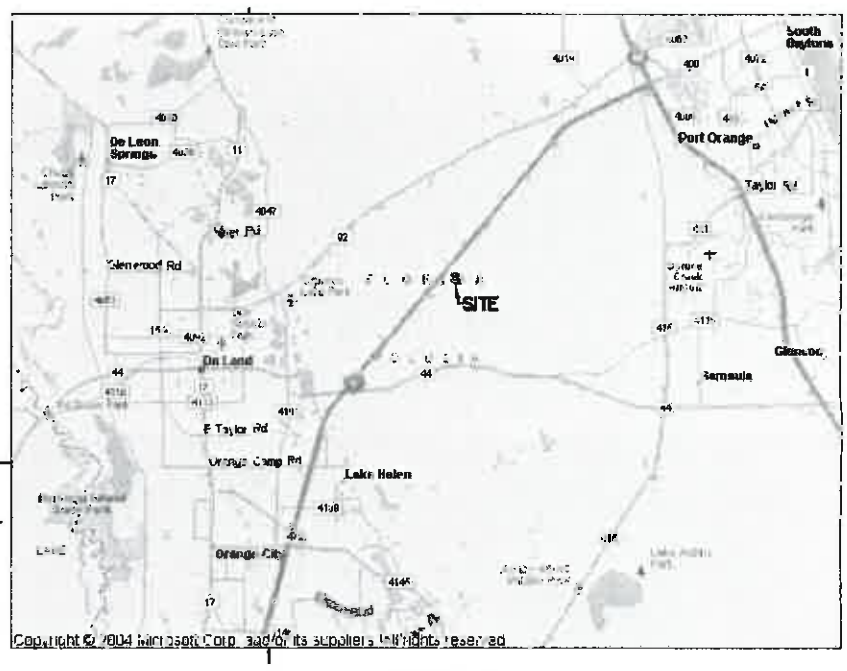
7. ELEVATIONS DEPICTED HEREON ARE BASED UPON GPS OBSERVATIONS MADE WITH AN ASHTECH LOCUS RECEIVER THAT WERE POST PROCESSED WITH CORS DATA FILES AND ARE REFERENCED TO THE NAVD88 DATUM.

8. THIS SURVEY WAS PREPARED WITH THE BENEFIT OF A COMMITMENT FOR TITLE INSURANCE. THIS OFFICE HAS NOT PERFORMED AN INDEPENDENT SEARCH OF THE PUBLIC RECORDS FOR EXISTING EASEMENTS, RIGHTS-OF-WAY, ABANDONMENTS, ZONING, SETBACKS OR DEED RESTRICTIONS.

FLOOD NOTE

ACCORDING TO MY INTERPRETATION OF COMMUNITY PANEL NUMBER 125155 0500 G OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) FOR VOLUSIA COUNTY, FLORIDA, DATED 2/19/2014, THE SUBJECT PROPERTY IS IN FLOOD ZONE "X", "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD, AND FLOOD ZONE "A", "SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, NO BASE FLOOD ELEVATIONS DETERMINED".

VICINITY DETAIL MAP
NOT TO SCALE



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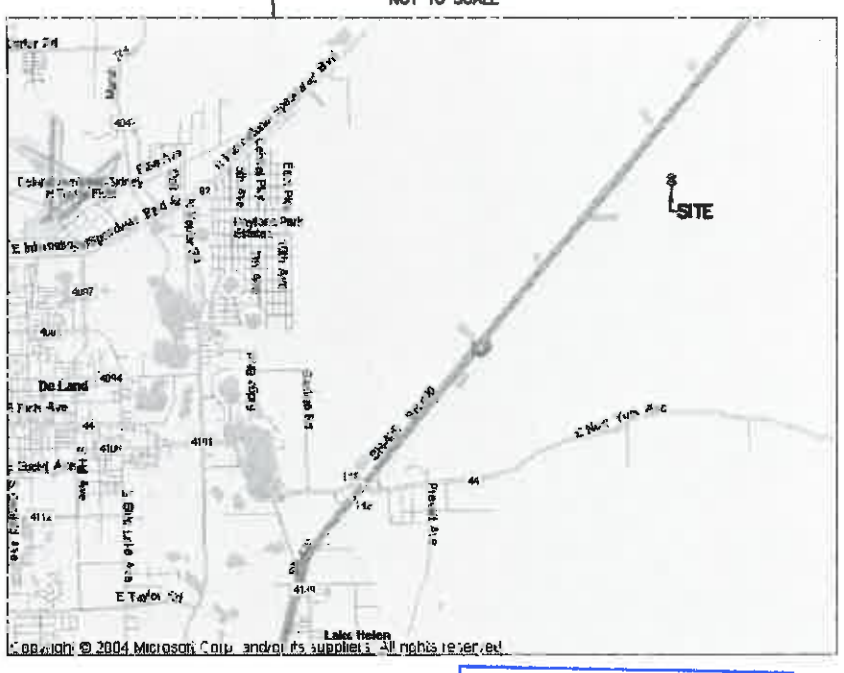
LOCATION MAP
NOT TO SCALE



CURRENT PLANNING ACTIVITY
MAR 28 2014
RECEIVED

COMMITMENT FOR TITLE INSURANCE REVIEW NOTE

I HAVE REVIEWED THE COMMITMENT FOR TITLE INSURANCE UNDERWRITTEN BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, COMMITMENT NO. 01-13120334-01T, WITH AN EFFECTIVE DATE OF 09/14/2013 AT 7:00 AM, AND FIND AS FOLLOWS WITH RESPECT TO THE FOLLOWING ITEMS LISTED ON SCHEDULE B - SECTION II OF SAID COMMITMENT:

(1) FACTS WHICH WOULD BE DISCLOSED BY A COMPREHENSIVE SURVEY OF THE PREMISES HEREIN DESCRIBED. AS DEPICTED HEREON.

(2) RIGHTS OR CLAIMS OF PARTIES IN POSSESSION. NOT THE TYPE TO BE DEPICTED HEREON.

(3) MECHANICS', CONTRACTORS' OR MATERIAL MEN'S LIENS AND LIEN CLAIMS, IF ANY, WHERE NO NOTICE THEREOF APPEARS OF RECORD. NOT THE TYPE TO BE DEPICTED HEREON.

(4) ANY CHANGES IN TITLE OCCURRING SUBSEQUENT TO THE EFFECTIVE DATE OF THIS COMMITMENT AND PRIOR TO THE DATE OF ISSUANCE OF THE TITLE POLICY. NOT THE TYPE TO BE DEPICTED HEREON.

(5) TAXES AND SPECIAL ASSESSMENTS FOR CURRENT TAX YEAR DUE AND ALL SUBSEQUENT YEARS. NOT THE TYPE TO BE DEPICTED HEREON.

(6) SUBJECT TO COVENANTS, RESTRICTIONS, RESERVATIONS, EASEMENTS, RIGHTS OF WAY AND BUILDING SETBACKS AS SHOWN ON THE PLAT OF THE CITY OF REMADOS, AS RECORDED IN PLAT BOOK 10, PAGE(S) 109 OF VOLUSIA COUNTY RECORDS. DOES NOT INCLUDE THE PARENT PARCEL. NOT DEPICTED HEREON.

(7) SUBJECT TO COVENANTS, RESTRICTIONS, RESERVATIONS, EASEMENTS, RIGHTS OF WAY AND BUILDING SETBACKS AS SHOWN ON THE PLAT OF THE CITY OF REMADOS, UNIT NO. 3, AS RECORDED IN PLAT BOOK 10, PAGE(S) 218 OF VOLUSIA COUNTY RECORDS. DOES NOT INCLUDE THE PARENT PARCEL. NOT DEPICTED HEREON.

(8) MEMORANDUM OF LEASE BY AND BETWEEN GEORGIA-PACIFIC CORPORATION, LESSOR(S) AND MCCAW COMMUNICATIONS OF DAYTONA BEACH, INC., LESSEE(S), RECORDED 11/18/1994 AS BOOK 3964, PAGE 4615 OF THE VOLUSIA COUNTY RECORDS. DOES NOT AFFECT THE PARENT PARCEL. NOT DEPICTED HEREON.

NOTE: ASSIGNMENT AND ASSUMPTION AGREEMENT, BY AND BETWEEN PLUM CREEK TIMBERLANDS, L.P., ASSIGNOR, AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, ASSIGNEE, RECORDED 07/30/2002, AS BOOK 4903, PAGE 3736 OF VOLUSIA COUNTY RECORDS. DOES NOT AFFECT THE PARENT PARCEL. NOT DEPICTED HEREON.

NOTE: ASSIGNMENT AND ASSUMPTION OF GROUND LEASE, BY AND BETWEEN AT&T MOBILITY TOWER HOLDINGS II, LLC, ASSIGNOR, AND GTP TOWERS VII, LLC, ASSIGNEE, RECORDED 03/24/2009, AS BOOK 6335, PAGE 2120 OF VOLUSIA COUNTY RECORDS. DOES NOT AFFECT THE PARENT PARCEL. NOT DEPICTED HEREON.

(9) A MORTGAGE TO SECURE AN INDEBTEDNESS OF THE AMOUNT STATED AND ANY OTHER AMOUNTS PAYABLE UNDER THE TERMS THEREOF:
AMOUNT: $135,000,000.00
MORTGAGOR: GTP TOWERS VII, LLC
MORTGAGEE: THE BANK OF NEW YORK MELLON
DATED: 03/12/2009
RECORDED 04/01/2009
DOC#/BOOK-PAGE: 6338-2480
DOES NOT AFFECT THE PARENT PARCEL. NOT DEPICTED HEREON.

(10) MEMORANDUM OF LEASE BY AND BETWEEN ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, LESSOR(S) AND GTP TOWERS VII, LLC, LESSEE(S), RECORDED 09/18/2012, IN BOOK 6760, PAGE 3119 OF THE VOLUSIA COUNTY RECORDS. DOES NOT AFFECT THE PARENT PARCEL. NOT DEPICTED HEREON.

(11) NOTICE OF COMMENCEMENT, RECORDED 10/23/2012, AS BOOK 6774, PAGE 851 OF VOLUSIA COUNTY RECORDS. DOES NOT AFFECT THE PARENT PARCEL. NOT DEPICTED HEREON.

DAVID G. SHORT ★ No.5022 ★ STATE OF FLORIDA ★ PROFESSIONAL SURVEYOR ★ CERTIFICATE

GEOLINE SURVEYING, INC. LB#7082

3/27/2014

DAVID G. SHORT, P.S.M.
FLORIDA PROFESSIONAL SURVEYOR AND MAPPER
CERTIFICATE OF REGISTRATION NO. 5022

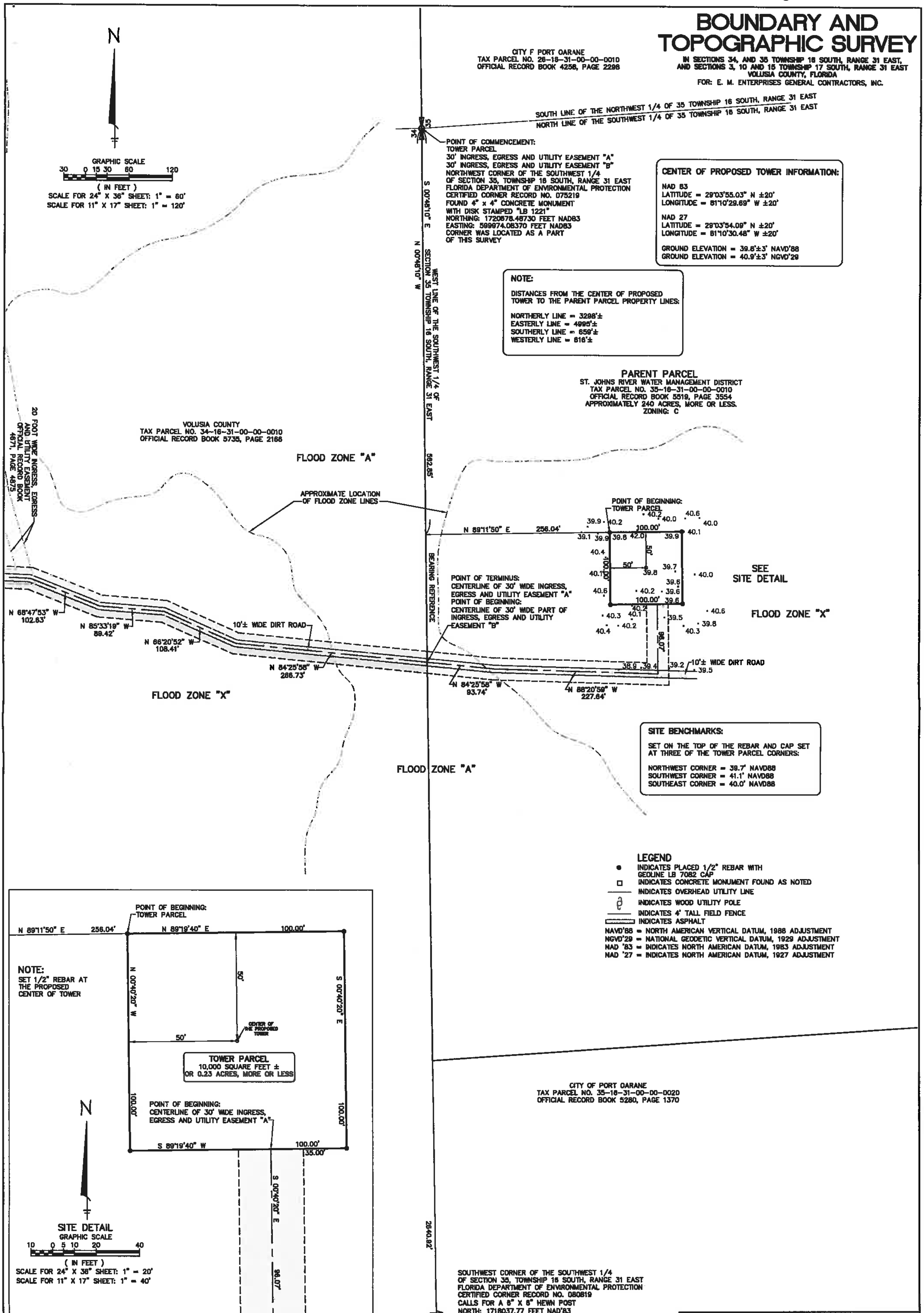
GEOLINE SURVEYING, INC.
13430 NW 104th Terrace, Suite A
Alachua, Florida 32615
(352)418-0500 Fax:(386)462-9988
geoline@geolineinc.com

DESIGNED	FLOYD CURTIS	SCALE	AS SHOWN
DRAWN	FLOYD CURTIS	DATE	FEBRUARY 2, 2014
CHECKED	DAVE SHORT	PROJECT #	216-181

CROWN CASTLE SITE BUN 818092
TIGER BAY SITE, VOLUSIA COUNTY, FLORIDA

DRAWING# 216-181 | GOFF COMMUNICATIONS | SHEET# 1 OF 10

BOUNDARY AND TOPOGRAPHIC SURVEY



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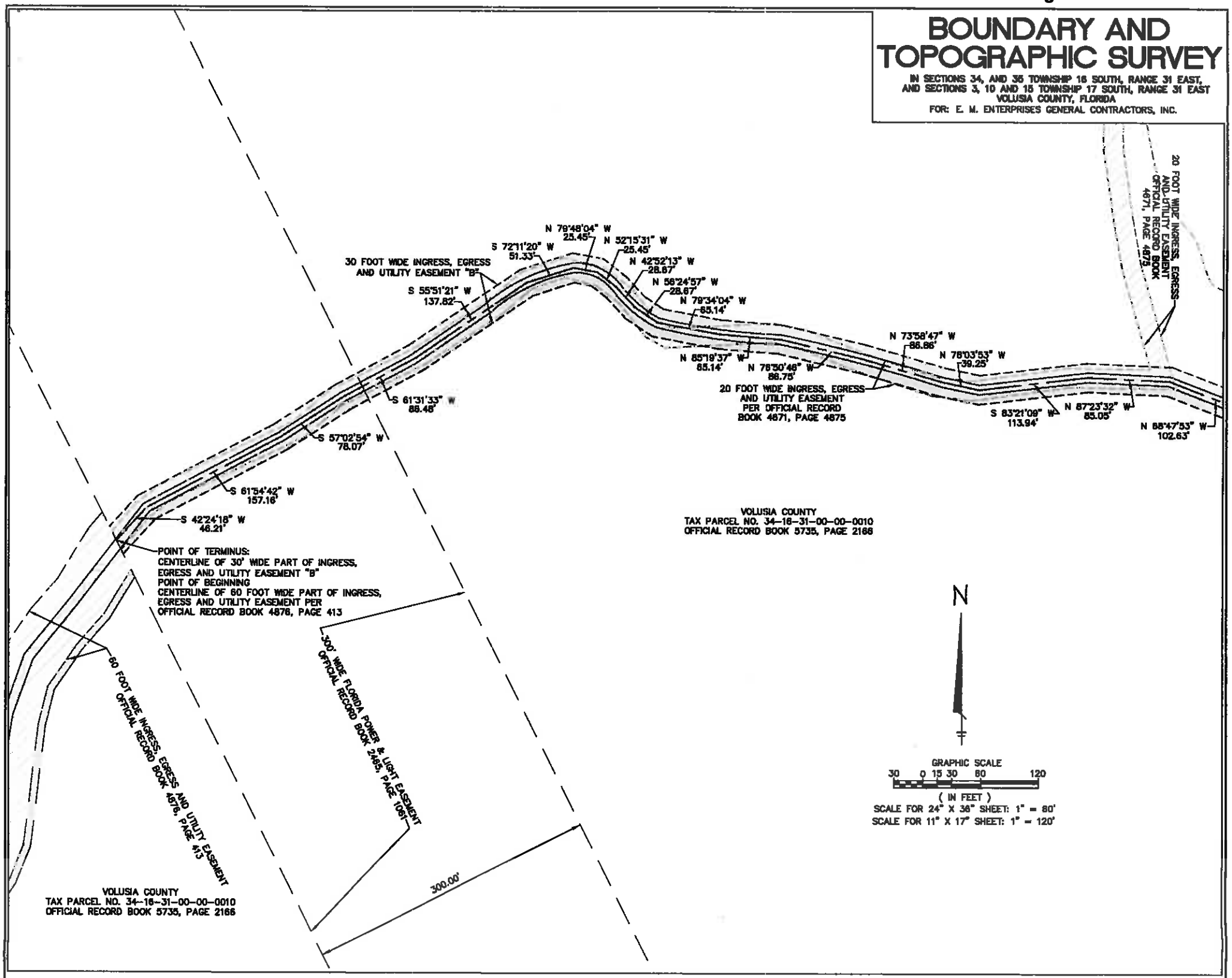
DESIGNED	FLOYD CURTIS	SCALE	AS SHOWN
DRAWN	FLOYD CURTIS	DATE	FEBRUARY 2, 2014
CHECKED	DAVE SHORT	PROJECT #	216-161

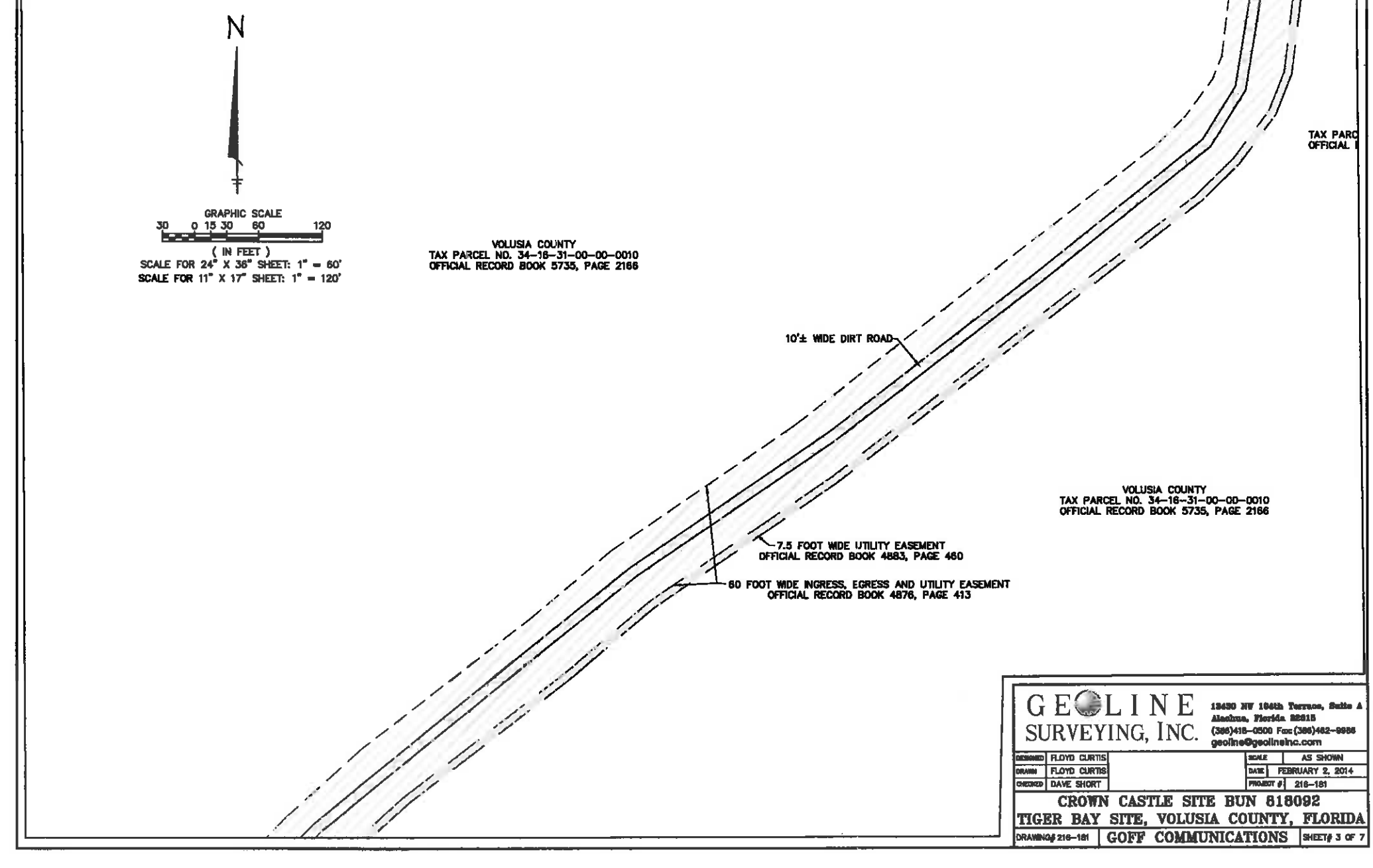
CROWN CASTLE SITE BUN 818092
TIGER BAY SITE, VOLUSIA COUNTY, FLORIDA

DRAWING# 216-161 | GOFF COMMUNICATIONS | SHEET# 2 OF 7

BOUNDARY AND TOPOGRAPHIC SURVEY

IN SECTIONS 34, AND 35 TOWNSHIP 16 SOUTH, RANGE 31 EAST,
AND SECTIONS 3, 10 AND 15 TOWNSHIP 17 SOUTH, RANGE 31 EAST
VOLUSIA COUNTY, FLORIDA
FOR: E. M. ENTERPRISES GENERAL CONTRACTORS, INC.





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DRAWN	FLOYD CURTIS	DATE	FEBRUARY 2, 2014
CHECKED	DAVE SHORT	PROJECT #	216-181

CROWN CASTLE SITE BUN 818092
TIGER BAY SITE, VOLUSIA COUNTY, FLORIDA

DRAWING# 216-181	GOFF COMMUNICATIONS	SHEET# 3 OF 7

BOUNDARY AND TOPOGRAPHIC SURVEY

IN SECTIONS 34, AND 35 TOWNSHIP 16 SOUTH, RANGE 31 EAST,
AND SECTIONS 3, 10 AND 15 TOWNSHIP 17 SOUTH, RANGE 31 EAST
VOLUSIA COUNTY, FLORIDA
FOR: E. M. ENTERPRISES GENERAL CONTRACTORS, INC.

VOLUSIA COUNTY
TAX PARCEL NO. 34-16-31-00-00-0010
OFFICIAL RECORD BOOK 5735, PAGE 2168

7.5 FOOT WIDE UTILITY EASEMENT
OFFICIAL RECORD BOOK 4883, PAGE 460

60 FOOT WIDE INGRESS, EGRESS AND UTILITY EASEMENT
OFFICIAL RECORD BOOK 4876, PAGE 413

10'± WIDE DIRT ROAD

N

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
SCALE FOR 24" X 36" SHEET: 1" = 60'
SCALE FOR 11" X 17" SHEET: 1" = 120'

15" DIAMETER
PVC CULVERT

RUSSELL D. COURTNEY, RUSSELL D. COURTNEY, JR.
ROBIN CASTRO, ERIN SORVILLO
TAX PARCEL NO. 34-16-31-02-00-0200
OFFICIAL RECORD BOOK 5947, PAGE 2317

60 FOOT WIDE INGRESS, EGRESS AND UTILITY EASEMENT
OFFICIAL RECORD BOOK 4876, PAGE 413

7.5 FOOT WIDE UTILITY EASEMENT
OFFICIAL RECORD BOOK 4883, PAGE 460

10'± WIDE DIRT ROAD

VOLUSIA COUNTY
TAX PARCEL NO. 34-16-31-00-00-0010
OFFICIAL RECORD BOOK 5735, PAGE 2166

N

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
SCALE FOR 24" X 36" SHEET: 1" = 60'
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15" DIAMETER
PVC CULVERT

RUSSELL D. COURTNEY, RUSSELL D. COURTNEY, JR.
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TAX PARCEL NO. 34-16-31-02-00-0200
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VOLUSIA COUNTY
TAX PARCEL NO. 34-16-31-00-00-0010
OFFICIAL RECORD BOOK 5735, PAGE 2166

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DRAWN	FLOYD CURTIS	DATE	FEBRUARY 2, 2014
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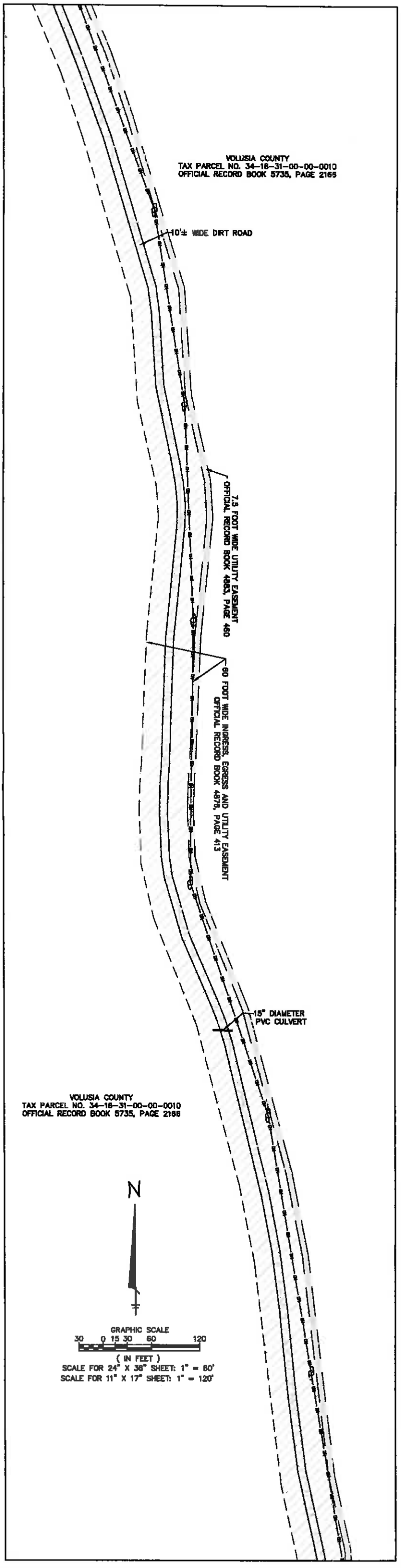
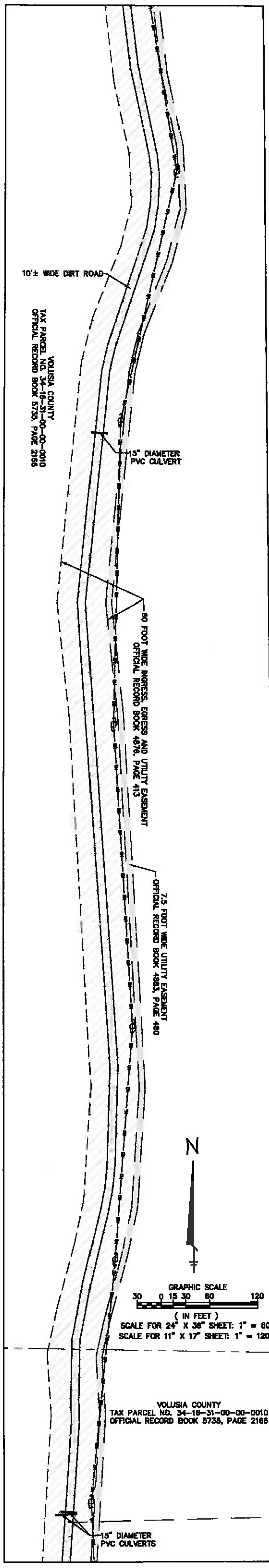
CROWN CASTLE SITE BUN 818092
TIGER BAY SITE, VOLUSIA COUNTY, FLORIDA

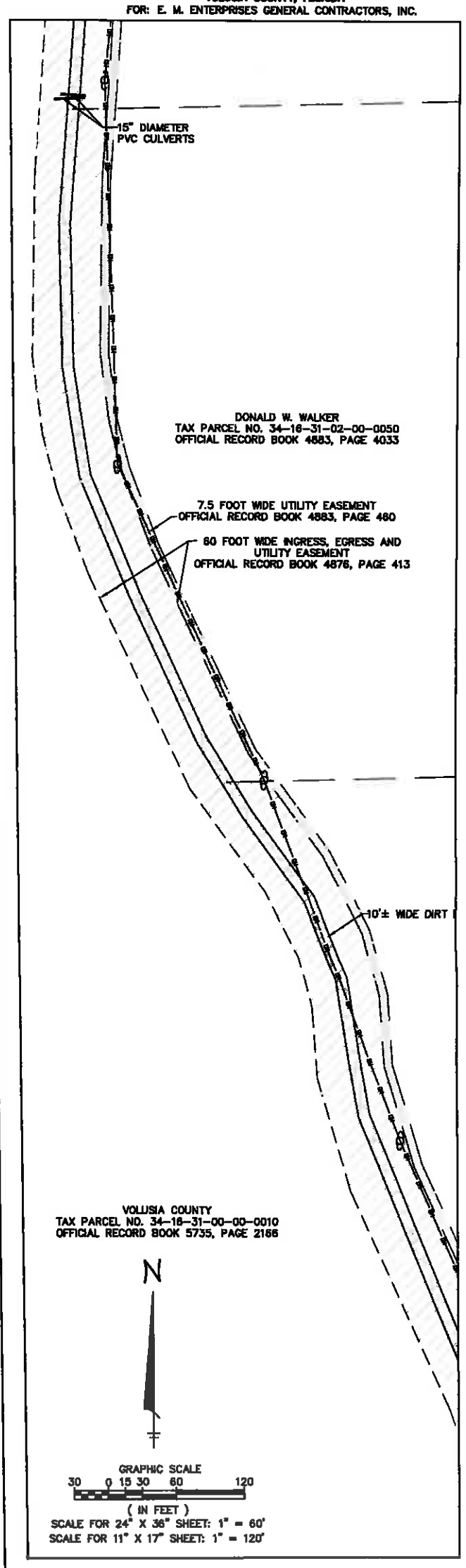
DRAWING# 216-181 | GOFF COMMUNICATIONS | SHEET# 4 OF 7

BOUNDARY AND TOPOGRAPHIC SURVEY

IN SECTIONS 34, AND 35 TOWNSHIP 16 SOUTH, RANGE 31 EAST,
AND SECTIONS 3, 10 AND 15 TOWNSHIP 17 SOUTH, RANGE 31 EAST
VOLUSIA COUNTY, FLORIDA
FOR: E. M. ENTERPRISES GENERAL CONTRACTORS, INC.







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DESIGNED	FLOYD CURTIS	SCALE	AS SHOWN
DRAWN	FLOYD CURTIS	DATE	FEBRUARY 2, 2014
CHECKED	DAVE SHORT	PROJECT #	216-181

CROWN CASTLE SITE BUN 818092
TIGER BAY SITE, VOLUSIA COUNTY, FLORIDA

DRAWING# 216-181 | GOFF COMMUNICATIONS | SHEET# 5 OF 7

BOUNDARY AND TOPOGRAPHIC SURVEY

IN SECTIONS 34, AND 35 TOWNSHIP 16 SOUTH, RANGE 31 EAST,
AND SECTIONS 3, 10 AND 15 TOWNSHIP 17 SOUTH, RANGE 31 EAST
VOLUSIA COUNTY, FLORIDA
FOR: E. M. ENTERPRISES GENERAL CONTRACTORS, INC.

10'± WIDE DIRT ROAD

N

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
SCALE FOR 24" X 36" SHEET: 1" = 60'
SCALE FOR 11" X 17" SHEET: 1" = 120'

VOLUSIA COUNTY
TAX PARCEL NO. 34-16-31-00-00-0010
OFFICIAL RECORD BOOK 5735, PAGE 2166

VOLUSIA COUNTY
TAX PARCEL NO. 34-16-31-00-00-0010
OFFICIAL RECORD BOOK 5735, PAGE 2166

7.5 FOOT WIDE UTILITY EASEMENT
OFFICIAL RECORD BOOK 4883, PAGE 460

60 FOOT WIDE INGRESS, EGRESS AND UTILITY EASEMENT
OFFICIAL RECORD BOOK 4876, PAGE 413

60 FOOT WIDE INGRESS, EGRESS AND UTILITY EASEMENT
OFFICIAL RECORD BOOK 4876, PAGE 413

10'± WIDE DIRT ROAD

MOSS
TAX PARCEL NO. 34-16-31-02-00-0020
OFFICIAL RECORD BOOK 5696, PAGE 3631

15" DIAMETER
PVC CULVERT

7.5 FOOT WIDE UTILITY EASEMENT
OFFICIAL RECORD BOOK 4883, PAGE 460

N

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
SCALE FOR 24" X 36" SHEET: 1" = 60'
SCALE FOR 11" X 17" SHEET: 1" = 120'

VOLUSIA COUNTY
TAX PARCEL NO. 34-16-31-00-00-0010
OFFICIAL RECORD BOOK 5735, PAGE 2166

15" DIAMETER
PVC CULVERTS

10'± WIDE DIRT ROAD

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geoline@geolineinc.com

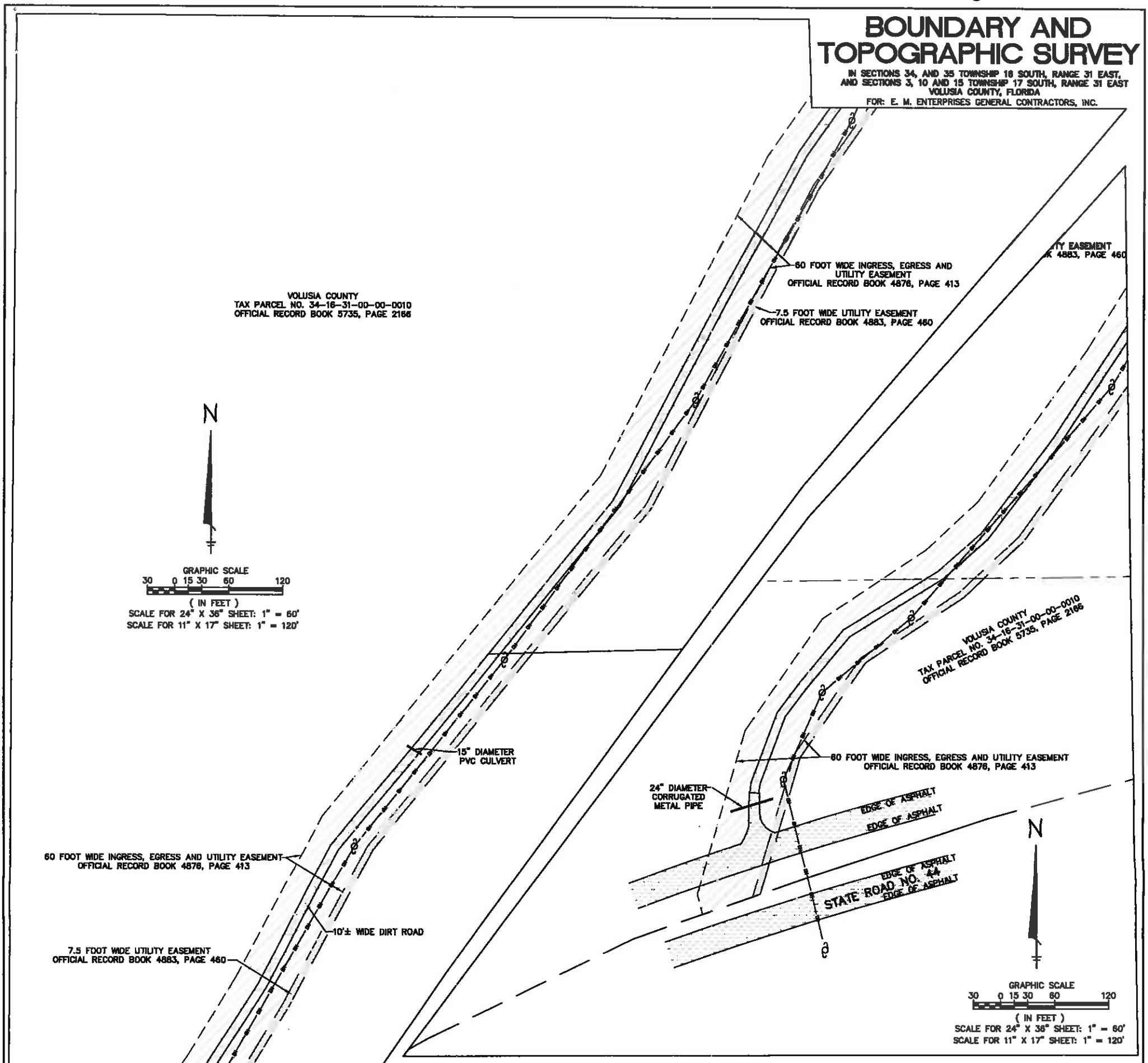
DESIGNED	FLOYD CURTIS	SCALE	AS SHOWN
DRAWN	FLOYD CURTIS	DATE	FEBRUARY 2, 2014
CHECKED	DAVE SHORT	PROJECT #	216-151

CROWN CASTLE SITE BUN 818092
TIGER BAY SITE, VOLUSIA COUNTY, FLORIDA

DRAWING# 216-151 | GOFF COMMUNICATIONS | SHEET# 6 OF 7

BOUNDARY AND TOPOGRAPHIC SURVEY

IN SECTIONS 34, AND 35 TOWNSHIP 16 SOUTH, RANGE 31 EAST,
AND SECTIONS 3, 10 AND 15 TOWNSHIP 17 SOUTH, RANGE 31 EAST
VOLUSIA COUNTY, FLORIDA
FOR: E. M. ENTERPRISES GENERAL CONTRACTORS, INC.



PROPERTY DESCRIPTIONS

PARENT PARCEL
(OFFICIAL RECORD BOOK 5519, PAGE 3554, PARCEL 1)

ALL OF SECTION 35, TOWNSHIP 16 SOUTH, RANGE 31 EAST, LESS THE WEST 2625.14 FEET OF THE SOUTH 1350 FEET, VOLUSIA COUNTY, FLORIDA.

SURVEYOR'S NOTE: THE RECORD DOCUMENT DOES NOT SPECIFY AN ACREAGE FOR THE PARENT PARCEL. HOWEVER, BASED UPON A NOMINAL SECTION OF LAND HAVING AN AREA OF 640 ACRES, THE SUBJECT PARENT PARCEL HAS AN AREA OF APPROXIMATELY 559 ACRES.

TOWER PARCEL
PREPARED BY GEOLINE SURVEYING, INC.)

THAT PART OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 16 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4" X 4" CONCRETE MONUMENT AT THE NORTHWEST CORNER OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 16 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA; THENCE SOUTH 00°48'10" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4 FOR 562.85 FEET; THENCE NORTH 89°11'50" EAST FOR 258.04 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89°19'40" EAST FOR 100.00 FEET; THENCE SOUTH 00°40'20" EAST FOR 100.00 FEET; THENCE SOUTH 89°19'40" WEST FOR 100.00 FEET; THENCE NORTH 00°40'20" WEST FOR 100.00 FEET TO SAID POINT OF BEGINNING.

CONTAINING 10,000 SQUARE FEET (0.23 ACRES), MORE OR LESS.

30 FOOT WIDE INGRESS, EGRESS AND UTILITY EASEMENT "A"
PREPARED BY GEOLINE SURVEYING, INC.)

THAT PART OF SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 16 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA LYING WITHIN 15 FEET OF BOTH SIDES OF A CENTERLINE BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4" X 4" CONCRETE MONUMENT AT THE NORTHWEST CORNER OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 16 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA; THENCE SOUTH 00°48'10" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4 FOR 562.85 FEET; THENCE NORTH 89°11'50" EAST FOR 258.04 FEET TO THE NORTHWEST CORNER OF AN 100 FEET BY 100 FEET TOWER PARCEL; THENCE NORTH 89°19'40" EAST ALONG THE NORTH LINE OF SAID TOWER PARCEL FOR 100.00 FEET TO THE NORTHEAST CORNER OF SAID TOWER PARCEL; THENCE SOUTH 00°40'20" EAST ALONG THE EAST LINE OF SAID TOWER PARCEL FOR 100.00 FEET TO THE SOUTHEAST CORNER OF SAID TOWER PARCEL; THENCE SOUTH 89°19'40" WEST ALONG THE SOUTH LINE OF SAID TOWER PARCEL FOR 35.00 FEET TO THE POINT OF BEGINNING OF THE CENTERLINE OF THE HEREIN DESCRIBED 30 FOOT WIDE INGRESS, EGRESS AND UTILITY EASEMENT "A"; THENCE SOUTH 00°40'20" EAST FOR 98.07 FEET; THENCE NORTH 88°20'59" WEST FOR 227.64 FEET; THENCE NORTH 84°25'58" WEST FOR 93.74 FEET TO AN INTERSECTION WITH SAID WEST LINE OF SAID SOUTHWEST 1/4 AND THE POINT OF TERMINUS OF THE HEREIN DESCRIBED CENTERLINE.

CONTAINING 12,524 SQUARE FEET (0.29 ACRES), MORE OR LESS.

PROPERTY DESCRIPTIONS(CONTINUED)

INGRESS, EGRESS AND UTILITY EASEMENT "B"
PREPARED BY GEOLINE SURVEYING, INC.)

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 34, TOWNSHIP 16 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA LYING WITHIN EITHER 15 FEET, OR 30 FEET (AS INDICATED HEREIN) OF BOTH SIDES OF A CENTERLINE BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT A 4" X 4" CONCRETE MONUMENT AT THE NORTHWEST CORNER OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 16 SOUTH, RANGE 31 EAST, VOLUSIA COUNTY, FLORIDA; THENCE SOUTH 00°48'10" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4 FOR 562.85 FEET; THENCE NORTH 89°11'50" EAST FOR 256.04 FEET TO THE NORTHWEST CORNER OF AN 100 FEET BY 100 FEET TOWER PARCEL; THENCE NORTH 89°19'40" EAST ALONG THE NORTH LINE OF SAID TOWER PARCEL FOR 100.00 FEET TO THE NORTHEAST CORNER OF SAID TOWER PARCEL; THENCE SOUTH 00°40'20" EAST ALONG THE EAST LINE OF SAID TOWER PARCEL FOR 100.00 FEET TO THE SOUTHEAST CORNER OF SAID TOWER PARCEL; THENCE SOUTH 89°19'40" WEST ALONG THE SOUTH LINE OF SAID TOWER PARCEL FOR 35.00 FEET ;THENCE SOUTH 00°40'20" EAST FOR 98.07 FEET; THENCE NORTH 88°20'59" WEST FOR 227.64 FEET; THENCE NORTH 84°25'58" WEST FOR 93.74 FEET TO AN INTERSECTION WITH SAID WEST LINE OF SAID SOUTHWEST 1/4 AND THE POINT OF BEGINNING OF THE CENTERLINE OF THE 30 FOOT WIDE PART (LYING WITHIN 15 FEET OF BOTH SIDES OF SAID CENTERLINE) OF THE HEREIN DESCRIBED INGRESS, EGRESS AND UTILITY EASEMENT "B"; THENCE CONTINUE NORTH 84°25'58" WEST FOR 286.73 FEET; THENCE NORTH 66°20'52" WEST FOR 108.41 FEET; THENCE NORTH 85°33'19" WEST FOR 89.42 FEET; THENCE NORTH 68°47'53" WEST FOR 102.63 FEET; THENCE NORTH 87°23'32" WEST FOR 85.05 FEET; THENCE SOUTH 83°21'09" WEST FOR 113.94 FEET; THENCE NORTH 78°03'53" WEST FOR 39.25 FEET; THENCE NORTH 73°58'47" WEST FOR 86.86 FEET; THENCE NORTH 76°50'46" WEST FOR 88.75 FEET; THENCE NORTH 85°19'37" WEST FOR 65.14 FEET; THENCE NORTH 79°34'04" WEST FOR 85.14 FEET; THENCE NORTH 56°24'57" WEST FOR 28.67 FEET; THENCE NORTH 42°52'13" WEST FOR 28.67 FEET; THENCE NORTH 52°15'31" WEST FOR 25.45 FEET; THENCE NORTH 79°48'04" WEST FOR 25.45 FEET; THENCE SOUTH 72°11'20" WEST FOR 51.33 FEET; THENCE SOUTH 55°51'21" WEST FOR 137.82 FEET; THENCE SOUTH 61°31'33" WEST FOR 86.48 FEET; THENCE SOUTH 57°02'54" WEST FOR 78.07 FEET; THENCE SOUTH 61°54'42" WEST FOR 157.16 FEET; THENCE SOUTH 42°24'18" WEST FOR 46.21 FEET TO AN INTERSECTION WITH THE SOUTHWESTERLY LINE OF THE 300 FOOT WIDE FLORIDA POWER & LIGHT EASEMENT AS PER DESCRIPTION RECORDED IN OFFICIAL RECORD BOOK 2465, PAGE 1061 OF SAID PUBLIC RECORDS, AND THE POINT OF TERMINUS OF THE CENTERLINE OF THE 30 FOOT WIDE PART OF THE HEREIN DESCRIBED INGRESS, EGRESS AND UTILITY EASEMENT "B", SAID POINT ALSO BEING THE POINT OF BEGINNING OF THE CENTERLINE OF AN EXISTING 60 FOOT WIDE INGRESS, EGRESS AND UTILITY EASEMENT AS PER DESCRIPTION RECORDED IN OFFICIAL RECORD BOOK 4876, PAGE 413 OF SAID PUBLIC RECORDS, AND THE POINT OF BEGINNING OF THE CENTERLINE OF THE 60 FOOT WIDE PART (LYING WITHIN 30 FEET OF BOTH SIDES OF SAID CENTERLINE) OF THE HEREIN DESCRIBED INGRESS, EGRESS AND UTILITY EASEMENT "B"; THENCE FROM SAID POINT OF BEGINNING, CONTINUING ALONG AND LYING WITHIN 30 FEET OF BOTH SIDES OF SAID CENTERLINE OF SAID EXISTING 60 FOOT WIDE INGRESS, EGRESS AND UTILITY EASEMENT, IN A PRIMARILY SOUTHERLY DIRECTION, TO AN INTERSECTION WITH THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 44 AND THE POINT OF TERMINUS OF THE CENTERLINE OF THE 60 FOOT WIDE PART OF THE HEREIN DESCRIBED INGRESS, EGRESS AND UTILITY EASEMENT "B".

CONTAINING 21.4 ACRES, MORE OR LESS.

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DESIGNED	FLOYD CURTIS	SCALE	AS SHOWN
DRAWN	FLOYD CURTIS	DATE	FEBRUARY 2, 2014
CHECKED	DAVE SHORT	PROJECT #	216-181

CROWN CASTLE SITE BUN 818092
TIGER BAY SITE, VOLUSIA COUNTY, FLORIDA
DRAWING# 216-181 | GOFF COMMUNICATIONS | SHEET# 7 OF 7


Approximate location of tower lease area.


Entrance from Old Sawmill Road.


Access location from transmission lines easement.

Inter-Office
Memorandum

Volusia County
FLORIDA

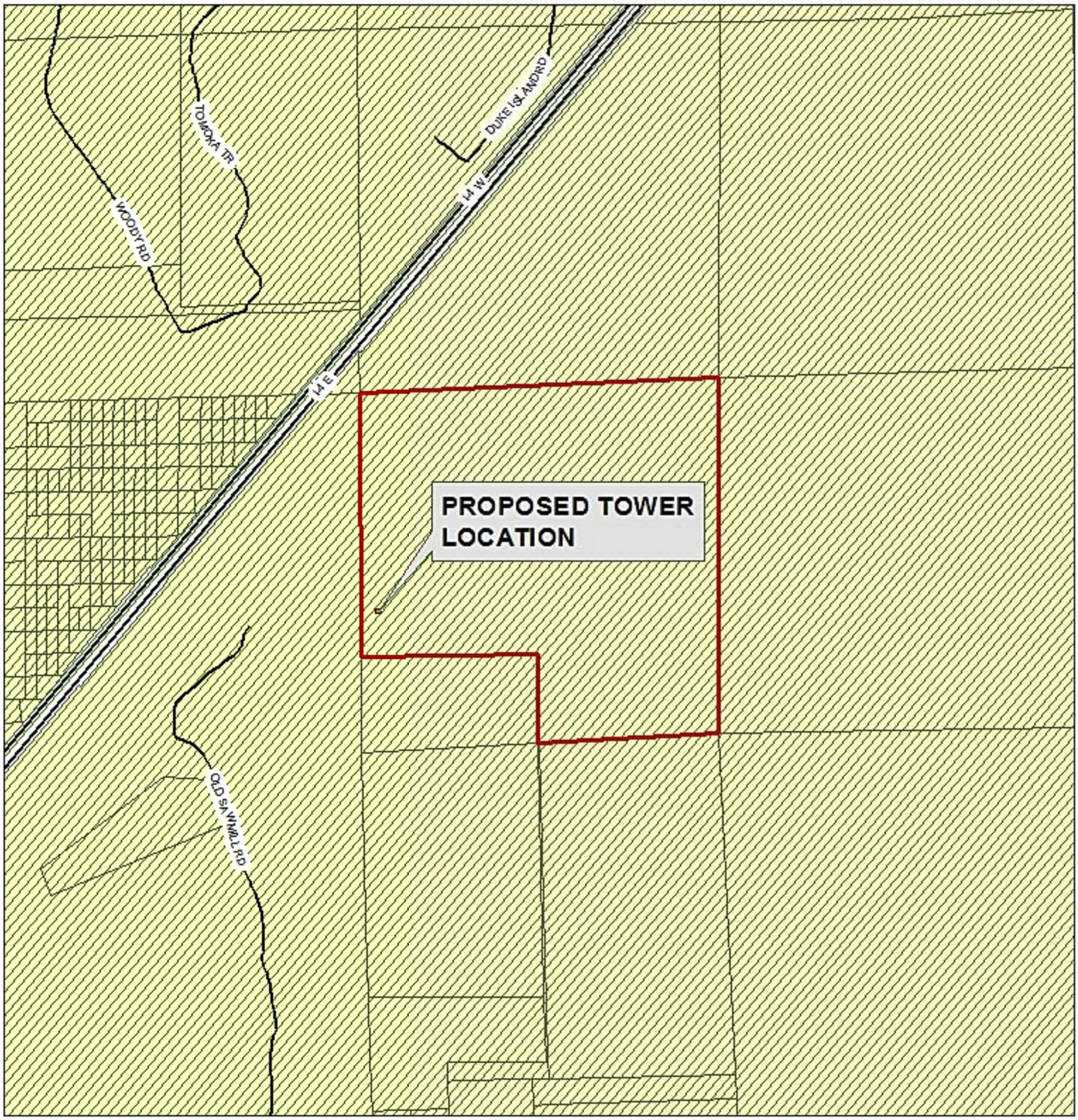
TO: Carol McFarlane, Planner II **DATE**: April 16, 2014

FROM: Danielle Dangleman, Environmental Specialist III

SUBJECT: Planning & Land Development Regulation Commission meeting for
Date: May 13, 2014
Parcel #: 6135-00-00-0010
Case #: S-14-044

Environmental Permitting (EP) has reviewed the Special Exception application and conducted a site inspection. The exact area the tower is to be constructed was difficult to identify in the field. There were no survey markers delineating the project area. That being said, the general area contains gopher tortoise burrows, wetlands and protected size trees. This property lies within the Natural Resource Management Area and requires a fifty (50) foot buffer from the associated wetlands.

EP does not object to the requested special exception, provided the owner can comply with all relevant environmental provisions of the Land Development Code and completes any environmental permitting which may be necessary. The permitting that may be required would include a wetland alteration permit and/or a tree removal permit.



ECO/NRMA

1 inch = 2,000 feet

SPECIAL EXCEPTION

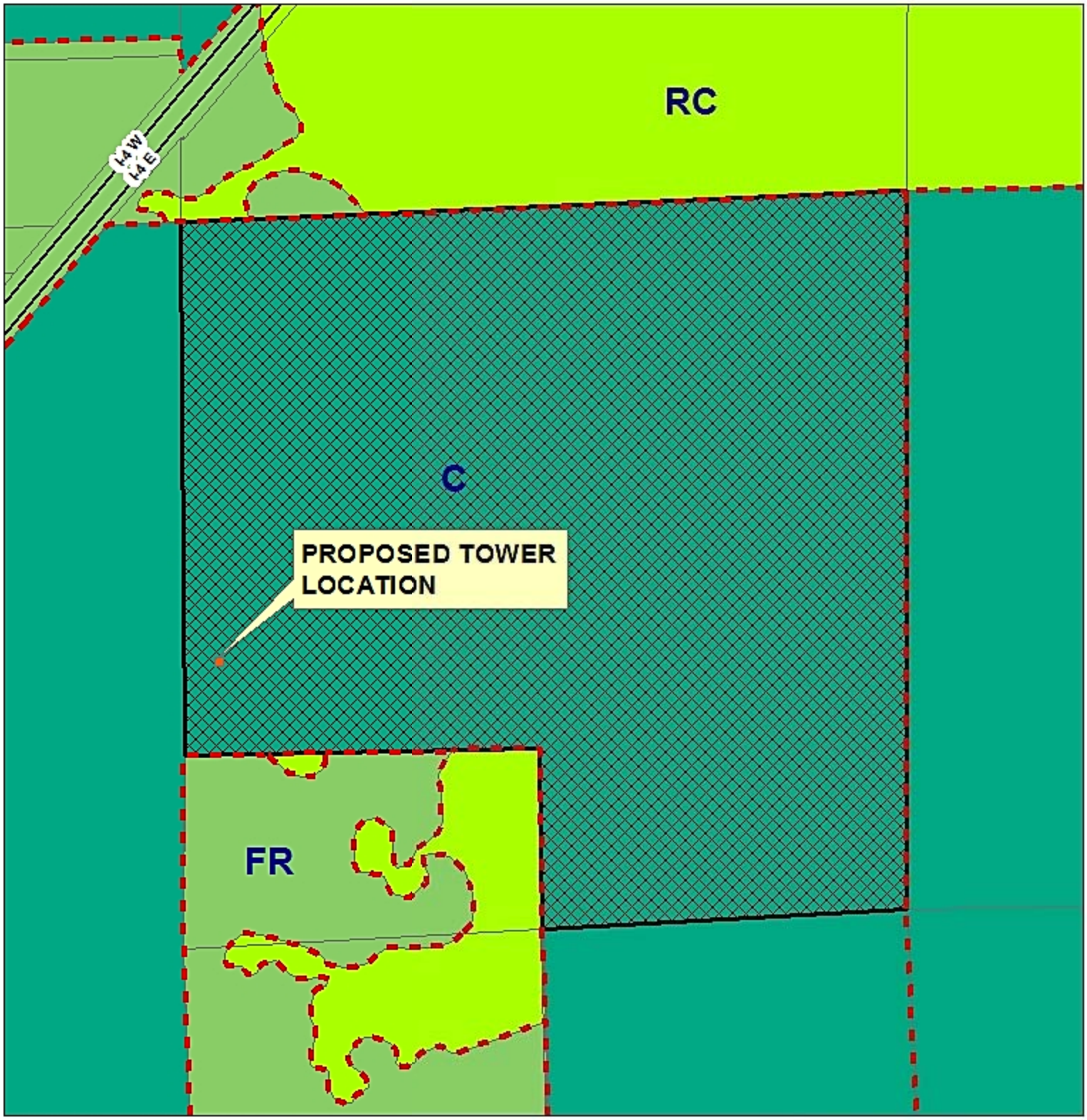
PARENT PARCEL

ECO

NRMA

100'X100' LEASE AREA

CASE NUMBER
S-14-044



ZONING CLASSIFICATION

1 inch = 1,000 feet

SPECIAL EXCEPTION CASE NUMBER S-14-044

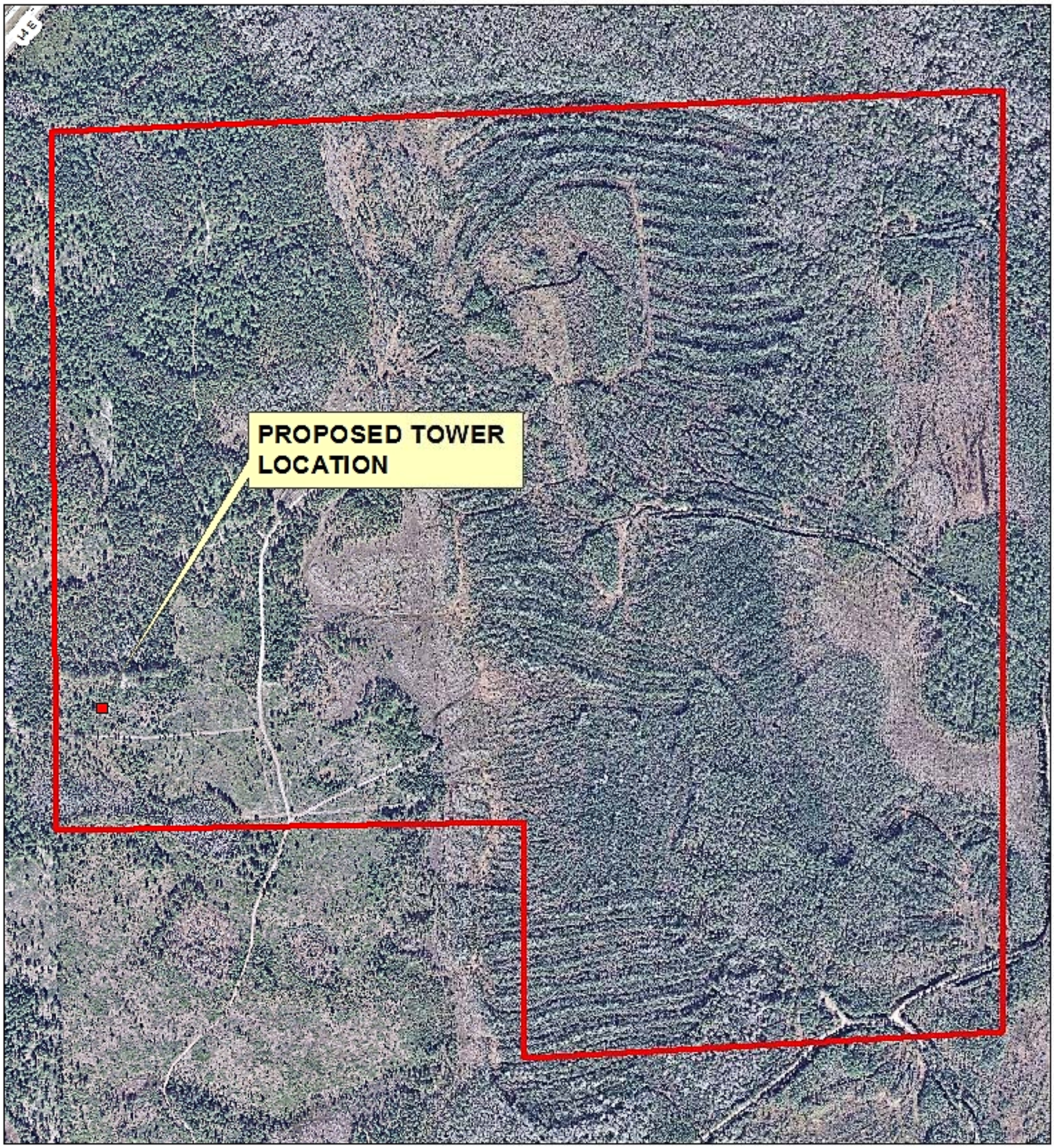
CONSERVATION

FORESTRY RESOURCE

RESOURCE CORIDOR

100'X100' LEASE AREA

PARENT PARCEL



A

AERIAL

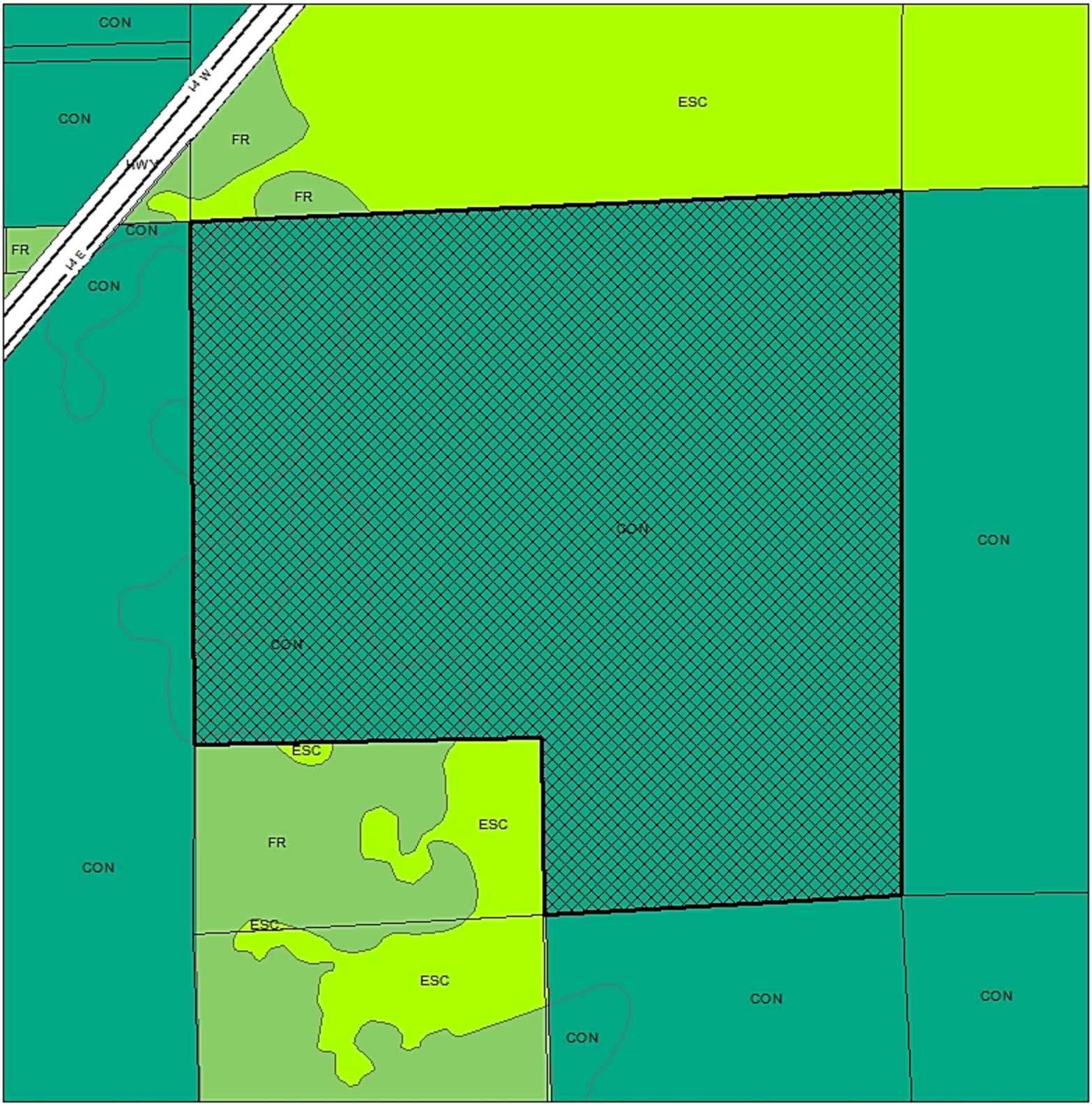
IMAGE YEAR: 2012

1 inch = 740 feet

PARENT PARCEL

100'X100' LEASE AREA

SPECIAL EXCEPTION
CASE NUMBER
S-14-044



FUTURE LAND USE DESIGNATION

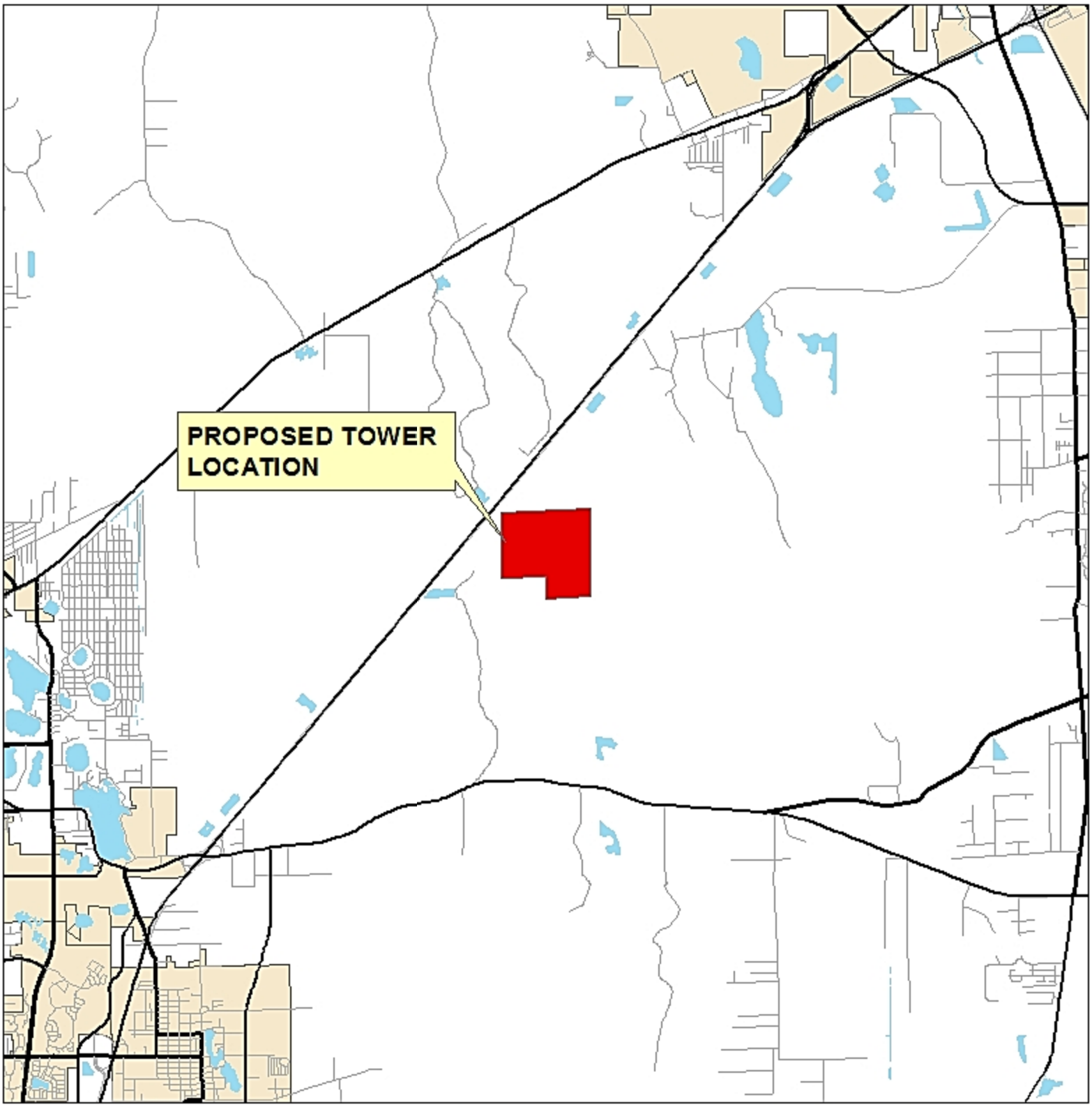
1 inch = 1,000 feet

SPECIAL EXCEPTION

- CONSERVATION (11)
- ENVIRONMENTAL SYSTEMS CORRIDOR (5)
- FEDERAL HIGHWAY (1)
- FORESTRY RESOURCE (4)
- REQUEST AREA

CASE NUMBER

S-14-044



LOCATION MAP

1 inch = 8,000 feet

REQUEST AREA

SPECIAL EXCEPTION
CASE NUMBER
S-14-044