Broadus Towers Bella Terra Project

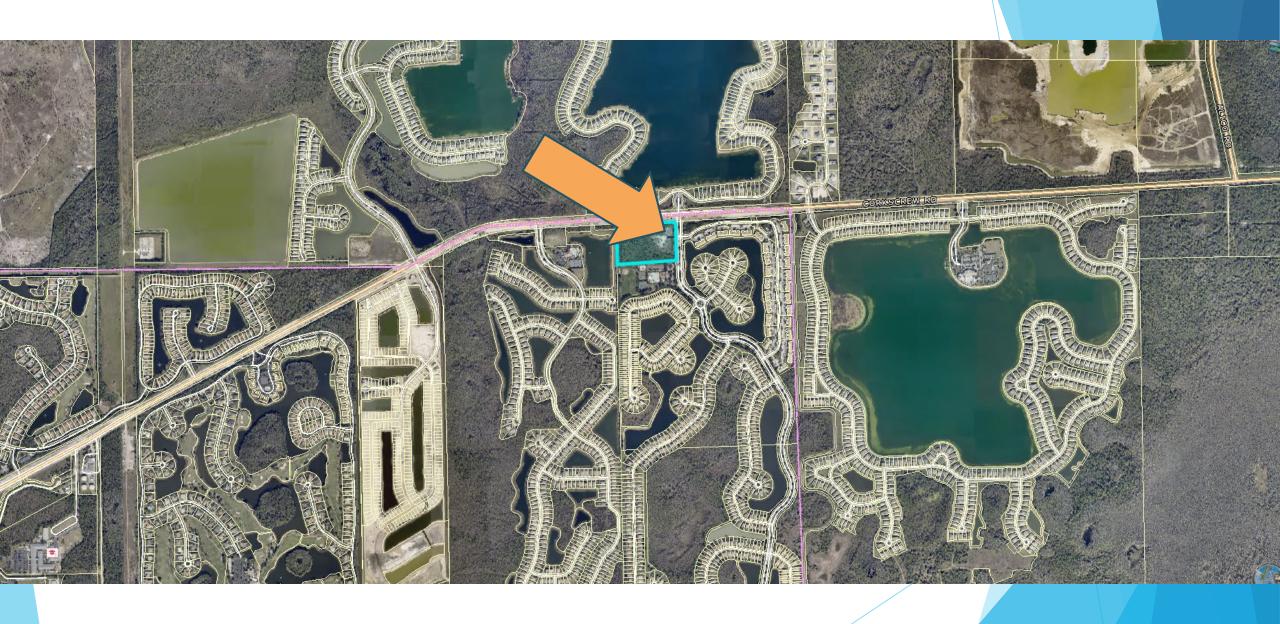
19980 Bella Terra Blvd, Estero, FL 33928

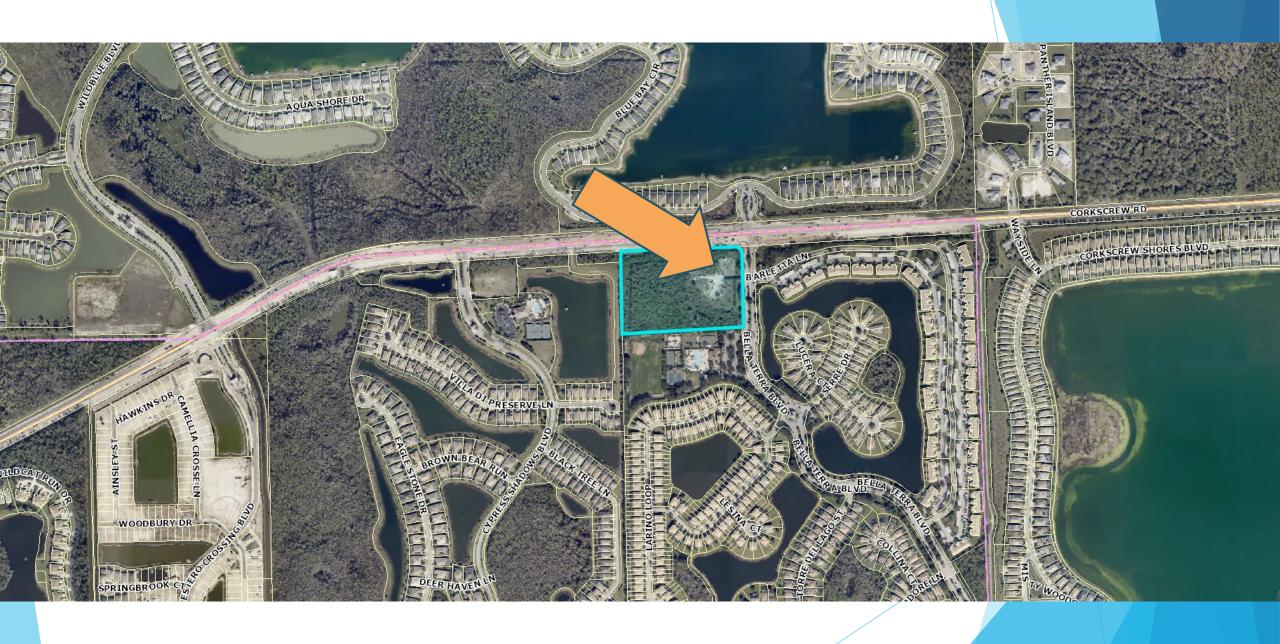
Reasons a new tower is needed:

- Coverage:
 - Existing holes in the area need to be filled
- Capacity:
 - Just like roads, towers have a limited amount of capacity before they can't handle any more "traffic"
 - When a tower reaches capacity, it can't receive new calls
 - ► The neighboring "handoff" towers have reached a capacity level that triggers the need for a new tower

Considerations when placing a tower:

- Neighboring towers
 - ▶ Too Close, and the new tower will interfere with the next tower over
 - ▶ Too Far away, and there will be a hole in coverage + it won't offload traffic
- Neighboring Properties
 - ► The Village's code requires 100% tower height setback from other properties
 - ► Height dictated by need shorter = insufficient coverage/offload
- Located near the traffic source
 - Towers must be near the cellular users to serve them
 - ▶ Not like old AM/FM radio stations... far side of the county

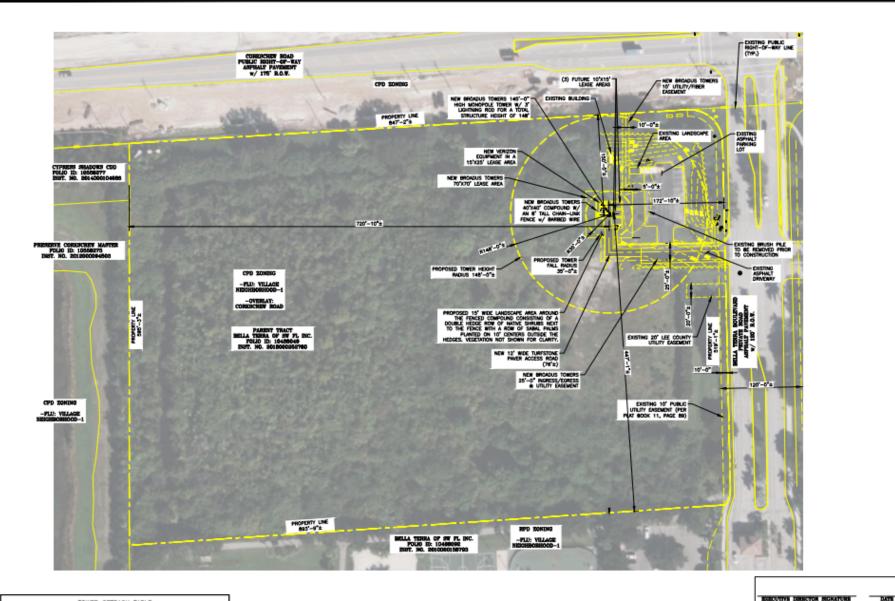






What's proposed?

- ▶ 148' Tall Monopole
 - ▶ Monopole = 1 support pole, no ironworks or guy wires
 - Antennas mounted on headframe at top
 - Dull gray tones to help minimize visibility
- ► The Monopole will meet all aspects of the Village Tower Code (No Variances)
- This Monopole will be completely dark at night
- This Monopole will be designed to hold antennas for up to 4 carriers
 - Verizon will be the first carrier
 - ▶ The remaining 3 will be made available for colocation



TOWER SETBACK TABLE					
DIRECTION FROM EDGE OF TOWER TO BOUNDARY LINE	LENGTH	MN. REQUIRED SETBACK			
N	150°-0"±	149"-0"			
s	447'-1"±	149"-0"			
Ε	172'-10"±	149"-0"			
w	720'-10"±	149"-0"			

OVERALL SITE PLAN





BROADUS

4 COUNTRY PLACE CIRCLE DALWORTHINGTON GARDENS TEXAS 76016

BROADUS TOWERS SITE NAME: FL-101

SITE ADDRESS: 19980 BELLA TERRA BLVD ESTERO, FL

NEW 145'-0" MONOPOLE TOWER

	ISSUED FOR:					
REV	DATE	DRWN	DESCRIPTION	DES/Q		
ADA	02/16/2023	MW	PRELIMINARY	_		
200	60/23/2023	BMW	PRELIMINARY			
ZDC:	60/28/2023	BMW	PRELIMINARY			
200	06/81/2023	9316	PRELIMINARY			
				$\overline{}$		

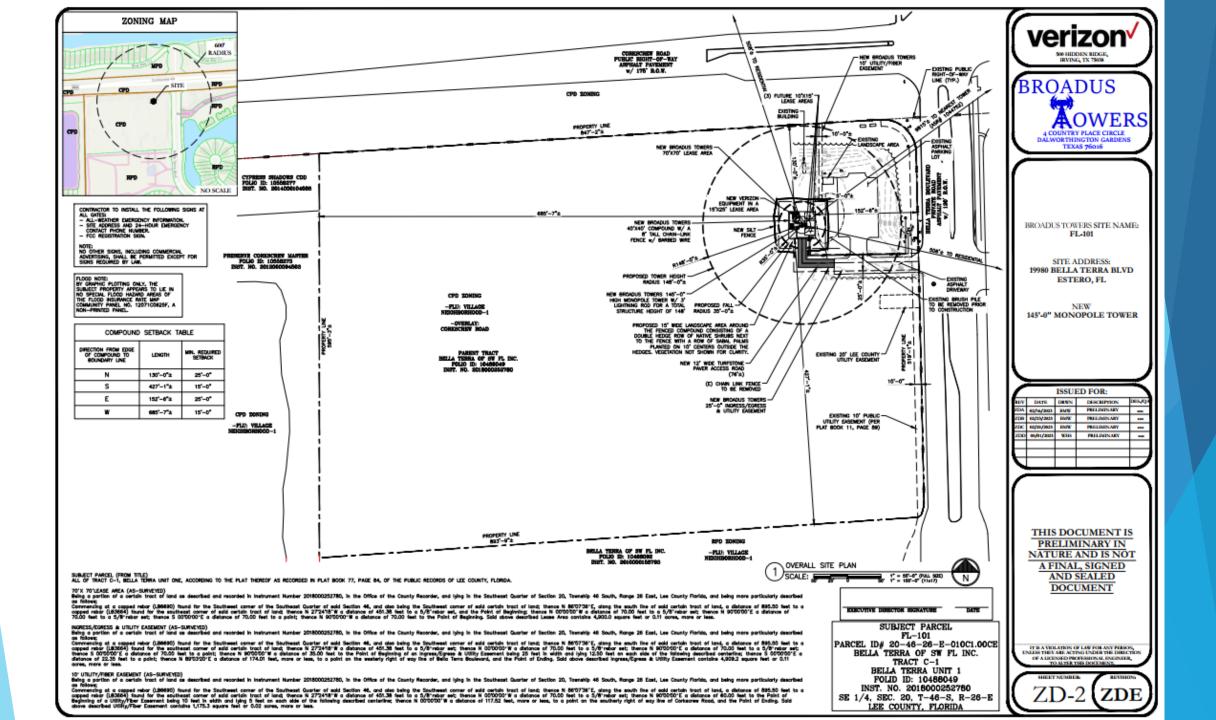
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT

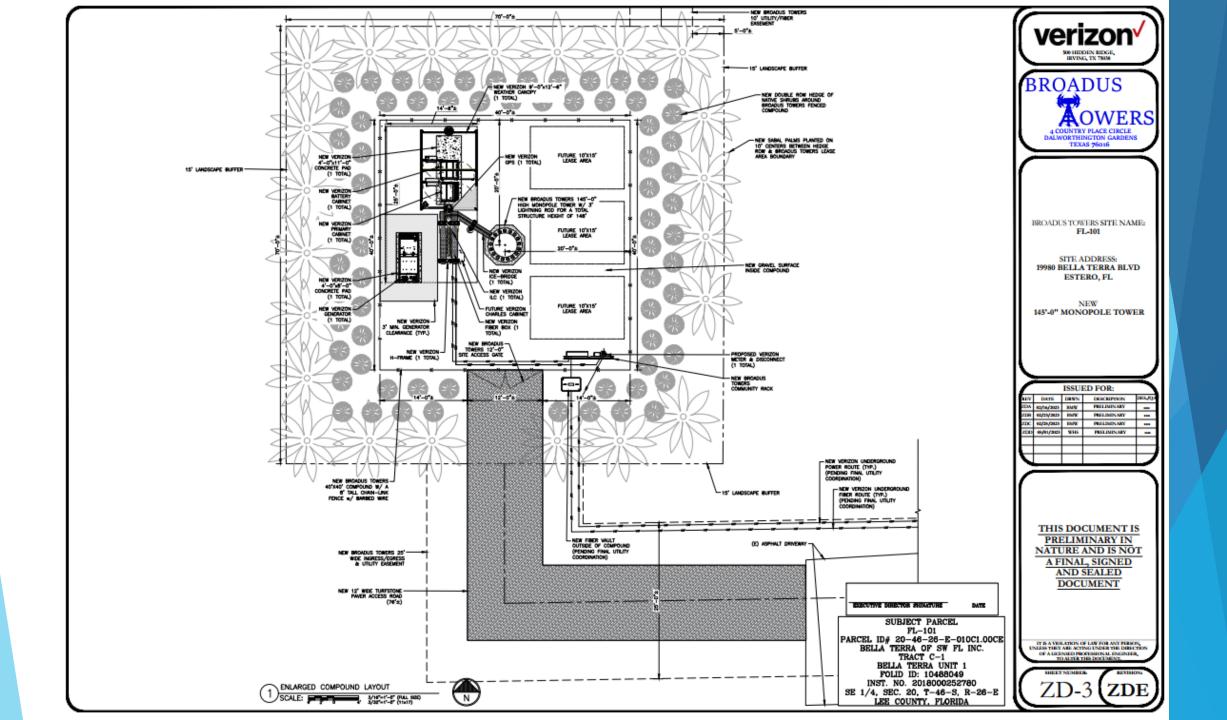
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL INCONFER, TO ALTER THIS DOCUMENT.

SUBJECT PARCEL FL-101 PARCEL ID# 20-46-26-E-010C1.00CE

BELLA TERRA OF SW FL INC. TRACT C-1 BELLA TERRA UNIT 1 FOLID ID: 10488049

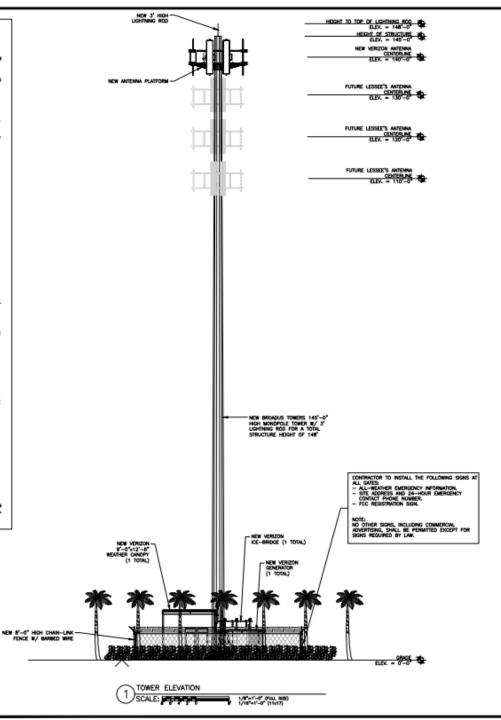
INST. NO. 2018000252780 SE 1/4, SEC. 20, T-46-S, R-26-E LEE COUNTY, FLORIDA





NOTE: DOEST FOR SEQUENT USERING AND SITE LIGHTING, OTHER TYPES OF LIGHTS, SIGNALS OR LILLIAMATION WILL ONLY BE PRIMITED ON AN ANTENNA-SUPPORTING STRUCTURE OR ANCILLARY APPLICITMENCES WHERE LIGHTING IS REQUIRED BY THE FAA, FCC, THE VILLAGE, OR THE LEE COUNTY MOSQUIRO CONTROL DISTRICT. SCURITY UNITING, SCURITY UNITING AND SITE LIMITING MY BE PLACED IN ASSIGNMENT WITH AN APPROVED DELIPHORI BIOLOGUES, SITE LIMITING MAST REMAIN UNIT DISCOPT WHEN AUTHORIZED PERSONNEL, ARE PRESENT AT THE FACULTY, SCURITY UNITING AND SITE UNITING AND SITE OF THE PROPERTY OF ALL ANTIDNA—SUPPORTING STRUCTURES 150 FEET OR GREATER IN HEGHT ABOVE GROUND LEVEL MUST BE ANTIFORMLY LIGHTED AND MANIFAMED PURSUANT TO THE TECHNICAL MATERIAL PROPERTY OF THE TECHNICAL MATERIAL PROPERTY OF THE TECHNICAL PROPERTY OF THE ANTIFORM OF CONTROL OF THE TECHNICAL PROPERTY OF THE TECHNICAL PROPER SIGNS ON ANTENNA-SUPPORTING STRUCTURES, ANCILLARY APPURTENANCES, EQUIPMENT ENCLOSURES, OR ON ANY FENCE OR WALL ARE PROHERTED UNLESS PERMITTED IN ACCORDANCE WITH THIS SUBSECTION. If high volunce is necessary for the operation of proposed wheless commensations frounds, "high volunce-dancer" and "no trespace" whenens sights not dereate than one source foot in abea must be presented that the fence or wall at instance of hot less than 40 feet and upon the access gate, or as otherwise required by the fax or foo. A SIGN NOT GREATER THAN ONE SQUARE FOOT IN AREA MUST BE ATTACHED TO THE ACCESS GATE THAT INCLIDES THE FOLLOWING INFORMATION: FEDERAL REDISTATION ANIMER, IF APPLICABLE; ANALE OF PROPERTY CONEY, FRACIITY OWNER, PROVIDERS, AND CONTACT PERSON, AND ALL MERCENCY CONTACT HUMBER FOR THE CONTACT PERSON. THE DEVELOPER OF A WIRELESS COMMUNICATIONS FACILITY SHALL INSTALL TAPING AROUND THE ANTENNA SUPPORTING STRUCTURE IN CONFORMANCE WITH THE FOLLOWING: 1. THE TAPE SHALL BE SIX-INCH 3M DIAMOND GRADE WP REFLECTIVE SHEETING, SERIES 3000. 2. THE TAPING SHALL START AT 20 FEET ABOVE SURFACE. 3. THE TAPING SHALL BE AT TEN-FOOT INTERVALS. THE TAPE SHALL BE WRAPPED AROUND THE SUPPORT POLE AND OVERLAP BY ONE INCH FOR A GOOD SEAL.

- UPON ABANDONMENT OF A REGISTRANT'S COMMUNICATIONS FACILITY IN THE PUBLIC ROOT-OF-MAY, THE RECISTRANT SHALL MOTHY THE VILLACE, IN WINTEN, WITHIN 90 DAYS, ACCIDIONALLY, RECISTRANTS SHALL COMMY WITH THE PROVISIONS OF SECTION 4—243X-Z, REDISTRATION FOR PLACING OR MANDANING SHALL WRILESS FACILITIES IN PUBLIC ROOTS—OF-MAY, RELITING TO 89-ANNUAL REGISTRATION AND UPDATING OF FACILITIES.
- THE VILLAGE MAY, AT ITS DESCRETION, DIRECT THE REDISTRANT BY WRITTEN MOTICE TO REMOVE ALL OR MAY PORTION OF SUCH ABANDONED FACILITY AT THE REDISTRANT'S SOLE EXPENDED IN THE VILLAGE DETERMINES WITH THE ARMADONED FACILITY AT THE REDISTRANT'S SOLE EXPENDE INTERPRESS WITH THE PUBLIC HEALTH, SAFETY OR NEUFARE, WHICH SHALL INCLUDE, BUT NOT BE LIMITED TO, A DETERMINATION THAT SUCH PACIFIC, 1910 CONFIDENCES AND THE FOR MAY PUBLIC RIGHTS-OF-MAY USER OR DUBBIC CONSTRUCTION OR MAINTENANCE ACTIVITIES IN PUBLIC RIGHTS-OF-MAY (2) PREVIOUS MODITIES PROSON FROM LOCATION FACILITIES IN THE AREA OF PUBLIC RIGHTS-OF-MAY WERE THE ARMADONED FACILITY IS LOCATED HERD OTHER ACTIVITIES OF THE ARMADONED FACILITY IS LOCATED HERD OTHER ACTIVITIES OF THE ARMADONED FACILITY IS LOCATED HERD OTHER ACTIVITIES OF THE ARMADONED FACILITY IS LOCATED HERD OTHER ACTIVITIES OF VILLAGE MAY REQUIRE THE THEY PROVIDE PROSON TO CONSIDER THE THE REDISTRANT FOR JOINT PERMONIA, AND PLACEMENT, WHERE AGREED TO BY THE REDISTRANT.
- IN THE EXENT THAT THE VILLAGE DOES NOT DIRECT THE REMOVAL OF THE ABANDONED FACILITY, THE REDISTRANT, BY ITS NOTICE OF ABANDONIUM TO THE VILLAGE, SHALL BE DEEMED TO CONSENT TO THE ALTERATION OR REMOVAL OF ALL OR MAY FORTION OF THE FACILITY BY THE VILLAGE OF ANOTHER PERSON AT SUCH THEIR PARTY'S COST.
- If the registrant falls to redone all or any portion of an aramogned facility within a reasonable person of time, as directed by the village, but not to except 60 days, the village may personal such removal, and charge the cost of the removal, against the registrant.





BROADUS

A OWERS

4 COUNTRY PLACE CIRCLE
DALWOOM THINGTON GARDENS

BROADUS TOWERS SITE NAME: FL-101

SITE ADDRESS: 19980 BELLA TERRA BLVD ESTERO, FL

NEW 145'-0" MONOPOLE TOWER

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SE 1/4, SEC. 20, T-46-S, R-26-E LEE COUNTY, FLORIDA ZD-4 (ZDE)



















COMPTON

Lee County, FL

Prepared by Verizon Wireless RF Engineering Darwin Feliz December 13, 2022



Introduction:

This Verizon proposed tower, Compton is needed to improve wireless service coverage to the near by communities and roads.

Coverage is the need to expand wireless service into an area that either has no service or bad service. The request for service often comes from customers or emergency personnel. Expansion of service could mean improving the signal levels in a large apartment complex or new residential community. It could also mean providing new service along a newly built highway.

Capacity is the need for more wireless resources. Cell sites have a limited amount of resources to handle voice calls, data connections, and data volume. When these limits are reached, user experience quickly degrades. This could mean customers may no longer be able to make/receive calls nor be able to browse the internet. It could also mean that webpages will be very slow to download



Verizon Wireless Existing Sites

Map Site		Tower				
Number	VzW Site Name	Height (ft)	Structure Type	Structure Owner	Latitude	Longitude
1	STI Alico Road	150	Flag/Uni pole	SBA Towers	26.495483	-81.713747
2	Alico Road Water	300	Guyed	Lee County BOCC	26.463961	-81.703894
3	Corkscrew	285	Lattice	Crown Castle	26.444489	-81.664818
4	Woodchuck	110	Flag/Uni pole	SBA Towers	26.388371	-81.773288
5	Int Estero Road	234	Lattice	State of Florida	26.432442	-81.77642
6	RGT Lamb of God	149	Monopole	American Towers Corp.	26.450753	-81.793254
7	FGCU Tower	285	Lattice	Lee County BOCC	26.466139	-81.781
8	FGCU	140	Flag/Uni pole		26.468883	-81.79105
9	Gulf Coast Town	108	Monopole	RowStar, LLC	26.492596	-81.792209
Proposed	Compton	149	Monopole	TBD	26.450666	-81.731589



Verizon Wireless Sites

- Existing Site
- Proposed Site



verizon /

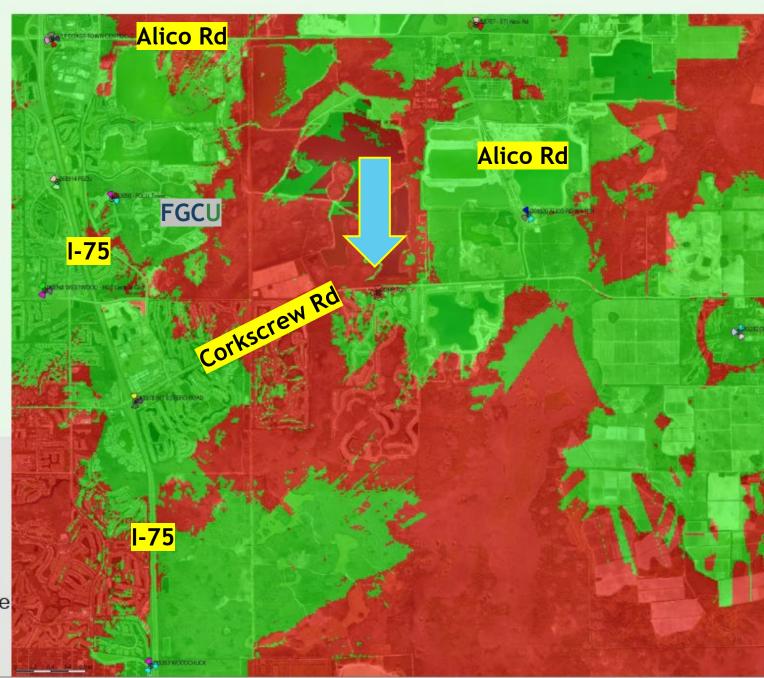
Verizon Wireless Sites Plus Search Area

- Existing Site
- Proposed Site
- OSearch Area



verizon /

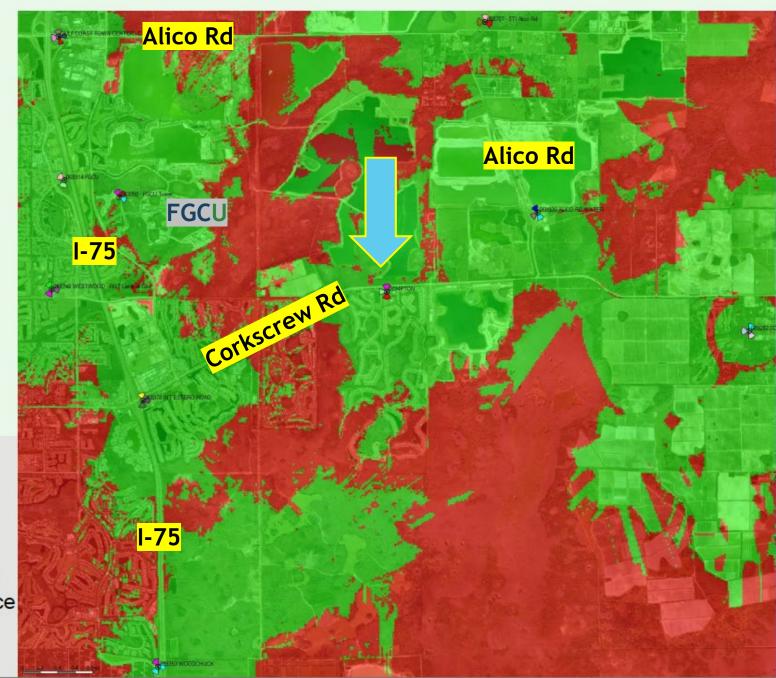
Current AWS Band Coverage



Reliable Service
Unreliable Service

verizon

Proposed AWS Band Coverage



Reliable Service
Unreliable Service

verizon

What's the Process?

- Broadus held a two-day community meeting on 8/10 and 8/11.
- Broadus Towers has filed for a Planned Development Amendment application with the Village of Estero and staff is currently reviewing
- Village Staff is reviewing the application for compliance with the Village code
- Another notice will be sent out and a test balloon will be flown
- The Planning and Zoning Design Board will hold a public hearing on the Monopole, members of the public will be welcome to speak.'
- The Village Council will then hold a public hearing on the Monopole for final decision, members of the public will be welcome to speak.'

Contact Information:

- Village Staff: (Please email Village Staff with your thoughts on this project)
 - Matt Noble, AICP
 - P: 239.221.5036
 - E: noble@estero-fl.gov
- Applicant: (I'm happy to answer any questions that come up as we proceed)
 - Mattaniah S. Jahn
 - P: 727.773.2221
 - E: mjahn@thelawmpowered.com

Thank You For Your Time





Importance of Wireless coverage to Homeowners and Buyers

A dozen years ago, a mere 3 percent of U.S. households used only cellphones. Given the trend, officials believe more than half of the U.S. homes will be wireless within the next year".

(Centers for Disease Control, December 1, 2015)

The number of wireless only American households has grown from roughly 16% in 2007.

(CTIA, Super Mobility Week Conference, 2015)

More than 47 percent of American homes use only cellphones.

(Centers for Disease Control, December 1, 2015)

A recent survey found that cellular service is of major importance to homebuyers. (76%) was more important than schools (60%) when looking for a home. Cellular coverage trailed only crime rates (96%), local taxes (90%), and amenities like parks and shops (84%).

(RootMetrics/Money, June 2, 2015)

90% of US households use wireless service. With this increase demand from users at home and those who work from home comes the need for more facilities to meet the customer needs. Citizens need access to 911 and reverse 911 and wireless may be their only connection.

(CTIA, June 2015)

In a recent survey, 83% of millennials (Those born between 1982 and 2004) said cell service was the most important fact in purchasing a home.

(Money, June 2, 2015)

Younger people rely more on wireless, too: About 71 percent of people in their late 20s live in households with only cellphones. Only 19 percent of people 65 and older use only cellphones".

(Centers for Disease Control, December 1, 2015)

"..the fastest type of high speed Internet available, can add \$5,437 to the price of a \$175,000 home—about as much as a fireplace, or half the value of a bathroom."

(WSJ, "How Fast Internet Affects Home Prices", June 30, 2015")



Safety E911

- Verizon Wireless has battery backup at a majority of its facilities. This is a critical element to keeping a site operating during a natural disaster or other emergency.
- 76% of 911 calls originate from a cell phone (National Highway Traffic Administration, February, 2016)
- 240 million 911 calls are made annually from wireless phones. (Answers, March 2015)
- It is common that emergency services can have a 3:1 usages of wireless devices. They can utilize phones (as they are more reliable than some radio services), aircards for their incar computers, and feeds to cameras in snow plows.
- Verizon Wireless is the primary communication source for numerous federal, state, and local emergency service organizations. It is critical that these groups have the coverage and capacity in their wireless networks to meet their E911 and other needs.

RF Safety

- **FCC:**
 - https://www.fcc.gov/engineering-technology/electromagnetic-compatibilitydivision/radio-frequency-safety/faq/rf-safety
 - http://www.fcc.gov/guides/wireless-devices-and-health-concerns
- **FDA:**
 - http://www.fda.gov/Radiation-EmittingProducts/RadiationEmitting ProductsandProcedures/HomeBusiness andEntertainment/CellPhones/ucm116335.htm
- World Health Organization:
 - http://www.who.int/mediacentre/factsheets/ fs193/en/
- The National Cancer Institute:
 - http://www.cancer.gov/cancertopics/causes-prevention/risk-factors/radiation/cell-phones-fact-sheet