



Agenda Report

2725 Judge Fran Jamieson
Way
Viera, FL 32940

Public Hearing

G.9.

7/13/2023

Subject:

Terrence A. Cronin, Jr. and Kathleen M. Hubbard (Mike Burkhead/Gulfstream Towers) request a CUP for Wireless Telecommunication Facilities and Broadcast Towers in a GU zoning classification. (23Z00015) (Tax Account 2324077) (District 1)

Fiscal Impact:

None

Dept/Office:

Planning and Development

Requested Action:

It is requested that the Board of County Commissioners conduct a public hearing to consider a CUP (Conditional Use Permit) for Wireless Telecommunication Facilities and Broadcast Towers, in a GU (General Use) zoning classification.

Summary Explanation and Background:

The applicant is requesting a CUP for a 199-foot tall monopole Wireless Telecommunication Facility (WTCF) and accessory equipment on a 0.146-acre (80' X 80') leased area portion of a 29.17-acre parcel. The subject parcel is undeveloped and is currently utilized as grazing land. Site access will be by easement to the north along S.R. 407. The current property owners also own the adjacent parcels to the east for extra land area or buffer.

There is an existing pattern of GU and AU (Agricultural Residential) zoning on parcels surrounding the subject property with a use of grazing land. The closest residential development is located approximately 2 miles to the east of the subject property.

The applicant has provided a letter from T-Mobile expressing a statement of need and design objective for the general area. As provided in the County's consultant's report, the primary purpose of the proposed facility is to improve T-Mobile's existing service by providing additional capacity for subscriber travelers along State Roads 407 and 528. While a significant coverage issue was not determined during review, the consultant confirms that data indicates a capacity gap, and that a new facility can be justified on lack of capacity basis alone.

The Board may wish to consider if the request for the proposed CUP is consistent and compatible with the surrounding area. The Board may wish to consider additional conditions beyond those cited in section 62-1901 in order to mitigate potential impacts to abutting properties, such as:

- Applicant shall provide final Construction Documents and Site Plans for review;

- Applicant shall obtain, and provide proof of, NEPA and SHPO approvals for the new structure;
- Applicant shall provide a Structural Analysis based on the final construction parameters with the monopole elevation at 193 feet, signed and sealed by a Florida Registered Professional Engineer; and,
- All feed lines shall be installed within the support structure, and the antenna ports shall be sealed in a manner to prevent access by birds and other wildlife.

On June 12, 2023, the Planning and Zoning Board heard the request and unanimously recommended approval.

Clerk to the Board Instructions:

Once resolution is received, please execute and return a copy to Planning and Development.

Resolution 23Z00015

On motion by Commissioner Tobia, seconded by Commissioner Goodson, the following resolution was adopted by a unanimous vote:

WHEREAS, Terrence A. Cronin, Jr. and Kathleen M. Hubbard, have requested a CUP (Conditional Use Permit) for Wireless Telecommunication Facilities and Broadcast Towers, in a GU (General Use) zoning classification, on property described as Tax Parcel 752, as recorded in ORB 3520, Pages 1643 - 1645, of the Public Records of Brevard County, Florida. **Section 25, Township 23, Range 34.** (29.17 acres) Located at the eastern intersection of S.R. 407 and S.R. 528. (No assigned address. In the Cocoa area.); and


WHEREAS, a public hearing of the Brevard County Planning and Zoning Board was advertised and held, as required by law, and after hearing all interested parties and considering the adjacent areas, the Brevard County Planning and Zoning Board recommended that the application be approved; and

WHEREAS, the Board, after considering said application and the Planning and Zoning Board's recommendation, and hearing all interested parties, and after due and proper consideration having been given to the matter, find that the application should be approved; now therefore,

BE IT RESOLVED by the Board of County Commissioners of Brevard County, Florida, that the requested CUP for Wireless Telecommunication Facilities and Broadcast Towers, in a GU zoning classification, be approved. The Planning and Development Director, or designee, is hereby directed to make this change on the official zoning maps of Brevard County, Florida.

BE IT FURTHER RESOLVED that this resolution shall become effective as of July 13, 2023.

BOARD OF COUNTY COMMISSIONERS
Brevard County, Florida


Rita Pritchett, Chair

Brevard County Commission

As approved by the Board on July 13, 2023.

ATTEST:


RACHEL SADOFF, CLERK

(SEAL)

P&Z Board Hearing – June 12, 2023

Please note: A CUP (Conditional Use Permit) will generally expire on the three-year anniversary of its approval if the use is not established prior to that date. CUPs for Towers and Antennas shall expire if a site plan for the tower is not submitted within one year of approval or if construction does not commence within two years of approval. A Planned Unit Development Preliminary Development Plan expires if a final development plan is not filed within three years. **The granting of this zoning does not guarantee physical development of the property. At the time of development, said development must be in accordance with the criteria of the Brevard County Comprehensive Plan and other applicable laws and ordinances.**

ADMINISTRATIVE POLICIES OF THE FUTURE LAND USE ELEMENT

Administrative Policies in the Future Land Use Element establish the expertise of staff with regard to zoning land use issues and set forth criteria when considering a rezoning action or request for Conditional Use Permit, as follows:

Administrative Policy 1

The Brevard County zoning official, planners and the Director of the Planning and Development, however designated, are recognized as expert witnesses for the purposes of Comprehensive Plan amendments as well as zoning, conditional use, special exception, and variance applications.

Administrative Policy 2

Upon Board request, members of the Brevard County planning and zoning staff shall be required to present written analysis and a recommendation, which shall constitute an expert opinion, on all applications for zoning, conditional uses, comprehensive plan amendments, vested rights, or other applications for development approval that come before the Board of County Commissioners for quasi-judicial review and action. The Board may table an item if additional time is required to obtain the analysis requested or to hire an expert witness if the Board deems such action appropriate. Staff input may include the following:

Criteria:

- A. Staff shall analyze an application for consistency or compliance with comprehensive plan policies, zoning approval criteria and other applicable written standards.
- B. Staff shall conduct site visits of property which are the subject of analysis and recommendation. As part of the site visit, the staff shall take a videotape or photographs where helpful to the analysis and conduct an inventory of surrounding existing uses. Aerial photographs shall also be used where they would aid in an understanding of the issues of the case.
- C. In cases where staff analysis is required, both the applicant and the staff shall present proposed findings of fact for consideration by the Board.
- D. For development applications where a specific use has not been proposed, the worst case adverse impacts of potential uses available under the applicable land use classification shall be evaluated by the staff.

Administrative Policy 3

Compatibility with existing or proposed land uses shall be a factor in determining where a rezoning or any application involving a specific proposed use is being considered. Compatibility shall be evaluated by considering the following factors, at a minimum:

Criteria:

- A. Whether the proposed use(s) would have hours of operation, lighting, odor, noise levels, traffic, or site activity that would significantly diminish the enjoyment of, safety or quality of life in existing neighborhoods within the area which could foreseeably be affected by the proposed use.

- B. Whether the proposed use(s) would cause a material reduction (five percent or more) in the value of existing abutting lands or approved development.
- C. Whether the proposed use(s) is/are consistent with an emerging or existing pattern of surrounding development as determined through analysis of:
 - 1. historical land use patterns;
 - 2. actual development over the immediately preceding three years; and
 - 3. development approved within the past three years but not yet constructed.
- D. Whether the proposed use(s) would result in a material violation of relevant policies in any elements of the Comprehensive Plan.

Administrative Policy 4

Character of a neighborhood or area shall be a factor for consideration whenever a rezoning or any application involving a specific proposed use is reviewed. The character of the area must not be materially or adversely affected by the proposed rezoning or land use application. In evaluating the character of an area, the following factors shall be considered:

Criteria:

- A. The proposed use must not materially and adversely impact an established residential neighborhood by introducing types of intensity of traffic (including but not limited to volume, time of day of traffic activity, type of vehicles, et cetera), parking, trip generation, commercial activity or industrial activity that is not already present within the identified boundaries of the neighborhood.
- B. In determining whether an established residential neighborhood exists, the following factors must be present:
 - 1. The area must have clearly established boundaries, such as roads, open spaces, rivers, lakes, lagoons, or similar features.
 - 2. Sporadic or occasional neighborhood commercial uses shall not preclude the existence of an existing residential neighborhood, particularly if the commercial use is non-conforming or pre-dates the surrounding residential use.
 - 3. An area shall be presumed not to be primarily residential but shall be deemed transitional where multiple commercial, industrial or other non-residential uses have been applied for and approved during the previous five (5) years.

Administrative Policy 5

In addition to the factors specified in Administrative Policies 2, 3, and 4, in reviewing a rezoning, conditional use permit or other application for development approval, the impact of the proposed use or uses on transportation facilities either serving the site or impacted by the

use(s) shall be considered. In evaluating whether substantial and adverse transportation impacts are likely to result if an application is approved, the staff shall consider the following:

Criteria:

- A. Whether adopted levels of services will be compromised;
- B. Whether the physical quality of the existing road system that will serve the proposed use(s) is sufficient to support the use(s) without significant deterioration;
- C. Whether the surrounding existing road system is of sufficient width and construction quality to serve the proposed use(s) without the need for substantial public improvements;
- D. Whether the surrounding existing road system is of such width and construction quality that the proposed use(s) would realistically pose a potential for material danger to public safety in the surrounding area;
- E. Whether the proposed use(s) would be likely to result in such a material and adverse change in traffic capacity of a road or roads in the surrounding area such that either design capacities would be significantly exceeded or a de facto change in functional classification would result;
- F. Whether the proposed use(s) would cause such material and adverse changes in the types of traffic that would be generated on the surrounding road system, that physical deterioration of the surrounding road system would be likely;
- G. Whether projected traffic impacts of the proposed use(s) would materially and adversely impact the safety or welfare of residents in existing residential neighborhoods.

Administrative Policy 6

The use(s) proposed under the rezoning, conditional use or other application for development approval must be consistent with, (a), all written land development policies set forth in these administrative policies; and (b), the future land use element, coastal management element, conservation element, potable water element, sanitary sewer element, solid waste management element, capital improvements element, recreation and open space element, surface water element, and transportation elements of the comprehensive plan.

Administrative Policy 7

Proposed use(s) shall not cause or substantially aggravate any, (a), substantial drainage problem on surrounding properties; or (b), significant, adverse and unmitigatable impact on significant natural wetlands, water bodies or habitat for listed species.

Administrative Policy 8

These policies, the staff analysis based upon these policies, and the applicant's written analysis, if any, shall be incorporated into the record of every quasi-judicial review application for development approval presented to the Board including rezoning, conditional use permits, and vested rights determinations.

Section 62-1151(c) of the Code of Ordinances of Brevard County directs, "The planning and zoning board shall recommend to the board of county commissioners the denial or approval of each application for amendment to the official zoning maps based upon a consideration of the following factors:

- (1) The character of the land use of the property surrounding the property being considered.
- (2) The change in conditions of the land use of the property being considered and the surrounding property since the establishment of the current applicable zoning classification, special use or conditional use.
- (3) The impact of the proposed zoning classification or conditional use on available and projected traffic patterns, water and sewer systems, other public facilities and utilities and the established character of the surrounding property.
- (4) The compatibility of the proposed zoning classification or conditional use with existing land use plans for the affected area.
- (5) The appropriateness of the proposed zoning classification or conditional use based upon a consideration of the applicable provisions and conditions contained in this article and other applicable laws, ordinances and regulations relating to zoning and land use regulations and based upon a consideration of the public health, safety and welfare.

The minutes of the planning and zoning board shall specify the reasons for the recommendation of approval or denial of each application."

CONDITIONAL USE PERMITS (CUPs)

In addition to the specific requirements for each Conditional Use Permit (CUP), Section 62-1901 provides that the following approval procedure and general standards of review are to be applied to all CUP requests, as applicable.

- (b) Approval procedure. An application for a specific conditional use within the applicable zoning classification shall be submitted and considered in the same manner and according to the same procedure as an amendment to the official zoning map as specified in Section 62-1151. The approval of a conditional use shall authorize an additional use for the affected parcel of real property in addition to those permitted in the applicable zoning classification. The initial burden is on the applicant to demonstrate that all applicable standards and criteria are met. Applications which do not satisfy this burden cannot be approved. If the applicant meets its initial burden, then the Board has the burden to show, by substantial and competent evidence, that the applicant has failed to meet such standards and the request is adverse to the public interest. As part of the approval of the conditional use permit, the Board may prescribe appropriate and reasonable conditions and safeguards to reduce the impact of the proposed use on adjacent and nearby properties or the neighborhood. A nearby property, for the purpose of this section, is defined as any property which, because of the character of the proposed use, lies within the area which may be substantially and adversely impacted by such use. In stating grounds in

support of an application for a conditional use permit, it is necessary to show how the request fulfills both the general and specific standards for review. The applicant must show the effect the granting of the conditional use permit will have on adjacent and nearby properties, including, but not limited to traffic and pedestrian flow and safety, curb-cuts, off-street loading and parking, off-street pickup of passengers, odors, glare and noise, particulates, smoke, fumes, and other emissions, refuse and service areas, drainage, screening and buffering for protection of adjacent and nearby properties, and open space and economic impact on nearby properties. The applicant, at his discretion, may choose to present expert testimony where necessary to show the effect of granting the conditional use permit.

(c) General Standards of Review.

- (1) The planning and zoning board and the board of county commissioners shall base the denial or approval of each application for a conditional use based upon a consideration of the factors specified in Section 62-1151(c) plus a determination whether an application meets the intent of this section.
 - a. The proposed conditional use will not result in a substantial and adverse impact on adjacent and nearby properties due to: (1), the number of persons anticipated to be using, residing or working under the conditional use; (2), noise, odor, particulates, smoke, fumes and other emissions, or other nuisance activities generated by the conditional use; or (3), the increase of traffic within the vicinity caused by the proposed conditional use.
 - b. The proposed use will be compatible with the character of adjacent and nearby properties with regard to use, function, operation, hours of operation, type and amount of traffic generated, building size and setback, and parking availability.
 - c. The proposed use will not cause a substantial diminution in value of abutting residential property. A substantial diminution shall be irrebuttably presumed to have occurred if abutting property suffers a 15% reduction in value as a result of the proposed conditional use. A reduction of 10% of the value of abutting property shall create a rebuttable presumption that a substantial diminution has occurred. The Board of County Commissioners carries the burden to show, as evidenced by either testimony from or an appraisal conducted by an M A I certified appraiser, that a substantial diminution in value would occur. The applicant may rebut the findings with his own expert witnesses.
- (2) The following specific standards shall be considered, when applicable, in making a determination that the general standards specified in subsection (1) of this section are satisfied:

- a. Ingress and egress to the property and proposed structures thereon, with particular reference to automotive and pedestrian safety and convenience, traffic flow and control, and access in case of fire and catastrophe, shall be: (1), adequate to serve the proposed use without burdening adjacent and nearby uses, and (2), built to applicable county standards, if any. Burdening adjacent and nearby uses means increasing existing traffic on the closest collector or arterial road by more than 20%, or 10% if the new traffic is primarily comprised of heavy vehicles, except where the affected road is at Level of Service A or B. New traffic generated by the proposed use shall not cause the adopted level of service for transportation on applicable roadways, as determined by applicable Brevard County standards, to be exceeded. Where the design of a public road to be used by the proposed use is physically inadequate to handle the numbers, types or weights of vehicles expected to be generated by the proposed use without damage to the road, the conditional use permit cannot be approved without a commitment to improve the road to a standard adequate to handle the proposed traffic, or to maintain the road through a maintenance bond or other means as required by the Board of County Commissioners.
- b. The noise, glare, odor, particulates, smoke, fumes or other emissions from the conditional use shall not substantially interfere with the use or enjoyment of the adjacent and nearby property.
- c. Noise levels for a conditional use are governed by Section 62-2271.
- d. The proposed conditional use shall not cause the adopted level of service for solid waste disposal applicable to the property or area covered by such level of service, to be exceeded.
- e. The proposed conditional use shall not cause the adopted level of service for potable water or wastewater applicable to the property or the area covered by such level of service, to be exceeded by the proposed use.
- f. The proposed conditional use must have existing or proposed screening or buffering, with reference to type, dimensions and character to eliminate or reduce substantial, adverse nuisance, sight, or noise impacts on adjacent and nearby properties containing less intensive uses.
- g. Proposed signs and exterior lighting shall not cause unreasonable glare or hazard to traffic safety, or interference with the use or enjoyment of adjacent and nearby properties.
- h. Hours of operation of the proposed use shall be consistent with the use and enjoyment of the properties in the surrounding residential community, if any. For commercial and industrial uses adjacent to or near residential uses, the hours of operation shall not adversely affect the use and enjoyment of the residential character of the area.
- i. The height of the proposed use shall be compatible with the character of the area, and the maximum height of any habitable structure shall be not more than 35 feet higher than the highest residence within 1,000 feet of the property line.

- j. Off-street parking and loading areas, where required, shall not be created or maintained in a manner which adversely impacts or impairs the use and enjoyment of adjacent and nearby properties. For existing structures, the applicant shall provide competent, substantial evidence to demonstrate that actual or anticipated parking shall not be greater than that which is approved as part of the site plan under applicable county standards.

FACTORS TO CONSIDER FOR A REZONING REQUEST

Section 62-1151(c) sets forth factors to consider in connection with a rezoning request, as follows:

"The planning and zoning board shall recommend to the board of county commissioners the denial or approval of each application for amendment to the official zoning maps based upon a consideration of the following factors:

- (1) The character of the land use of the property surrounding the property being considered.
- (2) The change in conditions of the land use of the property being considered and the surrounding property since the establishment of the current applicable zoning classification, special use or conditional use.
- (3) The impact of the proposed zoning classification or conditional use on available and projected traffic patterns, water and sewer systems, other public facilities and utilities and the established character of the surrounding property.
- (4) The compatibility of the proposed zoning classification or conditional use with existing land use plans for the affected area.
- (5) The appropriateness of the proposed zoning classification or conditional use based upon a consideration of the applicable provisions and conditions contained in this article and other applicable laws, ordinances and regulations relating to zoning and land use regulations and based upon a consideration of the public health, safety and welfare."

These staff comments contain references to zoning classifications found in the Brevard County Zoning Regulations, Chapter 62, Article VI, Code of Ordinances of Brevard County. These references include brief summaries of some of the characteristics of that zoning classification. Reference to each zoning classification shall be deemed to incorporate the full text of the section or sections defining and regulating that classification into the Zoning file and Public Record for that item.

These staff comments contain references to sections of the Code of Ordinances of Brevard County. Reference to each code section shall be deemed to incorporate this section into the Zoning file and Public Record for that item.

These staff comments contain references to Policies of the Brevard County Comprehensive Plan. Reference to each Policy shall be deemed to incorporate the entire Policy into the Zoning file and Public Record for that item.

These staff comments refer to previous zoning actions which are part of the Public Records of Brevard County, Florida. These records will be referred to by reference to the file number. Reference to zoning files are intended to make the entire contents of the cited file a part of the Zoning file and Public Record for that item.

DEFINITIONS OF CONCURRENCY TERMS

Maximum Acceptable Volume (MAV): Maximum acceptable daily volume that a roadway can carry at the adopted Level of Service (LOS).

Current Volume: Building permit related trips added to the latest TPO (Transportation Planning Organization) traffic counts.

Volume with Development (VOL W/DEV): Equals Current Volume plus trip generation projected for the proposed development.

Volume/Maximum Acceptable Volume (VOL/MAV): Equals the ratio of current traffic volume to the maximum acceptable roadway volume.

Volume/Maximum Acceptable Volume with Development (VOL/MAV W/DEV): Ratio of volume with development to the Maximum Acceptable Volume.

Acceptable Level of Service (CURRENT LOS): The Level of Service at which a roadway is currently operating.

Level of Service with Development (LOS W/DEV): The Level of Service that a proposed development may generate on a roadway.



BOARD OF COUNTY COMMISSIONERS

Planning and Development Department

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<https://www.brevardfl.gov/PlanningDev>

**STAFF COMMENTS
23Z00015**

Terrence A. Cronin, Jr. and Kathleen M. Hubbard

CUP (Conditional Use Permit) for a 199-ft. monopole Wireless Telecommunication Facility (WTCF) in a GU (General Use) Zoning Classification

Tax Account Number: 2324077
Parcel I.D.s: 23-34-25-00-752
Location: East of intersection of SR 407 and SR 528 (District 1)
Acreage: 29.17 acres

Planning & Zoning Board: 6/12/2022
Board of County Commissioners: 7/13/2022

Consistency with Land Use Regulations

- Current zoning can be considered under the Future Land Use Designation, Section 62-1255.
- The proposal can be considered under the Future Land Use Designation, Section 62-1255.
- The proposal would maintain acceptable Levels of Service (LOS) (XIII 1.6.C)

	CURRENT	PROPOSED
Zoning	GU	GU with CUP for 199' monopole WTCF
Potential*	1 SF lot	1 SF lot
Can be Considered under the Future Land Use Map	YES Agriculture	YES Agriculture

* Zoning potential for concurrency analysis purposes only, subject to applicable land development regulations.

Background and Purpose of Request

The applicant is requesting a Conditional Use Permit (CUP) for a 199-foot tall monopole Wireless Telecommunication Facility (WTCF) and accessory equipment on a 0.146-acre (80' X 80') leased area portion of a 29.17-acre parcel. The subject parcel is undeveloped and is currently utilized as grazing land.

The GU zoning is the original zoning of the parcel. Site access will be by easement to the north along SR 407. The current property owners also own the adjacent parcels to the east for extra land area or buffer.

Land Use

The subject property is currently designated Agriculture Future Land Use (FLU) and allows up to one dwelling unit per five (5) acres. The GU zoning classification can be considered consistent with the Agriculture FLU designation.

Applicable Land Use Policies

FLUE Policy 4.1

Appropriate and adequate lands shall be designated Agricultural on the Future Land Use Map. Agricultural activities include, but are not limited to, row, vegetable and fruit crop production; dairy, poultry and livestock production; aquaculture, silviculture, horticulture, and apiariculture. Large lot residential development which does not impede the use of lands for agricultural purposes shall be permitted in this land use designation. The following minimum criteria shall govern activities in this land use designation:

Criteria:

A. Residential densities shall not exceed one dwelling unit per five (5) acres.

This request is for a WTCF cell tower and is not anticipated to have residential density.

B. The County shall not extend public utilities and services outside of the service areas to Agricultural areas for new development, unless there is an overriding public benefit which accrues to an area larger than the specific Agricultural area. However, the County will accept facilities through dedication, and provide services and utilities through MSBU's, MSTU's and other means through which the recipients pay for the service or facility.

The proposed WTCF will serve existing transportation corridors such as SR 528 and SR 407.

C. The County shall actively promote Transfer of Development Rights from Agricultural Lands and restrict Open Space Subdivisions and corresponding density bonuses in those areas designated as Agricultural Future Land Use Map.

This criterion is not applicable to this request.

The existing General Use (GU) zoning classification can be considered consistent with this FLU designation.

The Board should evaluate the compatibility of this application within the context of Administrative Policies 2 – 8 of the Future Land Use Element.

Analysis of Administrative Policy #3 - Compatibility between this site and the existing or proposed land uses in the area.

Compatibility shall be evaluated by considering the following factors, at a minimum:

Criteria:

- A. Whether the proposed use(s) would have hours of operation, lighting, odor, noise levels, traffic, or site activity that would significantly diminish the enjoyment of, safety or quality of life in existing neighborhoods within the area which could foreseeably be affected by the proposed use;

The proposed CUP is not anticipated to diminish the enjoyment of, safety or quality of life in existing vacant or unimproved agricultural lands within the area. The closest residential development is located approximately 2 miles to the east of the subject site on Date Palm Street. All WTCF uses will need to comply with Brevard County's Performance Standards defined by Sections 62-2251 through 62-2272.

- B. Whether the proposed use(s) would cause a material reduction (five per cent or more) in the value of existing abutting lands or approved development.

Only a certified MAI appraisal can determine if material reduction has or will occur due to the proposed request.

- C. Whether the proposed use(s) is/are consistent with an emerging or existing pattern of surrounding development as determined through an analysis of:

1. historical land use patterns;

The subject property is currently utilized as grazing land. The parcel to the east is also owned by the current property owners and is utilized for grazing land. To the south lies SR 528, a limited access roadway.

2. actual development over the immediately preceding three years; and

There has not been any actual development within this area in the preceding three (3) years.

3. development approved within the past three years but not yet constructed.

There has not been any development approved but not yet constructed within a half mile in the preceding three (3) years.

- D. Whether the proposed use(s) would result in a material violation of relevant policies in any elements of the Comprehensive Plan.

No material violation of relevant policies has been identified.

Analysis of Administrative Policy #4 - Character of a neighborhood or area.

There is an existing pattern of General Use (GU) and Agricultural Residential (AU) zoning on parcels surrounding the subject property with a use of grazing land. The closest residential development is located approximately 2 miles to the east of the subject property.

Administrative Policy #5 - the impact of the proposed use or uses on transportation facilities either serving the site or impacted by the use(s) shall be considered.

The proposed tower will generate minimal trips to SR 407 after the initial construction (for maintenance only). SR 528 is a limited access roadway and no access is provided to/from that roadway.

Administrative Policy #6 - application for development approval must be consistent with (a) all written land development policies set forth in these administrative policies; and (b) the future land use element, coastal management element, conservation element, potable water element, sanitary sewer element, solid waste management element, capital improvements element, recreation and open space element, surface water element and transportation elements of the comprehensive plan.

Staff did not find any inconsistencies during review of this application. The proposed CUP appears to meet land development policies noted above.

Surrounding Area

	Existing Use	Zoning	Future Land Use
North	Vacant Land	AU	Agriculture
South	Grazing Land	GU	Agriculture
East	Borrow Pit	AU	Agriculture
West	SR 528 ROW	NA	NA

The subject property is surrounded to the north and east by AU zoning with a use of grazing or vacant lands. The parcel to the south is zoned GU and is being used as grazing land.

The GU classification is a holding category, allowing single-family residences on five acre lots with a minimum width and depth of 300 feet. The minimum house size in GU is 750 square feet.

The AU zoning classification permits single-family residences and agricultural uses on 2.5 acre lots, with a minimum lot width and depth of 150 feet. The minimum house size in AU is 750 square feet. The AU classification also permits the raising/grazing of animals and plants nurseries. Conditional uses in AU include hog farms, zoological parks, and land alteration.

There have been no zoning actions within a half-mile radius of the subject property within the last three years.

Preliminary Concurrency

The closest concurrency management segment to the subject property is SR 407, between SR 528 and I-95, which has a Maximum Acceptable Volume (MAV) of 8,820 trips per day, a Level of Service (LOS) of D, and currently operates at 77.78% of capacity daily. The maximum development potential

from the proposed CUP increases the percentage of MAV utilization by 0.54%. The corridor is anticipated to operate at 78.32% of capacity daily. The request is not anticipated to create a deficiency in LOS.

No school concurrency information has been provided as the development potential of this site falls below the minimum number of new residential lots that would require a formal review.

The parcel is not within the Brevard County utilities service area for public water or sewer.

Environmental Constraints

- Hydric Soils/Wetlands Protection
- Floodplain Protection
- Protected and Specimen Trees
- Protected Species

The subject parcel contains mapped wetlands and hydric soils; indicators that wetlands may be present on the property. Please refer to all comments provided by the Natural Resource Management Department at the end of this report.

Special Considerations for CUP (Conditional Use Permit)

The Board should consider the compatibility of the proposed CUP pursuant to Section 62-1151(c) and to Section 62-1901, as outlined below.

Section 62-1151(c) directs the Board to consider the character of the land use of the property and its surroundings; changes in the conditions of the land use being considered; impact upon infrastructure; compatibility with land use plans for the area; and appropriateness of the CUP based upon consideration of applicable regulations relating to zoning and land use within the context of public health, safety and welfare.

Section 62-1901 provides that the approval of a conditional use shall authorize an additional use for the affected parcel of real property in addition to those permitted in the applicable zoning classification. **The initial burden is on the applicant to demonstrate that all applicable standards and criteria are met. Applications which do not satisfy this burden cannot be approved.** The applicant's responses and staff observations, if any, are indicated below.

The applicant has submitted documentation in order to demonstrate consistency with the standards set forth in Section 62-1901 and Section 62-1953, Wireless Telecommunication Facilities and Broadcast Towers as well as Division 7 - Communication Facilities.

Staff analysis: The applicant has provided a letter from T-Mobile expressing a statement of need and design objective for the general area. As provided in the County's consultant's report, this primary purpose of the proposed facility is to improve T-Mobile's existing service by providing additional capacity for subscriber travelers along State Road 407 and 528. While a significant coverage issue was not determined during review, the consultant confirms that data indicates a capacity gap, and that a new facility can be justified on lack of capacity basis alone.

This request should be evaluated in the context of **Section 62-1953** which outlines conditions for wireless telecommunication facilities which states:

Wireless telecommunication facilities and broadcast towers may be permitted as a conditional use subject to the applicable requirements of article VI, division 7, section 62-1901(c) and this section.

- (1) In addition to the general review criteria in section 62-1901(c), the board shall consider the following:
 - a. The aesthetic effects of the proposed tower on surrounding areas as well as mitigating factors concerning aesthetics.
 - b. The Board may disapprove an application on the grounds that the proposed tower's aesthetic effects are incompatible, or may condition approval on changes in tower height, design, style, buffers, or other features of the wireless communications facility or its surrounding area. Such changes in non-broadcast installations need not result in performance identical to that of the original application.
 - c. Factors relevant to aesthetic effects include: the protection of the view in sensitive or scenic areas and areas specially designated in adopted plans such as unique natural features, scenic roadways and historic sites; the concentration of towers in the proposed area; and whether the height, design, placement or other characteristics of the proposed tower could be modified to have a less intrusive visual impact.
 - d. If the Board determines that the proposed additional service of non-broadcast facilities, coverage, or capacity to be achieved by the location of the proposed facility can be achieved by use of one or more alternative existing wireless communications facilities addressed in this section, which better serve the stated goals set forth in section 62-2402, it may deny the proposed antenna support facility application.

Staff analysis: The County's Wireless Communications Master Plan identifies a county-owned site proximity 1.52 miles to the NE of this proposed location along the north side of SR 407. The recommendation for the county-owned site is as a Monopole tower with height limitation at 175' or Slick Stick at 140'.

- (2) A waiver to the maximum tower heights for wireless telecommunications facilities established in section 62-2422(2) may be considered. The applicant must demonstrate the technical necessity for the proposed tower height in excess of the maximum designation and provide written certification from a radio frequency (RF) engineer licensed in the state stating that the maximum height recommendation will not satisfy the proposed service network objective and that the proposed height is the minimum necessary to satisfy those needs.
- (3) A conditional use permit or building permit for a wireless communication facility or broadcast tower shall expire if a site plan for the tower (if required) is not submitted within one year of approval or if construction does not commence within three years of approval.
- (4) Prior to effecting the removal of any tower, the county shall provide notice and an opportunity to be heard to both the landowner and the CUP holder who shall show cause why the tower should not be removed in accordance with the provisions and requirements of the ordinance. A notice describing the reason for removal and the date of a hearing before the county commission shall be served by certified mail, fax, actual delivery, or U.S. mail (if

otherwise undeliverable) at least 21 days prior to the hearing. The time for effecting removal shall be tolled pending a final determination by the board or, if an action is filed, by a court with jurisdiction.

Staff analysis: As provided in the County's consultant's report, this request is for a *non-concealed* monopole, meaning that the antenna and auxiliary equipment proposed by individual carriers would be mounted outside the structure.

Other Considerations: The applicant is requesting a Conditional Use Permit (CUP) for a 199-foot monopole communications tower and accessory equipment. The tower will accommodate up to four antenna carriers and the facility will be unmanned with occasional visits by service technicians. The site will be accessed via SR 407. The proposed lease area on the subject property will be approximately 80 feet wide and 80 feet deep compound.

Pursuant to Florida State Statutes, § 365.172, the County may request that information or materials directly related to an identified land development or zoning issue be required. The information or materials required may include, but are not limited to, evidence that no existing structure can reasonably be used for the antennae placement instead of the construction of a new tower, that residential areas cannot be served from outside the residential area, or that the proposed height of a new tower or initial antennae placement or collocation is necessary to provide the provider's designed service. The applicant has provided information stating that T-Mobile will be one of the possible carriers that will have antenna on the proposed tower.

State statutes do not prohibit the local government from reviewing any applicable land development or zoning issue addressed in its adopted regulations that does not conflict with the statutes, "including but not limited to aesthetics, landscaping, land use-based location priorities, structural design, and setbacks. Any setback or distance separation required of a tower may not exceed the minimum distance necessary, as determined by the local government, to satisfy the structural safety or aesthetic concerns that are to be protected by the setback or distance separation". The applicant has submitted a site plan and photo simulations from different perspectives for visual impact analysis.

General Standards of Review

Section 62-1901(c)(1)(a): The proposed conditional use will not result in a substantial and adverse impact on adjacent and nearby properties due to: (1) the number of persons anticipated to be using, residing or working under the conditional use; (2) noise, odor, particulates, smoke, fumes and other emissions, or other nuisance activities generated by the conditional use; or (3) the increase of traffic within the vicinity caused by the proposed conditional use.

Applicant's Response: The proposed project is for an unmanned communication tower facility. (1) The project is located in a rural undeveloped area with surrounding AU and GU zoning districts; (2) There will be no noise, odor, particulates, smoke, fumes and other emissions or other nuisance activities; (3) At full capacity the tower will accommodate 4 wireless tenants with an average trip count of once per quarter (16-trips per year total).

Staff analysis: Any noise generated in conjunction with the operation of the business would need to comply with the performance standards of Section 62-2251 through 62-2272, including

the noise regulations of Section 62-2271. The adjacent lands are used for agriculture and will not be substantially nor adversely impacted by the proposed activities.

Section 62-1901(c)(1)(b): The proposed use will be compatible with the character of adjacent and nearby properties with regard to use, function, operation, hours of operation, type and amount of traffic generated, building size and setback, and parking availability.

Applicant's Response: The proposed use will serve as infrastructure for mobile communications and E911 service, common in coastal, urban and rural areas. The proposed tower is consistent with the County's LDC with respect to height for rural areas and meets all setback requirements. It is an unmanned facility with minimal traffic (16 annual trips).

Staff analysis: The applicant has proposed their intent to comply with code provisions. If the Board desires additional information or conditions beyond these standards, it should be identified at the public hearing.

Section 62-1901(c)(1)(c): The proposed use will not cause a substantial diminution in value of abutting residential property. A substantial diminution shall be irrebuttable presumed to have occurred if abutting property suffers a 15 percent reduction in value as a result of the proposed conditional use. A reduction of ten percent of the value of abutting property shall create a reputable presumption that a substantial diminution has occurred. The board of county commissioners carries the burden to show, as evidenced by either testimony from or an appraisal conducted by a MAI certified appraiser, that a substantial diminution in value would occur. The applicant may rebut the findings with his own expert witnesses.

Applicant's Response: The proposed use will serve as infrastructure for mobile communications and E911 service, common in coastal, urban and rural areas. The proposed tower is consistent with the County's LDC with respect to tower height for rural areas and meets all setback requirements. The project is located in a rural undeveloped area with surrounding AU and GU zoning districts.

Staff analysis: The parcel is located adjacent to property under agricultural operations; should this neighboring use change due to proposed residential development of the abutting sites, it may be necessary to re-evaluate the potential impacts that this site may propose.

Section 62-1901(c)(2)(a): Ingress and egress to the property and proposed structures thereon, with particular reference to automotive and pedestrian safety and convenience, traffic flow and control, and access in case of fire and catastrophe, shall be: (1) adequate to serve the proposed use without burdening adjacent and nearby uses, and (2) built to applicable county standards, if any.

Note: Burdening adjacent and nearby uses means increasing existing traffic on the closest collector or arterial road by more than 20 percent, or ten percent if the new traffic is primarily comprised of heavy vehicles, except where the affected road is at level of service A or B. New traffic generated by the proposed use shall not cause the adopted level of service for transportation on applicable roadways, as determined by applicable county standards, to be exceeded. Where the design of a public road to be used by the proposed use is physically inadequate to handle the numbers, types or weights of vehicles expected to be generated by the proposed use without damage to the road, the conditional use permit cannot be approved without a commitment to improve the road to a standard

adequate to handle the proposed traffic, or to maintain the road through a maintenance bond or other means as required by the board of county commissioners.

Applicant's Response: At full capacity the tower will accommodate 4 wireless tenants with an average trip count of once per quarter (16 trips per year total).

Staff analysis: The site has direct access to SR 407. Traffic speeds may need to be addressed for the safe acceleration or deceleration from the property and will be reviewed as part of the site plan review process.

Section 62-1901(c)(2)(b): The noise, glare, odor, particulates, smoke, fumes or other emissions from the conditional use shall not substantially interfere with the use or enjoyment of the adjacent and nearby property.

Applicant's Response: There will be no noise, glare, odor, particulates, smoke, fumes and other emissions and will not substantially interfere with the use or enjoyment of the adjacent and nearby properties.

Staff analysis: Except for the initial construction and the appropriate use of up-shielding for required pole lighting at the mid-point and top of the tower, nuisance issues may be minimal.

Section 62-1901(c)(2)(c): Noise levels for a conditional use are governed by section 62-2271.

Applicant's Response: Note: The proposed project will comply with the above listed maximum noise level.

Staff analysis: The "performance standards" will be reviewed as part of the site plan review process.

Section 62-1901(c)(2)(d): The proposed conditional use shall not cause the adopted level of service for solid waste disposal applicable to the property or area covered by such level of service, to be exceeded.

Applicant's Response: There will be no solid waste created by this project.

Staff analysis: The request should not cause the level of service for solid waste disposal for the property or area covered by such level of service to be exceeded.

Section 62-1901(c)(2)(e): The proposed conditional use shall not cause the adopted level of service for potable water or wastewater applicable to the property or the area covered by such level of service, to be exceeded by the proposed use.

Applicant's Response: There will be no potable water or wastewater created by this project.

Staff analysis: The parcel is not within the Brevard County utilities service area for public water or sewer. The service for potable water or wastewater will require application and review through the Florida State Department of Environmental Health.

Section 62-1901(c)(2)(f): The proposed conditional use must have existing or proposed screening or buffering, with reference to type, dimensions and character to eliminate or reduce substantial, adverse nuisance, sight, or noise impacts on adjacent and nearby properties containing less intensive uses.

Applicant's Response: The proposed project will meet all County LDC requirements for screening and buffering in terms of type, dimensions and character.

Staff analysis: The screening or buffering aspects have been identified on the concept plan and entails a 15-foot wide perimeter buffer of shade trees and shrubs. Should the Board determine that additional measures become necessary, the Board may wish to request the applicant provide for those additional measures.

Section 62-1901(c)(2)(g): Proposed signs and exterior lighting shall not cause unreasonable glare or hazard to, traffic safety, or interference with the use or enjoyment of adjacent and nearby properties.

Applicant's Response: This project will not have exterior lighting. All required signage to be placed on the facility fence will be in accordance with County LDC standards.

Staff analysis: No electrical current signage has been identified on the concept plan. Should the Board determine that additional measures become necessary, the Board may wish to request the applicant provide for those additional measures. Signage must comply with Article IX of the Brevard County Code of Ordinances.

Section 62-1901(c)(2)(h): Hours of operation of the proposed use shall be consistent with the use and enjoyment of the properties in the surrounding residential community, if any. For commercial and industrial uses adjacent to or near residential uses, the hours of operation shall not adversely affect the use and enjoyment of the residential character of the area.

Applicant's Response: The proposed tower facility is located in a rural undeveloped area with surrounding AU and GU zoning districts and is unmanned with limited vehicular trips per month.

Staff analysis: The WTCF use is a 24/7 operation.

Section 62-1901(c)(2)(i): The height of the proposed use shall be compatible with the character of the area, and the maximum height of any habitable structure shall be not more than 35 feet higher than the highest residence within 1,000 feet of the property line.

Applicant's Response: The proposed tower is consistent with the County's LDC with respect to tower height for rural areas and meets all setback requirements.

Staff analysis: Under the County's Wireless Communications Master Plan, the site is designated as "rural" which corresponds to a 199-foot maximum height recommendation. As provided in the County's consultant's report, if the County, with the consent of the applicant and the landowner, desires to legally prohibit the tower owner from ever increasing the tower height above 200 feet AGL through the eligible facility provisions of the FCC for administrative approval, the County could require the establishment of a restrictive covenant to run with the land.

Section 62-1901(c)(2)(J): Off-street parking and loading areas, where required, shall not be created or maintained in a manner which adversely impacts or impairs the use and enjoyment of adjacent and nearby properties. For existing structures, the applicant shall provide competent, substantial evidence to demonstrate that actual or anticipated parking shall not be greater than that which is approved as part of the site plan under applicable county standards.

Note: for existing structures, the applicant shall provide competent, substantial evidence to demonstrate that actual or anticipated parking shall not be greater than that which is approved as part of the site plan under applicable county standards.

Applicant's Response: Off-street parking and loading areas are not required as part of this project.

Staff analysis: One parking space is noted within the proposed plan.

The County's consultant's report and findings are attached hereto for the Board's consideration.

For Board Consideration

The Board may wish to consider if the request for the proposed CUP is consistent and compatible with the surrounding area. The Board may wish to consider additional conditions beyond those cited in section 62-1901 in order to mitigate potential impacts to abutting properties, such as:

- Applicant should provide final Construction Documents and Site Plans for review;
- Applicant should obtain, and provide proof of, NEPA and SHPO approvals for the new structure;
- Applicant should provide a Structural Analysis based on the final construction parameters with the monopole elevation at 193 feet, signed and sealed by a Florida Registered Professional Engineer; and,
- All feed lines shall be installed within the support structure, and the antenna ports shall be sealed in a manner to prevent access by birds and other wildlife.

NATURAL RESOURCES MANAGEMENT DEPARTMENT
Rezoning Review & Summary
Item # 23Z00015

Applicant: Gulfstream Towers LLC

Zoning Request: Conditional Use Permit (CUP)

Note: CUP for monopole cellular tower

P&Z Hearing Date: 06/12/23; **BCC Hearing Date:** 07/13/23

Tax ID No: Part of 2324077

- This is a preliminary review based on best available data maps reviewed by the Natural Resources Management Department (NRM) and does not include a site inspection to verify the accuracy of the mapped information.
- In that the rezoning process is not the appropriate venue for site plan review, specific site designs submitted with the rezoning request will be deemed conceptual. Board comments relative to specific site design do not provide vested rights or waivers from Federal, State or County regulations.
- **This review does not guarantee whether or not the proposed use, specific site design, or development of the property can be permitted under current Federal, State, or County Regulations.**

Summary of Mapped Resources and Noteworthy Land Use Issues:

- Hydric Soils/Wetlands Protection
- Floodplain Protection
- Protected and Specimen Trees
- Protected Species

The subject parcel contains mapped wetlands and hydric soils; indicators that wetlands may be present on the property. A wetland determination will be required prior to any land clearing activities, site plan design or building permit submittal. Section 62-3694(f) states that utility corridors developed or maintained by governmental or investor owned regulated utilities are permitted in wetlands. Any adverse impact, degradation or destruction of wetlands must be mitigated as provided in section 62-3696.

Land Use Comments:

Wetlands/Hydric Soils

The subject parcel contains mapped National Wetlands Inventory (NWI) and St. Johns River Water Management District (SJRWMD) wetlands and hydric soils (Delray sand, occasionally flooded; and Immokalee sand, 0 to 2 percent slopes) – indicators that wetlands may be present on the property. A wetland determination will be required prior to any land clearing activities, site plan design or building permit submittal. Section 62-3694(f) states that utility corridors developed or maintained by governmental or investor owned regulated utilities are permitted in wetlands. Any adverse impact, degradation or destruction of wetlands must be mitigated as provided in section 62-3696. The applicant is encouraged to contact NRM at (321) 633-2016 prior to any site plan design or permit submittal.

Floodplain Protection

The northern corner portion of the project area is mapped as being within the St. Johns Riverine floodplain as identified by the Federal Emergency Management Agency and as shown on the FEMA Flood Map. The property may be subject to the development criteria in Conservation Element Objective 4, its subsequent policies, and the Floodplain Ordinance, including compensatory storage and filled footprint restrictions. Chapter 62, Article X, Division 6 states, "No site alteration shall adversely affect the existing surface water flow pattern." Chapter 62, Article X, Division 5, Section 62-3723 (2) states, "Development within floodplain areas shall not have adverse impacts upon adjoining properties."

Protected and Specimen Trees

Aerials indicate that Protected (greater than or equal to 10 inches in diameter) and Specimen Trees (greater than or equal to 24 inches in diameter) may be present on subject property. A tree survey will be required at time of a site plan submittal. Per Brevard County Landscaping, Land Clearing and Tree Protection ordinance, Section 62-4341(18), Protected and Specimen Trees shall be preserved or relocated on site to the Greatest Extent Feasible. Per Section 62-4332, Definitions, Greatest Extent Feasible shall include, but not be limited to, relocation of roads, buildings, ponds, increasing building height to reduce building footprint or reducing Vehicular Use Areas. The applicant is advised to refer to Article XIII, Division 2, entitled Land Clearing, Landscaping, and Tree Protection, for specific requirements for tree preservation and canopy coverage requirements. Land clearing is not permitted without prior authorization by NRM.

Protected Species

Information available to NRM indicates that federally and/or state protected species may be present on the property. Prior to any plan, permit submittal, or development activity, including land clearing, the applicant should obtain any necessary permits or clearance letters from the Florida Fish and Wildlife Conservation Commission and/or U.S. Fish and Wildlife Service, as applicable.

Brevard County, Florida
Telecommunications Site Review
New Wireless Telecommunication Tower



2423 S. Orange Avenue, #317
Orlando, FL 32806
Tel. 877.438.2851
Fax. 877.220.4593

March 3, 2023

Mr. Jeffrey Ball
Planning and Zoning Manager
Brevard County Planning & Development
2725 Judge Fran Jamieson Way, A-114
Viera, FL 32940

APPLICANT: Gulfstream Towers, LLC
PROVIDER: T-Mobile USA
SITE NAME: FL208
COUNTY PARCEL ID: 23-34-25-00-752
ADDRESS: Challenger Memorial Parkway (SR407), Cocoa, FL 32927
LATITUDE: 28° 27' 03.24" N **LONGITUDE:** 80° 52' 16.57" W
STRUCTURE: 193-foot Non-Concealed Monopole Tower (plus 6-foot Lightning Rod)

Dear Mr. Ball,

At your request, on behalf of Brevard County ("County"), CityScape Consultants, Inc. ("CityScape") in its capacity as telecommunications consultant for the County has considered the merits of the above-referenced application submitted by Gulfstream Towers, LLC ("Applicant"). The Applicant proposes to construct a new one hundred ninety nine (199) foot wireless telecommunications support structure and associated 2,500 square foot ground equipment compound located on Challenger Memorial Parkway (SR407, street number unknown), see *Figure 1*. The Applicant will lease a parcel of land for the purpose of constructing and operating the proposed new facility.

The Applicant is requesting to construct a *non-concealed* monopole tower of 193 feet in height with a 6-foot lightning rod on top, on a property that is zoned GU (General Use), which requires a Conditional Use Permit ("CUP"). The proposed facility is meant for use by Personal Wireless Providers, although the Applicant does not propose at this time the installation of wireless base station equipment on the tower and in the equipment compound. The Applicant has stated that T-Mobile USA ("T-Mobile" or "Provider") will be the anchor tenant at this site and T-Mobile will be applying for a separate permit to co-locate on the proposed new facility after the Applicant is granted a CUP. The proposed facility will be designed to accommodate up to four (4) tenants including T-Mobile.

Application Review Timeline

CityScape first received the application from the County in February 2022 and over the course of twelve months reviewed revised materials on four other dates. The Application was deemed incomplete several times because the Applicant did not address all the County's Code requirements with the original and subsequent resubmittals. CityScape deemed the application complete in February 2023. A summary of submittals and review dates by CityScape is provided in Table 1.

Dates Application Materials Received by CityScape	Date Review Completed by CityScape	Summary of Comments
2/28/22	3/10/22	Application deemed incomplete because a variety of items in the Code were not addressed including no mention of an anchor tenant.
10/31/22	11/10/22	Applicant deemed incomplete because Code items were not addressed including but not limited to landscaping, abandonment, maintenance, requirements related to location, concealment, and a sworn affidavit from T-Mobile regarding RF engineering items.
12/30/22 and 2/2/23	2/3/23	Application deemed incomplete due to a few outstanding question for Applicant.
2/8/23	2/9/23	Application deemed complete.

Table 1: Summary of Review Timeline

Ground Compound Layout and Elevation Plans

The Applicant submitted a Ground Compound Layout Plan with minimal compound details. The proposed leased parcel is 6,400 square feet (80' x 80'). Within this leased area, there will be a proposed 50-foot by 50-foot compound to be enclosed by a 6-foot boarded fence with pre-fabricated pressure-treated wood boards on board fence panels. The layout plan drawing does not designate distinct areas for four total Service Providers but it appears that the ground equipment for four providers can be accommodated. There are plans for a utility pad-mounted transformer, a telco box and a utility H-frame, all for enabling utility connections. Shown also on the layout plan drawing is a 60-foot radius circle around the tower location, defined as the engineering-designed fall zone radius. See *Figure 2* depicting the proposed Layout Plan.

The Applicant provided a Tower Elevation Sketch showing a total of four (4) carrier arrays on the monopole support structure, *see Figure 3*. The centerline heights of the four carrier arrays are noted in the sketch as 193, 183, 173 and 163 feet AGL, although this may be a preliminary arrangement; however, according to the T-Mobile RF engineer, T-Mobile requested 180 feet as the centerline of its antennas which correlates roughly with the second antenna slot second from the top of the tower. The Applicant and/or T-Mobile should provide clarity on the exact proposed height of T-Mobile's antennas.

Although the Federal Aviation Administration ("FAA") is not requiring the installation of aviation obstruction lights on the tower, the County Ordinance requires dual-red lights at the mid-point of the tower and at the top of the tower, which are specified in the Applicant's plans, *see Figure 3*. The Applicant states that the top dual-red lights will flash at a rate not to exceed 20 flashes per minute (every three seconds), per the County Ordinance.

The County should be aware that the Application is for a *non-concealed monopole*, meaning that the antenna and auxiliary equipment proposed by the individual carriers would be mounted outside the structure. If the monopole is permitted and built as *non-concealed*, it may have the appearance of a *concealed* structure for an indeterminate length of time until the first

Wireless Provider, presumably T-Mobile, collocates¹ on the tower, but the tower would not be engineered as a concealed tower. In other words, while the tower is waiting for the first collocation, it should still be regarded as a non-concealed tower for permitting purposes. Thus, the first collocation can qualify as an *unsubstantial change* under Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 because, being a non-concealed tower, no tower concealment aspects would be defeated by a first collocation meeting the requirements of an unsubstantial change. Thus, the first and, by extension, subsequent collocations can qualify for streamlined processing provided that all FCC rules and County ordinance provisions regulating eligible facility collocation/modification are followed. If the County, with the consent of the Applicant and the landowner, desires to legally prohibit the tower owner from ever increasing the tower height above 200 feet AGL through the eligible facility provisions of the FCC for administrative approval, the County could require the establishment of a restrictive covenant to run with the land.

Site Justification and Coverage

In order to confirm that the Applicant is qualified to submit a permit application for a new wireless communication facility, CityScape initially refers to the Telecommunications Act of 1996, the Brevard County ordinance as it applies to this application, and all other pertinent federal and state laws and any relevant historic factors that would impact our recommendations. Most important is the Applicant, which must be a licensed or unlicensed personal wireless service provider, as defined by the FCC, or its registered agent. In this case, the Applicant, as a tower company, is not a qualified service provider; however, a significant amount of the engineering documentation in the Application, including that which justifies the proposed facility, has been provided by T-Mobile, who is a qualified service provider. Therefore, Gulfstream Towers is deemed qualified to submit an application for this facility and is entitled to provisions of the relevant portions of Part 704 of the Telecommunications Act of 1996 (47 USC §332).

The proposed site is located about 1,300 feet east of the point where State Route 407 joins with State Route 528 in an 18.1-acre parcel. An RF Engineer for T-Mobile South LLC in the Orlando-Tampa Market, Jason Paulley, explained the need for a new facility in a notarized letter to County Planning & Development with the following statements:

(Edited) "The site is needed to improve road coverage and capacity. The next site west along SR528 is 6 miles west and has a 245' antenna center line [height]. The site also needs to cover 2 miles NE along SR407 and SE along SR528. The next T-Mobile site to the east has an [antenna height] AGL of 205'. T-Mobile's requested 180' AGL on this planned 199' tower is in line with surrounding site AGLs and needed for the inter-site distances present."

The above statement, together with T-Mobile's submitted documentation, meets the threshold required to justify the need for a new facility. CityScape can confirm a capacity gap with the Provider's supporting documentation, but CityScape, even with the supporting before/after propagation maps, see *Figures 4 and 5*, cannot confirm a significant coverage issue; according to these maps, the coverage improvement is primarily an upgrade from in-vehicle

¹ The FCC ruled that "collocation" includes the *first* placement of transmission equipment on a "wireless tower" or "base station."

coverage to in-building residential coverage over unpopulated areas, thus resulting in no material new coverage. Nevertheless, the Wireless Provider must justify either a coverage gap or a capacity gap.

Generally, a Provider can increase its geographic service area with antennas mounted higher on the support structure. However, the ground equipment has a limit as to how many connection requests (phone calls, texts, internet access, etc.) it can process at any given time because the amount of RF spectrum available to a Provider is limited. As population growth and urban/suburban expansion occur, the demand for wireless service increases, and each wireless facility becomes less capable of meeting network service demands, even if the geographic service area does not change. In areas where wireless communication is intense and airtime minutes are high (typically in urban/suburban areas and along roads with high traffic levels), high volumes of connection requests will exceed the designed network capacity, resulting in busy signals, dropped calls and slow data speeds. To help remedy this situation, a Provider will build a new base station situated in between existing base stations that are approaching maximum capacity; the added base station is akin to a “relief valve” to which excess wireless traffic in the existing base stations’ service areas is offloaded.

Generally, new wireless communication facilities are roughly equidistant to nearby existing sites. However, network capacity problems and/or other factors may necessitate a facility that it is *not* equally spaced with respect to existing sites. In the case of capacity problems, when siting a new facility, consideration must be given to areas where connection traffic is overwhelming existing sites.

This is the primary purpose of the proposed facility, which is to improve T-Mobile’s existing service by providing additional capacity for subscriber travelers along State Roads 407 and 528 which otherwise would overwhelm existing T-Mobile sites to the northeast, east, southeast and west of the proposed site. This is especially important in times of incoming hurricanes because, as stated by the Applicant, the area to be served by the proposed facility encompasses major evacuation routes for motorists traveling in many directions. T-Mobile provided data volume utilization graphs indicating the need for a new support structure to which to offload data from the existing T-Mobile sites. Although some terminology appearing on the graphs is unknown to CityScape, the graphs do indicate that the levels of data handled by the existing nearby T-Mobile sites are on the threshold of exceeding their capacities. The capacity gap is established and it can be resolved by the proposed facility. Thus, CityScape confirms that a new facility can be justified on a lack of capacity basis alone. The remaining task is to determine if there are alternative solutions, which is discussed in the next section.

Because of the ever-increasing wireless demand mentioned above, it is reasonable to expect T-Mobile and other carriers to request additional sites in the Orlando market. As the number of personal wireless devices grows and new mobile device applications are introduced, it is clear that the “minutes” used by wireless devices will increase, all requiring an increase in the number of wireless facilities.

Regarding the justification for the proposed tower height, the T-Mobile RF engineer stated in his affidavit that 180-foot antenna centerline height is needed at the proposed site of the 199-foot tower, saying that this is “in line with surrounding [centerline heights] and needed for the inter-site distances present.” Only a Provider’s RF engineer is qualified to submit statements

for justifying the height and location of a new wireless facility and CityScape has determined these assessments to be true.

Alternative Sites Analysis

The analysis and our recommendations herein are limited to the specific information which can be directly attributed to T-Mobile. CityScape is reasonably comfortable accepting this information and intends to analyze the proposal as submitted and to determine if there are any another viable alternative locations allowing T-Mobile to meet their service objectives within the requirements of the Brevard County ordinance.

A reasonable search area map, also known as a “search ring” map, is a key element in assuring that a site is justified. T-Mobile **did not** provide its search area map despite requests by CityScape. CityScape then had to estimate the location and size of a circle representing the worst-case search area as follows: Based on the highest frequency band that T-Mobile operates on, that being 2500 MHz, we estimate that the average radius of the search area is one-half (0.5) mile. The selected site would likely be up to 0.75 mile from the center of the search area² (0.5 mile plus 0.25 mile for selection adaptability). Since the center of the search area is not known, it could be in any direction from the proposed site. Thus, we have estimated the worst-case search area as a circle of 1.5-miles radius (0.75 times 2) centered at the proposed site.

While collocation on an existing structure is preferred over new construction, currently the Applicant states this is not an option. According to Mr. Paulley’s supplemental letter dated December 29, 2022, there are no viable candidates for collocation in the proposed service area. Says Mr. Paulley, there are three existing towers west of the proposed site ranging in height from 20 to 28 feet, but these heights are inadequate for the service improvement needed, and CityScape agrees. CityScape has verified that there are no existing tall structures less than 1.5 miles within the proposed site, see *Figure 6*. Searching both public and private communication tower databases, CityScape has determined and plotted on a Google Earth map all existing towers within a 4-mile radius of the proposed site, see *Figure 6*. The nearest structure, identified by the applicant, is 2.33 miles east of the proposed site shown in *Figure 6*, which is far beyond the search ring that may have been originally determined by the T-Mobile RF engineer. This site and two other sites within the 4-mile circle are existing T-Mobile sites; collocation on an existing T-Mobile to solve its capacity problem is neither practical nor beneficial. Thus, the Applicant appears to have met the preponderance of evidence threshold for justifying new construction for the proposed facility.

Concealed Tower Versus Non-Concealed Tower

Mr. Paulley, the T-Mobile RF engineer, in his affidavit addressed the option of constructing a concealed tower rather than a non-concealed tower, such as a monopole that resembles a flag pole with the antenna systems enclosed in 10-foot canisters mounted inside the monopole so as not to be visible. Mr. Paulley states: “Any concealed tower application that restricts the antenna equipment on the tower is not technically feasible, practical or justified given the location of the proposed wireless telecommunications facility.” This statement is confusing because the technical feasibility or practicality of a concealed monopole has nothing to do with the location of the site. If the meaning of the statement is that it is not technically feasible or practical to use a concealment monopole, CityScape does not agree, as this is a

² The center of a Search Area is rarely at or in the immediate vicinity of the selected site.

commonly used concealment solution for all the major Providers, including T-Mobile. If the inference is that the extreme rural nature of the proposed site does not justify the use of a concealed monopole, then this is plausible argument against building a concealed tower.

One disadvantage of the canister system for a concealed monopole is that only up to eight antennas can be mounted in one 10-foot canister, while in typical Wireless Provider installations two canisters with a total height of 20 feet may be needed. This requires more vertical space per Provider on the tower and thus lowers the centerline of the antennas for each provider. Taking the subject proposal as an example, the fourth collocation spot down from the tower top could have an antenna centerline height as low as 123 feet AGL instead of the 163 feet AGL elevation that is possible using exterior platform mounts. Whenever possible, a multi-carrier wireless tower should be designed so that all carriers have similarity of antenna elevations. Otherwise, there is a disparity of wireless coverage among the carriers.

Given that the proposed location is in a remote wetland and conservation area, for the reasons stated above, a non-concealed tower makes more sense from an engineering standpoint, and it can be argued that a non-concealed tower would not have a substantial visual impact. CityScape defers to the County to make this determination.

FAA Notification

The FAA's Determination of No Hazard to Air Navigation, dated February 9, 2022, for a tower height of 199 feet is included in the Application; however, after the issue date of the Notice, the Applicant changed the location of the tower, moving it slightly southwest in order to meet the minimum 400-foot setback from the property line to the east. It is suggested that the Applicant notify the FAA, on a 7460-1 form, of the new geographic coordinates of the proposed tower.

Landscape Buffering

The County has the right under its existing Ordinance to require visual screening and/or landscaping that the County deems necessary to minimize the aesthetic impact of this facility. The Applicant included a plan in the application to address landscaping to visually obscure the fenced tower and/or ground compound which entails a 15-foot wide perimeter buffer of a mix of shade trees and shrubs. The Applicant may be able to rely on the natural woods that mostly surround the leased area so that a minimized landscaping plan may be possible. In any case, the landscape plan is subject to the approval of the County. It should be noted, however, that if the general area around the subject parcel is developed in the future, the County would not be allowed to require landscaping retroactively.

Fall Zone and Structural

As referenced previously, and as seen on attached *Figure 3*, there is a 60-foot circle around the monopole and the 50' by 50' compound, designated as a 60-foot Engineered Fall Zone Radius. Design sheets from Sabre Industries, under cover of an undated letter from the Applicant, has general information about a monopole supporting the equipment of four collocators plus three microwave dish antennas, upon order would comply with ANSI/TIA-222-H, Risk Category II, Exposure Category C, and Topographic Category 1. The Sabre document does not mention the engineered fall radius (a/k/a "breakpoint technology"), but the Applicant's narrative statement says that the fall radius would be 60 feet. While the application makes references to a structural analysis, until the particulars of the proposal are approved and finalized

and a permit is issued, a complete structural analysis would be premature, but nevertheless should be provided to the County before construction commences.

Conclusions and Recommendations

CityScape studied all submitted information to determine if there are any alternatives to the proposed construction of a new tower. Based on the submitted information as well as CityScape's own investigations, there are no existing towers on which to collocate that would be feasible as solutions to T-Mobile's service gap, and the tower height is appropriate and is similar to many other Providers' wireless towers serving the County.

Should the County approve the subject application, CityScape recommends that the following conditions be required prior to permitting:

1. Applicant should provide final Construction Documents and Site Plans for review; and
2. Applicant should obtain, and provide proof of, NEPA and SHPO approvals for the new structure; and,
3. Applicant should provide a Structural Analysis based on the final construction parameters with the monopole elevation at 193 feet, signed and sealed by a Florida Registered Professional Engineer; and,
4. All feed lines shall be installed within the support structure, and the antenna ports shall be sealed in a manner to prevent access by birds and other wildlife.

I certify that, to the best of our knowledge, all of the information contained herein is accurate at the time of this report. CityScape only works exclusively for public entities and has unbiased opinions. CityScape does not provide any services or is associated in any way with any entity in the commercial wireless industry and therefore all recommendations are based on technical merits without prejudice per prevailing laws and codes.

Respectfully submitted,



B. Benjamin Evans
Senior Project Engineer
CityScape Consultants, Inc.



Susan Rabold
Project Manager
CityScape Consultants, Inc.

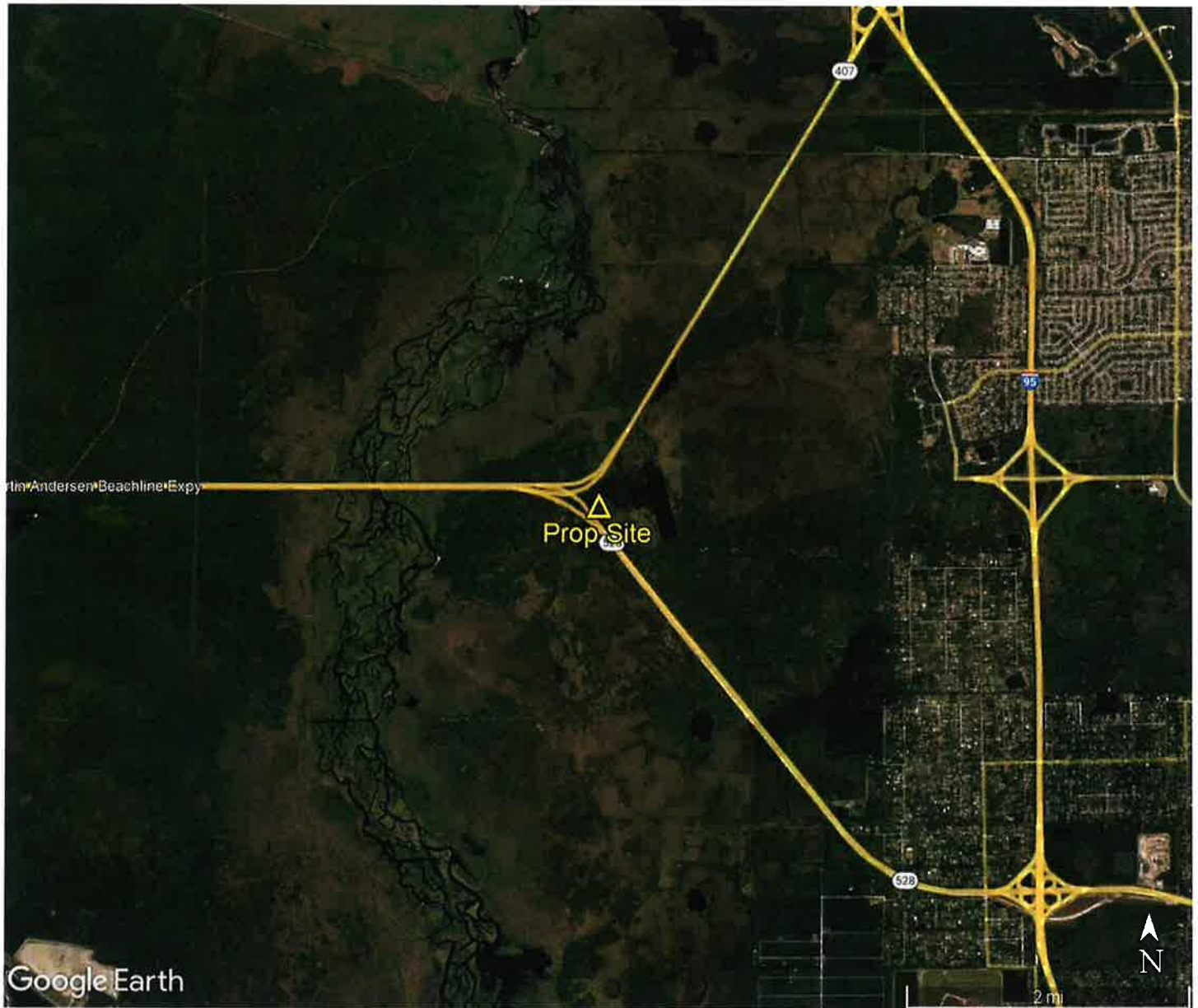


Figure 1 – Site Location Map

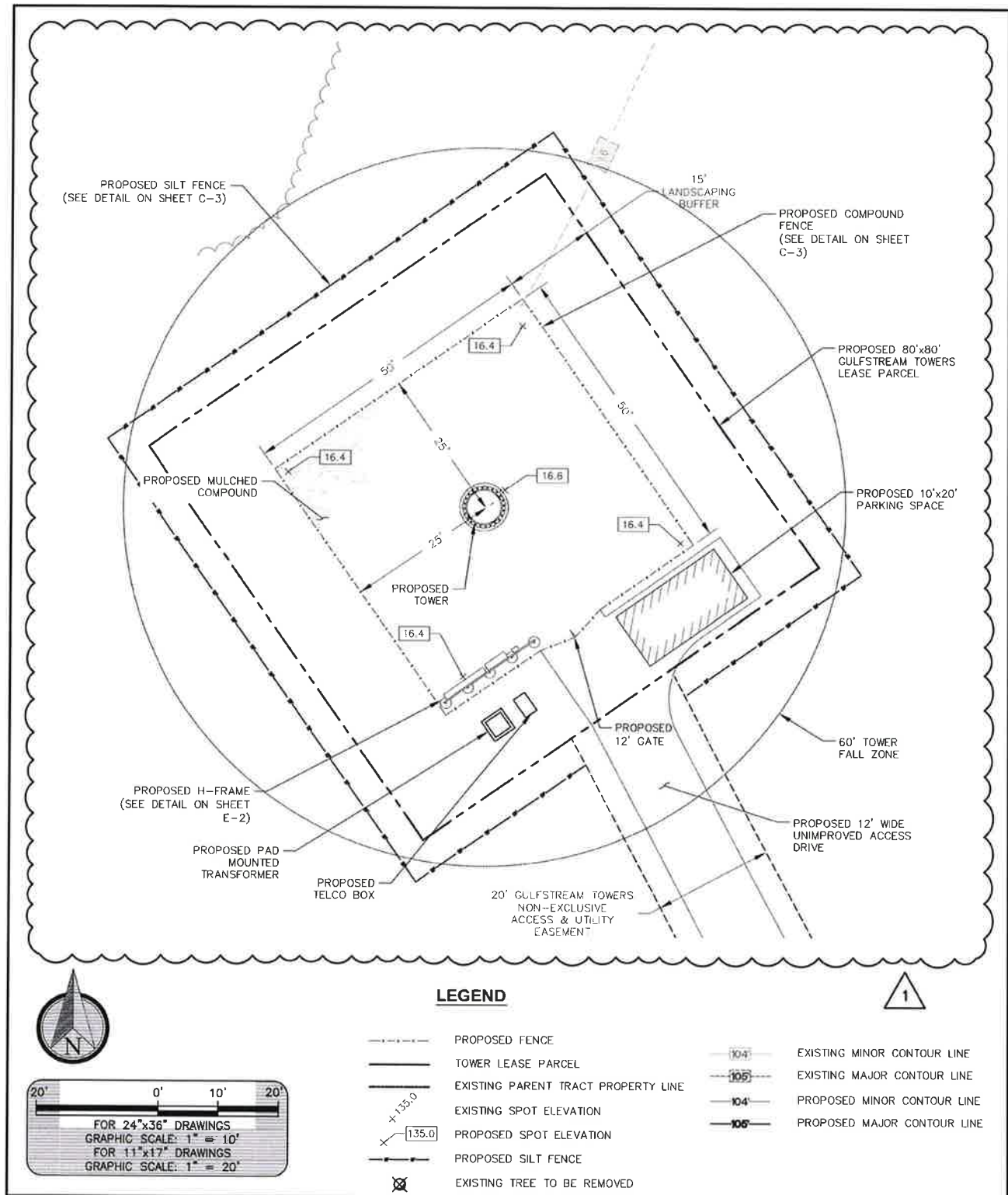


Figure 2 – Leased Parcel Plan and Proposed Compound

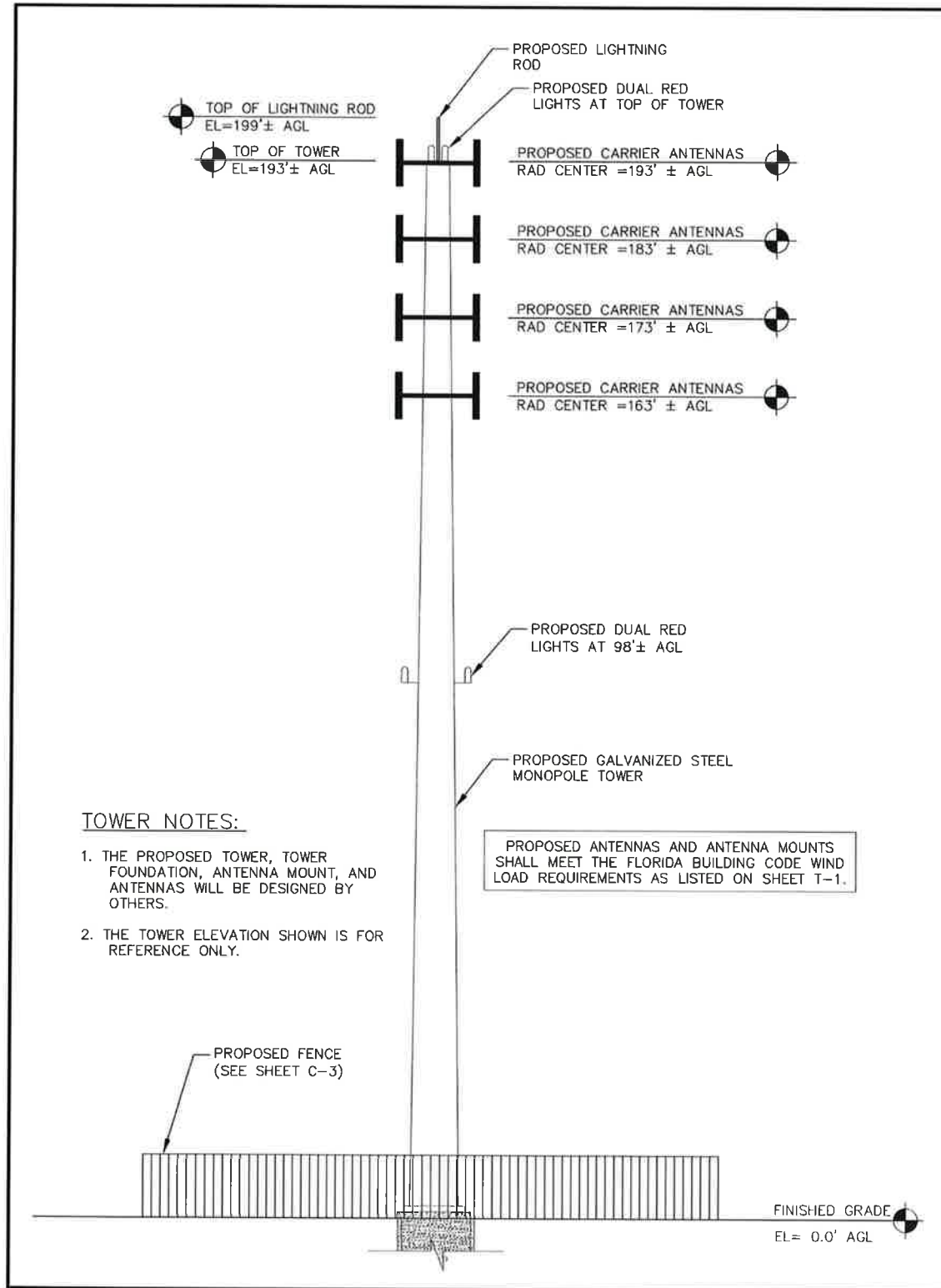


Figure 3 – Elevation Sketch of Proposed Monopole Tower

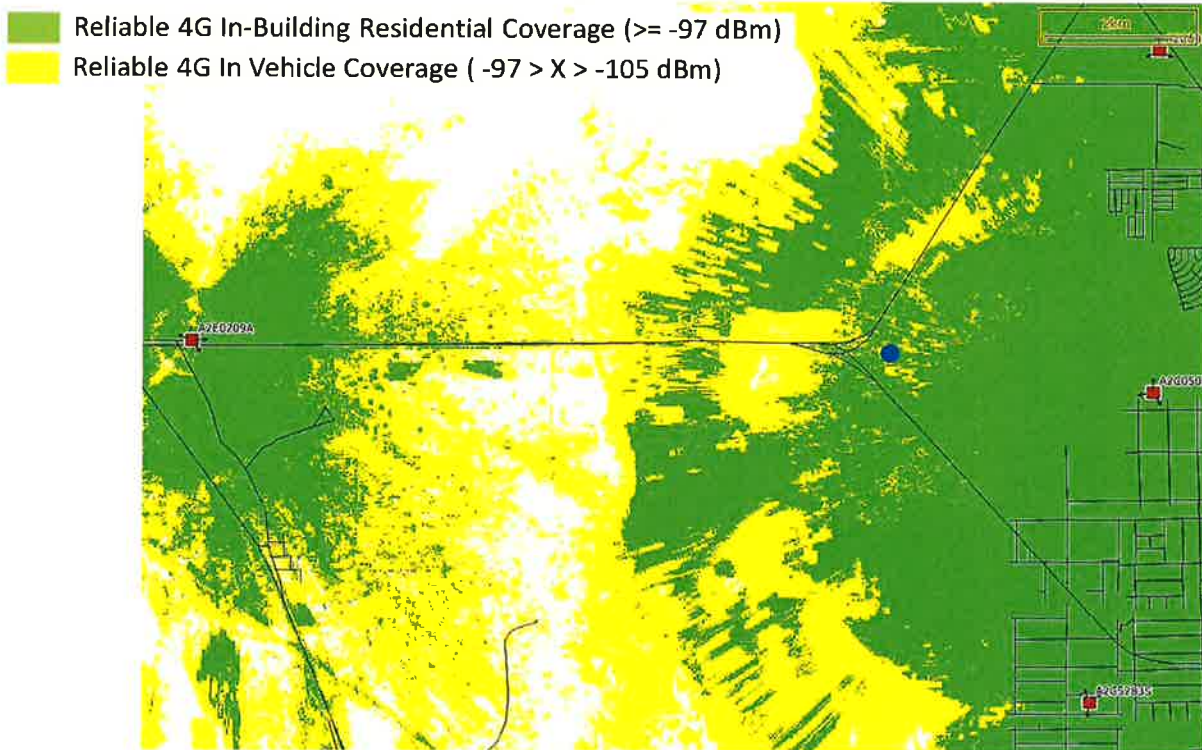


Figure 4 – Existing T-Mobile Coverage

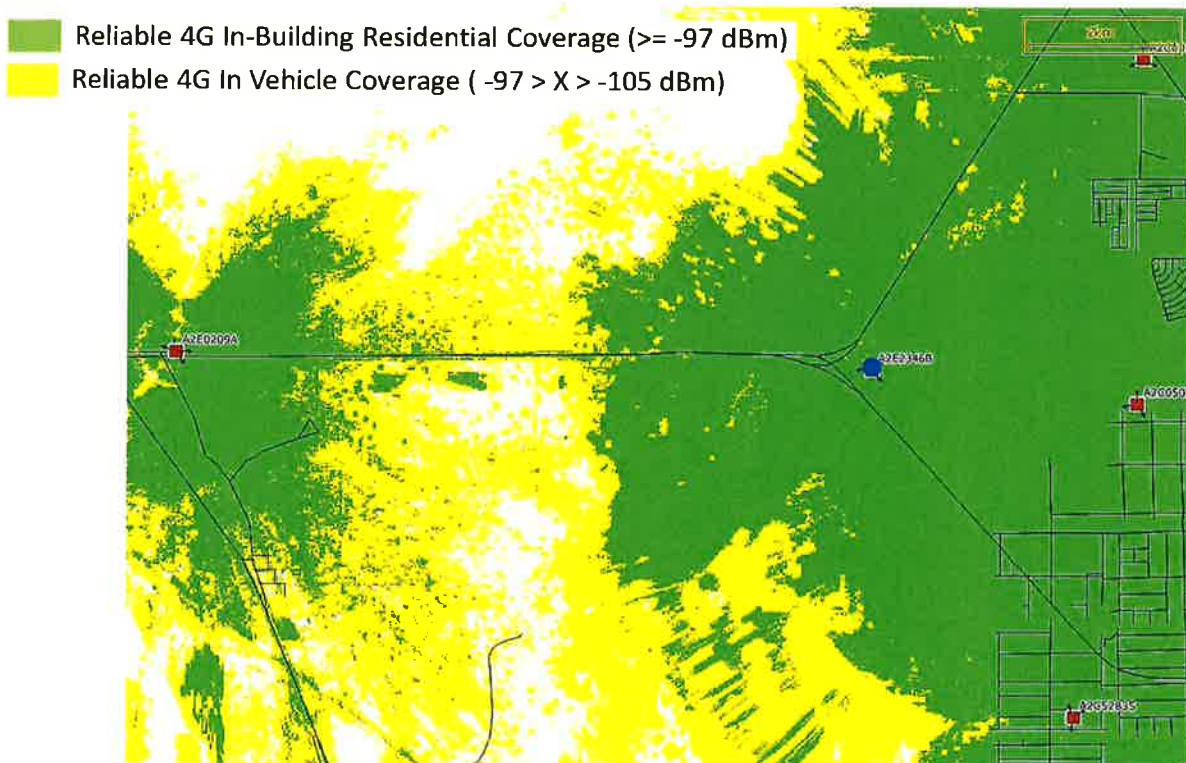


Figure 5 – Proposed T-Mobile Coverage

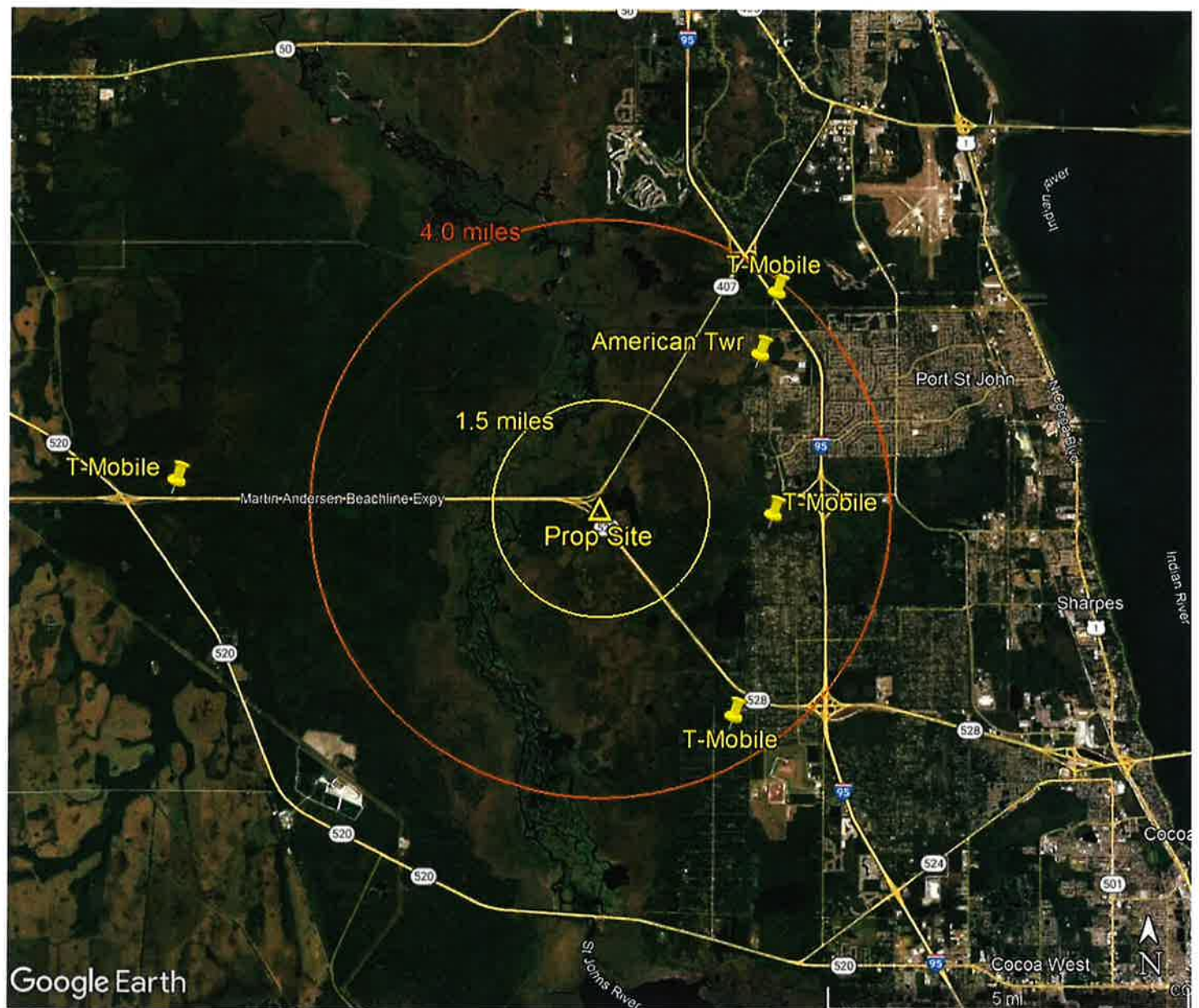
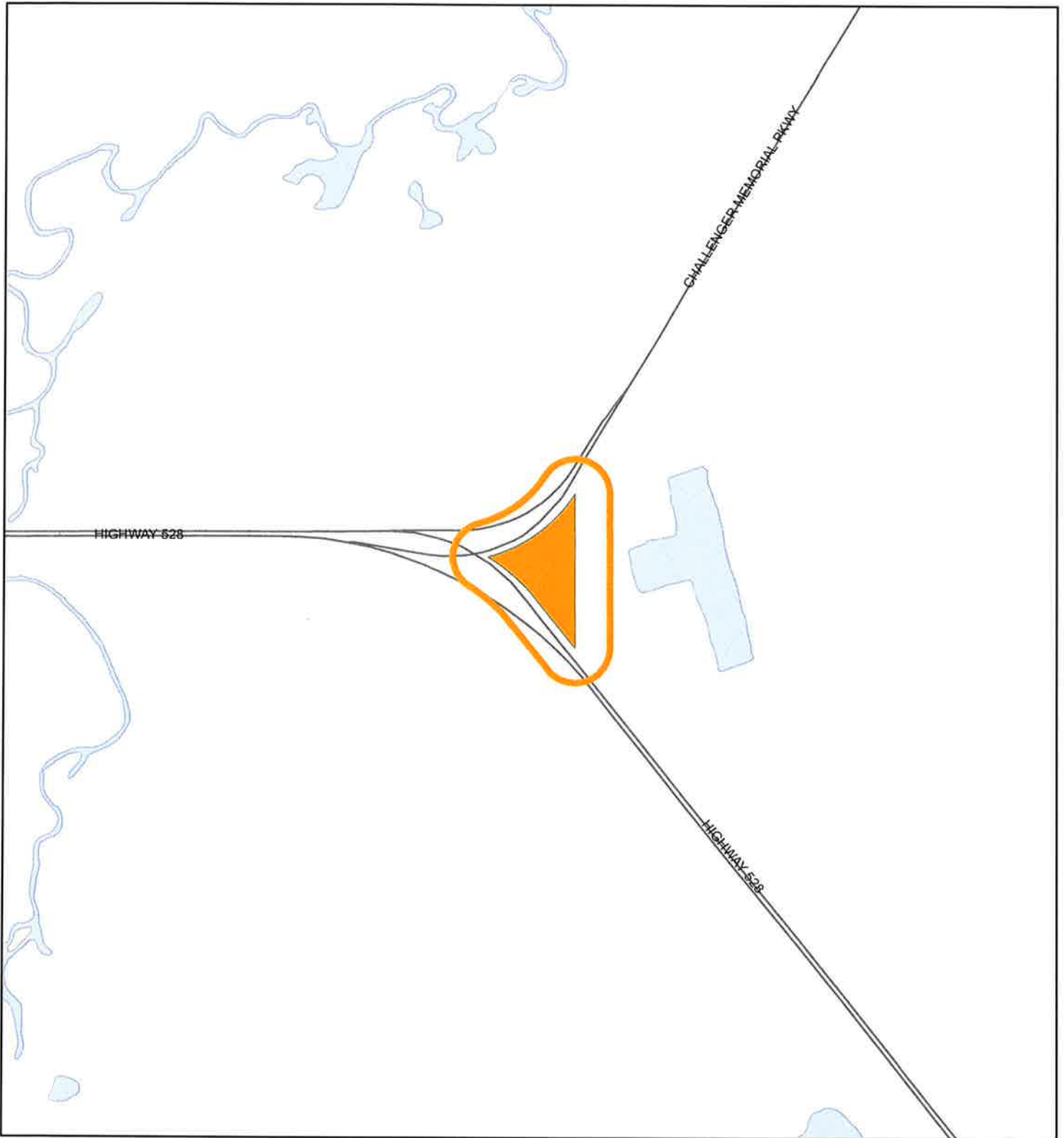


Figure 6 – Proposed Site and Nearby Existing Wireless Sites

LOCATION MAP

CRONIN, T A

23Z00015



1:24,000 or 1 inch = 2,000 feet

Buffer Distance: 500 feet

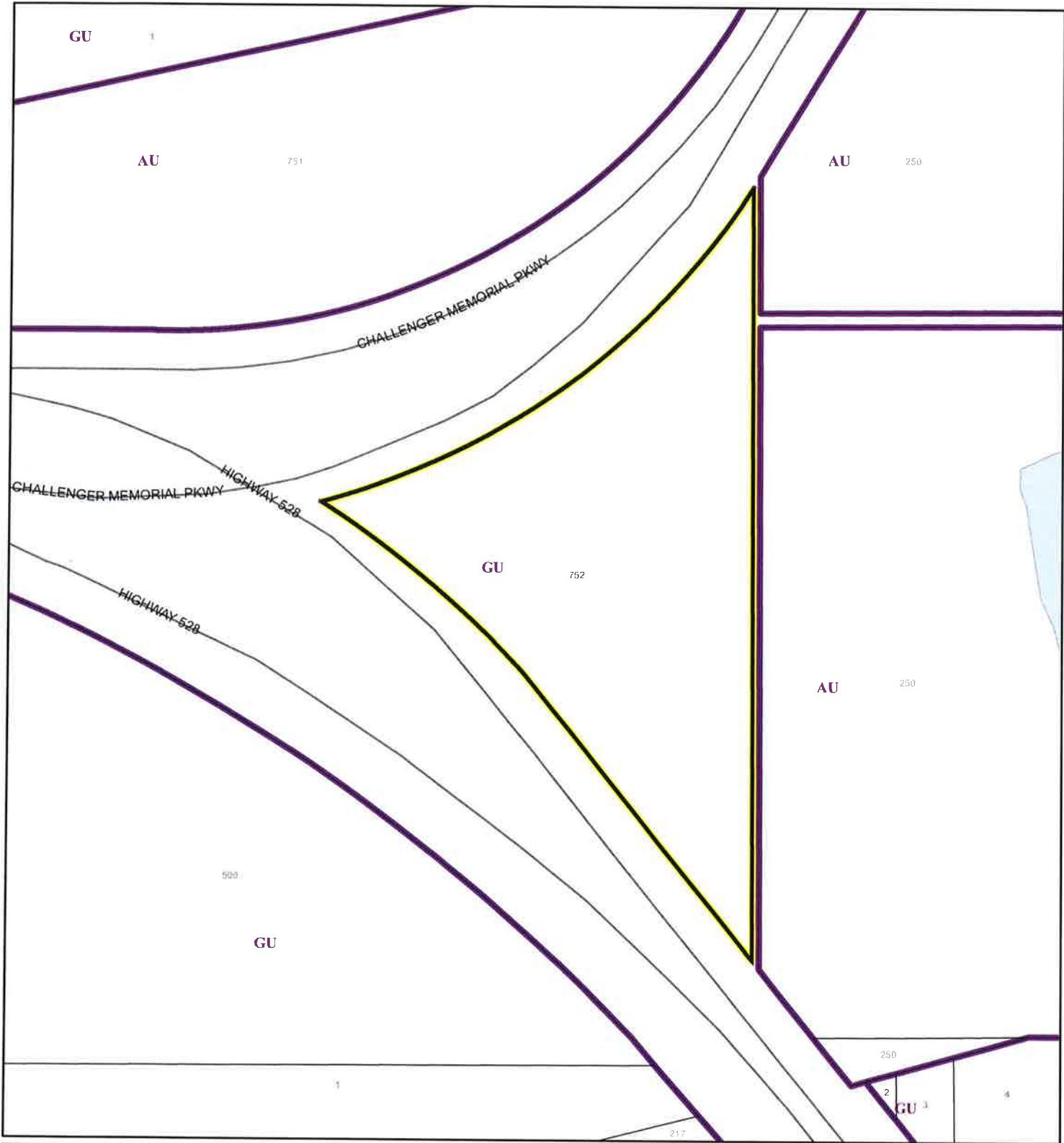
This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 3/21/2023

— Buffer
— Subject Property

ZONING MAP

CRONIN, T A
23Z00015



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

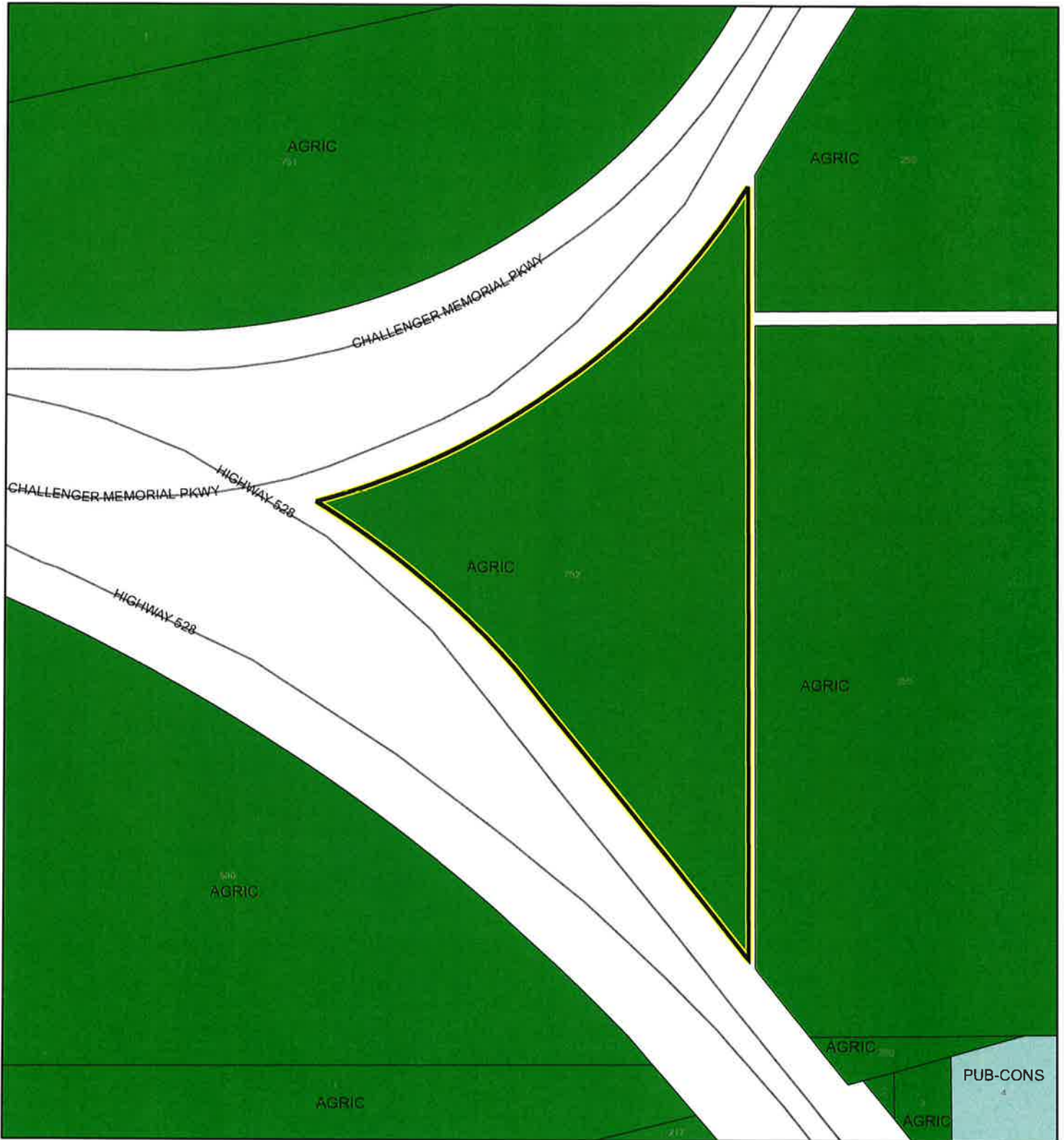
Produced by BoCC - GIS Date: 3/21/2023

-  Subject Property
-  Parcels
-  Zoning

FUTURE LAND USE MAP

CRONIN, T A

23Z00015



1:4,800 or 1 inch = 400 feet

— Subject Property
□ Parcels

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 3/21/2023

AERIAL MAP

CRONIN, T A

23Z00015



1:4,800 or 1 inch = 400 feet

PHOTO YEAR: 2022

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 3/21/2023

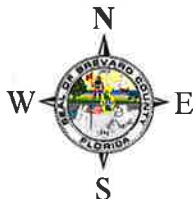
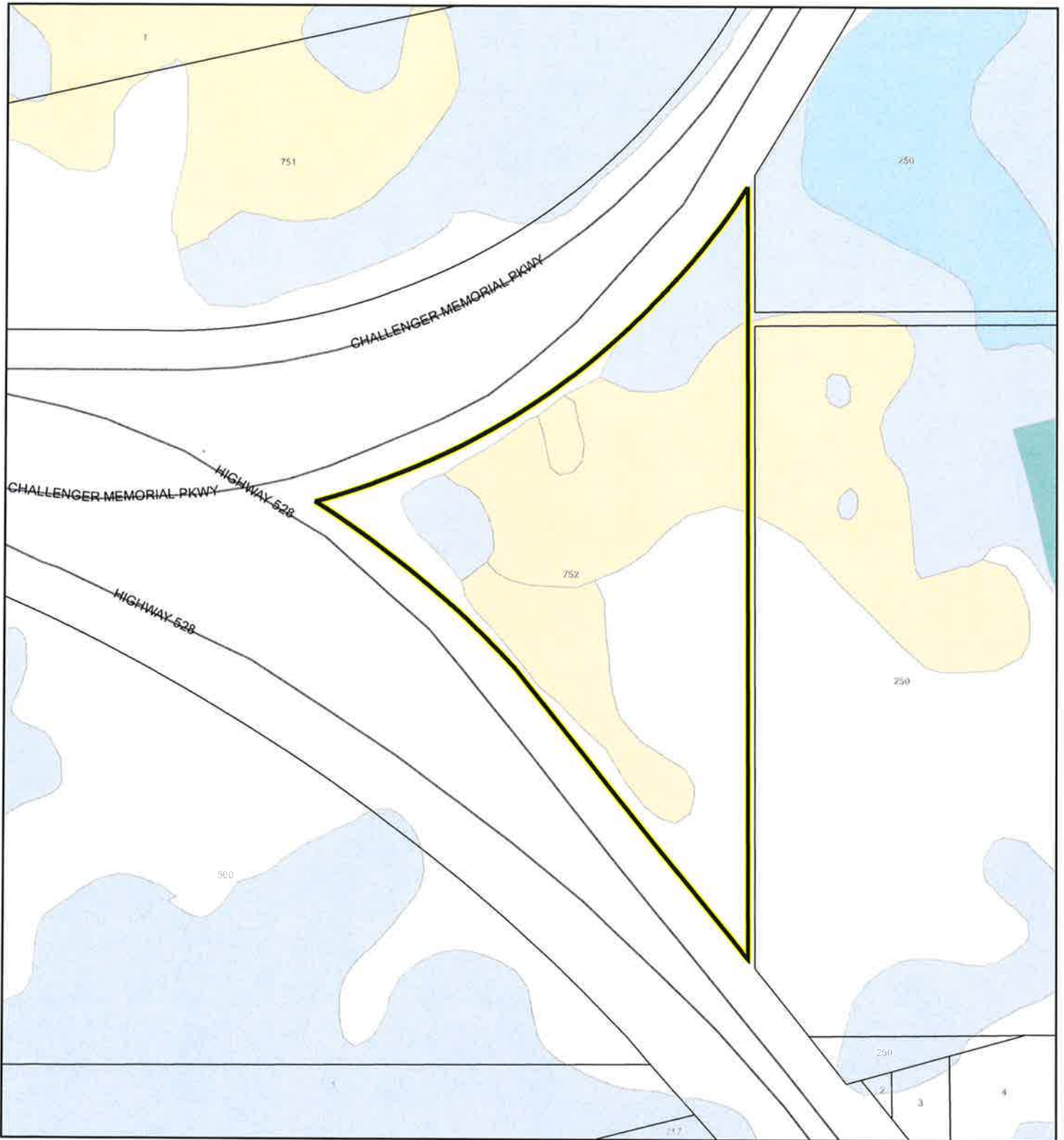
 Subject Property

 Parcels

NWI WETLANDS MAP

CRONIN, TA

23Z00015



1:4,800 or 1 inch = 400 feet

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Produced by BoCC - GIS Date: 3/21/2023

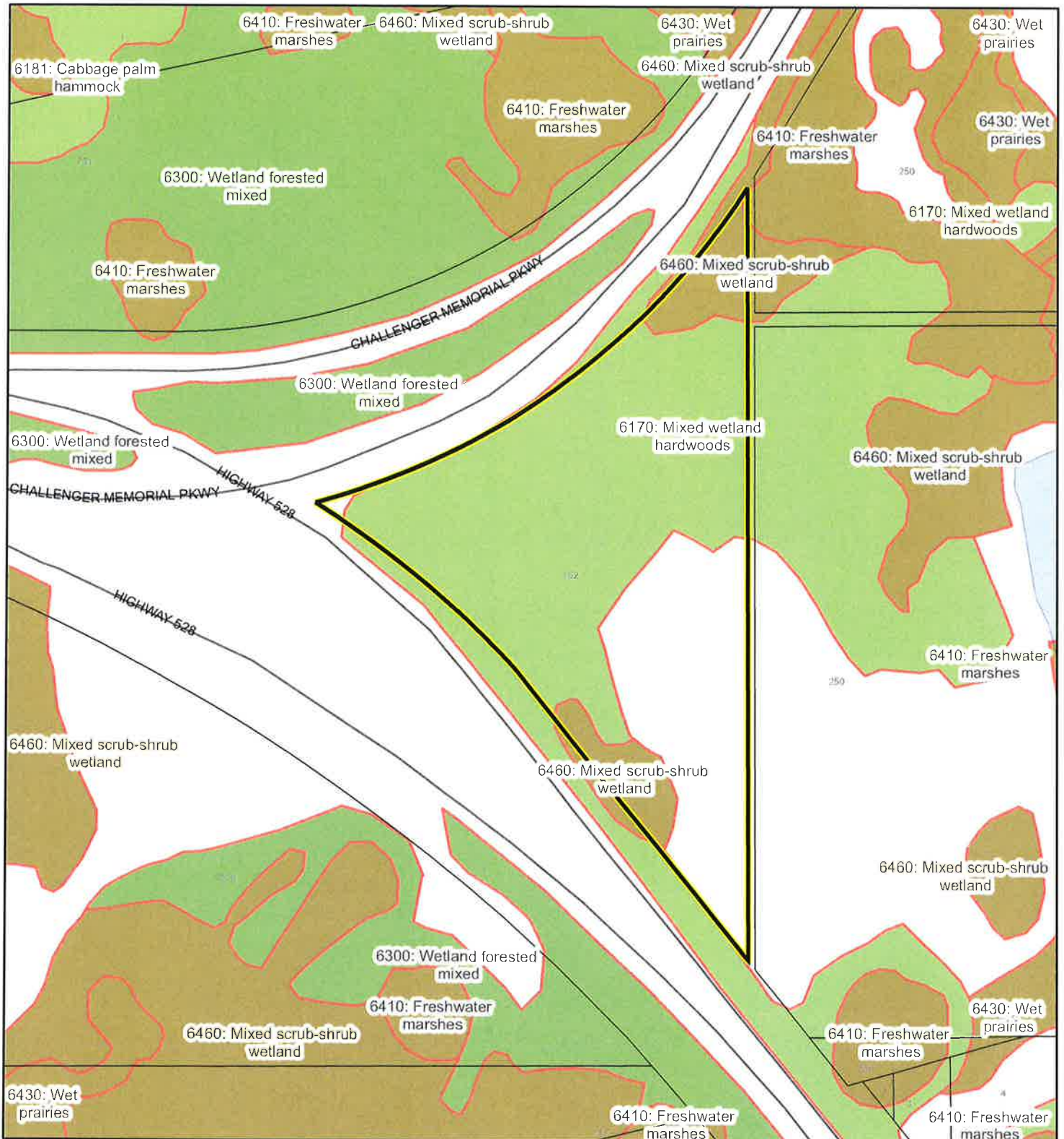
National Wetlands Inventory (NWI)

	Estuarine and Marine Deepwater		Freshwater Pond
	Estuarine and Marine Wetland		Lake
	Freshwater Emergent Wetland		Other
	Freshwater Forested/Shrub Wetland		Riverine
	Subject Property		Parcels

SJRWMD FLUCCS WETLANDS - 6000 Series MAP

CRONIN, T A

23Z00015



1:4,800 or 1 inch = 400 feet

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Produced by BoCC - GIS Date: 3/21/2023

SJRWMD FLUCCS WETLANDS

- Wetland Hardwood Forests - Series 6100
- Wetland Coniferous Forest - Series 6200
- Wetland Forested Mixed - Series 6300
- Vegetated Non-Forested Wetlands - Series 6400
- Non-Vegetated Wetland - Series 6500

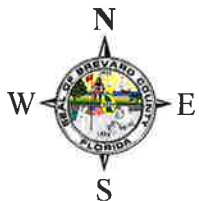
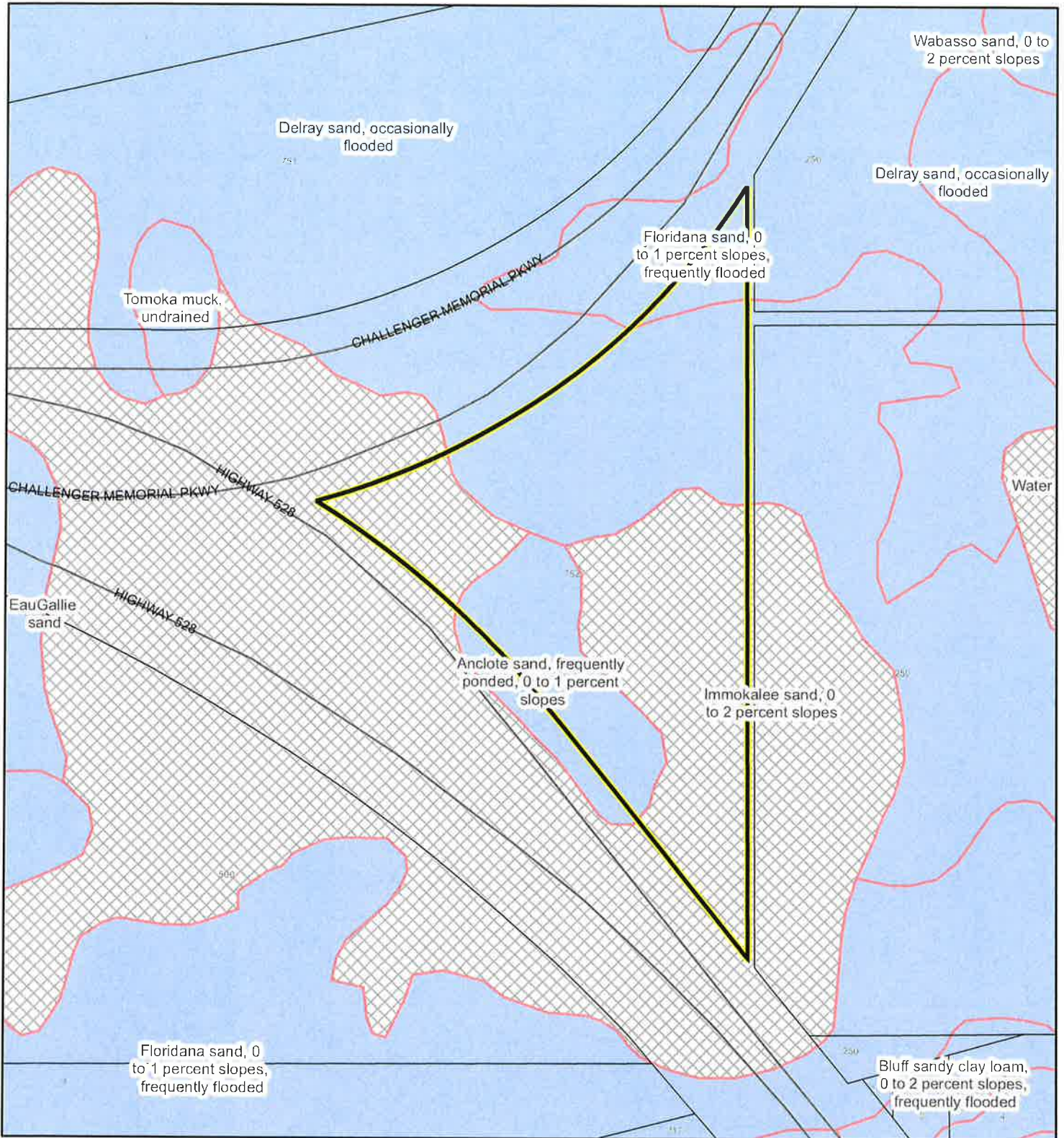
Subject Property

Parcels

USDA SCSSS SOILS MAP

CRONIN, TA

23Z00015



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 3/21/2023

USDA SCSSS Soils

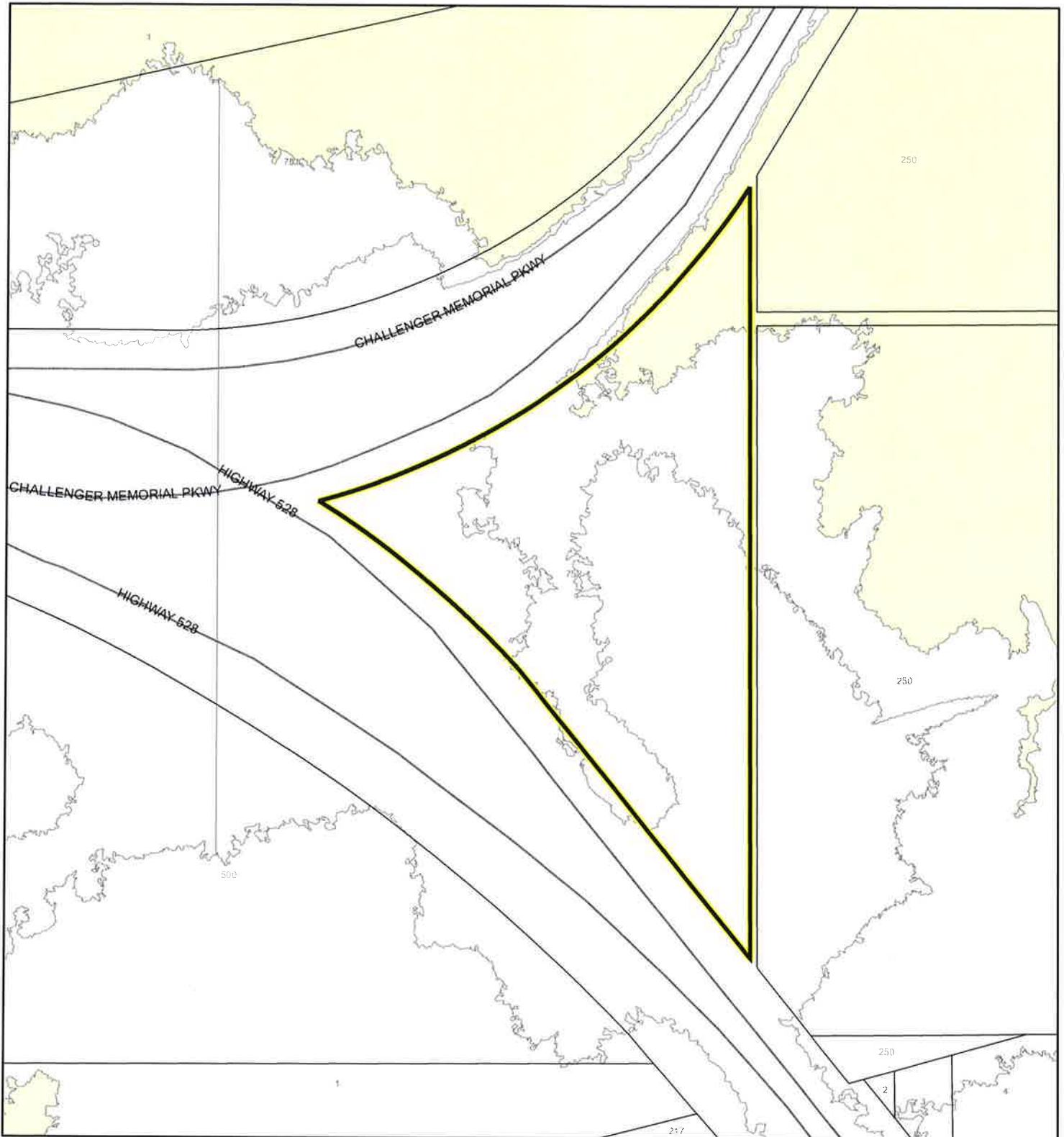
- Aquifer and Hydric
- Aquifer
- Hydric
- None

- Subject Property
- Parcels

FEMA FLOOD ZONES MAP

CRONIN, TA

23Z00015



1:4,800 or 1 inch = 400 feet

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Produced by BoCC - GIS Date: 3/21/2023

FEMA Flood Zones

A	AO	X
AE	Open Water	
AH	VE	
Subject Property	Parcels	

COASTAL HIGH HAZARD AREA MAP

CRONIN, T A

23Z00015



1:4,800 or 1 inch = 400 feet


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Produced by BoCC - GIS Date: 3/21/2023

 Subject Property

 Parcels

Coastal High Hazard Area

 SurgeZoneCat1

INDIAN RIVER LAGOON SEPTIC OVERLAY MAP

CRONIN, T A

23Z00015



1:4,800 or 1 inch = 400 feet

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Produced by BoCC - GIS Date: 3/21/2023

— Subject Property

□ Parcels

Septic Overlay

■ 40 Meters

■ 60 Meters

■ All Distances

EAGLE NESTS MAP

CRONIN, T A




23Z00015



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 3/21/2023

-  Subject Property
-  Parcels
-  Eagle Nests FWS

SCRUB JAY OCCUPANCY MAP

CRONIN, T A




23Z00015



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 3/21/2023

-  Subject Property
-  Parcels
-  Scrub Jay Occupancy

SJRWMD FLUCCS UPLAND FORESTS - 4000 Series MAP

CRONIN, TA

23Z00015



1:4,800 or 1 inch = 400 feet

This map was compiled from recorded documents and does not reflect an actual survey. The Brevard County Board of County Commissioners does not assume responsibility for errors or omissions hereon.

Produced by BoCC - GIS Date: 3/21/2023

SJRWMD FLUCCS Upland Forests

- Upland Coniferous Forest - 4100 Series
- Upland Hardwood Forest - 4200 Series
- Upland Mixed Forest - 4300 Series
- Tree Plantations - 4400 Series

Subject Property Parcels

George C. Ritchie, Planner III, Zoning Office
Brevard County Planning & Development
2725 Judge Fran Jamieson Way
Building A, Room 114
Viera, FL 32940

Re: A2E2346B / Challenger Memorial Parkway (SR407), Cocoa, FL 32927
Affidavit for Sec. 62-2421

- | | | |
|-----|--|--|
| (1) | Concealed attached antenna | NOT APPLICABLE |
| (2) | Camouflaged non-concealed attached antenna | NOT APPLICABLE |
| (3) | New concealed tower | NOT TECHNICALLY FEASIBLE, PRACTICAL OR JUSTIFIED |
| (4) | Mitigation of existing tower | NOT APPLICABLE |
| (5) | Camouflaged tower | NOT APPLICABLE |
| (6) | New non-concealed | PROPOSED |
| a. | Monopole | PROPOSED |
| b. | Lattice | NOT APPLICABLE |
| c. | Guyed | NOT APPLICABLE |

Any concealed tower application that restricts the antenna equipment on the tower is not technically feasible, practical or justified given the location of the proposed wireless telecommunications facility.

A concealed tree application is not as restrictive regarding antenna equipment placement, however a 199' tree in this location is not practical or justified given the location of the proposed wireless telecommunications facility. This location is primarily undeveloped acreage with protected wetland and conservation land all around with average tree height approx 30' to 40'.

The site is needed to improve road coverage and capacity. The next site west along SR528 is 6 miles west and has a 245' antenna center line. The site also needs to cover 2 miles NE along SR407 and SE along SR528. The next T-Mobile site to the east has an ACL of 205'. T-Mobile's requested 180' ACL on this planned 199' tower is in line with surrounding site ACLs and needed for the inter-site distances present.

AFFIDAVIT

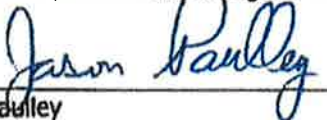
STATE OF FLORIDA
COUNTY OF ORANGE

BEFORE ME, the undersigned authority personally appeared Jason Paulley, who being by me first duly sworn on oath, deposes and says:

That he is the RF Engineer for T-Mobile South LLC ("T-Mobile") in the Orlando-Tampa Market;

That he has a BS degree in Electrical Engineering from the University of Central Florida and has been working as a radio frequency engineer since 1994;

That he has personal knowledge of the facts and statements contained herein.



Jason Paulley

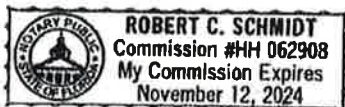
STATE OF FLORIDA
COUNTY OF LAKE

The foregoing Instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization this 21 day of October, 2022, by Jason Paulley, who is personally known to me or who has produced _____ as identification.



Notary Public (Signature)

(SEAL)



Sections 62-2421 and 62.2403 to follow for reference.

Sec 62-2421. Design Preference

Design of a new wireless telecommunications facility (antenna array or new tower), colocation, or combined antenna shall be in accordance with the following order (1 — most preferred, 6(c) — least preferred):

- (1) Concealed attached antenna
- (2) Camouflaged non-concealed attached antenna
- (3) New concealed tower
- (4) Mitigation of existing tower
- (5) Camouflaged tower
- (6) New non-concealed
 - a. Monopole
 - b. Lattice
 - c. Guyed

Where a less preferred design is proposed, the applicant must file an affidavit by a radio frequency engineer demonstrating that despite diligent efforts to adhere to the established hierarchy within the geographic search area, the more preferred options are not technically feasible, practical or justified given the location of the proposed wireless telecommunications facility. Design preferences for facilities located on county-owned properties are set forth in appendix A of the master plan.

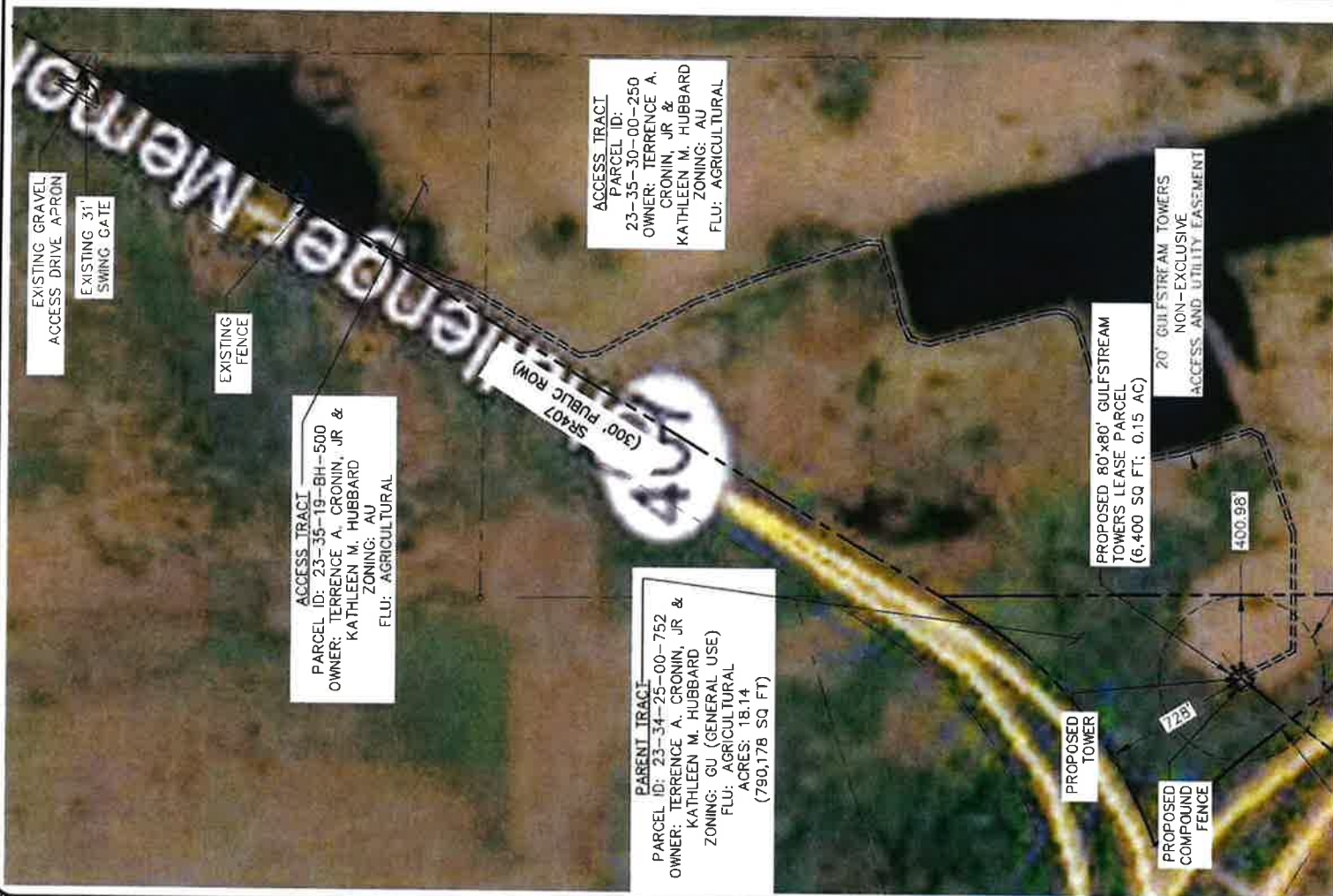
Sec 62.2403. Definitions

Camouflage - means camouflaged antenna systems and/or towers that use paint instead of structure to blend into its surroundings; for example, matching the color of the structure upon which the system is attached or if separate and distinct from its surroundings colored to match the sky or nearby vegetation.

Concealed - means a tower, antenna system or ancillary structure, or equipment compound that is not readily identifiable as such and is designed to be aesthetically compatible with existing and proposed building(s) and uses on a site so as to reduce or mitigate the facility's potential adverse visual impacts on the surrounding areas. There are two types of concealed facilities:

- (1) Antenna attachments, and
- (2) Freestanding antenna support structures.

Examples of concealed attached facility include, but are not limited to, the following: antenna systems enclosed within canisters, faux windows, dormers or other architectural features that blend with an existing or proposed building or structure. Freestanding concealed antenna support structures usually have a secondary, obvious function which may be, but is not limited to the following: church steeple, windmill, bell tower, clock tower, light standard, flagpole with or without a flag, or tree.



FL
HWY 52

SR 407
MEMORIAL
ORLANDO,
(BREVARD)

PROPOSED
TOWER AND CON

GULFSTREAM

TOWERS

LOCAL MAP



VICINITY MAP



PROJECT SUMMARY

GULFSTREAM TOWERS, LLC IS PROPOSING TO CONSTRUCT A
UNMANNED TELECOMMUNICATIONS FACILITY CONSISTING OF THE
INSTALLATION OF A 199' MONOPOLE TOWER AND COMMUNICATIONS
FACILITY WITHIN A 50'x50' FENCED COMPOUND. FUTURE WIRELESS
BASE STATION EQUIPMENT WILL BE INSTALLED UNDER SEPARATE
PERMIT TO PROVIDE RADIO TRANSMISSION SERVICES FOR
PERSONAL COMMUNICATIONS AS WELL AS EMERGENCY 911 SERVICE.

PROJECT DATA

PARCEL ID #: 23 34 25 60-252
LATITUDE: 28° 27' 3.24 N (NAD83)
LONGITUDE: 80° 52' 16.57 W (NAD83)
GROUND ELEVATION: 16.2 (NAD83)
JURISDICTION: BREVARD COUNTY
ZONING: GU
FUTURE LAND USE: AGRICULTURAL
PROPERTY ADDRESS: SR407/CHALLENGER MEMORIAL PARKWAY
COCOA, FLORIDA 32927
POWER: FLORIDA POWER AND LIGHT
TELEPHONE: AT&T

DESIGN CRITERIA

DESIGN WIND SPEED: 136 MPH (PER FBC) &
EXPOSURE CATEGORY: C
RISK CATEGORY: II
FLOODPLAIN DESIGNATION: COMMUNITY PANEL NO
G OF THE FLOOD INSURANCE RATE MAPS FOR BR
FLORIDA, DATED 03/17/14 THE SUBJECT PROPER
ZONE "X", OUTSIDE THE 500 YEAR FLOOD PLAIN

CONTACTS

APPLICANT
GULFSTREAM TOWERS
127 W. FAIRBANKS AVE. #469
WINTER PARK, FL 32789
CONTACT: MIKE BURKHEAD (407) 617-0167
PROPERTY OWNER CONTACT:
LANDLORD: TERRANCE A. CRONIN, JR. & KATHLEET
ADDRESS: 1399 S. HARBOR CITY BLVD
CITY, STATE, ZIP: MELBOURNE, FLORIDA 32901
SMW ENGINEERING GROUP INC. PROJECT MANAGER
JEREMY D. SHARIT, PE (205) 453-1892

APPLICABLE CODES

THE CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED
LOCAL AUTHORITY HAVING JURISDICTION (AHJ) OVER THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND
IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
BUILDING CODE: FLORIDA BUILDING CODE 7TH EDITION (2020) & TIA/EIA 222-H.
NATIONAL ELECTRICAL CODE: 2017 EDITION.
ELECTRICAL CODE: NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70

1. FOR THE PURPOSES OF THESE CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:

OWNER - GULFSTREAM TOWERS
ENGINEER - S&W ENGINEERING GROUP INC.
CONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)

2. A 20-FOOT HORIZONTAL CLEARANCE DISTANCE SHALL BE MAINTAINED FROM ALL EXISTING POWER LINES.
3. THE CONTRACTOR'S USE OF A CONSTRUCTION STAGING AREA SHALL BE COORDINATED WITH THE OWNER WELL IN ADVANCE OF THE CONSTRUCTION START DATE.
4. LABOR, MATERIAL, TOOLS, EQUIPMENT, TRANSPORTATION AND TEMPORARY POWER SERVICES NECESSARY FOR AND INCIDENTAL TO COMPLETION OF ALL WORK SHALL BE PROVIDED AS INDICATED ON THE DRAWINGS AND/OR AS SPECIFIED HEREIN. LABOR AND MATERIALS SHALL BE FURNISHED AS REQUIRED FOR COMPLETE SYSTEMS, INCLUDING ALL ELEMENTS OBVIOUSLY OR REASONABLY INCIDENTAL TO A COMPLETE INSTALLATION, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS.
5. FOR TASKS REQUIRED TO BE PERFORMED BUT NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOT START WORK ON SUCH TASKS WITHOUT HAVING RECEIVED WRITTEN AUTHORIZATION FROM THE CONSTRUCTION MANAGER TO PROCEED.
6. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND EQUIPMENT UNLESS OTHERWISE INDICATED BY DIMENSIONS OR DETAILS. EXACT EQUIPMENT LOCATIONS MAY BE MODIFIED AS REQUIRED BY ACTUAL FIELD CONDITIONS. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE ENGINEER AND THE CONSTRUCTION MANAGER.
7. THE CONTRACTOR SHALL OBTAIN, PAY FOR AND DELIVER ALL REQUIRED PERMITS, CERTIFICATES OF INSPECTION, INCLUDING UTILITY CONNECTION FEES, ETC., REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND SHALL DELIVER SUCH DOCUMENTS TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE WORK.
8. THE CONTRACTOR'S OPERATIONS SHALL BE CONFINED TO AREAS OF NEW CONSTRUCTION.

9. ALL NECESSARY PROVISIONS SHALL BE MADE TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, GALVANIZED SURFACES, ETC. AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SAME RESULTING FROM THE CONSTRUCTION WORK. ALL DISTURBED AND DAMAGED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER UPON COMPLETION OF ALL WORK TO THE SATISFACTION OF THE CONSTRUCTION MANAGER.

10. THE FOLLOWING CLEANUP TASKS SHALL BE PERFORMED AS FOLLOWS: (1) ON A DAILY BASIS, KEEP THE GENERAL AREA CLEAN AND HAZARD FREE, REMOVING ALL WASTE, DEBRIS AND TRASH FROM THE SITE AND DISPOSING OF SAME IN A LEGAL MANNER. (2) UPON COMPLETION, LEAVE THE PREMISES IN A CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.

11. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S RECOMMENDATIONS EXCEPT WHERE IT IS SPECIFICALLY INDICATED OTHERWISE IN THE CONTRACT DOCUMENTS OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

12. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY HAVING JURISDICTION OVER THE PERFORMANCE OF THE WORK. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AS WELL AS LOCAL AND STATE CODES, ORDINANCES AND APPLICABLE REGULATIONS.

13. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AT ALL TIMES, USING THE BEST SKILLS AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL OF THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK, INCLUDING CONTACT AND COORDINATION WITH THE CONSTRUCTION MANAGER AND WITH THE OWNER'S AUTHORIZED REPRESENTATIVE.

14. WITHIN TEN (10) WORKING DAYS AFTER PROJECT COMPLETION, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS, CYLINDER TESTS, AND OTHER CLOSEOUT DOCUMENTATION AS REQUIRED BY THE OWNER. ALL SYSTEMS SHALL BE COMPLETELY ASSEMBLED, TESTED, ADJUSTED AND DEMONSTRATED TO BE READY FOR OPERATION PRIOR TO THE OWNER'S ACCEPTANCE.

1. THE APPROPRIATE UTILITY LOCATING SERVICES SHALL BE CONTACTED LOCATION OF ALL EXISTING UNDERGROUND UTILITIES.
2. THE INSTALLATION OF NEW UTILITIES SHALL BE COORDINATED WITH LOC
3. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UT TIMES, WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK MANAGER. EXTREME CAUTION SHALL BE USED WHEN EXCAVATING OR DI
4. RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL
5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED SUBJECT TO THE APPROVAL OF THE LANDLORD AND/OR LOCAL UTILITIE
6. DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION SHALL BE
7. ANY AREAS OF THE CONSTRUCTION SITE DISTURBED BY THE WORK AND TO A UNIFORM SLOPE. SUCH GRADING SHALL CAUSE SURFACE WATER SOIL SHALL BE STABILIZED TO PREVENT EROSION. EROSION CONTROL WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL
8. THE SUB-GRADE SHALL BE COMPACTED AND BROUGHT TO A UNIFORM
9. BACKFILL SHALL CONSIST OF CLEAN SAND FILL APPROVED FOR USE B FILL SHALL BE FREE OF ALL ROOTS, BOULDERS, OR OTHER DELETERIO
10. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EQUAL TO
11. SITE SIGNAGE SHALL BE PROVIDED IN ACCORDANCE WITH THE TECHN DRAWINGS.

SITE WORK NOTES

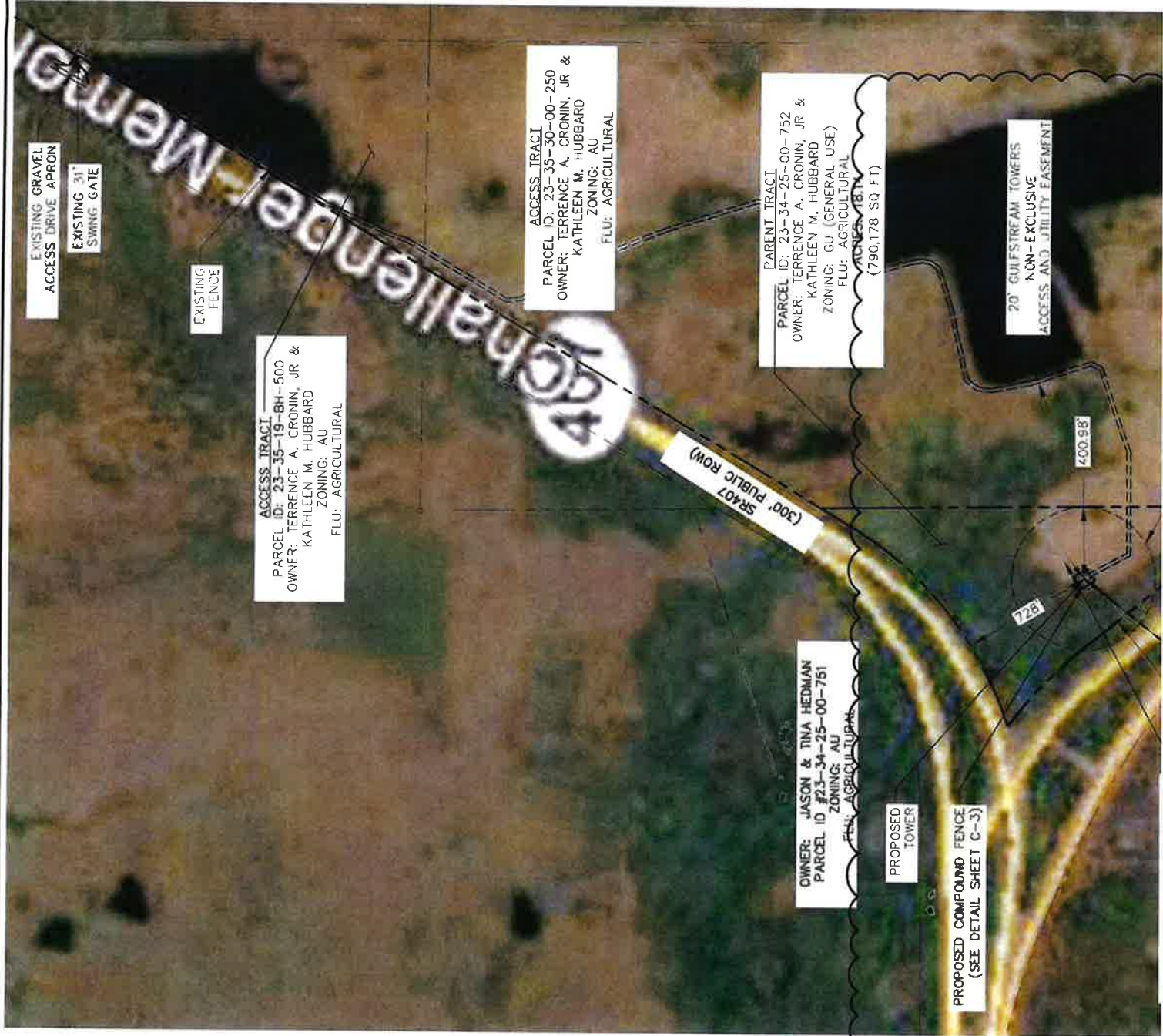
1. MATERIAL:

- A. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE LATEST E
- B. ALL STRUCTURAL STEEL WF BEAMS SHALL BE ASTM A992 AND "I" STANDARDS.
- C. ALL STRUCTURAL PLATES, ANGLES, AND CHANNELS SHALL BE ASTM A572 A153 STANDARDS.
- D. ALL TS MEMBERS SHALL BE ASTM A500 GRADE B (Fy=46ksi), A A153 STANDARDS.
- E. ALL STRUCTURAL PIPE MEMBERS SHALL BE ASTM A500 GRADE B AND ASTM A153 STANDARDS.
- F. ALL NON-STRUCTURAL PIPE MEMBERS SHALL BE ASTM A53 GRAD ASTM A153 STANDARDS.
2. DESIGN, FABRICATION, AND CONSTRUCTION OF ALL CONNECTIONS SHALL
3. WELDING:
- A. ALL WELDS, WELDERS, AND WELD INSPECTIONS SHALL CONFORM TO
- B. ALL WELDS SHALL BE MADE WITH E70XX LOW HYDROGEN ELECTRO
- C. ALL STEEL SHALL BE SPRAY GALVANIZED AFTER WELDING.
4. ALL BOLTS SHALL BE GALVANIZED 1/2" DIAMETER, A325-N, UNLE DEFINED BY AISC. SECURE NUT WITH LOCKING WASHER.
5. ANCHOR BOLTS SHALL CONFORM TO ASTM A307, UNLESS NOTED OTHER
6. THE CONTRACTOR/STEEL FABRICATOR SHALL LOCATE ANY REINFORCEMEI NOT BE IN CONFLICT WITH THE REINFORCEMENT WHEN INSTALLING AN INSTRUCTION.

7. THE CONTRACTOR/STEEL FABRICATOR SHALL CONFORM TO THE MINIMUM STEEL CONSTRUCTION.

8. ALL STRUCTURAL STEEL SHALL BE FABRICATED TO FIT AT BOLTED CO FLAME CUT UNDER ANY CIRCUMSTANCES WITHOUT APPROVAL OF THE EN

9. THE CONTRACTOR/STEEL FABRICATOR SHALL CAP OR SEAL ALL PIPES A:



Parent Tract

Tower Lease Area

Total (Developed)

Impervious Area

8' Diameter Caisson

10'x20' Equipment Pad +

10'x20' Equipment Pad +

10'x20' Equipment Pad +

10'x20' Equipment Pad +

Total (Caisson)

(%)

(%)

Pervious Area

Proposed Development (%)

Mulched Corn

Landscaped Area

Total

(%)

(%)

*Not Compacted; exclude

STORMWATER NOTE:

THE SITE AREA BEING DEVELOPED IS PERVIOUS. THE CAPTURE RATE IS 640%. THE SITE COMPOUND RUNOFF.

PERVIOUS/IMPERVIOUS

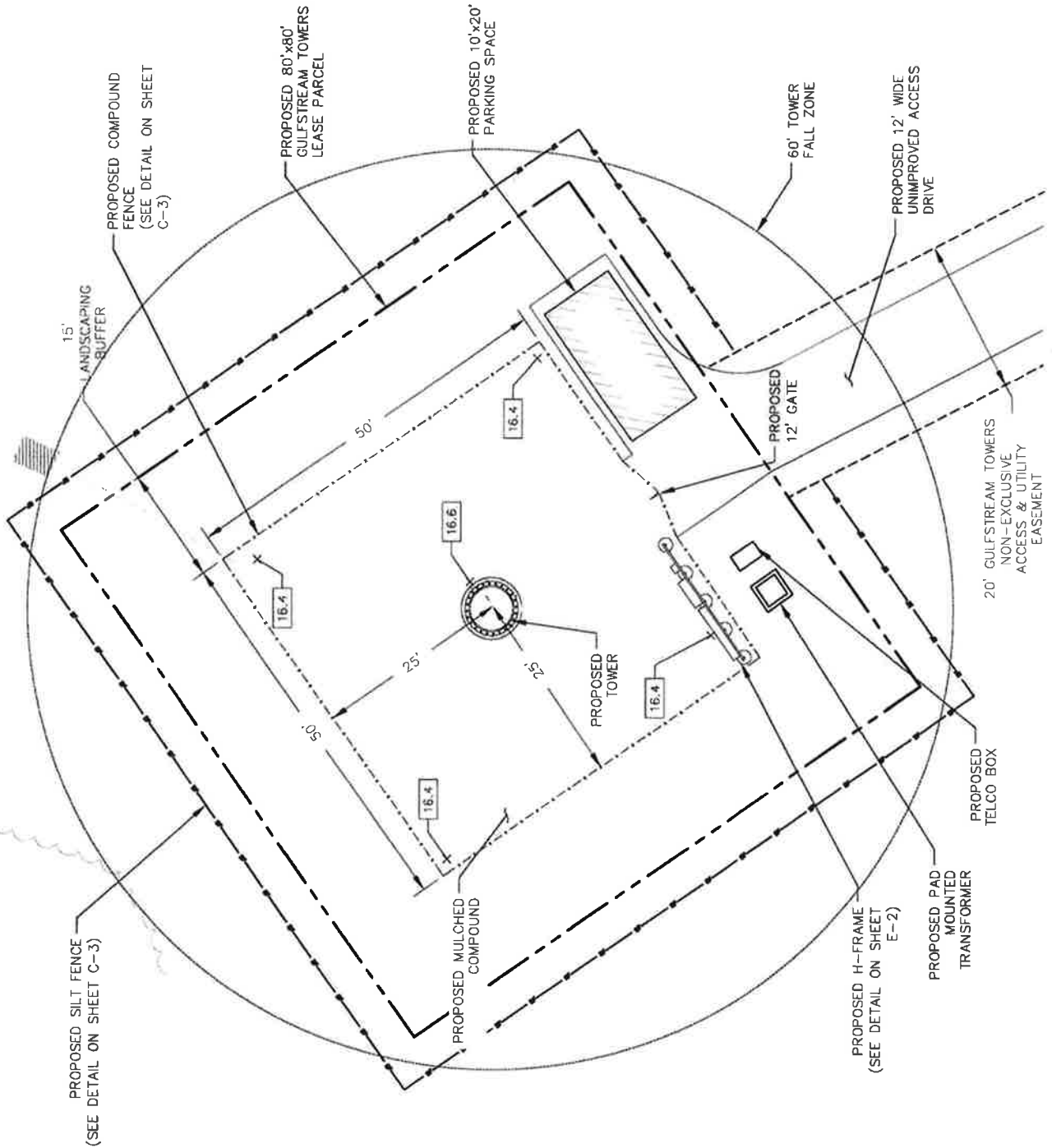
TOP OF LIGHTNING ROD
EL=199'± AGL

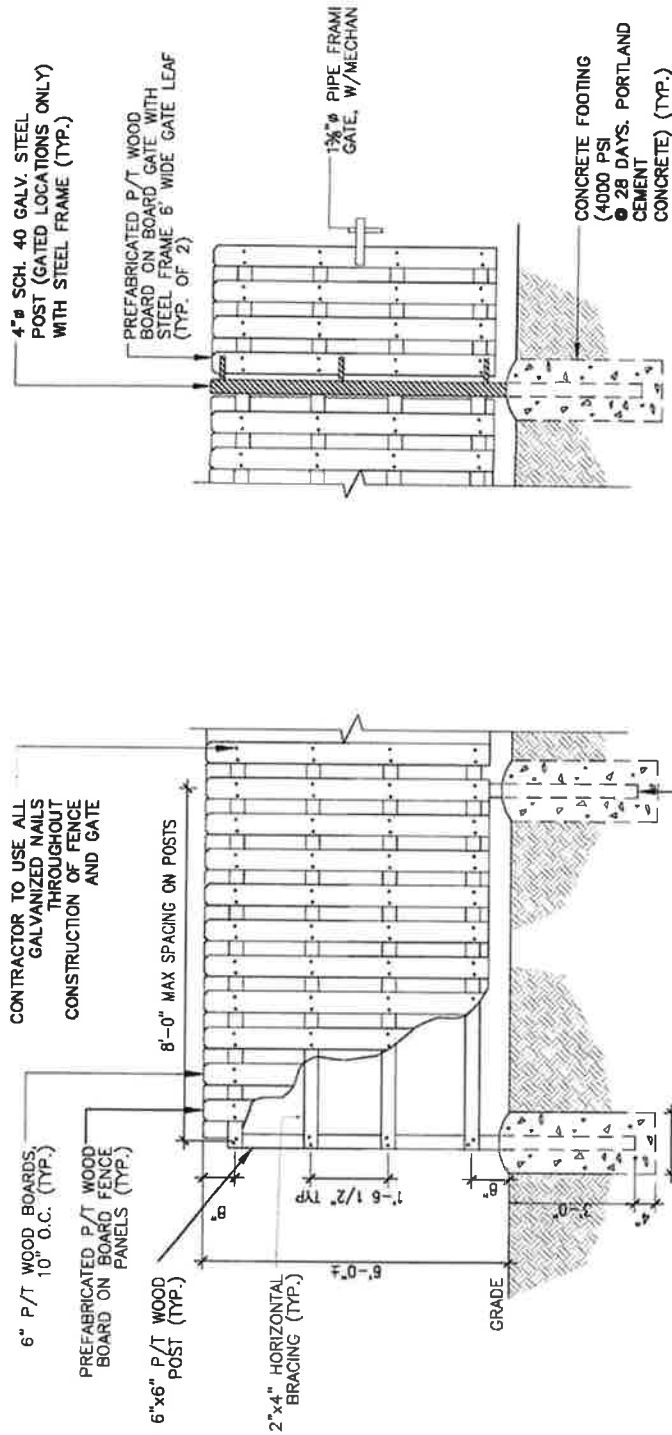
TOP OF TOWER
EL=193'± AGL

TOWER NOTES:

1. THE PROPOSED TOWER, TOWER FOUNDATION, ANTENNA MOUNT, AND ANTENNAS WILL BE DESIGNED BY OTHERS.
2. THE TOWER ELEVATION SHOWN IS FOR REFERENCE ONLY.

PROPOSED FENCE
(SEE SHEET C-3)





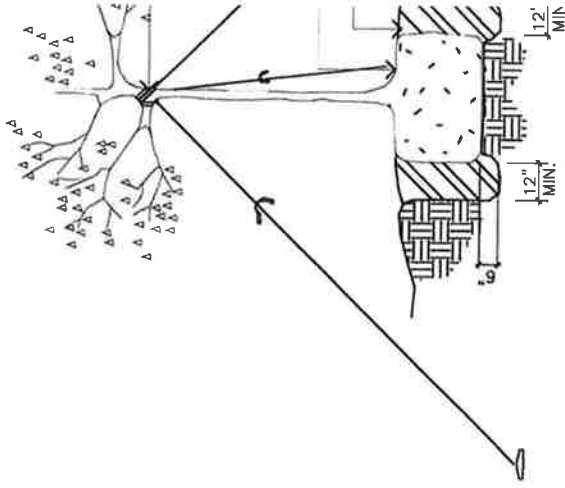
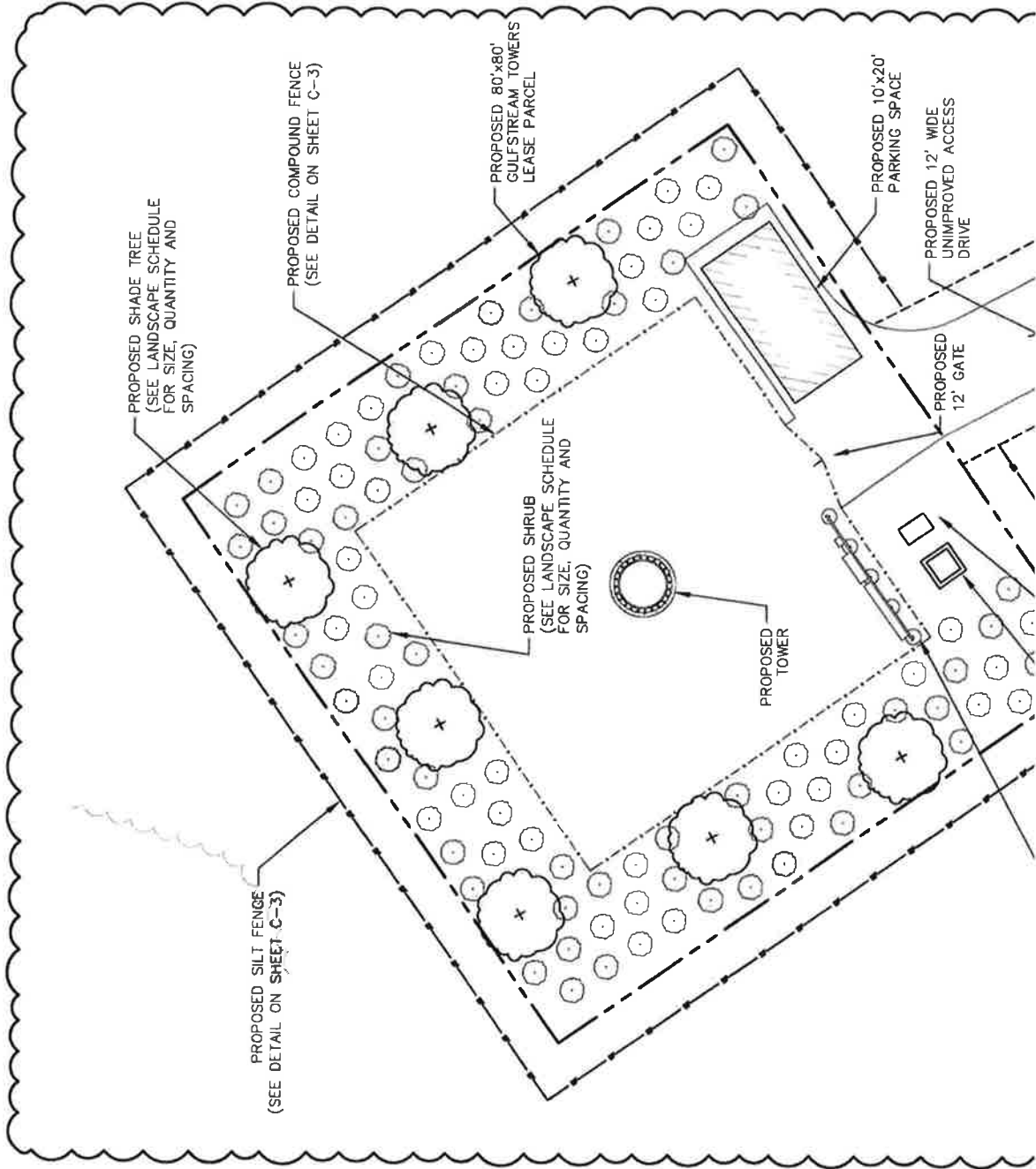
- NOTES:
1. PROVIDE CONCRETE GATE KEEPER DROP ROD.
 2. PROVIDE GATE CATCHES AT REQUIRED LOCATIONS

EMBEDDED PORTION OF ALL POSTS SHALL BE GENEROUSLY COATED W/WOOD PRESERVATIVE (TYP. OF ALL WOOD POSTS ONLY)



FENCE / GATE DETAIL

LANDSCAPE SCHEDULE				
	SPECIES	HEIGHT (MIN.)	QUANTITY	SIZE
SHADE TREE	LIVE OAK (QUERCUS VIRGINIANA)	12' (MIN) AT PLANTING	7	2.5" D.B.H.
SHRUBS	VIBURNUM (VIBURNUM ACERIFOLIUM)	24" TALL (MIN) AT PLANTING	98	3 GALLON
				25' O.C.
				5' O.C.
				XERISCAPE TOLERANT, CAPABLE OF REACHING 48" WITHIN 24 MONTHS



LANDSCAPING NOTES:

1. ALL TREES AND SHRUBS TO BE XERISCAPE SPECIES I SURVIVE ON NORMAL RAINFALL.
2. CONTRACTOR SHALL WARRANTY ALL PLANTINGS FOR CONTRACTOR SHALL REPLACE ANY DEAD OR DISCOLORED.
3. ALL LANDSCAPING SHALL BE FLORIDA GRADE 1 OR B

IRRIGATION NOTES:

1. WATERING PROGRAM SHALL ADJUST ACCORDINGLY BA.
2. IRRIGATION SYSTEM SHALL PROVIDE 100% COVERAGE.
3. IRRIGATION SHALL INCLUDE A RAIN SENSOR.

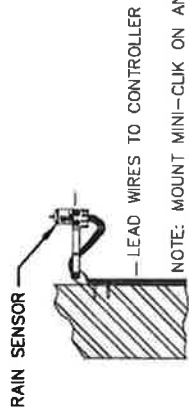
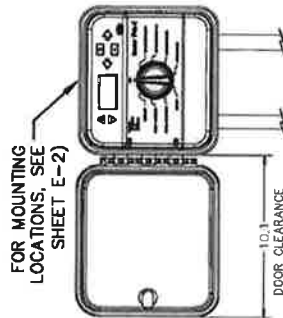
TREE PLANTING DETAIL



IRRIGATION PARTS LIST / LEGEND

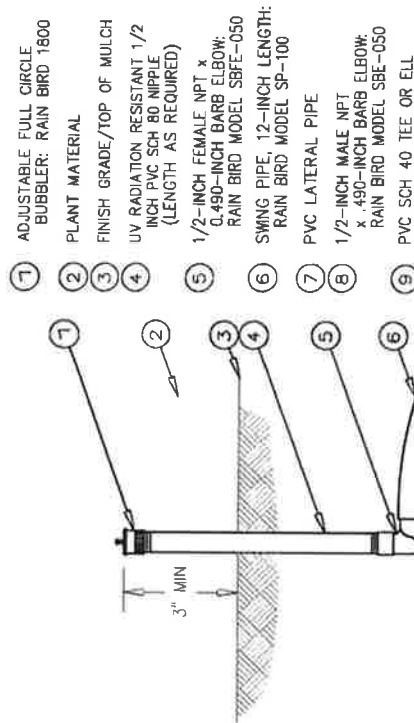
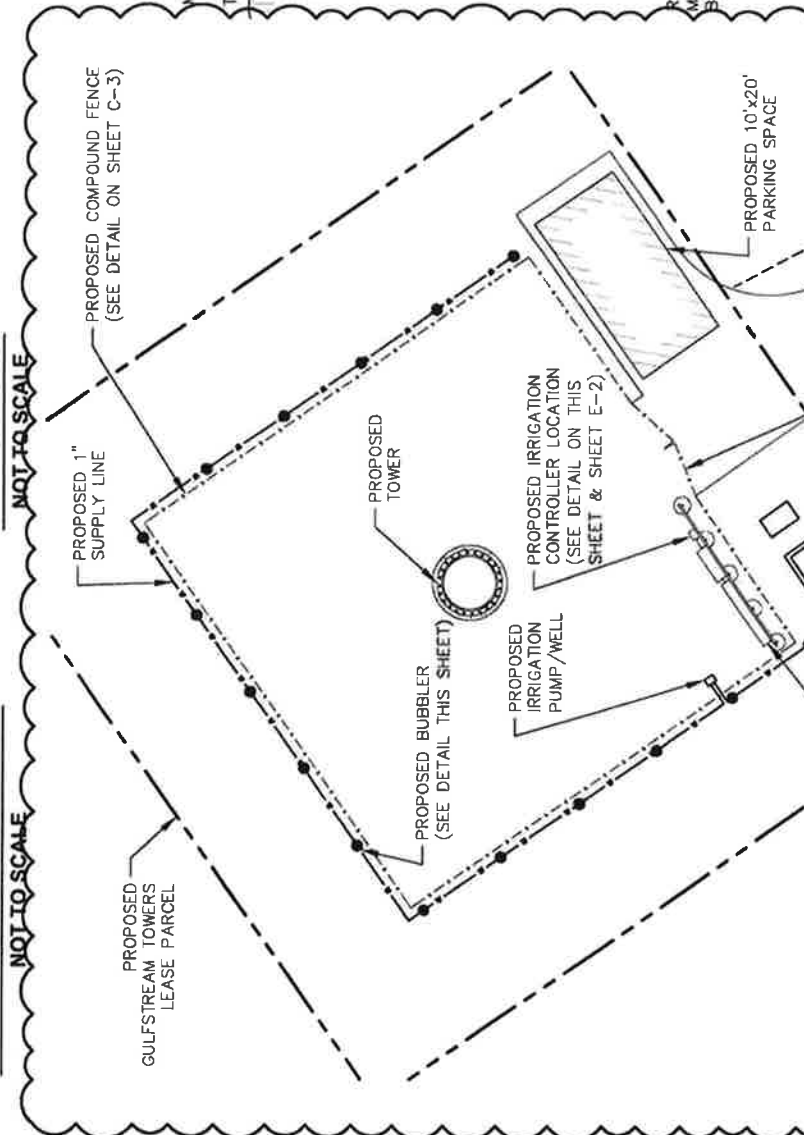
QUANTITY	SYMBOL	DESCRIPTION	PRESSURE	FLOW	RADIUS
16	●	RAIN BIRD BUBBLER HEAD*	30	1.85	10
158 L.F. ±	—	DRIP LINE			
1	△	HUNTER PC-300 CONTROLLER*			
1	△	HUNTER MINI-CLIK RAIN SENSOR*			

* OR APPROVED EQUAL

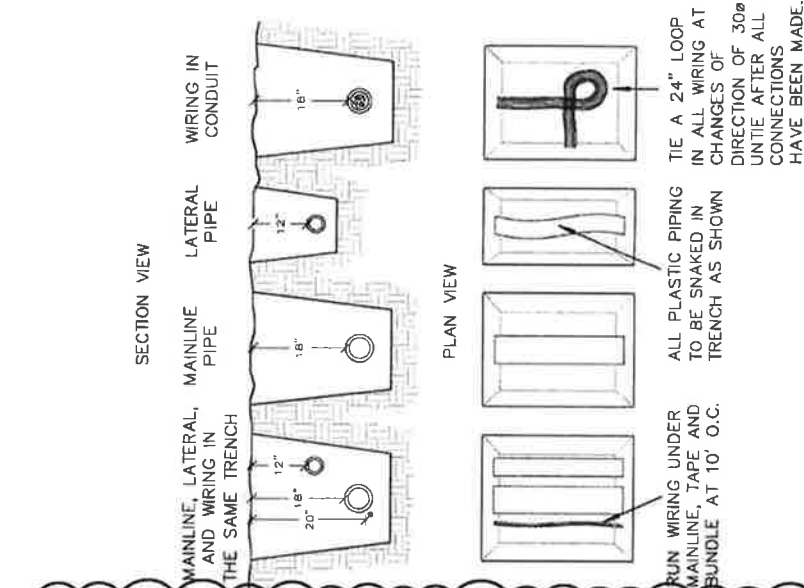


IRRIGATION CONTROLLER

RAIN SENSOR



BUBBLER DETAIL



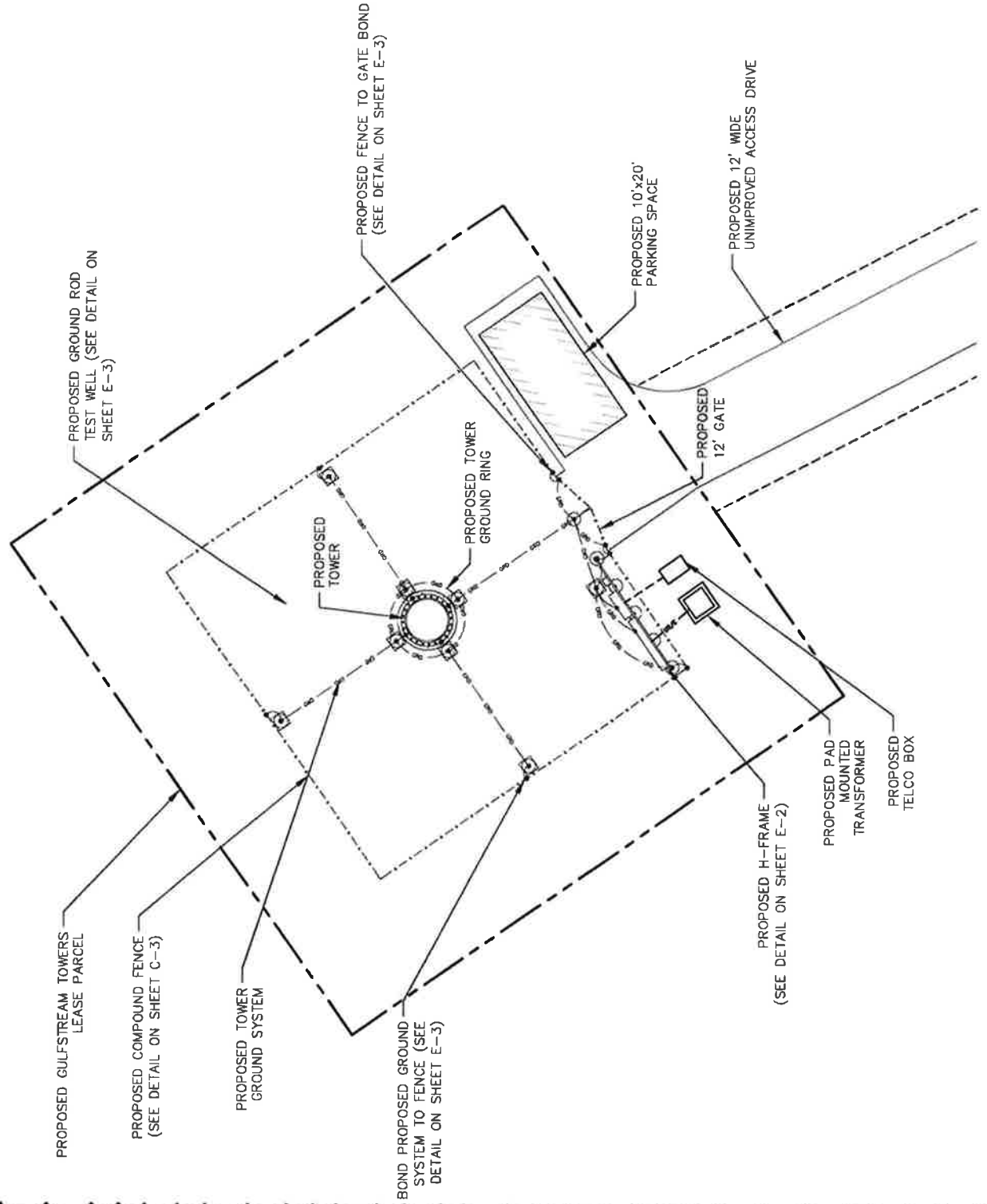
1. IRRIGATION AT THE AVAILABLE DO NOT MIGHT N OBSTRU DIFFERE PIPING I I.E., UNI OR DITC POSSIBL PIPE SIZ WITH SN APPROV TRENCH DEPTHS ALL MAI ALL LA1 ALL SLE UNLESS TWO (2) EXAMPLI SHALL E WHEREV BE INST HIGH TR FOLLOW: REMOTE ISOLATIC WIRE SF AND DE ALL 24 600 VOI WIRES--E HOT WIR SPARE 1 12. ALL SPL TECHNOL 13. ALL CON INTERVA 14. ALL POF GRADE. 1/2\" INLET R ROTOR I LOCATIO WATER I EXACT C REPRESE OWNER THE IRR THE POI 17. PROPERI GROUND SHOULD GROUND READING 18. THE RAI AND/OR VANDALI DEVICE. 19. THE NEV CONTRAI AS SET SHALL E WITH NC NOT BE SHALL N UNLESS 20. UNLESS

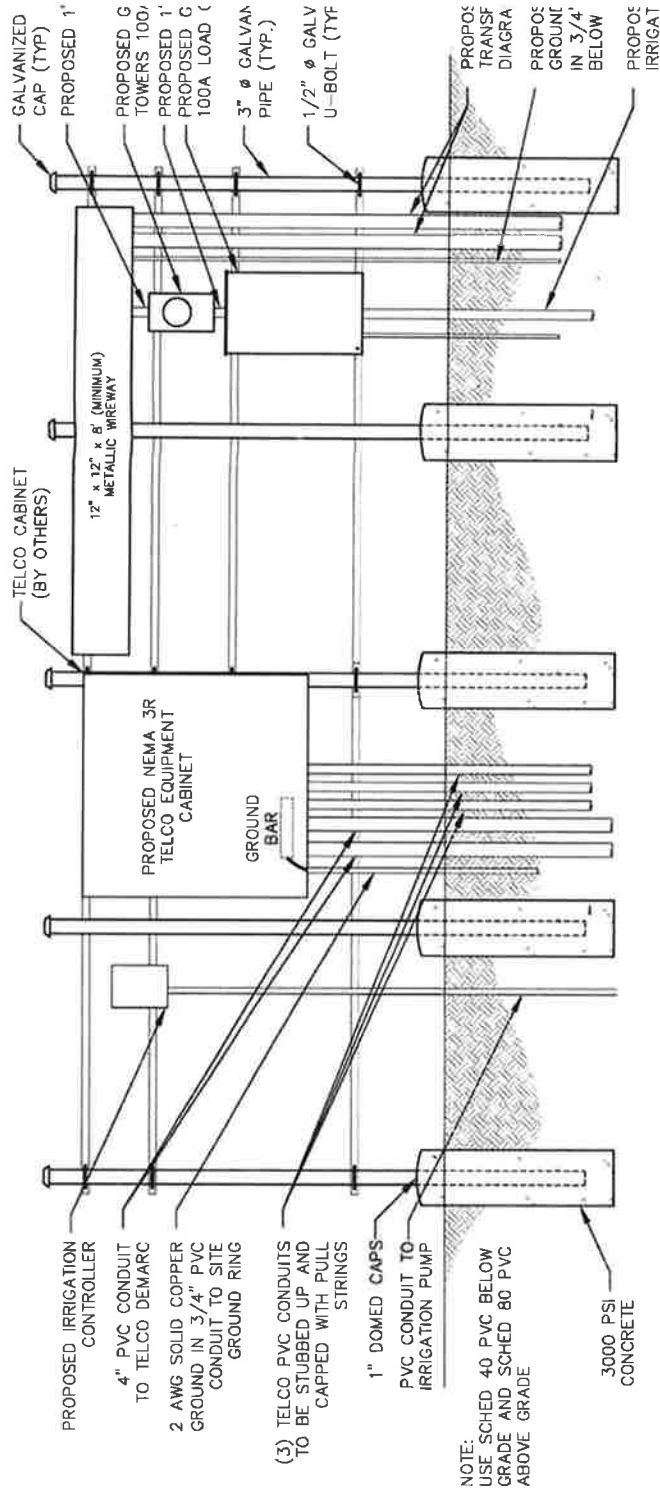
POWER NOTES AND SPECIFICATIONS:

1. ALL ELECTRICAL WORK SHALL COMPLY
2. CONTRACTOR SHALL OBTAIN ANY ADD REVIEW FOR ADDITIONAL DETAILS AND CONTRACTOR SHALL COMPLY WITH ANY REQUIREMENTS THAT MAY BE ADDRESS
3. PRIOR TO PURCHASING EQUIPMENT, THE WRITING THE MAXIMUM AVAILABLE FAU ENSURE ALL ELECTRICAL EQUIPMENT, 1 FAULT CURRENT INTERRUPTING RATING THE FAULT CURRENT INTERRUPTING R/
4. THE GROUNDED SERVICE CONDUCTOR DISCONNECT ONLY.
5. ALL POWER CIRCUITS SHALL USE COPPI SHALL BE RATED FOR AT LEAST 75 D
6. CONTRACTOR SHALL PROVIDE GROUND UTILITY RECEPTACLES.
7. CONTRACTOR SHALL ENSURE ALL NEU CONDUCTORS HAVE GREEN INSULATION ALLOWED.

GROUNDING NOTES AND SPECIFICATIONS:

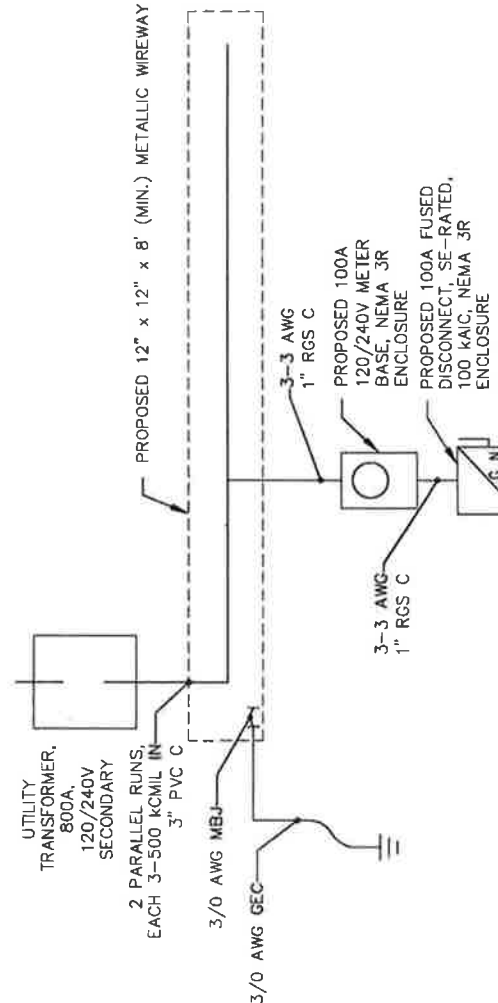
1. THE GROUND RING SHALL CONSIST OF OTHERWISE, BURIED AT 30" BELOW FIN
2. ALL GROUNDING CONNECTIONS SHALL CLEAN ALL SURFACES PRIOR TO CONN ANTI-OXIDATION PAINT.
3. ALL GROUNDING DEVICES SHALL BE UL
4. ROUTE ALL GROUND CONDUCTORS ALO RADIUS SHALL NOT BE LESS THAN 12"
5. GROUND ROD SPACING AS SHOWN.
6. PRIOR TO INSTALLING LUGS ON GROUND KOPR-SHIELD OR EQUIVALENT.
7. SPLIT BOLTS SHALL NOT BE USED.
8. ENSURE THAT NO CONTINUOUS METAL CLAMPS. ENSURE ANY GROUNDING CON AT BOTH ENDS.
9. CONTRACTOR SHALL BOND THE TOWER TINNED COPPER CONDUCTORS AND EXC
10. CONTRACTOR SHALL BOND THE TELCO SOLID TINNED COPPER CONDUCTORS 1 WELDS BELOW GRADE.
11. ALL GROUNDING/BONDING CONDUCTOR INSTALLED IN 3/4" PVC CONDUIT FRC
12. GROUND SYSTEMS SHALL BE TESTED VALUE IS EXCEEDED, NOTIFY TOWER TEST REPORT TO TOWER OWNER AND





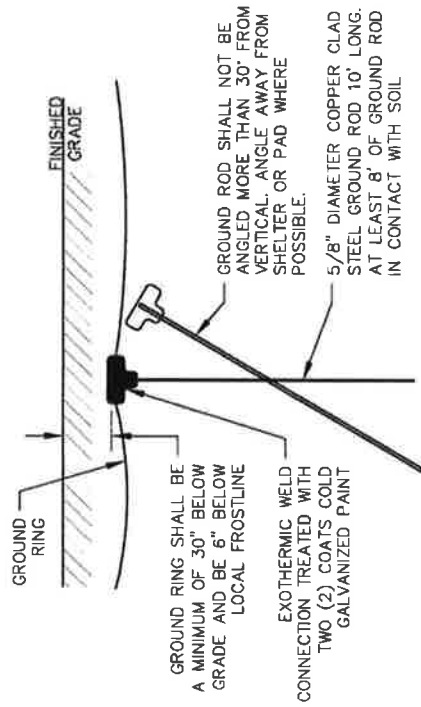
NOTE:
USE SCHED 40 PVC BELOW
GRADE AND SCHED 80 PVC
ABOVE GRADE

H-FRAME DETAIL



NOTES AND SPECIFICATIONS:

1. ALL ELECTRICAL WORK SHALL COMPLY WITH NEC,
2. CONTRACTOR SHALL OBTAIN OWNER/TENANT EQUI THAT MAY NOT BE SHOWN IN THESE DRAWINGS, C SPECIFICATIONS AND REQUIREMENTS THAT MAY BE
3. PRIOR TO PURCHASING EQUIPMENT, CONTRACTOR AVAILABLE FAULT CURRENT AT THE UTILITY SERV CIRCUIT BREAKERS, DISCONNECTS, FUSES, AND P THE AVAILABLE FAULT CURRENT, IN NO CASE SHA
4. THE GROUNDED SERVICE CONDUCTOR (NEUTRAL C BE MADE AT BOTH THE WIREWAY AND AT EACH S
5. ALL POWER CIRCUITS SHALL USE COPPER CONDU AT LEAST 75 DEGREES C.
6. CONTRACTOR SHALL PROVIDE GROUNDING FAULT AND



GROUND ROD DETAIL

NTS

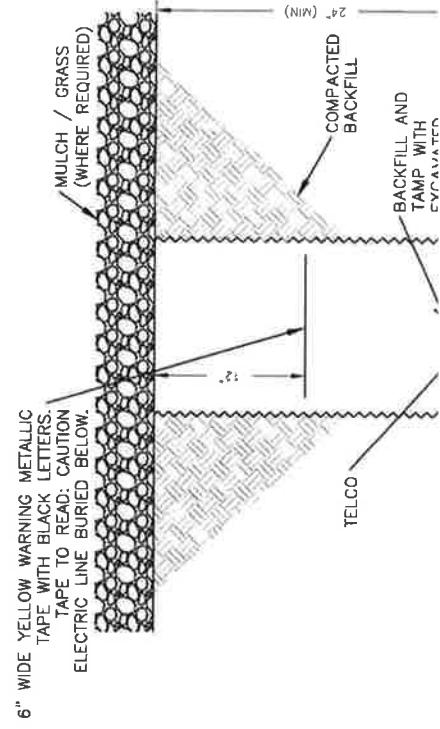
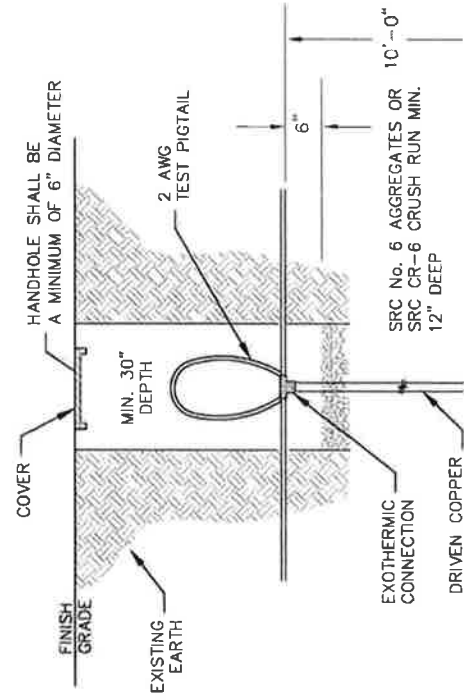
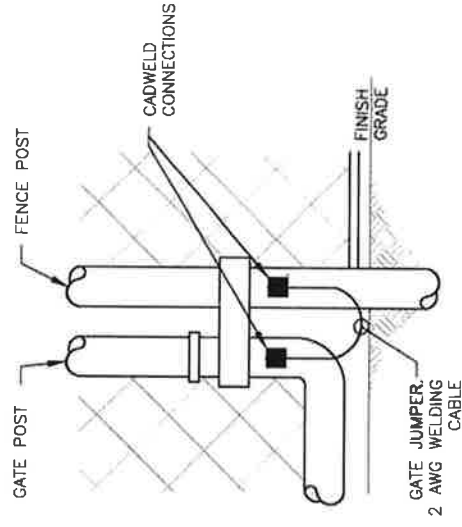
1

GATE BONDING DETAIL

NTS

2

FENCE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2021-ASO-36539-OE

Issued Date: 02/09/2022

Michael Burkhead
Gulfstream Towers, LLC
127 W. Fairbanks Avenue
#469
Winter Park, FL 32789

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Monopole FL208
Location:	Cocoa, FL
Latitude:	28-27-04.54N NAD 83
Longitude:	80-52-15.05W
Heights:	16 feet site elevation (SE) 199 feet above ground level (AGL) 215 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

☐ At least 10 days prior to start of construction (7460-2, Part 1)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 08/09/2023 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (404) 305-6462, or mike.blaich@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-ASO-36539-OE.

Signature Control No: 494539469-511171844

Michael Blaich
Specialist

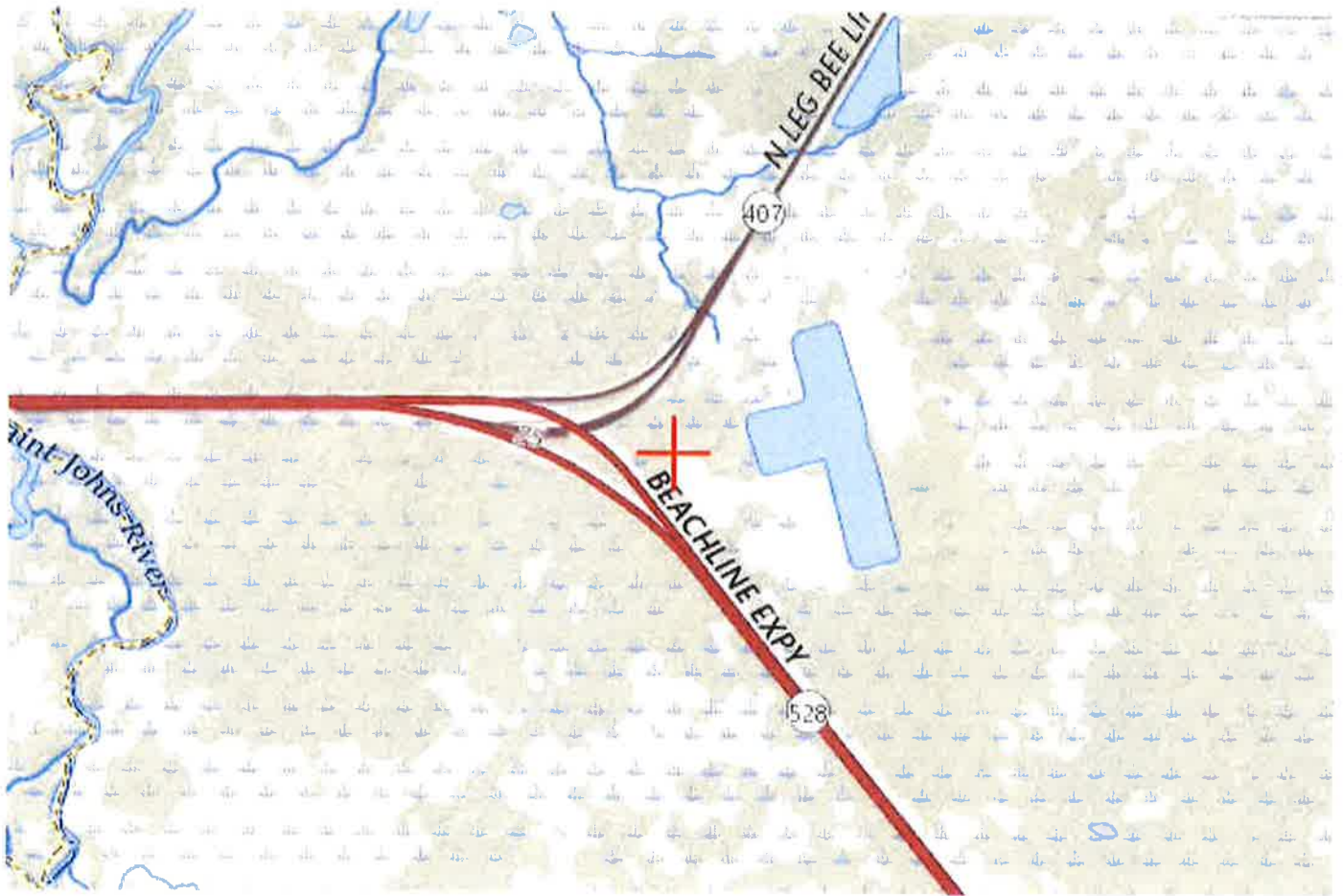
(DNE)

Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2021-ASO-36539-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W



GULFSTREAM TOWERS

127 W. Fairbanks Avenue
Box 469
Winter Park, FL 32789

George C. Ritchie, Planner III, Zoning Office
Brevard County Planning & Development
2725 Judge Fran Jamieson Way
Building A, Room 114
Viera, FL 32940

Re: FL208 / Challenger Memorial Parkway (SR407), Cocoa, FL 32927
Consultant Comment Regarding Sec. 62-2451(a)(4)

Mr. Ritchie,

In response to the consultant's comment regarding Sec. 62-2451(a)(4).

The proposed 199' tower is in an extremely rural area, located just east of the St. Johns River watershed that runs north-south thru Central Florida, at the split of SR528 and SR407, which then continues east approx 4.0 miles to north and southbound I-95. The area is predominately undeveloped acreage with protected wetland and conservation land all around. There are 3 communication towers between approx 2.9 and 3.4 miles to the east and 4 communication towers between approx 5.7 to 6.0 miles to the west. The nearest dwelling is approx 2.1 miles to the east and approx 5.0 miles to the west.

The proposed 199' tower will serve as the infrastructure for multiple mobile communication networks which in turn provide personal communication services and enhanced E911 service. This area also serves as a major evacuation corridor for Central Floridians moving east-west along the SR528, SR407 and north-south along I-95.

Due to the rural nature of this location and considerable distances to other nearby towers and their operating networks, a concealed tower would not be technically feasible, practical or justified.

★ → T-Mobile is the anchor tenant for this project.

Sections 62-2451 and 62.2403 to follow for reference.

Sec. 62-2451. Specific application requirements and review process for new wireless telecommunication facilities.

(a) *Application materials.*

(4) *Design preference justification.* If the proposed tower is non-concealed, the applicant must file relevant information that demonstrates why a concealed tower is not technically feasible, practical, or justified, given the designed location and configuration of the proposed wireless communications facility, the land uses and features of the subject and surrounding properties within 300 feet of the subject property, and the criteria of minimizing adverse visual impacts on the aesthetics of the surrounding area as measured against the review factors indicated in this section.

Sec 62.2403. Definitions

Camouflage - means camouflaged antenna systems and/or towers that use paint instead of structure to blend into its surroundings; for example, matching the color of the structure upon which the system is attached or if separate and distinct from its surroundings colored to match the sky or nearby vegetation.

Concealed - means a tower, antenna system or ancillary structure, or equipment compound that is not readily identifiable as such and is designed to be aesthetically compatible with existing and proposed

GULFSTREAM TOWERS

127 W. Fairbanks Avenue
Box 469
Winter Park, FL 32789

building(s) and uses on a site so as to reduce or mitigate the facility's potential adverse visual impacts on the surrounding areas. There are two types of concealed facilities:

- (1) Antenna attachments, and
- (2) Freestanding antenna support structures.

Examples of concealed attached facility include, but are not limited to, the following: antenna systems enclosed within canisters, faux windows, dormers or other architectural features that blend with an existing or proposed building or structure. Freestanding concealed antenna support structures usually have a secondary, obvious function which may be, but is not limited to the following: church steeple, windmill, bell tower, clock tower, light standard, flagpole with or without a flag, or tree.

Kind regards,



Mike Burkhead
(407) 617-0167

Gulfstream Towers is proposing to build a 199' tall monopole tower and equipment compound. The tower and equipment will be located within an 80 x 80 lease area. Within the lease area will be perimeter landscaping around a 50' x 50' opaque wooden fenced compound, a parking space, and a transformer for electrical service. Within the fenced compound will be an electrical service rack for power for each carrier on the tower, and a telco box for fiber connections. The 199' monopole tower will be centered within the fenced compound, and will be surrounded by carrier equipment. The carrier equipment will be installed at a later date, under a separate permit. The tower will utilize breakpoint technology, and will be designed with a 60' fall zone.

The 199' monopole tower will be lit per federal government standards. It will have red lights at the tower midpoint, and a flashing strobe at the top. The lights will flash at a rate approved by the FAA. The tower lighting flashes will not exceed 20 flashes per minute, per the Brevard County Land Development Code. (Sec. 62-2422(4)(b))

The antennas and equipment located on the tower will not interfere with any public safety services, and will comply to the fullest extent possible with the rules, regulations, and guidelines of the FCC, and Brevard County Code (Sec. 62-2411). Each owner of an antenna, antenna array or application for a co-location shall demonstrate...compliance with "good engineering practices" as defined by the FCC in its rules and regulations..."

The tower will be designed to support multiple carriers. One carrier will be installing their equipment under separate permit once the CO of the tower permit is completed. The tower will support three more carriers, and they will install their equipment when the budget has been approved by their corporate office. When Gulfstream Towers applies for their permit, signed and sealed structural tower drawings will be submitted showing the capacity for the tower to support 4 carriers.

The electrical power for the site will be 120/240v. Each carrier will use a 200 amp service. The meter rack will have all of the proper signage as required by the electrical code and the Brevard County code. Each carrier has the option of installing a generator. Gulfstream Towers will not be installing a generator under their permit. The future generators (if installed) will meet the noise and electrical requirements of the Brevard County Code. Signs will be located every 20 feet and attached to the fence or wall and will display in large, bold, high contrast letters (minimum height of each letter 4 inches) the following: "HIGH VOLTAGE — DANGER."

In the event the tower becomes abandoned, it will be removed per the Brevard County Land Development Code. "Communication facilities and the equipment compound shall be removed, at the owner's expense, within 180 days of cessation of use". (Sec. 62-2407)

The tower owner shall maintain the tower per the Brevard County Code (Sec. 62-2423), which states " Every five years, the owner of any non-exempt tower and wireless communication facilities over 35 [feet] in height shall submit to the county building official a sealed statement from a registered professional engineer that the structure is sound. The certification shall be due by the end of the month upon each anniversary of the issuance of the building permit. If the report is not provided within 14 days after receipt of written notice by the CUP holder and property owner,

towers which have not been certified shall be considered dilapidated and shall be removed by the property owner. Subject to subsection 62-1953(4), if the property owner fails to remove the tower within 30 days after receiving notice to effect removal, the county shall have the right to remove such tower and impose a lien on the site which was the subject of the application.



Tuesday, December 27, 2022

To Whom It May Concern:

RE: Frequencies available for use by T-Mobile US – Project: **A2E2346B**

T-Mobile has submitted an application to install equipment on a planned communications tower located at: **TBD SR 407/Challenger Memorial Parkway, Orlando, FL 32927.**

This letter addresses: (1) the frequency band allocations licensed or transferred to T-Mobile by the Federal Communications Commission (FCC); (2) to show the reasons why the T-Mobile frequency bands will not interfere with or obstruct any public safety telecommunications.

1. T-Mobile operates on FCC licensed spectrum as follows:

Band	Transmit	Receive
2500 MHz	2496-2690 MHz	2496-2690 MHz
AWS	2130-2155 MHz	1730-1755 MHz
PCS	1930-1950 MHz	1850-1870 MHz
PCS	1980-1995 MHz	1900-1915 MHz
700 MHz	728-734 MHz	698-704 MHz
600 MHz	627-637 MHz	673-683 MHz

2. The bands allocated by the FCC for public safety telecommunications are (a): well-guarded by the "Guard Band" separation, dictated by the FCC; and (b): transmission and reception of Public Safety telecommunication takes place in a separate portion of the RF spectrum from AWS, PCS, 700 MHz and 600 MHz operations.

Equipment used by T-Mobile complies with strict standards contained in Code of Federal Regulations 47 part 24. This sets limits on emissions out of T-Mobile's licensed band to ensure no adverse effects to any other frequency band.

In summary, by transmitting only in the designated spectrum, T-Mobile will not cause interference to any other communications carrier, radio, television, or public safety communications facilities.

Respectfully,

Jason Paulley
RF Engineer, T-Mobile US



Thursday, December 29, 2022

To Whom It May Concern:

RE: Alternate existing locations around candidate **A2E2346B**

The only items showing are west of candidate B; they are all Vertical Bridge locations with heights of 20-28ft. These are not usable.

I'm not aware of any other viable options for candidates in the area. I also believe that is why this tower is even being considered.

Candidate B will improve coverage and capacity on SR528, and CR407.



Respectfully,

A handwritten signature in blue ink that reads 'Jason Paulley'.

Jason Paulley
RF Engineer, T-Mobile US



T-Mobile

A2E2346B Pre and Post Propagations

Existing and Proposed Sites



Proposed site:

A2E2346B Lat: 28.45126 Long: -80.87084 ACL: 180ft

Existing sites:

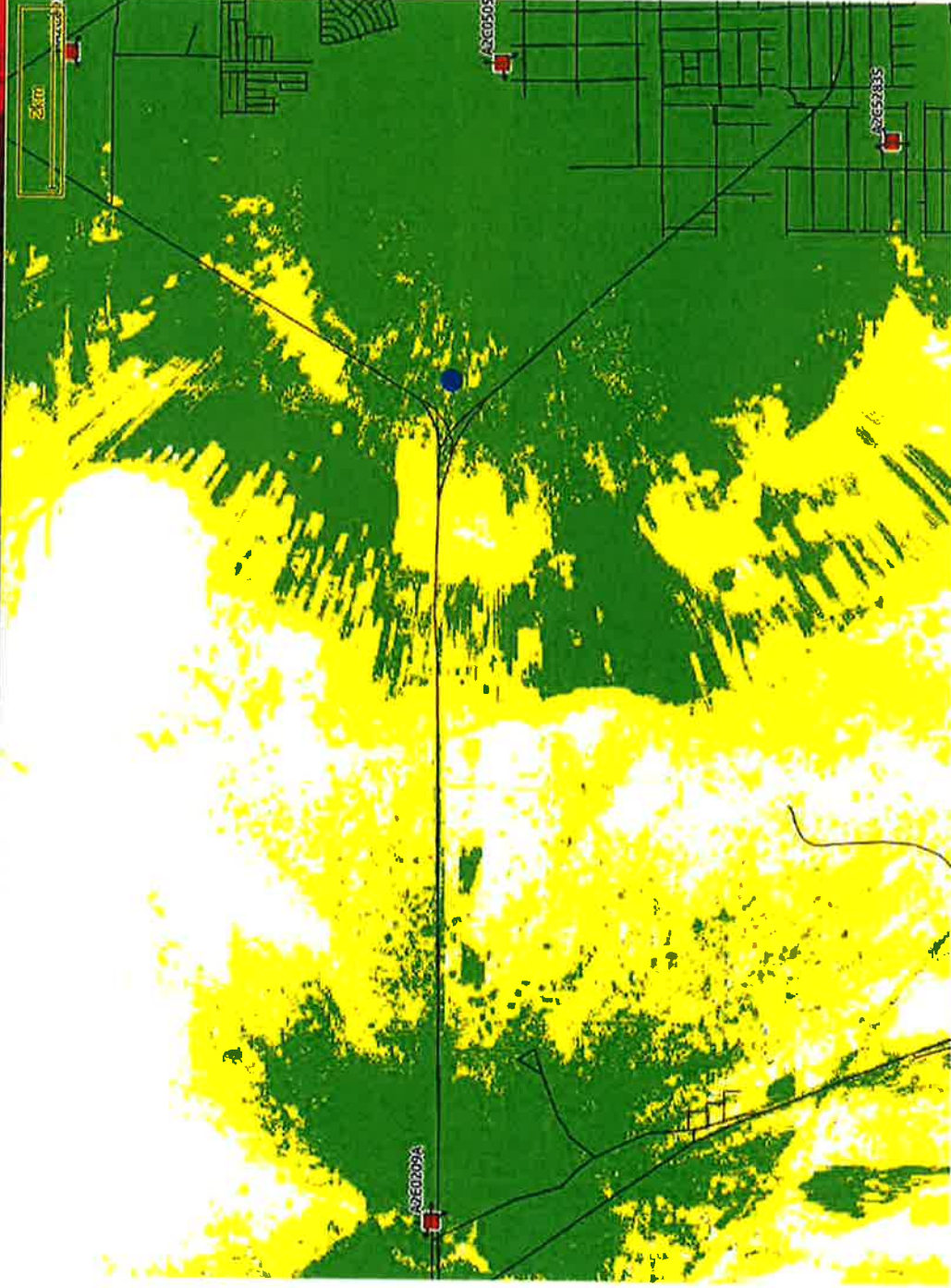
A2E0209A Lat: 28.453338 Long: -80.968388 ACL: 245ft

A2C0019A Lat: 28.491307 Long: -80.832518 ACL: 116ft

A2C0505A Lat: 28.446833 Long: -80.833311 ACL: 205ft

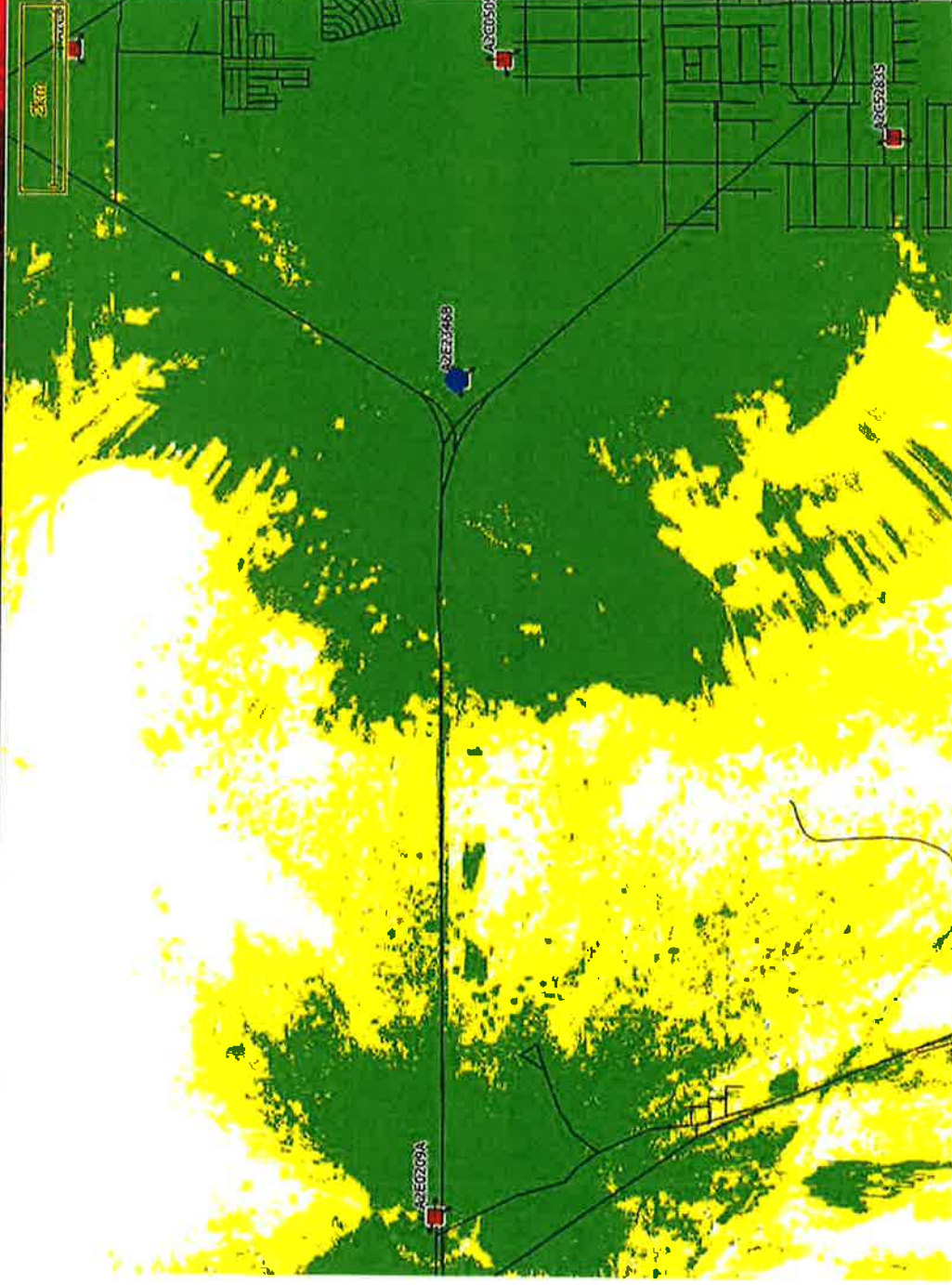
A2C5283S Lat: 28.40651 Long: -80.84217 ACL: 200ft

4G Coverage Without A2E2346B Mid-Band (B41-2500MHz) LTE Service Map (RSRP)



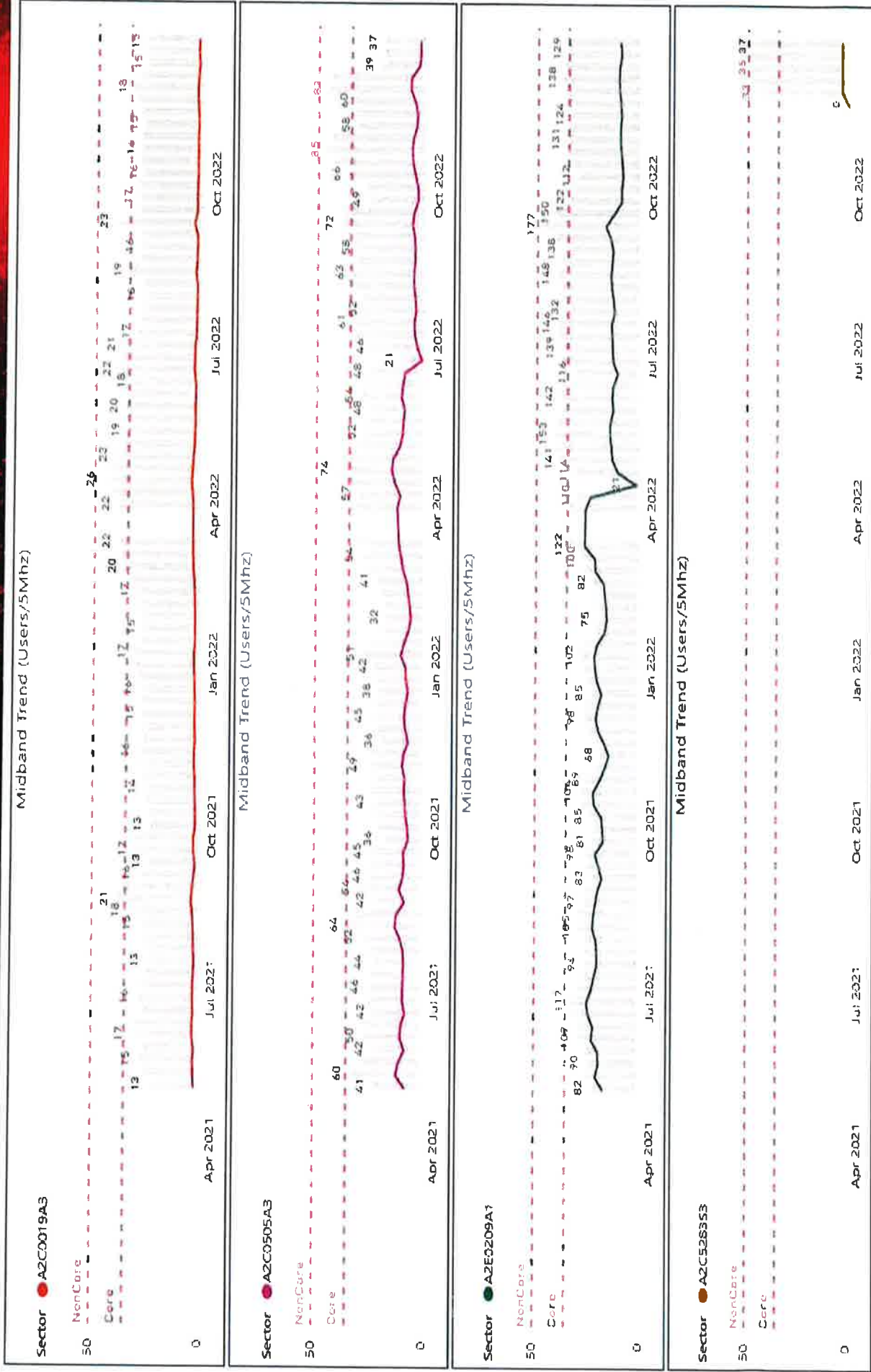
- Proposed Site
- Existing Sites
- Reliable 4G In-Building Residential Coverage (≥ -97 dBm)
- Reliable 4G In Vehicle Coverage ($-97 > X > -105$ dBm)

4G Coverage With A2E2346B Mid-Band (B41-2500MHz) LTE Service Map (RSRP)



- Proposed Site
- Existing Sites
- Reliable 4G In-Building Residential Coverage (≥ -97 dBm)
- Reliable 4G In Vehicle Coverage ($-97 > X > -105$ dBm)

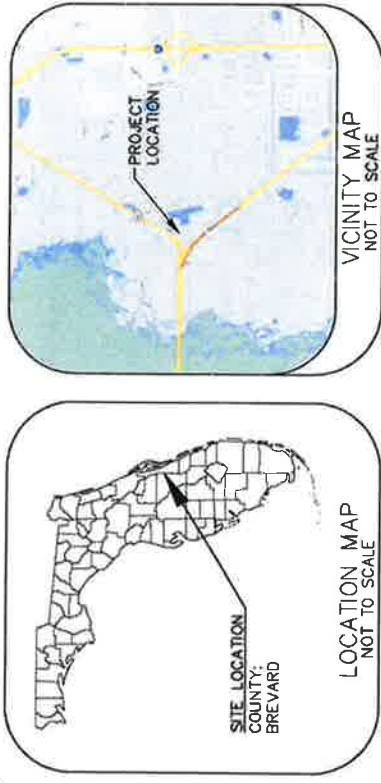
Existing Sector Capacity volume; A2E2346B will offload these



An abstract background featuring a dense field of red particles or dust. A bright, glowing red nebula-like structure is visible in the upper right quadrant, with wispy, filamentary patterns extending across the top. The lower portion of the image is predominantly black, providing a high-contrast backdrop for the white text.

Thank You

THIS DOCUMENT HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY JOHNNY L. FLASKAMP, PSM #6601 ON 12/13/22 USING A DIGITAL SIGNATURE IN ACCORDANCE WITH F.A.C. 5J-17.062 WITH A DIGITAL CERTIFICATE ISSUED BY ENTRUST INC. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



DESCRIPTION: PARENT TRACT (PER OFFICIAL RECORD BOOK 3520, PAGE 1643, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA)

ALL OF SECTION 25, TOWNSHIP 23 SOUTH, RANGE 34 EAST, EXCEPTING THEREFROM LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 862, PAGE 159, OFFICIAL RECORDS BOOK 1550, PAGE 761, AND ROAD RIGHT-OF-WAYS OF RECORD, BREVARD COUNTY, FLORIDA WITH THE EXCEPTION PARCELS 0500.A AND 0500.0

DESCRIPTION: ACCESS TRACT (PER OFFICIAL RECORD BOOK 3520, PAGE 1643, OF THE PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA)

ALL OF THE WEST 1/2 OF SECTION 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, LYING NORTH OF DELESPINE GRANT AND SOUTH OF STATE ROAD 407 AND EAST OF STATE ROAD 524, CONTAINING 260 ACRES

AND THAT PART OF WEST 1/2 OF SECTION 19, TOWNSHIP 23 SOUTH, RANGE 35 EAST, EAST OF STATE ROAD 407, CONTAINING 18.14 ACRES

DESCRIPTION: PROPOSED 80'X80' GULFSTREAM TOWERS LEASE AREA (AS REQUESTED BY CLIENT)

A PARCEL OF LAND LOCATED WITHIN SECTION 25, TOWNSHIP 23 SOUTH, RANGE 34 EAST, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 407 AND THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 528, BEING MARKED BY A FOUND 5/8" IRON ROD WITH CAP (NO IDENTIFICATION); THENCE S62°02'54"E, A DISTANCE OF 863.14' FEET TO THE POINT OF BEGINNING; THENCE N55°06'54"E, A DISTANCE OF 80.00 FEET; THENCE S34°53'06"E, A DISTANCE OF 80.00 FEET; THENCE S55°06'54"W, A DISTANCE OF 80.00 FEET; THENCE N34°53'06"W, A DISTANCE OF 80.00 FEET TO THE POINT OF BEGINNING.

SAID PROPOSED 80'X80' GULFSTREAM TOWERS LEASE AREA CONTAINING 6,400 SQUARE FEET.

DESCRIPTION: CENTERLINE OF A PROPOSED 20' WIDE NON-EXCLUSIVE GULFSTREAM TOWERS ACCESS & UTILITY EASEMENT (AS REQUESTED BY CLIENT)

A STRIP OF LAND LOCATED WITHIN SECTION 25, TOWNSHIP 23 SOUTH, RANGE 34 EAST AND WITHIN SECTIONS 19 & 30, TOWNSHIP 23 SOUTH, RANGE 35 EAST, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE INTERSECTION OF THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 407 AND THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 528, BEING MARKED BY A FOUND 5/8" IRON ROD WITH CAP (NO IDENTIFICATION); THENCE S62°02'54"E, A DISTANCE OF 863.14' FEET; THENCE N55°06'54"E, A DISTANCE OF 80.00 FEET; THENCE S34°53'06"E, A DISTANCE OF 80.00 FEET; THENCE S55°06'54"W, A DISTANCE OF 40.00 FEET TO THE CENTERLINE OF SAID EASEMENT AND THE POINT OF BEGINNING; THENCE S27°46'11"E, A DISTANCE OF 244.63 FEET; THENCE N90°00'00"E, A DISTANCE OF 60.31 FEET; THENCE N71°57'35"E, A DISTANCE OF 497.46 FEET; THENCE N25°41'35"E, A DISTANCE OF 562.73 FEET; THENCE N18°51'20"W, A DISTANCE OF 347.14' FEET; THENCE N10°53'18"W, A DISTANCE OF 220.68 FEET; THENCE N77°20'14"E, A DISTANCE OF 79.06 FEET; THENCE N38°11'11"E, A DISTANCE OF 78.00 FEET; THENCE N07°04'12"E, A DISTANCE OF 421.13 FEET; THENCE N72°01'15"E, A DISTANCE OF 217.45 FEET; THENCE N39°53'31"E, A DISTANCE OF 56.92 FEET; THENCE N10°02'19"E, A DISTANCE OF 50.85 FEET; THENCE N08°23'00"W, A DISTANCE OF 69.21 FEET; THENCE N15°49'08"W, A DISTANCE OF 566.48 FEET; THENCE N13°22'42"E, A DISTANCE OF 99.30 FEET; THENCE N66°17'14"E, A DISTANCE OF 126.34 FEET; THENCE N77°54'25"E, A DISTANCE OF 169.88 FEET; THENCE N71°57'35"E, A DISTANCE OF 190.59 FEET; THENCE N00°44'56"E, A DISTANCE OF 67.42 FEET; THENCE N17°56'41"W, A DISTANCE OF 523.98 FEET; THENCE N21°35'56"W, A DISTANCE OF 367.68 FEET; THENCE N28°34'17"W, A DISTANCE OF 526.19 FEET; THENCE N06°51'07"W, A DISTANCE OF 78.71 FEET; THENCE N30°24'47"E, A DISTANCE OF 642.23 FEET; THENCE N19°23'44"E, A DISTANCE OF 121.09 FEET; THENCE N25°18'45"E, A DISTANCE OF 299.15 FEET; THENCE N27°38'56"E, A DISTANCE OF 138.11 FEET; THENCE N30°56'04"E, A DISTANCE OF 1555.30 FEET; THENCE N59°00'05"W, A DISTANCE OF 16.07 FEET MORE OR LESS TO THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 407 AND THE POINT OF TERMINUS OF SAID CENTERLINE.

THE SIDELINES OF SAID EASEMENT ARE TO BE EXTENDED OR TRIMMED TO MEET AT THE SOUTHEAST LINE OF AN 80'X80' GULFSTREAM TOWERS LEASE AREA AND THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 407.

SAID PROPOSED 20' WIDE NON-EXCLUSIVE GULFSTREAM TOWERS ACCESS & UTILITY EASEMENT CONTAINING 167,821 SQUARE FEET, MORE OR LESS.

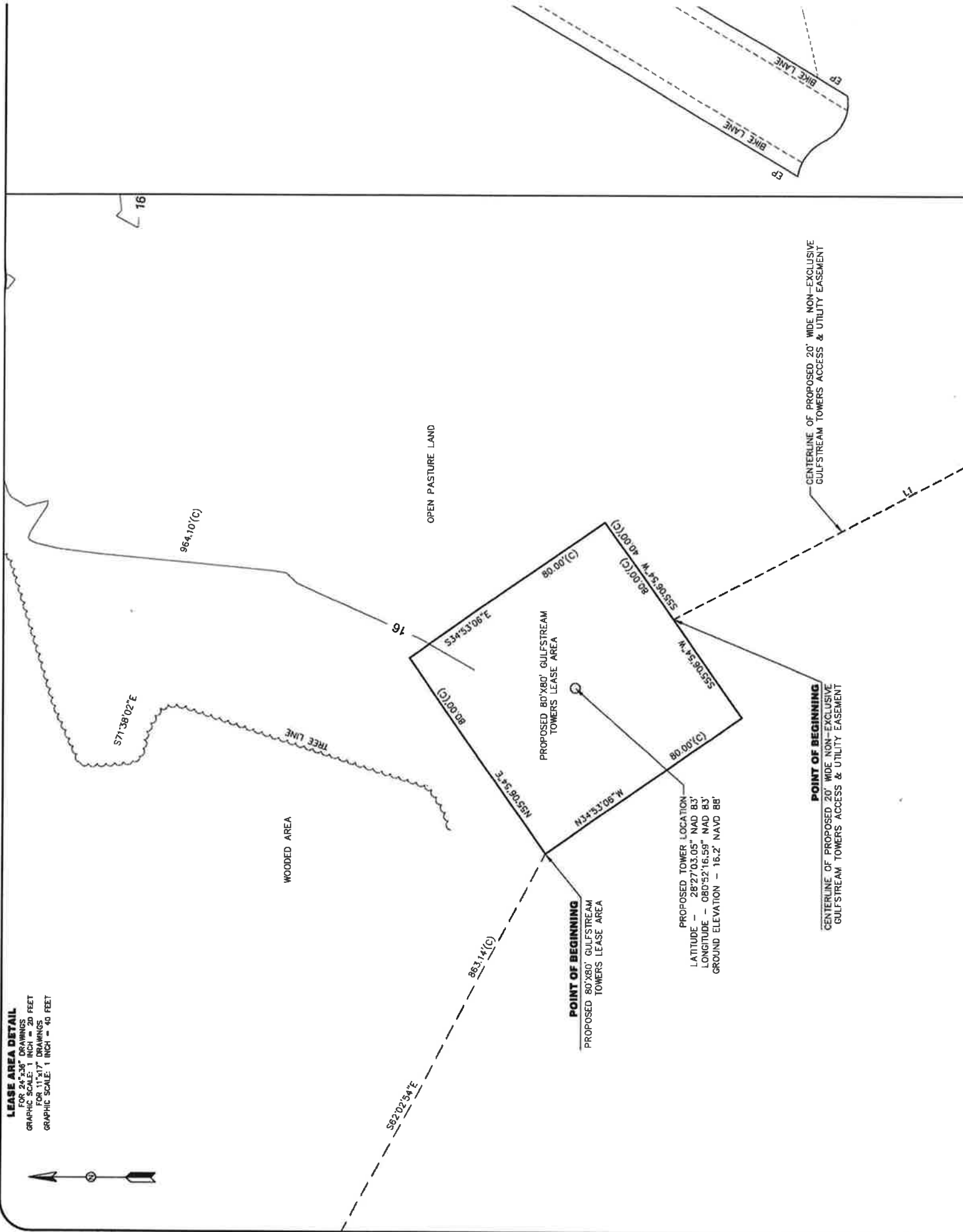
LINE TABLE		
LINE	BEARING	DISTANCE
L 1	S27°46'11"E	244.63(C)
L 2	N90°00'00"E	562.73(C)
L 3	N71°06'27"E	497.46(C)
L 4	N25°41'35"E	60.31(C)
L 5	N18°51'20"W	347.14(C)
L 6	N10°53'18"W	220.68(C)
L 7	N07°04'12"E	79.06(C)
L 8	N38°11'11"E	78.00(C)
L 9	N72°01'14"E	421.13(C)
L 10	N72°01'15"E	217.45(C)
L 11	N39°53'31"E	56.92(C)
L 12	N10°02'19"E	50.85(C)
L 13	N08°23'00"W	69.21(C)
L 14	N15°49'08"W	566.48(C)
L 15	N13°22'42"E	99.30(C)
L 16	N66°17'14"E	126.34(C)
L 17	N77°54'25"E	169.88(C)
L 18	N71°57'35"E	190.59(C)
L 19	N00°44'56"E	67.42(C)
L 20	N17°56'41"W	526.19(C)
L 21	N21°35'56"W	367.69(C)
L 22	N28°34'17"W	523.98(C)
L 23	N06°51'07"W	78.71(C)
L 24	N30°24'47"E	642.23(C)
L 25	N19°23'44"E	121.09(C)
L 26	N25°18'45"E	299.15(C)
L 27	N27°38'56"E	138.11(C)
L 28	N30°56'04"E	1555.30(C)
L 29	N59°00'05"W	16.07(C)

L1 = LINE 1

LEGEND:

LEASE AREA DETAIL

FOR 24"x36" DRAWINGS
GRAPHIC SCALE: 1 INCH = 20 FEET
FOR 11"x17" DRAWINGS
GRAPHIC SCALE: 1 INCH = 40 FEET



EASEMENT ROUTE SKETCH

FOR 24"x36" DRAWINGS
GRAPHIC SCALE: 1 INCH = 200 FEET
FOR 11"x17" DRAWINGS
GRAPHIC SCALE: 1 INCH = 400 FEET



OWNER: HAMID HAFIZI
PARCEL ID #23-35-30-00-251
ZONED: AU
(NOT INCLUDED)

OWNER: TERENCE CRONIN &
KATHLEEN HUBBARD
PARCEL ID #23-34-25-00-1
ZONED: AU
(NOT INCLUDED)

OWNER: JASON & TINA HEDMAN
PARCEL ID #23-34-25-00-751
ZONED: AU
(NOT INCLUDED)

ACCESS TRACT
OWNER: TERENCE CRONIN &
KATHLEEN HUBBARD
PARCEL ID #23-35-30-00-250
ZONED: AU

STATE ROAD 407
100' RIGHT-OF-WAY
NORTHWESTERLY RIGHT-OF-WAY
LINE OF STATE ROAD 407

SOUTHEASTERLY RIGHT-OF-WAY
LINE OF STATE ROAD 407

NORTHWESTERLY RIGHT-OF-WAY
LINE OF STATE ROAD 407

OWNER: HAMID HAFIZI
PARCEL ID #23-35-30-00-251
ZONED: AU
(NOT INCLUDED)

PARENT TRACT
OWNER: TERENCE & KATHLEEN CRONIN
PARCEL ID #23-34-25-00-752
ZONED: GU

POINT OF COMMENCEMENT

PROPOSED 80'x80' GULFSTREAM TOWERS LEASE AREA
CENTERLINE OF PROPOSED 20' WIDE NON-EXCLUSIVE
GULFSTREAM TOWERS ACCESS & UTILITY EASEMENT
INTERSECTION OF THE NORTHEASTERLY RIGHT-OF-WAY
LINE OF STATE ROAD 528 & SOUTHEASTERLY
RIGHT-OF-WAY LINE OF STATE ROAD 407
FOUND 5/8" CAPPED IRON ROD (NO IDENTIFICATION)

S62°02'54"E

863.14'(C)

STATE ROAD 528
RIGHT-OF-WAY WIDTH VARIES

SEE SHEET 2 FOR
DETAIL OF AREA

POND AREA
TOP OF BANK

TOP OF BANK

TOP OF BANK

POND AREA

MATCH LINE

17



127 W. Fairbanks Avenue
Box 469
Winter Park, FL 32789

Brevard County Planning & Development
2725 Judge Fran Jamieson Way
Building A, Room 114
Viera, FL 32940

Re: FL208 / Tower Design / Challenger Memorial Parkway (SR407), Cocoa, FL 32927

To whom it may concern,

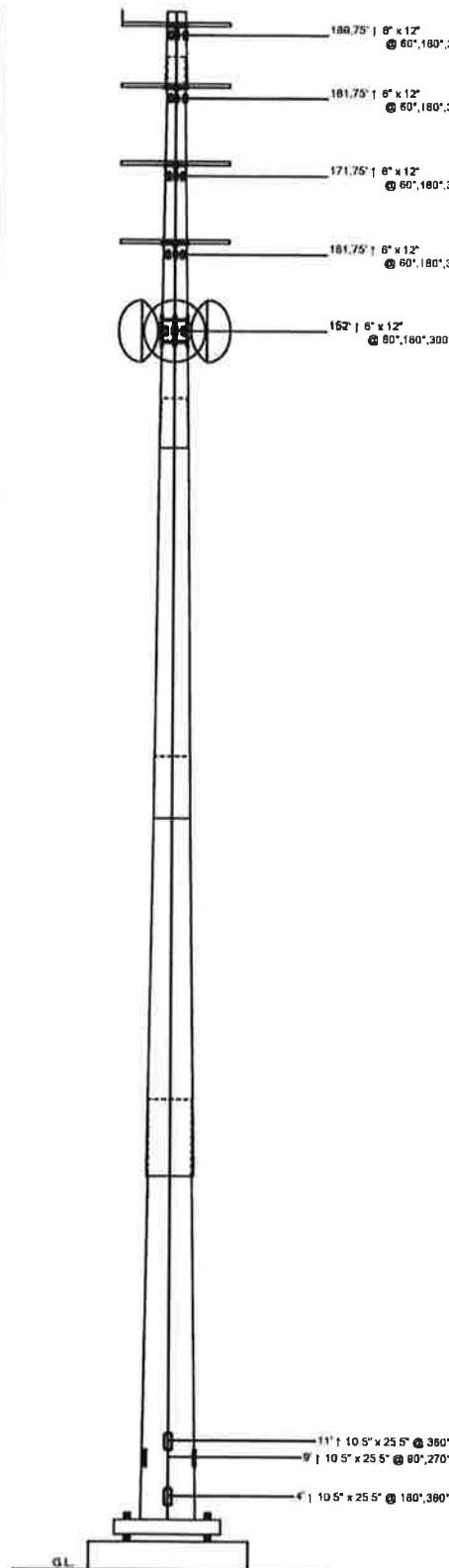
The proposed tower at Challenger Memorial Parkway (SR407), Cocoa, FL 32927 will be design for four (4) tenants. The design criteria and equipment type, size and amount are listed on the attached design drawing by the tower manufacturer, Sabre Industries.

Kind regards,

A handwritten signature in blue ink, appearing to read "Mike Burkhead".

Mike Burkhead
(407) 617-0167

SIZES ARE PRELIMINARY AND MAY CHANGE UPON FINAL DESIGN									
Length (ft)	53'-3"	53'-8"	53'-6"	10'-0"					
Number Of Sides	18	6" - 3"	6" - 3"	A					
Lap Splice (ft)	54.21"	70.24"	41.58"	28.22"					
Top Diameter (in)	66.19"	82.15"	57.61"	44.2"					
Bottom Diameter (in)	82.15"	70.24"	41.58"	28.22"					
Taper (in/ft)	0.2556	A572-65	15031	8147					
Grade	31248	21234	15031	8147					
Weight (lbs)	31248	21234	15031	8147					
Overall Steel Height (ft)	192	15031	8147	929					



Designed Appurtenance Loading

Elev	Description	Tx-Line
193	(1) 200 sq.ft. (no ice) 225 sq.ft. (ice)	(12) 1 5/8"
191	H.C. Platform (Monopole Only) - 14'	
183	H.C. Platform (Monopole Only) - 14'	
183	(1) 200 sq.ft. (no ice) 225 sq.ft. (ice)	(12) 1 5/8"
173	H.C. Platform (Monopole Only) - 14'	
173	(1) 200 sq.ft. (no ice) 225 sq.ft. (ice)	(12) 1 5/8"
163	H.C. Platform (Monopole Only) - 14'	
163	(1) 200 sq.ft. (no ice) 225 sq.ft. (ice)	(12) 1 5/8"
152	(3) Dish Mount (Monopole Only) - Pipe Mount (8'-10' Dish)	
152	(3) 8' Solid Dish W/ Radome	(3) 1 5/8"

Design Criteria - ANSI/TIA-222-H

Wind Speed (No Ice)	142 mph
Wind Speed (Ice)	30 mph
Design Ice Thickness	0.00 in
Risk Category	II
Exposure Category	C
Topographic Factor Procedure	Method 1 (Simplified)
Topographic Category	1
Ground Elevation	16 ft
Seismic Importance Factor, I _e	1.00
0.2-sec Spectral Response, S _s	0.059 g
1-sec Spectral Response, S ₁	0.033 g
Site Class	D (DEFAULT)
Seismic Design Category	A
Basic Seismic Force-Resisting System	Telecommunication Tower (Pole: Steel)

Limit State Load Combination Reactions

Load Combination	Axial (kips)	Shear (kips)	Moment (ft-k)	Deflection (ft)	Sway (deg)
1.2 D + 1.0 W _o	117.32	111.59	16957.84	14.92	8.91
0.9 D + 1.0 W _o	88.07	111.64	16783.87	14.7	8.78
1.2 D + 1.0 E _v + 1.0 E _h	119.4	2.98	485.03	0.44	0.26
0.9 D + 1.0 E _v + 1.0 E _h	87.38	2.95	478.16	0.43	0.25
1.0 D + 1.0 W _o (Service @ 60 mph)	87.87	17.92	2720.15	2.44	1.44

Base Plate Dimensions

Shape	Diameter	Thickness	Bolt Circle	Bolt Qty	Bolt Diameter
Round	95.75"	3"	80"	38	2.25"

Material List

Display	Value
A	4' - 3"

Notes

- 1) Antenna Feed Lines Run Inside Pole
- 2) All dimensions are above ground level, unless otherwise specified.
- 3) Weights shown are estimates. Final weights may vary.
- 4) Full Height Step Bolts
- 5) This tower design and, if applicable, the foundation design(s) shown on the following page(s) also meet or exceed the requirements of the 2020 Florida Building Code.



Sabre Industries
 7101 Southbridge Drive
 P.O. Box 658
 Sioux City, IA 51102-0658
 Phone: (712) 258-6880
 Fax: (712) 278-0814

Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.

Quote: **22-3666-JDS**
 Customer: **GULFSTREAM TOWERS**
 Site Name: **SR528 & SR407, FL FL208**
 Description: **193' Monopole**
 Date: **12/8/2021** By: **KJL**

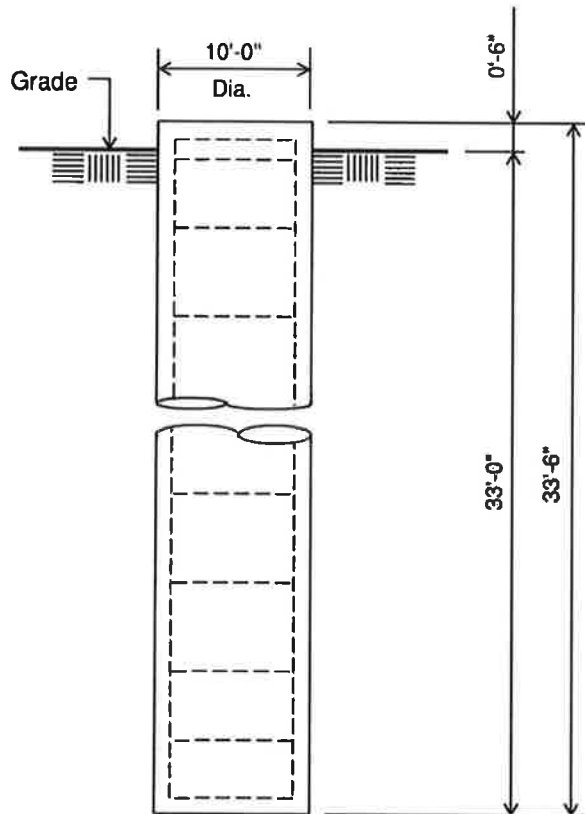
Page: 1

Customer: GULFSTREAM TOWERS

Site: SR528 & SR407, FL FL208

193' Monopole

PRELIMINARY -NOT FOR CONSTRUCTION-



ELEVATION VIEW

(97.45 Cu. Yds.)

(1 REQUIRED; NOT TO SCALE)

Notes:

- 1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-14.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on presumptive sand soil as defined in ANSI/TIA-222-H-2017. It is recommended that a soil analysis of the site be performed to verify the soil parameters used in the design.
- 6) The bottom anchor bolt template shall be positioned as closely as possible to the bottom of the anchor bolts.

Rebar Schedule for Pier

Pier	(80) #11 vertical rebar w/ #5 ties, (2) within top 5" of pier, then 6" C/C
------	--

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7101 Southbridge Drive - P.O. Box 658 - Sioux City, IA 51102-0658 - Phone 712.258.6690 - Fax 712.279.0814

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY MINUTES

The Brevard County Planning & Zoning Board met in regular session on **Monday, June 12, 2023**, at **3:00 p.m.**, in the Florida Room, Building C, Brevard County Government Center, 2725 Judge Fran Jamieson Way, Viera, Florida.

The meeting was called to order at 3:00 p.m.

Board members present were: Board members present were: Henry Minneboo, (D1); Ron Bartcher (D1); Robert Sullivan (D2); Brian Hodggers (D2); Lorraine Koss (D2-Alt.); Ben Glover (D3); Debbie Thomas (D4); Mark Wadsworth, Chair (D4); Logan Luse (D4-Alt.); Robert Brothers (D5); and John Hopengarten (BPS).

Staff members present were: Jeffrey Ball, Planning and Zoning Manager; Alex Esseeesse, Deputy County Attorney; Jane Hart, Planner III; Paul Body, Planner III; Trina Gilliam, Planner II; Melissa Wilbrandt, Associate Planner; and Jennifer Jones, Special Projects Coordinator.

Excerpt of Complete Agenda

Terrence A. Cronin, Jr. and Kathleen M. Hubbard (Mike Burkhead/Gulfstream Towers)

A CUP (Conditional Use Permit) for Wireless Telecommunication Facilities and Broadcast Towers, in a GU (General Use) zoning classification. The property is 29.17 acres, located at the eastern intersection of S.R. 407 and S.R. 528. (No assigned address. In the Cocoa area.) (23Z00015) (Tax Account 2324077) (District 1)

Mary Solik, 121 S. Orange Avenue, Suite 200, Orlando, Florida, stated she is legal counsel for Gulfstream Towers. The request is for a proposed 199-ft. telecommunications tower on a 29.17-acre tract, located where it will not bother anybody, but will provide needed coverage in the area. Staff has done a thorough job of analyzing the application, and Gulfstream meets the criteria under the CUP requirements.

No public comment.

John Hopengarten asked if there will be an access road to the site. Ms. Solik replied the access will be from S.R. 407, through two additional tracts that are already improved and owned by the same property owner.

Mr. Hopengarten asked where the power will come from for the tower. Ms. Solik replied power will be brought to the site by the provider in the area. Mr. Hopengarten stated there are no utilities in the area. Ms. Solik replied water and sewer are not needed, only electricity.

Ron Bartcher stated the staff report mentions additional restrictions that were recommended, such as providing a structural analysis signed and sealed by a registered engineer. Ms. Solik replied that will be done at the BP stage.

Mr. Bartcher asked if there is there a need for the board to put additional conditions on the CUP if they are being addressed at site planning.

Jeffrey Ball replied the recommendations are for the board to consider, the conditions were part of the consultant's review. The first proposed condition, the final construction documents, are part of the review process. The last condition, that all feed lines shall be installed within the support structure sealed from birds and wildlife, that is a condition the board may want to consider as part of the CUP approval.

Ms. Solik stated Gulfstream is amenable to all of the conditions.

Mr. Bartcher asked if the County Commission will apply the conditions. Mr. Ball replied yes, the P&Z board is just a recommending body to the Board of County Commissioners and it's up to the P&Z board to determine whether the application needs to move forward with that condition.

Motion by Robert Sullivan, seconded by Henry Minneboo, to recommend approval of a CUP for Wireless Telecommunication Facilities and Broadcast Towers, in a GU zoning classification. The motion passed unanimously.