

STAFF REPORT

Case No. 0815-05
HTE No. 15-10000029

Planning Commission Hearing Date: August 26, 2015

Applicant & Legal Description	Applicant/Representative: Vincent Gerard and Associates, Inc. Owner: Darlene Lee Legal Description/Location: Lot 1, Block 3B, Kaler Addition, located along the south side of Up River Road between Savage Lane and North Navigation Boulevard.			
Zoning Request	From: "IL" Light Industrial District To: "IL/SP" Light Industrial District with a Special Permit Area: 1.73 acres Purpose of Request: To allow for the installation of a 125 foot cell tower.			
Existing Zoning and Land Uses		Existing Zoning District	Existing Land Use	Future Land Use
	Site	"IL" Light Industrial	Light Industrial	Light Industrial
	North	Outside City Limits	Heavy Industrial	Heavy Industrial
	South	"IL" Light Industrial	Light Industrial	Light Industrial
	East	"IL" Light Industrial	Commercial	Light Industrial
	West	"IL" Light Industrial	Low Density Residential and Vacant	Light Industrial
ADP, Map & Violations	Area Development Plan: The subject property is located within the boundaries of the Westside Area Development Plan and is planned for light industrial uses. The proposed rezoning to the "IL/SP" Light Industrial District with a Special Permit is consistent with the adopted Future Land Use Plan. Map No.: 050046 Zoning Violations: None			
Transportation	Transportation and Circulation: The subject property has approximately 200 feet of street frontage along Up River Road, which is designated as a "C1" Minor Residential Collector as per the Urban Transportation Plan.			

Street R.O.W.	Street	Urban Transportation Plan Type	Proposed Section	Existing Section	Traffic Volume (2013)
	Up River Road	"C1" Minor Residential Collector	60' ROW 40' paved	57' ROW 18' paved	N/A

Staff Summary:

Requested Zoning: The applicant is requesting a rezoning from the "IL" Light Industrial District to the "IL/SP" Light Industrial District with a Special Permit to allow for the installation of a 125 foot cell tower.

Development Plan: The proposed rezoning is in the Westside area. The applicant is proposing a 125 foot cell tower in the southeastern corner of the subject property.

Existing Land Uses & Zoning: South, east, and west of the subject property is zoned "IL" Light Industrial and consists of an industrial business, a restaurant, and a single-family residence.

AICUZ: The subject property is not located in one of the Navy's Air Installation Compatibility Use Zones (AICUZ).

Plat Status: The property is platted.

Comprehensive Plan & Area Development Plan Consistency: The subject property is located within the boundaries of the Westside Area Development Plan (ADP). The proposed rezoning to the "IL/SP" Light Industrial District with a Special Permit is consistent with the adopted Future Land Use Plan.

Unified Development Code (UDC): Wireless Telecommunication facilities are subject to regulation as follows:

- Wireless Telecommunication facilities are regulated by UDC Section 5.5.
- Wireless Telecommunication facilities in excess of 85' are permitted in nonresidential zoning districts as indicated in UDC Table 5.5.4.F. with a Special Permit.

UDC Review Special Permit Review Criteria

The proposed rezoning meets the UDC's special Permit review criteria for approval of the rezoning to "IL/SP" Light Industrial District with a Special Permit. Applicable review criteria are as follows:

1. The rezoning is consistent with the Comprehensive Plan.
2. The rezoning is compatible with the present zoning and conforming uses of nearby property and to the character of the surrounding area.
3. The property being rezoned is suited for the uses permitted by the requested district.
4. The rezoning does not have a negative impact upon the surrounding area.

Department Comments:

- An associated Zoning Board of Adjustment (ZBA) case is being processed concurrent with this application for rezoning. The ZBA case will be heard on August 26th at 1:30 P.M.
 - o Section 5.5.3.E.6 of the Unified Development Code (UDC) requires that all cell towers be setback one and a half times their height from all residential uses.
 - o In this case, a 187.5 foot setback would be required for a 125 foot cell tower. The proposed location for the tower is 162 feet from a residential use; therefore, a variance has been requested by the ZBA to allow the reduced setback.
 - o Staff will update the Planning Commission as to disposition by the ZBA on the matter of the request or a reduced setback.
- The proposed wireless telecommunication facility will increase capacity in an area where it is needed to prevent a degradation of services.
- Construction of the wireless telecommunication facility will increase coverage in areas that are currently underserved.
- The tower as proposed, assuming an approval by the ZBA of a variance to permit a reduced setback from residential uses, conforms to the requirements, standards and specifications set forth in UDC Section 5.5 Wireless Telecommunication Facilities.

Staff Recommendation:

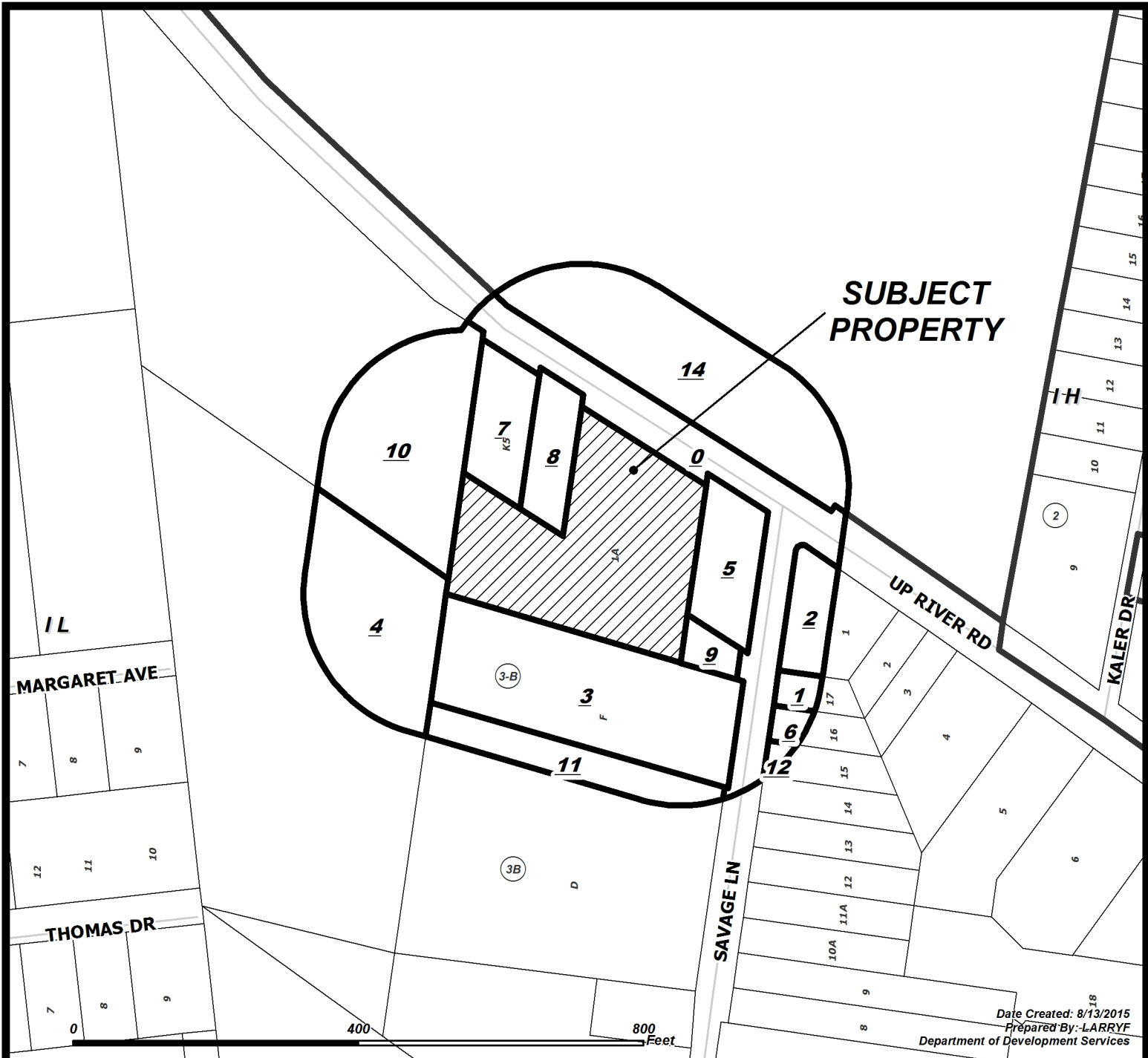
Approval of the change of zoning from the "IL" Light Industrial District to the "IL/SP" Light Industrial District with a Special Permit to allow for the installation of a 125 foot cell tower with conditions.

1. **Use.** The only use permitted under this special Permit, other than those permitted by right in the "IL" Light Industrial District, is the wireless telecommunication facility of 125 feet in height.
2. **Access and Placement.** Access and placement shall be as per the site plan and as approved by the ZBA.
3. **Time Limit** This special Permit shall expire in one (1) year if applicable construction permits are not applied for.
4. **Setbacks.** Required setbacks shall be as per the UDC and as per ZBA approval.
5. **Other Requirements.** The Special Permit conditions listed herein do not preclude compliance with other applicable UDC and Building Code requirements.

Public Notification	Number of Notices Mailed – 14 within 200-foot notification area 6 outside notification area
	<u>As of August 19, 2015:</u>
	In Favor – 0 inside notification area – 0 outside notification area
	In Opposition – 0 inside notification area – 0 outside notification area
	Totaling 0.00% of the land within the 200-foot notification area in opposition.

Attachments:

1. Location Map (Existing Zoning & Notice Area)
2. Site Plan
3. Application



CASE: 0815-05

ZONING & NOTICE AREA

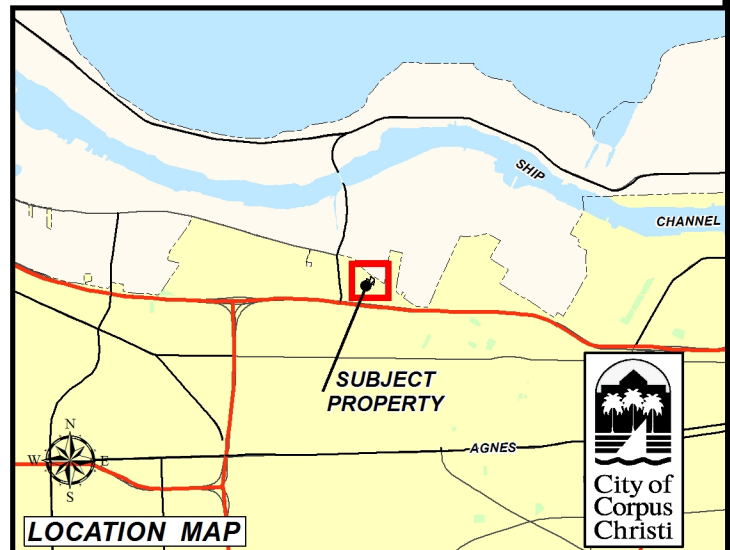
RM-1 Multifamily 1	IL Light Industrial
RM-2 Multifamily 2	IH Heavy Industrial
RM-3 Multifamily 3	PUD Planned Unit Dev. Overlay
ON Professional Office	RS-10 Single-Family 10
RM-AT Multifamily AT	RS-6 Single-Family 6
CN-1 Neighborhood Commercial	RS-4.5 Single-Family 4.5
CN-2 Neighborhood Commercial	RS-TF Two-Family
CR-1 Resort Commercial	RS-15 Single-Family 15
CR-2 Resort Commercial	RE Residential Estate
CG-1 General Commercial	RS-TH Townhouse
CG-2 General Commercial	SP Special Permit
CI Intensive Commercial	RV Recreational Vehicle Park
CBD Downtown Commercial	RMH Manufactured Home
CR-3 Resort Commercial	
FR Farm Rural	
H Historic Overlay	
BP Business Park	

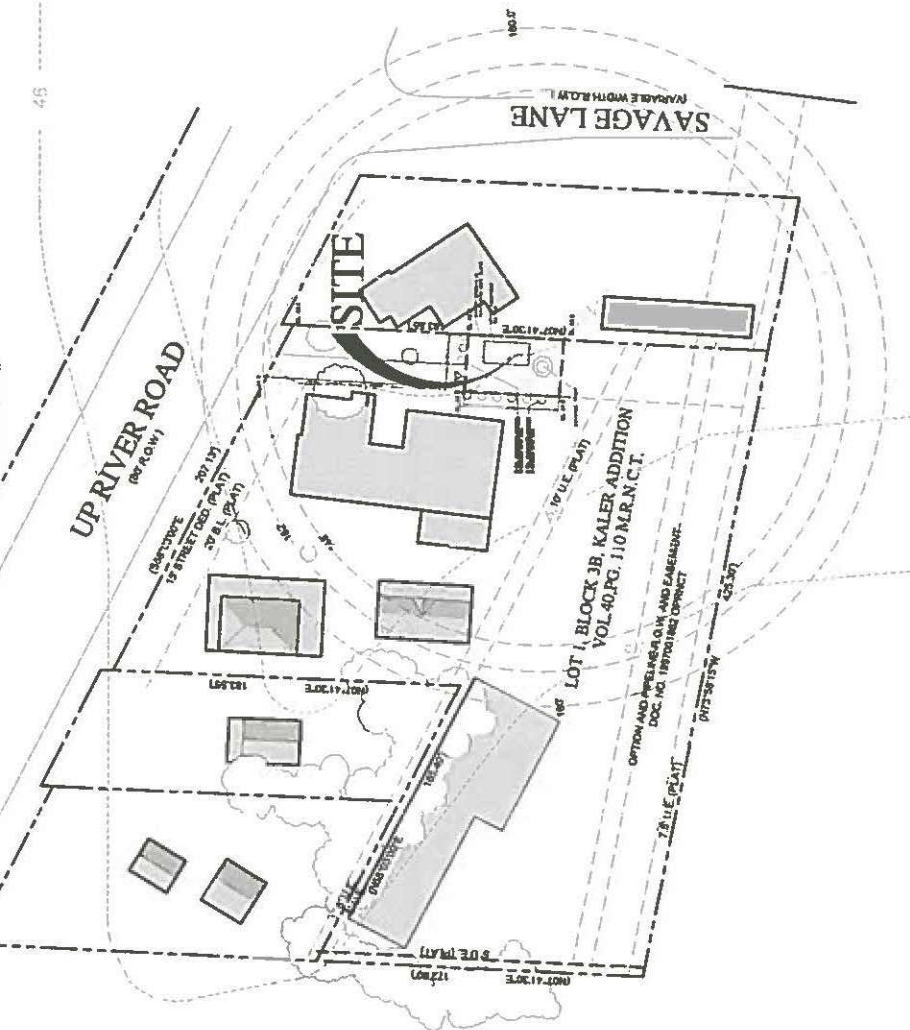
Subject Property with 200' buffer

Owners in favor

Owners within 200' listed on attached ownership table

Owners in opposition







VINCENT GERARD AND ASSOCIATES, INC.

Ms. Priscilla Ramirez, BBA
Mr. Andrew Dimas, AICP
Project Managers
City of Corpus Christi Texas 78469-9277
Fed-Ex Delivered

May 20, 2015

RE: Proposed Verizon Buddy Lawrence 120' monopole Tower, 5107 #3 Up River Road, Special Permit.

Ms. Ramirez/Mr. Dimas:

We respectfully request a Special permit to allow the construction of a Wireless Telecommunications facility at the above address. Based on our pre-application meeting on April 20, 2015, the following information is provided in the summary for the application and regulations in Chapter 5.5 of the Corpus Code. Please note that the height of the structure has decreased from 131 to 125'.

5.5.2A – Applications All applications for Special Use permits shall include the following;

1) Site plan & landscape plan drawn to scale;

A) A Zoning Site plan is attached for your review. There is an overall site plan at 11' x 17" with the zoning and setback information. Also included is a 8.5 x 11" presentation of the site plan and elevation as requested. A landscape variance may be requested from the ZBA, however the plans currently show the addition of landscaping on the zoning site plan. The site has limited view corridor from the ROW. The site will be constructed with a wood screened fence or vinyl slats inserted in the fence.

B) Summary Report & RF Documentation provided in Exhibit A & B. This summary has been expanded as per comments and suggestions with staff.

C) Based on the applicable wind load speeds and the outcome of the zoning request, the applicant agrees to design the structural wind loads to meet or exceed the 130 mph sustained wind loads.

D & E) The applicant agrees to maintain the general capacity of the tower to assure that the American National Standards Institute/Telecommunication Industry Association/Electronics Industries Association standards are met. Space

is available for lease within the site area as shown on the site plan attached and the intent of this applicant will be to provide lease space on the tower and on the ground for other carriers or antenna users.

F) Lease Memo is attached for proof of ownership and land lease. Tax information is also included for ownership documents

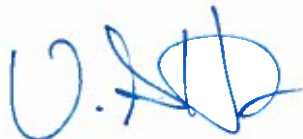
G) Survey and legal description is attached.

I) Location of the interconnection for fiber/telco will be detailed during the building permit portion of this site process. No specific information for this category is available at this time.

J) Identification of the existing Citgo Monopole is attached and summarized in the report.

If there are any questions regarding this application please contact us at your earliest convenience.

Sincerely,

A handwritten signature in blue ink, appearing to read 'V. Huebinger', with a stylized flourish at the end.

Vincent G. Huebinger
Vincent Gerard & Associates Inc.



ARCHCOMM, LLC

Architects & Engineers

1006 Beckett • San Antonio, TX 78213 • Phone: (210)308-9905

May 20, 2015

City of Corpus Christi
2406 Leopard St
Corpus Christi, TX 78408

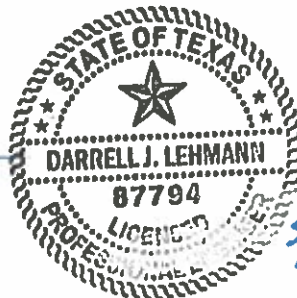
Attn: To Whom It May Concern
Ref: Verizon Wireless – Buddy Lawrence (LC 177453)
5107 Up River Road
Corpus Christi, TX 78407

Please be advised that ArchComm is providing architectural and engineering services for the referenced wireless communication project. The project is being designed to meet the requirements of the 2009 International Building Code and referenced TIA-222-G standard as adopted by the City of Corpus Christi. More specifically, the structures including the tower and tower appurtenances will be designed for a Basic Wind Speed of 130 mph (3 second gust), Exposure C. Thus the tower and appurtenances will ultimately be built to substantially higher wind load standards and will withstand a sustained wind load of 130 mph, which is equal to the highest recorded sustained wind speeds experienced in the City of Corpus Christi. Please call if you have additional questions regarding this matter.

Sincerely,

ArchComm, LLC

Darrell J. Lehmann, P.E.
TX License No. 87794
TX Firm Reg. No. F-15659



5/20/15

Exhibit A Summary Report and RF Information

The Following Information and RF data provided is Proprietary to Verizon Wireless

The Buddy Lawrence Search ring was established by Verizon RF Engineering to handle coverage and capacity issues for Corpus Christi, specifically in the Valero and Citgo refinery areas north of IH 37. This site will also help backload the capacity issues for the existing sites "Highway 44, Corpus Downtown & Corpus Christi Port". These sites are over capacity in power loss (RF power) and less than adequate rapid data transfer for the existing Verizon customers. The RF maps indicate the basic LTE coverage, color coded in high service and in building coverage. These plan view coverage maps indicate where the nearest sites are being operated by Verizon. There is a large gap of in building service within this area for coverage and this site was not possible to be located within the search ring issued by Verizon RF. The bar graphs show the capacity issues.



The location of this search ring is shown on the search ring exhibit attached to this summary. The ring, or optimal location of a site to serve Verizon's needs, is north of this proposed site location. The real estate team identified two large landowners within the search ring and both were contacted by the real estate team. American Chrome & Chemical Company owns the majority of the property in the north section of the search ring; however Verizon Wireless was not able to obtain environmental regulatory approval on this tract due to the site identified as a Super-fund environmental site (Brownfield). The remaining property owner in the south section of the ring, Valero Refinery, was not interested in leasing to Verizon due to security and access reasons. The Valero location would also pose problems with Environmental regulatory. That led to real estate searches outside the search ring. The process of selection for the 120' monopole would then need to be determined "the best available" within the network of the existing Verizon sites. Those existing sites are shown on the attachment "Verizon sites-Proximity" below.



From those searches, the only existing structure identified as a possible candidate was the existing monopole located at the Citgo Refinery on Up River Road, shown in the middle of the photo below.



The real estate team contacted Citgo for a possible land and tower lease and were told that the structure is their private owned communications tower and not available for lease opportunity. This was the only option available. Due to the landowner and tower owner not interested in a long term lease for tower space and ground equipment, this existing tower was no longer a viable option. The real estate team then began to pursue the existing site- Proposed Verizon Buddy Lawrence. We contacted the property owner for the current site and have begun to acquire all regulatory, FAA and environmental approvals for the proposed tower facility with the as per the FCC regulatory requirements.

Land Use Summary

The current zoning on the site is LI Light Industrial and is used as a commercial roofing company and sheet metal business. The site has an existing caretaker's residence that is part of the industrial operation and owned by Gil Roofing and the landowner. There is also a rental unit in the front of the NW corner of the property. The distance to the residential unit is 162' based on surveyed field books and does not comply with the 1.5x the height of the tower distance. The tract has been platted and also does not meet the 1.5 x the height of the tower separation distance from the public ROW, if Up River road is

designated an arterial. The tract has recently been platted and approved by the City as Kaler Addition Lot 1A Block 3B. The plat copy is attached. The adjacent property land use is primarily heavy manufacturing (Refinery), Commercial and industrial with a few scattered residual residential units in the immediate area. A questionable land use adjacent to the proposed structure located on the commercial convenience store tract to the east has a mobile home originally designated as a BBQ place. It is not clear if this mobile home is being used as residential or if it is an accessory use to the commercial store or BBQ outfit.



Adjacent Commercial and Mobile home/BBQ outfit.

Radio Frequency Summary

The Radio Frequency engineer has provided maps and documents depicting existing site locations and coverage areas in the immediate areas. The need for this new site is a combination of capacity problems with adjacent sites and coverage areas within the Refinery area. Within the RF maps are some existing bar graphs for Hwy 44 current operations with future demand lines. Hwy 44 is over capacity and the future trends, shown on the graphs, report slow data, data loss & power loss (RF power). The same operating problems are occurring with Corpus Christi Port. The advancement and technological advances of the phones are the major cause of the capacity issues for the carriers. The addition of Buddy Lawrence will provide data and voice relief from both the other sites and coverage to an area that has weak in building coverage. Below are the RF maps for existing signal strength, before the Buddy Lawrence site and after the site is on air.

WIRELESS COMMUNICATION FACILITY STATEMENT OF COLLOCATION CAPABILITY

Re: Verizon Wireless – 6696 Tri County Pkwy Ste 100

In compliance with the City of Corpus Christi's Zoning Code, the undersigned hereby certifies that the 121' monopole proposed for this location will be structurally capable of supporting additional carriers.

In addition, the undersigned further certifies that Verizon Wireless will welcome collocation agreement requests for this site from other carriers at prevailing market terms and conditions.

In addition, the undersigned hereby certifies that search attempts were made to find sites in the specified need area in which the possibility of co-locating on an existing tower and/or attaching to an existing structure would be possible. No such structures were found.

This installation as designed meets the current FAA standards.

Sincerely,



Emmanuel Cavalcante
Engineer for Verizon Wireless

April 23, 2015

WIRELESS COMMUNICATION FACILITY STATEMENT OF RADIO FREQUENCY, DESIGN AND NETWORK PERFORMANCE

Re: Verizon Wireless – 6696 Tri County Pkwy Ste 100, Schertz, TX, 78154

The following is a summary, including a description of the tower along with technical reasons for its design and the particular reason why this location was selected. This summary includes the technical performance goals, desired signal strength (proprietary) for Verizon. General assumptions regarding whether additional towers will need to be located within Corpus Christi is not public information and will be determined based on the customer needs and Verizon capacity issues of the existing sites currently on air. All sites are designed and located to provide optimum coverage for Verizon customers. Attached are the radio frequency maps depicting existing and proposed coverage and capacity sites for maximum performance of the network.

Summary:

The location was selected among a group of candidates in the area, due to its distance from another existing site. All other candidates were much closer from existing sites, where it would not be optimal usage of the network resources.

The new site is needed in the area to improve the coverage along the nearby segment of the IH-37 and to the north of it as well as to improve capacity of the existing coverage in order to allow us to keep providing our industry-leading standards in quality of service.

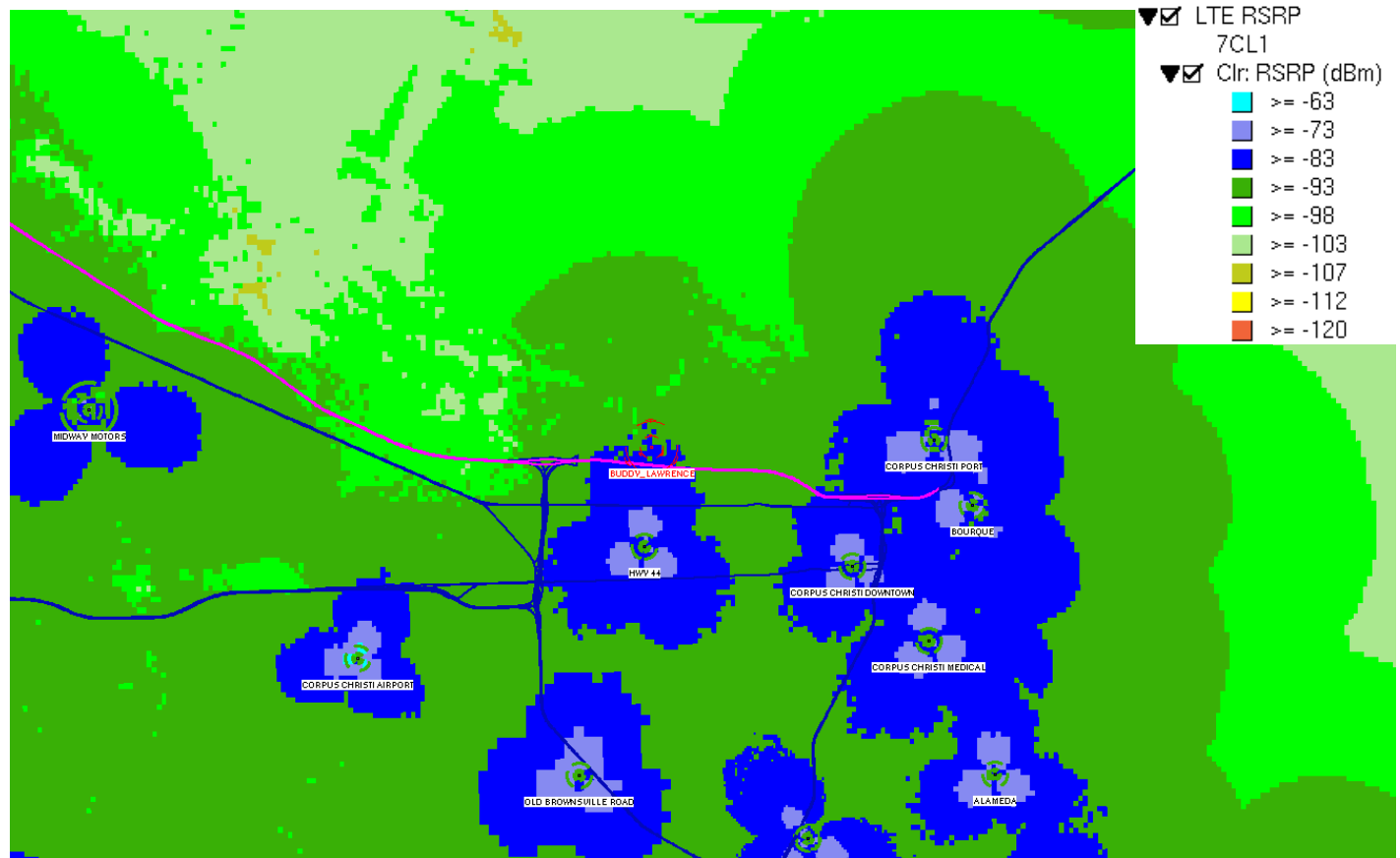
This installation as designed meets the current FCC standards.


Emmanuel Cavalcante
R.F. Engineer for Verizon Wireless

April 23, 2015

Date

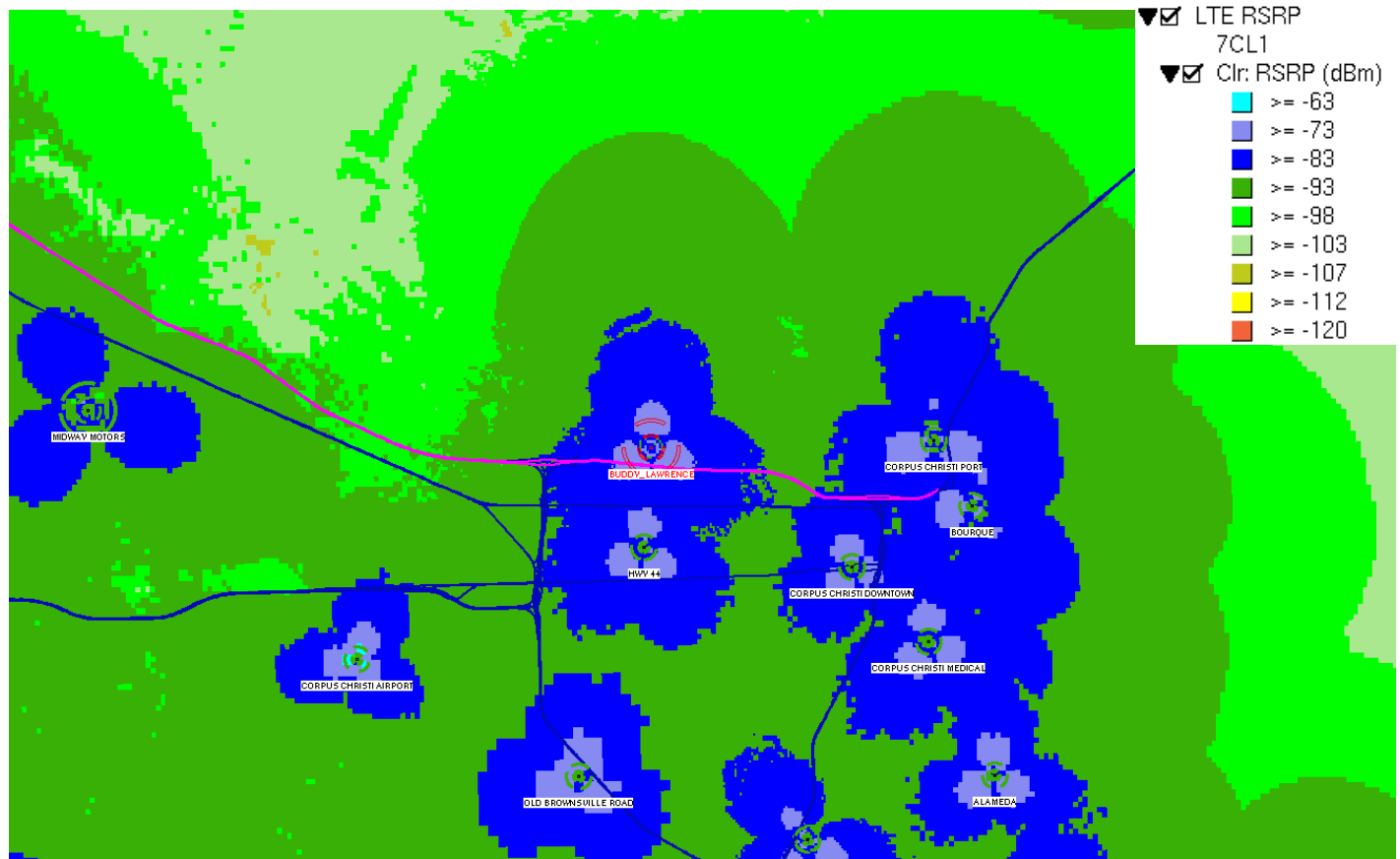
BUDDY LAWRENCE



BUDDY LAWRENCE – LTE RSRP (SIGNAL STRENGTH)

Current Scenario

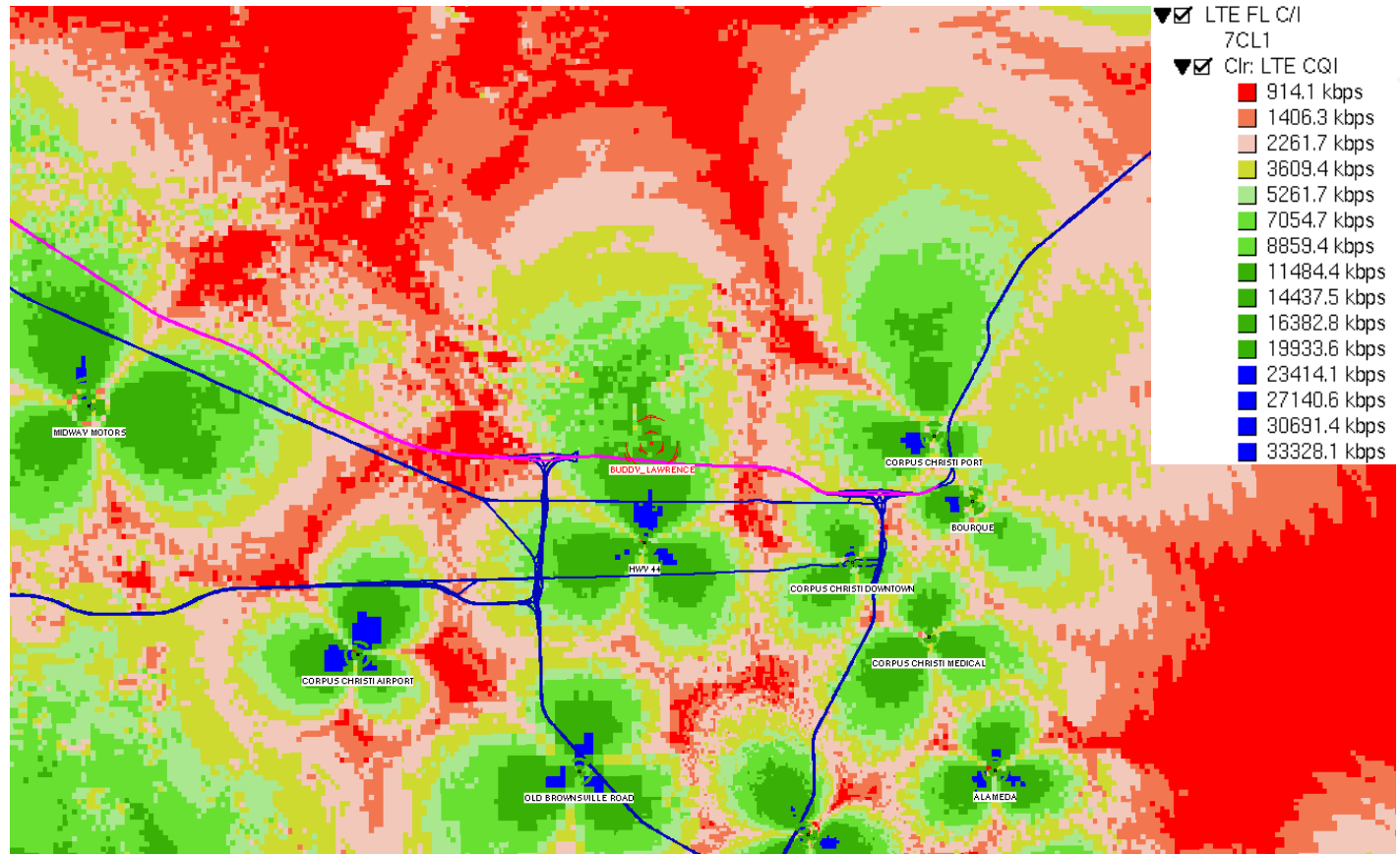
This map shows the current signal strength on the area. The blue colors represent the stronger and the green the weaker



BUDDY LAWRENCE – LTE RSRP (SIGNAL STRENGTH)

FUTURE SCENARIO

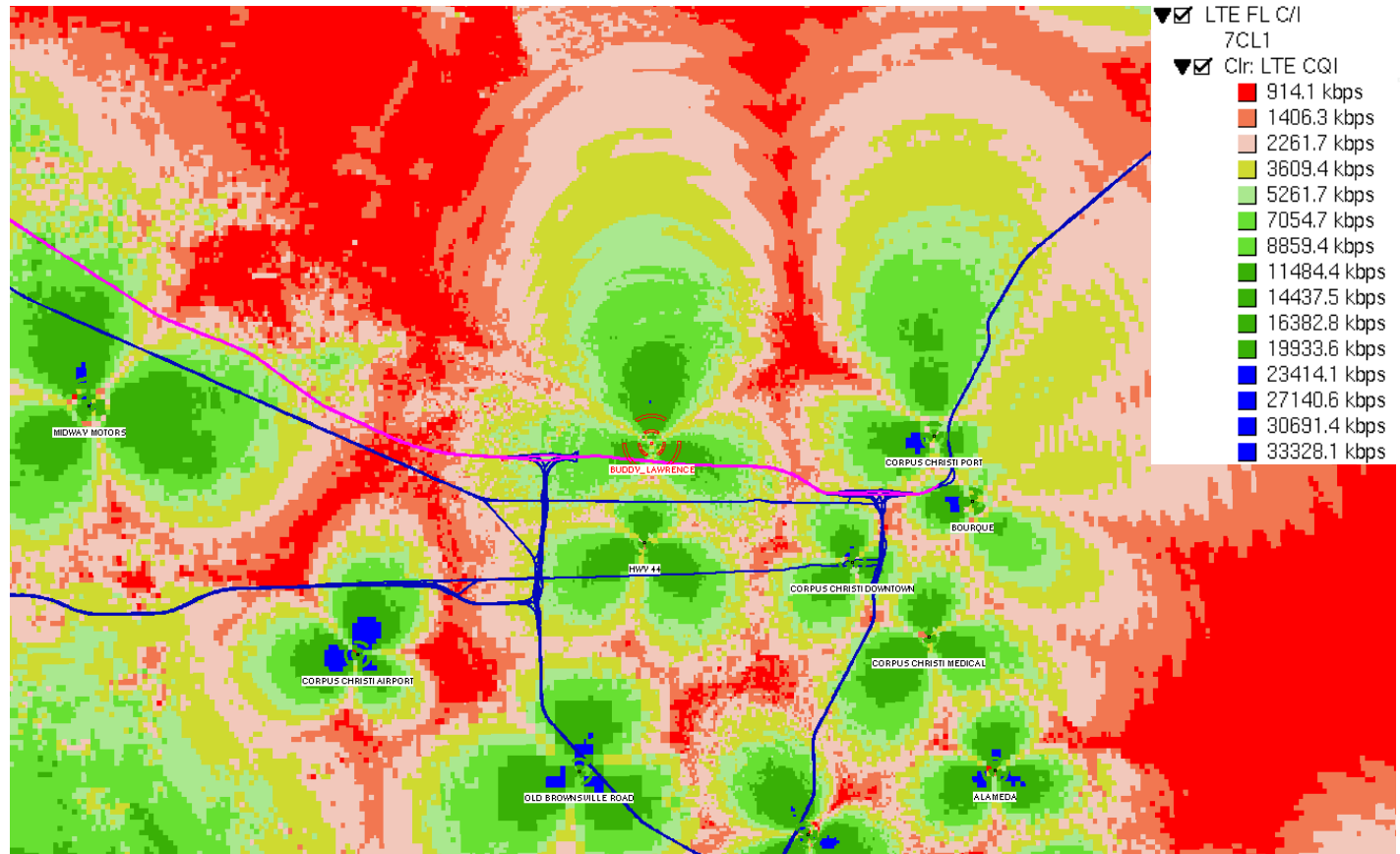
This map shows how signal strength is going to be on the area, granted we build the requested tower.



BUDDY LAWRENCE – LTE INTERFERENCE

CURRENT SCENARIO

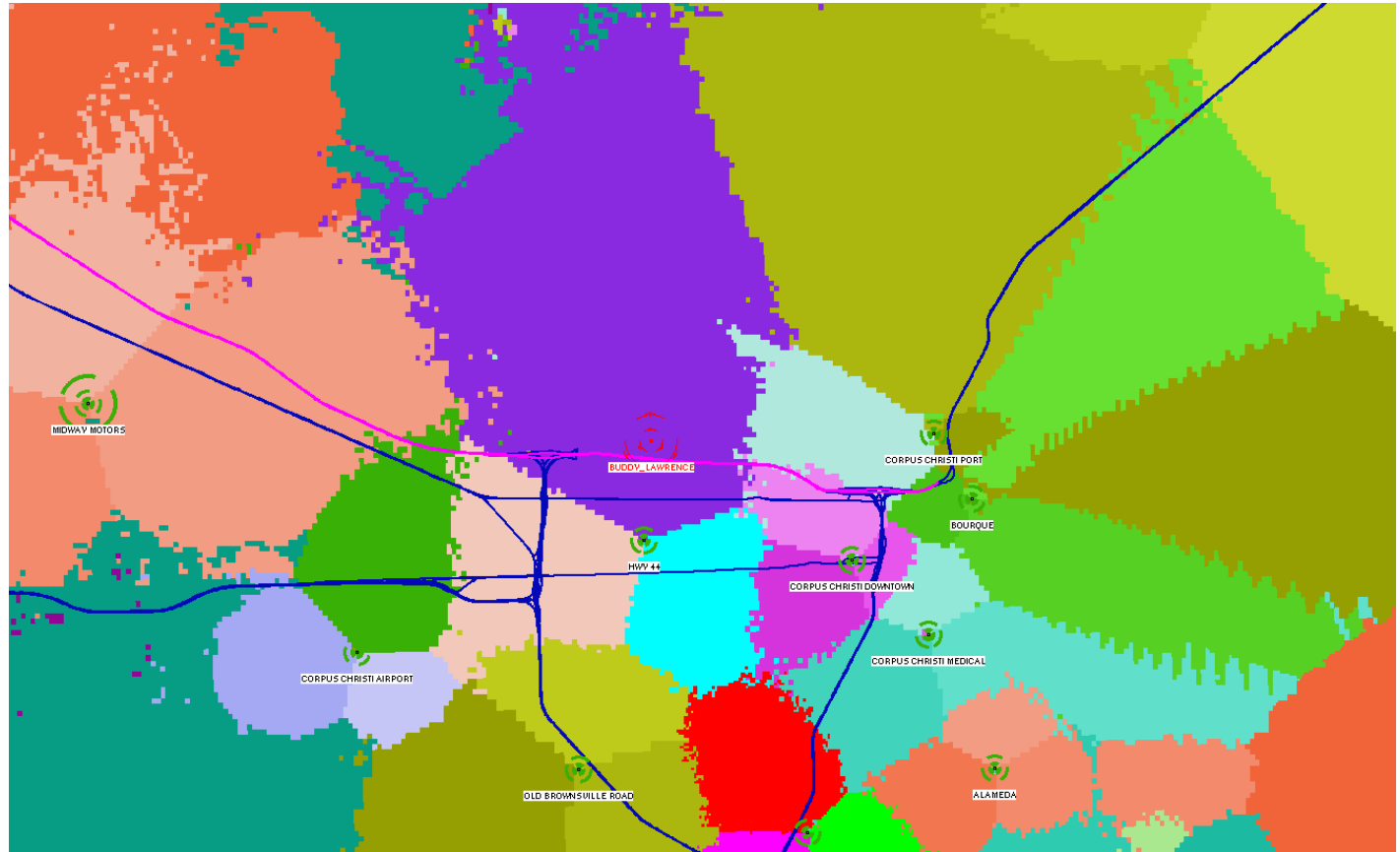
This map shows the current potential data rate (based on interference from the other antennas) a user could achieve assuming there is no capacity limitations. The red areas have high interference levels (slower potential data rates) and the blue/green have low interference (higher potential data rates).



BUDDY LAWRENCE – LTE INTERFERENCE

FUTURE SCENARIO

This map shows the expected potential data rate (based on interference from the other antennas) a user could achieve assuming there is no capacity limitations. The red areas have high interference levels (slower potential data rates) and the blue/green have low interference (higher potential data rates).

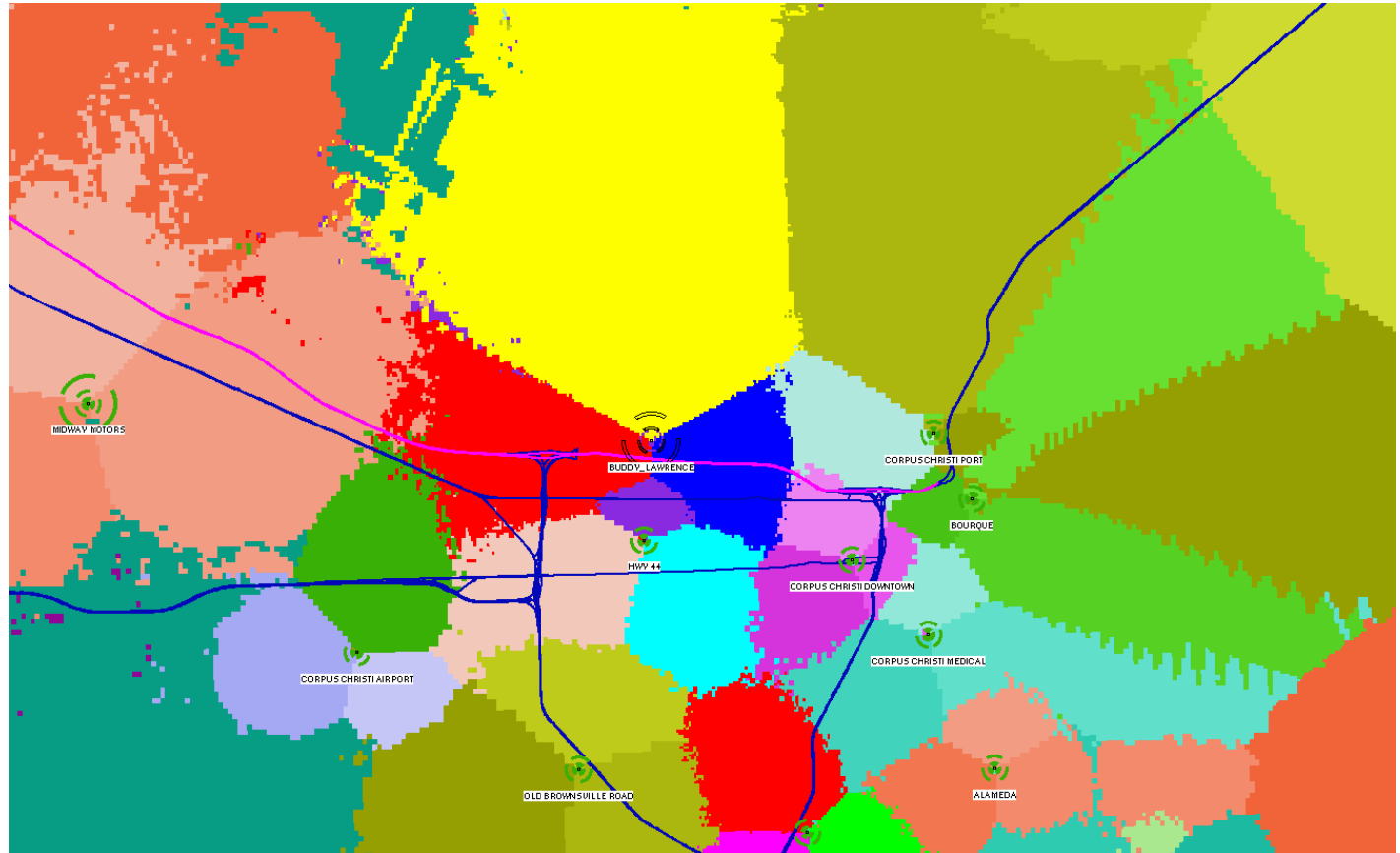


BUDDY LAWRENCE – BEST SERVER

CURRENT SCENARIO

Every (or almost) one of our towers have 3 sets of antennas, those sets are called “sectors”. This map shows which antenna is providing coverage for a given location. For example, all the area in purple is covered by signal from the antenna facing north of the tower “HWY 44”.

This map shows current coverage scenario, and the proposed tower for reference only.



BUDDY LAWRENCE – BEST SERVER

FUTURE SCENARIO

It is possible to see in this map, in comparison to previous one, the three Sectors of the proposed site are taking over areas currently covered by surrounding antennas, thus offloading their demand for data service.

Capacity challenges:

Nowadays the usage of data services on mobile phones, specially smartphones, have been increasing rapidly. To follow this increasing demand, new cell sites (the towers and its antennas) need to be built.

The main objective of the proposed tower is to increase the capacity of our network in an area where the current sites have reached or will reach in the near future its capacity limits and the users could perceive degradation of the service provided.

Secondarily, this site will also increase coverage in areas where this coverage is less than good.

Capacity challenges: (cont.)

In the next pages we are going to see some statistical data and their projection of growth.

KPIs (Key Performance Indexes) are statistical data used to measure the usage and load of the network and its limits.

For capacity analysis the KPIs are:

- **PRBU**: Physical Resource Block Utilization

It measures the percentage of the physical resource (electromagnetic spectrum or frequency bandwidth) being used. The higher the consumption of data from one given sector, the higher will be the usage of the spectrum.

- **ASEU**: Average Eligible Scheduled User

The data service on LTE technology is shared between all the users connected and requesting data (web browsing, email, video, chat, voice, etc...) in any given moment. If more users are trying to use it at the same time, they will be scheduled in a queue. The busier the queue, the lower the overall data rate.

Capacity challenges: (cont.)

- **FDV**: Forward Data Volume (MByte).

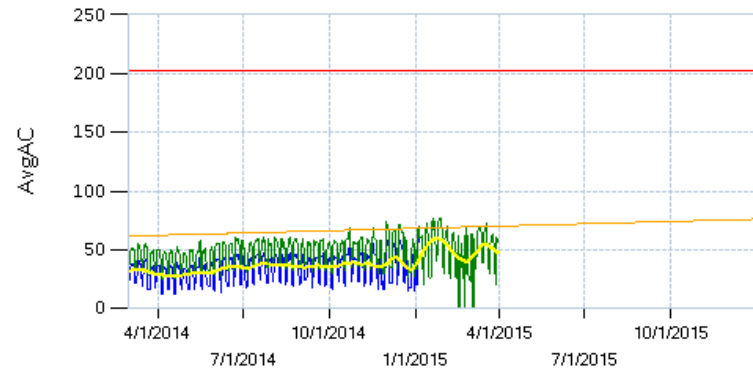
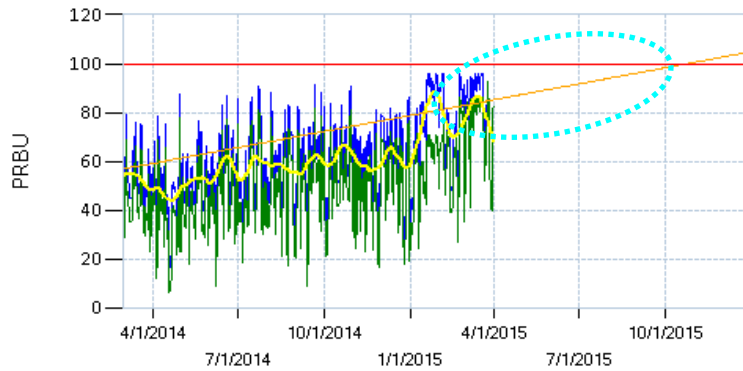
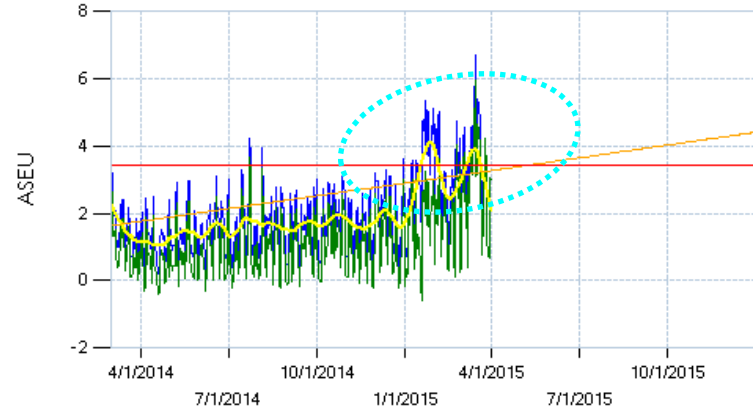
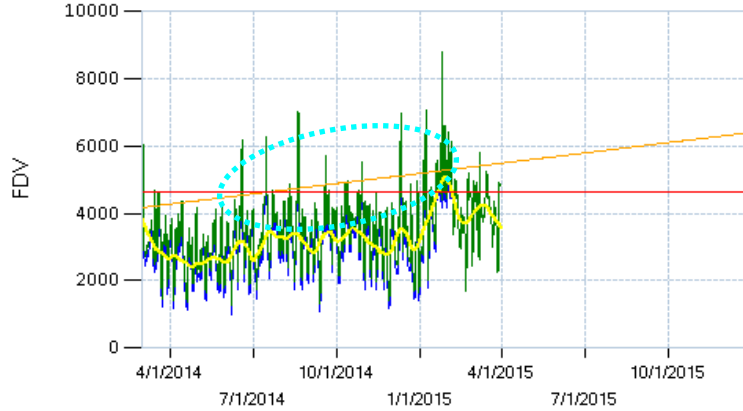
It shows how much total data is being consumed by all users served by one sector.

- **AvgAC**: Average Active Connections.

It shows how many users are connected simultaneously to one sector. The more people using the service at the same time, the slower the data rates for all the users it will be.

Note that if any of the KPIs reaches its limit, for the service to be degraded below the service quality standards.

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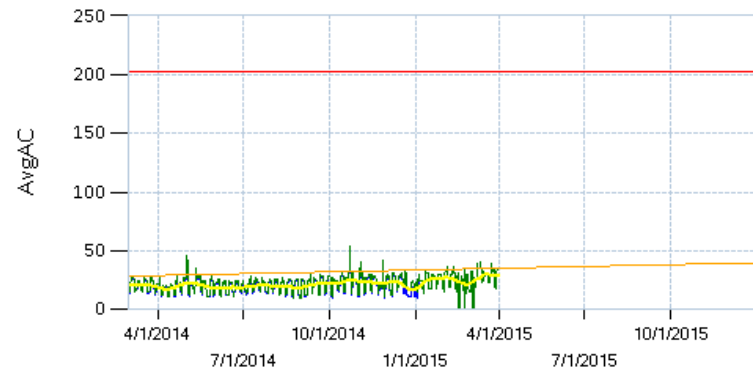
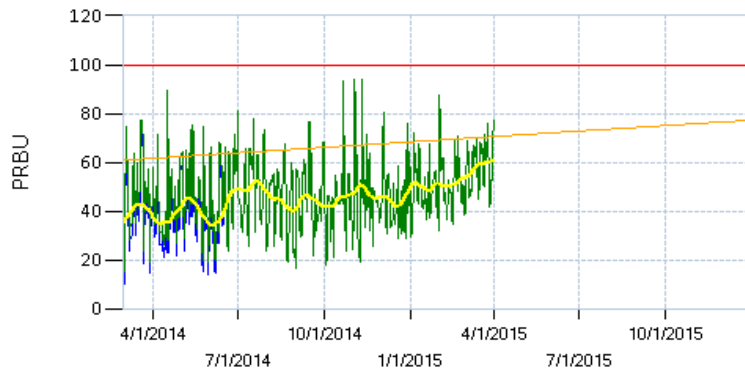
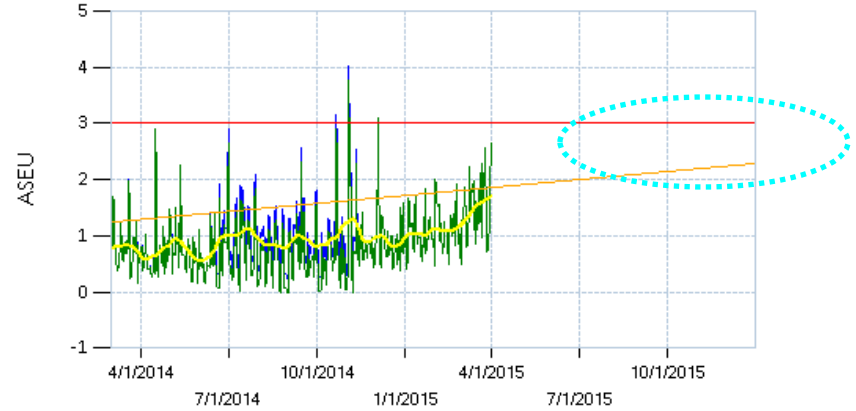
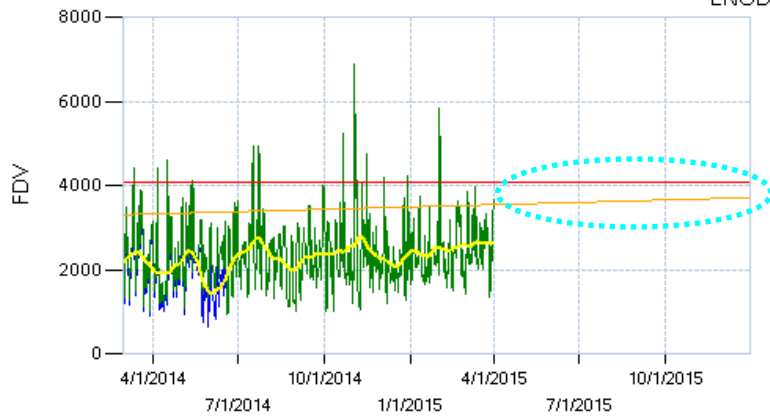


Red line: Capacity limit
Green/blue: daily values
Yellow: averaged daily values
Orange: statistical projection of growth

HWY 44 - ALPHA

As we see (highlighted in light blue) this sector has reached his limits in two KPIs and will reach on a third before the end of the year.

ENODEB: 140517-1-1

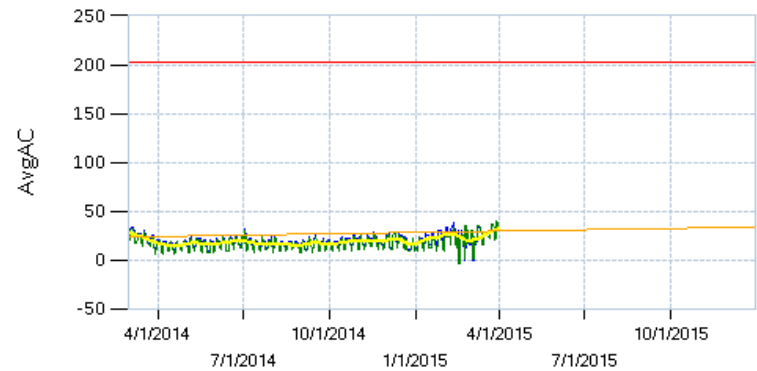
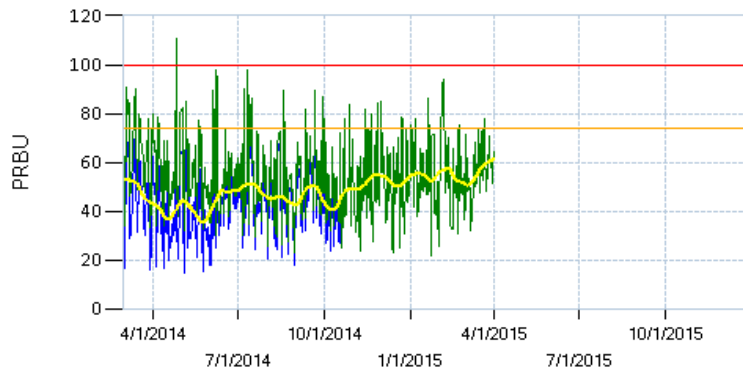
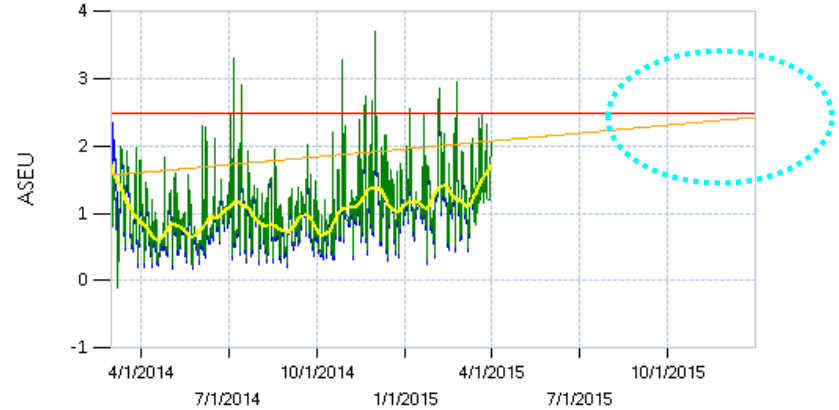
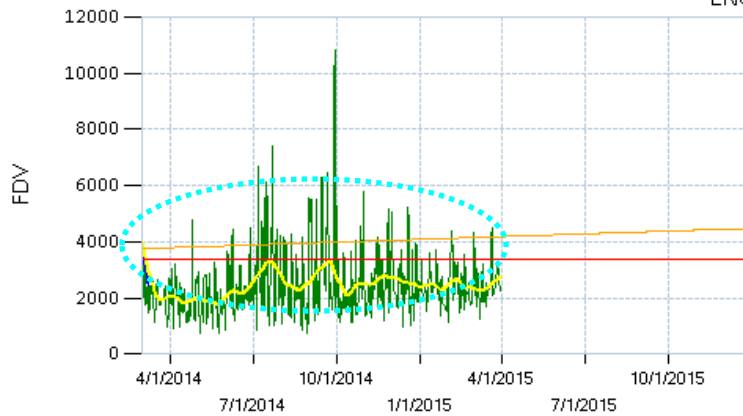


Red line: Capacity limit
Green/blue: daily values
Yellow: averaged daily values
Orange: statistical projection of growth

CORPUS CHRISTI DOWNTOWN - ALPHA

As we see here, FDV and ASEU are approaching their limits

ENODEB: 140345-3-1



CORPUS CHRISTI PORT - GAMMA

We see FDV has already been over the limit and ASEU will reach it soon.