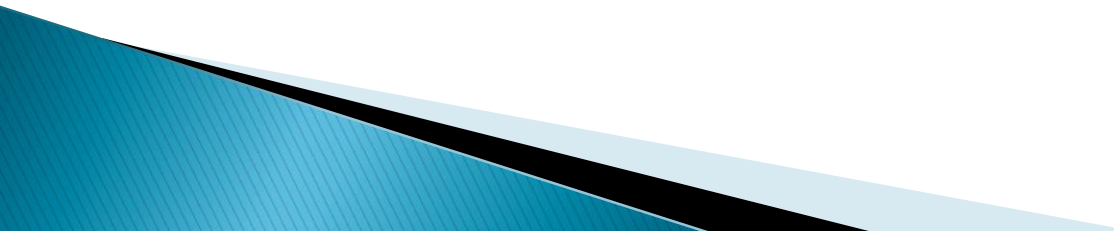



ELECTRICAL DEPARTMENT CELLULAR PROGRAM

By: Michael Catanzaro
&
Amanda McLeod

Mobile Phone Facts

- ▶ Mobile phone industry is the fastest growing industry in the world.
 - ▶ Around 80% of the world's population has a mobile phone.
 - ▶ There are 5 times more mobile phones than PC's.
 - ▶ 70% of mobile phones are manufactured in China.
 - ▶ There are over 250,000 active patents in a Smartphone.
- 

- ▶ In Great Britain more than 100,000 mobile phones are dropped in the toilet every year.
 - ▶ 90% of mobile phones in Japan are waterproof.
 - ▶ Your phone has 18 times more bacteria than toilet handles.
 - ▶ More than 90% of adults have their mobile phone within arm's reach at all times.
 - ▶ Within 3 minutes, 90% of text messages are read.
- 

The first successful mobile call was made by
Martin Cooper in 1973.
Motorola DynaTAC 8000X was the first mobile
phone sold in the US in 1983 and cost \$4,000.



In 1993, the world's first Smartphone debuted. It had an LCD touch screen display. It was designed by IBM and named Simon, priced at \$899. Only 2,000 Simon's were made.



Best selling mobile phone Nokia 1100.
Over 250 million sold

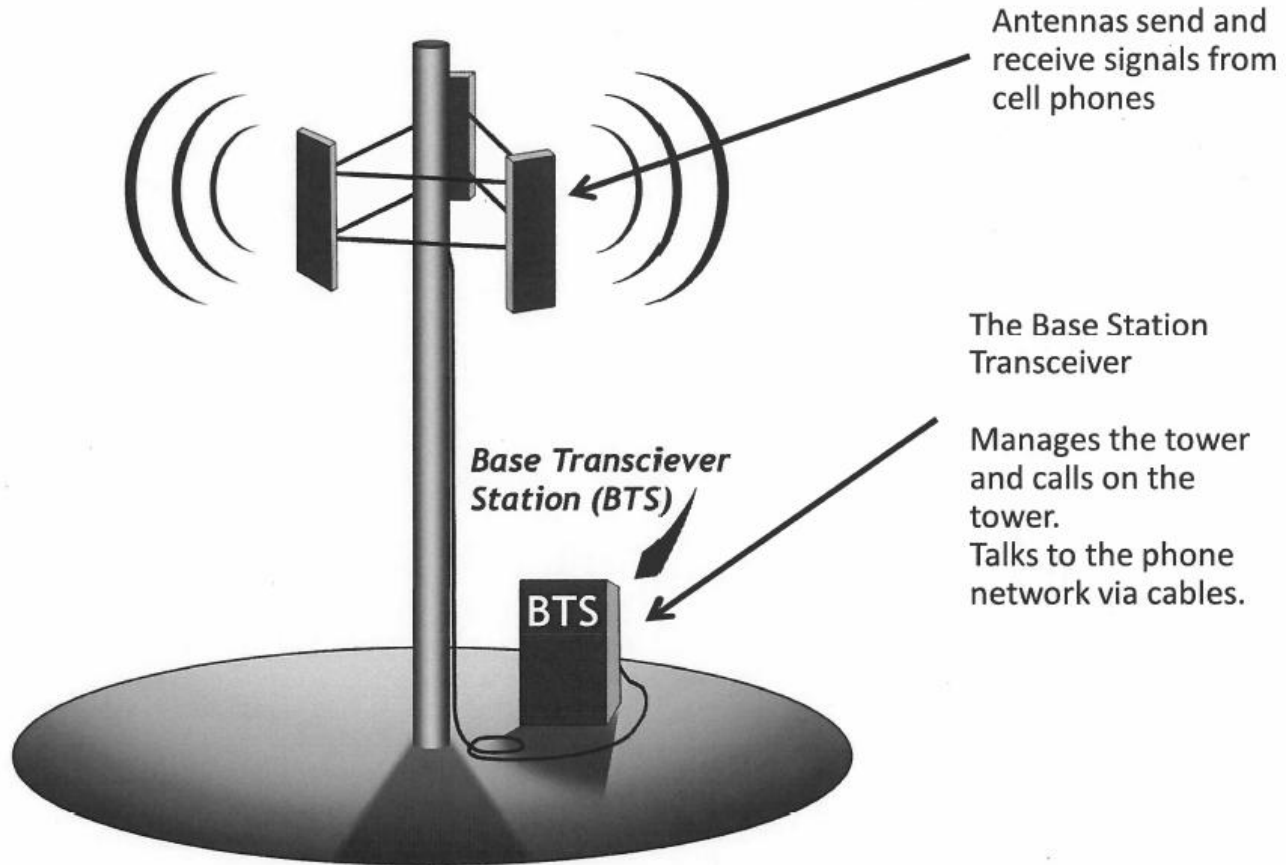


The chirp is extinct 📞



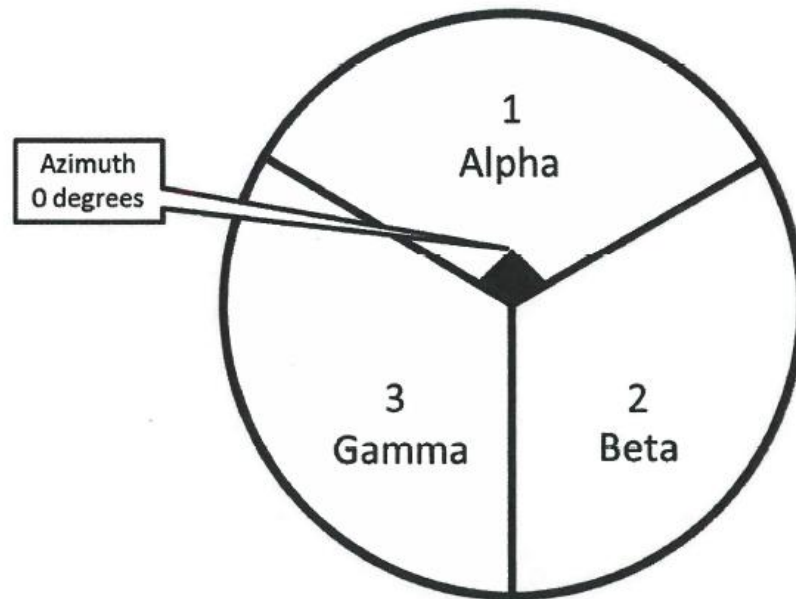
How the Cell Facilities Works

The Cellular System – A Cell Site



Cellular Tower Sectors

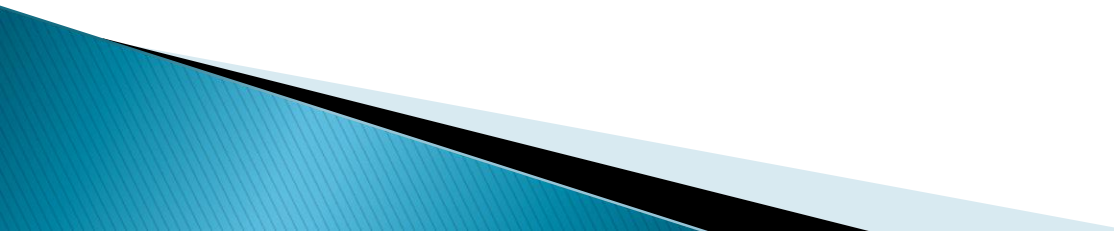
Sector Layout and Azimuth



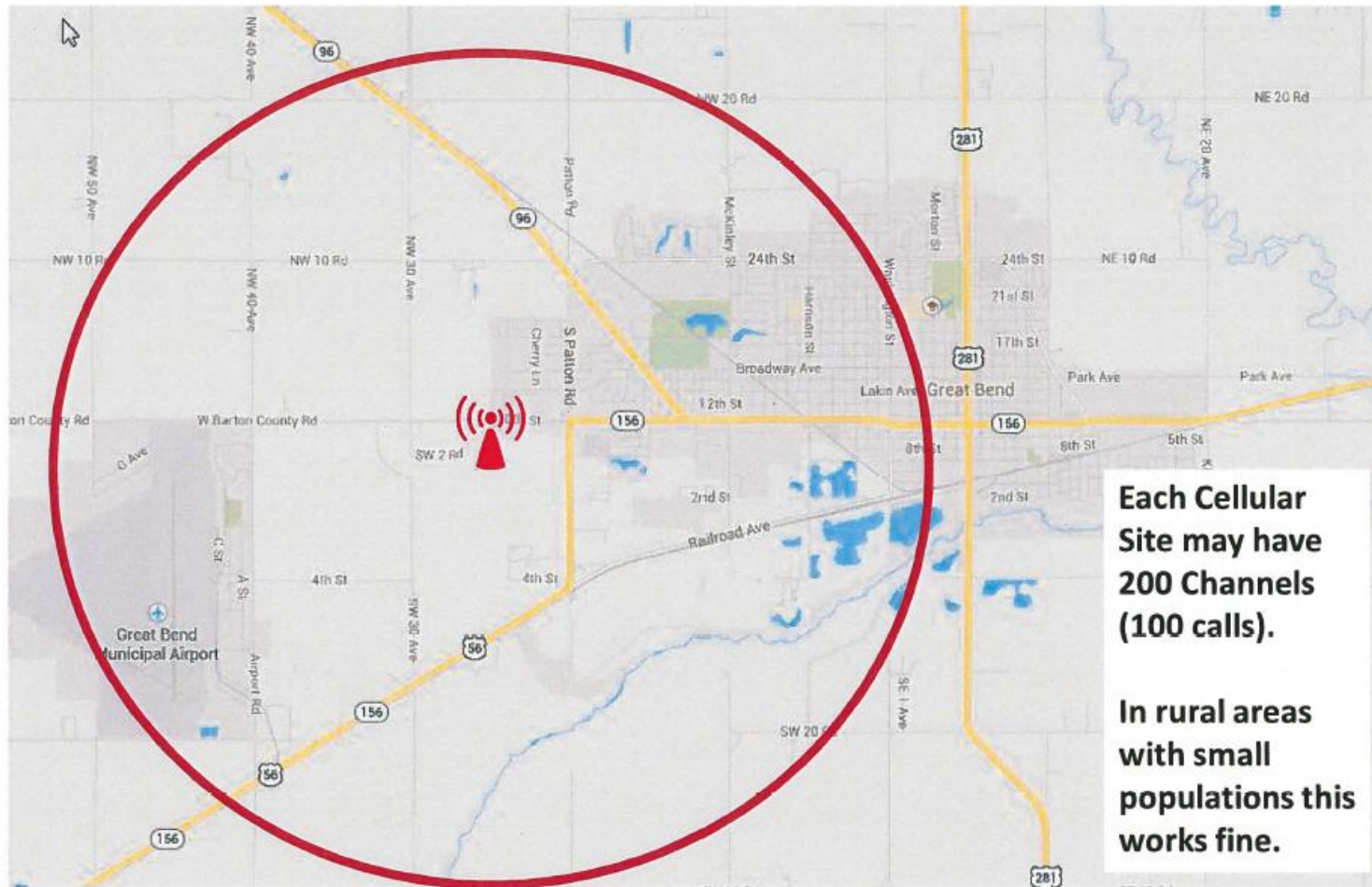
Cell towers can have from 0 to 6 sectors.

Most common is three sectors.

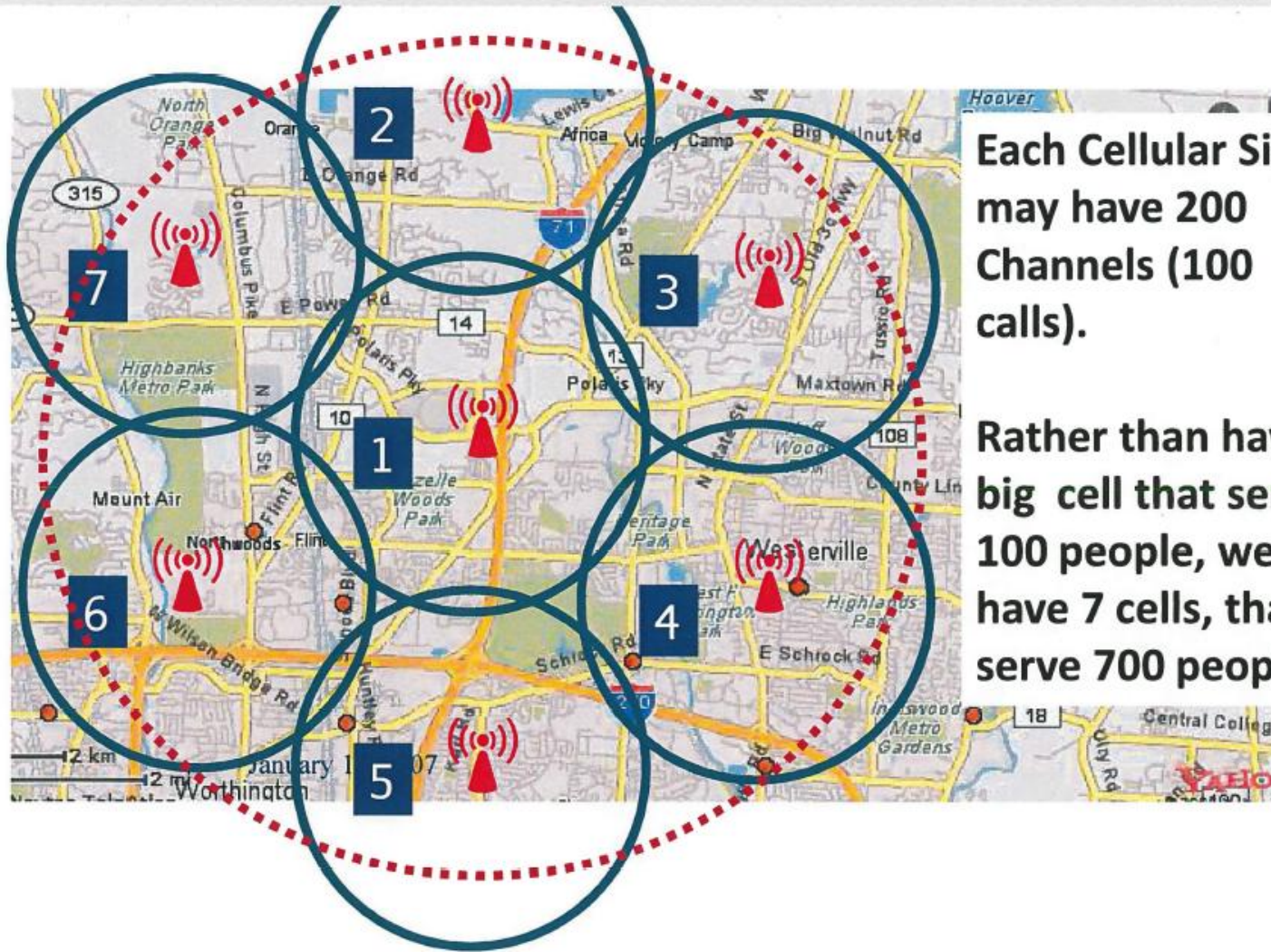
Cellular Network

- ▶ For a cell phone to make or receive a call, it needs two radio channels.
 - ▶ One channel to receive and one channel to transmit.
 - ▶ Each cell carrier only has a limited number of channels to use.
 - ▶ Each tower typically carries 200 channels.
- 

Cell coverage range is determined by customer needs



As subscribers increase: Go Small to Serve More Customers



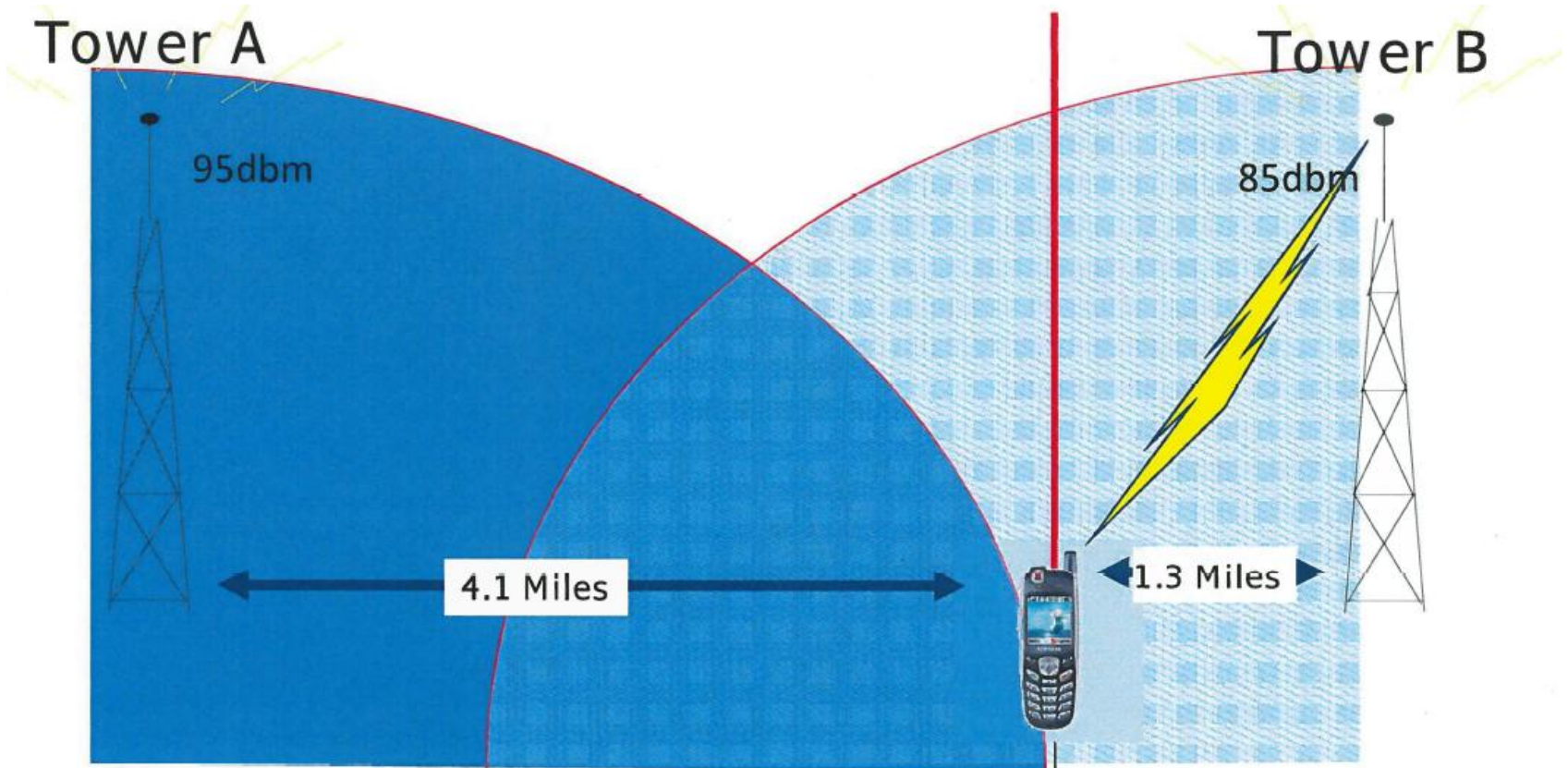
Each Cellular Site may have 200 Channels (100 calls).

Rather than have 1 big cell that serves 100 people, we have 7 cells, that serve 700 people.

The Hook Up! – Choosing a Tower

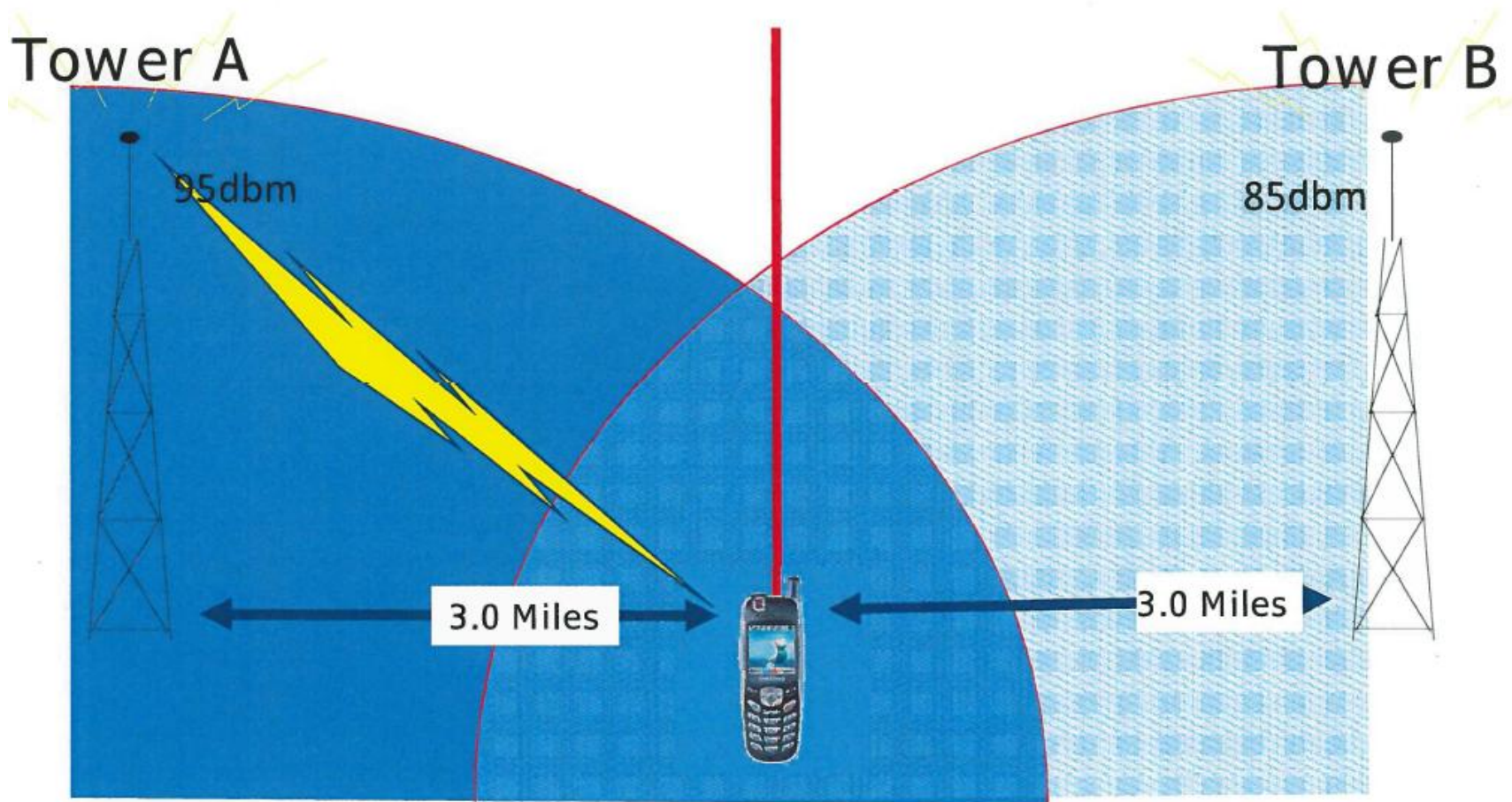


On power up the cell phone connects to the **Best Signal**

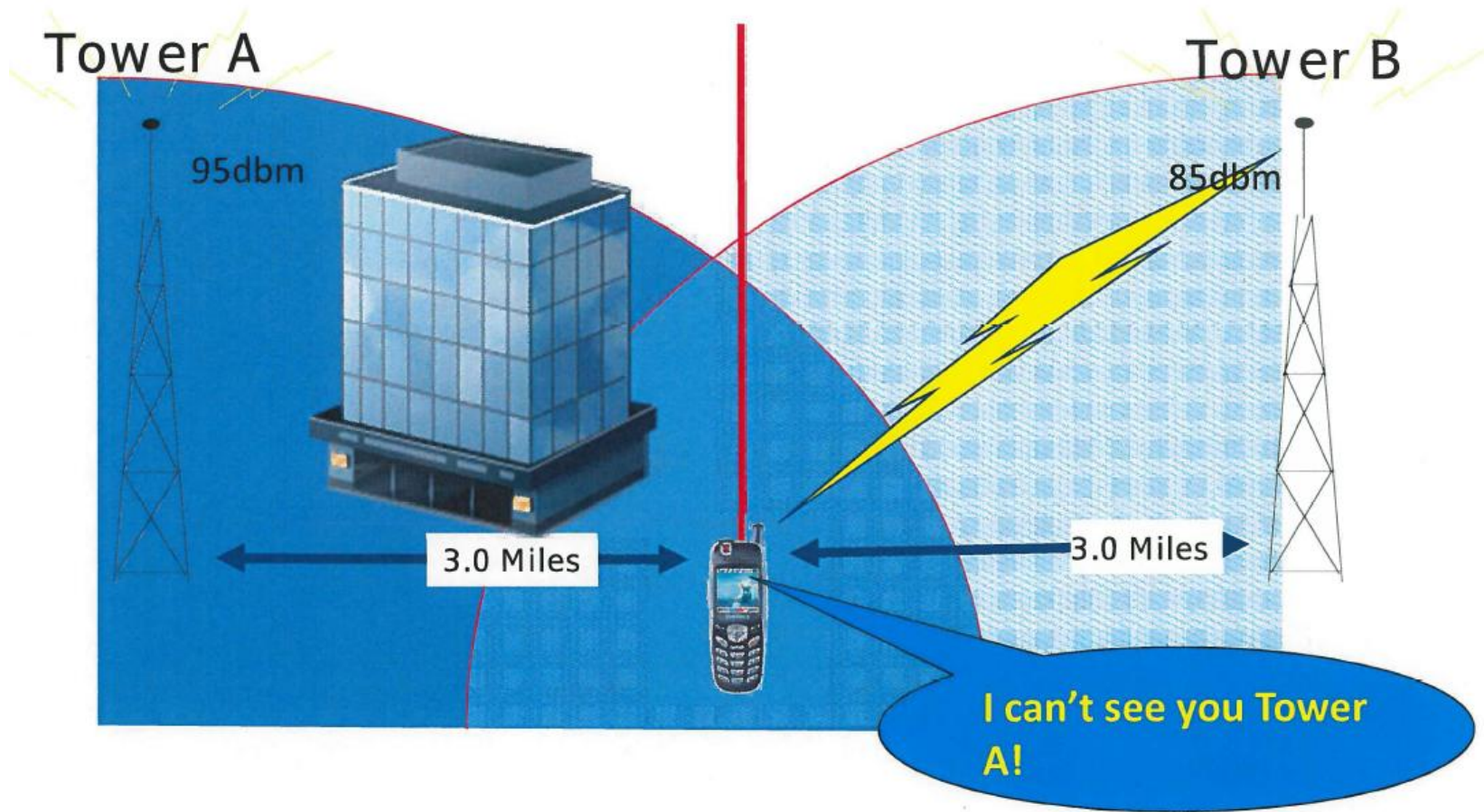


The closest tower will *normally* have the best signal

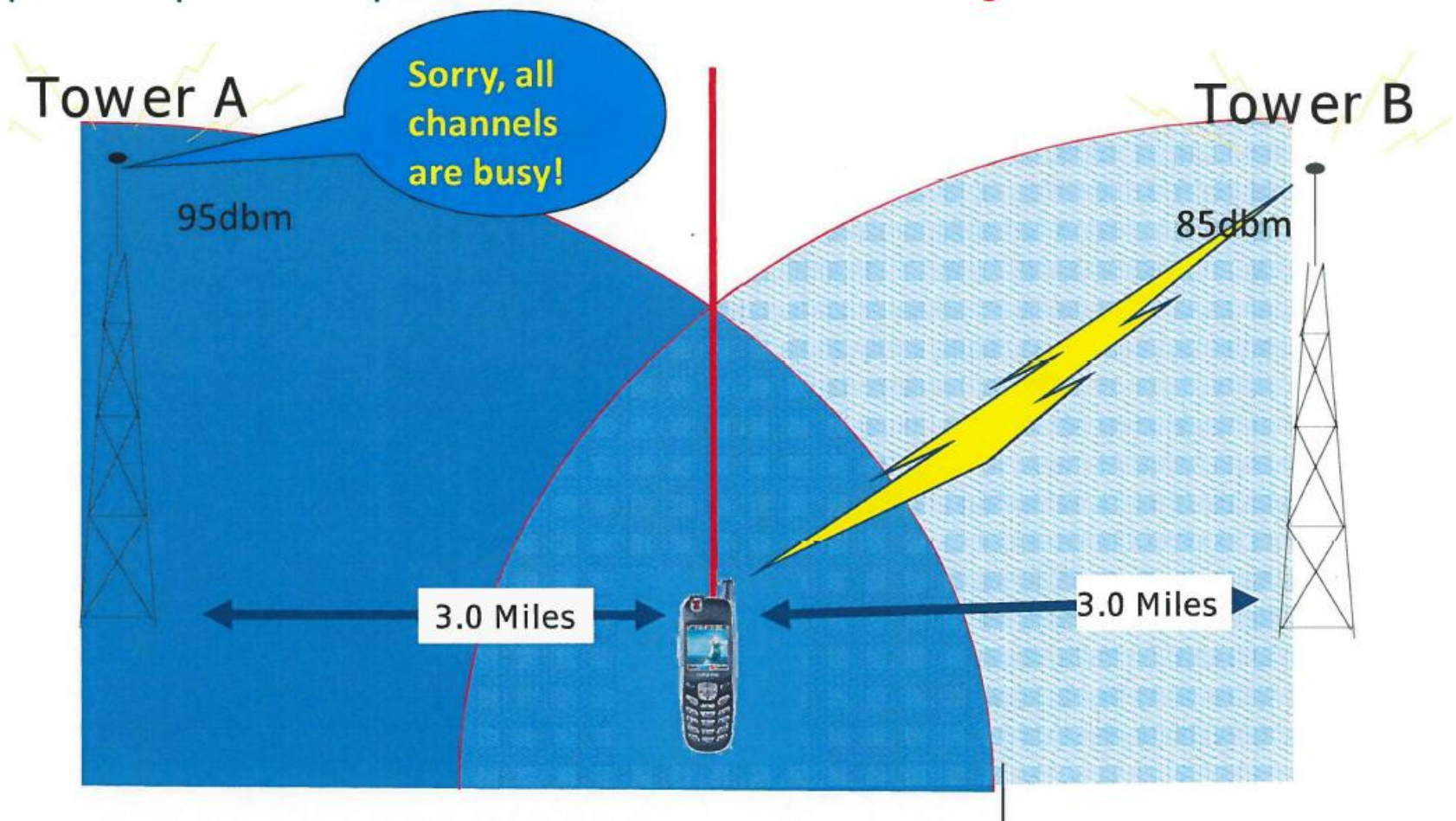
When equally distant from both towers, the power output from the antennas may come into play



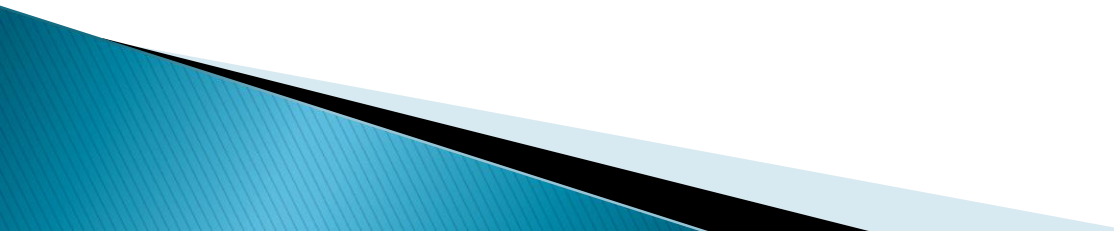
When equally distant from both towers, clutter may be the deciding factor



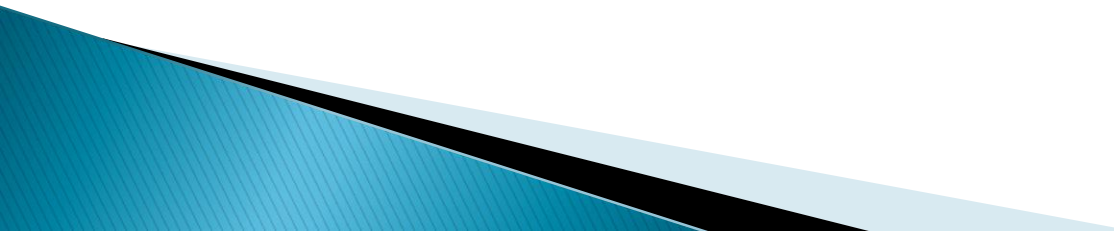
Channels must be available for phone use



How SCWA got involved

- ▶ The Authority was approached by the wireless Industry in the early 90's with interest to lease space on our Water tanks.
 - ▶ Structures already exist making it easier to obtain zoning approval and town permits.
 - ▶ Admin and Engineering realized the potential and our Board agreed.
- 

First Lease Agreement

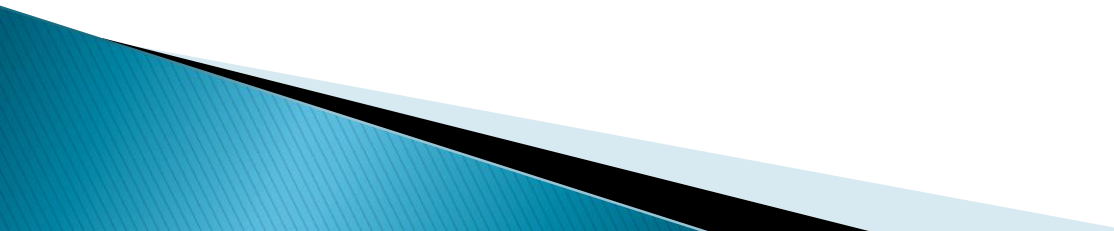
- ▶ Cellular One “AT&T” December 16, 1991
Lambert Ave, Copiague
 - ▶ Base Rent \$2,600
 - ▶ Current rent \$7,620
- 

Active Leases

- ▶ AT&T – 32 Leases
- ▶ Sprint – 35 Leases
- ▶ T-Mobile/metroPCS – 41 Leases
- ▶ Verizon – 37 Leases
- ▶ Crown Castle – 1 Lease
- ▶ Municipalities – 6 Leases

- ▶ Total Leases – 152
- ▶ On 46 Water Tanks and 3 Monopoles
- ▶ Total Annual Revenue – \$11,281,609

What do we do?

- ▶ **DRAWING SUBMITTAL**
 - ▶ A complete set of construction drawings, including proposed equipment specifications, are submitted to the SCWA Engineering Department for a preliminary review.
- 

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PROJECT INFORMATION

SCOPE OF WORK: ON WATER TANK: REMOVE (3) EXISTING ANTENNAS AND (3) EXISTING RRHs TO BE REPLACE WITH (3) NEW ANTENNAS, (6) NEW RRHs, (3) NEW DC2s, (3) NEW FIBER MANAGEMENT BOXES AND (1) NEW FC12. (6) EXISTING ANTENNAS, (3) EXISTING DC2s, (1) EXISTING FIBER MANAGEMENT BOX, (1) EXISTING FC12, (6) EXISTING UMDS DIPLEXERS AND (3) EXISTING RRHs ON EXISTING ANTENNA MOUNTING ASSEMBLIES TO REMAIN.

IN EQUIPMENT SHELTER: ADD (1) NEW -48VDC CONVERTER SHELF AND (1) NEW -48VDC CONVERTER WITHIN EXISTING EQUIPMENT RACK. INSTALL (1) NEW DC6 AND (1) NEW FIBER MANAGEMENT BOX WITHIN EXISTING SHELTER ON UNISTRUT.

SITE ADDRESS: GARFIELD AVE. & LAMBERT AVE. COPAIGUE, NY 11726

PROPERTY OWNER: SUFFOLK COUNTY WATER AUTHORITY 4060 SUNRISE HIGHWAY OAKDALE, NY 11769

LATITUDE: N 40° 40' 50.76" (NAD83)

LONGITUDE: W 73° 23' 23.07" (NAD83)

ELEVATION: ±18.0' AMSL (NAVD88)

JURISDICTION: TOWN OF BABYLON

TAX ID NUMBER: SECTION: 198 BLOCK: 2 LOT: 21, 22, 23

CONTACT: MIKE CATANZARO

APPLICANT: NEW CINGULAR WIRELESS PCS, LLC ("AT&T")

ONE AT&T WAY BEDMINSTER, NJ 07921

ZONING DISTRICT: D INDUSTRIAL

CURRENT USE: EXISTING WATER TANK W/ CO-LOCATED TELECOMMUNICATIONS FACILITY

NEW USE: EXISTING WATER TANK W/ CO-LOCATED TELECOMMUNICATIONS FACILITY (NO CHANGE)

RF DATA SHEET

DATE ISSUED:

DRAWING INDEX

TITLE	REV.
T-100.00 TITLE SHEET	1
A-100.00 PARTIAL SITE PLAN AND GENERAL NOTES	1
A-101.00 ENLARGED EQUIPMENT PLANS	1
A-102.00 SOUTH AND NORTH ELEVATIONS	1
A-103.00 ANTENNA AND EQUIPMENT DETAILS	1
A-104.00 ANTENNA AND EQUIPMENT MOUNTING DETAILS	1
A-105.00 ANTENNA AND EQUIPMENT MOUNTING DETAILS	1
A-106.00 ANTENNA AND EQUIPMENT MOUNTING DETAILS	1
A-107.00 SCWA PAINTING SPECIFICATIONS AND EQUIPMENT CONFIGURATION LIST	1

STRUCTURAL REVIEW STATEMENT

EXISTING WATER TANK HAS BEEN EVALUATED FOR REPLACEMENT/ADDITION OF ANTENNAS, COAX CABLES & EQUIPMENT AND NO MODIFICATIONS TO THE WATER TANK ARE REQUIRED.

VICINITY MAP / DIRECTIONS

FROM PARAMUS, NJ: CONTINUE STRAIGHT TO STAY ON NJ-17 S (0.4 MI). TAKE THE NJ-4 E EXIT TOWARD FORT LEE/NEW YORK (0.1 MI). KEEP LEFT AT THE FORK AND MERGE ONTO NJ-4 E (7.4 MI). TAKE THE I-95 N EXIT ON THE LEFT TOWARD G W BRIDGE/NEW YORK CITY (0.4 MI). MERGE ONTO INTERSTATE 95 LOWER LEVEL N(410 FT). SLIGHT LEFT ONTO U.S. 9 N (0.4 MI). MERGE ONTO INTERSTATE 95 UPPER LEVEL N PARTIAL TOLL ROAD (ENTERING NEW YORK, 1.9 MI). CONTINUE ONTO I-95 N (4.8 MI). CONTINUE ONTO CROSS BRONX EXPY (0.3 MI). CONTINUE ONTO I-295 S (PARTIAL TOLL ROAD, 4.1 MI). TAKE THE EXIT ONTO CROSS ISLAND PARKWAY(3.9 MI). TAKE EXIT 25A TO MERGE ONTO SOUTHERN STATE PARKWAY EAST TOWARD EASTERN LONG ISLAND (16.6 MI). TAKE EXIT 325 FOR NY-110 TOWARDS AMITYVILLE. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR NY-110 S AND MERGE ONTO COUNTY LINE ROAD. TURN RIGHT ONTO BROADWAY (1.6 MI). TURN LEFT ONTO DIXON AVENUE (0.9 MI). TURN RIGHT ONTO GREAT NECK ROAD (0.4 MI). TURN LEFT ONTO OAK STREET (0.5 MI). TURN RIGHT ONTO GARFIELD AVENUE (0.1 MI). TURN LEFT ONTO LAMBERT AVENUE.



SITE QUALIFICATION PARTICIPANTS

TITLE	NAME	COMPANY	NUMBER
A/E	NEIL A. MACDONALD	WILLIAM F. COLLINS, AIA ARCHITECTS, LLP	(631) 689-8450
ENGINEER	DON HUNTLEY	BECHTEL INFRASTRUCTURE AND POWER CORP., INC.	(201) 571-0692
CONSTRUCTION	LUKE STEMBERGER	BECHTEL INFRASTRUCTURE AND POWER CORP., INC.	(571) 221-9487
RF	AZAD KARIM	SheroRF	(201) 775-2410

PROJECT INFORMATION:

MOBILE COMMUNICATIONS FACILITY LINDENHURST

GARFIELD AVENUE & LAMBERT AVENUE COPAIGUE, NY 11726

wfc WILLIAM F. COLLINS, AIA ARCHITECTS, LLP
12-110 GLENCOLE DRIVE, SUITE 101, NY 11753
TEL: 631-689-8450 FAX: 631-689-8459



SITE NUMBER: NYNYNY0202/LI-202

SITE NAME: LINDENHURST

LTE 4C WCS + RETROFIT

APPLICABLE BUILDING CODES AND STANDARDS

SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

THE SPECIFIC REQUIREMENT SHALL GOVERN: 2015 INTERNATIONAL BUILDING CODE OF THE STATE OF N.Y. ELECTRICAL CODE: NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE (NEC) - 2008

FIRE / LIFE SAFETY CODE: FIRE CODE OF NEW YORK STATE - 2007, SECTION 609 AND FIRE CODE OF NEW YORK STATE - 2010

LIGHTNING PROTECTION CODE: [NFPA 780 - STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS, LIGHTNING PROTECTION CODE 2008].

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS. AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION ANS/ITA 222-G, 2005, STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES & ANTENNAS INCLUDING - ADDENDUM 1, 222-G-1, DATED 2007, ADDENDUM 2, 222-G-2, DATED 2009, ADDENDUM 3, 222-G-3, DATED 2013 AND ADDENDUM 4, 222-G-4, DATED 2014.

TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS. INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT. IEEE C2 NATIONAL ELECTRIC SAFETY CODE, LATEST VERSION. TELCORDIA GR-1275, GENERAL INSTALLATION REQUIREMENTS. ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION. FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

100% DETAIL SCALE: N.T.S.

NEW YORK ONE-CALL PROCEDURES:

* CONTRACTOR SHALL COMPLY WITH THE NEW YORK ONE-CALL PROCEDURES BEFORE ANY EXCAVATION, DRILLING OR BORING.

- 1) ALL CONTRACTORS MUST CALL 2 TO 10 WORKING DAYS PRIOR TO START OF PROJECT AND RECORD THE SERIAL NUMBER AND LIST OF NOTIFIED UTILITY OPERATORS.
- 2) AFTER CALLING THE CALLERS MUST WAIT THE 3 WORKING DAYS AS DESCRIBED IN NYS CODE 753 AS TO GIVE ADEQUATE TIME TO THE NOTIFIED OPERATORS TO RESPOND.
- 3) ALL CONTRACTORS MUST PROVIDE AS MUCH INFORMATION ON THE WORKSITE AS POSSIBLE TO THE ONE CALL CENTER.
- 4) IT IS SUGGESTED WHEN WORKING ON AIRPORT PROPERTY THAT THE CALLER REQUEST A SITE MEETING AS TO MAKE THE WORK LOCATION CLEAR TO ALL MARK-OUT CREWS.
- 5) IF THE PROJECT IS TO EXTEND PAST 10 WORKING DAYS IT IS HIGHLY RECOMMENDED THAT THE TICKET BE UPDATED EVERY 10 WORKING DAYS IN ORDER TO MAINTAIN MAXIMUM PROTECTION OF THE UNDERGROUND UTILITIES.

NO.	DATE	ISSUED FOR	BY	CHKD BY	APP'D
1	10/21/13	ISSUED FOR REVIEW	ALP	ALP	N/A
2	10/29/13	ISSUED FOR REVIEW	ONE	ALL	N/A
3	10/29/13	ISSUED FOR PRELIMINARY REVIEW	ONE	ALL	N/A
4	10/29/13	ISSUED FOR REVIEW	BY	ONE	APP'D

SCALE AS NOTED ISSUED DRAWN BY ONE

at&t

15-11407

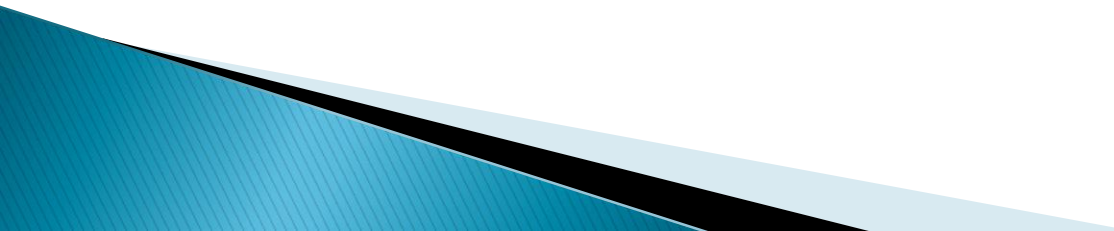
TITLE SHEET

JOB NO. NYNYNY0202/LI-202 SHEET NUMBER T-100.00 PAGE 1 OF 9

DATE: 10/21/13

SCALE: 22 x 34 1/8" 3/4"

PREPARE AGREEMENT DOCUMENTS

- ▶ The Cellular Department will determine if the proposed upgrade is a minor upgrade or exceeds the existing lease limitations and subjects the project to a permanent monthly charge to the lease.
 - ▶ The Cellular Department will also determine if the modification requires a third party tank consultant engineering review.
- 

Lease Equipment Surcharge Schedule
 LESSEE Must fill out in its Entirety for each Equipment Addition or Modification Requested.

Wireless Carrier Name: AT&T/New Cingular Wireless		SCWA Approval: <i>A. Cotroneo</i>		Date: 4/3/18		
Site Name: SCWA/ Pleasant Avenue						
SCWA Site ID No: A40						
Wireless Carrier Site ID No: LI-479 Centereach, NY						
Date: April 3, 2018						
Any additional equipment, modifications, or upgrades requested above and beyond the scope of a new lease limitation or any additional equipment that is added to an existing lease shall be subject to the below fee schedule. Fees are a permanent monthly charge to the lease.						
Item	Description	Unit Cost	Quantity Entitled Per Agreement(s)	Quantity Existing	Quantity Required/Adding	Total Cost
1A	Each Panel type Antenna above Quantity Six (6) 72" h x 12" w (Nom.) Max	\$100 per Antenna	6		9	\$ 300.00
1B	Each Panel type Antenna greater than 72" h x 12" w	\$150 per Antenna	N/A			\$ -
1C	Each Microwave type Dish Antenna (Up to 24" Diam.)	\$175 per Antenna	N/A			\$ -
1D	Each GPS Type Antenna above Quantity One (1) on tank	\$20 per Antenna	1 Not on Tank		1 Not on Tank	\$ -
1E	Each TMA/MHA or Similar device	\$30 per Unit	N/A			\$ -
1F	Each Remote Antenna Down Tilt Kit	\$10 per Unit	N/A		9 RET	\$ 90.00
1G	Each Diplexer, Combiner, Filter, or Similar Device	\$20 per Unit	N/A		3 DC6, 3 FMB & 3 D/E Filters	\$ 180.00
1H	Each Remote Radio Unit	\$35 per Unit	N/A		12 RRHs	\$ 420.00
2A	Each Antenna Cable Conduit above Quantity six (6)	\$75 per Conduit	(6) 6" UG	(4) 6" UG		\$ -
2B	Each Antenna Cable or Hybrid Feeder Cable above Quantity Twelve (12)	\$20 per Cable	12		6 DC , 6 Fiber Cables	\$ -
3A	Each Square foot of Additional land area above 375 sq. ft.	\$6 per sq. ft.	375 sq.ft.	231 sq.ft.	72 sq.ft.	
3B	Each Additional Radio Equipment Cabinet Placed in Lease Area	n/c	N/A	N/A		
3C	Each Additional Battery Cabinet Placed in Lease Area	n/c	N/A	N/A		
3D	Each Network Interface Device (NID) Cabinet	n/c	N/A	N/A		
3E	Each Gas or Diesel Powered Generator	\$10 per kW	N/A	N/A	(1) 30kw Diesel Generator	\$ 300.00
3F	Automatic Transfer Switch (For Portable Diesel Generators)	\$500 Monthly Fee	N/A			\$ -
4A	Generation/Capacity Upgrade	n/c			New Site Build 1C,2C,3C,4C & 5C	
5A	Telephone/Electric Utility Upgrade	TBD	N/A	N/A		
5B	Telephone/Electric Utility Upgrade (Trenching Required)	#3,500 One Time Fee	N/A			
6A	Other Modification	Shelter One-Time Fee	1			\$ 20,000.00
6B	Relocate Existing Antenna Equipment to a Higher Elevation	\$500	N/A			
6C	Additional Antenna Sector	\$500	N/A	N/A		
7A	SCWA Inspection Fee (Applies to all work, including zero cost amendments)	\$2,500				
7B	SCWA In-House Engineering Review (zero cost amendments)	\$1,000				
7C	SCWA In-House Engineering Review (amendments associated with monthly increases)	\$2,500				
7D	Tank Consultant Engineering Review	Cost plus 15%			1	TBD
Notes: The new site build cellular installation plans call for AT&T to assume ownership of the existing 20'-11" x 10'-11" equipment shelter, (6) 6" underground conduits, the existing meter and electric/telco feeds. The proposal includes the installation of a new 4'-2" x 9'-4" concrete pad that will house a 30kw diesel generator AT&T will run (6) DC and (6) fiber cables from the shelter to tank leg #3 that will include a new cable tray to the top tank strut then transition into a smaller cable tray on sector A and C legs #6 and #8. There will be 3 sectors, each containing (3) antennas w/Remote Electric Tilt (RET), (4) RRHs, (1) DC6, (1) FMB on leg #3, #6 and #8. The installation will require a Tank Consultant Engineering Review.					Total One Time Fee Does Not Include Tank Consultant Fee	TBD
					Base Rent:	\$ 5,000.00
					Additional Per Month Fees:	\$ 1,290.00
					Total Monthly Rent:	\$ 6,290.00

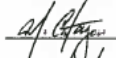
EQUIPMENT LIST

LESSEE Must fill out in its Entirety. Incomplete Forms will be Returned and Execution of Lease Delayed.

GENERAL INFORMATION				
Wireless Carrier Name	AT&T			
Site ID No.	SCWA #A01, AT&T #NYYNY0202/LI-202			
Site Name	SCWA 125 Lambert Ave, Copiague NY 11726			
FCC Call Sign	WPVV234			
ANTENNA INFORMATION				
Number of Sectors	3			
Number of Antenna per Sector	(3) Sector 1	(3) Sector 2	(3) Sector 3	
Total Number of Antennas	9			
	Panel Type	Panel Type	Panel Type	GPS Type
Panel Type Antenna Manufacturer	Andrew	Kathrein		PCTEL
Quantity of Panel Type Antennas	6	3		2
Antenna Model No.	SBNHH-1D65A	800 10121		TMG-HR-26N
	Antenna 35.2 lbs	Antenna 46.3 lbs.		
Weight of Antenna w/Mounting Hardware	Hardware 13.2 lbs	Hardware 11.0 lbs		0.6lbs.
Dimensions of Antenna	55.6 x 11.9 x 7.1	54.5 x 10.3 x 5.9		5"H x 3.2"D
Antenna Maximum Gain	17.0 dBi	16.0 dBi		26.5 dB +/- 3 dB
Antenna Centerline Height (AGL)	137.0	137.0		Equip Leased Area
RF Channels per Sector				
Transmitter Power per RF Channel (ERP)		400 watts / 250 watts		< 2.0:1
Antenna Cable Mfr.	Rosenberger	Andrew		PCTEL
Quantity of Antenna Cables	(12) Coax (3) 6/C DC Power (2) Fiber Cable			2
Model No. of Antenna Cables				
Quantity of Amplifiers (TMA or MHA)	(6) DC2, (4) FMB, (2) FC12			
	ALPHA	BETA	GAMMA	
	ALU 2X40W	ALU 2X40W	ALU 2X40W	
	700 MHz RRH	700 MHz RRH	700 MHz RRH	
	(1) 52.5 lbs.	(1) 52.5 lbs.	(1) 52.5 lbs.	
Quantity/Manufacturer of Remote Radio Units	B29 700 MHz RRH	B29 700 MHz RRH	B29 700 MHz RRH	(9) RRH's TOTAL
	(1) 53.0 lbs.	(1) 53.0 lbs.	(1) 53.0 lbs.	
	4X25 WCS	4X25 WCS	4X25 WCS	
	2300 MHz	2300 MHz	2300 MHz	
	(1) 70 lbs.	(1) 70 lbs.	(1) 70 lbs.	
Remote Antenna Down Tilt Kit	YES	YES		(9) Total
Operating Frequency Range (A)	698-746 MHz	880-960 MHz		
Operating Frequency Range (B)	869-891 MHz	1920-2180 MHz		
Operating Frequency Range (C)				
Operating Frequency Range (E)				
Operating Frequency Range (F)				
Operating Frequency Range (G)				
Calculated FCC MPE Limit @ 100' Ground Distance away from Structure @ height of 6.5' above ground. Include all Carriers. (%)	N/A			
System Generation (2G, 3G, 4G, etc.)	4G, LTE 4C WCS + RETROFIT			
SITE INFORMATION				
Dimensions of Ground Lease Area	948 sq. ft.			
Dimensions of Equipment or Bldg. Slab	13.2' X 27.4' Equipment Shelter			
Generator Size Proposed	50kw Diesel Generator in a 60 sq.ft. Leased area			
Quantity and size of Antenna Conduits	6 @ 6"			

EQUIPMENT LIST

LESSEE Must fill out in its Entirety. Incomplete Forms will be Returned and Execution of Lease Delayed.

	Quantity	Type
Equipment Cabinet (A)	2	Nokia BTS
Battery Cabinet (B)	2	Dry cell battery
Equipment Cabinet (C)	1	UMTS
Equipment Cabinet (D)	2	MCPA / LTE Rack
Equipment Cabinet (E)	2	GPS 2424
Equipment Cabinet (F)	2	TELCO RACK
Misc. Equip.	1	FMT
Misc. Equip.	1	Transfer Switch
Misc. Equip.	2	DC6
Misc. Equip.	3	RRHs
Misc. Equip.	6	Diplexers
Misc. Equip.	3	Twin Diplexers
Notes:		
1. All operating frequencies must be listed. Use additional sheets as necessary.		
2. Equipment cabinets listed here must be shown construction drawings.		
Carrier	AT&T / New Cingular Wireless PCS, LLC	
Location	Lambert Ave - A01R	
Approved by		
Date	4/21/17	

Negative Declaration & Environmental Form L.E.A.F

SUFFOLK COUNTY WATER AUTHORITY
 State Environmental Quality Review
NEGATIVE DECLARATION
 Notice of Determination of Non-Significance

Date Issued: June 21, 2017

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The Suffolk County Water Authority, as lead agency, has determined that the proposed action described below will not have a significant effect on the environment and a Draft Environmental Impact Statement will not be prepared.

Name Action: Amendment to existing SCWA- New Cingular Wireless PCS, LLC Lease

SEQR Status: The Project is an Unlisted Action pursuant to SEQR regulations. SCWA is performing an uncoordinated review of the unlisted action. An Environmental Assessment Form Part 1 and 2 has been completed for the proposed Action.

Conditioned Negative Declaration: No

Description of Action: The existing SCWA- New Cingular Wireless PCS, LLC Lease Renewal dated February 21, 2012 is being amended to permit New Cingular Wireless to modify and upgrade the existing New Cingular Wireless communication facility on the SCWA water tank. Modifications include the removal of (3) existing antennas, adding (3) new antennas, adding (3) RRH's, (7) new Junction boxes and (2) new DC cables all on the tank.

Location: Lambert Avenue, Copiague - SCTM No. 100-198-2-22.23

Reasons Supporting This Determination: The Project will not have a significant adverse impact on existing air quality, traffic or noise levels, solid waste production, and it will not have a significant adverse impact on ground or surface water quality or quantity, or the potential for erosion, flooding, leaching or drainage problems. Fewer than five trips per month will be generated by the project. The proposal to co-locate the antennas onto the SCWA facilities is consistent with the generally recognized and accepted goal of avoiding unnecessary proliferation of cellular structures. The proposal to add (3) new antennas, (3) remote radio units and (7) junction boxes will not cause any new visual impacts. The antennas, remote radio units and junction boxes will be painted the same color as the tank to minimize their visual impact.

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: L113101A - Commack		
Project Location (describe, and attach a general location map): Fisher Road, Commack, NY 11725		
Brief Description of Proposed Action (include purpose or need): -T-MOBILE NORTHEAST LLC PROPOSED THE MODIFICATION OF AN EXISTING UNMANNED WIRELESS TELECOMMUNICATIONS FACILITY: -PROPOSED T-MOBILE 8' ANTENNA ON PROPOSED ANTENNA MOUNT (TYP. OF 1 PER SECTOR, TOTAL OF 3) WITH RRU MOUNTED BEHIND (TYP. OF 1 PER SECTOR, TOTAL OF 3) -PROPOSED T-MOBILE HYBRID CABLES (TYP. OF 2 PER SECTOR, TOTAL OF 6) ROUTED WITH EXISTING COAX IN VERTICAL CABLE TRAY. -RE-USE EXISTING T-MOBILE EQUIPMENT AT GRADE.		
Name of Applicant/Sponsor: T-Mobile / Paula Yip	Telephone: (631)224-6651	E-Mail:
Address: 3500 Sunrise Highway, Suite D203		
City/PO: Great River	State: NY	Zip Code: 11741
Project Contact (if not same as sponsor; give name and title/role):		
E-Mail:		
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):		
Suffolk County Water Authority		
Address:		
4060 Sunrise Highway		
City/PO: Oakdale	State: NY	Zip Code: 11789

Lease Amendment FUS

SECOND AMENDMENT TO LEASE RENEWAL AGREEMENT

THIS SECOND AMENDMENT TO LEASE RENEWAL AGREEMENT (this "Second Amendment"), made this ____ day of _____, 2017 is by and between Suffolk County Water Authority, a public benefit corporation with offices at P.O. Box 38, 4060 Sunrise Highway, Oakdale, New York 11769-0901, (hereinafter "SCWA") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, with offices at 575 Morosgo Drive, Atlanta, Georgia, 30324 (hereinafter "Lessee"), and taken together the "Parties."

WHEREAS, SCWA is the owner of certain real property known as and located at Lambert Avenue, Copiague in the Town of Babylon, known and shown on the Suffolk County Tax Map as SCTM # 100-198-2-22.23 and in the County of Suffolk, State of New York (the "Property"), and owns the water tank (the "Water Tank") and other improvements located therein;

WHEREAS, SCWA and Lessee executed a Lease Renewal Agreement dated February 21, 2013 (the "Lease Renewal Agreement"), and the Parties amended the 2013 Lease Renewal Agreement by executing a First Amendment to Lease Renewal Agreement, which was dated October 21, 2013 (the "First Amendment") and the two agreements, the 2013 Lease Renewal Agreement, and the First Amendment are referred to herein collectively as the "Lease"; and

WHEREAS, the Lease authorized Lessee to construct, install, maintain and operate radio transmitting and receiving equipment (generically the "Equipment") on a certain portion of the property and certain space on the Water Tank (collectively, the "Leased Premises") for the purposes of operating a communication facility (the "Communication Facility"); and

WHEREAS, SCWA and Lessee have agreed to amend the Lease Renewal Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises, obligations, terms and conditions hereinafter set forth and recited, the Parties hereto agree to and with each other as follows:

1. RECITALS INCORPORATED

The above recitals are incorporated herein and made a part hereof.

2. Lessee shall have the right to modify the Communication Facility by:
 - (a) Swapping Three (3) existing antennas with Three (3) new antennas, one each per Sector each with Remote Electric Tilt ("RET"); (b) Swap Three (3) existing Remote Radio Heads ("RRHs") with Three (3) new RRHs and add an additional Three (3) new RRHs; (c) add One (1) FC12, Three (3) FMB and Three (3) DC2 Junction Boxes; (d) add One (1) DC Trunk and One (1) Fiber Trunk Cable.

The activities undertaken by Lessee under this Amendment shall be collectively designated as the "Work".

MUS Agreement

MINOR UPGRADE SURCHARGE

REVISION TO LEASE AGREEMENT: B21
LOCATED AT: Division Street, Sag Harbor, NY

This revision provides for a minor upgrade to the cellular equipment installed under Lease Agreement, B21, Division Street, Sag Harbor between SCWA and New York SMSA Limited Partnership d/b/a Verizon Wireless. The upgrade, as shown on Exhibits, Surcharge Schedule, Equipment List and the Plans signed 8/24/17 attached hereto and made a part hereof, does not require additional space on the tank or ground. However, the AUTHORITY must expend Administrative, in-house Engineering review, and Inspection time to inspect or approve such upgrade. The New York SMSA Limited Partnership d/b/a Verizon Wireless agrees to pay a one-time non-refundable fee of \$3,500 to the AUTHORITY, a "Minor Upgrade Surcharge" (MUS). The MUS will be used by the AUTHORITY for its inspection or approval costs.

In addition to the Inspection and Review Fee, Lessee acknowledges that it shall pay SCWA's outside engineer's Seven Thousand Five Hundred and 00/100 Dollar (\$7,500.00) fee to review the Plans in connection with this MUS Agreement (the "Tank Consultant Fee"). Lessee shall pay the Tank Consultant Fee to the SCWA within forty-five (45) days of the full execution of this MUS Agreement. The SCWA shall reimburse Lessee the difference, if it exceeds Two Hundred Fifty and 00/100 Dollars (\$250.00), between the Tank Consultant Fee and the amount charged to the SCWA by its outside engineer to review the Plans. The reimbursement shall be made within forty-five (45) days of the SCWA's receipt of the final invoice from the outside engineer and shall include the final invoice accompanied by a copy of any supporting documentation and/or reports justifying the Tank Consultant Fee.

Agreed:
Suffolk County Water Authority

NEW YORK SMSA LIMITED
PARTNERSHIP d/b/a Verizon Wireless
By: Cellco Partnership, its General Partner

Jeffrey Szabo
Chief Executive Officer

Date: _____

Date: _____

FAA Determination



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

Aeronautical Study No.
2015-AEA-6880-OE
Prior Study No.
2007-AEA-4037-OE

Issued Date: 02/11/2016

Regulatory Compliance/Development
T-Mobile
3500 Sunrise Highway
Suite D203
Great River, NY 11739

** 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:	Antenna - Side Mount Water Tank - LI13130B SWA Lindenhurst
Location:	Lindenhurst, NY
Latitude:	40-42-03.95N NAD 83
Longitude:	73-24-13.44W
Heights:	42 feet site elevation (SE) 157 feet above ground level (AGL) 199 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)

As a result of this structure being critical to flight safety, it is required that the FAA be kept apprised as to the status of the project. Failure to respond to periodic FAA inquiries could invalidate this determination.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

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 and maintained in accordance with FAA Advisory circular 70/7460-1 L.

Any height exceeding 157 feet above ground level (199 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

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 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 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.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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

This determination cancels and supersedes prior determinations issued for this structure.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AEA-6880-OE.

Signature Control No: 273142137-281038394

(DNE)

Darin Clipper
Specialist

Attachment(s)
Case Description
Frequency Data
Map(s)

cc: FCC

Structural Review Letter & P.O.



SUFFOLK COUNTY WATER AUTHORITY

Timothy J. Kilcommons, P.E.
Chief Engineer

Mailing Address: P.O. Box 38, Oakdale, NY 11769-0901
Engineering Offices: 3525 Sunrise Highway, Great River, NY 11739
(631) 563-0351 Fax (631) 859-0013

August 4, 2017

Dvirka & Bartilucci Consulting Engineers
330 Crossways Park Drive
Woodbury, NY 11797-2015
Attn: Mr. William Merklin, P.E.

**Re: Review of Construction Drawings
AT&T – Lambert Avenue**

Dear Mr. Merklin:

The Architects for AT&T, William F. Collins, have submitted plans to upgrade existing cellular equipment at the above referenced tank site. Please review the enclosed drawings as they relate to structural aspects of the tank, including a structural analysis of proposed and existing cellular loads on the tank, attachment methods and coatings, and return with appropriate comments. Please retain one approved copy for your files and return one copy to my attention.

We would appreciate your returning these drawings approved or with comments to us as soon as possible.

If you have any questions in this matter, please contact me at (631) 563-0317.

Sincerely,

Michael Catanzaro
Cellular Program Manager

MC:tcf

cc: J.M. Pokorny, P.E.
T. J. Kilcommons, P.E.
R. Dickman, P.E.
A. Tollinchi



Suffolk County Water Authority
4060 Sunrise Highway
Oakdale, New York 11769

Page 1 of 1

Invoices, packing slips, and freight bills must be marked with this:

**PURCHASE ORDER
4500048059**

Vendor Name/Address

DVIRKA & BARTILUCCI
CONSULTING ENGINEERS
330 CROSSWAYS PARK DR
WOODBURY NY 11797-2015

Ship To

SUFFOLK COUNTY WATER AUTHORITY
4060 SUNRISE HWY
OAKDALE NY 11769

Billing Address

SUFFOLK COUNTY WATER AUTHORITY
ACCOUNTS PAYABLE
PO Box 38
OAKDALE NY 11769

Information

Vendor No: 100433
Date: 08/03/2017
Contact: Lisa Hohenberger
Pmt Terms: Payable immediately Due net
Shipping Terms:
SCWA Contract: 1465
SAP Contract #:
Requested By: Michael Catanzaro
Order: 625005373
WBS: 500-18-00-0001

Item #	Material	Description	Quantity	Unit	Price	Total
10		AT&T Lambert Ave A&IR Upgrade				
		ORDER: 625005373 WBS: 500-18-00-0001 AT&T Lambert Ave A&IR Upgrade	6,500	AU	1.00 per 1 AU	\$6,500.00
Total Amount						\$6,500.00

Joseph Pokorny

Approved By

Purchasing Director

Structural Approved Letter & Analysis Report



GANNETT FLEMING ENGINEERS, P.C.
100 Crossways Park West
Suite 300
Woodbury, NY 11797
Office: (516) 364-4140
Fax: (516) 921-1565
www.gannettfleming.com

September 29, 2017

Michael Catanzaro
Suffolk County Water Authority
P.O. Box 38
Oakdale, NY 11769

Re: Structural Analysis for Proposed Antennas on Elevated Water Tank
T-Mobile – Plymouth Street

Dear Mr. Catanzaro:

In accordance with SCWA's September 8, 2017 purchase order, please find attached our Structural Analysis Report for proposed T-Mobile equipment on the Plymouth Street elevated water tank.

We reviewed the drawing set sent by NB+C Engineering Services, LLC titled "LI13100A DEX HILLS APRIL AVENUE HUNTINGTON STATION, NY 11746 TOWN OF HUNTINGTON SUFFOLK COUNTY", dated May 05, 2017. Based on our structural analysis the proposed project will have negligible effect on the water tank. The handrails and balcony floor plate are adequate to support the loads exerted on them, and can handle the stresses that may occur under all loading combinations. The connection welds to the tower tank are adequate for the antenna loads. No impact to existing coatings is anticipated.

Actual conditions, thicknesses, and configuration must be examined by the contractor prior to the start of construction, and any variations from assumptions must be reported to SCWA for evaluation before construction may commence.

Please call me at (516) 364-4140 x 1323 if you have any questions.

Very truly yours,

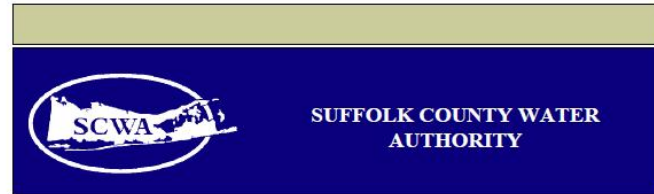
GANNETT FLEMING ENGINEERS, P.C.


MICHAEL HIRSCHBERGER
Project Manager

Email: S. Hadjiyane, G. Matthews

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A Tradition of Excellence



STRUCTURAL ANALYSIS FOR PROPOSED
ANTENNAS ON ELEVATED WATER TANK

T-MOBILE – PLYMOUTH STREET

September 29, 2017



Office Location
GANNETT FLEMING
100 Crossways Park West
Woodbury, NY 11797
Office: 516-364-4140
Fax: 516-921-1565
www.gannettfleming.com

Office Contacts
Stephen Hadjiyane, P.E.
Michael Hirschberger, E.I.T.
Greg Matthews, P.E., LEED AP

GF Project No.
60609

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PROJECT INFORMATION

SCOPE OF WORK: **ON WATER TANK: REMOVE (3) EXISTING ANTENNAS AND (3) EXISTING RRHs TO BE REPLACE WITH (3) NEW ANTENNAS, (6) NEW RRHs, (3) NEW DC2s, (3) NEW FIBER MANAGEMENT BOXES AND (1) NEW FC12. (6) EXISTING ANTENNAS, (3) EXISTING DC2s, (1) EXISTING FIBER MANAGEMENT BOX, (1) EXISTING FC12, (6) EXISTING ANDREW DB TANKS, (6) EXISTING UNITS-SPLITTERS AND (3) EXISTING RRHs ON EXISTING ANTENNA MOUNTING ASSEMBLIES ARE TO REMAIN IN PLACE.**

IN EQUIPMENT SHELTER: ADD (1) NEW -48VDC CONVERTER SHELF AND (1) NEW -48VDC CONVERTER WITHIN EXISTING EQUIPMENT RACK, INSTALL (1) NEW DC6 AND (1) NEW FIBER MANAGEMENT BOX WITHIN EXISTING SHELTER ON UNISTRUT.

SITE ADDRESS: GARFIELD AVE. & LAMBERT AVE. PROPERTY OWNER SUFFOLK COUNTY WATER AUTHORITY
COPIAQUE, NY 11728 4060 SUNCOSE HIGHWAY
ONCAIDE, NY 11769

LATITUDE: N 40° 40' 50.76" (NAD83) CONTACT: MIKE CATANZARO
LONGITUDE: W 73° 23' 23.07" (NAD83)
ELEVATION: ±18.0' AMSL (NAVD88) APPLICANT: NEW CIRCULAR WIRELESS PCS, LLC
JURISDICTION: TOWN OF BABYLON (AT&T)
TAX ID NUMBER: SECTION: 198 BLOCK: 2 LOT: 21, 22, 23 ONE AT&T WAY
BEDMINSTER, NJ 07921

ZONING DISTRICT: D INDUSTRIAL
CURRENT USE: EXISTING WATER TANK W/ CO-LOCATED TELECOMMUNICATIONS FACILITY
NEW USE: EXISTING WATER TANK W/ CO-LOCATED TELECOMMUNICATIONS FACILITY (NO CHANGE)

APPROVED FOR CONSTRUCTION

Suffolk County Water Authority

WIRELESS CARRIER AT&T

LOCATION LAMBERT AVE

BY af DATE 12/3/17

SITE NUMBER: NYNYNY0202/LI-202

SITE NAME: LINDENHURST

LTE 4C WCS + RETROFIT



STRUCTURAL REVIEW STATEMENT

EXISTING WATER TANK HAS BEEN EVALUATED FOR REPLACEMENT/ADDITION OF ANTENNAS, COAX CABLES & EQUIPMENT AND NO MODIFICATIONS TO THE WATER TANK ARE REQUIRED.

APPLICABLE BUILDING CODES AND STANDARDS

SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (ALJ) FOR THE LOCATION. THE EDITION OF THE ALJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

THE SPECIFIC REQUIREMENT SHALL GOVERN: 2015 INTERNATIONAL BUILDING CODE OF THE STATE OF N.Y.

ELECTRICAL CODE: NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE (NEC) - 2008

FIRE / LIFE SAFETY CODE: FIRE CODE OF NEW YORK STATE - 2007, SECTION 609 AND FIRE CODE OF NEW YORK STATE - 2010

LIGHTNING PROTECTION CODE: [NFPA 780 - STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS, LIGHTNING PROTECTION CODE 2008].

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS. AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, THIRTEENTH EDITION, ANS/A234-222-G, 2005, STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES & ANTENNAS INCLUDING - ADDENDUM 1, 222-G-1, DATED 2007, ADDENDUM 2, 222-G-2, DATED 2009, ADDENDUM 3, 222-G-3, DATED 2013 AND ADDENDUM 4, 222-G-4, DATED 2014.

TA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS. INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM (IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT.

IEEE C2 NATIONAL ELECTRIC SAFETY CODE, LATEST VERSION.

TELCORDIA GR-1275, GENERAL INSTALLATION REQUIREMENTS.

ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

DETAIL
SCALE: N.T.S.

RF DATA SHEET

DRAWING INDEX	REV.
T-100.00 TITLE SHEET	3
A-100.00 PARTIAL SITE PLAN AND GENERAL NOTES	3
A-101.00 ENLARGED EQUIPMENT PLANS	3
A-102.00 SOUTH AND NORTH ELEVATIONS	3
A-103.00 ANTENNA AND EQUIPMENT DETAILS	3
A-104.00 ANTENNA AND EQUIPMENT MOUNTING DETAILS	3
A-105.00 ANTENNA AND EQUIPMENT MOUNTING DETAILS	3
A-106.00 ANTENNA AND EQUIPMENT MOUNTING DETAILS	3
A-107.00 SCWA GENERAL NOTES, PAINTING SPECIFICATIONS AND STRUCTURAL STEEL NOTES	3
A-108.00 EQUIPMENT CONFIGURATION TABLE	3

VICINITY MAP / DIRECTIONS

FROM PARAMUS, NJ: CONTINUE STRAIGHT TO STAY ON NJ-17 S (0.4 MI). TAKE THE NJ-4 E EXIT TOWARD FORT LEE/NEW YORK (0.1 MI). KEEP LEFT AT THE FORK AND MERGE ONTO NJ-4 E (7.4 MI). TAKE THE I-95 N EXIT ON THE LEFT TOWARD G.W. BRIDGE/NEW YORK CITY (0.4 MI). MERGE ONTO INTERSTATE 95 LOWER LEVEL (4.10 FT). SLIGHT LEFT ONTO U.S. 9 N (0.4 MI). MERGE ONTO INTERSTATE 95 UPPER LEVEL N PARTIAL TOLL ROAD (ENTERING NEW YORK, 1.9 MI). CONTINUE ONTO I-95 N (4.8 MI). CONTINUE ONTO CROSS BRONX EXPY (0.3 MI). CONTINUE ONTO I-295 S (PARTIAL TOLL ROAD, 4.1 MI). TAKE THE EXIT ONTO CROSS ISLAND PKWY(3.9 MI). TAKE EXIT 25A TO MERGE ONTO SOUTHERN STATE PARKWAY EAST TOWARD EASTERN LONG ISLAND (18.8 MI). TAKE EXIT 32S FOR NY-110 TOWARDS AMITYVILLE. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR NY-110 S AND MERGE ONTO COUNTY LINE ROAD. TURN RIGHT ONTO BROADWAY (1.8 MI). TURN LEFT ONTO DIXON AVENUE (0.9 MI). TURN RIGHT ONTO GREAT NECK ROAD (0.4 MI). TURN LEFT ONTO OAK STREET (0.5 MI). TURN RIGHT ONTO GARFIELD AVENUE (0.1 MI). TURN LEFT ONTO LAMBERT AVENUE.



SITE QUALIFICATION PARTICIPANTS

TITLE	NAME	COMPANY	NUMBER
A/E	NEL A. MACDONALD	WILLIAM F. COLLINS, AIA ARCHITECTS, LLP	(831) 689-8450
ENGINEER	DON HUNTLEY	BECHTEL INFRASTRUCTURE AND POWER CORP., INC.	(201) 571-0692
CONSTRUCTION	LUIE STEMBERGER	BECHTEL INFRASTRUCTURE AND POWER CORP., INC.	(571) 221-9487
RF	AZAD KARIM	Shoroff	(201) 775-2410

APPROVED

APPROVED AS NOTED

REVISE AND RESUBMIT

DISAPPROVED

THIS MATERIAL HAS BEEN CHECKED FOR GENERAL ACCURACY AND CONFORMANCE WITH SPECIFICATIONS AND CONTRACT DRAWINGS. APPROVAL OF THIS MATERIAL SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR DIMENSIONAL OR OTHER ERRORS AND OMISSIONS OR OF GUARANTEES REQUIRED BY THE CONTRACT DOCUMENTS.

D&B ENGINEERS AND ARCHITECTS, P.C.

BY: JG/MS DATE: 12/5/17

wfc WILLIAM F. COLLINS, AIA ARCHITECTS, L.L.P.

12-1 TECHNOLOGY DRIVE SHEPARD, NY 11753
VOICE: 631-689-8450 DATA: 631-689-8459

PROJECT INFORMATION:

MOBILE COMMUNICATIONS FACILITY LINDENHURST

GARFIELD AVENUE & LAMBERT AVENUE
COPIAQUE, NY 11726



NO.	DATE	ISSUED FOR	ISSUED BY	DATE
1	12/1/17	ISSUED FOR CONSTRUCTION	ALF	ALF
2	12/1/17	ISSUED FOR CONSTRUCTION	ALF	ALF
3	12/1/17	ISSUED FOR REVIEW	ALF	ALF
4	12/1/17	ISSUED FOR REVIEW	ALF	ALF
5	12/1/17	ISSUED FOR REVIEW	ALF	ALF

WFC PROJECT NO. 15-11407

at&t

TITLE SHEET

JOB NO. 0202-40-40-11 SITE NO. NYNYNY0202/LI-202 SHEET NUMBER 7-100-00

Notice to Proceed Letter



SUFFOLK COUNTY WATER AUTHORITY

Timothy J. Kilcommons, P.E.
Chief Engineer/Director of R&D

Mailing Address: P.O. Box 38, Oakdale, NY 11769-0901
Engineering Offices: 3525 Sunrise Highway, Great River, NY 11739
(631) 563-0351 Fax (631) 859-0013

December 7, 2017

Bechtel Infrastructure and Power Corporation/AT&T Mobility Project
300 Broadacres Drive
Bloomfield, NJ 07003
Attn: Mr. Michael Oakes

Re: Lambert Avenue Tank Site AT&T Site No. NYNYNY0202/LI-202

Dear Mr. Oakes:

Attached, please find a copy of approved construction drawings for the above-mentioned site.

You are, herewith, "Authorized To Proceed" with work as described in the attached construction drawings. Actual construction, on the tank, may proceed after the pre-construction meeting has taken place at the site. A pre-construction meeting cannot be scheduled until all appropriate insurance forms for all subcontractors hired to work at the site have been submitted and approved by the SCWA, and FAA form 7460-1 has been submitted to the FAA with a copy provided to the Authority.

In addition, we note the following details relative to these sites:

1. Care should be exercised when making attachments to the tank in order to minimize damage. It should be noted that any damage to the exterior coating resulting from AT&T's construction will be repaired to Authority standards at the sole expense of AT&T. All tank work will be inspected by, and be accepted by, the SCWA Tank Inspector. Details relative to paint, primers, and methods will be addressed at the pre-construction meeting.
2. Please submit to the Authority a copy of your filing of FAA form titled "Notice of Proposed Construction or Alteration," FAA Form No. 7460-1 (1-93). Please be advised, that the Authority requires a copy of the resulting FAA determination. Per the code of Federal Regulations FAA (14 CFR 77.9) the SCWA may waive this requirement upon the receipt of documentation satisfactory to SCWA that such filing is not required.
3. Certificate of Insurance, with the Authority listed as an additional insured, must be current.
4. Certificate of Insurance for all subcontractors working on the site shall be supplied to the Authority, with the Authority listed as an additional insured.
5. Please confirm in writing the name of AT&T's technical contact person, reachable on a seven (7) day, twenty-four (24) hour basis, who can either dispatch an individual, or turn-off the site remotely in the event of an emergency.

Preconstruction Meeting Minutes

Job Name: Suffolk County Water Authority
AT&T Upgrade Installation at Lambert Avenue Tank Site
Date: January 18 2018 10:00 a.m.
Location: Lambert Ave Tank Site
Subject: Pre-Construction Meeting Minutes

<u>Attendees</u>	<u>Representing</u>	<u>Company</u>	<u>Phone</u>
Mike Catanzaro	Owner	SCWA	631-563-0317
Ian Leonard	AT&T	Bechtel	862-283-5083
Rick Powell	AT&T	Bechtel	201-258-0870
Abdallah Salhia	Contractor	Squan	973-760-3371

DRAWINGS

- Drawings to be utilized for this project are the signed approved set of drawings dated 12/7/17.
- A full set of approved drawings shall be maintained on site at all times.
- Final as-builts will be required by SCWA prior to final acceptance of the site.

SAFETY

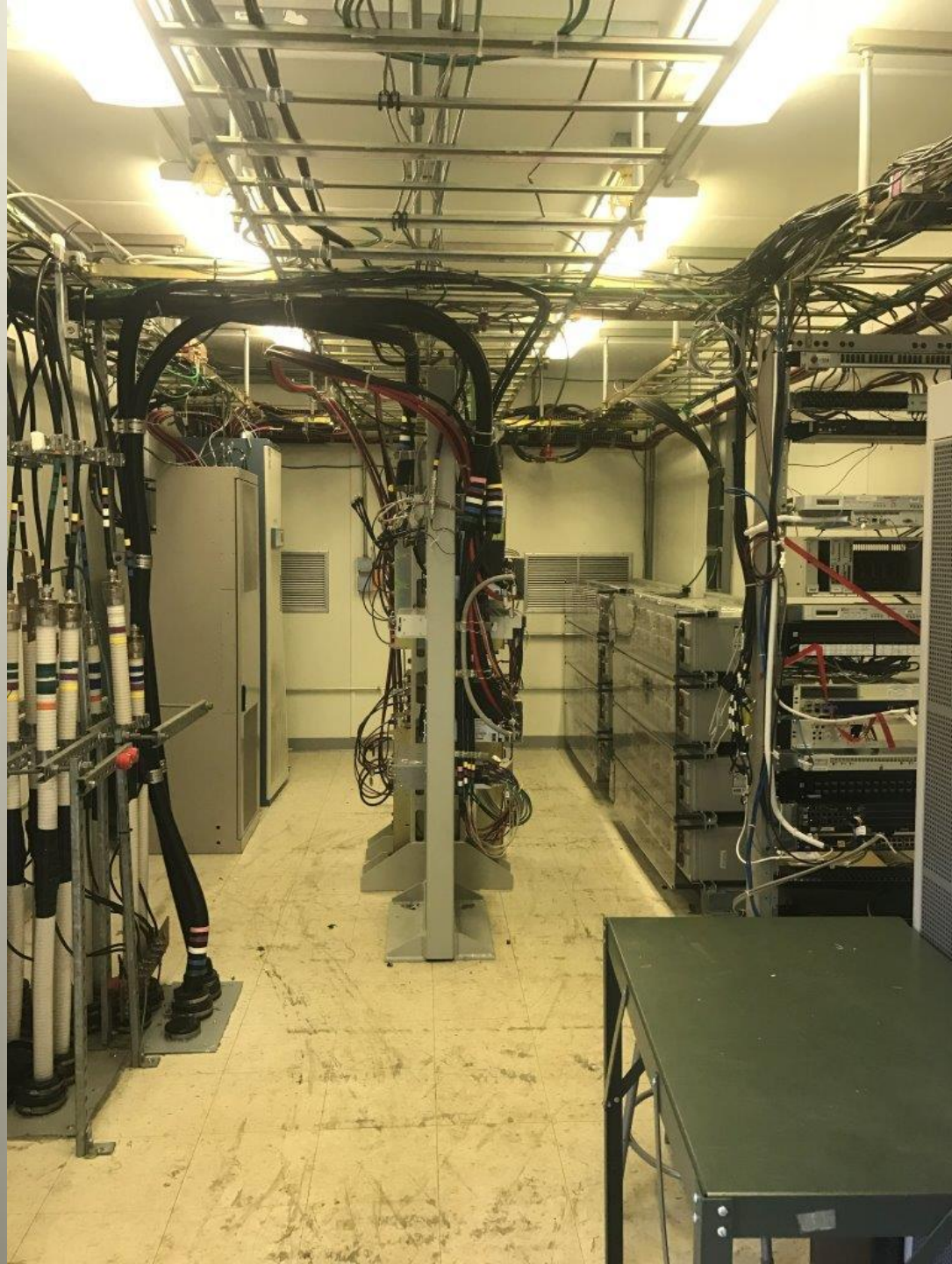
- All work shall comply with applicable OSHA and New York State requirements.
- Excavation around tank foundations and existing water mains may be subject to hand digging.
- During all welding and grinding activities a fire watch will be required. The fire watch shall have an extinguisher and water hose long enough to cover the areas potentially impacted by falling sparks, slag, etc.
- Access to the tank and water production facilities must be maintained at all times. Backfill excavations and/or provide temporary crossing measures as required during operations. Excavations to remain open over night shall be protected by temporary snow fence properly secured. No trenches across driveways shall be left open over night.

SECURITY

- A project representative must be on site during all work performed at the site. The same procedure must be followed each and every day that work is performed at the site:
 1. The representative shall contact the SCWA Production Control Office at 631-665-0663 prior to unlocking the site gate. The padlock shall be locked to the gate to ensure that it is not misplaced. The gate shall be left open to allow unimpeded access to the site by emergency or rescue personnel.
 2. A representative from Squan will maintain card access for this site. At no time shall Contractor enter an open site without authorized Card Holder.
 3. At the conclusion of the workday the site shall be secured:
 - ** access door to tank shall be locked;
 - ** ropes will be removed from the tank;
 - ** trenches will be protected;
 - ** materials will be protected;
 - ** portable toilets will be chained;
 - ** and any other necessary measure to minimize so-called attractive nuisances shall be taken.

Cellular Equipment Shelter







Equipment Pad



SCPD Woodlawn Rd



Retaining Wall



Woodlawn Rd



Type of Water Tanks

Elevated Tank



Ground lease area to Tank



Transition Box



Antenna Sector



Plymouth Street Balcony Handrail



Handrail After Final Coat



Standpipe Tank



I-Beam Gusset



Tube Steel Attachment



Antenna Mast



Pilaster Angle Brackets



Pilaster Wing Brackets



Paint to Match Tank Color



Raptor Visitors



Sphere Tank



Penetration Stiffeners



Penetrations



Coupling Penetrations



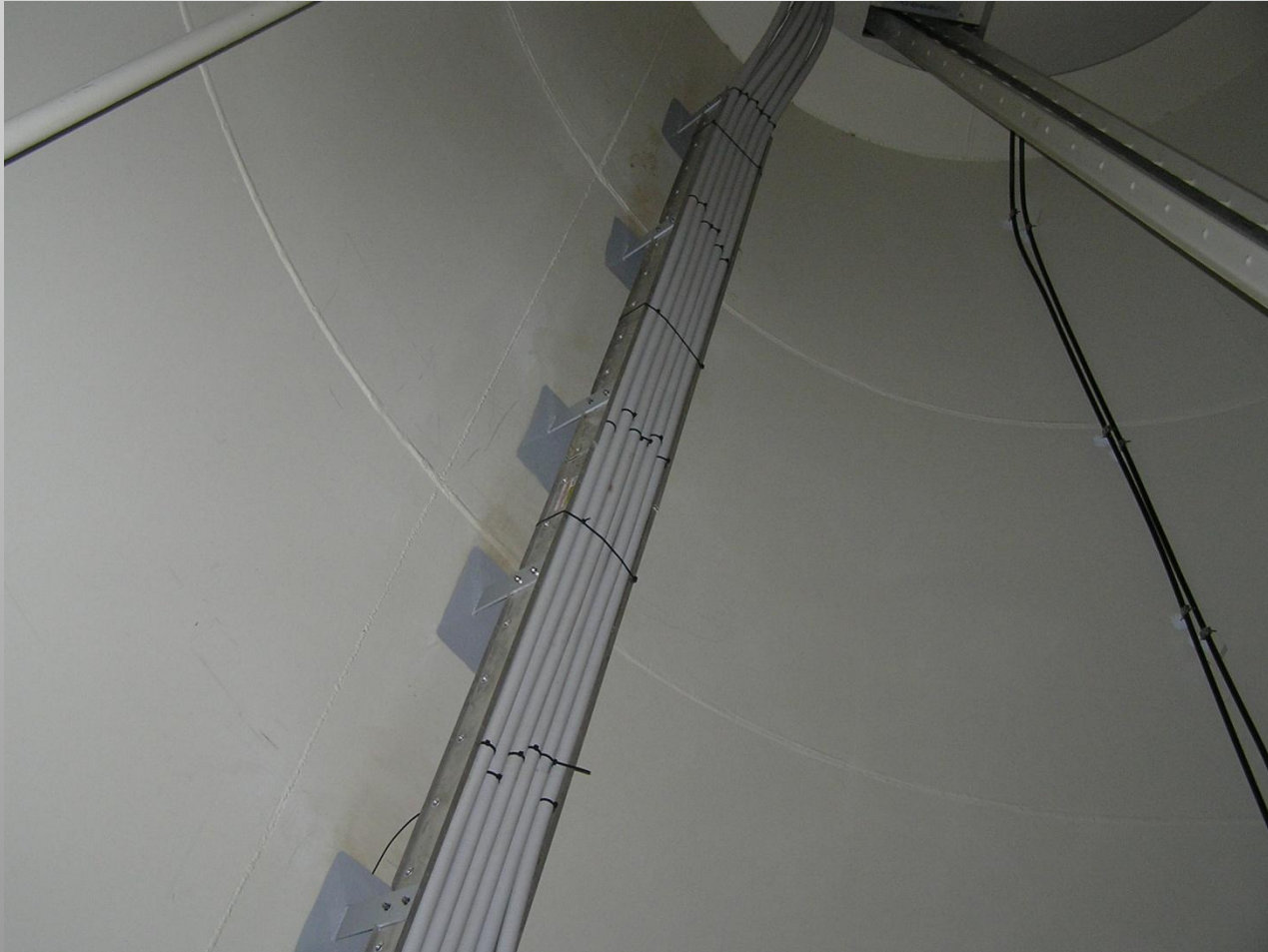
Coax Cable Conduits



Coax Cables



Coax Cable Tray



Fluted Column Tank



Pond Rd Monopole

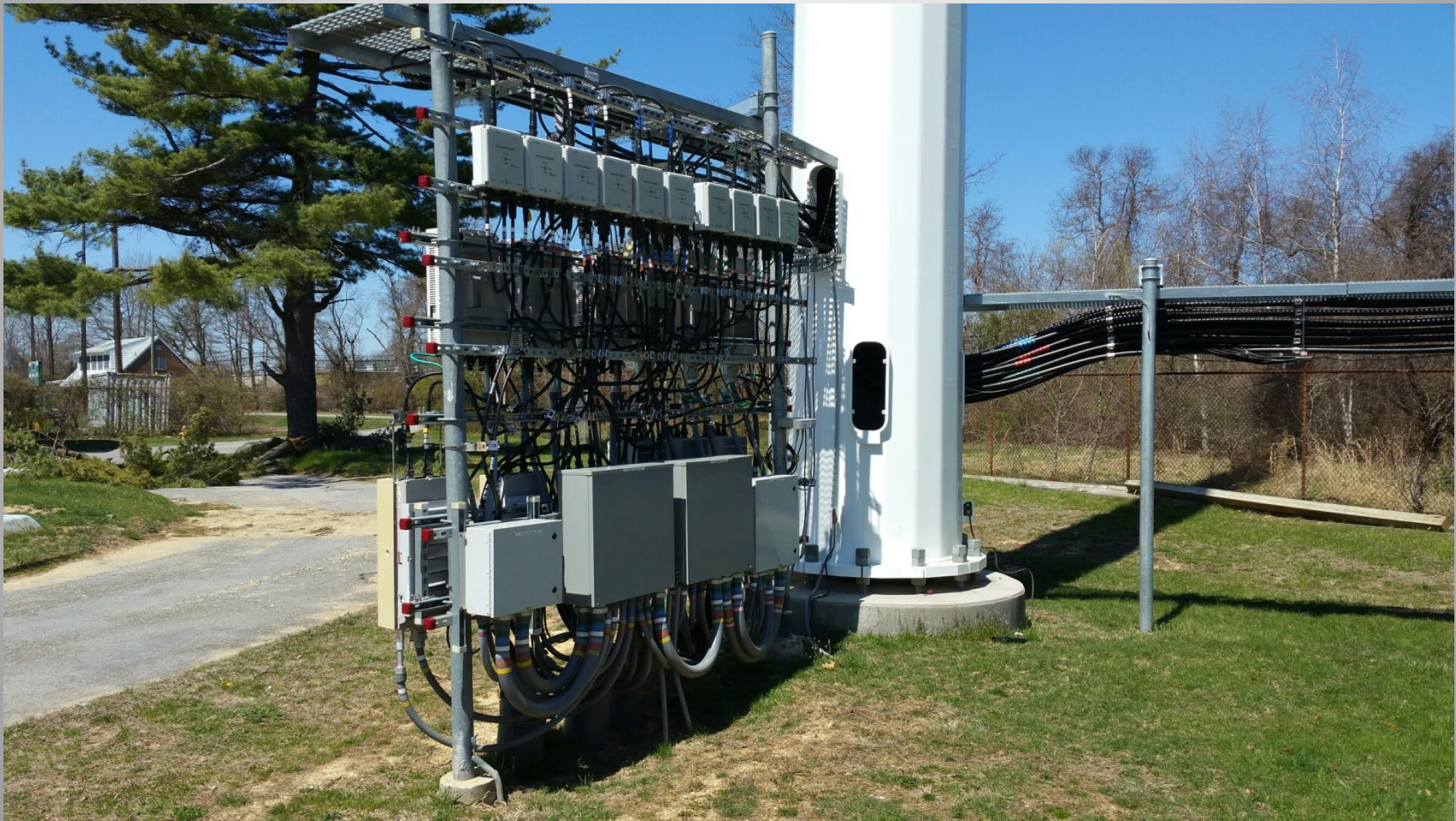


Hawkins Rd Monopole



Third Ave Stealth Monopole







Cell Phone Health Risks

- Some concerns have been raised about the safety of cell phone use with respect to cancer.
- Cell phones give off a form of energy known as radio frequency (RF) waves. The major concern over excessive exposure to RF energy is heating of the human body.

Public Safety Concerns

- Much of the confusion over excessive exposure to RF energy comes from confusion over the two forms of radiation. Think about Hiroshima, Nagasaki, Chernobyl, Three Mile Island, X-rays, and Uranium, and everybody gets concerned.
- Radioactive materials and X-rays generate what is known as *ionizing radiation*, which can be very dangerous. Ionizing radiation kills or mutates human cells.

- In contrast, radio frequency energy are forms of *non-ionizing radiation*. This form of energy can heat tissue when it is concentrated enough and is the principle behind the microwave oven.
- Problems occur with exposure to RF energy when it is so concentrated that your body has a problem dealing with excess heat. The effect is very similar to overexertion.

RF Safety Issues with Cellular Towers

- People have concerns about exposure to cellular energy and the tendency is to equate this as a concern over the antennas on the tower.
- Workers who climb the towers and get very close to the antennas are at a higher risk to be exposed to excessive levels of RF energy.

RF Effects from Cellular Phones versus Tower Antennas

- Once the energy is just a few feet from the antenna, it begins to spread out in 2 dimensions, so the energy level drops off dramatically with distance. The energy level 100 feet from the antenna is only 1 percent of the energy level 10 feet from the antenna.
- The reality is that if there is any RF safety concern with the energy related to cellular phone systems, it is with using the phone itself, not with the energy with the antennas on the tower. The only exception is with workers on the tower who are very close to one or more antennas.

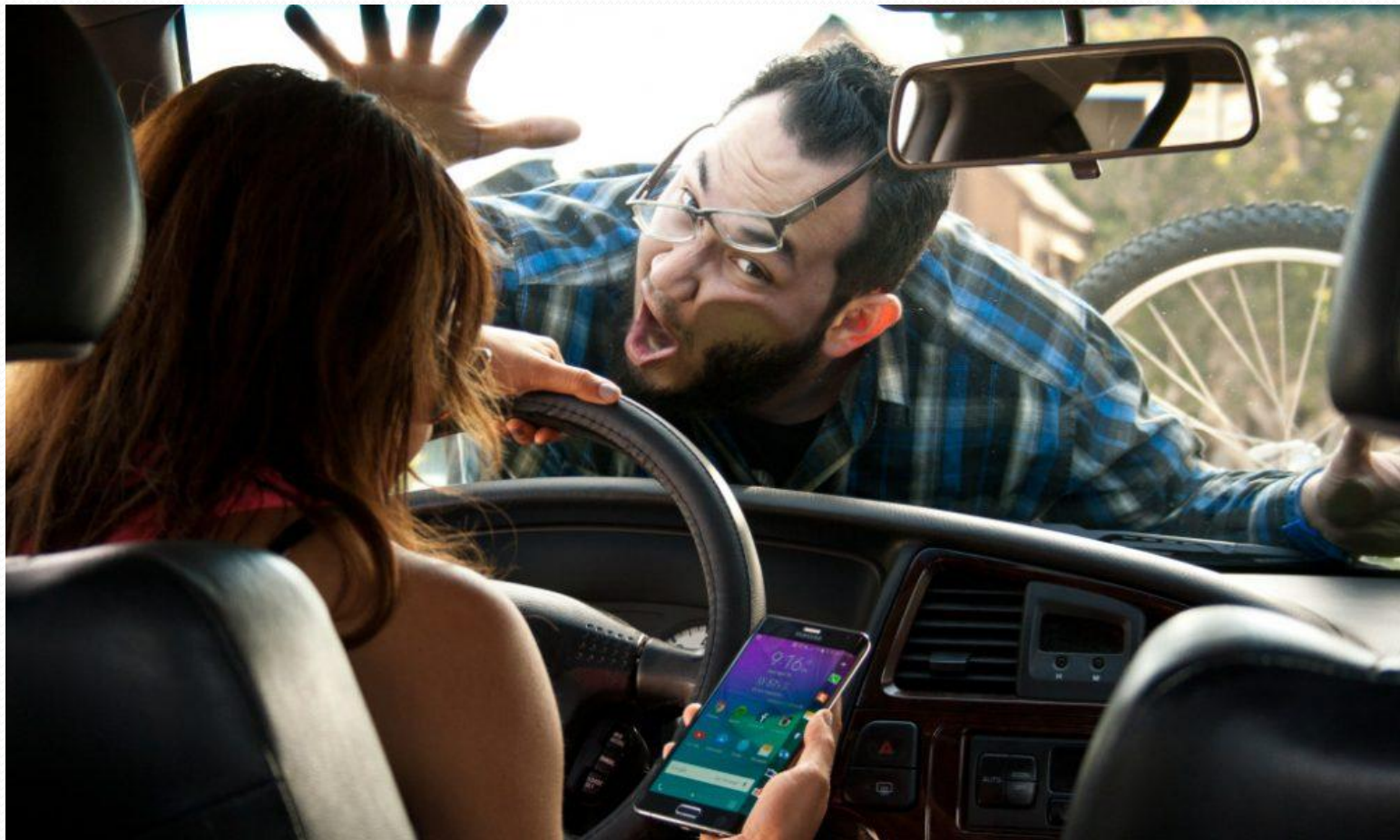
How are People Exposed?

- The RF waves from cell phones come from the antenna, which is part of the body of a hand-held phone. The waves are strongest at the antenna and lose energy quickly as they travel away from the phone. The phone is typically held against the side of the head when in use. The closer the antenna is to the head, the greater a person's expected exposure to RF energy. The body tissues closest to the phone absorb more energy than tissues farther away.
- Many factors can affect the amount of RF energy to which a person is exposed, including:
 - **The amount of time the person is on the phone.**
 - **Whether or not the person is using the speaker mode on the phone or a hands-free device.** Using one of these allows the phone to be held away from the head.

What precautions can I take if I am concerned about RF exposure?

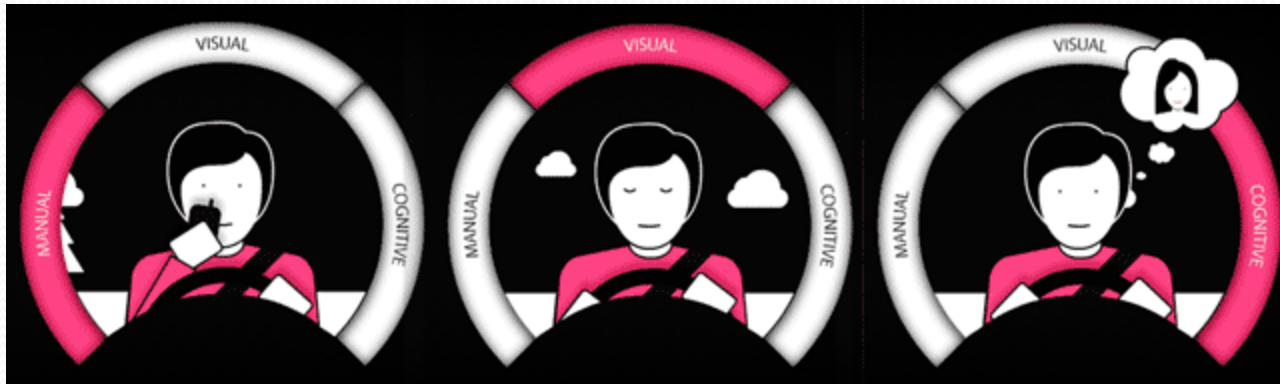
- For people who worry about the risk, health officials offer common-sense advice:
- Spend less time on cell phones.
- Use hands-free devices or speaker mode so that the phone is not pressed up against the head.
- Radiation increases when users are in spots where the signal is poor or sporadic and the cell phone has to work harder to connect.
- Send a text message instead of talking on the phone
- Encourage children to reduce the time they spend on cell phones

TEXTING AND DRIVING IS ILLEGAL!



Three types of distractions:

Manual, Visual and Cognitive.



- Manual distractions are those where you move your hands from the wheel.
- Visual distractions are those where you focus your eyes away from the road.
- A cognitive distraction is when your mind wanders away from the task of driving.

DO NOT TEXT AND DRIVE!



at&t

Your world. Delivered

Sprint



verizon

metroPCS

NEXTEL



10-4

Questions?