

City of San Antonio Digital Inclusion

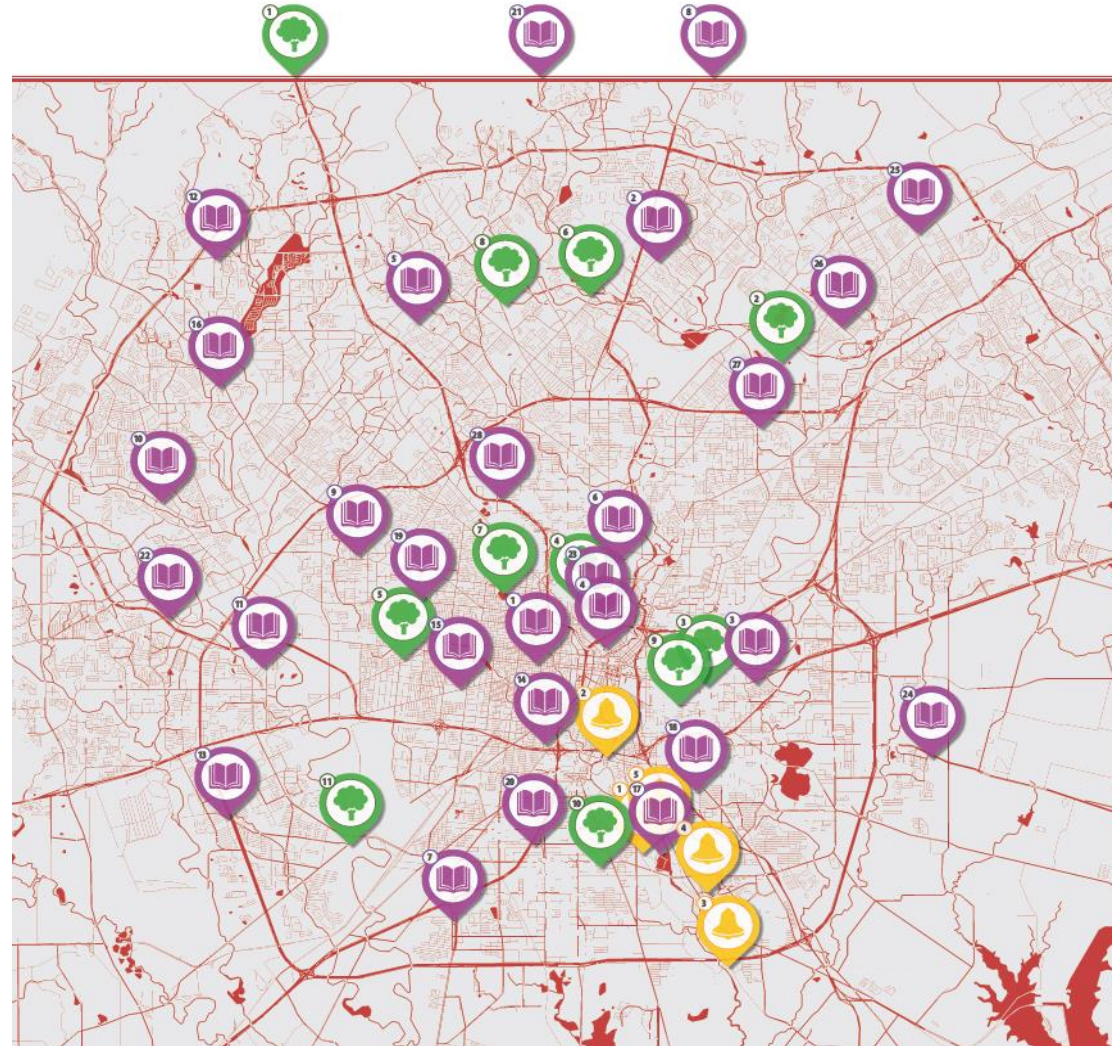


Brian Dillard, Chief Innovation Officer

Digital Inclusion Efforts

- SAFreeWiFi Expansion
 - 29 SA Public Library Locations/Parking Lots
- Hot Spot Distribution
 - NEISD, Edgewood ISD, PreK4SA, COSA Parks & Rec
- Digital Inclusion Funding Support
 - SAISD, SouthSan ISD, NISD, Harlandale ISD, SWISD, Judson ISD
- Virtual Learning Hubs
 - Community Centers
- Digital Connectivity RFCSP – Telecoms/ISPs (**Blackout Period**)
- Connected Beyond the Classroom (CBTC)

SAFreeWi-Fi



Hotspot Distribution



- NEISD – 1,000
- Edgewood ISD - 500
- PreK4SA - 90
- Parks & Rec - 72



ISD Digital Inclusion Funding Support



- San Antonio ISD
- South San Antonio ISD
- Northside ISD
- Harlandale ISD
- Southwest ISD
- Judson ISD



Virtual Learning Hubs



- Copernicus – District 2
- Southside Lions – District 3
- Palm Heights – District 5
- Garza – District 7

A poster for the City of San Antonio Parks & Recreation Virtual Learning Hubs. The poster is divided into sections with a teal background at the top and bottom, and an orange section in the middle. At the top left is the City of San Antonio Parks & Recreation logo. To the right is a red circle with "FREE!" and "REGISTRATION REQUIRED" in white. The main title "VIRTUAL LEARNING HUBS" is in large white letters. Below it, a laptop icon displays "AGES 6+ (ELEMENTARY/MIDDLE/JUNIOR HIGH SCHOOL STUDENTS)". To the right of the laptop, it says "INTERNET ACCESS FOR DISTANCE LEARNING". The middle orange section contains the dates "OCTOBER 5 - DECEMBER 18" and "MONDAY - FRIDAY, 7:30AM - 4PM". To the right of this, it says "LUNCH WILL BE PROVIDED" next to a globe icon. Below the dates, it says "REGISTRATION BEGINS SEPTEMBER 23 AT 6PM" and "TO REGISTER ONLINE AND GET MORE INFO VISIT: WWW.SAPARKSANDREC.COM". The bottom teal section features a photo of children at computers on the left and a list of locations on the right: "AT THE FOLLOWING COMMUNITY CENTERS: • COPERNICUS – 5003 LORD RD • GARZA – 1450 MIRA VISTA • PALM HEIGHTS – 1201 W MALONE • SOUTHSIDE LIONS – 3100 HIAWATHA". At the bottom right are social media icons for Facebook, Twitter, Instagram, and YouTube, with the handle "@SAPARKSANDREC" below them.

CITY OF SAN ANTONIO
PARKS & RECREATION

FREE!
REGISTRATION REQUIRED

VIRTUAL LEARNING HUBS

AGES 6+
(ELEMENTARY/MIDDLE/JUNIOR HIGH SCHOOL STUDENTS)

INTERNET ACCESS FOR DISTANCE LEARNING

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MONDAY - FRIDAY, 7:30AM - 4PM

LUNCH WILL BE PROVIDED

REGISTRATION BEGINS SEPTEMBER 23 AT 6PM
TO REGISTER ONLINE AND GET MORE INFO VISIT:
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- COPERNICUS – 5003 LORD RD
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@SAPARKSANDREC

City of San Antonio Connected Beyond the Classroom

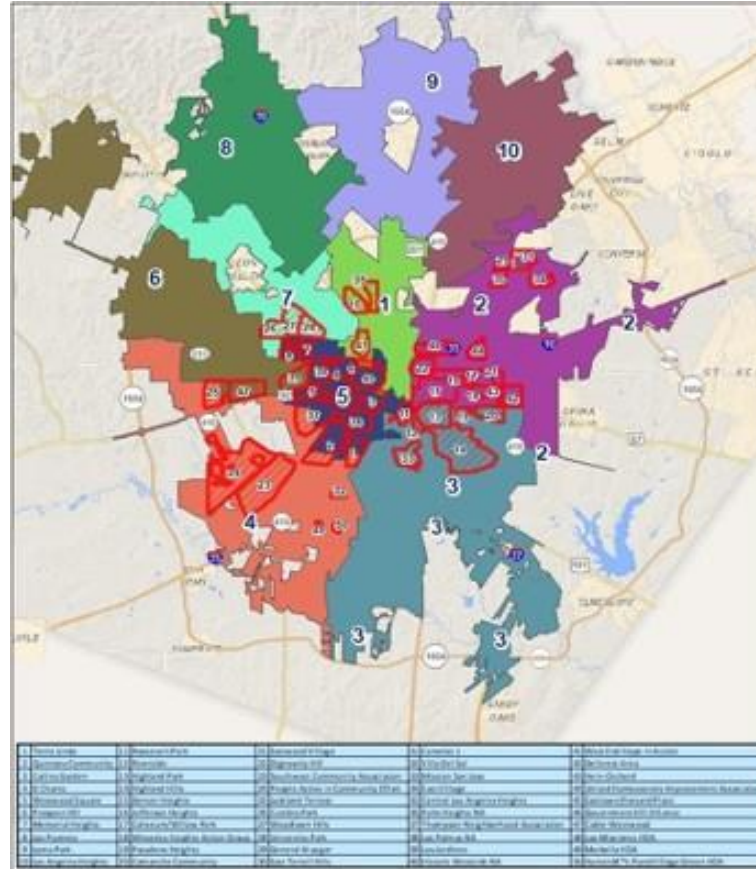


John Rodriguez, Assistant IT Director

Connected Beyond the Classroom (CBTC)



- Provide in-home school system access for up to 20,000 students
- Top 50 Neighborhoods
- Eight ISDs
 - SAISD (24)
 - Edgewood (8)
 - Harlandale (2)
 - South San (3)
 - Southwest (4)
 - Judson (1)
 - North East (3)
 - Northside (5)



CBTC - Updated Timeline



- June 2020 - Business Case Built, 50 Priority Neighborhoods Identified
- July 2020 – Planning with Independent School Districts and Alamo Community College
- August - September 2020–Vendor Bids and Contract Planning
- October -December 2020 – Pilot preparation, assessment, and implementation
- January - May 2021 – Expand to additional neighborhoods within Proof of Concept
- June - December 2021 – Continue expanding to remaining neighborhoods

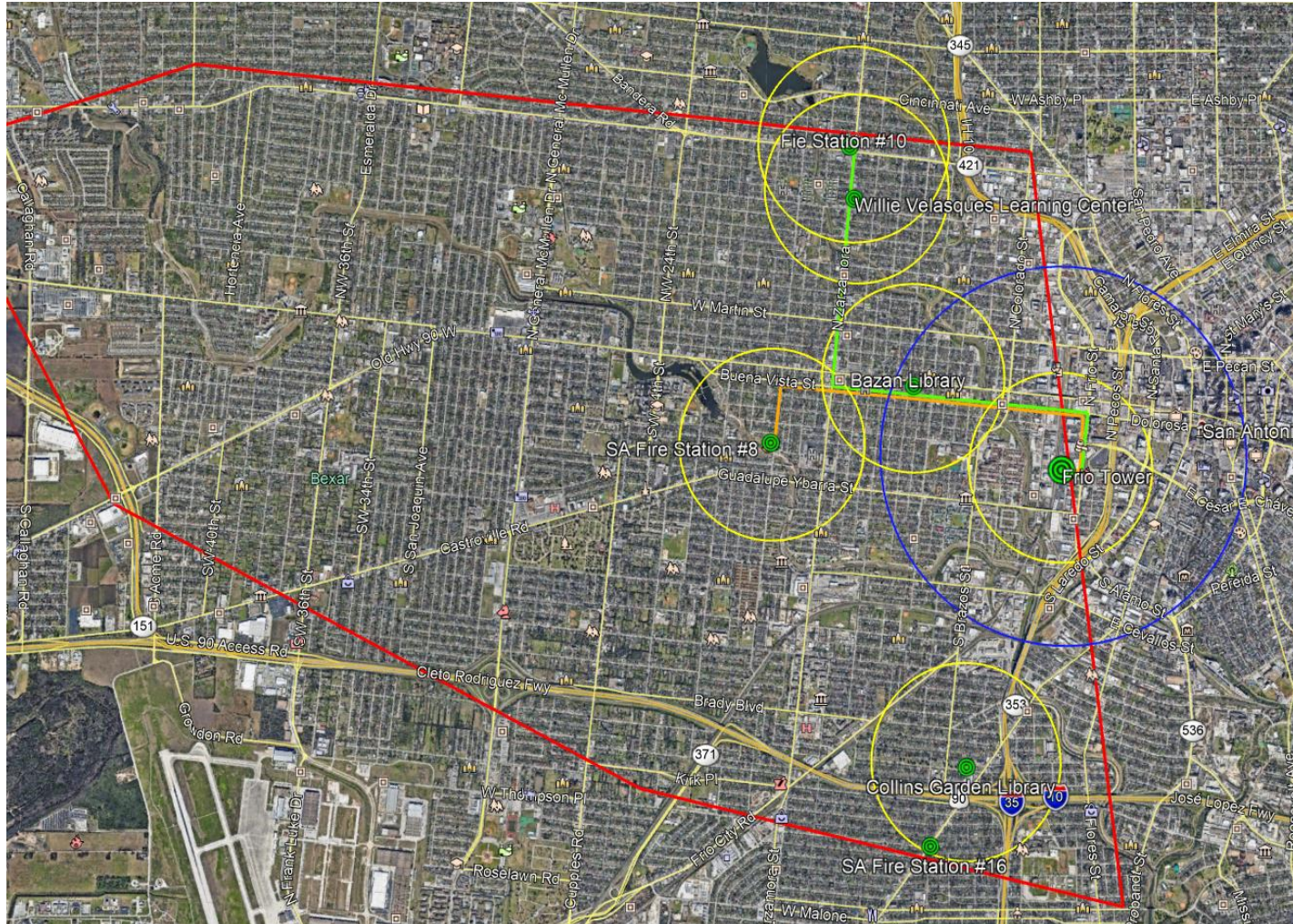
CBTC - Phase 1



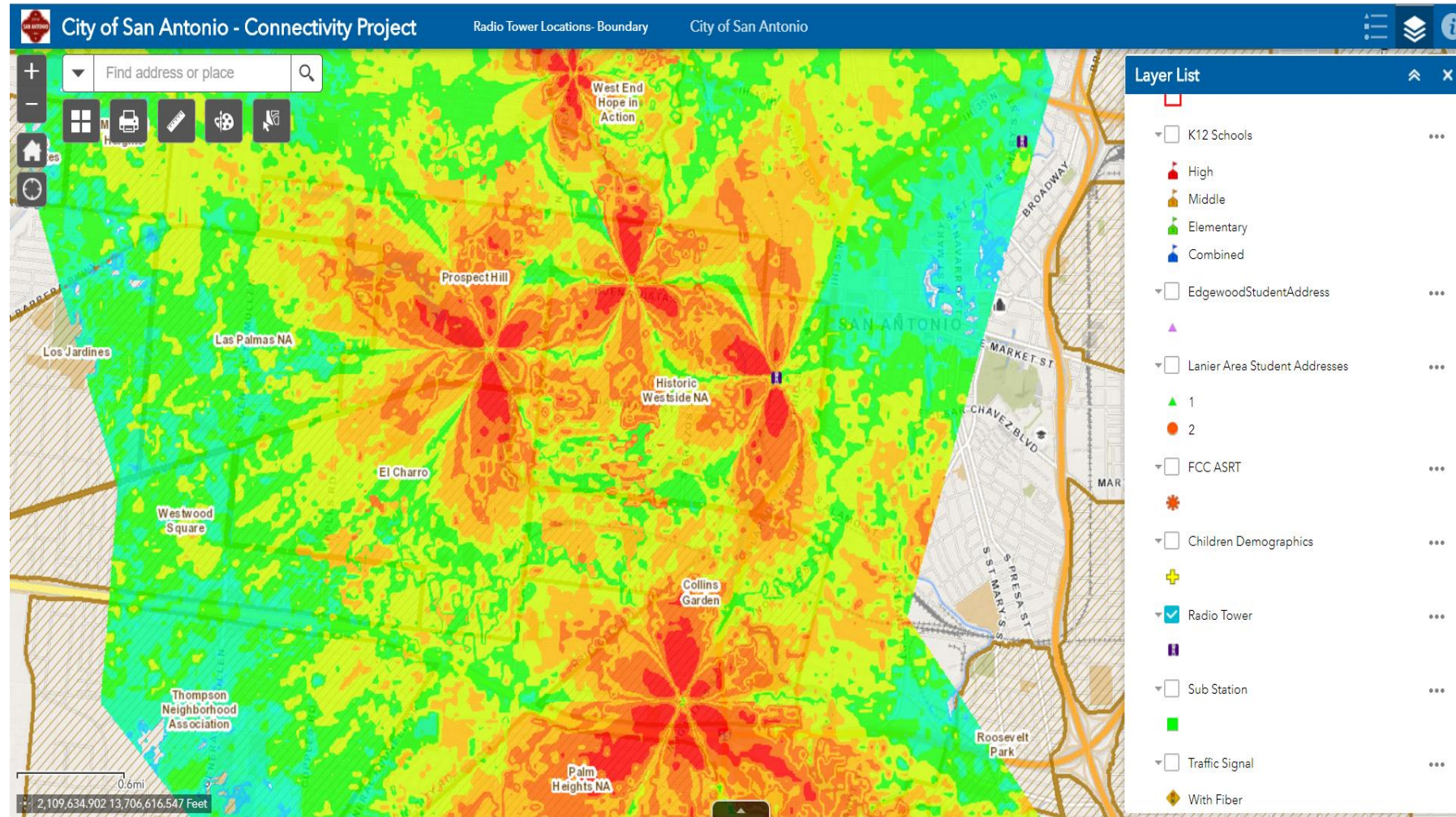
- Pilot (Oct – Dec 2020)



CBTC - Phase 1



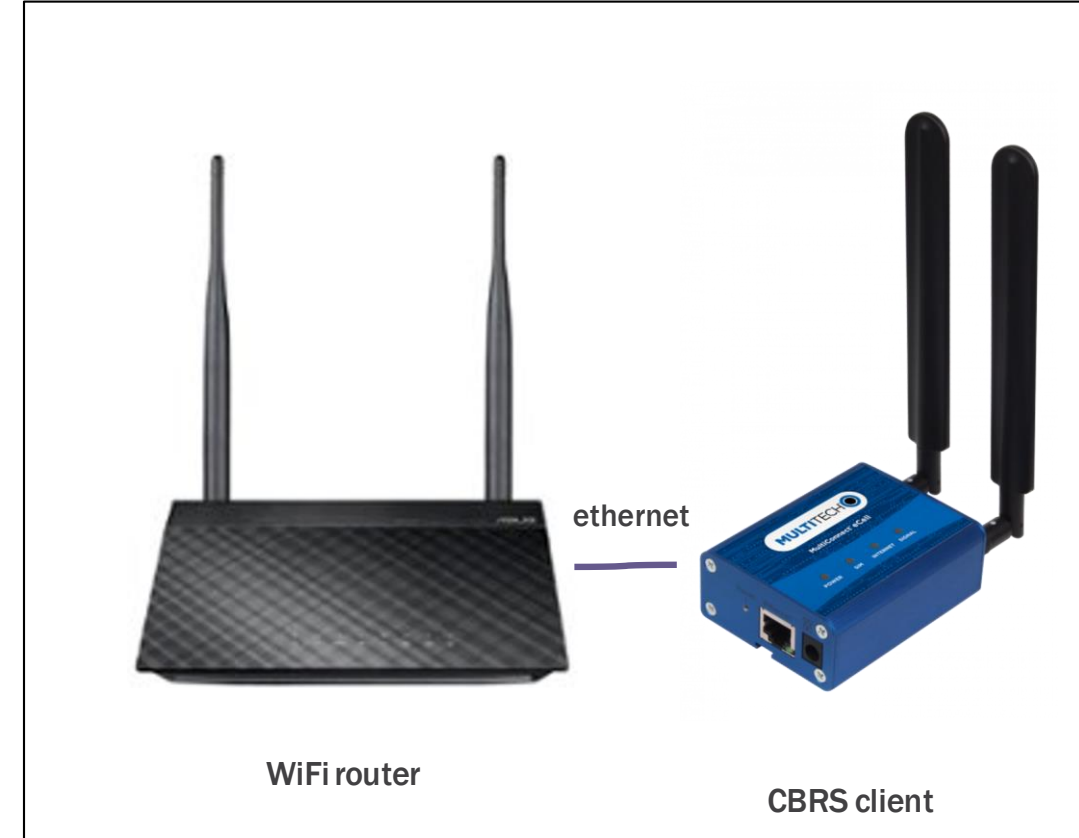
CBTC - Phase 1



Motorola Home Equipment



- CPE (Customer Premise Equipment)
- LTE client that will connect to Nitro network wirelessly
- Off-the-Shelf Wi-Fi Router to connect student devices in the home
- Cat5 Ethernet Connection between Wi-Fi Router and LTE Client



Provided Student Equipment

Key

Parent 2 (attends San Antonio College, login is @alamo.edu)

Child 1 (attends Lanier High, login is @saisd.edu)

Child 2 (attends Las Palmas Elementary, login is @eisd.edu)

SCENARIO : pLTE access to underserved communities, with SIM card authentication to validate access.
Traffic is routed to CoSA Tower for pLTE Packet Core
All traffic is routed out to the Internet for access to Internet based learning resources.



Key



SIM authenticated Access Device
(Solution Provided)

eNodeB Radio



pLTE Packet Core Node
(Private LTE)

1) SIM authenticated Access device connected to WiFi router in home

2) All wireless traffic is sent to CoSA DC over a dark fiber link.

4) All traffic is initially routed to the Internet

3) All traffic is sent to CoSA pLTE Packet Core

5) Users authenticate with their school with their credentials.

Nitro Cloud

Internet

CoSA Data Center

Firewall

pLTE Packet Core

Frio Tower

Dark Fiber Pair
CPS / CoSA

Bazan Branch Library

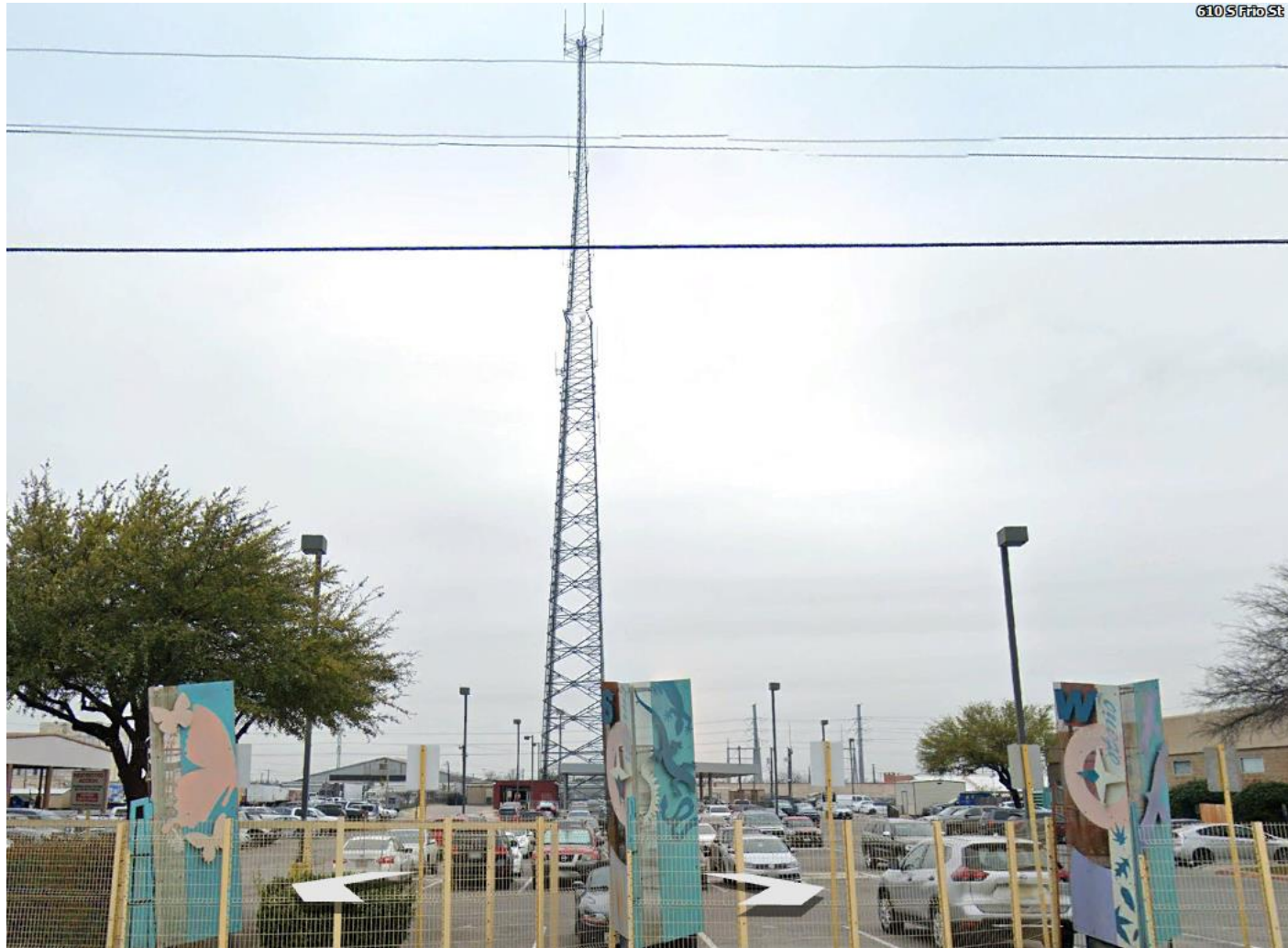
Example Site Install



Leveraging City Facilities



Leveraging City Facilities



CBTC – Phase 2



- Replication of Efforts Expansion of technology
 - Inclusion of remaining neighborhoods
 - Inclusion of remaining school districts
 - Full Deployment
 - Up to remaining 50 high priority neighborhoods

CBTC – Phase 2



- Identify/assess considerations when replicating across other school districts and neighborhoods:
 - E-rate regulations
 - Technology concerns
 - Asset limitations
 - Funding approaches
 - Sustainability measures
- Project Timeline (fiscal year): Q2 2021 – Q4 2021

Current Digital Inclusion Efforts

- SAFreeWiFi Expansion
 - 29 SA Public Library Locations/Parking Lots
- Hot Spot Distribution
 - NEISD, Edgewood ISD, PreK4SA, COSA Parks & Rec
- TEA Funding Match (Operation Connectivity)
 - SAISD, SouthSan ISD, NISD, Harlandale ISD, SWISD, Judson ISD
- Virtual Learning Hubs
 - Eight Community Centers
- Digital Connectivity RFCSP – Telecoms/ISPs (**Blackout Period**)
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City of San Antonio – Digital Inclusion



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