

## GREATER WACO TELECOMMUNICATION INFRASTRUCTURE

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Waco's local and wide area network is comprised of:

- The largest privately owned fiber architecture in Texas.
- Redundant "Texas Ring" for intra-state and inter-state transport with up to a 10GB capability and endless bandwidth.
- A fiber backbone that runs through the heart of Waco
- Multiple 10GB IP backbones
- Numerous Points of Presence that connect to the fiber backbone and all over Texas
- 9 redundant Hub sites that supports, Transparent LAN Services, VOIP, MPLS transport, Metro Ethernet, and DOCSIS.
- DMS 500/ Tekelec soft switches
- SONET based Long Haul dedicated Capacity and access to Mexico
- Opportunities to co-locate
- 1250 Coax Plant miles that supports cable modem, digital & HD services, and telephone services
- Multiple internet, phone, cable and wireless service providers
- Large work pool of telecommunication professionals, educated workforce, and experienced data center and call center personnel are just some of the assets found in the Greater Waco community.

The Greater Waco Chamber of Commerce will work with any potential businesses to determine their needs and assure that access is available to any location. Please contact Sarah Roberts [sroberts@wacochamber.com](mailto:sroberts@wacochamber.com) or Scott Connell [sconnell@wacochamber.com](mailto:sconnell@wacochamber.com) for more specific site information.

## GREATER WACO WIRELESS INFRASTRUCTURE

There are approximately 80 wireless communication towers in the Waco area (Map1).

Approximately one half of these support the six cellular carriers active in the Waco market (Table 1). AT&T has the most extensive infrastructure with 15 facilities. It should be noted that not all of these facilities are located on towers. Some are co-located on rooftops, water towers, and other structures. Multiple carriers may collocate on a single tower, so each facility in Table 1 does not represent a unique tower.

**Table 1. Wireless facility counts for Waco area cellular carriers**

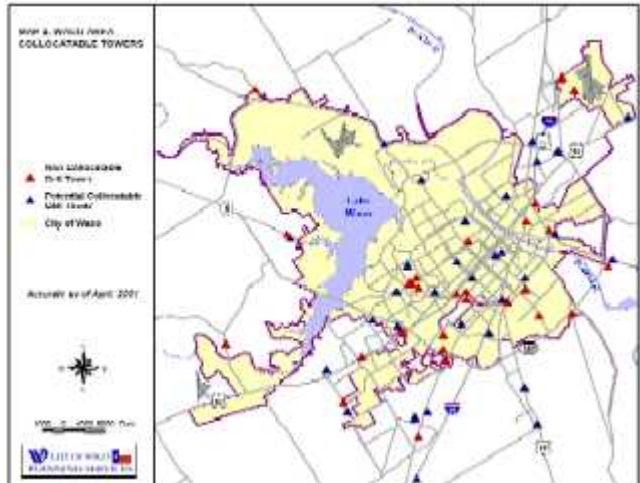
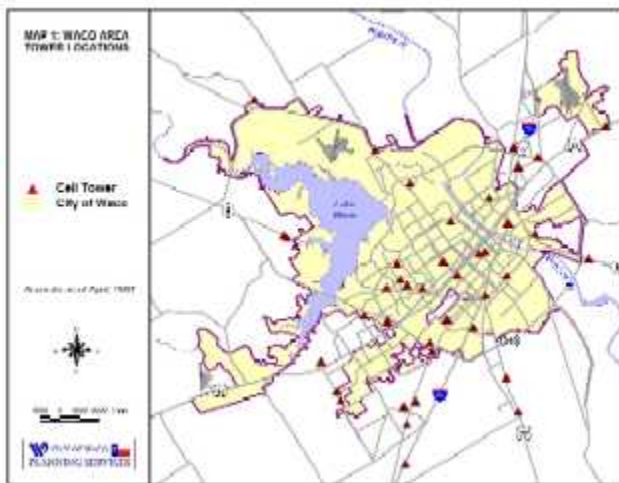
Carrier	Number of Facilities
Alltel Communications	8
AT&T Wireless	15
Cingular Communications	*
Nextel Communications	6
Sprint PCS	*
Verizon Wireless	5
Voice Stream Wireless	6
<b>Total</b>	<b>40</b>

\*Carrier elected not to provide data for study

There are 34 collocatable towers in the Waco are (Map2). Only nine of the 34 towers have room for multiple co-locations. Towers that will accept multiple carrier collocations are concentrated in the downtown area, the IH-35 corridor, and along south Loop 340.

**Map 1 - Existing Wireless Support Structures Inventory**

**Map 2- Collocatable Support Structure Inventory**



## **COVERAGE DEFICIENCIES**

The Coverage Deficiency Map (Map 3) depicts those areas most likely to require additional support structures for wireless facilities. The greatest deficiencies exist in western portion of the study area, including the China Spring and the Highway 84 Corridor areas of Waco.

The consultant identified four areas within the City with coverage deficiencies as a result of this study (see Map 3).

1. Northwest Waco, along China Spring Road, west of the Waco Regional Airport. The recommended height is 199 ft at an approximate elevation of 550 ft. There are several commercial properties and municipal facilities that could be good tower sites.

2. North Waco, at the northeast intersection of Steinbeck Bend drive and Lake Shore Drive. The recommended height is 199 ft. at an approximate elevation of 420 ft. There are several properties with industrial zoning at this location, which would be suitable.

3. Southwest Waco, along Highway 84, west of Woodway. The height would depend on the proximity to the McGregor Regional Airport. The approximate ground elevation should be 550 ft. There is industrial zoned land and several suitable commercial properties that would make a good site.

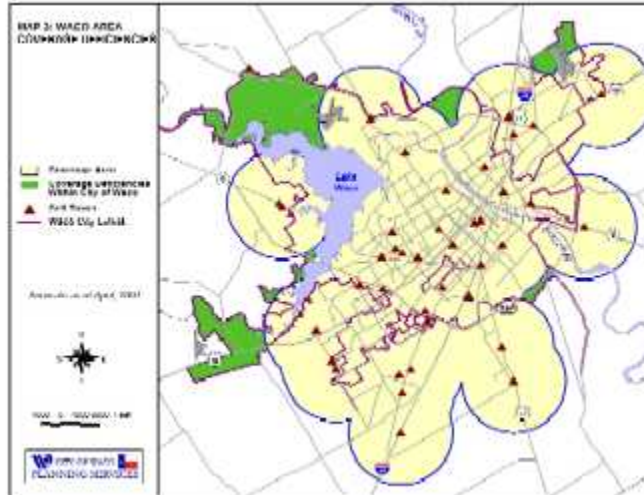
4. East Waco, along E. Loop 340, South of Bellmead. The recommended height is 199 ft. at an approximate elevation of 475 ft. There is industrial zoned property and several commercial uses along E. Loop 340 where a tower could be built.

## **PREFERRED LOCATIONS FOR FUTURE INFRASTRUCTURE**

While these areas have been identified as deficient, the City recognizes that additional cell sites will be needed for both coverage and capacity problems. The City also recognizes that a properly designed tower can support cell sites of many carriers and can serve as both coverage and capacity sites depending on the needs of the individual carrier.

In order to promote the responsible placement of new cell sites, the City has determined that co-location should be promoted whenever possible. Towards that end, the permitting process for any co-location on an existing structure will be expedited. The City also understands that co-location is not always possible and has identified certain zoning classifications and uses that are deemed compatible with new towers. Where a need for a new facility can be shown, location in these zones will have a lower regulatory threshold. Any new facilities in these areas must be designed to maximize potential co-locations.

**Map 3- Coverage Deficiencies**



**WACO AREA WIRELESS STRUCTURE INVENTORY**

Structure ID	Carrier Present	Site Name	Address	Site Elevation	Tower Height	Tower Type	Potentially Collocatable
1		TX DPS	1617 Crest				
2		TSTC Water Tower	TSTC Campus				
3	Yes	Trinity Tx 00031	8320 US Hwy 84		180	MONO	Yes
4	Yes	BTSP 165	1618 Old Dallas		150	MONO	Yes
5		TX DOT SITE 86	86 I-35				
6	Yes	American TX 9271	Oak Farms Dist. Center 1100 Faulkner		200	GUYED	Yes
7	Yes	Alltel 35 DX Wacxo			150	SS	Yes
8		Citgo Tower	1424 Hwy 6	425	120	GUYED	
9	Yes	American Tower TXP 140 4294	Hwy 6 M&M Trucking	433	150	SS	Yes
10		Central Link Paging	2607 S. 12th				
11		Brazos Electric	2404 LaSalle				
13	Yes	AT&T East Waco	2001 Marlin Hwy at Hwy 6		120	GUYED	Yes
15	Yes	BTSP 166	I-35 at the circle	464	150	SS	Yes
16	Yes	Unnamed	I-35	552	150	SS	Yes
17		Channel 25 Tower	Bagby Street				
18		AT&T VA Hospital	1425 Princeton Ave. FCC 1206060		200		
19	Yes	AT&T #93	1425 Princeton Ave.		80	MONO	Yes
20	Yes	Spectra Site TX 00121FC1207412	2101 W. Loop 340		150	SS	Yes
21	Yes	AT&T Hewitt #46	Richey 700' North of	801	150	SS	Yes

			Chapel				
22	Yes	Spectra Site #Tx0001	2454 Richey	698	200	SS	Yes
23	Yes	Unnamed	309 Sun Valley	642	160	SS	Yes
24	Yes	Alltel 1057209	309 Sun Valley		200	GUYED	Yes
25	Yes	Pinnacle 0165017	300 Old Temple				Yes
26	Yes	American Tower 9244	S I-35		220	GUYED	Yes
27		Unnamed	S I-35				
28		Fox 44 TV	8803 Woodway				
29		KWTX	6700 American Plaza				
30	Yes	American Tower Waco #3 TX 7010	KWTX Radio 314 Hwy 6		350	SS	Yes
31		Unnamed	6100 Woodway Drive				
33		Terrell Alarm	1511 Lake Air		300	SS	
34	Yes	AT&T	Bosque and Lake Air				Yes
35		County Radio System	Fairgrounds				
36	Yes	Pinnacle 0165018	1200 N. 46th Street		100	GUYED	Yes
37		Central Link Paging	200 S. Valley Mills				
38		Arnold Oil	3620 Franklin FCC 1053597				
39	Yes	Franklin Site 52/1002650	4949 Franklin		250	SS	Yes
40	Yes	Spectra Site 0009	216 S. 26th Street		120	SS	Yes
41		John W. Erwin Construction	212 S. 22nd Street 817- 756-6111				
42	Yes	AT&T Central	800 Webster at 400 8th Street		225	SS	Yes
43	Yes	Unnamed	307 S. 11th Street		200	SS	Yes
44	Yes	AT&T North Waco	1300 Herring	544	200	MONO	Yes
45	Yes	Unnamed	2508 1/2 25th Street		100	MONO	Yes
47		AT&T Richland Mall	5635 Franklin Ave.				
49	Yes	AT&T Lakeshore site 54	Rear of 2025 N. 44th St.	658	170	MONO	Yes
50	Yes	Verizon Waco	1400 College at McLennan Community College		80	MONO	Yes
52	Yes	AT&T Site 66	Woodway American Plaza		200	MONO	Yes
53	Yes	AT&T Lake Waco	Speegleville at McLaughlin			MONO	Yes
54	Yes	AT&T Site 86 at Bellmead & I-35	Bellmead & I-35			MONO	Yes
55		Unnamed	500 S. 32nd Street by Hart Patterson Stadium				
56		Renschlers Communicaiton	600 W. Valley Mills				
58	Yes	AT&T China Springs Site 89	12200 China Springs	595	120	MONO	Yes
60	Yes	AT&T Valley Mills Site 89	1625 N. Valley Mills		130	MONO	Yes
61	Yes	AT&T Baylor	927 LaSalle		190	MONO	Yes

63	Yes	Siren Tower	1406 Princeton Ave.		100	MONO	Yes
64	Yes	Schaeffer & Assoc.	209 Sun Valley		300	GUYED	Yes
65	Yes	Alltel KNKA 422	503 Robinson	527	170	MONO	Yes
66		Twin Towers	Highway 6				
67		Four Towers	Highway 6 at Loop 340				
68	Yes	Spectra site 0014	801 S. Robinson		225	SS	Yes
69	Yes	Sprint	Loop 340 at Roller Way		130	SS	Yes
70		Unnamed	4009 Old Marlin				
71	Yes	Trinity Tx 0029	China Springs at Steinbeck		200	MONO	Yes
72		Lorena Microwave	Pilgrin Rd.		200	SS	
73		Time Warner	Factory Dr.				
74		St. Catherine's Hospital	18th & Colcord	576			
75		TX DPS	Gholson & Loop 340				
76	Yes	Alltel	32 Woodway	782	200	SS	Yes
77	Yes	Verizon	McLaughlin at Speegleville	607	120	MONO	Yes
78	Yes	AT&T	7703 Bagby	664	140	MONO	Yes
SS= Self Supporting Tower      Guyed= Guyed Tower      MONO= Monopole							

Source: City of Waco