

A 21st Century Plan for Connectivity

The City of Lansing, Michigan
Comprehensive Telecommunications Plan



Shatao, Jen, Pete, Jake, Jana, Kevin

Introduction



Our Project

- Client:
 - Bill Rieske and the City of Lansing Planning Department
- Project:
 - To create a Comprehensive Telecommunications Plan to facilitate cellular tower siting

Overview

- General issues
- Wireless coverage
- Tower siting challenges
- Recommendations
 - Proposed Model Wireless Telecommunications Ordinance
 - Other recommended actions

General Issues



General Issues

- Most local ordinances fail to address tower siting
- Residents and providers conflicting priorities
- Telecommunications Act of 1996
 - Ensures coverage
 - Backs FCC regulations
 - Protects competition among providers

Wireless Coverage in Lansing

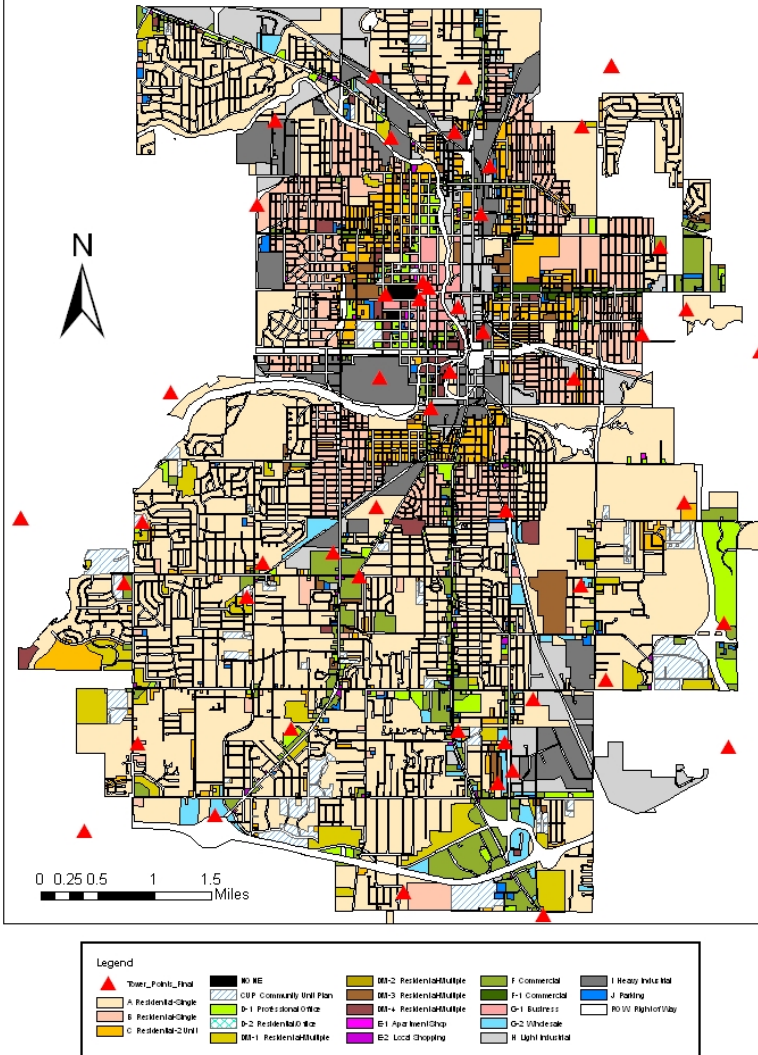




General
Issues

Wireless
Coverage

Current Lansing Tower and Zoning Map



- Towers in all zones
- Higher concentration in the northern half
- Less dense in the southern half

General
Issues

Wireless
Coverage

Tower Siting Challenges



Public Resistance

- Aesthetics
 - NIMBY (Not In My Backyard) response
 - Stealth towers



General
Issues

Wireless
Coverage

**Siting
Challenges**



- Stealth towers are more expensive to build

- May reduce the tower review and approval process by gaining community support



General
Issues

Wireless
Coverage

Siting
Challenges

Public Resistance

- Health concerns
 - RF emissions
 - American Cancer Society
 - FCC exposure guidelines



General
Issues

Wireless
Coverage

Siting
Challenges

Current Tower Siting Process

- Zoning Ordinance does not address cellular tower facilities.
- Siting a tower requires a special land use permit.



General
Issues

Wireless
Coverage

**Siting
Challenges**

Recommendations



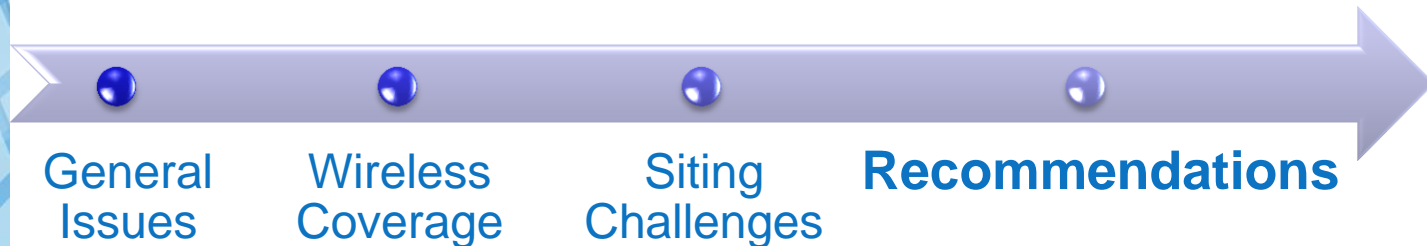
Coverage Goals and Improving Services

- Pro-active role
- Lansing's Goals
 - Providing full coverage and improving services
 - Siting on public land

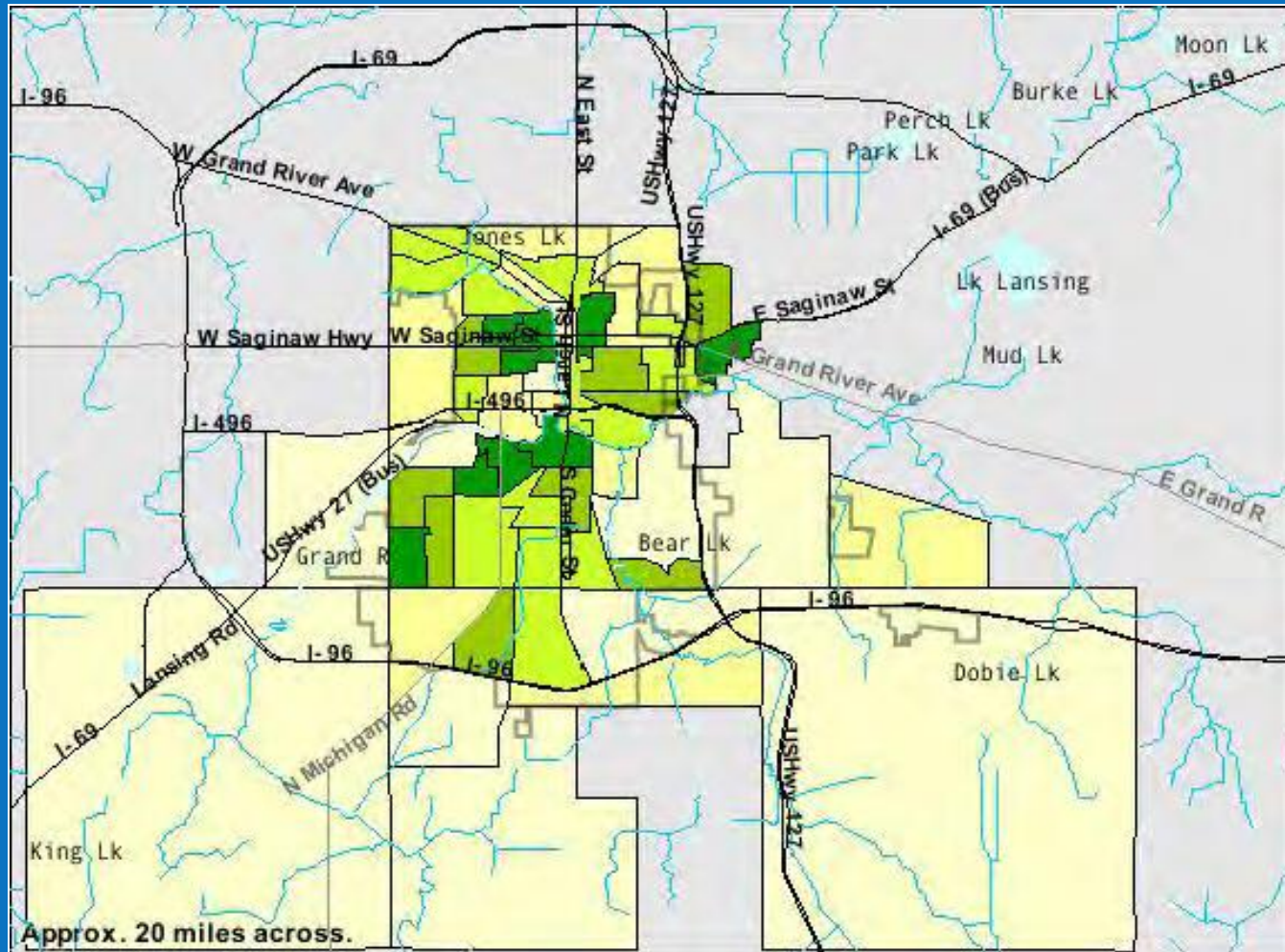


Coverage Goals and Improving Services

- Providers choose location
- Number of new towers related to capacity
- Lansing can get an idea of future development looking at density



Population Density



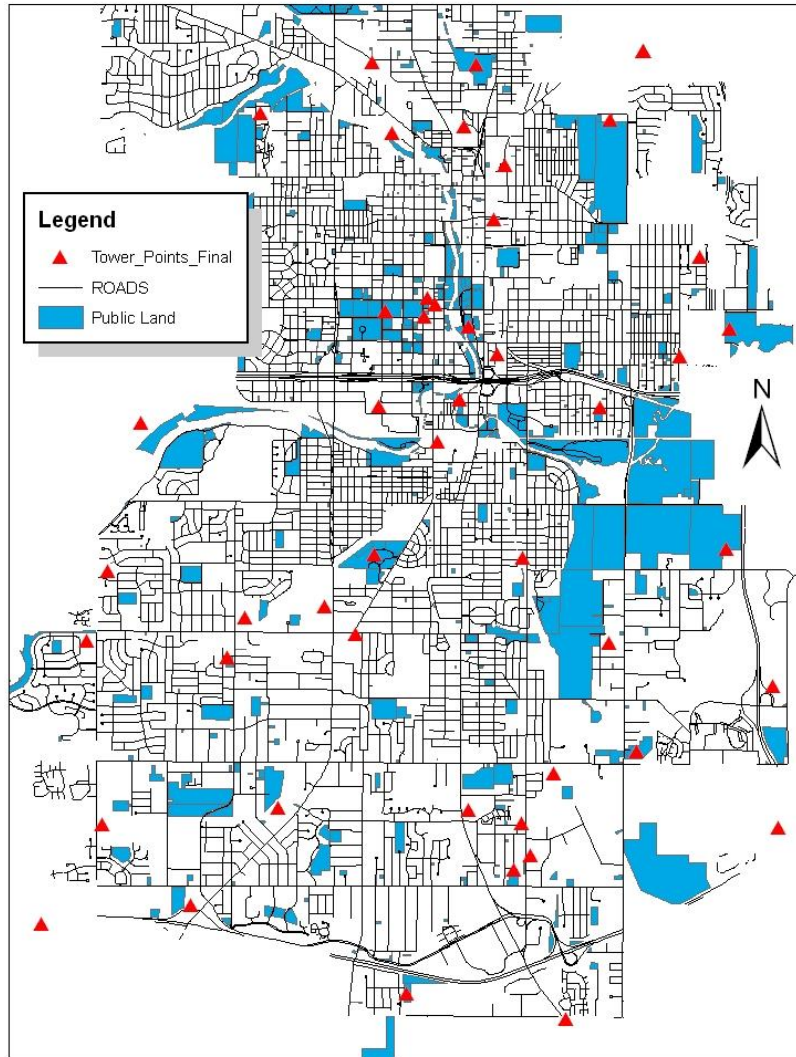
General
Issues

Wireless
Coverage

Siting
Challenges

Recommendations

Lansing's Public Land Map



- If wireless companies experience too much difficulty siting on public land, they may locate on private land instead
- Lansing may encourage companies to build on public land by offering a lease price that is competitive with the private sector market rate

General
Issues

Wireless
Coverage

Siting
Challenges

Recommendations

Proposed Model Ordinance

- Based on Telecomm. Act and other communities' policies
- Promotes adequate and reliable telecommunications service provision
- Minimizes aesthetic and safety concerns



General
Issues

Wireless
Coverage

Siting
Challenges

Recommendations

Model Ordinance: Administrative Review and approval process

- New support structures lower than 60 feet in any district
- New support structures as tall as 199 feet in any industrial district
- Stealth towers in any district

General
Issues

Wireless
Coverage

Siting
Challenges

Recommendations

Model Ordinance: Aesthetic Standards

- Design standards
 - Unobtrusive colors
 - Co-location



General
Issues

Wireless
Coverage

Siting
Challenges

Recommendations

Model Ordinance: Aesthetic Standards

- Visual impact requirements
 - Lighting and marking
 - Commercial signage
 - Landscaping



General
Issues

Wireless
Coverage

Siting
Challenges

Recommendations

Model Ordinance: Safety Provisions 1

- Setback and height regulations
 - Residential setbacks
 - Heights may not exceed 150 feet in residential districts
 - Heights may not exceed 199 feet in non-residential districts

General
Issues

Wireless
Coverage

Siting
Challenges

Recommendations

Model Ordinance: Safety Provisions 2

- Must comply with all current FCC RF emission regulations
- Must adapt to any new emission laws
- Base facilities surrounded and secured by a fence



General
Issues

Wireless
Coverage

Siting
Challenges

Recommendations

Model Ordinance: Abandonment and Removal

- Existing towers not in use for 120 days are considered abandoned
- Abandoned towers must be removed within 90 days



General
Issues

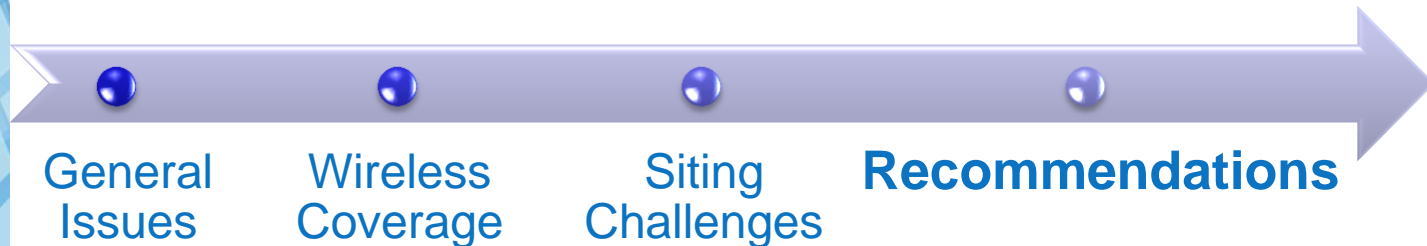
Wireless
Coverage

Siting
Challenges

Recommendations

Other Recommended Actions

- Initiate dialogue with the Lansing School District
- Encourage neighborhoods to create potential tower site plans
- Provide information about towers on the City's website



Questions?

