

# Enhancing **Wireless Coverage** in the Twin Cities

## Wireless Usage

- **Wireless Penetration in the U.S.**
  - June 1995 – 11%
  - June 2000 – 38%
  - June 2005 – 69%
  - June 2007 – 81% *www.ctia.org Sept 2007*
- **Currently, over 84% of all Americans subscribe to a mobile device.**
- **It took more than 90 years for landline telephone service to reach 100 million consumers. It took more than 21 years for color televisions to reach 100 million consumers. It took less than 17 years for wireless to reach 100 million consumers.**

*www.ctia.org June 2007*



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## Landline Replacement

- **60% of all cell phone calls are made at home.** *USA Today, 4-23-07*
- **Adoption of landline phone services peaked in 2001 with 127 million customers. Since then, the number of landline customers has steadily decreased to 107 million in 2005.** *FCC Telephone Service Study 2007*
- **In 2006, U.S. Government statistics indicated 13.6% of wireless customers rely exclusively on their cell phone as their only phone – they’ve “cut the cord” and gone entirely wireless.**
- **During the last 3 months of 2006, half of the U.S. residents who moved households didn’t reconnect their landlines.** *Telephia Communications Survey 2007*



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## Safety Enhancement – E911

- As of June 2007, there are over 291,000 E911 calls made every day via wireless device in the U.S. *www.ctia.org Feb 2008*
- Roughly half the 9-1-1 calls made in the U.S. today come from a cell phone. *National Emergency Number Association*

## The Future of Wireless

- “3G” High speed data networks and devices are out there. Unless networks expand to keep pace with increasing consumer demand, consumers may experience dropped calls, poor call clarity, and spotty coverage.



# Evolution of Tower Design Original Cellular and PCS Networks built out in the late 90's with Monopole and Self-Support Tower Designs.



# Low profile/Stealth Tower Designs



75' Canister Pole – Stillwater, MN

# 75' Canister Pole with Lights for Park – Apple Valley, MN



# Stadium Light Pole – Flag Pole



# 75' Church Bell Tower – Similar Design in Bloomington, MN



# Low Profile Cluster mount on Light Pole – Bloomington, MN



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## Development Challenges

- **Most wireless facility ordinances were passed in the mid-to-late 90's and significantly restrict sites in residential areas.**
- **Only viable options were water tower co-locations or building rooftop co-locations.**
- **Viable options in residential areas could be church and school campuses or park sites with athletic fields.**
- **Using municipal sites can provide an additional source of revenue.**
- **Having 'rock solid' wireless coverage in residential areas is a benefit to your citizens while also enhancing E911 safety.**

