

Challenges and Solutions In Local Zoning

Connecting South Dakota: Wireless Technology

September 18, 2007

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Top Two Issues in Local Wireless Regulation

- **Accommodating Site Location and Design Needs**
- **Striking an Appropriate Regulatory Balance**

Accommodating Site Location & Design Needs

Site Location

- Rural vs. Urban / Coverage vs. Capacity
 - In rural locations coverage for sparsely populated areas and lightly traveled roads is provided by widely spaced tall towers. There is generally greater flexibility in location selection.
 - In densely populated urban areas most new sites are primarily for capacity relief as increased usage outstrips the ability of adjacent sites to handle the growth in call traffic. These sites must be positioned precisely relative to a provider's existing sites and there is little flexibility in location selection.
- Parcel Specific Factors
 - A Willing Landowner
 - Reasonable Terms
 - Environmental Concerns
 - Title Concerns
 - Sufficient Parcel Size
 - Access
 - Construction Concerns (flood, slope, soil, etc.)
 - Airport Related Height Restrictions
- Many zoning ordinances are drafted with coverage sites in mind and do not account for location justifications based on capacity objectives.
- Ordinances in urban areas should allow for location in all districts with appropriate restrictions for more sensitive districts so that the increasing need for capacity sites can be met.

Accommodating Site Location and Design Needs

Site Design

- Form follows function
 - Monopoles
 - Self-supporting lattice structures
 - Guyed towers
 - Traditional tower designs allow for the greatest number and spacing of antennas
- Limitations of Stealth Design
 - Developed for very short capacity sites in urban areas
 - Many designs do not look appropriate at heights needed
 - Some designs tend to draw attention to the structure where a simple pole may not register
 - Custom designs are expensive and often require a lengthy coordination process with the landowner
 - Flagpole lighting and flag maintenance issues
 - Most stealth designs limit the number of antennas and their vertical and horizontal separation
 - Most stealth designs limit the amount of space for co-location by other providers

Striking an Appropriate Regulatory Balance

Evaluating Current or Proposed Wireless Site Regulations

- Do the regulations recognize the importance of quality wireless infrastructure for community welfare and public safety?
- Federal Limitations – Telecommunications Act of 1996
 - No discrimination against functionally equivalent providers
 - No effective prohibitions of service
 - Action on an application within a reasonable period of time
 - Decision supported by substantial evidence in a written record
 - No regulation on the basis of radio frequency emissions where facilities comply with FCC regulations
- Is there overlap with areas regulated by other agencies? (FCC, FAA, South Dakota Aeronautics Commission)
- Is the level of regulation appropriate to the jurisdiction?
 - What is the attitude toward visible infrastructure? (towers, water tanks, grain elevators, power lines, etc.)
 - How are other uses with similar or greater impact treated?
 - Is there appropriate staffing to evaluate applications under the regulation?
- Does the ordinance provide specific direction and standards to guide applicants or is the language general or subject to differing interpretations?
- Is there a tiered process with expedited approval for co-locations and preferred locations or designs rather than a set of “one size fits all” requirements?