APPENDIX M

WIRELESS FACILITIES

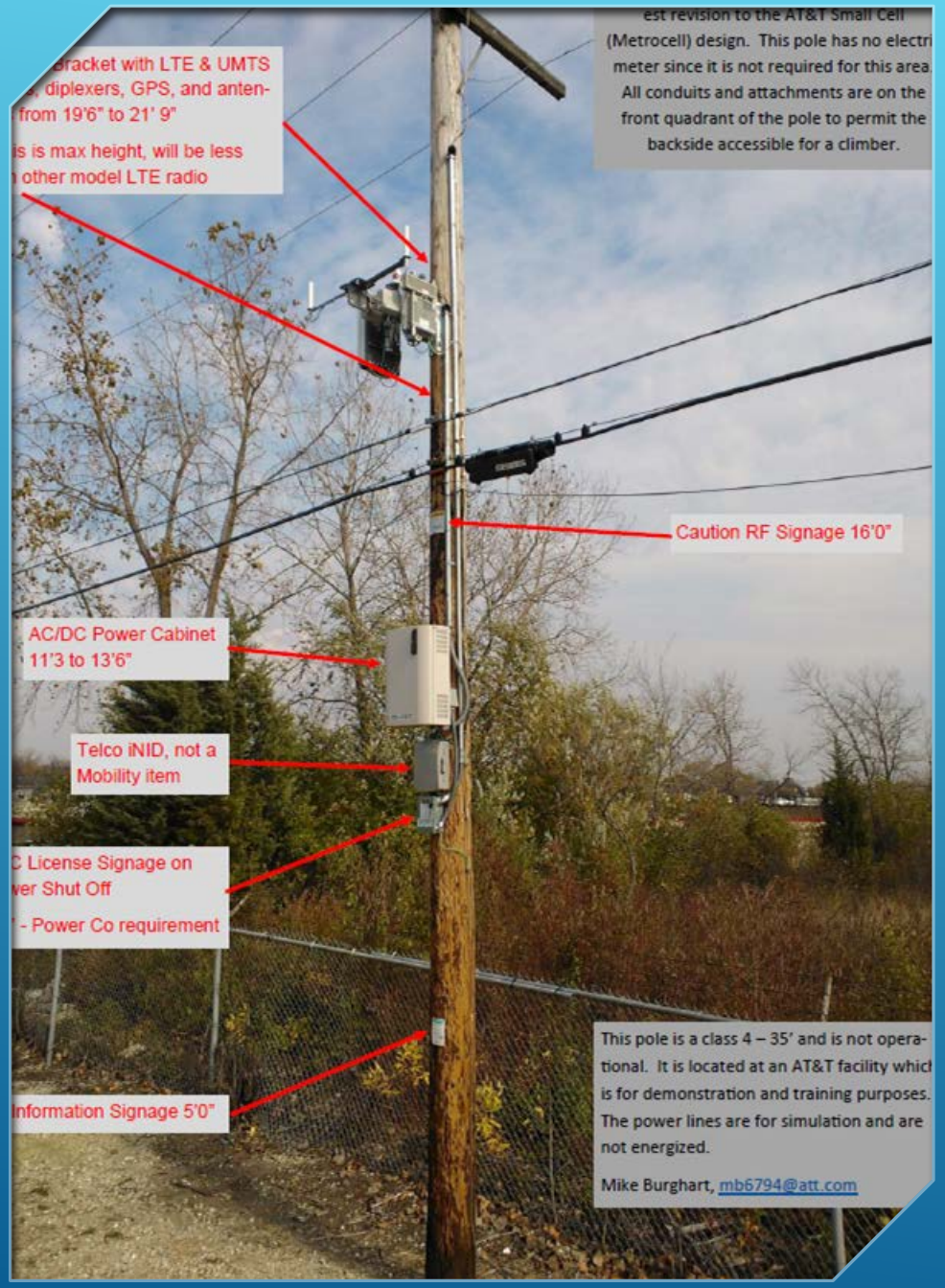
Within Public Right of Ways (PROW's)

WIRELESS CARRIER URBAN CAPACITY ISSUES

- Wireless carriers are starting to have significant capacity issues in most urban neighborhoods due to the explosion of usage of wireless data transmissions.
- Primary solution is to greatly increase number of wireless base stations on shorter structures.
  - 1. Rooftops on commercial and institutional buildings (20’ to 50’ in height).
  - 2. Attaching to and/or building new structures in PROW’s.

WIRELESS FACILITIES ON EXISTING UTILITIES POLES

- Federal Pole Attachment Act States:
  - A utility shall provide a cable television system or any telecommunications carrier with nondiscriminatory access to any pole, duct, conduit or right of way owned or controlled by it.
    - Definition of “utility” excludes local governments, cooperatives, and railroads.



SMALL CELL INSTALLED ON WOOD UTILITY POLE

This is a prototype installation on a utility pole where utility allows accessory equipment on pole.

SMALL CELL ON WOOD UTILITY POLE WITH GROUND ACCESSORY EQUIPMENT

Some utilities have taken the position that the Federal Pole Attachment Act only requires that they allow the telecommunication carriers' antennas be attached to pole.

In these cases carriers need to get permits/permission to place the cabinets in the PROW.

VERIZON DEPLOYMENT MAP SAN FRANCISCO SOUTH OF MARKET AREA (SOMA)

Typical deployment plan of numerous small cells in a dense population area where traditional macro cell site deployments have been restricted.

SAN FRANCISCO “STEALTH” SMALL CELL ON STREET LIGHT

Verizon negotiated with City of San Francisco to do “stealth installations” on city owned light poles in historic/sensitive districts.

NATIONAL CARRIERS HAVE NEGOTIATED INSTALLATIONS WITH COMMUNITIES IN THE PAST

- New entities providing wireless telecommunications are registering with public utilities commissions in many states.
  - Private Telephone companies.
    - Small so can withstand PUC's regulations on rates to public users
    - Primarily being formed to provide infrastructure to major carriers
  - These entities are trying to use PROW rights in an different way
    - Permitting new structures in PROW
    - Permitting tall structures (100' to 150') that are typically sited on tracts of land outside of PROW's
    - Trying to use county or state ROW's streamlined permitting process to get around tougher local tower siting regulations.

TALL PROPOSED MONOPOLES IN PROW'S

In 2015 one of these "private telephone" companies attempted to permit several new structures in Minnesota PROW's including two 120' monopoles in county right of ways within city limits.

Created urgency in many communities to revise and rethink zoning and ROW use ordinances.

EVENTUAL IMPACT ON NORTH DAKOTA REGULATORS

- Need to define policies for telecommunication facilities in State regulated ROW's
  - 1. Who is going to administer/permit state ROW's? NDDOT solely or are local jurisdictions going to be consulted?
  - 2. Are ground mounted cabinets going to be authorized? Size and setback limitations?
  - 3. Are new structures specifically built for telecommunications going to be allowed in ROW? Height and setback limitations?
- Regulations affecting local municipalities and counties
  - 1. Franchise or Registration Fees
  - 2. Attachment Fees
  - 3. In-kind Compensation