Planning Commission

Planning Commission Meeting - Work Session Agenda
Hartland Township Hall
Thursday, March 12, 2020
7:00 PM

1. Call to Order
2. Pledge of Allegiance
3. Roll Call
4. Approval of the Agenda
5. Approval of Meeting Minutes
   a. Planning Commission Work Session Minutes of February 27, 2020
6. Call to Public
7. Old and New Business
   a. Ordinance – 5G Wireless – Small Cell DAS
8. Call to Public
9. Planner's Report
10. Committee Reports
11. Adjournment

HARTLAND TOWNSHIP PLANNING COMMISSION WORK SESSION DRAFT MINUTES
February 27, 2020 – 7:00 PM

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1. **Call to Order: Chair Fox called the meeting to order at 7:00 p.m.**

2. **Pledge of Allegiance**

3. **Roll Call and Recognition of Visitors:**
   Present – Commissioners Fox, Colaianne, LaRose, Mitchell, Murphy, Grissim
   Absent – Commissioner Voight

4. **Approval of the Meeting Agenda:**
   A Motion to approve the February 27, 2020 Planning Commission Work Session Meeting Agenda was made by Trustee Colaianne and seconded by Commissioner Mitchell. Motion carried unanimously.

5. **Approval of Meeting Minutes**
   a. Planning Commission - Regular Meeting – January 9, 2020
      A Motion to approve the Regular Meeting Minutes of January 9, 2020 was made by Commissioner Mitchell and seconded by Commissioner Murphy. Motion carried unanimously

   b. Planning Commission – Regular Meeting – January 23, 2020
      A Motion to approve the Work Session Minutes of January 23, 2020 was made by Trustee Colaianne and seconded by Commission LaRose. Motion carried unanimously.

6. **Call to the Public**
   Dan Callan, indicated he was present to assist

7. **Old and New Business:**
   a. Future Land Use Map Amendments – Discussion and Initiate Recommendation

      Director Langer outlined the four (4) areas of the Township that are currently designated in the Multiple Family category on the Future Land Use Map that were reviewed by a sub-committee of the Planning Commission. Director Langer also outlined other properties that were designated as Commercial on the Future Land Use Map and the sub-committee recommendation to amend the Map to reflect those properties in a Special Planning Area

      The Planning Commission discussed all of the areas, and agreed with the changes proposed for Area #1, and #2, as outlined in the staff memorandum. The Planning Commission decided to hold off on initiating any further discussion on Area #3 at this point, until more information becomes available on future development in that area. With regard to Area #4, the Planning Commission directed the Planning Staff to reach out to an adjoining property owner (gravel quarry operation) to see if they had concerns with modifying the Future Land Use Map designation of their property. The Planning Commission agreed with the recommendation

to modify the Future Land Use Map designation for the Commercial area, as identified in the staff Memorandum. The entire matter will be brought back at a future meeting.

b. Uses Determination

Director Langer asked if the Planning Commission desired to continue with the discussion on this topic. This is likely to take some time, and the previous item has already taken approximately an hour.

Chair Fox indicated that the next couple of zoning district uses will take some time.

After a brief discussion, the Planning Commission decided to not discuss this agenda topic and will discuss this at future work session.

8. Call to the Public

None

9. Planner Report:

Director Langer requested available times for a joint meeting with the Township Board and the Planning Commission in May of 2020.

10. Committee Reports:

None

11. Adjournment:

A Motion to adjourn was made by Commissioner Mitchell and seconded by Commissioner Murphy. Motion carried unanimously. The meeting was adjourned at approximately 8:03 PM.

Hartland Township Planning Commission Meeting Agenda Memorandum

Submitted By: Troy Langer, Planning Director

Subject: Ordinance – 5G Wireless – Small Cell DAS

Date: March 5, 2020

Recommended Action

Move to initiate an Ordinance.

Discussion

In January of 2019, the Federal Communications Commission issued an Order, which limits municipal control of the public right of way as it pertains to wireless service providers. The order was issued to promote the expansion of the 5G wireless co-location across the United States. Also, the State of Michigan enacted Public Act 365, which provides even more restrictions and establishes a more uniform, statewide measure to encourage 5G development in Michigan.

Small wireless communications facilities are wireless service antennas, typically no larger than 6 cubic feet in volume, and associated with equipment which are cumulatively no larger than 25 cubic feet in volume. The antennas are typically attached to an existing utility pole, or other type of pole that is located within the public right-of-way or on other existing structures. The theory is that creating a dense network of small cells provides improved signal coverage and capacity, and ultimately eliminates the need for the more traditional macro cell towers. One of the reasons for this new small cell wireless technology is for the deployment of a more advanced, so called 5G network, as well as for the development and implementation of autonomous vehicles and the development of "smart cities" technology.

Township's have a vested interest in protecting the function and safety of the right-of-way; and to that end, the Act provides a regulatory framework for Townships to process applications by wireless providers. Although there are numerous restrictions on what a Township can regulate, the Act does allow for Townships to regulate through a regulatory permitting process or via a zoning ordinance.

The Planning Commission had directed the Ordinance Review Committee to examine the new Michigan Act concerning 5G wireless and prepare a draft ordinance. The Ordinance Review Committee has spent several months examining many other community ordinances, and other documents to facilitate a draft ordinance. That ordinance was then submitted to the Township Attorney for review and comments. The Attorney has provided their comments and that is attached for review.

Draft Ordinance

Outlined below is a general description of the draft ordinance:

<u>Section 1.</u>

This is the purpose and scope section of the ordinance.

Section 2.

This section defines how the ordinance shall be interpreted.

Section 3.

This section provides definitions of applicable terms in the ordinance.

Section 4.

This section outlines the general standards that the Township has an interest to regulate the public right-of-way and the equipment that is installed within these rights-of-way.

Section 5.

This section requires a Small Cell Wireless Permit and the applicable fee are paid as part of the reviewing process. This section also covers items such as the bond requirements for the permit process. This section was inserted by the Township Attorneys.

Section 6.

This section outlines the use and installation requirements. This section establishes the minimum standards for co-location of 5G or Small Cell wireless facilities within a right-of-way area.

Section 7.

This section establishes the removal requirements for a wireless facility. This section was added by the Township Attorneys.

Section 8.

The attorney's comments have a typo and refer to this as Section 7; however, this would be section 8, which states all wireless facilities shall comply with all applicable requirements. Any item that is not complied with will be a violation of the permit conditions and of this Section.

Section 9.

The attorney's comments have a typo and refer to this as Section 8; however, this would be section 9. This section indicates that any violation would be a violation of this Ordinance and would be a misdemeanor.

Section 10.

The attorney's comments have a type and refer to this as Section 9; however, this would be section 10. This is the severability clause.

The Township Planning Department also discussed with the Attorney if it would be better to incorporate this ordinance as a free-standing – police power ordinance, or if it would be better to be incorporated within the Zoning Ordinance. The Attorney said there are some advantages to having this be its own ordinance, such as it would be a quicker process to adopt, but ultimately, it's up to the Township to decide.

The Planning Department has provided some attachments as background information on the topic of 5G Wireless or Small Cell DAS wireless communication equipment and facilities. If additional information is requested, additional documents can be provided.

Attachments

1. Fahey Schultz Law Firm Information
2. Example of Wireless Facilities
3. Examples of Ground Mounted Facilities
4. OCBA Presentation Materials
5. Smart Pole Solutions
6. Wireless Antenna and Poles
7. Hartland Draft Ordinance

Township Law *E-Letter*

Fahey Schultz Burzych Rhodes
4151 Okemos Road
Okemos, MI 48864 USA
fsbrlaw.com

TOWNSHIPS GOT RUN OVER BY WIRELESS PROVIDERS: *SMALL CELL TOWERS ARE COMING TO TOWNSHIPS*

During the 2018 lame duck session, many bills were introduced, and some passed, attacking the authority of local government. Senate Bill 637 was one of those bills that did pass and was signed by Governor Snyder. It may have the greatest impact on all townships in 2019 as it opens miles of township rights-of-way with little conditions, and few are prepared for the applications that will ensue. Senate Bill 637, introduced by Senators Hune and Nofs, creates the Small Wireless Communication Facilities Deployment Act ("Small Cell Facilities Deployment Act"). The conditions are far more favorable to the wireless communication providers as the goal of the Small Cell Facilities Deployment Act is to limit restrictions and costs related to wireless infrastructure deployment imposed by local governments. It appears to accomplish this goal. The Act will be effective March 12th, 2019. This E-letter discusses the Small Cell Facilities Deployment Act and its impact on townships.

HIGHER CELL PHONE USAGE REQUIRES MORE CELL ANTENNAS AND TOWERS

The Small Cell Facilities Deployment Act allows for the installation of small cell wireless systems in township public rights-of-way. These systems will be installed within rights-of-way by co-locating antennas on existing poles (i.e., power line poles and traffic control devices) or the installation of new poles and specifically designed support structures. The systems are designed to work with many small antennas mounted close to one another, instead of the tall and large cell towers townships have become accustomed to reviewing and approving. Small cell antennas have a range of less than two miles, requiring a lot of them to ensure adequate and effective coverage.

This system will allow expansive use of emerging "5G networks" or "fifth generation" wireless systems. The 5G networks are designed to offer increased capacity, lower latency times, and faster speeds in a world where more and more data is being consumed through smartphones, tablets and wireless devices. 5G networks employ a frequency bandwidth that limits the distance that the towers can be dispersed. This means that wireless providers will need even more antennas.

The Small Cell Facilities Deployment Act removes local regulation and creates a universal process to streamline deployment for wireless service providers. The removal of local oversight is akin to the limitations placed on townships' oversight of public rights-of-way through the enactment in 2002 of the Metropolitan Extension Telecommunications Rights-Of-Way Oversight Act ("METRO Act"). Many townships are familiar with METRO Act applications seeking permission to install telecommunication

ANNUAL RATES

Rates are permitted as a "recurring charge." A Township can charge a wireless provider no more than $20.00 annually for locating a facility within the rights-of-way. Except, if a utility pole or support structure was erected by or on behalf of a wireless provider after March 12, 2019 (the effective date), the Township may charge up to $125.00 annually. Every five years, the maximum rates are increased by 10%. Any rates established by a township prior to March 12, 2019 must be modified within 90 days thereafter, except the Act appears to provide an exclusion for agreements or ordinances that address utility poles designed to support small cell facilities or small cell collocations that existed prior to the effective date. For those townships that own poles, the Act allows townships to charge an added rate not to exceed $30.00 per a year per Township-owned pole.

PERMIT FEES

Fees are a "nonrecurring charge for services." This refers to applicable permit fees that are authorized under the Act. An application fee for a permit to collocate a small cell facility within a right-of-way is $200.00. An application fee for small cell facility and a new pole is $300.00. No permit is required to replace a small cell facility with a facility that is not larger or heavier than a permitted facility, routine maintenance of a permitted facility, utility pole, or wireless support structure, or installation, operation, or replacement of micro wireless facilities. The Act allows a township to charge higher fees for zoning review and approval. Permit fees for zoning review and approval shall not exceed $500.00 for a new small cell wireless facility or modification to a facility, and $1,000.00 for a new wireless support structure or modification to such a structure.

DESIGN CONCEALMENT

A Township can adopt written, objective requirements for reasonable, technically feasible, nondiscriminatory, and technologically neutral design or concealment measures in a historic district, downtown district, or residential zoning district. The requirements must be reasonable and feasible to the extent they would not prohibit a wireless provider's technology. The concealment or design measures would not be considered part of the small cell wireless facility for purposes of determining the six cubic feet discussed above. These zoning district specific requirements should be instituted through a proper zoning amendment.

REQUIRED REPAIR OF THE ROW

A township may require a wireless provider to repair all damage to rights-of-way directly caused by the activities of the provider. If the wireless provider failed to make the repairs required by the township within 60 days after written notice, the township could make the repairs and charge the wireless provider the reasonable, documented cost of repairs.

INDEMNIFICATION, INSURANCE, AND BOND REQUIREMENTS

In the morass of complex application timelines, tolling periods, and layered permit fees and rates, the Act generally describes three clear benefits to townships.

1. The Act allows a township to require applicants to defend, indemnify and hold harmless the township against any claims resulting from the applicants' installation and operation of facilities, structures and poles.
2. A township can also require to be named an additional insured on the applicant's insurance policy.
3. The Act further provides that a township can establish bonding requirements so long as the bond serves the purpose of protecting against proliferation of abandoned facilities, repair to the rights-of-way, or to recoup rates that have not been paid in more than 12 months.

These are reasonable conditions to impose given the number of new poles and work that may occur within the rights-of-way in the coming years. Certainly, there may be some user conflict within the rights-of-way, impacts to traffic safety, and damage to the rights-of-way. These requirements will limit township liability.

LIMITED REASONS FOR DENIAL

The Act itself provides a list of reasons that a township could deny an application for a small cell wireless colocation or installation of a utility pole that meets the height requirements within the rights-of-way. Those specified reasons are as follows:

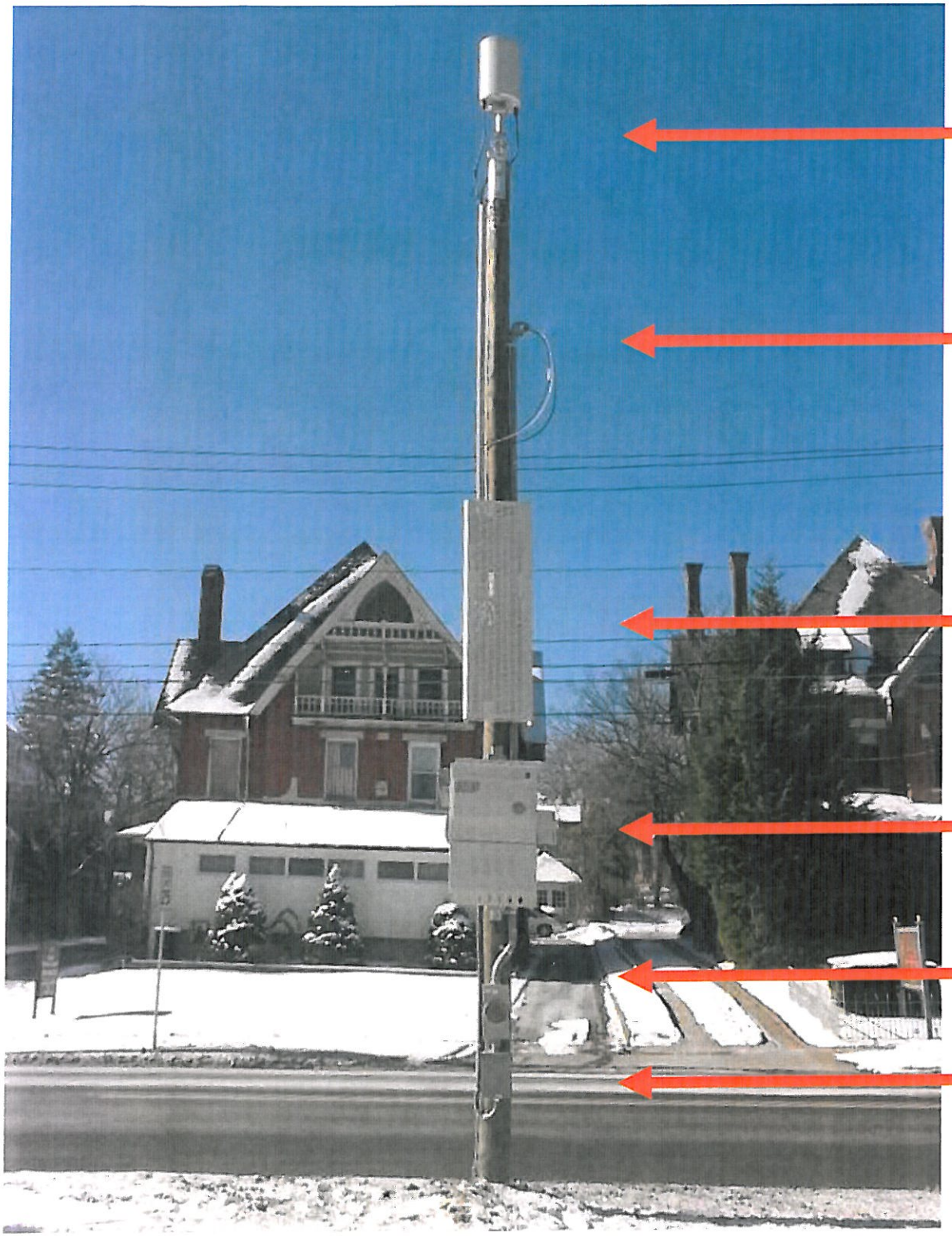
1. Materially interfere with the following:
    i. Safe operation of traffic control equipment;
    ii. Sight lines for transportation or pedestrians;
    iii. Access required by the Americans with Disabilities Act;
    iv. Maintenance or full unobstructed use of public utility infrastructure;
    v. Maintenance or use of drainage infrastructure.
2. Locate the facility within an unreasonable distance from a drain;
3. Fail to comply with the following:
    i. Reasonable, nondiscriminatory spacing requirements;
    ii. Applicable codes;
    iii. Underground or buried cable and utility facilities requirements;
    iv. Reasonable stealth or concealment criteria.

If an application is denied, the Township must explain the reasons for the denial and cite any specific applicable code provisions that form the basis of the denial.

METRO ACT APPLICABILITY FOR WIRELINE BACKHAUL FACILITY

The Act excludes from its scope the installation and placement of "wireline backhaul facilities." These facilities are the wire or fiber-optic cable necessary to transfer the data sent and received by small wireless facilities. This should require the backhaul network to require approval under the METRO Act.

Before



unconcealed antenna with exposed jumper cables

weatherhead for utilities routed thru external conduits

equipment cage RRUS, DC suppressor, fiber distribution

optional backup battery

power meter

distribution panel and disconnect switch

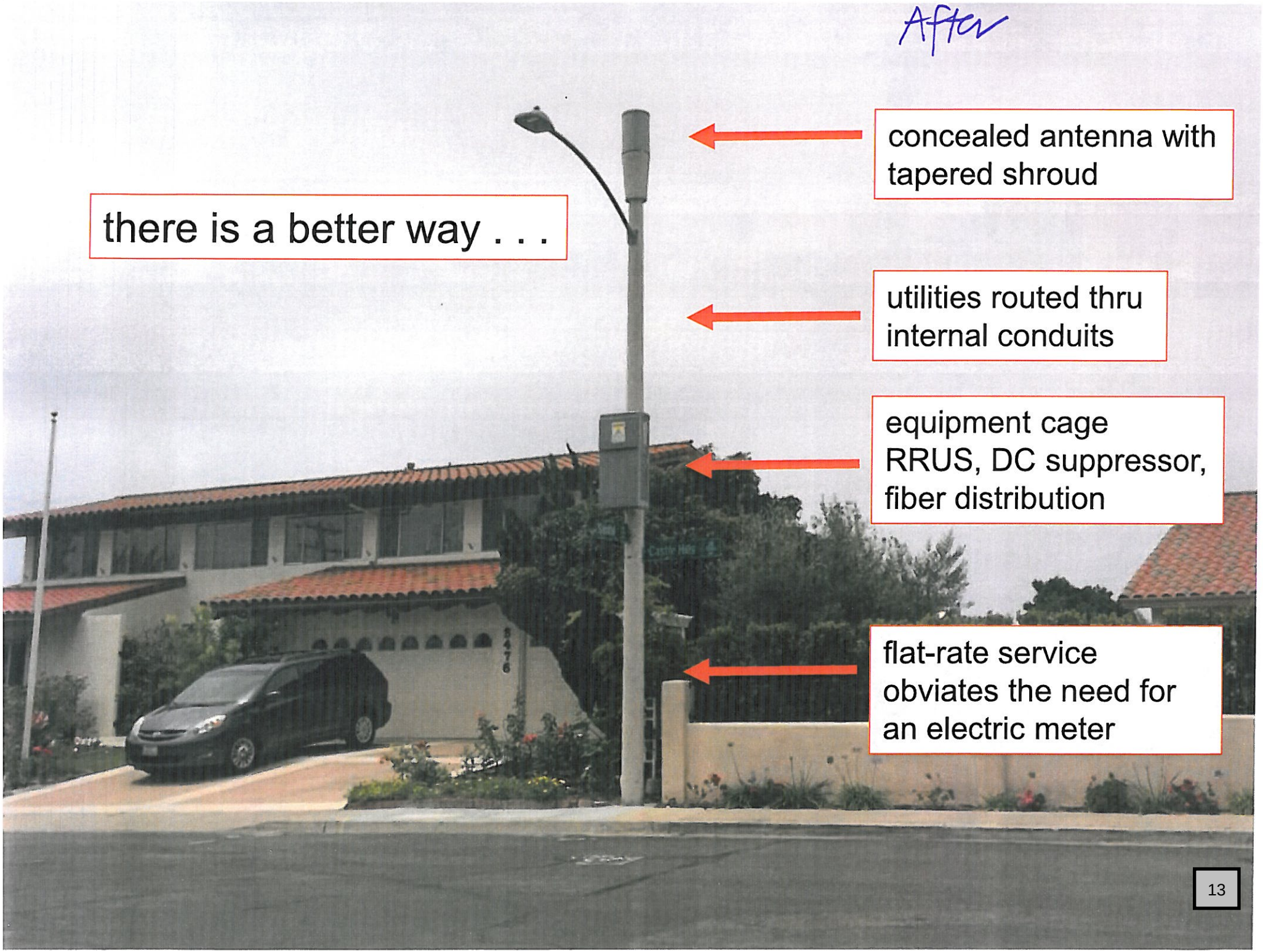
TELECOM LAW FIRM PC

After

Same equipment as previous slide properly concealed

TELECOM LAW FIRM PC


Before
Forever Sexy xoxo
323.745.0500
OPTICAL


After
there is a better way . . .
concealed antenna with tapered shroud
utilities routed thru internal conduits
equipment cage RRUS, DC suppressor, fiber distribution
flat-rate service obviates the need for an electric meter

e. **Pole-Mounted Equipment.** All pole-mounted equipment must be installed flush to the pole to minimize the overall visual profile. If any applicable health and safety regulations prohibit flush-mounted equipment, the maximum separation between the equipment and the pole shall be the minimum separation required by such regulations. All pole-mounted equipment and required or permitted signage must face toward the street or otherwise placed to minimize visibility from adjacent sidewalks and structures to the extent feasible. All cables, wires and other connectors must be routed through conduits within the pole whenever possible, and all conduit

attachments, cables, wires and other connectors must be concealed from public view to the extent feasible.

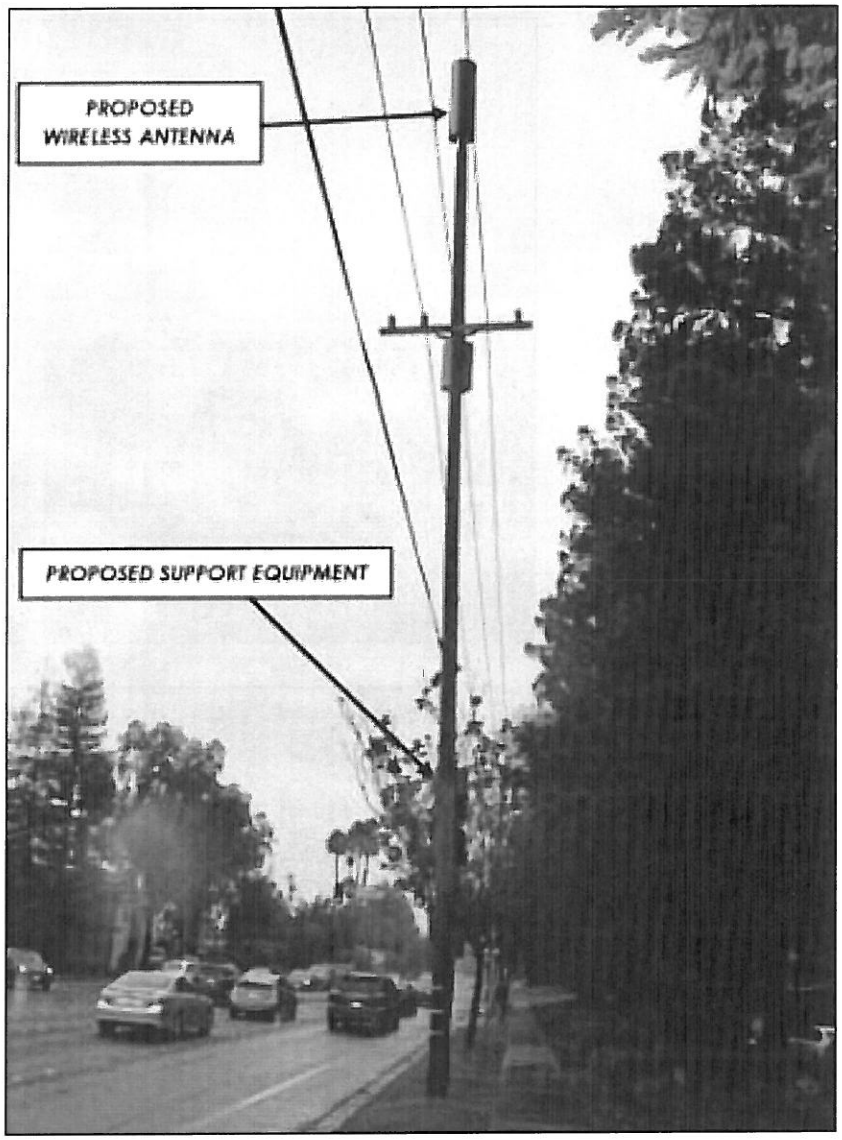
f. **Ground-Mounted Equipment.** To the extent that the equipment cannot be placed underground as required, applicants may be permitted to install ground-mounted equipment in a location that does not obstruct pedestrian or vehicular traffic. All ground-mounted equipment must be placed in the least conspicuous location available within a reasonable distance from the pole. The approval authority may condition approval on new or enhanced landscaping to conceal ground-mounted equipment. The approval authority shall not approve a ground-mounted electric meter pedestal or other electric meter enclosure to the extent feasible.

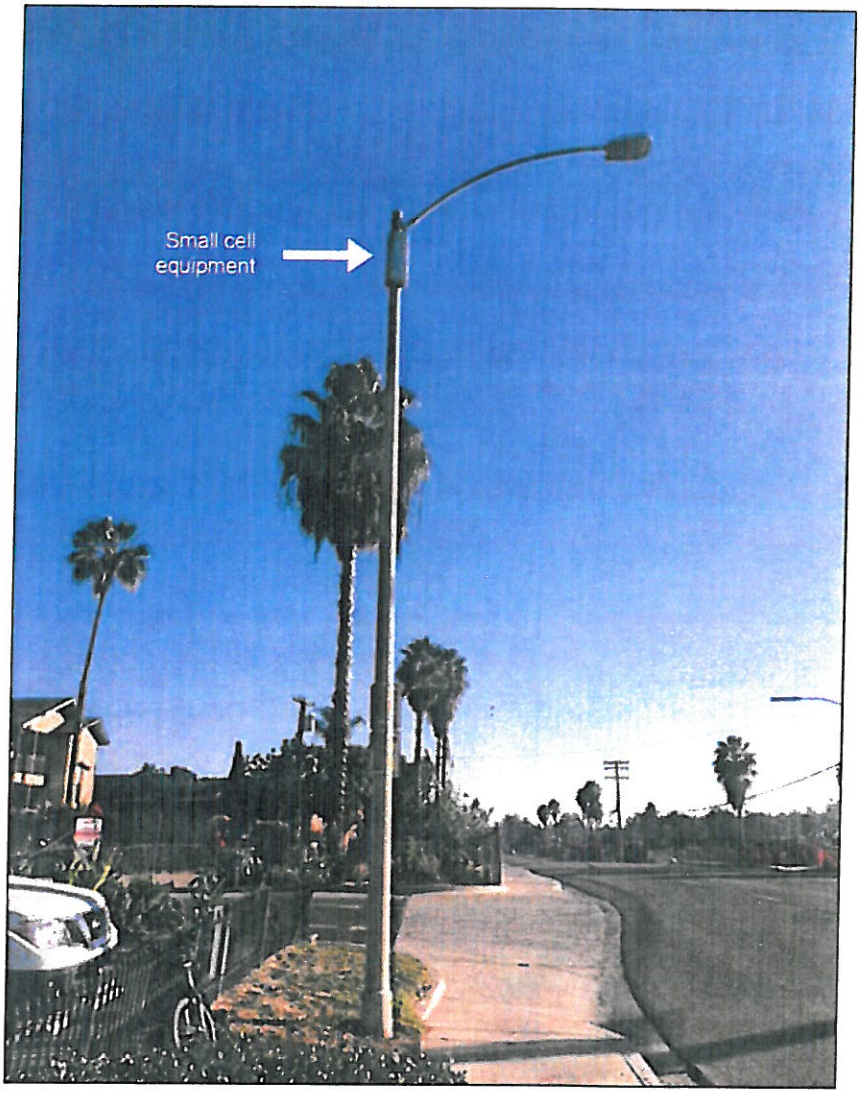
g. **Antenna Volume.** Each antenna associated with a wireless facility in the public rights-of-way shall not exceed three (3) cubic feet in volume, and the cumulative volume for all antennas associated with a wireless facility in the public rights-of-way shall not exceed six (6) cubic feet in total volume. For the purposes in this Section D.3.g, "volume" shall include any shroud, radome or other concealment device used in connection with the antenna.

h. **Accessory Equipment Volume.** The cumulative volume for all non-antenna accessory equipment associated with a wireless facility in the public rights-of-way shall not exceed nine and one-half (9.5) cubic feet. For the purposes in this Section D.3.h, "volume" shall include any shroud, cabinet, housing or other concealment device used in connection with the accessory equipment, but shall not include any equipment or other improvements installed below ground level or any cables or connectors placed within the pole or other support structure.

i. **Illustrative Examples.** The following photographs depict wireless facility designs that the Town may deem appropriate in preferred locations. These examples are illustrative only, and may not be appropriate in all cases.

– see next pgs


PROPOSED
WIRELESS ANTENNA
PROPOSED SUPPORT EQUIPMENT


Small cell
equipment

Municipal Telecommunications & Energy Update January 27, 2016:

Cell Tower Update: Conventional & DAS/Small Cell Siting Issues
Municipal Broadband (FTTH)
HB 5016 – Telecom Relocation Bill
Cable Law and the Unfunded MPSC and Beyond
PROTEC Comments Re Proposed Hazardous Pipeline Rules
ITC v Oshtemo Twp

Speaker: Michael Watza Esq,

Kitch Drutchas Wagner Valitutti & Sherbrook
1 Woodward 24th Floor
Detroit, MI 48226

General Counsel PROTEC

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PROTEC

www.kitch.com

KITCH
Attorneys & Counselors

Cell Tower Update:
Conventional Cell Towers
&
DAS/Small Cell Siting Issues

Cell Tower Update:
Conventional Cell Towers

The Way We Were

47 USC § 332 - Mobile services

- "(7) **Preservation of local zoning authority** (A) **General authority** Except as provided in this paragraph, nothing in this chapter shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless service facilities."
- (B) **Limitations** (i)…(I)shall not unreasonably discriminate among providers…(II)shall not prohibit or have the effect of prohibiting the provision of personal wireless services.
- …shall act…within a reasonable period of time…
- (iii)….Any decision by a State or local government…shall be in writing and supported by substantial evidence...
- (iv)No State or local government…may regulate…on the basis of … radio frequency emissions…
- (v)… within 30 days after such action or failure to act, commence an action in any court of competent jurisdiction.

The Way We Are
Mobile Industry Background

- Obama Administration Endorses Mobile as Part of National Broadband Plan
- **Millions** of New Antennas Needed to Cover the Nation and feed our Smart Phones and Machine to Machine Connections
- Avg: 20-40,000 new Antennas/State
- **Result: Industry Desperate = Increased Market Value** for Antenna Sites as Landlords of Cell Towers, Water Towers, Municipal Buildings etc
- Industry Also Trying to Shape Streamlined Regulation…

"New" Federal Law

- **FCC 2009 Shot Clock Order**
  - Reasonable Time to Act = 90 Days (Collocation)
    150 days (New)
- **Congress**
  - HR 3630 February 2012
    - Sec 6409
      - …"a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station…"
- **FCC Guidance on Section 6409(a)**
  - **Now applies to DAS? Not on Muni Property**
- **US Supreme Court: Arlington v FCC**
  - **Shot Clocks Upheld**
- **FCC:** NOI Broadband Deployment Acceleration

“New” State Law

- **2012 PA 143 Cell Tower Collocation**
  - Objected to by PROTEC, MML and MTA
  - **Passed/Effective May 24, 2012**
  - Local Government Foreclosed from regulating
    - 20’/10% Height Increases
    - Unlimited Width Increases
    - Increases up to 2500 sq ft base
    - 14 Day Shot Clock on Application Completeness If Allowed
    - 60-90 Day Approval Shot Clock

New State Law Cont'd

- **MICHIGAN 2012 PA 143 ZONING ENABLING ACT Amendment (EXCERPT): 125.3514 Wireless communications equipment as permitted use of property; application for special land use approval; approval or denial; authorization by local unit of government; definitions.**
- (1) Wireless communications equipment is **a permitted use of property and is not subject to special land use approval or any other approval** under this act if all of the following requirements are met:
- (a) The wireless communications equipment will be collocated on an existing wireless communications support structure or in an existing equipment compound.
- (b) The existing wireless communications support structure or existing equipment compound is in compliance with the local unit of government's zoning ordinance or was **approved** by the appropriate zoning body or official for the local unit of government.
- (c) The **proposed collocation will not do any of the following**:
- (i) **Increase the overall height** of the wireless communications support structure by **more than 20 feet or 10% of its original height, whichever is greater**.
- (ii) **Increase the width** of the wireless communications support structure by **more than the minimum necessary** to permit collocation.
- (iii**) Increase the area of the existing equipment compound to greater than 2,500 square feet.**

State Law Cont'd

- **T-Mobile v West Bloomfield Federal 6th CA Aug 21, 2012 Opinion**
  - **Lessons learned** from this Cell Tower Denial?
    - 1. Communities must **decide early** whether to fight a proposal or not.
    - 2. Prepare your objections with **substantive expert evidence** rebutting the provider's reports and testimony up front. This can include:
      - a. Vigorous cross exam of industry experts
      - b. Presentation of experts which could include: cell tower design, city planners, coverage analysis and valuation experts
      - c. **RF emissions and other health arguments are improper under federal law.**
      - d. Don't be afraid to delay the proceedings until such work can be done and presented on the record at the City or Township level.
    - 3. **Lay testimony from residents re aesthetics is not sufficient**.
    - 4. Appeal on poor facts can result in adversely impacting a much broader group of communities.
    - 5. The result of this Opinion is that the 6th Cir has now adopted some of the more stringent rules from other circuits interpreting federal law as applied to communities including:
      - a. Denial of a single application can now constitute a violation of federal law which forbids actions preventing wireless service
      - b. Individual provider coverage gaps now constitute "significant gaps" in service.

Take Away I
What all This Means for You as Landlords: Revenue

- When you receive a call or letter from the Mobile/Cellular Industry “offering” modest “bonus” to amend Current Agreements:
- You now know:
  - Industry DESPERATE to Add Antennas and Upgrade to Fiber Connections to Towers
  - Consult with Counsel
  - Renegotiate Entire Agreement
  - Demand Market Rates
  - Do NOT let tenants add regulatory functions to lease

Take Away II
What all This Means for You As Regulators

- Michigan's 2012 PA 143 Dominates Landscape
  - Local Government Foreclosed from regulating
    - 20'/10% Height Increases
    - Unlimited Width Increases
    - Increases up to 2500' sq ft base
    - 14 Day Shot Clock on Application Completeness If Allowed
    - Approval Shot Clock: 60 Days for Collocation

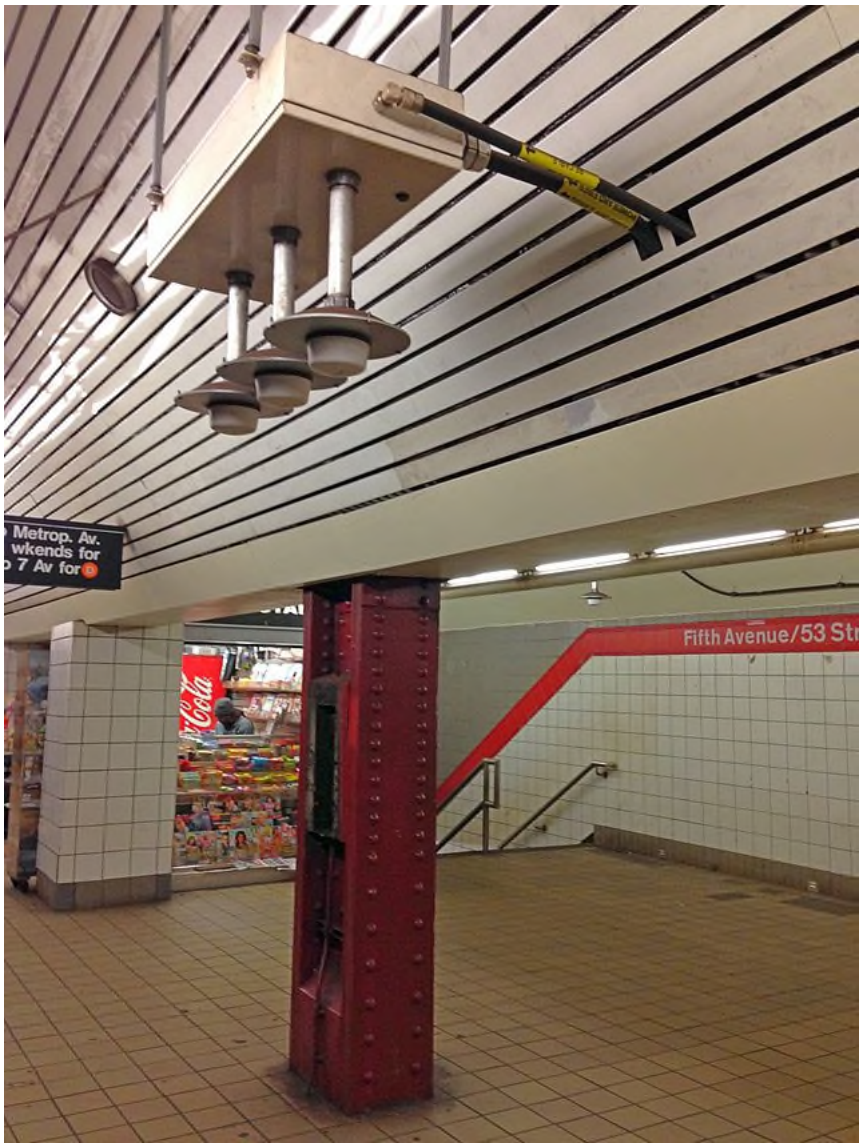
      90 Day for new

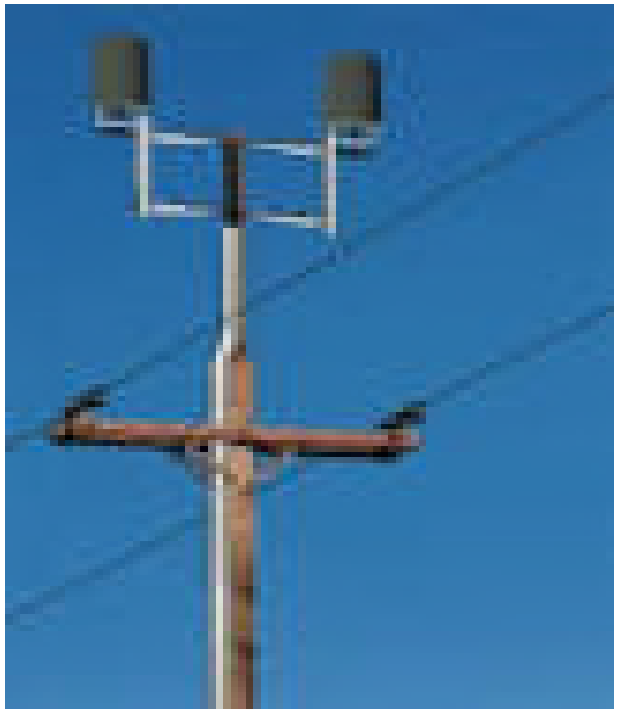
Cell Tower Update:
DAS/Small Cell Siting Issues

Distributed Antenna Systems

- **What?**
  - Definition: FCC DAS Forum definition: A network of spatially separated antenna nodes connected to a common source via transport medium that provides wireless service within a geographic area or structure. http://transition.fcc.gov/presentations/02012012/panel-1/allen-dixon.pdf
  - Not, but often confused with: Micro cells, Small Cells, , picocells, femtocells, temporary cells etc.
- **Where?**
  - Everywhere: Outside in Rights of Way, Public Buildings/Structures, Private Property and Inside Buildings
- **Why?**
  - **Obama Administration** Endorses Mobile as Part of National Broadband Plan
  - **Industry:**
    - **1-2 million** New Antennas Needed to Cover the Nation and feed our Smart Phones and Machine to Machine Connections
    - Avg: 20-40,000 new Antennas/State
    - 70% of mobile calls originating indoors, reliable wireless
    - Data revenue up 52.6% to $3.9B
    - AT&T 2Q2009 data revenue up 37% to $3.4B – (108B text messages)
    - Wireless data revenue 28% of total wireless
    - Wireless data drives demand for cellular across the board

Examples of DAS Antennas


Metrop. Av.
wkends for
7 Av for
Fifth Avenue/53 St
Coca



Cell Tower Update:
DAS/Small Cell Siting Issues

- The Rules:
  - Old Michigan Metro Act
    - Metro Authority Determination #1
      - Purports to bring DAS under the Metro act BUT: Preempted by express language of the Act – Only apples to “lines”.
  - New FCC Regulation –Summary - See Tab 2

State and Local Regulation

- **Michigan:** Determination No. 1 – Distributed Antennae Network Systems June 2, 2004:
- "Distributed antennae networks providing telecommunication services through existing or new cable facilities within the public right-of-way are considered telecommunication facilities under Section 2(j) of the METRO Act; and are, consequently, subject to the provisions of the Act. All other local ordinances, laws, and regulations not specifically pre-empted by the Act shall remain in force. "
- **BUT**: The Authorizing statute says something different: MCL 484.3102(j): (j) "Telecommunication facilities" or "facilities" means…copper and fiber cables, lines, wires, switches, conduits, pipes, and sheaths…which…provide telecommunication services or signals. Telecommunication facilities or facilities **do not include antennas, supporting structures for antennas, equipment shelters….**

Latest Rules for DAS

FCC Acceleration of Broadband by Wireless Report and Order Dated October 17, 2014, Released October 21, 2014

See Tab 2

The FCC Essentials:

1. The FCC says Locals retain proprietary property Interests = Franchising fees (Revenue) and Regulation
2. But it also says - Approval of One May = Approval of More:

    - Future Collocators may be able to add as much as 10 feet vertical and 6 feet horizontal

Metro Act Trumps Metro Authority
FCC Trumps Metro Act

So - How to approach a DAS Application submitted typically under the Metro Act?

1. Respond to the Metro Act App re Lines
   a) Modified Metro Act Permit
2. Respond to the Antennas Etc., Per the FCC
   a. Franchise/License/Lease with careful language re fees and limited permission

Municipal Broadband

- See Michigan Bar Journal Article Tab 3

"The Internet changes everything"

– Business Week December 4, 1995

J. Neil Weintraut, managing director for technology research at Hambrecht & Quist Inc.

Internet of Things

InternetAppliance™

Muni BB = INNOVATION

“If I had asked people what they wanted, they would have said faster horses.”

- Henry Ford

Where We Are

- 150+ year old Copper Wire Transmission System

- Little Global Difference Between DSL and Cable

Where Everyone Else that Matters Is

- Like Korea, Japan, France, Germany and all of our other major economic competitors

Where we MUST Be Headed

- Fiber Fiber Fiber Fiber Fiber Fiber Fiber Fiber
- Fiber Fiber  Fiber Fiber
- Fiber Fiber Fiber Fiber
- Fiber Fiber Fiber Fiber
- Fiber Fiber Fiber Fiber
- Fiber Fiber Fiber Fiber
- Fiber Fiber Fiber Fiber
- Fiber Fiber Fiber Fiber

WHY FIBER?

Speed and Capacity

To Feed Our Demand

The Link to Economic Stimulus

- As with any new technology, Fiber faces challenges:
- Cost of implementation,
- Political resistance by the incumbent system and
- Public learning curve to get to the point of demanding it
- The link is obvious and yet studies to confirm it are in their infancy. See those mentioned.

The Economic Lift From Broadband

- McKinsey Global Institute - May 2011
- "Internet matters: The Net's sweeping impact on growth, jobs, and prosperity"

  - 2 billion Internet users worldwide
  - Internet accounts for 3.4% of GDP in 13 countries we looked at, and 21% of GDP growth in the last 5 years in mature countries
  - 2.6% jobs created for 1 job lost
  - 75% of Internet impact arises from traditional industries
  - 10% increase in productivity for small and medium businesses from Internet usage
  - Small and medium businesses heavily using Web technologies grow and export 2x as much as others
  - Up to €20 per Internet user per month of consumer surplus

FCC Broadband Plan

- FCC Broadband Plan is the best place to start
  - http://www.broadband.gov/
  - Take the Test:
    - http://www.broadband.gov/qualitytest/about/

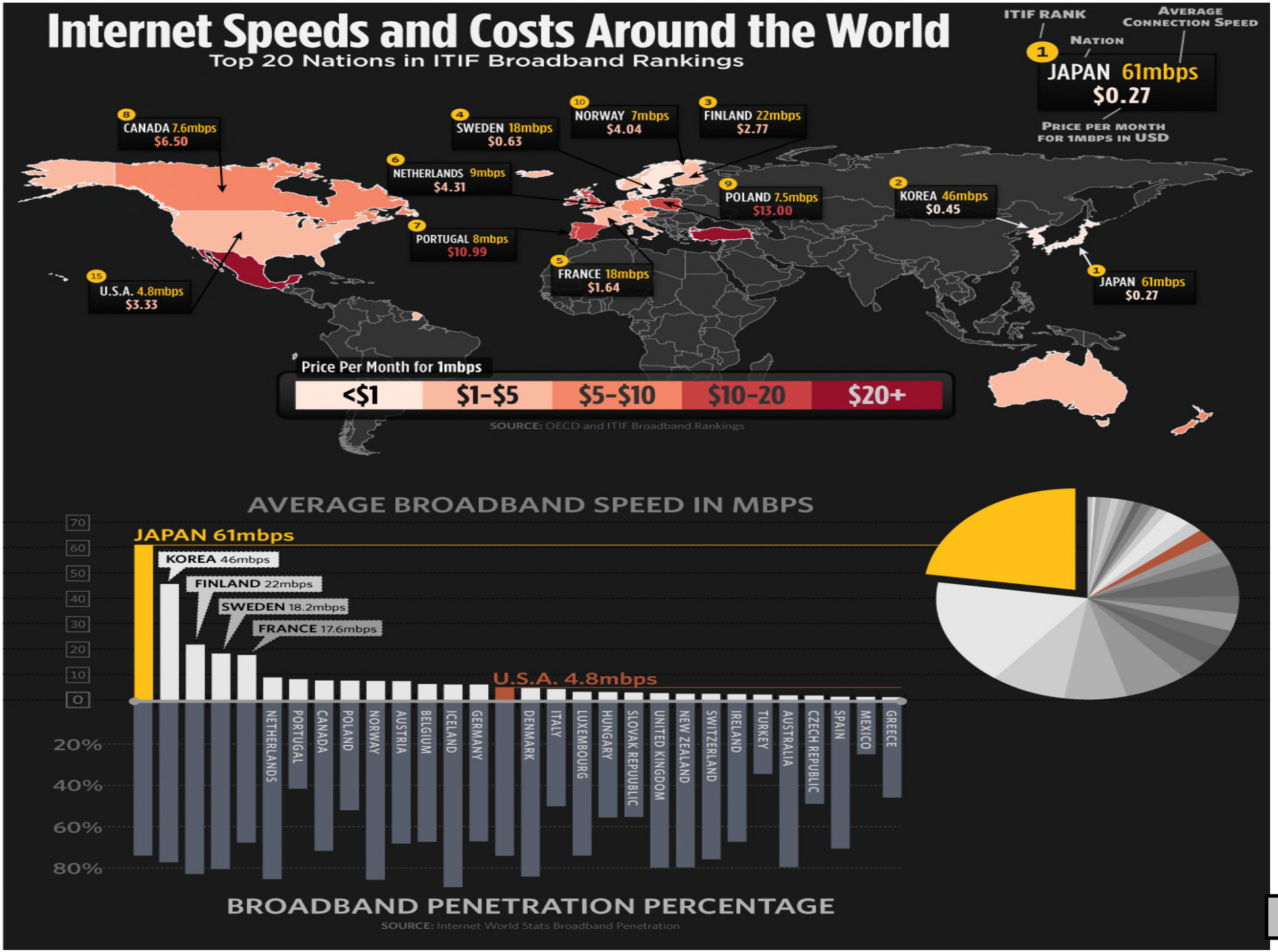
    What speed (up and down) Do you really have?

Akamai State of Internet Connectivity Report for Q1 2012

- **Broadband Speed and Adoption Trends**
- 666 million IP addresses from 238 countries.
- South Korea and Hong Kong avg. at **15.7 Mbps and 49.3 Mbps respectively**
- 146 million were from the United States with 60% at **4 Mbps** minimum - lags in 14th place globally.
- Delaware continues to lead the States at an average speed of **10.2 Mbps**,

Akamai Report Cont'd

- *"Some states are working to advance legislation that would restrict **community/municipal broadband** efforts, which could effectively limit consumer choice to the service tiers and speeds that the incumbent telecom and cable providers have made available to that market, slowing the progress towards ubiquitous broadband and universal broadband adoption."*
- http://www.akamai.com/dl/whitepapers/akamai_soti_q112.pdf?curl=/dl/whitepapers/akamai_soti_q112.pdf&solcheck=1&WT.mc_id=soti_Q112&


Internet Speeds and Costs Around the World
Top 20 Nations in ITIF Broadband Rankings
ITIF RANK
Nation
Average Connection Speed
1 JAPAN 61mbps $0.27
Price per month for 1mbps in USD
8 CANADA 7.6mbps $6.50
4 SWEDEN 18mbps $0.63
10 NORWAY 7mbps $4.04
3 FINLAND 22mbps $2.77
6 NETHERLANDS 9mbps $4.31
9 POLAND 7.5mbps $13.00
2 KOREA 46mbps $0.45
7 PORTUGAL 8mbps $10.99
5 FRANCE 18mbps $1.64
15 U.S.A. 4.8mbps $3.33
1 JAPAN 61mbps $0.27
Price Per Month for 1mbps
<$1
$1–$5
$5–$10
$10–20
$20+
SOURCE: OECD and ITIF Broadband Rankings
AVERAGE BROADBAND SPEED IN MBPS
70
60
50
40
30
20
10
0
JAPAN 61mbps
KOREA 46mbps
FINLAND 22mbps
SWEDEN 18.2mbps
FRANCE 17.6mbps
U.S.A. 4.8mbps
NETHERLANDS
PORTUGAL
CANADA
POLAND
NORWAY
AUSTRIA
BELGIUM
ICELAND
GERMANY
DENMARK
ITALY
LUXEMBOURG
HUNGARY
SLOVAK REPUBLIC
UNITED KINGDOM
NEW ZEALAND
SWITZERLAND
IRELAND
TURKEY
AUSTRALIA
CZECH REPUBLIC
SPAIN
MEXICO
GREECE
20%
40%
60%
80%
BROADBAND PENETRATION PERCENTAGE
SOURCE: Internet World Stats Broadband Penetration

The Economic Lift From Broadband

The Coalition's Policy for E-Government and the Digital EconomyAugust 2013 (Australia)

- The statistical evidence confirms Information and Communication Technologies (ICT) has been a crucial contributor to higher productivity and rising living standards since the early 1990s, although there is debate over how large the contribution has been.[13] Capital spending on ICT improves labour productivity and assists innovation . . .
- McKinney Global Institute has calculated that around a fifth of GDP growth in advanced economies over the past five years has arisen from the Internet and associated technologies – with 75 per cent of this growth occurring in sectors not traditionally seen as 'technology' industries, testament to the broad applicability of these technologies.[15]
- _____

- [12] Productivity Commission, 'Annual Report, 2007-08', p. 16.
- [13] See OECD, 'Broadband & the Economy' – Ministerial Background Report, June 2008, pp. 14-18.
- [14] Productivity Commission – 'ICT use and Productivity: A Synthesis from Studies of Australian Firms' – Productivity Commission Research Paper, Canberra, 2004, Available: http://www.pc.gov.au/research/commission/ict-use
- [15] McKinsey, 'Internet Matters: The Net's Sweeping impact on Growth, Jobs & prosperity', McKinsey Global Institute. May 2011: http://www.mckinsey.com/insights/high_tech_telecoms_internet/internet_matters

FCC Broadband Study

- The FCC published its 8th Study on Broadband Deployment 2012
- The country still has 19 million residents completely unable to get broadband
  - Says Who? Connect America (Connect Michigan) http://www.connectmi.org/interactive-map
- 23.7% of the 61 million people living in rural areas have no broadband access at their homes.
- http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0821/FCC-12-90A1.pdf

EXAMPLES OF MUNICIPAL FIBER SYTEMS & ALLIES

Lafayette La. City System

- Comparison of Internet services and costs
- **Cox Communications**
- **Fastest speed available**: 50-55 MBs/sec
  15-18 MBs/sec (download): $53/month
  25-30 MBs/sec (download): $65/month
  50-55 MBs/sec: (download): $95/month
- **City-owned LUS Fiber**
- **Fastest speed available**: 100 MBs/sec
  15 MBs/sec (download/upload): $35/month
  40 MBs/sec (download/upload): $50/month
  75 MBs/sec (download/upload): $100/month
- *Source: http://www.lusfiber.com/index.php/internet/pricing-guide*

Google in Kansas City

- More than 30 percent of homes in Kansas City, Kan., and Kansas City, Mo., have pre-registered for Google's Fiber TV high-speed Internet and digital video
- 1 Gig Internet for $65/month, Internet and cable/video for $120. Slower 5 Mbps package at no monthly cost.
- http://www.fiercecable.com/story/google-fiber-pre-registrations-crack-30-penetration-6-kansas-city-neighborh/2012-08-20

Michigan Projects

- Sebewaing FTTH
- Traverse City DDA Sponsored WIFI
- Others Being Developed….

Legal/Regulatory/Political Hurdles

- Legal & Regulatory
  - Dark Fiber (Creating the Infrastructure)
    - Telecom Act MCL 484.2252
    - Metro Act MCL 484.3114
  - Lighting the Fiber (Selling the Service)
    - Federal and State Regulation
- Politics
  - AT&T, Comcast, Verizon, Connect Michigan etc.

The Michigan (Low) Hurdles

- **2002 Metro Act PA 48 MCL 484.3114**
  - **Public hearings**
  - **3 year segregated cost projections**
  - **Long Term Segregated Accounting Records**
  - **No discrimination in favor of municipal system**
  - **Grandfathering potential**
    - Pre 2002 systems
    - Watch out for “same” service and “within same territory” language
- **2005 Telecom Act PA 235 MCL 484.2252**
  - **Competitive Bid Process**
    - **If 3 Qualified Bids rec’d within 60 days = Obstacle?**
      - Who defines “qualified”?
      - If qualified – Require bidder to build it per govt specs?
  - Grandfathering
    - Available for pre-November 2005 systems

Gig U

37 research universities come together to accelerate the deployment of next generation networks and services.

Partnering with the Aspen Institute and the FCC National Broadband Plan.

In order for the nation to retain technological leadership, our country should create a critical mass of communities with world-leading—not just world class—broadband networks.

- http://www.gig-u.org/
- See Also the Michigan based MERIT Internet System. http://www.merit.edu/

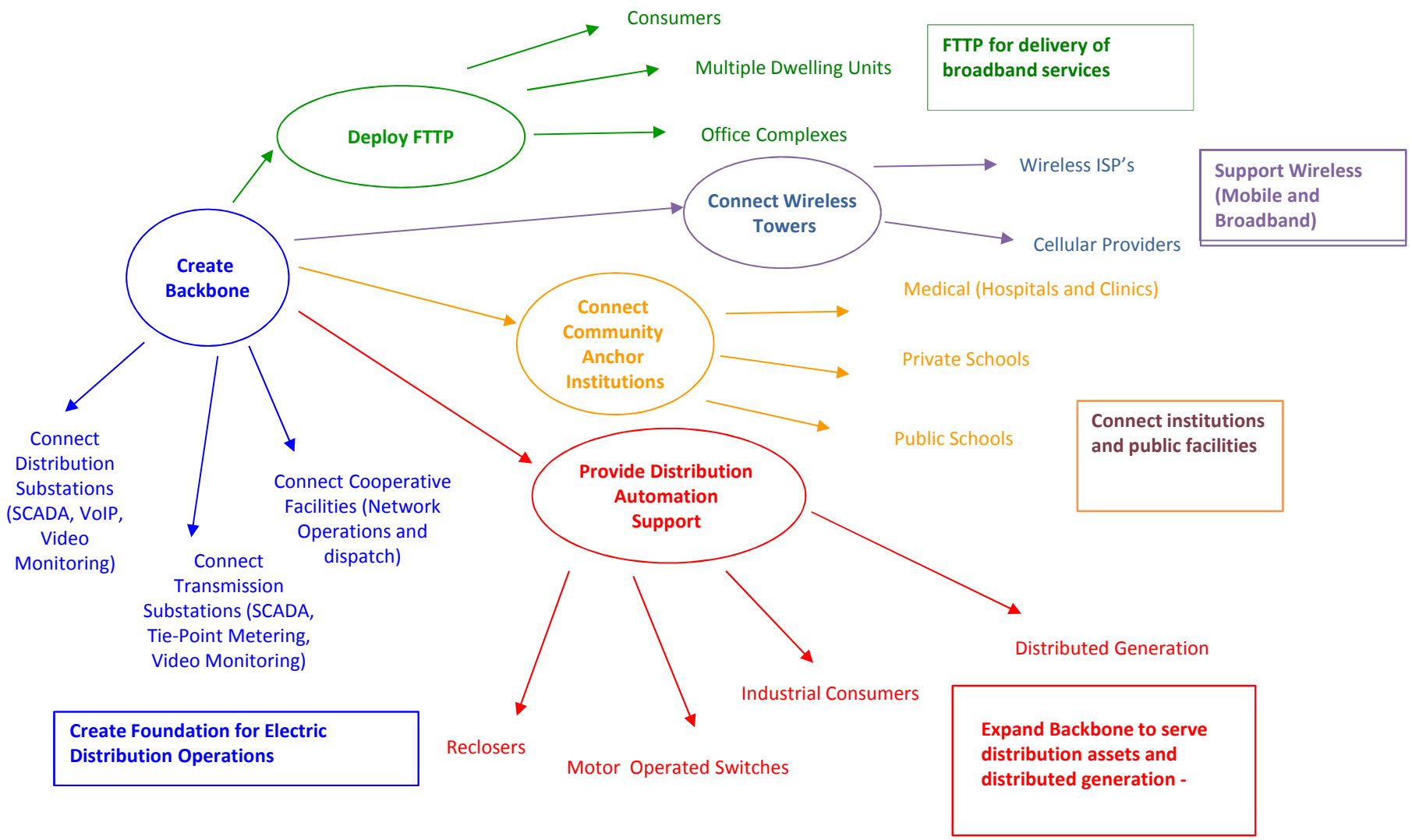
World Bank Report

- "Broadband is a … technology that significantly affects how people live and work. **It is a key driver of economic growth and national competitiveness** …Countries in the top tier of broadband penetration have exhibited **2 percent higher GDP growth than countries in the bottom tier**." (Citing Federal Communications Commission, Industry Analysis and Technology Division Wireline Competition Bureau, High-Speed Services for Internet Access: *Status as of June 30, 2008* (July 2009); available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-292191A1.pdf.
- World Bank Report at: http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/282822-1208273252769/Building_broadband.pdf

References to Consider

- The Future of Broadband by Richard Adler – Technology Institute for the Future 2012
  - http://www.broadbandforamerica.com/sites/default/files/Richard%20Adler%20Report%202.pdf
- The Book of Broken Promises by Bruce Kushnick – New Networks Institute 2014
  - http://www.huffingtonpost.com/bruce-kushnick/the-book-of-broken-promis_b_5839394.html
- Captive Audience: The Telecom Industry and Monopoly Power in the New Gilded Age by Susan Crawford – Yale Press 2013
- Last Week Tonight with John Oliver: The Internet - June 2014
  - Warning: Coarse Language: http://www.youtube.com/watch?v=fpbOEoRrHyU

Fiber Deployment – Potential Phases



Sebewaing Light & Water
Financial Model Summary

Project Summary	Original Model	12/17/13 Model	Resources Needed		Original Model	12/17/13 Model
Services Offered			Price			
Aerial Miles	10.5	18.8	Data	$35/$55/$105		
UG Miles	4.5	2.7	Admin / Marketing	0	0	Voice $35
Homes Passed	900	938	Maintenance Tech	0	0	Package $70 / $80
Businesses Passed	45	183	Install Tech	1	1	Business $75 for 50MB
Expected Penetration	50.0%	50.0%	**Total Resources**	**1**	**1**	$10 add 5 IP
Customers	468	542	$40 Phone			

Project Budget	Original Model	12/17/13 Model	Customer Margin		Original Model	12/17/13 Model
Project Capital Expenditures		**Margin Per Customer**				
Headend Building/Electronics		$150,000	$123,000	Revenue	$62.92	$61.64
Remote Cabinets/Electronics		$0	$0	Direct Costs	$26.95	$19.58
Plant Materials & Equipment		$130,800	$194,702	Operating Costs		$15.58 $13.84
Aerial Labor	$137,340	$268,255	**Total Margin**	**$20.39**	**$28.22**	
UG Labor	$155,610	$92,148				
Make Ready	$93,000	$0	*Direct costs include bandwidth, VoiP costs and customer care.*			
Engineering/Constr. Mgmt		$30,000	$134,520	*Operating costs include administrative/marketing wages, outsourced installation costs, vehicles and fuel, plant maintenance, property taxes, marketing connection costs and other miscellaneous expenses.*		
Drops	$245,700	$284,655				
Total Project Capital	**$942,450**	**$1,097,280**				
Operating Capital Budget						
Capitalizable Installation Costs		$34,939	$40,478	Key Indicators	Original	12/6/2013
Installation Materials	$7,794	$9,029		Model	Model	
Total Operating Capital	**$42,733**	**$49,507**		Outside Plant Cost per Mile	$36,450	$32,122
Project Cost per Passing	$1,043	$1,023				
Total Capital Budget	**$985,183**	**$1,146,787**				

HB 5016 RELOCATION COST SHIFT

See Tab 4

For 100 years, it has been the law, custom and per written agreements, that utilities granted access to our rights of way, pay their own cost when municipal growth compels changes to those rights of way.

HB 5016 seeks to reverse that and saddle locals with those costs re telecom. Projected Cost?

$100,000,000+/Year

If passed, when will the electric and pipeline industries ask for the same?

CABLE/VIDEO UPDATE: MPSC QUITS

See Tab 5

The MPSC was charged with administering PA 480, the Michigan Video Services (Cable) Act in 2007

As of December 31, 2015, the Legislature opted not to fund the MPSC re its PA 480 Oblogations

Where does that leave us?

Pipelines

PROTEC Comments Re Proposed Hazardous Pipeline Rules See Tab 6

WHY?

Aging infrastructure is resulting in a crescendo of failures and disasters

– See San Bruno or Kalamazoo River

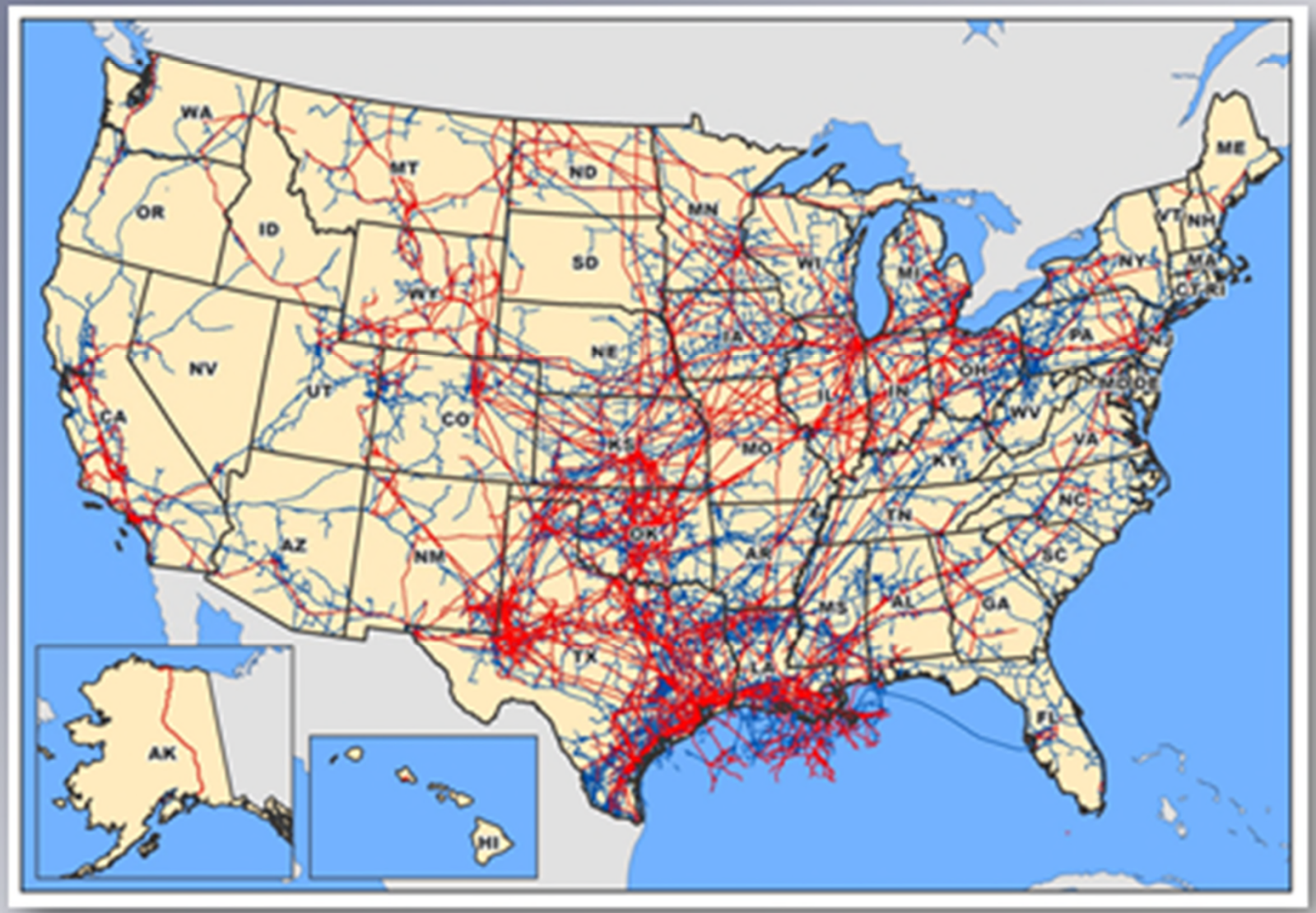
Industry is setting up local government as a fall guy for its own failures

Pipelines in the United States

- There are 2.5 million miles of natural gas and hazardous liquid pipelines in U.S. That's enough to circle the earth about 100 times.
  - 2,066,000 miles of **smaller diameter, low-pressure natural gas distribution** mains and service pipelines
  - 321,000 miles of onshore and offshore natural gas **transmission** pipelines
  - 175,000 miles of onshore and offshore **hazardous liquid pipelines**
- These pipelines are operated by over 3,000 companies, large and small
- **States play a major role in regulation of pipeline operation**

U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

Transmission Pipelines in the U.S.



Pipeline Safety Regulations

- Hazardous Liquid and Gas Pipeline Regulations address:
  - Materials
  - Design
  - Construction
  - Operations and Maintenance
  - Testing
  - Personnel Qualification, Drug and Alcohol programs
  - Integrity programs
  - More…
- PHMSA does NOT have citing authority for new pipelines

Pipeline Emergencies Training Curriculum

- Brought to you by PHMSA and the National Association of State Fire Marshals
- Provides an overview of pipeline operations and how to safely and effectively respond to pipeline emergencies
- Dedicated Website at www.pipelineemergencies.com
- Online e-Book, *Pipeline Emergencies*
- iPhone, iPad, iPod Touch, and Android Apps
- Trainer's Instructor Guide
- Interactive Training Scenarios

ITC v OSHTEMO

This case is headed to the Michigan Supreme Court. See Tab ___

Q: What's at stake?

A: Whether local government runs local government or, whether utilities do.

Michael J. Watza Biography

Martindale Hubbell AV Rating
Super Lawyer Designation
Detroit Business Top Lawyer

- Michael J. Watza is Co-Chair of the Governmental and Commercial Litigation Practice Groups at Kitch, a full service Law firm based in Detroit, with offices in Lansing, Marquette, Mt. Clemens, Chicago, Ill. and Toledo, OH.
- Mr. Watza's practice provides litigated, legislative and regulatory solutions on behalf of municipal, health care and private sector clients concerning legislation, Complex Litigation, Governance Issues, Telecommunications including Cable and Cell Towers, Energy and Insurance.
- Michael has managed multiple legislative initiatives, represented clients in State and Federal trial and appellate courts across Michigan as well as attended to regulatory matters before the Michigan Public Service Commission, Michigan Tax Tribunal, Department of Labor and Economic Growth and the Federal Communications Commission and Department of Transportation (PHSMA).
- Michael has represented clients in the halls of the Michigan Legislature and Congress through negotiation, drafting and testimony regarding legislation on various issues including energy, transmission line siting, telecommunications (cable and cell towers), pipeline regulation, the formation of inter-governmental authorities and tort reform.
- Michael also serves as General Counsel to PROTEC and the Mobile Technology Association of Michigan, the Michigan Gaming Control Board, Covenant House Central School Board in Detroit, Chairman of the Novi EDC, Chairman of Attorney Grievance Commission Grievance Panel #9, Immediate Past Chairman of the Administrative Law Section of the State Bar and Treasurer/Secretary of the Public Corporation Law Section of the State Bar and Chairman of the International Municipal Lawyers Technology Committee.
- Michael is an adjunct faculty member at Michigan State University College of Law having taught Communications Law and Policy and Ethics and the Practice of Law.
- In 2008, Michael successfully led a coalition of Michigan Cities to Federal Court and Congress to oppose Comcast's effort to move PEG channels to the 900 channel range and digital, at a time when all other cable channels were analog.
- In 2013, Michael provided the legal components to the development of the 1st new Municipal Fiber to the Home and Business (FTTP) project and the development of a DDA sponsored WIFI system in Michigan in the face of legislative impediments

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PROTEC

KITCH Attorneys & Counselors

SMART Pole Solutions

*"SMART Pole Solutions from Hapco allow architects and planners to use imagination and creativity in implementing designs that are unique to their overall project vision. We design and manufacture custom solutions that turn concepts into realities, delivering **Small Cell** and **Internet of Things** (IoT) SMART Pole designs that are ready for whatever connected technologies the future may hold."*

Table of Contents

Smart Poles Your City's Future Can Rely On

As Smart Cities connect existing and future digital technology to their infrastructure, multi-use attachment requirements will continue to grow. Example categories include:

- Small Cell Antennas
- Security Cameras
- Meter Boxes
- Wi-Fi Antennas
- Batteries
- Street Signs
- Banner Arms
- Fixture Arms
- Plant Hangers
- Solar Panels
- Security, Environmental, and Gunshot Detection Sensors

Functioning as more than a support for the lighting fixture, Hapco offers an industry-leading selection of aluminum SMART Poles options that are both flexible in design and future-proof. These SMART Pole Solutions allow for an integrated design that aesthetically blends into existing urban landscapes.

SMART Pole Solutions

Hapco has been designing, engineering, and manufacturing the highest quality aluminum poles for over sixty-five years. With our reputation for excellence making us one of the most recognized…and specified… names in the light pole industry, we are the perfect partner for your Smart City project.

Dedicated R & D

A pioneer in the research that shaped the aluminum pole industry, our commitment to R&D has produced decades of efficient product designs and industry-first patents. Our SMART Pole offering builds off this experience and dedication, creating an unequaled combination of aesthetics, strength and adaptability in “Smart City Ready” poles.

Engineering Excellence

Hapco’s decades of Engineering knowledge is unequaled in the industry, earning a respected reputation for both design capabilities and product quality. With the knowledge and experience to meet demanding project specifications, our Engineering team designs SMART Poles with the perfect blend of functionality and aesthetics to match any architectural style.

Manufacturing Expertise

Hapco draws on the most advanced aluminum manufacturing technologies and decades of experience to create superior street and area lighting products. Our 325,000 square foot facility combines knowledgeable and dedicated employees with a world-class aluminum manufacturing operation containing automated powder paint lines, on-site fluting, and AWS certified welders. The custom nature of Smart City applications makes each SMART Pole requirement unique. Our dedicated custom lines stand ready to produce the Solution to your next project.

Focused on Quality

ISO9001:2015, Certified Welding Fabricator (CWF) and AISC Certified Fabricator certifications provide confidence of the highest quality products measured by the highest standards in the industry.

SMART Pole Solutions

Multi-Chamber Aluminum Poles

Hapco's Multi-Chamber aluminum poles are the perfect SMART Pole Solution for the growing complexity of communications and control systems in today's Smart Cities.

- **Eliminate the Possibility of Signal Interference.**
  Allows the use of multiple power sources.
- **Separate Access to Each Chamber.**
  Security for each individual provider.
- **Adaptable and Future-Proof.**
  Ready for future expansions and technologies.
- **Internal Web Design Improves Loading Capacities.**
  Increased Loading for Whatever the Future May Hold.


Dual-Chamber


Tri-Chamber


Tri-Chamber Fluted


Dual-Chamber Square

Dual-Chamber - Round


Dual-Chamber
See Pages 22-23

Mounting Heights: Up To 45'
Butt Diameters: 6" and 10"
Wall Thickness: .250"
Shaft Material: Aluminum Alloy 6005A-T5

Design Options:
6" Straight
10" Straight
10" Transitioning to 6"

Tri-Chamber - Round


Tri-Chamber
See Pages 10-15, 18-21

Mounting Heights: Up To 45'
Butt Diameters: 6" and 10"
Wall Thickness: .250"
Shaft Material: Aluminum Alloy 6005A-T5

Design Options:
6" Straight
10" Straight
10" Transitioning to 6"

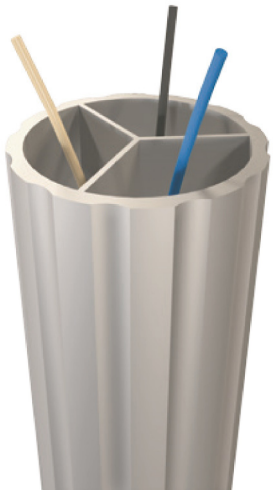
Transition Adapters
Dual and Tri-Chamber - Round

Patent-Pending Multi-Chamber Transition Adapters provide aesthetic pole design options with continuous signal isolation.


Dual-Chamber Transition Adapter


Tri-Chamber Transition Adapter

Tri-Chamber - Fluted Round



Mounting Heights: Up To 50'
Butt Diameter: 8" and 10"
Wall Thickness Up To: .4375"
Shaft Material: Aluminum Alloy 6005A-T5

Design Options: 8" Straight
10" Straight

Tri-Chamber - Fluted Round
See Pages 16-17

Dual-Chamber - Square

Mounting Heights: Up To 30'
Butt Square: 6"
Wall Thickness: .250"
Shaft Material: Aluminum Alloy 6005A-T5

Design Options: 6" Straight

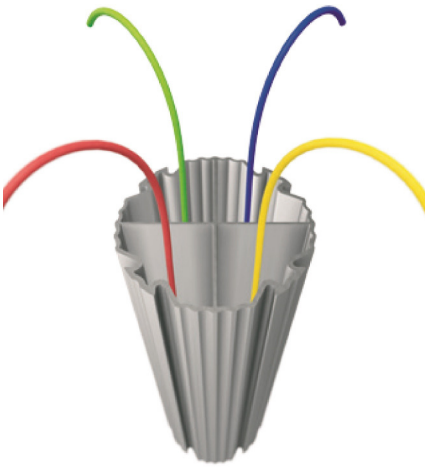
Dual-Chamber - Square
See Pages 24-25

SmartBase

Hapco's SmartBase line of aluminum pole cabinets provide the perfect solution to house the many equipment options associated with SMART Pole technology. All Multi-Chamber and SMART TRAC pole options can be incorporated into a SmartBase design, with sizes adjusted based on project requirements. SmartBase options keep Streetscapes uncluttered, beautifully blending function and aesthetics.

See Pages 14-15

SMART TRAC



SMART TRAC, Quad-Chamber Round
See Pages 26-28

SMART TRAC, Hapco's patent-pending aluminum POLE SYSTEM, offers innovative multi-use poles and accessory mounting options that are the perfect blend of functionality, versatility, strength and aesthetics.

Mounting Heights: Up To 50'
Butt Diameters: 4", 6", 8" and 12"
Wall Thickness: .250"
Shaft Material: Aluminum Alloy 6005A-T5

Design Options:
4" Straight
6" Straight
8" Straight
12" Straight
8" Transitioning to 6"
6" Transitioning to 4"
8" to 6" to 4"

Advantages of Aluminum

Cities look to the future when choosing SMART Pole platforms for Small Cell and IoT applications, and no better choice of material aligns with the essential priorities of longevity and future-proofing than aluminum.

The superior properties of aluminum make it both the perfect choice and best value for outdoor lighting poles and brackets.

Aluminum is Corrosion Resistant

On contact with air, aluminum forms a protective layer of aluminum oxide that guards against corrosion. This natural resistance to corrosion ensures that your aluminum lighting pole will resist the ravages of time, temperature and humidity while providing years of low maintenance care.

Aluminum is Lightweight

Aluminum provides the perfect combination of lightweight material with high strength-to-weight ratios. At one-third the weight of steel, aluminum poles are much easier to handle and install, providing substantial installation savings in both labor and equipment.

Aluminum Provides Lower Overall Cost of Ownership

The properties of aluminum make it a tremendous value when the overall cost of ownership is considered. Higher installation and maintenance costs for aluminum alternatives, combined with guaranteed replacement costs of shorter lifecycle materials, contribute to aluminum having the lowest cost of ownership of any lighting pole option.

Decades-Long History of Proven Performance

Hapco has been manufacturing quality Aluminum Pole Products for more than 60 years, with many of the original installations still in service with no structural issues or noticeable differences in appearance. The longevity and durability of our products can be validated with our industry-leading Lifetime Warranty on aluminum pole assemblies *(see Pages 9)*.

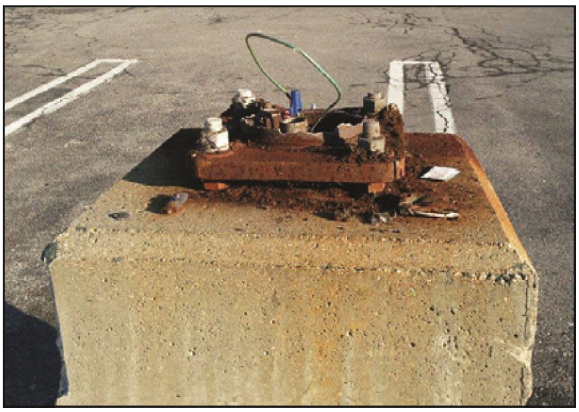
Aluminum is 100% recyclable. Aluminum recycling benefits present and future generations by conserving energy and other natural resources.

Advantages of Aluminum

When compared to alternative materials, the advantages of aluminum are substantial.

Steel is Not Corrosion Resistant

- Steel will begin to deteriorate as soon as it is installed.
- Rust creates adhesion issues, leading to poor aesthetics and higher maintenance costs.
- Inherently shorter lifecycles lead to guaranteed pole failure and replacement.



Composite Poles are Susceptible to the Environment

- Composite poles are affected by ultraviolet fading and fiber blooming, quickly leading to poor aesthetics.
- Repainting and replacement costs associated with composite lead to higher cost of ownership.
- Damage by mowing or trimming is common.

Concrete Poles are Heavy with Poor Aesthetics

- Concrete poles are susceptible to spalling (crumbling), staining and fading.
- Concrete has poor aesthetics due to a lack of uniformity of color between the pole, fixture, and pole accessories.
- Difficult to install, requiring expensive installation equipment and larger installation crews.
- Slower, less efficient installations translate into extended job completion times.

Superior Powder Coat Finishes

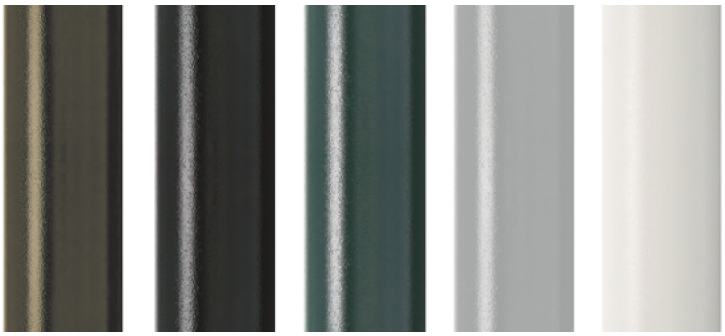
Hapco Powder Coating operations employ state-of-the-art processes utilizing weather-resistant triglycidyl isocyanurate (TGIC) polyester powders that are electrostatically applied, oven-cured and bonded.

- Advanced, AAMA 2604 Powders
- Superior Gloss, Color Retention, And Weathering Capabilitites
- Higher UV and Scratch Resistance

AAMA 2604 Super Durable Powders

All finish coatings are not created equal. The American Architectural Manufacturers Association (AAMA) provides classifications for powder coating that have been widely recognized as the standards for testing and performance of coatings on architectural aluminum products. AAMA 2604, known as Super Durable powder coat, is formulated with advanced polyester resin technology that utilizes higher performance pigments. Hapco uses Super Durable AAMA 2604 powders for all powder coated poles.

Standard Colors



Dark Bronze *BM*

Black *BA*

Dark Green *BV*

Gray *GC*

White *BH*

RAL and Custom Colors

In addition to our standard colors, Hapco offers thousands of RAL and custom color options. Simply provide any RAL Color Number or Color Chip Sample and Hapco will provide the perfect AAMA 2604 Powder Coat Color for your next p

Hapco Aluminum
The Green Choice

Hapco Aluminum Poles provide an environmentally responsible choice of material and approach with the burgeoning green movement, allowing specifiers to aggressively pursue a design based upon sustainable principles.

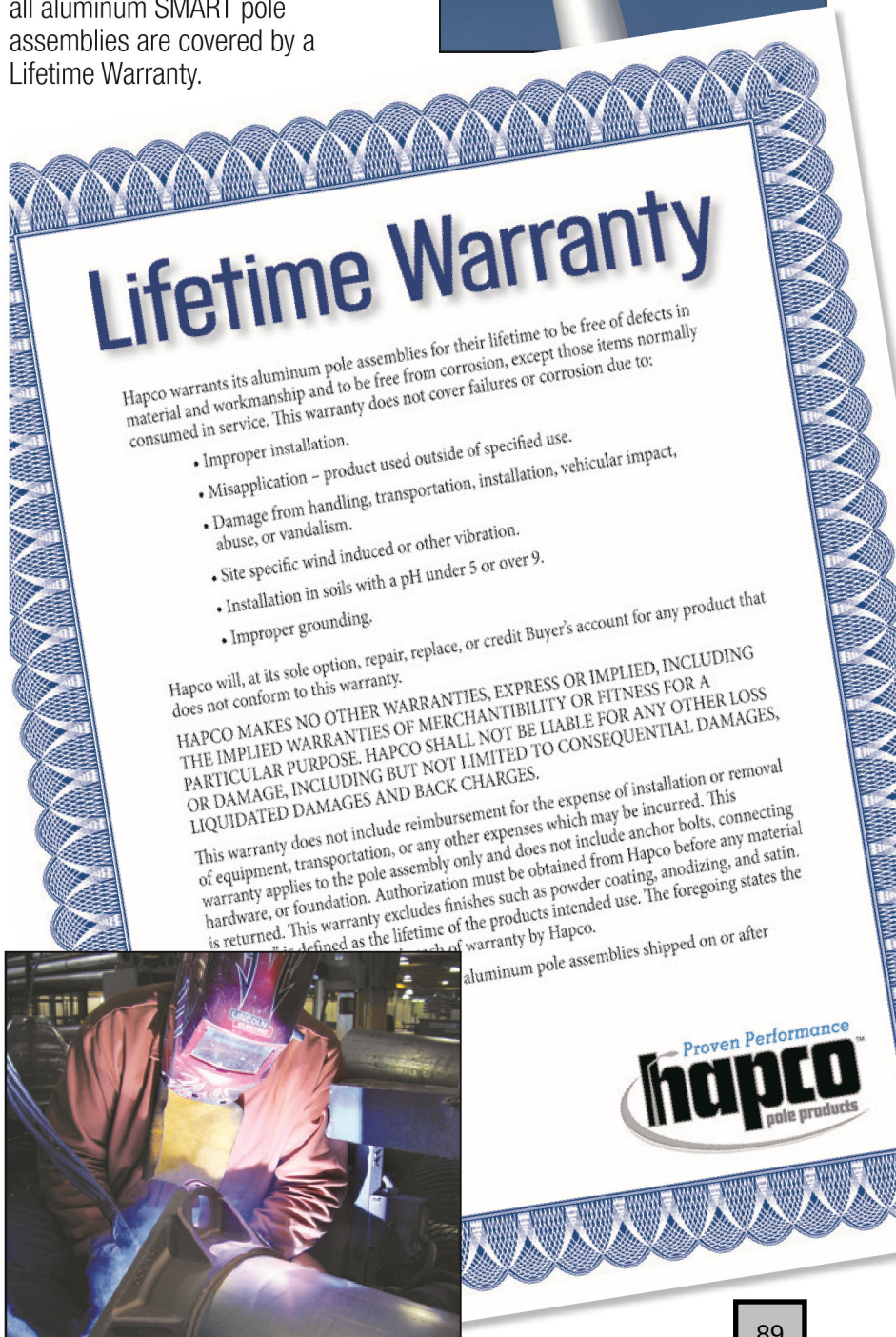
Aluminum resists the ravages of time, temperature, corrosion, humidity, and warping, creating an incredibly long life cycle when compared to alternative materials. This results in a far lower environmental impact through reduced material replacement energy.

Hapco Aluminum, a sustainable material for now and the future!

Lifetime Quality... Guaranteed

At Hapco, it is our mission to create lasting customer relationships by providing the industry's highest quality products. We do this by combining the most advanced, industry-leading manufacturing technologies with exceptional engineering and design.

Because we stand behind our products and truly believe in their longevity and durability, all aluminum SMART pole assemblies are covered by a Lifetime Warranty.



Lifetime Warranty

Hapco warrants its aluminum pole assemblies for their lifetime to be free of defects in material and workmanship and to be free from corrosion, except those items normally consumed in service. This warranty does not cover failures or corrosion due to:

- Improper installation.
- Misapplication – product used outside of specified use.
- Damage from handling, transportation, installation, vehicular impact, abuse, or vandalism.
- Site specific wind induced or other vibration.
- Installation in soils with a pH under 5 or over 9.
- Improper grounding.

Hapco will, at its sole option, repair, replace, or credit Buyer's account for any product that does not conform to this warranty.

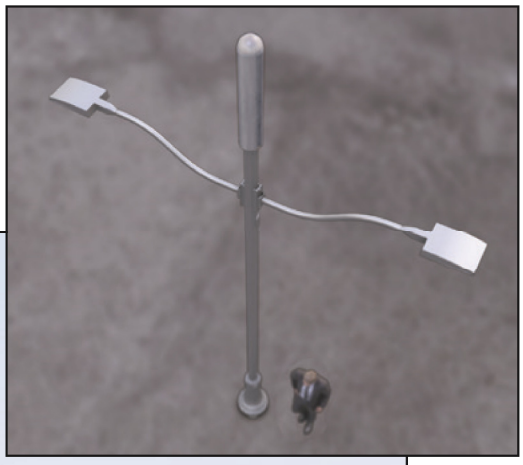
HAPCO MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTIBILITY OR FITNESS FOR A PARTICULAR PURPOSE. HAPCO SHALL NOT BE LIABLE FOR ANY OTHER LOSS OR DAMAGE, INCLUDING BUT NOT LIMITED TO CONSEQUENTIAL DAMAGES, LIQUIDATED DAMAGES AND BACK CHARGES.

This warranty does not include reimbursement for the expense of installation or removal of equipment, transportation, or any other expenses which may be incurred. This warranty applies to the pole assembly only and does not include anchor bolts, connecting hardware, or foundation. Authorization must be obtained from Hapco before any material is returned. This warranty excludes finishes such as powder coating, anodizing, and satin. ...defined as the lifetime of the products intended use. The foregoing states the ...of warranty by Hapco.

...aluminum pole assemblies shipped on or after

Proven Performance
hapco pole products

Tri-Chamber Round - 6" Straight



Tri-Chamber Round

Shaft Design: Tri-Chamber – 6" Straight

Shaft Material: Aluminum Alloy 6005A-T5

Wall Thickness: .250"

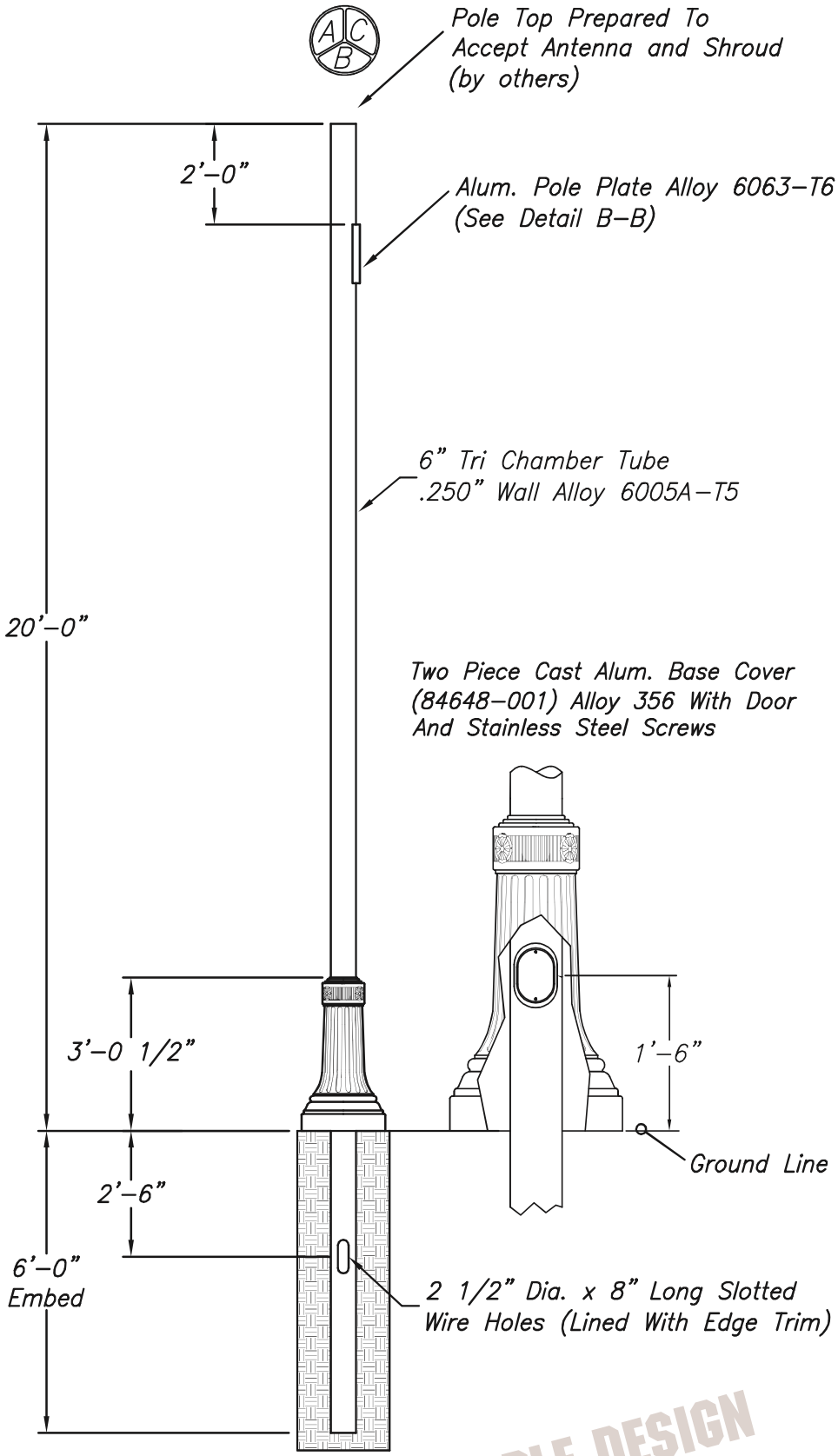
Base Design: York 20" Clamshell

Base Material: Aluminum Alloy 356

Butt Diameter: 6"

Mounting Height: 20'

Anchorage: Direct Buried



Tri-Chamber Round - 10" Straight

Tri-Chamber Round

Shaft Design: Tri-Chamber - 10" Straight

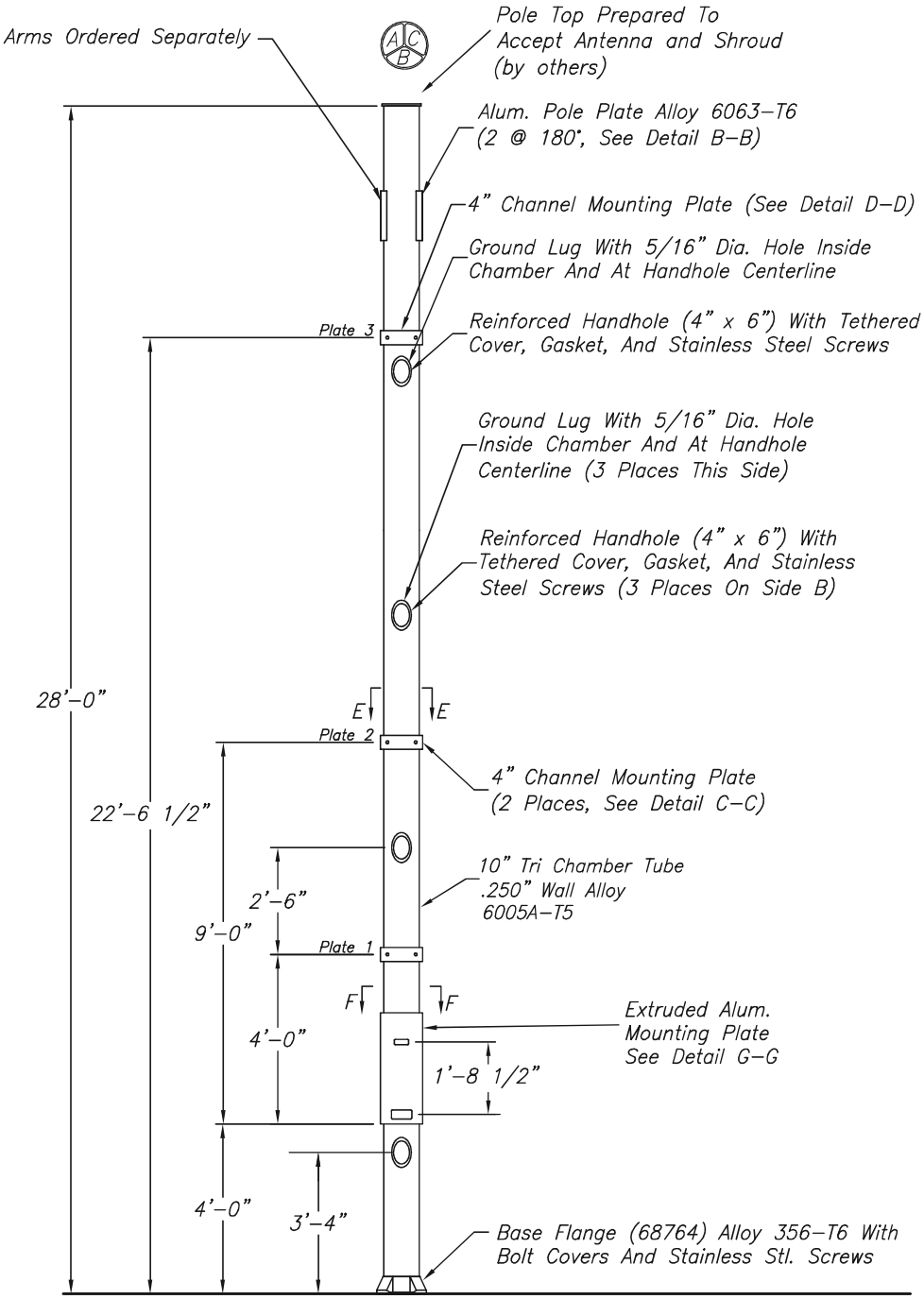
Shaft Material: Aluminum Alloy 6005A-T5

Wall Thickness: .250"

Butt Diameter: 10"

Mounting Height: 28'

Anchorage: 4-Bolt Base



Tri-Chamber SmartBase

Tri-Chamber SmartBase

Shaft Design: Tri-Chamber – 10" Straight

Shaft Material: Aluminum Alloy 6005A-T5

Wall Thickness: .250"

Base Design: SmartBase Pole Cabinet

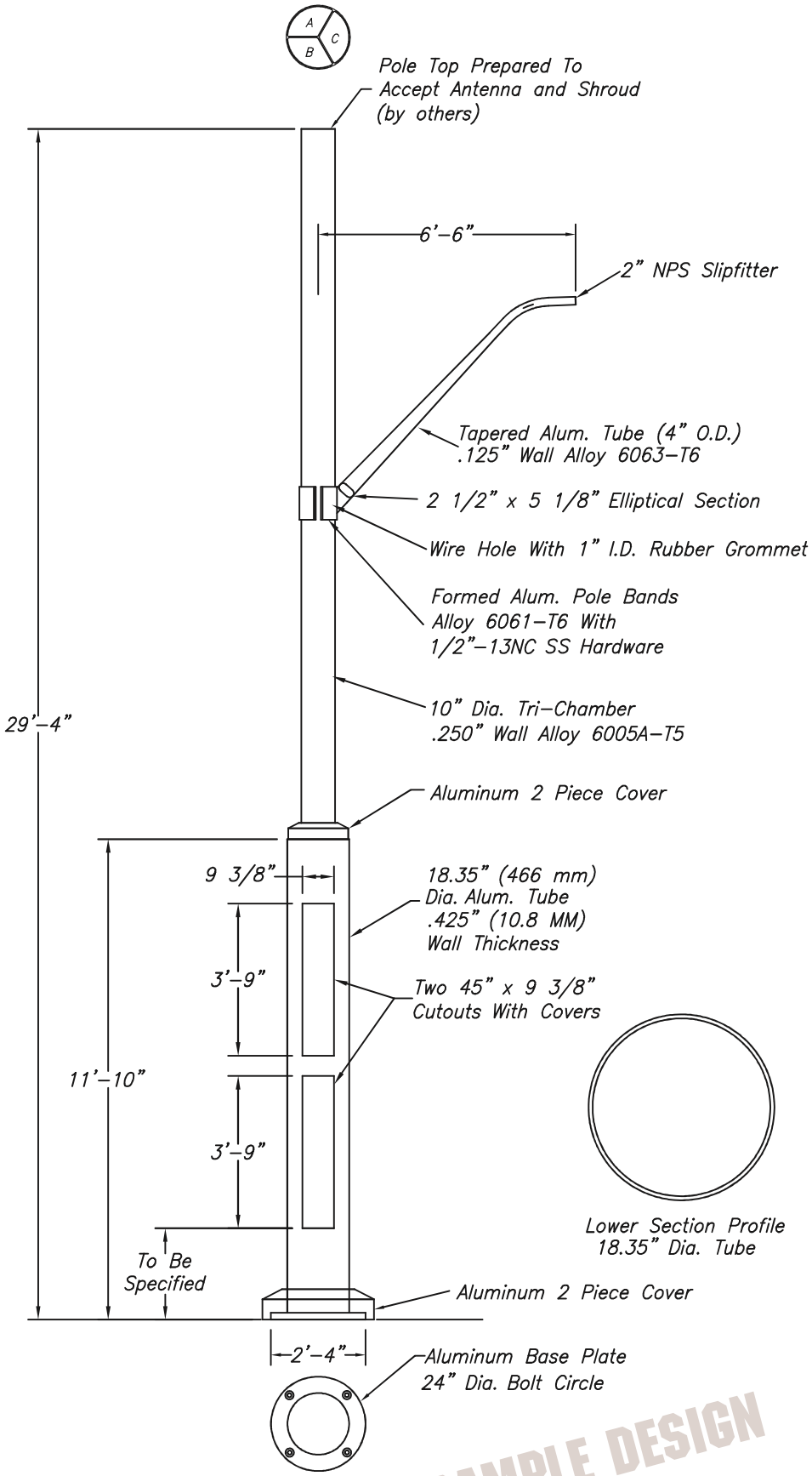
Base Material: Aluminum Alloy 356

Base Wall Thickness: .425"

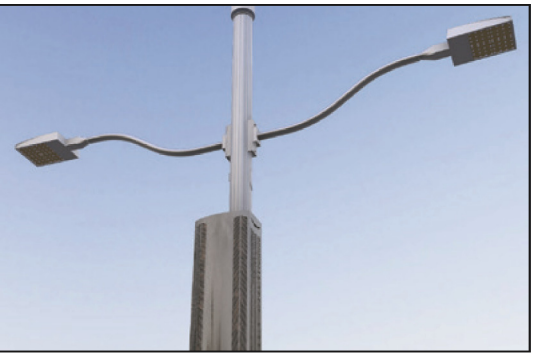
Butt Diameter: 18.35"

Mounting Height: 29'-4"

Anchorage: 4-Bolt Base Plate



Tri-Chamber Round Fluted - 8" Straight



Tri-Chamber Fluted

Shaft Design: Tri-Chamber - Fluted
8" Straight

Shaft Material: Aluminum Alloy 6005A-T5

Base Design: Arlen 20"w Clamshell

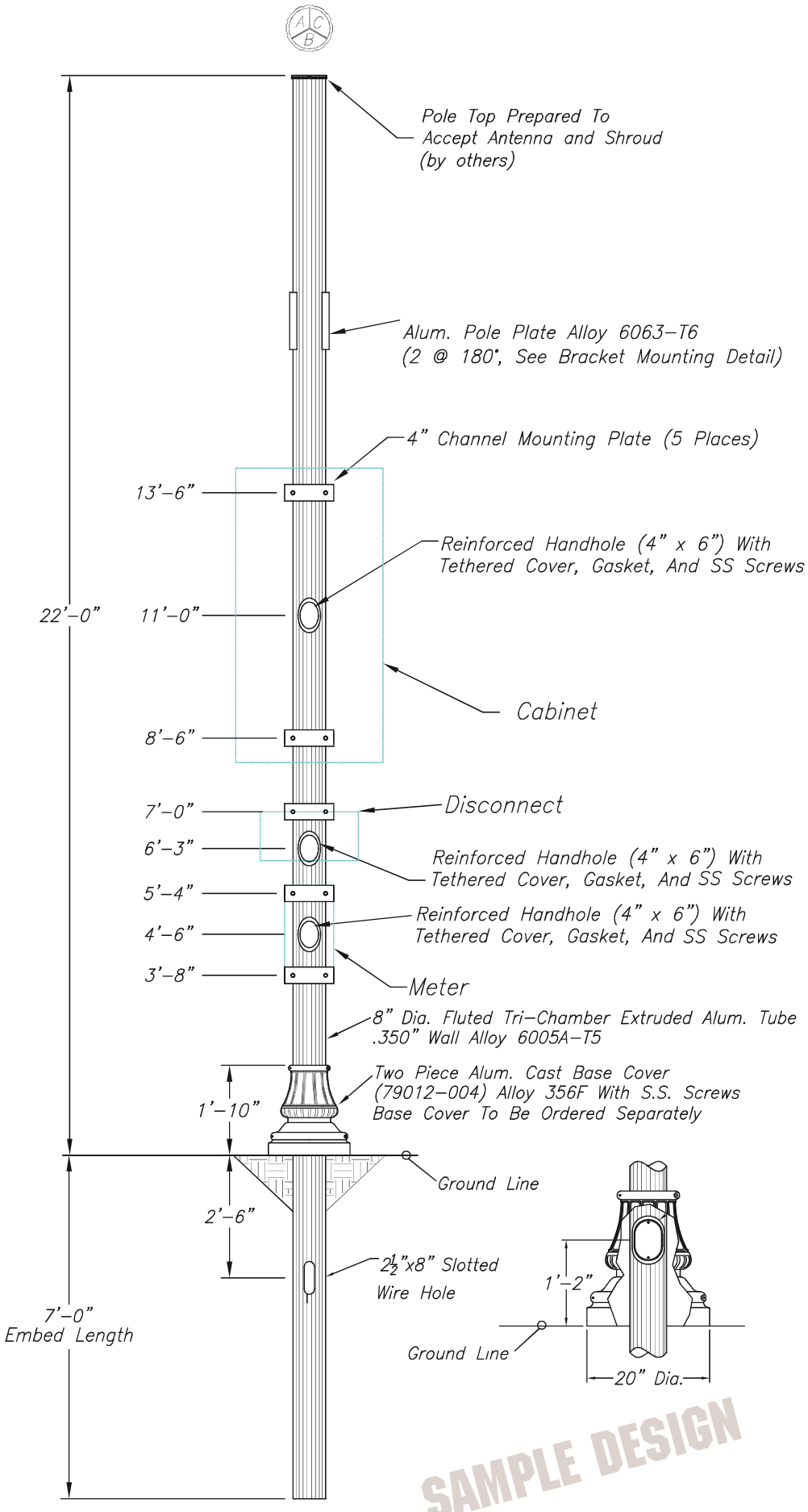
Base Material: Aluminum Alloy 356

Butt Diameter: 8"

Mounting Height: 22'

Wall Thickness: .350"

Anchorage: Direct Buried



Tri-Chamber Round - 10" to 6" Transition

Tri-Chamber Round

Shaft Design: Tri-Chamber – 10" to 6" Transition

Shaft Material: Aluminum Alloy 6005A-T5

Wall Thickness: .250"

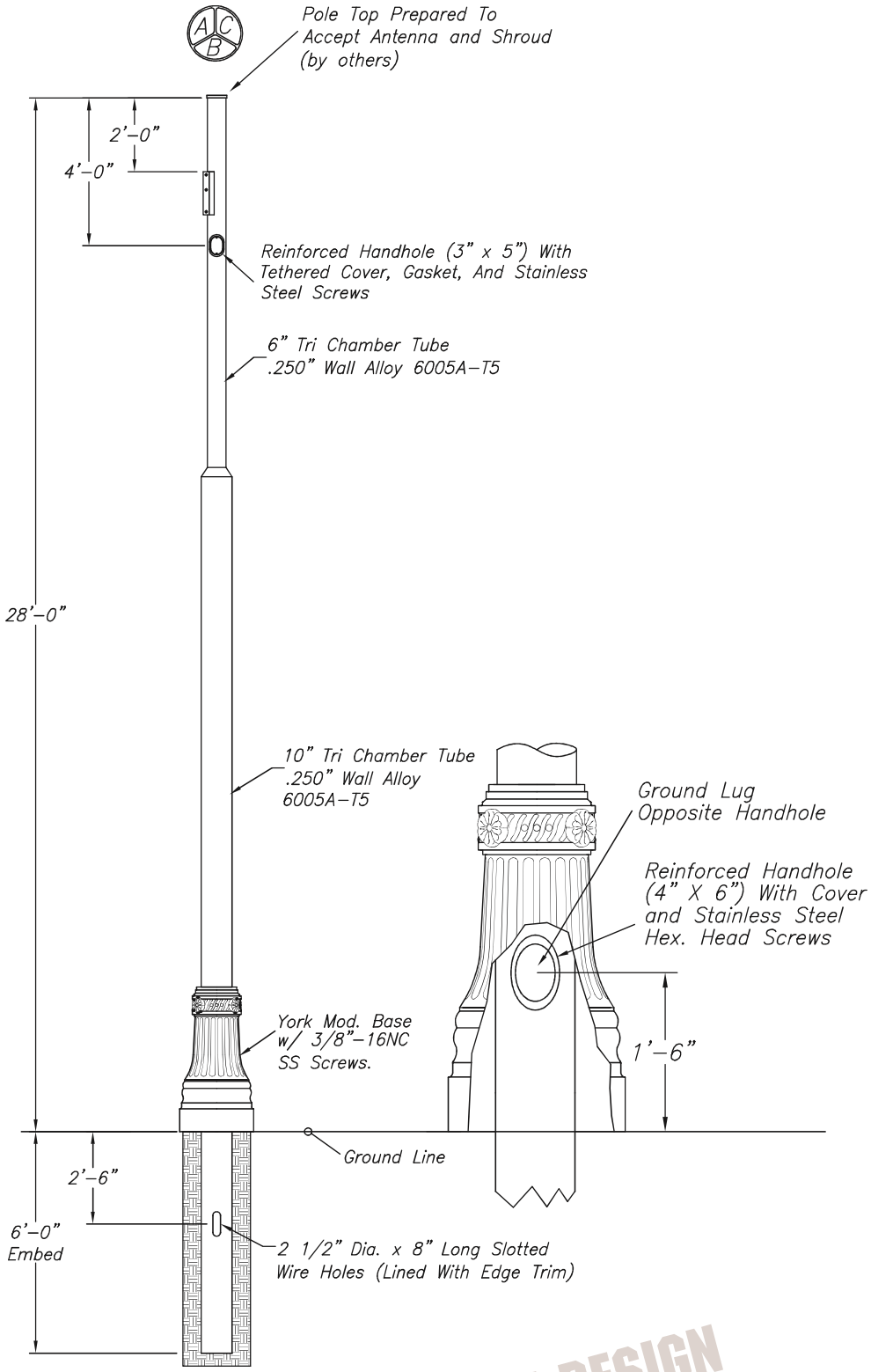
Base Design: York Modified 24" Clamshell

Base Material: Aluminum Alloy 356

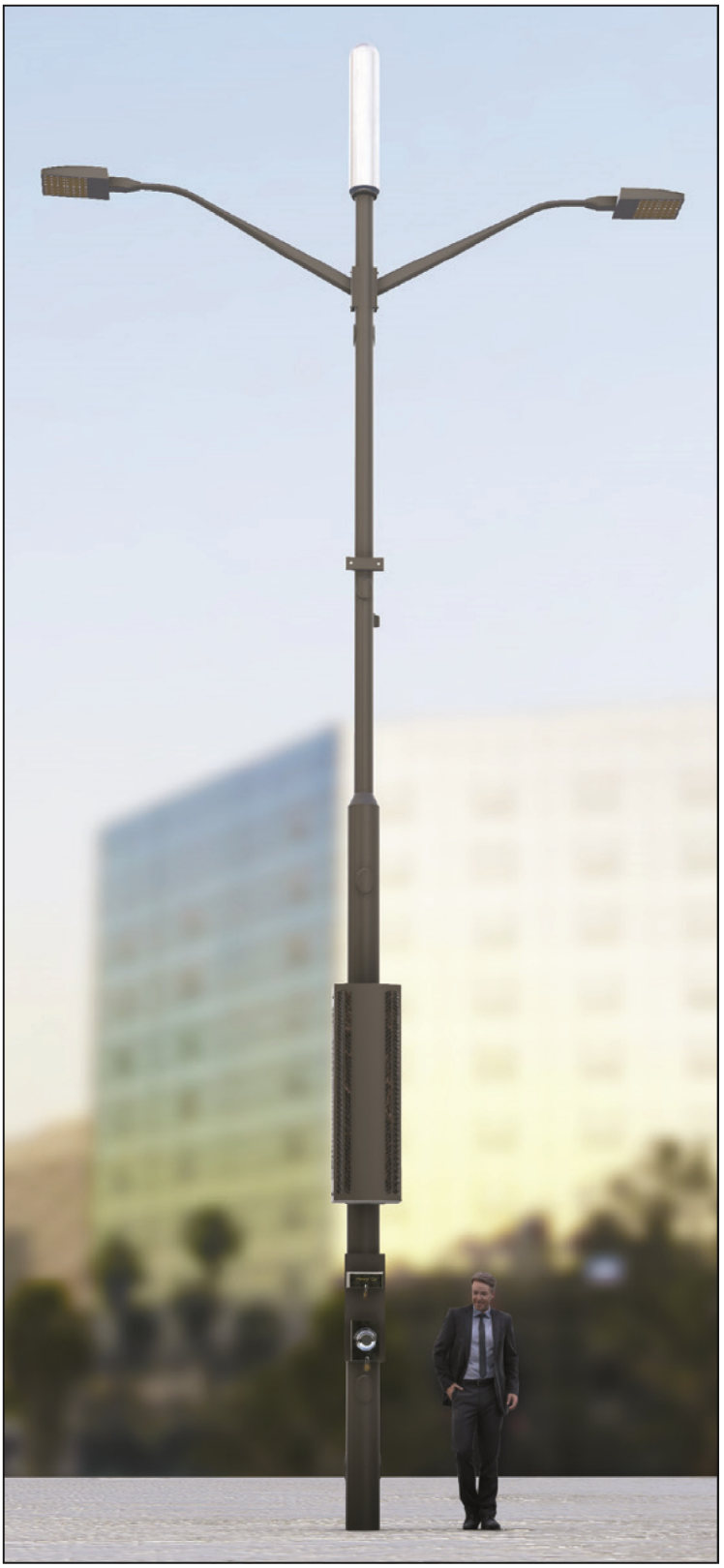
Butt Diameter: 10"

Mounting Height: 28'

Anchorage: Direct Buried



Tri-Chamber Round - 10" to 6" Transition



Tri-Chamber Round

Shaft Design: Tri-Chamber – 10" to 6" Transition

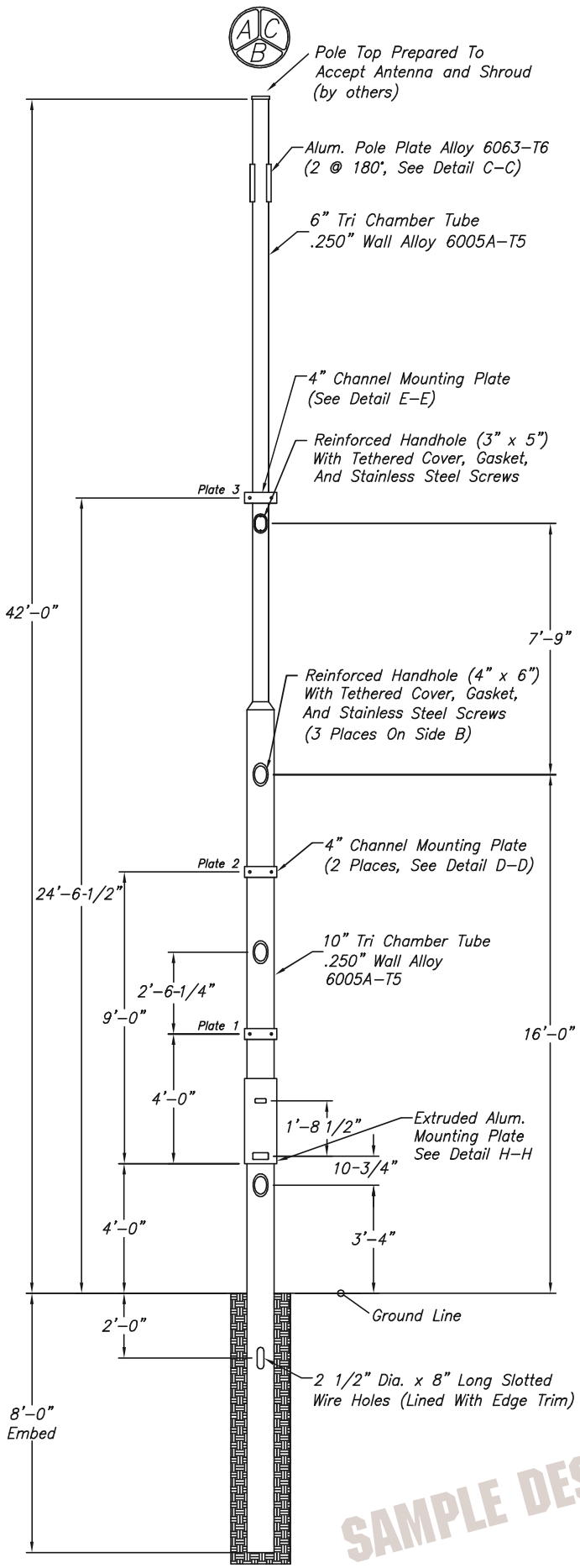
Shaft Material: Aluminum Alloy 6005A-T5

Wall Thickness: .250"

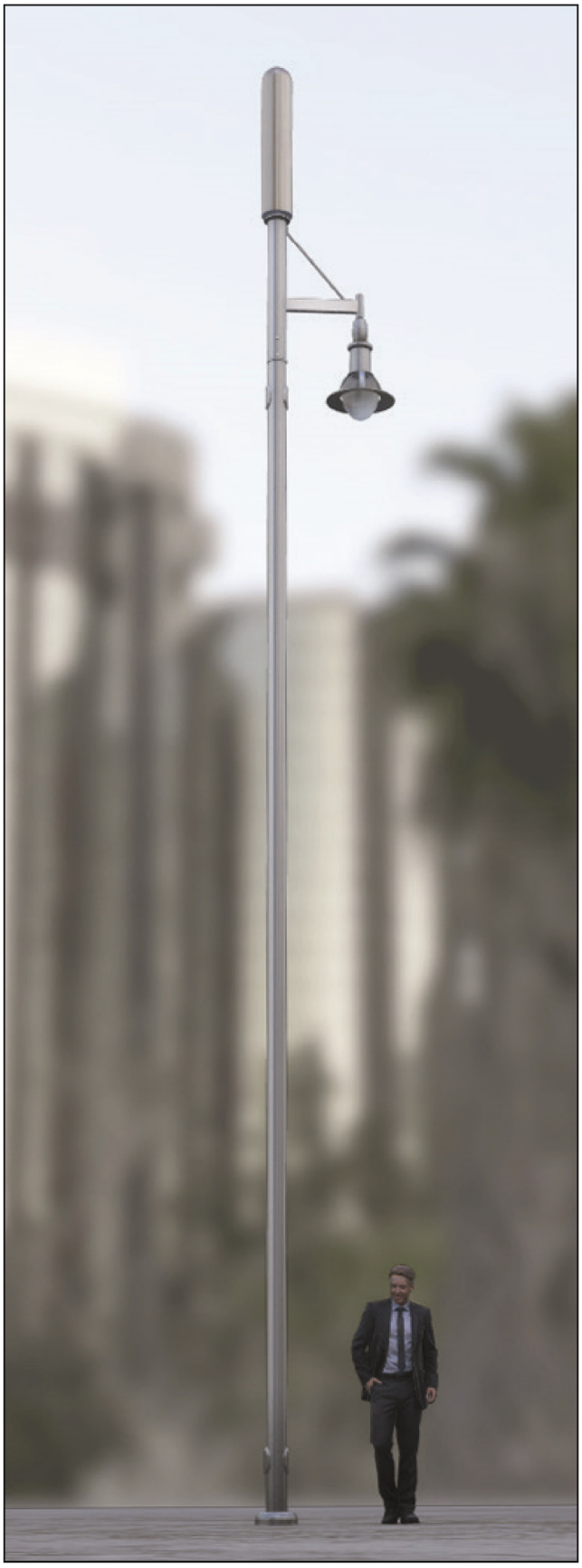
Butt Diameter: 10"

Mounting Height: 42'

Anchorage: Direct Buried



Dual-Chamber Round - 6" Straight



Dual-Chamber Round

Shaft Design: Dual-Chamber – 6" Straight

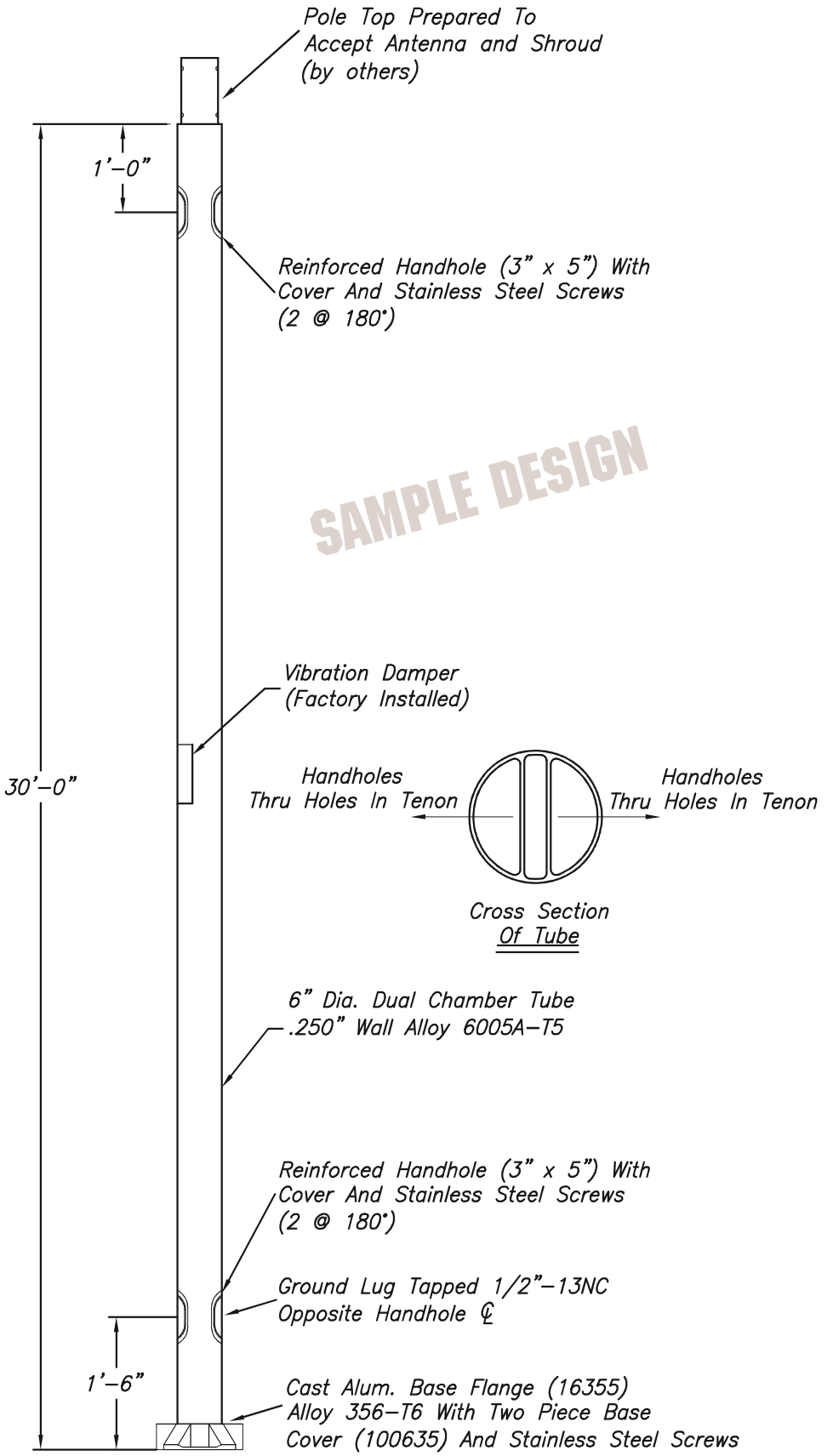
Shaft Material: Aluminum Alloy 6005A-T5

Wall Thickness: .250"

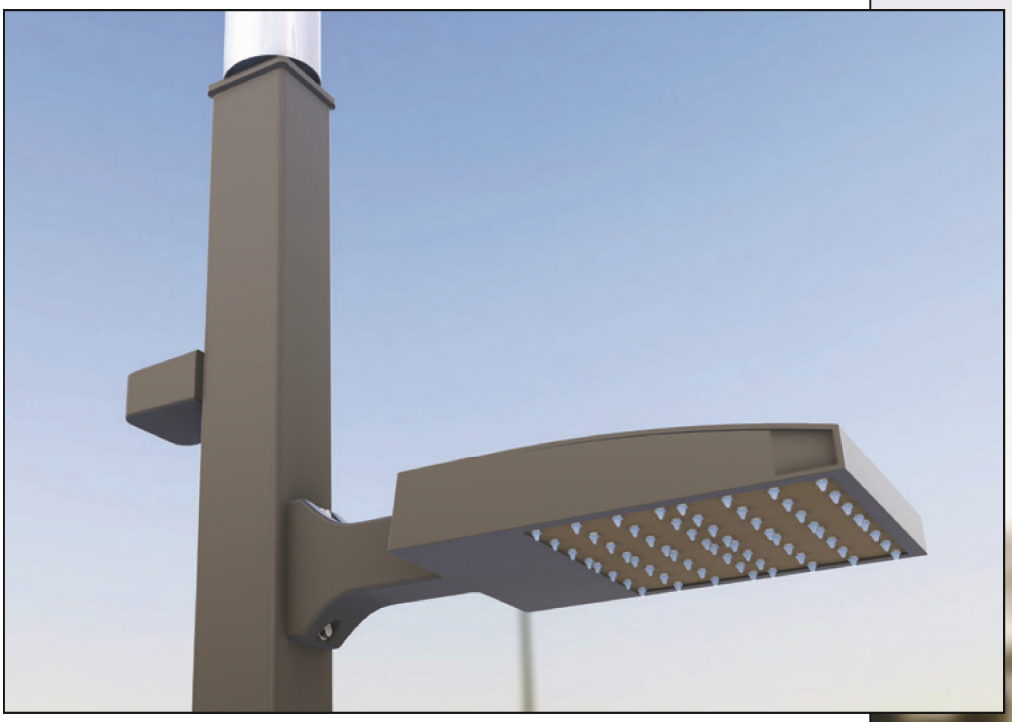
Butt Diameter: 6"

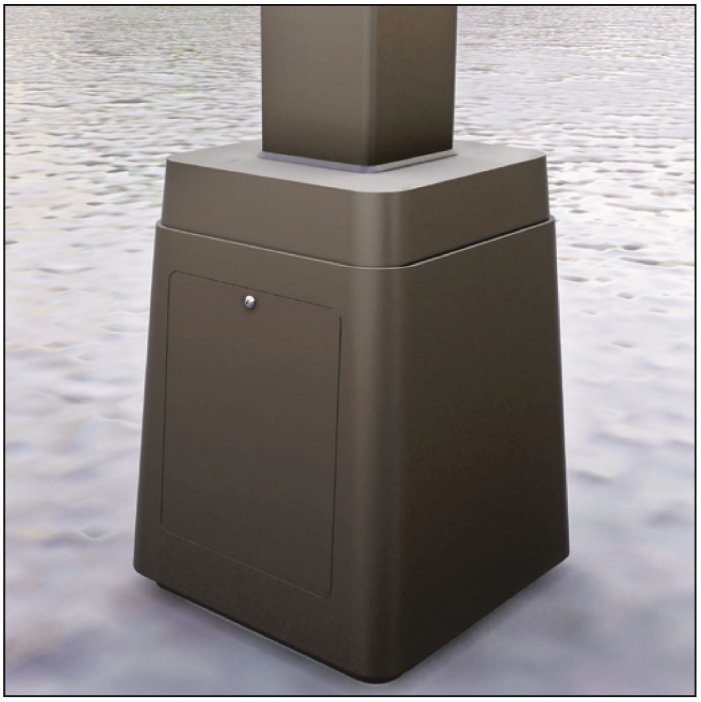
Mounting Height: 30'

Anchorage: 4-Bolt Base



Dual-Chamber Square - 6" Straight





Dual-Chamber Square

Shaft Design: Dual-Chamber - Square
6" Straight

Shaft Material: Aluminum Alloy 6005A-T5

Wall Thickness: .250"

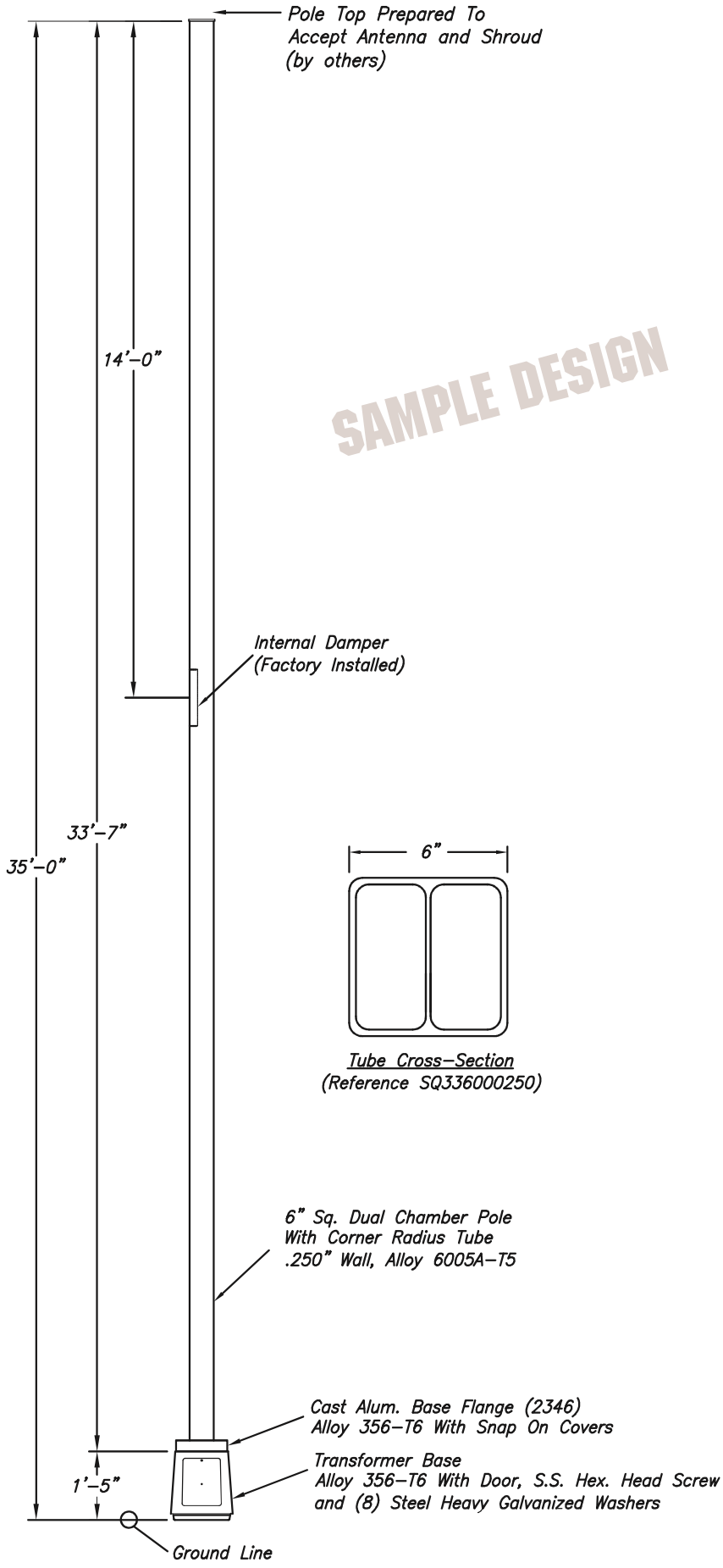
Base Design: T-Base

Base Material: Aluminum Alloy 356

Butt Square: 6"

Mounting Height: 35'

Anchorage: 4-Bolt T-Base



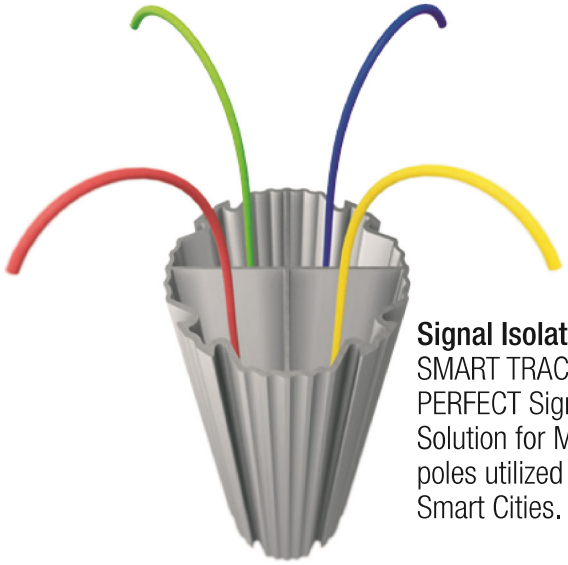
SMARTTRAC™
Smart City Pole Solution

SMART TRAC is the FOUNDATION for tomorrow's Smart Cities.

SMART TRAC, Hapco's patent-pending aluminum POLE SYSTEM, offers innovative multi-use poles and accessory mounting options that are the perfect blend of functionality, versatility, strength and aesthetics.

Transition Rings
Cast Aluminum Transition Rings provide AESTHETIC pole options across a range of design criteria. Transition Rings are available in both 8" to 6" and 6" to 4" sizes.

Multiple Design Configurations
SMART TRAC offers cities a broad range of design possibilities. Choices include 4", 6", 8" and 12" diameter STRAIGHT designs, along with 6" transitioning to 4", 8" transitioning to 6", and 8" to 6" to 4".



Signal Isolation Solution

SMART TRAC is the PERFECT Signal Isolation Solution for Multi-Use poles utilized by today's Smart Cities.

Quad-Chamber Design

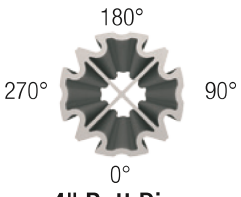
Each SMART TRAC shaft is designed with four separate chambers which provide secure access to multiple individual providers. Separation is continuous throughout the pole, including through the base and transitions.

Handholes

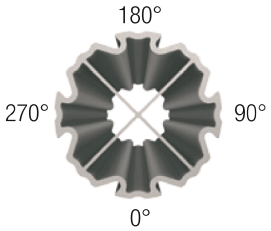
Handholes for each SMART TRAC chamber can be provided in all four shaft sizes.

Four Shaft Sizes

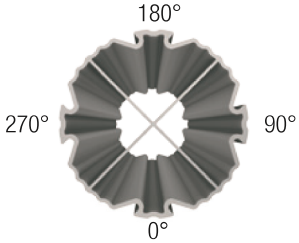
SMART TRAC shafts are offered in 4", 6", 8", and 12" Diameters. Each shaft is designed with four "TRAC" systems at 0°, 90°, 180°, and 270°. "TRAC" profiles are identical on all sizes, allowing accessory attaching hardware to work with all SMART TRAC designs. ***Note:*** *Heavy-Duty Arm Mounting Brackets are specific to 6", 8" and 12" diameter shafts.*



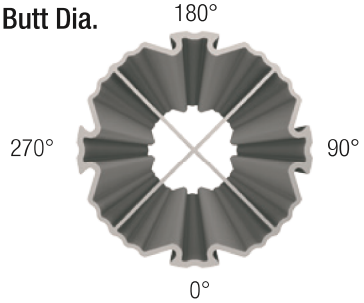
4" Butt Dia.



6" Butt Dia.



8" Butt Dia.



12" Butt Dia.

SMARTTRAC™
Smart City Pole Solution

Direct Buried Options

Direct Buried *(Embed)* SMART TRAC options are available in all sizes and mounting heights, allowing for faster, more cost-efficient installations.

Decorative Base Options

Hapco offers an extensive collection of 2-Piece Decorative Bases for use with all SMART TRAC pole designs.

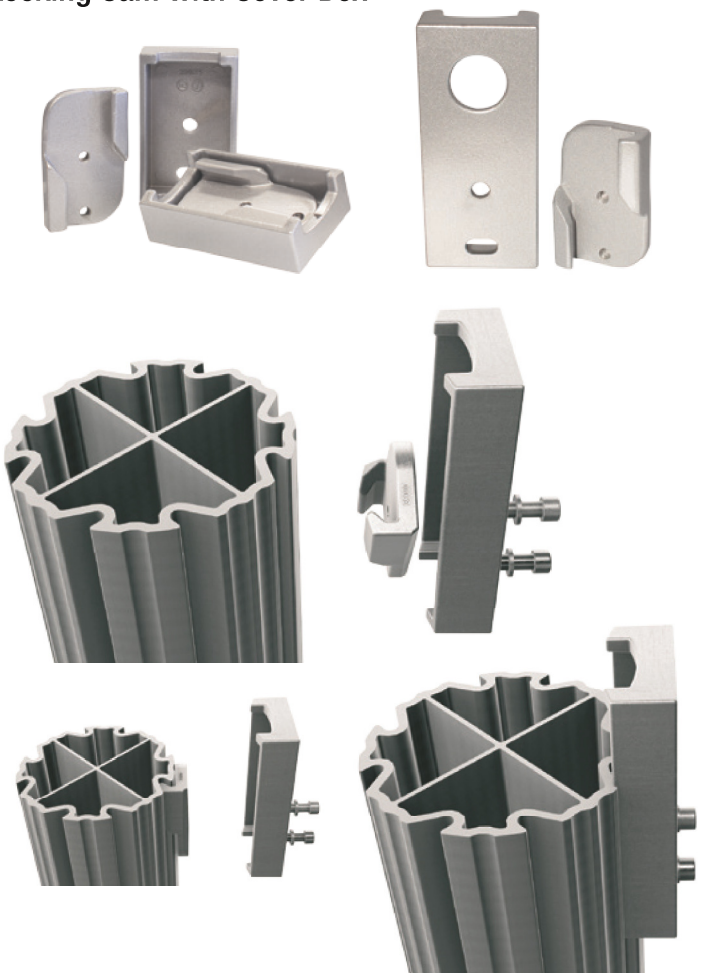
See Pages 30-31

SMARTTRAC™
Smart City Pole Solution

Locking Cam

The Patent-Pending design of SMART TRAC allows the use of a Locking Cam for the mounting of a variety of pole accessories. When tightened against the pole, the grooves of the Locking Cam twist, pull, and tighten against the tracs of the pole. Strong, secure, and simple installations that can be moved, modified, or removed and replaced without the unsightly bands and drill holes associated with standard pole accessory installations.

Locking Cam with Cover Box



Two sizes of Cover Boxes provide a range of installation options for both wired and unwired accessories.

Heavy-Duty Arm Mounting Bracket

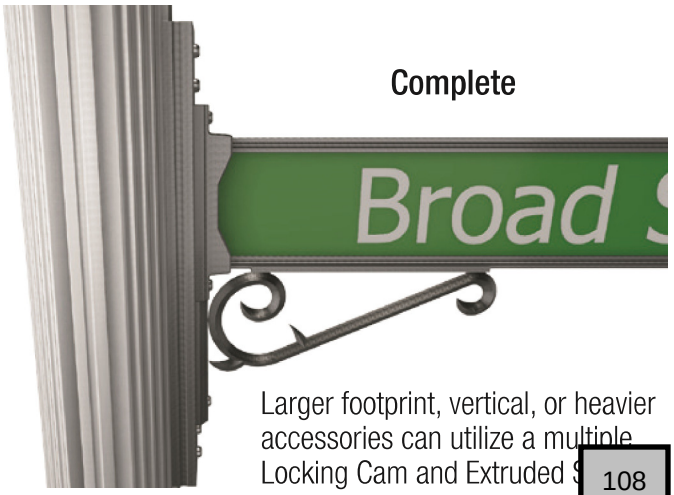
SMART TRAC's Heavy-Duty Bracket is designed for use with the most common arm designs and can be used in combinations for Truss Arms and Custom Designs. NO DRILLING of the pole is required, allowing jobsite placement and future movement.

Locking Cam with Extruded Strip Covers

Step One

Step Two

Complete



Larger footprint, vertical, or heavier accessories can utilize a multiple Locking Cam and Extruded S Cover design.

Aluminum Arms

From classic to contemporary to decorative, Hapco has over 60 years' experience in designing and fabricating aluminum arms for projects containing diverse architectural styles.

Whether you are looking to create an integrated design that blends into existing streetscapes, or a unique design created for a custom project, Hapco has the unparalleled experience and resources to fabricate quality ARM SOLUTIONS.

Sample Designs Shown

Clamshell Decorative Bases

Hapco Clamshell Aluminum Bases are 2-piece base designs that are assembled and bolted around the pole base after pole installation. Clamshell Base styles are available for use with anchor mounted and direct buried SMART Pole designs.

American
Diameter: 11"-12"
Height: 2'-6"
4"-5" Butt Diameters

Arlen 17"
Diameter: 17"
Height: 1'-8"
4"-5" Butt Diameters

Arlen 20"
Diameter: 20"
Height: 1'-11"
6"-8" Butt Diameters

Arlen 24"
Diameter: 24"
Height: 2'-6"
7"-10" Butt Diameter

Arlen 30"
Diameter: 30"
Height: 3'-9"
10"-12" Butt Diameters

Covington
Diameter: 20"
Height: 4'-2"
7"-10" Butt Diameters

Homewood
Diameter: 14"
Height: 3'-5"
4"-6" Butt Diameters

Jefferson 15", 18" & 21"
Diameter: 15" & 18"
Height: 8-1/2" & 11-1/4"
4"-10" Butt Diameters

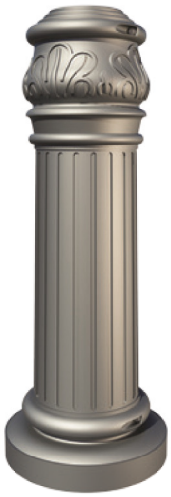
Nationwide
Diameter: 22"
Height: 4'-0"
7"-8" Butt Diameters

Palms
Square: 22"
Height: 2'-3"
5"-10" Butt Diameters

Custom Capabilities

In addition to our standard Decorative Base offering, Hapco's in-house design team and state-of-the-art R&D technologies allow us to replicate and craft custom castings to match any architectural style or design.

Redding
Diameter: 20"
Height: 3'-6"
6"-9" Butt Diameters



Staunton
Diameter: 16"
Height: 3'-6"
6"-8" Butt Diameters

Sterling
Width: 17"
Height: 1'-8"
4"-7" Butt Diameters

Yale
Diameter: 14"
Height: 2'-0"
4"-6" Butt Diameters

York 17"
Diameter: 17"
Height: 2'-5"
4"-6" Butt Diameters

York 20"
Diameter: 20"
Height: 3'-0"
6"-8" Butt Diameters

York 24" Non-Floral
Diameter: 24"
Height: 3'-0"
7"-9" Butt Diameters

York 24" Floral Ring
Diameter: 24"
Height: 3'-6"
6"-9" Butt Diameters

York Modified
Diameter: 24"
Height: 3'-11"
9"-12" Butt Diameters

SMART SOLUTIONS

hapco™

pole products

HAPCO
26252 Hillman Highway
Abingdon, VA 24210
800.368.7171
email: info@hapco.com
web: www.hapco.com

ISO 9001:2015 CERTIFIED

AISC CERTIFIED FABRICATOR

AWS CWF CERTIFIED WELDING FABRICATOR®

Proudly Supporting Our Industry…

American Welding Society
AWS D1.2 Committee

American Association of State Highway and Transportation Officials
AASHTO NCHRP

National Electrical Manufacturers Society
NEMA ANSI C136
Accredited Standards Committee

Illuminating Engineering Society
Sustaining Member

Wireless Antennas and Poles in Our Rights of Way

March 22, 2017 10:45 am - Noon

Room 201, Lansing Center

Michael Watza

Kitch Drutchas Wagner Valitutti & Sherbrook
1 Woodward 24th Floor
Detroit, MI 48226

General Counsel PROTEC

E Mail: Mike.Watza@Kitch.Com

O: (313) 965-7983
M: (248) 921-3888

www.protec-mi.org/

www.kitch.com

PROTEC

KITCH
Attorneys & Counselors

Why are we Here?

"Sprint…to cut…network costs by relocating to…government-owned properties, which cost much less."

http://www.recode.net/2016/1/15/11588832/sprint-finalizes-plan-to-trim-network-costs-by-up-to-1-billion

KITCH
Attorneys & Counselors

Cell Tower Update: Conventional Cell Towers & DAS/Small Cell Siting Issues

"Unregulated DAS & Small Cell Siting in our rights of way means multiplying the number of utility poles (and some 120' tall) along our streets by as much as a factor of 4. All in the name of the industry passing their costs to our taxpayers"

-Anon

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Cell Tower Update: Conventional Cell Towers

The Way We Were

47 USC § 332 - Mobile services

- "(7) **Preservation of local zoning authority** (A) **General authority** Except as provided in this paragraph, nothing in this chapter shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless service facilities."
- (B) **Limitations** (i)…(I)shall not unreasonably discriminate among providers…(II)shall not prohibit or have the effect of prohibiting the provision of personal wireless services.
- …shall act…within a reasonable period of time…
- (iii)….Any decision by a State or local government…shall be in writing and supported by substantial evidence...
- (iv)No State or local government…may regulate…on the basis of … radio frequency emissions…
- (v)… within 30 days after such action or failure to act, [a provider must] commence an action in any court of competent jurisdiction.

The Way We Are
Mobile Industry Background

- Obama Administration Endorses Mobile as Part of National Broadband Plan
- **Millions** of New Antennas Needed to Cover the Nation and feed our Smart Phones and Machine to Machine Connections
- Avg: 20-40,000 new Antennas/State
- **Result: Industry Desperate = Increased Market Value** for Antenna Sites as Landlords of Cell Towers, Water Towers, Municipal Buildings etc
- Industry Also Trying to Shape Streamlined Regulation…

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"New" Federal Law

- **FCC 2009 Shot Clock Order**
  - Reasonable Time to Act = 90 Days (Collocation)
    150 days (New)
- **Congress**
  - HR 3630 February 2012
    - Sec 6409 (47 USC 1455)
      - …"a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station…"
- **FCC Guidance on Section 6409(a)**
  - **Now applies to DAS? Not on Muni Property**
- **US Supreme Court: Arlington v FCC**
  - **Shot Clocks Upheld**
- **FCC:** NOI Broadband Deployment Acceleration

"New" State Zoning Law

- **2012 PA 143;MCL 125.3514 Cell Tower Collocation**
  - Objected to by PROTEC, MML and MTA
  - **Passed/Effective May 24, 2012**
  - Local Government Foreclosed from regulating
    - 20'/10% Height Increases
    - Unlimited Width Increases
    - Increases up to 2500 sq ft base
    - 14 Day Shot Clock on Application Completeness If Allowed
    - 60-90 Day Approval Shot Clock
    - Apply to Counties?

State Law Cont'd

- **MICHIGAN 2012 PA 143 ZONING ENABLING ACT Amendment (EXCERPT):**
  125.3514 Wireless communications equipment as permitted use of property; application for special land use approval; approval or denial; authorization by local unit of government; definitions.
- (1) Wireless communications equipment is **a permitted use of property and is not subject to special land use approval or any other approval** under this act if all of the following requirements are met:
- (a) The wireless communications equipment will be collocated on an existing wireless communications support structure or in an existing equipment compound.
- (b) The existing wireless communications support structure or existing equipment compound is in compliance with the local unit of government's zoning ordinance or was **approved** by the appropriate zoning body or official for the local unit of government.
- (c) The **proposed collocation will not do any of the following**:
- (i) **Increase the overall height** of the wireless communications support structure by **more than 20 feet or 10% of its original height, whichever is greater**.
- (ii) **Increase the width** of the wireless communications support structure by **more than the minimum necessary** to permit collocation.
- (iii**) Increase the area of the existing equipment compound to greater than 2,500 square feet.**

State (Fed Ct) Law Cont'd

- **T-Mobile v West Bloomfield Federal 6th CA Aug 21, 2012 Opinion**
  - **Lessons learned** from this Cell Tower Denial?
    - 1. Communities must **decide early** whether to fight a proposal or not.
    - 2. Prepare your objections with **substantive expert evidence** rebutting the provider's reports and testimony up front. This can include:
      - a. Vigorous cross exam of industry experts
      - b. Presentation of experts which could include: cell tower design, city planners, coverage analysis and valuation experts
      - c. **RF emissions and other health arguments are improper under federal law.**
      - d. Don't be afraid to delay the proceedings until such work can be done and presented on the record at the City or Township level.
    - 3. **Lay testimony from residents re aesthetics is not sufficient**.
    - 4. Appeal on poor facts can result in adversely impacting a much broader group of communities.
    - 5. The result of this Opinion is that the 6th Cir has now adopted some of the more stringent rules from other circuits interpreting federal law as applied to communities including:
      - a. Denial of a single application can now constitute a violation of federal law which forbids actions preventing wireless service
      - b. Individual provider coverage gaps now constitute "significant gaps" in service.

Take Away I
What all This Means for You as Landlords: Control and Revenue

- When you receive a call or letter from the Mobile/Cellular Industry “offering” modest “bonus” to amend Current Agreements:
- You now know:
  - Industry DESPERATE to Add Antennas and Upgrade to Fiber Connections to Towers
  - Consult with Counsel
  - Renegotiate Entire Agreement
  - Demand Market Rates
  - Do NOT let tenants add regulatory functions to lease

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Attorneys & Counselors

Take Away II
What all This Means for You As Regulators

- Michigan's 2012 PA 143 Dominates Landscape
  - Local Government Foreclosed from regulating
    - 20'/10% Height Increases
    - "Reasonable" (Unlimited ?) Width Increases
    - Increases up to 2500' sq ft base
    - 14 Day Shot Clock on Application Completeness If Allowed
    - Approval Shot Clock: 60 Days for Collocation
      90 Day for new

Cell Tower Update: DAS/Small Cell Siting Issues

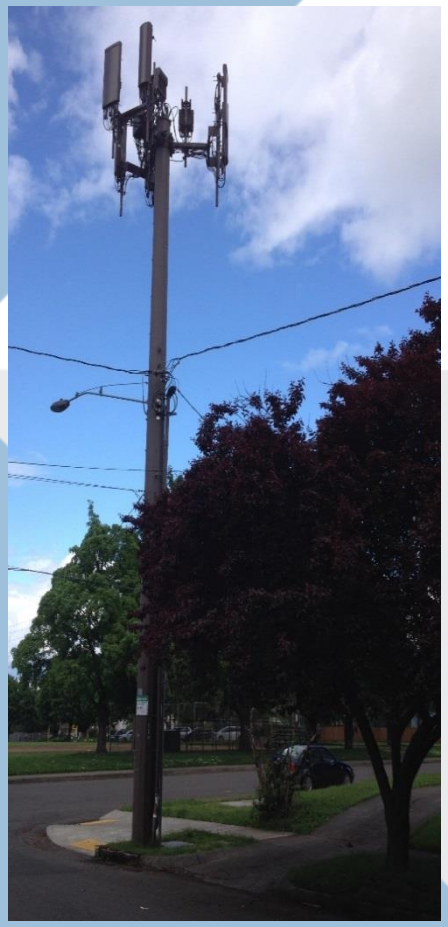
Distributed Antenna Systems

- **What?**
  - Definition: FCC DAS Forum definition: A network of spatially separated antenna nodes connected to a common source via transport medium that provides wireless service within a geographic area or structure. http://transition.fcc.gov/presentations/02012012/panel-1/allen-dixon.pdf
  - Not, but often confused with: Micro cells, Small Cells, , picocells, femtocells, temporary cells etc.
- **Where?**
  - Everywhere: Outside in Rights of Way, Public Buildings/Structures, Private Property and Inside Buildings
- **Why?**
  - **Obama Administration** Endorses Mobile as Part of National Broadband Plan
  - **Industry:**
    - **Millions of** New Antennas Needed to Cover the Nation and feed our Smart Phones and Machine to Machine Connections
    - Avg: 20-40,000 new Antennas/State
    - 70% of mobile calls originating indoors, reliable wireless
    - Data revenue up 52.6% to $3.9B
    - AT&T 2Q2009 data revenue up 37% to $3.4B – (108B text messages)
    - Wireless data revenue 28% of total wireless
    - Wireless data drives demand for cellular across the board

Examples of DAS Antennas

MOBILITIE 120’ RT OF WAY TOWER

Examples of Current Sites



Examples of Current Sites

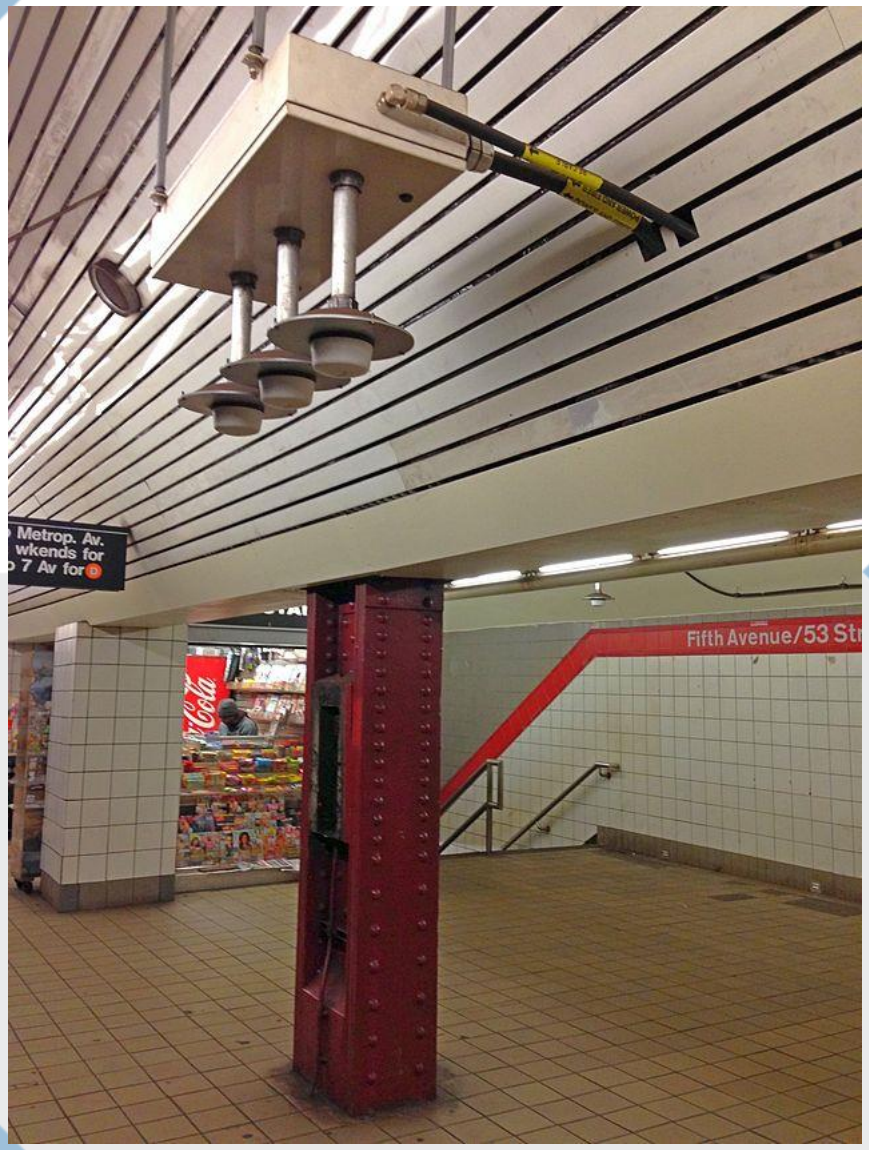
Sample Pole Mounted Cabinet Sizes

Enclosure attributes

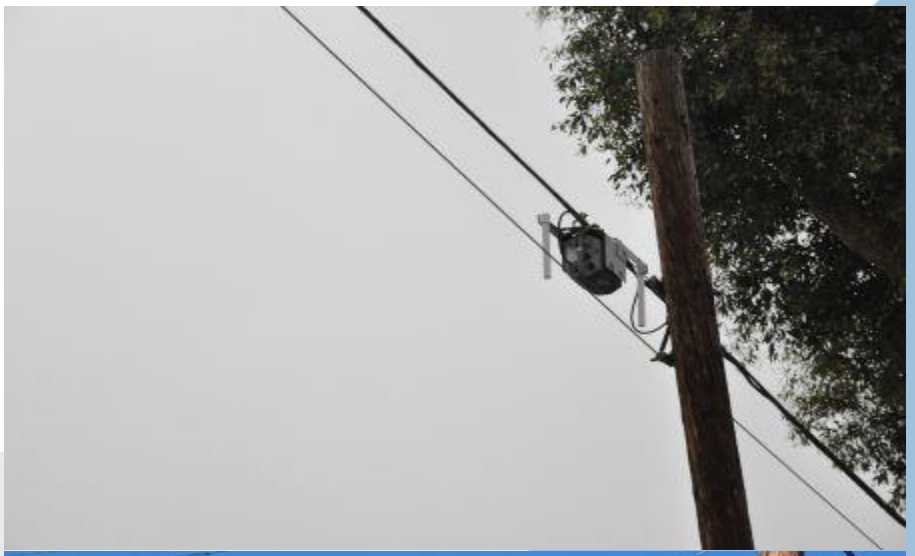
- Modular design: dual-band growth
- Flexible to accommodate different configurations: batteries, NID requirements
- Secure
- Accommodate various mounting options and access options

Examples of Current Sites

Examples of Current Sites



Cable Industry WiFi/Wireless



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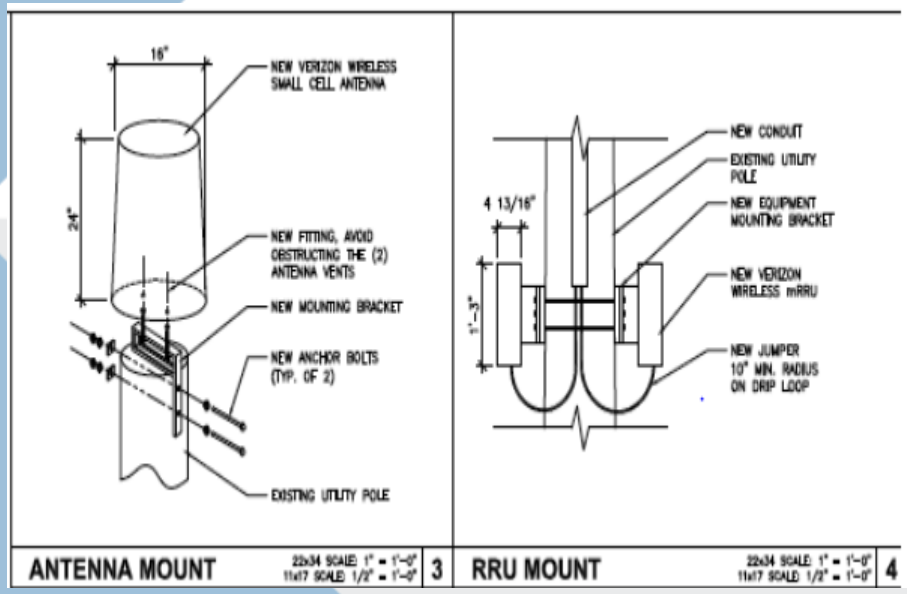
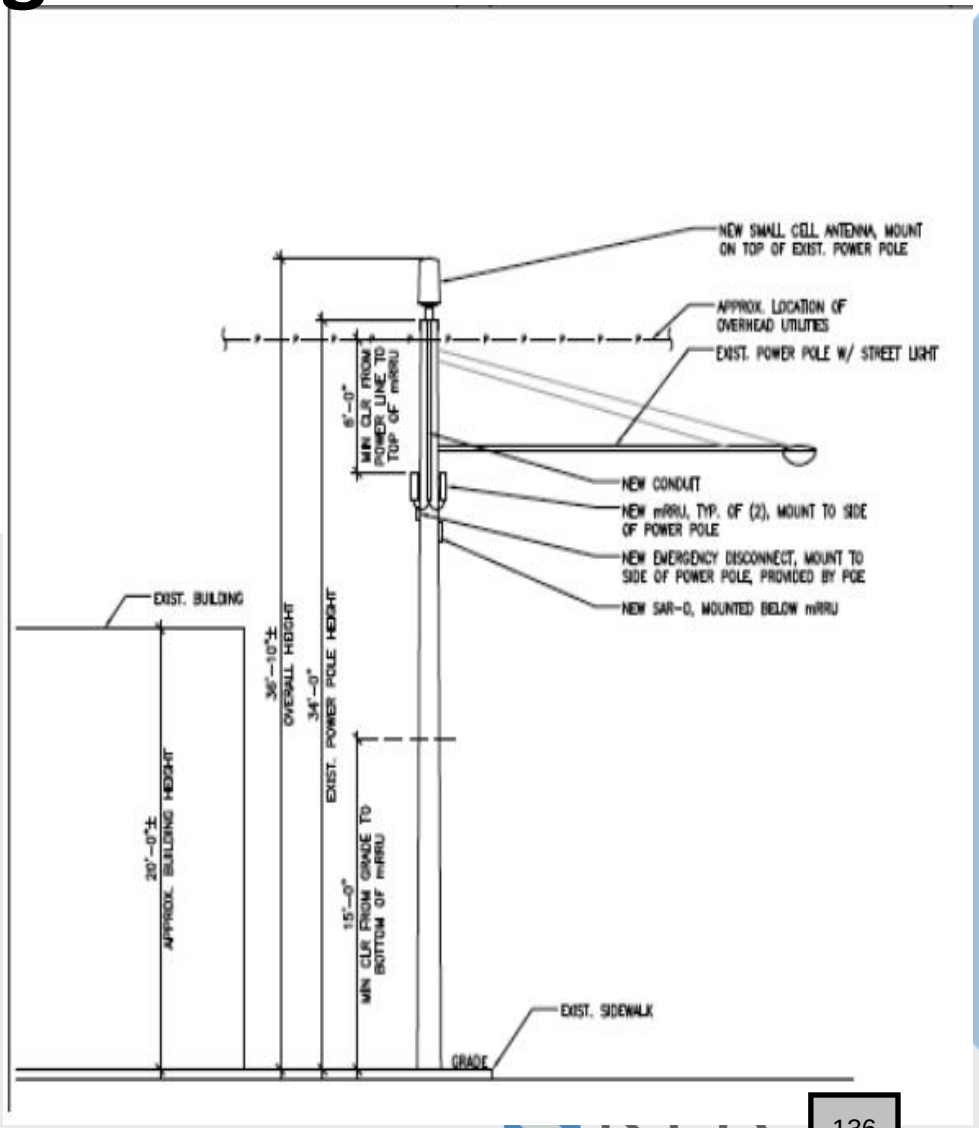
Attorneys & Counselors

Verizon Wireless Images: Generic Sketch





Attorneys & Counselors

Mobilitie: 120’ Rt of Way Antenna Poles

Specs and Drawings

9MIX000447A

43.339536,−83.73868

N Main St & W Schlejer St
Frankenmuth, MI 48734

811
Know what's **below.**
Call before you dig.

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OF EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

SITE INFORMATION

POLE ID:	9MIX000447A
LATITUDE:	43.339536
LONGITUDE:	−83.73868
ADDRESS/CROSS STREET:	N Main St & W Schlejer St
CITY, STATE ZIP:	Frankenmuth, MI 48734
PROPERTY OWNER	PUBLIC RIGHT−OF−WAY
APPLICANT	Utility Network Authority MI, LLC
Applicant Address	869 E Schaumburg Rd, #324 Schaumburg, IL 60194−3653

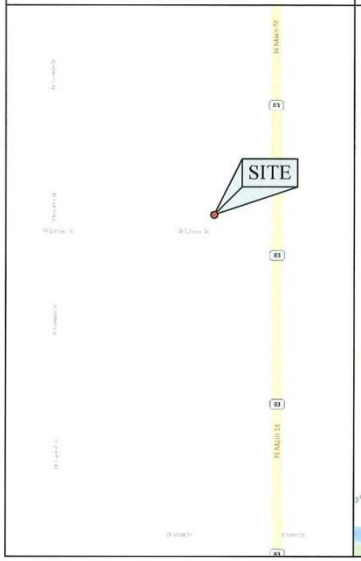
DO NOT SCALE DRAWINGS

CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINNER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

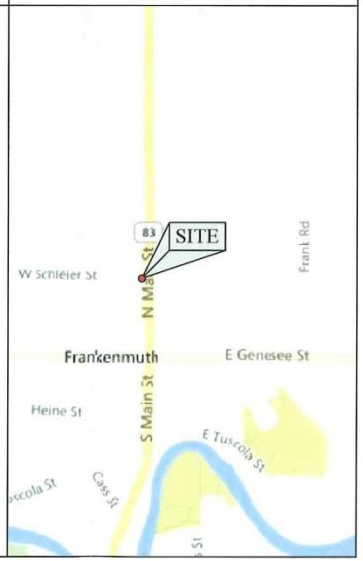
LOCATION MAPS

NORTH

VICINITY MAP



REGIONAL MAP



PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A NEW 120' UTILITY POLE WITHIN AN EXISTING RIGHT−OF−WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

1. INSTALL PROPOSED 120' UTILITY POLE

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

SHEET INDEX

SHEET #	SHEET DESCRIPTION
0.0	TITLE SHEET
1.0	EXHIBIT PHOTO & SITE PLAN
2.0	UTILITY POLE ELEVATIONS
3.0	ELECTRICAL

ENGINEER

INTERSTATE TRANSPORT AND BROADBAND

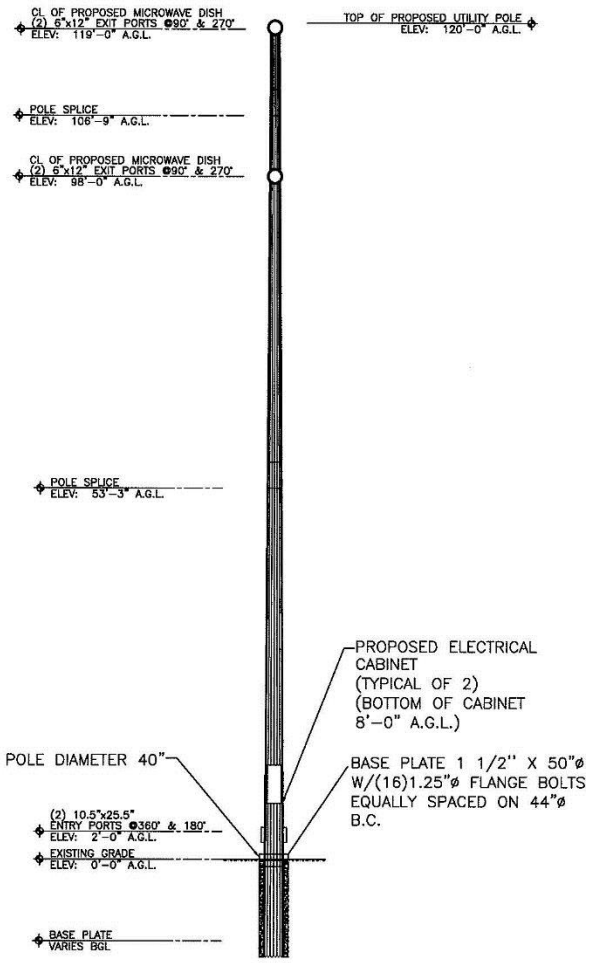
Utility Network Authority MI, LLC

PROJECT NUMBER:
DRAWN BY: ----
CHECKED BY: ----

SITE INFORMATION
9MIX000447A
43.339536,−83.73868
N Main St & W Schleier St
Frankenmuth, MI 48734
UTILITY POLE

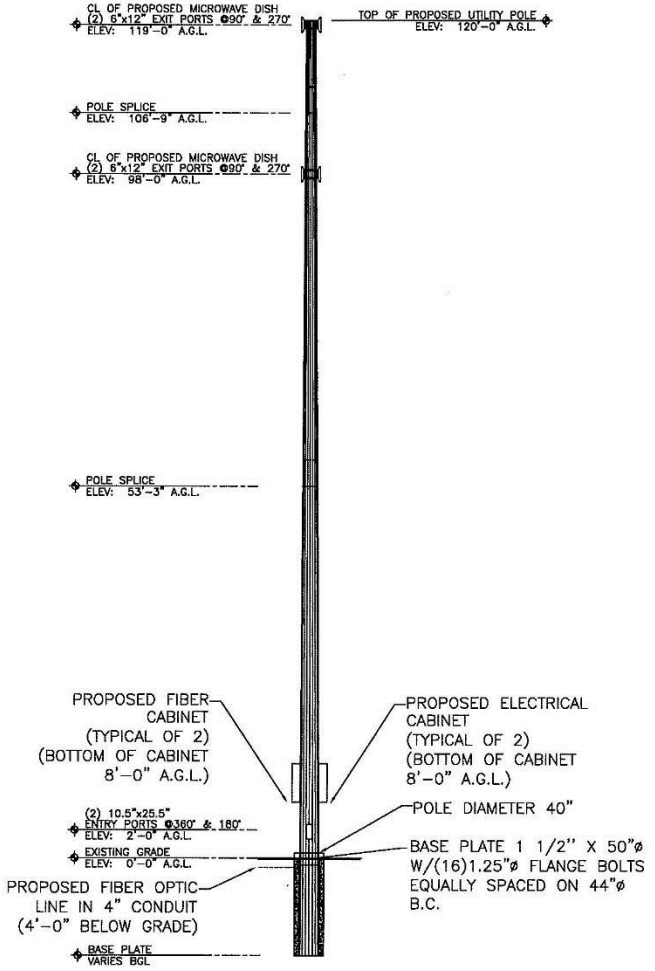
SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0



1 FRONT UTILITY POLE ELEVATION
SCALE: 0.010399

GRAPHIC SCALE: 1/8"=1'-0"



1 SIDE UTILITY POLE ELEVATION
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE: 1/8"=1'-0"

INTERSTATE TRANSPORT AND INFRASTRUCTURE

Utility Network Authority MI, LLC

PROJECT NUMBER:
DRAWN BY: ----
CHECKED BY: ----

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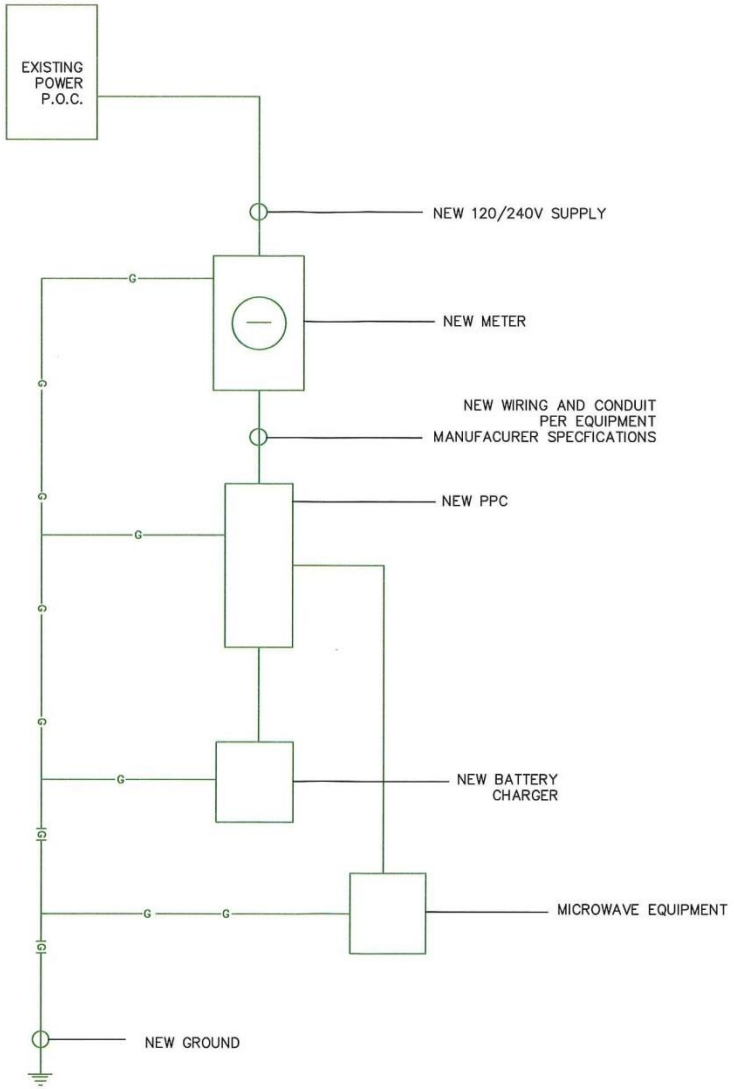
SITE INFORMATION
9MIX000447A
43.339536,-83.73868
N Main St & W Schieler St
Frankenmuth, MI 48734
UTILITY POLE

SHEET TITLE
UTILITY POLE ELEVATIONS

SHEET NUMBER
2.0



ONE LINE DIAGRAM

Utility Network Authority MI, LLC

PROJECT NUMBER:

DRAWN BY: -----

CHECKED BY: -----

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SITE INFORMATION

9MIX000447A

43.339536,-83.73868
N Main St & W Schieler St
Frankenmuth, MI 48734
UTILITY POLE

SHEET TITLE

ELECTRICAL

SHEET NUMBER

3.0

1 EXHIBIT PHOTO – GENERIC (NOT SITE SPECIFIC)
SCALE: N.T.S.

2 AERIAL SITE LOCATION
SCALE: N.T.S.

NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY LINES, POWER & TELCO UTILITY PINT CONNECTIONS/ROUTES AND EASEMENTS SHOWN ON THESE PLANS ARE ESTIMATED.

TRUE NORTH

NOTE:
PROPOSED 120'0" POLE IN THE R.O.W.
R.O.W. BOUNDARIES TO BE CONFIRMED AFTER SURVEY

3 ENLARGED SITE PLAN
SCALE: N.T.S.

Utility Network Authority MI, LLC

PROJECT NUMBER:
DRAWN BY: ----
CHECKED BY: ----

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

SITE INFORMATION
9MIX000447A
43.339536,-83.73868
N Main St & W Schieler St
Frankenmuth, MI 48734
UTILITY POLE

SHEET TITLE
EXHIBIT PHOTO & ENLARGED SITE PLAN

SHEET NUMBER
1.0

Federal Rules for DAS

FCC Acceleration of Broadband by Wireless Report and Order Dated October 17, 2014, Released October 21, 2014
See Tab 1

The FCC Essentials:

1. The FCC says Locals retain proprietary Interests = Franchising fees (Revenue) and Regulation
2. But it also says - Approval of One May = Approval of More:

    - Future Collocators may be able to add as much as 10 feet vertical and 6 feet horizontal and more ground eqpt.

3. Historical District Changes August 2016

Federal Statutes for DAS

- **Telecommunications Act [47 U.S.C. § 332(c)(7)]**
  - Applies to all applications for "personal wireless services facilities"
  - Generally preserves local authority to control placement of person wireless facilities, subject to certain substantive and procedural limits
- **Telecommunications Act [47 U.S.C. § 253]**
  - Preempts local/state regulations that prohibit or have effect of prohibiting ability of any entity to provide telecom services
  - But does not reach nondiscriminatory RoW management or compensation requirements
- **Middle Class Tax Relief Act [47 U.S.C. § 1455(a)]**
  - Applies to all "wireless" applications (broader)
  - Preempts local discretion over certain collocations and modifications to existing wireless sites (This slide and 31 courtesy of BBK PP)

Putting Federal Time Frames Together… (But remember State Law Time Frames)

KITCH
Attorneys & Counselors

The FCC and Mobilitie

- MML, PROTEC, MTA, CRA,GVMC & MONROE
- 729 filings
- View Filing at:
  https://ecfsapi.fcc.gov/file/1030998488645/COMMENTS_SMART%20COMMUNITIES%20SITING%20COALITION.pdf
-

STREAMLINING DEPLOYMENT OF SMALL CELL INFRASTRUCTURE BY IMPROVING WIRELESS FACILITIES SITING POLICIES; MOBILITIE, LLC PETITION FOR DECLARATORY RULING	)	WT Docket No. 16-421

COMMENTS OF SMART COMMUNITIES SITING COALITION

KITCH
Attorneys & Counselors

Michigan DAS/Small Cell Siting

The Rules

- **Michigan Const Art 7 Sec 29**

No…corporation…operating a public utility shall have the right to the use of the highways, streets, alleys or other public places of any county, township, city or village for wires, poles, pipes, tracks, conduits or other utility facilities, without the consent of the duly constituted authority of the county, township, city or village; or to transact local business therein without first obtaining a franchise from the township, city or village. Except as otherwise provided in this constitution the right of all counties, townships, cities and villages to the reasonable control of their highways, streets, alleys and public places is hereby reserved to such local units of government.

– **Michigan Metro Act**
  - Metro Authority Determination #1
    – Purports to bring DAS under the Metro act BUT: Preempted by express language of the Act – which only apples to "lines".
    – September 2016 – Local Community Stabilization Authority – prodded by PROTEC, relegated all Metro Act Determinations as "Historical Only" – Not binding upon LCSA
    – So – A shift in our favor should lead to better franchise terms

– **2012 PA 143; MCL 125.3514 Michigan Zoning Act**
  – Only applies to your regulator role - probably
– **October 2014 FCC Regulation**

KITCH Attorneys & Counselors

Metro Act and Determination No. 1

- **Metro Act and Determination No. 1 –** Distributed Antennae Network Systems June 2, 2004:
- **Metro Act**: **MCL 484.3102(j) Nov 1, 2002**: (j) "**Telecommunication facilities**" or "facilities" means…copper and fiber cables, lines, wires, switches, conduits, pipes, and sheaths…which…provide telecommunication services or signals. Telecommunication facilities or facilities **do not include antennas, supporting structures for antennas, equipment shelters….**
- **Determination #1 June 2, 2004**: "Distributed antennae networks providing telecommunication services through existing or new cable facilities within the public right-of-way are considered telecommunication facilities under Section 2(j) of the METRO Act; and are, consequently, subject to the provisions of the Act. All other local ordinances, laws, and regulations not specifically pre-empted by the Act shall remain in force. "
- Historical Reference Only

2012 PA 143;MCL 125.3514

New Cell Towers and Collocation

- Objected to by PROTEC, MML and MTA
- Passed/Effective May 24, 2012
- Should not apply to Govt Property–Rts of Way
- Local Government Foreclosed from regulating
  - 20’/10% Height Increases
  - Unlimited Width Increases
  - Increases up to 2500 sq ft base
  - 14 Day Shot Clock on Application Completeness If Allowed
  - 60-90 Day Approval Shot Clock

2012 PA 143

- **MICHIGAN 2012 PA 143 ZONING ENABLING ACT Amendment (EXCERPT):**
  125.3514 Wireless communications equipment as permitted use of property; application for special land use approval; approval or denial; authorization by local unit of government; definitions.
- (1) Wireless communications equipment is **a permitted use of property and is not subject to special land use approval or any other approval** under this act if all of the following requirements are met:
- (a) The wireless communications equipment will be collocated on an existing wireless communications support structure or in an existing equipment compound.
- (b) The existing wireless communications support structure or existing equipment compound is in compliance with the local unit of government's zoning ordinance or was **approved** by the appropriate zoning body or official for the local unit of government.
- (c) The **proposed collocation will not do any of the following**:
- (i) **Increase the overall height** of the wireless communications support structure by **more than 20 feet or 10% of its original height, whichever is greater**.
- (ii) **Increase the width** of the wireless communications support structure by **more than the minimum necessary** to permit collocation.
- (iii**) Increase the area of the existing equipment compound to greater than 2,500 square feet.**

How to approach a DAS Application seeking Rt of Way access submitted under the Metro Act?

1. Respond to the Metro Act App re Lines
   a) Modified Metro Act Permit
2. Respond to the Antennas Etc., Per the FCC
   a) Franchise/License/Lease with careful language re fees and limited permission

Priorities?

1. Safety of the Motoring Public
2. Use Pvt Land Off Rt of Way
   - Collocate
   - New Structures
3. Rt of Way
   - Collocate - Electric (CTIA Article See Tab 4)
   - New Structures – 1 telecom/wireless pole
     - 1st come 1st serve
     - Same answer as in the Electric build out 100 years ago (Historical references)
     - Consider Requiring More Stealth/Concealment
     - Consider Designating Official to Manage Applications
     - Decide Whether Zoning Requirements Apply To ROW

Key Questions

- Can I say “NO”.
  - Probably, for now, but don’t push that too hard
- Is Wireless a utility? Maybe
  - Yes MCL 460.111(c)
  - No MCL 484.2102(ff),
  - Wireless not telecom MCL 484.3102(j-k)
- Who am I dealing with? Provider or infrastructure installer?
  - Probably just an installer (but the provider is in the not too distant background and needs a franchise as well)
- Its my property
  - But No Moratoriums - FCC

Points of Interest for Local Govt

- Const art 7 sec 29
- Metro Determination #1 relegated to the trash heap
- FCC 2014 Report and Order Savings for Locals
  - Proprietary interests preserved
  - Zoning preserved
  - Local Siting preferences ok
- St. Clair Shores lawsuit – settled – no new poles
- Genesee Co Rd Comm lawsuit
- SB 399 Co Rd Comm's
- SB 995 Autonomous Vehicles
- Historical District issues FCC rule change – Drawing the circle smaller
- Mobilitie FCC DAS/Small Cell Petition
- Congress and State Legislatures Activity
- Cable WiFi Equipment
- New FCC
- Coordination with Counties
- Goals: find that in between space that enables some reasonable control and avoids new legislation/litigation

PROTEC
www.protec-mi.org

Who We Are, And What We Do

The Michigan Coalition To Protect Public Rights-Of-Way was formed in 1996 by several Michigan cities interested in protecting their citizens' control over public rights-of-way, and their right to receive fair compensation from the telecommunications companies that use public property.

Industries we deal with in our Rts of Way work include Telecommunications (Wireline, wireless and video/cable), Electric (Distribution and Transmission), Pipelines, as well as Municipal Water and Sewerage

Where We Appear

Governmental Bodies we work with include the Federal and State Courts, FCC, NTIA, US DOT, PHSMA, MPSC, Metro Authority (Now the Local Community Stabilization Authority) and the Michigan Legislature and Congress

50+ Members include Municipalities Across Michigan

http://www.protec-mi.org/supporters.php

Our 2014/15 Annual Report

http://www.protec-mi.org/media/2014-annual-report.pdf

KITCH
Attorneys & Counselors

Michael J. Watza Biography

Martindale Hubbell AV Rating
Super Lawyer Designation
Detroit Business Top Lawyer

- Michael J. Watza is Co-Chair of the Governmental and Commercial Litigation Practice Groups at Kitch, a full service Law firm based in Detroit, with offices in Lansing, Marquette, Mt. Clemens, Chicago, Ill. and Toledo, OH.
- Mr. Watza's practice provides litigated, legislative and regulatory solutions on behalf of municipal, health care and private sector clients concerning legislation, Complex Litigation, Governance Issues, Telecommunications including Cable and Cell Towers, Energy and Insurance.
- Michael has managed multiple legislative initiatives, represented clients in State and Federal trial and appellate courts across Michigan as well as attended to regulatory matters before the Michigan Public Service Commission, Michigan Tax Tribunal, Department of Labor and Economic Growth and the Federal Communications Commission and Department of Transportation (PHSMA).
- Michael has represented clients in the halls of the Michigan Legislature and Congress through negotiation, drafting and testimony regarding legislation on various issues including energy, transmission line siting, telecommunications (cable and cell towers), pipeline regulation, the formation of inter-governmental authorities and tort reform.
- Michael also serves as General Counsel to PROTEC and the Mobile Technology Association of Michigan, the Michigan Gaming Control Board, Covenant House Central School Board in Detroit, Chairman of the Novi EDC, Chairman of Attorney Grievance Commission Grievance Panel #9, Immediate Past Chairman of the Administrative Law Section of the State Bar and Treasurer/Secretary of the Public Corporation Law Section of the State Bar and Chairman of the International Municipal Lawyers Technology Committee.
- Michael is an adjunct faculty member at Michigan State University College of Law having taught Communications Law and Policy and Ethics and the Practice of Law.
- In 2008, Michael successfully led a coalition of Michigan Cities to Federal Court and Congress to oppose Comcast's effort to move PEG channels to the 900 channel range and digital, at a time when all other cable channels were analog.
- In 2013, Michael provided the legal components to the development of the 1st new Municipal Fiber to the Home and Business (FTTP) project and the development of a DDA sponsored WIFI system in Michigan in the face of legislative impediments

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Fax: (313) 965-7403
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www.protec-mi.org

KITCH Attorneys & Counselors

Hartland Township Wireless Communication Facilities Ordinance

Section 1. Purpose and Scope

This Ordinance is adopted pursuant to the Township's constitutional and proprietary rights and interests in public rights-of-way located within the Township and the reasonable control thereof under Article VIII, Section 29 of the Michigan Constitution of 1963, the Small Wireless Communications Facilities Deployment Act, 2018 PA 365, MCL 460.1301 *et seq.* (Small Cell Act) and other applicable laws for the purpose of establishing a franchise license requirement for access to, and ongoing use of, public rights-of-way for wireless facilities in a manner that complies with applicable State and federal regulations including Small Cell Act, MCL 460.1301 *et seq.*, the Federal Telecommunications Act, 47 U.S.C. 151, *et seq.* (Telecommunication Act), Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, as amended (Spectrum Act) and applicable Federal Communication Commission ("FCC") rulings. The scope of this Ordinance is limited to wireless facilities established and/or maintained within the public rights-of-way that are not considered to be telecommunications facilities covered by the Metropolitan Extension Telecommunications Rights-of-Way Oversight Act, MCL 484.3101, *et. seq.* ("Metro Act"), and permits applied for and issued under the Metro Act and Division 4 of this Chapter.

Section 2. Interpretation

This Ordinance shall not be interpreted or applied in a manner that prohibits or may have the effect of prohibiting the ability of a Wireless Provider to provide interstate or intrastate telecommunications wireless service contrary to Section 253 of the Telecommunications Act, MCL 47 USC 253.

Section 3. Definitions

As used in this Ordinance, the following words and phrases shall have the indicated meanings:

Act, unless suggested otherwise by context, means the Small Wireless Communications Facilities Deployment Act, 2018 PA 365, MCL 460.1301 et seq.

Antennae means communications equipment that transmits or receives electromagnetic radio frequency signals used in the provision of wireless services.

Applicable Codes means the term as it has been defined with the Act and any additional ordinances or resolutions adopted by the Authority.

Applicant means wireless provider that applies for a permit or approval for wireless facilities, a wireless support structure, or utility pole in a public right-of-way.

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Authority means the Township of Hartland, or subdivision thereof if authorized by law to make legislative, quasi-judicial, or administrative decisions concerning an application governed by the Act.

Authority Pole means a utility pole owned or operated by the Authority and located within the right-of-way.

Collocation or Collocate means to install, mount, maintain, modify, operate, or replace wireless facilities on or adjacent to a wireless support structure or utility pole. "Collocation" has a corresponding meaning. Collocation does not include make-ready work or the installation of a new utility pole or new wireless support structure.

Communications facility means the set of equipment and network components, including wires, cables, antennas, and associated facilities, used by a communications service provider to provide communications service. ~~means to place or install wireless transmission equipment on an eligible support structure or pole for the purpose of transmitting and/or receiving radio frequency signals for communications purposes, as defined by the Federal Telecommunications and Spectrum Acts.~~

DAS/Small Cells means any Distributed Antenna System or small cell telecommunication or data wireless network and all wireless facilities or related equipment installed and/or operated by a Wireless Provider for the provision of commercial mobile radio service ("CMRS") carriers and including cables, antennas, brackets, devices, conduits, poles, support structures, shelters, houses, cabinets and all other related equipment to be deployed, installed and/or operated by a Wireless Provider.

Eligible Facilities Request means a request for modification of a lawfully existing Wireless Support Structure or lawfully existing wireless equipment (base station) in a public right-of-way that involves collocation, removal or replacement of wireless equipment that will not substantially change the physical dimensions of the wireless support structure or existing wireless equipment.

Fee means a nonrecurring charge for services.

License means a Township approved right-of-way use for a Wireless Facility granted pursuant to a fully executed Right-of-Way Wireless Franchise Agreement adopted by resolution of the Township Board, also referred to as a franchise license.

Make-ready Work means work necessary to enable an authority pole or utility pole to support collocation, which may include modification or replacement of utility poles or modification of lines.

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Micro Wireless Facility means a small wireless facility that is not more than 24 inches in length, 15 inches in width, and 12 inches in height that does not have an exterior antenna more than 11 inches in length.

Municipally-owned Electric Utility means a system owned by a municipality or combination of municipalities to furnish power or light and includes a cooperative electric utility that, on or after March 12, 2019, acquired all or substantially all of the assets of a municipal electric utility, when applying the Act to the former territory of the municipal electric utility.

Public Right-of-Way –means the surface of, air space above, and area below the entire width of any road, highway, street, alley, thoroughfare, easement, or other area that is dedicated, reserved, used, or open to use as a matter of right for public travel whether owned or controlled by, or under the jurisdiction of the Township, the County, the State, or the federal government. Public right-of-way does not include any of the following: (i) A private right-of-way; (ii) A limited access highway; (iii) Land owned or controlled by a railroad as defined in section 109 of the railroad code of 1993, 1993 PA 354, MCL 462.109; (iv) Railroad infrastructure.

Rate means a recurring charge for services or occupancy.

Small Cell Wireless Network shall mean any small cell telecommunication or data-based wireless network that uses small cells facilities, including but not limited to, distributed antennae systems (DAS), femtocells, picocells, metrocells or microcells.

Small Cell Wireless Facility means ~~a~~a wireless facility that meets all of the following requirements:

(a) Each antenna is enclosed or would fit within an enclosure of not more than 6 cubic feet in volume.
(b) All other wireless facilities associated with all antennas at a single location are not more than 2~~5~~8 cubic feet in volume, with the electric meters, telecommunications demarcation boxes, grounding equipment, power transfer and cut-off switches, vertical cable runs, and concealment elements required by the Township excluded from the calculation.

Utility Pole or Pole means a lawfully existing pole, other than a wireless support structure, in a public right-of-way that is owned, controlled, or under the jurisdiction of the Township or other governmental entity, an entity recognized by State or federal law as a public utility, or other person or entity that has a franchise, license, or other proprietary authority granted by the Township or by law, to have, maintain and use the pole in the public right-of-way including light poles, wooden power poles, traffic light poles, highway sign poles, utility poles, non-Township owned lighting fixtures or other similar poles located in a public way, which poles are owned by the Township or a Wireless Provider or any third parties and may refer to such facilities in the singular or plural as appropriate to the context in which used. The term "poles" excludes historically or architecturally significant poles owned by the

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Township located on public ways or other similar street features. Wireless Equipment may be installed on a pole as provided in this Ordinance.

Wireless Equipment means equipment and components including antennas, transmitters, receivers, equipment shelters or cabinets, power supply, and ancillary equipment, poles, and miscellaneous hardware used to provide wireless service including DAS/Small Cells, but excluding emergency generators, wireless support structures, and telecommunication facilities as ~~defined~~ contemplated by the Metro Act.

Wireless facility means equipment at a fixed location that enables the provision of wireless services between user equipment and a communications network, including, but not limited to, radio transceivers, antennas, coaxial or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration. Wireless facility includes a small cell wireless facility. Wireless facility does not include any of the following: (i) the structure or improvements on, under, or within which the equipment is collocated; (ii) a wireline backhaul facility; (iii) Coaxial or fiber-optic cable between utility poles or wireless support structures or that otherwise is not immediately adjacent to or directly associated with a particular antenna.
~~**Wireless Facility or Facilities** means wireless equipment and wireless support structures.~~

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Wireless Provider or Wireless Service Provider means a person or entity that is licensed or authorized to provide wireless services.

Wireless Service means a wireless communication service that is licensed or authorized by the Federal Communications Commission, which includes personal wireless services as defined in 47 USC 332 and further including broadband, licensed or unlicensed, terrestrial or satellite, commercial mobile, private mobile, broadcast, and public safety services, as well as fixed wireless service such as microwave backhaul or fixed broadband.

Wireless services provider means a person that provides wireless services.

Wireless Support or Wireless Support Structure means a structure in a public right-of-way, the sole or primary purpose of which is to support antennas and associated wireless equipment for the provision of wireless services and may include a pole or utility pole if, and only ify ~~if~~, the sole or primary purpose of the pole is to support antennas and associated wireless equipment for the provision of wireless services.

Section 4. The administration of this Policy shall be governed by the following DAS and Small Cell Policy and in conformity with the Small Cell Act:

4.1. The Township supports efforts to establish an open, competitive marketplace for needed communication services that also serves the Township's Constitutional and statutory mandates to promote safety and convenience in the use of public right-of-ways under its jurisdiction and to maintain the integrity of the Township Zoning and Master Plan, promote property values and preserve the character of the Township as desired by Township residents. The Township promotes and encourages competition for communication services that make the latest and best

technology available and keep service prices affordable for all Township residents and businesses. An integral component of this open marketplace is the consistent application of regulations to all communications providers and the preservation of local authority, to the extent permitted by law, over matters of local impact.

4.2. The Township recognizes that to balance the needs and interests of the public in the management of the right-of-way~~s~~ together with the desire of the communications service industry to access such right-s of- way~~ where there is a demonstrated need for new facilities~~y, facilities supporting communication services may be integrated into the right-of-way~~s~~ in conformity principally with community standards, also taking into account industry standards and best practices identifying community standards together with an understanding of industry standards and best practices all of which may be incorporated into the terms and conditions of the Township's franchise and right-of-way permit and permit process and may change from time to time, in the Township's sole judgment and discretion.

4.3. The Township's primary goal is to make and maintain the right-of-ways under its jurisdiction safe and convenient for public travel, maintain the integrity of the Township Zoning and Master Plan as guidance only at the Township's sole discretion, comply with local, state, and federal laws governing the telecommunications industry, promote property values and preserve the character of the Township as desired by Township residents. To further this goal, the Township recites the following- requirements~~site location priority preferences~~, which shall be enforced wherever possible in the Township's discretion.

Section 5. Permits

5.1 No person shall install, operate or collocate, in whole or in part, Small Cell Wireless Facilities or Small Cell Wireless Network Facilities in the Authority's public right-of-way or other public place without first applying for and receiving a Small Cell Wireless Permit from the Authority in a form and subject to such terms and conditions as is acceptable to the Authority. Nothing herein shall be interpreted to require the Authority to issue such a Permit, within the limitations of the Act, and the Authority reserves to itself discretion to grant, deny or modify a request for such a Permit as it determines to be in the best interest of the Township and its citizens. If the proposed activity will occur within a shared right-of-way or right-of-way that overlaps another right-of-way, a wireless provider shall provide, to each affected jurisdiction, to which an application for the activity is not submitted, notification of the wireless provider's intent to locate a small cell wireless facility within the right-of-way.

5.2 No provider shall install or operate a Small Cell Wireless Facility, as defined by the Small Wireless Communications Facilities Deployment Act, Act No. 365 of the Public Acts of 2018, without first obtaining a permit from the Authority pursuant to the Act.

5.3 Route maps clearly indicating all existing and proposed facilities must be included with each application for collocation or installation of a Small Cell Wireless Facility pursuant to the Act. The Authority may require route maps as a condition of permit approval for Small Wireless Facilities applications. The required map(s) shall be legible, to scale, labeled with streets, and contain sufficient detail to clearly identify the proposed Small Cell Wireless Facilities' locations and surroundings. Where applicable, the required map or list shall include and identify any requested

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pole height(s). Maps pursuant to this section must be updated periodically to reasonably reflect the current number of facilities in the public rights-of-way.

5.4 Fees for Applications are required and shall be as provided for in the Act, as amended, or those documents and as periodically authorized by resolution of the Township Board. The fee associated with an Application may be required for each Application received by the Authority. Application fees will be assessed as follows:

Collocation

$200/each Small Cell Facility on a pole owned by a municipally-owned electric utility

$300/each Small Cell Facility on a pole owned by a municipally-owned electric utility in which an engineering report is required

$100/each Addition of new utility pole to an existing Small Cell Facility

Direct Costs Make-ready work as described by section 5.6.

Zoning

$500/each Zoning Approval: New facilities or modification of existing facilities

$1,000/each Zoning Approval: New Wireless Support Structure or modification of existing Wireless Support Structure

5.5. Rates for collocation and pole rental are charges which may be assessed annually and must be paid for each site existing at the time fees are assessed. Both rental and collocation fees may apply to a Wireless Provider for each site it operates. Failure to pay these fees within 90 days authorizes the Authority to demand removal of the corresponding collocation or a number of collocations relative to the delinquent amount. The Authority is not responsible for costs incurred by the removal or reinstallation of facilities removed due to nonpayment of collocation rates. Every 5 years after the enactment of this Ordinance, collocation fees are subject to a 10% increase pursuant to MCL 460.1313. Although both rates may apply, they must be assessed individually. All collocation rates may be amended, in compliance with the Act, by resolution, ordinance or implication through a change in state or federal law. Baseline collocation and rental rates for the first five years after enactment of this Ordinance will be assessed as follows:

$20/each Rental of an existing Authority-owned Utility Pole or Wireless Support Structure

$125/each Rental of an Authority-owned Utility Pole or Wireless Support Structure that has been erected by or on behalf of the Wireless Provider after March 12, 2019.

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$30/each Collocation on an Authority-owned pole

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5.6 The Authority may assess to an Applicant the commercially reasonable, competitively neutral, nondiscriminatory, good faith costs of actual charges necessary to make the collocation site requested by the Applicant compliant with industry standards for collocation ("Make-ready Work Fees"). Make-ready Work Fees may not include costs for prior damage or prior noncompliance unless caused by the Applicant directly, unreasonable consultant fees or expense, or costs exceeding the actual costs to make the area suitable for collocation or erection of infrastructure. An estimate of Make-ready Work Fees must be furnished by the Authority within 60 days after receipt of a complete application. All make-ready work must be completed by the Authority within 60 days of written acceptance of the estimate.

5.7 An Applicant must provide a bond of $1,000 per Small Cell Wireless Facility to provide for repair of the right-of-way and the removal of abandoned or improperly maintained Small Cell Wireless Facilities, including those that the Authority determines should be removed to protect public health, safety, or welfare. The Wireless Provider shall be responsible for all costs of repair after installation and removal and is responsible for the complete restoration of the site to its pre-installation condition. Costs of restoration exceeding the amount of the bond may be assessed to the Wireless Provider directly. All restoration measures shall have a 45 day warranty period from the day restoration is substantially complete, during which any structural or design defect or failure remains the responsibility of the Wireless Provider, subject to an opportunity to cure. Cash bond may be required only from Applicants who have defaulted or failed to perform on a previous bond given to the Authority or have failed to obtain or maintain a bond as required by the Act.

Section 65. Use and Installation Requirements:

65.1. A Wireless Service Provider shall first demonstrate a need for new communication facilities by providing proof of customer demand exceeding available supply.

65.2. The Township requires that future DAS/Small Cell Wireless Infrastructure be located in safe areas of the right-of-way. The Township's reasoning includes: Reduced aesthetic impact, fewer land use restrictions, diminished visual impact of telecommunication facilities, improved buffering from adjacent residential uses, potential to join publicly managed communication systems with commercial wireless service antennas, greater continuity of telecommunications facilities, enhanced cell phone service in more remote parts of the Township, motorist safety as approved by the Township and Livingston County Road Commission, Michigan Department of Transportation (MDOT), and quicker application approval process as valid reasons for such preference.

65.3. Collocation on an existing ~~facility~~ Authority Pole within the right-of-way subject to a franchise agreement shall be preferred to locating a new DAS and Small Cell Facility on a new Utility Pole within the right-of-way.

65.4. Locating a new ~~DAS and Small Cell Facility~~Utility Pole in the right-of–way shall only be permitted when the applicant demonstrates, in the Township's judgment, that collocating on any existing ~~facility~~Authority Pole, is not possible or practical.

65.5. Unless otherwise provided by this Division, wireless equipment collocated on wireless support structures and utility poles shall be designed, installed, used, and maintained in compliance with, and be subject to, the following standards:

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Commented [AJT1]: Although it is possible to have this sort of language in your ordinance, this inquiry is ultimately irrelevant because an application cannot be denied for failure to have customer demand. Such a requirement is likely unenforceable if challenged.
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Commented [AJT2]: This is okay but it is important to note that as a practical matter, if these site fill up you cannot simply deny an application to put a new pole in that space. Your section 5.4 covers that.
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Commented [AJT3]: Good idea, but a challenge here is likely going to be an uphill battle so exercise your descretion liberally.
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a. Shall only be used by entities with proper authority granted by the Township or by law to have access to and use of the public right-of-~~-~~way in that location.
b. Shall be treated to match the supporting structure or pole by painting or other coating to be visually compatible with the support structure upon which it is to be attached.
c. Shall be compatible in scale and proportion to the structure or pole upon which it is to be attached using the smallest and least intrusive technology possible while maintaining technical feasibility~~available~~.
d. Up to three (3) wireless ~~antennas~~ facilities may be collocated on a utility pole if technically and structurally feasible and designed in a manner that complies with all requirements of this Section.
e. For wireless support structures, the number of ~~antennas~~ facilities that may be added is limited to the number the structure was designed and constructed to accommodate.
f. No antenna or other wireless equipment shall extend more than four feet (4) above the existing height of the structure or pole upon which it is to be attached.
g. No antenna or other wireless equipment shall project more than one foot (1) from any side of the utility pole or wireless support structure upon which it is to be attached.
h. No antenna or other wireless equipment shall project closer than two feet (2) from an existing sidewalk/face of curb.
i~~.~~1. No antenna or other wireless equipment shall be closer than five feet (5) from any driveway.
j~~.~~J. The wireless equipment shall be located at a height above grade that complies with Sec. 7, does not pose a hazard or obstruction to persons or vehicles, and provides sufficient separation distance from power lines and similar facilities.
k. In residential districts collocations shall only be on wireless support structures or utility poles located in line with a side lot line to avoid placement in front of houses.
l. To the extent that ~~S~~structural modification of the utility pole or wireless support structure ~~must not be~~is necessary to safely accommodate the collocation in compliance with all building codes, make ready fees as defined by the Small Cell Act shall be assessed to the Applicant.
m. Must obtain and comply with all conditions of any required permits from other governmental entities that also have an ownership, control or jurisdictional interest in the public right-of-way and must not interfere with any public utility.
~~n. Any request for collocation of wireless equipment on a utility pole shall not deem or cause the utility pole to be considered or claimed to be a wireless support structure or existing wireless equipment (base station) for purposes of any future eligible facilities request.~~
o. To the extent possible and technically feasible, ~~A~~all pole mounted equipment should~~must~~ be mounted inside of a pole~~, unless equipment cannot be located inside of the pole, at the discretion of the Township~~. When equipment is mounted to the exterior of a pole, it shall be flush to the pole to minimize the overall visual profile. If any applicable health and safety regulations prohibit flush-mounted equipment, the maximum separation between the equipment and the pole shall be the minimum separation required by such regulations. All pole-mounted equipment and required or permitted signage must face toward the street or otherwise placed to minimize visibility from adjacent sidewalks and

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Commented [AJT4]: Again, you can do this but keep in mind that if you receive an application for collocation on a pole that already has three facilities on it you may be required to allow another utiity pole or wireless support structure to be built in that location under the nondiscrimination policy in the Act.
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Commented [AJT5]: Not clear on what section 7 you are referring to since sec 7 of this ordinance is just the violations section and does not fit contextually
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structures to the extent feasible. All cables, wires, and other connectors must be routed through conduits within the pole whenever possible, and all conduit attachments, cables, wires, and other connectors must be concealed from public view to the extent feasible.

~~p. Equipment that cannot be located on a pole or inside a pole shall be located underground, if in the right-of-way.~~

q. Ground mounted equipment. To the extent that the equipment cannot be placed underground~~, as required~~, applicants may be permitted to install ground-mounted equipment in a location that does not obstruct pedestrian or vehicular traffic. All ground mounted equipment must be placed in the least conspicuous location available within a reasonable distance from the pole. The Township may condition approval on new or enhanced landscaping to conceal ground-mounted equipment. The Township shall not approve a ground-mounted electric meter pedestal for other electric meter enclosure to the extent feasible.

65.6. Any DAS application that is not for a collocated DAS structure must contain a statement justifying why collocation is not possible or practical. Such statement shall include:

~~b.~~ a. Such structure and technical information and other justifications as are necessary to document the reasons why collocation is not possible or practical, including all communication of denials of collocation requests from 3rd party entities.

~~c.~~ ~~A~~A list of all eligible support structures and alternative structures considered as alternatives to the proposed location.

b.

~~d.~~c. A written explanation why the alternatives considered are not possible or practical due to technical or physical constraints.

65.7. Stealth installations or otherwise aesthetically consistent designs shall be required at the discretion of the Township, with all facilities located within the pole to the extent possible, and will generally be similar to the existing infrastructure in the area.

65.8. New structures shall be limited and not higher than other existing poles in all areas, and in all events, no higher than thirty five (40~~35~~') and no more than 2 feet in diameter, or as determined by zone unless otherwise shown to be needed by the Applicant based upon the technical characteristics of the area or other considerations, including collocation. The dimensions of new facilities will generally not be permitted to exceed existing infrastructure in the same vicinity.

65.9. New structures shall be customized to match the norms of the area. A new pole in a commercial district must be a metal type structure - either steel or aluminum or a combination of the two.

65.10. No new DAS and Small Cell Facility support structure may be erected in the public right-of-way within five hundred feet (500') of an existing Communication structure by the same wireless provider, including DAS and Small Cell Facility support structures, unless shown, as

Commented [AJT6]: This provision is not possible because MCL 460.1313(7) requires that if you make wireless be buried underground you must require ALL cable and utility facilities to be underground in that area.

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Commented [AJT7]: Unfortunately, this is likely unenforceable as a non-collocation related contribution, prohibited by MCL 460.1315(2)(a).

However, if you want to keep it, you can but will need to require ALL other occupants of the ROW including electric utilities to enhance landscaping to hide ground mounted equipment.

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determined by the Township in its discretion, that it is required for technical feasibility or that all existing infrastructure is already exhausted or not available for use.

65.11. New DAS and Small Cell Facility support structures shall occur in a consistent and conforming manner in or in bordering right-of-way areas zoned commercial and designated districts as shown on the maps attached to this policy.

65.12. The Township will manage access to the public right-of-ways for DAS and Small Cell purposes in a nondiscriminatory, competitively neutral and nonexclusive way to the extent required under applicable law and, to the extent allowed under applicable law, to receive fair compensation based upon market rates. The public interest will be protected by a franchise agreement reflecting such fees and collecting all associated administrative costs for use of the public right-of-ways under the jurisdiction of the Township. ~~In Kind Services may be substituted for some portion of or all such fees where the Township determines that the value of such services approximates fair and reasonable market rates.~~

65.13. Right-of-way permits for location of DAS and Small Cell Facilities and all supporting equipment and structures will be managed to preserve the integrity of the road system's infrastructure, ensure efficient use of the property under the jurisdiction of the Township, and ensure compliance with all state, federal and local law and regulation as well as all applicable and commonly recognized building, electrical, safety and other road right of way standards, regulations and permitting processes and requirements.

65.14. In order to effectively manage and regulate the use of public right-of-ways under the Township's jurisdiction in the best interests of the public, it is necessary for the Township to reserve and exercise all franchise, proprietary, legislative, administrative and discretionary authority it may have to the full extent allowed or not prohibited by law. Nothing in this policy shall be construed to diminish or in any way to limit the franchise, proprietary, discretionary, administrative or legislative authority of the Township and its officials as respects the management and use of the Township's public right-of-ways or other property interests in respect to the granting, delaying, or denying any right-of-way permit or use of other Township property.

65.15. All equipment and structures associated with the installation of a DAS and Small cell wireless facility, whether it is a colocation or new installation, shall require approval of a Land Use Permit from Hartland Township, as well as any other applicable governmental entity.

Section 7. Removal Requirements.

Before discontinuing use of a Small Cell Wireless Facility, Utility Pole or Wireless Support Structure, regardless of whether by decision or requirement, shall notify the Authority in writing and submit a removal plan to restore the right-of-way and Authority infrastructure to its original condition. If the Authority approves the timeline proposed by the removal plan, the Wireless Service Provider or Wireless Infrastructure Provider must adhere to the terms of the approved removal plan. If the Wireless Service Provider or Wireless Infrastructure Provider does not have an approved removal plan or fails to renew its license within forty-five (45) days after the discontinuance of use, the Authority may complete the removal itself and assess the costs of

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Commented [AJT10]: Explicitly prohibited by MCL 460.1315(2)(a).

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removal against the Wireless Service Provider or Wireless Infrastructure Provider. Additionally, a site which is licensed but has been abandoned or left unused for more than one (1) year, is subject to the removal procedure provided within this Section. A Permit under this Ordinance expires at the time the Small Cell Wireless Facility has been removed.

Section 76. Compliance with Permit Conditions.

Compliance with permit conditions is required, and a violation of permit conditions is a violation of this Section.

Section 87. Violation.

A violation of any section in this Division shall be a misdemeanor. Nothing in this Section shall be construed to limit the remedies available to the Township under a franchise license or otherwise by law or equity in the event of a violation of this Division, or any issued permit.

Section 98. Severability Clause.

Should any section, subdivision, sentence, clause, or phrase of this Ordinance be declared by the Courts to be invalid, it shall not affect the validity of the remainder of the Ordinance or any part other than the part invalidated. It is further declared that such provisions would have been adopted independently of the provision found to be invalid. Should any procedural aspect of this Ordinance be invalidated, such invalidation shall not affect the enforceability of the substantive aspects of this Ordinance.

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