Fiber Excavation and Permitting Playbook

I. Broadband Projects Overview

2023 saw a significant increase in high-speed internet fiber installations throughout Kansas due in large part to preparations for the Broadband Equity, Access and Deployment (BEAD) Program. The BEAD Program began in 2022 providing grants to provide high-speed internet or improve service in underserved communities. The State of Kansas Departments of Commerce and Transportation were awarded $42.5 million in federal funds to coordinate the connection of existing networks with new internet exchange points and a 682-mile fiber route for various service providers. One of the main goals stated by the Kansas Department of Commerce is to create more affordable service options by increasing competition between providers. As a result, many major fiber and broadband projects are planned or already underway to support infrastructure development by public, private and non-profit partners.

II. Parties and Stakeholders Involved

There are several stakeholder groups working to raise awareness and maintain public and workplace safety. As the frequency and scope of excavation activity related to these broadband projects continue to increase, coordination between these groups is crucial to protect Kansans and to ensure smooth telecommunication development with minimal disruption to our communities.

- *Kansas Damage Prevention Councils – KC Metro Area, Wichita Area, Western Kansas Area*

  The Kansas Damage Prevention Councils consist of professionals representing various organizations dedicated to the advocacy of underground damage prevention and excavation safety. Members include representatives from the excavation industry, the underground locate community, various private utility and pipeline companies, municipalities, and local, state and federal regulatory agencies.

- *Telecommunication Companies and Internet Service Providers*

  As the primary developer of projects, telecommunication companies and internet service providers design local infrastructure build-outs from main network trunks, main branches and individual service drops to homes and businesses. These companies often hire engineering firms to help plan and coordinate the projects. Once plans are approved by local government, these companies often hire contractors to install necessary facilities, many of which require excavation.

- *Primary Excavation Contractors and Subcontractors*

  Excavation contractors and subcontractors work for broadband companies or their project design contractors to install telecommunication facilities along the network all the way to homes and businesses. Excavators are responsible for obtaining and maintaining any necessary permits from local governments. Excavators are also required by law to request underground locates at each work site

by contacting 811 at least two working days prior to beginning excavation. Failure to do so could result in fines, work delays or damage to underground facilities that could affect public and worker safety.

- *Underground Facility Owners and Operators*

The owners and operators of underground assets such as oil/gas pipelines, electric and gas utilities, and private and municipal water utilities are responsible to accurately and timely locate their facilities pursuant to valid locate requests by excavators. Damage to these facilities could cause major disruptions and can be very dangerous. While some of these facility owners conduct their own locates, others may hire contract locate companies to assist them.

- *KS811*

Kansas 811 is an incorporated non-profit organization that oversees the Notification Center. By contacting 811, an excavator can notify operators of underground utilities of proposed excavation and request that underground facilities are located before digging. Kansas811.com is a great resource for excavators, homeowners and facility operators to learn Kansas Underground Utility Laws, excavation best practices and damage prevention training. In addition, Kansas 811 Staff conducts in-person safety meetings for excavators throughout the state and helps raise awareness of "Call Before You Dig."

- *Government and Regulatory Agencies*

Various government and regulatory agencies play a part in Damage Prevention by overseeing and enforcing underground damage laws and regulations.

- *The Kansas Corporation Commission (KCC)* fields several inspectors that investigate damages and audit utility policies and procedures. The KCC has regulatory authority to issue fines to excavators and facility operators within its jurisdiction for not complying with requirements set forth in statute and regulation. Similarly, the Pipeline and Hazardous Materials Safety Administration (PHMSA) regulates interstate pipelines at the federal level.
- *The Kansas Department of Commerce Office of Broadband Development* manages BEAD funding in the state of Kansas. They maintain very useful resources for local communities needing additional information about upcoming broadband overbuilds.
- *Local fire departments and public safety agencies* are greatly affected when underground damages result in emergency situations. By protecting the public and providing first response and scene control, agency capabilities should be considered when planning local broadband projects.
- *Local governments* on the municipal and county level are a crucial partner in underground damage prevention through effective right-of-way management and communication. As the number of fiber projects continues to grow, more and more local and out-of-state excavation contractors are applying for permits to dig in Kansas. Communities with robust and comprehensive Right-of-Way Management Programs are better prepared for this influx of excavation projects.

Additionally, communities that bring together the various stakeholders throughout the project lifespan are better equipped to deal with potential disruptions by discussing known issues and lessons learned from similar projects across the state.

III. Issues and Lessons Learned

For the past decade, some of the larger communities in Kansas have been dealing with issues related to an increased number of broadband fiber projects as more and more telecommunication companies race to install faster networks. Affected communities and underground facility operators have learned valuable lessons that could help less-experienced communities prepare for another expected wave of projects. They share a common approach that has proved to increase cooperation, preparation, and damage prevention efforts between all affected stakeholders.

- *Damages to Underground Facilities*

The rise in excavation activity also increases the potential for personal injury not only to the public but to the workers involved in or responding to an emergency. Damages to underground facilities can also lead to significant residential and commercial service disruptions as well as costly project delays. The KCC has authority to issue penalties to parties who do not comply with underground damage prevention laws and regulations. All parties share responsibility to protect public health and property from excavation damage by remaining alert and prepared for potential emergencies.

- *Locate Ticket Issues*

Increased excavation activity also leads to increased ticket volumes that can make it much more difficult for municipal and public utilities to accurately complete One Call requests in a timely manner. By addressing the issue with excavators ahead of time to limit the scope and number of tickets, municipalities can better plan resources to remain in compliance. Many underground facility operators have developed new solutions to meet challenges caused by a recent increase in locate requests. Operators can request that excavators white-line specific areas of excavation and often work directly with excavators when encountering issues.

- *Permit Process and Enforcement*

Some municipalities are not aware that local government is the main authority in ensuring proper excavation activity in public right-of-ways. As a result, these communities tend to experience more disruptions, damages and frustrations with excavation activity and restoration. Through a clear and robust permitting process, a municipality can determine the who, where, when and how excavation activity occurs in their community.

Excavators can be advised to undergo ancillary dig-safe training such as that provided by Kansas 811. Municipalities should request frequent project map updates to help plan and prepare for potential disruptions. To help manage municipal resources for traffic control, utility locates, emergency response, and community complaints, excavation activity can be limited to weekdays during specified

times. Monitor performance of excavation crews to ensure that proper digging techniques are followed according to underground damage prevention laws. Encourage the use of vacuum trucks instead of hand tools when possible.

Additionally, planning and allocating resources for worksite inspections and contractor audits is critical to monitor compliance and enforce permit expectations. Involving the telecommunications company, the project coordinator company and the primary installation contractor in the monitoring and inspection process has proven very successful to maintain crew accountability.

- *Competing Fiber Projects*

  Because one of the BEAD program goals is to increase local telecommunications competition, it is not uncommon to have more than one fiber company completing projects in the same community at the same time. Multiple fiber projects further complicate all other issues and should be expected. Municipalities should encourage cooperation between fiber companies to ensure minimal community disruption.

- *Periodic Project Meetings*

  Once a municipality learns of a planned fiber project in their community, they should begin organizing periodic meetings with the fiber company and its project planner, primary installer, major sub-contractors and other underground facility operators that would be affected. These meetings provide a central point for project updates and provide attendees with the contacts needed to resolve issues between parties. As the project progresses, attendees can discuss solutions to any issues that may arise. Early and frequent communication is the key to ensuring safe and smooth fiber builds.

Below is an example of a typical project meeting agenda:

1. Introductions and contact info exchange; pass around sign-in sheet
2. Project updates and timelines
3. Availability of weekly project maps/street sheets
4. Current crews and notification of future crews
    - Permit process
    - Permit requirements
5. Damages
    - Causes and remediation; importance of soft digging, spotting
    - Effects on emergency agencies; need to limit hours of excavation?
    - Effects on public safety
    - Restoration of excavation sites
6. Locates
    - Volume of tickets/updates
    - Accuracy/timeliness
    - Whitelines, meet sheets
7. Future meetings

Contact List

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Resources

Kansas 811 Trainings, Manuals and Guides: kansas811.com/resources

Kansas Underground Damage Prevention Act (KUUDPA):
kslegislature.org/li/b2023_24/statute/066_000_0000_chapter/066_018_0000_article

kansas811.com/wp-content/uploads/2020/06/dpa_2009.pdf

BEAD Program:
internetforall.gov/funding-recipients/kansas-department-commerce

CGA 2023 Whitepaper on Telecom's Critical Role in Reversing Utility Damage Trends:
commongroundalliance.com/Portals/0/CGA%20Telecommunications%20White%20Paper%202023.pdf?ver=2023-12-07-183006-553

Excavation Safety Alliance Townhall: Responsible Fiber Deployment Strategies for Protection and Damage Prevention:
youtu.be/BlHesHD2vc4?si=N6QJSDkGdrqz86qU

Kansas Department of Commerce BEAD Playbook:
kansascommerce.gov/officeofbroadbanddevelopment/broadband-equity-access-and-deployment/bead-broadband-playbook

kansascommerce.gov/wp-content/uploads/2024/02/Broadband-Playbook-Final.pdf

League of Kansas Municipalities: lkm.org

Kansas Municipal Utilities: kmunet.org

Kansas Associations of Counties: kansascounties.org

Samples of Robust Local ROW Permit Requirements:

City of Lenexa
online.encodeplus.com/regs/lenexa-ks/doc-viewer.aspx?tocid=004.006.009#secid-2991

City of Overland Park
online.encodeplus.com/regs/overlandpark-ks/doc-viewer.aspx#secid-3382

City of Shawnee
library.municode.com/ks/shawnee/codes/code_of_ordinances?nodeId=CD_TIT14TECAE