

AT&T

Kentucky Transportation Cabinet

Louisville, Kentucky
August 11, 2009



Program Outline

Segment 1 – AT&T Facilities and Procedures

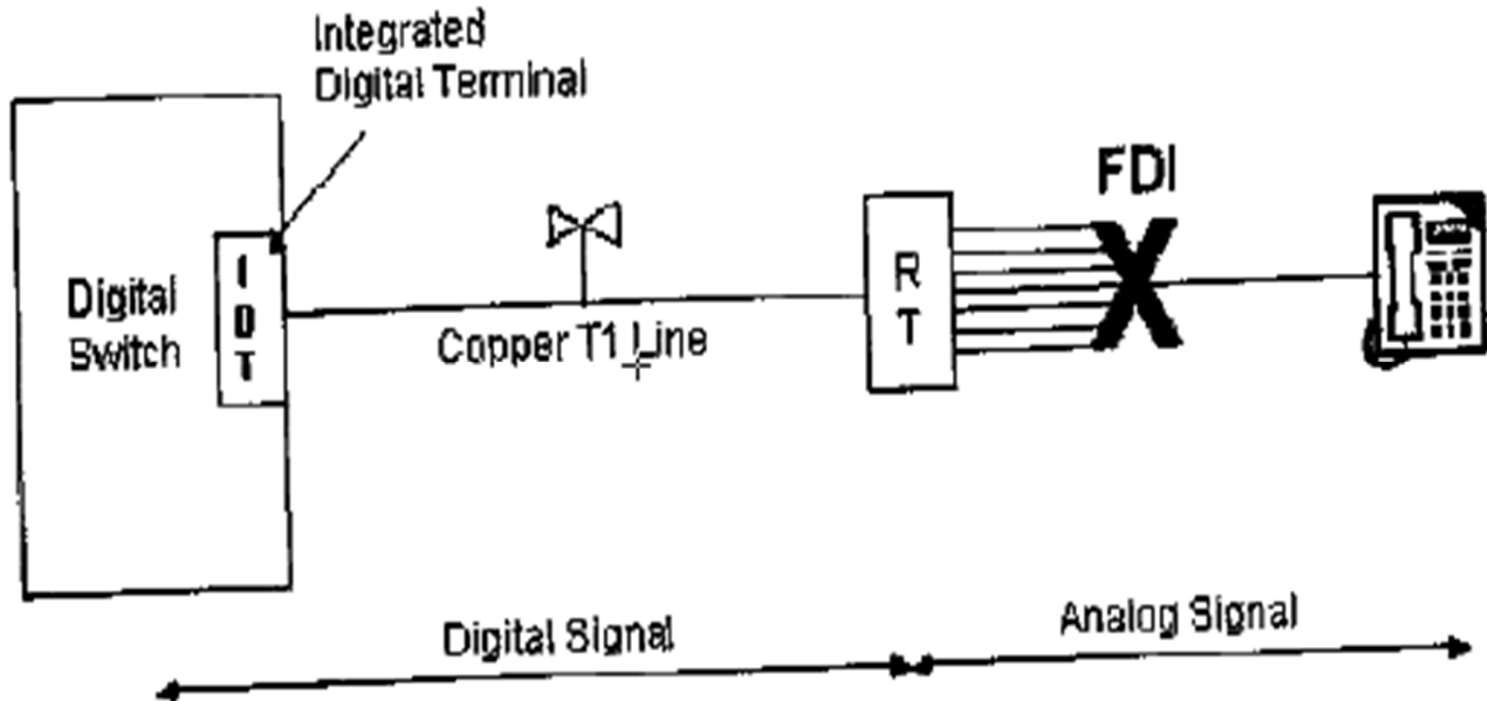
Morgan Herndon, Manager Outside Plant
Engineering & Planning Design
Bardstown Road Louisville

Segment 2 – Underground Damage Prevention

Tim Vaughn
Director Regulatory and External Affairs
Kentucky 811

Network Overview

Simple Telephone Architecture



Central Office



Cables in Central Office Vault



Cables in Central Office Vault



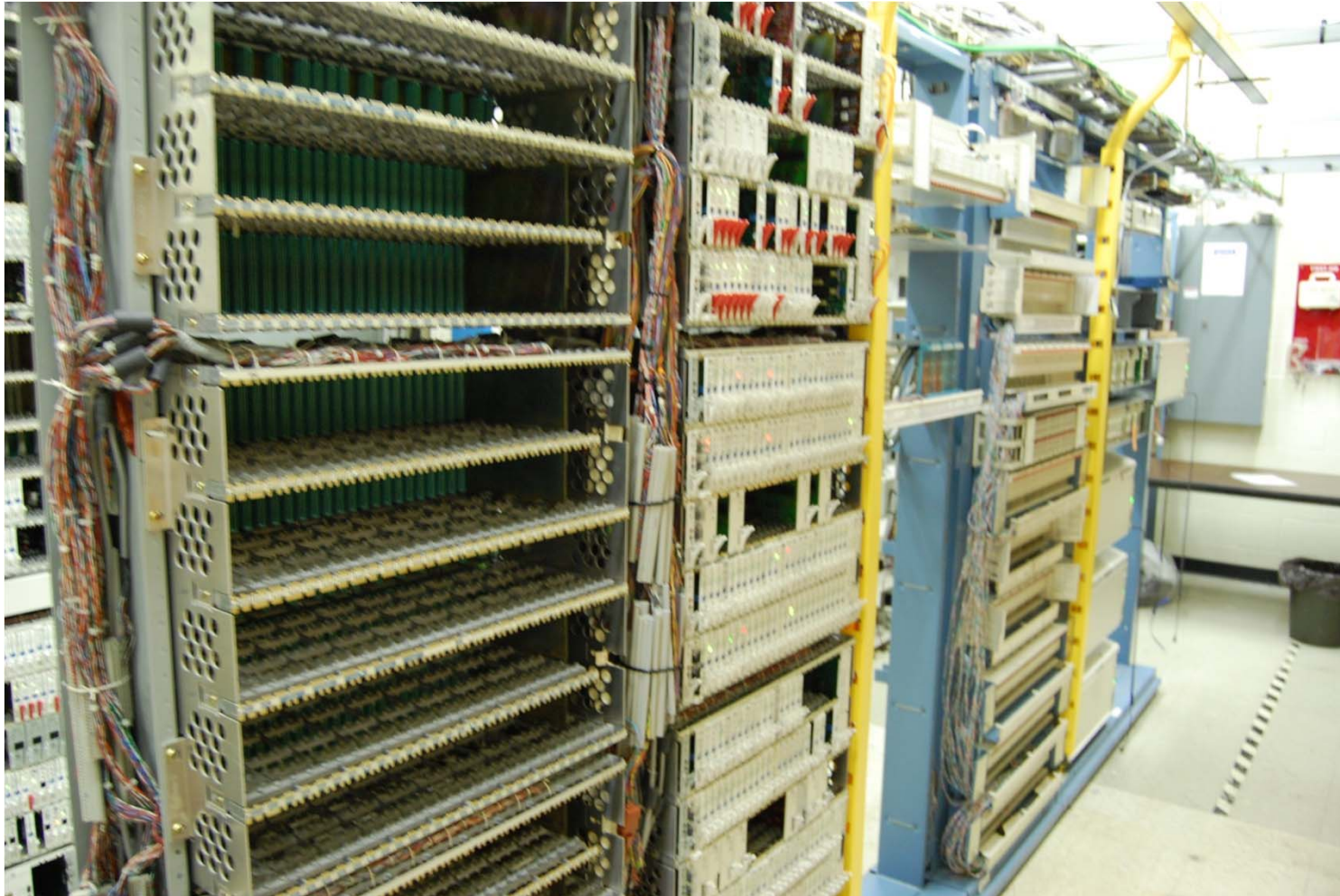
Stainless Steel Splice Case/Fiber with Tag



Cable in Central Office Vault



Central Office Equipment



Central Office Plug-In Card Shelf



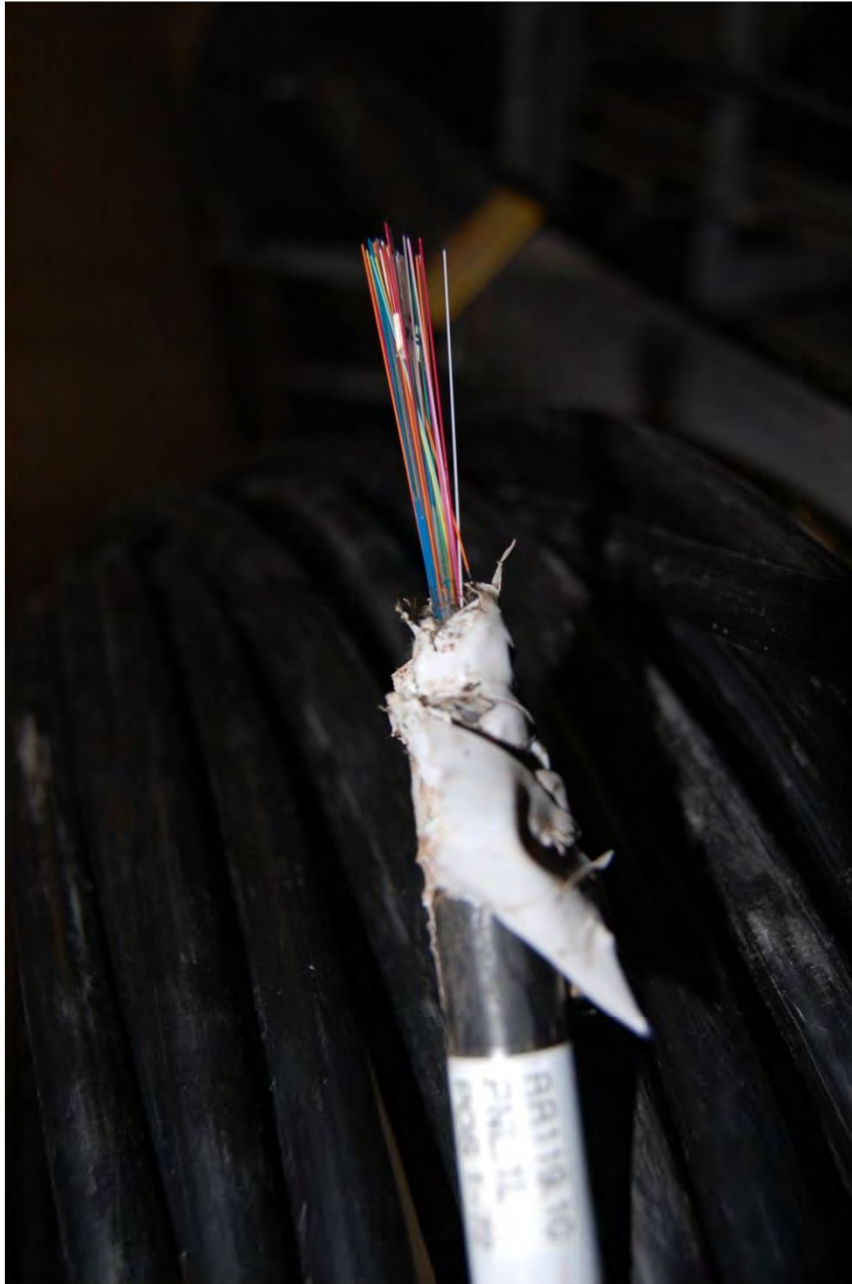


Battery Racks

Sidewalk Anchor



Types of Facilities



Fiber Cable

Copper Cable



Manhole Lid



Manhole Lid & Collar



Manhole Collars & Rings





Buried Cable Pedestal

Buried Cable Pedestals





Buried Cable Pedestals





Service Wire Pedestal

Cable & Innerduct Reels



Handholes



Aerial Attachments



Aerial Copper Splice Case



Aerial Fiber Splice



Pole Mounted Xbox





Pole Mounted Xbox

Small Pole Mounted Xbox





Small Pole Mounted Xbox

Pad Mounted Xbox



Hut & Equipment Rack



RT Cabinets, Xbox & Pedestals



Buried Cable Markers



Anchor Rods & Plates





Overhead converting to Underground (Lateral)

Installation Standards and Procedures

What are the steps and timing necessary for a relocation project?



What are the steps and timing necessary for a relocation project?

OVERVIEW Right of Way

- DOT provides proposed road relocation plans.
- Utilities utilize provided R/W for relocation.
- If R/W are not sufficient for relocation then utilities are forced to seek additional private easements from property owners.
- Acquisition of private easements is time consuming & expensive & not always successful.

What are the steps and timing necessary for a relocation project?

OVERVIEW Process


- Proposed relocation is submitted to DOT for permit.
- DOT utility coordination reviews all utility proposed relocation permit drawings for conflicts.
- Conflicts (if any) are resolved between utilities.
- Approved permits are issued for relocation construction.
- AT&T creates & issues internal construction prints to field crews.



What are the steps and timing necessary for a relocation project?

OVERVIEW AT&T Construction


- Proposed facilities are placed in field first.
- Existing services are cut over to new facilities.
- High speed services require customer release to cut over.
- Old facilities are removed or abandoned.



What are the steps and timing necessary for a relocation project?

AERIAL FACILITIES

- AT&T occupies the lowest position on aerial pole route.
- Aerial relocations are done from top down to maintain proper clearances between utilities.
- AT&T is last to begin aerial relocation work.



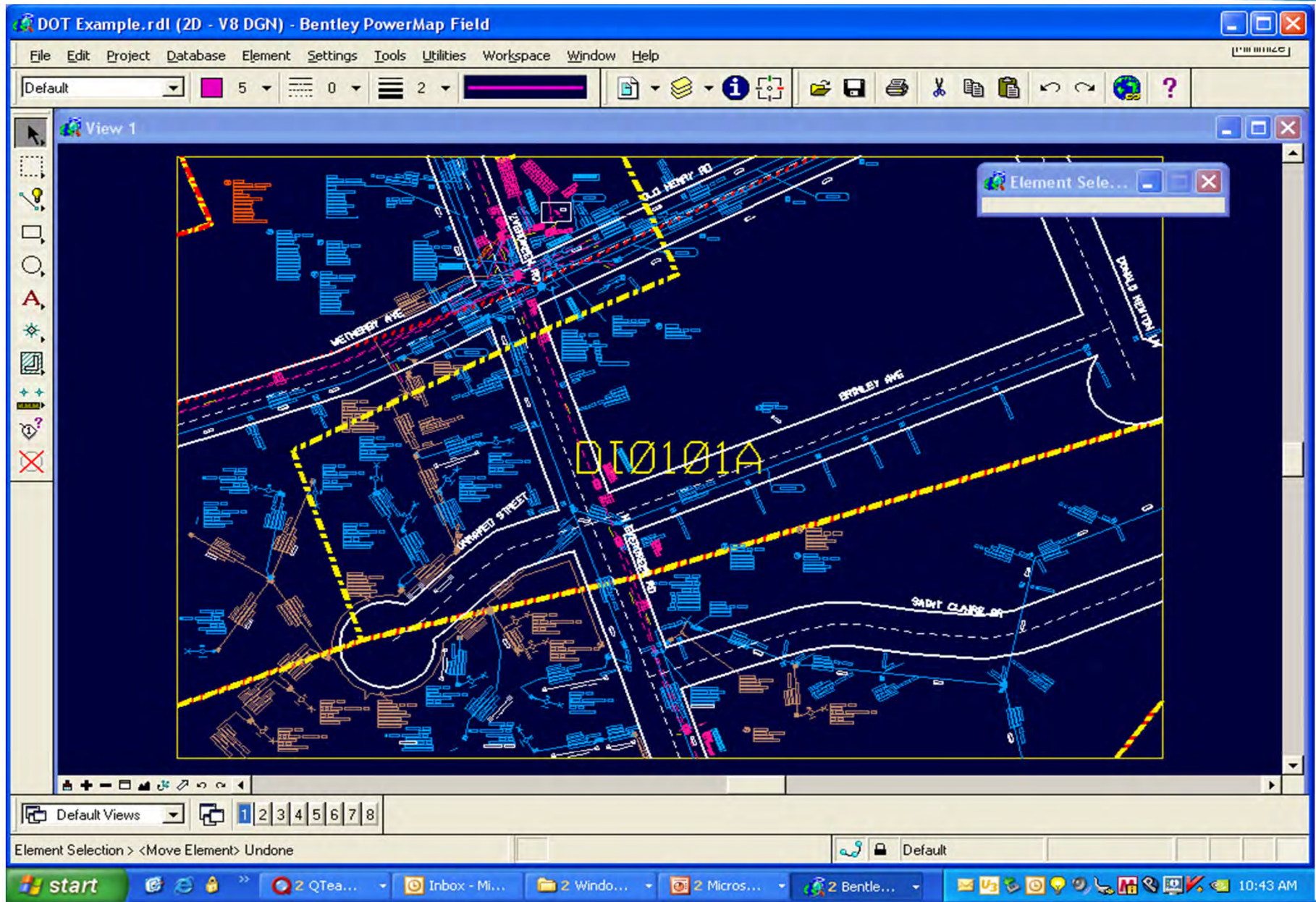
What are the steps and timing necessary for a relocation project?

UNDERGROUND FACILITIES

- Structure location approved by DOT once it has been reviewed for conflicts with other underground relocation proposals. (Gas, Water, MSD, etc.)
- Structure (duct run, manholes, etc.) must be complete before cable relocation can begin.
- Cable is pulled thru structure.

Maps and Symbols

Facility Maps



c:\bstredlines\LSVLKYAN.RDL (2D - V8 DGN) - Bentley PowerMap Field

File Edit Project Database Element Settings Tools Utilities Workspace Window Help

Default 5 0 2

View 1

The screenshot displays a utility map in Bentley PowerMap Field. The map features several utility lines and structures, including:

- Property #57547:** 22C (19XX), 12117 SHELBYVILLE RD, 1401,276-300. A blue line labeled "T-25" is associated with this property.
- Property #57518:** 45C (19XX), 12119 SHELBYVILLE RD, 1401,1-25. A blue line labeled "T-25" is associated with this property.
- Property #57511:** 30'-22C ← 1995, BKTA-600, 1401,1-225, 1A,226-250, 1401,251-500, 00,501-600. A blue line labeled "T-25" is associated with this property.
- Property #57516:** 240'-45C ← 1995, ANTW-100, 1401,1-100. A blue line labeled "T-25" is associated with this property.
- Property #57430:** 45C (19XX), S 300 MIDDLETOWN PARK PL, 1401,1451-1500. A blue line labeled "T-25" is associated with this property.
- Property #57492:** 45A'-22C, 1995, BKTA-600, 1401,1-225, 1A,226-250, 1401,251-500, 00,501-600. A blue line labeled "T-25" is associated with this property.

Other labels on the map include "4.83' E-D", "04' WW", "UG0101A04", "417 MH E-2", "4' sub COND", and "8' sub COND".

Display complete

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Typical Conventions

Blue Color – Aerial Facilities (Poles & Cables)

BXXX-### B for aerial cable, # is size of cable.

BKMA-200 is an aerial 200 pair cable.

Brown Color – Buried Facilities (Cables, Pedestals & Hanholes)

AXXX-### A for buried cable, # is size of cable.

ANTW-400 is a buried 400 pair cable.

Magenta Color – Underground Structure (Duct & Manholes)

Need additional details for cables in underground.

Repair Procedures

Fiber Splicing

Line Truck with Bucket



Fiber Splicing Trailer



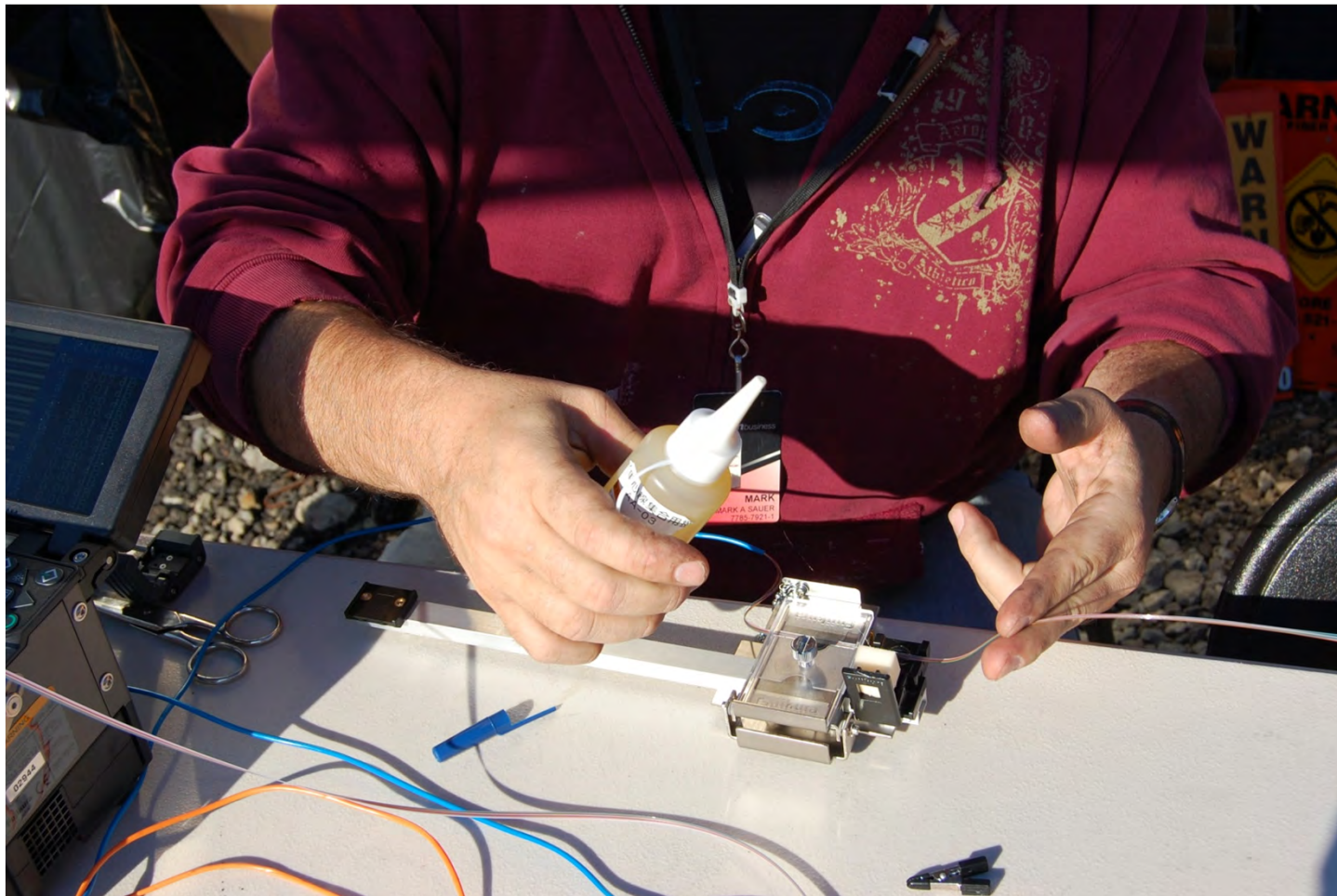
Fiber Splicing Trailer



Fiber Splice



Fiber Splice



Fiber Splice



Pole Bracing

Less than 5' of undisturbed soil around pole may require bracing.

Pole Brace

