

Streamlining Expansion Projects

Using Real-Time Design Data to Overcome Common Pain Points

October 23, 2024



Member driven. Technology focused.

Streamlining Expansion Projects

- What do we mean by 'expansion projects'?
- Challenges
- What do you do about it?

Streamlining Expansion Projects

Common Pain Points

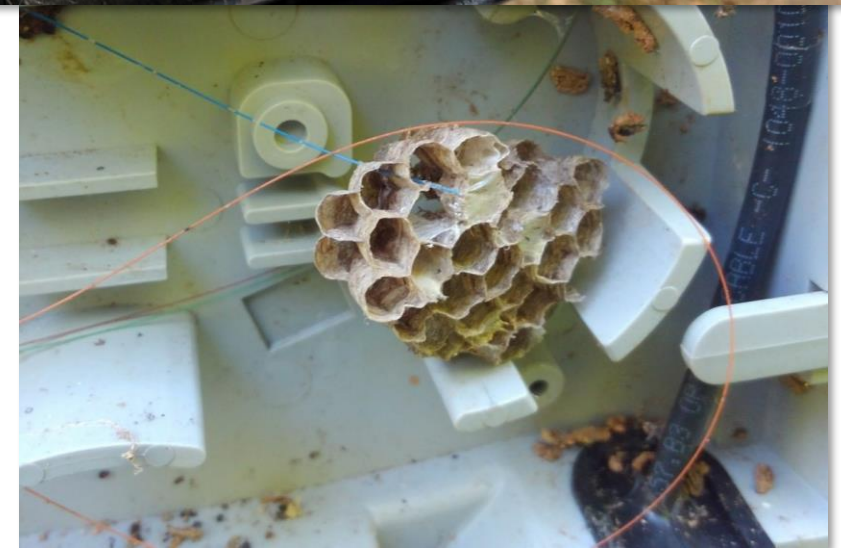


- Design
- Materials
- Permitting
- Change Management
- Redlines
- Should we keep going?



What's the Solution?

- Single Source of Truth (SSoT)
 - ▶ Comprehensive platform using real-time data that drives the project from start to finish, from design, to construction and inspections, through to as-builts and beyond



Common Pain Point

Materials Management



Challenges

- Timely creation and delivery of Bill of Materials (BOM)
- Accuracy of the BOM
- Remember COVID?
 - ▶ Get ready for BEAD!

Solution

- Rapid generation of BOM based on design data
 - ▶ Materials needs can be understood more quickly
- Removed manual intervention and human error



Common Pain Point

Leveraging Existing Assets

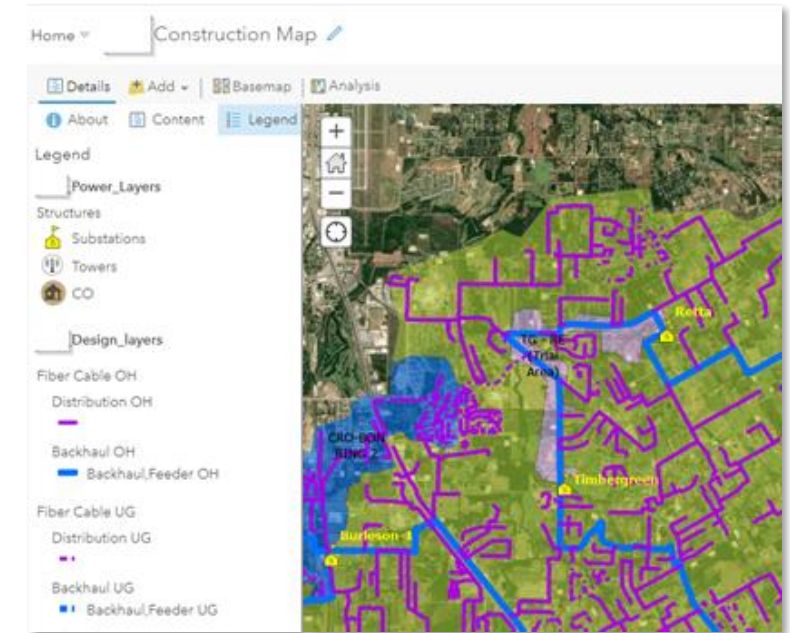


Challenges

- How to use your plant efficiently
- Knowing what you have, where you have it, and what's already in use within it

Solution

- Full record of all materials in the field, their exact locations, and how they're connected
- Reliable insight into existing capacity of your network



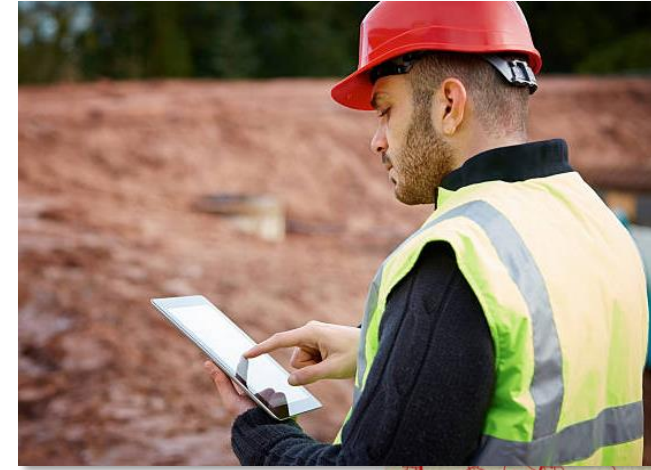
Common Pain Point

Permitting



Challenges

- What permitting agency?
- Where do you need them?
- Does everyone have what they need?



Solution

- Visibility of locations that require permits and the corresponding agency
- View of up-to-date design and construction information
- Real time access to approved permits



Common Pain Point

Change Management



Challenges

- Visibility of approved scope changes
- Slow communication between teams and timely approvals of change requests
- Frequent confusion around which version is current
 - ▶ Significant time and overhead required to keep everyone aligned on paper



Solution

- Maintain records and history in SSoT as well as manage access
- Allows for a transparent and efficient approval process



Common Pain Point

Construction Redlines

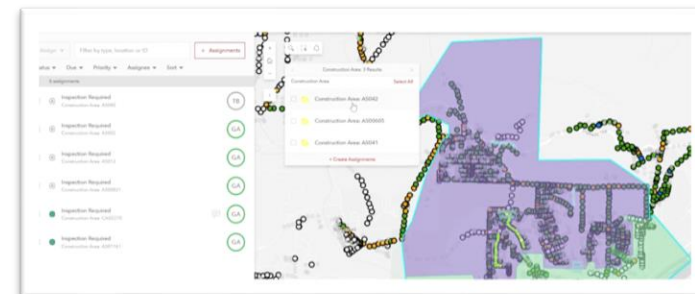


Challenges

- Tracking and managing redline input
- Time to completion of redlines post construction
 - ▶ Receipt of the actual redlines
 - ▶ Back and forth for clarification
 - ▶ Implementation of the accepted redlines

Solution

- Managing and updating redlines in SSoT
 - ▶ Speed to completion
 - ▶ Visibility across all relevant members of the organization



Common Pain Point

Production Reporting & Inspection

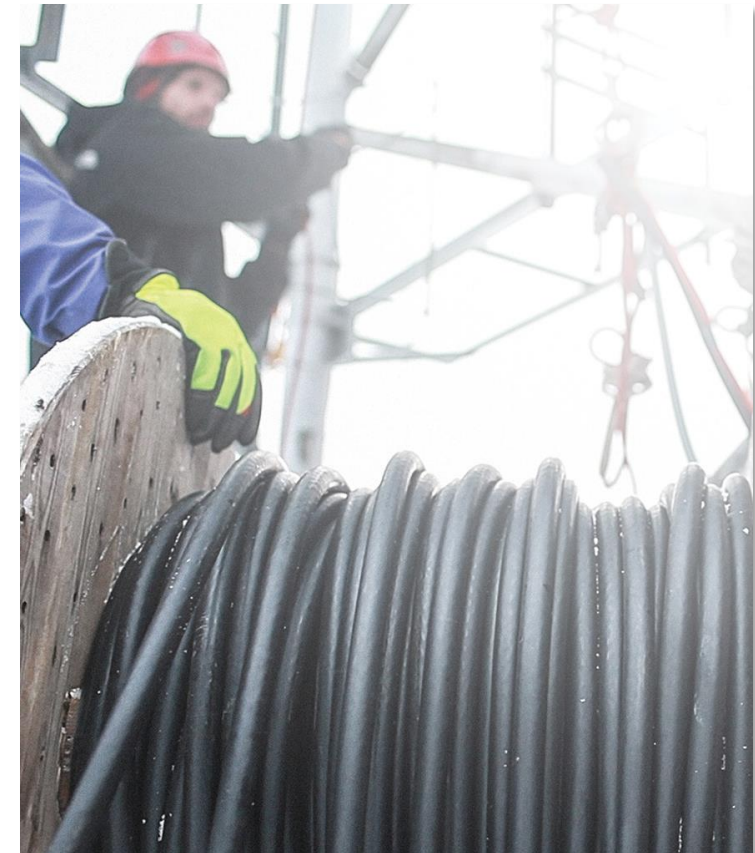


Challenges

- Generic reporting of production
- Multiple, disparate reports based on number of active crews
- Delayed reporting
 - ▶ Daily, Weekly, Monthly...?
- Slower communication with inspection

Solution

- Real-time production reporting
- Reconciliation with inspection results for accuracy



Common Pain Point

Gig Management

Challenges

- Communication of gigs to/from the field
- Difficulty with effective remote inspection after gig resolution
- Limitation around number of qualified inspection personnel

Solution

- Communication around and status of gigs maintained centrally
- Reliable and rapid gig resolution due to direct connection in SSoT
- Ability to do more with less



Common Pain Point

Invoicing



Challenges

- Reconciling production reported with RUS quantities on invoice
- Reconciling materials used with warehouse inventory
- Breakdown of labor and materials required for grant reporting

Solution

- Controls around approved RUS units for billing
- Connection of specific units to their construction status
- Visibility of specific material required for each invoice
- Integration of financial data into your SSoT

Common Pain Point *As-Builts and System of Record Integration*

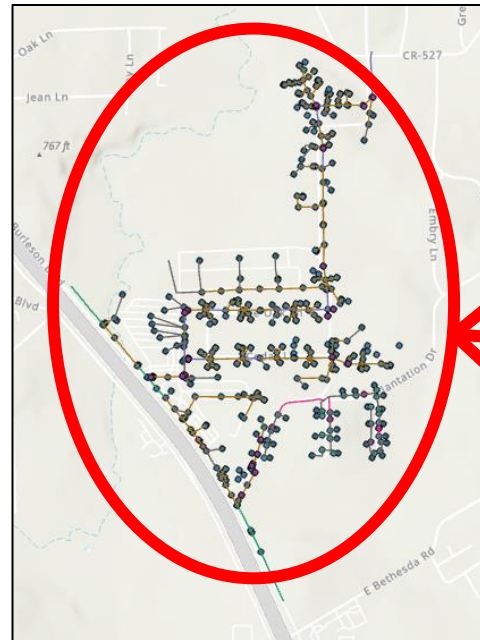


Challenges

- Time needed to receive and translate into system of record
 - ▶ Accuracy and reliability of the information received

Solution

- Ability for real time documentation from field regarding ongoing updates
- Ensuring connectivity and accurate records in you SSoT
- Shortened time to work order closeout



FIBER EQUIPMENT

Field: Add Delete Calculate Selection: Zoom To Switch Clear Delete Copy

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FIBER CABLE									
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STRUCTURE

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Streamlining Expansion Projects

Preparing for the Future



- Build a foundation of operational capacity to maintain, expand, and restore your network
 - ▶ Not only speed to restore but speed to service
- Staying ahead of technological changes and adapting your network for future growth and development
- Remember Murphy's Law, things always happen



Streamlining Expansion Projects

Next Steps



- Understand the importance of a Single Source of Truth?



Questions?

Thank You!



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