



EDITION 2  
VOLUME 3

# CONSULTATION SERVICES TO RESPOND, RECTIFY, AND RESTORE

Editor-in-Chief: Dr. Yuhsin Hawig, VP of Applications Engineering

## ON THE JOBSITE



### THE SUBJECT MATTER EXPERT

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Applications Engineering Manager,  
CableTechSupport™ Services

### THE MARKET

One of the largest electric utility companies in the U.S. with more than 10 million customers.

### THE PROBLEM

Overhead lines, located in an established residential neighborhood, need to be replaced with a new underground system but major excavation would cause disturbance in a large urban area.

### SOUTHWIRE'S SOLUTION

**MONEY SAVED, MINIMAL DISRUPTION!**

Southwire CableTechSupport™ Services team, along with the help of the utility standards engineer designed a **Reinforced, Resilient, and Reliable** secondary underground cabling solution, **saving this contractor approximately \$50,000 in estimated labor and material costs, avoiding major disruption, and minimizing environmental impact.**

## PROJECT DETAILS



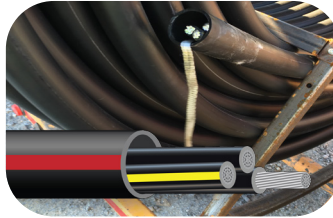
### 1. MARKET SERVED

The end-user is one of the largest electric utility companies in the U.S. with more than 10 million customers. Because many of its service locations are prone to storms, overhead power lines have been converted to underground systems. The goal is to mitigate the leading causes of power outages, which are falling trees and excess vegetation growth that come into contact with overhead circuits.



### 2. PRODUCT USED

The 600-volt rated USE-2 (Underground Service Entrance) cables are made of two 4/0 AWG aluminum phase conductors plus a 1/0 AWG neutral wire. The crosslinked insulation allows the secondary cables to be operated up to 90°C continuously during normal operating conditions. High-Density Polyethylene (HDPE) conduit was extruded over the cables at Southwire's manufacturing facility to create a sustainable all-in-one single product solution.



SIMpull® Cable-in-Conduit (CIC) 600V Aluminum USE-2 in 2" Schedule 40 Black HDPE Conduit with 3 red extruded stripes.



The CIC reel on the left was the first reel used for the pull. The reel on the right was staged for the second pull for the next segment.



The CIC, gripped by a pulling eye, is unwound from the reel and is pulled underground through a small pilot hole pre-made by the HDD drill bit.



200 feet of CIC is continuously pulled by the HDD equipment into a small channel. This narrow pathway was pre-drilled by the bore to accommodate the specific size of the CIC pipe.



The full length of CIC has been pulled all the way to the end point where the HDD pulling equipment is located. This concluded the install of the new below-grade circuit for one residential segment.



For more information, please contact  
CableTechSupport@southwire.com or visit [Southwire.com](https://www.southwire.com)

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## PROJECT DETAILS CONT.



### 3. CHALLENGES DISCOVERED

The overhead lines, located in an established residential neighborhood, need to be replaced with a new underground system. The conventional open cut trenching technique and the major excavation to bury more than 2,000 feet of circuits below grade is problematic due to the disturbance of a large urban area.



### 4. SOLUTION EXECUTED

Southwire CableTechSupport™ Services team worked with the utility standards engineer to design the most **Reinforced, Resilient, and Reliable** all-in-one CIC secondary underground cabling solution that can be installed in the shortest amount of time. CIC was pulled via Horizontal Directional Drilling (HDD) equipment, also known as Directional Boring. This trenchless construction method saves time, avoids major disruption to urban areas, and minimizes environmental impact.



### 5. MONEY SAVED

The all-in-one CIC assemblies, installed via HDD, can cross roadways with many soil conditions including clay, rock, sand, and silt. The successful HDD-installed CIC eliminated the cost related to extra labor, long man hours, equipment to pull cables & conduits separately, trenching, soil backfill, sod replacement, and landscaping. An estimated labor cost savings of \$17,000 based on 2024 NECA Labor Rates, and an approximate material cost savings of \$33,000 have been achieved.

Approximate cost savings are based on 2024 NECA Labor Rates and standard material costs.



### 6. SUPPORT FULFILLED

One of the most frequent inquiries for Southwire's CableTechSupport™ Services is field support. We fulfill more than 15 job site requests monthly, from cable inspections to pulling supervision for data center, renewable, EV & automotive, and utility projects. The mission statement for our Re3™ Consultation Services is to **Respond** to end-user challenges, **Rectify** issues, and **Restore** the electrical systems.



For more information, please contact  
CableTechSupport@southwire.com or visit [Southwire.com](https://www.southwire.com)

\*Approximate material cost savings are based on 2024 standard product costs.

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