CORNING

Aerial Self-support FlexNAP™ System RPX® Dielectric Cable Installation

p/n 005-081, Issue 5

related literature |	
003-136	Instructions, RPX Gel-Free Ribbon Cable and FlexNAP System Cable Suspension Clamp Installation Instructions
005-103	Instructions, RPX Gel-free Ribbon Cable and FlexNAP™ System RPX® Cable Mechanical Wedge Dead-end Instructions
005-204	Instructions, Installing Wire Mesh Pulling Grips on Fiber Optic Cables

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1. General

1.1 This procedure provides general information for installing Corning Optical Communications FlexNAP™ System RPX® dielectric cable (Figure 1).

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Figure 1

1.2 FlexNAP System RPX dielectric aerial self-supporting cables provide the most cost-effective method of deploying optical fiber in an outside plant distribution network at speeds significantly faster than traditional field installations.

1.3 The FlexNAP System RPX dielectric aerial self-supporting cable utilizes optical fiber cables upon which network access points are pre-installed at customer-specified locations along the length of the cable. The cable and network access points (NAPs) are tested and shipped as a complete distribution cable/terminal system. Compatible with aerial outside plant distribution applications, FlexNAP System RPX dielectric aerial self-supporting cable significantly reduces installation time.

1.4 Each installation will be influenced by local conditions. The reader should be experienced in aerial fiber optic cable installation. This procedure contains references to specific tools and materials in order to illustrate a particular method. Such references are not intended as product endorsements.

1.5 This issue includes corrections to Figures 4 and 5 and addition of the Corning RPX cable suspension clamp.

1.6 Only RPX dielectric cable is suitable for aerial installation. RPX toneable cable is designed for below grade applications.

2. Safety Precautions

!	**CAUTION:** Before starting any aerial cable installation, all personnel must be thoroughly familiar with all occupational health and safety regulations, AS/NZ wiring codes, state and local regulations, and company safety practices and policies. Failure to do so can result in life-threatening injury to employees or the general public.

2.1 Laser Handling Precautions

WARNING: Never look directly into the end of a fiber that may be carrying laser light. Laser light can be invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.

2.2 General Safety Precautions

WARNING: To reduce the risk of accidental injury:

a. Use all company and required personal protective equipment, e.g., hard hats, protective leather gloves and eye protection. Wear rubber gloves when working near exposed electrical circuits.

b. Use a safety harness on all bucket trucks and aerial lifts. A body belt and safety strap for the bucket or platform must be used when the equipment is in operation to minimize the chance of injury.

c. Before climbing a pole, inspect it for significant deterioration and safety hazards (splintering, insect nests, sharp protrusions, etc.).

d. Position all motorized equipment so that exhausts are directed away from the location where most work will be done.

e. Personnel normally should not remain in an area where a cable is being pulled around a piece of hardware under tension. The installer can remain in such an area (for example, to observe the alignment of a cable around corner block), if he or she stays clear of the hardware under tension and has a clear path to safety.

f. Always lower cable blocks and other equipment from strand level with a handline.

g. Keep hands free of tools or materials when climbing or descending a pole or ladder. Do not step on cables, cable enclosures or suspended equipment which might provide unsafe footholds.

h. Read the entire procedure before starting a FlexNAP™ System RPX® dielectric cable installation. Thoroughly understand the procedure, its precautions and the tools and equipment required before starting work.

3. Cable Handling Precautions

3.1 Releasing Coiled Cable

WARNING: Unrestrained cable ends may cause injury to your eyes or body and damage the cable, fitting or fibers if suddenly released from a coil. Wear eye protection and use extreme care when handling a coiled cable assembly which uses flat-drop cable — gently release the energy stored in the cable coil to avoid possible personal injury or damage to the cable or fitting components (Figure 2).

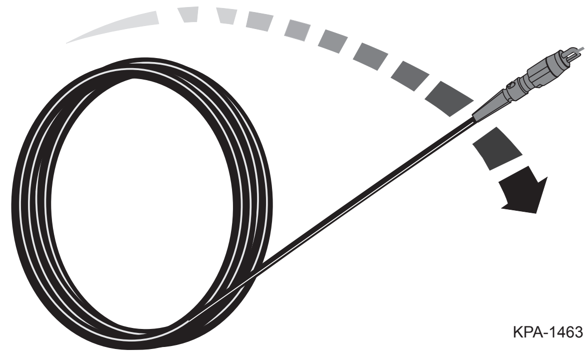

Figure 2

3.2 Maximum Pulling Tension

There are two different tensions to keep in mind during installation of FlexNAP System RPX® dielectric cables. One is the maximum pulling tension during installation; the other is the span tension. The maximum tension during installation should not exceed 2700 N (600 lbf). Typically, tensions for aerial installations are lower but may approach 2700 N (600 lbf) when using the stationary reel method of installation and the route is characterized by numerous elevation changes and turns.

After the cable is pulled in, it is placed in the pole hardware under tension. This tension, referred to as the span tension, is calculated for each cable to achieve the desired installation sag. The span tension is calculated to accommodate the maximum wind and ice loads the cable could experience.

NESC heavy loading conditions limit RPX dielectric cable spans to 61 m (200 ft) and 137 m (450 ft) for NESC light conditions at 1% installation sag. Contact Corning Optical Communications Engineering Services, 1-800-743-2671, for other applications (including higher installation sag) and standards requirements.

3.3 Minimum Bend Radius

Corning Optical Communications cable specification sheets also list the minimum cable bend radius (Figure 3) both “loaded” (during installation) and “installed” (after installation).

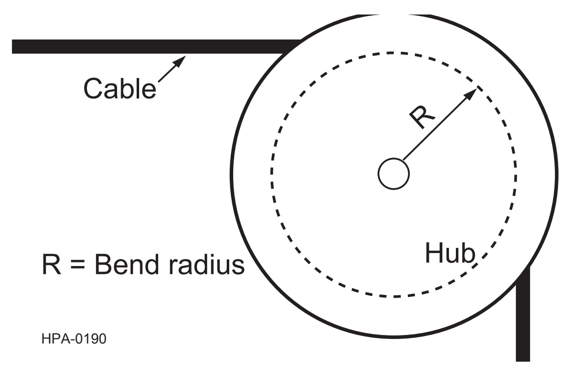

Figure 3

Due to the profile of FlexNAP™ System RPX dielectric cable, some cable coiling methods induce unwanted twisting of the cable. If the cable must be unreeled during installation, use the figure-eight configuration to prevent kinking or twisting. Fiber optic cable should not be coiled in a continuous direction except for lengths of 30 m (100 ft) or less. The preferred size of the “figure-eight” is about 4.5 m (15 ft) in length, with each loop about 1.5 to 2.4 m (5 to 8 ft) in diameter. Traffic cones spaced 2 to 2.4 m (6.5 to 8 ft) apart are useful as guides during the “figure-eight” operation (Figure 4).

NOTE: If the “figure-eight” must be flipped over to obtain the pulling eye, it can be easily accomplished by three men, one at each end and one in the center. The cable can then be pulled off the “figure-eight” the remaining distance.

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Figure 4

CAUTION: Do NOT use automated figure-eight machines when installing fibre optic cable. Such machines may exceed the cable’s torsion, tension and bend radius design limits.

3.4 Uncontrolled Twisting

Uncontrolled twisting can damage any fiber optic cable. To prevent such damage during a pull, place a pulling swivel between the pulling line and the pulling grip (Figure 9). Whenever a cable is unreeled for subsequent pulling, figure-eight the cable as shown in Figure 4.

3.5 Equipment Inspection

All equipment to be used during handling and installation should be inspected for features which might damage the cable. Examples of dangerous features are nails, broken flanges on cable reels and damaged blocks.

3.6 Cable Care and Inspection

Leave cable reel protective packaging intact until the reel arrives at the installation site. Upon removal of the protective packaging, inspect the cable jacket for signs of damage. If the packaging has been previously removed, secure the cable end(s) during transit to prevent damage. Cable reels should be stored vertically on their flanges and chocked to prevent rolling.

Determine if your company requires that the cable be tested for optical continuity prior to installation. These tests can be done with an optical time domain reflectometer (OTDR).

Do not, under any circumstances, make unplanned cuts in the cable. Unplanned cuts mean additional splices, which are costly in monetary and attenuation terms. Any departure from the planned installation should be approved by the construction supervisor.

4. Planning And Preparation

Prior to beginning an aerial cable installation, careful planning and preparation are necessary. Representatives of each organization potentially affected by the installation (utilities, street department, police, etc.) should be present during the route survey. Approval by all necessary parties should be secured before detailed planning begins. A few of the issues to be considered are listed in the following paragraphs. Planning should be undertaken jointly by construction and engineering personnel. Hardware requirements should also be considered at the planning stage.

4.1 Route Selection and Planning

Installation costs will be minimized by using existing poles whenever possible. The ability of existing poles to accept new fiber optic cable and the need for modification should be determined using your company's normal criteria for installing an additional cable. Ideally, the guying of the cable plant should remove all lateral stress, leaving the poles to support only the weight of the cable and associated hardware. Sufficient clearance for new cable along the right-of-way should be confirmed during the route survey.

4.2 Cable Placement

Care must be taken to ensure sufficient clearances between FlexNAP™ System RPX® dielectric cable and other cables and provide minimum ground clearance. The necessary clearance should be determined on a case-by-case basis by referring to the current AS/NZS, appropriate local codes and your company's standards.

4.3 Tether Access Points and Pole Alignment Markers

Regardless of the installation type, there will be orange pole alignment markers (PAMs) used for proper positioning of the tether access point (TAP) tethers and the cable itself. When the PAMs are properly positioned and assuming the cable pull is towards the central office (CO) from the field side (FS), the TAP itself will hang 1.8 m (6 ft) from the pole towards the CO side. This allows the 1.5 m (5-ft) tether (aerial tether length) at each TAP to reach the pole for connection of the multiport terminal (Figure 5).

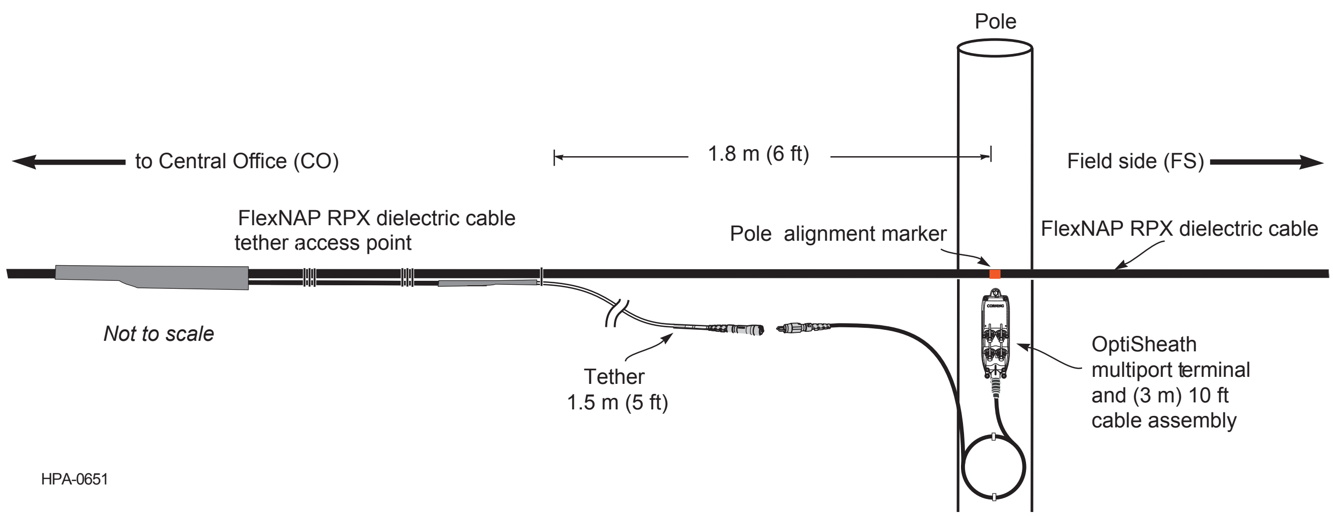

Figure 5

4.4 Installation Planning

Planning the actual installation should take place only after a thorough route survey. The installation method to be used will be largely dictated by the cable route. Both the moving reel (drive-off) and stationary reel methods of aerial cable installation are outlined in this procedure, as well as conditions requiring use of one, the other or both.

Drill the appropriate holes in wooden poles or apply band attachments to concrete or metal poles, and mount supporting hardware accordingly.

4.5 Splice Locations and Cable Slack Requirements

Select splice locations during the route survey, and make plans for slack and splice closure storage. Splice locations should be placed to allow for the longest possible continuous cable spans and a minimum number of splices. The splice points should be chosen to facilitate the later splicing operation and should be easily and conveniently accessible to a splicing vehicle.

The amount of slack cable component at each splice point must be sufficient to reach from the pole's height to the planned pit including an additional 15 m (50 ft) of cable in the pit (Figure 6).

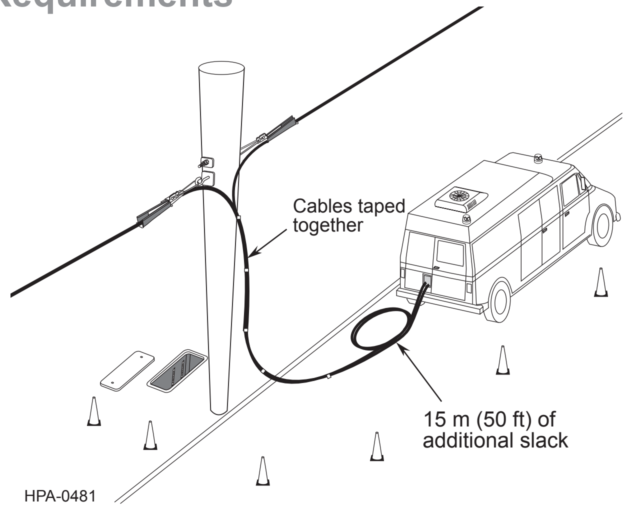

Figure 6

If there are slack loops designed into the installation, the loops will be marked on the distribution cable by a pair of yellow slack alignment markers (SLAMs) dictating the position and length of the slack loop (Figure 7).

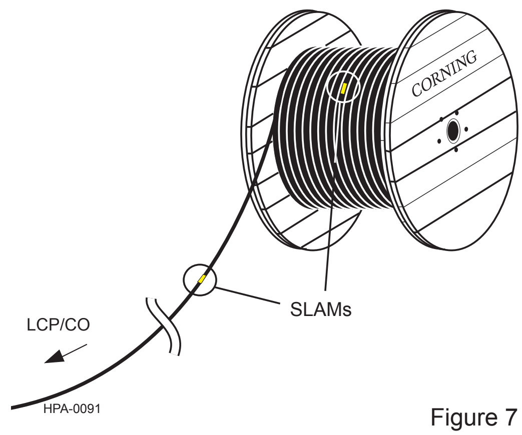

Figure 7

4.6 Pole and Line Hardware

Corning Optical Communications recommends the use of Corning RPX® mechanical wedge dead-end clamps for termination and Corning RPX cable suspension clamps for suspending FlexNAP™ System RPX dielectric cables in aerial installations (Figure 8).

Contact Corning Optical Communications if you have questions regarding aerial attachment hardware.

Refer to the vendor's recommended procedures for installation of the hook bolt and hook pole hardware. For the Corning Optical Communications mechanical wedge dead-end clamp, see SRP 005-103. For the Corning RPX cable suspension clamp, see SRP 003-136.

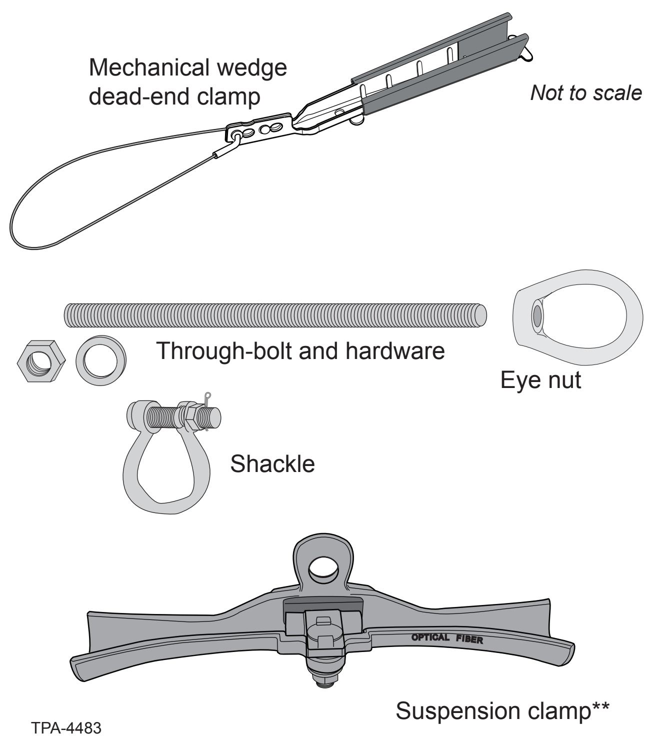

Figure 8

4.7 Pulling Grips

Corning Optical Communications recommends the use of a Kellems®-style wire mesh pulling grip with a diameter range of 10.7 to 15.5 mm (0.42 to 0.61 in) to provide effective coupling of pulling loads to the jacket and strength member of fiber optic cables.

The use of a swivel between the pull-line and pulling grip is required to prevent the pull-line from imparting a twist to the cable (Figure 9). For instructions on field installation, refer to SRP 005-158, Installing Wire Mesh Pulling Grips on Fiber Optic Cables.

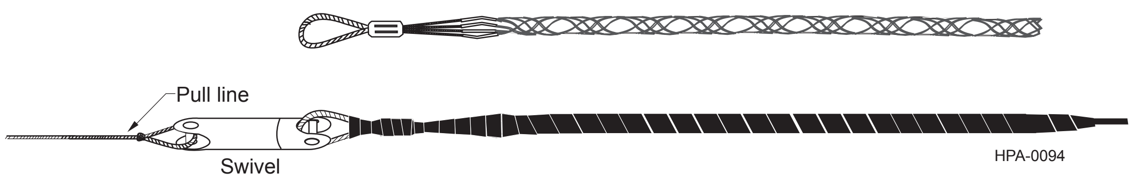

Figure 9

5. Stationary Reel Installation Method

NOTE: The first FlexNAP™ System RPX® dielectric cable TAP from the FDH side is ALWAYS the first TAP coming off the reel (Figure 10). Therefore when using the stationary reel method, the FlexNAP System RPX dielectric cable reel shall be located at the last pole from the FDH and pulled toward the FDH cabinet as shown in Figure 11.

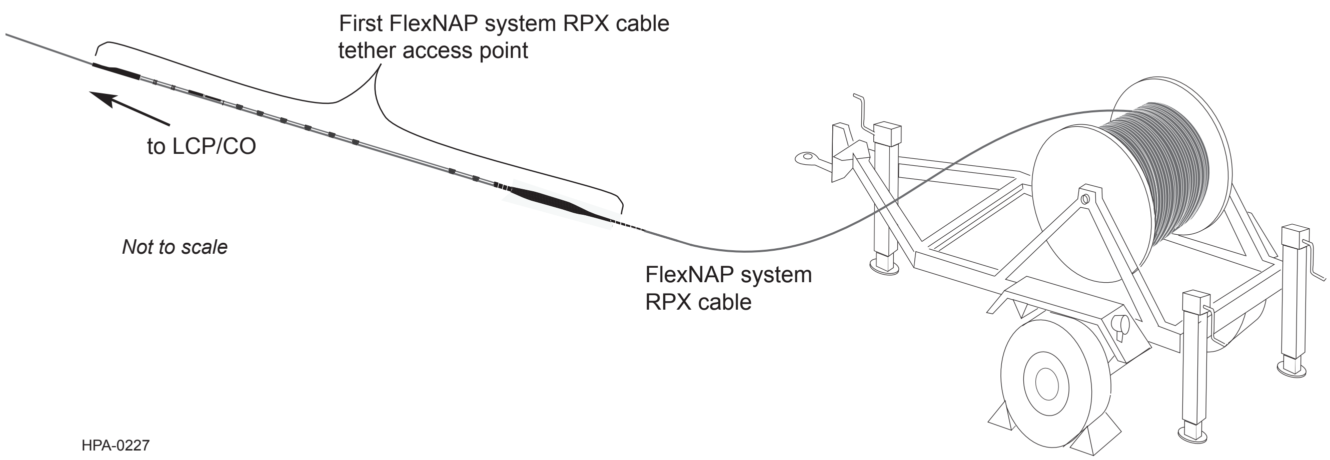

Figure 10

In the stationary reel method of aerial cable installation, the cable is pulled along the cable route through temporary support hardware toward the LCP/CO as shown in Figure 11.

When the cable is in place between splice points, the cable is tensioned and terminated at each dead-end pole along the route. The cable spans are then lifted out of the temporary support hardware and placed in suspension clamps at each intermediate pole.

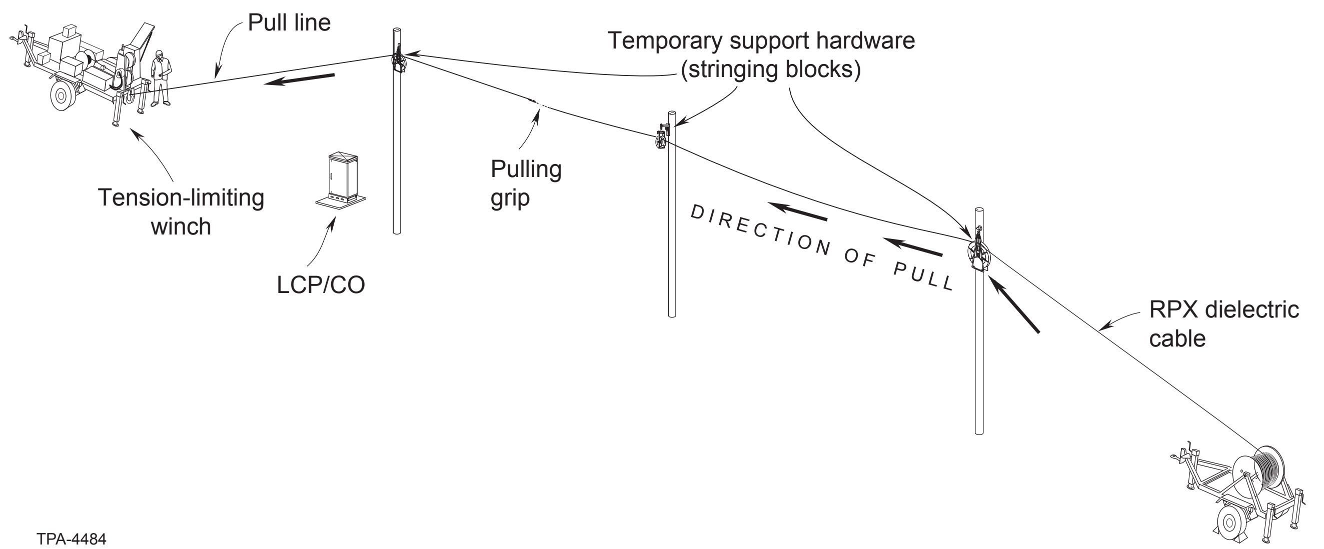

Figure 11

The stationary reel method is generally slower and more costly than the moving reel method, but can be used anywhere since it does not require an unobstructed right-of-way or vehicular access to the pole line. Higher costs are imposed by the difficulty of coordinating the pulling operation over the length of the route.

Determine the cable reel and pull locations, each of which can be at any point along the route. The location of the cable reel and any subsequent intermediate pull points must be determined during the route survey. Some of the factors to consider are:

a. Where significant elevation change occurs along the route, it is usually best to pull downhill.

b. The cable reel location should be accessible by the reel-carrying truck, but removed from vehicle and pedestrian traffic.

c. By using the figure-eight coiling procedure, the route can be subdivided into shorter pulls to:
   - Keep the pulling tension below the cable's rated strength.
   - Avoid pulling across sharp turns.
   - Provide cable slack at designated points.
   - Compensate for insufficient temporary support hardware or personnel to cover the entire route.

d. To prevent damage to the cable and tethers during payoff:
   - Keep the cable reel level to avoid cable rubbing against the reel flanges.
   - Orient the cable reel so that the natural payoff direction is directly toward the first pole.
   - Pay out the cable from the top of the reel as shown in Figure 11 to eliminate possible cable contact with the ground.

5.1 Temporary Support Hardware

Temporary support hardware must be selected and placed so as to maintain the cable's minimum bend radius throughout the route and to prevent the cable's entanglement on obstructions in the right-of-way.

NOTE: Careful selection should be made when choosing equipment that maintains cable bend radius. Not all equipment is well suited for fiber optic cable installation.

5.2 Stringing Block Placement

Attach the appropriate stringing block on each pole or support structure:

- For straight line pulls, use stringing blocks with a minimum diameter of 180mm (7 in).
- For horizontal or vertical deviations ≥ 10-degrees, use stringing blocks with a minimum diameter of 460 mm (18 in) (Figure 12). This also applies at the first roller from the reel and the final roller prior to the puller.

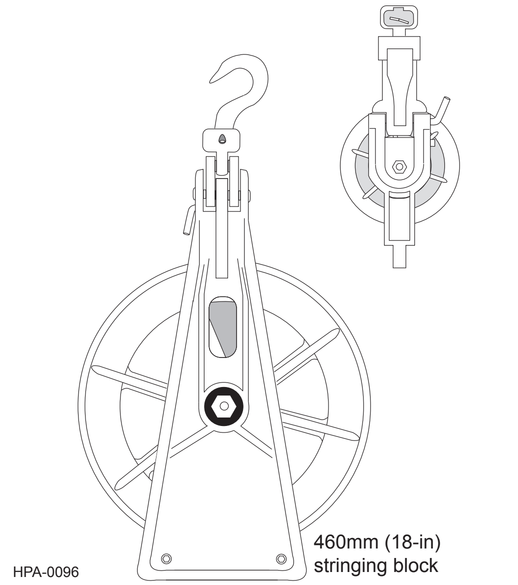

Figure 12

On poles with an offset greater than 10-degrees, it may be necessary to elevate the block by securing a rope to the shackle to ensure proper retention of the cable in the block (Figure 13).

Attach the rope to one bottom pin of the shackle, bring the rope above the attachment point and back down to the opposite shackle pin.

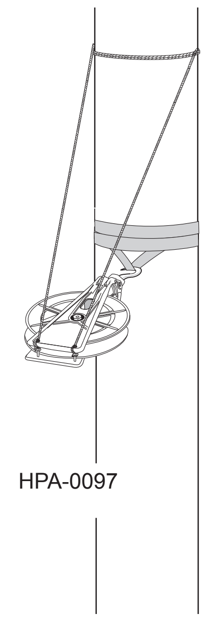

Figure 13

5.3 Pulling Operation

The pull can be accomplished by using a cable pulling winch. Care must be taken not to exceed the cable's rated pulling strength. Use a tension-monitoring or -limiting winch properly rated for no more than 2700N (600 lbf) on the cable between the pull-line and the pulling grip secured to the cable.

During the pull, sufficient personnel should be on hand to monitor the entire pull route. Two-way communication should be established between the pull point, the cable reel location and each of the route observers.

Start the pull very slowly as the cable is drawn from the reel at ground level up through the temporary support hardware located atop the first pole. Once the cable end is past the first pole, the pulling speed can be gradually and steadily increased.

Observers at the pull point, reel location and along the pull route must be alert for any condition which might cause cable damage and be able to stop the pull immediately if any damaging conditions are observed.

- Avoid exceeding the cable's rated pulling strength and bending the cable beyond its minimum bend radius.
- Control the unreeling of the cable either by hand or with a cable reel brake in order to prevent free-running or jerking of the cable.
- At the pull point, winch the cable so as to prevent either free-running or jerking of the cable. If either is observed, the pull must be halted until the cause is eliminated.

- Excessive oscillation or surging of the cable can be damaging. Reduce the pulling speed or add additional temporary support hardware to minimize these conditions.
- Ensure that the pull line/rope and the cable are properly travelling across the temporary support hardware.

When the cable reaches the pull point, do not allow it to engage the winch unless the winch maintains the cable's minimum bend radius.

Pull the amount of cable specified in the route and pull plans. This amount should include all slack requirements as outlined in Section 4.5.

When the cable has been pulled into place as specified by the route plan:

a. Install a dead-end clamp on one end of the cable span at the cable reel end as outlined in Section 4.6.

b. Complete any pole modifications or additional temporary/permanent guying, as well as preparing for the installation of the dead-end and suspension clamp pole fixtures (Section 4.1).

c. Proceed to Section 7 for instructions on tensioning, terminating and applying twist to the cable.

CAUTION: Proper measuring of tension is critical for a safe installation of aerial plant. Please read and understand all of Section 7 before attempting to apply tension to the cable.

6. Moving Reel Installation Method

NOTE: If you are placing FlexNAP™ System RPX® dielectric cable above another cable or conductor with multiple angle changes in the run, use the stationary reel method to avoid twisting the FlexNAP System RPX dielectric cable around the lower cable.

NOTE: The first FlexNAP System RPX dielectric cable TAP from the FDH side is ALWAYS the first TAP coming off the reel. Therefore when using the moving reel or drive-off method, the FlexNAP System RPX dielectric cable reel shall be located at the FDH pole and installed toward the last pole as shown in Figure 16.

In the moving reel or drive-off method, the cable is payed off a moving vehicle as it drives along the pole line. As the vehicle passes each pole, the cable is raised into place and into a block for temporary support (Figure 14).

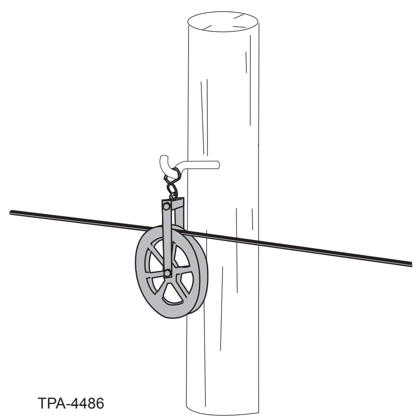

Figure 14

This procedure progresses down the pole line until a dead-end pole is reached.

In most cases, the drive-off method is the fastest and least expensive method of installing aerial cable. The cable is tensioned to the desired sag and fewer personnel are required than by other methods. It does require vehicular access to the placement side of the pole line and a right-of-way clear of tree limbs, guy wires and other obstructions.

Begin the installation with the reel-carrying vehicle about 15 m (50 ft) from the pole and facing away from it down the pole line. The cable must pay off the top of the reel toward the rear of the vehicle (Figure 15).

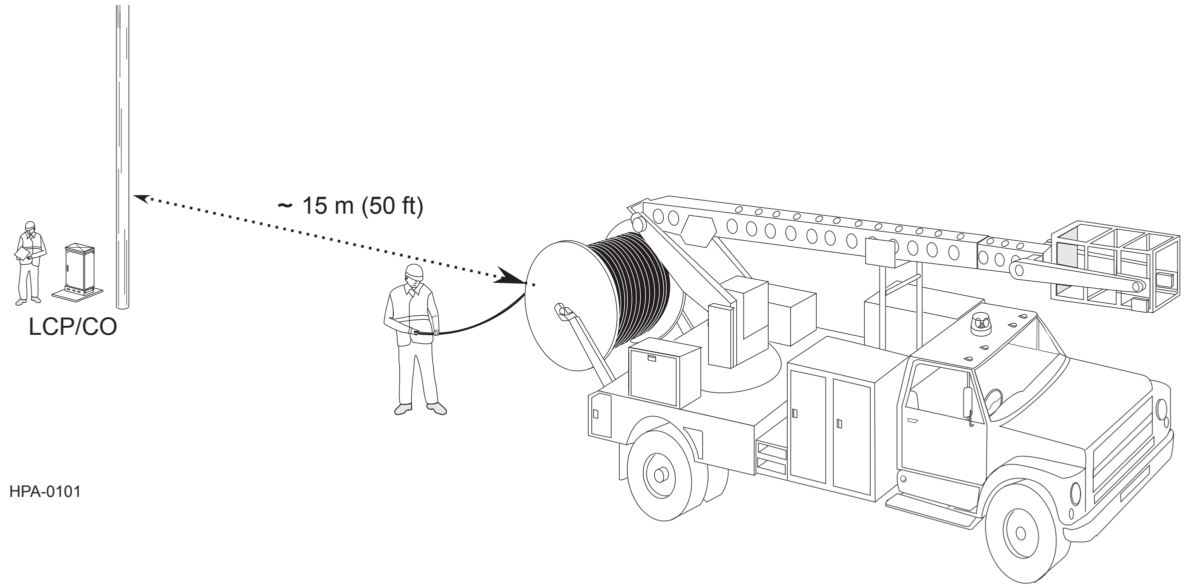

Figure 15

Pull off the necessary amount of slack as specified in Section 4.5. Lift the cable to dead-end location; it may be necessary to pay out additional length as the cable is lifted.

Install the cable into the dead-end clamp on the first pole as specified in the dead-end clamp's instructions.

Slowly drive the reel-carrying vehicle down the placement side of the pole line, paying out cable off the back of the truck. Once the reel is approximately 15 m (50 ft) past each pole, lift the cable up the pole and temporarily place it in a block (Figure 16). If securing with a dead-end clamp, tension the cable as described in Section 7.

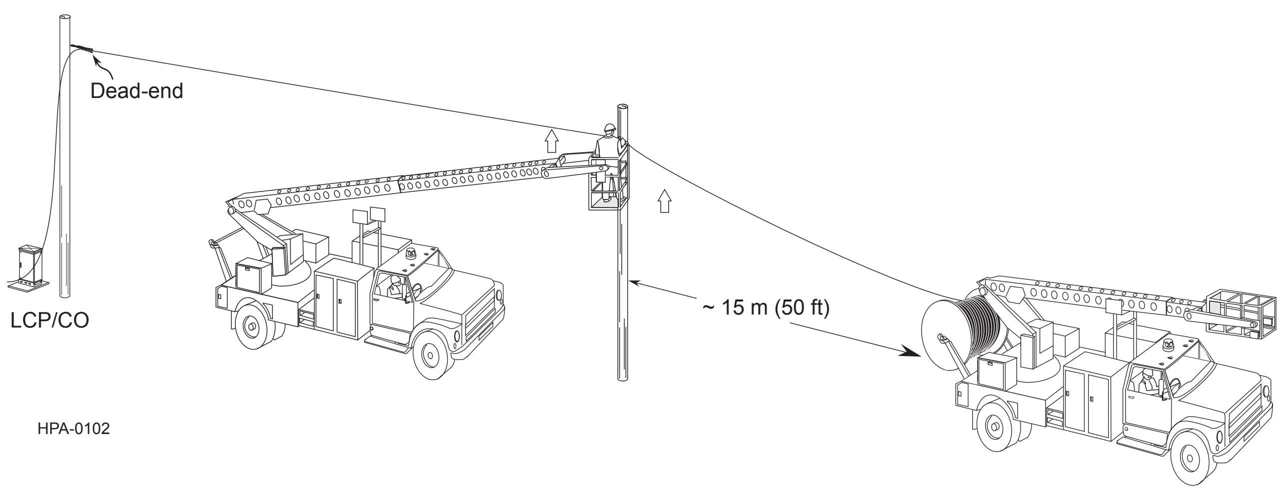

Figure 16

Once the cable reel reaches the end of the span, lift the cable to its assigned position on the dead-end pole.

When the cable has been placed as specified by the route plan:

a. Complete any pole modifications or additional temporary/permanent guying, as well as preparing for the installation of the dead-end clamps or suspension clamps (Section 4.1).

b. Proceed to Section 7 for instructions on tensioning, terminating and applying twist to the cable.

!	**CAUTION:** Proper measuring of tension is critical for a safe installation of aerial plant. Please read and understand all of Section 7 before attempting to apply tension to the cable.

7. Cable Tensioning, Termination And Twist Application

7.1 General

With a termination fitting already in place on one end of the span, the cable is tensioned by pulling on its opposite "free" end with a chain/rope hoist (come-along), using a setup similar to the one shown in Figure 17.

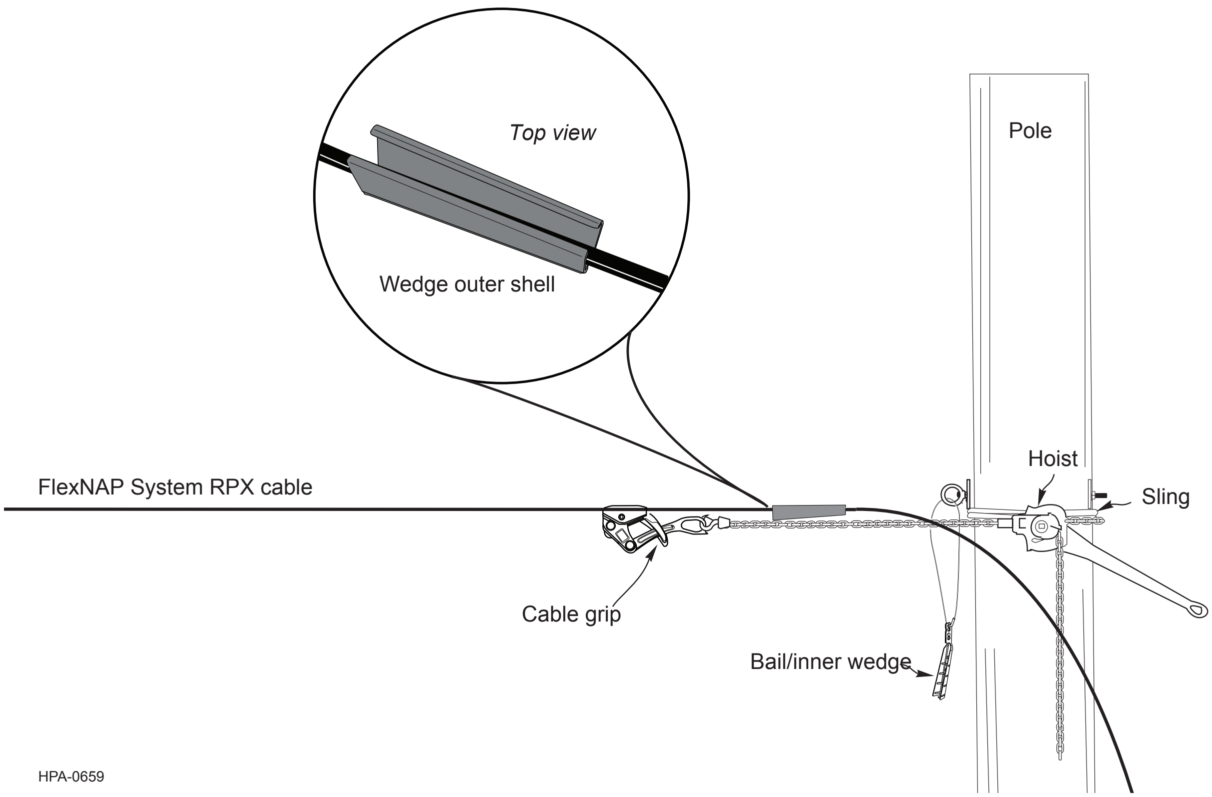

Figure 17

Once the cable sections are under the required tension, the "free" end of the cable is terminated with a dead-end clamp as described in Section 4.

7.2 Twist Application

Because FlexNAP™ System RPX® dielectric cable has a non-symmetrical cross-section it can exhibit airfoil characteristics during certain wind loading and icing situations. To prevent this potentially damaging situation, twist should be applied to the cable between poles. Corning Optical Communications recommends twisting the cable so that it makes one 360-degree revolution every 10 m (33 ft).

7.2.1 When Using Dead-end Clamps at each Pole

Apply the twist prior to tensioning and placing into dead-end clamps at the end of each pole span. Alternate the direction of twist at the end of each pole span to avoid accumulation of twist at the reel.

7.2.2 When Using Tangent Support/Suspension Clamps

Go to the FS dead-end pole and tension the cable as described in Section 7.3 with the cable still in temporary supports at intermediate poles. After tensioning, go to the middle intermediate pole to apply twists, then move the cable into permanent support hardware. The number of twists should be enough for the entire length from the dead-end clamps to the middle intermediate pole.

For example, if there is a pole line consisting of five poles spaced 15 m (50 ft) apart, the full span is 60 m (200 ft).

The installer should go to Pole 3 after tensioning, and apply around three total twists.

The cable can then be placed in permanent support hardware at the remaining Poles 2 and 4 (Figure 18).

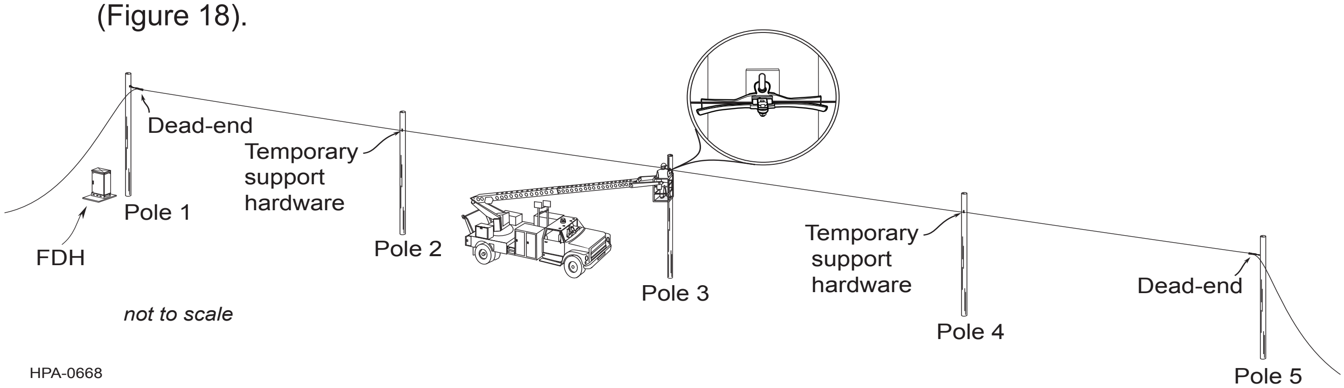

Figure 18

7.3 Tensioning Operation

NOTE: Before beginning this stage of the installation, any pole modifications or additional temporary/permanent guying must be completed.

Proceed to the end of the cable section that does not have a termination fitting installed from the cable installation procedure.

Install a cable grip or temporary termination fitting approximately 3 to 4 m (10 to 13 ft) away from the pole.

Set up the Little Mule® grip, a chain/rope hoist and other hardware as shown in Figure 17. Typically, the chain/rope hoist is strapped to the termination pole. Specific operation of the chain/rope hoist should follow manufacturer's recommendations.

Apply tension to the cable with the chain/rope hoist. During the tensioning operation, stay within the limits of maximum pulling tension for the cable and the strength of the poles.

WARNING: As the cable is placed under tension, weaknesses in the cable plant can cause failure of pole fittings, support hardware or even the poles themselves. The risk of death or injury due to such failures is best minimized by keeping all but essential personnel clear of the tensioning operation. No one should be allowed to climb intermediate poles as the span they support is being placed under tension. If possible, passersby on the ground should be kept away from the poles during this operation.

Once the cable section is under the required tension, terminate the cable with hardware as described in Section 4. The termination fitting should be placed on the cable where it reaches the pole fixture, unless allowances are being made for grade changes or turns.

7.3.1 Tensioning Across Turns and Grade Changes

Within the cable bend radius and limitations discussed in Section 3, the cable section may extend across turns and grade changes in the pole line. Since FlexNAP™ System RPX® dielectric cable is normally placed in the permanent support hardware after tensioning, any change in pole line direction complicates the process. Two possible cases follow.

7.3.2 Cable on the Inside of a Turn

CAUTION: Temporary support hardware used to restrain a cable being tensioned will be subjected to a significant portion of the cable's tensile loading and must be mounted accordingly.

As the cable in this situation is tensioned, the cable will naturally tend to pull to the inside of the corner pole. A horizontally mounted stringing block will keep separation to a minimum.

Tension the cable in stages:

- Tension the cable to the degree planned from the termination pole.
- While monitoring the tension, move the cable from the temporary support hardware at the inside turn to the cable's permanent support hardware on the pole.
- As the cable is pulled out to the pole, tension will increase. Take care not to exceed the maximum pulling tension of the cable or the capacity of the poles and hardware. It may be necessary to relieve tension by backing off with the chain hoist at the termination pole. Continue this process until the cable is in place on the pole at the inside turn.

CAUTION: Do not allow personnel on the inside turn pole while tension is being increased at the termination pole. If personnel are sent up the inside turn pole, they must stay on the pole side opposite the cable.

7.3.3 Cable on the Pole at a Grade Change

The process used to tension the cable across a change of grade is similar to that used on an inside turn. The cable will pull up or down depending on the direction of the grade change, rather than horizontally as is the case on a inside turn. Temporary support hardware must be mounted accordingly.

8. Tether Release Instructions

NOTE: Scissors are the only tool required for this section.

Figure 19 illustrates the components of a FlexNAP™ System RPX® OptiTip® tether.

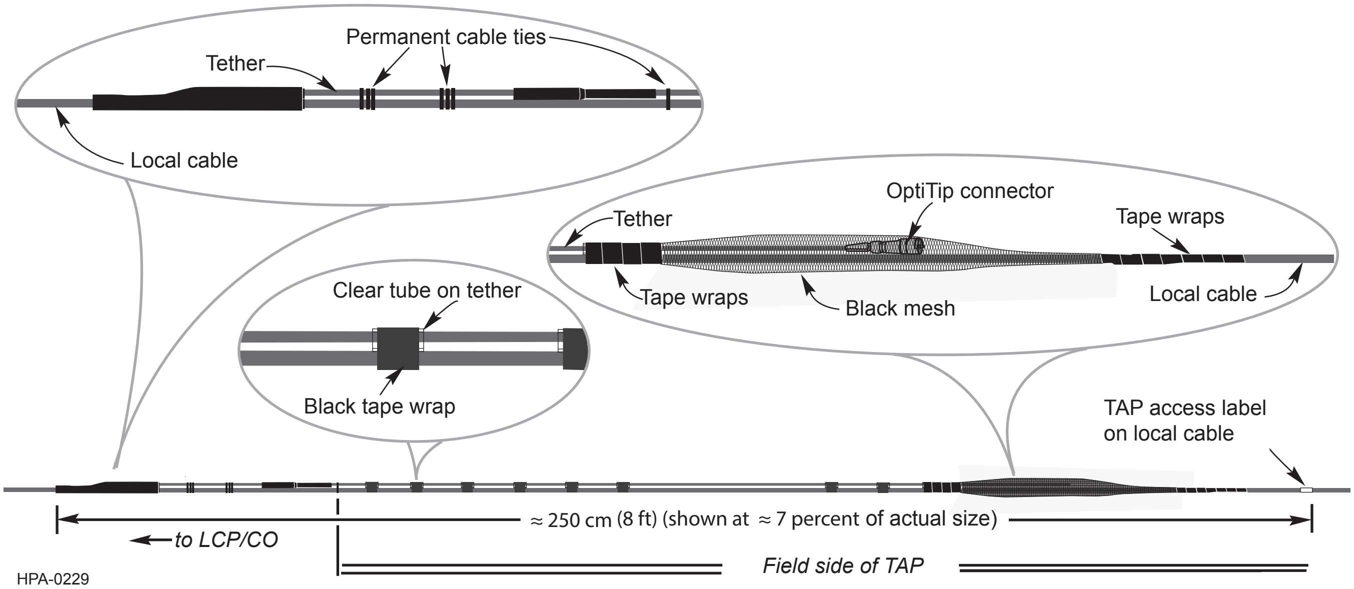

Figure 19

NOTE: If the tether does not need to be completely released, skip ahead to Step 3.

Step 1: Starting at the FS of the TAP, use scissors to carefully cut the black tape wraps away from the cables. Make sure not to cut the tether or the local cable during this process (Figure 20).

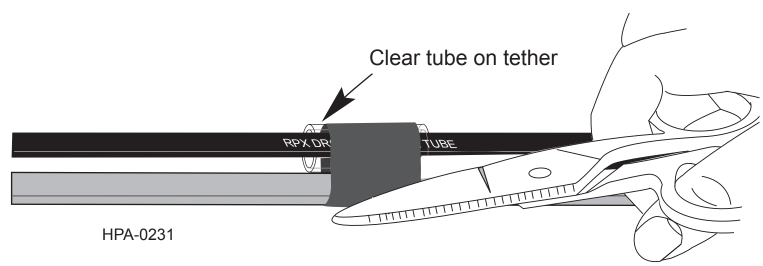

Figure 20

Step 2: Remove the tape from around the clear tube, tether and the local cable (Figure 21).

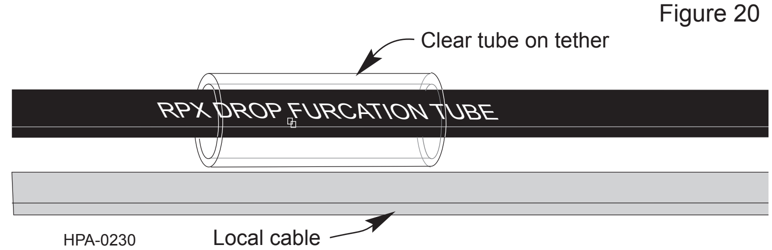

Figure 21

NOTE: All of the 25 mm (1 in) -long clear tubes will remain on the tether and do not need to be removed.

Step 3: Repeat Step 1 for the remaining tape locations on the tether and the local cable (Figure 22).

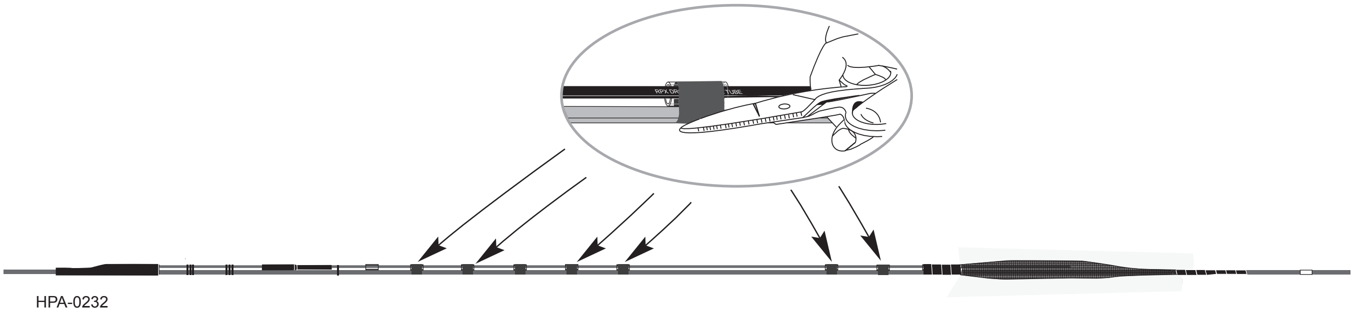

Figure 22

Step 4: Carefully use scissors to cut tape attaching the LCP/CO side of the black mesh to the tether and the local cable (Figure 23). Continue cutting down the side of the mesh until reaching where is it attached on the opposite end. Be careful not to damage the tether, the local cable or the connector during this process.

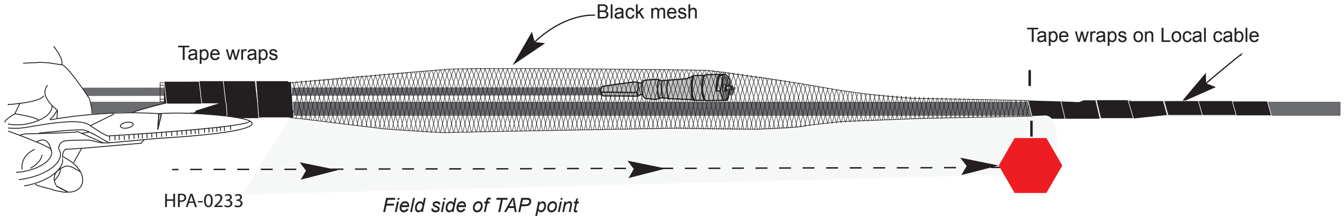

Figure 23

Step 5: Unwrap the black vinyl tape holding the FS of the mesh to the local cable, making sure to not bend, twist or pull the OptiTip® connector, tether or the local cable (Figure 24).

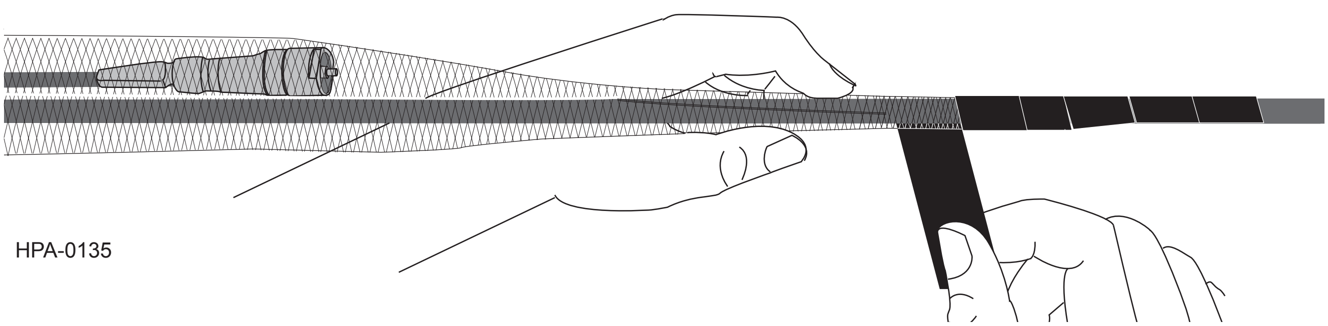

Figure 24

Step 6: Carefully cut loose the remaining black mesh (Figure 25).

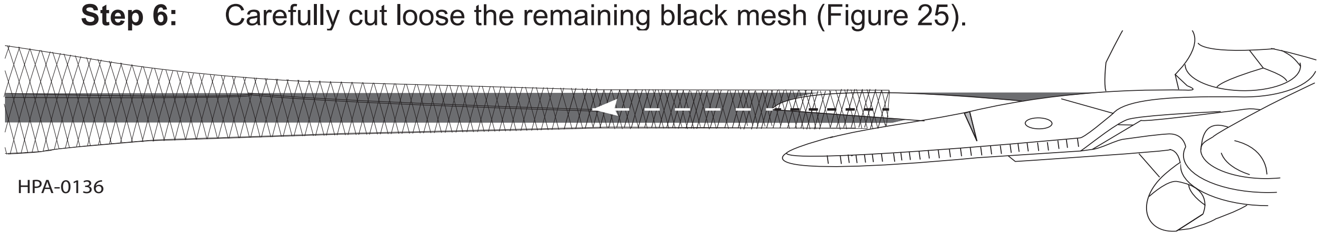

Figure 25

Step 7: Remove the black mesh and tape from around the cable, tether and connector making sure to not bend, twist or pull the OptiTip connector, tether or the local cable.

At this point the tether should be unattached from the local cable (Figure 26). Make sure to follow proper handling procedures to prevent damage to the local cable, tether or OptiTip connector.

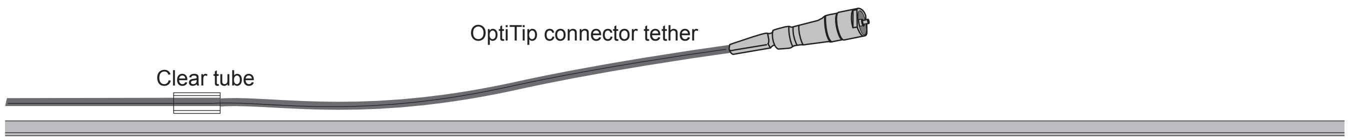

Figure 26

9. Post-Construction Inspection

After the aerial FlexNAP™ System RPX® dielectric cable assembly placement, make a thorough inspection of the aerial plant. Make this inspection on a span-by-span basis. The inspector should make notes regarding clean-up work on a copy of the system plans:

- Record the cable metre marks at approximately every other pole location and at each cable end on the construction prints for emergency restoration and maintenance purposes.
- Check for the conformance of the as-built aerial plant to the engineering plans. Confirm the exact location of all TAP that can be incorporated into the final design plans.

Upon completion of this inspection, the appropriate party (contractor, in-house construction crew, etc.) must correct all deficiencies.

Reinspect the corrections. When the FlexNAP System RPX dielectric cable aerial plant passes this final construction inspection, connections of the tethers to the multiports and the activation of the plant may proceed according to your company's normal operating procedures.

10. Route Reconfiguration

If changes must be made to an existing cable aerial plant (e.g. due to highway widening, etc.) "repair slack" can be used to reconfigure a cable route without introducing additional fiber splice points. Shift the slack as needed while rerouting the cable.

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