Statement of Need (SON)

502 Communications Squadron

JBSA-Lackland SCOW

Equipment Need: Pneumatic Mini Jet Air Blown Fiber Equipment & Training

1. Equipment is required for the new installation of technology as it is being directed.

2. **Background**: As technology advances with new Fiber cable installations guidelines, we are being directed to move forward by using the jetted fiber installation application.

3. **Essential / Salient Characteristics**: Currently fiber installed on JBSA (all three locations) is by the old method of pulling cable manually through each maintenance hole and requires many manhours and extra time. It has also been directed by the 38th Engineering and Installation Squadron. Jetted fiber is a faster, less damaging installation method that uses compressed air to propel the fiber optic cable through pre-installed ducts, while fiber pulling is a traditional method that relies on mechanical force (like a winch) to drag the cable through the conduit, resulting in slower speeds and higher stress on the cable. Jetting is ideal for long, complex installations, offering greater flexibility and minimal labor, whereas pulling is better for short, simple runs and can still be a viable option for some scenarios. This equipment will help eliminate manhours and time as this equipment will install the fiber at a much faster rate. This equipment will be available for use at all three locations. Therefore, it is in the best interest of the Government to procure Plumet brand items to maintain the current ISP and OSP fiber infrastructure, save the Government from spending additional money, and avoid unnecessary waste of man hours. Please purchase items required for installing and replacing fiber optic cables that have reached their life span.

Operation Conditions: Equipment will be used for self-help installations, maintenance and repair of fiber cuts.

4. **Jetting Certifications/Training: (The contractor shall provide personnel possessing, or a training program delivering, formal jetted fiber installation certification equivalent to industry-recognized programs from SIRC, Light Brigade, Dura-Line Academy, Plumettaz, FiberDK, or the Fiber Optic Association (FOA). The certification must validate specialized training and practical proficiency in the techniques of installing fiber optic cables into microducts utilizing compressed air or water injection methods, commonly referred to as air-blown fiber (ABF) or fiber jetting.)**

Salient Characteristic

PART NUMBER	Quantity:	Brand Name or Equal Items:	Specification	Budgetary Estimate:
ZE-601932	**1 EA**	**Plumett or Equal Pneumatic MiniJet**	The contractor shall provide a Plumettaz MiniJet Cable Blowing Machine, or an equivalent system, capable of blowing or floating telecommunication, optical fiber, coaxial, multipair, and micro-cables, as well as microducts and multiducts, into preinstalled ducts using either air or water injection. To meet operational requirements, the equipment must support cable and fiber diameters ranging from Ø 4 to 16 mm and duct outer diameters (OD) from 7 to 42 mm. The machine must incorporate a belt drive system that ensures a secure, non-damaging grip on cables, a clamping system designed to accommodate standard cable diameter tolerances, and an integrated distance and speed counter to maintain precise control and monitoring throughout the installation process.	$
ZE-900000	**1 EA**	**Plumett or Equal MiniJet Kit**	The contractor shall provide a high-performance cable blowing machine kit, equivalent to the Plumettaz MiniJet Kit, engineered for installing fiber optic, coaxial, or multipair cables with diameters from 4 mm to 16 mm into preinstalled ducts with an outer diameter (OD) from 7 mm to 42 mm. The kit must feature a versatile, modular cable-blowing machine with 4-in-1 capabilities supporting both air-blowing and water-floating (injection) methods. The machine must incorporate a 4–16 mm caterpillar belt-drive system to secure the cable without causing structural or jacket damage, a quick-change track system for rapid on-site adjustments, and an integrated digital distance and speed counter for precise monitoring. The comprehensive kit must also include a rugged, heavy-duty carrying case, a standard operational hand-tool set, cable	$

			lubricant, spreader samples, and all initial seals and gaskets required for immediate field operations.	
ZE-900001	**1 EA**	**Plumett MiniJet Consumables Kit or Equal**	The contractor shall provide a consumables kit/kit components, equivalent to The Plumett MiniJet™ to facilitate fiber cable blowing (4-16mm) into ducts (7-42mm). It typically includes Jetting Lube, specialized duct/cable inserts, sealing lip seals, and O-rings tailored for specific cable diameters. The kit ensures optimal, low-friction operation for MiniJet's 100% pneumatic, 4-in-1 cable placement system	$
310174	**1 EA**	**Kaeser M59PE 200 PSI pressure version Air Compressor or Equal**	The contractor shall provide a portable rotary screw compressor equivalent to The Mobilair® M59PE, that delivers up to 195 cfm at pressures from 75-150 psig. A high-pressure model with pressures up to 205 psig is also available. This flexible unit is designed for heavy-duty civil and commercial construction, demolition, sand blasting, and other site work applications as well as portable backup for stationary units. 200 psig model	$
ZE-310100	**1 EA**	**Plumett Ultimaz E-100 or Equal**	The contractor shall provide a lightweight, handheld, electric-powered cable jetting machine, equivalent to The Plumettaz Ultimaz™ E-100 (often referenced in kits like ZE-900010), designed for installing fiber optic micro-cables in FTTx (Fiber to the X) environments. It is primarily used for placing cables between 0.8mm and 4mm in diameter into micro-ducts (3mm to 12mm) for both indoor and outdoor installations	$

ZE-900010	**1 EA**	**Plumett Ultimaz Kit or Equal**	The contractor shall provide a comprehensive equipment and replacement parts kit, strictly compatible with or equal to the Plumett UltimaZ Electric E100 system, designed to support lightweight, handheld, battery-operated micro-cable pushing and blowing operations. To be considered technically acceptable, the parts kit must include all necessary precision components—such as micro-cable guides, motorized drive wheels, duct adapters, and pneumatic seals—required to seamlessly accommodate FTTx micro-cables with an outer diameter of 0.8 mm to 4.0 mm and microducts ranging from 3.0 mm to 12.0 mm. All components within the kit must be engineered to withstand the rigorous field tolerances of continuous dual-action (pushing/blowing) deployments, ensuring sustained performance, full workday battery integration, and accurate alignment with the system's integrated digital metrics counter.	$

ZE-900011	**1 EA**	**Plumett Ultimaz Consumables Kit or Equal**	The contractor shall provide essential items to facilitate the installation of fiber optic cables and microducts, equivalent to the Plumett Ultimaz Consumables Kit (typically associated with UltimaZ P2P cable installation machines). Consumables Kit Key Components Cable and Duct Inserts: Used to guide the cable and microduct into the machine, specific to sizes between 0.8mm and 4mm for cables and 3mm to 12mm for ducts. Lip Seals: Required to adapt the machine to specific cable diameters, ensuring a proper seal for the blowing process (note: these are often sold separate from the inserts themselves). O-Rings: Sets of O-rings are typically supplied for the splittable inserts to maintain airtight integrity during operation. Lubricator Accessories: Often included for the continuous application of lubricant to minimize friction and extend blowing distances	$
20005684	**12 EA**	**HT CUTTER MICRODUCT 28MM**	The contractor shall provide cutter, equivalent to The Straight MicroDuct Cutter, that creates a clean, 90 degree cut that is required at the MicroDuct splice point The Round MicroDuct Cutter operates similarly, but only cuts the MicroDuct itself. It leaves the MicroCable or pull string inside the MicroDuct unscathed. The Longitudinal Sheath Slitter is used to remove Future Path over sheath. Includes a dual, reversible cutting blade with safety guards and an extra dual-sided blade in the handle. Additional blade storage is also available in the handle Various sizes of Ratchet, Rotary and MicroDuct cutters are also available.	$

048ZM4-T4F22A20	**3000 FT**	**48-FIBER MINIXTEND® or Equal GEL-FILLED CABLE 1.4 MM W/ BINDERLESS FASTACCESS® TECH SMF-28® ULTRA MAX: 0.34/0.34/0.22, TYPICAL: 0.32/0.32/0.18 DB/KM G652.D/G657.A1 12F/TUBE PRINT IN FT**	The contractor shall provide an all-dielectric, loose-tube fiber optic micro-cable, equivalent to Corning MiniXtend® Cable with Binderless* Fast Access® Technology, engineered specifically for microduct installations. The cable must feature a high-density, reduced-diameter design—up to 50 percent smaller than traditional loose-tube cables—to optimize space and maximize fiber count within microduct runs. Additionally, the cable must utilize a binderless, fast-access outer jacket technology that improves overall cable handling, reduces cable preparation and access times by up to 70 percent, and minimizes the risk of structural or optical fiber damage during installation and splicing operations.	$
012ZM4-T4F22A20	**3000 FT**	**12-FIBER MINIXTEND® GEL-or Equal FILLED CABLE 1.4 MM W/ BINDERLESS FASTACCESS® TECH SMF-28® ULTRA MAX: 0.34/0.34/0.22, TYPICAL: 0.32/0.32/0.18 DB/KM G652.D/G657.A1 12F/TUBE PRINT IN FT**	The contractor shall provide an all-dielectric loose tube cable, equivalent to the Corning MiniXtend® Cable with Binderless* Fast Access® Technology, designed for microduct applications and features industry-leading fiber density. The innovative Binderless Fast Access Technology improves cable handling and reduces access time up to 70percent while lowering risk of cable and fiber damage. The MiniXtend Cable design reduces the cable diameter by up to 50percent (versus traditional loose tube cables) which improves fiber density for duct applications and also enables new applications which can reduce total install cost by up to 60percent.	$

024ZM4-T4F22A20	**3000 FT**	**24-FIBER MINIXTEND® GEL-FILLED CABLE or EQUAL 1.4 MM W/ BINDERLESS FASTACCESS® TECH SMF-28® ULTRA MAX: 0.34/0.34/0.22, TYPICAL: 0.32/0.32/0.18 DB/KM G652.D/G657.A1 12F/TUBE PRINT IN FT**	The contractor shall provide an all-dielectric loose tube cable, equivalent to the Corning MiniXtend® Cable with Binderless* Fast Access® Technology, designed for microduct applications and features industry-leading fiber density. The innovative Binderless FastAccess Technology improves cable handling and reduces access time up to 70percent while lowering risk of cable and fiber damage. The MiniXtend Cable design reduces the cable diameter by up to 50percent (versus traditional loose tube cables) which improves fiber density for duct applications and also enables new applications which can reduce total install cost by up to 60percent.	$
072ZM4-T4F22A20	**3000 FT**	**72-FIBER MINIXTEND® or Equal GEL-FILLED CABLE 1.4 MM W/ BINDERLESS FASTACCESS® TECH SMF-28® ULTRA MAX: 0.34/0.34/0.22, TYPICAL: 0.32/0.32/0.18 DB/KM G652.D/G657.A1 12F/TUBE PRINT IN FT**	The contractor shall provide an all-dielectric, loose-tube fiber optic micro-cable, equivalent to the Corning MiniXtend® Cable with Binderless* Fast Access® Technology, optimized for microduct deployments. The cable must feature a reduced-diameter profile that is up to 50 percent smaller than traditional loose-tube cables to maximize fiber density and optimize duct space utilization. To accelerate field deployment and safeguard fiber integrity, the cable must incorporate a binderless, fast-access jacket design that reduces cable access and preparation times by up to 70 percent while mitigating the risk of accidental cable and optical fiber damage during handling.	$

036ZM4-T4F22A2	**3000 FT**	**36-FIBER MINIXTEND® GEL-FILLED CABLE or Equal 1.4 MM W/ BINDERLESS FASTACCESS® TECH SMF-28® ULTRA MAX: 0.34/0.34/0.22, TYPICAL: 0.32/0.32/0.18 DB/KM G652.D/G657.A1 12F/TUBE PRINT IN FT**	The contractor shall provide an all-dielectric loose tube cable, equivalent to the Corning MiniXtend® Cable with Binderless* Fast Access® Technology, designed for microduct applications and features industry-leading fiber density. The innovative Binderless FastAccess Technology improves cable handling and reduces access time up to 70percent while lowering risk of cable and fiber damage. The MiniXtend Cable design reduces the cable diameter by up to 50percent (versus traditional loose tube cables) which improves fiber density for duct applications and also enables new applications which can reduce total install cost by up to 60percent.	$
144ZM4-T4F22A20	**3000 FT**	**144-FIBER MINIXTEND® or Equal GEL-FILLED CABLE 1.4 MM W/ BINDERLESS FASTACCESS® TECH SMF-28® ULTRA MAX: 0.34/0.34/0.22, TYPICAL: 0.32/0.32/0.18 DB/KM G652.D/G657.A1 12F/TUBE PRINT IN FT**	The contractor shall provide an all-dielectric, loose-tube fiber optic micro-cable, equivalent to the Corning MiniXtend® Cable with Binderless* Fast Access® Technology, engineered for high-density microduct deployments. The cable must feature a reduced-profile design yielding up to a 50 percent outer diameter reduction compared to standard loose-tube cables, ensuring maximum fiber density. Additionally, the cable must incorporate a binderless, fast-access jacket construction that improves handling performance, reduces cable access and preparation time by up to 70 percent, and minimizes the risk of accidental structural or optical fiber damage during installation.	$
288ZH4-Y4F40A20		**A-DQ(ZN)2Y 288F E9U200 FAB MINIXTEND or Equal # OUTDOOR CABLE**	The contractor shall provide an all-dielectric, loose-tube fiber optic micro-cable, equivalent to the Corning MiniXtend® Cable with Binderless* Fast Access® Technology, optimized for microduct installations. The cable must feature a highly compact design that reduces the overall cable diameter by up to 50 percent compared to traditional loose-tube cables to maximize fiber density. To improve	

	3000 FT	**288F E9 SMF-28® ULTRA ITU G652.D/G657.A1 E9U200 FAB PRINT IN FEET**	installation efficiency and safeguard components, the cable must utilize a binderless, fast-access jacket technology that reduces cable preparation and access times by up to 70 percent while lowering the risk of damage to the cable and optical fibers during handling.	$

10012354	**10000 FT**	**7-Way, 18/14mm HDPE Future Path conduit or Equal**	The contractor shall provide a 7-Way High-Density Polyethylene (HDPE) multi-duct conduit, equivalent to Dura-Line 7-Way FuturePath, designed for secure and organized fiber optic cable routing. The conduit assembly must consist of seven (7) individual, parallel microducts bundled together under a single, protective outer HDPE oversheath. Each individual microduct within the bundle must feature an outer diameter (OD) of 18 mm and an inner diameter (ID) of 14 mm. The entire configuration must be constructed of robust, durable HDPE suitable for direct-bury, trenching, or directional boring applications, and the individual microducts must contain a permanently co-extruded, ultra-low friction internal lining to facilitate optimal cable jetting performance.	$

20001518	**100 EA**	**CO MD 18/14MM Dura-Line STRAIGHT COUPLER or Equal**	The contractor shall provide microduct straight couplers, equivalent to Dura-Line 18/14mm Straight Couplers, engineered to securely join two segments of microduct. The couplers must be designed specifically to accommodate microducts with an 18 mm outer diameter (OD) and a 14 mm inner diameter (ID). To ensure rapid field deployment, the couplers must feature an easy, tool-free push-fit assembly and disassembly design, and they must provide a robust, air- and water-tight connection capable of maintaining sealing integrity under the high pressure of cable jetting operations.	$

20001485	**100 EA**	**Dura-Line HT MD 18MM END CAP or Equal**	The contractor shall provide microduct end caps, equivalent to Dura-Line 18mm End Caps, engineered to securely seal the open ends of microduct pathways. The end caps must be designed specifically to fit microducts with an 18 mm outer diameter (OD). Additionally, the caps must feature a tool-free, easy push-fit assembly and disassembly design, while establishing a robust, air- and water-tight seal that prevents the ingress of moisture, dirt, dust, and debris during outdoor exposure and storage.	$
20003431	**100 EA**	**Dura-Line 14 MM END CAP or Equal**	The contractor shall provide microduct end caps, equivalent to Dura-Line 14mm End Caps, engineered to securely seal the open ends of microduct pathways. The end caps must be designed specifically to fit microducts with a 14 mm outer diameter (OD). Additionally, the caps must feature a tool-free, easy push-fit assembly and disassembly design, while establishing a robust, air- and water-tight seal that prevents the ingress of moisture, dirt, dust, and debris during outdoor exposure, transport, and storage.	$
20096973	**12 EA**	**Dura-Line HT CUTTER JUMBO SHEATH SLITTER or Equal**	The contractor shall provide a comprehensive suite of High-Density Polyethylene (HDPE) conduit cutting and preparation tools, equivalent to Dura-Line cutters, to support specific installation and project needs. The provided tool set must include: rotary cutters engineered for gradual, even cutting; conduit slitters capable of making longitudinal cuts in HDPE and functioning as cable sheath removal tools; ratchet cutters designed to shear-cut HDPE conduit utilizing standard hand-gripping strength; deburring tools capable of creating precise inside and outside beveled edges on conduit; and web slitters specifically designed to safely separate the support strand on Figure-8 aerial conduit.	$

20005284	**12 EA**	**Microduct HT CUTTER ROUND 7-18MM MD or Equal**	The contractor shall provide a specialized round microduct cutting tool, equivalent to the HT Round 7-18mm Microduct Cutter, designed to cleanly cut microducts with outer diameters (OD) ranging from 7 mm to 18 mm. The cutter must be engineered to cut exclusively through the outer microduct wall, leaving any pre-installed internal optical fiber micro-cables, pull strings, or pull tapes completely undamaged. Additionally, the tool must feature a robust, lightweight body, an ergonomic design to facilitate quick and precise circular cutting motions in tight field spaces, and high-quality, replaceable cutting blades built for long-term field durability.	$
20001856	**12 EA**	**Microduct HT CUTTER STRAIGHT 8MM-19MM MD OD or Equal**	The contractor shall provide a specialized straight microduct cutting tool, equivalent to the HT Straight 8mm-19mm Microduct Cutter, engineered to cleanly slice microducts with an outer diameter (OD) ranging from 8 mm to 19 mm. The cutter must be designed to produce precise, 90-degree perpendicular cuts, ensuring the flat, clean edges required to maintain air- and water-tight integrity at microduct splice points. Additionally, the tool must feature a high-quality, replaceable steel blade, an ergonomic, non-slip handle to reduce operator fatigue during repetitive field use, and a robust, lightweight frame built to withstand rugged field conditions.	$
350001		**Martor Secumax or Equal 350 Sheath Slitter**	The contractor shall provide a safety sheath slitter and utility knife, equivalent to the Martor Secumax 350, engineered to cleanly cut and strip multi-duct conduit oversheaths, heavy plastic strapping, and cable jackets. The tool must feature an advanced, fully concealed blade design that ensures maximum operator safety while preventing accidental damage to internal microducts or sensitive optical fibers. The slitter must incorporate a reversible 2-in-1 blade head that	

	12 EA		can be changed without tools, integrated storage within the ergonomic handle for spare blades, a dual-sided tape splitter, and a heavy-duty, impact-resistant housing for durability under rugged field conditions.	$
32000110	**12 EA**	**Martor Secumax or Equal 320 Sheath Slitter**	The contractor shall provide a safety sheath slitter, equivalent to the Martor Secumax 320, engineered to safely slit and remove the outer oversheath of multi-duct conduit bundles and cable jackets. The tool must feature a fully concealed, protected blade design to maximize operator safety and prevent accidental damage to internal microducts or optical fibers. Additionally, the slitter must incorporate an ergonomic, impact-resistant handle, a rotatable and replaceable high-quality utility blade, an integrated tape-splitter element, and a smooth, low-friction nose piece to facilitate fluid, continuous cutting without snagging.	$

MDC-14	**12 EA**	**Dura-Line cutters or Equal Microduct Tube Cutter**	The contractor shall provide specialized microduct and sheath cutting tools, equivalent to Dura-Line cutters, engineered for maximum safety and precision during microduct installation. The toolset must feature: straight microduct cutters designed to execute a precise, 90-degree perpendicular cut to ensure optimal microduct splicing; round microduct cutters capable of scoring and cutting the outer microduct sleeve while leaving any internal micro-cable or pull string completely unharmed; and longitudinal sheath slitters designed to safely strip FuturePath oversheath, featuring a dual-sided, reversible blade with safety guards and integrated handle storage containing a spare dual-sided blade. Additionally, a complete range of compatible ratchet, rotary, and microduct cutters of various sizes must be provided to accommodate diverse field-conduit diameters.	$

MDS-100	**12 EA**	**Dura-Line cutters or Equal Microduct Sheath slitter**	The contractor shall provide a professional-grade selection of conduit cutting and edge-preparation tools, equivalent to Dura-Line cutters, specifically designed to facilitate the rapid and safe installation of High-Density Polyethylene (HDPE) conduit. The required tool suite must include: rotary cutters optimized for incremental and uniform circumferential cutting; multi-functional conduit slitters engineered to perform clean longitudinal cuts in HDPE and double as cable sheath strippers; manual ratchet cutters capable of cleanly shearing HDPE conduit using moderate hand-gripping strength; deburring tools engineered to create uniform internal and external bevels on conduit ends; and web slitters specifically designed to safely isolate the support strand on Figure-8 aerial conduit.	$
20095076	**25 EA**	**FuturePath Entry Seal 7-way 18/14 or Equal**	The contractor shall provide multiple-pathway conduit entry seals, equivalent to Dura-Line FuturePath Entry Seals (including model/part number 20095076), designed to protect multi-duct pathway configurations from water, dirt, dust, and rodent intrusion. The seals must feature a split-design, allowing them to be easily installed or removed at any location along both new and existing pathways without the use of specialty tools. The entry seals must be fully reusable, provide robust air- and water-resistant protection, and be available in 2-way, 3-way, 4-way, and 7-way configurations. Furthermore, the seals must be engineered to securely fit a conduit internal diameter (ID) range of 3.92 inches to 4.25 inches, with specific configurations accommodating a tight tolerance range of 3.92 inches to 4.18 inches.	$

20001533	**10 EA**	**Dura-Line FuturePath 7 Way 18mm Splice Kit or Equal**	The contractor shall provide multi-duct pathway splice kits, equivalent to Dura-Line FuturePath Splice Kits, containing all necessary components to seamlessly join segmented microduct pathways. Each comprehensive kit must include a correctly sized protective sleeve, micro-couplers, sealant strips, vinyl tape, and a locate wire connector. The splice kits must be engineered specifically for direct-bury applications, providing low-profile, superior mechanical protection against impact and external environmental conditions to maintain the air- and water-tight integrity of the micro-coupled bundle. Furthermore, the splices must be custom-configured for the specific pathway design to ensure they do not compromise subsequent cable jetting or installation performance, and each kit must be supplied with detailed instructions outlining proper splicing procedures.	$
20003845	**6 EA**	**MicroDuct pathway management or equal Wall Mount Multi-Cable Distribution Enclosure**	The contractor shall provide a specialized microduct routing and distribution enclosure or equivalent specifically engineered for MicroDuct pathway management. The unit must feature a highly customizable design capable of securely accommodating multiple fiber optic cable and microduct configurations. Furthermore, the enclosure must be engineered to function as a consolidated, secure splice and patch point for both the optical fiber cables and the microducts themselves.	$

20003847	**6 EA**	**MDS Bulkhead plate.2.50 Cable Opening and Strain support**	The contractor shall provide an enclosure cover plate, equivalent designed to facilitate secure and orderly cable entry. The cover plate must feature 2.50-inch diameter cable openings and be engineered to accept protective sealing grommets. Additionally, the plate must incorporate integrated cable tie-down points to provide robust strain relief and secure cable management directly at the entry point.	$
20003850	**12 EA**	**MDS Bulkhead Plate L-type 3 position 12.7 MM 2 Slot**	2-Slot L-Type bulkhead Plate, accepts 3 12.7 mm bulkhead connectors for distributing outside FO the enclosure	$
20003852	**20 EA**	**Hose Clamp .50 – 1.25”**	Hose Clamp .50 – 1.25”	$
20003858	**20 EA**	**Hose Clamp 1.25 – 2.25”**	Hose Clamp 1.25 – 2.25”	$
200003857	**20 EA**	**MDS 2.5 MM Web Grommet**	MDS 2.5 MM Web Grommet	$
859YW7	**2 PK**	**Clean Projectile: 18 mm, For 1/2 in Hose, For 3/8 in Schedule 40 Pipe, Foam, Projectile, 100 PK**	The contractor shall provide cylindrical foam cleaning projectiles, equivalent, designed to be pneumatically propelled through hoses, pipes, or tubing to clear and clean internal pathways. The projectiles must consist of compressible foam engineered to wipe the inner walls of the target line. To ensure a tight seal and sufficient cleaning pressure for the effective removal of dirt, oil, and other contaminants, the projectiles must be sized approximately 20 percent to 30 percent larger in diameter than the internal diameter (ID) of the hose, pipe, or tubing being serviced.	$

552113	**10 EA**	**Plumett Jetting Lube and MicroJet Lube or Equal Cable Jetting Lube Quart**	The contractor shall provide cable jetting lubricants and application accessories, equivalent to Plumett Jetting Lube and MicroJet Lube, designed to pre-lubricate ducts and maximize cable installation performance. The standard jetting lubricant must be capable of optimizing operations in both non-lubricated and previously lubricated duct environments. The supply must include specialized duct-proofing and spreading accessories (equivalent to JetCoat and Micro Spreaders) to ensure uniform distribution of the lubricant throughout the pathway. Additionally, the contractor must provide a specialized micro-cable lubricant engineered with a low-viscosity, high-lubricity formula that remains stable and resistant to the high air temperatures typically encountered during high-speed micro-cable blowing operations.	$

	4 EA	**Air Hose**	3/4 Inch Air Hose Coupled, 50ft (Basis of Design Product: Specialty Hose & Fabrication - ZEX310149)	$
	10 EA	**Jetted Fiber Certification**	The contractor shall provide personnel possessing, or a training program delivering, formal jetted fiber installation certification equivalent to industry-recognized programs from SIRC, Light Brigade, Dura-Line Academy, Plumettaz, FiberDK, or the Fiber Optic Association (FOA). The certification must validate specialized training and practical proficiency in the techniques of installing fiber optic cables into microducts utilizing compressed air or water injection methods, commonly referred to as air-blown fiber (ABF) or fiber jetting.	$