

Contract No. 187482
Amendment No. 02- Exhibit D, Dated February 1, 2023
Makes and Models Offered

Specification 1.0 - Crawler Inspection Camera System Details and Information	
Specification 1.0 - Crawler Inspection Camera System Pricing Information	
Manufacturer	Manufacturer Model Number
ARIES	Aries Vehicle Mountable System
ARIES	Aries Mobile Pathfinder System

Specification 5.0 - Inspection Vehicle Field Office Up-fit Packages Details and Information	
Specification 5.0 - Inspection Vehicle Field Office Up-fit Package Pricing Information	
Manufacturer	Manufacturer Model Number
ARIES	Aries Command Center- Cube Vehicles
ARIES	Aries Command Center - Van Vehicles
ARIES	Aries Minnesota Special - Trailer System

Contract No. 187482
Amendment No. 02- Exhibit D, Dated February 1, 2023
Specification 1.0 Crawler Inspection Camera System Details and Information

Price quote for:

Crawler Inspection Camera System

Vendor Name:	FLEXIBLE PIPE TOOL COMPANY
Contact Person:	Shane Smetana
Street Address:	22606 186th Ave
P.O. Box:	
City, State, Zip	Cold Spring MN 56320
Phone #:	320-597-7552
Toll Free #:	800-450-6969
Fax #:	320-597-7882
Email Address:	shane@flexiblepipetoolco.com

Spec #	Information Requested	Answer
1.0	Make & Model	Aries Vehicle Mountable
	<u>Crawler:</u>	
	Number of drive wheels/tracks	6.00
	Number of drive motor(s)	2
	Drive mechanism (chain, belt, gear, etc.)	Internal gear
	Does drive mechanism have a clutch	Yes
	Internal pressure rating	21 psi
	Pressurization method	Inert gas
	Does crawler maintain pressure if camera is removed	Yes
	Over/under pressure indicator light	Yes
	Can repressurization be accomplished in the field	Yes
	Quantity, type & size of tracks/wheels included with base package	(6)3" rubber, (4)ea: 4" rubber and 4" and 5" offset rubber
	Overlapping wheel design to prevent high centering	Yes
	Wheel/Track change tool requirement	5/16 nutdriver
	Wheel/Track change time requirement	3 minutes typical
	Minimum pipe diameter	relined 6"
	Dimension-crawler only (LxHxW)	14.3" x 4.0" x 5.0"
	Overall length with camera attached	22.3"
	Weight of crawler	57 lbs

Contract No. 187482
Amendment No. 02- Exhibit D, Dated February 1, 2023
Specification 1.0 Crawler Inspection Camera System Details and Information
(Continued)

Overall weight crawler with camera attached	64 lbs
Material the crawler constructed from	Brass, stainless, anodized aluminum
Cable connector type to crawler	Waterproof
Tools required to connect/disconnect crawler from cable	7/16 hex key
Number of controls required to operate crawler	1
Direction crawler can operate (example: forward/neutral/reverse)	Forward/reverse/right/left/neutral
Is crawler steerable	Yes
Does crawler have rear vision camera capability	Yes
Inclinometer standard	Yes
Power requirement (watts/amps/voltage)	Power supplied by cable
Is a Sonde device available	Yes
<u>Camera:</u>	
Pan & tilt	Yes
Pan and tilt control type	Desktop pendant
Home position control type	Pushbutton
Pixels & lines of resolution	768 x 494, 530 TVL
Zoom (magnification optical & digital)	10x optical, 4x digital (40:1)
Lux rating	0.1
Construction material	Stainless, anodized aluminum
Lens type	Sapphire
Lens field of view (VxHxD)	35.6 x 46.4 x 56.4
Black & white or color	Color
Lighting type	LED
Type of lighting control	Rheostat
Field replaceable lights	Yes
Focus (auto & manual)	Automatic w/ override
Connection type	Waterproof

Contract No. 187482
Amendment No. 02- Exhibit D, Dated February 1, 2023
Specification 1.0 Crawler Inspection Camera System Details and Information
(Continued)

Dimensions (LxHxW)	8" x 3.25" diameter
Camera weight	7 lbs
Pressurization method	Inert gas
Internal pressure rating	21 psi
Over/under pressure indicator light	No
Does camera maintain pressure when removed from crawler	Yes
Will camera connect to cable w/o crawler and be fully functional	Yes
Maximum viewing angle for pan	Infinite axial rotation
Maximum viewing angle for tilt	Infinite pan/tilt rotation
Camera controller have "home" position function type	Yes
Does camera have the ability to view 360 degrees	Yes
Field replaceable windshield on camera	Yes
<u>Cable:</u>	
Cable length	1000 ft
Cable diameter	0.285" nominal
Break strength	1200 lbs
Single or multi-conductor	Multi-conductor
Repairable	Yes
<u>Cable Reel:</u>	
Motorized (yes/no)	Yes
Drive type	Internal chain
Automatic pay-out, or pulled by crawler	Pulled by crawler
Automatically payed-in	Yes
Cable reel level wind system	Yes
Drum emergency stop switch	Yes
Resettable counter	Yes
Counter-mechanical or electronic	Electronic

Contract No. 187482
Amendment No. 02- Exhibit D, Dated February 1, 2023
Specification 1.0 Crawler Inspection Camera System Details and Information
(Continued)

Forward/reverse engagement control type (manual or electronic)	Electronic
Speed control type	Rheostat
Type of torque control	Clutch
Overheat sensor	No
Cable reel capacity	1200 ft
Portable	Yes
Dimensions (LxHxW)	21" x 21" x 14"
Power requirements	120V, standard 15A service
<u>Central Control Unit:</u>	
Power requirements	120V, standard 15A service
Circuit protection type	Fuse
Video in/out	BNC
Type of text generator	Aries VL5000
Keyboard	104-key
Desktop camera control	Aries RC3400
Number of video text generators on-screen	88 comments x 27 characters each
Video display of footage, time and date	Yes
Warranty	One year
CONTRACT BASE UNIT PRICE:	\$ 74,538.00

Contract No. 187482
 Amendment No. 02- Exhibit D, Dated February 1, 2023
 Specification 1.0 Crawler Inspection Camera System Details and Information

VENDOR NAME

FLEXIBLE PIPE TOOL COMPANY

MAKE AND MODEL

Aries Vehicle Mountable System

Spec #	Description	Qty	Price	Subtotal
1.0	Price for Base Unit		\$74,538.00	\$ -

1.10	Crawler Options			
1.11	Substitute TR2000 Taurus and controller for TR3320		\$ (14,118.00)	\$ -
1.12	Add TR2000 Taurus		\$ 9,418.00	\$ -
1.13	TR2000 18"-24" spreader block and coupler kit		\$ 1,861.00	\$ -
1.14	Substitute TR3001 Badger and controller for TR3310		\$ (14,317.00)	\$ -
1.15	Add TR3001 Badger		\$ 9,690.00	\$ -
1.16	Badger 18"-24" spreader block and coupler kit		\$ 1,005.00	\$ -
1.17	Substitute TR3030 Badger Tip-Up and controller for TR3310		\$ (11,487.00)	\$ -
1.18	Add TR3030 Badger Tip-Up		\$ 12,449.00	\$ -
1.18.1	Substitute TR3101 Mini-Badger and controller for TR3310		\$ (12,385.00)	\$ -
1.18.2	Add TR3101 Mini-Badger		\$ 10,993.00	\$ -
1.18.3	Mini-Badger 18"-24" spreader block and coupler kit		\$ 1,723.00	\$ -
1.18.4	Add manual scissor lift kit, Badger or Taurus		\$ 3,619.00	\$ -
1.18.5	Substitute TR3300 Pathfinder		\$ (10,277.00)	\$ -
1.18.6	Add TR3300 Pathfinder		\$ 15,363.00	\$ -
1.18.7	Additional TR3310 Pathfinder Lift		\$ 26,603.00	\$ -
1.18.8	Substitute TR3400 Pathfinder XL		\$ 9,706.00	\$ -
1.18.9	Add TR3400 Pathfinder XL		\$ 36,309.00	\$ -
1.19	Substitute TR7000 Titan for TR3320		\$ 5,765.00	\$ -
1.19.1	Add TR7000 Titan		\$ 30,629.00	\$ -
1.19.2	Substitute TR400 Voyager for TR3320		\$ 15,229.00	\$ -
1.19.3	Add TR400 Voyager		\$ 41,057.00	\$ -

1.20	Wheel Options			
1.21	Add large line kit with 8" tires, TR3001/TR3030		\$ 5,228.00	\$ -
1.22	Add large line kit with 10" tires, TR3001/TR3030		\$ 5,071.00	\$ -
1.23	Add large line kit with 8" and 10" tires, TR3001/TR3030		\$ 6,015.00	\$ -
1.24	Add large line kit with 8" and 11" tires, TR3001/TR3030		\$ 5,874.00	\$ -
1.25	Add large line kit with 8" tires, TR3101		\$ 5,965.00	\$ -
1.26	Add large line kit with 8" tires, TR3320		\$ 6,806.00	\$ -
1.27	Add large line kit with 8" tires, TR3400		\$ 6,970.00	\$ -
1.28	Add large line kit with 10" tires, TR3400		\$ 7,149.00	\$ -
1.28.1	Add large line kit with 8" and 10" tires, TR3400		\$ 8,110.00	\$ -
1.28.2	Add large line kit with 8" tires, TR400		\$ 10,600.00	\$ -
1.28.3	Add 19" tire set, TR7000		\$ 3,960.00	\$ -
1.28.4	Add 3" high traction wheel (ea)		\$ 115.00	\$ -
1.28.5	Add 3" reverse offset high traction wheel (ea)		\$ 125.00	\$ -
1.28.6	Add 4" high traction wheel (ea)		\$ 229.00	\$ -
1.28.7	Add 4" reverse offset high traction wheel (ea)		\$ 183.00	\$ -
1.28.8	Add 4" offset high traction wheel (ea)		\$ 260.00	\$ -
1.28.9	Add 5" high traction wheel (ea)		\$ 273.00	\$ -
1.29	Add 5" offset high traction wheel (ea)		\$ 269.00	\$ -
1.29.1	Add 3" standard rubber wheel (ea)		\$ 135.00	\$ -
1.29.2	Add 3" reverse offset rubber wheel (ea)		\$ 131.00	\$ -
1.29.3	Add 4" standard rubber wheel (ea)		\$ 126.00	\$ -
1.29.4	Add 4" reverse offset rubber wheel (ea)		\$ 142.00	\$ -
1.29.5	Add 4" offset rubber wheel (ea)		\$ 194.00	\$ -
1.29.6	Add 5" standard rubber wheel (ea)		\$ 175.00	\$ -
1.29.7	Add 5" offset rubber wheel (ea)		\$ 372.00	\$ -
1.29.8	Add 5" dually rubber wheel (ea)		\$ 371.00	\$ -

Specification 1.0 Crawler Inspection Camera System Details and Information
(Continued)

1.30 Camera Options				
1.31	Substitute PE2620 horizontal home camera for PE3530		\$ (4,216.00)	\$ -
1.32	Add PE2620 vertical home camera		\$ 23,254.00	\$ -
1.33	Substitute PE2720 horizontal home camera for PE3520		\$ (4,216.00)	\$ -
1.34	Add PE2720 horizontal home camera		\$ 23,254.00	\$ -
1.35	Substitute PE3420 camera for PE3530		\$ -	\$ -
1.36	Add PE3430 Pathfinder Zoom horizontal camera		\$ 27,866.00	\$ -
1.37	Additional PE3530 Pathfinder Zoom vertical home camera		\$ 27,866.00	\$ -
1.38	Add Pathfinder camera to Badger or Taurus adapter		\$ 1,656.00	\$ -
1.39	Add LP3300 Laser Profiler		\$ 16,744.00	\$ -
1.39.1	Substitute HD400 Voyager HD camera for PE3530		\$ 13,961.00	\$ -
1.39.2	Add HD400 Voyager HD horizontal home camera		\$ 41,827.00	\$ -
1.39.3	Substitute HD405 Voyager HD camera for PE3530		\$ 13,961.00	\$ -
1.39.4	Add HD405 Voyager HD vertical home camera		\$ 41,827.00	\$ -

1.40 Lighting Options				
1.41	Add high performance light head		\$ 1,680.00	\$ -
1.42	Add LH330 Pathfinder light head		\$ 1,196.00	\$ -
1.43	Add LH340 Pathfinder XL light head		\$ 1,821.00	\$ -

1.50 Control Console Options				
1.51	Substitute PC5000 Master Controller for PC1170 system		\$ 7,547.00	\$ -
1.52	Substitute DC400 HD Voyager Controller for PC1170		\$ 11,604.00	\$ -
1.53	Add DC400 HD Voyager Controller for PC1170		\$ 32,984.00	\$ -
1.54	Add Laptop PC		\$ 3,750.00	\$ -
1.55	Add Laptop PC, HD-capable		\$ 4,561.00	\$ -
1.55.1	Add rack mounted PC with UPS		\$ 6,325.00	\$ -
1.55.2	Upgrade from Pipetech from Scan to INSPECT		\$ 5,880.00	\$ -
1.55.3	Add Pipetech INSPECT - Mainline Module		\$ 10,453.00	\$ -
1.55.4	Add Pipetech INSPECT - Lateral Module		\$ 1,493.00	\$ -
1.55.5	Add Pipetech INSPECT - GIS Module		\$ 1,067.00	\$ -
1.55.6	Add Pipetech INSPECT - Panoramo+ Module		\$ 1,200.00	\$ -
1.55.7	Add Pipetech INSPECT 1yr support program		\$ 1,175.00	\$ -
1.55.8	Add Pipetech HUB - Requires data, support & maintenance subscription.		\$ 2,987.00	\$ -
1.55.9	Add HUB Basic Subscription (annually)		\$ 2,547.00	\$ -
1.56	Add HUB Plus Subscription (annually)		\$ 4,467.00	\$ -
1.56.1	Add HUB Premium Subscription (annually)		\$ 7,667.00	\$ -
1.56.2	Add Pipetech MOBILE Platform		\$ 5,120.00	\$ -
1.56.2	Add Pipetech MOBILE Data, Support & Maintenance (Required w/MOBILE)		\$ 1,267.00	\$ -
1.56.3	Add WinCan VX Lite, License Package		\$ 7,241.00	\$ -
1.56.4	Add WinCan VX Lite, Subscription Package		\$ 2,183.00	\$ -
1.56.5	Add WinCan VX Advanced, License Package		\$ 10,719.00	\$ -
1.56.6	Add WinCan VX Advanced, Subscription Package		\$ 3,172.00	\$ -
1.56.7	Add WinCan VX Expert, License Package		\$ 15,830.00	\$ -
1.56.8	Add WinCan VX Expert, Subscription Package		\$ 4,216.00	\$ -
1.56.9	Add WinCan VX Ring Laser Scanning Module, Licensed		\$ 5,055.00	\$ -
1.57	Add WinCan VX Ring Laser Scanning Module, Subscription		\$ 1,333.00	\$ -
1.57.1	Add WinCan Onsite Consulting/Training Services		\$ 3,434.00	\$ -
1.57.2	Add ITpipes Mobile System		\$ 8,899.00	\$ -
1.57.3	Add ITpipes Application Integration to ESRI Webmaps		\$ 3,134.00	\$ -
1.57.4	Add ITpipes Sync System		\$ 4,388.00	\$ -
1.57.5	Add ITpipes Asset Add-On Module		\$ 3,761.00	\$ -
1.57.6	Add ITpipes Web, 1 user		\$ 5,640.00	\$ -
1.57.7	Add ITpipes Web, 3 users		\$ 9,400.00	\$ -
1.57.8	Add ITpipes Mobility Inspection System for Andriod		\$ 3,761.00	\$ -
1.57.9	Add ITpipes Asset Management System Integration		\$ 9,400.00	\$ -
1.58	Add ITpipes Online/Onsite Consulting/Training Services		\$ 3,746.00	\$ -
1.58.1	Add 15" LCD monitor, desktop		\$ 1,093.00	\$ -
1.58.2	Add 15" LCD monitor, rear viewing in vehicle		\$ 964.00	\$ -
1.58.3	Add 17" LCD monitor, desktop		\$ 1,016.00	\$ -
1.58.4	Add 17" LCD monitor, rear viewing in vehicle		\$ 882.00	\$ -
1.58.5	Add 19" LCD monitor, desktop		\$ 1,206.00	\$ -
1.58.6	Add 19" LCD monitor, rear viewing in vehicle		\$ 1,072.00	\$ -
1.58.7	Add 22" LCD monitor, desktop		\$ 1,206.00	\$ -
1.58.8	Add 22" LCD monitor, rear viewing in vehicle		\$ 1,072.00	\$ -
1.58.9	Add 24" LCD monitor, desktop		\$ 1,267.00	\$ -
1.59	Add 24" LCD monitor, rear viewing in vehicle		\$ 1,115.00	\$ -
1.59.1	Add laser printer		\$ 1,040.00	\$ -
1.59.2	Add ink jet printer		\$ 247.00	\$ -
1.59.3	Add VR3500 rack mount DVR		\$ 1,628.00	\$ -

Specification 1.0 Crawler Inspection Camera System Details and Information
(Continued)

1.60	Cable and Cable Drum Options			
1.61	Add Pathfinder reel with 1000' cable		\$ 16,173.00	\$ -
1.62	Add Pathfinder reel mounting kit with stand		\$ 836.00	\$ -
1.63	Add Pathfinder reel mounting kit without stand		\$ 534.00	\$ -
1.64	Substitute 1200' cable, Pathfinder		\$ 968.00	\$ -
1.65	Add PR1200 shifter reel w/ 1000' Redmaxx		\$ 20,829.00	\$ -
1.66	Add PR1201 shifter aluminum reel w/ 1000' RedMaxx		\$ 22,405.00	\$ -
1.67	Add PR1210 clutch reel w/ 1000' RedMaxx		\$ 21,874.00	\$ -
1.68	Add PR1211 clutch aluminum reel w/ 1000' RedMaxx		\$ 23,840.00	\$ -
1.69.1	Substitute 1200' cable, PR1200-series		\$ 2,411.00	\$ -
1.69.2	Substitute 1500' cable, PR1200-series		\$ 5,877.00	\$ -
1.69.3	Substitute resinfree termination, multi-conductor		\$ -	\$ -
1.69.4	Substitute PR400 reel with 1200ft HD Cable for Pathfinder		\$ 25,133.00	\$ -
1.69.5	Add PR400 reel with 1200ft HD Cable		\$ 42,274.00	\$ -

1.65	Other Crawler Options			
1.66	Add TrailBlazer portable enclosure		\$ 16,336.00	\$ -
1.67	Add PI2000 inclinometer		\$ 4,646.00	\$ -
1.67.1	Add LE3270 6" wheeled lateral inspection system to PC1170 system		\$ 67,465.00	\$ -
1.67.2	Add LE3270 6" wheeled lateral inspection system to PC5000 system		\$ 60,032.00	\$ -
1.67.3	Add PE3601 camera to LETS system		\$ 15,822.00	\$ -
1.67.4	Add detachable 512Hz beacon		\$ 1,151.00	\$ -
1.67.5	Add sonde locator (SR-20)		\$ 3,257.00	\$ -
1.67.6	Add 1000' remote manhole winch		\$ 12,589.00	\$ -
1.67.7	Add power rewind to extention cord reel		\$ 8,825.00	\$ -
1.67.8	Add 6"-30" skid set		\$ 1,806.00	\$ -
1.67.9	Add tigertail downhole guide		\$ 265.00	\$ -
1.68.1	Add invert roller system		\$ 1,165.00	\$ -
1.68.2	Add fiberglass extension pole (ea)		\$ 140.00	\$ -
1.68.3	Add steel extension pole (ea)		\$ 90.00	\$ -
1.68.4	Add grout system with electric pumps, reel with 800' penta hose, 65g chemical tanks, hydraulic, and pneumatic systems		\$ 155,372.00	\$ -
1.68.5	Add lateral grout system to base grout system		\$ 12,907.00	\$ -
1.68.6	Add manhole sealing gun		\$ 1,883.00	\$ -
1.68.7	Add 6" outfitted packer		\$ 2,858.00	\$ -
1.68.8	Add 8" outfitted packer		\$ 3,331.00	\$ -
1.68.9	Add 8" mainline/6" lateral x 36" outfitted lateral packer		\$ 17,574.00	\$ -
1.69	Add Wolverine 2.0 system		\$ 187,677.00	\$ -
1.69.1	Add spare Wolverine 2.0 cutter body		\$ 44,113.00	\$ -
1.69.2	Add spare 4th axis system		\$ 4,812.00	\$ -
1.69.3	Add spare Wolverine 2.0 camera		\$ 13,953.00	\$ -

1.70	Performance Options			
1.71	Add HD System with DC400 controller, HD400 camera, TR400 tractor, and PR400 reel		\$ 118,161.00	\$ -

1.75	Extended Warranty Options			
1.76	Warranty coverage, months 13-24		\$ 3,915.00	\$ -
1.77	Warranty coverage, months 25-36		\$ 4,896.00	\$ -

1.80	Vendor Owned Rental Return or Demo Equipment Program See Solicitation Special Terms and Conditions. DEDUCT cost per Used Hour from the original Contract Price		N/A	
-------------	--	--	-----	--

1.85	Discount Off List Price for Related Parts and Accessories (See Special Terms and Conditions)			
	Price List Date and Number		Date	Number
	Discount %		N/A	N/A
			None	None

1.90	New Equipment Rental Program If rental programs are available on the new equipment offered, with the option to purchase, list the hourly/weekly/monthly rental rate.			
	Hourly Rental Rate:		N/A	
	Weekly Rental Rate:		N/A	
	Monthly Rental Rate:		N/A	
	Percent (%) of Rental Fee applied to purchase price:		N/A	

1.95.1	Delivery Starting Point (city, state, zip code)		NO CHARGE	
1.95.2	Price per loaded mile			
1.95.3	Minimum Fregiht Charge (if applicable)			