



# Memo

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TO: Mayor Manier and City Council  
FROM: Ed Andrews, Public Works Director  
SUBJECT: Purchase Authorization  
Plug Hug Attachment  
DATE: October 13, 2017

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## **EXECUTIVE SUMMARY:**

During the current Fiscal year, budgeting for the purchase consideration for a Plug Hug™ fire hydrant cleaning attachment for the skid steer was adopted. This consideration was established with the manufacturer so that the rental for evaluation that would be discounted from the purchase price if we elected to purchase the attachment.

The City rented the unit for a one-month period in September of this year with very positive results. This evaluation was discussed with the Public Works Committee and recommended to advance to Council.

It is recommended that the City Council authorize purchase in the total amount of \$9,995 from Plug Hug, LLC.

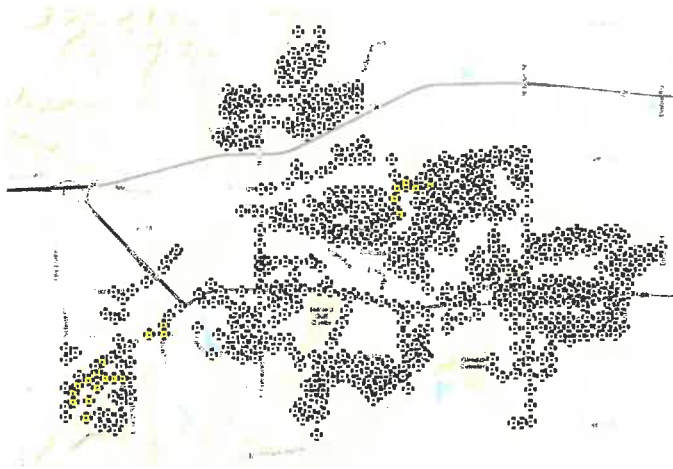
## **BACKGROUND NARRATIVE:**

The City has nearly 700 fire hydrants within our municipal system that require periodic painting in order to maintain both appearance and identification of flow capacities. It should be noted that there are others owned and maintained by Northern Tazewell Water on the west-end of town and Washington Estates.

Historically these have been wire brushed by hand and hand painted. The adoption of a more automated methodology was reviewed to help speed up the process and also prepare the surface in such a manner that spraying rather than hand painting might be used.

Productivity rates when cleaning with the Plug Hug and painting with a sprayer versus a brush increased to 25+ hydrants per day.

The following is a screen capture of the painting application developed to help when the crew is completing the repainting of the hydrants.



This matter has been placed on the City Council Consent agenda of Monday, October 16<sup>th</sup>, 2017 for review and approval.

cc: File



The Plug Hug, LLC  
PO Box 386  
Bellville, OH 44813

August 3, 2017

Mr. Ed Andrews  
Director of Public Works  
City of Washington  
107 Legion Rd.  
Washington, IL 61571  
RE: The Plug Hug Fire Hydrant Cleaning System

Mr. Andrews,

Thank you very much for the time you and RJ spent discussing the Plug Hug Fire Hydrant Cleaning System with me yesterday and the benefits it will bring to the City of Washington's fire hydrant maintenance program.

As discussed, The Plug Hug can make a fire hydrant "Paint Ready" in approximately 2 minutes, giving a single operator the ability to clean and prep 20 to 30 hydrants per hour for painting. Additionally, the Snow Removal Kit will give an operator the ability to clear snow covered or plowed under fire hydrants in 60 seconds.

With approximately 800 fire hydrants in your system, The Plug Hug will enable your department to service your entire system in a shorter and safer project timeline than ever before.

Based on your current methods, and what similar customer scenarios have taught us, we believe you will be able to cut project costs up to 60% by greatly reducing labor hours, materials and clean-up while eliminating hand, eye and back injuries.

The Plug Hug Fire Hydrant Cleaning System replaces the costly, cumbersome and unsafe methods of fire hydrant cleaning and paint removal, known to be: toxic solvents, sand/abrasive blasting, pressure washing, hand held electric grinders/wire whips and manual wire brushes.

Safety hazards for team members are eliminated by removing the "hands-on" element of these legacy methods and by drastically reducing the worker's physical exposure to road-way risks.

With a three-man crew, you can have one operator using The Plug Hug attached to your Skid Steer/ Backhoe making hydrants "Paint Ready" in 2 minutes and two team members operating a traffic control vehicle and immediately applying new paint creating an effective and efficient "one trip - one touch" project management process.

[WWW.THEPLUGHUG.COM](http://WWW.THEPLUGHUG.COM)  
[WWW.FACEBOOK.COM/THEPLUGHUG](https://WWW.FACEBOOK.COM/THEPLUGHUG)



The Plug Hug, LLC  
PO Box 386  
Bellville, OH 44813

The Plug Hug Fire Hydrant Cleaning System attachment that we are quoting for cleaning and preparing fire hydrants for painting is \$9,800 plus applicable shipping charges and taxes. As discussed, our monthly rental rate is \$2,800 and all rental charges will be applied to the purchase price if the City of Washington issues a purchase order before the end of the calendar year (12/31/2017). Additionally, the Snow Removal Kit option is \$3,750.

The City of Washington will gain real and specific value through highly efficient functionality, project cost reductions and the elimination of team member injuries attributed to the risks of current methods.

Finally, The Plug Hug will give your department a pro-active maintenance plan that will make your department, fire hydrants and the City of Washington look great!

Attached please find:

- The Plug Hug Company & Product Information
- The Plug Hug Operational Overview
- Sole Source Vendor Letter
- Customer References
- Manufacturer Warranty
- IRS Form W-9
- The Plug Hug Price Quote

We look forward to working with you on this project and consider it a great privilege to have your department and The City of Washington as a customer of The Plug Hug.

Best regards,

Douglas Marshall

Chief Operations Officer

[douglasmarshall@theplughug.com](mailto:douglasmarshall@theplughug.com)

Direct: 719 313 2791

[www.theplughug.com](http://www.theplughug.com)

<https://www.facebook.com/ThePlugHug>

APWA "Best New Product Award 2015"

<https://www.facebook.com/AmericanPublicWorksAssociation/photos/pb.101850019373.2207520000.1441342342.10153668786029374/?type=1&theater>

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[WWW.FACEBOOK.COM/THEPLUGHUG](https://WWW.FACEBOOK.COM/THEPLUGHUG)



# FIRE HYDRANT CLEANING SYSTEM



## As Easy As...



**The Plug Hug Fire Hydrant Cleaning System** is the amazing new way to make fire hydrants "Paint Ready" in 2 minutes and to clear snow covered or plowed under fire hydrants in 60 seconds.

The patented design is easy to use as an attachment with the common skid steer, mini loader, excavator or backhoe. A single operator can prepare 20 to 30 hydrants per hour for paint and clear 30 to 40 hydrants per hour from snow and ice.

When compared to current methods, customers can reduce project costs by as much as 60% by greatly reducing labor hours, the high cost of materials and clean-up. Additionally, **The Plug Hug** eliminates hand, eye and back injuries associated with "hands-on" methods of descaling fire hydrants for painting and clearing hydrants of snow and ice.

The low cost and high rate of production makes **The Plug Hug** a very beneficial asset for your operations and community year round.



See our **LIVE DEMO** videos  
[www.facebook.com/theplughug](http://www.facebook.com/theplughug)

[www.theplughug.com](http://www.theplughug.com)

Contact: Douglas Marshall • 719-313-2791 • [douglasmarshall@theplughug.com](mailto:douglasmarshall@theplughug.com)





### MACHINE & HYDRAULIC DRIVE REQUIREMENTS

- Max PSI 3000
- Torque: 1,040 ft/lbs.
- Max Torque < 4000 ft/lbs.
- Speed & Flow: 38 RPM @ 8 GPM
- Drive shafts: 2" Hex or 2 9/16" Rnd.
- Min. 6500 GVWT for Skid Steer, Backhoe, Excavator, Mini Loader
- Hydraulic Motor Support Required (Bracket, Chain & Ratchet Binder)
- Tracked Machine Recommended

## SPECIFICATIONS

**The Plug Hug Operation:** Patented design brings simplicity to operations with a standard hex receiver for attachment to your hydraulic auger drive and the ability to work on any style of fire hydrant. The Plug Hug contains 6 steel descaling panels, with 10 steel cables each, to create approximately 17,000 needle endpoints to strip paint, rust and debris in 2 minutes without having to remove cap chains or Storz fittings. For snow covered or plowed under hydrants change out the descaling panels with the snow removal panels (which are stubbed and do not touch the hydrant) to clear snow and ice from hydrants in 60 seconds and create a 4 ft. diameter access area for Firefighters and Public Works/Utility Crews.

**The Plug Hug Maintenance:** Patented design brings simplicity to maintenance with a removable lid and a clam shell design for the main housing that spreads open to provide easy access for servicing cable assemblies or to change out the descaling panels for the snow removal panels in just minutes!

### The Plug Hug Eliminates:

- Up to 60% of your project costs by greatly reducing labor, materials and clean-up
- Unsafe and cumbersome methods of cleaning and clearing fire hydrants
- Public safety risks associated with inaccessible fire hydrants in winter emergencies
- Residents, Firefighters or Public Works/Utility Crews shoveling out fire hydrants in winter

### Cost Comparison Chart: Based on 1,000 fire hydrant project sample

- Fully-loaded labor rates and equipment costs based on industry averages
- Material usage calculations = costs divided by number of hydrants in project sample size

Hydrant Cleaning Methods	Manual 1 Laborer @ \$25 hr ea	Compressor w/ Truck 2 Laborer @ \$55 hr ea	Skid Steer, Backhoe 1 Laborer @ \$55 hr	The Plug Hug	Abrasive Material	Protective Material Clothing Equip.	Material Debris Clean Up	Cost Per Hydrant	Hours to complete project
Sand/Abrasive Blasting 1 Hydrant = 1 Hour	0	\$110.00	0	0	\$1.75	\$4.50	\$4.50	\$120.75	1,000
Grinders / Wire Whips 1 Hydrant = 1 Hour	0	\$110.00	0	0	0	\$3.50	\$2.50	\$116.00	1,000
Manual Wire Brush 1 Hydrant = 2 Hour	\$50.00	0	0	0	0	\$2.50	\$2.50	\$ 55.00	2,000
<b>THE PLUG HUG 20 Hydrants = 1 Hour</b>	0	0	\$2.75	\$9.80	0	0	0	<b>\$ 12.55</b>	<b>50</b>



Standard industry Hex Drive



Paint Removal System



Snow Removal System



Cable Panel



Individual Cable



Inside of Plug Hug after 500 hydrant cleaning cycles. Notice lack of any wear on cable assemblies.

For a Demo, Cost Analysis or Proposal Contact: Doug Marshall [douglasmarrshall@theplughug.com](mailto:douglasmarrshall@theplughug.com) / 719 313 2791

# PRICING



## The Plug Hug Fire Hydrant Cleaning System

Makes Hydrants "Paint Ready" in 2 Minutes and Clears Snow Covered and Plowed Under Hydrants in 60 Seconds.

The Plug Hug is a Patented and Trademarked system invented by Terry Byrne and manufactured and distributed exclusively by PLUG HUG, LLC for Public Utilities, Public Works, Fire Departments and other Government entities. The Plug Hug is not available through distributors or outsourced service contractors to ensure all customers receive the lowest price on a fair and equal basis.

The Plug Hug <u>Purchase</u> Programs	The Plug Hug <u>Rental</u> Programs
<b>Plug Hug Fire Hydrant Paint Removal System .....\$ 9,800</b> - Terms: Due Upon Receipt - Order Method: Verifiable Purchase Order	<b>Plug Hug Fire Hydrant Paint Removal System .....\$2,800</b> - Terms: Pre-Pay First Month (additional monthly payments due every 30 days) - Order Method: Verifiable Purchase Order / Credit Card
<b>Plug Hug Fire Hydrant Snow Removal System .....\$ 9,800</b> - Terms: Due Upon Receipt - Order Method: Verifiable Purchase Order	<b>Plug Hug Fire Hydrant Snow Removal System .....\$2,800</b> - Terms: Pre-Pay First Month (additional monthly due every 30 days) - Order Method: Verifiable Purchase Order / Credit Card
<b>Plug Hug Paint &amp; Snow Removal Package .....\$ 12,950</b> (Includes Fire Hydrant Paint & Snow Removal Systems) - Terms: Due Upon Receipt - Order Method: Verifiable Purchase Order	<b>Plug Hug Paint &amp; Snow Removal Package .....N/A</b>  Not Eligible For Rental Program
<b>Plug Hug Snow Removal Conversion Kit .....\$ 3,750</b> (Paint Removal System Needed For Conversion Kit) - Terms: Due Upon Receipt - Order Method: Verifiable Purchase Order	<b>Plug Hug Snow Removal Conversion Kit .....N/A</b>  Not Eligible For Rental Program
<b>Plug Hug Replacement Parts</b> - Terms: Due Upon Receipt / Credit Card - Descaling Cable .....\$ 25 - Assembly Plate w/ Cables .....\$ 495 - Assembly Plate w/ Cable Kit (Qty. 6).....\$ 2895	<b>Plug Hug Replacement Parts .....N/A</b>  Not Eligible For Rental Program

All Shipping Charges For Purchase and Rental Programs Are FOB Lexington, OH  
 Rental Programs Are Not Eligible For Pro-Rated or Partial Month Billing

**The Plug Hug, LLC PO Box 386 Bellville, OH 44813-9998**



**719 313 2791 • douglasmarrshall@theplughug.com • www.theplughug.com**



The Plug Hug, LLC  
PO Box 386  
Bellville, OH 44813-9998

## **THE PLUG HUG Fire Hydrant Cleaning System Sole Source Vendor Verification**

**UNITED STATES Patent and Trademark Office Patent # 61/648300, CANADIAN Intellectual Property Office (CIPO) Patent Pending and UNITED STATES Internal Revenue Service EIN# 81-1609774.**

**The purpose of this letter is to confirm, for quoting and purchasing activities, that Terry Byrne is the sole inventor, manufacturer, distributor and servicer of THE PLUG HUG Fire Hydrant Cleaning System through The Plug Hug, LLC with offices and manufacturing located in Lexington, Ohio.**

**THE PLUG HUG Fire Hydrant Cleaning System provides specific, unique and one-of-a-kind design and functionality that has not been previously known to the marketplace and there are no comparative competitive products.**

**THE PLUG HUG Fire Hydrant Cleaning System enables the device operator to descale, clean and clear debris from fire hydrants for painting preparation and for the removal of snow and ice from snow covered and plowed under fire hydrants ensuring Firefighter access to fire hydrants during public safety emergencies.**

**THE PLUG HUG Fire Hydrant Cleaning System eliminates hand, eye and back injuries associated with "hands-on" fire hydrant cleaning and descaling methods for painting preparation and snow removal.**

**THE PLUG HUG Fire Hydrant Cleaning System replaces the costly, cumbersome and unsafe methods of fire hydrant paint removal, known to be: toxic solvents, sand/abrasive blasting, pressure washing, hand held electric grinders/wire whips and manual wire brushes.**

**THE PLUG HUG Fire Hydrant Cleaning System replaces the inefficient, ad hoc and high risk public safety method of snow and ice removal from fire hydrants, known to be: manual hand shoveling by District/Department Employees, First Responders, Home Owners and Business Owners.**

**THE PLUG HUG Fire Hydrant Cleaning System provides risk mitigation and financial value by ensuring operational readiness and cost reductions, as a dual use device, for maintaining fire hydrants within the responsible District/Departments system.**

**WWW.THEPLUGHUG.COM**



## PLUG HUG, LLC

PH (719) 313 2791 FX (719) 213 2000  
PO Box 386  
Bellville, OH 44813-9998



## Purchase Quote

### QUOTED TO:

City of Washington  
107 Legion Rd.  
Washington, IL 61571  
ATTN: Mr. Ed Andrews  
Director of Public Works  
PH: 309 444 1136  
[eandrews@ci.washington.il.us](mailto:eandrews@ci.washington.il.us)

### SHIPPED TO:

Same

Sales Tax

Exempt 0.00%

Tax ID#



Invoice #	TBD
Invoice Date	TBD
Customer PO#	TBD
Supplier #	TBD
Quote #	17-0803-WASHIL
Quote Date	8/3/2017
Terms	Due Upon Receipt
Prepared By	Douglas Marshall
Shipped Via	LTL-GRD
F.O.B.	Lexington, OH
Shipping Chgs.	Prepaid Mfr.

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	PH-100: Plug Hug Fire Hydrant Cleaning System - 2" Universal Hex Hydraulic Auger Drive Motor Receiver - 6 Panels with 16" flared descaling cables for paint removal	9,800.00	\$9,800.00
1	Hydraulic Auger Drive Motor Safety Support Kit - Included (No Charge) - 5/16 Ratchet Binder - 5/16 G70 Cargo Chain 6 ft.	0.00	0.00
Quote Valid For 30 Days			
WWW.THEPLUGHUG.COM		SUBTOTAL	9,800.00
		TAX	0.00
		Shipping Charge	195.00
		TOTAL	\$9,995.00

### DIRECT INQUIRIES TO:

Douglas Marshall - Chief Operations Officer  
(719) 313 2791  
[douglasmarshall@theplughug.com](mailto:douglasmarshall@theplughug.com)

### MAKE CHECKS PAYABLE TO:

Plug Hug, LLC  
PO Box 386  
Bellville, OH 44813-9998

**THANK YOU FOR YOUR BUSINESS!**

# PLUG HUG, LLC

(719) 313 2791 • FAX (719) 213 2000  
PO Box 386  
Bellville, OH 44813-9998



## RENTAL INVOICE

**BILLED TO:**

City of Washington  
301 Walnut St  
Washington, IL 61571  
ATTN: Mr. Ed Andrews  
Director of Public Works  
PH: 309 444 1136

[eandrews@ci.washington.il.us](mailto:eandrews@ci.washington.il.us)

**SHIPPED TO:**

107 Legion Rd  
Washington IL 61571

Tax ID#



Invoice #	17-0831-WASHIL-R
Invoice Date	8/31/2017
Customer PO#	43351
Vendor #	PLUG HUG
Quote #	17-0803-WASHIL-R
Quote Date	8/3/2017
Terms	Due Upon Receipt
Prepared By	Douglas Marshall
Shipped Via	Estes Express
F.O.B.	Lexington, OH
Shipping Chgs.	Prepaid Mfr.

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	PH-100: Plug Hug Fire Hydrant Cleaning System - Rental Program Package includes complete Plug Hug Fire Hydrant Cleaning System: - 6 Panels with 16" flared descaling cables for paint removal	2,800.00	\$2,800.00
1	Hydraulic Auger Drive Motor Safety Support Kit - Included ( No Charge) - 5/16 Ratchet Binder & 5/16 G70 Cargo Chain 6 ft.  RENTAL PROGRAM: - Rental Period is 30 calendar days from Proof of Delivery - Additional month billed every 30 calendar days - No Partial or Pro-Rated Monthly Billing  100% of Rental Fee Will Be Applied To Purchase Price For Purchase Order Received By The End Of The Calendar Year (12/31/2017)  Quote Valid For 30 Days	0.00	0.00
WWW.THEPLUGHUG.COM		SUBTOTAL	2,800.00
		TAX	0.00
		EST SHPG COST	0.00
		TOTAL	\$2,800.00

**DIRECT ALL INQUIRIES TO:**

Douglas Marshall - Chief Operations Officer  
719 313 2791

[douglasmarshall@theplughug.com](mailto:douglasmarshall@theplughug.com)

**MAKE ALL CHECKS PAYABLE TO:**

The Plug Hug, LLC  
Attn: Accounts Receivable  
PO Box 386  
Bellville, OH 44813-9998

**THANK YOU FOR YOUR BUSINESS!**

CITY OF WASHINGTON  
301 WALNUT STREET  
WASHINGTON, IL 61571-1498  
PHONE: (309) 444-3196  
FAX: (309) 444-9779

PLUG HUG, LLC  
PO BOX 386  
BELLVILLE

OH 44813-9998

DELIVER TO:  
CITY HALL  
301 WALNUT STREET  
WASHINGTON IL 61571  
PHONE: 309-444-3196 FAX: 309-444-9779

=====

PURCHASE ORDER
=====
P.O. NUMBER: 43351
P.O. DATE: 08/23/2017
P.O. AMT: \$2,800.00
VENDOR NUMBER: PLUG HUG
REQ. NUMBER:

ATTENTION:  
K. SCHONE/JEB

DESCRIPTION	ACCOUNT #	HOURS/QTY	COST/UNIT	AMOUNT
RENTAL OF PLUG HUG SYSTEM	500-00-590-2000	1.00000	2,800.0000	2,800.00
				=====
				\$2,800.00

IL SALES TAX NUMBER E9993-0811-07

CITYHALL@CI.WASHINGTON.IL.US

REQUESTED  
BY: \_\_\_\_\_

APPROVED  
BY: JEB

DATE: 8/23/17

<b>ESTES</b> P.O. Box 25612, Richmond, VA 23260 www.estes-express.com		<b>DELIVERY RECEIPT</b>		<b>EXLA</b>	
DATE	ORIGIN	DESTINATION	P.O.#		
08/24/17	MFD 117	BLD 066	NB		
SHIPPER B/L OR GBL NUMBER		ESTES REV.	ADV. REV.	BYD. REV.	
6660111075					
CONSIGNEE 6600777					
CITY OF WASHINGTON					
107 LEGION RD					
WASHINGTON, IL 60490		***			
APPOINTMENT: 08/28 11:00 - 15:00		BILL CHARGES TO 5028216			
SHIPPER 1177777		DLS WORLDWIDE			
PLUG HUG		BOLINGBROOK, IL 60490			
% MAPCO		# S/W SKIDS DEL'D INTACT <input checked="" type="checkbox"/> # SKIDS DEL'D <input type="checkbox"/> # EMPTY SKIDS RET'D <input checked="" type="checkbox"/>			
125 S MILL STREET		<input type="checkbox"/> GOOD ORDER <input type="checkbox"/> SHORT <input type="checkbox"/> OVER <input type="checkbox"/> DAMAGE			
LEXINGTON, OH 44514		DESCRIBE EXCEPTIONS:			
# PCS.	HM	DESCRIPTION OF ARTICLES AND SPECIAL MARKINGS	WEIGHT/LBS	RATE	
1	SK	From - TL38 TEST PORKL: ONSITE PER KEVIN ***** PLUG 1; NO NO' Y CHARGE.. 309 7. 9233 KEVIN SCHONE ANY DI VERY PROBLEMS, NOTIFY 800 8' 4849 DUE D: 8/25/2017 CONS 1 7:30AM-230PM M-TU CALL 1 MORE DELIVERY *****	800		
FIRM		BY	CONTINUED NEXT PAGE		
You'd the above property in good condition except as noted above.		<input type="checkbox"/> Received SVC <input type="checkbox"/> Unpaid SVC <input type="checkbox"/> Short & Sng <input type="checkbox"/> Construction Site <input type="checkbox"/> Inside Club <input type="checkbox"/> <input type="checkbox"/> Special Trailer <input type="checkbox"/> LR Gate <input type="checkbox"/> FG <input type="checkbox"/> WGL			
		Initial to Acknowledge Receipt of Service(s). Fees May Apply			