



EMERGENCY MEDICAL  
SERVICES

KURT ZELLMANN  
ASSISTANT CHIEF

CITY of WEST ALLIS  
FIRE DEPARTMENT

Date: August 14<sup>th</sup>, 2017

To: Honorable Board of West Allis Police & Fire Commissioners

From: Assistant Chief Kurt W. Zellmann

Re: Request for expenditure of budgeted funds to refurbish Fire Apparatus.

Honorable Commissioners,

The purpose of this document is to request permission to expend the previously budgeted and currently escrowed funds needed to complete the refurbishment of two currently owned WAFD pumping engines. The rationale for this requested expenditure is outlined in the previously submitted and filed WAFD Fire Apparatus Fleet Restoration Proposal. The fleet restoration proposal was submitted to this body in September of 2016 and has been the guiding document for the remediation of the WAFD Fire Apparatus Fleet. For reference, the document along with budgetary information has been added to this month's complement of information.

In order for two currently owned WAFD pumping engines to provide continued service to the City, for their currently projected service lives, these two apparatus must have the corrosion that is currently present on their frames, structural members and plumbing systems addressed and remediated. If left unabated, the corrosion will render the frames of both apparatus structurally unsafe and force their removal from service short of their required service lives. An evaluation of the pumping engines was conducted and concluded that the most economical solution to the dilemma of these units condition was to perform repairs to the currently owned pumping engines versus replacing them with either new or used units. Four different vendors were requested to examine and quote the repair of the pumping engines. The results of those evaluations are outlined and summarized in the supporting documents of this request.

To complete the remediation portion of the Fleet Restoration Proposal, I am respectfully requesting this honorable board's approval to expend a not to exceed amount of \$150,000.00 to refurbish and repair these two pumping engines. This value obviously exceeds the prices that are quoted by the vendors engaging in the repairs of the vehicles. The inflation of the request stems from the fact that the prices provided are only estimates of the materials labor and components needed to perform the repairs, not firm and final quotations. From my previous experience with the remediation of corrosion, I know it prudent to anticipate additional expenses after the vehicles are disassembled and the sand blasting process reveals additional damage to components and systems. To effectively manage the repairs of the vehicles and ensure that the vehicles have the shortest out of service time possible, adding a cushion to the account is a key requirement of this project. Utilizing round numbers, the \$150,000.00 project cost has an 11% buffer over a summation of the individual project cost components. Yet when compared to the cost estimate provided by the refurbishment division of the original equipment manufacturer of

\$255,250.00 we are budgeting less than half that amount to complete this project with non-o.e.m. vendors as can be seen in the Pierce Refurbishment Center quote dated May 12<sup>th</sup> 2016.

Summation of provided pricing:

Three external vendors were engaged for the pricing of this project and one internal, the West Allis City Yards. One private vendor, Futureworks of Eldorado WI declined to quote after seeing pictures of the required repairs. The scope of the repairs also exceeds the current capabilities of the West Allis City Yards so it was not possible to do this work internally. Pierce Fire Apparatus has a detected refurbishment division and the pricing they submitted for the engines is attached for comparison. The corrosion repair work on Engine 63 the 2010 Pierce Impel will be performed by Marengo Auto Body of Marengo, IL as quoted. The hose bed removal; water tank cradle repair corrosion repair and fabrication work on Engine 61 the 2005 Pierce Dash will be completed by Custom Fab and Body Works of Marion, WI. The emergency lighting upgrades and repairs to the scene lighting for both Engine 61 and Engine 63 will be completed by Emergency Lighting and Electronics of Waukesha, WI. By dividing the work among the vendors we were able to get the best possible pricing for each vehicle and system to be repaired.

The best price quotes from each vendor are attached as references to this document.

Approval of this request will allow for the immediate scheduling and launch of this project and will prevent any further delay. The sandblasting portion of the repairs is performed outside at both vendors and inhospitable fall weather can lead to additional delays and cost increases for the project. Your board's approval will authorize the escrowed funds to be released as the funding for this portion of the fleet project was secured from last year's budget by earmarking carryover funds from salary savings in 2016.

In conclusion, I respectfully request this honorable board's consideration to accept the request to authorize the sum of \$150,000.00 (One Hundred Fifty Thousand Dollars and Zero Cents) to complete the repair and remediation of WAFD pumping engines 61 and 63 by the multiple vendor's referenced in the supporting documentation.

Sincerely & Respectfully,



Kurt W. Zellmann  
Assistant Fire Chief  
City of West Allis Fire Department

Accepted & Signed:  \_\_\_\_\_ PFC President Ms. Amy Herron

Date: August 17<sup>th</sup> 2017



## **FIRE APPARATUS FLEET RESTORATION PROPOSAL**



# **EXECUTIVE SUMMARY**

## **WAFD FLEET RESTORATION PROPOSAL**

**DATE:** September 13<sup>th</sup> 2016

**PREPARED FOR:** The Honorable West Allis Police & Fire Commission

**PREPARED BY:** Assistant Chief Kurt W. Zellmann

**BACKGROUND:** Beginning in mid-2014 I undertook the task of evaluating the department's needs for the budgeted and scheduled purchase of a new fire engine. During this assessment I became aware of a number of significant shortcomings and flaws with the current apparatus fleet. The most concerning and critical issue identified is the presence of substantial structural corrosion on the frames and structural components of two current front line apparatus, Truck 62 a 2003 Pierce 105' Aerial Ladder and Engine 61 a 2005 Pierce Pumping Engine. The corrosion has progressed to the point on both of these rigs that per the manufacturer, both units are in danger of being condemned and or in the case of the ladder not passing certification of the aerial device. A third front line unit, Engine 63 a 2010 Pierce Pumping/Rescue Engine is in the beginning stages of frame deterioration and needs to be remediated in order to have any hopes of the vehicle reaching anywhere near its projected service life.

The extent of the corrosion on Truck 62 unfortunately negates the option of refurbishment. A representative of Pierce, the original equipment manufacturer, has provided an estimate for the task and that estimate currently exceeds the market value of the apparatus. No other non-OEM vendors would even provide an estimate due to the extensive nature of the restoration work that would be required to restore the apparatus. This vehicle will not be able to provide service for its originally projected life cycle and needs to be replaced in short order.

Engine 61 is nearly in the same position as Truck 62. The corrosion on the frame, on the main rear suspension members and on the water tank retention cradle is so significant that if structural members were "officially" evaluated by the OEM it would result in the condemnation of the vehicle frame and an order to remove the vehicle from service.

Engine 63 is "savable" but not without a fairly sizable investment in a body off refurbishment of the front intake plumbing, the main vehicle frame, main frame cross members, tank cradle and numerous other bolt on components. The refurbishment must take place in the near future or the damage will continue to progress and the cost of the refurbishment will continue to rise.

**THE PROPOSAL MOVING FORWARD:** Unfortunately, there is no do nothing option in this dilemma. Action must be taken to mitigate this predicament. I have invested significant time and research in order to develop what I believe is the most economically prudent and long term viable solution to this situation. Regrettably it is by no means a cheap fix. Due to the critical nature of this equipment and the continually increasing stress of utilization that is being put on it the apparatus, a solution must address both immediate and long term needs of the fleet.

I recommend that we begin the process to acquire two new apparatus to replace current Truck 62 and current Engine 61. I recommend that we engage two non-OEM vendors to refurbish both current Engine 61 and Engine 63 at the earliest possible date based on the vendor's availability. I recommend that we begin the search for a used aerial device and upon purchase of the used aerial device and after the receipt of the new aerial device we dispose of the two current two aerial units, the 2003 Pierce and 1991 Seagrave. Upon completion of the refurbishment of Engine 63 it will return to front line service until 2020 when it will move to reserve status. Upon completion of the refurbishment of current Engine 61, it will go immediately to reserve status and we will dispose of the current Engine 65 a 1994 Pierce Pumper.

**COST AND UTILIZATION:** Below is a graphical presentation of the above described proposal.

**Capital Required**

New E61	\$565,000	<i>Estimate</i>
New T62	\$1,450,000	<b>MAXIMUM</b>
Refurb E63	\$50,000	<i>Estimate</i>
Refurb E61	\$155,000	<i>Estimate</i>
Used T63	\$395,000	<b>MAXIMUM</b>
	<b>\$2,615,000</b>	Total

**FLEET SERVICE YEARS:** The following graphic depicts the proposed and current industry standard for the retention and replacement of fire apparatus. The current WAFD utilization model of 25 years of service for an Engine and 27 years of service for an aerial device is simply not realistic or economically viable due to both the high utilization and exponentially more complex and technologically advanced apparatus produced today.

**Proposed Plan E 10-15 / T 15-20**

Rig	Current Model Year	To Reserve Fleet	Out of Fleet	Future Purchases	
				Rig	Year
Engine 61	2017	2027	2032	Engine 63	2020
Engine 62	2016	2027	2032	Engine 61	2027
Engine 63	2010	2020	2025	Engine 62	2027
Truck 62	2017	2032	2037	Truck 62	2032
R-E64	1999	N/A	2020		
R-E65	2005	N/A	2027		
R-T62	Est 2007	N/A	2032		

**FUTURE ASSURANCES:** A paramount question that must be addressed is what is preventing a situation like this from occurring again. I can assure you that multiple controls are well on their way to being in place to prevent any sort of similar reoccurrence in the future. The most important being preventative measures. First the rigs are being specified for not only the current level of utilization but predicted future utilization as well. Design for corrosion resistance is of paramount concern for any new apparatus acquired. In station corrosion prevention through the utilization of weekly applied corrosion inhibitors and neutralizers in the winter months, required complete bi-annual flushing, inspection and documentation of the under sides of the apparatus per the OEM’s specifications and documentation of corrective actions needed based on the inspection. Other preventative measures include the analysis of EMD dispatches and the determination of appropriate utilization. We are working to analyze if we can safely reduce the deployment of the vehicles based on historic EMD data. If the data shows that a significant portion of the time the heavy apparatus has not been utilized then we will remove it from the initial assignment to prevent unwarranted wear and tear or exposure.

**REQUESTED ACTION STEP:** Based on the Police and Fire Commission review of this report, I would request verbal permission and direction to formally proceed with the execution of this proposal and begin the process of acquiring formal bids for the acquisition of a new aerial device and pumping engine, as well as the formalization of refurbishment quotes for current Engine 61 and current Engine 63 and the search for a used aerial device to serve as a reserve unit. Concurrent to the formalization of this proposal, I will continue discussions with the city administrator, the finance department and the Common Council through the current budgeting process to determine what will be the most economically viable means to ultimately secure funding for this required corrective action.

**SUPPORTING DOCUMENTATION:** Below this line are a series of links documenting the corrosion on all of the above referenced apparatus. Please feel free to view the albums and ask any questions that you may have.

**Engine 61- 2005 Pierce**

<https://flic.kr/s/aHskm3ZNKU>

**Engine 63 – 2010 Pierce**

<https://www.flickr.com/gp/136335458@N06/N5Zi63>

**Truck 62- 2003 Pierce**

<https://flic.kr/s/aHskkgFAov>

**It's not just WAFD with this issue- a 2007 Pierce Platform I inspected – Much lower run volume department than WAFD. They go on 2500 runs a year out of 5 stations as compared to 9500 runs from 3 stations.**

<https://flic.kr/s/aHskFDp3Ky>

**ATTACHED DOCUMENTATION:**

**Document 1** is a copy of a letter that the City of Mequon Fire Department Received from the current apparatus OEM regarding a rescue truck they had officially inspected. The cost of re-framing the rig exceeded the market value and the vehicle was subsequently removed from service and disposed of.

**Document 2** is a copy of the refurbishment quote WAFD received from the OEM regarding initial budgetary numbers for our impacted apparatus. After additional discussions it was determined that the estimates could likely increase by up to 30% based on what other issues may be discovered upon tear down of the apparatus. There is very little chance that the quotes would be under the numbers provided.

Respectfully submitted,



Kurt W. Zellmann  
Assistant Chief  
West Allis Fire Department  
[kzellmann@westalliswi.gov](mailto:kzellmann@westalliswi.gov)  
Cell 262-483-2573 | Office 414-302-8910

Pierce Manufacturing Inc.

AN OSHKOSH CORPORATION COMPANY • ISO 9001:2000 CERTIFIED



2600 AMERICAN DRIVE  
POST OFFICE BOX 2017  
APPLETON, WISCONSIN 54912-2017  
920-832-3000 • FAX 920-832-3208  
www.piercemfg.com

May 28, 2015

Mr. Alan Boushley  
Re: Mequon FD, Pierce unit 12976

Dear Alan:

This brief letter is in regards to the frame corrosion you described to me on job 12976.

The loss of frame rail thickness can be up to 30 percent of the original frame thickness and still provide acceptable strength. In this case I believe your inspection revealed a main frame thickness of 0.013 inches in some locations between the rear bracket of the front suspension and the forward body mounting angle. The main frame on this chassis is 0.031 inches so if only 0.013 inches is available, it is beyond our recommendations and the truck should not be in service until the frame rails are replaced.

Salt and other anti-ice chemicals that are spread on our roadways greatly accelerate this type of corrosion. To stop or significantly slow down this corrosion we recommend that the customer start using a corrosion inhibitor on the rest of their apparatus and on this unit after the rails are replaced. Pierce has been working with a product called Carwell and has found that it will coat the frame and related parts to stop crevice and surface corrosion. If they would like to know more about this product and process, have them contact their Pierce dealer for application of this product prior to the winter months.

Let me know if you need any further information.

Tom Furdek

A handwritten signature in cursive script that reads "Tom Furdek".

Chief Principal Engineer  
Pierce Customer Service

Cc: Job file for 12160



## Midwest Regional Refurbishment Center

816 Commercial Avenue  
Weyauwega, WI 54983 Phone 920-867-2142  
Fax 920-867-2624

May 12, 2016

To: Kurt Zellmann  
Assistant Chief of Emergency Medical Services

From: Alan Boushley

Subject: Estimated refurbishment pricing for West Allis emergency units. Velocity pumper #22598TR, Dash 2000 pumper #16660, Dash 2000 Aerial #14452TR.

The following estimates include labor and material.

### **VELOCITY PUMPER #22598TR**

Sandblast frame rails, replace crossmembers, air tanks, air regulators, mounting substructures and replace Pole lighting

**BUDGETARY FIGURE: \$83,370.00**

50% Paint warranty is left on #22589

### **DASH 2000 PUMPER #16660**

Replace DOT/Emergency lights to LED, sandblast frame rails, replace crossmembers, air tanks, air regulators, mounting substructures, Pole lighting, complete cab and body repaint.

**BUDGETARY FIGURE: \$171,837.00**

### **DASH 2000 AERIAL 105' #14452**

Replace DOT/Emergency light to LED, sandblast frame rails, replace crossmembers, air tanks, air regulators, mounting substructures, Pole lighting, complete cab and body repaint, aerial ladder overhaul, corrosion repair torque box.

**BUDGETARY FIGURE: \$388,287.00**

Al Boushley  
Contract Administrator-Refurbishment  
[aboushley@piercemfg.com](mailto:aboushley@piercemfg.com)  
Phone 920-867-2142 ext. 38677  
Cell 920-636-5566

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158 US Hwy 45, P.O. 125, Marion, WI 54950  
Phone (715)-754-5316 ~ Fax (715)-754-2903 E-mail:  
sales@cfbody.com Visit us at: [cfbody.com](http://cfbody.com)

## QUOTATION FOR FIRE APPARATUS

QUOTATION PREPARED BY: Joseph A.  
Stuhr QUOTATION REFERENCE #:  
EV1814

TO: West Allis Fire Dept.  
7332 W. National Ave  
West Allis, WI 53214

DATE: July 14, 2017  
ATTENTION: AC Chief Zellmann  
PHONE: (414) 302-8900  
FAX: (414) 302-8927

*Authorized CFB Project Representative on this Proposal is: Gary Bogenschutz*

We are pleased to quote you the following, subject to the standard terms of Custom Fab & Body LLC

West Allis, WI Fire Department  
2005 Pierce Dash Pumper Refurbishment

The following quote is for the refurbishment of a 2005 Pierce Dash pumper for the West Allis, WI Fire Department. The apparatus shall be delivered and picked up when finished @ our manufacturing facility in Marion, WI by fire department representatives. The balance of the apparatus shall be paid for in full to Custom Fab & Body LLC at the time of delivery/pickup at our facility, FOB Marion, WI, net cash before it leaves our facility. Current lead time on the refurbishment is 90-120 days after receipt of the apparatus to our Marion, WI facility.

*Any additional items discovered during the refurbishment process that need service or repair will be brought to the attention of the fire department prior to any work commencing on these items. Examples of these items include and not limited to electrical wiring, pump, plumbing (both intake and suction), valves, axle brackets/mounts, suspension components, brakes, etc. Approval will be required by the fire department and will be subject to a Change Order and additional repair charges.*

## Items to be addressed

### Frame Rust Repair and Re-Coat

Remove the hose bed and water tank from the apparatus body Remove the apparatus body from the chassis. Pressure wash the chassis, pump, pump module and apparatus body

Send vehicle to Accurate Alignment to descale and inspect the chassis frame rails and to recoat the chassis frame rails and components with rust inhibiting black paint, TAK-4 Suspension bracketry scaled and painted, rear suspension to be rebushed, check front alignment and set toe-in and align rear axle.

\*NOTE: Quote does not include new crossmembers (if needed upon thorough inspection) and any additional damage.

Reinstall apparatus body

Reinstall the water tank and apparatus hose bed with any dividers

Clean and detail the cab interior and inspect for any possible repairs needed

Clean and detail exterior of the cab and body and prep for delivery.

*Cost: \$51,550.00*

### Replace Tank Cradle

The present tank cradle shall be removed and replaced, and shall be fabricated per the water tank manufacturer's specifications. The cradle shall be fabricated using a common material as the apparatus body. Included shall be ¼" and ½" fiber reinforced rubber to tank cradle and supports. The new cradle shall be properly finish coated with rust resistant paint.

*Cost: \$3,125.00*

### Install Trident Air Prime

The current electric pump priming system shall be removed and replaced with a customer specified "Compressed Air Type" pump priming system manufactured by Trident Emergency Products. The priming actuator shall be manual in operation and have a bezel that includes a vacuum gauge. The customer shall be consulted regarding placement of the actuator and gauge on the operators pump panel. If the new primer installation results in abandon holes from previous primer installation, aesthetically pleasing block off plates shall be placed over the abandon holes.

*Cost: \$2,912.00*

### Replacement of Neuay Suspension Brackets – IF NEEDED

Removal and replacement of the left and right Neuay AD123 front frame carrier brackets if found to be structurally compromised after removal of corrosion.

*Cost: \$2,200.00*

OPTION A – Emergency Lighting Update

Supply and install a Whelen model F4W7RRRR 72” Freedom fully populated light bar w/ LED Emitter  
Supply and install two (2) Whelen model F4MINI 21 ½” Freedom light bars  
Supply and install four (4), two (2) each side, Whelen 50R03ZRR LED flashers at the front cab corners  
Supply and install two (2) Whelen model L31HRFN LED beacons  
Supply and install two (2) Whelen model 6RBRC LED Rota Beam lights in front light cluster  
Supply and install ten (10) Whelen model 60R02FRR LED flashers at low-level warning locations  
Supply and install seven (7) LED clearance lights  
Supply and install common LED underbody and step lights where common lights are not available  
Tecniq EON3 LED lights shall be utilized  
Supply and install two (2) Fire Research Spectra, model SPA100-Q20, lightheads with model 530 telescoping poles and the proper locations on the apparatus  
Supply and install one (1) Fire Research Evolution II, model FCA100-V20, light head with model 800 brow mount light bracket at the proper location on the cab  
Supply and install two (2) Fire Research Spectra, model SPA900-Q65, LED scene lights at the rear panel of the apparatus body, one (1) each side

*Cost of Option A: \$29,781.00*

*Total cost #1 (Minus Option A) \$59,787.00*

*Total cost #2 (Including Option A) \$89,586.00*

Customer Selects:

Total Cost #1) \_\_\_\_\_

Total Cost #2) \_\_\_\_\_

Sincerely,

Joe Stuhr  
Inside Sales  
Custom Fab & Body LLC



# Emergency Lighting & Electronics, LLC.

S40 W24211 Rockwood Way  
 Waukesha, WI 53189  
 Office: 262-613-2061 x103  
 Fax: 262-299-6425

GitLit.com

# Estimate

Date 10/10/2016

Estimate # 1102

Name / Address
West Allis Fire Department 7332 W National Ave West Allis, WI 53214

Description	Qty	Rate	Total
Engine 61 Lighting Rehab:			
72" Freedom 4 WeCan Lightbar, Fully Loaded to the front and sides with LED Preemption.	1	4,834.38	4,834.38
Whelen 600 Linear Super-LED Flash, Red.	10	139.68	1,396.80
Whelen 500 Series TIR6 Super LED Red, with Red Lens. Mounted for intersection warning.	4	118.24	472.96
Whelen 500 TIR Surface Mount Kit, Chrome.	4	12.38	49.52
L31 Super-LED Flat Mount, Red. Upper rear warn.	2	449.25	898.50
L31 Aluminum Bases fro Mounting.	2	45.00	90.00
Whelen 600 Series Surface Mt Rota-Beam, Red.	2	293.04	586.08
TecNiq S36 Amber PC Sidemarker.	7	5.85	40.95
TecNiq S35 2-Pole Sure-Seal.	7	2.23	15.61
TecNiq Eon Horizontal Case SS.	15	2.47	37.05
TecNiq Eon, White.	15	21.45	321.75
EON Stainless Light Bracket.	9	20.00	180.00
LED Scenelight, Spectra, 75W 12-30V, Surface.	2	429.38	858.76
FRC SPA530-Q20 Telescoping Lights.	2	1,469.29	2,938.58
FRC Brow Light- FCA800-V20.	1	1,309.15	1,309.15

Estimate numbers for reference.

**Subtotal**  
**Sales Tax (0.0%)**  
**Total**

Approval Signature & Date:



# Emergency Lighting & Electronics, LLC.

S40 W24211 Rockwood Way  
 Waukesha, WI 53189  
 Office: 262-613-2061 x103  
 Fax: 262-299-6425

GitLit.com

# Estimate

Date 10/10/2016  
 Estimate # 1102

Name / Address
West Allis Fire Department 7332 W National Ave West Allis, WI 53214

Description	Qty	Rate	Total
FRC Shipping Costs for Pole Lights.	1	105.00	105.00
Misc equipment needed for installation: Wire, Loom, Connectors, CNC Brackets for LB, Circuit Protection, Etc.	1	450.00	450.00
Installation of equipment listed above onto Engine 1.	1	4,500.00	4,500.00

Estimate numbers for reference.	<b>Subtotal</b>	\$19,085.09
	<b>Sales Tax (0.0%)</b>	\$0.00
	<b>Total</b>	<b>\$19,085.09</b>

Approval Signature & Date: \_\_\_\_\_

We accept Cash, Checks, and Visa and Mastercard payments.  
 Due to the limited number of credit cards processed and In order to keep our costs from increasing, all credit card payments will incur the Credit Card Processing Fee. This cost will be added to the total amount shown on this estimate.

Swiped entries are 2.4% + \$0.25 per each transaction.  
 Manually entered cards are 3.4% + \$0.25 per each transaction.

07-28-17

**PROPOSAL FOR**  
**FIRE APPARATUS REPAIR**

WE ARE PLEASED TO PROPOSE ON FRAME AND BODY PAINT  
REPAIRS ON YOUR 2010 PIERCE IMPEL PUMPER

**PIERCE JOB NUMBER 22518**

**COSTS FOR REPAIRS**

**\$35,500.00**

PRICE INCLUSIVE OF LETTERING AND STRIPING REMOVED DURING REPAIR

DELEVERY WITHIN 45-60 DAYS AFTER SCHEDULING

FULL PAYMENT DUE UPON FINAL INSPECTION @ MAB

07-28-17

Marengo Auto Body proposes to perform frame rust and paint repair and reconditioning on the following:

WAFD 2010 PIERCE IMPEL

JOB # 22518

Per Enclosed specifications

FRAME CORROSION

The frame and underside of the apparatus shall be thoroughly pressure washed and de-greased, removing all road grime and salt build up.

After the unit has been thoroughly cleaned, the underside shall be de-scaled of all rust and corrosion along the frame rails, under body supports and panels.

This shall include the following:

FRAME RAILS AND CROSSMEMBERS (full length)

AIR RESERVOIRS AND BRACKETS

UNDERBODY PANELS AND SUPPORTS

ALL WHEEL HOUSE LINERS AND BRIGHT FENDER WORK

FRONT SUCTION PIPING AND BRACKETS

FRONT AND REAR SUSPENSION STRUCTURE AND SUPPORTS

AIR STORAGE TANKS AND BRACKETS

FUEL TANK AND STRAPS

*Note: Per WAFD instructions, the rub strips shall be removed from the edge of the frame rails and discarded. In places where wiring, hoses and other items may have wear points, isolation shall be properly provided.*

After all prep work is complete; the underside of the unit shall be re-coated with a special Pittsburg paint product material, specially formulated for severe exposure areas.

07-28-17

The PPG material shall be:

**PPG PITT-GUARD EPOXIE MASTIC COATING**

Care shall be taken not to coat the engine, transmission, PTO pumps and drive shafts or other areas that need to be identified for service.

Parts that need replacement, not included in the original estimate shall be immediately brought to the fire department's attention for evaluation.

**CAB AND BODY REPAIR**

All items such as warning lights, fender crowns and wheel liners shall be removed and re-installed with proper isolation after the finish coats have been re-applied.

A high quality polyurethane finishing system shall be utilized. A "Clear Coat" paint finish shall be provided to provide greater protection to the quality of the exterior paint finish.

All removable items, such as brackets, compartment doors, etc. shall be painted separately to ensure paint finish behind the mounted items.

The body shall be finish sanded and prepared for final paint. Upon completion of the final preparation, the body shall be painted utilizing the highest quality state of the art polyurethane base paint.

The cab and body shall be thoroughly inspected. The following areas shall be repaired:

The right hand side cab sheet, inclusive of both of the cab doors and wheel house shall be dis-assembled and re-painted below the white paint.

The left hand side cab sheet, inclusive of the rear cab door and wheel house shall be dis-assembled and re-painted below the white paint.

The front cab and front radius and rear of the apparatus shall remain as is.

The complete right side rear body shall be dis-assembled, corrosion removed, properly prepped and re-painted.

The complete left side rear body shall be dis-assembled, corrosion removed, properly prepped and re-painted.

The rear ladder door shall be replaced. A rub rail shall be provided to protect the door and ladder from wear due to road miles.

All the roll up doors shall be removed and replaced on the body with new doors provided by the fire department.



**07-28-17**

*The paint color match for the roll up doors shall be approved by the WAFD and MAB before installation of said roll up doors. Do to the fact that these doors have been provided as a warranty replacement and have come finished painted, re-painting the doors (if the color doesn't match) is not included in the price of the rest of the refurbishment.*

New steel wheels shall be provided by the WAFD and they shall be finish painted and shipped loose for mounting of new tires at a later date.

**LETTERING AND STRIPING**

Matching replacement lettering and striping shall be provided to replace the lettering removed during the repair.

**WARRANTY**

**FINISH PAINT WARRANTY**

**1- YEAR**

**UNDER BODY RE-FINISHING**

**6-MONTHS**



# Emergency Lighting & Electronics

S40W24211 Rockwood Way  
 Waukesha, WI 53189  
 262-613-2061

GitLit.com

# Estimate

Date 10/14/2016

Estimate # 1113

Name / Address
West Allis Fire Department 7332 W National Ave West Allis, WI 53214

Description	Qty	Rate	Total
Engine 3 Lighting Rehab:			
Whelen 600 Series Surface Mt Rota-Beam, Red.	2	293.04	586.08
LED Scenelight, Spectra, 75W 12-30V, Surface.	2	429.38	858.76
Four Outlet, Four Channel LED Flasher.	1	64.08	64.08
FRC SPA530-Q20 Telescoping Lights.	2	1,469.29	2,938.58
FRC Brow Light- FCA800-V20.	1	1,309.15	1,309.15
Whelen 500 Series TIR6 Super LED Red, with Red Lens.	4	118.24	472.96
Whelen 500 TIR Surface Mount Kit, Chrome.	4	12.38	49.52
Misc equipment needed for installation of equipment listed above.	1	275.00	275.00
Installation of equipment listed above including re-programming of all warning lights.	1	3,500.00	3,500.00

Estimate numbers for reference.	<b>Subtotal</b>	\$10,054.13
	<b>Sales Tax (0.0%)</b>	\$0.00
	<b>Total</b>	<b>\$10,054.13</b>

Approval Signature & Date: \_\_\_\_\_

We accept Cash, Checks, and Visa and Mastercard payments.

Due to the limited number of credit cards processed and In order to keep our costs from increasing, all credit card payments will incur the Credit Card Processing Fee. This cost will be added to the total amount shown on this estimate.

Swiped entries are 2.4% + \$0.25 per each transaction.

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