

TEMCO

HH
11.6.2012

JUSTIFICATION FOR NON-COMPETITIVE PROCUREMENT

COMPLETE THIS SECTION IF NEW CONTRACT(S)

For contract(s) in this request, answer applicable questions in each of the 4 major subject areas below in accordance with the Instructions for Preparation of Non-Competitive Procurement Form on the reverse side.

Request that negotiations be conducted only with Temco Machinery Inc. (The authorized distributor/contractor for Oshkosh Corporation) for the product and/or services described herein.

This is a request for: (One-Time Contract Per Requisition # 73951 ^{Spec # 110489}), copy attached) or Term Agreement or Delegate Agency (Check one). If Delegate Agency, this request is for "blanket approval" of all contracts within the _____ (Attach List) Pre-Assigned Specification No. _____ (Program Name) Pre-Assigned Contract No. _____ (Name of Person or Firm)

COMPLETE THIS SECTION IF AMENDMENT OR MODIFICATION TO CONTRACT

Describe in detail the change in terms of dollars, time period, scope of services, etc., is relationship to the original contract and the specific reasons for the change. Indicate both the original and the adjusted contract amount and/or expiration date with this change, as applicable. Attach copy of all supporting documents. Request approval for a contract amendment or modification to the following:

Contract #: _____ Company, or Agency Name: _____

Specification #: _____ Contract or Program Description: _____
Mod #: _____ (Attach List, if multiple)

Richard Edgeworth 773-686-2397 [Signature] CDA 8-3-12
Originator Name Telephone Signature Department Date

Indicate SEE ATTACHED in each box below if additional space needed:

() PROCUREMENT HISTORY

I. Describe the requirement and how it evolved from initial planning to its present status.

It is our objective to acquire two 4500-gallon Aircraft Rescue and Fire Fighting (ARFF) vehicles with a high reach extendible turret (HRET) and an ARFF Vehicle Training Simulator that allows vehicle drivers/operators to become familiar with, and enhance the skills necessary for, actual hands-on operation of an Oshkosh Striker 4500 ARFF vehicle equipped with a 65' HRET.

Total capacities of each vehicle are to include 4500 gallons of water, 630 gallons of Aqueous Film Forming Foam (AFFF), a 500 pound dry chemical agent system and a 460 pound Halotron I clean agent system as defined in the Federal Aviation Administration Advisory Circular #150/5220-10E.

The apparatus will meet the requirements of both FAA Advisory Circular 150/5220-10E and the current National Fire Protection Association (NFPA) Standard 414as well as complying with any and all Federal, State, DOT and local regulations, standards and laws governing commercial vehicles as well as fire apparatus.

These vehicles will provide Aircraft Rescue and firefighting (ARFF) personnel at O'Hare International Airport (ORD) the capability of meeting Federal Aviation Regulation (FAR) Part 139.319 operational requirements that include the establishment of rescue paths for escaping passengers and crew, and increasing the survivability of interior conditions utilizing the High Reach Extendible Turret (HRET). Currently, existing ARFF equipment at O'Hare International Airport cannot extend to the uppermost passenger cabins of either the Boeing 747 or the Airbus A-380 type aircraft which are already servicing or are anticipated to service O'Hare in the very near future. These 4500-gallon apparatus will provide 18 minutes of application time when committed to an interior fire suppression and rescue operation utilizing the HRET.

The Federal Aviation Administration allows for one HRET equipped vehicle per station at each FAR Index B through E airport.

Currently, several U.S airports are equipped with these 4500 gallon apparatus including Anchorage, Phoenix, San Francisco, Denver, Fort Lauderdale, Indianapolis, Boston, Las Vegas, Portland, Oregon and Dallas/Fort Worth. Numerous international airports are also equipped with these apparatus.

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2. Is this a first time requirement or a continuation of previous procurement from the same source? If so, explain the procurement history.

This is a first time requirement for this size of apparatus. Previous procurement for the smaller apparatus has been obtained from this contractor through competitive bidding.

3. Explain attempts made to competitively bid the requirement. (Attach copy of notices and list of sources contacted).

There are a limited number of vendors that manufacture ARFF vehicles. These include Oshkosh Truck, Rosenbauer, Emergency One and KME. The Chicago Fire Department contacted all of these vendors to inquire if they could manufacture a vehicle that would be capable of meeting our operational needs and all except Oshkosh responded that they do not.

4. Describe all research done to find other sources. (List other cities contacted, companies in the industry contacted, professional organizations, periodicals and other publications used).

- *Cities contacted include Anchorage, Phoenix, San Francisco, Denver, Fort Lauderdale, Indianapolis, Boston, Las Vegas, Portland, Oregon and Dallas/Fort Worth.*
- *Companies in the industry contacted were Oshkosh, Rosenbauer, Emergency One and KME.*
- *The "ARFF Working Group" a professional organization dedicated to ARFF services, was utilized for gathering information. This organization holds an annual conference where we were able to meet with vendors from all of the above mentioned vendors.*
- *The "ARFF Working Group" also publishes a magazine that addresses issues in the ARFF field which includes vendor information.*

5. Explain future procurement objectives. Is this a one-time request or will future requests be made for doing business with the same source?

There will be continued need for this apparatus and upon expiration of this contract, future request will be competitively bid if other manufacturers begin producing this size and type of apparatus.

6. Explain whether or not future competitive bidding is possible. If not, why not?

Currently, there are no manufacturers that build a unit of this size and capabilities except Oshkosh Truck Corp. Through dialogue with ARFF vehicle manufacturer and colleagues in the ARFF profession, there is a rumor and speculation that Rosenbauer and KME may enter the 4500-gallon vehicle market sometime in the future.

() ESTIMATED COST

1. What is the estimated cost for this requirement? (or for each contract, if multiple awards contemplated?) What is the funding source?

*Cost of each unit will be approximately \$1,578,800.00
Cost of the drivers simulator is \$244,450.00.*

2. What is the estimated cost per fiscal year, if the job contract or program covers multiple years?

*We currently have funding for two (2) vehicles
Funding will be sent to 2FM at a later date.*

3. Explain the basis for estimating the cost and what assumptions were made and/or data used? (i.e. budgeted amount, previous contract price, current catalogue or cost proposal from firms solicited, engineering or in-house estimate etc.)

The cost of these units is based on a price supplied to us by Temco Machinery Inc, the vendor for Oshkosh Truck Corp. This figure accurately reflects costs incurred by other cities when purchasing units similar to our requested vehicles.

4. Explain whether the proposed Contractor or the City has a substantial dollar investment in original design, tooling or other factors which would be duplicated at City expense if another source was considered. Describe cost savings or other measureable benefits to the City which may be achieved.

There are none.

5. Explain what negotiation of price has occurred or will occur. Detail why the estimated cost is deemed reasonable.

The figure provided to us from Temco Machinery Inc. is within very close proximity to that paid by other agencies that have purchased similar apparatus. These costs have been identified by Chicago Fire Department personnel who have contacted representatives from these other department s.

() SCHEDULE REQUIREMENTS

1. Explain how the schedule was developed and at what point the specific dates were known.

Schedule has not been developed and dates have not been assigned.

2. Is lack of drawings and/or specifications a constraining factor in competitive bidding? Is so, why is the proposed Contractor the only person or firm able to perform under these circumstances? Why are the drawings and specifications lacking? What is the lead time required to get drawings and specifications suitable for competition? If lack of drawings and specifications is not a constraining factor to competitive bidding, explain why only one person or firm can meet the required schedule.

Currently, there are no other companies that manufacture an aircraft rescue and firefighting vehicle of this size and capability. There are no manufacturers prepared to manufacture this type of vehicle in the foreseeable future.

3. Outline the required schedule by delivery or construction dates and explain the reasons why the schedule is critical.

It is requested by CFD that these vehicles be ordered, manufactured and delivered in the shortest time possible. We currently have multiple operations of Large Frame Aircraft (LFA) at O'Hare airport.

As of three months ago, the newest and largest of the Boeing 747 fleet, the B-747-8 began operations at O'Hare airport, and we have been notified that O'Hare is now listed as a diversion airport for several international carriers operating the Airbus A-380 into the United States while some carriers are planning to start service into O'Hare with their Airbus A-380 aircraft.

4. Describe the detail what impact delays for competitive bidding would have on City operations, programs, costs and budgeted funds.

Any delays of deliveries of these vehicles will impact the level of fire protection and life safety protection provided to the passengers and crew of the aircraft servicing O'Hare International Airport.

() EXCLUSIVE OR UNIQUE CAPABILITY

1. If contemplating hiring a person or firm as Professional Service Consultant, explain in detail what professional skills, expertise, qualifications, and/or other factors make this person or firm exclusively or uniquely qualified for the project. Attach a copy of the cost proposal, scope of services, and temporary consulting services form.

Not applicable

2. Does the proposed firm have personnel considered unquestionably predominant in the particular field?

Not applicable

3. What prior experience of a highly specialized nature does the person or firm exclusively possess that is vital to the job?

Not applicable

4. What technical facilities or test equipment does the person or firm exclusively possess of a highly specialized nature is vital to the job?

Not applicable

5. What other capabilities and/or capacity does the proposed firm possess which is necessary for the specified job, project or program which makes them the only source who can perform the work within the required time schedule without unreasonable cost to the City?

Oshkosh Truck is the only company that currently manufactures this apparatus.

6. If procuring products or equipment, describe the intended use and explain any exclusive or unique capabilities, features and/or functions the items have which no other brands or models etc. possess. Is compatibility with existing equipment critical from an operational standpoint? Explain why.

"HRET" description;

A High reach Extendable Turret (HRET) is an articulating and/or telescoping aerial device mounted on the ARFF vehicle. It provides extended vertical and horizontal positioning of the turret. It has two very different turrets, or nozzles, mounted on it. A mass application nozzle that discharges a water or finished foam agent at a rate of 600-1200 gallons per minute used to knock down and extinguish exterior fuel fires, and a piercing nozzle designed to penetrate into the passenger cabin of an aircraft, an aircraft engine, a cargo hold, or a radio or electronics compartment and apply 250 gallons per minute of water/foam or Halotron I (a clean agent used in combating fires in confined spaces).

The arrival of the new Airbus A-380 and the Boeing 747 family of aircraft bring the necessity to provide new advanced firefighting tactics and equipment to provide more efficient fire suppression capabilities and additional time to perform rescue services to passengers and crew.

The A-380 and Boeing 747 family have a major design feature in common, an upper deck for passenger seating. In the event of a

fire involving the upper deck, a rapid introduction of a cooling or extinguishing agent would provide a better chance of survival to anyone on the upper deck.

Currently, the approximate height of the upper deck of the A-380 and B-747 from the ground to the upper deck sill is 27', and to the roof of the aircraft is approximately 34', and this does not include the "stand-off" distance required to keep the vehicle a safe distance from the aircraft. The total reach of our existing HRET is 50' which does not allow us the ability to reach the floor height of the upper deck, let alone the ceiling while keeping a safe stand-off distance.

A new 65' model of HRET is available at this time that has been tested and approved by the FAA. These 65' HRET's are now in service at several airports around the world and are capable of penetrating into an aircraft upper deck cabin and providing foam/water into the cabin in a rapid time frame.

Federal Aviation Administration Testing

The FAA, after extensive live fire testing, has stated that new equipment such as an HRET with a skin penetrating nozzle mounted on an airport rescue firefighting vehicle could extinguish fires faster, apply firefighting agent more accurately on fires, and possibly save passengers lives as a result. The skin penetrating nozzle used on the full-scale fire field test showed the ability to control and contain the fire from spreading beyond the tail section, reduced high cabin temperatures from over 1500 degrees to approximately 250 degrees, provided rapid smoke ventilation, and the displayed the ability to extinguish the fire.

Benefits Anticipated

Benefits anticipated by this acquisition include but are not limited to the following;

- 4500-gallon vehicles will provide ARFF personnel with additional agent and efficiently meet the Tactical Control Area (TCA) and Practical Control Area (PCA) requirement sin FAA Advisory Circular 150-5210-6D "Aircraft Fire Extinguishing Agents.
- The HRET will provide ARFF personnel the opportunity to introduce a cooling/extinguishing agent into the cabin area of an aircraft to provide a more survivable atmosphere for passengers and crewmembers that may not be capable to self evacuate from the fuselage. The 4500 gallons of water carried on the apparatus also provides a longer application time when the HRET is committed to an interior fire suppression and rescue attack.
- The availability of 3 agents (Foam, Dry Chemical and Halotron I) provides a selection that could offer a more efficient method to control specific types of aircraft fires such as fuel fires (foam and dry chemical) tire fires, (foam and or dry chemical), electrical fires (Halotron I), engine fires (Halotron I or dry chemical or both) or fires in confined spaces such as cargo compartments, cargo decks or electronics compartments (foam or Halotron I).
- Modern design changes in the ARFF vehicle industry now provide for a quicker, more stable and much safer response to aircraft accidents/incidents.

7. Is competition precluded because of the existence of patent rights, trade secrets, technical data or other proprietary data?

Attach documentation verifying such.

No

8. If procuring replacement parts and/or maintenance services, explain whether or not replacement parts and/or services can be obtained from any other source. If not, is the proposed firm the only authorized or exclusive dealer/distributor and/or service center? I so, attach letter from the manufacturer.

Not applicable

() OTHER

APPROVED BY:

 8/27/12

DEPARTMENT HEAD
OR DESIGNEE

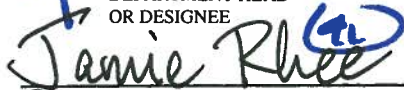
DATE




BOARD CHAIRPERSON

06 NOV 2012

DATE


PRINT NAME


Chief Procurement Officer

NOV 16 2012

DATE

INSTRUCTIONS FOR PREPARATION OF NON-COMPETITIVE PROCUREMENT FORM (Rev 9/97)

If a City Department has determined that the purchase of supplies, equipment, work and/or services can not be done on a competitive basis, a sole source justification must, be prepared on this Justification for Non-Competitive Procurement Form in which procurement is requested on a non-bid or non-competitive basis in accordance with 65 ILCS 5/8-10-4 of the Illinois Compiled Statutes. All applicable questions in each Subject Area below must be answered. The information provided must be complete and in sufficient detail to allow for a decision to be made by the Non-Competitive Procurement Review Board. The Board will not consider justifications with incomplete information or documentation. Also, attach Form F-7 (if One Time Contract); F-8 (if Delegate Agency Contract) or F-26 (if Term Agreement) to obtain a pre-assigned Specification and Contract Number for each contract in this request.

PROCUREMENT HISTORY (INCLUDING FUTURE PROCUREMENT OBJECTIVES)

1. Describe the requirement and how it evolved from initial planning to its present, status.
2. Is this a first time requirement or a continuation of previous procurement from the same source? If so, explain the procurement history.
3. Explain attempts made to competitively bid the requirement. (Attach copy of notices and list of sources contacted).
4. Describe any research done to find other sources (List other cities contacted, companies in the industry contacted, professional organizations, periodicals and other publications used).
5. Explain future procurement objectives. Is this a one-time request or will future requests be made for doing business with the same source?
6. Explain whether or not future competitive bidding is possible. If not, why not?

ESTIMATED COST

1. What is the estimated cost for this requirement (or for each contract, if multiple awards contemplated)? What is the funding source?
2. What is the estimated cost by fiscal year, if the job, project or program covers multiple years?
3. Explain the basis for estimating the cost and what assumptions were made and/or data used (ie. budgeted amount, previous contract price, current catalog or cost proposal from firms solicited, engineering or in-house estimate, etc).
4. Explain whether the proposed Contractor or the City has a substantial dollar investment in original design, tooling or other factors which would be, duplicated at City expense if another source was considered. Describe cost savings or other measurable benefits to the City which may be achieved.
5. Explain what negotiation of price has occurred or will occur. Detail why the estimated cost is deemed reasonable.

SCHEDULE REQUIREMENTS

1. Explain how the schedule was developed and at what point the specific dates were known.
2. Is lack of drawings and/or specifications a constraining factor to competitive bidding? If so, why is the proposed Contractor the only person or firm able to perform under these circumstances? Why are the drawings and specifications lacking? What is the lead time required to get drawings and specifications suitable for competition? If lack of drawings and specifications is not a constraining factor to competitive bidding, explain why only one person or firm can meet the required schedule.
3. Outline the required schedule by delivery or completion dates and explain the reasons why the schedule is critical.
4. Describe in detail what impact delays for competitive bidding would have on City operations, programs, costs and budgeted funds.

EXCLUSIVE OR UNIQUE CAPABILITY

1. If contemplating hiring a person or firm as a Professional Service Consultant, explain in detail what professional skills, expertise, qualifications or other factors make this person or firm exclusively or uniquely qualified for the project. Attach copy of cost proposal and scope of services.
2. Does the proposed firm have personnel considered unquestionably predominant in the particular field?
3. What prior experience of a highly specialized nature does the person or firm exclusively possess that is vital to the job, project or program?
4. What technical facilities or test equipment does the person or firm exclusively possess of a highly specialized nature which is vital to the job?
5. What other capabilities and/or capacity does the proposed firm possess which is necessary for the specific job, project or program which makes them the only source who can perform the work within the required time schedule without unreasonable costs to the City?
6. If procuring products or equipment, describe the intended use and explain any exclusive or unique capabilities, features and/or functions the items have which no other brands or models, etc possess. Is compatibility with existing equipment critical from an operational standpoint? Explain why.
7. Is competition precluded because of the existence of patent rights, copyrights, trade secrets, technical data, or other proprietary data? Attach documentation verifying such.
8. If procuring replacement parts and/or maintenance services, explain whether or not replacement parts and/or services can be obtained from any other sources? If not, is the proposed firm the only authorized or exclusive dealer/distributor and/or service center? If so, attach letter from manufacturer.

OTHER

1. Explain other related considerations and attach all applicable supporting documents (Information Technology Strategy Committee (ITSC) Approval form, etc.)
2. Explain what opportunities of direct/indirect involvement of Minority or Women Business Enterprises have been discussed and/or are available this contract.

REVIEW AND APPROVAL

This form must be signed by both the Originator of the request and approved by the Department Head or, authorized designee.



1401 N. Farnsworth Avenue
Aurora, Illinois 60505
(800) 322-7997

November 14, 2012

Chief Timothy Sampey
Chicago Fire Department
Airport Operation
ARFF Rescue 3
10000 West O'Hare Drive
Chicago, IL 60666

Subject: Oshkosh 4500 ARFF's

Dear Chief Sampey,

Per your email dated November 9, 2012 (copy attached), enclosed you will find the documents requested:

- Letter of Intent and current MBE Certification from Cesar's Equipment
- Letter of Intent and current WBE Certification from Midpack Corporation
- Temco Machinery, Inc. Certificate of Insurance

Please note, we are unable to obtain the "No Change Affidavit" from the MBE/WBE firms. Based upon the confidentiality of this document, MBE/WBE firms will only disclose this information to the City of Chicago.

Temco Machinery will provide 16.9% (MBE) and 4.5% (WBE) participation.

Should you have any questions, please do not hesitate to contact us at 800-322-7997.

Respectfully,

Michael J. Mikoola, Jr.
President & CEO
Temco Machinery, Inc.



AIRPORT SNOW REMOVAL

FACTORY AUTHORIZED DEALER
ILLINOIS - INDIANA



DEPARTMENT OF PROCUREMENT SERVICES
CITY OF CHICAGO

October 23, 2012

Cesar Regalado
Cesar's Equipment Co., Inc
8770 S. 78th Ave.
Bridgeview, IL 60455

Dear Ms. Regalado:

This letter is to inform you that the City of Chicago has extended your status as a Minority Business Enterprise (MBE) until February 1, 2013. We are providing this extension to allow enough time to provide any additional documentation that your application may be missing and for our office to complete our review of all of the submitted documents.

This extension does not guarantee eligibility in the program but will act as a courtesy extension until we receive all of the required documentation and complete a review of that documentation.

Please present this letter and a copy of your last certification letter as evidence of your certification to be included with bid document submittals as needed.

If you have any questions, please feel free to contact our office at (312) 744-1929.

Sincerely,


Monica Jimenez
Deputy Procurement Officer

MJ:rg



CITY OF CHICAGO
OFFICE OF COMPLIANCE

October 3, 2011

Cesar Regalado
Cesar's Equipment Co.
8770 S. 78th Ave.
Bridgeview, IL 60455

Certificate Expires: October 1, 2016

Dear Mr. Cesar Regalado:

We are pleased to inform you that Cesar's Equipment Co. has been re-certified as a Minority Business Enterprise (MBE) by the City of Chicago. This MBE certification is valid until **October 1, 2016**; however your firm must be re-validated annually. Your firm's No Change Affidavit is due by **August 1, 2012**.

As a condition of continued certification during this five year period, you must file a No-Change Affidavit **within 60 days prior** to the date of expiration. Failure to file this Affidavit will result in the termination of your certification. **Please note that you must include a copy of your most current Federal Corporate and Individual Tax Returns.** You must also notify the City of Chicago of any changes in ownership or control of your firm or any other matters or facts affecting your firm's eligibility for certification.

It is important to note that you also have an ongoing affirmative duty to notify the City of Chicago of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification within 10 days of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, and/or gross receipts that exceed the program threshold.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a MBE/WBE/BEPD if you fail to:

- file your No Change Affidavit within the required time period;
- provide financial or other records requested pursuant to an audit within the required time period; or
- notify the City of any changes affecting your firm's certification within 10 days of such change.



CITY OF CHICAGO
OFFICE OF COMPLIANCE

Cesar's Equipment Co.

Page 2

Further, if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. And in addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the city by falsely representing that the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than \$5,000.00 and not more than \$10,000, or both.

Your firm's name will be listed in the City's Directory of Minority Business Enterprises and Women Business Enterprises in the specialty area(s) of:

**NAICS – 441310; 811219; 811310; 811118; 811198; 811111 – HYDRAULIC
EQUIPMENT REPAIR SERVICE WHOLESALER OF INDUSTRIAL
MACHINERY EQUIPMENT PARTS AND SUPPLIES.**

Your firm's participation on City contracts will be credited only toward Minority Business Enterprise (MBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward goals will be given only for work done in the specialty category.

Thank you for your continued interest in the City's Minority Business Enterprise (MBE) Program.

Sincerely,

Michael Chambers
Senior Compliance Officer
CITY OF CHICAGO
City Hall

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CITY OF CHICAGO
OFFICE OF COMPLIANCE

August 2, 2011

Anna Mae Joyce
Midpack Corporation
5514 North Kedzie Avenue
Chicago, IL 60625-3924

Annual Certificate Expires: September 15, 2012

Dear Anna Mae Joyce:

Congratulations on your continued eligibility for certification as a **Women Business Enterprise (WBE)** by the City of Chicago. This certification is valid until **September 15, 2013**.

As you know, your firm must also be re-validated annually. As such, your firm's next No Change Affidavit is due by **September 15, 2012**. Please remember, you have an affirmative duty to file your No-Change Affidavit **60 days prior to the date of expiration**.

It is important to note that you also have an ongoing affirmative duty to notify the City of Chicago of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification within 10 days of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, and/or gross receipts that exceed the program threshold.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a MBE/WBE/BEPD if you fail to:

- o file your No Change Affidavit within the required time period;
- o provide financial or other records requested pursuant to an audit within the required time period; or
- o notify the City of any changes affecting your firm's certification within 10 days of such change.

Further, if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. And in addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the city by falsely representing that the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than \$5,000.00 and not more than \$10,000, or both.

Your firm is listed in the City's Directory of Minority Business Enterprises and

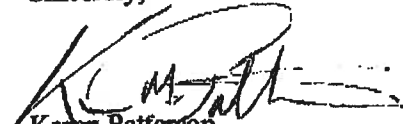
Women Business Enterprises in the specialty area(s) of:

PAPER AND PLASTIC PRODUCTS AND PACKAGING; HOSPITAL AND SAFETY SUPPLIES; ELECTRICAL SUPPLIER; AUDIO/VIDEO EQUIPMENT; FORENSIC, EMERGENCY AND LAW ENFORCEMENT SUPPLIES; SALES OF SEARCH SYSTEMS EQUIPMENT; SALES OF COMMERCIAL ICE MACHINES; DISTRIBUTOR OF JANITORIAL, INDUSTRIAL AND FOOD SERVICE CHEMICALS AND SUPPLIES; SALES OF HORTICULTURAL (FLORAL) PRODUCTS; DISTRIBUTOR OF OFFICE FURNITURE; DISTRIBUTOR OF INDUSTRIAL CYCLES

Your firm's participation on City contracts will be credited only toward Women Business Enterprise (WBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward Women Business Enterprise (WBE) goal will be given only for work done in a specialty category.

Thank you for your continued participation in the City's Supplier Diversity Program.

Sincerely,


Karen Patterson
Deputy Director

Attn. Tom Keiser.
From: Tom Joyce

11-13-12



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
09/10/2012

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Frimark Keller and Associates, LLC 1920 N Thoreau Drive, Suite 114 Schaumburg, IL 60173	CONTACT NAME: Vicki Colletti
	PHONE (A/C, No. Ext): (847)907-4520 FAX (A/C, No.): (847)907-9479
	E-MAIL ADDRESS: vicki@frimarkkeller.com
	INSURER(S) AFFORDING COVERAGE
	INSURER A: EMC Insurance Companies
INSURED Temco Machinery, Inc. 1401 N Farnsworth Ave Aurora, IL 60505-1611	INSURER B:
	INSURER C:
	INSURER D:
	INSURER E:
	INSURER F:

COVERAGES

CERTIFICATE NUMBER: 00001448-0

REVISION NUMBER: 12

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC	N N	3C66083-12	12/21/2011	12/21/2012	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/POP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTD <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTDS <input type="checkbox"/> NON-OWNED AUTOS	N N	3E66083-12	12/21/2011	12/21/2012	COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ 1,000,000 BODILY INJURY (Per accident) \$ 3,000,000 PROPERTY DAMAGE (Per accident) \$ 1,000,000
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	N N	3J66083-12	12/21/2011	12/21/2012	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N N/A	3H66083-12	12/21/2011	12/21/2012	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
The City of Chicago is included as an additional insured.

CERTIFICATE HOLDER

City of Chicago Department of Procurement Services
Chief Procurement Officer
121 N LaSalle St. - Room #403
Chicago, IL 60602

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

(VRC)

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/13/2012

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	Frimark Keller and Associates, LLC 1920 N Thoreau Drive, Suite 114 Schaumburg, IL 60173	CONTACT NAME: Vicki Colletti	INSURER(S) AFFORDING COVERAGE	NAIC #
		PHONE (A/C, No, Ext): (847)907-4520	FAX (A/C, No): (847)907-9479	
		E-MAIL ADDRESS: vicki@frimarkkeller.com	INSURER A: EMC Insurance Companies	21415
INSURED	Temco Machinery, Inc. 1401 N Farnsworth Ave Aurora, IL 60505-1611		INSURER B: EMC Insurance Companies	
			INSURER C: EMC Insurance Companies	32808
			INSURER D:	
			INSURER E:	
			INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 00001448-0

REVISION NUMBER: 1

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	N	N	3D66083	12/21/2012	12/21/2013	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	N	N	3M66083-12	12/21/2012	12/21/2013	COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ 1,000,000 BODILY INJURY (Per accident) \$ 3,000,000 PROPERTY DAMAGE (Per accident) \$ 1,000,000
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB DED <input checked="" type="checkbox"/> RETENTION \$ 10,000	N	N	3J66083	12/21/2012	12/21/2013	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N	N/A	3H66083	12/21/2012	12/21/2013	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES [Attach ACORD 101, Additional Remarks Schedule, if more space is required]

The City of Chicago is included as an additional insured.

CERTIFICATE HOLDER

CANCELLATION

City of Chicago Department of Procurement Services Chief Procurement Officer 121 N LaSalle St. Room #403 Chicago, IL 60602	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE (VRC)

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CHICAGO DEPARTMENT OF AVIATION
CITY OF CHICAGO

Date: August 3, 2012

To: Richard Butler
First Deputy Procurement Officer
Department of Procurement Services

Subject: Non-Competitive Procurement of specialized ARFF Vehicles, and Simulator

I request review by the Non-Competitive Review Board (NCRB) of the enclosed justification packet, and approval of one-time, Non-Competitive Procurement, by the Chicago Department of Aviation (CDA), of two (2) Oshkosh Striker Model 4500 High Reach Airport Rescue Fire-Fighting (ARFF) Vehicles, and one (1) associated vehicle training simulator, for a combined total cost of \$3,402,050.00.

CDA requires these vehicles to perform ARFF operations for large frame aircraft at Chicago O'Hare International Airport (O'Hare). These are the only US-manufactured vehicles that provide:

- Firefighting nozzle height (65 feet) required to effectively reach the upper decks of large frame aircraft,
- Water/agent capacity (4500 gallons) required to address the expanded volume of large frame aircraft, and
- All three firefighting agents (foam, dry chemical, clean agent) standard to current airport ARFF operations.

Large Frame Aircraft stand 80 feet (eight stories) high, with an 800+ passenger capacity. This imposes ARFF height/volume requirements an order of magnitude beyond standard equipment. Their capacity and infrastructure requirements (including ARFF), however, will restrict the use of these aircraft to a fairly small number of flights, to a fairly small number of US airports, including O'Hare, for the foreseeable future.

Req 73951
Spec 110489
Orisnel

Richard Butler
August 3, 2012
Page 2

The limited use of Large Frame Aircraft has driven the exclusivity of this specialized, limited market equipment, and will likely continue to do so. This limited use, however, also means that CDA requirements for this specialized equipment are unlikely to expand. This is, therefore, a one-time requirement – any future requirement for “Large Frame ARFF” would reflect a significant (and currently unforeseeable) airline industry change, and could well be accompanied by a more competitive market.

Sincerely,

Handwritten signature of Rosemarie S. Andolino in blue ink, with a circled 'R' below the signature and the date '8/27/12' written to the right.

Rosemarie S. Andolino
Commissioner
Chicago Department of Aviation

RSA/re

cc: Richard Edgeworth, Chief Safety and Security Officer, CDA
Khaled Naja, Chief Operating Officer, CDA
Timothy Sampey, District Chief, CFD

**CITY OF CHICAGO
 PURCHASE REQUISITION**

Copy (Department)

DELIVER TO: 211 HUMAN RESOURCES DIVISION P.O. BOX 66142 CHICAGO, IL 60666	REQUISITION: 73951 PAGE: 1 DEPARTMENT: 85 - DEPT OF AVIATION PREPARER: David A Bowman NEEDED: APPROVED: 8/27/2012
--	--

REQUISITION DESCRIPTION

REQUEST FOR NON COMPETITIVE STANDARD PO FOR THE PURCHASE OF TWO (2) AIRPORT RESCUE AND FIRE FIGHTING MODEL 4500, 8X8 TRUCKS AND ONE(1) SIMULATOR., VENDOR TEMCO MACHINERY, \$3,402,050
 SPECIFICATION NUMBER: 110489

COMMODITY INFORMATION

LINE ITEM	QUANTITY	UOM	UNIT COST	TOTAL COST							
1 0705718100 AIRPORT RESCUE AND FIRE FIGHTING VEHICLE - MODEL 4500, 8X 8	2.00	Each	#####	3,157,600.00							
SUGGESTED VENDOR: TEMCO MACHINERY, INC.		REQUESTED BY: David A Bowman									
DIST	BFY	FUND	COST CTR	APPR	ACCNT	ACTV	PROJECT	RPT CAT	GENRL	FUTR	Dist. Amt.
1	000	0582	0852015	8000	220440	0000	H800005E	000000	00000	0000	3,157,600.00
LINE TOTAL:											3,157,600.00

LINE ITEM	QUANTITY	UOM	UNIT COST	TOTAL COST							
2 0705718150 AIRPORT RESCUE AND FIRE FIGHTING VEHICLE - SIMULATOR UNIT FOR MODEL 4500	1.00	Each	0.00	0.00							
SUGGESTED VENDOR:		REQUESTED BY: David A Bowman									
DIST	BFY	FUND	COST CTR	APPR	ACCNT	ACTV	PROJECT	RPT CAT	GENRL	FUTR	Dist. Amt.
1	000	0582	0852015	8000	220440	0000	H800005E	000000	00000	0000	0.00
LINE TOTAL:											0.00

LINE ITEM	QUANTITY	UOM	UNIT COST	TOTAL COST							
3 00000 MONEY LINE FOR ALLOCATING FUNDS ON LINE ITEM 2 FOR SIMULATOR	244,450.00	USD	1.00	244,450.00							
SUGGESTED VENDOR:		REQUESTED BY: David A Bowman									
DIST	BFY	FUND	COST CTR	APPR	ACCNT	ACTV	PROJECT	RPT CAT	GENRL	FUTR	Dist. Amt.
1	000	0582	0852015	8000	220440	0000	H800005E	000000	00000	0000	235,732.56
2	086	0751	0854971	9071	220440	0000	C201071E	000000	00000	0000	8,717.44
LINE TOTAL:											244,450.00

REQUISITION TOTAL: 3,402,050.00

Baccinneschi, Mary

FILE COPY

To: Mikoola, Mike
Subject: Boston / Chicago Striker 4500 w/ 652 Snuzzle Price Comparison
Attachments: Chicago to Boston Striker 4500 w-652 Snuzzle Price Comparison.xls

Hi Mike -

Attached please find a comparison between the pricing for the Boston Striker 4500 quoted in October of 2009 and the Chicago Striker 4500's quoted in November 2011. I believe that the analysis is self-explanatory and refutes any contention that Boston is getting more favorable pricing than Chicago.

Several items to note -

1. With the exception of the October 2009 Boston vehicle price and the November 2011 Chicago vehicle price, all other prices are estimates, rounded for ease of reference.
2. The October 2009 Boston price was escalated at 2.5% and 2.75% for the first and second years respectively to arrive at an estimated quote price for the same unit in November of 2011 which is when we quoted the Chicago O'Hare units.

Opinion

We believe that the Chicago price is extremely fair and equitable when compared to the actual Boston price in 2009 and can be considered an exceptional price when compared to the estimated Boston price if we had quoted that unit in November 2011.

Let me know if you need anything else.
Tom

Tom Cihowiak
Director of Sales - U.S. Government / Canada ARFF Vehicles
Oshkosh Corporation (Airport Products)
Ph: (920) 749-2249
Cell: (920) 420-0775
Email: <Tcihowiak@airport.oshkoshcorp.com>

Although this e-mail and any attachments are believed to be free of any virus or other defect which might affect any computer system, it is the responsibility of the recipient to check that it is virus-free and the sender accepts no responsibility or liability for any loss, injury, damage, cost or expense arising in any way from receipt or use thereof by the recipient.

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Thank you.

Boston Logan / Chicago O'Hare Striker 4500 w/ 652 Snozzle Price Comparison

Vehicle Pricing

Boston price quoted in October 2009	\$1,316,584.00
Estimated Boston price if quoted in November 2011 [\$1,316,584.00 x 2.5% cost escalation for Year 1 x 2.75% cost escalation factor for Year 2]	\$1,386,610.00

Chicago Specials / Options not on Boston vehicle

	<u>Boston</u>	<u>Chicago</u>	<u>Difference</u>
Auxiliary equipment including:	No	Yes	\$50,000.00
HP Notebook laptop			
MSA portable Thermal Imaging Camera (TIC) kit - mounted in cab			
SPAAT tool kit			
Central tire inflation (CTI) system	No	Yes	\$8,000.00
Quantity of Halotron I	500 lbs	1000 lbs	\$5,800.00
Air Systems Int'l Portopak PAK-3 SCBA cylinder kit stored in cab	No	Yes	\$5,500.00
Special 12v Rigid Industries LED lights	No	Yes	\$5,000.00
<u>Hosereel / handline / shelf configuration</u>			
Swing-out dual agent hose reel in lower RH, tilt-down tray in upper RH, pre-connect handline in lower LH	No	Yes	\$5,000.00
Dedicated dry chemical hose reel in upper RH, pre-connect handline in lower RH & LH	Yes	No	
Communications equipment	Yes	Yes	\$4,500.00
Special air-ride CFD seats	No	Yes	\$2,500.00
Two SCBA cylinders for PAK-3 kit	No	Yes	\$2,000.00
Federal EQ2-B Siren	No	Yes	\$1,250.00
Liferamp / ladder storage box on top	No	Yes	\$1,000.00
Hose storage box on top	No	Yes	\$600.00
5" Storz water tank fill on top	No	Yes	\$600.00
Roll-out tray in lower compartment on LH	No	Yes	\$500.00
Special chrome exhaust outlet	No	Yes	\$350.00
Gladhand connection at front	No	Yes	\$300.00
Anti-skid material / metal trim plate kit on top	No	Yes	\$250.00

\$93,150.00

Boston - 2009 ARFF sold for: \$1,316,584

\$1,316,584 x 2.5% (2010) = \$1,349,499
(\$32,915)

\$1,349,499 x 2.75% (2011) = \$1,386,610
(\$37,111)

Chicago extra's - \$93,000 = \$1,479,610

} \$99,190

Chicago - 2011 Quoted: \$1,578,800

Simulator \$ 119,100 * 1/2

Software \$ 750 ÷ 2 375

Setcom \$ 5,500 ÷ 2 2,750

~~\$1,704,150~~ - 1,701,025.⁰⁰

\$122,225

MBE - 25% \$ 426,038

WBE - 5% \$ 85,208

Based on two (2) units Purchased.

CDA

CITY OF CHICAGO ALL PURPOSE REQUISITION FORM

APRF NO. 167477
 DEPT USE 1 REQUISITION NO

DATE	SECTION	BUREAU	SHIP CODE	SHIP TO:	DATE NEEDED	REF DOC NUMBER	PV NUMBER				
08/22/2012	OPS2	85	212	CHICAGO DEPT OF AVIATION							
TERM LINE	COMMODITY CODE	DESCRIBE AND JUSTIFY GOODS OR SERVICES		CATALOG NAME#	CATALOG DATE	CATALOG PAGE	CATALOG ITEM/PART #	UNIT PRICE	UNIT OF MEASURE	QUANTITY	TOTAL PRICE
0		4500 ARFF Vehicle						\$1,578,800.0000	USD	1.000	\$1,578,800.0000
0		4500 ARFF Vehicle Simulator						\$244,450.0000	USD	1.000	\$244,450.0000

BRIEF DESCRIPTION: Sole source for (1)-4500 ARFF Vehicles and (1)-4500 ARFF Simulator

JUSTIFICATION: Sole source for (1)-4500 ARFF Vehicles and (1)-4500 ARFF Simulator

CHECK OR COMPLETE ALL THAT APPLY	BFYR	LINE	FUND	DEPT	CRC	APPR	OBJT	DOA PROJECT	FMPs PROJECT	DOLLAR AMT
	2000	0	0582	085	2015	8000	000000	H8069.11-00	H800005E	\$1,814,532.56
	1986	0	0751	085	4971	9071	000000	H8069.11-00	C201071E	\$8,717.44

PARTICIPATING PO #

TASK ORDER/PROPOSAL # T20

GRAND TOTAL (ALL PAGES) \$1,823,250.00

NEW TA OR CONTRACT	X	SOLE SOURCE	FOR FINANCE OFFICE USE ONLY	VENDOR INFORMATION	INVOICE NUMBERS	CONTACT INFORMATION
PURCHASE ORDER		CONTRACT AMENDMENT	CONTRACT REVIEW	Company Name: TEMCO MACHINERY, INC. Address: 1401 N. FARNSWORTH AVE (EFT)		Name: Eric Sanders Address: Phone: 773-686-5977
DIRECT VOUCHER		EMERGENCY REQUEST	Pending - CAPITAL FIN. DIRECTOR	Vendor Code: AURORA, IL 60505 50061001 A Rep/Phone: 630 978-5151		SECTION MANAGER Name: Eric Sanders Phone: Status: Approved 8/22/12
7 DAY BID		REJECTED BY	Pending -			DEPUTY Name: Phone: Status: Pending

CDA

CITY OF CHICAGO ALL PURPOSE REQUISITION FORM

APRF NO.	167478
DEPT USE 1	REQUISITION NO

DATE	SECTION	BUREAU	SHIP CODE	SHIP TO:	CHICAGO DEPT OF AVIATION	DATE NEEDED	REF DOC NUMBER	PV NUMBER			
08/22/2012	OPS2	85	212	ATTN:							
TERM LINE	COMMODITY CODE	DESCRIBE AND JUSTIFY GOODS OR SERVICES		CATALOG NAME#	CATALOG DATE	CATALOG PAGE	CATALOG ITEM/PART #	UNIT PRICE	UNIT OF MEASURE	QUANTITY	TOTAL PRICE
0		4500 ARFF Vehicle						\$1,578,800.0000	USD	1.000	\$1,578,800.0000

BRIEF DESCRIPTION
Sole source for (1)-4500 ARFF Vehicle

JUSTIFICATION
Sole source for (1)-4500 ARFF Vehicle

CHECK OR COMPLETE ALL THAT APPLY	BFYR	LINE	FUND	DEPT	CRC	APPR	OBJT	DOA PROJECT	FMPS PROJECT	DOLLAR AMT
	2000	0	0582	085	2015	8000	000000	H8071.12 00	H8000005E	\$1,578,800.00
GRAND TOTAL (ALL PAGES)										
\$1,578,800.00										

PARTICIPATING PO # _____

TASK ORDER/PROPOSAL # _____

T21 _____

NEW TA OR CONTRACT X	SOLE SOURCE	FOR FINANCE OFFICE USE ONLY		CONTACT INFORMATION Name Eric Sanders Address Phone 773-686-5977
	PURCHASE ORDER	CONTRACT REVIEW	FINANCE DIRECTOR	
DIRECT VOUCHER	CONTRACT AMENDMENT	Pending-	Pending -	SECTION MANAGER Name Eric Sanders Phone Status Approved 8/22/12
7 DAY BID	EMERGENCY REQUEST	CAPITAL FIN. DIRECTOR	FMPS APPROVAL DATE	DEPUTY Name Phone Status Pending
	REJECTED BY	Pending -		
				VENDOR INFORMATION Company Name Address Vendor Code Rep/Phone
				TEMCO MACHINERY, INC. 1401 N. FARNSWORTH AVE (EFT) AURORA, IL 60505 50061001 A 630 978-5151

DPS PROJECT CHECKLIST

For DPS Use Only

Date Received
Date Returned
Date Accepted
CA/CN's Name

IMPORTANT: ALL INFORMATION SHOULD BE COMPLETED, ATTACH ALL REQUIRED MATERIALS AND SUBMIT FOR ROUTING TO THE DEPARTMENT OF PROCUREMENT SERVICES, ROOM 403, CITY HALL, 121 N. LASALLE STREET, CHICAGO, ILLINOIS 60602, ATTENTION: CHIEF PROCUREMENT OFFICER.

General Information:

Date: <u>8/27/12</u>	Need by (estimated date):	
Requisition No.: <u>73951</u>	Contact Person: <u>DAVID BOWMAN</u>	Project Manager: <u>RICHARD EDGEWORTH</u>
Specification No.: (if known) <u>110489</u>	Telephone: <u>(773) 686-7089</u>	Telephone: <u>(773) 686-2397</u>
PO No.: (if known)	Fax:	Fax:
Modification No.: (if known)	Email:	Email:
Previous PO No.: (if known)	Project Description: <u>SPECIALIZED AIRPORT RESCUE FIRE FIGHTING (ARFF) VEHICLES AND ASSOCIATED VEHICLE SIMULATOR</u>	

Funding:

City:	<input type="checkbox"/> Corporate	<input checked="" type="checkbox"/> Bond	<input type="checkbox"/> Enterprise	<input type="checkbox"/> Grant*	<input type="checkbox"/> Other:
State:	<input type="checkbox"/> IDOT/Transit	<input type="checkbox"/> IDOT/Highway	<input type="checkbox"/> Grant*	<input type="checkbox"/> Other:	
Federal:	<input type="checkbox"/> FHWA	<input type="checkbox"/> FTA	<input type="checkbox"/> FAA	<input type="checkbox"/> Grant*	<input type="checkbox"/> Other:

LINE	FY	FUND	DEPT	ORGN	APPR	ACTV	PROJECT	RPTG	\$ DOLLAR AMOUNT
	<u>2000</u>	<u>582</u>	<u>85</u>	<u>2015</u>	<u>8000</u>		<u>H800005E</u>		<u>\$ 3,402,050</u>

Term Estimated Value \$ 3,402,050

*IF GRANT FUNDED, ATTACH COPY OF THE APPROVED GRANT AND APPLICATION AND ANY OTHER TERMS AND CONDITIONS OF FUNDING SOURCE THAT MAY APPLY. GRANT FUNDS MUST BE _____ COMMITTED OR _____ SPENT BY DEADLINE: _____ (DATE)

Scope Statement:

Attached is a Detailed Scope of Services and/or Specification. E-mail softcopy in Microsoft Word to DPS Unit Manager

IMPORTANT:

THIS IS A CRITICAL PORTION OF YOUR SUBMITTAL. IN ORDER FOR DPS TO ACCEPT YOUR SUBMITTAL YOU MUST COMPLETE THE SPECIFIC SCOPE REQUIREMENTS AS SET FORTH IN THE SUPPLEMENTAL CHECKLIST FOR THAT UNIT.

Purchase Order Type (Check All That Apply):

New Request	Modification/Amendment
<input type="checkbox"/> Blanket/Term/DUR/Agreement	<input type="checkbox"/> Time Extension**
<input type="checkbox"/> Master Agreement (Task Order)	<input type="checkbox"/> Vendor Limit Increase
<input checked="" type="checkbox"/> Standard/One-Time Purchase	<input type="checkbox"/> Scope Change/Price Increase/Additional Line Item(s)
Forms	<input type="checkbox"/> Other (specify):
<input checked="" type="checkbox"/> Requisition	
<input type="checkbox"/> Special Approvals	
<input checked="" type="checkbox"/> Non-Competitive Review Board (NCRB)	

Contract Term:

** Requested Term (Number of Months): ONE SHOT

Pre-Bid/Submittal Requirements:

Mandatory Pre Bid/Submittal Conference? Yes* No
Requesting Site Visit? Yes No

*If yes, explain reasons why mandatory attendance is necessary.

DPS PROJECT CHECKLIST

The following is a general description of what should be included in a Scope of Services or Specification:

A clear description of all anticipated services and products, including: time frame for completion, special qualifications of prospective vendors, special requirements or needs of the project, locations, anticipated participating user departments, citation of any applicable City ordinance or state/federal regulation or statute.

ARCHITECTURAL/ENGINEERING SUPPLEMENTAL CHECKLIST

Required Attachments: Scope of Services, including location, description of project, services required, deliverables, and other information as required

Risk Management

- Current Insurance Requirements prepared/approved by Risk Management: Yes No
- Will services be performed within 50 feet of CTA train or other railroad property? Yes No
- Will services be performed on or near a waterway? Yes No

If applicable, Pre-Qualification Category No. _____ Category Description: _____

For Pre-Qualification Program, attach list of suggested firms to be solicited

Other Agency Concurrence Required: None State Federal Other _____

If Amendment request, please verify and provide the following:

- Contractor's Name:
Contractor's Address:
Contractor's e-mail Address:
Contractor's Phone Number:
Contractor's Contact Person:

Attach Recommendation of MBE/WBE/DBE Analysis Form Yes No

AVIATION CONSTRUCTION SUPPLEMENTAL CHECKLIST

DOA sign-off for final design documents: Yes No

Required Attachments:

Copy of Draft Contract Documents and Detailed Specifications

Risk Management:

- Current Insurance Requirements prepared/approved by Risk Management: Yes No
- Will work be performed within 50 feet of CTA or ATS structure or property? Yes No
- Will work be performed airside? Yes No

*NOTE: Any non-construction Aviation request, complete the applicable section.

Do bid documents contain Sensitive Security Information (SSI)? Yes* No Redacted

*If yes, attach Confidentiality Statement

Attach Recommendation of MBE/WBE/DBE Analysis Form Yes No

If Amendment request, please verify and provide the following:

- Contractor's Name:
Contractor's Address:
Contractor's e-mail Address:
Contractor's Phone Number:
Contractor's Contact Person:

COMMODITIES SUPPLEMENTAL CHECKLIST

Required Attachments:

- Detailed Specifications (Scope of Services) including detailed description of the product, delivery location, user department contact, price escalation considerations
- Bidder's qualification, contract term and extension options
- Contractor's qualifications, citation of any applicable City/State/Federal statutes or regulations, citation of any applicable technical standards
- Price Lists/Catalogs, technical drawings and other exhibits and attachments as appropriate.

Attach Recommendation of MBE/WBE/DBE Analysis Form
 Is this a Revenue Producing contract?

- Yes No
 Yes No

If Modification request, please verify and provide the following:

- Contractor's Name:
- Contractor's Address:
- Contractor's e-mail Address:
- Contractor's Phone Number:
- Contractor's Contact Person:

CONSTRUCTION SUPPLEMENTAL CHECKLIST

Required attachments:

Copy of Draft (80% Completion), Contract Documents and Detailed Specifications

Risk Management

- Current Insurance Requirements prepared/approved by Risk Management:
- Will services be performed within 50 feet of CTA train or other railroad property?
- Will services be performed on or near a waterway?

- Yes No
 Yes No
 Yes No

Attach Recommendation of MBE/WBE/DBE Analysis Form

- Yes No

If Modification request, please verify and provide the following:

- Contractor's Name:
- Contractor's Address:
- Contractor's e-mail Address:
- Contractor's Phone Number:
- Contractor's Contact Person:

PROFESSIONAL SERVICES SUPPLEMENTAL CHECKLIST

If New Request (Check applicable boxes):

- Is this a Request for Information (RFI)?
- Is this a Request for Qualifications (RFQ)?
- Is this a Request for Proposal (RFP)?
- If RFQ or RFP, did any outside Consultant provide advice or deliverables in developing the RFQ or RFP?

- Yes No
 Yes No
 Yes No
 Yes* No

*If yes, Company Name: PO#

Attach a narrative explaining the consulting services and deliverables provided.

Is this a Non-Competitive Procurement?

- Yes* No

*If yes, attach completed Non-Competitive Justification form, vendor proposal and completed MBE/WBE compliance plan (Schedules C-1 and D-1) submitted to the Non-Competitive Review Board.

Is this a request for Individual Contract Services?

- Yes* No

*If yes and you seek a sole source contract to hire a person as a Consultant, attach completed Office of Compliance "Request for Individual Contract Services" approval form signed by Department Head, Office of Compliance & OBM.

Is this a Revenue Producing contract?

- Yes No

Does this request involve the purchase of Software?

- Yes* No

*If yes, is City required to sign a software license?

- Yes* No

*If yes, attach descriptions of software and software license agreement.

DPS PROJECT CHECKLIST

PROFESSIONAL SERVICES SUPPLEMENTAL CHECKLIST *(continued)*

Required Attachments (IF RFP/RFQ OR SOLE SOURCE):

Statement of Work (SOW), Deliverables or Scope of Services defined

Does SOW involve any work in the public way?

Yes* No

*If yes, attach list of locations.

Does SOW involve any public improvement to property that requires performance bond or prevailing wage?

Yes* No

*If yes, attach list of locations.

Is City Council approval required?

Yes No

Project or Program Background Information

Project Goals and Objectives

Qualifications or Licenses/Certifications required for any disciplines

Evaluation Criterion desired in RFP or RFQ

Evaluation Committee (EC) members recommended. Attach list of names, titles and departments

Technical and/or Functional Requirements, if applicable

Cost Proposal/Schedule of Compensation structure (If Sole Source, over Contract Term by Milestone Deliverables)

If an Information Technology (IT) project valued at \$100,000.00 or more, attach approval transmittal sheet from Information Technology Governance Board (ITGB)

Attach Recommendation of MBE/WBE/DBE Analysis Form

Yes No

If Amendment request, please verify and provide the following:

Contractor's Name:

Contractor's Address:

Contractor's e-mail Address:

Contractor's Phone Number:

Contractor's Contact Person:

VEHICLES/HEAVY EQUIPMENT SUPPLEMENTAL CHECKLIST

Required Attachments:

Detailed Specifications including detailed description of the vehicle(s) or equipment, mounted equipment, if any, and options/accessories

Special Provisions (Delivery, Warranty, Manuals, Training, Additional Unit Purchase Options, Bid Submittal Information, etc.)

Delivery Location(s)

Technical Literature

Drawings, if any

Part Number List (Manufacturer, or Dealer, or Other Source)

Current Price List(s)/Catalog(s)

Special Approval Form

Exhibits and Attachments

Attach Recommendation of MBE/WBE/DBE Analysis Form

Yes No

Is this a Revenue Producing Contract?

Yes No

If Modification request, please verify and provide the following:

Contractor's Name:

Contractor's Address:

Contractor's e-mail Address:

Contractor's Phone Number:

Contractor's Contact Person:

WORK SERVICES/FACILITY MAINTENANCE SUPPLEMENTAL CHECKLIST

Required Attachments:

- Detailed Specifications (Scope of Services) including detailed description of the work, locations (with supporting detail), user department contacts, work hours/days, laborer/supervisor mix, compensation and price escalation considerations
- Bidder's qualification, contract term and extension options
- Contractor's qualifications, citation of any applicable City/State/Federal statutes or regulations, citation of any applicable technical standards
- Price Lists/Catalogs, technical drawings and other exhibits and attachments as appropriate
- If an Information Technology (IT) project valued at \$100,000.00 or more, attach approval transmittal sheet from Information Technology Governance Board (ITGB)

Risk Management:

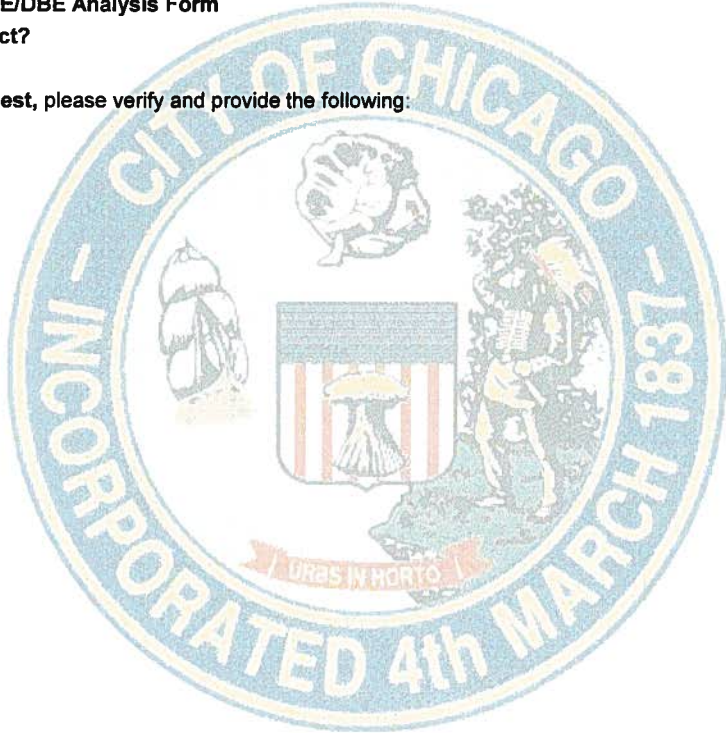
- Will services be performed within 50 feet (50') of CTA train or other railroad property? Yes No
- Will services be performed on or near a waterway? Yes No
- Will services require the handling of hazardous/bio-waste material? Yes No
- Will services require the blocking of streets or sidewalks which may affect public safety? Yes No

Attach Recommendation of MBE/WBE/DBE Analysis Form

- Is this a Revenue Producing contract? Yes No

If Modification or Amendment request, please verify and provide the following:

- Contractor's Name:
- Contractor's Address:
- Contractor's e-mail Address:
- Contractor's Phone Number:
- Contractor's Contact Person:





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

09/10/2012

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Frimark Keller and Associates, LLC 1920 N Thoreau Drive, Suite 114 Schaumburg, IL 60173	CONTACT NAME: Vicki Colletti
	PHONE (A/C No. Ext): (847)907-4520 FAX (A/C No.): (847)907-9479
	E-MAIL ADDRESS: vicki@frimarkkeller.com
	INSURER(S) AFFORDING COVERAGE
	INSURER A: EMC Insurance Companies
	INSURER B:
	INSURER C:
	INSURER D:
	INSURER E:
	INSURER F:

COVERAGES CERTIFICATE NUMBER: 00001448-0 REVISION NUMBER: 12

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC	N	N	3C66083-12	12/21/2011	12/21/2012	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000
							MED EXP (Any one person)	\$ 5,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	N	N	3E66083-12	12/21/2011	12/21/2012	COMBINED SINGLE LIMIT (Ea accident)	\$
							BODILY INJURY (Per person)	\$ 1,000,000
							BODILY INJURY (Per accident)	\$ 3,000,000
							PROPERTY DAMAGE (Per accident)	\$ 1,000,000
								\$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	N	N	3J66083-12	12/21/2011	12/21/2012	EACH OCCURRENCE	\$ 4,000,000
							AGGREGATE	\$ 4,000,000
								\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	3H66083-12	12/21/2011	12/21/2012	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER	
							E.L. EACH ACCIDENT	\$ 500,000
							E.L. DISEASE - EA EMPLOYEE	\$ 500,000
							E.L. DISEASE - POLICY LIMIT	\$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

The City of Chicago is included as an additional insured.

CERTIFICATE HOLDER

City of Chicago Department of Procurement Services
Chief Procurement Officer
121 N LaSalle St. - Room #403
Chicago, IL 60602

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

(VRC)

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CHICAGO DEPARTMENT OF AVIATION
CITY OF CHICAGO

Genette 10/3/12

MEMORANDUM

Date: September 17, 2012

To: Jamie L. Rhee, Chief Procurement Officer
Department of Procurement Services

Attn: Richard Butler
First Deputy Procurement Officer
Department of Procurement Services

Subject: Non-Competitive Procurement of specialized ARFF Vehicles, and Simulator

I request review by the Non-Competitive Review Board (NCRB) of the enclosed justification packet, and approval of one-time, Non-Competitive Procurement, by the Chicago Department of Aviation (CDA), of two (2) Oshkosh Striker Model 4500 High Reach Airport Rescue Fire-Fighting (ARFF) Vehicles, and one (1) associated vehicle training simulator, for a combined total cost of \$3,402,050.00.

CDA requires these vehicles to perform ARFF operations for large frame aircraft at Chicago O'Hare International Airport (O'Hare). These are the only US-manufactured vehicles that provide:

- Firefighting nozzle height (65 feet) required to effectively reach the upper decks of large frame aircraft,
- Water/agent capacity (4500 gallons) required to address the expanded volume of large frame aircraft, and
- All three firefighting agents (foam, dry chemical, clean agent) standard to current airport ARFF operations.

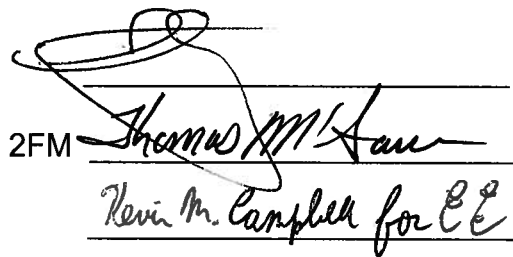
Large Frame Aircraft stand 80 feet (eight stories) high, with an 800+ passenger capacity. This imposes ARFF height/volume requirements an order of magnitude

beyond standard equipment. Their capacity and infrastructure requirements (including ARFF), however, will restrict the use of these aircraft to a fairly small number of flights, to a fairly small number of US airports, including O'Hare, for the foreseeable future.

The limited use of Large Frame Aircraft has driven the exclusivity of this specialized, limited market equipment, and will likely continue to do so. This limited use, however, also means that CDA requirements for this specialized equipment are unlikely to expand. This is, therefore, a one-time requirement – any future requirement for "Large Frame ARFF" would reflect a significant (and currently unforeseeable) airline industry change, and could well be accompanied by a more competitive market.

The individuals named below participated in the preparation of the detailed spec and the sole source justification:

- Thomas Wagner, CFD ARFF
- Thomas McGowan, Foreman of Machinists, 2FM
- Edward Ebertsch, 2FM



Thomas McGowan
Kevin M. Campbell for CE

The individuals named below will participate in the Non-Competitive Review Board:

- Timothy Sampey, CFD District Chief
- John McNicholas, CFD Deputy Fire Commissioner of Operations
- Michael Callahan, CFD Deputy Fire Commissioner of Support Services
- Thomas Wagner, CFD ARFF Training Officer
- Richard Edgeworth, Chief Safety and Security Officer, CDA
- Kevin Campbell, Automotive Engineer, 2FM
- Edward Ebertsch, 2FM
- Thomas McGowan, Foreman of Machinists, 2FM

Sincerely,



Rosemarie S. Andolino 9/15/12

Rosemarie S. Andolino
Commissioner
Chicago Department of Aviation

RSA/re

cc: Richard Edgeworth, Chief Safety and Security Officer, CDA
Khaled Naja, Chief Operating Officer, CDA
Timothy Sampey, District Chief, CFD

Baccieschi, Mary

FILE COPY

To: Mikoola, Mike
Subject: Boston / Chicago Striker 4500 w/ 652 Snozzle Price Comparison
Attachments: Chicago to Boston Striker 4500 w-652 Snozzle Price Comparison.xls

Hi Mike -

Attached please find a comparison between the pricing for the Boston Striker 4500 quoted in October of 2009 and the Chicago Striker 4500's quoted in November 2011. I believe that the analysis is self-explanatory and refutes any contention that Boston is getting more favorable pricing than Chicago.

Several items to note -

1. With the exception of the October 2009 Boston vehicle price and the November 2011 Chicago vehicle price, all other prices are estimates, rounded for ease of reference.
2. The October 2009 Boston price was escalated at 2.5% and 2.75% for the first and second years respectively to arrive at an estimated quote price for the same unit in November of 2011 which is when we quoted the Chicago O'Hare units.

Opinion

We believe that the Chicago price is extremely fair and equitable when compared to the actual Boston price in 2009 and can be considered an exceptional price when compared to the estimated Boston price if we had quoted that unit in November 2011.

Let me know if you need anything else.

Tom

Tom Cihowiak
Director of Sales - U.S. Government / Canada ARFF Vehicles
Oshkosh Corporation (Airport Products)
Ph: (920) 749-2249
Cell: (920) 420-0775
Email: <Tcihowiak@airport.oshkoshcorp.com>

Although this e-mail and any attachments are believed to be free of any virus or other defect which might affect any computer system, it is the responsibility of the recipient to check that it is virus-free and the sender accepts no responsibility or liability for any loss, injury, damage, cost or expense arising in any way from receipt or use thereof by the recipient.

The information contained in this electronic mail message is confidential information and intended only for the use of the individual or entity named above, and may be privileged. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this transmission in error, please contact the sender immediately, delete this material from your computer and destroy all related paper media. Please note that the documents transmitted are not intended to be binding until a hard copy has been manually signed by all parties.

Thank you.

Boston Logan / Chicago O'Hare Striker 4500 w/ 652 Snozzle Price Comparison

Vehicle Pricing

Boston price quoted in October 2009	\$1,316,584.00
Estimated Boston price if quoted in November 2011 [\$1,316,584.00 x 2.5% cost escalation for Year 1 x 2.75% cost escalation factor for Year 2]	\$1,386,610.00

Chicago Specials / Options not on Boston vehicle

	<u>Boston</u>	<u>Chicago</u>	<u>Difference</u>
Auxiliary equipment including:	No	Yes	\$50,000.00
HP Notebook laptop			
MSA portable Thermal Imaging Camera (TIC) kit - mounted in cab			
SPAAT tool kit			
Central tire inflation (CTI) system	No	Yes	\$8,000.00
Quantity of Halotron I	500 lbs	1000 lbs	\$5,800.00
Air Systems Int'l Portopak PAK-3 SCBA cylinder kit stored in cab	No	Yes	\$5,500.00
Special 12v Rigid Industries LED lights	No	Yes	\$5,000.00
<u>Hosereel / handline / shelf configuration</u>			
Swing-out dual agent hose reel in lower RH, tilt-down tray in upper RH, pre-connect handline in lower LH	No	Yes	\$5,000.00
Dedicated dry chemical hose reel in upper RH, pre-connect handline in lower RH & LH	Yes	No	
Communications equipment	Yes	Yes	\$4,500.00
Special air-ride CFD seats	No	Yes	\$2,500.00
Two SCBA cylinders for PAK-3 kit	No	Yes	\$2,000.00
Federal EQ2-B Siren	No	Yes	\$1,250.00
Liferamp / ladder storage box on top	No	Yes	\$1,000.00
Hose storage box on top	No	Yes	\$600.00
5" Storz water tank fill on top	No	Yes	\$600.00
Roll-out tray in lower compartment on LH	No	Yes	\$500.00
Special chrome exhaust outlet	No	Yes	\$350.00
Gladhand connection at front	No	Yes	\$300.00
Anti-skid material / metal trim plate kit on top	No	Yes	\$250.00
			\$93,150.00

Boston - 2009 ARFF sold for: \$1,316,584

\$1,316,584 x 2.5% (2010) = \$1,349,499
(\$32,915)

\$1,349,499 x 2.75% (2011) = \$1,386,610
(\$37,111)

Chicago extra's - \$93,000 = \$1,479,610

\$99,190

Chicago - 2011 Quoted: \$1,578,800

Simulator \$ 119,100 * 1/2

Software \$ 750 ÷ 2 375

Setcom \$ 5,500 ÷ 2 2,750

~~\$1,704,150~~ - 1,701,025.⁰⁰

\$122,225

MBE - 25% \$ 426,038

WBE - 5% \$ 85,208

Based on two (2) units Purchases.

STRIKER® 4500

THE BENCHMARK IN ARFF RESPONSE.

The Oshkosh® Striker 4500 is custom engineered to offer the ultimate in fast emergency response, charging from 0 to 50 mph (80 km/h) within 35 seconds. The sleek aerodynamic styling tells you immediately this is no ordinary ARFF truck, but a revolutionary new concept in airport emergency response.

The Striker 4500 combines unchallenged mobility with a smooth, stable ride and easy operation. The custom cab delivers driver comfort and outstanding visibility. And all systems are designed to support the highest levels of efficiency and safety for the response team.

Oshkosh Corporation has shaped the technology of modern ARFF trucks for more than four decades. With the Striker, Oshkosh again sets the industry standard for performance.



EXTREME MOBILITY. Your response doesn't stop where the runway ends. With all-wheel drive and Oshkosh TAK-4® independent suspension as standard features, the Striker can outmaneuver and outperform any ARFF vehicle in its class on and off the runway. The unique independent suspension system reduces stopping distance and helps tires hug the pavement for enhanced cornering and handling. An optional rear steer system provides even more maneuverability. Ground clearance is a full 17 inches (43.2 cm).

ROCK SOLID STABILITY.

The Striker features a wide track and low center of gravity to provide exceptional static side-slope stability of at least 30°. Independent suspension and optional central tire inflation also enhance stability while maneuvering.



UNMATCHED VISIBILITY. The Striker provides unobstructed panoramic views of the scene with excellent forward, upward and lateral visibility. The cab features 80 sq. ft. of glass.

PREMIUM RIDE QUALITY. No other ARFF vehicle can offer the ultra-smooth ride delivered by Oshkosh's patented independent suspension system. Enjoy more than 16 inches (40.6 cm) of wheel travel. And, more than 80,000 hours of testing make this system one more example of tough, Oshkosh reliability.

SPACIOUS, COMFORTABLE AND FIREFIGHTER FRIENDLY. This revolutionary cab was designed with firefighters' comfort and convenience in mind. It offers best-in-class interior space to comfortably seat up to five.

Each seat features integral 3-point seat belts. The wrap-around, cockpit style instrument panel puts controls within easy reach of driver and crew. Controls

are grouped by function for quicker access during an emergency. The cab accommodates monitors for various cameras and systems. A high capacity heating and cooling system generates a full 60,000 Btu to ensure a comfortable interior temperature.

SUPERIOR FIRE POWER. For the confidence of unparalleled fire attack capability, the Striker 4500 can be equipped with both a dry chemical system (500 lb/225 kg) and Halotron™ I system (460 lb/207 kg), each with its own hose reel. A High Reach Extendable Turret (HRET) and high volume bumper turrets are also available. A 4,500 gallon (17033 l) water tank, 630 gallon (2385 l) foam tank, 1,200 gpm (4542 lpm) roof turret and 300 gpm (1136 lpm) bumper turret are standard.

EASY MAINTENANCE. Preventative maintenance is quick and easy with single point access for lubrication fills, air tank drains, and electrical connections including circuit breaker box. Parts commonality between models is an added benefit when you upgrade your fleet to the new Striker Series from Oshkosh. And, you'll have the added confidence of knowing your vehicles are supported by expert Oshkosh technicians.

Sales • Parts • Service

Temco
MACHINERY, INC.

800-322-7997

ONLY ONE ARFF TRUCK OUTPERFORMS EVERYTHING ELSE IN ITS CLASS: THE OSHKOSH STRIKER.

TYPICAL SPECIFICATIONS

PERFORMANCE:

- **Acceleration**^{1,2}: 0 to 50 mph (80 km/h) in 35 seconds
- **Top Speed**¹: 70 mph (112 km/h)
- **Side Slope Stability (Static)**: >30°
- **Gradeability**²: Ascend/descend a 50% grade
- **Vehicle Clearance Circle**: 135 ft. (41.04 m)
- **Dimensions**: 535 in. (1358.9 cm) length; 122 in. (310 cm) width (excluding rear view mirrors); 136 in. (345.4 cm) height without HRET; 150 in. (381 cm) with HRET

CHASSIS:

- **Anti-Lock Braking System (ABS)**
- **Cab**: Aluminum construction; seating for up to five; center steering position; wrap-around, cockpit style instrument panel; easy to read backlit gauges and controls
- **Engine**: Caterpillar diesel; four cycle; in-line six; 950 bhp (708 Kw) minimum at 2,100 rpm with a peak torque of 2,400 ft. lbs. @ 1,400 rpm
- **Transmission**: Twin Disc TD61-2619; electronic; 6-speed; automatic; integral transfer case
- **Front Axles**: 2 x 29,000 lb. (13152 kg) for 58,000 lb. (26304 kg); Oshkosh double reduction with bevel gear differential; driver-operated differential lock
- **Front Brakes**: Dual wedge type
- **Rear Axles**: 2 x 29,000 lb. (13152 kg) 58,000 lb. (26304 kg); Oshkosh double reduction with bevel gear differential; driver operated differential lock
- **Rear Brakes**: S-cam type; air/mechanical spring actuation

- **Suspension**: Oshkosh TAK-4 independent system with dual control arms and single coil spring; up to 16 in. (40.6 cm) of wheel end travel; provides superior all-terrain mobility, improved ride quality and improved handling
- **Tires**: Michelin® 24R21 XZL
- **GVWR**: 116,000 lb. (52608 kg)
- **Wheelbase**: 267 in. (678.2 cm)

FIREFIGHTING SYSTEM:

- **Roof Turret**: Non-aspirating; electric joystick control; 600/1,200 gpm (2271/4542 lpm)
- **Bumper Turret**: Non-aspirating; electric joystick control; 300 gpm (1136 lpm)
- **Handlines (Foam/Water)**: Two preconnect type (one each side) with 150 ft. (46 m) of 1.75 in. (44 mm) ID hose and a 125 gpm (473 lpm) pistol-grip nozzle
- **Water Tank**: 4,500 gallon (17033 l) capacity; constructed of corrosion and UV resistant polypropylene
- **Foam Tank**: 540 gallon (2044 l) capacity; constructed of corrosion and UV resistant polypropylene
- **Fire Pump**: Power divider driven Waterous CRQA; single stage centrifugal; cast iron body; brass impeller; stainless steel shaft; pump-and-roll capable; 1,950 gpm (7381 lpm) at 240 psi (1657 kPa)
- **Foam Proportioning System**: Around-the-pump

POPULAR OPTIONS:

This is a partial listing of major options. Additional and special request options are also available.

- Disc brakes (outboard mounted)
- Mechanical rear axle steering
- Central tire inflation
- Air conditioning
- Winterization system to -40° F/C
- Hydraulic generator
- Auxiliary lighting
- High Reach Extendable Turret (HRET)

- High volume, fixed mount or low attack bumper turrets; 1,200 gpm (4542 lpm) capacity
- Dry chemical system with single agent or dual agent handline, and/or primary turret discharge capability
- Hydro-Chem™ direct injection, dry chemical nozzle for primary turret and/or dual agent handline discharge
- Halotron I system with single agent or dual agent handline, and/or HRET discharge capability
- Electronic Foam Proportioning

The Striker 4500 meets or exceeds all National Fire Protection Association (NFPA) 414, Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO) requirements for 4,000 gallon water capacity ARFF vehicles. For reference only. Specifications, descriptions, and illustrations in this literature are as accurate as known at the time of publication but are subject to change without notice. Ratings are general guidelines. Actual ratings may vary with application and duty cycle. Illustrations may include optional equipment and accessories but may not include all standard equipment. Specifications are subject to change without notice. Consult Oshkosh Corporation for additional information.

©Oshkosh Corporation, Oshkosh, Striker, TAK-4 and the Oshkosh logo are registered trademarks of Oshkosh Corporation, Oshkosh, WI

Halotron I is a trademark of Halotron, Incorporated, Las Vegas, NV

Michelin is a registered trademark of Michelin Tire Corporation, Greenville, SC

All measurements are nominal values.

Printed in U.S.A.

Striker 4500-S 8-09

¹ On dry, level pavement

² Based on 116,000 lb (52608 kg) gross vehicle weight



OSHKOSH CORPORATION

2307 Oregon Street
P.O. Box 2566
Oshkosh, Wisconsin 54903-2566 USA
920/235-9150
www.oshkoshcorporation.com

DETAILED PROPOSAL OSHKOSH 4500 ARFF'S

SCOPE OF PROJECT

These specifications describe the proposed complete Airport Rescue and Fire Fighting (ARFF) Vehicle with a capacity of 4,500 usable gallons of water, 630 gallons of Aqueous Film Forming Foam (AFFF), a 500 lb. PKW dry chemical system and a 460 lb. Halotron I clean agent system as defined in the current Federal Aviation Administration (FAA) 150/5220-10E Advisory Circular (9/30/2010) pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles. These specifications cover the general requirements as to the type of construction and tests to which the vehicle will conform, together with certain details as to finish, equipment and appliances with which Temco Machinery, Inc., the authorized distributor for Oshkosh Corporation, will conform. Vehicles proposed by Temco Machinery, Inc. will meet the requirements pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles in the current Federal Aviation Administration (FAA) 150/5220-10E Advisory Circular (9/30/2011 Edition), the current National Fire Protection Association (NFPA) Standard 414 (2007 Edition) and any applicable standards required in the NFPA Standard 1901. The complete vehicle will comply with any all applicable Federal, State, DOT and local regulations, standards and laws governing commercial vehicles as well as fire apparatus.

Temco Machinery, Inc. will provide a vehicle with a maximum overall length of 568". The vehicle will provide the required cubic feet of compartment space with the required dimensions as described.

Temco Machinery, Inc. will provide a vehicle with a maximum overall unloaded travel height of 168".

Temco Machinery, Inc. will provide a vehicle with a maximum overall width of 120" excluding the outside rear view mirrors.

Design of the vehicle will embody the latest approved automotive engineering practices. The workmanship will be of the highest quality in its respective field. Construction will be rugged, and ample safety factors will be provided to carry the loads specified and to meet both on and off road requirements and speed conditions as set forth under "Performance Tests and Requirements". Welding will not be employed in the assembly of the vehicle in a manner that will prevent the ready removal of any component part for service or repair. All steel welding will follow American Welding Society D 1.1 - 96, recommendations for structural steel welding. All aluminum welding will follow American Welding Society and ANSI D1.2-96, requirements for structural welding of aluminum. Flux core arc welding will use alloy rods, type 7000, American Welding Society standards A5.20-E70T1. Oshkosh Corporation will have an American Welding Society certified welding inspector in plant during working hours to monitor weld quality.

LITERATURE / DATA

Temco Machinery, Inc. will submit 3 copies of each of the following informational items with the bid, or upon the request of the Chief Procurement Officer or a designee:

Detailed 3-view drawing of the proposed cab/chassis, listing dimensions including BBC, WB, CA, OAH, etc.

Manufacturer's published literature for all major chassis components, i.e., engine, transmission and brakes.

Verifiable engine power curve and engine/transmission compatibility information.

Manufacturer's published literature for the proposed body.

Detailed multiple-view drawings of the proposed body. Drawings will be "D" size and be produced by the body manufacturer and signed by the vehicle body manufacturer's chief engineer. Generic drawings and/or drawings of "similar or like vehicles" are not acceptable

An outline indicating the overall length, width, height, wheelbase, turning radius, angle of approach and angle of departure of the proposed finished vehicles.

All compartment sizes, individual axle loads and estimated fully loaded weight of the vehicle.

PERFORMANCE STANDARDS, TESTS AND REQUIREMENTS

The ARFF vehicle furnished will be the manufacturer's latest model. Appurtenance and/or accessories not herein mentioned, but necessary to furnish a complete unit ready for use upon delivery will be included. The ARFF vehicle will conform to the best practices known to the trade in strength, quality of material and workmanship and be subject to this specification in full. The specification will be construed as minimum. Should the Oshkosh Corporation's current published data or standard package exceed this, it will be considered minimum and will be furnished. The City reserves the right to waive or make exceptions to this requirement if it is in the City's best interest.

The Contractor, Temco Machinery Inc., will be the Oshkosh Corporation's authorized dealer of the proposed vehicles, and be capable of providing current/updated documentation of status with its bid and be capable of providing genuine parts, assemblies and/or accessories as supplied by the original equipment manufacturer (OEM). Further, the Contractor will be capable of furnishing original product warranty and manufacturer's related services such as product information, product recall notices, etc. Proof of ability to transfer product warranties to the City of Chicago will be submitted with bid documents, if applicable.

Contractor will be a licensed new vehicle dealer in accordance with the Illinois Motor Vehicle Code, Section 625 ILCS 5/5-101. Bidders will provide a copy of their current Registration for Authority to Deal in New Vehicles issued by the Illinois Secretary of State with the bid.

In cases where an item is identified by a manufacturer's name, trade name, catalog number or reference, it is understood that the contractor proposes to furnish the item so identified and does not propose to furnish an "equal" unless the proposed "equal" is definitely indicated therein by the contractor.

Reference to a specific manufacturer, trade name or catalog is intended to be descriptive but not restrictive and only to indicate to the contractor articles that will be satisfactory. Other makes and models will be considered, provided the contractor clearly states exactly what it proposes to furnish, and forwards a cut, illustration, or other descriptive matter which will clearly indicate the character of the article covered.

The Chief Procurement Officer hereby reserves the right to approve as an equal, or to reject as not being an equal, any article the bidder proposes to furnish which contains major or minor variations from specification requirements but which may comply substantially therewith.

Experimental ARFF vehicles will not be acceptable. Any ARFF vehicles which are not produced by regular production methods and/or which have not been offered for sale to the public through accepted industry trade channels for approximately one (1) year prior to the offering of the contractor's proposal will be considered experimental. The Chief Procurement Officer reserves the right to determine what constitutes experimental equipment.

Hybrids and/or combinations of two (2) or more standard production vehicles will not be accepted. The Contractor will furnish evidence upon request that the ARFF vehicles to be furnished have been commercially available to the trade for a period of not less than approximately one (1) year and has been fully field tested to the satisfaction of the Chief Procurement Officer.

Materials not specifically covered by this specification or applicable referenced specifications or standards will be of the best quality currently used in commercial practice for ARFF vehicle fabrication.

All metal parts and components, except the engine, which are normally in contact with the firefighting agents and coolant liquid for extended periods of time, will be fabricated of materials resistant to the corrosive action of the firefighting agents and coolant liquid.

The use of dissimilar metals in contact with each other will be avoided. Metal plating or spraying of dissimilar base metals to provide similar or suitable abutting surfaces is permitted. The use of dissimilar metals separated by suitable insulating material is permitted.

Materials that are subject to deterioration when exposed to weather and operational conditions normally encountered during service will be protected against such deterioration in a manner that will in no way prevent compliance with the performance requirements. Protective coatings that are known to chip, crack, or scale with age or extremes of climatic conditions or on exposure to heat will not be used.

The controls and special features required to provide safe operation of the vehicle and to meet the specified performance requirements will be identified and shown in photos or drawings, which should be submitted with the bid. The parts will be of such size, material, and strength so as to sustain the allowable loads imposed upon them during operation. The vehicle will be constructed so that parts will not work loose in service.

All liquids, including firefighting agents, coolants, and lubricants, will not spill or leak under any operational condition, including longitudinal and side slope operations required by the specifications. All components will be built and mounted to withstand the strains, shocks, vibrations, and other detrimental conditions incident to operation, maintenance, shipping, and storage.

Disconnect plugs, receptacles, junction boxes, bus bars, and multiple line connectors will be utilized in the electrical system, as well as readily attachable and detachable fittings in the hydraulic and pneumatic systems, as applicable, with all disconnect points clearly indicated.

Pilots, guides, slides, carriages, and other features which add significantly to the ease of removal and installation or attachment of components or parts will be utilized.

Quick disconnect fastenings will be utilized on all cover plates which will be removed for component adjustment or for component or part removal.

Standard commercial lubricants will be used. Grease and oil seals will be designed and located to provide accessibility for inspection, servicing, and replacement. Panels which will

be opened for access to lubrication points will be hinged. Lubrication fittings will be located in accessible, protected positions. Extended fittings will be provided to lubricate parts or assemblies which are not readily accessible for direct lubrication or which are likely to be overlooked because of inaccessibility. Each manufacturer installed filler cap will be attached to its respective filler neck with a safety chain to prevent loss, unless the cap is also part of a dipstick.

Thermal insulation will be provided as required to protect the crew from excessive heat exposure. Acoustic insulation will be provided as required to comply with applicable interior cab noise level limits. Thermal and acoustic insulation will be provided to meet applicable noise and thermal performance standards. The types and amounts of insulation provided will be compatible with the ambient temperature conditions on the airport grounds. Provision will be made to drain, by gravity flow, any water present between the walls.

All components will be designed and protected so that their normal function will not be impaired by heavy rains, road splash, formation of condensation, spillage of extinguishing agents from nozzles and fittings, recharging operations, or leaks in the piping system

The vehicle will be so constructed and major components so mounted that 14" blocks can be placed under diagonally opposite front and rear wheels with the vehicle fully equipped, fully loaded, and the front wheels cramped at any angle, with the remaining wheels still maintaining traction on the ground.

All space which is occupied or in which work is performed during operation, servicing, and maintenance of the vehicle will be free from hazardous protrusions, edges, cracks, or other elements which might cause injury to personnel. Safety features such as steps with anti-skid treads, rigid steps to top of vehicle, catwalks, anti-skid deckplates, handrails and guards, will be provided at all points where the protection of personnel is required. The height between steps will be less than 20". The lower steps will be less than 24" from the ground. The tread of the bottom two steps will be not less than 8" in width, and succeeding steps (where practical) will be not less than 16" in width. The full width of all steps will have at least 6" of unobstructed toe room or depth, when measured from and perpendicular to the front edge of the weight bearing surface of the step. Each cab step will have an aggressive surface and extend several inches beyond the outside of the cab.

All radiator grills, louvers, lamps, tie rods, driveshafts, piping, handline and other vulnerable components will be adequately protected to prevent damage from brush, stones, logs, etc., which are likely to be encountered by the vehicle during off-road performance.

The vehicle will possess riding qualities that permit safe operation in the Critical Rescue Firefighting Access Area (CRFFAA) as described in NFPA No. 402, at speeds up to 35 MPH, without exposing operating personnel wearing seat belts to injury or causing damage to the vehicle or firefighting equipment.

All components and systems will be so designed that all operations can be performed by operating personnel, without exertion of effort in excess of the limits specified in MIL-STD-1472. Any firefighting equipment controls located outside the vehicle will be high enough to preclude operator stooping but will be no higher than 66" above the ground.

The vehicle will be capable of withstanding the following conditions without detrimental effect to subsequent operation:

- A. Ambient temperatures ranging from -40 degrees F to +115 degrees F.
- B. Relative humidity up to 100%, as well as driven snow, sleet and rain.

The vehicle will be capable of accelerating from a standing start to 50 MPH within 35 seconds on dry pavement free from loose material.

The vehicle will be capable of maintaining speeds up to 65 MPH continuously, for a minimum distance of 25 miles, on typical dry paved highway surfaces with the tires inflated for highway travel, without showing overheat symptoms in any portion of the cooling system or power train.

The vehicle will be capable of operating continuously for 25 miles at speeds up to 10 MPH over all types of terrain encountered in cross-country travel, including paved and unpaved roads, and on grades normally encountered in this type of operation. During this performance evaluation, the vehicle will be operated in all-wheel drive. At least 5 miles of this operation will be cross-country travel.

The vehicle will be capable of operating on smooth, dry level pavement through a range from 1 MPH to at least 10 MPH, while discharging agent from the primary turret at maximum rated capacity without interruption.

The vehicle will be capable of ascending a smooth, dry, paved road having an 8% grade at a maintained speed of at least 20 MPH.

The vehicle will be capable of ascending, stopping, re-starting, and continuing ascent up a 20% grade; then descending, stopping, re-starting, and continuing descent down a 20% grade at a speed of at least 2 MPH with extinguishing agent being discharged at maximum rated capacity from the primary turret without interruption.

The vehicle will be capable of ascending and descending a dry, hard surface incline having a 50% grade at not less than 1 MPH.

The vehicle will be capable of operating in both directions on a 20% side slope with extinguishing agent being discharged in any direction of turret azimuth at maximum rated capacity without interruption. While stationary and turned in either direction, the steering will be capable of being moved to the maximum turning angle, either right or left, without any vehicle instability.

The vehicle will be capable of negotiating pooled water to a depth of 2" for a distance of at least 150' at a speed of at least 40 MPH without engine flooding/stalling, loss of direction control, loss of braking, or electrical system shorting.

The vehicle will be capable of being held and controlled by the service brakes on an incline of 50% when headed up or down.

The vehicle will have a proven and demonstrated minimum side slope stability of 30 degrees. The contractor will furnish with the proposal a certification signed by the company's Chief Engineer for ARFF Vehicles confirming that the vehicle model proposed meets the 30 degree requirement based on an actual tilt table test to SAE J2180 (1993) criteria. The signature on this document will be notarized.

The vehicle will be brought to five successive complete stops using the service brakes under any load condition within 40' from a speed of 20 MPH on a dry, paved, approximately level road, free of loose material.

The service brake system will have the capability to deliver 70% full braking capacity to the brakes when applied at a rate of three applications per minute with the transmission in high gear and the engine at maximum speed.

The service brakes will stop the vehicle within 40' from 20 MPH, and within 160' from 40 MPH.

Service brake stopping distances will be accomplished on a dry, hard, approximately level roadway free from loose material and with a roadway width equal to the vehicle width plus 4' without any part of the vehicle leaving the roadway.

An emergency brake system will be provided, applied and released by the driver from the cab and capable of modulation by means of the service brake control. With a single failure in the service brake system of a part designed to contain compressed air or brake fluid, other than failure of a common valve, manifold, brake fluid housing, or brake chamber housing, the vehicle will stop in no more than 288' from 40 MPH without any part of the vehicle leaving a dry, hard, approximately level roadway with a width equal to the vehicle width plus 4'.

The parking brake will be capable of holding the fully loaded vehicle on a 20% grade without air or hydraulic assistance.

The vehicle will climb a vertical wall at least 18" high and negotiate terrain which will deflect the diagonally opposite wheels of the vehicle in alternatively opposite directions of at least 14" without damage to the vehicle.

Wall to wall turning clearance diameter of the fully loaded vehicle will be not greater than three times its overall length.

A road test for each vehicle will be conducted with the vehicle fully loaded, and a continuous run of 10 miles or more will be made under all driving conditions, during which time the vehicle will show no loss of power or overheating. The transmission driveshaft or shafts, and rear axles will run quietly and be free from abnormal vibration or noise throughout the operating range of the vehicle.

Weight distribution will not load the vehicle in such a manner that exceeds any individual axle rating, spring, or spring hanger rating or tire rating. Axles will carry weight distribution as per S.A.E. axle loading recommendations.

Certified individual axle weight readings as well as total gross vehicle weight will be furnished with the vehicle upon final delivery.

FACTORY AUTHORIZED SERVICE FACILITY

The Contractor will maintain a factory authorized service center within approximately 50 road miles of the 2FM facility, 1685 N. Throop Street., Chicago, Illinois. The vehicle manufacturer or an authorized local vendor, approved by the City of Chicago, will operate this service center. There will be an established relationship between the service facility and the vehicle manufacturer. Adequate indoor heated facilities, with a minimum of two factory-trained technicians, will be provided. A minimum of one mobile service vehicle will be available to perform repairs. The subcontracting of service center work to vehicle repair agencies or freelance mechanics is not acceptable.

REPLACEMENT PARTS

Contractor will maintain a stock of routinely needed parts at an authorized service facility, located within approximately 50 road miles of the 2FM Facility, 1685 N. Throop Street, Chicago, Illinois.

The City of Chicago reserves the right to reject a contractor which cannot produce evidence that they can promptly furnish spare parts needed for service or repair of the vehicle herein specified.

APPROVAL DRAWINGS

Drawings for approval and blue prints with all details thereon will be furnished after the pre – construction conference and before construction of the vehicle begins. The engineering drawings will be drawn to scale and representative of the vehicle after the pre-construction conference clarifications are incorporated. Views of both sides as well as front, back and top will be shown. Generic drawings are unacceptable.

The Chicago Fire Department and 2FM will make every endeavor to correct the approval drawing before it is returned. However, if a variation or an omission between the approval drawing and the written specifications is discovered, the City of Chicago written specifications will prevail.

MEETINGS AND INSPECTIONS

A contract award conference will be held at the 2FM / Fire Department facilities at 1685 N. Throop Street, Chicago Illinois 60622 prior to construction of the vehicle cab / chassis and or vehicle body. This meeting will be attended by the Oshkosh Corporation's technical representatives to review the proposed vehicle and to discuss construction techniques and particular component placement. The Oshkosh Corporation representatives will have the full authority to provide binding decisions on the Contractor's behalf.

For each purchase order a cab & chassis pre-construction conference will be held prior to the vehicle cab and chassis construction. This conference will be held at the facility of the cab and chassis manufacturer. Four representatives of the Chicago Fire Department and two representatives of the 2FM will attend this conference. The conference will consist of a minimum of 8 hours or longer as needs dictate. The meeting will also provide for a cab / chassis pilot model inspection with which the City Representatives will review the cab/chassis vehicle for compliance to specifications. The expense of appropriate travel, lodging and meals for this conference will be borne by the contractor.

Vehicle final inspection visit will be made prior to the vehicle being shipped. Four representatives of the Chicago Fire Department and two representatives of the 2FM will attend this inspection. The expense of appropriate travel, lodging and meals for this conference will be borne by the Contractor.

For purpose of travel expenses, travel to and from the meetings by Chicago Fire Department and 2FM personnel will be by automobile up to a maximum of 200 road miles from the 2FM Facility at 1685 N. Throop Street, Chicago, Illinois.

Final acceptance will be at the 2FM facility at the Airport Maintenance Complex located at 10000 W. Montrose, O'Hare IAP, Chicago, Illinois 60666 after delivery and Chicago Fire Department and 2FM testing.

SPECIAL TOOLS

Where there are special tools, manufactured or designed by the Contractor or manufacturer, that are required to provide routine service on any component of the vehicle, such tools will be provided with each vehicle.

A Twin Disc Digital Pressure and Flow Test Transducer Kit (Twin Disc BOM 42168) will be provided. (One for both vehicles).

CHASSIS

The vehicle chassis, complete with cab, will be eight-wheel drive, front-wheel steering, diesel engine driven. Parts and accessories necessary for the safe operation of the vehicle will be provided as required by, and will conform to, Federal, State and local regulations that may be applicable for this type of vehicle at the time of its manufacture.

WHEELBASE

The wheelbase will be the optimum engineered for the proper weight distribution and performance of the vehicle.

FRAME

The chassis frame will be designed to provide the required strength, torsional rigidity and repairability, using high strength alloy steel with minimum yield strength of 80,000 psi.

Each rectangular tube-type main frame rail will have minimum dimensions of 12" x 4", with a minimum wall thickness of .47" in high stress areas.

The frame will be provided with adequate cross members, exclusive of engine supports, designed and constructed to support the gross weight of the body and load, engine, pump, filled agent tanks, and all other equipment under the specified operating conditions.

Width to the outside of the main frame rails in the assembled chassis will be 39" minimum.

Heavy duty bumpers will be mounted at the front and rear of the vehicle, secured to the frame structure.

Four towing eyes with shackles will be attached directly to the frame rails, two at the front and two at the rear of the vehicle.

ENGINE

The vehicle will be equipped with a diesel engine, turbo- charged and after-cooled, providing the required horsepower and torque to meet the performance requirements of the current Federal Aviation Administration (FAA) 150/5220-10E Advisory Circular pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles and the current National Fire Protection Association (NFPA) Standard 414.

The engine will be equipped with an electronic fuel management system.

The engine air intake system will consist of a two-stage dry type air cleaner. The air cleaner element will be of the replaceable cartridge type.

An engine high idle control will be provided to maintain the engine idle at approximately 1200 RPM when activated. This control will be safety interlocked to activate only after the transmission has been placed in the neutral position and the parking brake has been set.

The vehicle will be equipped with an efficient exhaust system and muffler, sized to avoid back pressure in excess of that recommended by the engine manufacturer. The tailpipe will be located to prevent entrance of exhaust gases into the cab under all conditions of operation. The exhaust exit will be designed so as not to disperse the foam blanket created by the primary turret. The exhaust exit design will also avoid the re-circulation of exhaust gases into the engine air intake.

A chrome plated exhaust pipe will exit the engine enclosure and will direct the exhaust gases vertically and towards the rear angled towards the centerline of the vehicle as per Chicago Fire Department requirements.

ENGINE COOLING SYSTEM

The engine cooling system will be of the circulating liquid type, with a thermostatic control to maintain a coolant temperature consistent with the engine manufacturer's recommendations, when operating under the intended service conditions. System will be designed so that upon failure of the thermostatic controls, the engine continues normal operation without overheating due to restricted engine coolant circulation.

A bypass will be provided to permit coolant circulation in the engine block, with the thermostat closed, until normal operating temperature is reached.

Draincocks will be installed at the low point of the cooling system, and at any other points necessary to drain the system completely.

A coolant temperature gauge will be provided on the cab instrument panel.

The system will be equipped with a fan system which provides cooling to the radiator system. The fan operation will be automatically controlled by a system which monitors engine coolant, engine oil and intake manifold pressures.

An approved engine cooling system filter and conditioner assembly with a spin-on filter will be provided.

All the coolant and the heater hoses will be made of silicone material, installed with pressure-compensating clamps.

A low level engine coolant indicator light and buzzer will be provided in the cab.

A high engine coolant temperature indicator light and buzzer will be provided in the cab.

Vehicle will have a minimum 50,000 BTU, diesel-fired, closed loop winterization kit installed.

The winterization kit will not detract from the performance of the vehicle or the firefighting system in ambient temperatures up to 115 degrees F.

The winterization system will provide sufficient insulation and heating capacity, by means of hot re-circulating liquids, with the heat being produced from a diesel fuel-fired heater.

The system will permit satisfactory operation of the vehicle and protect the fire fighting system from freezing for a period of 2 hours at -40 degrees F, with the vehicle fully operational and the engine running. Along with protecting the piping system, additional heating will be provided in compartments intended for rescue equipment storage that are less than 72" above the ground. The temperature in these equipment storage compartments will be maintained at a minimum of +40 degrees F in an ambient temperature of -30 degrees F.

FUEL SYSTEM

System will include, but not be limited to, injectors, fuel pumps, (1) electrical and (1) mechanical, fuel strainers, all necessary piping, valves, fittings, fuel lines, and all other necessary accessories to make up a complete and reliable system.

The fuel tank will be equipped with an accessible drain plug. The filler pipe opening will be in an accessible location outside of the cab and will be a least 4" in diameter. The filler location will not be any higher than 50" above ground level.

The fuel tank will have a minimum capacity of 70 gallons and will be mounted so that it will not be damaged by distortion of the chassis, and will not be affected by external heat, or heat from the engine or exhaust.

An in-line auxiliary fuel pump for engine priming will be provided. This priming pump will operate automatically whenever the engine is started, and will also have provisions to re-prime the engine's fuel system after replacement of the fuel filters.

A fuel water separator/filter with a thermostatically controlled heating element will be provided to effectively filter any fuel contamination encountered. The bottom of this separator/filter will be of clear glass construction that allows for a visual inspection of the filter for contaminants.

An electronically controlled engine governor, which does not adversely affect engine performance, will be provided. Governor will be set to limit engine speed so that it will not exceed the maximum RPM recommended by the engine or driveline component manufacturers.

TRANSMISSION

A Twin Disc Model TD61-2619 6 – speed automatic transmission with electronic controls will be provided.

The transmission control will be electric, push button type with digital read-out screen indicating gear selection, located within easy reach of the operator.

The continuous drive transmission will be certified as suitable for use in this vehicle by the transmission manufacturer.

The entire drivetrain will be designed and rated by Oshkosh Corporation as having sufficient capacity to slip the wheels of the static loaded vehicle on a surface having a coefficient of friction of 0.8.

The transmission hydraulic system will include oil pumps, easy service oil filter and screens, hydraulic control system, and an oil cooling system capable of limiting the stabilized transmission oil temperature to that recommended by the transmission manufacturer at all ambient temperatures encountered.

The transmission, in conjunction with the supplied engine, transfer case, and axles, will have sufficient range to provide a top speed of 70 MPH, and enough reduction in lowest range to produce the tractive effort needed for the fully loaded vehicle to ascend a 50% grade. Spacing of intermediate ranges will provide an adequate number of speeds for all operating conditions without excessive overlap.

The transmission will have a minimum of six forward speeds and one reverse speed.

TRANSFER CASE

A transfer case integral to the transmission rated for the application will be supplied

A differential will be provided that transfers power to the front and rear axles at all times, compensating for differences in front and rear drive shaft revolutions, to enhance tire tread life when maneuvering on dry, paved surfaces.

A driver controlled system will be provided which allows the lockout of differential action to maximize traction for off-pavement operation. The differential lockout control will be conveniently located for the driver. Training on the proper use of the differential lockout in extreme weather conditions will be provided as a portion of operator training.

Per NFPA 414 paragraph 4.5.5.1 (2007), vehicle all-wheel drive will be engaged at all times during the intended airport service. A driver controlled disconnect of the front axle is not acceptable.

An inter-axle differential will be installed with an driver controlled means of differential locking to lock all driveline differentials.

FRONT AND REAR AXLES

Front and rear axles furnished will be certified as being suited for use in this vehicle by the axle manufacturer. Axle manufacturer's published rating will not be raised to conform to the requirements of this specification.

Front and rear axles will have adequate capacity to carry the maximum imposed load under all intended operating conditions. For vehicle handling, stability, and off-runway performance, the axles will have identical track width.

Positive drive to each wheel will be provided to negotiate soft ground, unimproved surfaces, snow or ice. Positive wheel drive will be achieved by use of a driver controlled lockup which ensures that each wheel is driven independently.

Axles will be of the double reduction type, with final gear reduction taking place in a planetary gear set in the wheel end assembly.

FRONT AND REAR SUSPENSION

An off-road, high-mobility all wheel independent suspension system resulting in no more than 0.5 g rms acceleration at the driver's seat of the vehicle when traversing an 8-inch diameter half round at 35 mph will be provided.

The vehicle will have an all-wheel suspension, having a rating capacity at least equal to the imposed load, measured at ground level, with the vehicle loaded to its rated GVW.

Design of the axle / suspension system will be such that the total un-sprung weight of the vehicle is no greater than 20% of the gross weight of the vehicle when fully loaded. When spring capacity is rated at the spring pads, spring weight will be included in un-sprung weight.

The suspension system will be designed to provide maximum ride comfort and enhanced roll stability. The design will allow the vehicle to travel at highway speeds over improved road surfaces, and at moderate speeds over rough terrain, with minimal transfer of road shock and vibration to the crew compartment.

Each wheel will have at least one coil spring, and a heavy duty, dual acting shock absorber. In addition, each wheel end will also have energy absorbing jounce and rebound bumpers to prevent bottoming or topping of the suspension.

AIR BRAKE SYSTEM

Braking will be accomplished, in accordance with FMVSS 121, by means of a dual air braking system. System will be provided with one circuit for the front brakes and one for the rear brakes, such that a single failure in one circuit, other than failure of a common valve, manifold, or brake chamber housing, will not disable the entire system.

The service brakes will be of the all-wheel, air-mechanical type having a brake surface area of no less than 200 in² per wheel. A brake chamber will be provided for each wheel, mounted so that no part of the brake chamber projects below the axle.

An engine driven air compressor will be installed, having a capacity at least of 27 scfm, sufficient to increase air pressure in the supply and service reservoirs from 85 PSI to 100 PSI in 25 seconds when the engine is operating at the vehicle manufacturer's maximum recommended RPM. If reservoir volume is greater than the minimum required, proportionately longer build-up time is acceptable.

The total reservoir volume will be at least 12 times total combined brake chamber volume at full stroke. Reservoirs will be equipped with drain and safety valves. Provision for quick build-up of pressure will be furnished, including a separate quick build-up tank. Quick build-up of tank pressure from 0 PSI to the minimum pressure required for operation of the brake system will be accomplished within 15 seconds, relying solely on vehicle air compressor output.

Provisions will be installed to drain all air reservoirs at one location from the exterior of the vehicle. The provisions will eliminate the need for an individual to be underneath the vehicle to accomplish the required periodic draining of the air reservoirs. Each of the drain points will be labeled.

The parking / emergency brake system will be entirely independent from the service brakes. It may be connected to the same brake shoes as the service brakes but only through an entirely separate mechanical means. The parking brakes will be of the spring set type. Spring set parking brakes will be integrally mounted with the service air brake chambers on the rear axles. Provisions will be made for release of the spring brakes in an emergency when the air system is inoperative.

The brake system will include an all-wheel electronic anti-lock braking, certified for installation on the proposed vehicle. The installation will include a self-diagnostic system with cab readout.

The front and rear axle brake assemblies will be equipped with self-adjusting mechanisms.

A pneumatic output connection will be provided on the left side of the cab. This connection will have a brass quick disconnect (Milton #77) female connector installed, and an interchangeable male connector shipped loose.

The air system will be supplied with a "Glad-Hand" air connection at the front of the vehicle.

A Bendix AD-IS heated air dryer with automatic moisture ejector will be provided.

Two separate air gauges will be provided. A red warning light and an audible alarm that activate when air pressure is outside of the recommended range will be provided.

Color-coded nylon brake lines will be provided, routed in protected locations from point to point throughout the chassis. Where practical, these lines will be wrapped in a heat protective loom in all locations throughout the chassis where heat will be encountered.

An on board piston pump air compressor, with appropriate pressure switch and check valves, will be furnished and installed in a protected, adequately ventilated area. To prevent moisture from entering the chassis air system, the compressor will be connected to the inlet of the chassis air dryer through a check valve.

STEERING SYSTEM

The chassis will be equipped with power assisted steering. The steering mechanism will be designed to permit sufficient manual steering to bring the fully loaded vehicle to a safe stop in the event of failure of the power assist in accordance with AC and NFPA 414 requirements.

The power assisted steering will have sufficient capacity so that no more than 15 lbs. of pull is required on the steering wheel in order to turn the steering wheel from lock to lock with the stationary vehicle wheels on dry, level pavement and the engine idling.

Stops will be provided which will accurately limit the turning angle to the maximum intended.

The steering gear will be per the AC and NFPA 414.

The cab will be equipped with a tilt steering column that is adjustable in height and angle.

TIRES AND WHEELS

The wheels will be disc type. Rim contours and sizes will conform to the current recommended practices of the Tire and Rim Association, Inc., for the type of vehicle and the intended service.

Wheels will be of identical offset, bolt patterns, and size, and will be completely interchangeable for permanent use between the front and rear axles.

Tires will have an aggressive tread design and will be capable of all performance requirements within the Critical Rescue Firefighting Access Area at a tire pressure of 35 PSI. All tires will be of the same size and tread design.

Tires will be Michelin 24R21 XZL, steel belted radials.

All tires, including the spare, will be equipped with bead locks for safety of operation.

A spare wheel and tire assembly, mounted and ready to use will be provided separately from the vehicle. The assembly will be set up with CTI provisions.

A Central Tire Inflation (CTI) system will be provided.

The CTI system will provide automatic inflation/deflation of the vehicle tires from the operator selectable control panel. The CTI system will be capable of rapidly dumping the tire pressure from the on-road to off-road setting.

The operator control panel will be programmed by the manufacturer to provide a minimum of three optimum tire pressure settings for on-road, off-road, and severe duty operational conditions.

The CTI system will be supplied by a vehicle driven air compressor with a minimum output capacity of 27 static cubic feet per minute (scfm). To assure that a minimum moisture level is maintained in the CTI system, the air compressor will discharge its output into an air cooler, then into an air dryer system rated at a minimum of 27 scfm.

ELECTRICAL

The battery system will be a single system consisting a minimum of six group 31, 12 VDC heavy duty, high cycle automotive batteries each with a minimum reserve capacity of 1000 minutes with a 23 A draw at 80°F.

The battery group will be mounted in a protected, readily accessible location on the vehicle.

The chassis will be equipped with a Kussmaul "Auto Charge" 1200 battery charger. The charger output will be rated for 40 A at 12 VDC for fast battery recharge.

The charger will operate on 120 VAC, 60 Hz and draw a maximum of 10 A. The charger will utilize remote voltage sensing to compensate charger output for voltage drop in the charging circuit. The charger will have a bar graph charge level indicator mounted on the left side of the cab to indicate charge level.

Three Kussmaul "Super Auto Eject" 20 A shore line receptacles will be provided. The auto eject receptacles will be completely sealed from road dirt contamination and will be mounted on the left side of the cab. These electrical shore lines will be automatically ejected when the engine starter circuit is engaged. A yellow spring-loaded weatherproof cover will protect each receptacle. One receptacle will be for the battery charger and the auxiliary air compressor with the second for the engine coolant pre-heater and the third wired to the cab mounted power strip.

Each front turn signal lamp will be an LED light, mounted above each warning light bezel at the belt line and below the windshield.

A heavy duty, non-polarity sensitive electronic flasher will be provided to control the turn signal and emergency four-way flasher requirements.

Circuits will be provided with properly rated low voltage over-current protective devices. Such devices will be readily accessible and protected against heat in excess of the components rating, mechanical damage, and water spray. Circuit protection will be accomplished by utilizing fuses, circuit breakers, and / or fusible links that conform to SAE J156, SAE J553, SAE J2077, SAE J554 and/or SAE J1888. All wiring will meet or exceed SAE J1127, SAE J1128, or SAE J1560.

All wiring will be individually number coded and will be labeled at three to four inch intervals (measured center to center) on the insulation as to its function as follows.

- Within 24 inches of each termination toward the termination,
- Within 12 inches of the breakout point from the main harness on the branch connectors toward the main harness,
- Minimum of one code fully exposed and easily readable at each termination.

Wiring installed by the body builder will be run in a plastic protective automotive loom, held in place with a rubber coated bracket that will be fastened in place with stainless steel screws.

The loom will run under the vehicle from the front to the rear. A plastic protective loom will be utilized inside the body. All looms passing through any flanges or flat surfaces will be properly grommeted.

All wire connections will be protected with a marine "soft seal" to promote a lasting corrosion free connection. All terminal points will be protected with a hard rubber shield. All wire harnesses will be easily accessible and replaceable. All wires will be protected by automatic circuit breakers that will reset. All electrical equipment switches will be mounted on a switch panel in the cab, located for driver convenience. All exterior connectors will be weatherpac type.

The exterior housing of lamps, electronic devices, and fixtures will be corrosion resistant and waterproofed. Electrical fixtures attached to the sides of the vehicle below the 75" level will be near flush mounted. Fixtures will not protrude more than 2", except for such items as spotlights.

The entire system will have an "Amperage Load Analysis" completed on the vehicle prior to delivery. A copy of the analysis will be supplied with the vehicle at the time of delivery.

At the time of delivery a detailed electrical schematic will be furnished. It will be supplied on a full size print for easy review.

All electrical equipment installed by the vehicle builder will conform to the latest requirements as outlined in NFPA 414 (2007)

All electrical wiring installed by the vehicle builder will utilize stranded copper or copper alloy conductors of a gauge rated to carry 125% of the maximum current for which the circuit is protected.

Voltage drops in all wiring from the power source to the using device will not exceed 10%. The use of star washers for circuit ground connections will not be permitted. All wiring will be highly resistant to grease, oil, acids, brake fluid and abrasion. All circuits will be wired in conformance with SAE J1292.

A Federal E2QB siren will be mounted in the cab, and will be provided with one foot switch on the driver's side, and one foot switch on the officer's side. Control head to be mounted left of the driver with a protective guard to prevent inadvertent damage from driver egress

One Federal BP200-EF siren speaker with 200 watt driver will be installed, wired to the electronic siren.

Two bright finish Hadley Stuttertone style 24" air horns will be mounted below the front bumper. A horn/air horn selector switch will be installed on the central dash panel for selecting either the dual electric horns or the air horns. All horns will be activated by the steering wheel horn button.

Dual taillights and stop lights will be provided, one set on each side of the vehicle at the rear, recessed into the bumper for protection from brush damage and totally sealed. A second set of "high-mount" stoplights will be installed as high as possible on the rear of the vehicle. All of these lights will be LED type.

Turn signals will be provided, front and rear, with a visual indicator and a four-way flasher feature equipped with an electronic flasher. These lights will be LED type.

The cab roof will be equipped with two Federal Signal Model Escape 22" (ESC2203-NFPA) red lightbars. These lights will be angled at approximately 15° and installed on mounting brackets which are a minimum of eight inches above the cab roof.

The rear roof line of the engine enclosure will be equipped with one Federal Signal Model Escape 22" (ESC2203-NFPA) red lightbar mounted in the center.

The front of the vehicle will be equipped with two Federal Signal LED lights, one Quadraflare Model QL64FSC-RG red/green light on the right (curb) side and one Quadraflare Model QL64FX-RR red light on the left (street) side of the bumper in the manufacturer's standard mounting locations.

The rear of the vehicle will be equipped with two Federal Signal LED lights, one Quadraflare Model QL64FSC-RG red/green light on the right (curb) side and one Quadraflare Model QL64FX-RR red light on the left (street) side of the bumper in the manufacturer's standard mounting locations.

The vehicle will be equipped with five Federal Signal red LED lights on each side of the vehicle; one Quadraflare Model QL64FX-R light on the cab, one Quadraflare Model QL64FX-R light on the rear body and one Federal Signal IMPAXX (IPX300-4) light above each lower roller shutter door in the center body.

Compartment lights, non-glare type, arranged to illuminate both sides of the engine and the interior of all access and storage compartments with an individual switch, will be located in each compartment.

Four Rigid Industries 30 inch "E" Series LED light bars will be mounted on each side of the vehicle's body (eight total). The lights will be mounted at the highest point of the side walls, below the safety rails. Two safety/double activating switches will be provided in the cab, one switch for the lights on each side of the vehicle.

Two 10 inch Rigid Industries "E" Series LED lights will be mounted at the front of the vehicle above the windshield

Eight 12v Speaker Model 735 LED flood lights will be provided with four mounted on each side of the vehicle. Three lights are to illuminate the lettering and vehicle I.D. number on the center body panel with a fourth illuminating the American Flag on the hinged door on each side of the vehicle. These lights will be powered on whenever the headlights are activated.

Rigid Industries "Dually D2" LED lights set in a flood light pattern will be installed on the rear of the engine cover. These lights will be activated by a cab switch or whenever the vehicle transmission is placed in reverse gear.

All of the upper and lower red and red / green emergency warning lights will be activated by a single 2-position switch labeled "EMERG". A lower emergency warning light disable switch will be provided, to disable the fourteen lower LED lights when desired.

A voltmeter will be installed on the exterior of the vehicle to allow an individual standing on the ground to determine the charge of the vehicle's electrical system without the need to get into the cab. A rubber boot will be installed on the toggle switch used to activate the voltmeter reading.

A 110 Volt 15 amp transformer style power strip will be mounted horizontally in the bottom of the cab storage compartment with the receptacles on top, two inches from the compartment's rear wall. The power strip will be wired to a Kussmaul auto-eject receptacle on the LH side of the cab with a label adjacent to the receptacle reading "Power Strip".

Four Whelen B6MMRRP LED warning lights will be provided, with two installed on the top front and rear corners of the center body on each side of the vehicle.

Two Whelen B6MMRRP LED warning lights will be provided, with one installed on each of top rear corners of the vehicle.

CAB

The cab will be constructed of aluminum to minimize weight and provide protection against corrosion. The cab will be rainproof and drip-proof. The cab will be a separate unit, flexibly 3-point mounted on the main vehicle frame.

The cab and chassis will be designed, engineered and assembled as a premium quality, integrated unit which provides for safe and comfortable entry and egress for firefighters properly clothed in full protective gear.

The design and arrangement of the cab and components will optimize visibility for control of the vehicle for the performance of firefighting operations.

The cab will be sealed and insulated, meeting the cab design requirements of the current Federal Aviation Administration (FAA) 150/5220-10E Advisory Circular pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles and the current National Fire Protection Association (NFPA) Standard 414.

The windshield and supplemental cab windows will give the driver a lateral field of vision of at least 280 degree (140 degrees to either side of straight ahead), with 90 degree minimum upward visibility (from line of sight), and 25 degree downward visibility (from line of sight). The

ground will be visible to the driver at a point not greater than 15' from the vehicle through the left two thirds of the included angle of vision and 30' from the vehicle through the right third of the included angle.

Provisions will be made to readily test the condition of all warning light bulbs. All instrument and warning lights will be displayed in a panel or panels in such a way that they will be most accessible, convenient and visible to the driver.

The panel or panels will either be hinged for back access, or removable by the use of quick disconnect fittings for all electrical, air and hydraulic circuits. All instruments and controls will be illuminated, with backlighting used where practical.

The cab will have all the necessary controls within easy reach of the driver for the full operation of the vehicle. The controls for the firefighting system will also be within easy reach of the driver as well as a crewman.

All instruments except liquid filled gauges will be illuminated by backlighting, the intensity of which will be controlled by a rheostat control switch.

All dash mounted switches will be the illuminated rocker type with the legend for the switch function embossed into the illuminated area on the switch. When a switch is activated, the intensity of the illumination will increase (brighten). The illumination of the switch will be by means of a replaceable-type incandescent lamp.

The following instruments and/or warning lights will be provided in the cab as applicable:

- Speedometer/Odometer
- Power Divider Low Oil Pressure or flow Indicator
- Tachometer
- Fuel Level
- Air Pressure Gauge / Low Air Pressure Indicator and Buzzer
- Transmission Oil Temperature Gauge
- Headlight High Beam Indicator
- Differential Lock Indicator
- Low Air Pressure Warning
- Water Tank Level Indicator
- Engine Coolant Temperature Gauge / High Engine Coolant Temperature Indicator and Buzzer
- AFFF Tank Level Indicator
- Engine Oil Pressure Gauge / Low Engine Oil Pressure Indicator and Buzzer
- Water Pump Pressure
- Voltmeter
- Open Compartment Light
- Anti-lock Brake Indicator Light
- Dry chemical Activation Indicator Light
- Halotron I Activation Indicator Light
- Pre-connect Activation Indicator Light
- Intensity Control for the Agent Level Lights
- Dry chemical System and Nitrogen Cylinder Pressure Indicators
- Halotron I System and Argon Cylinder Pressure Indicators
- Pump Engaged Indicator Light

The following cab mounted controls will be provided as applicable with illumination of controls by backlighting or flood lighting as required:

Accelerator Pedal	Transmission Range Selector
Brake Pedal	Master Electrical
Pump Control-Agent Selector	Engine Shut Down Switch
Siren Switch w/Microphone	Parking Brake Control
Emergency Light Switch	Cab Dome Light Switch
Ignition Switch	Windshield Wiper and Washer Controls
Headlight Switch	Windshield Deluge Control
Primary Turret Controls	Heater/Defroster Controls
Engine High Idle Control	Panel Light Switch
Air Conditioning Controls	Fog Light Switch
Engine Starter Switch	Driving Light Switch
Differential Lock Switches	Pre-connect Handline Discharge Switch
Equipment Light Switches	
Adjustable Tilt Steering Wheel with Self-Canceling Turn Signals	
High Reach Extendable Turret (HRET) Controls	

A Stability Dynamics Ltd. Lateral 'G' Force device, Model LG Alert system will be installed.

The cab will have seats for 3 crew members (including driver), complete with orange, integral 3-point seat belts with automatic retractors.

Both the driver's seat and gunner's seat will be fully adjustable air ride type, positioned to allow visibility to the front as well as to both sides. The driver's seat is to have a recline feature. All seats will be covered with grey Durawear material and will include the CFD logo in lieu of the manufacturer's logo.

One fixed crew seat will be installed to the far left of the driver.

The crew seats (not driver) will be equipped with Bostrom SecureAll Self-Contained Breathing Apparatus (SCBA) brackets integral to the seat, including an insert to cover the SCBA bottle. Each bracket will be capable of accepting up to a one-hour SCBA bottle.

Adequate space will be provided for the instruments, radios, controls, and other safety equipment required by three firefighters. Equipment locations will not hinder crew operations.

The cab will be provided with wide gutters to prevent foam and water from dripping onto the windshield and side windows.

A center console will be provided between the driver and turret operator which houses the HRET joysticks and controls, the bumper turret joystick and controls, siren, radio equipment, electric window controls, remote heated mirror controls, heating / AC controls and cab roof mounted FLIR camera joystick.

A windshield deluge system will be included to cool the windshield and to provide operator visibility during fire fighting operations. The system will be so designed to flood the windshield with clear agent water while firefighting pumps are engaged (foam or water mode). Clear water will be discharged at a minimum rate of 3 GPM under sufficient pressure and in a pattern which will insure that the driver and turret operator's fields of vision can be kept clear of foam solution when used in conjunction with the windshield wiper. The windshield wipers will be automatically energized to the low or high speed mode of operation whenever the deluge system is operated.

Two, 2-speed defroster fans will be mounted either on the cab instrument panel, one on each side. A switch will be mounted in the instrument panel within the driver's reach to turn the fans on and off. A guard will be mounted around each rotating blade.

Air conditioning will be supplied. The air conditioning system will be driven from the vehicle engine; 60,000 BTU minimum. The system will be filled with a HFC134A refrigerant.

A heater/defroster will be provided, with 200 BTU output per cubic foot of cab space (minimum 60,000 BTU), with blower capacity per minute equal to cab volume, with fresh air intake, and with a sufficient number of defroster ducts to rapidly clear all cab glass

The windshield will be of shatterproof, laminated safety-type glass. All other windows will be of approved laminated or tempered tinted safety type glass.

Wide opening doors will be provided on each side of the cab with necessary steps and handles to permit rapid and safe entrance and exit from the cab.

The door will be equipped with readily accessible and serviceable door hinges.

The cab doors will be equipped with electric windows. Control switches will be provided at the driver's position.

Two outside rear view mirrors, having a minimum surface area of not less than 60 in² each, will be provided, as well as a wide angle convex mirror on each side with a minimum surface area of 35 in².

All mirrors that are at least 60 in² in area will be heated, and power remote controlled from the driver's seat.

A system will be included that provides a safe supplied breathing air system for use by three occupants in the cab of the vehicle wearing Chicago Fire Department issued MSA facepieces. The system will be capable of providing the occupants with safe breathing air utilizing equipment situated within easy reach of the occupants via a permanently mounted quick connect manifold system within the cab. The system will include an Air System's International Portapac cylinder pack, Model PK-3 with Nylon cover and PAK-WM mounting bracket mounted to the cab rear wall. The bracket will be positioned to allow the bottles to be accessed by both the driver and the gunner while the bottles are mounted to the rear wall. The pack will be capable of accepting two one-hour MSA composite SCBA bottles. All CFD and MSA approved fittings, hoses, regulators and two 1 hour air bottles will be delivered with the vehicle.

A highly visible sign identifying the vehicle height will be prominently displayed in the cab of the vehicle so that the occupants of the vehicle will see it at all times. A similar sign will be installed over each cab door so as to be seen by anyone entering the cab from either side.

The vehicle will be equipped with a rear view, back up, camera system with wide angle camera and cab mounted monitor within clear view of operator. The back up camera is to be activated and its image displayed on the monitor installed above and to the right of the driver whenever the vehicle ignition switch is activated. This camera image will be recorded on the DVR whenever the ignition switch is activated.

The vehicle will be equipped with a Safety Vision Patrol IR Forward Looking Infrared (FLIR) camera mounted on the cab roof. The FLIR camera will provide vision enhancement in low

visibility conditions, including operation during total darkness, fog, severe weather, and firefighting operations during which thick smoke is emitted. It will also provide the ability to detect hot spots and residual heat in all light conditions, to aid in the directing of firefighting efforts.

A Safety Vision full color high resolution, shock resistant camera will be mounted in the cab, capable of viewing any incident through the windshield. This camera image will be recorded on the DVR whenever the ignition switch is activated.

A minimum 10.4 inch flat screen color monitor will be installed on the instrument panel between the driver and the gunner (turret operator). The images of both FLIR cameras (roof and HRET mounted) and the color camera installed on the HRET piercing device will be capable of being displayed on this monitor, depending on which camera is selected.

A Safety Vision Model 6000K Pro digital video recorder (DVR) will also be provided. The recorder should be equipped with the largest hard drive available. One spare hard drive of similar capacity and one hard drive reader will be included with the vehicle upon delivery. The images from all active cameras will always be recorded along with all VHF-AM (air traffic) and CFD "fireground" radio traffic. All cameras and the recorder will activate and begin recording on the DVR whenever the ignition switch is activated.

VEHICLE BODY

Body will be fabricated from aluminum alloy designed to provide lightweight, maximum strength, and heat and corrosion resistance.

Sheet metal screws will not be used in construction of the vehicle body. Sheet metal panels will be bolted or welded to their support structures for ease of replacement in the event of damage, and to allow normal vehicle flexing and movement.

Rigid integral steps, walkways and running boards located at the cab, on top and at the rear will be provided as required for ascending descending or servicing the vehicle. All steps, walkways and running boards will be of a non-skid type. Steps will include stainless steel or aluminum kick plates for appearance and long life and be of a size to provide safe entrance and exit from the cab of the vehicle.

A water tight roof hatch will be provided in the ceiling of the cab. A label reading "Emergency Escape Hatch" will be installed on the inside of the cab roof hatch.

Aluminum extruded handles with a slip resistant finish will be provided at the top of the center body section. The center body handrails will be 36 inches high, have a mid-rail and be able to withstand a horizontal force of 890 N. Aluminum extrusion handles will be located on the vehicle as required to insure the safe passage of personnel entering or exiting the cab or while standing on a designated work area. A 20" grab handle with an aggressive surface will be installed on the right side of the cab exterior behind the cab door.

All compartments on the vehicle, except those providing service access, will be equipped with roller shutter aluminum doors with a bar type external latching mechanism. The latch mechanisms will provide a positive closure. Latches will be accessible from the ground by personnel of average height without the aid of steps or ladders.

In compartments where roller shutter doors are used, the compartments will be illuminated with an LED lighted guide channel on each side of the compartment. All compartments will be

provided with weatherproof lights that are switched to automatically light when compartment doors are opened and the vehicle master switch is in the 'on' position. Lighting for maintenance access compartments will be provided by circular LED lights, each having a 21 CP minimum rating.

Storage compartments will be vented, weather tight and provided with a drain. All compartments will be sealed to prevent water from entering the compartment when the roller shutter door is closed.

All compartment handles will be 72" maximum from the ground or applicable platform.

A compartment open warning indicator light will be provided on the cab dash.

One piece PVC ribbed matting will be provided in each compartment intended for storage and on each equipment storage tray.

The pre-connect hose compartment will be equipped with a height adjustable shelf above the pre-connect handline storage area, with a roll out tray intended for the storage of equipment. The tray will be capable of being locked in the stored position.

Upper side compartments with adequate space for storage of equipment will be provided with a slide-out / tilt-down type shelf to facilitate the storage of equipment items by a firefighter standing outside the vehicle, on the ground, without the aid of a step, stool or ladder.

Storage will be provided on the vehicle for two spare SCBA bottles, one on each side of the rear body in a recessed compartment with a chrome locking door.

Lower compartments available for the storage of equipment will be provided with a slide-out / tilt-down type shelf to facilitate the storage of equipment items by a firefighter standing outside the vehicle. This tray will be capable of being locked in the stored positions. "Yellow" locking mechanisms will not be acceptable.

Black trim pieces will not be installed around the wheel wells or installed between the water / foam tank assembly and the lower compartments at any position on the vehicle.

Where tools and equipment are to be stored on shelves in compartments, rubber locking/holding devices will be installed to keep the tools and equipment secured in place. The locations of the tools and equipment and their fasteners will be determined during the preconstruction meeting.

A watertight compartment constructed from diamond plate aluminum which is to be 6 foot long x 2 feet wide and 2 feet deep with a hinged lid is to be installed on the top left of the vehicle. The compartment will be used to store a LifeRamp to be provided by the CFD and a Little Giant Model 24 ladder to be provided by the Contractor.

PUMP SYSTEM

The pump will be driven by the vehicle engine through a power divider, permitting simultaneous operation of the pump and the vehicle. The pump will include a bronze housing, bronze impeller and a stainless steel shaft.

The drive will be designed to allow the pump to be engaged at any speed and in any gear. The power divider will be mounted on the flywheel housing of the engine and will split the engine drive into separate drives for the water and the main drive to the vehicle transmission.

In addition, the power divider will provide mounting and drive arrangements for the modulating clutch oil pump.

This modulating clutch oil pump will be direct drive or gear driven and will circulate oil through the power divider to dissipate the heat generated by clutch operation.

The drive to the water pump clutch will be direct mechanical, and will always be running when the engine is operating. Clutch speed will be controlled by the speed of the engine. A separate clutch will be provided for the pump drive as a means of disconnecting the pump when it is not in use. For maintainability, the pump clutch will be easily replaceable as a unit as well as easily re-buildable in the field. The drive to the main transmission when the vehicle is being driven in a normal mode will be through a torque converter, and engine RPM will be controlled as it would normally be by the accelerator pedal. In pump mode, the drive to the converter/main transmission will be through a clutch which may be "modulated" (operator controlled slippage). The accelerator pedal, which in the normal mode controls engine RPM, will be connected to a modulating valve which in turn allows the driver to modulate the clutch.

The driver will be able to control the speed of the vehicle and maneuver while discharging at rated capacity without a reduction in pump operating pressure. When in the pump mode, the pumping RPM will increase automatically only after a discharge orifice is opened, to minimize heat build-up and potential damage to the pump, during standby operation when water is not being discharged.

The water pump will be of the centrifugal type, designed to provide a discharge rate of 1950 GPM @ 220 PSI. The total discharge capacity of the water pump will include the maximum discharge flow rate tolerances as listed in the current Federal Aviation Administration (FAA) 150/5220-10E Advisory Circular pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles and the current National Fire Protection Association (NFPA) Standard 414.

The total discharge flow rate required by the water pump will include any capacity needed for the creation of a foam solution. It will incorporate a mechanical type seal not requiring regular periodic adjustment. When operating from the water tank as an aircraft firefighting vehicle, the pump will be capable of providing a turret straight stream or dispersed water/foam pattern over the performance range specified in the current Federal Aviation Administration (FAA) 150/5220-10 Advisory Circular pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles and the current National Fire Protection Association (NFPA) Standard 414.

The pump will be certified by the manufacturer as to its suitability in this vehicle at the specified performance.

The water pump will be gravity primed from the vehicle tank.

An hourmeter will be installed adjacent to the water pump that will record the time in hours that the water pump has been operated.

The suction system will be designed for efficient flow at the designed pumping rates. There will be a drain at the lowest point with valves for draining all of the liquid from the pumping system when desired. Plumbing to the drains will be heavy duty wire braid hose for long service life.

Piping will be stainless steel, securely mounted and provided with flexible couplings in areas of stress. Victaulic type couplings will be provided to facilitate removal of piping.

All valves should be of the quick opening type which can be serviced in-line and be selected for ease of operation and freedom from leakage (Swing-Out type).

All water system piping will be tested on the suction side of pump for leakage. All water and AFFF solution discharge piping will be tested for leakage at 1½ times system operating pressure.

A means of pressure regulation will be provided that is adjustable to maintain working pressures from 150 to 300 PSI at normal pumping RPM.

All flexible hoses subject to pump pressure, including drain lines and pressure gauge connections, will be wire braid reinforced hose. For long life, minimum burst pressure will be 1000 PSI.

Water and foam tank level indicators will be provided on each side of the vehicle in addition to those mounted in the cab.

The agent system will be equipped with a thermostatically controlled dump valve to protect against pressure build-up due to heat caused by deadhead pumping.

WATER TANK

The tank will have a useable capacity of not less than 4500 gallons. It will be properly baffled, with each tank division being no more than 500 gallons. The tank will be constructed of polypropylene that is resistant to deterioration by the City of Chicago's water supply.

Tank construction and piping connections will be fabricated to prevent the possibility of chemical and galvanic corrosion.

The tank will be equipped with a readily removable manhole cover over the tank discharge. Tank will also have an anti-swirl baffle, a low point drain valve, and a top water filler opening with a screen and gasketed cap. Filler opening diameter will be approximately 8".

The suction piping from the tank to the pump will have a control valve installed in the line between tank and pump which will be of the quick-acting, quarter-turn type to provide a positive seal between the tank and pump.

The tank outlet and suction piping will be of sufficient size to permit the maximum required discharge rate from all nozzles.

The tank will be mounted in a manner that will not transfer torsional strains of off-pavement driving from the chassis frame to the tank. The tank will be separate and distinct from the body and be easily removable as a unit.

The tank will be adequately vented to the atmosphere to permit rapid and complete filling without pressure build-up and to permit vent discharge at the maximum design flow rate without danger of tank collapse.

Tank fill connections will be provided on each side of the vehicle in positions where they can be reached from the ground. The connections will be constructed so that water is not lost

from the tank when connection or disconnection is made. All water fill openings will be provided with strainers.

The water tank fill piping will terminate in a 2½" CFD swivel female hose connection on each side, angled to prevent hose kinking during filling operations.

One high volume, 4½" fill inlet with a 5" Storz adapter will be provided on each side, angled to prevent hose kinking during filling operations. Each of these connections will permit filling of the tank in 2 minutes at a pressure of 80 psi.

Each fill connection will be equipped with a bleeder valve to bleed off air or water in the hose connected to it.

The outlets will be arranged to permit the use of the full capacity of the tank with the vehicle level and at least 75% of the tank capacity with the vehicle inclined on a 20% side slope or while ascending or descending a 30% grade. A low point drain will be provided.

The tank will be equipped with a top fill inlet having a 5" Storz adapter, capable of filling the tank through overhead piping. The top fill inlet will include a swivel 90° elbow facing to the rear and a label reading "This connection should be used for hydrant fill only at a maximum pressure of 45 PSI or tank damage could result."

The vehicle will be equipped with a water tank level indicator light system mounted on the left and right side of the vehicle to indicate tank level in operation. The indicator lights will be large rectangular type capable of being viewed while in operation at a distance of 500 feet. The black mounting bracket for each light will include a large white "W".

The vehicle will be equipped with a driver area mounted water tank level indicator.

FOAM TANK AND SYSTEM

The foam liquid concentrate tank will be of sufficient capacity to support 18,000 gallons of water at 3 parts of concentrate to 97 parts of water (630 gallons minimum). The tank will be of the rigid type, flexibly mounted. Construction will be of polypropylene.

The tank will be equipped with a removable manhole to permit access to the sump area. Tank outlets will be located above the bottom of the sump and will be of adequate size to permit maximum flow. The outlets will be arranged so as to permit the use of the full capacity of the tank with the vehicle level and at least 75% of the tank capacity with the vehicle inclined on a 20% side slope or ascending or descending a 30% grade.

A large capacity drain connection will be installed flush with the bottom of the tank. Foam drain will terminate on the left side of the vehicle to allow easy recovery of foam.

A fill trough will be provided, equipped with a brass or stainless steel mesh screen, ¼" mesh or finer, and a triangular metal can opener blade to permit emptying five gallon foam liquid concentrate cans into the storage tank at a rapid rate. The trough will be connected to the foam liquid storage tank with a fill line designed to introduce foam liquid concentrate near the bottom of the tank so as to minimize foaming within the storage tank.

A female 1½" swivel NST and a NST to CFD female threaded adapter with a strainer and a plug with chain will be provided on the left side of the vehicle to permit the pumping of foam-

liquid concentrate into the storage tank or tanks. A manual shutoff valve will be provided to prevent the loss of foam liquid.

The tank will be adequately vented to permit rapid and complete filling without build-up of excessive pressure, and to permit emptying the tank at the maximum design flow rate without danger of collapse.

The water and foam tanks will not be subject to the reaction forces of valve or system actuators. All actuators will be mounted to brackets distinct and separate from the tank walls to isolate the tanks from this external stress.

A pneumatically operated foam transfer pump will be installed in a compartment on the left side of the vehicle, complete with a 1½" hose connection, strainer and a plug with chain. Hose fittings will be compatible to the CFD connection.

The foam liquid concentrate piping that comes into contact with foam concentrate or foam solution will be stainless steel, brass, or copper. Heavy duty rubber hose may be used where greater flexibility is required, but only if it is wire braid reinforced and has a minimum burst pressure of 1000 PSI. Care will be taken that combinations of dissimilar metals that produce galvanic corrosion are not selected or that such dissimilar metals are electrically insulated. The foam liquid concentrate piping will be adequately sized to permit the maximum required flow rate.

An "around the pump" type proportioning system will be provided to accurately and automatically proportion the foam concentrate at the proper percentage, 3% metering to provide 3 parts of concentrate to 97 parts of water. The pumping RPM and foam induction will commence only when a discharge orifice is opened.

Five under vehicle nozzles will be mounted under the vehicle, controlled from the cab to protect the bottom of the vehicle and the inner sides of the wheels and tires with foam solution discharged in a spray pattern.

The vehicle will be equipped with a foam tank level indicator light system mounted on the left and right upper side of the vehicle to indicate tank level in operation. The indicator lights will be large rectangular type capable of being viewed while in operation at a distance of 500 feet. The black mounting bracket for each light will include a large white "F".

The vehicle will be equipped with a driver area mounted foam tank level indicator.

A 2 1/2 inch NST discharge connection with a ball valve and bleeder valve will be provided in the lower center compartment on each side of the vehicle capable of discharging both foam and water. A 2 1/2 inch female NST x 2 ½ inch male CFD adapter will be provided for each connection.

A pressure gauge will be provided adjacent to each of the connections.

The vehicle will be delivered with 630 gallons of 3% Aqueous Film Forming Foam that meets MIL-F-24385 requirements and is compatible with current CFD foam supplies.

PRIMARY TURRET SYSTEM

A joystick operated electric, High Performance Fixed Mount Primary Bumper Turret System with discharge rates of 625 and 1250 GPM will be provided. It will be of a single barrel configuration of the non-aspirating type with the joystick control mounted on the center console, accessible to the driver and turret operator. The turret will have an auto-oscillation capability. The turret will be equipped with a HID light attached to the turret.

The turret will have a discharge pattern which is infinitely variable from straight stream to fully dispersed. The turret will be optimized for AFFF with the resultant foam conforming to the properties specified in the current Federal Aviation Administration (FAA) 150/5220-10E Advisory Circular pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles and the current National Fire Protection Association (NFPA) Standard 414. All foam patterns will be at an operating pressure of 220 PSI.

A Hydro-Chem direct injection nozzle will be provided to allow the discharge of 16 lb. / sec. of Vivid Purple K dry chemical.

The elevation axis will allow the nozzle to be elevated 45 degrees or depressed 20 degrees either side of center. The turret will be capable of 180 degrees (90 degrees each side of center).

The system will be equipped with all necessary components to facilitate the blowdown draining of the piping.

HIGH REACH EXTENDABLE TURRET

A high reach extendable turret (HRET) will be installed, mounted for maximum stability and best weight distribution. Elevation of the tip nozzle will be approximately 65 feet to ensure operation to the upper deck of Boeing 747 model and Airbus A-380 model aircraft, measured from ground level. Maximum horizontal reach will be 45 feet, measured from the base centerline.

The extendable turret will not interfere with access or functions of firefighting equipment, water/foam tanks, and normal maintenance items. Due to the pump and roll requirement, the articulating and telescoping boom sections will have limited rotation of 30 degrees each side of center with a visual warning provided when the device reaches 15 degrees.

The use of outriggers or stabilizing jacks will not be required. The installed weight of the entire HRET unit will not cause the vehicle to become overweight.

The device will be equipped with a position sensor to aid in positioning the boom and provide a "soft stop" at the end of the cylinder stroke.

A mirror will be positioned above the cab of the vehicle that provides the HRET operator a rear facing view of the cab roof and the HRET boom assembly.

Elevated Waterway

The water discharge piping system will be capable of flowing up to 1000 GPM. It will meet all discharge requirements specified in the current Federal Aviation Administration (FAA) 150/5220-10E Advisory Circular pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles and the current National Fire Protection Association (NFPA) Standard 414. All foam patterns will be at an operating pressure of 220 PSI.

The base waterway will be designed for minimum friction loss and low maintenance. The waterway and swivel assemblies will consist of hard coated aluminum tubing to resist corrosion.

A preset relief valve capable of protecting the waterway system by relieving pressure, through the dumping of water to the environment will be provided.

The high rise waterway and optional components will comply with the winterization requirements. All exposed piping will be insulated.

HRET Nozzles

A nozzle having a water/foam discharge capability of 500 or 1000 GPM will be attached at the mid point of the telescoping section of the HRET. The nozzle will meet all performance requirements set forth in current FAA and NFPA standards including discharge and patterns from straight stream to dispersed.

A secondary tip nozzle having a water/foam discharge capability of 500 GPM will be attached to the end of the telescoping section of the HRET. The nozzle will be capable of straight stream through dispersed patterns.

A proportional speed control will be included to provide position feedback and park/deploy functions for both nozzles.

The combination of articulation and "tilt down" will allow either nozzle to be placed at or below ground level in front of the vehicle

A device with piercing capability will be attached to the end of the telescoping section of the HRET to provide remote controlled penetration capability.

The device will consist of three components including a 44 inch barrel, a tubular 7 inch nozzle with agent discharge holes and a high tensile steel piercing tip.

The nozzle will allow water / foam discharge capability of 250 gpm in a round spray pattern reaching 40 feet on all directions.

The piercing device will have the capability to provide a separate water/foam discharge or a clean agent (Halotron I) discharge by selecting the appropriate discharge switch on the nozzle joystick. A Halotron I discharge rate of 7 lbs/second will be provided through the piercing nozzle applicator.

This tip will be removable and provide for a 1.5" hose connection to allow a handline to be extended from the tip for standpipe operations. An adaptor allowing for the connection of a CFD threaded hose line will be provided.

An individually controlled hydraulic rotary actuator will permit vertical movement of the piercing device. The piercing device will be protected by a hydraulic relief system to allow the device to rotate or slip when encountering an object too difficult to penetrate.

When the "Pierce" position is selected, the tip nozzle will automatically rotate to a "Park" position to prevent interference with other components allowing maximum piercing depth. A rocker switch on the side of the nozzle joystick will allow the piercing nozzle to be deployed and positioned at various piercing angles. Selecting "tip" on the nozzle joystick panel will

automatically rotate the piercing nozzle to its "Park" position allowing joystick control to the tip nozzle.

Evidence will be submitted indicating that the piercing nozzle, in its normal mounting configuration, can successfully penetrate the fuselage of the types and sizes of aircraft typically using the airport facility. Tests data will include points of entry best suited to maximize the effectiveness of the nozzle spray pattern.

A spare steel tip will be provided with the vehicle at time of delivery.

Two 12 inch extension tubes for expanding the length of the entire piercing applicator will be provided with the vehicle at time of delivery.

Nozzle and Boom Control

The nozzle joystick will have a robust grip and unique shape so as to be readily identified by feel and allow the operator to keep focused on the fire scene without having to look away to find controls.

All primary fire fighting functions will be incorporated on the joystick with large buttons and switches that can be operated with gloves.

Left and right motion will control horizontal sweep. Forward and back motion will control vertical movement. The joystick will contain the following switches and controls:

Water/Foam On-Off Switches	Pierce Deploy Switch
Auxiliary Agent On-Off Switches	High/Low Flow Selector Switch
Fog/Stream Selector Switch	Turret Select Switch

The nozzle joystick panel will also contain additional switch functions and indicators. Each function will be labeled and back-lit. When any function is active the back lighting will turn red. This panel will contain the following switches and indicators:

Base Nozzle	Tip Nozzle	Park Position
Low Flow	Pierce Flow	High Flow
Halotron I	Nozzle Auto Level	Spot Lights
Record Nozzle Motions	Playback Nozzle Motions	

The boom joystick will be a palm grip type - easily distinguishable from the nozzle joystick to allow the operator to keep focused on the fire scene without having to look away to find controls.

The controller will have four axis functions. Left and right motion will control telescoping action. Forward and back motion will control elevation. Thumb buttons on the joystick controller will control the auto-bed function. Twisting the joystick will rotate the boom right or left.

All boom functions will be proportionally controlled allowing the operator to adjust the speed of boom movement by the amount of joystick displacement. Cushioned stop will be incorporated to automatically slow lift and tilt cylinder speed as they reach the end of stroke.

The boom joystick panel will contain additional indicators. Each function will be labeled and back-lit. When any function is active the back lighting will turn red. Indicators will include:

Boom Un-bedded Indicator
OK to Rotate Steady Red Indicator
Flashing Red Indicator for Rotation Beyond 15 Degrees
Control System Error Indicator
Extension Lock Indicator

All primary functions of the HRET boom will be incorporated on a joystick which is easily distinguishable from the nozzle joystick.

A push button will be provided on each side of the joystick. Pushing either button will allow proportional movement of the HRET boom using the joystick.

The following boom positions can be achieved using coordinated joystick movement:

Mid-Point to Full Elevation:

Pulling back on the joystick will cause the booms to move through a mid-point position to full elevation.

Low Attack:

Pushing forward on the joystick will cause the booms to move to a tilt down configuration.

Extension:

Moving the joystick to the left and right will control the degree of extension of the telescoping boom.

Rotation

Twisting the joystick to the left or right will cause the boom to move in the direction selected.

Auto-Bed

Pushing both push buttons simultaneously will cause the telescoping boom to automatically return to its bedded position from any elevated and / or rotated position.

The lift, extension and tilt cylinders will include holding valves to provide maximum safety in the event of pressure loss or hydraulic line failure. Hydraulic valves with extended handle manual overrides will be provided at the base of the boom for emergency operation of the HRET in the event of control system failure. A HRET hydraulic operating pressure gauge will be installed on the side of the hydraulic valve assembly. An electrically operated hydraulic pump will be provided as back-up in case of primary hydraulic pump failure.

Boom Mounted Equipment

One flashing red LED beacon with a 6-1/2 inch dome will be installed on top of the boom near its tip, to activate automatically when the boom is out of its bedded position. Another flashing

red LED beacon with a 5-1/2 inch dome will be installed under the telescoping boom near its tip to activate automatically when the boom is out of its bedded position.

Two LED spotlights will be attached to the base nozzle assembly and operated by a switch on the joystick panel. The complete system will be weatherproof. The lights will rotate and elevate with nozzle movement to provide illumination of the water/foam stream or as an independent remote controlled light tower.

Two LED spotlights will be attached to the tip nozzle assembly and switched by the "spot" light switch on the joystick panel. Two more LED spotlights will be attached to the rear of the upper boom, automatically activated to illuminate the boom when it is out of its bedded position.

A FLIR camera with zoom capability will be attached to the tip nozzle assembly to provide enhanced visibility in low light or smoky conditions. The camera will include a 3-position zoom feature controlled by a switch on the nozzle joystick.

A full color, compact, high resolution, shock resistant, weatherproof camera with a fixed lens will be attached to the 44 inch barrel of the auxiliary nozzle/piercing device. When the "Pierce" switch on the nozzle joystick panel is pressed, the image of this camera will be displayed on the cab monitor. The camera lens will be surrounded by LED lights to illuminate the area to be pierced.

HANDLINES

The vehicle will be supplied with two handlines for the discharge of water / foam. A pre-connected soft jacket handline will be mounted in the lower forward compartment on the left side, with a dual agent "Hydro-Chem direct injection" nozzle on a swing-out style hose reel mounted in the lower forward compartment on the right side.

200 ft. of 1-3/4" Angus Hi-Combat soft jacket type hose will be provided with a 1 1/2" Task Force Tip Thunderfog nozzle. Flow to the handline will be a minimum of 150 GPM at an operating pressure of 100 PSI, controlled at the compartment and in the cab with a safety interlock system that will only allow charging after all of the hose has been deployed. All fittings will be CFD thread for both hose and nozzles.

The cab dash will have an indicator light to advise when hose is fully deployed from its compartment.

Automatic throttle activation for the pumping RPM will be accomplished when the handline discharge nozzle is opened. An override throttle control will be provided for the initial charging of the pre-connected hose.

DRY CHEMICAL SYSTEM

The dry chemical system will have sufficient capacity for a minimum of 500 lbs. of Vivid Purple K. The agent storage cylinder will conform to ASME standards for unfixed pressure vessels. The system will be pressurized by one, 400 ft³ (nominal rating), nitrogen cylinder with integral gauge to allow full discharge and blow-down of the unit without tank change. The vehicle mounted system will discharge a minimum of 90% of the containerized agent without flow fluctuations or interruptions.

The handline for dry chemical will be 100' of 1" dual agent twinned Nordic black nitril poly vinyl cold climate type firefighting hose mounted on a swing-out reel mounted in the lower

forward compartment on the right side. The hose reel will be equipped with a 12 VDC electric rewind motor with manual rewind provisions and rollers for hose deployment. A tension device should be installed to prevent the unreeling of the hose. The nozzle will discharge 5 lbs. per second of dry chemical in accordance with the performance requirements of the current Federal Aviation Administration (FAA) 150/5220-10 Advisory Circular pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles and the current National Fire Protection Association (NFPA) Standard 414. Controls at the handline will allow charging of the nitrogen into the dry chemical tank, and charging of the dry chemical into the handline.

The vehicle will be delivered with 500 lbs. of Vivid Purple K dry chemical powder.

A funnel will be provided for easy recharging.

Three nitrogen bottles will be supplied with an integral pressure gauge on each bottle for re-servicing the vehicle-mounted dry chemical system. One bottle will be vehicle mounted with the other two bottles to be spares. The quantity of nitrogen in each bottle will be such that it will provide a complete discharge of the dry chemical agent powder and perform a blow-down operation.

A means of lifting the vehicle mounted nitrogen cylinder to its stored position or lowering it to ground level will be provided. The design will be such that it will allow for one person to perform the nitrogen cylinder re-servicing on the vehicle. The lifting / lowering mechanism will be stored on the vehicle adjacent to the nitrogen cylinder storage area. This storage provision will accommodate for the braking and for the high G forces experienced during off road travel as described in this specification.

A metal plate identifying the proper operational instructions for the system will be attached in close proximity to the control valves in the corresponding compartment.

HALOTRON I SYSTEM

The Halotron I clean agent system will have sufficient capacity for 460 lbs. of Halotron I agent. The agent storage cylinder will conform to ASME standards for unfixed pressure vessels. The system will be pressurized by one, 400 ft³ (nominal rating), argon cylinder with integral gauge to allow full discharge and blow-down of the unit without tank change. The vehicle mounted system will discharge a minimum of 90% of the containerized agent without flow fluctuations or interruptions.

The handline for Halotron I will be 150' of 1" booster hose on a reel mounted in an upper forward compartment on the left side. The hose reel will be equipped with a 12 VDC electric rewind motor with manual rewind provisions and rollers for hose deployment. A tension device should be installed to prevent the unreeling of the hose. The nozzle will discharge 5 lbs. per second of Halotron I agent in accordance with the performance requirements of the current Federal Aviation Administration (FAA) 150/5220-10 Advisory Circular pertaining to Aircraft Rescue and Firefighting (ARFF) vehicles and the current National Fire Protection Association (NFPA) Standard 414. Controls at the handline will allow charging of the argon into the Halotron I tank, and charging of Halotron I into the handline.

The vehicle will be delivered with 1000 lbs. of Halotron I. A remote fill for filling the Halotron I clean agent tank will be provided, accessible by an individual standing on the ground next to the vehicle.

Three argon bottles will be supplied with an integral pressure gauge on each bottle for re-servicing the vehicle-mounted Halotron I system. One bottle will be vehicle mounted with the other two bottles to be spares. The quantity of argon in each bottle will be such that it will provide a complete discharge of the Halotron I agent and perform a blow-down operation.

A means of lifting the vehicle mounted argon cylinder to its stored position or lowering it to ground level will be provided. The design will be such that it will allow for one person to perform the argon cylinder re-servicing on the vehicle. The lifting/lowering mechanism will be stored on the vehicle adjacent to the argon cylinder storage area. This storage provision will accommodate for the braking and for the high G forces experienced during off road travel as described in this specification.

A metal plate identifying the proper operational instructions for the system will be attached in close proximity to the control valves in the corresponding compartment.

SPECIAL EQUIPMENT

Tools unique to the servicing of the vehicle, fire suppression system, and any of the auxiliary equipment, will be furnished by the vehicle manufacturer.

One complete Oceaneering Technologies SPAAT tool kit model FD-20SK kit will be supplied. Kit will include the penetrating nozzle, a 16 hole barrel, regulator assembly, 50 foot hose assembly, 1 spare drill bit, mounting clips, one 1 hour MSA lightweight fiberglass air bottle and a basic maintenance kit. Fittings will be provided to ensure proper connection between the tool and either the Halotron line on the vehicle, or an 1-3/4" foam/water line with either CFD or NHT threads. One Pelican watertight protector case model 1650 with custom foam will be provided for storing the SPAAT tool.

Two Streamlight light box flashlights model # SL40 will be mounted in the cab one on each side of the instrument panel

One Ansul BC dry chemical (PKP) 20 lb. extinguisher will be provided mounted in lower compartment.

One METL-X 30 lb. extinguisher will be provided mounted in lower compartment.

One Halotron I, 7lb. extinguisher mounted in lower compartment.

Two sets of 2 ½ inch spanner wrenches will be supplied on a common bracket, one set each side mounted in lower compartment.

Two 5 inch Storz wrenches with mounting brackets.

Five 50 foot sections of 5 inch hose with 5 inch Storz couplings will be provided, to be stored in a watertight compartment made from diamond plate aluminum which is installed on the top right of the vehicle. The compartment is to be 8 foot long x 1 foot wide and 1 foot deep with a hinged lid.

Four 50 foot sections of 2 ½ inch hose with CFD Threads.

Four 50 foot sections of 1 ¾ inch hose with 1 ½ inch CFD threads to be used on the pre-connected handline

Two reducers, 2 ½ inch to 1 ½ inch CFD thread.

Two aluminum wheel chocks will be provided mounted under the center body directly rear of the front wheel well.

The vehicle will be equipped with a Vogel auto-lube system, fully installed. This system will provide automatic lubrication where applicable to the steering, suspension components and the hose reels. The system is to include a pump kit (cover, pump, 9' of hose and female OD), a 35 pound pail of grease and spare parts.

One 1 ½" Task Force Tip Thunderfog nozzle with CFD thread to be used on the pre-connected handline and one 2 ½" Task Force Tip MX-FoamJet attachment model FJ-MX-FT.

One MSA Evolution 5200 hand held thermal imaging camera, Heatseeker Plus, vehicle mounted charger, Spare battery, retractable lanyard, ID kit, sunshroud and display cover. Unit to be mounted within driver's accessible area in the cab.

A slide out tray with 6 inch sides will be installed in the lower center compartment on the left side for storing equipment.

DRIVER ENHANCED VISION SYSTEM

A Driver Enhanced Vision System is to be provided and fully installed with meets or exceeds the FAA specifications for DEVS, as published in Advisory Circular (AC) 150/5210-19A and FAR Part 139, Emergency Response Requirements as well as the NFPA 414 requirements.

The DEVS system will provide low visibility navigation for a vehicle operator giving rescue crews the capability to safely navigate to the site of an accident, either on or off the airfield.

On the display in the cab of the vehicle should be the vehicle's location, the location of the crash site, a vehicle route and other useful information on the computer map display. The vehicle location will be determined using a Global Positioning System (GPS).

A 15" diagonal viewable (touch screen) display will be provided to allow the driver to easily view and control the map display while operating the vehicle.

The WAAS-enabled GPS will be accurate within less than 3 meters.

The DEVS system will be capable of displaying an icon at the site of an incident as well as the direction, distance and ETA to the site. The system will allow the driver to quickly load routes that guide the vehicle to the accident site using both audible and visual prompts.

The moving map image will be produced using air photos, topographical maps, drawings to show a realistic and recognizable view of the terrain. The coverage area shown will include areas up to five miles outside of the airport property in case the incident occurs outside the fence line.

To assure the vehicle mounted GPS system is able to acquire satellite signals when parked in the fire station, a GPS rebroadcast device will be provided for installation inside the station's vehicle bay.

The DEVS system will use a Windows-based operating system and a full-featured PC computer. This will allow the display to be used for a multitude of other purposes within the

vehicle. The system will be compatible with other Windows-based software applications and allow a document viewer to be launched from a "Launch Applications" icon. The user could then select from a list of user-supplied software applications or electronic documents to access such as:

- HAZMAT Procedures
- Material Safety Data Sheets (MSDS)
- Aircraft Types and Structures (Crash Tables)
- Building Plans
- ARFF Vehicle Operator Manuals, Parts Manuals and Service Manuals

PAINTING AND LETTERING

All parts of the vehicle will be cleaned, treated, and primed prior to assembly.

The finished paint will be free from "orange peel" (pebbly finish), runs, and other imperfections.

The vehicle exterior color will be safety lime yellow to match Dupont IMRON 7744-U, to conform with present vehicle color and as required by FAA Advisory Circular 150/5210-10D (April 1, 2010). A clear coat will be applied over the exterior finish. The vehicle chassis will be painted black.

The interior of all compartments and the cab will be painted with a grey/white splatter finish.

Unit will be delivered fully lettered per 2FM requirements matching existing fleet.

A 6" White #3930 3M "High Intensity Grade Prismatic" reflective stripe will be applied across the lower portion of the front, sides and rear of the vehicle. Additional bands of 6" white #3930 3M "High Intensity Grade Prismatic" reflective stripe will be applied to the rear body panel.

A touch-up paint kit will be provided including four 16 ounce cans of safety lime yellow exterior paint.

The cab and vehicle paint finish will be warranted to be free of blistering, peeling, bubbling, or any other adhesion defect caused by defective manufacturing methods or paint material selection for exterior surfaces of the cab and vehicle for a period of ten years.

RADIOS AND RELATED EQUIPMENT

Oshkosh Corporation will supply and install the radio equipment listed below at no additional cost. Mounting locations and methods will be approved by the Chicago Fire Department prior to installation.

One ICOM Model IC-A200M VHF-AM aviation radio installed with speaker, microphone and antenna.

One Motorola Model XTL 5000, 10-50 watt VHF mobile radio (or current VHF or UHF radio in use by the Chicago Fire Department at time of Installation) installed, including all hardware, speaker, microphone and antenna meeting all CFD and O'Hare and / or Midway Airport requirements

One Motorola Model Astro Spectra UHF trunking radio, installed including speaker, microphone and antenna meeting all requirements at O'Hare International Airport.

A Setcom 3-position headset / intercom system with radio select module for Motorola radios. An additional 3 headsets will be delivered separately with the delivery of each vehicle.

The supplied equipment for the cab area will include:

- A. One A+ terminal bus, battery power unswitched, with 5 connection points, 75 A CB protected near source, capable of 75 A continuous duty cycle.
- B. One A+ terminal bus, ignition switched, with 5 connection points, 20 A CB protected near source, capable of 20 A continuous duty cycle.
- C. One ground terminal bus, with 6 connection points, capable of 75 A continuous duty cycle.

AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) VEHICLE TRAINING SIMULATOR

The purpose of the ARFF Vehicle Training Simulator is to allow vehicle drivers/operators to become familiar with, and enhance the skills necessary for, actual hands-on operation of a 4500 ARFF vehicle equipped with a 65' HRET.

The simulator to be provided will meet the following minimum requirements:

Vehicle Station:

- A. Be an open desktop type set-up with a configuration that replicates the above-mentioned 4500 ARFF Vehicle(s), including virtual dashboard, physical center console, and two (2) vehicle seats.
- B. Switches relevant for operating the HRET, Forward Looking Infra-Red (FLIR) camera and vehicle firefighting systems will be the same as in the vehicle.
- C. Gauges will be displayed in-screen on a virtual dashboard, and will include speedometer, gear indicator, and tank level meters.
- D. Included in this equipment package will be a Stability Dynamics Ltd. Lateral "G" Force simulator that warns the operator when approaching or exceeding vehicle stability limits.
- E. Real center console switches and virtual in-screen gauges such as speedometer, gear indicator, and tank level meters as well as the DEVS monitor and FLIR will be fully integrated with the simulation.
- F. An intercom system will be incorporated with the simulator that will allow the driver, gunner and instructor to communicate with each other on an open circuit as well as a push-to-talk option that simulates radio communications with air traffic control. Headsets for this system will have speakers for both ears and a boom microphone attached to the headset.
- G. One center console with HRET, bumper turret controls, FLIR head controller and relevant switches to operate these turrets, replicating the 4500 ARFF Vehicle.

- H. Generic vehicle-type steering wheel. Gear selection is automatic; drive, neutral, and reverse are selectable on the steering wheel.
- I. Generic spring-loaded pedals for braking and acceleration.
- J. Visual display system: the simulator will have a dual screen visual display system that displays the image as an out-of-the vehicle view from the vehicle crew positions. The visual display will cover the view at the front/ top windshield and "sunroof" view of the vehicle from the occupants' point of view. The main visual display will be a minimum of 70" diagonal. Images will be projected at a minimum resolution of 1900x1080 (1080p).
- K. Simulator will have a solution for the driver to have the same views he would have in the actual vehicle, including looking left and right.
- L. Integrated sound system for directional sounds.
- M. Computer system placed in an enclosed cabinet.

Instructor Control Station (for preparing and controlling the training exercise):

- A. Desk with one chair.
- B. One (1) 22" minimum sized monitor that displays the graphical user interface to set up and control the exercise.
- C. Controller for the instructor to have free hand positioning of instructor viewpoint.

Software:

- A. Realistic simulation of aircraft incidents, including fire dynamics and burn through of fuselage.
- B. Realistic simulation of fire fighting operations, FLIR usage and vehicle positioning.
- C. Realistic simulation of fire fighting agents, including application rates and capacities.
- D. Realistic simulation of the HRET, bumper turret, and virtual gauges.
- E. Realistic simulation of piercing the aircraft with the HRET.
- F. Physics-based simulation of spills, fires, smoke, and fire fighting actions.
- G. Scenario generator with the ability for selecting scenario elements (fuel spills, interior fires, exterior fires), setting weather conditions (fog, rain, cloud cover, wind speed, wind direction), winter conditions including snow and ice, selecting time of day, and adding these to the scenario event list where these elements will be initiated as time- and trigger-based events. Exercises will not be pre-determined or "canned" - each emergency will develop based entirely on the choices of the trainee. For example, fires will continue to burn if the proper extinguishing agent is not chosen and properly applied.

- H. The software will be easy-to-use. All menu-driven functions will be selectable using a mouse (point-and-click), allowing training to be simplified.
- I. Graphical user interface will be in English.
- J. Present after-action reviews, allowing training staff to replay an exercise and view the exercise from any perspective, with the ability to start, pause and stop the replay.
- K. Several aircraft will be included, with selections available to set spills, spill fires, engine fires, and interior fires. Aircraft will be able to land as part of the scenario. The aircraft will be positioned at any location on the airfield at the discretion of the instructor. The aircraft to be included are: B-737, B-747, B-757, A-320, A-330/340 A-380, MD11, and C-130.

The simulator will also include:

- A. Delivery to a specified installation facility.
- B. On-site installation.
- C. An on-site simulator operator course for up to six (6) persons.
- D. An operator's manual.
- E. A one (1) year warranty on the complete system against any manufacturing defects.

The simulator supplier will:

- A. Have in-house engineering, programming, virtual reality environment and resource modeling capability.
- B. Have in-house simulator manufacturing and system integration capability.
- C. Offer a support plan to keep the system up-to-date and maintained.
- D. Facilitate user group meetings to promote best practice usage and maximize the benefits and effectiveness of the system.
- E. A simulator "final inspection" visit is to be conducted prior to the simulator being shipped. Three representatives of the Chicago Fire Department will attend this inspection. The expense of appropriate travel, lodging and meals for this inspection will be borne by the Contractor. A final acceptance test will be performed after the simulator has been delivered and installed in its entirety at the location provided by the CFD.

TRAINING / TECHNICAL ASSISTANCE

The Contractor will furnish professionally conducted training sessions to the extent described below. This training will be provided by the Contractor as a portion of the Contract at no additional cost to the City.

For each unit delivered, the Contractor will train Chicago Fire Department personnel in the proper, safe operation of the unit and any auxiliary items for a minimum of three shifts of personnel. This training will be conducted by professional certified instructors, at the Fire Department training facility.

In addition, the Contractor will provide a nine day structured training program for service personnel. These mechanics will be trained in diagnostic and preventive maintenance procedures, general maintenance and repair along with systems reconditioning and vehicle electronics. This training will be performed at O'Hare International airport.

The Contractor will provide the fire personnel with manufacturers training for the Stability Dynamics Ltd. Lateral "G" Force system. The training will be provided for three full shifts of the fire personnel at O'Hare International Airport.

The contractor will furnish vehicle-training manuals and other multi-media training aids to the Chicago Fire Department. At a minimum the following manuals will be provided:

Vehicle Operator's	Four paper, four CD
Vehicle Parts	Two paper, two CD
Vehicle Service	Two paper, two CD
Engine	Two paper
Transmission	Two paper

VEHICLE WARRANTIES

Warranties will be signed and notarized by an officer of the manufacturer of the vehicle body, chassis, etc. Under no circumstances will the signature of a salesman or agent be acceptable.

Warranties will be given stating that the vehicle and all its parts, equipment and accessories are free from any impairments or defects which would affect the operation of the vehicle as defined by the contract; and that the vehicle is free from any defects in design, materials, and workmanship; and that the Contractor will repair or replace any part, accessory or total piece of vehicle with its equivalent or better during the following time periods which will commence on the date the Chicago Fire Department places the vehicle into active fire service.

Unless otherwise indicated, the contractor will warrant that for a minimum period of one year from the date of placing the vehicle into active fire service duty by the City of Chicago, it will, at its own expense and without any cost to the City, replace all defective parts and make any repairs that may be required or made necessary by reason of defective design, material or workmanship, or by reason of non-compliance with these specifications. The warranty period will commence on the first day the unit is placed into active fire service duty by the City of Chicago, not the delivery date. If a longer warranty can be furnished at no additional cost to the city, the longer period will prevail.

PHOTOGRAPHS

The Contractor will provide three sets of color 8"x10" photos of the completed unit. Each set will include a photo of the front, left, right and rear sides. The photos will be provided no later than 48 hours after the unit is delivered to the 2FM.

EXCEPTIONS

Any exceptions or deviations from these specifications will be noted on the Proposal Page(s) attached thereto, with the exact nature of the change outlined in sufficient detail. Exceptions which are not self-explanatory will be explained.

The City reserves the right to disqualify a proposal which does not completely meet the outlined specifications. The impact of exceptions to the specification will be evaluated by the City of Chicago in determining its need.



EXCLUSIVITY AND UNIQUENESS – SOLE SOURCE

**CITY OF CHICAGO
DEPARTMENT OF PROCUREMENT SERVICES**

**City Hall, Room 403
121 N. LaSalle Street
Chicago, IL 60602**

ATTN: Jamie Rhee, Chief Procurement Officer

Prepared by:

**M. Mikoola
Temco Machinery, Inc.**

August 3, 2012



WORLD CLASS EQUIPMENT SUPERIOR SERVICE

1401 N Farnsworth Avenue
Aurora, Illinois 60505
(800) 322-7997

August 3, 2012

Ms. Jamie Rhee
Chief Procurement Officer
City of Chicago
Department of Procurement Services
City Hall, Room 403
121 N. LaSalle Street
Chicago, IL 60602

Subject: Exclusivity – Sole Source Procurement
Oshkosh Striker, Model 4500 ARFF Vehicle

Dear Ms. Rhee,

Temco Machinery, Inc. is pleased to provide for your review a list of exclusive features and justifications for the sole source procurement of an Oshkosh Striker, Model 4500 ARFF vehicle. The vehicle we are proposing will be equipped with a 65' High Reach Extendable Turret. This configuration of our Striker provides a unique design with characteristics that are exclusive to the Oshkosh unit and not offered by any other Aircraft Rescue Fire Fighting vehicle manufacturer. It is this unique product offering that justifies its sole source procurement by the City of Chicago.

Below you will find a list of items that are unique and exclusive to the Oshkosh Striker, Model 4500 ARFF vehicle:

1. Temco Machinery, Inc. is the sole and exclusive distributor of Oshkosh products throughout the State of Illinois.
2. Oshkosh Corporation is the only U.S. manufacturer of an 8x8 all wheel drive vehicle carrying a water capacity of 4500 gallons along with three (3) ancillary agents,
 - a. Foam 630 Gallons, Concentrate
 - b. Dry Chemical – 500 # Purple "K"
 - c. Halatron I – 460 #required to support ARFF firefighting operations.



AIRPORT SNOW REMOVAL

FACTORY AUTHORIZED DEALER
ILLINOIS - INDIANA



3. Oshkosh Corporation's Model 4500, ARFF vehicle is a standard production vehicle. Airports located in North America, i.e. Boston, Dallas, Indianapolis, just to mention a few, currently own and operate Oshkosh Striker, Model 4500 ARFF vehicles. Should the City of Chicago require a user list, we would be pleased to provide.
4. Oshkosh Corporation is the only supplier of the Snozzle Model 652 – High Reach Extendible Turret with maximum reach of 65' above ground to 15' below grade giving unsurpassed positioning ability for all firefighting scenarios. Features include proportional dual joystick controls, full lighting package, camera systems and piercing nozzle.
5. The Oshkosh Striker, Model 4500 ARFF is the only vehicle of its capacity that has true off road independent suspension with 16 inches of independent wheel travel.
6. The Oshkosh Striker's 4x4, 6x6, and 8x8 all utilize a common parts and operating systems, consequently, the amount of service parts required as well as technical repairs can be significantly reduced as all three models operate on the same platform. In addition, the amount of firefighting training can be significantly reduced based upon commonality across the product offering.
7. Local support will be provided by Temco Machinery, Inc., located in Aurora, IL. Temco has been in business for 35 years, servicing and supporting the Oshkosh product. All Temco technicians are factory trained and certified.

We trust the above to be full and complete at this time. Should you have any questions or require additional information, please do not hesitate to contact me at 800-322-7997.

Respectfully,

A handwritten signature in black ink, appearing to read "Michael J. Mikoola, Jr.", with a long horizontal flourish extending to the right.

Michael J. Mikoola, Jr.
President & CEO
Temco Machinery, Inc.

OSHKOSH AIRPORT PRODUCTS

ISO 9001 CERTIFIED

3100 N. McCarthy Road
Appleton, WI 54913



September 10, 2012

Ms. Jamie Rhee
Chief Procurement Officer
City of Chicago
Department of Procurement Services
City Hall, Room 403
121 N. LaSalle Street
Chicago, IL 60602

Dear Ms. Rhee;

On behalf of all the employees of Oshkosh Corporation please allow me to thank you and the City of Chicago for your past patronage and continuing use of Oshkosh airport rescue and fire fighting vehicles at the Chicago airports. We are proud to serve the citizens of Chicago and to help provide fire protection to the millions of travelers who pass through O'Hare International and Midway airports every year.

Please know that Temco Machinery is the sole Illinois sales representative for Oshkosh airport emergency vehicles. This is a relationship we have maintained for many years. As such, they are solely responsible for the sale and support of Oshkosh airport rescue firefighting (ARFF) trucks for the Chicago airports. By agreement, Temco maintains a staff of factory trained and certified technicians who stand ready 24/7 to service your critical Oshkosh airport emergency vehicles. Temco is capable of performing service either at your airports or at their modern facility in Aurora. Our trust in Temco's ability to satisfy your requirements is met by our confidence in the performance of our Oshkosh airport emergency vehicles.

We hope this information meets your requirements, please contact me if we can help in any other way.

Thank you.

A handwritten signature in black ink, appearing to read "Jeff Resch".

Jeff Resch
Vice President and General Manager

Cc: Temco Machinery



WORLD CLASS EQUIPMENT SUPERIOR SERVICE

1401 N Farnsworth Avenue
Aurora, Illinois 60505
(800) 322-7997

August 3, 2012

Chief Timothy Sampey
Chicago Fire Department
Airport Operation
ARFF Rescue 3
10000 West O'Hare Drive
Chicago, IL 60666

Subject: 4500 ARFF Vehicle

Dear Chief Sampey,

Pursuant to the Chicago Municipal Code, enclosed you will find Temco Machinery, Inc.'s completed MBE/WBE documentation, i.e. C-1's, certification letters and our Goal Implementation Plan, D-1.

We trust the enclosed to be full and complete at this time.

We thank the City of Chicago for the opportunity to be of service.

Respectfully,

A handwritten signature in black ink, appearing to read "Michael J. Mikoola, Jr.", written over a horizontal line.

Michael J. Mikoola, Jr.
President & CEO
Temco Machinery, Inc.



AIRPORT SNOW REMOVAL

FACTORY AUTHORIZED DEALER
ILLINOIS - INDIANA



MBE / WBE COMPLIANCE

**CITY OF CHICAGO
DEPARTMENT OF PROCUREMENT SERVICES**

**City Hall, Room 403
121 N. LaSalle Street
Chicago, IL 60602**

ATTN: Jamie Rhee, Chief Procurement Officer

Prepared by:

**M. Mikoola
Temco Machinery, Inc.**

August 3, 2012



WORLD CLASS EQUIPMENT SUPERIOR SERVICE

1401 N. Farnsworth Avenue
Aurora, Illinois 60505
(800) 322-7997

August 3, 2012

Ms. Jamie Rhee
Chief Procurement Officer
City of Chicago
Department of Procurement Services
City Hall, Room 403
121 N. LaSalle Street
Chicago, IL 60602

Subject: Sole Source Purchase of 4500 ARFF Vehicle
MBE / WBE Compliance

Dear Ms. Rhee,

We have reviewed the City of Chicago's Special Conditions regarding Minority Business Enterprise and Women Business Enterprise. In regards to this sole source purchase, Temco Machinery, Inc. will be in full compliance with MBE / WBE direct and/or indirect participation.

Upon receipt of MBE / WBE forms, Temco will complete and submit to the City of Chicago, Compliance Officer.

Thank you for the opportunity to be of service. We look forward to supplying the City of Chicago's airport rescue and firefighting equipment.

Respectfully,

A handwritten signature in black ink, appearing to read "Michael J. Mikoola, Jr.", with a long horizontal line extending to the right.

Michael J. Mikoola, Jr.
President & CEO
Temco Machinery, Inc.



AIRPORT SNOW REMOVAL

FACTORY AUTHORIZED DEALER
ILLINOIS - INDIANA

**Letter of Intent from MBE/WBE to Perform
as Subcontractor, Supplier and/or Consultant**

Name of Project/Contract Oshkosh 4500 ARFF's
Specification Number: _____

From: Cesar's Equipment Co., Inc.
(Name of MBE/WBE Firm)

MBE: Yes No _____
WBE: Yes _____ No

To: Temco Machinery, Inc. and the City of
Chicago:
(Name of Prime Contractor - Bidder/Proposer)

The undersigned intends to perform work in connection with the above projects as a

_____ Sole Proprietor _____ Corporation
_____ Partnership _____ Joint Venture

The MBE/WBE status of the undersigned is confirmed by the attached letter of Certification from the City of Chicago effective date of October 3, 2011 to October 1, 2016 for a period of five years.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above named project/contract:

Industrial Machinery and Equipment, Components and Parts,
Hydraulic Tools, Maintenance and Repair.

The above described performance is offered for the following price and described terms of payment:

\$574,947.00

16.9%

Terms of payment: Net

If more space is needed to fully describe the MBE/WBE firm's proposed scope of work and/or payment schedule, attach additional sheets.

The undersigned will enter into a formal written agreement for the above work with you as a Prime Contractor, conditioned upon your execution of a contract with the City of Chicago, and will do so within (3) three working days of receipt of a signed contract from the City of Chicago.


(Signature of Owner or Authorized Agent)

Cesar Regalado / Owner
Name / Title (Print)

Date

708-430-1919

Phone



CITY OF CHICAGO
OFFICE OF COMPLIANCE

October 3, 2011

Cesar Regalado
Cesar's Equipment Co.
8770 S. 78th Ave.
Bridgeview, IL 60455

Certificate Expires: October 1, 2016

Dear Mr. Cesar Regalado:

We are pleased to inform you that Cesar's Equipment Co. has been re-certified as a Minority Business Enterprise (MBE) by the City of Chicago. This MBE certification is valid until **October 1, 2016**; however your firm must be re-validated annually. Your firm's No Change Affidavit is due by **August 1, 2012**.

As a condition of continued certification during this five year period, you must file a No-Change Affidavit **within 60 days prior** to the date of expiration. Failure to file this Affidavit will result in the termination of your certification. **Please note that you must include a copy of your most current Federal Corporate and Individual Tax Returns.** You must also notify the City of Chicago of any changes in ownership or control of your firm or any other matters or facts affecting your firm's eligibility for certification.

It is important to note that you also have an ongoing affirmative duty to notify the City of Chicago of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification within 10 days of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, and/or gross receipts that exceed the program threshold.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a MBE/WBE/BEPD if you fail to:

- ◆ file your No Change Affidavit within the required time period;
- ◆ provide financial or other records requested pursuant to an audit within the required time period; or
- ◆ notify the City of any changes affecting your firm's certification within 10 days of such change.



CITY OF CHICAGO
OFFICE OF COMPLIANCE

Cesar's Equipment Co.

Page 2

Further, if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. And in addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the city by falsely representing that the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than \$5,000.00 and not more than \$10,000, or both.

Your firm's name will be listed in the City's Directory of Minority Business Enterprises and Women Business Enterprises in the specialty area(s) of:

**NAICS – 441310; 811219; 811310; 811118; 811198; 811111 – HYDRAULIC
EQUIPMENT REPAIR SERVICE WHOLESALER OF INDUSTRIAL
MACHINERY EQUIPMENT PARTS AND SUPPLIES.**

Your firm's participation on City contracts will be credited only toward Minority Business Enterprise (MBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward goals will be given only for work done in the specialty category.

Thank you for your continued interest in the City's Minority Business Enterprise (MBE) Program.

Sincerely,

Michael Chambers
Senior Compliance Officer
CITY OF CHICAGO
City Hall

TA (M)

**Letter of Intent from MBE/WBE to Perform
as Subcontractor, Supplier and/or Consultant**

Name of Project/Contract Oshkosh 4500 ABE's
Specification Number _____

From: Midpack Corporation
(Name of MBE/WBE Firm)

MBE: Yes _____ No x
WBE: Yes x No _____

To: Temco Machinery, Inc. and the City of
Chicago:
(Name of Prime Contractor - Bidder/Proposer)

The undersigned intends to perform work in connection with the above projects as a

_____ Sole Proprietor _____ x Corporation
_____ Partnership _____ Joint Venture

The MBE/WBE status of the undersigned is confirmed by the attached letter of Certification from the City of Chicago effective date of August 24, 2010 to September 15, 2013 for a period of five years.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above named project/contract:

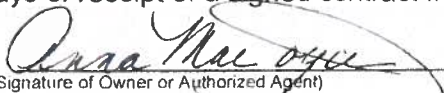
Lighting, Shipping and Packaging Supplies, Office Furniture, Machines & Equipment, Police & Fire Emergency Equipment,
Industrial & Janitorial Supplies.

The above described performance is offered for the following price and described terms of payment:

\$153,093.00
4.5%
Terms of payment: Net

If more space is needed to fully describe the MBE/WBE firm's proposed scope of work and/or payment schedule, attach additional sheets.

The undersigned will enter into a formal written agreement for the above work with you as a Prime Contractor, conditioned upon your execution of a contract with the City of Chicago, and will do so within (3) three working days of receipt of a signed contract from the City of Chicago


(Signature of Owner or Authorized Agent)

Anna Mae Joyce / President

Name / Title (Print)

June 14, 2012
Date

773-539-1615
Phone



CITY OF CHICAGO
OFFICE OF COMPLIANCE

August 2, 2011

Anna Mae Joyce
Midpack Corporation
5514 North Kedzie Avenue
Chicago, IL 60625-3924

Annual Certificate Expires: September 15, 2012

Dear Anna Mae Joyce:

Congratulations on your continued eligibility for certification as a Women Business Enterprise (WBE) by the City of Chicago. This certification is valid until September 15, 2013.

As you know, your firm must also be re-validated annually. As such, your firm's next No Change Affidavit is due by September 15, 2012. Please remember, you have an affirmative duty to file your No-Change Affidavit 60 days prior to the date of expiration.

It is important to note that you also have an ongoing affirmative duty to notify the City of Chicago of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification within 10 days of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, and/or gross receipts that exceed the program threshold.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a MBE/WBE/BEPD if you fail to:

- o file your No Change Affidavit within the required time period;
- o provide financial or other records requested pursuant to an audit within the required time period; or
- o notify the City of any changes affecting your firm's certification within 10 days of such change.

Further, if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. And in addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining, a contract with the city by falsely representing that the individual or entity, or the individual or entity assisted, is a minority-owned business or a woman-owned business, is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months or a fine of not less than \$5,000.00 and not more than \$10,000, or both.

Your firm is listed in the City's Directory of Minority Business Enterprises and

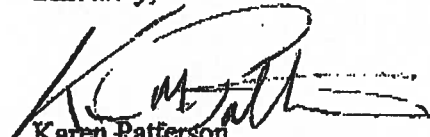
Women Business Enterprises in the specialty area(s) of:

PAPER AND PLASTIC PRODUCTS AND PACKAGING; HOSPITAL AND SAFETY SUPPLIES; ELECTRICAL SUPPLIER; AUDIO/VIDEO EQUIPMENT; FORENSIC, EMERGENCY AND LAW ENFORCEMENT SUPPLIES; SALES OF SEARCH SYSTEMS EQUIPMENT; SALES OF COMMERCIAL ICE MACHINES; DISTRIBUTOR OF JANITORIAL, INDUSTRIAL AND FOOD SERVICE CHEMICALS AND SUPPLIES; SALES OF HORTICULTURAL (FLORAL) PRODUCTS; DISTRIBUTOR OF OFFICE FURNITURE; DISTRIBUTOR OF INDUSTRIAL CYCLES

Your firm's participation on City contracts will be credited only toward Women Business Enterprise (WBE) goals in your area(s) of specialty. While your participation on City contracts is not limited to your specialty, credit toward Women Business Enterprise (WBE) goal will be given only for work done in a specialty category.

Thank you for your continued participation in the City's Supplier Diversity Program.

Sincerely,



Karen Patterson
Deputy Director

Affidavit of MBE/WBE Goal Implementation Plan

Project Name : Oshkosh 4500 ARFF's

State of Illinois

County (City) of Kane

I HEREBY DECLARE AND AFFIRM that I am duly authorized representative of
Temco Machinery, Inc.

Name of Prime Contractor

and that I have personally reviewed the material and facts set forth herein describing our proposed plan to achieve the MBE/WBE goals of this contract

All MBE/WBE firms included in this plan have been certified as such by the City of Chicago (Letters of Certification Attached).

- I. MBE or WBE Prime Contractor. If prime Contractor is a certified MBE or WBE firm, attach copy of City of Chicago Letter of Certification. (Certification of the prime Contractor as a MBE satisfies the MBE goal only. Certification of the prime Contractor as a WBE satisfies the WBE goal only.)
- II. MBEs and WBEs as Joint Venturers. If prime Contractor is a joint venture and one or more joint venture partners are certified MBEs or WBEs, attach copies of Letters of Certification and a copy of Joint Venture Agreement clearly describing the role of the MBE/WBE firm(s) and its ownership interest in the joint venture.
- III. MBE/WBE SubContractors. Complete for each MBE/WBE subconsultant/subcontractor/supplier

1. Name of MBE/WBE: Cesar's Equipment Co., Inc.
 Address: 8770 S. 78th Avenue, Bridgeview, IL 60455
 Contact Person: Cesar Regalado Phone: 708-430-1919
 Dollar Amount of Participation \$ 574,947.00
 Percent Amount of Participation: 16.9 %

2. Name of MBE/WBE: Midpack Corporation
 Address: 5514 N. Kedzie, Chicago, IL 60625
 Contact Person: Anna Mae Joyce Phone: 773-539-1615
 Dollar Amount of Participation \$ 153,093.00
 Percent Amount of Participation: 4.5 %

3. Name of MBE/WBE: _____
 Address: _____

Contact Person: _____ Phone: _____

Dollar Amount of Participation \$ _____

Percent Amount of Participation: _____ %

4. Name of MBE/WBE: _____

Address: _____

Contact Person: _____ Phone: _____

Dollar Amount of Participation \$ _____

Percent Amount of Participation: _____ %

5. Name of MBE/WBE: _____

Address: _____

Contact Person: _____ Phone: _____

Dollar Amount of Participation \$ _____

Percent Amount of Participation: _____ %

6. Name of MBE/WBE: _____

Address: _____

Contact Person: _____ Phone: _____

Dollar Amount of Participation \$ _____

Percent Amount of Participation: _____ %

7. Name of MBE/WBE: _____

Address: _____

Contact Person: _____ Phone: _____

Dollar Amount of Participation \$ _____

Percent Amount of Participation: _____ %

8. Attach additional sheets as needed.

IV. Summary of MBE Proposal:

MBE Firm Name	Dollar Amount of Participation	Percent Amount of participation
Cesar's Equipment Co., Inc.	\$ 574,947.00	16.9 %
_____	\$ _____	_____ %
_____	\$ _____	_____ %
_____	\$ _____	_____ %
_____	\$ _____	_____ %
Total MBE Participation:	\$ 574,947.00	16.9 %

V. Summary of WBE Proposal:

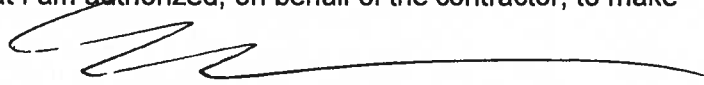
WBE Firm Name	Dollar Amount of Participation	Percent Amount of participation
Midpack Corporation	\$ 153,093.00	4.5 %
_____	\$ _____	_____ %
_____	\$ _____	_____ %
_____	\$ _____	_____ %
_____	\$ _____	_____ %
Total WBE Participation:	\$ 153,093.00	4.5 %

To the best of my knowledge, information and belief, the facts and representations contained in this Schedule are true, and no material facts have been omitted.

The contractor designates the following person as their MBE/WBE Liaison Officer:

Name Thomas A. Keiser Phone Number: 630-978-5151

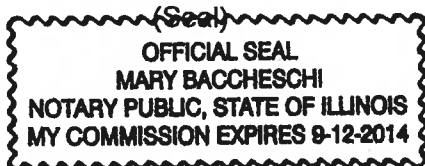
I do solemnly declare and affirm under penalties of perjury that the contents of the foregoing document are true and correct, and that I am authorized, on behalf of the contractor, to make this affidavit.



Thomas A. Keiser, Secretary/Treasurer and CFO
Signature of Affiant (Date)

State of Illinois
County of Kane

This instrument was acknowledged before me on 6/15/12 (date)
by Thomas A. Keiser (name /s of person/s)
as Secretary/Treasurer and CFO (type of authority, e.g., officer, trustee, etc.)
of Temco Machinery, Inc. (name of party on behalf of whom
instrument was executed).




Signature of Notary Public



**CHICAGO OF CHICAGO
ECONOMIC DISCLOSURE STATEMENT AND AFFIDAVIT
EDS Information Update
EDS #28935**

Disclosing Party:

**TEMCO MACHINERY, INC.
1401 N. Farnsworth Avenue
Aurora, IL 60555
(630) 978-5151**

Contact Person: Thomas A. Keiser

Prepared by:

**M. Mikoola
Temco Machinery, Inc.**

August 3, 2012



CITY OF CHICAGO
ECONOMIC DISCLOSURE STATEMENT and AFFIDAVIT
EDS Information Update
EDS # 28935

SECTION I -- GENERAL INFORMATION

A. Legal name of the Disclosing Party submitting the EDS:

Temco Machinery, Inc.

Enter d/b/a if applicable:

The Disclosing Party submitting this EDS is:

the Applicant

B. Business address of the Disclosing Party:

1401 N. Farnsworth Avenue
Aurora, IL 60505
United States

C. Telephone:

630-978-5151

Fax:

630-978-2469

Email:

tkeiser@temco1.com

D. Name of contact person:

Mr. Thomas A Keiser

E. Federal Employer Identification No. (if you have one):

36-2993928

SECTION II -- DISCLOSURE OF OWNERSHIP INTERESTS

A. NATURE OF THE DISCLOSING PARTY

1. Indicate the nature of the Disclosing Party:

Privately held business corporation

Is the Disclosing Party incorporated or organized in the State of Illinois?

Yes

B. DISCLOSING PARTY IS A LEGAL ENTITY:

1.a.1 Does the Disclosing Party have any directors?

Yes

1.a.3 List below the full names and titles of all executive officers and all directors, if any, of the entity. Do not include any directors who have no power to select the entity's officers.

Officer/Director: Mr. Michael J Mikoola Jr

Title: President & CEO

Role: Both

Officer/Director: Mr. Thomas A Keiser

Title: Secretary/Treasurer & CFO

Role: Both

2. Ownership Information

Please provide ownership information concerning each person or entity having a direct or indirect beneficial interest in excess of 7.5% of the Disclosing Party. Examples of such an interest include shares in a corporation, partnership interest in a partnership or joint venture, interest of a member or manager in a limited liability company, or interest of a beneficiary of a trust, estate, or other similar entity. Note: Pursuant to Section 2-154-030 of the Municipal code of Chicago, the City may require any such additional information from any applicant which is reasonably intended to achieve full disclosure.

- Mr. Michael J Mikoola Jr - 50%
- Mr. Thomas A Keiser - 50%

Owner Details

Name	Address
Mr. Michael J Mikoola Jr	1401 N. Farnsworth Avenue Aurora, IL 60505 United States
Mr. Thomas A Keiser	1401 N. Farnsworth Avenue Aurora, IL 60505 United States

SECTION III -- BUSINESS RELATIONSHIPS WITH CITY ELECTED OFFICIALS

Has the Disclosing Party had a "business relationship," as defined in [Chapter 2-156 of the Municipal Code](#), with any City elected official in the 12 months before the date this EDS is signed?

No

SECTION V -- CERTIFICATIONS

A. COURT-ORDERED CHILD SUPPORT COMPLIANCE

Under [Municipal Code Section 2-92-415](#), substantial owners of business entities that contract with the City must remain in compliance with their child support obligations throughout the contract's term.

Has any person who directly or indirectly owns 10% or more of the Disclosing Party been declared in arrearage of any child support obligations by any Illinois court of competent jurisdiction?

No

B. FURTHER CERTIFICATIONS

1. Pursuant to [Municipal Code Chapter 1-23](#), Article I ("Article I")(which the Applicant should consult for defined terms (e.g., "doing business") and legal requirements), if the Disclosing Party submitting this EDS is the Applicant and is doing business with the City, then the Disclosing Party certifies as follows:

- i. neither the Applicant nor any controlling person is currently indicted or charged with, or has admitted guilt of, or has ever been convicted of, or placed under supervision for, any criminal offense involving actual, attempted, or conspiracy to commit bribery, theft, fraud, forgery, perjury, dishonesty or deceit against an officer or employee of the City or any sister agency; and
- ii. the Applicant understands and acknowledges that compliance with Article I is a continuing requirement for doing business with the City.

NOTE: If Article I applies to the Applicant, the permanent compliance timeframe in Article I supersedes some five-year compliance timeframes in certifications 2 and 3 below.

I certify the above to be true

2. The Disclosing Party and, if the Disclosing Party is a legal entity, all of those persons or entities identified in Section II.B.1. of this EDS:

- a. are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from any transactions by any federal, state or local unit of government;
- b. have not, within a five-year period preceding the date of this EDS, been convicted of a criminal offense, adjudged guilty, or had a civil judgment rendered against them in connection with: obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; a violation of federal or state antitrust statutes; fraud; embezzlement; theft; forgery; bribery; falsification or destruction of records; making false statements; or receiving stolen property;
- c. are not presently indicted for, or criminally or civilly charged by, a governmental entity (federal, state or local) with committing any of the offenses set forth in clause B.2.b. of this Section V;
- d. have not, within a five-year period preceding the date of this EDS, had one or more public transactions (federal, state or local) terminated for cause or default; and
- e. have not, within a five-year period preceding the date of this EDS, been convicted, adjudged guilty, or found liable in a civil proceeding, or in any criminal or civil action, including actions concerning environmental violations, instituted by the City or by the federal government, any state, or any other unit of local government.

I certify the above to be true

3. Neither the Disclosing Party, nor any Contractor, nor any Affiliated Entity of either the Disclosing Party or any Contractor nor any Agents have, during the five years before the date this EDS is signed, or, with respect to a Contractor, an Affiliated Entity, or an Affiliated Entity of a Contractor during the five years before the date of

such [Contractor's](#) or [Affiliated Entity's](#) contract or engagement in connection with the Matter:

- a. bribed or attempted to bribe, or been convicted or adjudged guilty of bribery or attempting to bribe, a public officer or employee of the City, the State of Illinois, or any agency of the federal government or of any state or local government in the United States of America, in that officer's or employee's official capacity;
- b. agreed or colluded with other bidders or prospective bidders, or been a party to any such agreement, or been convicted or adjudged guilty of agreement or collusion among bidders or prospective bidders, in restraint of freedom of competition by agreement to bid a fixed price or otherwise; or
- c. made an admission of such conduct described in a. or b. above that is a matter of record, but have not been prosecuted for such conduct; or
- d. violated the provisions of [Municipal Code Section 2-92-610 \(Living Wage Ordinance\)](#).

I certify the above to be true

4. Neither the Disclosing Party, [Affiliated Entity](#) or [Contractor](#), or any of their employees, officials, [agents](#) or partners, is barred from contracting with any unit of state or local government as a result of engaging in or being convicted of

- bid-rigging in violation of [720 ILCS 5/33E-3](#);
- bid-rotating in violation of [720 ILCS 5/33E-4](#); or
- any similar offense of any state or of the United States of America that contains the same elements as the offense of bid-rigging or bid-rotating.

I certify the above to be true

5. Neither the Disclosing Party nor any [Affiliated Entity](#) is listed on any of the following lists maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the Bureau of Industry and Security of the U.S. Department of Commerce or their successors: the [Specially Designated Nationals List](#), the [Denied Persons List](#), the [Unverified List](#), the [Entity List](#) and the [Debarred List](#).

I certify the above to be true

6. The Disclosing Party understands and shall comply with the applicable requirements of [Chapters 2-55 \(Legislative Inspector General\)](#), [Chapter 2-56 \(Inspector General\)](#) and [Chapter 2-156 \(Governmental Ethics\)](#) of the Municipal Code.

I certify the above to be true

7. To the best of the Disclosing Party's knowledge after reasonable inquiry, the following is a complete list of all current employees of the Disclosing Party who were, at any time during the 12-month period preceding the execution date of this EDS, an employee, or elected or appointed official, of the City of Chicago.

None

8. To the best of the Disclosing Party's knowledge after reasonable inquiry, the following is a complete list of all gifts that the Disclosing Party has given or caused to be given, at any time during the 12-month period preceding the execution date of this EDS, to an employee, or elected or appointed official, of the City of Chicago. For purposes of this statement, a "gift" does not include: (i) anything made generally available to City employees or to the general public, or (ii) food or drink provided in the course of official City business and having a retail value of less than \$20 per recipient.

None

C. CERTIFICATION OF STATUS AS FINANCIAL INSTITUTION

The Disclosing Party certifies that, as defined in Section 2-32-455(b) of the Municipal Code, the Disclosing Party

is not a "financial institution"

E. CERTIFICATION REGARDING SLAVERY ERA BUSINESS

If the Disclosing Party cannot make this verification, the Disclosing Party must disclose all required information in the space provided below or in an attachment in the "Additional Info" tab. Failure to comply with these disclosure requirements may make any contract entered into with the City in connection with the Matter voidable by the City.

The Disclosing Party verifies that the Disclosing Party has searched any and all records of the Disclosing Party and any and all predecessor entities regarding records of investments or profits from slavery or slaveholder insurance policies during the slavery era (including insurance policies issued to slaveholders that provided coverage for damage to or injury or death of their slaves), and the Disclosing Party has found no such records.

I can make the above verification

SECTION VII -- ACKNOWLEDGMENTS, CONTRACT INCORPORATION, COMPLIANCE, PENALTIES, DISCLOSURE

The Disclosing Party understands and agrees that:

- A. The certifications, disclosures, and acknowledgments contained in this EDS will become part of any contract or other agreement between the Applicant and the City in connection with the Matter, whether procurement, City assistance, or other City action, and are material inducements to the City's execution of any contract or taking other action with respect to the Matter. The Disclosing Party understands that it must comply with all statutes, ordinances, and regulations on which this EDS is based.
- B. The City's Governmental Ethics and Campaign Financing Ordinances, [Chapters 2-156](#) and [2-164](#) of the Municipal Code, impose certain duties and obligations on persons or entities seeking City contracts, work, business, or transactions. A training program is available on line at www.cityofchicago.org/city/en/depts/ethics.html, and may also be obtained from the City's Board of Ethics, 740 N. Sedgwick St., Suite 500, Chicago, IL 60610, (312) 744-9660. The Disclosing Party must comply fully with the applicable ordinances.

I acknowledge and consent to the above

The Disclosing Party understands and agrees that:

- C. If the City determines that any information provided in this EDS is false, incomplete or inaccurate, any contract or other agreement in connection with which it is submitted may be rescinded or be void or voidable, and the City may pursue any remedies under the contract or agreement (if not rescinded or void), at law, or in equity, including terminating the Disclosing Party's participation in the Matter and/or declining to allow the Disclosing Party to participate in other transactions with the City. Remedies at law for a false statement of material fact may include incarceration and an award to the City of treble damages.
- D. It is the City's policy to make this document available to the public on its Internet site and/or upon request. Some or all of the information provided on this EDS and any attachments to this EDS may be made available to the public on the Internet, in response to a Freedom of Information Act request, or otherwise. By completing and signing this EDS, the Disclosing Party waives and releases any possible rights or claims which it may have against the City in connection with the public release of information contained in this EDS and also authorizes the City to verify the accuracy of any information submitted in this EDS.
- E. The information provided in this EDS must be kept current. In the event of changes, the Disclosing Party must supplement this EDS up to the time the City takes action on the Matter. If the Matter is a contract being handled by the City's Department of Procurement Services, the Disclosing Party must update this EDS as the contract requires. NOTE: With respect to Matters subject to Article I of [Chapter 1-23 of the Municipal Code](#) (imposing PERMANENT INELIGIBILITY for certain specified offenses), the information provided herein

regarding eligibility must be kept current for a longer period, as required by [Chapter 1-23](#) and [Section 2-154-020 of the Municipal Code](#).

I acknowledge and consent to the above

The Disclosing Party represents and warrants that:

F.1. The Disclosing Party is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, nor are the Disclosing Party or its [Affiliated Entities](#) delinquent in paying any fine, fee, tax or other charge owed to the City. This includes, but is not limited to, all water charges, sewer charges, license fees, parking tickets, property taxes or sales taxes.

I certify the above to be true

F.2 If the Disclosing Party is the Applicant, the Disclosing Party and its [Affiliated Entities](#) will not use, nor permit their subcontractors to use, any facility listed by the U.S. E.P.A. on the federal [Excluded Parties List System \("EPLS"\)](#) maintained by the U.S. General Services Administration.

I certify the above to be true

F.3 If the Disclosing Party is the Applicant, the Disclosing Party will obtain from any contractors/subcontractors hired or to be hired in connection with the Matter certifications equal in form and substance to those in F.1. and F.2. above and will not, without the prior written consent of the City, use any such contractor/subcontractor that does not provide such certifications or that the Disclosing Party has reason to believe has not provided or cannot provide truthful certifications.

I certify the above to be true

FAMILIAL RELATIONSHIPS WITH ELECTED CITY OFFICIALS AND DEPARTMENT HEADS

This question is to be completed only by (a) the Applicant, and (b) any legal entity which has a direct ownership interest in the Applicant exceeding 7.5 percent. It is not to be completed by any legal entity which has only an indirect ownership interest in the Applicant.

Under [Municipal Code Section 2-154-015](#), the Disclosing Party must disclose whether such Disclosing Party or any "Applicable Party" or any Spouse or Domestic Partner thereof currently has a "familial relationship" with any elected city official or department head. A "familial relationship" exists if, as of the date this EDS is signed, the Disclosing Party or any "Applicable Party" or any Spouse or Domestic Partner thereof is related to the mayor, any alderman, the city clerk, the city treasurer or

any city department head as spouse or domestic partner or as any of the following, whether by blood or adoption: parent, child, brother or sister, aunt or uncle, niece or nephew, grandparent, grandchild, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather or stepmother, stepson or stepdaughter, stepbrother or stepsister or half-brother or half-sister.

"Applicable Party" means (1) all corporate officers of the Disclosing Party, if the Disclosing Party is a corporation; all partners of the Disclosing Party, if the Disclosing Party is a general partnership; all general partners and limited partners of the Disclosing Party, if the Disclosing Party is a limited partnership; all managers, managing members and members of the Disclosing Party, if the Disclosing Party is a limited liability company; (2) all principal officers of the Disclosing Party; and (3) any person having more than a 7.5 percent ownership interest in the Disclosing Party. "Principal officers" means the president, chief operating officer, executive director, chief financial officer, treasurer or secretary of a legal entity or any person exercising similar authority.

Does the Disclosing Party or any "Applicable Party" or any Spouse or Domestic Partner thereof currently have a "familial relationship" with an elected city official or department head?

No

ADDITIONAL INFO

Please add any additional explanatory information here. If needed you may add an attachment below. Please note that your EDS, including all attachments, becomes available for public viewing upon contract award. Your attachments will be viewable "as is" without manual redaction by the City. You are responsible for redacting any non-public information from your documents before uploading.

List of attachments uploaded by vendor

None.

CERTIFICATION

Under penalty of perjury, the person signing below: (1) warrants that he/she is authorized to execute this EDS on behalf of the Disclosing Party, and (2) warrants that all certifications and statements contained in this EDS are true, accurate and complete as of the date furnished to the City.

/s/ 02/06/2012

Mr. Thomas A Keiser
Secretary/Treasurer & CFO

Temco Machinery, Inc.

This is a printed copy of the Economic Disclosure Statement, the original of which is filed electronically with the City of Chicago. Any alterations must be made electronically, alterations on this printed copy are void and of no effect.



WORLD CLASS EQUIPMENT SUPERIOR SERVICE

1401 N. Farnsworth Avenue
Aurora, Illinois 60505
(800) 322-7997

August 3, 2012

Ms. Jamie Rhee
Chief Procurement Officer
City of Chicago
Department of Procurement Services
City Hall, Room 403
121 N. LaSalle Street
Chicago, IL 60602

Subject: ARFF Vehicle
4500, 8X8

Dear Ms. Rhee,

The pricing below is based upon the City of Chicago's one-time purchase of two (2) 8X8, Model 4500 ARFF's and a simulator being supplied per listed specifications.

Our Terms, Conditions and Pricing are as follows:

DELIVERY:	300 Calendar Days from receipt of Purchase Order by the City of Chicago
FREIGHT:	F.O.B. City of Chicago, O'Hare International Airport
TAXES:	No Local, State or Federal Taxes are included



AIRPORT SNOW REMOVAL

FACTORY AUTHORIZED DEALER
ILLINOIS - INDIANA



TERMS: Net 60 days after acceptance by the
City of Chicago

PRICING: ARFF Vehicle Base Price: **\$1,578,800.00 each**
Simulator: **\$ 244,450.00**

We trust the above and the enclosed to be full and complete at this time. Should you have any questions or require additional information, please do not hesitate to contact me at 800-322-7997.

We wish to thank the City of Chicago for the opportunity to be of service.

Respectfully,

A handwritten signature in dark ink, appearing to read "Michael J. Mikoola, Jr.", with a long horizontal line extending to the right.

Michael J. Mikoola, Jr.
President & CEO
Temco Machinery, Inc.



WORLD CLASS EQUIPMENT SUPERIOR SERVICE

1401 N. Farnsworth Avenue
Aurora, Illinois 60505
(800) 322-7997

August 3, 2012

Ms. Jamie Rhee
Chief Procurement Officer
City of Chicago
Department of Procurement Services
City Hall, Room 403
121 N. LaSalle Street
Chicago, IL 60602

Subject: Sole Source Purchase of 4500 ARFF Vehicle
Terms and Conditions

Dear Ms. Rhee,

We have reviewed the City of Chicago's General and Special Conditions (contract boilerplate). Attached you will find a sample copy of the City of Chicago "Terms and Conditions", which we have agreed to.

Thank you for the opportunity to be of service. We look forward to supplying the City of Chicago's airport rescue and firefighting equipment.

Respectfully,

A handwritten signature in black ink, appearing to read "Michael J. Mikoola, Jr.", with a stylized flourish extending to the left.

Michael J. Mikoola, Jr.
President & CEO
Temco Machinery, Inc.



AIRPORT SNOW REMOVAL

FACTORY AUTHORIZED DEALER
ILLINOIS - INDIANA