ATTENTION: A 30-MINUTE COUNCIL DISCUSSION PERIOD WILL BE HELD IMMEDIATELY PRIOR TO THIS REGULAR MEETING. THE PUBLIC IS WELCOME TO ATTEND.

CITY OF OWOSSO
REGULAR MEETING OF THE CITY COUNCIL
MONDAY, OCTOBER 02, 2023
7:30 P.M.

Meeting to be held at City Hall
301 West Main Street

AGENDA

OPENING PRAYER:
PLEDGE OF ALLEGIANCE:
ROLL CALL:
APPROVAL OF THE AGENDA:
APPROVAL OF THE MINUTES OF REGULAR MEETING OF SEPTEMBER 18, 2023:

ADDRESSING THE CITY COUNCIL

1. Your comments shall be made during times set aside for that purpose.
2. Stand or raise a hand to indicate that you wish to speak.
3. When recognized, give your name and address and direct your comments and/or questions to any City official in attendance.
4. Each person wishing to address the City Council and/or attending officials shall be afforded one opportunity of up to four (4) minutes duration during the first occasion for citizen comments and questions. Each person shall also be afforded one opportunity of up to three (3) minutes duration during the last occasion provided for citizen comments and questions and one opportunity of up to three (3) minutes duration during each public hearing. Comments made during public hearings shall be relevant to the subject for which the public hearings are held.
5. In addition to the opportunities described above, a citizen may respond to questions posed to him or her by the Mayor or members of the Council, provided members have been granted the floor to pose such questions.

PROCLAMATIONS / SPECIAL PRESENTATIONS

None.

PUBLIC HEARINGS

None.

CITIZEN COMMENTS AND QUESTIONS

CONSENT AGENDA

1. Change Order No. 1 – 2023 North Street Rehabilitation Project Engineering. Approve Change Order No. 1 to the professional services agreement with Eng., Inc. to provide engineering and construction administration services for the 2023 North Street Rehabilitation Project (from Shiawassee Street to Hickory Street) in the amount of $16,780.00 and authorize payment up to the revised contract amount of $159,342.50 upon satisfactory completion of the project or portion thereof.

2. Proposed Special Assessment District No. 2023-103 – Hazards & Nuisances. Authorize Resolution No. 1 setting a public hearing for Monday, October 16, 2023 at 7:30 p.m. to receive citizen comment regarding proposed Special Assessment District No. 2023-103, Hazards & Nuisances, as it relates to unpaid costs incurred in the altering, repairing, tearing down, abating or removing of hazards and nuisances.

3. Amendment No. 1 – Professional Engineering Services. Approve Amendment No. 1 to the professional services agreement with Fishbeck for the WWTP Sludge Handling Project in the amount of $20,000.00 and authorize payment up to the revised contract amount of $104,000.00 upon satisfactory completion of the project or portion thereof.

4. Addendum No. 6 – WTP Filters Improvements. Authorize to amend the Agreement between the City of Owosso and Fishbeck of Lansing, Michigan dated September 7, 2021 in the amount of $294,825.00 as addendum No. 6, for providing engineering design and construction administration services for Filters Improvements project at the Water Treatment Plant.

5. Traffic Control Order – Owosso High School Marching Band Festival. Approve request from Jillian Kowalczyk, Owosso High School Band Director, for the closure of various streets in the southeast quadrant of the City for the Owosso High School Marching Band Festival from 3:00 p.m.-10:00 p.m. on Monday, October 9, 2023 (rain date Monday, October 16, 2023), waive the insurance requirement, and approve Traffic Control Order No. 1507 formalizing the permission.

6. Check Register – September 2023. Affirm check disbursements totaling $4,633,080.69 through September 22, 2023.

ITEMS OF BUSINESS

1. Apparatus Sales Agreement – HME, Inc. Core Top-Mount Pumper Truck. Consider approval of the final purchase agreement with HME, Inc. for one HME Core Top-Mount Pumper truck.

2. Lot Split Authorization – 1400 West Oliver Street. Consider authorization of the division of a City lot under Michigan Subdivision Control Act for platted lot at 1400 West Oliver Street.

COMMUNICATIONS

1. Brad A. Barrett, Finance Director. Financial Report – August 2023.

CITIZEN COMMENTS AND QUESTIONS

NEXT MEETING

Monday, October 16, 2023

BOARDS AND COMMISSIONS OPENINGS

Building Board of Appeals – Alternate - term expires June 30, 2024
Building Board of Appeals – Alternate - term expires June 30, 2025
Downtown Development Authority – Resident – term expires June 30, 2025
Zoning Board of Appeals – Alternate – term expires June 30, 2024
Zoning Board of Appeals – Alternate – term expires June 30, 2025

ADJOURNMENT

The City of Owosso will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio recordings of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon seventy-two (72) hours notice to the City of Owosso. Individuals with disabilities requiring auxiliary aids or services should contact the City of Owosso by writing, calling, or emailing the following: Owosso City Clerk's Office, 301 West Main Street, Owosso, MI 48867; Phone: (989) 725-0500; Email: city.clerk@ci.owosso.mi.us. The City of Owosso Website address is www.ci.owosso.mi.us.

PLEASE TAKE NOTICE THAT THE FOLLOWING MEETING CAN ONLY BE VIEWED VIRTUALLY

The Owosso City Council will conduct an in-person meeting on October 2, 2023. Citizens may view and listen to the meeting using the following link and phone numbers.

OWOSSO CITY COUNCIL
Monday, October 2, 2023
at 7:30 p.m.

The public joining the meeting via Zoom CANNOT participate in public comment.

- **Join Zoom Meeting:** https://us02web.zoom.us/j/85674922010?pwd=NDQzbCtjVis5N3BoT2VVSnhwS21PZz09

- **Meeting ID:** **856 7492 2010**
- **Password:** **821993**

- **One tap mobile**

  +16465588656,,85674922010#,,,,*821993# US (New York)
  +16469313860,,85674922010#,,,,*821993# US

Dial by your location

+1 312 626 6799 US (Chicago)
+1 646 558 8656 US (New York)
+1 301 715 8592 US (Washington DC)
+1 346 248 7799 US (Houston)
+1 669 900 9128 US (San Jose)
+1 253 215 8782 US (Tacoma)

- **For video instructions visit:**

  - Signing up and Downloading Zoom https://youtu.be/qsy2Ph6kSf8
  - Joining a Zoom Meeting https://youtu.be/hIkCmbvAHQQ
  - Joining and Configuring Audio and Video https://youtu.be/-s76QHshQnY

- **Helpful notes for participants:** Helpful Hints

- **Meeting packets are published on the City of Owosso website** http://www.ci.owosso.mi.us

Any person who wishes to contact members of the City Council to provide input or ask questions on any business coming before the Council on October 2, 2023 may do so by calling or e-mailing the City Clerk's Office prior to the meeting at (989)725-0500 or city.clerk@ci.owosso.mi.us. Contact information for individual Council members can be found on the City website at: http://www.ci.owosso.mi.us/Government/City-Council

The City of Owosso will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio recordings of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon seventy-two (72) hours notice to the City of Owosso. Individuals with disabilities requiring auxiliary aids or services should contact the City of Owosso by writing, calling, or emailing the following: Owosso City Clerk's Office, 301 West Main Street, Owosso, MI 48867; Phone: (989) 725-0500; Email: city.clerk@ci.owosso.mi.us. The City of Owosso Website address is www.ci.owosso.mi.us.

CITY OF OWOSSO
REGULAR MEETING OF THE CITY COUNCIL
MINUTES OF SEPTEMBER 18, 2023
7:30 P.M.
VIRGINIA TEICH CITY COUNCIL CHAMBERS

PRESIDING OFFICER:	MAYOR ROBERT J. TEICH, JR.
OPENING PRAYER:	PASTOR BRUCE NOBLE CHURCH OF GOD (7TH DAY)
PLEDGE OF ALLEGIANCE:	PASTOR BRUCE NOBLE
PRESENT:	Mayor Robert J. Teich, Jr., Mayor Pro-Tem Susan J. Osika, Councilmembers Janae L. Fear, Jerome C. Haber, Daniel A. Law, Emily S. Olson, and Nicholas L. Pidek.
ABSENT:	None.

APPROVE AGENDA

Motion by Councilmember Pidek to approve the agenda as presented.

Motion supported by Councilmember Fear and concurred in by unanimous vote.

APPROVAL OF THE MINUTES OF REGULAR MEETING OF SEPTEMBER 5, 2023

Motion by Councilmember Olson to approve the Minutes of the Regular Meeting of September 5, 2023 as presented.

Motion supported by Councilmember Law and concurred in by unanimous vote.

PROCLAMATIONS / SPECIAL PRESENTATIONS

None.

PUBLIC HEARINGS

Proposed Special Assessment Project – Stewart Street,
from Shiawassee Street to Washington Street

City Manager Nathan R. Henne detailed the item before Council. This is the hearing of necessity for the proposed Stewart Street reconstruction project. He noted that the estimated cost to complete the project is higher than most because the street is so wide and its classified as a major street. The street was last reconstructed in 1973. New water main will also be installed as a part of the project.

A public hearing was conducted to receive citizen comment regarding proposed Special Assessment District No. 2024-01 for Stewart Street from Shiawassee Street (M-52) to Washington Street for street reconstruction.

The following people commented regarding the proposed project:

Elden Buchholz, 802 S. Ball Street, said he would like to give back the check he received from the City for a construction easement because he didn't want to pay the amount of his estimated assessment for the work being proposed. He feels the work is extravagant in scope and there's nothing wrong with the sidewalks or curbs that should require him to pay for their replacement. He also had questions about the interest rate, when the assessment would begin, and why he wasn't notified earlier.

Bruce Noble, 215 Cass Street, said he appreciates the project being proposed because the street is in very poor condition. He said he was specially assessed a few years back and the City made it easy to spread the cost out over a number of years. He understands that costs have gone up, but he was still in favor of the project.

Tom Manke, 2910 W. M-21, said Owosso is the only community in the county that specially assesses its residents for street projects. He accused the City of thievery and said it is a laughingstock.

Suzanne Millikin, 213 W. Stewart Street, via telephone, expressed her concern that the special assessment will not be included or billed as a line item on her taxes. She also noted that people travel over 50 miles per hour on her street and asked for better enforcement.

Mayor Teich noted that residents are not charged for sidewalk replacement and the interest rate on any unpaid balances would be 3%.

City Manager Henne explained that this is the hearing of necessity, marking step 3 of a 5-step process. He said the project, if approved, would not go out to bid until the spring and construction would take place next year. He encouraged Mr. Buchholz to meet with the City Engineer Clayton Wehner about his concerns with the scope of the project. He also noted that the project is not contingent on whether or not residents approved construction easements.

There was further discussion regarding how the City uses special assessments to stretch their funding to repair as many streets as possible, that Stewart Street was last reconstructed in 1973, the increase in construction costs, and how a newly constructed street can raise property values.

Motion by Councilmember Pidek to approve the following resolution:

RESOLUTION NO. 162-2023

AUTHORIZING SPECIAL ASSESSMENT RESOLUTION NO. 3

ESTABLISHING SPECIAL ASSESSMENT DISTRICT NO. 2024-01
STEWART STREET, FROM SHIAWASSEE STREET (M-52) TO WASHINGTON STREET
FOR STREET RECONSTRUCTION

WHEREAS, the City Council, after due and legal notice, has met and having heard all persons to be affected by the proposed public improvement more particularly hereinafter described; and

WHEREAS, the City Council deems it advisable and necessary to proceed with said public improvement as more particularly hereinafter described.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The City Council hereby determines to make and proceed with the following described public improvement and to defray a part or the whole cost, as more particularly hereinafter provided, by special assessment upon the property specially benefited:

   STEWART STREET, A PUBLIC STREET, FROM SHIAWASSEE STREET (M-52) TO WASHINGTON STREET
   FOR STREET RECONSTRUCTION

2. The City Council hereby approves the plans for the aforesaid public improvement as prepared and presented by the City Manager and determines the estimated cost of said public improvement to be $1,641,326.40 and approves said estimated cost and determines that the estimated life of said public improvement is twenty (20) years.

3. The City Council determines that of said total estimated cost, the sum of $263,131.83 be paid by special assessment upon the property specially benefited, as more particularly hereinafter described, and that the sum of $1,378,194.57 of said total estimated cost shall be the obligation of the City at large because of benefit to the City at large.

4. The City Council hereby designates the following described property as the special assessment district upon which the special assessment shall be levied:

   Stewart Street, a Public Street, from Shiawassee Street (M-52) to Washington Street
   For Street Reconstruction

5. The City Assessor shall prepare a special assessment roll including all lots and parcels of land within the special assessment district herein designated, and the Assessor shall assess to each such lot or parcel of land such relative portion of the whole sum to be levied against all lands in the special assessment district as the benefit to such lot or parcel of land bears to the total benefits to all lands in such district.

6. When the Assessor shall have completed the assessment roll, he shall file the special assessment roll with the City Clerk for presentation to the City Council.

Motion supported by Mayor Pro-Tem Osika.

Roll Call Vote.

AYES: Councilmember Olson, Mayor Pro-Tem Osika, Councilmembers Law, Fear, Pidek, Haber, and Mayor Teich.

NAYS: None.

Master Plan Implementation Goals: 3.22

CITIZEN COMMENTS AND QUESTIONS

Jeff Turner, 204 Oakwood Avenue, said that he had heard that all sidewalks in the City will be increased from 4' wide to 5' wide and asked if this was true. He also mentioned that Jerome Ave. needs to be repaved and widened.

Tom Manke, 2910 W. M-21, said there was lots going on in the community right now. He went on to mention the GMC motorhome event at the Fairgrounds, the opening of the new Shiawassee RESD College and Career Readiness Center in Vernon, the motorcycle races at Owosso Motorsports Park, and car racing at Owosso Speedway. He also said he was pleased to see the Kori Shook had purchased the old Matthews Building site.

Eddie Urban, 601 Glenwood Avenue, said there is a power pole on Monroe Street that was hit by a car last year and is still waiting for repair. He also said that he had recently written the story of his life here in Owosso and will be submitting it to Good Ole Days magazine for possible publication.

Ainsley Ellison, 802 S. Washington Street, said that the City Manager had mentioned that the Stewart Street project had been expedited due to the need to replace water service lines, and it was her

understanding that the replacement of those lines would be at no cost to the residents. She asked if the replacement of water service lines was simply an excuse for the City to saddle residents with the cost of reconstructing the street.

Don Fields, elder at Calvary Baptist Church, described the Back-to-School Prayer event that was held recently at Bentley Park. He said attendance was good and it was a great event.

Responding to a number of the questions raised during the comment period City Manager Henne replied as follows: sidewalks are now required to be 5' wide per the ADA; the reconstruction of Jerome Avenue was one of the projects that Council considered when delegating ARPA funds, but Council decided to use the funds for the replacement of water service lines instead; the reconstruction of Stewart Street was planned to coincide with the upgrade from a 4" water main to a 6" water main, and any lead water service lines they encounter during the project will be replaced as required by EGLE.

CONSENT AGENDA

Motion by Mayor Pro-Tem Osika to approve the Consent Agenda as follows:

Boards and Commissions Appointment. Approve the following Mayoral Boards and Commissions appointment:

Name	Board/Commission	Term Expires
Daylen Howard	Downtown Development Authority/Main Street Board filling unexpired term of T. Marr	06-30-2025

***MDOT Local Grade Crossing Surface Program Application – S. Chestnut Street**. Approve application to the FY2024 Local Grade Crossing Surface Program for reconstruction of the Huron & Eastern Railroad crossing on South Chestnut Street as follows:

RESOLUTION NO. 163-2023

**AUTHORIZING APPLICATION TO THE
MDOT LOCAL GRADE CROSSING SURFACE PROGRAM FOR FY2024
FOR THE HURON & EASTERN RAILROAD CROSSING ON S. CHESTNUT STREET**

WHEREAS, the City of Owosso, Shiawassee County, Michigan, Engineering Department recommends the reconstruction of the Huron & Eastern railroad crossing on S. Chestnut Street; and

WHEREAS, the Michigan Department of Transportation offers its portion of state funds for this work via the Local Grade Crossing Surface Program; and

WHEREAS, the City of Owosso proposes an application to the Program for the 2024 fiscal year to secure a Local Grade Crossing Surface Program project for said crossing; sixty percent (60%) of which shall be paid for by an MDOT Grant and forty percent (40%) by the Huron & Eastern Railroad, as outlined in the application.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: the City of Owosso has heretofore determined that it is advisable, necessary and in the public interest to proceed with the proposed project to reconstruct the Huron & Eastern Railroad crossing on S. Chestnut Street.

SECOND: staff is directed to submit an application for an MDOT Local Grade Crossing Surface

Program award for said work and the City declares its willingness to participate in this program.

THIRD: the appropriate city staff members are authorized to execute all documents necessary for application.

Master Plan Implementation Goals: 3.7, 5.2

***MDOT Local Grade Crossing Surface Program Application – S. Chipman Street**. Approve application to the FY2024 Local Grade Crossing Surface Program for reconstruction of the Huron & Eastern Railroad crossing on South Chipman Street as follows:

RESOLUTION NO. 164-2023

AUTHORIZING APPLICATION TO THE MDOT LOCAL GRADE CROSSING SURFACE PROGRAM FOR FY2024 FOR THE HURON & EASTERN RAILROAD CROSSING ON S. CHIPMAN STREET

WHEREAS, the City of Owosso, Shiawassee County, Michigan, Engineering Department recommends the reconstruction of the Huron & Eastern railroad crossing on S. Chipman Street; and

WHEREAS, the Michigan Department of Transportation offers its portion of state funds for this work via the Local Grade Crossing Surface Program; and

WHEREAS, the City of Owosso proposes an application to the Program for the 2024 fiscal year to secure a Local Grade Crossing Surface Program project for said crossing; sixty percent (60%) of which shall be paid by an MDOT Grant and forty percent (40%) by the Huron & Eastern Railroad, as outlined in the application.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: the City of Owosso has heretofore determined that it is advisable, necessary and in the public interest to proceed with the proposed project to reconstruct the Huron & Eastern Railroad crossing on S. Chipman Street.

SECOND: City staff is directed to submit an application for an MDOT Local Grade Crossing Surface Program award for said work and the City declares its willingness to participate in this program.

THIRD: the appropriate City staff members are authorized to execute all documents necessary for application.

Master Plan Implementation Goals: 3.7, 5.2

***MDOT Local Grade Crossing Surface Program Application – Woodlawn Avenue**. Approve application to the FY2024 Local Grade Crossing Surface Program for reconstruction of the Huron & Eastern Railroad crossing on Woodlawn Avenue as follows:

RESOLUTION NO. 165-2023

AUTHORIZING APPLICATION TO THE MDOT LOCAL GRADE CROSSING SURFACE PROGRAM FOR FY2024 FOR THE HURON & EASTERN RAILROAD CROSSING ON WOODLAWN AVENUE

WHEREAS, the City of Owosso, Shiawassee County, Michigan, Engineering Department recommends the reconstruction of the Huron & Eastern railroad crossing on Woodlawn Avenue; and

WHEREAS, the Michigan Department of Transportation offers its portion of state funds for this work via the Local Grade Crossing Surface Program; and

WHEREAS, the City of Owosso proposes an application to the Program for the 2024 fiscal year to secure a Local Grade Crossing Surface Program project for said crossing; sixty percent (60%) of which shall be paid for by an MDOT Grant and forty percent (40%) by the Huron & Eastern Railroad, as outlined in the application.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: the City of Owosso has heretofore determined that it is advisable, necessary and in the public interest to proceed with the proposed project to reconstruct the Huron & Eastern Railroad crossing on Woodlawn Avenue.

SECOND: staff is directed to submit an application for an MDOT Local Grade Crossing Surface Program award for said work and the City declares its willingness to participate in this program.

THIRD: the appropriate city staff members are authorized to execute all documents necessary for application.

Master Plan Implementation Goals: 3.7, 5.2

Street Closure Request - 2023 Annual Beer Run. Approve request from Shiawassee Regional Chamber of Commerce for the closure of various streets for the 2023 Annual Beer Run on Friday, October 20, 2023 from 6:00 p.m. to 8:00 p.m. and authorize Traffic Control Order No. 1506 formalizing the action.

Master Plan Implementation Goals: 1.17, 4.2, 4.6, 5.9, 5.12, 6.7

Change to Street Lighting Contract – Streetlight Reconfiguration Hickory/King. Authorize amendment to the Street Light Contract with Consumers Energy to reflect the removal of the HPS streetlight at the King Street/Hickory Street intersection and the installation of two new Cobrahead LED street lights at said intersection in advance of the Safe Routes to School project, authorize the Mayor and City Clerk to execute appropriate documents, and approve payment to Consumers Energy in the amount of $8,048.00 as follows:

RESOLUTION NO. 166-2023

REMOVING A LIGHT FROM THE
STANDARD STREET LIGHTING CONTRACT DATED 10/01/2013

RESOLVED, that it is hereby deemed advisable to authorize Consumers Energy Company to make changes in the lighting service as provided in the Standard Lighting Contract between the Company and the City of OWOSSO, dated 10/1/2013, in accordance with the Authorization for Change in Standard Lighting Contract dated 09/18/2023, heretofore submitted to and considered by this council as follows:

GENERAL SERVICE UNMETERED LIGHTING RATE GUL, STANDARD HIGH INTENSITY DISCHARGE

Number of Luminaires	*Nominal Watts*	*Luminaire Type*	*Fixture Type*	*Install Remove*	*Location*
1	100	HPS	Center Suspension	Remove	Intersection of Hickory and King Streets

RESOLVED, further, that the Mayor and Clerk be and are authorized to execute such authorization for change on the behalf of the City.

And,

RESOLUTION NO. 167-2023

ADDING LIGHTS TO THE
STANDARD STREET LIGHTING CONTRACT DATED 09/27/2018

RESOLVED, that it is hereby deemed advisable to authorize Consumers Energy Company to make changes in the lighting service as provided in the Standard Lighting Contract between the Company and the City of OWOSSO, dated 09/27/2018, in accordance with the Authorization for Change in Standard Lighting Contract dated 09/18/2023, heretofore submitted to and considered by this council as follows:

GENERAL UNMETERED LIGHT EMITTING DIODE LIGHTING RATE GU-LED

Number of Luminaires	*Nominal Watts*	*Luminaire Type*	*Fixture Type*	*Fixture Style*	*Install Remove*	*Location*
2	40	LED	Cobrahead	Cutoff	Install	Intersection of Hickory and King Streets

***Change Order – Main Street Plaza Masonry Repair**. Approve Change Order No.1 to the Main Street Plaza Masonry Repair contract with Bornor Restoration, Inc. increasing the contract amount by $4,970.00 for the installation of additional footings and authorize payment to the contractor up to the amount of $39,830.00 upon satisfactory completion of the project as follows:

RESOLUTION NO. 168-2023

AUTHORIZING CHANGE ORDER NO. 1
TO THE CONTRACT BETWEEN THE CITY OF OWOSSO AND
BORNOR RESTORATION, INC.
FOR THE MAIN STREET PLAZA MASONRY REPAIR

WHEREAS, the City of Owosso, Shiawassee County, Michigan, approved a contract with Bornor Restoration, Inc. on May 15, 2023 for masonry repairs in Main Street Plaza; and

WHEREAS, the existing footings were discovered to be insufficient, and installation of additional footings is necessary; and

WHEREAS, Bornor Restoration, Inc. has agreed to supply all labor, material, equipment, and insurance for said work and a change order is necessary to increase the contract amount.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: The City of Owosso has heretofore determined that it is advisable, necessary and in the public interest to approve Change Order No. 1 to the Main Street Plaza Masonry Repair contract with Bornor Restoration, Inc. increasing the contract in the amount of $4,970.00 for installation of additional footings, bringing the contract total to $39,830.00.

SECOND: The Mayor and City Clerk are instructed and authorized to sign the document substantially in form attached as Change Order No. 1 to the Contract for Services between the City of Owosso and Bornor Restoration, Inc.

THIRD: The accounts payable department is authorized to pay Bornor Restoration, Inc. for work satisfactorily completed up to the revised contract amount of $39,830.00.

FOURTH: The above expenses for Change Order No. 1 in the amount of $4,970.00 shall be paid from Downtown Development Authority Fund Account No. 248-200-930.000.

Master Plan Implementation Goals: 3.17

***Bid Award – 2023-24 DPW Inventory Parts**. Accept the low bid from Michigan Pipe and Valve-Saginaw, Inc. for water distribution system parts for the DPW inventory and authorize payment in accordance with unit prices not to exceed $33,196.20 as follows:

RESOLUTION NO. 169-2023

AUTHORIZING PURCHASE OF DPW INVENTORY PARTS FROM MICHIGAN PIPE AND VALVE-SAGINAW, INC.

WHEREAS, the City of Owosso, Shiawassee County, Michigan, has determined that it is necessary and in the public's best interest to maintain a water system that provides quality potable drinking water; and

WHEREAS, high quality parts are required to maintain the water distribution system, and additional inventory parts are needed; and

WHEREAS, the City has sufficient funds in its water funds to purchase said parts; and

WHEREAS, the City of Owosso sought bids to restock the DPW's parts inventory and a bid was received from Michigan Pipe and Valve-Saginaw, Inc., and it is hereby determined Michigan Pipe and Valve-Saginaw, Inc. is qualified to provide said parts and that it has submitted the lowest responsible and responsive bid.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: The City of Owosso has heretofore determined that it is advisable, necessary and in the public interest to award the DPW Inventory Parts Bid to Michigan Pipe and Valve-Saginaw, Inc.

SECOND: The contract between the City of Owosso and Michigan Pipe and Valve-Saginaw, Inc. shall be in the form of a City purchase order in an amount not to exceed $33,196.20.

THIRD: The accounts payable department is authorized to pay Michigan Pipe and Valve-Saginaw, Inc. according to unit prices for materials supplied up to the purchase order amount of $33,196.20.

FOURTH: The above expenses shall be paid from account no. 591-000-101.000.

Master Plan Implementation Goals: 3.4

Warrant No. 633. Authorize Warrant No. 633 as follows:

Vendor	Description	Fund	Amount
Gould Law PC	Legal Services from August 15, 2023 - September 11, 2023	Varies	$10,272.08
Waste Management	Services from August 16, 2023 – September 1, 2023	WWTP	$10,679.76

Motion supported by Councilmember Pidek.

Roll Call Vote.

AYES: Mayor Pro-Tem Osika, Councilmembers Law, Olson, Haber, Pidek, Fear, and Mayor Teich.

NAYS: None.

Mayor Teich thanked Daylen Howard for stepping forward to become the newest member of the DDA.

ITEMS OF BUSINESS

None.

COMMUNICATIONS

Clayton Wehner, Director of Engineering. Ridge and Stewart Alley Petition.
Melissa Wheeler, Downtown Development Authority. Letter of Resignation.
Tanya S. Buckelew, Planning & Building Director. August 2023 Building Department Report.
Tanya S. Buckelew, Planning & Building Director. August 2023 Code Violations Report.
Tanya S. Buckelew, Planning & Building Director. August 2023 Inspections Report.
Tanya S. Buckelew, Planning & Building Director. August 2023 Certificates Issued Report.
Kevin D. Lenkart, Public Safety Director. August 2023 Police Report.
Kevin D. Lenkart, Public Safety Director. August 2023 Fire Report.
Historic District Commission. Minutes of August 16, 2023.
Downtown Development Authority/Main Street. Minutes of September 6, 2023.
Owosso Historical Commission. Minutes of September 11, 2023.

CITIZEN COMMENTS AND QUESTIONS

Eddie Urban, 601 Glenwood Avenue, said he feels that people who register complaints during Council meetings should be required to stay until the end of the meeting, noting that the gentleman that took issue with the Stewart Street project missed out on the City Manager's explanation of how street projects and water main replacements are coordinated.

Councilmember Olson highlighted that there is one more vacancy on the DDA with the resignation of Melissa Wheeler. She encouraged everyone to keep an eye out for perspective board members. She went on to note that the Mini Golf Madness event held by the DDA last weekend turned out great and people really seemed to have a good time. Councilmember Pidek said that Foster Coffee participated in the event and thought it was a great way to get people into local businesses.

Councilmember Law noted that the railroad crossing on Gould Street near Monroe Street has collapsed again. He said it was repaired 2-3 years ago but needs attention once again.

City Manager Henne asked that people keep retired firefighter Arthur Hart in their thoughts as he is experiencing serious health problems.

NEXT MEETING

Monday, October 02, 2023

BOARDS AND COMMISSIONS OPENINGS

Building Board of Appeals - term expires June 30, 2024
Building Board of Appeals - term expires June 30, 2025
Building Board of Appeals – Alternate - term expires June 30, 2024
Building Board of Appeals – Alternate - term expires June 30, 2025
Downtown Development Authority – term expires June 30, 2024
Zoning Board of Appeals – Alternate – term expires June 30, 2024
Zoning Board of Appeals – Alternate – term expires June 30, 2025

ADJOURNMENT

Motion by Mayor Pro-Tem Osika for adjournment at 8:20 p.m.

Motion supported by Councilmember Law and concurred in by unanimous vote.

_____
Robert J. Teich, Jr., Mayor

_____
Amy K. Kirkland, City Clerk

*Due to their length, text of marked items is not included in the minutes. Full text of these documents is on file in the Clerk's Office.

MEMORANDUM

301 W. MAIN ▪ OWOSSO, MICHIGAN 48867-2958 ▪ WWW.CI.OWOSSO.MI.US

DATE: October 2, 2023

TO: Owosso City Council

FROM: Clayton Wehner, Director of Engineering

SUBJECT: Change Order No. 1 to Addendum No. 2 – ENG., Inc. Contract for Engineering Services for North Street Project

RECOMMENDATION

Approval of Change Order No. 1 to Addendum No. 2 of the Contract with ENG., Inc., an increase of $16,780.00 to the contract amount.

BACKGROUND

On February 22, 2022, City Council approved Addendum No. 2 to the contract with ENG., Inc. in the amount of $142,562.50 for construction administration services for the North Street project.

During construction, the contractor experienced some delays due to underground utility conflicts and poor subgrade requiring additional inspection time from ENG., Inc. Additionally, the contractor has been working between 55 and 60 hours per week, while the ENG., Inc. proposal was based on a 50 hour per week inspection schedule. ENG., Inc.'s request letter is attached.

The revised Contract amount for Addendum No. 2 will become $159,342.50 should City Council approve Change Order No. 1.

FISCAL IMPACTS

Funds for the additional expenses in the amount of $16,780.00 will be issued from the Major Street fund and Water fund as appropriated.

Attachments: (1) Change Order No. 1
(2) Resolution
(3) ENG., Inc. Letter

RESOLUTION NO.

AUTHORIZING CHANGE ORDER NO. 1 TO ADDENDUM NO. 2 TO THE CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES WITH ENG., INC. FOR THE 2023 NORTH STREET PROJECT

WHEREAS, the City of Owosso, Shiawassee County, Michigan, approved Addendum No. 2 to a Contract with ENG., Inc. on February 22, 2022 for Professional Engineering Services for the 2023 North Street Project in the amount of $142,562.50; and

WHEREAS, the contract must be modified to increase the contract amount due to additional inspection time necessary to complete the project; and

WHEREAS, the Director of Engineering has reviewed the change order as requested and has determined it to be fair and reasonable.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: The City of Owosso has theretofore determined that it is advisable, necessary and in the public interest to change the contract with ENG., Inc. for an increase of the cost to the city of Owosso in the amount of $16,780.00 as outlined in the change order.

SECOND: The mayor and city clerk are requested and authorized to sign Change Order No. 1 to Addendum No. 2 to the Engineering Services Contract between the City of Owosso, Michigan and ENG., Inc.

THIRD: The Accounts Payable department is authorized to make payment up to the original contract amount of $142,562.50, plus the change order amount of $16,780.00, totaling $159,342.50.

FOURTH: The additional expenses shall be paid from Major Street Fund Account No. 202-451-818.000-NORTHSTR23 ($8,390.00) and Water Fund Account No. 591-901-972.000-NORTHSTR23 ($8,390.00).

CHANGE ORDER

No. 1

OWNER: City of Owosso
CONTRACTOR: ENG Engineering and Surveying
CONTRACT NAME: City of Owosso North Street Project
OWNER's P.O. NO. 43588

The Contract is modified as follows upon execution of this Change Order:

Description:

Add additional cost for construction administration services due to increased inspection time needed.

Adjust the following quantities to the Contract:

Category	Price Change
Task 2 Water Construction Administration	$8,390.00
Task 2 Street Construction Administration	$8,390.00
Total Change:	$16,780.00

CHANGE IN CONTRACT PRICE
Original Contract Price $ 142,562.50
Increase (Decrease) from previously approved Change Orders No. _____ to _____: $ _____
Contract Price prior to this Change Order: $ 142,562.50
Increase (Decrease) of this Change Order: $ 16,780.00
Contract Price incorporating this Change Order: $ 159,342.50

CHANGE IN CONTRACT TIMES
Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ (days or dates)
Increase (Decrease) from previously approved Change Orders No. _____ to _____: Substantial Completion: _____ Ready for Final Payment: _____ (days)
Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ (days or dates)
Increase (Decrease) of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ (days)
Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ (days or dates)

RECOMMENDED:

By: Clayton Wehner

ENGINEER (Authorized Signature)
Title: Director of Engineering
Date: 9-26-2023

APPROVED:

By: _____

OWNER (Authorized Signature)
Title: _____
Date: _____

ACCEPTED:

By: _____

CONTRACTOR (Authorized Signature)
Title: Vice President
Date: 9-26-2023

Eng.
Engineering & Surveying
www.engdot.com

4063 Grand Oak Drive
Suite A109
Lansing, MI 48911
517.887.1100

16930 Robbins Road
Suite 105
Grand Haven, MI 49417
616.743.7070

2311 East Beltline Avenue SE
Suite 201
Grand Rapids, MI 49546
616.743.3020

September 25, 2023

Mr. Clayton Wehner, Director of Engineering
City of Owosso
City Hall, 301 W Main Street
Owosso, MI 48867

RE: Request for Contract Amendment: North Street Reconstruction
P.O. #000043588, dated 1/18/2022

Dear Mr. Wehner:

Please accept this letter as a request for a contract amendment for additional engineering services for the referenced project.

Construction of the project was originally anticipated to last 16 weeks with a workweek consisting of 50 hours. The construction timeline that unfolded will result in a total of 19 weeks of full-time construction where several weeks have consisted of 55 to 60 hours. This extended timeline was due to unforeseeable circumstances relating to construction of the water main, storm sewer, and additional undercutting of the subgrade during road construction.

During excavation for the installation of the water main between M-52 and Cherrylawn Street, it was discovered that the telecommunications duct bank that ran along the north side of North Street was directly adjacent to the proposed location of the water main. This resulted in additional time required to construct this portion of the water main, due to the necessity to support the duct bank during installation. Additionally, at the northeast quadrant of the Washington Street and North Street intersection, the water main alignment required adjustment due to the location of existing underground utilities. This resulted in the water main being installed by open cut methods in this location rather than trenchless methods, necessitating additional curb removal and replacement to account for the new alignment as well.

This project was also delayed during the storm sewer installation. During installation of the storm sewer in front of 300 E North Street, a storm lead was discovered that was not indicated on the Drawings and would not coordinate with the proposed storm sewer elevations. As a result, additional storm sewer pipe and drainage structures were constructed to maintain positive drainage for the existing storm sewer that extended into 300 E North Street.

Additional sources of delay on this project occurred during the roadbuilding process. While grading the road down to subgrade, more poor soils were discovered than anticipated. These poor soils caused continuous delays in the roadbuilding process, as each area of poor soils required additional evaluation to determine their limits, followed by subgrade undercutting to remedy the conditions.

With the savings of completing nuclear density materials testing in house, we originally thought we could still complete the project on budget. Now that the project is nearing completion, it is clear that our initial construction engineering budget will be insufficient, and we will need to invest additional time to complete the project.

Our total level of effort for the additional construction engineering is as follows:

Project Manager - 6 hours @ $205/hr = ...	$ 1,230.00
Project Engineer - 10 hours @ $115/hr = ...	$ 1,150.00
Staff Engineer - 150 hours @ $90/hr = ...	$13,500.00
Office Technician - 10 hours @ $90/hr = ...	$ 900.00
	$16,780.00

The total not-to-exceed cost of this requested contract amendment for additional construction engineering services is $16,780.00. Of that, $8,390.00 is attributable to water main related delays and $8,390.00 is attributable to street related delays.

Thank you for considering this request for Contract Amendment No. 1. If this request meets with your approval, please issue a contract amendment to Purchase Order #000043588 accordingly.

If you have any questions, please do not hesitate to call.

Sincerely,

Eng., Inc.

Erik J. Morris, PE
Vice President

301 W. MAIN ▪ OWOSSO, MICHIGAN 48867-2958 ▪ (989) 725-0599 ▪ FAX (989) 723-8854

MEMORANDUM

DATE: October 2, 2023

TO: Owosso City Council

FROM: Katherine Fagan, City Treasurer

RE: Hazards and Nuisances Special Assessment Roll

Over the course of the year, the City takes action to alleviate nuisances and hazards to the public that exist on private property. The charges for these actions are invoiced to the owner of record for the property. Once a year, per section 28-10.5 of the Code, any charges left unpaid shall be established as liens to the affected property. Once the lien is established I would be authorized to add the amount of the invoices to the tax roll.

The associated document to this memo details the outstanding nuisance and hazard invoices since this process last took place in December of 2022. It lists the invoice numbers, the due date of the invoice, the parcel number and address, the type of nuisance or hazard and the amount of the invoice.

Also, attached you will find a list of parcels which were invoiced during the year and were sold at the August or September Shiawassee County tax sale. Shiawassee County's tax sale process removes any outstanding balances owed on a property and as such the amounts invoiced to each parcel will need to be written off upon council approval. Also included on this list are invoices that need to be written off due to clerical error or inability to collect.

The process for establishing a lien is handled via special assessment. Initially, the list of outstanding invoices is presented to Council with a request to set a public hearing. Upon this action, letters are sent to the affected property owners informing them of the City's intent to lien their property if the invoice(s) remains unpaid. They then have the opportunity to protest the proposed action at the public hearing. At the conclusion of the public hearing the Council can accept the roll as presented, make amendments to the roll, or hold off on action all together (though this is not recommended).

Tonight, I recommend that you take action to start this process in motion by setting a public hearing for October 16, 2023, to receive citizen comment regarding this roll, and approve writing off the attached write off list. An updated list of unpaid invoices to be added to the tax roll will be provided to you at the public hearing.

RESOLUTION NO.

SPECIAL ASSESSMENT DISTRICT NO. 2023-103
HAZARDS AND NUISANCES

WHEREAS, the Assessor has prepared a special assessment roll for the purpose of specially assessing that portion of the unpaid costs incurred in the altering, repairing, tearing down, abating or removing of hazards and nuisances more particularly hereinafter described to the properties specially benefited by said public improvement, and the same has been presented to the Council by the City Clerk.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. Said special assessment roll is hereby accepted and shall be filed in the office of the City Clerk for public examination.

2. The Council shall meet at the Owosso City Hall, Owosso, Michigan at 7:30 o'clock p.m., on Monday, October 16, 2023 for the purpose of hearing all persons interested in said special assessment roll and reviewing the same.

3. The City Clerk is directed to publish the notice of said hearings once in *The Argus Press,* the official newspaper of the City of Owosso, not less than ten (10) days prior to said hearing and shall further cause notice of said hearing to be sent by first class mail to each owner of the property subject to assessment, as indicated by the records in the City Assessor's office as shown on the general tax rolls of the City, at least ten (10) days before the time of said hearing, said notice to be mailed to the addresses shown on said general tax rolls of the City.

The notice of said hearing to be published and mailed shall be in substantially the following form:

NOTICE OF HEARING TO REVIEW
SPECIAL ASSESSMENT ROLL – HAZARDS AND NUISANCES
CITY OF OWOSSO
COUNTY OF SHIAWASSEE, MICHIGAN

TO THE OWNERS OF THE OF THE FOLLOWING DESCRIBED PROPERTY:
TAKE NOTICE that a Special Assessment Roll-Hazards and Nuisances has been prepared for the purpose of defraying the unpaid costs incurred in the altering, repairing, tearing down, abating or removing of hazards and nuisances on the property listed below.

PARCEL #	PROPERTY ADDRESS	SERVICE	TOTAL DUE
050-651-000-013-00	415 Genesee St.	Clean	251.61
050-250-000-008-00	602 N. Shiawassee	Weeds	138.00
050-602-008-011-00	937 Kenwood	Weeds	138.00
050-470-027-003-00	200 E. Main	Weeds	168.00
050-180-004-020-00	326 S. Dewey	Weeds	153.00
050-390-004-012-00	1260 Adams	Weeds	138.00
050-603-002-011-00	1444 W. King	Weeds	138.00
050-710-001-012-00	915 Corunna	Weeds	168.00
050-660-014-012-00	104 N. Lansing	Weeds	138.00
050-390-004-012-00	1260 Adams	Weeds	138.00
050-652-008-004-00	808 Division	Weeds	138.00

PARCEL #	PROPERTY ADDRESS	SERVICE	TOTAL DUE
050-180-004-020-00	326 S Dewey	Weeds	153.00
050-250-000-008-00	602 N. Shiawassee	Weeds	138.00
050-710-001-012-00	915 Corunna	Weeds	168.00
050-390-004-012-00	1260 Adams	Weeds	138.00
050-602-002-010-00	1325 W. Stewart	Clean	270.69
050-480-000-010-00	1455 Industrial	Loan	1543.76
050-660-023-019-00	709 Lynn	Water	303.92
050-666-000-026-00	113 N. Oak	Clean	219.65
050-536-000-043-00	126 N. Shiawassee	Snow	258.80
050-250-000-008-00	602 N. Shiawassee	Snow	229.30
050-115-002-019-00	1149 S. Shiawassee	Snow	203.30
050-536-000-093-00	1221 N. Shiawassee	Snow	258.80
050-420-007-024-00	700 Broadway	Water	318.89
050-380-003-020-00	825 E. Exchange	Water	217.80
050-010-032-029-00	719 Frazer	Water	1578.95
050-010-015-001-00	667 Glenwood	Weeds	150.00
050-560-000-056-00	1108 Meadow Dr.	Weeds	145.00
050-652-008-004-00	808 Division	Weeds	140.00
050-420-004-001-00	Monroe St.	Weeds	150.00
050-050-000-038-00	114 S. Cedar	Weeds	140.00
050-250-000-008-00	602 N. Shiawassee	Weeds	140.00
050-390-004-012-00	1260 Adams	Weeds	140.00
050-536-000-010-00	909 Adams	Weeds	140.00
050-240-002-019-00	643 Hickory	Weeds	140.00
050-710-001-012-00	915 Corunna	Weeds	145.00
050-010-016-006-00	629 Alger	Weeds	140.00
050-536-000-043-00	1265 N. Shiawassee	Weeds	145.00
050-114-003-004-00	1031 S. Chipman	Water	311.89
050-602-026-002-00	1616 Herman	Water	318.89
050-113-017-007-00	1415 Lynn	Weeds	150.00
050-621-002-006-00	321 State	Weeds	140.00
050-651-000-022-00	501 S. Shiawassee	Weeds	150.00
050-560-000-056-00	1108 Meadow	Weeds	145.00
050-250-000-008-00	602 N. Shiawassee	Weeds	140.00
050-536-000-043-00	1265 N. Shiawassee	Weeds	145.00
050-420-004-001-00	Monroe St.	Weeds	150.00
050-652-008-004-00	808 Division	Weeds	140.00
050-390-004-012-00	1260 Adams	Weeds	140.00
050-710-001-012-00	915 Corunna	Weeds	145.00
050-420-005-009-00	755 Division	Weeds	145.00

050-240-002-01900	643 Hickory	Weeds	140.00
050-250-000-008-00	602 N. Shiawassee	Weeds	140.00
050-390-004-012-00	1260 Adams	Weeds	140.00
050-010-015-001-00	667 Glenwood	Weeds	145.00
050-010-016-006-00	629 Alger	Weeds	140.00
050-113-017-007-00	1415 Lynn	Weeds	150.00
050-621-002-006-00	321 State	Weeds	140.00
050-536-000-010-00	909 Adams	Weeds	140.00
050-652-008-004-00	808 Division	Weeds	140.00
050-710-001-012-00	915 Corunna	Weeds	145.00
050-420-004-001-00	Monroe St.	Weeds	150.00
			$13,213.25

TAKE NOTICE THAT ANY HAZARDS/NUISANCES INVOICES OR CHARGES REMAINING UNPAID AS OF THEIR DUE DATE WILL BE INCLUDED ON THIS ROLL.

The said Special Assessment Roll-Hazards and Nuisances is on file for public examination with the City Clerk and any objections to said Special Assessment Roll-Hazards and Nuisances must be filed in writing with the City Clerk prior to the close of the hearing to review said Special Assessment Roll-Hazards and Nuisances.

TAKE FURTHER NOTICE that appearance and protest at this hearing is required in order to appeal the amount of the special assessment to the State Tax Tribunal if an appeal should be desired. A property owner or party in interest, his or her agent, may appear in person at the hearing to protest the special assessment or may file his or her appearance by letter and his or her personal appearance shall not be required. The property owner or any person having an interest in the property subject to the proposed special assessment may file a written appeal of the special assessment with the State Tax Tribunal within thirty days after confirmation of the special assessment roll if that special assessment was protested at this hearing.

TAKE FURTHER NOTICE that the City Council will meet at the Owosso City Hall, Owosso, Michigan at 7:30 p.m. on Monday, October 16, 2023 for the purpose of reviewing said Special Assessment Roll-Hazards and Nuisances and for the purpose of considering all objections to said roll submitted in writing. If you have questions regarding this notice, please contact the City Treasurer's Office at 725-0599.

4. The City Treasurer is directed to write-off the following hazards and nuisances charges, consisting of unpaid invoices that are unable to be leined due to the Shiawassee County tax sale process:

INV #	SRVC CODE	PARCEL #	NAME	AMOUNT
4909	Damage by auto	Unknown Address/No Ins.	Andrea Brandt	285.00
6518	Clean	050-114-006-001-00	Shiawassee County Treasurer	930.00
6524	Mow	050-113-003-005-00	Jeffrey Ruby	153.00
6532	Mow	050-660-022-004-00	Shiawassee County Treasurer	168.00
6541	Mow	050-113-003-005-00	Jeffrey Ruby	153.00
6544	Mow	050-660-022-004-00	Shiawassee County Treasurer	168.00
6550	Mow	050-114-006-001-00	Shiawassee County Treasurer	138.00
				$1,995.00

301 W. MAIN ▪ OWOSSO, MICHIGAN 48867-2958 ▪ WWW.CI.OWOSSO.MI.US

MEMORANDUM

DATE: October 2, 2023

TO: City Council

FROM: Ryan E. Suchanek, Director of Public Services & Utilities

SUBJECT: Professional Engineering Services Fishbeck-WWTP Sludge Handling Project Amendment #1

RECOMMENDATION:

Approval of increased payment for engineering work by Fishbeck (Lansing, MI) for the WWTP Solids Handling project in the amount of $20,000.00.

BACKGROUND:

On September 8, 2020 City Council approved amending the agreement between the City of Owosso and C2ae of Lansing, Michigan. The addendum No. 7 that was approved by City Council on September 8, 2020 was for $145,000.00 to provide engineering design and construction administration services for the replacement of solids handling process equipment at the wastewater treatment plant.

On October 4, 2021 City Council approved terminating the contract with C2ae of Lansing, Michigan for the construction and bidding services of the Sludge Handling Project, after the engineering design services were completed. Then entered into agreement with Fishbeck of Lansing, Michigan to provide professional engineering services for the bidding and construction for the Sludge Handling Project at the wastewater treatment plant. The proposal from Fishbeck for bidding and construction was $79,000.00, with a contingency of $5,000.00 in case there was a need for amendments to the construction drawings, for a total of $84,000.00.

July of 2023, additional work was identified during the demolition/construction phases which included:

- Shoring of the of the columns
- Repair of the deteriorated columns
- Additional framing required on roof parapet

This additional work needed to be engineered, and the additional costs of the engineering required is an additional $20,000.00.

FISCAL IMPACTS:

Capital replacement engineering services will be funded from and chargeable to account 599-901-977.000.

Document originated by:

Ryan E. Suchanek, Director of Public Services & Utilities

Attachments: (1) Fishbeck Amendment Proposal
(2) Resolution

RESOLUTION NO.

**AUTHORIZING AMENDMENT NO. 1
TO THE CONTRACT BETWEEN THE CITY OF OWOSSO AND
FISHBECK OF LANSING, MICHIGAN FOR PROFESSIONAL ENGINEERING
SERVICES FOR WWTP SOLIDS HANDLING PROJECT AT THE
WASTEWATER TREATMENT PLANT**

WHEREAS, the City of Owosso, Shiawassee County, Michigan, approved a contract with Fishbeck, on October 4, 2021 for the engineering of the solids/sludge handling process equipment system, known as the Wastewater Treatment Plant (WWTP) Solids Handling project, an approved 2022 SRF planned project; and

WHEREAS, the project is now underway and an amendment is necessary to reconcile engineering work required.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: The City of Owosso has heretofore determined that it is advisable, necessary and in the public interest to amend the Wastewater Treatment Plant (WWTP) Solids Handling project professional engineering services with Fishbeck to increase the contract amount to update engineering work.

SECOND: The Mayor and City Clerk are instructed and authorized to sign the document substantially in form attached as Amendment No. 1 in the amount of $20,000.00; an increase to the Contract for Services between the City of Owosso and Fishbeck, revising the total current contract amount from $79,000.00 with a contingency of $5,000.00 (a total amount of $84,000.00) to $104,000.00.

THIRD: The Accounts Payable department is authorized to pay Sorensen Gross Company for work satisfactorily completed up to the revised contract amount of $104,000.00.

FOURTH: The above expenses shall be paid from the Wastewater Fund, and SRF Bond Funds

fishbeck
Engineers | Architects | Scientists | Constructors

5913 Executive Drive, Suite 100
Lansing, Michigan 48911

517.882.0383 | fishbeck.com

June 29, 2023
Project No. 221308

Ryan Suchanek
Public Utilities Director
City of Owosso
301 West Main Street
Owosso, MI 48867

Additional Scope of Services – Solids Handling Improvements Project Construction
Amendment 1

The following items have been added to the project, as discussed.

- Design column repair of bottom 4 feet and baseplate for 5 existing columns along the west side of the Solids Dewatering room. One field visit by a structural engineer is included to evaluate the extent of repairs required.
- Design and installation of temporary shoring is by others.
- Field testing of installed repairs is by others.
- Construction:
  - Construction services outlined in the original proposal for compliance with SRF requirements, shop drawings, construction oversight, request for information, as-built record drawings, and coordination with the contractor will be expanded to include the additional project improvements as described herein.

Professional Services Fees

Our fees to complete the services as described are as follows:

Task	Base Contract	Amendment 1	Total
Design repair for structural column	$79,000	$20,000	$99,000
Construction Drawing amendments	$5,000		$5,000
Total	$84,000	$20,000	$104,000
		Project Total (Base Contract plus Amendment 1)	**$104,000**

Attached is Amendment 1 to our Professional Services Agreement for the described services. If you concur with our scope of services, please sign in the spaces provided and return the executed amendment to the attention of Patricia Barnard (pbarnard@fishbeck.com). This proposal is made subject to Terms and Conditions of the original Professional Services contract. Invoices will be submitted every four weeks and payment is due upon receipt.

If you have any questions or require additional information, please contact me at 517.896.9792 or bvanzee@fishbeck.com.

Sincerely,

Brian Van Zee
Senior Water & Wastewater Engineer

Attachment
By email

fishbeck
Engineers | Architects | Scientists | Constructors

5913 Executive Drive, Suite 100
Lansing, Michigan 48911

517.882.0383 | fishbeck.com

Professional Services Agreement Amendment 1

Between Fishbeck and City of Owosso
Dated September 27, 2021
For Solids Handling Improvements Project Construction
Project No. 211549

The Scope/Budget for this project is modified as follows:

SECTION 2 – ADDITIONAL SCOPE OF SERVICES

Add design of column repair as detailed in our June 29, 2023, proposal for the Solids Handling Improvements Project construction phase services.

SECTION 6 – ADDITIONAL PAYMENTS TO ENGINEER

Additional Scope of Services:

Task	Base Contract	Amendment 1	Total
Design repair for structural column	$79,000	$20,000	$99,000
Construction Drawing Amendments	$5,000		$5,000
Total	$84,000	$20,000	$104,000
		Project Total (Base Contract plus Amendment 1)	**$104,000**

All Terms and Conditions shall remain unchanged.

APPROVED FOR:		ACCEPTED FOR:	
City of Owosso		Fishbeck	
BY:	_____	BY:	_____
TITLE:	_____	TITLE:	Senior Vice President
DATE:	_____	DATE:	June 29, 2023

MEMORANDUM

301 W. MAIN ▪ OWOSSO, MICHIGAN 48867-2958 ▪ WWW.CI.OWOSSO.MI.US

DATE: October 2, 2023

TO: City Council

FROM: Ryan E. Suchanek, Director of Public Services & Utilities

SUBJECT: WTP Filters Improvements – Fishbeck Engineering Services

RECOMMENDATION:

Authorization to amend the Agreement between the City of Owosso and Fishbeck of Lansing, Michigan dated September 7, 2021 in the amount of $294,825.00 as addendum No. 6, for providing engineering design and construction administration services for Filters Improvements project at the Water Treatment Plant.

BACKGROUND:

The Water Treatment Plant has a total of four gravity filters, each 18.5-feet long and 15-feet wide. Each filter is equipped with Leopold clay tile underdrains, 7-inches of support gravel, 12-inches of sand, and 13-inches of anthracite. Each filter is also equipped with two fiberglass backwash troughs, surface wash piping and rotating surface wash arms. The filters are not equipped with filter to waste capabilities.

The filter underdrains, support gravel, and media are in need of replacement. As part of the filter improvements the facility will transition from surface wash to air scour.

Key components of the filters have reached or are beyond the end of their useful lives. The proposed project is intended to address the critical filters issues of aging infrastructure at the WTP, and increase the longevity of the WTP.

The City is currently inline for a loan through the DWSRF Program of $3,490,000.00, of that amount $1,745,000.00 is set to be as a principal forgiveness/grant. In addition to the Filter Improvements, this funding is intended for water main replacement, and lead service line replacements.

Filters Improvements Engineering Tasks:

- Task 1 – Preliminary Design
- Task 2 – Final Design

- Task 3 – Bidding Assistance
- Task 4 – Construction Administration
- Task 5 – Construction Observation

Estimated cost breakdown of each task:

- Task 1 – $87,925.00
- Task 2 – $57,200.00
- Task 3 – $7,000.00
- Task 4 – $59,100.00
- Task 5 – $83,600.00
  TOTAL $294,825.00

***Task 3 – Bidding Phase Services, Task 4 – Construction Administration, and Task – 5 Construction Observation are contingent upon the City securing loan funding through the State's DWSRF program.

FISCAL IMPACTS:

Capital replacement engineering services will be funded from and chargeable to account 591-901-972.200.

Document originated by: Ryan E. Suchanek

Attachments: (1) Resolution
(2) Proposal

RESOLUTION NO.

APPROVAL OF ADDENDUM NO.6 TO THE AGREEMENT BETWEEN THE CITY OF OWOSSO AND FISHBECK FOR ENGINEERING DESIGN AND CONSTRUCTION SERVICES FOR FILTERS IMPROVEMENTS AT THE WATER TREATMENT PLANT

WHEREAS, the City of Owosso, Shiawassee County, Michigan, will fund from the State of Michigan's Drinking Water State Revolving Fund (DWSRF) for Filters Improvements, and

WHEREAS, key components of the filters have reached or are beyond the end of their useful lives, and Fishbeck of Lansing, Michigan has provided a proposal for the necessary engineering services to replace this aged equipment, and

WHEREAS, the Director of Public Services & Utilities has reviewed the proposal and verified the engineering services as necessary for the design, bid specification development, and construction administration services to replace the aged equipment, and hereby recommends authorizing Fishbeck to provide these engineering services in the amount of $294,825.00.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: The City of Owosso has heretofore determined that it is advisable, necessary and in the public interest to contract with Fishbeck for design services to replace the aged equipment at the Water Treatment Plant.

SECOND: The accounts payable department is authorized to submit payment to Fishbeck in the amount of $294,825.00 for these services.

THIRD: Task 3 – Bidding Phase Services, Task 4 – Construction Administration, and Task 5 Construction Observation are contingent upon the City securing loan funding through the State's DWSRF program.

FOURTH: The above expenses shall be paid from the fund 591-901-972.200.

fishbeck
Engineers | Architects | Scientists | Constructors

5913 Executive Drive, Suite 100
Lansing, Michigan 48911

517.882.0383 | fishbeck.com

September 26, 2023

Ryan Suchanek
Director of Public Services & Utilities
City of Owosso
301 West Main Street
Owosso, MI

Proposal for Professional Services for Design and Construction of Filter Improvements
City of Owosso's Water Treatment Plant

Fishbeck is pleased to provide the City of Owosso (City) with this proposal for professional engineering services related to the design and construction of the Filter Improvements at the City's Water Treatment Plant (WTP). This proposal includes a general description of our understanding of the project, the proposed scope, projected project schedule and the fee for engineering services.

Statement of Understanding

The WTP has a total of four gravity filters, each 18.5-feet long and 15-feet wide. Each filter is equipped with Leopold clay tile underdrains, 7-inches of support gravel, 12-inches of sand and 13-inches of anthracite. Each filter is also equipped with two fiberglass backwash troughs, surface wash piping and rotating surface wash arms. The filters are not equipped with filter to waste capabilities.

The filter underdrains, support gravel, and media are in need of replacement. As part of the filter improvements the facility will transition from surface wash to air scour.

The City was awarded a loan through the DWSRF Program of $3,033,750, of that amount $1,011,250 was awarded as a grant. The project is scheduled as a Quarter 2 project through the DWSRF program. In addition to the Filter Improvements, this funding is intended for Water Main Replacement, Lead Service Line Replacement and Supply Well upgrades.

Scope of Services

Task 1 – Preliminary Design

We propose the following services as part of preliminary design.

1. Conduct a project kickoff meeting virtually with the City to identify key project goals and objectives, establish communication protocols, and review approval procedures. If the City wishes, ELGE can be included in this meeting.
2. Conduct a hazardous material inspection of the proposed work area. The purpose of the hazardous material inspection is to identify the potential for hazardous materials (lead-based paint, asbestos-containing materials, mercury-containing materials, PCBs, RCRA Universal Hazardous Wastes and petroleum-stained surfaces) to exist. If identified, testing will be performed to quantify the nature and extent of remediation to be incorporated into the design. A tabulation of the quantities of each type of remediation will be prepared.
3. It is anticipated that as part of this project the facility will transition from surface wash to air scour, with the addition of two positive displacement blowers.
4. Identify the recommended support gravel (if necessary) and dual media bed depths for the filters.

5. Develop a preferred design for replacement of the existing mechanical equipment.
6. Evaluate electrical lighting and power distribution concepts for the modifications.
7. Evaluate and summarize instrumentation and control changes required for the modifications.
8. Develop a project schedule for design, bidding, and construction.
9. Review the constructability and sequencing of the proposed filter modifications to determine how plant operations will be impacted.
10. Develop a basis of design for proposed improvements for use in the permitting process.
13. Prepare an opinion of probable construction cost based on the preliminary design documents.
14. Summarize the preliminary design in a memo. The memo will provide recommendations to the City regarding the filter underdrains, media, and air scour blowers. The memo will also summarize recommendations for improvements to the HVAC system.
15. Submit the preliminary design memo in electronic format to the City for review. Meet with the City virtually to review comments on the draft preliminary design memo.

Task 2 – Final Design

1. Progress the design to the 90% design documents level and submit for review by the project stakeholders including the City and EGLE as applicable. Coordinate review comments and implement applicable comments into the bidding documents.
2. Assist the City in the preparation of the DWSRF Part I, II, and III applications and prepare drawings, specifications and bid documents which conform to the DWSRF requirements.
3. Coordinate contractual requirements with the City specifically relating to bonding, insurance, liquidated damages, and dispute resolution.
4. Prepare Divisions 00 and 01 front end specifications to include the Standard General Conditions of the Construction Contract by the Engineers Joint Contract Documents Committee (EJCDC) as required. These documents will identify contractual and administrative requirements.
5. Prepare technical specifications for bidding purposes. The specifications will follow the current Construction Specification Institute (CSI) 50 division numbering format.
6. Prepare the final drawings for bidding purposes, in major subdivisions to include Demolition, Structural, Process, Mechanical and Electrical as applicable to the project.
7. Update the opinion of probable construction cost for the work reflecting 90% design documents.
8. Complete internal quality assurance/quality control (QA/QC) procedures, which will include the City and EGLE reviews, as applicable. Incorporate applicable review comments into the final design documents.
9. Submit the bidding documents and permit application to EGLE and secure the Part 399 Water System Construction Permit is issued by EGLE. The permit application will be submitted following completion of the design. Fishbeck will prepare the permit application, coordinate review with EGLE, and respond to EGLE comments. The time to review and approve the permit is dependent on agency workload, although keeping the agency informed regarding the design progress can facilitate a faster review of the final design submittal. The permitting process may need to be conducted concurrently with bidding, depending on the schedule.

Task 3 – Bidding Assistance

1. Assist the City with preparation of an advertisement for bid.
2. Coordinate distribution of drawings and specifications to potential bidders.
3. Respond to bidders' questions and issue addenda, as applicable.
4. Assist the City in evaluation of the bids and identify qualified bids for City selection of a contractor for award.
5. Assist the City in the award of the project construction by providing the necessary forms and documents.

Task 4 – Construction Administration

1. Review the contractor's bonds and insurance information and assist the City in the execution of the contract documents by providing the necessary forms and documents.

2. Assist the City to maintain compliance with DWSRF requirements, including conducting certified payroll tracking, wage rate interviews, material certifications and completion of related administrative forms.
3. Schedule and lead preconstruction meeting, including preparation of agenda, meeting minutes, and follow-up.
4. Review contractor's shop drawings, samples, and testing submittals.
5. Respond in writing to the Contractor's requests for information (RFIs) and issue clarifications and interpretations to the contract documents, as applicable, including recommending change orders and work change directives to the Owner as applicable.
6. Review detailed construction drawings, shop drawings, schedule information, and other data which the contractor is required to submit for compliance with design concepts.
7. Consult and advise the City as to the acceptability of substitute materials and equipment that may be proposed by the Contractor.
8. Attend progress meetings, approximately monthly, with the Contractor, subcontractors, and City representatives.
9. Attend preinstallation meetings with the Contractor and subcontractors as noted in the project specifications.
10. Visit the site at intervals appropriate to the various stages of construction and notify the Contractor of defective work, if applicable. Site visits will be conducted by the project manager, the lead engineers or specific discipline engineers, or other qualified personnel dependent on the progress of the work.
11. Provide clarifications and interpretations during the construction. Issue bulletins and change orders, as appropriate.
12. Keep the City informed regarding progress of the Work. Review contractor applications for payment and provide recommendations for payment to the City.
13. Make recommendations for the replacement or correction of defective work, as necessary.
14. Review operation and maintenance manual documentation from the contractor for new equipment.
15. Provide start-up assistance in conjunction with the start-up and training specified to be provided by equipment suppliers. This generally includes attendance during equipment start-up, coordination with suppliers to resolve operational or controls-related problems, and verification of control system operation.
16. Review the completed work to verify substantial completion. Develop a project closeout punch list.
17. Review contractor project closeout documents, including waivers of lien, consent of surety, and warranties.
18. Conduct a final inspection to verify project completion.
19. Provide project record drawings to the City based on the contractor's as-built documentation. Two full size copies, two reduced size copies, and one electronic copy of the record drawings will be delivered to the City.

Task 5 – Construction Observation

1. Provide the services of a Resident Project Representative (RPR) at the site to provide part time observation of the work. The proposal assumes an RPR will generally be onsite two days per week when the contractor is performing major work onsite, up to the substantial completion date. After substantial completion, the RPR will be on periodically to verify completion of punch list items. The role of the RPR will be observation of the work performed by the contractor and to act as the liaison between the field and Fishbeck's engineers and designers. For issues involving a deviation from the contract documents, the role of the RPR is to communicate with the appropriate Fishbeck staff who will provide direction to the contractor on how to proceed or will consult with the City if there are changes which affect contract price or time. The RPR will maintain daily reports for the days they are onsite documenting the work completed, contractor presence on site, and issues and resolutions that may arise.
2. The fee is based on a total of 520 hours for the RPR over an estimated 8-month construction schedule. The level of full-time construction observation can be adjusted once the final construction schedule is determined and based on the level of observation desired by the City.

Key Assumptions

Our proposal and fees are based on the following assumptions.

1. The existing backwash troughs, filter piping, valves, actuators, filter control councils, and instrumentation will remain unchanged.
2. Upgrades to the power distribution system not directly related to the addition of the air scour blowers are not part of this project (e.g., replacement of the existing double-ended switchboard, upgrades to the grounding system, modifications to the standby power systems, etc.).
3. Upgrades to the SCADA system and controls screens not directly related to the addition of the air scour blowers and air flow meter are not a part of this project (e.g., existing PLC changes, existing control panel replacement, large SCADA system improvements, etc.).
4. The proposal includes attendance at one meeting during design in Owosso for discussion of items related to the design, funding, and applicable reviews by project stakeholders and applicable parties, such as utilities, regulators, and EGLE DWRF staff.
5. Due to the fast pace of the design, our proposal assumes bi-weekly virtual progress meetings during the preliminary and final design phases of the project.
6. This proposal assumes attendance at up to 12 monthly construction progress meetings. It is assumed the general contractor will conduct these meetings, including producing the agendas and documentation of minutes.
7. This proposal assumes attendance at up to two preinstallation meetings at the job site.
8. The City will pay permitting fees except for building permits, which will be obtained and paid for by the installation contractors.
9. Local construction permits will be the responsibility of the construction contractors.
10. Materials testing and special inspections will be conducted by a third-party independent testing agency, with these services being paid out of a contractor's allowance.

Schedule

Work will begin immediately upon award of the project, which is assumed to occur at the October 2, 2023 City Council Meeting. To meet the DWSRF Quarter 2 deadlines, the project will need to be fast-tracked, with final plans and specifications completed by late November 2023. Achieving this schedule will be challenging, requiring a team effort between Fishbeck, the City of Owosso and EGLE. We plan to engage with EGLE throughout the design process to address concerns as they arise.

Activity	Date	EGLE Requirement
Design Phase Engineering Services Award	10/2/2023	
Project Kick-off Meeting (Virtual)	10/3/2023	
Progress Design to 90% Level	11/13/2023	
Internal Review Print, City Review Print, and 90% Draft Plans and Specs (same sets)	11/14/2023	X
90% Design Review Meeting	11/17/2023	
Receive City and EGLE 90% Review Comments	11/21/2023	
Incorporate Fishbeck, City, and EGLE review comments, progress Final Design to 100%	11/28/2023	
Submit Act 399 Permit to EGLE	11/28/2023	X
Submit Final Plans and Specs to EGLE	11/28/2023	X
Submit DWSRF Application Part I &II	11/28/2023	X
EGLE Issues Act 399 Permit	12/12/2023	X
EGLE Approval of 100% Plans and Specs	12/12/2023	X
Publication of Bid Advertisement (City Activity)	12/18/2023	X
Prebid Meeting	12/21/2024	
Opening of Bids	1/15/2024	
Bid Evaluation (Fishbeck Activity)	1/17/2024	
Resolution of Tentative Contract Award (Assumes Special Meeting)	1/22/2024	X
Submit DWSRF Application Part III	1/30/2024	X
EGLE Order of Approval	2/23/2024	X
Anticipated Loan Closing	3/25/2024	X
Notice to Proceed (No later than)	5/24/2024	X

Professional Services Fees

We propose to complete the scope of services described herein for a lump sum fee of Two Hundred Ninety-Four Thousand Eight Hundred Twenty-Five Dollars ($294,825). The fees are summarized by phase in this table:

Phase	Labor	Expenses	Total
Preliminary Design	$87,400	$525	$87,925
Final Design	$56,800	$400	$57,200
Bidding Assistance	$6,600	$400	$7,000
Construction Administration	$57,300	$1,800	$59,100
Construction Observation	$75,400	$8,200	$83,600
Total	$283,500	$11,325	$294,825

Authorization

This proposal is made subject to the Terms and Conditions of the standing professional services agreement between the City of Owosso and Fishbeck dated September 7, 2021.

If you have any questions or require additional information, please contact me at 517.887.4099 or bvanzee@fishbeck.com.

Sincerely,

Brian Van Zee
Senior Water and Wastewater Engineer

By email

301 W. MAIN ▪ OWOSSO, MICHIGAN 48867-2958 · (989) 725-0599 · FAX (989) 723-8854

MEMORANDUM

DATE: September 26, 2023

TO: City Council

FROM: Kevin Lenkart
Director of Public Safety

RE: Traffic Control Order # 1507

Jillian Kowalczyk, Owosso High School Band Director, has requested the following street closures for the Owosso High School Marching Band Festival.

LOCATION:

Oakwood Ave, Southbound to the end of Grover St at the bridge, Jerome Ave Eastbound from Oakwood Ave, Jerome Ave from Dewey Street to Oakwood Ave.

DATE:

October 9, 2023
Rain Date October 16, 2023.

TIME:

3:00 p.m. – 10:00 p.m.

The Public Safety Department has issued Traffic Control Order # 1507 in accordance with the Rules for the Issuance of Certain Traffic Control Orders. Staff recommends approval and further authorization of a traffic control order formalizing the action.

CITY OF OWOSSO

TRAFFIC CONTROL ORDER

(SECTION 2.53 UNIFORM TRAFFIC CODE)

ORDER NO.:	DATE:	TIME
1507	9/26/2023	10:00 am

REQUESTED BY:

Kevin Lenkart – Director of Public Safety

TYPE OF CONTROL:

Street Closure

LOCATION OF CONTROL:

Oakwood Ave, Southbound to the end of Grover St at the bridge. Jerome Ave., Eastbound from Oakwood Ave., Jerome Ave from Dewey Street to Oakwood Ave.

EVENT/DATES:

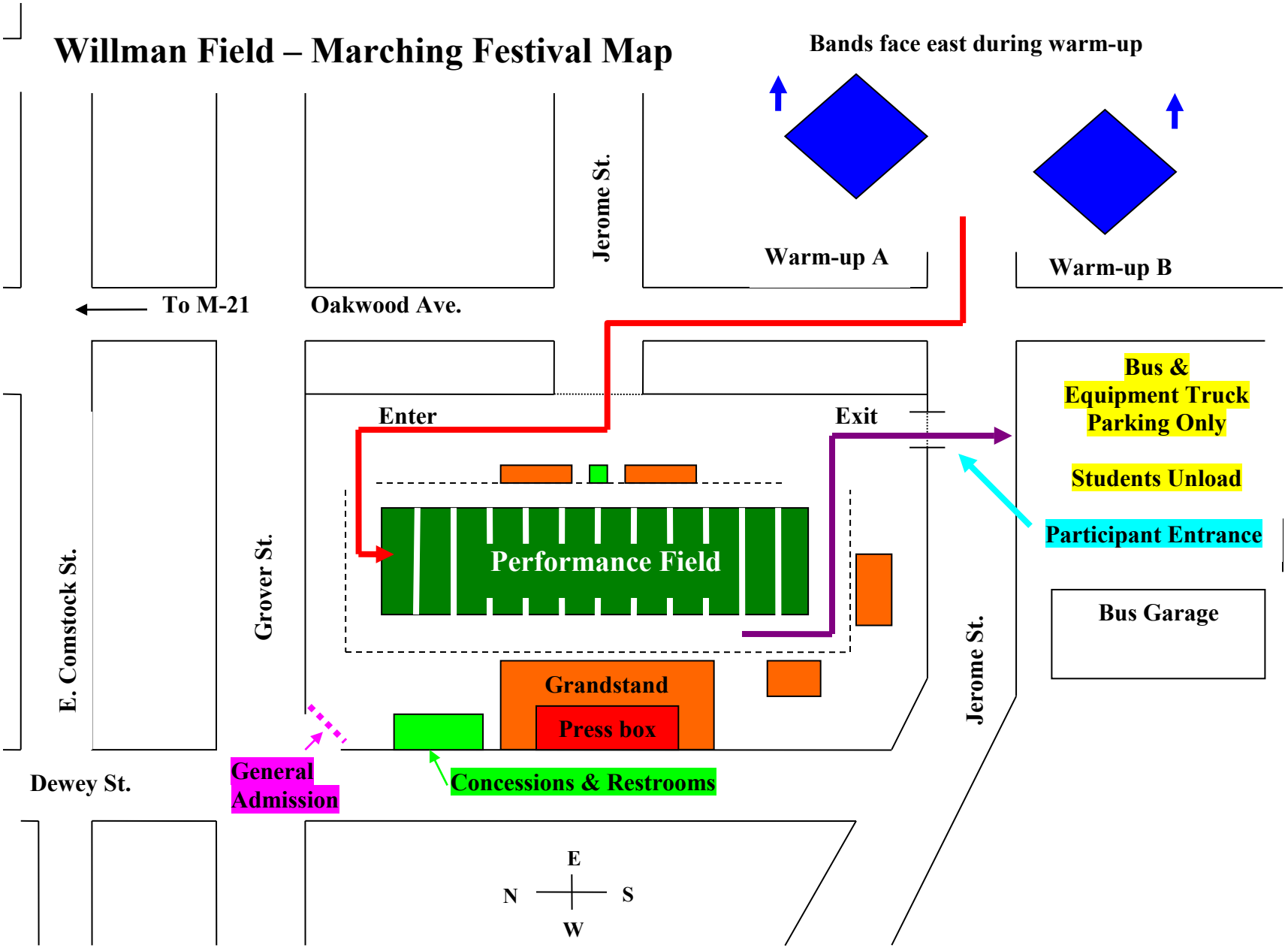
Owosso High School Marching Band Festival
DATE: October 9, 2023
TIME: 3:00 p.m. – 10:00 p.m.
Rain Date: October 16, 2023.

APPROVED BY COUNCIL

_____, 20 _____

REMARKS

Willman Field – Marching Festival Map



APPLICATION FOR USE OF CITY STREETS & PARKING LOTS FOR SPECIAL EVENTS

202 S. WATER STREET · OWOSSO, MICHIGAN 48867-2958 · (989) 725-0580 · FAX 725-0528

This application, plus all required documentation and fees shall be submitted to the Public Safety Department at least thirty (30) days and not more than one hundred twenty (120) days prior to the first day of the requested event, with 2 exceptions:

1. Applicants requiring the issuance of a conditional use permit as required by Sec. 38-504(4)(b), shall submit a complete application at least ninety (90) days prior to the event.
2. Applicants requesting the use of a state trunkline shall submit a complete application at least forty-five (45) days prior to the event.

Event Name: Owosso H.S. Marching Band Festival

Applicant Name: Owosso Public Schools (Individual or Group Name) Date: 9-25-23

Primary Contact: Jillian Kowalczyk Title: Band Director

Address: O.H.S.

Phone: 725-5595 Email: kowalczyk@owosso.k12.mi.us

Requested Date(s): October 9, 2023 Requested Hours: _____ (Including set-up and clean-up)

Area Requested (Parking Lot - Parade Route): Block the following roads for the event: Oakwood Ave (SB from Grover St to the south end of Grover), Jerome Ave, (EB from Oakwood Ave), Jerome Ave EB from Dewey.

** OHS will have staff to direct bands to the correct location.

Detailed description of the use for which the request is made: Band Festival

Please attach the following items and mark the corresponding checkbox indicating their inclusion. See back for detailed descriptions of each item:

- [x] Executed Hold Harmless Agreement
- [x] Map of the Event Area with Event location highlighted
- [x] Rules or policies applicable to persons participating in proposed event
- [x] Proof of Insurance

or

- [ ] Request for Insurance Waiver
- [x] Application Fee

Continued on back...

INDEMNIFICATION AND HOLD HARMLESS AGREEMENT. In consideration of the granting of permission by the City of Owosso to the Applicant for the use of facilities set forth above, Applicant shall indemnify, defend and hold harmless the City of Owosso, their officials, employees, agents, professionals and volunteers, collectively ("CITY") from and against any and all claims, losses, penalties, damages, settlements, costs, charges, professional fees (including attorneys' fees and related costs) and/or other expenses or liabilities of any nature whatsoever including, without limitation, the investigation and defense of any claims, arising out of or resulting from the conduct of the activities for which this application is made, and for the use of the facilities and any other facilities which are employed by the Applicant, or their guests, during the period for which the facilities requested are used, provided that any such claim, damage, loss, or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury or to destruction of tangible property including the loss of the use resulting there from, and (b) is caused in whole or in part by any negligent act or omission of the Applicant, or anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether it is caused in part by a party indemnified hereunder.

The Applicant certifies that s/he has read and examined this application and that all information contained herein is true and correct. Applicant agrees to observe all City ordinances, laws and/or conditions imposed.

Applicant Signature: _____ Date: 9-25-23

Information Regarding Required Documents

Map of the Event Area – Map showing the general area where the event will be located. The exact event location /event route must be highlighted and the locations requiring barricades for the requested street/lot closure must be clearly marked.

Rules or policies - Rules and policies applicable to events and activities organized in such a manner as to constitute an invitation to members of the general public to participate in the event or activity shall comply with all applicable local, state and federal laws and regulations and shall include, at a minimum, a process for appealing decisions that have the effect of denying participation or imposing limitations on participation beyond those generally applicable to all other participants.

Proof of Insurance – A Certificate of Insurance and Endorsement acceptable to the City evidencing General Liability insurance for the event in the minimum amount of $1,000,000 per occurrence. Coverage shall be endorsed to name the City of Owosso as additional insured and be primary and non-contributory to any other insurance the City has.

or

Request for Insurance Waiver - The City Council may waive the insurance requirement if it determines that insurance coverage is unavailable or cannot be obtained at a reasonable cost and the event or activity is in the public interest or fulfills a legitimate and recognized public purpose. Check box if you are requesting waiver of insurance.

Applicants must indicate whether they are providing proof of insurance or requesting an insurance waiver. Request for a waiver in no way guarantees a waiver will be granted.

Application Fee – Fee set by resolution of City Council to offset a portion of the costs related to the processing of special events applications.

☑ $30 Application (30-120 days prior to 1st day of event)	☐ Additional: _____
☐ $50 Additional MDOT Closure (M-21, M-71, M-52)	☐ Additional: _____
☐ $15 Additional-Expedited Fee (14-29 days prior to 1st day of event)	☐ Additional: _____

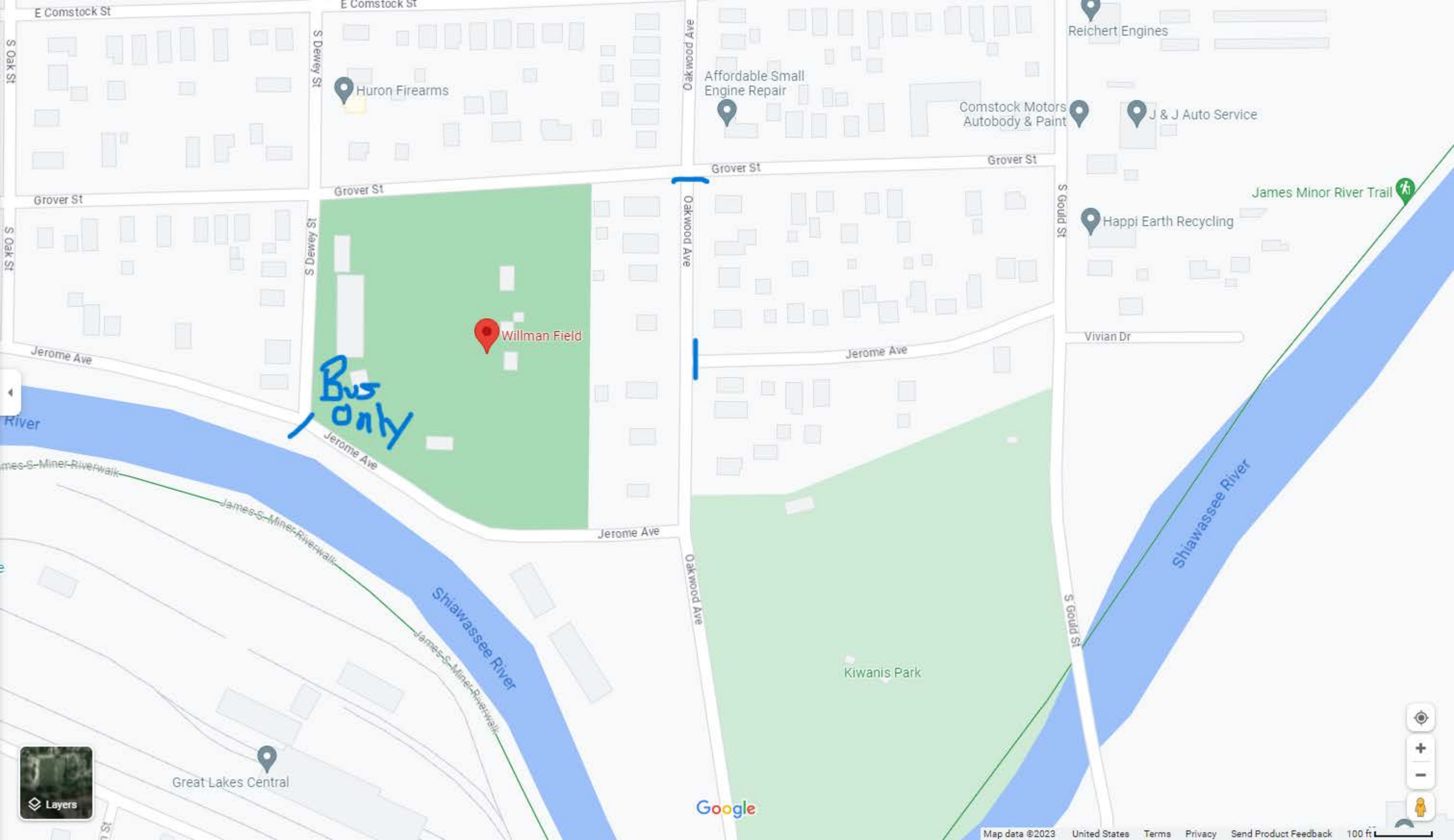
$ 30.00 **Total Due at Time of Application. Please make check payable to: City of Owosso.**

Do Not Write Below This Line - For Officials Use Only

Approved ☐ Not Approved ☐ Date: _____ Traffic Control Order Number _____

Copy of Rules & Regulations provided to Applicant ☐

Cc: DDA – Director; WCIA – Chairperson


E Comstock St
S Oak St
S Dewey St
Huron Firearms
Oakwood Ave
Affordable Small Engine Repair
Reichert Engines
Comstock Motors Autobody & Paint
J & J Auto Service
Grover St
James Minor River Trail
Happi Earth Recycling
S Gould St
Willman Field
Bus only
Jerome Ave
Vivian Dr
River
James-S-Miner-Riverwalk
Shiawassee River
Great Lakes Central
Kiwanis Park
Layers
Google
Map data ©2023
United States
Terms
Privacy
Send Product Feedback
100 ft

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
Bank 1 GENERAL FUND (POOLED CASH)					
09/01/2023	9584(A)	ALLMAX SOFTWARE INC	ALLMAX SOFTWARE INC	DATABASE SUPPORT ANNUAL SUBSCRI	3,050.00
09/01/2023	9585(A)	AMAZON CAPITAL SERVICES	AMAZON CAPITAL SERVICES	AUGUST 2023 AMAZON PURCHASES	48.87
			AMAZON CAPITAL SERVICES	AUGUST 2023 AMAZON PURCHASES	25.28
			AMAZON CAPITAL SERVICES	AUGUST 2023 AMAZON PURCHASES	43.98
					118.13
09/01/2023	9586(A)	AXON ENTERPRISE INC	AXON ENTERPRISE INC	TASER EQUIPMENT FOR OPD	1,624.35
			AXON ENTERPRISE INC	SIX IN CAR CAMERAS - PAYMENT OV	11,982.43
			AXON ENTERPRISE INC	TASERS (8) AND ASSOCIATED EQUIP	5,243.90
			AXON ENTERPRISE INC	TASER HOLSTER - EQUIPMENT	77.00
					18,927.68
09/01/2023	9587(A)	BEAVER RESEARCH COMPANY	BEAVER RESEARCH COMPANY	HAND SOAP	169.34
09/01/2023	9588(A)	BELL FORK LIFT INC	BELL FORK LIFT INC	MANLIFT ANNUAL INSPECTION AND P	205.63
			BELL FORK LIFT INC	MANLIFT ANNUAL INSPECTION AND P	64.75
					270.38
09/01/2023	9589(A)	BIO-ONE, INC.	BIO-ONE, INC.	EQUIPMENT REPAIR	625.06
09/01/2023	9590(A)	BOUND TREE MEDICAL LLC	BOUND TREE MEDICAL LLC	MEDICAL SUPPLIES FOR OFD	671.15
09/01/2023	9591(A)	CENTER FOR TECHNOLOGY & TRAINI	CENTER FOR TECHNOLOGY & TRAINI	2023 ROADSOFT SPECIAL TOPICS: S	30.00
09/01/2023	9592(A)	CINTAS CORPORATION #308	CINTAS CORPORATION #308	FLOOR MATS PER SERVICE AGREEMEN	38.32
09/01/2023	9593(A)	DORNBOS SIGN INC	DORNBOS SIGN INC	STREET SIGNS	1,103.10
09/01/2023	9594(A)	EQUIPMENT DISTRIBUTORS, INC.	EQUIPMENT DISTRIBUTORS, INC.	HEAVY DUTY TWIN POST VEHICLE LI	18,903.13
09/01/2023	9595(A)	FASTENAL COMPANY	FASTENAL COMPANY	HARDWARE FOR SCREWPUMP DEFLECTO	208.68
09/01/2023	9596(A)	FISHBECK, THOMPSON, CARR & HUE	FISHBECK, THOMPSON, CARR & HUE	ENGINEERING SERVICES FOR WWTP S	811.50
			FISHBECK, THOMPSON, CARR & HUE	WWTP PHASE 1 PREENGINEERING WOR	9,810.06
			FISHBECK, THOMPSON, CARR & HUE	WATER MASTER PLAN - RELIABILITY	6,904.94
			FISHBECK, THOMPSON, CARR & HUE	FLOW DATA COLLECTION FOR CITY F	736.13
					18,262.63
09/01/2023	9597(A)	GREEN TECH SYSTEMS LLC	GREEN TECH SYSTEMS LLC	2022-2024 WATER LINE REPLACEMEN	77,290.05
09/01/2023	9598(A)	GROUP RESOURCES	GROUP RESOURCES	SEPTEMBER 2023 FSA ADMIN INVOIC	104.50
09/01/2023	9599(A)	HOSPITAL NETWORK HEALTHCARE SE	HOSPITAL NETWORK HEALTHCARE SE	MEDICAL WASTE FEE OFD QPO 27638	316.50
09/01/2023	9600(A)	HYDROTEX PARTNERS, LTD	HYDROTEX PARTNERS, LTD	OIL AND GREASE	767.56
09/01/2023	9601(A)	INTERNATIONAL CODE COUNCIL INC	INTERNATIONAL CODE COUNCIL INC	15 IFC SOLF PLUS PDF EDUCATIONA	170.00
09/01/2023	9602(A)	J & H OIL COMPANY	J & H OIL COMPANY	GAS AND FUEL 08/01/2023 - 08/15	7,088.03
			J & H OIL COMPANY	GAS AND FUEL 07/16/2023 - 07/31	7,402.61
					14,490.64
09/01/2023	9603(A)	JCI JONES CHEMICALS INC	JCI JONES CHEMICALS INC	SODIUM HYPOCHLORITE BWL FYE6-30	6,840.85
			JCI JONES CHEMICALS INC	SODIUM HYPOCHLORITE BWL FYE6-30	2,460.00
					9,300.85
09/01/2023	9604(A)	JESSICA UNANGST	JESSICA UNANGST	REIMBURSEMENT FOR FLOWERS - SUN	52.70
09/01/2023	9605(A)	KEYES QUALITY CONSTRUCTION LLC	KEYES QUALITY CONSTRUCTION LLC	2023 NEP GRANT HDF202337NEP	23,612.23
09/01/2023	9606(A)	LUNGHAMER FORD OF OWOSSO	LUNGHAMER FORD OF OWOSSO	SENSOR EXHAUST OPD CAR 2004	458.77
09/01/2023	9607(A)	MERIT LABORATORIES INC	MERIT LABORATORIES INC	FYE 6/30/2024 WATER TESTS AND L	40.00
			MERIT LABORATORIES INC	FYE 6/30/2024 WATER TESTS AND L	80.00
			MERIT LABORATORIES INC	FYE 6/30/2024 WATER TESTS AND L	40.00

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
					160.00
09/01/2023	9608(A)	MICHIGAN PAVING & MATERIALS CC	MICHIGAN PAVING & MATERIALS CC	AMS SEAL SP	855.94
09/01/2023	9609(A)	MUNICIPAL EMERGENCY SERVICES	MUNICIPAL EMERGENCY SERVICES	EQUIPMENT MAINTENANCE SCBA	486.58
09/01/2023	9610(A)	NATIONAL VISION ADMINISTRATORS	NATIONAL VISION ADMINISTRATORS	SEPTEMBER 2023 VISION INSURANCE	565.86
09/01/2023	9611(A)	NORTHERN PUMP & WELL INC	NORTHERN PUMP & WELL INC	8/1/23 SERVICE WORK ON HS PUMP	1,218.00
09/01/2023	9612(A)	OHM ADVISORS	OHM ADVISORS	WELL HOUSE CONSTRUCTION OBSERVA	10,049.00
			OHM ADVISORS	ENGINEERING SERVICES 2023 DWRF	20,146.50
			OHM ADVISORS	ENGINEERING SERVICES 2023 SANIT	1,516.00
			OHM ADVISORS	2022 DWAM GRANT ENGINEERING SER	14,382.00
					46,093.50
09/01/2023	9613(A)	PHP INSURANCE COMPANY	PHP INSURANCE COMPANY	HEALTH INSURANCE PREMIUM	102,535.67
09/01/2023	9614(A)	PVS TECHNOLOGIES, INC.	PVS TECHNOLOGIES, INC.	FERRIC CHLORIDE PER LANSING BOA	9,985.98
09/01/2023	9615(A)	QUADIENT FINANCE USA INC	QUADIENT FINANCE USA INC	POSTAGE CHARGES JULY	2,140.60
09/01/2023	9616(A)	RAMPARTS LLC	RAMPARTS LLC	PARTS FOR GORMAN RUPP SLUDGE PU	396.39
09/01/2023	9617(A)	S L H METALS INC	S L H METALS INC	STEEL FOR BENNETT FIELD BLEACHE	388.78
			S L H METALS INC	GLOVE BOX ASSEMBLY FOR AMBULANC	225.00
					613.78
09/01/2023	9618(A)	SAFETY-KLEEN SYSTEMS INC	SAFETY-KLEEN SYSTEMS INC	WWTP-QUARTERLY REPLACE/RECYCLE	360.12
09/01/2023	9619(A)	SMITH SAND & GRAVEL INC	SMITH SAND & GRAVEL INC	2023-2024 STREET PATCH CONTRACT	29,923.45
09/01/2023	9620(A)	SORENSEN GROSS COMPANY	SORENSEN GROSS COMPANY	PALMER 3A AND JUNIPER 1 WELL HO	49,815.20
			SORENSEN GROSS COMPANY	OWOSSO WWTP SOLIDS HANDLING PRO	317,155.83
					366,971.03
09/01/2023	9621(A)	SUMMIT COMPANIES	SUMMIT COMPANIES	ANNUAL FIRE EXTINGUISHER INSPEC	606.00
09/01/2023	9622(A)	SUNBURST GARDENS, INC.	SUNBURST GARDENS, INC.	WORK FOR IRRIGATION SOCCER, FAY	1,711.00
			SUNBURST GARDENS, INC.	IRRIGATION REPAIR SOCCER	1,605.00
					3,316.00
09/01/2023	9623(A)	UNITED PARCEL SERVICE	UNITED PARCEL SERVICE	SHIPPING FOR WWTP - JOHN KEYES	26.25
			UNITED PARCEL SERVICE	SHIPPING FOR HR	7.74
					33.99
09/01/2023	9624(A)	VERIZON WIRELESS	VERIZON WIRELESS	M2M CELLULAR CHARGES	125.10
09/01/2023	9625(A)	VERSALIFT MIDWEST LLC	VERSALIFT MIDWEST LLC	TRUCK INSPECTIONS	790.00
			VERSALIFT MIDWEST LLC	TRUCK INSPECTIONS	340.00
					1,130.00
09/01/2023	9626(A)	WASTE MANAGEMENT OF MICHIGAN I	WASTE MANAGEMENT OF MICHIGAN I	WASTE MANAGEMENT SERVICES 08/01	9,851.69
09/15/2023	9627(E)	HUNTINGTON NATONAL BANK -CREDI	HUNTINGTON NATONAL BANK -CREDI	CITY CREDIT CARD PURCHASES	4,029.80
09/15/2023	9628(E)	MAILCHIMP	MAILCHIMP	EMAIL SERVICE - ESSENTIALS PLAN	13.00
09/15/2023	9629(A)	ALS LABORATORY GROUP	ALS LABORATORY GROUP	WASTEWATER ANALYSES-6-30-2024-E	496.00
09/15/2023	9630(A)	AMAZON CAPITAL SERVICES	AMAZON CAPITAL SERVICES	AUGUST 2023 AMAZON PURCHASES	140.74
			AMAZON CAPITAL SERVICES	AUGUST 2023 AMAZON PURCHASES	68.99
			AMAZON CAPITAL SERVICES	AUGUST 2023 AMAZON PURCHASES	76.22
			AMAZON CAPITAL SERVICES	JULY 2023 AMAZON PURCHASES	158.99
			AMAZON CAPITAL SERVICES	JULY 2023 AMAZON PURCHASES	62.53
			AMAZON CAPITAL SERVICES	JULY 2023 AMAZON PURCHASES	30.99
					538.46

Check Date	Check	Vendor Name	Invoice Vendor	Description	Amount
09/15/2023	9631(A)	AUTOVALUE - CORUNNA	AUTOVALUE - CORUNNA	BACK UP ALARM FOR # 444 & GREAS	110.98
09/15/2023	9632(A)	AXON ENTERPRISE INC	AXON ENTERPRISE INC	TASER TRAINING VOUCHER	495.00
09/15/2023	9633(A)	B S & A SOFTWARE	B S & A SOFTWARE	TIMESHEET MODULE TO ERP PROGRAM	1,375.00
09/15/2023	9634(A)	BELL EQUIPMENT	BELL EQUIPMENT	#442 STREET SWEEPER PARTS	1,135.37
09/15/2023	9635(A)	BIO-ONE, INC.	BIO-ONE, INC.	REPAIR OF OFD EQUIPMENT	4,113.97
09/15/2023	9636(A)	BRENNTAG GREAT LAKES LLC	BRENNTAG GREAT LAKES LLC	SODIUM METABISULFITE	2,113.50
09/15/2023	9637(A)	BRUCKMAN'S MOVING & STORAGE SE	BRUCKMAN'S MOVING & STORAGE SE	DDA MONTHLY STORAGE SEPT 2023 -	200.00
09/15/2023	9638(A)	C & B AIR COMPRESSORS	C & B AIR COMPRESSORS	WWTP AIR COMPRESSOR REPAIR	582.30
09/15/2023	9639(A)	C E & A PROFESSIONAL SERVICES	C E & A PROFESSIONAL SERVICES	RANDOM DOT DRUG TESTS 09/06/202	383.73
09/15/2023	9640(A)	CENTER FOR TECHNOLOGY & TRAINI	CENTER FOR TECHNOLOGY & TRAINI	LOCAL CONCRETE SEMINAR 10/26/20	60.00
09/15/2023	9641(A)	CINTAS CORPORATION #308	CINTAS CORPORATION #308	FLOOR MATS PER SERVICE AGREEMEN	38.32
09/15/2023	9642(A)	CONSUMERS ENERGY	CONSUMERS ENERGY	CITY OF OWOSSO ACCOUNTS AUGUST	52,572.78
09/15/2023	9643(A)	DALTON ELEVATOR LLC	DALTON ELEVATOR LLC	CYLINDER RENTAL/OXYGEN/SUPPLIES	529.88
09/15/2023	9644(A)	DICKINSON WRIGHT PLLC	DICKINSON WRIGHT PLLC	BOND SERVINGS USDA LOAN TO PURC	9,000.00
09/15/2023	9645(A)	ENTHALPY ANALYICAL	ENTHALPY ANALYICAL	JULY 2023 PFAS ANALYSES	1,370.00
09/15/2023	9646(A)	FERGUSON ENTERPRISES LLC	FERGUSON ENTERPRISES LLC	WATER INVENTORY-PURCHASE NOT TO	359.40
			FERGUSON ENTERPRISES LLC	WATER INVENTORY-PURCHASE NOT TO	424.44
			FERGUSON ENTERPRISES LLC	STOCK REPLACEMENT DPW	795.31
			FERGUSON ENTERPRISES LLC	JULY PARTS RESTOCK	1,451.81
					3,030.96
09/15/2023	9647(A)	GENUINE PARTS COMPANY	GENUINE PARTS COMPANY	PARTS/SUPPLIES-INVOICE TO BE SI	855.44
09/15/2023	9648(A)	GILBERT'S DO IT BEST HARDWARE	GILBERT'S DO IT BEST HARDWARE	AUGUST 2023 GILBERT PURCHASES	501.89
09/15/2023	9649(A)	GLAESER DAWES CORP	GLAESER DAWES CORP	2023 STREET PROGRAM CONTRACT -	362,392.40
09/15/2023	9650(A)	GOULD LAW PC	GOULD LAW PC	PROFESSIONAL SERVICES 07/11/202	11,843.88
09/15/2023	9651(A)	GRAINGER INC	GRAINGER INC	ROUTINE PURCHASES NOT TO EXCEED	717.70
			GRAINGER INC	ROUTINE PURCHASES NOT TO EXCEED	42.66
					760.36
09/15/2023	9652(A)	GRAYMONT WESTERN LIME INC	GRAYMONT WESTERN LIME INC	BWL BID 7-1-2023 FOR LIME	8,020.36
09/15/2023	9653(A)	GREEN TECH SYSTEMS LLC	GREEN TECH SYSTEMS LLC	2022-2024 WATER LINE REPLACEMEN	85,509.05
09/15/2023	9654(A)	HUTSON INC OF MICHIGAN	HUTSON INC OF MICHIGAN	ROUTINE PARTS/SUPPLIES-INDIVIDU	1,741.06
09/15/2023	9655(A)	J & H OIL COMPANY	J & H OIL COMPANY	LUBES AND DELIVERED DIESEL FOR	184.05
			J & H OIL COMPANY	GAS AND FUEL 08/15/2023 - 08/31	7,640.81
					7,824.86
09/15/2023	9656(A)	JON STUART HARRIS	JON STUART HARRIS	ELECTRICAL INSPECTIONS & AUTO L	665.88
09/15/2023	9657(A)	KEYES QUALITY CONSTRUCTION LLC	KEYES QUALITY CONSTRUCTION LLC	REPAIRS TO CASTLE CHIMNEY	6,710.00
09/15/2023	9658(A)	KMI ROAD MAINTENANCE	KMI ROAD MAINTENANCE	FYE 6-30-2024 SIDEWALK PROGRAM	13,925.48
09/15/2023	9659(A)	LOGICALIS INC	LOGICALIS INC	PHONES HANDSETS & PHONE SYSTEM	8,688.00
			LOGICALIS INC	PHONES HANDSETS & PHONE SYSTEM	3,125.00
			LOGICALIS INC	PHONES HANDSETS & PHONE SYSTEM	9,912.00
			LOGICALIS INC	IT NETWORK ENGINEERING SERVICES	9,240.00
					30,965.00
09/15/2023	9660(A)	LUNGHAMER FORD OF OWOSSO	LUNGHAMER FORD OF OWOSSO	WIPER BLADES FOR OPD # 1521	41.96
09/15/2023	9661(A)	MACQUEEN EMERGENCY GROUP	MACQUEEN EMERGENCY GROUP	NAME PATCHES FOR OFD QPO 26314	185.49
09/15/2023	9662(A)	MCMASTER-CARR SUPPLY CO	MCMASTER-CARR SUPPLY CO	MISCELLANEOUS MAINTENANCE ITEMS	192.64
09/15/2023	9663(A)	MEI TOTAL ELEVATOR SOLUTIONS	MEI TOTAL ELEVATOR SOLUTIONS	CITY HALL ELEVATOR SERVICE AGRE	200.11
09/15/2023	9664(A)	MERIT LABORATORIES INC	MERIT LABORATORIES INC	FYE 6/30/2024 WATER TESTS AND L	40.00
09/15/2023	9665(A)	MICHIGAN PAVING & MATERIALS CC	MICHIGAN PAVING & MATERIALS CC	AMS SEAL SP	873.41
09/15/2023	9666(A)	MUNICIPAL EMERGENCY SERVICES	MUNICIPAL EMERGENCY SERVICES	16 SELF CONTAINING BREATHING AP	150,300.00
09/15/2023	9667(A)	MUNICIPAL EMPLOYEES RETIREMENT	MUNICIPAL EMPLOYEES RETIREMENT	EMPLOYER CONTRIBUTIONS	65,005.00
09/15/2023	9668(A)	PHP MEDICARE	PHP MEDICARE	PHP MEDICARE PAYMENT OCT. 2023	88.00
09/15/2023	9669(A)	POLYDYNE INC	POLYDYNE INC	AF-4500 POLYMER	4,070.00

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09/15/2023	9670(A)	REPUBLIC SERVICES INC	REPUBLIC SERVICES INC	REFUSE SERVICE 7/1/23-6/30/24 P	812.34
09/15/2023	9671(A)	SAFEBUILT LLC LOCKBOX #88135	SAFEBUILT LLC LOCKBOX #88135	ANNUAL CONTRACT FYE 6-30-2024	11,248.22
09/15/2023	9672(A)	SHIAWASSEE DISTRICT LIBRARY	SHIAWASSEE DISTRICT LIBRARY	DELINQUENT PERSONAL PROPERTY TA	2.08
09/15/2023	9673(A)	SLC METER LLC	SLC METER LLC	5/8 INCH WATER METERS	7,780.42
09/15/2023	9674(A)	SORENSEN GROSS COMPANY	SORENSEN GROSS COMPANY	OWOSSO WWTP SOLIDS HANDLING PRO	78,242.32
09/15/2023	9675(A)	SPICER GROUP, INC.	SPICER GROUP, INC.	ENGINEERING SERVICES FOR SAFET	731.25
09/15/2023	9676(A)	STAPLES BUSINESS CREDIT	STAPLES BUSINESS CREDIT	AUGUST 2023 ORDERS	453.64
09/15/2023	9677(A)	SYSTEM SPECIALTIES COMPANY	SYSTEM SPECIALTIES COMPANY	PARTS FOR FILTER #2 ACTUATOR	351.00
09/15/2023	9678(A)	TAYLOR AND MORGAN CPA PC	TAYLOR AND MORGAN CPA PC	ACCOUNTANT SERVICES JANUARY 202	3,705.00
09/15/2023	9679(A)	THE ACCUMED GROUP	THE ACCUMED GROUP	BILLING SERVICE FEE AUGUST 2023	6,052.06
09/15/2023	9680(A)	THE ARGUS-PRESS	THE ARGUS-PRESS	LEGAL PRINTING SERVICES 2 YEARS	255.99
09/15/2023	9681(A)	UNITED PARCEL SERVICE	UNITED PARCEL SERVICE	SHIPPING FOR HR	7.72
09/15/2023	9682(A)	USA BLUE BOOK	USA BLUE BOOK	ROUTINE PURCHASES NOT TO EXCEED	1,249.62
			USA BLUE BOOK	ROUTINE PURCHASES NOT TO EXCEED	188.62
					1,438.24
09/15/2023	9683(A)	VERIZON WIRELESS	VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	504.36
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	86.52
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	40.64
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	571.72
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	81.28
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	43.26
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	49.71
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	88.90
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	242.20
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	107.45
			VERIZON WIRELESS	VERIZON WIRELESS CELLULAR CHARG	133.72
					1,949.76
09/15/2023	9684(A)	W W WILLIAMS COMPANY LLC, THE	W W WILLIAMS COMPANY LLC, THE	ANNUAL GENERATOR MAINTENANCE AG	2,050.00
09/01/2023	136382	1070 E MAIN LLC	1070 E MAIN LLC	UB refund for account: 56904900	67.89
			1070 E MAIN LLC	UB refund for account: 56904800	42.10
					109.99
09/01/2023	136383	ADVANCED DRAINAGE SYSTEMS INC	ADVANCED DRAINAGE SYSTEMS INC	N-12 18" PIPE FOR MTR PITS	1,589.88
09/01/2023	136384	AGNEW SIGNS - MARK D AGNEW	AGNEW SIGNS - MARK D AGNEW	OATFEST BANNER INVOICE #5873	225.00
09/01/2023	136385	AMERICAN SPEEDY PRINTING	AMERICAN SPEEDY PRINTING	60 MOTORCYCLE DAYS POSTERS	45.00
			AMERICAN SPEEDY PRINTING	MOTORCYCLE DAYS BIKE PLACARDS	45.00
			AMERICAN SPEEDY PRINTING	MOTORCYCLE DAYS GIVEAWAY & KEEP	39.00
			AMERICAN SPEEDY PRINTING	OATFEST ACTIVITIES	43.00
					172.00
09/01/2023	136386	ANDERSON PROCESS	ANDERSON PROCESS	TRANSFER PUMP PARTS	216.85
09/01/2023	136387	APPLE TREE LANE	APPLE TREE LANE	MOTORCYCLE DAYS VOLUNTEER RECOG	50.00
09/01/2023	136388	AVIATOR JAYNE	AVIATOR JAYNE	MOTORCYCLE DAYS VOLUNTEER RECOG	50.00
09/01/2023	136389	CANFIELD EQUIPMENT	CANFIELD EQUIPMENT	HAVIS DOCK FOR OPD QPO 27748	824.75
09/01/2023	136390	CARSON SERVICES LLC	CARSON SERVICES LLC	2023 MOWING PROGRAM	130.00
			CARSON SERVICES LLC	2023 MOWING PROGRAM	180.00
					310.00
09/01/2023	136391	CARTER JUSTICE	CARTER JUSTICE	UB refund for account: 31425700	178.12
09/01/2023	136392	CINDY SCHLUCKEBIER	CINDY SCHLUCKEBIER	REIMBURSEMENT FOR PICKLEBALL AW	111.50
09/01/2023	136393	COLLAB SALON	COLLAB SALON	UB refund for account: 24199000	155.79
09/01/2023	136394	CORUNNA MILLS FEED LLC	CORUNNA MILLS FEED LLC	SUPPLIES FOR ROW RESTORATION	180.00

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09/01/2023	136395	DAN HUMPHREYS	DAN HUMPHREYS	GASOLINE EXPENSE REIMBURSEMENT	30.00
09/01/2023	136396	DAYSTARR COMMUNICATIONS	DAYSTARR COMMUNICATIONS	CITY OF OWOSSO PHONE & INTERNET	1,158.32
09/01/2023	136397	DAYSTARR COMMUNICATIONS	DAYSTARR COMMUNICATIONS	CITY OF OWOSSO CASTLE PHONE & I	78.16
09/01/2023	136398	DELTA DENTAL PLAN OF MICHIGAN	DELTA DENTAL PLAN OF MICHIGAN	DENTAL INSURANCE PREMIUM SEPTEM	4,801.84
09/01/2023	136399	DONALD BOOHER	DONALD BOOHER	REIMBURSEMENT FOR DUPLICATE PAY	42.76
09/01/2023	136400	GREAT LAKES EBIKES	GREAT LAKES EBIKES	PICKLEBALL PADDLES	300.00
09/01/2023	136401	HARRIS ELECTRIC LLC	HARRIS ELECTRIC LLC	REPAIR LIGHTS ON EXCHANGES STRE	728.33
09/01/2023	136402	HART GABRIEL	HART GABRIEL	UB refund for account: 32020700	144.91
09/01/2023	136403	HOLLEY JODY	HOLLEY JODY	UB refund for account: 11920000	33.25
09/01/2023	136404	KELLY'S REFUSE	KELLY'S REFUSE	MONTHLY DOWNTOWN REFUSE PICKUP	832.50
09/01/2023	136405	KENDRA NICHOLS	KENDRA NICHOLS	GRASS MOWING	275.00
09/01/2023	136406	KERR PUMP & SUPPLY	KERR PUMP & SUPPLY	STOCK REPAIR AND PM PARTS FOR R	949.68
09/01/2023	136407	MASTERSON HEATHER	MASTERSON HEATHER	UB refund for account: 30785700	23.01
09/01/2023	136408	MEMORIAL HEALTHCARE WELLNESS C	MEMORIAL HEALTHCARE WELLNESS C	EMPLOYEE MEMBERSHIPS - 08/15/20	423.23
09/01/2023	136409	MICHIGAN FIRE INSPECTORS SOCIE	MICHIGAN FIRE INSPECTORS SOCIE	ATTENDEE REGISTRATION FEE BREWB	850.00
09/01/2023	136410	PROFESSIONAL ANSWERING SERVICE	PROFESSIONAL ANSWERING SERVICE	24 HOUR ANSWERING SERVICES AUGU	75.00
09/01/2023	136411	RAMBO NATHANIEL	RAMBO NATHANIEL	UB refund for account: 29212000	132.62
09/01/2023	136412	RYAN JENKINS	RYAN JENKINS	MEAL REIMBURSEMENT 08/23/2023	10.27
09/01/2023	136413	SHATTUCK SPECIALTY ADVERTISING	SHATTUCK SPECIALTY ADVERTISING	MOTORCYCLE DAYS TROPHIES	284.00
09/01/2023	136414	SHIAWASSEE FAMILY YMCA	SHIAWASSEE FAMILY YMCA	CITY OF OWOSSO EMPLOYEES	113.90
09/01/2023	136415	SIDELINE SPORTS BAR OWOSSO LLC	SIDELINE SPORTS BAR OWOSSO LLC	MOTORCYCLE DAYS VOLUNTEER RECOG	100.00
			SIDELINE SPORTS BAR OWOSSO LLC	MOTORCYCLE DAYS VOLUNTEER BREAK	74.00
					174.00
09/01/2023	136416	SLOAN'S SEPTIC TANK SERVICE IN	SLOAN'S SEPTIC TANK SERVICE IN	PORTABLE TOILET CONTRACT - YEAR	2,368.00
09/01/2023	136417	STANDARD INSURANCE COMPANY	STANDARD INSURANCE COMPANY	GROUP LIFE INSURANCE PREMIUM SE	6,070.16
09/01/2023	136418	STATE OF MICHIGAN	STATE OF MICHIGAN	WTR OPERATOR TRAINING WEBINAR S	180.00
09/01/2023	136419	STATE OF MICHIGAN	STATE OF MICHIGAN	WEBINAR SERIES AND IN-PERSON TR	160.00
09/01/2023	136420	STATE OF MICHIGAN	STATE OF MICHIGAN	WEBINAR SERIES AND IN-PERSON TR	390.00
09/01/2023	136421	STATE OF MICHIGAN	STATE OF MICHIGAN	COST AGREEMENT BETWEEN MDOT AND	595,776.44
09/01/2023	136422	STATE OF MICHIGAN-EGLE	STATE OF MICHIGAN-EGLE	PARTIAL 2023 ROUTINE SAMPLING E	1,266.00
09/01/2023	136423	TACK COLIN	TACK COLIN	UB refund for account: 31010700	153.33
09/01/2023	136424	THOMAS SIMMINGTON TRUST	THOMAS SIMMINGTON TRUST	UB refund for account: 16820000	111.75
09/01/2023	136425	TIMOTHY J GUYSKY	TIMOTHY J GUYSKY	REIMBURSEMENT FOR IBC TOTES FOR	270.00
09/01/2023	136426	VALLEY LUMBER	VALLEY LUMBER	ROUTINE PURCHASES NOT TO EXCEED	130.92
09/01/2023	136427	VANGORDER KELLY	VANGORDER KELLY	UB refund for account: 31625700	169.47
09/01/2023	136428	WOODWORTH PROPRTIES LLC	WOODWORTH PROPRTIES LLC	UB refund for account: 22174900	116.54
09/08/2023	136429	NORTH AMERICAN OVERHEAD DOOR IN	NORTH AMERICAN OVERHEAD DOOR I	DOOR REPAIR	1,247.09
09/15/2023	136430	501 HOLDINGS, LLC	501 HOLDINGS, LLC	2023 Sum Tax Refund 050-651-000	100.00
09/15/2023	136431	AMY S BOWEN	AMY S BOWEN	TEMPORARY EASEMENT	207.58
09/15/2023	136432	BOYNE USA RESORTS	BOYNE USA RESORTS	LODGING-MI COMM ASSO OF MAP PRO	612.74
09/15/2023	136433	BRIAN & BETH SIESTSEMA	BRIAN & BETH SIESTSEMA	TEMPORARY EASEMENT	450.80
09/15/2023	136434	CITY OF OWOSSO	CITY OF OWOSSO	BUSINESS DEVELOPMENT LOAN DDA S	452.65
09/15/2023	136435	CLEARWATER ENTERPRISES	CLEARWATER ENTERPRISES	LSL REIMBURSEMENT FOR 521 ADAMS	2,250.00
09/15/2023	136436	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-010-017	787.63
09/15/2023	136437	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-070-003	1,129.82
09/15/2023	136438	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-112-000	1,464.17
09/15/2023	136439	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-114-001	1,336.81
09/15/2023	136440	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-420-003	862.45
09/15/2023	136441	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-420-007	787.63
09/15/2023	136442	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-420-010	1,301.95
09/15/2023	136443	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-465-000	2,041.30
09/15/2023	136444	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-470-018	1,460.33
09/15/2023	136445	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-580-000	1,345.88
09/15/2023	136446	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-610-003	1,323.04
09/15/2023	136447	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-660-009	575.19
09/15/2023	136448	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-670-004	2,294.96
09/15/2023	136449	CORELOGIC CENTRALIZED REFUNDS	CORELOGIC CENTRALIZED REFUNDS	2023 Sum Tax Refund 050-602-012	1,107.69
09/15/2023	136450	CYNTHIA A ELSTON	CYNTHIA A ELSTON	TEMPORARY EASEMENT	173.22

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09/15/2023	136451	DENNIS CAMPBELL	DENNIS CAMPBELL	TEMPORARY EASEMENT	646.80
09/15/2023	136452	DENNY & GALE SPENCER	DENNY & GALE SPENCER	TEMPORARY EASEMENT	373.09
09/15/2023	136453	ELDEN G BUCHHOLZ	ELDEN G BUCHHOLZ	TEMPORARY EASEMENT	276.77
09/15/2023	136454	ELLEN J SIMON	ELLEN J SIMON	TEMPORARY EASEMENT	1,293.60
09/15/2023	136455	EMPCO INC	EMPCO INC	POLICE LIEUTENANT EXAM 8/21/23	485.00
09/15/2023	136456	FRANCIS A PENNEL	FRANCIS A PENNEL	TEMPORARY EASEMENT	240.70
09/15/2023	136457	GERADO ARRIAGA	GERADO ARRIAGA	TEMPORARY EASEMENT	160.47
09/15/2023	136458	H K ALLEN PAPER CO	H K ALLEN PAPER CO	ROUTINE PURCHASES NOT TO EXCEED	1,291.00
09/15/2023	136459	H2O COMPLIANCE SERVICES INC	H2O COMPLIANCE SERVICES INC	H2O CROSS CONNECTION CONTROL PR	767.81
09/15/2023	136460	HARRIS ELECTRIC LLC	HARRIS ELECTRIC LLC	INSTALL SCOREBOARD AT OAKWOOD F	1,450.00
09/15/2023	136461	HOME DEPOT CREDIT SERVICES	HOME DEPOT CREDIT SERVICES	AUGUST 2023 HOME DEPOT PURCHASE	2,854.50
09/15/2023	136462	INDUSTRIAL SUPPLY OF OWOSSO IN	INDUSTRIAL SUPPLY OF OWOSSO IN	ROUTINE PURCHASES NOT TO EXCEED	319.00
09/15/2023	136463	INSITUFORM TECHNOLOGIES USA LL	INSITUFORM TECHNOLOGIES USA LL	2022-2023 STORM SEWER VIDEOING	10,456.30
09/15/2023	136464	JANET DRAKE	JANET DRAKE	TEMPORARY EASEMENT	1,293.60
09/15/2023	136465	JENNIFER J POULLION	JENNIFER J POULLION	TEMPORARY EASEMENT	323.40
09/15/2023	136466	JOHN HAYES	JOHN HAYES	REIMBURSE LSLR COSTS	2,000.00
09/15/2023	136467	JUDY ELAINE CRAIG	JUDY ELAINE CRAIG	MAIL COURIER SERVICE AUGUST 202	202.50
09/15/2023	136468	KELLY'S REFUSE	KELLY'S REFUSE	MONTHLY DOWNTOWN REFUSE PICKUP	832.50
09/15/2023	136469	LAMPHERE'S	LAMPHERE'S	CHECK VALVE FOR LIBRARY FOUTAIN	207.10
09/15/2023	136470	LERETA LLC	LERETA LLC	2023 Sum Tax Refund 050-750-000	1,904.80
09/15/2023	136471	MICHIGAN ASSOCIATION OF FIRE C	MICHIGAN ASSOCIATION OF FIRE C	MEMBERSHIP RENEWAL K. LENKART	95.00
09/15/2023	136472	MICHIGAN FIRE INSPECTORS SOCIE	MICHIGAN FIRE INSPECTORS SOCIE	ATTENDEE REGISTRATION FEE M. HA	425.00
09/15/2023	136473	MONCHILOV SEWER SERVICE LLC	MONCHILOV SEWER SERVICE LLC	STEWART STREET SEWER TELEVISING	16,850.00
09/15/2023	136474	MP PREDICTIVE TECHNOLOGIES, IN	MP PREDICTIVE TECHNOLOGIES, IN	BACKWASH VFD VOLTAGE PROTECTION	28,917.90
09/15/2023	136475	NICHOLAS JAMES WOOD	NICHOLAS JAMES WOOD	TEMPORARY EASEMENT	1,212.75
09/15/2023	136476	OWOSSO BOLT & BRASS CO	OWOSSO BOLT & BRASS CO	ROUTINE PURCHASES NOT TO EXCEED	272.02
09/15/2023	136477	OWOSSO PUBLIC SCHOOLS	OWOSSO PUBLIC SCHOOLS	DELINQUENT PERSONAL PROPERTY TA	21.67
09/15/2023	136478	POSTMASTER	POSTMASTER	BULK MAILING FOR NOVEMBER 7, 20	307.44
09/15/2023	136479	RODOLFO ZAMORA	RODOLFO ZAMORA	TEMPORARY EASEMENT	202.13
09/15/2023	136480	RUTH ANNE REED	RUTH ANNE REED	TEMPORARY EASEMENT	233.73
09/15/2023	136481	SERGIO & HOLLY ROMAS	SERGIO & HOLLY ROMAS	TEMPORARY EASEMENT	276.77
09/15/2023	136482	SHATTUCK SPECIALTY ADVERTISING	SHATTUCK SPECIALTY ADVERTISING	OHC SHIRT ORDER	373.09
09/15/2023	136483	SHIAWASSEE COUNTY TREASURER	SHIAWASSEE COUNTY TREASURER	DELINQUENT PERSONAL PROPERTY TA	33.39
09/15/2023	136484	SHIAWASSEE COUNTY TREASURER	SHIAWASSEE COUNTY TREASURER	MOBILE HOME TAX DISBURSEMENT	935.00
09/15/2023	136485	SHIAWASSEE COUNTY TREASURER	SHIAWASSEE COUNTY TREASURER	2023 TAX COLLECTION 08/16/2023	2,189,743.58
09/15/2023	136486	SLOAN'S SEPTIC TANK SERVICE IN	SLOAN'S SEPTIC TANK SERVICE IN	MOTORCYCLE DAYS PORTABLE BATHRO	390.00
09/15/2023	136487	SPARTAN STORES LLC	SPARTAN STORES LLC	VG'S GROCERY STORE URCHASES AUG	338.91
09/15/2023	136488	STATE OF MICHIGAN	STATE OF MICHIGAN	LTGO BOND DOCUMENT FILING FEE	168.40
09/15/2023	136489	STATE OF MICHIGAN	STATE OF MICHIGAN	SOR REGISTRATION FEE AUGUST 202	60.00
09/15/2023	136490	SUZANNE MILLIKIN	SUZANNE MILLIKIN	TEMPORARY EASEMENT	345.96
09/15/2023	136491	TERRY & TIFFANY FORRESTER	TERRY & TIFFANY FORRESTER	TEMPORARY EASEMENT	230.64
09/15/2023	136492	THE MEMORIAL HOSPITAL	THE MEMORIAL HOSPITAL	2023 Sum Tax Refund 050-730-000	100.00
09/15/2023	136493	TODD KULMAN	TODD KULMAN	TEMPORARY EASEMENT	833.00
09/15/2023	136494	WILLIAM R BRUCKMAN	WILLIAM R BRUCKMAN	TEMPORARY EASEMENT	745.29
09/15/2023	136495	ZORO TOOLS INC	ZORO TOOLS INC	LABORATORY WALL CLOCK AND BLANK	187.44

1 TOTALS:

Total of 215 Checks:	4,633,080.69
Less 0 Void Checks:	0.00
Total of 215 Disbursements:	4,633,080.69

OWOSSO PUBLIC SAFETY

202 S. WATER ST. ▪ OWOSSO, MICHIGAN 48867-2958 ▪ (989) 725-0580 ▪ FAX (989)725-0528

MEMORANDUM

DATE: September 22, 2023

TO: Owosso City Council

FROM: Kevin Lenkart
Public Safety Chief

RE: Contract Approval

Background: On September 5, 2023, Owosso City Council approved the purchase of one (1) HME Core Top-Mount Pumper truck from HME, Inc., at a price of $789,988.00 for the Owosso Fire Department.

In the past two weeks, Owosso city staff have worked with representatives from HME, Inc. to finalize an Apparatus Sales Agreement.

The Apparatus Sales Agreement is presented to Owosso City Council for your review and request for approval.

RESOLUTION NO.

AUTHORIZING THE APPROVAL OF AN APPARATUS SALES AGREEMENT WITH HME, INC. OF WYOMING, MICHIGAN FOR ONE HME CORE TOP-MOUNT PUMPER TRUCK

WHEREAS, the City of Owosso, Shiawassee County, Michigan operates a fire department requiring the use of fire vehicles; and

WHEREAS, the replacement schedule calls for the replacement of one unit in 2023; and

WHEREAS, the Owosso City Council approved the purchase of an HME Core Top-Mount Pumper truck on September 5, 2023, in the amount of $789,988.00; and

WHEREAS, HME, Inc. and Owosso City Staff have finalized an Apparatus Sales Agreement requiring Council review and approval.

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Owosso, Shiawassee County, Michigan that:

FIRST: it has heretofore been determined that it is advisable, necessary, and in the public interest to approve the Apparatus Sales Agreement between the City of Owosso and HME, Inc. for the purchase of one (1) HME Core Top- Mount Pumper truck in the amount of $789,988.00.

SECOND: the mayor and city clerk are instructed and authorized to sign the Apparatus Sales Agreement substantially in the form attached.

APPARATUS SALES AGREEMENT

This Apparatus Sales Agreement ("**Agreement**") sets forth the terms and conditions under which HME, INC., a Michigan corporation of 1950 Byron Center Ave., Wyoming, Michigan 49519 ("**HME**") will sell an apparatus as further identified on ***Schedule A*** ("**Apparatus**") to the following buyer ("**Buyer**") and Buyer will purchase the Apparatus.

Buyer:

CITY OF OWOSSO
(Name of Buyer)

301 W. MAIN STREET
(Street)

OWOSSO | MI | 48867
(City) | (State) | (Zip)

Attention: Public Safety Chief Kevin Lenkart

Telephone No. 989-725-0580

E-mail Address: kevin.lenkart@ci.owosso.mi.us

This Agreement is comprised of this Signature Page, the attached ***Schedule A***, and the attached General Terms and Conditions.

The parties have executed this Agreement based on the dates of the signatures below.

HME, INC.

By: _____
(HME Signature)

Gary Troast
(Type or Print Individual's Name)

Its: President
(Type or Print Individual's Title)

Date: 9/19/23

CITY OF OWOSSO
(Type or Print Buyer's Name)

By: _____
(Buyer Signature)

_____
(Type or Print Individual's Name)

Its: _____
(Type or Print Individual's Title)

Date: _____

ATTEST:

By: _____
Amy K. Kirkland

Title: City Clerk

Date: _____

SIGNATURE PAGE

SCHEDULE A

APPARATUS INFORMATION

Apparatus Type:	CORE Top Mount Pumper 22 - 1871W Cab & Chassis Cummins L9 - 450hp & Hale Q-MAX 1500 GPM Pump
Date of Specifications:	8/14/23
Price:	$789,988.00
Pre-Construction Conference Date: (if needed)	ASAP - AT OWOSSO'S DISCRETION, AT HME.
Expected Delivery Date:	ESTIMATED 500 DAYS FROM ORDER FINALIZATION
Additional Terms:	****PRELIMINARY*** FINAL SPECIFICATIONS AND PRICE TO BE DETERMINED AFTER 9/25/23 PRE-CONSTRUCTION MEETING. A CHANGE ORDER DETAILING ANY DIFFERENCES IN CONTENT AND/ OR PRICE WILL BE SIGNED AND AGREED UPON BY BOTH PARTIES.*

1. **Change Orders**.

(a) Subject to the limitation below, for a period of 8 weeks after the execution of this Agreement HME agrees to review and respond to requested changes to the Apparatus by Buyer upon Buyer submission of a written change request describing the exact nature of the changes requested. HME will review such a request and advise Buyer of any changes to the price for the Apparatus and the delivery schedule for the Apparatus caused by the requested changes. If Buyer and HME agree to the changes, including the changes, if any, to the price and delivery date, then HME and Buyer will execute a change order setting for the terms of the changes.

(b) Buyer may not request changes in major components, Apparatus configuration, or other changes that may change the major components or configuration of the Apparatus, (e.g.: engine, transmission, axles, water tank, body, or fire pump).

2. **Alternative Components**. If HME is not able to obtain specific brand name components ("**Named Components**") set forth in the specifications identified on ***Schedule A*** ("**Specifications**") or if waiting for such Named Components will cause a delay in construction or delivery of the Apparatus, HME will notify Buyer of the delay. HME agrees to make reasonable efforts to locate alternative sources of the Named Components provided HME will have no liability for any delay caused by issues in obtaining the Named Components. HME will not substitute a Named Component without the consent of Buyer. HME has the right to substitute raw materials and other components, excluding the Named Components, identified in the Specifications that do not affect the overall appearance or function of the Apparatus.

3. **Delivery, Inspection, Title and Risk of Loss**.

(a) HME agrees the Apparatus will be ready for delivery by the expected delivery date set forth in ***Schedule A*** ("**Delivery Date**"). The Delivery Date assumes that (i) Buyer has paid for the Apparatus according to this Agreement; (ii) if a pre-construction conference date is set forth in ***Schedule A*** that such conference is satisfactorily completed by both parties; and (iii) that no changes have been requested to the Specifications. If any of these conditions are not satisfied, the Delivery Date may be extended by HME.

(b) Unless otherwise specified on ***Schedule A***, delivery of the Apparatus shall be EXW (Incoterms 2020) HME's facility in Wyoming, Michigan. HME will provide Buyer with a notice of when the Apparatus is ready for delivery.

(c) Buyer agrees to inspect the Apparatus and remove the Apparatus from HME's facility within seven days of notice from HME that the Apparatus is ready for delivery.

(d) Title and risk of loss for the Apparatus shall pass to Buyer upon HME's notice to Buyer that the Apparatus is ready for delivery at HME's facility.

4. **Force Majeure**. HME is not liable for unforeseeable penalties or delays due to strikes, failures to obtain materials, fires, accidents, force majeure, or any other causes beyond HME's reasonable control, including, without limitation, (a) acts of God; (b) flood, fire, earthquake, other potential disaster(s) or catastrophe(s), such as epidemics, or explosion; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot or other civil unrest; (d) government order, law, or actions; (e) embargoes or blockades in effect on or after the date of this Agreement; and (f) national or regional emergency; and (g) industrial disturbances.

5. **Price and Payment**.

(a) Subject to any changes as provided in this Agreement or as agreed to by Buyer and HME under the terms of this Agreement, the price for the Apparatus is set forth on ***Schedule A*** ("**Price**"). The

Price is in U.S. dollars, and does not include any taxes, freight, duty, tariffs, assessments or similar charges, which shall be Buyer's sole responsibility and liability. The Price is subject to increase because of changes in market conditions or increases in HME's cost of raw materials or components. HME will provide the Buyer with notice of any change to the Price based on increases to HME's cost.

(b) Unless otherwise specified on ***Schedule A***, Buyer shall pay the Price in full upon delivery of the Apparatus to Buyer at HME's facility. Unless otherwise specified on ***Schedule A***, the Apparatus will not leave HME's facility until payment has been received in full for the Apparatus. All payments shall be in U.S. currency. HME reserves the right to assess finance charges on any past due amounts at the rate of 1.5% per month or the maximum amount permitted by applicable law, whichever is less. HME shall be entitled to recover its reasonable attorney fees and costs incurred in connection with collection of any past due amounts owing under this Agreement.

(c) HME will not accept any payment made to HME's sales representatives. All payments of the Price will be made exclusively to HME at 1950 Byron Center Avenue, Wyoming, Michigan 49519, Attention: Accounts Receivable.

6. **Warranty**. HME's exclusive warranty for the Apparatus is set forth in the Specifications.

7. **Use of Equipment; Indemnification**. Buyer agrees that the Apparatus shall be used (a) strictly in accordance with all user manuals and written instructions provided by HME; (b) in accordance with all applicable laws, regulations and requirements; and (c) in a proper manner. Buyer agrees that none of the safety guards or other safety aspects of the Apparatus will be removed, altered or bypassed. Buyer agrees to indemnify and hold HME harmless from and against all claims, damages and liabilities (including reasonable attorney fees and costs) arising out of or related to (i) any improper use or misuse of the Apparatus; (ii) any breach by Buyer of any of its obligations in this paragraph; or (iii) any negligence, willful misconduct or other wrongful act or omission by Buyer, its employees or anyone under Buyer's control.

8. **Limitation on Damages**.

(a) EXCEPT AS SET FORT IN THE SPECIFICATIONS, HME DOES NOT MAKE ANY WARRANTY AS TO THE APPARATUS AND, IN PARTICULAR, DOES NOT MAKE ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND BUYER IS SOLELY RESPONSIBLE FOR DETERMINING THE PROPER APPLICATION AND USE OF THE APPARATUS. HME shall not have any tort liability to Buyer or any other person with respect to any of the Apparatus and shall not be liable for consequential, incidental, special, exemplary, indirect or punitive damages arising from any product defect, delay, nondelivery, recall or other breach. Buyer shall not have any right of rejection or of revocation of acceptance of the Apparatus.

(b) IN ADDITION TO THE LIMITATIONS IN THE PRECEDING CLAUSE, HME'S TOTAL LIABILITY UNDER THIS AGREEMENT OR RELATED TO THE APPARATUS SHALL NOT EXCEED THE COST OF PROVIDING REPLACEMENT ITEMS OF THE APPARATUS FOR THOSE ITEMS OF APPARATUS NOT COMPLYING WITH THE TERMS OF THIS AGREEMENT OR, AT HME'S ELECTION, TO THE REFUND OR CREDITING OF BUYER OF THE AMOUNT EQUAL TO THE PRICE PAID BY BUYER FOR THE APPARATUS.

9. **Permits and Compliance**. HME is not responsible for obtaining any permit, inspection or license that is required for the operation of the Apparatus or placing the Apparatus in service in a particular jurisdiction. Except as set forth in the Specifications, HME does not make any promise or representation that the Apparatus will conform to any law, ordinance, regulation, code or standard.

10. **Intellectual Property and Confidentiality**. All inventions (whether or not patentable), devices, technologies, ideas, improvements, processes, systems, software and other works and matters that HME creates or develops in the course of HME's design, development or manufacture of the Apparatus and all drawings and specifications that HME provides to Buyer ("**Intellectual Property**") shall be HME's sole property, and Buyer

assigns, and agrees to assign, to HME all right, title and interest that Buyer now has or in the future acquires in the Intellectual Property. Buyer shall not disclose or use any of the Intellectual Property or any information about HME's business, operations or activities, except to the extent necessary for Buyer to use the Apparatus.

11. **Cancellation**. Buyer does not have any right to cancel its agreement to buy the Apparatus from HME unless HME increases the Price. If HME increases the Price, Buyer will have fifteen days from the date of Buyer's receipt of the notice of the increase in the Price to cancel this Agreement. If HME agrees in writing to permit cancellation of this Agreement for any other reason, then Buyer shall immediately pay to HME a cancellation charge in an amount HME determines taking into consideration (a) the realizable value to HME of any standard components that HME purchased or ordered before cancellation, (b) the realizable scrap value to HME of the remaining material and tooling that HME purchased, fabricated or ordered before cancellation and (c) any direct labor costs that HME incurred. HME has the right to terminate this Agreement by providing notice to Buyer upon the occurrence of any events described in the paragraph titled "Force Majeure" or if HME is unable to obtain raw materials or components for the Apparatus in a timely or reasonable manner or otherwise produce the Apparatus. Upon termination of this Agreement, Buyer shall deliver to HME all materials relating to the Apparatus including, without limitation, all diagrams, drawings, blueprints, memoranda, specifications, and related documents. Buyer shall not retain any photocopies or other facsimiles of any of the materials.

12. **Tag-On / Additional Orders**. At its sole discretion, HME may allow the terms of this Agreement to be extended to both Buyer and similar agencies for the purchase of a similar Apparatus under similar terms for a period of one (1) year from the date of the execution of this Agreement. HME may adjust the Price to account for equitable Price adjustments associated with the change in the cost of the materials used to produce the Apparatus. Such adjustments will be based upon the Producer Price Index (PPI) for fire trucks and/or heavy transportation equipment or by itemizing Price changes expected by HME from the component vendors. If there are any changes between the Apparatus purchased via this Agreement and any subsequent orders, those changes must be documented via properly signed and executed change orders, including any necessary adjustments to the Price. If the purchasing agency is not Buyer, a separate Agreement must be executed under the terms of this Agreement to complete the additional purchases.

13. **HME's Rights.** HME has all rights and remedies that applicable law gives to sellers. HME's rights and remedies are cumulative, and HME may exercise them from time to time. HME's waiver of any right on one occasion shall not be a waiver of any future exercise of that right.

14. **Time for Bringing Action**. Any action that Buyer brings against HME for breach of this Agreement or for any other claim that arises out of or relates to the Apparatus or its design, manufacture, sale or delivery must be brought within one year after the cause of action accrues.

15. **Applicable Law**. This Agreement between HME and Buyer shall be considered to have been made in the State of Michigan, and it shall be governed by and interpreted according to Michigan law. Either party may bring any action that arises out of or relates to this Agreement in any federal or state court in Kent County, Michigan that has jurisdiction of the subject matter, and Buyer irrevocably consents that any such court shall have personal jurisdiction over Buyer and waives any objection that the court is an inconvenient forum.

16. **Notices**. All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given: (a) when delivered by hand (with written confirmation of receipt); (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by facsimile or e-mail of a PDF document (with confirmation of transmission) if sent during normal business hours of the recipient, and on the next business day if sent after normal business hours of the recipient; or (d) on the third day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective parties address as set forth on the first page of this Agreement. Either party may change such address by giving notice to the other party of such change.

17. **Amendment and Waiver**. This Agreement may only be amended, modified or supplemented by an agreement in writing signed by each party hereto. No waiver by any party of any of the provisions hereof shall be effective unless explicitly set forth in writing and signed by the party so waiving. No waiver by any party shall operate or be construed as a waiver in respect of any failure, breach or default not expressly identified by such written waiver, whether of a similar or different character, and whether occurring before or after that waiver. No failure to exercise, or delay in exercising, any right, remedy, power or privilege arising from this Agreement shall operate or be construed as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege.

18. **Binding Effect; Benefits; Assignment**. All of the terms of this Agreement will be binding upon, inure to the benefit of and be enforceable by and against the successors and authorized assigns of each other party. Nothing in this Agreement, express or implied, is intended to confer upon any other person any rights or remedies under or by reason of this Agreement, this Agreement being for the exclusive benefit of the parties and their respective heirs, personal representatives, successors and authorized assigns. No party will assign any of its respective rights or obligations under this Agreement to any other person without the prior written consent of the other party.

19. **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Agreement delivered by .pdf or any electronic signature complying with the federal Electronic Signatures in Global and National Commerce Act of 2000, Public Law 106-229, as amended (e.g., Adobe eSign or DocuSign) or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement. The signatures of the parties transmitted electronically will be "electronic signatures" within the meaning of the Uniform Electronic Transaction Act (USA) and the Electronic Commerce Directive (EU) in all jurisdictions where the legislation has been adopted.

20. **Severability**. If any term or provision of this Agreement is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

21. **Entire Agreement**. This Agreement constitutes the entire agreement between Buyer and HME with respect to the subject matter of this Agreement and supersedes all earlier agreements and understandings, oral and written, between the parties; *provided, however,* that nothing in this Agreement shall terminate, amend or modify any previously executed confidentiality agreement(s) between Buyer and HME. The Specifications and contents of ***Schedule A*** shall be incorporated into, made a part of and governed by the terms of this Agreement. If there is a conflict between these Terms and Conditions and the Specifications or any information on ***Schedule A***, these Terms and Conditions shall control, unless ***Schedule A*** specifically amends these Terms and Conditions by reference to Paragraphs to be amended.

SHOP ORDER

HME / KODIAK EMERGENCY VEHICLES

OWOSSO FIRE DEPARTMENT
KEVIN LENKART
202 SOUTH WATER STREET
OWOSSO, MI 48867
989-725-0580
989-725-0528
KEVIN.LENKART@CI.OWOSSO.MI.US

OWOSSO FIRE DEPARTMENT
KEVIN LENKART
202 SOUTH WATER STREET
OWOSSO, MI 48867
989-725-0580
989-725-0528
KEVIN.LENKART@CI.OWOSSO.MI.US

Expire Date: 11/23/2023
Quote No: 10058-0018
08/14/2023

PART NO	S	DESCRIPTION	QTY	PG
		== CORE Pumper - Boiler Plate - 7.001 06/01/23 ==	**1**	**1**
00-00-0020		DataBook v7.001 Release: 06.01.23 (Expires 10.23.23)	1	
		MANUALS, DOCUMENTATION AND LABELS	**1**	
00-15-0005		|-- Manuals and Document Information (Proposal)	1	3
00-15-0105		|-- Supplied Component Information (Proposal) see NFPA 4.20.2 - Pumper	1	3
00-15-0305		|-- Warning and Information Labels	1	4
00-15-0405		|-- Apparatus Information (Overall Dimensions) Label	1	4
00-15-0505		|-- Apparatus Fluid Label - Pumper	1	5
00-15-0605		|-- Apparatus Seating Label - Pumper	1	5
00-15-0620		|-- Cab Helmet Warning Label - Pumper	1	5
00-15-0640		|-- Pump Performance Placard - Pumper	1	5
		BONDS AND INSURANCE	**1**	
			1	5
			1	
			1	
00-20-0510		|-- Liability Insurance Coverage	1	6
		WARRANTIES	**1**	
00-25-0005		|-- Warranties - CORE Pumper (Proposal) {CUSTOM CHASSIS}	1	
00-25-0205		|-- Single Source Manufacturer (Proposal) {CUSTOM CHASSIS ONLY}	1	6
00-25-0330		|-- General 3 year Warranty (Proposal) {Custom Chassis}	1	7
00-25-0405		|-- Cab Structural Warranty - 10 Years (Proposal) {Custom Chassis}	1	7
00-25-0505		|-- Body Structural Warranty - 10 Years (Proposal)	1	7
00-25-0605		|-- Cab and Body Paint Warranty - Prorated (Proposal) {Custom Chassis}	1	7
00-25-0815		|-- Paint Warranty - 10 Years (Proposal)	1	8
00-25-1205		|-- Chassis Frame Warranty - Lifetime (Proposal) {Custom Chassis}	1	8
00-25-5005		|-- Stainless-Steel Plumbing Warranty - 10 Years (Proposal) - Pumper	1	8

PART NO	S	DESCRIPTION	QTY	PG
		PUMP/ELECTRICAL CERTIFICATIONS AND TESTING	**1**	
00-40-0020		Third Party Test - Requirements - UL - US - Pumper (NFPA 1901)	1	9
00-40-0110		|-- Pump & Plumbing Test Requirements - Pumper (NFPA 1901-Limited Specs)	1	9
00-40-0210		|-- Low-Voltage Electrical Certification Test - Pumper	1	9
		DIMENSIONAL REQUIREMENTS	**1**	
00-45-0005		Apparatus Requirements - Core Pumper	1	
00-45-0105		|-- NO Maximum Overall Length Requirement	1	11
00-45-0205		|-- NO Maximum Overall Height Requirement	1	11
00-45-0305		|-- NO Maximum Wheelbase Requirement	1	11
00-45-0410		|-- Maximum Overall Width Requirement (Max OAW) = 100" (Apparatus Body - Pumper)	1	11
00-45-0505		|-- NFPA Angle of Approach Requirement (8 degrees)	1	11
00-45-0605		|-- NFPA Angle of Departure Requirement (8 degrees)	1	11
00-45-0805		|-- NFPA In-Service Weight Requirement - Pumper - 2500 pounds	1	11
		APPARATUS MEETINGS AND INSPECTIONS	**1**	
00-55-0010		Apparatus Meetings & Inspections - Pumper	1	
00-55-0110		|-- Pre-Construction Conference @ Factory - Pumper {Enter Qty Individuals}	1	12
00-55-0320		|-- Final Inspection Conference @ Factory - Pumper {Enter Qty Individuals}	1	13
		APPARATUS TRAINING	**1**	
00-60-0010	>	Pump & Apparatus Operation Training - Pumper {1 Day} - DEALER PROVIDED	1	13
		--------	**1**	
		== CORE Pumper 22 - 1871 L9 Engines Cab & Chassis - 7.001 06/01/23 ==	**1**	**13**
		CHASSIS	**1**	
00-J0-1310		1871 Custom Cab & Chassis - CORE	1	
		FRAME ASSEMBLY	**1**	
01-H0-1600		Double Frame Rails {REQ'D FOR WHEELBASE >209" AND TOP MOUNTS}	1	13
01-I0-1200		|-- Frame Rail Finish - Galvanized, Double Rails	1	14
01-I0-1500		|-- Fastener Finish - Zinc	1	14
01-J0-4000		|-- Cab Main Frame Crossmember	1	14
		FRONT AXLE	**1**	
07-A0-1120		Front Axle 21,000# - Hendrickson STEERTEC NXT - CORE	1	16
07-AC-4500		|-- 45° Cramp Angle	1	16
07-B0-0100		|-- Oil Seals - Front Axle - Factory Premium	1	16
	>	**FRONT AXLE BRAKES**	**1**	
07-C0-0210		|-- Disc Brakes - Front Axle - EX-225	1	16
	>	**FRONT AXLE SUSPENSION OPTIONS**	**1**	
07-R0-2020		|-- Front Suspension 21,000# - Hendrickson STEERTEK NXT	1	16
07-RS-0105		|-- Shock Absorbers - Front Axle	1	16

PART NO	S	DESCRIPTION	QTY	PG
	>	**STEERING SYSTEMS**	**1**	
07-Y0-0030		|-- Steering - 21,000# - Sheppard Dual Gear	1	17
		FRONT TIRES	**1**	
10-GF-0410	>	|-- Goodyear 425/65R22.5 (L) Front - Armor Max MSA (Mud/Snow) - 22,800# - 68mph	1	21
10-W0-0010		|-- Steel Disc Wheels, Front	1	21
	>	**REAR AXLE**	**1**	
08-AS-1080		Single Rear Axle 27,000# - Meritor RS-25-160 - CORE	1	17
08-AV-F160		|-- 160 Series Differential - Single Axle	1	17
08-AV-S010		|-- Axle Lube - Non-Synthetic	1	17
08-B0-0100		|-- Oil Seals - Rear Axle - Factory Premium	1	17
	>	**REAR AXLE BRAKES**	**1**	
08-C0-0110	>	|-- Disc Brakes - Single Rear Axle - EX225	1	17
08-PA-0200		|-- Vehicle Top Speed 62 - 65 MPH	1	17
08-PA-1100		|-- NFPA Vehicle Top Speed Statement (Revised 6/25/2018)	1	17
	>	**REAR SINGLE AXLE SUSPENSION OPTIONS**	**1**	
08-R0-0025		|-- Single Axle Suspension - 27,000# - Reyco Granning Spring - CORE	1	18
	>	**AIR SYSTEM - BASE SYSTEM**	**1**	
09-A0-10WF		|-- Air System - Color Coded Nylon Air Lines - Single Axle - CORE	1	18
09-A0-1204		|-- Bendix AD-9 Air Dryer	1	19
09-B0-0240	<	|-- Dedicated Air Horn Reservoir	1	19
09-D0-0108	<	|-- Heated Automatic Moisture Ejectors - All Air Reservoirs	1	19
	>	**ABS BRAKE SYSTEMS**	**1**	
09-L0-0400		|-- ABS Brake System - 4 Wheel - Meritor/Wabco	1	20
09-LB-1110		|-- ABS Mud & Snow Selector Switch	1	20
09-RS-1010	>	|-- Stability Enhancement System - 4 Wheel - Meritor/Wabco {SEE Eng Note}	1	20
		REAR TIRES	**1**	
10-GR-0120		|-- Goodyear 12R22.5 (H) Rear - Armor Max MSA (Mud/Snow) - 27,120# - 68mph	1	21
10-W0-3000		|-- Inner and Outer Rear - SA - Aluminum Wheels	1	21
10-WP-0220	>	|-- Alcoa Dura-Black Finish - Rim {Black N/A on all Rim Sizes, SFOs need Validation}	4	22
10-X0-0700		|-- Alcoa Dura-Black Finish - Full Hub Cover system	4	22
10-GW-0122		|-- Tire Pressure Monitoring Device - 2 Axles (Front & Rear) - LED Alert	1	21
08-RS-0500		Axle & Chassis Laser Alignment	1	18
	>	**TIRE CHAINS**	**1**	
		ENGINE	**1**	
13-EU-6425		Cummins L9 - 450 HP - 1400 Radiator	1	24
12-00-0010		|-- Short Engine Enclosure	1	
13-A0-1400		|-- Engine Cooling System Radiator - 1400 Sq. In.	1	22
13-A0-1450		|-- Engine Coolant Recovery System	1	23
13-A0-1500		|-- Charge Air Cooler - Engine Air Intake	1	23
13-A0-1800		|-- Long Life Coolant	1	23
13-A0-1900		|-- Premium Cooling System Hoses	1	24
13-A0-1960		|-- Constant Torque Cooling System Clamps - Entire System	1	24

PART NO	S	DESCRIPTION	QTY	PG
13-A0-1974		|-- Heater Shut Off Valves	1	24
13-I0-0010		|-- Engine Air Intake Filter, Fleetguard	1	24
13-L0-0002		|-- Engine Oil - First Fill	1	24
13-N0-0210		|-- Engine Brake - Cummins L9 Engine	1	25
13-P0-2300		|-- Fast (High) Idle - Manual Select - Auto Low Voltage	1	25
13-V0-0120		|-- Auxiliary Engine Cooler - Sendure	1	25
13-V0-0210		|-- Spark Arrestor - Air Intake	1	25
13-V0-3020		|-- Fan Clutch - Fully Variable Fan Drive	1	25
13-Y0-0621		|-- Compliant Exhaust Treatment System - L9 >360	1	26
13-Y0-1611	>	|-- Cummins Aftertreatment System - L9 - >360	1	26
13-Y0-3010		|-- Stainless Tailpipe - Curb Side - 90° Exit - Straight Cut End	1	26
13-Y0-6010		|-- Exhaust Tailpipe Diffuser	1	26
13-Z0-0015		|-- DEF System - 5 Gallon Reservoir - ISL	1	26
	>	**TRANSMISSION**	**1**	
14-C0-3040		|-- Allison 3000EVS Automatic Transmission	1	26
14-D0-0100		|-- Transmission Fluid - Allison TES-389	1	27
14-ER-0100		|-- Five Speed Allison Programming - 3000EVS	1	27
14-ET-0100		|-- Automatic Neutral Programming - 2500 EVS / 3000EVS / 4000EVS	1	27
14-HF-0100		|-- Drivertrain Fluid Monitoring System	1	27
	>	**DRIVELINES**	**1**	
14-W0-1100		|-- 1760 Series Drivelines	1	29
	>	**FUEL TANK**	**1**	
25-A0-2000	>	|-- Fuel Tank - Steel - 50 Gallon - Stainless Straps	1	29
25-V0-0000		|-- Reinforced Fuel Lines	1	29
25-F0-0200		|-- Fuel Filter - Cummins - Factory	1	29
	>	**ALTERNATOR**	**1**	
45-D0-2400	< >	|-- 415 Amp Alternator - Niehoff	1	58
		CAB MODEL	**1**	
40-D0-0124	>	3/16" Alum - LFD - 1871 - 12" Raised Roof - FULL LENGTH DOORS	1	29
14-ES-0200		|-- Transmission Selector - Push Button Type	1	27
14-ES-0400		|-- Transmission Fluid Check - Transmission Selector	1	27
40-DH-5200		|-- Exterior Cab Door Handles - Bright Finish	1	35
40-DH-6015		|-- Cab Entry Steps, Full Length Doors, 100" W cabs - CORE	1	36
40-DH-8010		|-- Cab Entry Steps - Bright Finish	1	36
40-DH-9010	>	|-- Lower Step Lighting - Amber LED	1	36
40-DS-5010	<	|-- Auxiliary Cab Steps, Below Cab	1	36
40-DS-5110		|-- Auxiliary Cab Steps - Bright Finish	1	36
40-DH-7010		|-- DEF Fill, Left Rear Crew Step Area	1	36
	>	**AC/HEAT/DEFROST**	**1**	
40-U0-0195		|-- Overhead Heater / Defroster - 12" RR/100"W - CORE	1	48
40-U0-0310		|-- Defroster Fans - Overhead Mounted, Inboard	1	48
40-U0-0470	>	|-- 45K BTU AC / 33.4K BTU Heat - Ceiling Mounted Evaporator - Single Condenser	1	49
40-U0-0620		|-- Cab Climate Control Insulation Package	1	49
	>	**NOISE SUPRESSION**	**1**	
45-E0-0100		|-- EMI/RFI Noise Suppression	1	58

PART NO	S	DESCRIPTION	QTY	PG
	>	**BATTERY MOUNTING TRAYS AND COVERS**	**1**	
45-NS-0802		|-- Stainless Steel Battery Tray	1	61
45-NU-0610		|-- Battery Box Dri-Dek	1	62
	>	**BATTERY SYSTEMS**	**1**	
45-NU-03SF		|-- Single Battery System - 4 Group 31 - CORE	1	61
45-NU-0410		|-- Battery Jumpers	1	61
45-T0-0665		|-- 40 Amp - Kussmaul - Chief Series W/ 12 Vdc - Comp Option - Auto Charge 4012	1	62
09-X0-0900		|-- Kussmaul - Auto Air 091-9-12 Vdc Compressor	1	21
09-X0-3020		|-- Kussmaul 091-9-131 Auto Drain - 12VDC	1	21
45-T0-6130	>	|-- Kussmaul Remote Control Panel - Kussmaul Charge {USE with Standard Cover]	1	62
45-T0-6210		|-- Charge Indicator Panel on Driver's Seat Box	1	62
45-Z0-1193		|-- Kussmaul 20 Amp - 120V- Super Auto Eject - Custom Cabs CORE	1	62
45-Z0-1335		|-- Standard Cover, Kussmaul 091-55--XX {SELECT Remote Control Panel}	1	63
45-Z0-1384		|-- Red Auto-Eject Cover	1	63
45-Z0-1505		|-- Electrical Inlet Location- Cab Exterior Mounted - Behind the Driver's Door	1	63
45-NU-0510		|-- Battery Jumper Studs	1	62
		CAB INTERIOR	**1**	
45-P5-0050		|-- Cab Interior Appointments and Options - LFD CORE -- 1871 & Spectr II	1	
40-DE-0300	<	|-- Engine Enclosure - Vinyl Covering - Acoustiblok - NO FLUID CHECK HATCH	1	33
40-DE-1030		|-- Painted Interior Door Panels	1	33
40-DE-2010		|-- Interior Padding - Standard Ceiling	1	33
40-DE-2020		|-- Interior Padding - Standard Rear Wall	1	34
40-DE-2060		|-- Floor Material - Acoustical Wear Mat	1	34
40-DE-2070		|-- Rear Facing Seat Box Covering - Acoustical Wear Mat {REMOVE IF NO REAR SEAT BOX}	1	34
40-DE-3050		|-- Door Reflective Material, SecuriTrim - Custom Chassis, 4 Door	1	34
		CAB STEERING WHEEL AND COLUMN	**1**	
40-DE-7030		|-- Steering Wheel and Column - 4Front - 100" - CORE 1871	1	34
	>	**CAB INTERIOR GRAB HANDLES**	**1**	
40-DH-0260		|-- Grab Hndls - Inside - Driver's, Officer's A-Post and Both Crew Doors	1	35
	>	**OFFICER'S RADIO BOX**	**1**	
40-DH-1220		|-- Officer's Radio Compartment (Beneath Seat) With Door	1	35
	>	**OPEN COMPARTMENT LIGHT OPTIONS**	**1**	
40-LC-0114		|-- Open Compartment Light - Red Flashing - Whelen OS LED	1	40
40-LC-3022	>	|-- DeckGun Raised Light - Red Flashing-Whelen OS LED {ExtendaA Gun/Telescop Montr}	1	40
		CAB INTERIOR LIGHTING	**1**	
40-LD-0114		|-- Interior Lighting Group - CORE LFD	1	
40-LD-0507		|-- Eight (8) Whelen CREGCS 6" White/Red LED Dome Lights	1	40
40-LD-3010		|-- Cab Dome Lighting Activation	1	40
40-LD-4010		|-- Step Nose LED Lighting - WHITE/RED	1	41
40-LD-5184		|-- Cab Door Controlled	1	41

PART NO	S	DESCRIPTION	QTY	PG
	>	**MAP LIGHT**	**1**	
	>	**DASH AND SWITCH HOUSING**	**1**	
40-U0-6050		|-- Driver's Overhead Switch Panel - CORE	1	49
40-U0-6060		|-- Rugged Driver and Officer Dash Enclosure - CORE	1	50
40-U0-7010		|-- Officer Side Open Glove Box Storage - CORE	1	50
	>	**INSTRUMENTATION**	**1**	
40-V0-0105		|-- Instrumentation (J1939) and Controls - CORE	1	50
40-V0-0120		|-- Audible Turn Signal Reminder	1	51
40-V0-0122		|-- Audible Lights On Reminder	1	51
40-V0-0124		|-- Audible Parking Brake Reminder	1	51
40-V0-0130		|-- Dual Trip Odometers	1	52
40-V0-0148	>	|-- Odometer Activated While in Pump Mode	1	52
40-V0-0150		|-- Low Fuel Warning Light and Alarm	1	52
40-V0-0152		|-- Transmission Temperature Warning Light and Alarm	1	52
40-V0-0154		|-- Low Voltage Warning Light	1	52
40-V0-0156		|-- Air Cleaner Restriction Indicator	1	52
40-V0-0160		|-- Low Coolant Warning	1	52
	>	**SWITCHES AND SWITCH PANELS**	**1**	
40-X0-1120		|-- Forward Engine Enclosure Console - Manual Switches - CORE	1	52
40-V0-0502		|-- Parking Brake Control - Driver's Dash	1	52
40-X0-1200		|-- Engine Enclosure Storage Tray with Recessed Cupholders	1	53
40-X0-1415		|-- USB-A/USB-C Charging Ports - Driver's and Officer's Area	1	53
40-Z0-0014		|-- Battery Switched Power	1	56
40-X0-1420		|-- NO Outside Temperature Module Provided	1	
	>	**ELECTRICAL SYSTEM**	**1**	
45-NS-0350		|-- Apparatus Base Digital Electrical System - Class1/Weldon Multiplex	1	59
45-NS-0205		|-- Information Display Module - Driver's Position - CORE	1	59
45-NS-0500		|-- Akron/Weldon Captium System w/ 5 YR Subscription	1	60
	>	**INTERCOMS**	**1**	
40-Y0-0104	< >	|-- FireCom 5200D System - Wireless - Apparatus	1	53
40-Y0-0122		|-- Driver Position - Wireless	1	54
40-Y0-0240	>	|-- {QTY} Headsets - Fire Com - UHW505 Dual Ear - Radio PTT	1	54
40-Y0-0123		|-- Officer Position - Wireless	1	54
40-Y0-0240	>	|-- {QTY} Headsets - Fire Com - UHW505 Dual Ear - Radio PTT	1	54
40-Y0-0124	>	|-- Crew Headsets - Wireless	1	54
40-Y0-0190		|-- WB505R Headset Module	1	54
40-Y0-0250	>	|-- {QTY} Headsets - Fire Com - UHW503 Dual Ear - No Radio PTT	2	55
40-Y0-0344	>	|-- Radio Interface Cable {ADD Radio Information to Specs before Order]	1	55
40-Y0-2994		|-- Intercom Control Mounting - Engine Enclosure Mounted	1	55
		COLLISION AVOIDANCE	**1**	
40-Y0-5005		|-- NO Collision Avoidance System Provided	1	
		AIR PURIFICATION	**1**	
40-Y0-6010		|-- NO Air Purification System Required	1	
	>	**BACK-UP CAMERA**	**1**	

PART NO	S	DESCRIPTION	QTY	PG
40-YC-3810	>	|-- Back-Up Camera System, ASA Audiovox, Custom Chassis	1	55
40-YC-3820		|-- Observation Monitor - 7" LCD - Waterproof, Custom Chassis	1	55
40-YC-4005		|-- Monitor Mounting - Overhead Position - Driver, Custom Chassis	1	55
40-YC-3835		|-- Camera - Color - Rear - High Performance - Black Housing	1	55
40-YC-4100		|-- Operation - Battery Powered	1	55
40-YC-4200		|-- Camera Mounting - Body Rear - Below Hosebed	1	55
40-YC-4220		|-- Guard, Rear Camera, Cast Products	1	56
	>	**HANDHELD FLASHLIGHTS**	**1**	
	>	**CAB 12VDC POWER**	**1**	
40-Z0-0005		|-- (2) 12 Vdc Power Point Sockets	1	56
40-Z0-0014		|-- Battery Switched Power	1	56
40-Z0-0210		|-- 12Vdc Power Circuits - Radio and/or Accessories	1	56
40-Z0-0300		|-- Location - Power Panel	1	56
40-Z0-0210		|-- 12Vdc Power Circuits - Radio and/or Accessories	1	56
40-Z0-0362		|-- Location - Inside EMS Cabinet {MAKE SURE EMS IS SPECIFIED}	1	56
40-Z0-0810		|-- (1) NMO Mount - Radio Antenna Wiring - Officer's Side Forward	1	57
40-Z0-0857		|-- Location - Officer's Seat Area	1	57
40-Z0-0900		|-- Antenex NMO Black Weatherproof Cap	1	57
	>	**CAB 120 VAC POWER**	**1**	
40-Z0-0415		|-- Cab 120-Volt ac Circuit - CORE	1	57
40-Z0-0515		|-- Location - Engine Enclosure Top - CORE	1	57
40-Z0-0600	>	|-- Electrical Outlet, Conf #2, Duplex, 120V/15A, Straight Blade	1	57
40-Z0-0670		|-- Power Source - Shoreline Connection	1	57
	>	**MISCELLANEOUS**	**1**	
40-Z0-3100		|-- AM/FM Stereo NOAA, Frt Input, Bluetooth Radio w/Four Speakers	1	57
40-Z0-3800		|-- Radio Location, Overhead	1	58
40-Z0-9910		|-- Fire Extinguisher and Hazard Triangle Kit	1	58
		CAB EXTERIOR	**1**	
45-Q5-0030		|-- Cab Exterior Appointments and Options - 1871 CORE -- Apparatus	1	
40-D0-0900		|-- Cab Crashworthiness Test	1	33
	>	**CAB EXTERIOR GRAB HANDLES**	**1**	
40-DH-2100		|-- Exterior Grab Handles - 24" Long	1	35
40-DH-4110		|-- Warning Light / Turn Signal, Cab Handrails	1	35
40-DH-5101		|-- Exterior Grab Handles - Black Finish	1	35
	>	**CAB REAR WALL EXTERIOR STEPS**	**1**	
	>	**CAB GRILLES AND HEADLIGHT TRIM**	**1**	
40-DZ-0105		|-- Stylized Stainless Front Grille - 1871- CORE	1	36
40-DZ-3002		|-- Cab Grille - Black Finish	1	37
40-H0-3030	<	|-- Q2B Mechanical Siren - Cab Grille Recess Mounted	1	38
40-H0-3364		|-- Q2B Mechanical Siren (Recessed) - Bright Finish	1	38
40-H0-5110		|-- Siren Circuit Powered - Master Warning Light Switch	1	38
40-H0-5210		|-- Siren Brake Switch - Driver's Switch Panel	1	38
40-H0-5330		|-- Siren Control - Officer's Foot Switch	1	38

PART NO	S	DESCRIPTION	QTY	PG
		ICC LIGHTING	**1**	
55-02-1002		|-- Custom Cab - Cab - LED - ICC Lighting - Whelen OS Series	1	63
55-02-1122		|-- Custom Cab - Cab - LED - ICC Lighting - Black Finish	1	63
		DRIVING LIGHTS	**1**	
55-03-0165		|-- Headlights - HIVIZ LED - Daytime Running Halo Ring - Custom Cab	1	63
55-03-0170		|-- Headlights - Upper Position	1	64
55-03-0185		|-- Headlights - Custom Cab -Black Finish	1	64
55-04-0755		|-- Frt Turn Signal - Whelen 600 LED - Outside Hdlts - Custom Cab	1	64
55-04-0855		|-- Lens Color - Clear	1	64
55-04-0910		|-- Light Housing, Black Finish	1	64
		CAB MUD FLAPS	**1**	
40-G0-1010		|-- Cab Front Mud flaps	1	37
	>	**CAB GROUND LIGHTS**	**1**	
40-G0-1300		|-- Cab Ground Lights - LED Strip Lights	1	37
	>	**MIRRORS**	**1**	
40-J0-2900		|-- Mekra Lang - Heated & Remote Control Mirrors w/Convex, Black Finish	1	39
40-J0-2802		|-- NO Mirror Options Provided	1	
	>	**CAB WINDOWS**	**1**	
40-K0-1000		|-- Cab Side Windows - Fixed Glass	1	39
40-K0-2020		|-- Electric Windows - Four Doors - Driver Additional Controls	1	39
40-K0-3510		|-- Rear Window Safety Bars, Black Powder coated	1	39
40-KA-4020		|-- Dark Gray-Lite Door Glass - Cab Side and Crew Doors	1	39
		ENGINE MAINTENANCE LIGHT	**1**	
40-LE-1002		|-- Engine Maintenance Lights LED - Custom	1	41
	>	**CAB SPOTLIGHTS**	**1**	
	>	**FENDERS**	**1**	
40-N0-0805		|-- Cab Stainless Fender	1	41
40-N0-0807		|-- Cab Fender - Black Finish	1	41
	>	**CAB EXTERIOR REAR WALL**	**1**	
40-N0-1400		|-- Exterior Rear Wall - Diamond Plate Overlay - Bright Finish	1	41
	>	**CAB TILT**	**1**	
40-P0-0110		|-- Cab Tilt - Electric Pump with Manual Back Up	1	41
40-P0-0400		|-- Cab Tilt Road Interlock	1	42
		BACK-UP ALARM	**1**	
55-06-0480		|-- Back Up Alarm	1	64
		CAB AND CHASSIS PAINT	**1**	
40-Q0-0910		Cab & Chassis Paint - CORE	1	

PART NO	S	DESCRIPTION	QTY	PG
40-Q0-1201		|-- Black Interior Paint, Black Spatter ABS Panels	1	42
40-Q0-2010		|-- Headliner - Black	1	43
40-Q0-2110		|-- Rear Wall Covering - Black	1	43
40-Q0-2210		|-- Floor Covering - Black	1	43
40-Q0-2302		|-- Door Panels - Black	1	43
40-Q0-3010		|-- Single Color Cab Exterior Paint	1	43
40-Q0-3080	>	|-- Cab Exterior Paint - PPG - Urethane	1	44
		SEATING	**1**	
40-RS-0110		4 Passenger - Driver, Officer, (x2) Rear Facing OB	1	
40-RW-1010		|-- Seat Position 1 - Driver's Seat	1	45
40-S0-1350		|-- Highback - Air Ride Suspension - HO Bostrom - Sierra 500 - ABTS	1	45
40-RW-1020		|-- Seat Position 2 - Officer's Seat	1	45
40-S0-4310		|-- SCBA Fixed Bottom Cush - Fixed Mtg - HO Bostrom - Tanker 500 - ABTS	1	45
40-S0-9162		|-- Filler Pad for SCBA Seats	1	46
40-S0-9220		|-- HO Bostrom SecurAll SCBA Locking Bracket	1	47
40-RW-1030		|-- Seat Position 3 - Rear Facing Left Outboard - Behind Driver	1	45
40-S0-5810	>	|-- SCBA Fixed Bottom Cush - Fixed Mtg - HO Bostrom - Tanker 500 - ABTS	1	45
40-S0-9220		|-- HO Bostrom SecurAll SCBA Locking Bracket	1	47
40-RW-1060		|-- Seat Position 6 - Rear Facing Rt Outboard - Behind Officer	1	45
40-S0-5810	>	|-- SCBA Fixed Bottom Cush - Fixed Mtg - HO Bostrom - Tanker 500 - ABTS	1	45
40-S0-9220		|-- HO Bostrom SecurAll SCBA Locking Bracket	1	47
40-S0-6050		|-- NO Forward Facing Seat Riser Provided	1	
40-S0-7420		|-- Gray / Black Durawear Seat Covering	1	45
40-S0-8002		|-- Seat Belt Warning Labels	1	45
40-S0-8995		|-- {Qty} Helmet Holders, Ship Loose to FD	4	46
40-S0-7220		HME-Ahrens Fox Seat Logos	1	45
40-S0-8015		Vehicle Data Recorder	1	45
40-S0-8020		|-- Seat Belt Monitoring System	1	46
40-S0-8910		IMMI 4Front Supplemental Front Airbag System	1	46
	>	**EMS / In Cab Storage Cabinets**	**1**	
40-SU-3802	>	Gen II - EMS Compartment - Full Ht - Fwd Facing Door - Pos 8 & 9	1	47
40-SU-488C		|-- Compartment Install - Seatng Pos 8 and 9 - Rear Wall Centered	1	47
40-SU-5020		|-- Roll Up Door, EMS, Gortite w/Satin Anodized Finish	1	47
40-SU-5024		|-- Door Latches, EMS, Locking Lift Bar w/Door Switch	1	48
40-SU-5112		|-- {QTY} Full Width x Full Depth - Adjustable Shelf - Gen II EMS Compartment	2	48
40-SU-5710		|-- Lights, Ext Compts, LED Strip Lights - Roll Up Door	1	48
40-SU-6110		|-- Receptacle, (1) 120V, Single, Mtd High EMS Cabinet	1	48
40-SU-7000	>	|-- Electrical Outlet, Conf #2, Duplex, 120V/15A, Straight Blade	1	48
		FRONT BUMPER / AUDIBLE WARNING	**1**	
42-A3-0200		Front Bumper - Painted Formed -- 1871/SFO {Ctr Hsewl - Top Q2B - Jumpline}	1	58
01-V2-0024		|-- Front Bumper Ext - 24" - 1871/ SFO {Ctr Hsewl - Top Q2B - Jumpline}	1	14
01-T1-0200		|-- Frt Jumpline, 1.5" w/2" Piping, 90° Swivel Adapter - {Right of Center Hosewell}	1	14
01-T1-0710		|-- Swivel on Gravelshield, Right of the Center Hosewell	1	14
01-T2-0140		|-- Drain Valve, Class 1, 3/4", Automatic	1	14
01-W0-0700		|-- Chromed Tow Hooks Beneath Bumper	1	15
01-Z0-8042		|-- Front Gravelshield - 1871/SFO	1	15
01-Z0-8060		|-- Black Line-X Finish Gravelshield	1	15
01-Z0-8404	>	|-- Center Hosewell - Large - 24" Ext. - 1871/SFO	1	15
01-Z0-8760		|-- Hosewell Cover, Center - Hinged Diamondplate	1	15
01-Z0-8795		|-- Hosewell Cover - Black Line-X Finish {Watch Gravelshield Selection}	1	15
01-Z0-8826		|-- LED Lighting, Hosewell - 1871 - SFO	1	16
01-Z0-8802		|-- Open Grate Mat, Hosewell	1	15
01-Z0-8095		|-- Line-X Coated Bumper Top Trim Guard	1	15

PART NO	S		DESCRIPTION	QTY	PG
40-G0-1420		>	|-- (1) Bumper Ground Light - 36" LED Strip Light {N/A on 18" Formed, Change to 27"}	1	37
40-H0-1109			|-- Dual Stutter Tone Air Horns - Bumper Recessed - 1871 - SFO	1	37
40-H0-1201			|-- Air Horn Circuit Powered - Battery and Ignition	1	37
40-H0-1210			|-- Air Horn Control - Lanyard	1	37
40-H0-1320			|-- Vehicle Horns / Siren Selector Switch	1	38
40-H0-2020			|-- Electronic Siren-Whelen-Model 295SLSA1 (x2) Outboard Mtd Spkrs	1	38
40-H0-5412			|-- Siren Head Mounting - Console Mounted	1	38
40-HA-2064			|-- Siren Speakers - Two (2) - Cast Products - Outboard Mtd	1	39
40-HA-2072			|-- Siren Speaker - Black Finish	1	39
40-Q0-1072			|-- Black Gloss Enamel Painted Bumper	1	42
			MANUALS	**1**	
69-C0-0100			On Board USB Electronic Operator's Manual w/Parts List	1	64
69-C0-0200			One (1) Electronic/One (1) Hard Copy Operator's Manual w/Parts List	1	65
69-C0-0300			|-- FAMA Fire Apparatus Safety Guide	1	66
			--------	**1**	
			== CORE Pumper 22 - Pump Compt & Plumbing - 7.001 06/01/23 ==	**1**	**66**
			PUMP COMPARTMENT	**1**	
30-00-0010			Pump Compartment, Construction - CORE Pumper	1	66
30-00-5010			|-- Pump Compartment Mounting - Pumper	1	66
30-05-0010			|-- Running Boards - CORE Pumper	1	66
30-05-0105			|-- Laser Grip S/S Step Surface - Left/Right Side	1	66
30-05-0205			|-- Running Boards - Bright Finish	1	67
30-05-2110			|-- Left Side Running Board Hosewell	1	67
30-05-4020			|-- (2) Straps, Running Board Hosewell	1	67
30-05-7020			|-- Dri-Dek Floor Matting, Hosewell	1	67
30-05-7110			|-- Dri-Dek Floor Matting, Color, Black	1	67
30-05-3110		<	|-- Right Side Running Board Hosewell	1	67
30-05-4020			|-- (2) Straps, Running Board Hosewell	1	67
30-05-7020			|-- Dri-Dek Floor Matting, Hosewell	1	67
30-05-7110			|-- Dri-Dek Floor Matting, Color, Black	1	67
70-15-0115		<	|-- (2) LED Strip Lights, Armor Guard, Pumphouse Runningboard	1	94
30-15-0110			|-- Pump Compartment Dunnage with Removable Floor - CORE Pumper	1	68
30-15-1005			|-- NO Dunnage Compartment Cover Available - Pumper	1	
60-55-5110			|-- (2) Grab Handles, Access Dunnage Compartment, Mounted L/R Side	1	93
60-55-6110			|-- Grab Handles - Bright Finish	1	93
30-35-0110		<	|-- 53,500 BTU Pump Compartment Heater, w/ 12V Fan	1	69
30-35-1110			|-- Heat Pan Enclosure, Removable, Aluminum	1	69
30-35-4005			|-- NO Air chuck Outlet/Inlet Available	1	
30-35-7010			|-- (1) Pump Compartment Work Light, LED w/ Switch	1	69
			PUMP OPERATORS PANEL	**1**	
30-20-1010			Top Operators Control Panel w/ Speedlays - CORE Pumper	1	68
30-25-0010	XS	<	|-- Pump Panel Finish - Black for full size panels	1	68
30-30-0110			|-- Valve Control - Top Mount	1	68
30-30-5010			|-- Pump Panel Identification Labels, Innovative Controls	1	69
30-30-5110			|-- HME Standard color Coding for Pump House Tags	1	
30-40-0010			|-- Walkway, Top Mount, 96"W x 21"L, w/ ADP Step Surface	1	69
30-40-2110		<	|-- (2) Walkway Storage Compartments, L/R Side, SS w/ATP Door	1	70
30-40-2210			|-- NO Walkway Storage Compartments Lights Provided	1	
30-40-2310			|-- Natural Finish, Interior Walkway Storage Compartments	1	70
30-40-3005			|-- NO Mansaver Bars Available	1	
60-55-5220		<	|-- (2) Walkway Grab Rails, Mounted L/R Side Rear Cab Wall	1	93
60-55-6110			|-- Grab Handles - Bright Finish	1	94

PART NO	S	DESCRIPTION	QTY	PG
70-15-0215		|-- (2) LED Lights, Top Mount Walkway	1	94
70-15-9010		|-- Step Light Activation - Parking Brake	1	94
30-50-0020		|-- (2) Speedlay Storage Bays	1	70
30-55-0105		|-- Speedlay Front Wall - Aluminum Diamond Plate	1	70
30-55-0205		|-- Bright Finish - Diamond Plate	1	70
30-55-1005	<	|-- {Qty} Removable Speedlay Hose Trays	4	70
30-70-0060		|-- Pump Compartment Width - 61"	1	71
60-55-5120		|-- (2) Grab Handles, Above Speedlays - Top Mount	1	93
60-55-6110		|-- Grab Handles - Bright Finish	1	94
32-00-0050		|-- PSG - Fire Research Pump Boss 400 Series (Dual) Pressure Governor	1	71
32-00-1010		|-- Pump Panel Harness for PSG	1	
32-05-0020		|-- Innovative Controls - 4" Master Pump Gauges Liquid Filled	1	72
32-05-1020		|-- -30 to 400 PSI scale Reading - Gauge	1	72
32-05-2020		|-- Black Markings on White Gauge face	1	72
32-05-3020		|-- Backlit - Master Pump Gauges - White LED	1	72
32-05-4020		|-- Master Gauge Bezel, Innovative Controls	1	73
32-10-0010		|-- Master Gauge Pump Test Ports	1	73
32-15-0020		|-- Innovative Controls 2-1/2" Individual Pressure Gauges	1	73
32-15-1020		|-- 0 to 400 PSI scale Reading - Gauge	1	73
32-15-2020		|-- Black Markings on White Gauge face	1	73
32-15-3030		|-- Backlit - Master Pump Gauges - White LED	1	73
32-20-0010		|-- Water Tank Gauge Packages - CORE Pumper	1	
32-20-0130		|-- Innovative Controls Soft-Glo Water Gauge - Operator's Panel	1	74
32-20-5010		|-- Black Bezel - Water Gauge	1	74
32-20-1030		|-- (2) Innovative Controls Monster Water Gauges - Cab Sides/Rear	1	74
32-20-5010		|-- Black Bezel - Water Gauge	1	74
32-20-1330		|-- (1) Innovative Controls Monster Water Gauges - Rear of Body	1	74
32-20-5010		|-- Black Bezel - Water Gauge	1	74
32-25-0020		|-- Smart Rocker Switch Panel, (4) Switches - Pump Panel	1	75
32-25-0120		|-- Air Horn Switch - Smart Switch Panel	1	75
32-25-2105		|-- NO Chassis Fuel/DEF Gauge at Pump Panel Available	1	
32-25-2205		|-- NO Chassis Transmission Gauge at Pump Panel Available	1	
		PUMP AND PLUMBING	**1**	
32-40-0020		|-- Hale "Q-MAX", 1500 GPM (G Gearbox) - CORE Pumper	1	75
34-00-0120		|-- Q-Max Specs (G Gearbox) {X12 or X15 Engines CHANGE to K Gearbox}	1	75
00-25-4305		|-- Hale Pump Warranty - 5 Year - Pumper	1	66
34-05-0020		|-- Altitude Requirements, 0 to 2000 Feet Above Sea Level	1	76
34-10-0120		|-- Trident Air Primer - Single Primer Actuation	1	76
34-10-1020		|-- Manual Primer Control Valve	1	77
34-10-8020		|-- Trident Warranty, 5 Year Parts	1	77
34-15-0020		|-- Pump Shift, w/ Label, Indicator Lgts, Mtd Cab/PPnl	1	77
34-15-1005		|-- NO Manual Override for Pump Shift Available	1	
34-20-0020		|-- Mechanical Seal, Inboard side, Spring Loaded, Self Adjusting - Hale	1	77
34-25-0120		|-- (2) Anodes, Water Pump, Indicator Weep Hole	1	77
34-30-0110		|-- Thermal Relief Valve, TRV-L, Automatic	1	78
34-30-1010		|-- Intake Pressure Relief Valve, TFT	1	78
34-35-0110		|-- Pump T-Case Cooling Line, 3/8" w/ In-Line Ball Valve	1	78
34-35-1010		|-- Heat Exchanger Line, Gated {CUSTOM CHASSIS}	1	78
34-40-0020		|-- Master Drain, Manual, Mounted Pump Panel	1	79
		STEAMER INTAKES	**1**	
34-45-1010		|-- 6" Steamer Inlet, Left Side, NST Thread, w/ Strainer	1	79
34-80-0110		|-- 6" Long Handled Chrome Plated Cap (Logo)	1	79
34-45-1020		|-- 6" Steamer Inlet, Right Side, NST Thread, w/ Strainer	1	79
34-80-0110		|-- 6" Long Handled Chrome Plated Cap (Logo)	1	79
		PLUMBING SPECIFICATIONS (MANIFOLDS AND PIPING AND DRAINS)	**1**	

PART NO	S	DESCRIPTION	QTY	PG
34-50-0020		|-- Innovative Controls - Individual Manual Drains - Lift-Up Handles	1	79
		LEFT SIDE (SMALL) INLETS	**1**	
35-00-0140	>	|-- 2.5" Left Side Inlet, Top Mount	1	80
35-55-1020		|-- Elkhart Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)	1	82
35-62-0040		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	82
35-65-0030		|-- 2.5" Side Intake Piping	1	82
35-85-0110		|-- Termination: 2.5" NPT x 2.5" NST adapter w/ Plug	1	86
35-67-0020		|-- Side Inlet to be located in rearward position (to pump steamer)	1	82
		RIGHT SIDE (SMALL) INLETS	**1**	
35-05-0005		|-- NO Right Side Inlet Available	1	
		LEFT SIDE PUMP PANEL DISCHARGES	**1**	
35-10-0140		|-- #1 - 2.5" Left Side Discharge, Top Mount	1	80
35-70-0220		|-- Akron Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)	1	82
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	83
35-72-0110		|-- Side Discharge to be located in forward position (to pump steamer)	1	84
35-80-0110		|-- 2.5" Side Discharge Piping	1	84
35-90-0120		|-- Termination: 2.5" NST x 2.5" NST Chrome Elbow w/ Plug (Pump Panel)	1	86
35-10-1140		|-- #2 - 2.5" Left Side Discharge, Top Mount	1	80
35-70-0220		|-- Akron Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)	1	82
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	83
35-72-0120		|-- Side Discharge to be located in rearward position (to pump steamer)	1	84
35-80-0110		|-- 2.5" Side Discharge Piping	1	85
35-90-0120		|-- Termination: 2.5" NST x 2.5" NST Chrome Elbow w/ Plug (Pump Panel)	1	86
		RIGHT SIDE PUMP PANEL DISCHARGES	**1**	
35-15-0120		|-- #3 - 2.5" Right Side Discharge	1	80
35-70-1220		|-- Elkhart Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)	1	83
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	83
35-72-0110		|-- Side Discharge to be located in forward position (to pump steamer)	1	84
35-80-0110		|-- 2.5" Side Discharge Piping	1	85
35-90-0120		|-- Termination: 2.5" NST x 2.5" NST Chrome Elbow w/ Plug (Pump Panel)	1	86
35-15-3120		|-- #4 - 3.0" Right Side Discharge	1	80
35-70-1310		|-- Elkhart Valve, 3.0", Manual Valve	1	83
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	84
35-72-0120		|-- Side Discharge to be located in rearward position (to pump steamer)	1	84
35-80-0310		|-- 3.0" Side Discharge Piping	1	85
35-90-2220	<	|-- Termination: 3.0" NST F x 5.0" Storz - Rocker Lug w/ cap - Rigid (Pump Panel)	1	86
		REAR DISCHARGES	**1**	
35-20-0010		|-- NO Left Rear Discharge Provided	1	
35-20-3999		|--	1	
35-20-4120	<	|-- (1) 2.5" Right Rear Discharge	1	80
35-70-1220		|-- Elkhart Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)	1	83
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	84
35-80-2040		|-- 2.5" Rear Discharge Piping w/ Water Tank Sleeve (4")	1	85
35-90-8110		|-- Termination: 2.5" NST x 2.5" NST Chrome Elbow w/ Plug (Rear Body)	1	87
		REAR HOSE BED PRECONNECT DISCHARGES	**1**	
35-25-0005		|-- NO Left Rear Hose Bed Preconnect Available	1	
35-25-1005		|-- NO Right Rear Hose Bed Preconnect Available	1	

PART NO	S	DESCRIPTION	QTY	PG
		DELUGE DISCHARGE	**1**	
35-25-8110		|-- (1) Deluge Waterway - CORE Pumper	1	80
35-70-1310		|-- Elkhart Valve, 3.0", Manual Valve	1	83
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	84
35-80-4040		|-- 3.0" Deluge Discharge Piping	1	85
40-10-0010		|-- Manual Drain, Deluge Pipe	1	88
40-10-1030	>	|-- Telescoping Waterway, TFT 18" "Extend-A-Gun" #XG18VL-XL (For Crossfire Monitor)	1	88
40-15-0120		|-- Deck Gun Monitor, TFT #XFC-52 Kit - Crossfire	1	88
		CROSSLAY DISCHARGES	**1**	
35-30-1010		|-- CROSSLAY AREA - CORE Pumper - Top Mount	1	
35-30-3010		|-- (1) Crosslay Hosebed, 2 1/2" Hose - CORE Pumper - {Top Mount ONLY}	1	80
35-30-4110		|-- #1 Crosslay, 2-1/2" hose, Dbl Stk	1	81
35-70-1220		|-- Elkhart Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)	1	83
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	84
35-80-3210		|-- 2.5" Discharge Piping (Crosslays, Speedlays)	1	85
35-95-1020		|-- Termination: 2.5" NPT x 2.5" NST Swivel - Crosslay/Speedlay	1	87
40-00-0110		|-- Crosslay Hose Guides	1	87
40-00-1010		|-- Vinyl Cover for Crosslay Hosebed - Top & Sides	1	87
40-00-4110		|-- Vinyl Top & Side Cover Color, Midnight Black	1	88
		SPEEDLAY DISCHARGES	**1**	
35-35-0110		|-- (2) 1-3/4" Speedlay Discharges - CORE Pumper - {Top Mount ONLY}	1	
35-35-1010		|-- #1 Speedlay - Top, 1-3/4" hose	1	81
35-70-1110		|-- Elkhart Valve, 2.0", Manual Valve	1	83
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	84
35-80-3110		|-- 2.0" Discharge Piping (Crosslays, Speedlays)	1	85
35-95-0020		|-- Termination: 2.0" NPT x 1.5" NST Swivel - Crosslay/Speedlay	1	87
35-35-2010		|-- #2 Speedlay - Lower, 1-3/4" hose	1	81
35-70-1110		|-- Elkhart Valve, 2.0", Manual Valve	1	83
35-70-8030		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	84
35-80-3110		|-- 2.0" Discharge Piping (Crosslays, Speedlays)	1	85
35-95-0020		|-- Termination: 2.0" NPT x 1.5" NST Swivel - Crosslay/Speedlay	1	87
40-00-0210		|-- Speedlay, Poly Hose Guides	1	87
40-00-1210		|-- Vinyl Cover for Speedlay Hosebeds- Sides	1	88
40-00-5010		|-- Vinyl Side Cover Color, Midnight Black	1	88
		BOOSTER REEL DISCHARGES	**1**	
35-40-5005		|-- NO Booster Reel(s) Available	1	
		TANK TO PUMP	**1**	
35-45-0020		|-- (Qty 1) Tank to Pump Line, 3" Pipe	1	81
35-45-1010		|-- Integral Check Valve (NFPA)	1	
35-60-6110		|-- Elkhart Valve, 3.0", Manual Valve - TTP	1	82
35-62-0040		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	82
		TANK FILL	**1**	
35-45-5120		|-- (Qty 1) 2.0" Tank Re-Fill Line	1	81
35-60-1110		|-- Elkhart Valve, 2.0", Manual Valve - TF	1	82
35-62-0040		|-- Valve(s) Control - Manual Control @ Operator's Panel	1	82
		DIRECT TANK FILL	**1**	
35-45-7010		|-- NO Rear Direct Tank Fill Provided	1	
		FOAM	**1**	

PART NO	S	DESCRIPTION	QTY	PG
40-25-0330	<	Hale Smart Foam 5.0 (A or B) Foam System w/ Control Panel	1	88
40-25-2010		|-- Foam System Plumbed to 1 tank	1	90
40-25-3030		|-- Single Foam Tank - 30 gallons, Class A	1	91
40-25-4010		|-- Foam Tank Integral of Booster Tank	1	91
40-25-5010		|-- Single Tank 1" Drain Per Foam Tank	1	91
40-25-6020		|-- Foam Tank Refill System, HME System	1	91
40-45-0120		|-- Innovative Controls - Soft-Glo Foam Gauge, Class A Foam - Operator's Panel	1	93
40-45-5005		|-- Chrome Bezel - Foam Gauge	1	93
40-25-7020		|-- Class 1 (UltraView SmartFOAM) Foam System Control	1	92
40-40-0020		|-- Foam System Outlets - Max (4) ONLY - CORE Pumper {MUST SELECT}	1	92
40-40-0220		|-- Foam Outlet, (1) 2-1/2" Crosslay	1	92
40-40-1130	>	|-- Foam Outlet, (2) 1-1/2" Speedlays	1	92
40-40-2020		|-- Foam Outlet, (1) Front Jumpline	1	93
40-40-3010		|-- NO Rear Discharge Discharge Foam Outlet(s) Provided	1	
		--------	**1**	
		== CORE Pumper 22 - Body - 7.001 06/01/23 ==	**1**	**94**
		BODY CONSTRUCTION	**1**	
50-00-0010		Body & Compartment Design and Construction, Stainless Steel - Pumper	1	94
50-05-0010		|-- Body Mounting - Pumper	1	95
50-10-0010		|-- Frame Extension, Rear	1	96
50-10-0110		|-- Rear Tow Eyes	1	96
50-10-0510		|-- Rear Frame Extension and Body Mounts, Hot Dip Galvanized	1	96
50-10-0610		|-- Fastener Finish - Zinc	1	97
50-10-0710		|-- 20 Year Frame Extension Corrosion Warranty	1	97
50-25-0110		|-- Compartment Interior Finish - Uncoated	1	97
		BODY PAINT - EXTERIOR	**1**	
50-20-0110		Painted Apparatus Body - CORE Pumper	1	97
50-20-0220		|-- Painted Apparatus Body, Wheel Well Fender Panels	1	97
50-20-0305		|-- NO Painted Body Front Corner Panels Available	1	
50-20-0405		|-- NO Painted Body Rear Corner Panels Available	1	
50-20-0520		|-- Painted Hosebed Exterior Side Walls	1	97
50-20-0620		|-- Painted Hosebed Exterior Front Wall	1	97
50-20-0805		|-- NO Painted Area Between Doors Available	1	
		OVERLAYS AND TRIM PIECES	**1**	
50-35-0010		Trim Package - CORE Pumper	1	
50-35-0110		|-- Compartment Exterior Top/Roof - Brushed SST - NOT a Step Surface	1	97
		COMPARTMENT PROTECTION	**1**	
50-40-0110		Compartment Ventilation w/Filtration (L1, L3, R1 and R3)	1	97
50-40-2005		NO Exhaust Tailpipe Heatshield Available	1	
		BODY WIDTH	**1**	
50-45-0020		100" Wide Body	1	98
		BODY CONFIGURATIONS	**1**	
50-55-3022	>	22) 82"/82" - Vert. Ladder Compt - LS=Full Dep, RS=Split Dep (56"/52"/51") CORE	1	98
50-65-3022		|-- Cubic Ft, Body Side Compts 198, 164" Body OAL (22 Pumper Body)	1	99
		BODY SIDE COMPARTMENT ROLL-UP DOORS	**1**	

PART NO	S	DESCRIPTION	QTY	PG
50-70-0060		|-- Non-Locking Roll-Up Doors - (6) Side Compartments	1	99
50-70-1010		|-- R.O.M. (Roll-Up Doors)	1	99
50-70-2020		|-- Paint Finish, Roll-Up Doors Side Compartments	1	100
50-70-3020		|-- Paint Finish - Track and Trim	1	100
50-70-5010		|-- Door Open Switch/Warning Light - Roll-Up Doors (ROM)	1	100
50-75-0110		|-- NO Roll-Up Door Protector Shields Provided	1	
50-75-0205		|-- NO Roll-Up Door Assist Straps Available	1	
		REAR CENTER COMPARTMENT (RR1)	**1**	
55-05-0210		|-- RR1, Rear Ext Compartment, 62" H x 48" W x 22" D (Full Height) - CORE	1	100
55-05-5110		|-- Cubic Ft, Body Rear Center Compartment (RR1) - 38.5	1	100
55-20-0150		|-- Non-Locking Roll-Up Door - Rear Compartment	1	101
55-20-3010		|-- Satin Anodized Finish, Rear Compartment Door	1	101
55-20-4010		|-- Door Open Switch/Warning Light - Roll-Up Door (ROM)	1	101
55-25-0010		|-- NO Rear Roll-Up Door Protector Shield Provided	1	
		CHEVRON STRIPING	**1**	
80-15-0010		|-- Chevron, Diamond Grade, Rear Body - NFPA - 6"	1	112
80-15-1005		|-- NO Chevron on Rear Center Compartment (RR1) Door Available	1	
80-15-2010		|-- Chevron Color - Red and Fluorescent Green Reflective	1	112
		REAR LADDER COMPARTMENT (RR2)	**1**	
55-10-0210		|-- RR2, RS Vertical Ladder Storage Compt - CORE Pumper 22	1	100
55-30-0110		|-- Ladder Compartment Door (RR2) (Material Match Rear Body)	1	101
55-30-2010		|-- Non-Locking "D" Ring Latch, Chrome	1	101
55-35-0110		|-- HME Prov Duo-Safety Ladder Pkg On Beam Beside Tank - 10-Fold, 14-Roof, 24-2 Sec	1	101
90-20-0030		|-- Duo Safety 10' Aluminum 585 - Attic	1	112
90-25-0050		|-- Duo Safety 14' Aluminum 775-A - Roof	1	112
90-30-0060		|-- Duo Safety 24' Solid Beam Aluminum - 900A - 2 Section Extension	1	112
90-50-0010		|-- Fire Department Supplied Pike Poles	1	112
		REAR TAILBOARD	**1**	
55-40-0020		|-- Rear Tailboard - Inset - CORE Pumper	1	101
55-40-1020		|-- Step - 12" Laser Grip Stainless Steel	1	102
55-40-2010		|-- Rear Tailboard - Bright Finish	1	102
55-45-0005		|-- NO Rear Lower Step Available	1	
		WHEEL WELL PANELS	**1**	
55-50-0010		|-- Rear Wheel Well Area, Single Axle - CORE Pumper	1	102
55-50-0110		|-- Wheel Wells, Liners	1	102
55-50-1110		|-- Rear Fenderettes, Polished Stainless Steel	1	102
55-50-1210		|-- Mud Flaps, Rear	1	102
55-55-0070		|-- SCBA Tubes, (7) Rear Wheelwell, (3) L/S - (4) R/S, Sngl Axle {CUSTOM CHASSIS}	1	103
55-55-1010		|-- Fuel Fill, Left Side Rear Fndr w/Door, Label, Vent Line	1	103
55-55-2020		|-- Fuel Fill and SCBA Tube Doors - Bright Finish	1	103
55-55-3020		|-- SCBA Bottle Retention Straps	1	103
		WATER TANK	**1**	
55-60-0410		|-- Water Tank - 1000 Gallons	1	103
55-60-2010		|-- Water Tank Construction - UPF	1	103

PART NO	S	DESCRIPTION	QTY	PG
00-25-5305		|-- UPF Water Tank Warranty - Lifetime - Pumper	1	94
55-60-3010		|-- Tank Mounting, Cradle Mtd, 8" x 8" x 4" x .250"	1	104
55-60-3110		|-- Tank Cradle - Painted to Match Axles Color	1	104
55-60-4110		|-- Fill Tower, 10" x 14" - Overflow 4"	1	104
55-60-4810		|-- Fill Tower Location - Front of Hosebed/Center location	1	104
55-60-6010		|-- Single Tank Sump Verbiage (USE only for 1 TTP Valve)	1	104
55-60-7010		|-- Sump 3" Plug (no valve)	1	105
55-60-8010		|-- Tank Outlets and Pass-Thru Verbiage	1	105
		HOSEBED	**1**	
55-70-0010		|-- Hosebed Description - CORE	1	105
55-75-0110		|-- Hosebed Front Bulkhead, Stainless Steel	1	105
70-20-0110		|-- (1) Maxxima LED Hose Bed Light, Mount Front R/S Hose Bed	1	111
70-20-1010		|-- Hose Bed Light Activation - Parking Brake	1	111
55-70-0160		|-- Hosebed Riser Height, 21.75"	1	105
55-75-0510		|-- {Qty} Adjustable Hosebed Dividers, Smth Alum w/ Radius crnr, w/ Hand Holes	2	106
55-75-1020	>	|-- Hose Load - Specify {DEALER MUST EDIT HOSE LOAD INTO SPECS}	1	106
55-75-6020		|-- Vinyl Hosebed Cover - Top & Rear	1	106
55-75-7010		|-- Vinyl Color - Midnight Black	1	106
		SUCTION HOSE STORAGE	**1**	
60-10-0210		Suction Hose Carriers - HL/HR	1	
60-10-4010	<	|-- (2) Suction Hose Trays (6" x 10') - Vertical R/S Inside Hosebed	1	106
60-10-2010		|-- Tray Finish - Gray Powder Coat	1	106
60-10-8020		|-- HME Provided Suction Hose	1	107
90-60-6030		|-- {Qty} 6" x 10', Lightweight PVC Suction Hose w/ NH Cplng	2	112
90-65-0010		|-- Fire Department Supplied Suction Strainer(s)	1	112
		RUBRAILS AND DOOR SILLS	**1**	
60-30-0010		Rub Rails, White/Red LED Strip for Ground/Warning Lighting, Armor Guard - CORE	1	107
60-30-1010		|-- Rub Rails - Bright Finish	1	107
60-30-2010		|-- NO Rub Rail Conspicuity Tape Provided	1	
		COMPARTMENT LIGHTING PACKAGES	**1**	
60-35-0010		Compartment Lighting - CORE Pumper	1	
70-25-0110		|-- (2) Lights Per Compartment, LED Strip, Armor-Protected - White/Red	1	111
		FRONT AND REAR FOLDING STEPS	**1**	
60-40-0020		INNOVATIVE CONTROL FOLDING STEPS w/ Integrated LED - CORE Pumper (22)	1	107
60-40-0210		|-- Step Light Activation - Park Brake	1	107
60-40-0610		|-- Step(s) - Bright Finish	1	107
60-40-1040		|-- (3) Left Front Folding Steps	1	107
60-40-2010		|-- NO Left Rear Folding Step(s) Provided	1	
60-40-3040		|-- (3) Right Front Folding Steps	1	107
60-40-4005		|-- NO Right Rear Folding Step(s) Available	1	
		REAR FIXED STEPS	**1**	
60-45-0005		NO Intermediate Upper Rear Step Available	1	
60-45-1020		(4) Intermediate Lower/Mid Fixed Rear Steps, 2 Ea Side, Laser Grip, 8" D	1	108
60-45-3010		|-- Step - Bright Finish	1	108
70-15-1110		|-- Light, Rear Intermediate, Lower/Mids (NO Intermediate Step), LED Strip Lights	1	111
70-15-9010		|-- Step Light Activation - Parking Brake	1	111
		ACCESS LADDERS	**1**	

PART NO	S	DESCRIPTION	QTY	PG
60-45-8110	< >	(1) Zico Quic-Ladder (Watch Handrail locations/qtys, remove steps)	1	108
60-45-8610		|-- Ladder located at left rear position	1	108
		BODY GRAB HANDLES	**1**	
60-55-0220	S	(2) Rear Handrails - (1) 24" Vertical / (1) 69" Horizontal	1	108
60-55-1010		|-- Handrails - Bright Finish	1	109
60-55-2010		|-- Lighting, Rear Horizontal Handrail	1	109
60-55-3010		|-- Handrail Lighting Activation - w/ Ground Lighting	1	109
		COMPARTMENT FLOOR MATTING	**1**	
60-60-0030	>	Dri-Dek Matting, ALL Compartment Floors - CORE Pumper	1	109
60-60-1020		|-- Black Floor Matting	1	109
60-60-3010		|-- NO Compartment Floor Edging Provided	1	
		SHELVING, TRAY, TOOLBOARD PACKAGES	**1**	
60-80-0110	>	Compt Int - Shelves, Trays, Toolboards - CORE Pumper (WATCH COMPT DEPTH)	1	
		FIXED VERTICAL COMPARTMENT DIVIDERS	**1**	
60-85-0020		|-- NO Fixed Vertical Divider(s) Provided - Body Compartments	1	
		SHELVING	**1**	
60-95-0020		|-- NO SHALLOW Depth Adjustable Shel(ves) Provided	1	
60-95-0130	< >	|-- {QTY} Full Width x Full Depth - Shelf {Add Locations w/ Pkg Opt Ind} CHECKQTY	4	109
65-45-0110		|-- Dri-Dek Mat, Shelving	4	110
65-45-1020		|-- Black Matting	4	111
		FLOOR MOUNT PULL-OUT TRAYS	**1**	
65-05-0030	< >	|-- {QTY} Floor Mnt Tray, 250#- CORE PMP22 {Add Locations w/ Pkg Opt Ind} CHK QTY	3	109
65-45-0120		|-- Dri-Dek Mat, Pull-Out Trays	3	110
65-45-1020		|-- Black Matting	3	111
65-05-1030	< >	|-- {QTY} HD Floor Mnt Tray, 500#- {Add Locations w/ Pkg Opt Ind} CHECK QTY	1	110
65-40-0110		|-- {Qty} R1 Compartment	1	110
65-45-0120		|-- Dri-Dek Mat, Pull-Out Trays	1	111
65-45-1020		|-- Black Matting	1	111
		WALL MOUNT TOOLBOARDS	**1**	
65-20-0030	< >	|-- {QTY} Wall Mnt Toolboard(s), Pac Trac- {Add Locations w/ Pkg Opt Ind} CORE Pmpr	2	110
		PULL-OUT TOOLBOARDS	**1**	
65-25-0030	>	|-- {QTY} P-Out Toolboard(s), Pac Trac- {Add Locations w/ Pkg Opt Ind} CORE Pmpr	2	110
		RECEIVERS	**1**	
65-70-0005		NO Receivers Available	1	
		--------	**1**	
		== CORE Pumper 22 - Electrical - 7.001 06/01/23 ==	**1**	**112**

PART NO	S	DESCRIPTION	QTY	PG
		MULTIPLEX - BODY 12V ELECTRICAL	**1**	
70-00-0010		Electrical System, 12V, Body, Multiplexed w/ Circuit Protection - Class 1 Es-Key	1	112
		DOT LIGHTING	**1**	
70-35-0010		DOT - CUSTOM Cab - CORE Pumper	1	
70-35-1110		|-- Body -LED - ICC Lighting - Whelen OS Series	1	113
70-35-6010		|-- Bezel - Bright Finish (Marker Light)	1	113
70-35-5010		|-- Body Side Turn Signal, Whelen LED, Wheelwell Mounted, req'd>30' OAL	1	113
70-45-2010		|-- Bezel - Bright Finish (Turn Signals)	1	113
		WARNING LIGHTS	**1**	
70-50-0110		Whelen Upper Zone Lighting Package - CORE Pumper {NO Upper Storage Specified}	1	113
70-50-0210		|-- Upper Zone A - Whelen - CORE Pumper	1	
70-55-0060		|-- Zone A - Front Lightbar, Whelen - Freedom F4NV 72" LED - Fully Populated	1	114
70-50-0310		|-- Upper Zone B&D - Whelen - CORE Pumper	1	
70-60-0005		|-- NO Upper Zone B&D Stationary Warning Lights Available	1	
70-50-0410		|-- Upper Zone C - Whelen - CORE Pumper	1	
70-65-0010		|-- Zone C - (2) Whelen R416*F Rota Beam Beacons	1	114
70-65-1110		|-- Beacon Lights are Red with Red Lenses	1	114
70-65-2110		|-- (2) Polished Stainless Steel Light Stanchions - Upper Zone C	1	114
70-50-1110		Whelen Lower Zone Lighting Package - CORE Pumper	1	114
70-50-1210		|-- Lower Zone A - Whelen - CORE Pumper	1	
70-70-0110		|-- Zone A - (4) Whelen 600 Series Super LED, QUADS	1	114
75-95-0110		|-- Lights are Red with Clear Lenses	1	115
75-95-1110		|-- Bezel - Bright Finish	1	116
70-50-1310		|-- Lower Zone B&D - Whelen - CORE Pumper	1	
70-75-0110		|-- Zone B & D - (2) Whelen 600 Series Super LED (Cab)	1	114
75-95-0110		|-- Lights are Red with Clear Lenses	1	115
75-95-1110		|-- Bezel - Bright Finish	1	116
76-00-0110		|-- (2) Side Warning Lights Located - Chassis Bumper Tail	1	116
70-75-1010		|-- Zone B & D - (2) Whelen 600 Series Super LED (Body)	1	115
75-95-0110		|-- Lights are Red with Clear Lenses	1	115
75-95-1110		|-- Bezel - Bright Finish	1	116
76-00-1010		|-- (2) Side Warning Lights Located - Centered Rear Body Wheel Panel	1	116
70-50-1410		|-- Lower Zone C - Whelen - CORE Pumper	1	
70-80-0010		|-- Zone C - (2) Whelen 600 Series Super LED	1	115
70-85-0110		|-- Whelen 600 Series LED - Rear Stop/Tail/Turn Assembly	1	115
70-85-1110		|-- 4 Position Vertical Housing, Whelen 600 Series, Bright Finish, Low Pos. Warning	1	115
70-85-2110		|-- Taillights with Clear Lenses	1	115
75-95-0110		|-- Lights are Red with Clear Lenses	1	116
76-10-0010		NO Rear Traffic Advisor Provided	1	
		12Vdc SCENE LIGHTING	**1**	
77-10-0020		12 Vdc Lighting Package Provided - Double High Side	1	
77-10-1110		|-- (4) Stationary Scene lights located side of body, (2) each side	1	116
77-15-0010		|-- Whelen 900 Series LED, Surface Mount Scene Lights w/ flange	4	117
77-25-0010		|-- Chrome Finish Bezel	4	118
77-25-1130	>	|-- Body Side Scene Light Activation - Cab - Single Switch	1	118
77-25-2130	>	|-- Body Side Scene Light Activation - Pmp Panel - (1) Single Switch	1	119
77-10-2110		|-- (2) Stationary Scene lights located rear of body, (1) each side	1	116
77-15-0015		|-- Whelen 900 Series LED, Surface Mount Scene Lights w/o flange	2	117
77-25-1230	>	|-- Rear Body Scene Light Activation - Cab - Single Switch	1	118

PART NO	S		DESCRIPTION	QTY	PG
77-25-2230		>	|-- Rear Body Scene Light Activation - Pmp Panel - (1) Single Switch	1	119
77-10-3110		<	|-- (1) Brow lights located front of cab, centered	1	116
77-15-2130			|-- HiViz - Hi Output LED Brow Light, 72" Long	1	117
77-25-0075			|-- Black Light Housing	1	118
77-25-1340		>	|-- Cab Brow Scene Light Activation, Hi Viz - Cab - Three Switches	1	118
77-10-4110			|-- (2) Stationary Scene lights located side of cab, (1) ea side {Raised Roof Req'd}	1	116
77-15-0010			|-- Whelen 900 Series LED, Surface Mount Scene Lights w/ flange	1	117
77-25-0010			|-- Chrome Finish Bezel	1	118
77-25-1430		>	|-- Cab Side Scene Light Activation - Cab - Single Switch	1	119
77-25-2430		>	|-- Cab Side Scene Light Activation - Pmp Panel - (1) Single Switch	1	119
77-10-5110			|-- (2) Side Mount Telescoping Scene lights located front of body, (1) each side	1	117
77-15-1010			|-- FRC, Spectra, Ultrabright LED, 20,000 Lumens, 12Vdc	2	117
77-25-0210			|-- FRC, Side Mount & Bottom Raise Pole w/ Hazard Switch	2	118
77-25-1020			|-- Lamphead ON / OFF Switch	2	118
77-25-1110			|-- NO Cab Remote Scene Lighting Switch Provided	1	
			GENERATORS AND INVERTORS	**1**	
78-00-0110	X	<	3000 W Inverter - L1 location	1	119
78-00-0210	X		Load Center Panel, Square D, Inverter Hardwired	1	120
78-00-0310	X		Transfer Switch - Shoreline/Inverter	1	120
78-00-0410	X		(2) 120V Recetpacles-15amp Duplex, (1) eac h in L1 and R1	1	120
			--------	**1**	
			== CORE Pumper - Extras - 7.001 06/01/23 ==	**1**	**120**
			STRIPING	**1**	
80-00-0160			Striping, 6" Scotchlite, Reflective, Vehicle Perimeter	1	120
80-05-0015			|-- Body Stripe Flare, 45 Degree Up and Over Rear Axle	1	121
80-10-3005			|-- NO Stripe Outline Provided	1	
			LETTERING	**1**	
			GRAPHICS BUDGET OF $3000.00 IS INCLUDED AT OWOSSO'S DISCRETION. CAN BE CREDITED.	1	
			LICENSE PLATE	**1**	
90-00-0020			Rear License Plate Bracket w/ LED Light	1	121
			WHEEL CHOCKS	**1**	
90-05-0110			1 Set - Wheel Chocks, Worden HWGY	1	121
90-05-0310			|-- 1 Set - Wheel Chocks Horizontal Mtg Brackets - LF Body	1	121
			EQUIPMENT	**1**	
90-10-0010			Miscellaneous Loose Equipment - Fire Department Provided - CORE Pumper	1	121
			--------	**1**	

OWOSSO FIRE DEPARTMENT

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OWOSSO FIRE DEPARTMENT

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One (1)
00-25-0330

GENERAL WARRANTY

Upon delivery, the manufacturer shall provide a three (3) year new vehicle general warranty and is limited to chassis and apparatus systems and components, and excludes engine, transmission, and axles (see additional warranties provided).

All components of the vehicle are warranted for a three (3) year period from vehicle delivery, unless otherwise stated elsewhere.

This warranty is issued to the original purchaser of the vehicle only.

One (1) Cab Structural Warranty - 10 Years (Proposal) {Custom Chassis}
00-25-0405

CAB STRUCTURAL WARRANTY

The cab will be warranted against structural defects in material and workmanship under normal use and service for a period of ten (10) years from date of delivery.

One (1) Body Structural Warranty - 10 Years (Proposal)
00-25-0505

BODY STRUCTURAL WARRANTY

The structural stainless steel apparatus body will be warranted against structural defects in material and workmanship under normal use and service for a period of ten (10) years from date of delivery.

One (1) Cab and Body Paint Warranty - Prorated (Proposal) {Custom Chassis}
00-25-0605

PAINT WARRANTY

A Prorated Paint Warranty shall be provided by the manufacturer for a period of up to ten (10) years pending the purchase and selection of the extended warranty period of 5, 7 or 10 years.

The paint finish for the cab and body will be warranted against structural defects in material and workmanship under normal use and service for the first of 36,000 miles or the period specified below:

Top Coat and Appearance Gloss, Color Retention, Cracking		Coating System, Adhesion, Flaking, Blistering, Bubbling	
0 to 72 months	100%	0 to 36 months	100%
73 to 120 months	50%	37 to 84 months	50%
		85 to 120 months	25%

To clarify, the chart above does not extend the warranty period for the Paint Warranty beyond the 36,000 actual miles from the delivery date.

One (1) Paint Warranty - 10 Years (Proposal)
00-25-0815

PAINT WARRANTY - 10 YEARS

The Paint Warranty shall be provided for a period of ten (10) years.

One (1) Chassis Frame Warranty - Lifetime (Proposal) {Custom Chassis}
00-25-1205

CHASSIS FRAME RAILS WARRANTY

The custom chassis frame and crossmembers will be warranted for the expected life of the vehicle, which the expected life is twenty (20) years from the date of delivery.

One (1) Stainless-Steel Plumbing Warranty - 10 Years (Proposal) - Pumper
00-25-5005

STAINLESS STEEL PLUMBING WARRANTY

A Stainless Steel Plumbing warranty shall be provided by the apparatus manufacture for products of its manufacture to be free from defects in material and workmanship, under normal use and service, for a period of ten (10) years from the date of delivery.

Bid/Proposal Drawing (Proposal)

One (1)
00-40-0020 **UL TESTING AND CERTIFICATION:**

The apparatus upon completion will be tested and certified by Underwriters Laboratories, LLC. The certification tests will follow the guidelines outlined in the current edition (NFPA 1901) Standard for Automotive Fire Apparatus.

There shall be multiple tests performed by the manufacturer and Underwriter's Laboratories, LLC when the apparatus has been completed. The manufacturer shall provide the completed UL acceptance Test Certificate(s) to the purchaser at time of delivery.

The tests conducted on the apparatus shall include, but not be limited to:
Pump & Plumbing Test Requirements - Pumper (NFPA 1901-Limited Specs)

One (1)
00-40-0110 **PUMP PERFORMANCE TEST AND CERTIFICATION:**

The fire pump and plumbing shall be tested, approved, and certified to comply with all NFPA 1901, Standard for automotive Fire Apparatus, applicable regulations in effect. The manufacturer shall furnish the completed Test Certificate(s) to the purchaser at the time of delivery.
Low-Voltage Electrical Certification Test - Pumper

One (1)
00-40-0210

LOW-VOLTAGE ELECTRICAL SYSTEM PERFORMANCE TESTING

The apparatus low-voltage electrical system will be tested and certified.

Tests shall be performed when the air temperature is between 0 degrees Fahrenheit and 110 degrees Fahrenheit (–18 degrees Celsius and 43 degrees Celsius).

The following three (3) tests defined in NFPA shall be performed in the order in which they appear. Before each test, the batteries shall be fully charged until the voltage stabilizes at the voltage regulator set point and the lowest charge current is maintained for 10 minutes. Failure of any of these tests shall require a repeat of the sequence.

Reserve Capacity Test:

The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged.

The engine shall be shut off and the minimum continuous electrical load shall be activated for 10 minutes.

All electrical loads shall be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the engine shall be considered a test failure of the battery system.

Alternator Performance Test at Idle:

The minimum continuous electrical load shall be activated with the engine running at idle speed.

The engine temperature shall be stabilized at normal operating temperature.

The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.

Alternator Performance Test at Full Load:

The total continuous electrical load shall be activated with the engine running up to the engine manufacturer's governed speed.

The test duration shall be a minimum of 2 hours.

Activation of the load management system shall be permitted during this test.

An alarm sounded by excessive battery discharge, as detected by the system required in NFPA 13.3.4, or a system voltage of less than 11.8 V dc for a 12 V nominal system or 23.6 V dc for a 24 V nominal system, for more than 120 seconds, shall be considered a test failure.

Low Voltage Alarm Test:

Following the completion of the above tests, a Low Voltage Alarm Test will be performed in the manner prescribed.

With the engine shut off, the total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm activates.

The battery voltage shall be measured at the battery terminals.

The test shall be considered a failure if the alarm has not yet sounded 140 seconds after the voltage drops to 11.70 V for a 12 V nominal system or 23.4 V for a 24 V nominal system.

The battery system shall then be able to restart the engine. Failure to restart the engine shall be considered a test failure.

DOCUMENTATION:

The apparatus manufacturer shall provide the results of the low-voltage electrical system performance test, certified in writing, with the documentation provided to the purchaser at the time of delivery of the completed apparatus.

The test results shall consist of the following documents:

(1) Documentation of the electrical system performance tests
(2) A written electrical load analysis, including the following:

- The nameplate rating of the alternator.
- The alternator rating under the conditions specified in NFPA 1901 (current edition).
- Additional electrical loads that, when added to the minimum continuous electrical load, determine the total continuous electrical load.
- Each individual intermittent electrical load.

OWOSSO FIRE DEPARTMENT

One (1)
00-45-0410 **MAXIMUM OVERALL WIDTH OF ONE-HUNDRED INCHES**

The apparatus specified shall be constructed as detailed and shall NOT exceed a Maximum Overall Width of one hundred (100.00) inches.

This dimension shall include the primary construction of the apparatus body and chassis cab. Any peripheral items shall not be incorporated into this measurement.

The peripheral items included, but not limited to, are: Fenderettes, Mirrors, Lights, Handrails, Front Bumpers, Cab Steps, Overlays, Etc.

One (1)
00-45-0505 NFPA Angle of Approach Requirement (8 degrees)

ANGLE OF APPROACH REQUIREMENT

The angle of approach for the apparatus shall not be less than eight (8) degrees as specified by the current edition of the NFPA 1901 Guideline.

One (1)
00-45-0605 NFPA Angle of Departure Requirement (8 degrees)

ANGLE OF DEPARTURE REQUIREMENT

The angle of departure for the apparatus shall not be less than eight (8) degrees as specified by the current edition of the NFPA 1901 Guideline.

One (1)
00-45-0805 NFPA In-Service Weight Requirement - Pumper - 2500 pounds

IN-SERVICE WEIGHT

The apparatus shall be designed to provide an equipment allowance up to 2500 pounds in compliance with the current edition of the NFPA 1901 Guideline.

One (1)
00-50-0010 Paint Codes - Body & Cab - Pumper

PAINT CODES

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One (1)
00-60-0010

PUMP AND APPARATUS OPERATION TRAINING

Fire Department personnel will be trained as to the use of the entire apparatus including, but not limited to, chassis, fire pump system, the apparatus, and supplied equipment.

The training shall be provided by an Authorized Sales Representative technician who shall remain at the Fire Department for one (1) day (not less than eight (8) hours) to provide instruction to all personnel, or as instructed by the Chief of the Department.

All meals, motel, and travel costs are the responsibility of the successful bidder.

After acceptance of the fire apparatus, the purchaser shall be responsible for ongoing training of personnel to develop and maintain proficiency regarding the proper and safe use of the apparatus and the associated equipment.

One (1) == CORE Pumper 22 - 1871 L9 Engines Cab & Chassis - 7.001 06/01/23 ==

One (1) Double Frame Rails {REQ'D FOR WHEELBASE >209" AND TOP MOUNTS}
01-H0-1600

CHASSIS FRAME

The frame shall be designed to industry standards. The manufacturer shall provide a lifetime frame side rail warranty to the original purchaser of the chassis. The frame rails shall be 10.50" x 3.50" x .375" heat treated steel.

A 3/4 length inner frame side rail liner with dimensions of 9.687" x 3.125" x .3125" shall be provided for additional strength and reduce deflection. The frame liner shall extend from the centerline of the front axle and taper 45 degrees forward and shall extend to the rear of the main frame rail.

The frame side rails shall be 110,000 psi minimum yield and shall have a minimum section modulus of 30.38 cubic inches, in the frame liner area, calculated by using the square corner shape method. The resulting frame rail resistance to bending moment shall be 3,341,800 inches per pound per rail.

To ensure the maximum clamp load for the fastener prevailing torque the crossmembers shall be bolted in place using grade 8 bolts, hardened washers, and grade "C" distorted thread locknuts. Flanged head fasteners shall not be acceptable. The top of the frame rails shall be free of bolt heads.

Frame engine cutouts shall be made with a plasma torch to minimize the heat affected zone of the cut. All cutouts shall have a minimum of 6.00 inch transitions between rail flange cut depths to reduce the stress

concentrations throughout the cutout area. The root of all transition areas shall have a minimum of a 2.00 inch radius to reduce stress concentrations at the root.

One (1) Frame Rail Finish - Galvanized, Double Rails
01-I0-1200

FRAME RAIL FINISH

The main frame rails, frame liner and main frame cross-members behind the pump shall galvanized to reduce the effect of harsh road chemicals.

One (1) Fastener Finish - Zinc
01-I0-1500

FRAME FASTENERS

Fasteners employed to attach the main frame rails to the main frame cross-members shall be Zinc plated to reduce the effect of harsh road chemicals.

One (1) Cab Main Frame Crossmember
01-J0-4000

CAB MAIN FRAME CROSSMEMBER

In addition to the rear cab support cross-member there shall be a main frame cross member mounted in the rear cab area. This cross-member shall be a wide base flanged design to provide frame spacing and excellent strength to prevent frame paralleling. Every frame cross-member shall be bolted in place using grade 8 bolts, hardened washers, and grade "C" distorted thread locknuts.

One (1) Frt Jumpline, 1.5" w/2" Piping, 90° Swivel Adapter - {Right of Center Hosewell}
01-T1-0200

FRONT JUMPLINE DISCHARGE

A 1-1/2" discharge shall be located at the front bumper. The front discharge shall be plumbed using 2" stainless steel pipe and wire reinforced high pressure hose coupled with stainless steel fittings.

The front discharge outlet shall have a 2" quarter-turn swing out valve with the control located on pump operator's panel.

The front discharge at the bumper shall be provided with a 2" to 1-1/2" polished stainless steel, 90° swivel adapter with 1-1/2" NST male outlet.

One (1) Swivel on Gravelshield, Right of the Center Hosewell
01-T1-0710

The discharge swivel shall be located to the right of the center hosewell on the top of the gravelshield. The swivel shall be located so the pivot is vertical allowing for 360° rotation of the swivel.

One (1) Drain Valve, Class 1, 3/4", Automatic
01-T2-0140

AUTOMATIC DRAIN VALVE

One (1) Class 1, 3/4" automatic drain valve shall be supplied.

One (1) Front Bumper Ext - 24" - 1871/ SFO {Ctr Hsewl - Top Q2B - Jumpline}
01-V2-0024

BUMPER EXTENSION

The front frame extension shall be bolted directly to the main rail. The extension and main rail joint shall have a 3/8" thick side plate for reinforcement. The completed apparatus must be able to be lifted at the front bumper without structural damage to the front extension for towing of a disabled vehicle.

The front bumper face shall extend 24 inches ahead of the front face of the cab skin.

One (1) Chromed Tow Hooks Beneath Bumper
01-W0-0700

TOW HOOKS

Two (2) chromed tow hooks shall be provided and shall be attached directly to the front frame extension under the bumper. These tow hooks shall be attached with two Grade 8 bolts with hardened washers and Grade "C" distorted thread locknuts.

One (1) Front Gravelshield - 1871/SFO
01-Z0-8042

GRAVELSHIELD

A gravelshield shall be installed filling the area above the extension rails. This gravelshield shall be constructed of .125" thick NFPA non-skid, non-skid, aluminum treadplate. The gravelshield shall be supported at the front by the top flange of the steel bumper. At the rear, the gravelshield shall be supported by a steel substructure.

One (1) Black Line-X Finish Gravelshield
01-Z0-8060

BLACK FINISH GRAVELSHIELD

The gravelshield shall have a black Line-X finish.

One (1) Line-X Coated Bumper Top Trim Guard
01-Z0-8095

LINE-X COATED BUMPER TOP TRIM GUARD

The top of the front bumper shall be fitted with protective trim piece coated with Line-X matching the color of the front bumper paint.

One (1) Center Hosewell - Large - 24" Ext. - 1871/SFO
01-Z0-8404

CENTER HOSEWELL

A hosewell shall be mounted between the bumper extension rails in the center of the gravelshield. The hosewell shall be constructed of 11 gauge stainless steel. The hosewell shall be 31-1/2" wide x 9-1/2" deep x 19-1/2" front to back.

One (1) Hosewell Cover, Center - Hinged Diamondplate
01-Z0-8760

HOSEWELL COVER

The center hosewell shall include a diamond plate hinged cover. The cover shall be notched to provide clearance for pre-connected jumpline's to be stowed in the hosewell. A pair of stainless lift latches shall be used to open the lid with a gas shock to hold the lid in the open position.

One (1) Hosewell Cover - Black Line-X Finish {Watch Gravelshield Selection}
01-Z0-8795

HOSEWELL COVER

The hosewell cover shall have a black Line-X finish.

One (1) Open Grate Mat, Hosewell
01-Z0-8802

OPEN GRATE MAT - HOSEWELL

The floor of the hosewell shall be covered with black colored, open grate mat for improved ventilation.

One (1) LED Lighting, Hosewell - 1871 - SFO
01-Z0-8826

LIGHTING - CENTER HOSEWELL

The interior of the center hosewell shall be illuminated with a white LED light strip. The light strip shall have an aluminum extrusion to protect the light from damage. The light shall illuminate when the ground lights are activated on the apparatus.

One (1) Front Axle 21,000# - Hendrickson STEERTEC NXT - CORE
07-A0-1120

FRONT AXLE

The front axle shall be a Hendrickson STEERTEK™ NXT with a 21,000 lb. capacity.

One (1) 45° Cramp Angle
07-AC-4500

CRAMP ANGLE

The chassis shall have a turning cramp angle of 45-degrees. Both left and right turns have a full 45° cramp angle with tires and wheels mounted on the axle and installed in the chassis.

The 45°cramp angle is achieved irrespective of options such as front suctions and disc brakes.

One (1) Oil Seals - Front Axle - Factory Premium
07-B0-0100

FRONT AXLE OIL SEALS

The front axle shall be equipped with oil bath type oil seals as supplied on the axle from the axle manufacturer. The spindles shall be equipped with transparent covers for oil level inspection.

One (1) Disc Brakes - Front Axle - EX-225
07-C0-0210

FRONT AXLE DISC BRAKES

MERITOR DiscPlus, EX-225, air disc brakes shall be installed on the front axle. The DiscPlus air disc brakes shall provide improved fade resistance and wet weather performance. The rotors shall be vented to facilitate brake cooling.

One (1) Front Suspension 21,000# - Hendrickson STEERTEK NXT
07-R0-2020

FRONT AXLE / SUSPENSION, STEERTEK™ NXT (21k GAWR)

The front axle and suspension shall be a Hendrickson STEERTEK™ NXT high-capacity fabricated front steer axle system.

This advanced suspension integration uses parabolic springs to increase wheel travel and lower spring rate for improved ride quality, and proprietary threaded pin bushings to increase roll stiffness. The rigid axle beam has a box-shaped cross section to resist horizontal, vertical, and twisting forces more effectively than I-beam axles. Passive hydraulic dampers are custom tuned for parabolic leaf springs to achieve the ultimate ride and handling. Progressive-rated bump stops handle high dynamic loads without harshness.

This front axle and suspension system shall be designed for heavy duty custom fire apparatus with a maximum capacity of 21,000 lbs.

One (1) Shock Absorbers - Front Axle
07-RS-0105

SHOCK ABSORBERS

Double acting hydraulic shock absorbers are to be installed.

One (1) Steering - 21,000# - Sheppard Dual Gear
07-Y0-0030

STEERING SYSTEM

The steering shall be equipped with dual SHEPPARD integral power steering gears. The engine shall be equipped with a gear driven pump.

The power steering fluid shall be monitored electronically and shall send a visual warning to the instrument panel when the fluid level falls below normal.

A remote steel reservoir shall be provided with the ability to check and fill the fluid level when the cab is in the raised position.

One (1) Single Rear Axle 27,000# - Meritor RS-25-160 - CORE
08-AS-1080

SINGLE REAR AXLE

The rear axle shall be a MERITOR model "RS-25-160" with a 27,000# capacity for the fire service.

One (1) 160 Series Differential - Single Axle
08-AV-F160

MERITOR DIFFERENTIAL

The rear axle shall contain a Meritor 160 Series differential with an 18.00 inch diameter ring gear utilizing hypoid-Generoid gearing and a 2.25 inch diameter axle shaft.

One (1) Axle Lube - Non-Synthetic
08-AV-S010

AXLE DIFFERENTIAL LUBE

The axle shall have the initial factory fill made with non-synthetic axle lube meeting the axle manufacturer's recommendations.

One (1) Oil Seals - Rear Axle - Factory Premium
08-B0-0100

REAR AXLE OIL SEALS

The rear axle shall be equipped with premium oil bath type oil seals as supplied on the axle from the axle manufacturer.

One (1) Disc Brakes - Single Rear Axle - EX225
08-C0-0110

REAR AXLE DISC BRAKES

MERITOR/ROCKWELL DiscPlus, EX-225, air disc brakes shall be installed on the Meritor/Rockwell single rear axle. The DiscPlus air disc brakes shall provide improved fade resistance and wet weather performance. The rotors shall be vented to facilitate brake cooling.

These disc brakes shall be rated for a maximum of 27,000# GAWR.

One (1) Vehicle Top Speed 62 - 65 MPH
08-PA-0200

VEHICLE TOP SPEED

The rear axle shall be geared for a top speed of 62 to 65 mph at engine governed RPM.

One (1) NFPA Vehicle Top Speed Statement (Revised 6/25/2018)
08-PA-1100

NFPA TOP SPEED STATEMENT

NFPA-1901, 2016 Edition - 4.15.2: The maximum top speed of fire apparatus with a GVWR over 26,000 lb (11,800 kg) shall not exceed either 68 MPH (105 km/hr) or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.

NFPA-1901, 2016 Edition - 4.15.3: If the combined water tank and foam agent tank capacities on the fire apparatus exceed 1250 gal (4732 L), or the GVWR of the vehicle is over 50,000 lb (22,680 kg), the maximum top speed of the apparatus shall not exceed either 60 MPH (105 km/hr) or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.

The speed selected on this apparatus exceeds 60 MPH (105 km/hr) and the customer is aware of NFPA-1901 and the top speed that will be achieved with the finished apparatus.

Truck gearing shall be such to provide for a customer requested top speed at engine governed RPM. If the top speed exceeds NFPA requirements listed above the engine ECM will have road speed limiting programmed so the maximum attainable speed that will not exceed that limit. This is field adjustable with Cummins Insite.

One (1) Single Axle Suspension - 27,000# - Reyco Granning Spring - CORE
08-R0-0025

SINGLE AXLE REAR SUSPENSION

A Reyco Granning Model 79KB rear suspension shall be provided and installed. The suspension system shall have a GAWR of 27,000 pounds.

The suspension shall consist of a multi-leaf parabolic spring pack for increased ride compliance and will be provided with adjustable torque arms and a single piece track rod for added stability and easy alignment.

One (1) Axle & Chassis Laser Alignment
08-RS-0500

LASER ALIGNMENT

The chassis shall have a laser alignment performed at the factory before delivery.

Toe In Front Axle - The toe in on a vehicle is set to reduce tire wear and to ensure that the vehicle shall steer in a straight line. Toe in measurements are set to a positive 2.50 millimeters total, giving the vehicle 1.25 millimeters from side to side.

Toe In Rear Axle - The toe in on the rear wheels is set up slightly different in that the axle and wheels are set to ride the "crown" of the road. his is achieved by adjusting the toe to a measurement of no less than 1 millimeter, but no more than 2.00 millimeters. The ideal measurement is 1.50 millimeters total for both sides.

Cramp Angle - Cramp angle is set to achieve the greatest turning radius possible with the selected components of the vehicle. Each front wheel is set to zero degrees. The wheel is then turned until it reaches the steering stops. This measurement is the cramp angle.

One (1) Air System - Color Coded Nylon Air Lines - Single Axle - CORE
09-A0-10WF

AIR SYSTEM

An air brake system meeting the requirements of the FMVSS-121 shall be provided. The system shall consist of three (3) reservoirs with a 4,362 cu. in. volume. The air system shall consist of the following components:

Dual air system with dual gauges and a warning light and buzzer. A spring actuated parking brake built into the rear axle brakes with a manual control and warning light the in cab. These shall automatically apply in case of air system failure. A mechanical means of releasing the spring brake shall be provided in the event of total loss of air pressure.

A quick build up system shall be provided, capable of building enough air pressure to release the spring brake in less than thirty (30) seconds, when starting with the entire air system at zero pounds pressure.

The brake system shall be a split system. One (1) system serving the rear brakes and one (1) system serving the front brakes. The two (2) systems shall be connected with a double check valve that shall automatically shuttle air from the front system to the rear system should loss of air pressure occur. This system shall also modulate the amount of air so the spring brakes shall apply in direct relationship to the amount of pressure applied to the treadle valve.

The brake system shall be equipped with a Bendix SR-7 valve to provide modulated spring brakes in the event there is low air pressure in the rear axle air supply reservoir.

The spring brakes shall be piped in such a manner that if the treadle valve is depressed while the spring brakes are applied, the spring brakes shall release and remain released as long as the treadle valve is depressed. They shall reapply immediately when the treadle valve is released.

The piping in the air system shall be 2-ply nylon reinforced color coded tubing for all stationary lines.

One (1) Bendix AD-9 Air Dryer
09-A0-1204

AIR DRYER

The air system shall include a BENDIX AD-9 air dryer.

The air dryer shall have a spin on desiccant cartridge.

The air dryer shall incorporate an integral turbo cutoff valve. The turbo cutoff valve shall close the path between the air compressor and the air dryer purge valve during the compressor "unload" cycle. This shall allow the air dryer to purge the water and contaminates without any loss of turbo boost or engine horsepower.

A 12-Volt heated moisture ejector shall be an integral part of the air dryer. This heater shall be thermostatically controlled. The electrical connection for the heater shall use a sealed electrical connector to protect against moisture and corrosion.

The use of this air dryer increases the base air system volume by 200 cubic inches.

One (1) Dedicated Air Horn Reservoir
09-B0-0240

DEDICATED AIR HORN RESERVOIR

One (1) 2181 cu. in. additional reservoir shall be connected to the chassis air system to provide an air supply for the chassis air horns. This reservoir shall include a pressure protection valve on the inlet side to allow full use of this tank without draining air from the chassis air system.

One (1) Heated Automatic Moisture Ejectors - All Air Reservoirs
09-D0-0108

AUTOMATIC MOISTURE EJECTORS

All air reservoirs of the chassis air system shall be supplied with completely automatic heated moisture ejectors. The reservoir drain valves shall allow the accumulation of contaminants that are collected in the reservoirs to be drained off to the atmosphere.

One (1) ABS Brake System - 4 Wheel - Meritor/Wabco
09-L0-0400

MERITOR/ROCKWELL/WABCO ABS BRAKE SYSTEM

A four channel, single rear axle model, MERITOR/ROCKWELL/WABCO ABS Braking System shall be supplied.

A frame mounted electronic control unit (ECU) shall monitor and control wheel speed during braking. Wheel sensors, constantly monitoring wheel speed, send information to the ECU. If a wheel begins to lock the ECU transmits an electrical impulse to modulator valves that can apply, release, or hold the air pressure in the brake chambers. The rapid modulation of air pressure prevents wheel lock-up and increases driver control.

This ABS system shall be a 4S/4M system with four (4) wheel speed sensors and four (4) modulator valves.

If a fault occurs in one wheel, that wheel shall have normal (non-ABS) brake function. The other wheels shall continue to provide the ABS function. If the ABS system should fail completely, the brake control shall be returned to normal (non-ABS) braking.

An ABS warning light shall be installed on the driver's dash message center. This warning light shall cycle through a test stage at the point of ignition turn on and remain illuminated until the vehicle reaches approximately four (4) MPH. The light shall illuminate in other conditions to warn of an ABS system failure and shall illuminate when the diagnostic function is activated.

One (1) ABS Mud & Snow Selector Switch
09-LB-1110

MUD/SNOW SWITCH

The Meritor/Rockwell/Wabco ABS shall be supplied with a mud and snow switch. This switch shall increase the ATC threshold to allow a momentary wheel slip to obtain traction under extreme mud and snow conditions.

One (1) Stability Enhancement System - 4 Wheel - Meritor/Wabco {SEE Eng Note}
09-RS-1010

MERITOR/WABCO STABILITY ENHANCEMENT SYSTEM

A Meritor / Wabco Roll Stability Control (RSC) System shall be provided on the apparatus chassis. The RSC shall assist in managing road conditions that may result in a vehicle rollover.

The RSC shall intervene to regulate the vehicle's deceleration functions by automatically reducing engine torque, engage the vehicle retarder and apply pressure to the brakes.

Electronic Stability Control (ESC) shall be included building upon the established RSC system by sensing the tendency of the vehicle to spin around and automatically applying the brakes to reduce that risk.

This system conforms to the requirements of NFPA-1901 4.13.1.2 - If the apparatus is equipped with a stability control system, the system shall have, at a minimum, a steering wheel position sensor, a vehicle yaw sensor, a lateral accelerometer, and individual wheel brake controls.

One (1) Kussmaul - Auto Air 091-9-12 Vdc Compressor
09-X0-0900

ON-BOARD ELECTRIC COMPRESSOR

A KUSSMAUL AUTO AIR model 091-9-12V on-board air compressor shall be supplied. The 12 Volt Auto Pump air compressor designed to maintain the air pressure in the air brake system while the vehicle is not in use. A pressure switch senses when the system pressure drops and starts the compressor which then runs until pressure is restored. All ball bearing construction, lubricated for life, assures reliable operation and requires no servicing. Compressor Output: 0.35 CFM@60 PSI Pressure Switch: Adjustable Set Point-Factory set to 75 PSI Cut-in, 95 PSI Cut-out.

The compressor shall be located in the officer's side step well with a bolt on style access panel, the air compressor shall be permanently wired to the chassis 12 volt electrical system.

One (1) Kussmaul 091-9-131 Auto Drain - 12VDC
09-X0-3020

KUSSMAUL AUTO DRAIN AC

A KUSSMAUL, AUTO DRAIN 091-9-131 moisture trap shall be installed in the output pressure line of the auto pump. The Auto Drain shall drain the moisture from the trap each time the compressor shuts down. A normally open solenoid valve drains the moisture from the trap each time the compressor shuts down. Easily installed on any 12VDC compressor, the Auto Drain assures that the filter bowl is always drained and does this without intervention by maintenance personnel.

One (1) Goodyear 425/65R22.5 (L) Front - Armor Max MSA (Mud/Snow) - 22,800# - 68mph
10-GF-0410

FRONT TIRES

The front tires shall be Goodyear 425/65R22.5 (L) tubeless radial Armor Max MSA mud/snow tread.

The front tire stamped load capacity shall be 22,800 pounds per axle with a nominal speed rating of 68 miles per hour when properly inflated to 120 pounds per square inch.

One (1) Goodyear 12R22.5 (H) Rear - Armor Max MSA (Mud/Snow) - 27,120# - 68mph
10-GR-0120

REAR TIRES

The rear tires shall be Goodyear 12R22.5 (H) tubeless radial Armor Max MSA mud/snow tread.

The rear tire stamped load capacity shall be 27,120 pounds per axle with a nominal speed rating of 68 miles per hour when properly inflated to 120 pounds per square inch.

One (1) Tire Pressure Monitoring Device - 2 Axles (Front & Rear) - LED Alert
10-GW-0122

TIRE PRESSURE MONITORING DEVICE

Each tire installed on the apparatus shall be equipped with a tire pressure monitoring device. The device shall consist of a valve stem cap with an LED tire alert to indicate tire pressure conditions. The LED will flash when the tire drops 8 psi below the factory setting.

One (1) Steel Disc Wheels, Front
10-W0-0010

FRONT STEEL RIMS

Hub piloted, acrylic e-coat, painted steel disc wheels shall be supplied on the front axle.

One (1) Inner and Outer Rear - SA - Aluminum Wheels
10-W0-3000

ALUMINUM WHEELS

Four (4) polished aluminum wheels shall be supplied and installed on the single rear axle. The wheels shall be highly polished on the outboard side.

Four (4) 10-WP-0220 Alcoa Dura-Black Finish - Rim {Black N/A on all Rim Sizes, SFOs need Validation}

WHEEL FINISH - BLACK

The aluminum wheels shall be Alcoa® Dura-Black™ with a menacing Matte Black finish.

Four (4) 10-X0-0700 Alcoa Dura-Black Finish - Full Hub Cover system

HUB COVER TRIM SYSTEM- BLACK

Included is a One-Piece Hub Cover System with the same Matte Black Finish to complete the appearance.

One (1) 13-A0-1400 Engine Cooling System Radiator - 1400 Sq. In.

ENGINE COOLANT RADIATOR

The engine coolant radiator shall have sufficient capacity to perform under the engine manufacturer installation requirements. The chassis manufacturer shall demonstrate the ability to meet this requirement with the submittal of an approved IQA to the fire department for the apparatus.

This radiator shall have HRPOS top and bottom tanks. These tanks shall have a material thickness of 11 gauge. The top and bottom tanks shall be attached to the header assemblies with a minimum of forty (40) fasteners. These fasteners shall not exceed a center distance of 1.938 inches to reduce the possibility of tank leaks. These fasteners shall be torqued to a value of 29.5 ft-lbs.

The header plates shall be made of 16 gauge brass.

The radiator tubes shall be constructed of .0066 inch thick brass and have a dimensional size of .076 inch x .625 inch. These radiator tubes shall have welded tube seams.

The radiator shall contain three (3) rows of tubes arranged in an inline profile across the radiator core. The entire radiator shall a contain (231) tubes. These tubes shall have a smooth bore to allow for radiator cleaning.

In the critically stressed area, where the radiator tubes are attached to the header plates, this joint shall be accomplished with a welding process on the coolant side. In addition to the welded joint a solder fillet joint shall occur on the air side of the core creating a continuous dual bond.

The radiator shall have a louvered serpentine type core that contains fins constructed of .0024 inch thick copper. These fins shall be spaced to a maximum density of 14 fins per inch of radiator tube. Each fin shall have a louvered surface for high cooling efficiency.

The radiator shall contain an integral coolant de-aeration tank. This tank shall be designed to remove entrapped air or gas from the coolant side of the radiator.

The radiator side rails shall have integrally designed support gussets for the transition to the header attachment.

The bottom tank of the radiator shall have a drain valve for coolant removal.

The bottom tank of the radiator shall have a transmission cooler with a plate-type design. The plates shall have internal turbulators to break up laminar oil flow across the surface. The cooler shall have 1311 square inches of surface area for water surface contact and heat transfer.

The radiator system shall be pressurized with a cap rated per the cooling system requirements of the specific engine manufacturer.

The high efficiency engine fan shall be encompassed with a radiator shroud to provide the proper air flow from the fan blade to the radiator.

The perimeter of the radiator shall have recirculation baffles to eliminate the possibility of recirculation of "hot" air to the face of the radiator core. The bottom of the radiator shall have a recirculation baffle from the radiator to the frame rails.

One (1) Engine Coolant Recovery System
13-A0-1450

COOLANT RECOVERY SYSTEM

A coolant recovery system shall be installed on the chassis. This tank is designed to capture coolant overflow when the engine coolant warms and expands. As the engine cools the overflow is then pulled out of the tank and back into the radiator, thus maintaining proper coolant levels.

One (1) Charge Air Cooler - Engine Air Intake
13-A0-1500

CHARGE AIR COOLER RADIATOR

The engine charge-air cooler shall have sufficient capacity to perform under the engine manufacturers installation requirements. The chassis manufacturer shall demonstrate the ability to meet this requirement with the submittal of an approved IQA to the fire department for the apparatus.

This radiator shall have cast aluminum side tanks. These tanks shall have a material thickness of .200. These tanks shall be attached to the charge-air core with the ALBRAZE construction technique.

The external air fins shall be louvered serpentine and constructed of .006 inch thick aluminum.

The internal air fins shall be of the lance-and-offset design for greater air turbulence and higher efficiency. The internal fins are to be constructed of .010 inch thick aluminum.

The charge-air cooler shall be mounted directly in front of the engine coolant radiator. To reduce vibration rubber "iso" mounts shall be used for mounting of the charge-air cooler to the engine radiator.

The charge-air cooler shall contain thermal expansion slots to allow the expansion and contraction of the charge-air core over the wide range of temperatures that are expected in operation.

The charge air piping between the engine and charge-air cooler shall be aluminum tubing with a wall thickness of .065 inch. The system shall utilize four (4) ply silicone rubber woven Nomex hoses with stainless steel pressure bands. These bands are designed to maintain the hose shape under the pressure of the turbocharger boost air. All clamps used on the charge air piping are to be stainless steel constant torque and shall be installed at each joint.

One (1) Long Life Coolant
13-A0-1800

LONG LIFE COOLANT

The coolant system shall contain a mixture to keep the coolant from freezing to a temperature of -34 degrees F.

The coolant supplied shall be Long Life Coolant compatible with the engine manufacturer's requirement.

One (1) Premium Cooling System Hoses
13-A0-1900

COOLANT HOSES

The entire chassis cooling system shall have premium rubber hoses. All clamps to be stainless steel worm drive type clamps.

One (1) Constant Torque Cooling System Clamps - Entire System
13-A0-1960

COOLANT SYSTEM CLAMPS

Single wire constant torque clamps shall be used for all cooling system hoses.

One (1) Heater Shut Off Valves
13-A0-1974

HEATER LINE SHUT OFF VALVES

The heater circuit shall have quarter turn shut off valves installed on both the supply and return lines to allow a complete shut off of coolant flow to the cab heaters in hot seasons of the year. These valves shall be installed in addition to the valves in the heater unit(s).

One (1) Cummins L9 - 450 HP - 1400 Radiator
13-EU-6425

DIESEL ENGINE

The chassis shall be powered by a Cummins diesel engine as described below:

MODEL:	L9-450
NUMBER OF CYLINDERS:	Six
BORE AND STROKE:	4.49 in (114 mm) x 5.69 in (145 mm)
DISPLACEMENT:	543 cu. in. (8.9L)
MAX HP:	450 hp (336 kW) @ 2100 RPM
TORQUE:	1250 lb-ft (1696 N-m) @ 1300 RPM
GOVERNED RPM:	2200
CURVE:	FR96230EV

Standard Equipment on the engine to include the following:

OIL FILTER:	A full flow / by-pass combination
LUBE OIL COOLER:	High efficiency non-drainback full flow cooling
FUEL FILTERS:	Two fuel filters providing 3 / 10 micron absolute filtration
STARTER:	12 volt
AIR COMPRESSOR:	A Wabco 18.7 cfm compressor shall be provided

One (1) Engine Air Intake Filter, Fleetguard
13-I0-0010

ENGINE AIR INTAKE FILTER

The engine shall be equipped with a Cummins Fleetguard heavy duty air filter. The filter shall be easily field serviceable.

One (1) Engine Oil - First Fill
13-L0-0002

ENGINE OIL

The engine shall have the initial factory fill made with a non-synthetic engine oil meeting the engine manufacturer's recommendations.

One (1) Engine Brake - Cummins L9 Engine
13-N0-0210

ENGINE BRAKE

A "JACOBS" Engine Brake shall be supplied.

The Driver shall have an on/off and a high/low engine brake control switch.

Activation of the engine brake shall occur at zero throttle position. The transmission ECU shall be programmed to operate in the pre-select downshift mode to maximize the retarding power of the engine brake.

The brake lights shall illuminate when the Jacobs Brake is in operation.

The Jacobs Brake shall be inoperative when the chassis is in pump mode.

The "JACOBS" engine brake shall be covered under the standard five (5) year Cummins engine warranty.

One (1) Fast (High) Idle - Manual Select - Auto Low Voltage
13-P0-2300

ENGINE FAST (HIGH) IDLE

The chassis shall be equipped with an Electronic Idle Control (EIC) for the electronic engine. Preset speed is factory adjustable.

The fast idle provision shall only function when the parking brake is set and the transmission is in neutral. Manual selection of the fast idle shall be controlled by a driver's momentary switch.

Automatic activation of the fast idle shall occur when a low voltage condition exists, the truck is in neutral and the parking brakes are applied.

Cancellation of the fast idle shall be achieved by resetting the manual switch or by depressing the service brake pedal.

One (1) Auxiliary Engine Cooler - Sendure
13-V0-0120

AUXILIARY ENGINE COOLER

The cooling system shall have one (1) SENDURE auxiliary engine cooler mounted in the upper radiator water pipe. The apparatus shall have the fire pump water circulated to the cooler from a valve located on the apparatus pump panel.

One (1) Spark Arrestor - Air Intake
13-V0-0210

SPARK ARRESTOR

A spark arrestor shall be installed to the chassis air intake system. This arrestor shall be affixed to the inlet of the air cleaner housing mounted above the radiator to filter out airborne embers.

One (1) Fan Clutch - Fully Variable Fan Drive
13-V0-3020

FAN DRIVE

A fully variable fan drive system shall be installed on the engine. Variable operation is required to reduce fan noise and improve response time and lower off-speed for maximum efficiency. Control of the fan operation is entirely from the engine and fan ECM with no manual override controls.

One (1) Compliant Exhaust Treatment System - L9 >360
13-Y0-0621

EXHAUST SYSTEM

A single exhaust pipe shall be provided for the engine. The exhaust pipe shall be supplied with a heat wrap. The wrap shall extend from the engine turbo charger to just below the frame rail.

The exhaust tubing from the turbocharger to the exhaust after treatment device shall be stainless steel.

One (1) Cummins Aftertreatment System - L9 - >360
13-Y0-1611

CUMMINS AFTERTREATMENT SYSTEM

The chassis shall be equipped with a compliant Cummins exhaust after treatment system.

One (1) Stainless Tailpipe - Curb Side - 90° Exit - Straight Cut End
13-Y0-3010

TAILPIPE

The tailpipe shall extend from the exhaust muffler/aftertreatment device to the rear of the vehicle making a 90° bend to exit the vehicle ahead of the rear tires on the curbside of the vehicle. The end of the pipe shall be cut square or perpendicular to the exhaust pipe centerline.

The pipe shall be unpolished stainless steel.

One (1) Exhaust Tailpipe Diffuser
13-Y0-6010

An exhaust gas diffuser shall be furnished on the end of the tailpipe.

One (1) DEF System - 5 Gallon Reservoir - ISL
13-Z0-0015

DIESEL EXHAUST FLUID SYSTEM

The chassis shall be equipped with a five (5) gallon Diesel Exhaust Fluid (DEF) reservoir system.

The reservoir shall contain a Multifunctional Head Unit (MFHU) that contains integrated level and temperature sensors. The MFHU also shall contain a coolant powered heater to thaw DEF in conditions below 12°F (-11°C) to meet governmental regulations.

The reservoir shall be located on the left frame rail behind the front axle beneath the cab. The mounting system shall use stainless steel mounting brackets to reduce the possibility of corrosion.

One (1) Allison 3000EVS Automatic Transmission
14-C0-3040

TRANSMISSION

The transmission shall be an Allison 3000EVS automatic transmission with electronic controls.

The transmission shall be equipped with a lock-up control circuit that shall automatically shift the transmission into 4th gear lock-up when the pump is shifted into gear.

TRANSMISSION COOLER

An automatic transmission cooler shall be provided as an integral part located in the bottom tank of the radiator. It shall be designed to withstand 165 psi working pressure and an intermittent pressure of 250 psi. The cooler shall be of sufficient size to maintain the operating temperature within the recommended limits of the transmission manufacturer.

One (1) Transmission Fluid - Allison TES-389
14-D0-0100

TRANSMISSION FLUID

The transmission shall be provided with heavy-duty transmission fluid meeting Allison specification TES-389.

One (1) Five Speed Allison Programming - 3000EVS
14-ER-0100

FIVE SPEED PROGRAMMING

The transmission shall be programmed for five speeds.

First - 3.49
Second - 1.86
Third - 1.41
Fourth - 1.00
Fifth - 0.75
Reverse - 5.03

The transmission shall be able to shift from first through fifth gear without operator intervention. The chassis shall be geared for the top speed in 5th gear.

One (1) Transmission Selector - Push Button Type
14-ES-0200

TRANSMISSION SELECTOR

The transmission shall be controlled by a push button type shift control. It shall be internally illuminated for night operation.

One (1) Transmission Fluid Check - Transmission Selector
14-ES-0400

TRANSMISSION OIL LEVEL SENSOR

The transmission shall be equipped with the oil level sensor (OLS). This sensor shall allow the operator to obtain an indication of the fluid level from the shift selector. The sensor display shall provide the following checks, correct fluid level, low fluid level and high fluid level.

One (1) Automatic Neutral Programming - 2500 EVS / 3000EVS / 4000EVS
14-ET-0100

AUTOMATIC NEUTRAL

The transmission shall be provided with circuitry to provide automatic neutral. Setting the parking brake commands the transmission to neutral when the park brake is applied, regardless of drive range requested on the shift selector. Requires re-selecting drive range to shift out of neutral.

After the transmission has been activated with the automatic neutral feature the shift lever must be returned to neutral and back to drive for midship pump operations.

One (1) Drivertrain Fluid Monitoring System
14-HF-0100

REMOTE FLUID LEVEL SENSING

The chassis shall be equipped with an electronic low fluid level indicator system for the engine oil, transmission oil, engine coolant and power steering fluid as part of the instrumentation package. This system eliminates the need for daily checking of fluid levels with manual dipsticks.

Coolant over temperature sensors are only capable of sensing excessive coolant temperature caused by clogged radiators, malfunctioning thermostats, failed water pumps or any other “circulation” problem. Upon loss of coolant, however, these temperature sensors must try to respond to hot air which, being a poor thermal conductor, results in signals that arrive only after the engine is severely damaged.

In a like manner, under leaking oil conditions low oil pressure signals are not obtained until the oil pump is starved for oil. Since the oil pump draws liquid from the very bottom of the crankcase pan, these signals arrive only after virtually all oil has been lost. Again, the damage has already occurred.

The liquid level sensor provides an early warning that fluid is being lost and allows corrective action to be taken before damage can occur. By using a sensor to turn on an indicator light, the low fluid level condition is communicated immediately to the operator.

ENGINE COOLANT

The coolant level sensor is located in the upper radiator reservoir. The corresponding LED indicator light is included in the display module.

ENGINE OIL

The engine oil sensor is in the engine oil sump. It monitors the oil level at approximately the 50% level. The corresponding LED indicator light is located to the right of the instrument panel at the engine enclosure console in clear view of the driver.

POWER STEERING FLUID

The power steering fluid sensor is located in the power steering fluid reservoir at the same level as the “Add” indicator on the dip stick. The corresponding LED indicator light is located to the right of the instrument panel at the engine enclosure console in clear view of the driver.

FUNCTION

The LED indicator lights will illuminate when the ignition is placed in the ON position as a test to insure that the warning circuits are working. They will go out when the starter button is pressed if normal fluid levels are detected. One or more of the lights staying on indicates a low fluid level in the corresponding system(s). Any time the engine is ON and a low fluid level is detected, the appropriate light will illuminate. The sensor output will reset when the ignition is turned off.

TRANSMISSION OIL

The transmission oil sensor is in the transmission oil sump. The fluid level indicator is integrated into the shift selector. Accessing the fluid level status is dependent upon the style of shift selector provided.

The transmission fluid level status is accessed through the “mode” function of the shift selector controls. First, park the vehicle on a level surface, shift to N (Neutral), and apply the parking brake. If equipped with a pushbutton shift selector, simultaneously press the Up and Down arrow buttons. If equipped with a lever

shift selector, press the display mode button one time. A code will be displayed on the shift controls indicating that the oil level is HI, LO or OK. If the level is HI or LO, the display will also indicate the number of quarts of oil necessary to be added or removed to bring the oil level into the OK range. It may also display an error code that explains why fluid level information is not available. The fluid level check may be delayed until the following conditions are met:

- The fluid temperature is above 60°C (140°F) and below 104°C (220°F).
- The transmission is in N (Neutral).
- The engine is at idle.
- The transmission output shaft is stopped.
- The vehicle has been stationary for approximately two minutes to allow the fluid to settle.

See the Care and Maintenance section of the transmission Owner's Manual for a more detailed description of the fluid check procedure along with a complete list of error codes.

One (1) 1760 Series Drivelines
14-W0-1100

DRIVELINES

Universal joints and driveshafts shall be SPICER 1760 series or equal. The driveshaft tube shall be a minimum of 4.09" diameter with a .180" tube wall thickness. The driveshaft slip joints shall be coated to reduce sliding friction and thrust under high torque loads. Permanent driveline installations shall be balanced to prevent vibration.

One (1) Fuel Tank - Steel - 50 Gallon - Stainless Straps
25-A0-2000

FUEL TANK

The fuel tank shall have a capacity of 50 gallons (US) and be D.O.T. certified. It shall be mounted with stainless steel straps bolted to the bottom frame flange to allow for easy removal. The tank construction shall be of 12 gauge steel with single fuel pickup and return tubes. The baffled tank shall be vented to prevent low vacuum and facilitate rapid filling.

The tank shall have a 2.00 inch NPT fill to the driver's side of the chassis.

The fuel tank sending unit is to be mounted to the driver's side of the fuel tank for easy replacement without removing body panels.

One (1) Fuel Filter - Cummins - Factory
25-F0-0200

FUEL/WATER SEPARATOR

The Cummins engine shall be equipped with an integrated fuel / water separator with a self venting bottom drain valve. This filter shall be able to remove up to 95% of dissolved water and up to 99% of free standing water.

One (1) Reinforced Fuel Lines
25-V0-0000

FUEL LINES

Polyamide fiber, nylon braided, reinforced tubing with push-on reusable fittings shall be provided for the chassis fuel lines.

One (1) 3/16" Alum - LFD - 1871 - 12" Raised Roof - FULL LENGTH DOORS
40-D0-0124

FIRETRUCK CAB

The apparatus shall be designed to operate in emergency conditions. These conditions require the apparatus to maneuver into confined areas, and operate at prolonged periods of time, under extreme circumstances. To facilitate in these operations a cab-over-engine design is required in order to reduce the overall length, and turning radius of the apparatus thus increasing the maneuverability.

The cab design must be such to provide safe and efficient transport of emergency personnel. The cabin shall be designed with four (4) side doors of the largest size possible and with a grab handle and step arrangement to provide ease of entry and egress.

There shall be up to ten (10) positions available for occupant transport pending cab configuration. The number of seats and seating locations are described in detail later in this document.

The apparatus cab shall be of the latest in automotive design, styling and appearance.

CAB MATERIALS AND CONSTRUCTION

The extruded aluminum cab shall have the following material gauges as a minimum:

- Cab floor - 3/16 inch (.190 inch) aluminum
- Front skin - 3/16 inch (.190 inch) aluminum
- Cab side panels - 3/16 inch (.190 inch) aluminum
- Cab rear wall - 3/16 inch (.190 inch) aluminum
- Cab driver's floor - 3/16 inch (.190 inch) aluminum
- Cab officer's floor - 3/16 inch (.190 inch) aluminum
- Cab crew area floor - 3/16 inch (.190 inch) aluminum
- Cab roof - 3/16 inch (.190 inch) aluminum
- Cab doors - 3/16 inch (.190 inch) aluminum

Roof Rail Section: Extending from the front to the rear of the cab, above the doors, the cab shall have an extruded aluminum section. This section shall be designed to interlock with the roof sheet and incorporate the door drip molding in one single piece.

Upper Transverse Member: Amid ship in the cab there shall be a boxed beam header assembly located transverse in the cab from left to right.

Front Door B-Post: This vertical box section of the cab located behind each of the front doors provides the slam post for the door latch assembly. This section also is a main member in the cab skeletal system. The B-Post ties into the Upper Transverse Member to provide torsional stiffness in the open space design of the cab.

Rear Door D-Post: The box assembly design of the rear door D-post provides an anchor for the rear door latch assembly. This section is the main vertical support at the cab rear corner providing the anchor point for the rear wall structural lattice network.

Roof Panel Rails: The roof panel sub-assembly shall have extruded hat section supports bonded to the roof skin. These roof hat sections shall be joined to the Cab Roof Rail Section to complete the upper cab skeletal structure. These completed Roof Panel Rails shall provide a grid for maximum roof crush and deflection strength. The roof shall support a minimum weight of 250 lbs. / sq. ft. without permanent roof deformation.

Rear Wall Rails: The rear wall assembly shall have extruded hat section supports bonded to the wall skin. These sections shall be joined to the Roof Panel Rails and to the rear door slam post and floor provide a rear wall grid structure with maximum strength.

Cab Front Wall: The front wall of the cab shall be designed with a double wall construction to reduce the effects of exterior noise in the crew and operator compartment.

CAB DIMENSIONS

The cab shall have the following dimensional requirements:

- Overall Width - 100.00 inches
- Roof - 12.00 inches Raised
- Center of front axle to back of cab - 68.00 inches
- Center of front axle to front of cab - 74.00 inches
- Windshield area - 4,200 sq. in. minimum
- Front grille opening - 478 sq. in. minimum
- Combined side grille opening - 84 sq. in. each minimum
- Cab full tilt angle - 45 degrees minimum

The cab interior shall have the following dimensional requirements:

- Drivers side floor width - 22.50 inches minimum
- Floor to the ceiling in the driver and officers area of the cab - 59.50 inches minimum
- Floor to the top of the engine enclosure - 28.00 inches maximum
- Officers side floor width - 24.50 inches minimum
- The measurement across the floor from the rear wall to the first vertical portion of the engine enclosure - 51.25 inches and the floor width from step well to step well shall be no less than 84.00 inches
- Floor to the ceiling in the rear of the cab - 65.50 inches minimum

CAB DOORS

The cab entry and egress shall be designed for a firefighter in full turnout gear. Each door shall open a minimum of ninety degrees to afford the firefighter maximum space.

The doors shall be of a flush design each having exposed, one-piece, polished stainless steel hinges. The hinge shall be made of 12-gauge material with a minimum hinge pin diameter of 1/4 inch.

The door windows shall have interior and exterior glass weather seals to prevent the influx of exterior air.

The doors shall have exterior and interior paddle type latches for ease of opening with a gloved hand. The paddle latches are to have a rubber gasket, on the outside, separating the handle from the finished painted surface.

FRONT DOORS-FULL LENGTH

The cab front doors shall be of the full-length design enclosing the entire step area of the cab. The doors shall be a minimum of 38.75 inches wide by 75.00 inches high. Each door shall have a roll down window with a minimum glass viewing area of 773 square inches per door. There shall be a fixed piece of forward glass in each of the front doors.

REAR CAB DOORS-FULL LENGTH

The rear cab doors shall be similar to the forward doors and shall be located directly behind the front wheel well area. These doors shall be 34.00 inches wide by 88.00 inches high. Each door shall have a roll down window with a minimum glass viewing area of 670 square inches per door.

INTERIOR DOOR LOCKS

All doors shall have door locks with interior controls and exterior keyed door locks. The installation shall be in conformance with FMVSS 206, with specific adherence to 49 CFR 571.206 Section 4.1.3 requiring that "Each door shall be equipped with a locking mechanism with an operating means in the interior of the vehicle". All doors shall be keyed alike. The doors shall be equipped with appropriate safety interlocks to prevent accidental locking of the doors when closed.

CAB GLASS

AS-1 safety laminate glass shall be used in a two piece, wrap around design with a minimum of 3760 square inches of windshield area for maximum visibility. The windshield shall have the style of a one-piece assembly with the practical installation of two pieces for lower replacement cost. The windshield shall be readily available from a nationally recognized automotive glass manufacturer that maintains local distribution outlets.

All glass shall be tinted.

All fixed glass shall be installed with a one-piece triple locked rubber lacing material. Due to long term appearance two-piece chrome trim lock lacing is not desired.

SUNVISORS

The driver and officer side of the cab shall be equipped with a sun visor. The vinyl covered visors shall be a minimum of 19.00 inches by 7.00 inches.

DRIVER SIDE ELECTRICAL CABINET

An electrical cabinet designed to house the main battery electrical disconnect and facilitate the installation of an onboard battery charger or battery conditioner, shall be provided under the driver's seat. A bolt on limited access; aluminum spatter painted hatch, shall be installed on the front side of the seat riser. The access hatch shall have a louvered section to provide air circulation to the cabinet.

WINDSHIELD WIPERS

Two speed electric pantograph wipers shall be installed. These wipers shall have minimum 24.00 inch blades and have 28.50 inch wet arm electric pump washers. A 70 ounce minimum windshield washer reservoir shall be furnished.

FASTENERS

All cab exterior fasteners shall be stainless steel type fastened to the cab with nutserts.

BATTERY ACCESS

The rear cab steps shall have a removable kick panel, providing access to the batteries for routine maintenance and inspection.

CAB CORROSION TREATMENT

The cab shall have a corrosion preventative material conforming to Mil Spec C-16173-C, Grade 1, applied during and after construction. A 10-year warranty against perforation due to rust or corrosion shall be furnished for the cab.

One (1) Cab Crashworthiness Test
40-D0-0900

CAB CRASHWORTHINESS TEST

Dynamic tests shall be performed to evaluate the crashworthiness of the proposed vehicle cab configuration to the requirements of NFPA 1901-09 section 14.3.2.

Cab roof strength shall be tested utilizing the dynamic preload criteria from SAE J24221 paragraph 5 specifications and procedures.

Front impact strength integrity shall be tested utilizing SAE J24202 with ECE R293 Annex 3 paragraph 4 equivalent energy.

Quasi-static roof strength shall be based on SAE J2422 paragraph 6 and ECE R293, paragraph 5 specifications and procedures.

A letter of certification shall be provided upon request by the department.

One (1) Engine Enclosure - Vinyl Covering - Acoustiblok - NO FLUID CHECK HATCH
40-DE-0300

ENGINE ENCLOSURE

To reduce the noise in the cab the engine enclosure metal on the inside of the cab shall be completely covered with Acoustiblok sound isolation material. The material shall be sealed at all seams with acoustical sealant.

The engine enclosure inside the cab will be padded with an additional layer of sound and heat absorbing foam and covered with heavy duty vinyl trim upholstery to match or accent the interior of the cab.

The underside of the engine enclosure shall be covered with a sandwiched material for interior cab noise and heat rejection. This sandwiched acoustical material shall have one layer of 1/8" foam, a 3/16" single barrier septum and a 7/8" layer of foam to provide on overall thickness of 1-3/16". The sandwich material shall be chemically bonded to prevent layer separation. A finished surface treatment of metalized film shall be provided on the engine side of the barrier. The acoustical barrier shall be held in place with mechanical fasteners in addition to adhesive.

The insulation for protection from heat and sound shall keep the dBa level within the limits stated in the current edition of NFPA 1901.

One (1) Painted Interior Door Panels
40-DE-1030

CAB DOORS - INTERIOR TRIM

To provided durability the interior of the cab doors shall be finished with full length aluminum panel that is finished with spatter paint.

One (1) Interior Padding - Standard Ceiling

40-DE-2010

INTERIOR CEILING PADDING AND TRIM

The cab front interior ceiling shall have a one-piece, removable, vinyl headliner to cover all wiring and tubing used for lights and antenna leads.

One (1) Interior Padding - Standard Rear Wall

40-DE-2020

REAR WALL COVERING

The rear interior wall of the cab shall have a two-piece, removable, wall covering to finish the interior trim, cover all wiring and tubing used for lights and antenna leads.

One (1) Floor Material - Acoustical Wear Mat

40-DE-2060

FLOOR COVERING

The front and rear floor areas of the cab shall be covered with "HUSHCLOTH" sound barrier floormats. This floormat shall be a three ply material with a 3/16" thick open cell isolation barrier of Polyurethane, a 3/32" thick closed cell Nitrile mid barrier for section reinforcement, and a 1/16" thick embedded pebbled grain wear surface.

One (1) Rear Facing Seat Box Covering - Acoustical Wear Mat {REMOVE IF NO REAR SEAT BOX}

40-DE-2070

REAR FACING SEAT BOX COVERING

The rear facing seat box area of the cab shall be covered with "HUSHCLOTH" sound barrier floormat. This floormat shall be a three ply material with a 3/16" thick open cell isolation barrier of Polyurethane, a 3/32" thick closed cell Nitrile mid barrier for section reinforcement, and a 1/16" thick embedded pebbled grain wear surface.

The seat box covering shall blend with the cab interior paint color.

One (1) Door Reflective Material, SecuriTrim - Custom Chassis, 4 Door

40-DE-3050

REFLECTIVE MATERIAL - INTERIOR CAB DOORS

The cab front and crew doors shall have a SecuriTrim chevron installed inside each door. The reflective material shall be red/yellow diamond grade 3M 983.

One (1) Steering Wheel and Column - 4Front - 100" - CORE 1871

40-DE-7030

STEERING WHEEL AND COLUMN

The steering wheel shall be an 18.00 inch diameter, leather wrapped 4-spoke wheel.

The center area of the steering wheel will house the driver’s air bag, DOT horn, and / or air horn-siren controls as described elsewhere in these specifications.

The steering column shall be a Douglas tilt / telescopic type with an integral high beam / turn signal control switch. The column shall have self-canceling design for the turn signal switch. A 4-way warning "Hazard" light switch shall be mounted on the column.

The turn signal arm will also contain the windshield wiper controls, providing on/off, intermittent, and timed control of the wipers. The wipers will have an auto park feature.

The steering column shall also house the driver's knee air bags if specified.

A lever on the left side of the steering column shall control the tilt / telescope feature.

There shall be a rubber boot installed to cover the steering shaft from the dash to the floor.

One (1) Grab Hndls - Inside - Driver's, Officer's A-Post and Both Crew Doors
40-DH-0260

GRAB HANDLES

One (1) molded grab handle shall be installed on the driver's side on the A Post.

One (1) additional molded grab handle shall be installed inside the cab. The handle shall be located on the officer's side on the A Post.

Two (2) additional molded grab handles shall be installed in the cab. These handles shall be located one each side on the B Posts side of the crew area doors.

One (1) Officer's Radio Compartment (Beneath Seat) With Door
40-DH-1220

RADIO COMPARTMENT WITH DOOR

Beneath the officer's seat there shall be a radio compartment with interior dimensions of 19.50 inches wide x 17.00 inches long x 7.00 inches high.

This compartment shall have a diamond plate door mounted on a piano hinge.

One (1) Exterior Grab Handles - 24" Long
40-DH-2100

EXTERIOR GRAB HANDLES

There shall be extruded aluminum 24.00 inch grab handles mounted with stanchions at each door position. Molded rubber gaskets shall be installed under the grab handles to protect the painted surface of the cab.

One (1) Warning Light / Turn Signal, Cab Handrails
40-DH-4110

RED WARNING LIGHT, CAB HANDRAILS

The rear door cab handrails shall contain red integrated LED lighting. The lighting shall be integrated into the grab bar, directed toward the rear of the apparatus. The LED lights shall flash with the emergency warning lights.

AMBER SIDE TURN SIGNAL, CAB HANDRAILS

The front door cab handrails shall contain amber integrated LED lighting. The lighting shall be integrated into the grab bar, directed toward the rear of the apparatus. The LED lights shall flash with the directional signals.

One (1) Exterior Grab Handles - Black Finish
40-DH-5101

EXTERIOR GRAB HANDLES - BLACK FINISH

The cab exterior grab handles shall have a black finish.

One (1) Exterior Cab Door Handles - Bright Finish
40-DH-5200

EXTERIOR DOOR HANDLES - BRIGHT FINISH

The cab exterior door handles shall have a bright anodized finish.

One (1) Cab Entry Steps, Full Length Doors, 100" W cabs - CORE
40-DH-6015

CAB STEPS

There shall cab entry steps with an upper and lower step at each entry door position.

INTERIOR CAB STEP TRIM

The cab steps shall be enclosed behind each entry door. The lower step shall be sealed from the underside of the cab to reduce road splash from entering the step area while the vehicle is in motion. The horizontal upper step surfaces shall be integral to the cab and shall be covered with bright aluminum tread plate. The lower cab steps shall be constructed from stainless steel Laser Grip material, meeting the requirements of NFPA-1901.

The vertical toe kick surface area of the upper cab step wells shall be covered with aluminum tread plate.

One (1) DEF Fill, Left Rear Crew Step Area
40-DH-7010

DEF FILL ACCESS

The left rear crew step area shall have hinged access to fill the DEF tank without raising the cab.

One (1) Cab Entry Steps - Bright Finish
40-DH-8010

CAB ENTRY STEPS - BRIGHT FINISH

The cab entry steps shall have a bright finish.

One (1) Lower Step Lighting - Amber LED
40-DH-9010

LOWER STEP LIGHT

There shall be an amber LED light provided and installed in the outboard facing bottom flange of each cab step.

One (1) Auxiliary Cab Steps, Below Cab
40-DS-5010

LOWERED CHASSIS CAB STEPS

There shall be bolt on auxiliary steps for all four (4) cab entry doors that shall be lowered to provide a manageable ground to first step distance. These steps shall be open style for ease of access and constructed with a non-skid stepping surface.

One (1) Auxiliary Cab Steps - Bright Finish
40-DS-5110

AUXILIARY CAB STEPS - BRIGHT FINISH

The auxiliary cab steps shall have a bright finish.

One (1) Stylized Stainless Front Grille - 1871- CORE
40-DZ-0105

FRONT GRILLE

A stylized three-dimensional stainless-steel front grille shall be installed on the cab face.

The front grille shall be equipped with a radiator rock guard, behind the grille to assist in preventing damage to the radiator core.

The cab shall have one (1) engine air intake on the driver side of the cab, one (1) engine hot air exhaust on the officer side of the cab.

These openings shall be covered with a honeycomb wire screen, and a stainless steel grille.

One (1) Cab Grille - Black Finish
40-DZ-3002

CAB GRILLES - BLACK FINISH

The front cab grille and side grilles shall have a black finish.

One (1) Cab Front Mud flaps
40-G0-1010

CAB MUDFLAPS

Mud flaps shall be installed behind the front tires. These mud flaps shall be a minimum of 22" wide to protect the underneath of the cab and body.

One (1) Cab Ground Lights - LED Strip Lights
40-G0-1300

CAB GROUND LIGHTING - LED

There shall be one (1) white LED strip light in an armored extrusion shall be mounted beneath each cab door. These lights shall be designed to provide illumination on areas under the driver and crew riding area exits.

All cab ground lights shall automatically activate when any cab door is opened.

One (1) (1) Bumper Ground Light - 36" LED Strip Light {N/A on 18" Formed, Change to 27"}
40-G0-1420

FRONT BUMPER UNDERBODY LIGHTING

There shall be one (1) 36.00 inch white LED strip light in an armored extrusion provided at bottom of the center of the front bumper.

All underbody ground lights shall be switched on when the parking brake is set and the apparatus is running with the master battery switch in the "ON" position.

One (1) Dual Stutter Tone Air Horns - Bumper Recessed - 1871 - SFO
40-H0-1109

AIR HORNS

Dual stutter tone air horns shall be recessed into the front bumper, one each side immediately outside of the frame rails.

One (1) Air Horn Circuit Powered - Battery and Ignition
40-H0-1201

AIR HORN IGNITION CONTROL

To eliminate inadvertent operation the chassis air horns shall be operable only when the battery selector and ignition switch are in the "ON" position.

One (1) Air Horn Control - Lanyard
40-H0-1210

AIR HORN CONTROL SWITCH

The chassis air horns shall be controlled by a lanyard with a 'Y-chain'. The lanyard chain shall be mounted to the center of the overhead console within reach of both the driver and officer and shall terminate at the cab center.

One (1) Vehicle Horns / Siren Selector Switch
40-H0-1320

HORN / SIREN SELECTOR SWITCH

The air horn and the electric horn are sounded simultaneously by depressing the horn button in the steering wheel.

A switch shall be supplied for the driver to control either the electric and air horns or the siren from the steering wheel horn button. This switch shall be clearly labeled with a back-lit legend.

One (1) Electronic Siren-Whelen-Model 295SLSA1 (x2) Outboard Mtd Spkrs
40-H0-2020

ELECTRONIC SIREN

A Whelen electronic siren control, model 295SLSA1 full feature with 17 Scan-Lock siren tones including Radio Rebroadcast, Public Address, Manual, Wail, Yelp, Air Horn, Electronic Mechanical Siren tones and Piercer tones and hard wired microphone, shall be provided.

One (1) Q2B Mechanical Siren - Cab Grille Recess Mounted {DO NOT ADD BUMPER LOCATION}
40-H0-3030

Q2B MECHANICAL SIREN

The front bumper shall include an electro-mechanical Federal Q2B™ siren which is streamlined, chrome-plated and produces 123 decibels at 10-feet. The siren measures 10.50 inches wide x 10.00 inches high x 14.00 inches deep.

The siren shall be recess mounted in the cab front grille.

One (1) Q2B Mechanical Siren (Recessed) - Bright Finish
40-H0-3364

Q2B MECHANICAL SIREN

The FEDERAL Q2B mechanical siren shall have a bright chrome finish.

One (1) Siren Circuit Powered - Master Warning Light Switch
40-H0-5110

MASTER WARNING LIGHT CONTROL

To eliminate inadvertent operation the mechanical siren shall be operable only when the Master Warning Light switch is in the "ON" position and the parking brake is released.

One (1) Siren Brake Switch - Driver's Switch Panel
40-H0-5210

SIREN BRAKE SWITCH

A momentary switch shall be provided in the driver's switch panel for operation of the siren brake.

This switch shall be backlit with the legend "SIREN BRAKE".

One (1) Siren Control - Officer's Foot Switch
40-H0-5330

SIREN CONTROL SWITCH

One (1) foot switch for the siren shall be provided on the right side of the officer's cab floor.

One (1) Siren Head Mounting - Console Mounted
40-H0-5412

SIREN CONTROL LOCATION

The siren control shall be mounted in the console on top of the engine enclosure within reach of the driver and officer.

One (1) Siren Speakers - Two (2) - Cast Products - Outboard Mtd
40-HA-2064

SIREN SPEAKERS

There shall be two (2) Cast Products aluminum 100 watt speakers provided. The speakers shall be recessed into the front bumper, one (1) each side in the outboard position on the flat portion of the bumper.

One (1) Siren Speaker - Black Finish
40-HA-2072

SIREN SPEAKER

The Cast Products siren speaker shall have a black finish.

One (1) Mekra Lang - Heated & Remote Control Mirrors w/Convex, Black Finish
40-J0-2900

REARVIEW MIRRORS

Mekra Lang Aero mirrors shall be provided and installed, one (1) on each side of the cab, with a break-away bracket.

The flat glass head shall be heated and remote control. Below the flat mirror there shall be a convex head.

The mirror heads shall have a black high impact non-metallic housing.

One (1) Cab Side Windows - Fixed Glass
40-K0-1000

CAB SIDE WINDOWS

Two AS-2 tempered glass, fixed side windows, 26-1/2" high x 16" wide shall be furnished, one on each side behind the forward doors. All glass shall be tinted. These windows shall be installed with a one-piece triple locked rubber lacing material.

One (1) Electric Windows - Four Doors - Driver Additional Controls
40-K0-2020

ELECTRIC WINDOWS

The four (4) roll down door windows shall be equipped with electrically operated mechanisms to control the opening and closing of the windows. The controls shall be with a momentary switch in each door.

Three (3) additional switches shall be supplied in the driver's door to control all four (4) of the power windows from the driver's position.

One (1) Rear Window Safety Bars, Black Powder coated
40-K0-3510

REAR WINDOW SAFETY BARS

There shall be a one inch black powder coated grab bar installed on each rear door. This bar is to be installed on the rear door frame even with the window in the down position to prevent firefighters from using the glass in the door for a handle.

One (1) Dark Gray-Lite Door Glass - Cab Side and Crew Doors

40-KA-4020

WINDOW TINTING

The cab side and crew door windows shall have GRAYLITE II tint (9% visible) to provide privacy and to assist in reducing the amount of heating inside the cab due to direct sunlight and unwanted glare.

One (1) Open Compartment Light - Red Flashing - Whelen OS LED
40-LC-0114

COMPARTMENT OPEN LIGHT

A Red Open Compartment Flashing Light, Whelen OS Series LED shall be mounted on the driver's side face of the overhead panel. A chrome flange is to be supplied with the light.

This light is wired with a flasher to the power panel for completion to circuit on the body.

The light circuit shall be wired so that the light circuit is deactivated when the parking brakes of the apparatus are applied.

A label shall be applied adjacent to the light '**DOOR OPEN**'.

One (1) DeckGun Raised Light - Red Flashing-Whelen OS LED {ExtendaA Gun/Telescop Montr}
40-LC-3022

DECKGUN RAISED LIGHT

A Red Flashing Light, 'Whelen OS Series LED shall be mounted on the driver's side face of the overhead panel. A chrome flange is to be supplied with the light.

This light is wired with a flasher to the power panel for completion to circuit on the body.

The light circuit shall be wired so that the light circuit is deactivated when the parking brakes of the apparatus are applied.

A label shall be applied adjacent to the light '**DECKGUN RAISED**'.

One (1) Eight (8) Whelen CREGCS 6" White/Red LED Dome Lights
40-LD-0507

CAB DOME LIGHTS

There shall be eight (8) Whelen Model CREGCS 6.00 inch round dome lights provided and installed in the cab ceiling.

The lights shall have dual red and white, fade to off, LED elements.

One (1) each, inboard, near the driver and officer and the six (6) remaining lights shall be mounted above in the crew cab ceiling in two (2) rows above the riding positions, evenly spaced side to side across the ceiling.

The lights will be controlled in the following manner:

- Individually, red or white light, at the light.
- All lights, red or white, via a switch in the driver’s overhead console
- All lights, red or white, based on switch position, by opening any cab door.

One (1) Cab Dome Lighting Activation
40-LD-3010

CAB DOME LIGHTING ACTIVATION

The cab dome lights shall be controlled in the following manner:

- Individually, red or white light, via a switch on the light.
- All lights, red or white, via a switch in the driver's overhead console
- All lights, red or white, based on switch position, by opening any cab door.

One (1) Step Nose LED Lighting - WHITE/RED
40-LD-4010

CAB FLOOR LED STEP LIGHTING

The floor of the cab shall be trimmed with a ribbed aluminum extrusion. The extrusion shall protrude approximately .75 inches over the floor area to provide a mounting channel and guard for an LED integrated light.

The LED lighting shall illuminate the step area of the cab and all step lights shall be illuminated when any door is opened and the battery selector switch is in the on position.

The lighting shall be operable in either white or red depending upon control circuitry.

One (1) Cab Door Controlled
40-LD-5184

LIGHT - ACTIVATION

The lighting shall be activated by opening a cab door.

One (1) Engine Maintenance Lights LED - Custom
40-LE-1002

UNDER CAB ENGINE MAINTENANCE LIGHTS

Two (2) LED engine maintenance lights shall be supplied beneath the cab. These lights shall illuminate automatically when the cab is tilted to the full tilt position.

One (1) Cab Stainless Fender
40-N0-0805

STAINLESS CAB FENDERETTES

To reduce road splash on the cab sides, stainless steel fenderettes shall be installed around each the wheel opening.

One (1) Cab Fender - Black Finish
40-N0-0807

CAB FENDERETTES - BLACK FINISH

The cab fenderettes shall have a black finish.

One (1) Exterior Rear Wall - Diamond Plate Overlay - Bright Finish
40-N0-1400

EXTERIOR REAR WALL DIAMOND PLATE OVERLAY

The cab exterior rear wall shall be covered with a single sheet of bright aluminum tread plate to protect the back of the cab from scratches.

One (1) Cab Tilt - Electric Pump with Manual Back Up
40-P0-0110

CAB TILT SYSTEM

The cab shall tilt a minimum of 45 degrees for ease of serving. Tilting shall be accomplished by means of a tilt pump connected to two (2) heavy duty lift cylinders. It shall be equipped with a positive locking mechanism (service lock) to hold the cab in the full tilt position. Release of the service lock shall be by means of a pull type cable assembly. The cylinders shall have a velocity fuse at the base to prevent the cab from falling in the event of a hydraulic hose failure. The cab shall be capable of tilting 90 degrees for major engine service, if necessary. The 90 degree cab tilt shall be accomplished by removing the cab cylinder pins, removing one bolt in the steering shaft, and removing the front bumper and treadplate.

The cab shall have a three (3) point cab locking system. To prevent undue stresses in the cab, the cab mounting shall incorporate a five (5) point load mounting system.

The front cab pivot/lock assemblies shall utilize four (4) radially loaded, bonded rubber, axial mounts. These mounts shall have a maximum radial load rating of 925 pounds each and a torsional rating of 25 lbs-in/deg. Two one (1) inch diameter cab pivot pins shall be installed at the front of the cab.

The rear cab lock shall be center point mounted to prevent normal twist of the chassis from affecting the cab mounting, cab structure and windshield areas of the cab. This rear cab lock shall be mounted on a chassis crossmember to provide a stable platform for the locking system. The cab lock shall be mounted to a baseplate that is fastened to rubber isolators to reduce road noise and provide additional movement of the cab lock. This locking system shall automatically open prior to the cab tilting and automatically relatch when the cab is lowered completely into the travel position.

Two (2) outboard frame mounted urethane "V" blocks shall be provided at the rear of the cab. These dual purpose mounts shall align the cab upon lowering as well as provide non-latching support for the cab in the down position. With this system, extreme chassis twist shall allow the cab to move independently of the rear cab supports, reducing the structural stress damage often caused by outboard dual cab locking systems.

An electric-over-hydraulic cab tilt pump shall be supplied. This pump shall have a remote control for cab tilting operation. The control shall be "safety-yellow" in color.

A manual backup shall be provided for use in the event of electrical failure.

One (1) Cab Tilt Road Interlock
40-P0-0400

CAB TILT INTERLOCK

The cab lift system shall have a cab tilt interlock. The cab tilt shall not be able to be activated unless the master battery switch is in the on position with the parking brake set.

One (1) Black Gloss Enamel Painted Bumper
40-Q0-1072

BUMPER PAINT

The bumper shall be painted gloss black enamel.

One (1) Black Interior Paint, Black Spatter ABS Panels
40-Q0-1201

INTERIOR FINISH

The interior of the cab shall be painted with spatter paint, solid black in color. Black spatter paint is selected for ease of repairs when the interior is scratched.

The cab metal finish shall be covered with one coat of base self-etching primer to fill the small surface imperfections.

Then the interior of the cab is to be blocked and a coat of sealer-primer is to be sprayed to the interior finish.

Next a sealer primer is applied and will be sanded to a smooth finish ready for final color coat application.

Two (2) coats of finished paint are to be applied to a final thickness of 4 mills.

The sun visors shall be supplied black in color.

One (1) Headliner - Black
40-Q0-2010

HEADLINER COLOR

The interior headliner of the cab shall be black in color.

One (1) Rear Wall Covering - Black
40-Q0-2110

REAR WALL COLOR

The interior rear wall covering of the cab shall be black in color.

One (1) Floor Covering - Black
40-Q0-2210

FLOOR COLOR

The interior flooring material of the cab shall be black in color.

One (1) Door Panels - Black
40-Q0-2302

DOOR PANEL COLOR

The interior door panel material of the cab shall be black in color.

One (1) Single Color Cab Exterior Paint
40-Q0-3010

CAB EXTERIOR FINISH

The exterior doors and all fixed cab glass are to be removed from the cab prior to the paint and body process beginning.

The final finish of the cab shall be to fire apparatus standards; exhibiting excellent gloss durability and color retention properties.

PREPARATION

The removal of all contaminates and oxidation is essential to the final effect of a finish system, the cab shall be precleaned with a Wax and Grease Remover and prior to evaporation, towel dried.

To remove all oxidation and foreign materials, the cab shall be sanded with a 180 grit abrasive using an orbital type disc sander.

All weld marks and other major surface imperfections shall be filled with a polyester type body filler, prior to body filler application special attention shall be given to the areas requiring filler again sanding and cleaning.

The body fillers shall be thoroughly mixed in accordance with the manufacturer's directions.

After the final coat of filler is sanded, spray polyester shall be applied in sufficient amounts as to provide a final base and sanded with abrasive paper.

PRECLEAN

Within 45 minutes of pretreat the cab must be again washed with a Wax and Grease Remover using a "Scotch brite pad". Towel dry prior to evaporation.

Special precaution shall be taken NOT to saturate any polyester body fillers with the cleaning solvents.

PRETREAT AND PRIMERS

The pretreat and primer applications shall be made in two independent steps. A combined pre-treat/primer one product application shall not be allowed as a substitute.

The prepared substrate shall be pretreated with an acid curing 2-component Transparent Primer. This pretreat shall be designed to provide corrosion protection and to create an adhesive bond between the substrate and the surface applications.

It is critical that the body fillers not receive a saturation of solvents associated with the pretreat application. Only the pretreat over spray resulting from product application to the adjacent metal areas should be allowed to come in contact with the body fillers.

All polyester body fillers are porous, and shall absorb liquids. Solvents when absorbed not only soften but shall create swelling of the polyester filler. After sanding and later shrink the fillers shall create blemishes in the painted surfaces.

Prior to complete primer application, each area with applied body fillers be precoated with a 2-dry applications of primer (sander surfacer) of which shall be allowed to "Touch Dry" between coats. This procedure shall isolate the filled areas and protect them from subsequent product applications.

The primer (sander surfacer) shall be a poly-acrylic resin, zinc and chromate free surfacer that is designed to create a superb surface smoothness, increase the depth of color, and insure top coat gloss.

The cab after pretreat and precoat shall be primed with a 3 to 4 medium applications of a Hi-Build Tintable Surfacer.

To create a finish base that meets the rigid requirements of the fire and emergency service; the primed surface shall be dry sanded smooth thus removing all texture and surface imperfections with a 320 grit (minimum) sanding abrasive.

FINISH AND COLOR COATS

The color coat application shall consist of two to three applications of acrylic urethane color coat. After the color coat has been applied, the cabs shall be sprayed with 1.5 to 2.0 mills of clear coat finish. The clear coat finish is then sanded and buffed to remove any imperfections that can occur during the application of the color coat.

The final finish shall be free of dirt and sags and shall meet a minimum grade of 7 when compared to the "ACT" general orange peel standards by "ACT" Laboratories, Inc. Of Hillsdale, MI.

The final sanding and buffing of the clear coat shall result in a flat / glass like finish. The clear coat shall also provide a UV barrier to prevent fading and chalking.

One (1) 40-Q0-3080 Cab Exterior Paint - PPG - Urethane

PPG brand urethane materials will be used for the cab exterior paint.

One (1) 40-RW-1010 Seat Position 1 - Driver's Seat

DRIVER'S SEATING POSITION

One (1) 40-RW-1020 Seat Position 2 - Officer's Seat

OFFICER'S SEATING POSITION

One (1) 40-RW-1030 Seat Position 3 - Rear Facing Left Outboard - Behind Driver

CREW AREA - REAR FACING LEFT OUTBOARD SEAT POSITION

One (1) 40-RW-1060 Seat Position 6 - Rear Facing Rt Outboard - Behind Officer

CREW AREA - REAR FACING RIGHT OUTBOARD SEAT POSITION

One (1) 40-S0-1350 Highback - Air Ride Suspension - HO Bostrom - Sierra 500 - ABTS

The seat shall be H.O. Bostrom, Sierra 500, ABTS, with air ride suspension, high back seat with 5" of fore and aft slide adjustment. The seat shall have adjustments for height and ride with up to 3" of vertical travel. The seat shall contain a seat mounted 3-point seat belt with a shoulder belt adjustment of 4.7 inches.

One (1) 40-S0-4310 SCBA Fixed Bottom Cush - Fixed Mtg - HO Bostrom - Tanker 500 - ABTS

The seat shall be H.O. Bostrom, Tanker 500 Series Self-Contained Breathing Apparatus (SCBA) type seat with a fixed bottom cushion and a pivoting head rest. The seat shall contain a seat mounted 3-point seat belt with a shoulder belt adjustment of 4.7 inches.

One (1) 40-S0-5810 SCBA Fixed Bottom Cush - Fixed Mtg - HO Bostrom - Tanker 500 - ABTS

The seat shall be H.O. Bostrom, Tanker 500 Series Self-Contained Breathing Apparatus (SCBA) type seat with a fixed bottom cushion and a pivoting head rest. The seat shall contain a seat mounted 3-point seat belt with a shoulder belt adjustment of 4.7 inches.

One (1) 40-S0-5810 SCBA Fixed Bottom Cush - Fixed Mtg - HO Bostrom - Tanker 500 - ABTS

The seat shall be H.O. Bostrom, Tanker 500 Series Self-Contained Breathing Apparatus (SCBA) type seat with a fixed bottom cushion and a pivoting head rest. The seat shall contain a seat mounted 3-point seat belt with a shoulder belt adjustment of 4.7 inches.

One (1) 40-S0-7220 HME-Ahrens Fox Seat Logos

CAB SEAT LOGO

The seats shall be provided with HME-Ahrens Fox standard logos.

One (1) 40-S0-7420 Gray / Black Durawear Seat Covering

SEAT COVERING MATERIAL

The seats shall be covered in gray black Durawear™, a high strength-wear resistant, waterproof fabric.

One (1) 40-S0-8002 Seat Belt Warning Labels

SEAT BELT WARNING LABELS

The cab shall be equipped with two (2) seat belt warning labels. These labels are to be in full view of the occupants in the seated position.

One (1) Vehicle Data Recorder
40-S0-8015

VEHICLE DATA RECORDER

The Apparatus shall be equipped with a Class1 “Vehicle Data Recorder” (VDR) that is connected to the power train CAN (Controller Area Network) bus consisting of transmission (TCM), engine control (ECM) and antilock brake (ABS) modules mounted on the apparatus.

The VDR will function as defined by NFPA utilizing the power train’s J1939 data.

The VDR data shall be downloadable by USB cable to a computer using either Microsoft™ or Apple™ Operating Systems using Class 1/ O.E.M. supplied reporting software.

One (1) Seat Belt Monitoring System
40-S0-8020

SEAT BELT MONITORING SYSTEM

A seat belt monitoring system shall be provided and installed in the cab. There shall be a graphic display for the seatbelt monitoring system that shall be integrated into the Information Display Screen.

The seat belt monitoring system shall indicate seat belt use for each individual seating position when the seat is occupied, if the seat belt is fastened or unfastened, when the parking brake is released. An audible alarm will sound when a seat is occupied but the seat belt is not fastened, or the seat is occupied after the belt was fastened.

One (1) IMMI 4Front Supplemental Front Airbag System
40-S0-8910

IMMI 4FRONT SUPPLEMENTAL FRONT AIRBAG SYSTEM

The cab shall have a safety system designed and qualified by a 3rd party testing facility to protect occupants in the event of a frontal impact, and shall include the following:

- A supplemental restraint system (SRS) sensor. The sensor shall activate all pyrotechnic devices when a must fire event occurs. The SRS sensor shall perform real time diagnostics of all critical subsystems and shall record inputs immediately before and during a frontal impact event. An indicating light shall be visible on the vehicle's instrument panel allowing the driver to monitor the operational status of the SRS system.
- A driver side air bag shall be mounted in the steering wheel and is designed to protect the head and upper torso of the occupant, when used in combination with the 3-point seat belt.
- A driver side knee bolster air bag shall mount under the dash panel and around the steering column to protect the legs of the occupant, when used in combination with the 3-point seat belt.
- A passenger side knee bolster air bag shall be mounted in the panel, below the dash to protect the occupant legs when used in combination with a 3-point seat belt.

Both driver and passenger seating positions shall utilize buckle pretensioners to remove the slack and position the belted occupants in a frontal impact event.

Four (4) {Qty} Helmet Holders, Ship Loose to FD
40-S0-8995

HELMET RESTRAINTS - CAB MOUNTED

(4) Zico UHH-1 helmet restraint(s) shall be shipped loose for installation by the Fire Department.

One (1) Filler Pad for SCBA Seats
40-S0-9162

SCBA FILLER PADS

The SCBA seat is to have a filler pad installed to provide a smooth back for the firefighter when the air breathing apparatus is not in use.

One (1) HO Bostrom SecurAll SCBA Locking Bracket
40-S0-9220

SCBA SEAT BRACKET

There shall be a H.O. Bostrom SecureAll™ self-contained breathing apparatus bracket mounted into the seat cavity.

One (1) HO Bostrom SecurAll SCBA Locking Bracket
40-S0-9220

SCBA SEAT BRACKET

There shall be a H.O. Bostrom SecureAll™ self-contained breathing apparatus bracket mounted into the seat cavity.

One (1) HO Bostrom SecurAll SCBA Locking Bracket
40-S0-9220

SCBA SEAT BRACKET

There shall be a H.O. Bostrom SecureAll™ self-contained breathing apparatus bracket mounted into the seat cavity.

One (1) Gen II - EMS Compartment - Full Ht - Fwd Facing Door - Pos 8 & 9
40-SU-3802

EMS STORAGE COMPARMTENT

There shall be one (1) full height EMS storage compartment provided and installed in the cab with the door opening facing the front of the cab.

The approximate dimensions of the compartment shall be 40.00 inches wide by 20.00 inches deep.

The door opening shall be a minimum of 35.50 inches wide. The bottom of the cabinet shall contain a panel to raise the floor to maintain a flat floor 2.00 inches above the floor of the cab.

The interior side walls of the cabinet shall be fitted with channels for the installation of adjustable shelves.

One (1) Compartment Install - Seatng Pos 8 and 9 - Rear Wall Centered
40-SU-488C

EMS COMPARTMENT LOCATION

The EMS compartment shall be installed centered along the rear wall of the cab interior.

One (1) Roll Up Door, EMS, Gortite w/Satin Anodized Finish
40-SU-5020

ROLL-UP DOOR - GORTITE

The EMS compartment shall be provided with a Gortite roll-up door.

The roll-up door shall be constructed of double-sided aluminum extrusions connected with a ball and socket joint. The extrusions shall be 1.375 inches wide by .375 inches thick with satin anodized finishing.

A flexible EDPM extrusion shall be provided between each slat to insure a weather tight seal. Aluminum extrusions shall be individually replaceable without disassembling the entire door by removing push out clips on each end.

Side channels for each door to ride in shall be provided with santoprene seals to prevent dirt and moisture from entering the exterior compartment. A single piece top drip rail shall be provided with a santoprene seal to prevent dirt and moisture from entering the compartment when the door is fully closed. The bottom of each door shall also be provided with a santoprene seal. All nonmetallic parts shall be glass filled nylon.

One (1) 40-SU-5024 Door Latches, EMS, Locking Lift Bar w/Door Switch

ROLL-UP DOOR LATCH

The door latch(es) shall be keyed locking stainless steel lift bars and shall be provided with a magnetic door switch system.

Two (2) 40-SU-5112 {QTY} Full Width x Full Depth - Adjustable Shelf - Gen II EMS Compartment

ALUMINUM SHELVES - ADJUSTABLE - EMS COMPARTMENT

The full depth EMS compartment shelving shall be made out of .190 inch smooth aluminum sheet material and shall have a flange 1.50 inches deep.

Each shelf shall be adjustable in height and held in place by extruded uprights.

There shall be a total quantity of two (2) provided.

One (1) 40-SU-5710 Lights, Ext Compts, LED Strip Lights - Roll Up Door

EMS COMPARTMENT LIGHTING

Two (2) LED strip lights shall be provided and mounted inside the cabinet, one (1) on each side of the exterior acess roll up door.

These lights shall be activated by the door switch.

One (1) 40-SU-6110 Receptacle, (1) 120V, Single, Mtd High EMS Cabinet

110 VOLT RECEPTACLE

One (1) 120-volt AC, single receptacle shall be provided with a weatherproof cover centered in the upper portion of the EMS compartment.

This receptacle shall be wired to the shoreline connection for charging devices stored in the EMS compartment.

One (1) 40-SU-7000 Electrical Outlet, Conf #2, Duplex, 120V/15A, Straight Blade

OUTLET CONFIGURATION

The electrical outlet shall be a NEMA 5-15, rated at 120-volt AC, 15-amp, duplex straight blade receptacle.

One (1) 40-U0-0195 Overhead Heater / Defroster - 12" RR/100"W - CORE

HEATER / DEFROSTER

A 57,600 BTU heater with a three (3) speed fan shall be mounted in the front of the cab, centered over the windshield. This heater shall have six (6) adjustable vents to assure windshield defogging.

One (1) Defroster Fans - Overhead Mounted, Inboard
40-U0-0310

DEFROSTER FANS

Two (2) 6.00 inch windshield defroster fans shall be mounted on the overhead console, one (1) each side of the center of the cab.

One (1) 45K BTU AC / 33.4K BTU Heat - Ceiling Mounted Evaporator - Single Condenser
40-U0-0470

45,000 BTU AIR CONDITIONING

A climate control system shall be furnished in the cab. The system shall consist of a 45,000 BTU air conditioning evaporator and 33,400 BTU heater centrally located on the forward slope of the raised roof.

The system is to have a 13.1 cu. in. minimum compressor mounted on the engine to provide the compressed refrigerant to the system. The compressor is to be plumbed to a heavy duty truck, triple fan air conditioning condenser mounted on the cab roof. The condensing unit shall have an aerodynamic shroud that is painted to match the color of the cab roof. There shall be an extended life filter receiver/dryer with a pressure relief valve installed to protect the system from contaminates, moisture, and high pressure. It is to have a sight glass for visual inspection and ease of service.

The evaporator shall have an externally equalized expansion valve and be thermostatically protected to prevent freeze up. Dual high performance 3-speed blowers shall provide a minimum of 650 CFM air flow. Each blower is to be controlled separately. Eight (8) downward facing adjustable diffusers with shutoff capability shall be utilized to direct the air flow through the cab.

The air conditioning controls, on/off switch, thermostat control, and blower switches shall be located on the climate control display module within reach of the driver.

The climate control system shall utilize both automatic and manual control methods.

The climate control display's system standby screen shall maintain all of the climate control functions OFF.

The climate control display's automatic operation screen shall allow the user to select a desired temperature and the climate control system shall automatically choose the temperature mode (cool or heat) and the fan speed (low, medium or high) to maintain the desired temperature.

The climate control display's manual operation screen shall allow the user to set the temperature mode (cool or heat) and the fan speed (low, medium or high) as desired.

One (1) Cab Climate Control Insulation Package
40-U0-0620

CAB INSULATION

Foam rubber type insulation shall be installed in the rear wall and the cab ceiling to provide a better sound and heat barrier. The insulation shall be a minimum of 1" thick. The material shall be compliant with FMVSS-302.

One (1) Driver's Overhead Switch Panel - CORE
40-U0-6050

DRIVER'S OVERHEAD SWITCH PANEL

There shall be a switch panel provided and installed above the driver's seating position. The panel shall be ergonomic molded with rocker type switches with dimmable backlighting. The switches shall be clearly labeled.

The following switch controls shall be provided (left to right):

Top Bank:

Switch 1: Engine Regeneration Inhibit
Switch 2: Engine High Idle
Switch 3: Interior Cab White Lighting
Switch 4: Ground Lights

Bottom Bank:

Switch 1: Engine Regeneration Start
Switch 2: Mirror Heat
Switch 3: Interior Cab Red Lighting
Switch 4: Mud & Snow ATC Disable

One (1) 40-U0-6060 Rugged Driver and Officer Dash Enclosure - CORE

DRIVER'S & OFFICER'S RUGGED DASH CONSOLE

The housings for the driver's instrumentation and the officer's side dash housing shall be rugged metal fabrications.

The fabrications shall be provided with a black textured, powder-coated finish.

The apparatus is expected to operate in adverse conditions and have a long life cycle.

One (1) 40-U0-7010 Officer Side Open Glove Box Storage - CORE

OFFICER'S SIDE GLOVE BOX

There shall be two (2) glove box storage slots provided at the officer's side of the dash. The openings face the officer and shall measure approximately 4.50 inches high x 14.00 inches wide by 11.00 inches deep with a 15 degree angle to restrain stored items.

One (1) 40-V0-0105 Instrumentation (J1939) and Controls - CORE

INSTRUMENTATION AND CONTROLS

An ergonomically designed instrument panel shall be provided. The instrument panel shall have a black textured anti-glare surface finish. The instrument panel shall be secured with mechanical fasteners to provide easy access for servicing.

A self diagnostic message center shall be included above the steering column in the instrument panel and the provided gauges shall have red LED backlighting for enhanced visibility.

When the 'on' initial ignition sequence is initiated a lamp check function shall illuminate and sequence the drivetrain warning light indicators. The self diagnostic message center shall display a warning if data link communications are lost.

The instrument panel shall include the following gauges and indicators.

- Electronic speedometer with LCD odometer
- Electronic tachometer
- Engine Coolant Temperature gauge with warning light and buzzer
- Engine Oil Pressure gauge with warning light and buzzer
- Transmission Fluid Temperature gauge, with warning light and buzzer
- Two (2) air pressure gauges, each with warning light and buzzer
- Voltmeter with low voltage warning light and buzzer
- Fuel Level gauge
- DEF Level gauge
- High Beam indicator light
- Parking Brake set light
- Turn Signal indicator lights
- Low Level Power Steering Fluid indicator light
- Low Level Windshield Washer Fluid indicator light

The headlamp and dash lighting control panel is to be located to the left side of the steering column in the outboard positions. This panel shall have a black textured anti-glare surface.

The lighting control panel shall include the following:

- Headlight Control switch with three (3) functions: off, parking lights on, and low beams on.
- Dash mounted dimmer switch for instrumentation lighting control

The engine control panel is to be located beneath the instrument panel, to the left side of the steering column. The panel shall have a black textured anti-glare surface.

The engine control panel shall include the following:

- Keyless ignition switch with a green pilot light
- Engine start button

The apparatus control panel is located beneath the instrument panel, on the right side of the steering column. The panel shall have a black textured anti-glare surface. The apparatus control panel is designed for the location of pump shift controls, if applicable.

One (1) Audible Turn Signal Reminder
40-V0-0120

AUDIBLE TURN SIGNAL REMINDER

There shall be an audible alarm that shall sound when the turn signal remains flashing for a distance greater than one mile. The reminder shall not sound when the hazard lights are operating.

One (1) Audible Lights On Reminder
40-V0-0122

AUDIBLE LIGHTS ON REMINDER

There shall be an audible alarm that shall sound when the headlight switch is left in the on position and the ignition is off. The alarm shall self cancel after 2 minutes of operation.

One (1) Audible Parking Brake Reminder
40-V0-0124

AUDIBLE PARKING BRAKE REMINDER

There shall be an audible alarm that shall sound when the parking brakes are NOT set and the ignition is turned off. This alarm shall self cancel after 2 minutes.

The Parking Brake reminder shall sound an audible alarm when the parking brakes are set and an indicated speed of over two miles per hour occurs.

One (1) Dual Trip Odometers
40-V0-0130

DUAL TRIP ODMETERS

There shall be two (2) trip odometers in the driver's information center. Each shall be capable of independent operation and reset. They shall be labeled Trip1 and Trip2 when the trip mileage is shown in the LCD panel.

One (1) Odometer Activated While in Pump Mode
40-V0-0148

SPEEDOMETER ACTIVATED IN PUMP MODE

The speedometer and odometer shall be activated while in pumping mode.

One (1) Low Fuel Warning Light and Alarm
40-V0-0150

LOW FUEL LIGHT

A "Low Fuel" warning light and alarm shall be installed in the dash message center. This light shall illuminate when the apparatus fuel level reaches 25% of the fuel remaining.

One (1) Transmission Temperature Warning Light and Alarm
40-V0-0152

TRANSMISSION OVERHEAT WARNING LIGHT

A transmission oil temperature light with alarm shall be provided on the dash message center.

One (1) Low Voltage Warning Light
40-V0-0154

LOW VOLTAGE WARNING

A low voltage indicator light shall be installed on the dash message center. An alarm and the dash indicator light shall activate when the system voltage drops below 11.8 volts.

One (1) Air Cleaner Restriction Indicator
40-V0-0156

AIR CLEANER RESTRICTION INDICATOR

An air cleaner restriction indicator shall be installed in the driver's message center. The indicator shall provide visual warning when a high air restriction condition exists for a minimum of 4 seconds.

One (1) Low Coolant Warning
40-V0-0160

LOW COOLANT WARNING

Low coolant warning shall be accomplished through the engine electronics to provide driver warning via the engine stop warning light.

One (1) Parking Brake Control - Driver's Dash
40-V0-0502

PARKING BRAKE CONTROL VALVE

The parking brake control valve shall be located in the driver's dash engine control panel.

One (1) Forward Engine Enclosure Console - Manual Switches - CORE

40-X0-1120

FORWARD ENGINE ENCLOSURE CONTROL CONSOLE

There shall be a rugged metal fabricated control console with a black textured, powder-coated finish provided and installed on top of the engine enclosure. The console shall be designed in such a manner as not to adversely obstruct the drivers view.

The console shall be provided with a removable access cover for servicing and designed with three (3) distinct surfaces (driver, officer, and center) to provide maximum visibility and access to equipment and controls mounted at the engine enclosure.

There shall be a sixteen (16) place switch panel provided and installed that is accessible to the driver position. The panel shall have ergonomic molded, rocker type switches with dimmable backlighting. The switches will be clearly labeled.

The panel shall include a master warning light control switch to allow for pre-selection of response mode functions. The switch shall be red in color.

The remaining switches shall be programmed and labeled as required for components specified in the specifications.

There shall be dedicated mounting areas at the engine enclosure console provided for the following equipment, if applicable:

- Electronic Siren mounting location
- 2-way Radio mounting location
- Traffic Director lighting control mounting location
- Intercom controls mounting location

One (1) Engine Enclosure Storage Tray with Recessed Cupholders

40-X0-1200

STORAGE TRAY AND CUP HOLDERS

There shall be a storage assembly with cupholders provided on top of the engine enclosure.

The storage area shall include two (2) open recessed storage trays with approximate dimensions of 4.00 inches wide by 8.00 inches long.

To the rear of the storage trays there shall be two (2) recessed single cup holders, one (1) within reach of the driver and one (1) within reach of the officer. The cupholders shall be sized to fit a 32 oz Nalgene bottle or similar.

The storage assembly shall be constructed from metal and have a black powder coated finish.

One (1) USB-A/USB-C Charging Ports - Driver's and Officer's Area

40-X0-1415

USB/USB-C CHARGING PORT

There shall be two (2) 4.2 amp USB-A and USB-C charging ports provided and installed in the cab. One (1) shall be installed in the driver's area of the cab and one (1) shall be installed in the officer's area of the cab.

One (1) FireCom 5200D System - Wireless - Apparatus

40-Y0-0104

FIRE COM INTERCOM SYSTEM

There shall be a Fire Com intercom system installed in the chassis cab. The intercom system shall be installed and have all wiring and components to render the system operational as follows:

One (1) 5200D series intercom system features:

- Voice-activated circuitry (VOX)
- Continuous mobile radio monitoring
- Independent controls allow quick adjustment of volume and squelch
- Durable steel housing protects against heat, moisture, and damage from impact

Other installed components include:

One (1) 40-Y0-0122 Driver Position - Wireless

DRIVER'S POSITION

The following headset shall be installed adjacent to the driver's seating position in the cab.

One (1) 40-Y0-0123 Officer Position - Wireless

OFFICER'S POSITION

The following headset shall be installed adjacent to the officer's seating position in the cab.

One (1) 40-Y0-0124 Crew Headsets - Wireless

CREW POSITIONS

The headset(s) shall be installed adjacent to the crew seating positions in the cab.

One (1) 40-Y0-0190 WB505R Headset Module

A wireless base multiple channel base station (supports multiple non-radio transmit wireless headsets).

One (1) 40-Y0-0240 {QTY} Headsets - Fire Com - UHW505 Dual Ear - Radio PTT

One (1) Fire Com UHW-505 headset(s) shall be provided. Each headset shall have an auto leveling microphone, detent-volume control, liquid-foam ear seals. The headset is specially designed dome accommodates most helmets and will not interfere with helmet fit or comfort.

Secure Red PTT button on the dome requires a solid push to activate and deactivate, eliminating the chance of accidental transmissions. This headset will activate the radio as a transmit.

The headset shall be provided with a charger and base station (with PTT operation).

Appropriate for driver or officer positions.

One (1) 40-Y0-0240 {QTY} Headsets - Fire Com - UHW505 Dual Ear - Radio PTT

One (1) Fire Com UHW-505 headset(s) shall be provided. Each headset shall have an auto leveling microphone, detent-volume control, liquid-foam ear seals. The headset is specially designed dome accommodates most helmets and will not interfere with helmet fit or comfort.

Secure Red PTT button on the dome requires a solid push to activate and deactivate, eliminating the chance of accidental transmissions. This headset will activate the radio as a transmit.

The headset shall be provided with a charger and base station (with PTT operation).

Appropriate for driver or officer positions.

Two (2) {QTY} Headsets - Fire Com - UHW503 Dual Ear - No Radio PTT
40-Y0-0250

Two (2) Fire Com UHW-503 headset(s) shall be provided. Each headset shall have an auto leveling microphone, detent-volume control, liquid-foam ear seals. The headset is specially designed dome accommodates most helmets and will not interfere with helmet fit or comfort.

Secure Black PTT button on the dome requires a solid push to activate and deactivate, eliminating the chance of accidental transmissions. This headset will NOT activate the radio as a transmit.

Appropriate for crew positions.

One (1) Radio Interface Cable {ADD Radio Information to Specs before Order]
40-Y0-0344

RADIO INTERFACE

A radio interface cable will be provided for the following radio:

One (1) Intercom Control Mounting - Engine Enclosure Mounted
40-Y0-2994

The intercom control shall be mounted on top of the engine enclosure within reach of the driver and officer.

One (1) Back-Up Camera System, ASA Audiovox, Custom Chassis
40-YC-3810

BACKUP CAMERA

There shall be an ASA Audiovox video system provided on the apparatus.

One (1) Observation Monitor - 7" LCD - Waterproof, Custom Chassis
40-YC-3820

BACK-UP CAMERA MONITOR

The color monitor shall be manufactured by ASA.

The 7.00 inch color LCD monitor contains a water proof housing, circuit protection, backlit controls, integrated audio speaker, NTSC and PAL video signal compatible, 3-camera inputs, manual (pushbutton) or automatic (trigger) source selection, auto power on (standby) day / night brightness modes, on screen display (OSD) for AV source, picture adjustment and volume level, non-volatile memory for picture and volume adjustment settings, anti-glare / anti-scratch protective lens, detachable sunshield.

One (1) Camera - Color - Rear - High Performance - Black Housing
40-YC-3835

REAR CAMERA - COLOR - HIGH PERFORMANCE

There shall be supplied a color, heavy duty high resolution observation camera.

One (1) Monitor Mounting - Overhead Position - Driver, Custom Chassis
40-YC-4005

MONITOR LOCATION

The monitor for the back-up camera shall be mounted in an overhead position visible to the driver.

One (1) Operation - Battery Powered
40-YC-4100

The back up camera system shall be powered with the battery power switch in the cab. Operation of the camera will be by the driver with the monitor controls.

One (1) Camera Mounting - Body Rear - Below Hosebed
40-YC-4200

CAMERA LOCATION

The back-up camera shall be mounted at the rear of the apparatus beneath the hosebed.

One (1) Guard, Rear Camera, Cast Products
40-YC-4220

CAMERA GUARD

A polished aluminum Cast Products trim guard shall be affixed to the wall behind the camera with a flange over the top of the camera housing to aid in protecting the camera. The flange over the camera shall be wider than the camera width and extend behind the rear of the camera face.

One (1) (2) 12 Vdc Power Point Sockets
40-Z0-0005

12Vdc POWER POINT

There shall be two (2) 12 Volt, socket (cigarette lighter) type, receptacles with protective hinged covers provided and installed in the cab. One (1) shall be installed in the driver's area of the cab and one (1) shall be installed in the officer's area of the cab.

One (1) Battery Switched Power
40-Z0-0014

The power point shall be wired to switched battery power with the appropriate wire size and fuse.

One (1) Battery Switched Power
40-Z0-0014

The power point shall be wired to switched battery power with the appropriate wire size and fuse.

One (1) 12Vdc Power Circuits - Radio and/or Accessories
40-Z0-0210

12Vdc POWER CIRCUIT

A circuit protected 30 amp battery "hot" circuit, a circuit protected 30 Amp battery switched circuit, and a ground circuit with the proper wire size to handle the current shall be provided.

These circuits are provided for two-way radio and/or accessory wiring.

One (1) 12Vdc Power Circuits - Radio and/or Accessories
40-Z0-0210

12Vdc POWER CIRCUIT

A circuit protected 30 amp battery "hot" circuit, a circuit protected 30 Amp battery switched circuit, and a ground circuit with the proper wire size to handle the current shall be provided.

These circuits are provided for two-way radio and/or accessory wiring.

One (1) Location - Power Panel
40-Z0-0300

CIRCUIT TERMINATION LOCATION

The radio / accessory power circuit shall terminate in the power panel area of the cab.

One (1) Location - Inside EMS Cabinet {MAKE SURE EMS IS SPECIFIED}
40-Z0-0362

CIRCUIT TERMINATION LOCATION

The radio / accessory power circuit shall terminate inside the EMS cabinet.

One (1) 40-Z0-0415 Cab 120-Volt ac Circuit - CORE

120-VOLT AC WIRING

All 120-Volt AC wiring shall be wired to the shoreline connection, circuit protected with the proper wire size to handle the current shall be provided.

These circuits are provided for low amperage requirements of hand held chargers for radios and accessories.

One (1) 40-Z0-0515 Location - Engine Enclosure Top - CORE

CIRCUIT TERMINATION LOCATION

The 120-Volt AC power circuit shall terminate in the center of the cab on top of the engine enclosure.

One (1) 40-Z0-0600 Electrical Outlet, Conf #2, Duplex, 120V/15A, Straight Blade

ELECTRICAL OUTLET

The electrical outlet shall be a NEMA 5-15, rated at 120-volt AC, 15-Amp, duplex straight blade receptacle.

One (1) 40-Z0-0670 Power Source - Shoreline Connection

POWER SOURCE

The 120-Volt AC power circuit shall be wired from the cab shoreline connection.

One (1) 40-Z0-0810 (1) NMO Mount - Radio Antenna Wiring - Officer's Side Forward

RADIO ANTENNA MOUNT WIRING

One (1) NMO mount shall be roof mounted, on the officer's side of the cab.

The antenna mount shall be located 34.00 inches from the front face of the cab and 18.00 inches from the cab side.

The unterminated coax is to be routed in the cab to the radio power circuit termination or officer's seat box if no radio power circuit is requested.

One (1) 40-Z0-0857 Location - Officer's Seat Area

The antenna wiring shall terminate behind the officer's seat or in the officer's seatbox when so equipped.

One (1) 40-Z0-0900 Antenex NMO Black Weatherproof Cap

WEATHERPROOF CAP

One (1) NMO mount black weatherproof cap shall be provided.

One (1) 40-Z0-3100 AM/FM Stereo NOAA, Frt Input, Bluetooth Radio w/Four Speakers

PUBLIC BROADCAST RADIO

The cab shall be equipped with an AM/FM Stereo Radio and four (4) ceiling mount recessed speakers.

The radio shall be a Jensen JHD910BT model that shall include the following features:

- Waterproof
- uV and Corrosion Resistant
- Electronic US/Euro AM/FM Tuner
- 30 Programmable Presets (12 AM, 18 FM)
- Non-Volatile Memory for User Settings and Preset Memories
- 7-Channel NOAA Weather Band
- Weather Alert
- Bluetooth Ready
- Auxiliary Audio Input
- 2-Channel Amplified Audio Output
- Backlit Controls with Selectable Illumination Color
- Daylight Readable Display
- Clock with 30-day Backup Power
- Work Timer
- Audible Beep Confirmation Tone

ANTENNA

The antenna shall be a JAN139 6.00 inch Rubber mast top JENSEN Antenna to withstand mobile audio environments with its heavy duty design.

The antenna shall be mounted to the front of the cab on the officer's side roof.

One (1) Radio Location, Overhead
40-Z0-3800

RADIO LOCATION

The radio shall be mounted in the overhead headliner within reach of the driver.

One (1) Fire Extinguisher and Hazard Triangle Kit
40-Z0-9910

ROAD SAFETY KIT

One (1) 2-1/2# ABC DOT Approved fire extinguisher shall be provided. The fire extinguisher shall be shipped loose with the chassis.

One (1) set of DOT approved hazard triangles shall be supplied with the chassis. They shall be stored in a plastic case and shipped loose with the chassis.

One (1) Front Bumper - Painted Formed -- 1871/SFO {Ctr Hsewl - Top Q2B - Jumpline}
42-A3-0200

FRONT BUMPER

A formed steel bumper shall be provided the full width of the cab.

One (1) 415 Amp Alternator - Niehoff
45-D0-2400

ALTERNATOR

A 415 Amp NIEHOFF alternator shall be installed on the engine. The alternator shall be regulated by a remote mounted regulator.

One (1) EMI/RFI Noise Suppression
45-E0-0100

EMI/RFI PROTECTION

The apparatus shall incorporate the latest designs in the electrical system with state of the art components to insure that radiated and conducted electromagnetic interference (EMI) and radio frequency interference (RFI) emissions are suppressed at the source.

The apparatus proposed shall have the ability to operate in the environment typically found in fire ground operations with no adverse effects from EMI/RFI.

EMI/RFI susceptibility is controlled by utilizing components that are fully protected and wiring that utilizes shielding and loop back grounds where required. The apparatus shall be bonded through wire braided ground straps. Relays and solenoids that are suspect to generating spurious electromagnetic radiation are diode protected to prevent transient voltage spikes.

In order to fully prevent the radio frequency interference, the purchaser shall be requested to provide a listing of the type, power output, and frequencies of all radio and bio medical equipment that is proposed to be used on the apparatus.

One (1) Information Display Module - Driver's Position - CORE
45-NS-0205

INFORMATION DISPLAY MODULE

There shall be a 5.00 inch display screen provided and installed in the overhead headliner, in clear view of the driver.

The screen shall be a rugged design for extreme environments that is bright with a backlit display providing high contrast text and full color graphics for excellent sunlight readability.

The following shall be displayed:

- Seat Belt Warning System graphics
- Cab and Compartment Door Open graphics
- Accessory Components, (if specified), in Raised/Extended Position Warnings
- Other applicable text warnings
- System Diagnostics and trouble-shooting

One (1) Apparatus Base Digital Electrical System - Class1/Weldon Multiplex
45-NS-0350

MULTIPLEXED ELECTRICAL SYSTEM

The apparatus shall be equipped with a Class-One/Weldon Multiplex system. This system shall consist of a SuperNode (main control unit) that communicates by Controller Area Network(CAN) to various input/output(I/O), and Power Distribution modules(PDM).

The multiplex system shall provide advanced diagnostic capabilities to assist in troubleshooting the electrical system of the apparatus. Troubleshooting can be done using info display and/or a computer connected to the main control unit.

CAN is a J-1939 data bus that provides a wired data bus for the SuperNode to communicate with various modules, engine, and transmission.

The multiplex system consists of one or more of the following components:

- SuperNode—This is the main control unit where the program resides, and all logic, load management, reporting and diagnostics is performed. The SuperNode has a built in Vehicle Data Recorder (VDR). This unit has connections for CAN, inputs, high current outputs, high current power, computer access for VDR, programming and diagnostics.
- PDM—This I/O module has inputs and outputs that can drive high current capable outputs. It provides information such as Input status and output current status. All output current is monitored and controlled by the SuperNode.
- I/O Modules—These modules can be a combination of I/O or independent inputs or outputs. The current output is typically less that the SuperNode or PDM.
- VDR—In addition to the VDR built into the SuperNode, a seat input monitor shall be used along with information from the power train via J1939 shall be collected and stored in the SuperNode. This information can be downloaded to a computer via USB cable.
- Display—This will provide status of seats and belts, various alarms, access to specific settings and a visual view of I/O.

CHASSIS COLOR CODED WIRING

All wiring shall be color coded and continuously marked with the circuit number and function shall fully meet NFPA and SAE requirements. Various wire colors will be used to identify circuits along with the circuit number permanently marked on the wire at no more than 6” intervals.

All wiring shall be covered in nylon heat resistant "HTZL" loom rated at a minimum of 300 degrees F exceeding the heat requirements of NFPA-1901.

A battery "loop back" ground circuit shall be supplied to reduce the possible effects of Electromagnetic and Radio Frequency Interference.

The chassis cab, engine and transmission shall be electrically bonded to the chassis frame rails with braided ground straps.

ELECTRICAL SYSTEM CONNECTORS

Where needed or required, all connectors shall be of the automotive type and suitable for the purpose and environment. These connectors shall become mechanically locked and sealed when mated.

All single wire terminations requiring special connectors such as a ring terminal shall be crimped and covered with adhesive heat shrink tubing. Fork terminals are shall not be allowed. **NO EXCEPTIONS.**

One (1) 45-NS-0500 Akron/Weldon Captium System w/ 5 YR Subscription

CAPTIUM META-DATA TELEMATICS SYSTEM

The apparatus shall be equipped with Akron-Weldon Captium data collection software.

- Apparatus shall be equipped with a cellular-based telematics system with integrated cellular modem and GPS, optionally interoperable with an onboard mobile modem/router in lieu of the integrated cellular modem.

- The telematics system shall be capable of capturing and reporting real-time telematics information, captured from, but not limited to, the vehicle's SAE J1939 CAN network, multiplexed electronic control system's network, and firefighting systems such as pump governor and other components.
- The telematics system's manufacturer shall have interoperative agreements in place with third-party telematic information services including Cummins Connected Diagnostics™ and HAAS Alert.
- The user experience for the telematics system shall be cloud-based, accessible through any internet-connected device.
- The telematics system shall include five (5) years of cloud access to the user experience website. After five (5) years it will be the responsibility of hte end user to renew the subscription to continue the data service.

One (1) Stainless Steel Battery Tray
45-NS-0802

BATTERY BOX TRAY - STAINLESS STEEL

The battery box trays shall be stainless steel to reduce the corrosive potential of the tray. The battery hold down and brackets and hardware shall also be made of stainless steel.

One (1) Single Battery System - 4 Group 31 - CORE
45-NU-03SF

BATTERY BANK

A single battery system shall be provided, utilizing four (4) high cycle type Group 31 batteries.

This system shall be capable of engine start after sustaining a continuous 150 Amp load for 10 minutes with the engine off (NFPA-1901).

A battery disconnect switch (Rated at not less than 450 Amps continuous) shall be used to activate the system and provide power to the power panel. A green pilot light shall illuminate to indicate that the1 battery bank is activated.

BATTERY CABLES

All battery wiring shall be "GXL" battery cable capable of handling 125% of the actual load. It shall be run through a heat resistant flexible nylon "HTZL" loom rated at a minimum of 300 degrees Fahrenheit. All cable connections shall be machine crimped and soldered.

STARTING CIRCUIT

One (1) engine start button is to be located on the lower right dash panel. It shall be wired to heavy duty solenoid rated at not less than 1100 amps. The battery indicator light is to be located directly above the start button to indicate that the battery bank is on.

One (1) Battery Jumpers
45-NU-0410

BATTERY POWER BUS BARS

There shall be solid copper bus bars utilized for the direct connections between batteries. These bus bars shall be nickel plated for corrosion resistance and provided with color coded heavy shrink tube between the batteries for short circuit protection.

One (1) Battery Jumper Studs
45-NU-0510

BATTERY JUMPER STUDS

Battery jumper studs shall be provided on the chassis. The jumper studs shall be mounted underneath the cab, on the rear of the driver's side battery box. The studs shall be connected to the chassis batteries with 1/0 color coded cables, red for the positive cable and black for the negative cable. The studs shall be protected with color coded plastic covers when not being used.

One (1) Battery Box Dri-Dek
45-NU-0610

DRI-DEK MATTING - BATTERY BOX

There shall be black Dri-Dek matting installed beneath the truck batteries.

One (1) 40 Amp - Kussmaul - Chief Series W/ 12 Vdc - Comp Option - Auto Charge 4012
45-T0-0665

BATTERY CHARGER

A Kussmaul Chief Series Auto Charge 4012, 40 Amp, Triple Battery Bank Charger with onboard display shall be installed for charging the batteries. Automatic sensing of the battery condition shall stop charging when the batteries are fully charged.

The charger shall be installed behind the driver's seat in the cab.

The charger shall include the following features:

Dual Battery Type Technology – allows for two (2) dissimilar battery chemistry charging at the same time. Accommodates Flooded, Gelled Electrolyte, AGM, Odyssey®, Lithium Iron Phosphate (LFP), and customized.
Parasitic Load Compensation (PLC) – allows for user input of total accessory load amps on the vehicle. This allows the charger to shift the absorption stage set point, so the battery voltage drops to the float voltage when the desired current is reached.

Configurable for 3-step or float charging.

One (1) Kussmaul Remote Control Panel - Kussmaul Charge {USE with Standard Cover]
45-T0-6130

REMOTE CONTROL PANEL

A KUSSMAUL 091-266-RCP remote control panel shall be provided.

One (1) Charge Indicator Panel on Driver's Seat Box
45-T0-6210

REMOTE CHARGE INDICATOR LOCATION

The remote charge indicator shall be located on the driver's seat box adjacent to the master battery switch.

One (1) Kussmaul 20 Amp - 120V- Super Auto Eject - Custom Cabs CORE
45-Z0-1193

SHORELINE AUTO-EJECT

A KUSSMAUL Super Auto Eject, model 091-55-20-120-XX, with weatherproof cover shall be provided.

The Super Auto Eject is to be completely sealed when the cover is closed to prevent internal contamination of the working components.

The internal switch arrangement of the Super Auto Eject shall be designed to close and open the 120-Volt AC circuit after the mating connector is inserted and before the shoreline outlet connector is ejected. This design shall prevent arcing at the connector contacts to provide long life.

The electrical connection shall be provided as a 120-Volt AC - 20 Amp type using a NEMA 5-20P connector.

One (1) Standard Cover, Kussmaul 091-55--XX {SELECT Remote Control Panel}
45-Z0-1335

ELECTRICAL INLET COVER

The Auto-Eject cover shall be a Kussmaul 091-55-XX model.

One (1) Red Auto-Eject Cover
45-Z0-1384

ELECTRICAL INLET COVER COLOR

The Auto-Eject cover shall be red in color.

One (1) Electrical Inlet Location- Cab Exterior Mounted - Behind the Driver's Door
45-Z0-1505

ELECTRICAL INLET LOCATION

The Auto Eject assembly shall be mounted on the exterior of the cab behind the driver's door.

One (1) Custom Cab - Cab - LED - ICC Lighting - Whelen OS Series
55-02-1002

CAB ICC MARKER LIGHTING

Five (5) amber Whelen OS Series LED cab face mounted clearance lights shall be supplied, mounted above the windshield.

Two (2) amber Whelen OS Series LED side clearance lights shall be supplied, one (1) each side mounted ahead of the front door.

An amber diamond shaped reflector shall be mounted on the lower corner of each cab front door adjacent to the door hinge.

One (1) Custom Cab - Cab - LED - ICC Lighting - Black Finish
55-02-1122

CAB ICC MARKER LIGHTING - BLACK FINISH

These lights are to be mounted in a black flange.

One (1) Headlights - HIVIZ LED - Daytime Running Halo Ring - Custom Cab
55-03-0165

HEADLIGHTS

Four (4) rectangular hi performance LED headlights shall be supplied, two (2) each side on the front of the cab, in a bezel assembly. Each headlight housing shall include an integrated halo ring lamp around the outer edge.

When the parking brake is released and the master battery switch is in the on position, the low beam head lamps shall be illuminated.

HEADLIGHT POSITION

The headlights shall be mounted in the upper position on the front of the cab to accommodate high profile front bumper items.

One (1) Headlights - Upper Position
55-03-0170

HEADLIGHTS - POSITION

The headlights shall be in the upper position.

One (1) Headlights - Custom Cab -Black Finish
55-03-0185

HEADLIGHTS - BLACK FINISH

The headlights shall have a black bezel.

One (1) Frt Turn Signal - Whelen 600 LED - Outside Hdlts - Custom Cab
55-04-0755

TURN SIGNALS

Two (2) rectangular Whelen 600 series LED turn signal lamps shall be mounted in a separate bezel outboard of the front headlights one (1) each side. These lights shall be amber in color with a populated arrow.

One (1) Lens Color - Clear
55-04-0855

LENSE COLOR

The lenses shall be clear in color.

One (1) Light Housing, Black Finish
55-04-0910

LIGHT HOUSING - BLACK FINISH

These lights shall be mounted in a bezel with a black finish.

One (1) Back Up Alarm
55-06-0480

BACK-UP ALARM

A solid state electronic backup alarm shall be installed on the rear of the apparatus and wired to the backup light circuit and shall activate when the transmission is placed into reverse mode.

One (1) On Board USB Electronic Operator's Manual w/Parts List
69-C0-0100

ONBOARD ELECTRONIC OPERATION AND MAINTENANCE MANUAL

There shall be a patented USB storage drive provided and installed in the vehicle cab to provide in-cab access to electronic copies of the Vehicle Operation and Maintenance Manuals with a cable and laptop.

The following information shall be accessible through the in-cab electronic Vehicle Operations Manual (eVom^{TM} - U.S. Patent 11,580,046).

- Operator's Manual
- Construction Bill of Material Parts List
- Water Tank Certification, if applicable
- Pump Certification, if applicable
- Pump Test Certification, if applicable

Electrical System:

- Complete wiring schematics for the vehicle.
- Diagrams of the vehicle showing the wiring harness routing within the vehicle. Each of these diagrams shall include the connectors between the harnesses that provide a hyperlink to a drawing of the actual connector where pin functions can be examined.
- Schematics for each system of the vehicle shall be provided with hyperlinks to the connectors for pin designations and to the vehicle drawings for harness location within the vehicle.
- As built wiring information

Air System:

- Complete air system schematics for the vehicle.
- Diagrams of the vehicle showing the air tubing routing within the vehicle.
- Schematics for each system of the vehicle shall be provided with hyperlinks to the tanks and valves and to the vehicle drawings for exact location within the vehicle.

One (1) 69-C0-0200

One (1) Electronic/One (1) Hard Copy Operator's Manual w/Parts List

ELECTRONIC & HARD COPY OPERATOR'S MANUAL

The manufacturer shall supply additional copies of the apparatus manuals. One (1) USB drive and one (1) hard copy Operator's Manual w/Parts List.

The following information will be included:

- Operator's Manual
- Construction Bill of Material Parts List
- Water Tank Certification, if applicable
- Pump Certification, if applicable
- Pump Test Certification, if applicable

Electrical System:

- Complete wiring schematics for the vehicle.
- Diagrams of the vehicle showing the wiring harness routing within the vehicle. Each of these diagrams shall include the connectors between the harnesses that provide a hyperlink to a drawing of the actual connector where pin functions can be examined.
- Schematics for each system of the vehicle shall be provided with hyperlinks to the connectors for pin designations and to the vehicle drawings for harness location within the vehicle.
- As built wiring information

Air System:

- Complete air system schematics for the vehicle.
- Diagrams of the vehicle showing the air tubing routing within the vehicle.

- Schematics for each system of the vehicle shall be provided with hyperlinks to the tanks and valves and to the vehicle drawings for exact location within the vehicle.

One (1) FAMA Fire Apparatus Safety Guide
69-C0-0300

FIRE APPARATUS SAFETY GUIDE

Pursuant to NFPA 1901, 2016 edition, 40.20.2.3 (20) one (1) copy of the latest edition of FAMA's Fire Apparatus Safety Guide shall be supplied with the apparatus.

One (1) == CORE Pumper 22 - Pump Compt & Plumbing - 7.001 06/01/23 ==

One (1) Hale Pump Warranty - 5 Year - Pumper
00-25-4305

FIRE PUMP WARRANTY

A standard 5 year warranty (Parts and Labor for the first two years and parts only years 3 - 5) will be provided by the pump manufacturer, Hale products Inc.

One (1) Pump Compartment, Construction - CORE Pumper
30-00-0010

PUMP COMPARTMENT CONSTRUCTION

The pump compartment shall be a self-supported structure mounted independently from the body and chassis cab. The apparatus pump compartment shall be a modular design and constructed of a combination of stainless steel structural tubing, angles and channels which does not support the fire pump or running boards.

A stainless steel framework shall provide the support for the mounting of the lower pump panels, speedlay hosebeds (if specified), and pump access doors. Stainless steel structure shall be provided as support behind all valve control handles enabling a firm foundation for operation of the valve control.

One (1) Pump Compartment Mounting - Pumper
30-00-5010

PUMP COMPARTMENT MOUNTING

The pump compartment shall be mounted onto the chassis through rubber biscuits in a four point pattern to allow for a chassis frame twist. The pump compartment module shall be separated from the apparatus body and cab with a gap so that each may flex independently of the other.

The pump compartment, pump, plumbing and gauge panels shall be removable from the chassis in a single assembly.

One (1) Running Boards - CORE Pumper
30-05-0010

RUNNING BOARDS

The running boards shall be separate from the pump compartment module so that each may flex independently of the other and to allow water to flow freely away from the running board area. Separation of the running boards and support structure is desired to provide field service of the running board without major repairs to the pump compartment in the event of an accident.

The steel running board supports shall be bolted directly to the chassis frame rails to provide proper support.

One (1) Laser Grip S/S Step Surface - Left/Right Side

30-05-0105

STEP SURFACE

The left and right side running board step surfaces shall be covered in Laser Grip stainless steel meeting the current revision of NFPA 1901 for step requirements.

One (1) Running Boards - Bright Finish

30-05-0205

RUNNING BOARDS - BRIGHT FINISH

The running boards shall have a bright finish.

One (1) Left Side Running Board Hosewell

30-05-2110

LEFT SIDE RUNNING BOARD HOSEWELL

The left side running board shall be provided with an integral smooth plate hosewell with a 1.5 cubic feet capacity.

One (1) Right Side Running Board Hosewell

30-05-3110

RIGHT SIDE RUNNING BOARD HOSEWELL

The right side running board shall be provided with an integral smooth plate hosewell with a 1.5 cubic feet capacity.

One (1) (2) Straps, Running Board Hosewell

30-05-4020

HOLD DOWN STRAP RESTRAINTS

There shall be two (2) strap type hold downs provided and installed on the running board hosewell storage. The straps shall be used to seucre the stored equipment in place during transit.

One (1) (2) Straps, Running Board Hosewell

30-05-4020

HOLD DOWN STRAP RESTRAINTS

There shall be two (2) strap type hold downs provided and installed on the running board hosewell storage. The straps shall be used to seucre the stored equipment in place during transit.

One (1) Dri-Dek Floor Matting, Hosewell

30-05-7020

DRI-DEK MATTING - RUNNING BOARD HOSEWELL

The floor of the running board hosewell(s) shall be covered with Dri-Dek mat for improved ventilation.

One (1) Dri-Dek Floor Matting, Hosewell

30-05-7020

DRI-DEK MATTING - RUNNING BOARD HOSEWELL

The floor of the running board hosewell(s) shall be covered with Dri-Dek mat for improved ventilation.

One (1) Dri-Dek Floor Matting, Color, Black

30-05-7110

MATTING COLOR

The Dri-Dek mat shall be black in color.

One (1) Dri-Dek Floor Matting, Color, Black

30-05-7110

MATTING COLOR

The Dri-Dek mat shall be black in color.

One (1) Pump Compartment Dunnage with Removable Floor - CORE Pumper
30-15-0110

PUMP COMPARTMENT DUNNAGE

There shall be a dunnage compartment furnished on top of the pump module. The dunnage area shall be as large as possible. The floor shall be bolted in place and shall be removable for access to the fire pump components for major service.

One (1) Top Operators Control Panel w/ Speedlays - CORE Pumper
30-20-1010

TOP MOUNT PUMP CONTROL PANEL

All pump controls and gauges shall be located above the fire pump in a top mounted operator's control panel and properly identified. The layout of the pump control panel shall be ergonomically efficient and systematically organized.

An upper framework above the pump compartment shall encompass the top mount pump operator's panel and dunnage compartment and an area for a deck gun (if specified).

The gauge panel exterior shall be made of 10-gauge stainless steel.

The pump operator's panel shall be removable in one (1) section for ease of maintenance. The gauge panel shall contain a panel for mounting of all instruments, engine monitoring system, and pressure control system. The gauge panel shall be a removable bolt-on single panel to allow access to all gauge tubing, switches, and control wiring.

The lower portion of the operators panel shall contain the controls for the inlets and discharges. The controls for all the drains shall be located on the lower side panels.

There shall be two (2) pump house service doors located in the upper portion of the left and right side pump panels. These panels shall be as large as possible and provide a minimum opening size of 41.00 inches wide by 14.00 inches high. Each access door shall be secured with two (2) push button latches.

One (1) Pump Panel Finish - Black for full size panels
30-25-0010

PUMP PANEL FINISH

All stainless panels used in the construction of the pump house.

The side panels shall have a black finish.

One (1) Valve Control - Top Mount
30-30-0110

VALVE CONTROLS

Unless specified otherwise, the intake and discharge valves shall be controlled with a top mount valve control assembly.

The handles shall be chrome plated zinc twist-lock handles of an ergonomic design with a recessed area for a color-coded name plate.

Top control connections to each 2.50 inch and larger valves shall be made by the use of stainless aircraft cable with stainless steel mounting bracketry and hardware. Top controlled connections to valves larger than 2.50 inches by means of relay arms with solid rods are not acceptable.

One (1) Pump Panel Identification Labels, Innovative Controls
30-30-5010

PUMP PANEL IDENTIFICATION TAGS

All discharges and intakes shall have plastic color-coded Innovative Controls identification tags, with each discharge having its own unique color.

Color-coding shall include the labeling of the inlet, outlet and the corresponding drain for each.

One (1) 53,500 BTU Pump Compartment Heater, w/ 12V Fan
30-35-0110

PUMP COMPARTMENT HEATER

One (1) 53,500 BTU auxiliary automotive type hot water heater shall be provided and installed inside pump compartment. The heater shall be connected to the truck engine coolant system and have shutoff valves in both the feeder and return lines.

The heater shall include a 12 Volt fan and controlled with a switch located at the pump operator's panel.

The switch shall be of a weather resistant type and be clearly labeled for ease of identification.

One (1) Heat Pan Enclosure, Removable, Aluminum
30-35-1110

HEAT PAN ENCLOSURE

A removable casing constructed of aluminum, completely enclosing the underside of the pump compartment and heated by the engine exhaust, shall be provided and installed.

The heat pan assembly shall include access panels that can be easily removed from their mounting locations.

One (1) (1) Pump Compartment Work Light, LED w/ Switch
30-35-7010

PUMP COMPARTMENT WORK LIGHT

The pump compartment shall have one (1) white LED strip light to provide illumination to the interior of the pump compartment. The strip light shall be mounted transverse at the rear of the pump module with the light directed to the front.

The light shall have a weather resistant, toggle style, on/off switch located inside the pump compartment adjacent to the door hinge area.

The power for the pump module light shall be switched thru the battery master switch.

One (1) Walkway, Top Mount, 96"W x 21"L, w/ ADP Step Surface
30-40-0010

STAINLESS STEEL WALKWAY WITH ALUMINUM DIAMOND PLATE STEP SURFACES

A walkway shall be provided with the top mount pump module located directly behind the cab.

The walkway shall be separate from the pump panel and running boards so that each may flex independently of the other and the walkway shall be bolted directly to the chassis frame rails.

The walkway shall be constructed of stainless steel gussets and channels to provide a framework for stepping and standing areas. The surface of the walkway shall be embossed aluminum diamond plate.

The walkway shall measure 96.00 inches wide (side to side) x 21.00 inches long (front to back).

One (1) (2) Walkway Storage Compartments, L/R Side, SS w/ATP Door
30-40-2110

WALKWAY STORAGE COMPARTMENTS

Two (2) walkway enclosed storage compartments shall be povided below the top mount walkway, one (1) on each side of the walkway step area.

For each compartment, the walls and floors shall be stainless steel and shall include an aluminum treadplate door.

The doors shall be vertically hinged with a full length stainless steel piano hinge and secured with a "D"ring style latch.

If the door is not properly closed and the parking brake is released, it shall activate the hazard light in the cab to alert the crew.

One (1) Natural Finish, Interior Walkway Storage Compartments
30-40-2310

WALKWAY STORAGE COMPARTMENT FINISH

The interior of each walkway storage compartment shall be a natural finish.

One (1) (2) Speedlay Storage Bays
30-50-0020

SPEEDLAY HOSE BEDS

Two (2) speedlay hose beds, vertically stacked with bay #1 in the top position, shall be provided in the forward portion of the pump compartment module. The speedlay hose beds shall be constructed as an integral part of the pump compartment and shall span the entire width of the pump compartment module.

The speedlays shall be 12.00 inches wide to accommodate a double stack of hose. The top of the speedlay unit shall have a brushed stainless steel shelf to cover the upper hose area and to provide a working surface for the pump operator.

One (1) Speedlay Front Wall - Aluminum Diamond Plate
30-55-0105

PUMP COMPARTMENT FRONT WALL

The front wall (walkway side) of the speedlay assembly shall have an aluminum diamond plate cover attached with mechanical fasteners.

One (1) Bright Finish - Diamond Plate
30-55-0205

FRONT WALL FINISH

The aluminum diamond plate shall be a bright finish.

Four (4) {Qty} Removable Speedlay Hose Trays
30-55-1005

SPEEDLAY HOSE TRAYS

Four (4) removable aluminum hose tray(s) shall be provided for the speedlay hose beds.

There shall be a red webbed strap at each end of the tray for easy removal of the tray.

One (1) Pump Compartment Width - 61"
30-70-0060

PUMP COMPARTMENT WIDTH

The width of the pump compartment (front to back) shall be 61.00 inches.

One (1) PSG - Fire Research Pump Boss 400 Series (Dual) Pressure Governor
32-00-0050

PRESSURE GOVERNOR AND MONITORING DISPLAY

Fire Research PumpBoss series PBA400 pressure governor and monitoring display kit with dual 600 PSI discharge and intake mounted pressure sensors shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor and cables. The control module case shall be waterproof and have dimensions not to exceed 6 3/4" high by 4 5/8" wide. A control knob that uses optical technology shall adjust pressure or RPM settings. The control knob shall be 2.00 inches in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 1.75 inches from the front of the control module. Inputs for monitored information shall be from a J1939 data bus or independent sensors. Outputs for engine control shall be on the J1939 data bus or engine specific wiring.

The following continuous displays shall be provided:

CHECK ENGINE and STOP ENGINE warning LEDs
Engine RPM; shown with four daylight bright LED digits more than 1/2" high
Engine OIL PRESSURE; shown on a dual color (green/red) LED bar graph display
Engine COOLANT TEMPERTURE; shown on a dual color (green/red) LED bar graph display
TRANSMISSION TEMPERATURE shown on a dual color (green/red) LED bar graph display
BATTERY VOLTAGE; shown on a dual color (green/red) LED bar graph display
PSI / RPM setting; shown on a dot matrix message display
PSI and RPM operating mode LEDs
THROTTLE READY LED.

A dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. All LED intensity shall be automatically adjusted for day and night time operation.

The program shall store the accumulated operating hours for the pump and engine to be displayed with the push of a button.

It shall monitor inputs and support audible and visual warning alarms for the following conditions:

High Transmission Temperature
Low Battery Voltage (Engine Off)
Low Battery Voltage (Engine Running)
High Battery Voltage
Low Engine Oil Pressure
High Engine Coolant Temperature
Out of Water (visual alarm only)
No engine Response (visual alarm only)

The program features shall be accessed via push buttons located on the front of the control module. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.

The governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A throttle ready LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor and monitoring pressure display shall be programmed at installation for a specific engine.

PRESSURE GOVERNOR and MONITORING DISPLAY BUZZER

Fire Research PumpBoss Z1 option for an audible alarm buzzer shall be installed. The buzzer shall sound when a signal from the PumpBoss activates it.

One (1) Innovative Controls - 4" Master Pump Gauges Liquid Filled
32-05-0020

MASTER GAUGES

Innovative Controls 4.00 inch (100 mm) gauges shall be provided and installed for the master intake and master discharge gauges at the pump operator's panel.

The gauges shall be liquid filled with an over-sized internal breathing diaphragm inside the case that compensates for liquid fill expansion caused by high temperatures- preventing plug failure and preserving gauge accuracy in extreme environments.

A KEM-X Socket Saver diaphragm, located in the stem, eliminates freeze-up by preventing water from entering and/or clogging the gauge internals while containing a low temperature instrument oil that fills and protects the socket and the bourdon tube.

The molded glass-filled Nylon 66 case will not corrode nor contribute to yellowing and the case will expand and contract at a similar rate as the fill plug during temperature fluctuations thus preventing leaks.

One (1) -30 to 400 PSI scale Reading - Gauge
32-05-1020

GAUGE SCALE

The master intake gauge shall be marked for a reading from -30 to 400 PSI and the master discharge shall be marked for reading a discharge pressure of 0 to 400 PSI.

One (1) Black Markings on White Gauge face
32-05-2020

GAUGE FACE COLOR

Each gauge shall have black markings on a white face.

The master intake gauge shall be labeled 'PUMP INTAKE' with a burgundy tag.

The master discharge gauge shall be labeled 'PUMP DISCHARGE' with a black tag.

One (1) Backlit - Master Pump Gauges - White LED
32-05-3020

LED BACKLIT GAUGE

The master intake and discharge gauges shall be illuminated with white LED backlighting.

The gauge backlighting shall be activated when the pump panel light hood lights are illuminated.

One (1) Master Gauge Bezel, Innovative Controls
32-05-4020

BEZEL

The master intake and discharge gauges shall be mounted in a single Innovative Controls bezel.

One (1) Master Gauge Pump Test Ports
32-10-0010

MASTER GAUGE TEST PORTS

Adjacent to each master gauge there shall be a pressure tap to provide simultaneous readings of the vacuum and pressure exerted on the individual gauge.

One (1) Innovative Controls 2-1/2" Individual Pressure Gauges
32-15-0020

DISCHARGE GAUGES

Innovative Controls discharges gauge shall be provided and installed for reading the pressure of each discharge greater than 1.50 inches (38 mm) in diameter, unless otherwise specified, at the pump operator's panel. The gauges shall be 2.50 inches in diameter.

The gauges shall be liquid filled with an over-sized internal breathing diaphragm inside the case that compensates for liquid fill expansion caused by high temperatures- preventing plug failure and preserving gauge accuracy in extreme environments.

A KEM-X Socket Saver diaphragm, located in the stem, eliminates freeze-up by preventing water from entering and/or clogging the gauge internals while containing a low temperature instrument oil that fills and protects the socket and the bourdon tube.

The molded glass-filled Nylon 66 case will not corrode nor contribute to yellowing and the case will expand and contract at a similar rate as the fill plug during temperature fluctuations thus preventing leaks.

One (1) 0 to 400 PSI scale Reading - Gauge
32-15-1020

GAUGE SCALE

Each shall be marked for a reading from 0 to 400 PSI.

One (1) Black Markings on White Gauge face
32-15-2020

GAUGE FACE COLOR

Each gauge shall have black markings on a white face.

One (1) Backlit - Master Pump Gauges - White LED
32-15-3030

LED BACKLIT GAUGE

Each pressure gauge shall be illuminated with white LED backlighting.

The gauge backlighting shall be activated when the pump panel light hood lights are illuminated.

One (1) Innovative Controls Soft-Glo Water Gauge - Operator's Panel
32-20-0130

WATER TANK LEVEL INDICATOR

An Innovative Controls Soft-Glo water tank level gauge shall be provided and installed at the pump operator's panel.

The display modules are divided into four (4) distinct sections that show the volume of liquid in the corresponding tank using multi-color RGB superbright LEDs. Tank level indication is enhanced by a 180° wide-angle diffusion lens in front of the LEDs. The LEDS are diffused by a proprietary method that creates an illumination effect that remains bright and visible in sunlight but eliminates the typical irritation to an operator’s eyes traditionally caused by bright LEDs at night.

One (1) (2) Innovative Controls Monster Water Gauges - Cab Sides/Rear
32-20-1030

CHASSIS WATER TANK LEVEL INDICATOR

There shall be two (2) Innovative Controls Soft-Glo Mini Monster Strip Light Displays provided and installed, one (1) each side at the rear of the cab. The displays shall show the volume in the tank on four (4) distinct illuminated levels.

Tank level indication is enhanced by the use 180° wide-angle diffusion lenses in front of the LEDs. The LEDS are diffused by a proprietary method that creates an illumination effect that remains bright but eliminates the typical irritation to an operator’s eyes traditionally caused by bright LEDs. The display shall mimic the main pump panel mounted display via CAN Bus.

One (1) (1) Innovative Controls Monster Water Gauges - Rear of Body
32-20-1330

REAR BODY WATER TANK LEVEL INDICATOR

There shall be one (1) Innovative Controls Soft-Glo Mini Monster Strip Light Display provided and installed at the rear of the apparatus body. The display shall show the volume in the tank on four (4) distinct illuminated levels.

Tank level indication is enhanced by the use 180° wide-angle diffusion lenses in front of the LEDs. The LEDS are diffused by a proprietary method that creates an illumination effect that remains bright but eliminates the typical irritation to an operator’s eyes traditionally caused by bright LEDs. The display shall mimic the main pump panel mounted display via CAN Bus.

One (1) Black Bezel - Water Gauge
32-20-5010

BEZEL - BLACK

A black bezel shall be provided for the gauge(s).

One (1) Black Bezel - Water Gauge
32-20-5010

BEZEL - BLACK

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One (1) Black Bezel - Water Gauge
32-20-5010

BEZEL - BLACK

A black bezel shall be provided for the gauge(s).

One (1) Smart Rocker Switch Panel, (4) Switches - Pump Panel
32-25-0020

SMART ROCKER SWITCH PANEL

There shall be a Class One Smart Rocker Switch Bank panel, containing four (4) switches, provided and installed at the pump operator's panel.

The switches shall be waterproof, backlit rocker type, with the specific function laser engraved on the switch face.

The switch functions will be detailed in the specifications with the individual components.

One (1) Air Horn Switch - Smart Switch Panel
32-25-0120

AIR HORN ACTIVATION SWITCH

A switch shall be located in the Smart Switch bank panel to activate the chassis air horn.

The switch shall be a momentary rocker switch with a cover and shall be supplied with the proper identification label.

One (1) Hale "Q-MAX", 1500 GPM (G Gearbox) - CORE Pumper
32-40-0020

MIDSHIP PUMP

The pump shall be a Hale Q-Max model, single stage midship pump. The pump shall have a capacity of 1500 gallons per minute, measured in US gallons.

One (1) Q-Max Specs (G Gearbox) {X12 or X15 Engines CHANGE to K Gearbox}
34-00-0120

PUMP CONSTRUCTION AND ASSEMBLY

The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance spots as outlined by the latest NFPA 1901. Pump shall be free from objectionable pulsation and vibration.

The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI (207 MPa). All metal moving parts in contact with water shall be of high quality bronze or stainless steel. Pump utilizing castings made of lower tensile strength cast iron not acceptable.

Pump body shall be horizontally split on a single plane in two sections for easy removal of entire impeller assembly including wear rings and bearings from beneath the pump without disturbing piping or the mounting of the pump in chassis. The pump shall have one double suction impeller. The pump body shall have two opposed discharge volute cutwaters to eliminate radial unbalance.

Pump shaft to be rigidly supported by three bearings for minimum deflection. One high lead bronze sleeve bearing to be located immediately adjacent to the impeller (on side opposite the gearbox). The sleeve bearing is to be lubricated by a force fed, automatic oil lubricated design, pressure balanced to exclude foreign material. The remaining bearings shall be heavy duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.

Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined and individually balanced. The vanes of the impeller intake eyes shall be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower. Impeller clearance rings shall be bronze, easily renewable without replacing impeller or pump volute body, and of wraparound double labyrinth design for maximum efficiency. No exceptions.

The pump shaft shall be heat-treated, electric furnace, corrosion resistant stainless steel to be super finished under packing with galvanic corrosion (zinc foil separators in packing) protection for longer shaft life. Pump shaft must be sealed with double-lip oil seal to keep road dirt and water out of gearbox.

Gearbox – G Gearbox

Pump gearbox shall be of sufficient size to withstand up to 16,000 lbs. ft. of drive through torque of the engine system. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.

The gearbox drive shafts shall be of heat-treated chrome nickel steel and at least 2-3/4 inches in diameter, on both the input and output drive shafts. They shall withstand the full torque of the engine.

All gears, both drive and pump, shall be of highest quality electric furnace chrome nickel steel. Bores shall be ground to size and teeth integrated and hardened, to give an extremely accurate gear for long life, smooth, quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrust. (No exceptions.)

The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.

If the gearbox is equipped with a power shift, the shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder, with stainless steel shaft. An in-cab control for rapid shift shall be provided that locks in road or pump.

One (1) Altitude Requirements, 0 to 2000 Feet Above Sea Level
34-05-0020

ALTITUDE REQUIREMENTS

The apparatus shall be designed to meet the specified rating at 0 to 2000 feet altitude.

One (1) Trident Air Primer - Single Primer Actuation
34-10-0120

AIR PRIMER SYSTEM

The priming system shall be a Trident Emergency Products compressed air powered high efficiency, multi-stage, venturi based Air Prime System. A single panel mounted control will activate the priming pump and open the priming valve to the pump. The primer shall be a three (3) -barrel design.

All wetted metallic parts of the priming system are to be of brass and stainless steel construction.

The priming components shall be mounted above the highest priming point on the suction side of the pump to permit air removal and allow for drainage. The primer shall also automatically drain when the panel control actuator is not in operation. The inlet side of the primer shall include a brass ‘wye’ type strainer with removable stainless steel fine mesh strainer to prevent entry of debris into the primer body.

Performance, Safety, and NFPA Compliance

The priming system shall be capable to a vertical lift to 22 inches of mercury and shall be fully compliant to applicable NFPA standards for vertical lift. The system shall create vacuum by using air from the chassis air brake system through a three-barrel multi-stage internal “venturi nozzles” within the primer body. The noise level during operation of the primer shall not exceed 75 Db.

Air Flow Requirements

The primer shall require a minimum of 15.6 cubic foot per minute air compressor and shall be capable of meeting drafting requirements at high idle engine speed. The air supply shall be from a chassis supplied ‘protected’ air storage tank with a pressure protection valve. The air supply line shall have a pressure protection valve set between 70 to 80 PSIG.

One (1) Manual Primer Control Valve
34-10-1020

PRIMER CONTROL

The primer control shall have a manually operated, panel mounted “push to prime” air valve; which will direct air pressure from the air brake storage tank to the primer body. To prevent freezing, no water shall flow to and from the panel control.

One (1) Trident Warranty, 5 Year Parts
34-10-8020

WARRANTY

The primer shall be covered by a five (5) year parts warranty by Trident.

One (1) Pump Shift, w/ Label, Indicator Lgts, Mtd Cab/PPnl
34-15-0020

ELECTRIC OVER AIR PUMP SHIFT

The pump shift shall be electric over air operated and shall incorporate an electric switch in the cab and a MAC valve on the chassis to operate the pump transmission from road to pump.

The pump shift switch shall be mounted in the cab and identified as "PUMP SHIFT" and shall include instructions permanently inscribed on the pump shift switch plate. The in-cab switch shall be an electric locking lever style switch that has a spring-loaded locking collar that locks in "Road" or "Pump" mode.

The pump shift control assembly shall incorporate an indicating light system. There shall be two (2) lights adjacent to the pump shift control panel in the cab to show the position of the pump when the control is moved to "Pump" position. One (1) indicator light shall notify the operator when the shift has been completed to PUMP, labeled as "PUMP ENGAGED". The second indicator light in the cab will notify the operator when the chassis transmission is in correct pumping gear, labeled as "OK TO PUMP".

A third LED indicator light for throttle ready shall be provided adjacent to the throttle control at the pump operator's panel to indicate when the required interlock conditions are met to begin pump operations.

One (1) Mechanical Seal, Inboard side, Spring Loaded, Self Adjusting - Hale
34-20-0020

MECHANICAL SEAL

The fire pump shall be provided with a mechanical pump seal. One (1) is required on the suction, inboard, side of the pump. The mechanical seal shall be 2.00 inches in diameter and shall be spring loaded, maintenance free and self-adjusting.

Mechanical seal construction shall be a carbon sealing ring, stainless steel coil spring, Viton rubber boot, and a tungsten carbide seat with Teflon backup seal.

One (1) (2) Anodes, Water Pump, Indicator Weep Hole
34-25-0120

ANODE SYSTEM

To reduce the effect of galvanic action the pump shall be equipped with two (2) zinc anodes. One (1) anode is to be installed on the inlet (suction) side of the system and one (1) anode is to be installed on the pressure (outlet) side of the system.

Each anode brass cap is to be drilled with a .125 inch diameter hole to provide an indicator when the anode alloy element is to be replaced.

One (1) Thermal Relief Valve, TRV-L, Automatic
34-30-0110

THERMAL PROTECTION WITH LIGHT

The pump shall be equipped with a TRV-L, thermal protection device, which monitors the water temperature of the pump and relieves water when the temperature inside the pump exceeds the preset value of the relief valve (120 degrees F / 49 degrees C).

The TRV shall automatically dump a controlled amount of water to the atmosphere when the pump water temperature exceeds the preset value. The valve shall automatically close when the water temperature cools to below the preset value.

An aluminum composite panel placard with a visual warning lamp and test button shall be provided on the operator's panel.

The warning light shall illuminate when the Thermal Relief Valve is open and discharging water.

One (1) Intake Pressure Relief Valve, TFT
34-30-1010

INTAKE PRESSURE RELIEF VALVE

A Task Force Tips model #A18XX pressure relief valve shall be provided. The valve shall have an easy to read adjustment range from 90 to 300 PSI in 90, 125, 150, 200, 250, 300 PSI increments.

For corrosion resistance the cast aluminum valve shall be hard-coat anodized with a powder coat interior and exterior finish. The valve shall meet (NFPA) 1901, Standard for Automotive Fire Apparatus, requirements for pump inlet relief valves.

The valve shall be configured with a male NPT threaded discharge outlet.

The discharge side of the intake relief valve shall be plumbed to the right side below the running boards, away from but, visible to the pump operator, and shall terminate with an unthreaded pipe. The adjustment control shall be located behind the street side pump panel.

The unit shall be covered by a five (5) year warranty.

One (1) Pump T-Case Cooling Line, 3/8" w/ In-Line Ball Valve
34-35-0110

PUMP COOLING LINE

A 3/8" cooling line shall be installed to recirculate water from the pump back through the pump transfer case, to cool the pump during prolonged pumping operations.

The cooling line shall be controlled at the operator's position with an in-line ball valve.

One (1) Heat Exchanger Line, Gated {CUSTOM CHASSIS}
34-35-1010

HEAT EXCHANGER DISCHARGE

A gated discharge line shall be installed to provide water from the fire pump to the chassis supplied heat exchanger to assist in engine cooling during pumping operations.

The heat exchanger line shall be controlled at the pump operator's panel with an in-line ball valve.

One (1) Master Drain, Manual, Mounted Pump Panel
34-40-0020

MASTER DRAIN

The apparatus shall be equipped with a Manual Master Pump Drain for draining of the lower pump cavities, volute and selected water-carrying lines and accessories. The all brass and stainless steel construction allows for operation up to 600 psi.

One (1) 6" Steamer Inlet, Left Side, NST Thread, w/ Strainer
34-45-1010

LEFT SIDE STEAMER INLET

There shall be one (1) 6.00 inch steamer inlet furnished on the left side pump panel. The suction inlet shall have National Standard Threads (NST) and include a removable strainer provided inside the external inlet.

One (1) 6" Steamer Inlet, Right Side, NST Thread, w/ Strainer
34-45-1020

RIGHT SIDE STEAMER INLET

There shall be one (1) 6.00 inch steamer inlet furnished on the right side pump panel. The suction inlet shall have National Standard Threads (NST) and include a removable strainer provided inside the external inlet.

One (1) Innovative Controls - Individual Manual Drains - Lift-Up Handles
34-50-0020

DRAIN VALVES

An Innovative Controls .75 inch quarter turn drain valve shall be included on each applicable discharge and gated intake. A side stem, long stroke chrome plated lift handle shall be provided on the drain valve to facilitate use with a gloved hand. The drain valve shall have an ergonomically designed handle with a recessed verbiage tag area easily read by the operator before opening.

The drain valve shall be connected to the valve with a flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus away from the pump operator.

One (1) 6" Long Handled Chrome Plated Cap (Logo)
34-80-0110

LARGE DIAMETER CAP

A 6.00 inch chrome plated cap with long handles shall be installed on the steamer inlet. The cap shall be capable of withstanding 500 PSI.

The cap shall be National Standard Thread and shall include the apparatus manufacturer's logo in the center of the cap.

One (1) 6" Long Handled Chrome Plated Cap (Logo)
34-80-0110

LARGE DIAMETER CAP

A 6.00 inch chrome plated cap with long handles shall be installed on the steamer inlet. The cap shall be capable of withstanding 500 PSI.

The cap shall be National Standard Thread and shall include the apparatus manufacturer's logo in the center of the cap.

One (1) 2.5" Left Side Inlet, Top Mount
35-00-0140

LEFT SIDE INLET

There shall be one (1) gated suction inlet installed on the left side of the apparatus with the following specified components.

One (1) #1 - 2.5" Left Side Discharge, Top Mount
35-10-0140

LEFT SIDE DISCHARGE #1

There shall be one (1) discharge installed on the left side of the apparatus with the following specified components.

One (1) #2 - 2.5" Left Side Discharge, Top Mount
35-10-1140

LEFT SIDE DISCHARGE #2

There shall be one (1) discharge installed on the left side of the apparatus with the following specified components.

One (1) #3 - 2.5" Right Side Discharge
35-15-0120

RIGHT SIDE DISCHARGE #3

There shall be one (1) discharge installed on the right side of the apparatus with the following specified components.

One (1) #4 - 3.0" Right Side Discharge
35-15-3120

RIGHT SIDE DISCHARGE #4

There shall be one (1) discharge installed on the right side of the apparatus with the following specified components.

One (1) (1) 2.5" Right Rear Discharge
35-20-4120

RIGHT REAR DISCHARGE

There shall be one (1) discharge installed on the right rear of the apparatus below the hosebed with the following specified components.

One (1) (1) Deluge Waterway - CORE Pumper
35-25-8110

DELUGE WATERWAY

There shall be one (1) deluge waterway installed above the pump on the apparatus with the following components.

One (1) (1) Crosslay Hosebed, 2 1/2" Hose - CORE Pumper - {Top Mount ONLY}
35-30-3010

SINGLE CROSSLAY HOSEBED

One (1) crosslay hosebed shall be located on top of the pump compartment, directly rearward of the pump operator's panel.

An upper framework separate of the pump compartment shall encompass the crosslay hosebed. The floor of this section shall be a bolt-on design to provide service access to the pump and plumbing.

One (1) #1 Crosslay, 2-1/2" hose, Dbl Stk
35-30-4110

2 1/2" CROSSLAY

One (1) single stack crosslay with the following specified components shall be provided for up to 200 feet (60 m) of 2.50 inch (65 mm) hose.

The single stack crosslay hosebed shall have inside dimensions of 4.75 inches (121 mm) wide by 19.00 inches (483 mm) high by 72.00 inches (1829 mm) long.

One (1) #1 Speedlay - Top, 1-3/4" hose
35-35-1010

1 3/4" SPEEDLAY - TOP SPEEDLAY

One (1) speedlay hosebed with the following specified components shall be provided for up to 250 feet (76 m) of 1.75 inch (44 mm) hose in the top bay.

The speedlay hosebed shall have inside dimensions of 10.00 inches (254 mm) wide by 9.50 inches (241 mm) high by 71.00 inches (1803 mm) long.

One (1) #2 Speedlay - Lower, 1-3/4" hose
35-35-2010

1 3/4" SPEEDLAY - LOWER SPEEDLAY

One (1) speedlay hosebed with the following specified components shall be provided for up to 250 feet (76 m) of 1.75 inch (44 mm) hose in the lower bay.

The speedlay hosebed shall have inside dimensions of 10.00 inches (254 mm) wide by 9.50 inches (241 mm) high by 71.00 inches (1803 mm) long.

One (1) (Qty 1) Tank to Pump Line, 3" Pipe
35-45-0020

TANK TO PUMP LINE

The connection between the tank and the pump shall be capable of the flow recommendations as set forth in (NFPA) 1901, Standard for Automotive Fire Apparatus, latest revision and shall be tested to those standards when the pump is being certified.

The tank to pump line shall run from the pump to the front face of the water tank and down into the tank sump. A rubber coupling shall be included in this line to prevent damage from vibration or chassis flexing.

The tank to pump shall be provided with the following specified components:

TANK TO PUMP PLUMBING

The tank to pump line shall be 3.00 inch I.D. piping.

One (1) (Qty 1) 2.0" Tank Re-Fill Line
35-45-5120

TANK RE-FILL LINE

One (1) 2.00 inch (51 mm) tank fill/recirculating line shall be installed from the pump directly to the booster tank plumbed with stainless steel plumbing and flexible Victaulic couplings.

The tank re-fill line shall be provided with the following specified components:

One (1) Elkhart Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)
35-55-1020

INLET VALVE

A 2.50 inch (65 mm) Elkhart Brass quarter-turn heavy duty swing-out valve.

One (1) Elkhart Valve, 2.0", Manual Valve - TF
35-60-1110

TANK FILL VALVE

A 1.50 inch (38 mm) Elkhart Brass quarter-turn heavy duty swing-out valve.

One (1) Elkhart Valve, 3.0", Manual Valve - TTP
35-60-6110

TANK TO PUMP VALVE

A 3.00 inch (77 mm) Elkhart Brass quarter-turn heavy duty swing-out valve.

One (1) Valve(s) Control - Manual Control @ Operator's Panel
35-62-0040

VALVE CONTROL

The valve shall be controlled with a manual control handle at the pump operator's panel.

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35-62-0040

VALVE CONTROL

The valve shall be controlled with a manual control handle at the pump operator's panel.

One (1) Valve(s) Control - Manual Control @ Operator's Panel
35-62-0040

VALVE CONTROL

The valve shall be controlled with a manual control handle at the pump operator's panel.

One (1) 2.5" Side Intake Piping
35-65-0030

INTAKE PLUMBING

The plumbing shall consist of 2.50 inch (65 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

One (1) Side Inlet to be located in rearward position (to pump steamer)
35-67-0020

INLET LOCATION

The inlet shall be located on the pump panel in the rearward position to the pump steamer inlet.

One (1) Akron Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)

35-70-0220

DISCHARGE VALVE

A 2.50 inch (65 mm) Akron Brass quarter-turn swing-out valve.

One (1) Akron Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)

35-70-0220

DISCHARGE VALVE

A 2.50 inch (65 mm) Akron Brass quarter-turn swing-out valve.

One (1) Elkhart Valve, 2.0", Manual Valve

35-70-1110

DISCHARGE VALVE

A 2.00 inch (50 mm) Elkhart Brass quarter-turn heavy duty swing-out valve.

One (1) Elkhart Valve, 2.0", Manual Valve

35-70-1110

DISCHARGE VALVE

A 2.00 inch (50 mm) Elkhart Brass quarter-turn heavy duty swing-out valve.

One (1) Elkhart Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)

35-70-1220

DISCHARGE VALVE

A 2.50 inch (65 mm) Elkhart Brass quarter-turn heavy duty swing-out valve.

One (1) Elkhart Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)

35-70-1220

DISCHARGE VALVE

A 2.50 inch (65 mm) Elkhart Brass quarter-turn heavy duty swing-out valve.

One (1) Elkhart Valve, 2.5", Manual Valve (Controlled @ Operator's Panel)

35-70-1220

DISCHARGE VALVE

A 2.50 inch (65 mm) Elkhart Brass quarter-turn heavy duty swing-out valve.

One (1) Elkhart Valve, 3.0", Manual Valve

35-70-1310

DISCHARGE VALVE

A 3.00 inch (77 mm) Elkhart Brass heavy duty swing-out valve.

One (1) Elkhart Valve, 3.0", Manual Valve

35-70-1310

DISCHARGE VALVE

A 3.00 inch (77 mm) Elkhart Brass heavy duty swing-out valve.

One (1) Valve(s) Control - Manual Control @ Operator's Panel

35-70-8030

DISCHARGE VALVE CONTROL

The discharge control valve shall be a manual control handle at the pump operator's panel.

One (1) Valve(s) Control - Manual Control @ Operator's Panel

35-70-8030

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One (1) Valve(s) Control - Manual Control @ Operator's Panel
35-70-8030

DISCHARGE VALVE CONTROL

The discharge control valve shall be a manual control handle at the pump operator's panel.
One (1) Side Discharge to be located in forward position (to pump steamer)
35-72-0110

DISCHARGE LOCATION

The discharge shall be located on the pump panel in the forward position to the pump steamer inlet.
One (1) Side Discharge to be located in forward position (to pump steamer)
35-72-0110

DISCHARGE LOCATION

The discharge shall be located on the pump panel in the forward position to the pump steamer inlet.
One (1) Side Discharge to be located in rearward position (to pump steamer)
35-72-0120

DISCHARGE LOCATION

The discharge shall be located on the pump panel in the rearward position to the pump steamer inlet.

One (1) Side Discharge to be located in rearward position (to pump steamer)
35-72-0120

DISCHARGE LOCATION

The discharge shall be located on the pump panel in the rearward position to the pump steamer inlet.

One (1) 2.5" Side Discharge Piping
35-80-0110

DISCHARGE PLUMBING

The plumbing shall consist of 2.50 inch (65 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

One (1) 2.5" Side Discharge Piping
35-80-0110

DISCHARGE PLUMBING

The plumbing shall consist of 2.50 inch (65 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

One (1) 2.5" Side Discharge Piping
35-80-0110

DISCHARGE PLUMBING

The plumbing shall consist of 2.50 inch (65 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

One (1) 3.0" Side Discharge Piping
35-80-0310

DISCHARGE PLUMBING

The plumbing shall consist of 3.00 inch (77 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

One (1) 2.5" Rear Discharge Piping w/ Water Tank Sleeve (4")
35-80-2040

DISCHARGE PLUMBING

The plumbing shall consist of 2.50 inch (65 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

REAR DISCHARGE WATER TANK SLEEVE

The water tank shall be provided with one (1) 4.00 inch sleeve from the front of the tank to the rear of the tank for the rear discharge plumbing.

One (1) 2.0" Discharge Piping (Crosslays, Speedlays)
35-80-3110

DISCHARGE PLUMBING

The plumbing shall consist of 2.00 inch (50 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

One (1) 2.0" Discharge Piping (Crosslays, Speedlays)
35-80-3110

DISCHARGE PLUMBING

The plumbing shall consist of 2.00 inch (50 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

One (1) 2.5" Discharge Piping (Crosslays, Speedlays)
35-80-3210

DISCHARGE PLUMBING

The plumbing shall consist of 2.50 inch (65 mm) piping and shall incorporate a manual drain control installed below the pump area for ease of access.

One (1) 3.0" Deluge Discharge Piping
35-80-4040

DELUGE PLUMBING

The deluge waterway shall consist of 3.00 inch (77 mm) piping up through the pump compartment.

One (1) Termination: 2.5" NPT x 2.5" NST adapter w/ Plug
35-85-0110

INTAKE TERMINATION

The termination shall include the following components:

One (1) 2.50 inch (65 mm) NST swivel female straight adapter with screen that extends through the pump panel.

One (1) 2.50 inch (65 mm) chrome plated rocker lug plug, secured by a chain.

One (1) Termination: 2.5" NST x 2.5" NST Chrome Elbow w/ Plug (Pump Panel)
35-90-0120

DISCHARGE TERMINATION

The termination shall include the following components:

One (1) 2.50 inch (65 mm) NST male straight adapter that extends through the pump panel.

One (1) 2.50 inch (65 mm) chrome plated 30-degree elbow.

One (1) 2.50 inch (65 mm) rocker lug cap with lug vent, secured by a chain.

One (1) Termination: 2.5" NST x 2.5" NST Chrome Elbow w/ Plug (Pump Panel)
35-90-0120

DISCHARGE TERMINATION

The termination shall include the following components:

One (1) 2.50 inch (65 mm) NST male straight adapter that extends through the pump panel.

One (1) 2.50 inch (65 mm) chrome plated 30-degree elbow.

One (1) 2.50 inch (65 mm) rocker lug cap with lug vent, secured by a chain.

One (1) Termination: 2.5" NST x 2.5" NST Chrome Elbow w/ Plug (Pump Panel)
35-90-0120

DISCHARGE TERMINATION

The termination shall include the following components:

One (1) 2.50 inch (65 mm) NST male straight adapter that extends through the pump panel.

One (1) 2.50 inch (65 mm) chrome plated 30-degree elbow.

One (1) 2.50 inch (65 mm) rocker lug cap with lug vent, secured by a chain.

One (1) 35-90-2220 Termination: 3.0" NST F x 5.0" Storz - Rocker Lug w/ cap - Rigid (Pump Panel)

DISCHARGE TERMINATION

The termination shall include the following components:

One (1) 3.00 inch (77 mm) NST female rigid rocker to a 5.00 inch storz hard coated aluminum adapter.

One (1) 5.00 inch (77 mm) storz cap with lanyard and suction gasket.

One (1) 35-90-8110 Termination: 2.5" NST x 2.5" NST Chrome Elbow w/ Plug (Rear Body)

DISCHARGE TERMINATION

The termination shall include the following components:

One (1) 2.50 inch (65 mm) NST male straight adapter that extends through the rear of the body.

One (1) 2.50 inch (65 mm) chrome plated 30-degree elbow.

One (1) 2.50 inch (65 mm) rocker lug cap with lug vent, secured by a chain.

One (1) 35-95-0020 Termination: 2.0" NPT x 1.5" NST Swivel - Crosslay/Speedlay

DISCHARGE TERMINATION

The termination shall include the following components:

One (1) 2.00 inch (50 mm) NPT x 1.50 inch (38 mm) NST 90-degree swivel located in the hosebed.

One (1) 35-95-0020 Termination: 2.0" NPT x 1.5" NST Swivel - Crosslay/Speedlay

DISCHARGE TERMINATION

The termination shall include the following components:

One (1) 2.00 inch (50 mm) NPT x 1.50 inch (38 mm) NST 90-degree swivel located in the hosebed.

One (1) 35-95-1020 Termination: 2.5" NPT x 2.5" NST Swivel - Crosslay/Speedlay

DISCHARGE TERMINATION

The termination shall include the following components:

One (1) 2.50 inch (65 mm) NPT x 2.50 inch (65 mm) NST 90-degree swivel located in the hosebed.

One (1) Crosslay Hose Guides

40-00-0110

CROSSLAY HOSE GUIDES

Brushed stainless steel hose guides shall be provided on the left and right side of the crosslays.

One (1) Speedlay, Poly Hose Guides

40-00-0210

SPEEDLAY HOSE GUIDES

There shall be poly guides provided and installed at the vertical, upper and lower edges of each speedlay bay opening on both sides of the pump compartment to protect the hose and couplings.

One (1) Vinyl Cover for Crosslay Hosebed - Top & Sides

40-00-1010

CROSSLAY COVER

The crosslay area shall have a vinyl cover installed on the top and sides of the crosslay area.

One (1) Vinyl Cover for Speedlay Hosebeds- Sides

40-00-1210

SPEEDLAY COVER

A single vinyl coated nylon cover shall be provided over the speedlay hosebeds, one (1) cover on each side of the pump compartment. The cover shall be secured with with "Lift-A-Dot" fasteners.

One (1) Vinyl Top & Side Cover Color, Midnight Black

40-00-4110

COVER COLOR

The vinyl crosslay cover shall be Midnight Black in color.

One (1) Vinyl Side Cover Color, Midnight Black

40-00-5010

SPEEDLAY VINYL SIDE COLOR

The vinyl speedlay side covers shall be Midnight Black in color.

One (1) Manual Drain, Deluge Pipe

40-10-0010

DELUGE DRAIN

The deluge pipe shall be drained with a 1/4 turn manual drain located at the lowest point of the waterway plumbing below the pump area for ease of access.

The valve shall be brass with 3/4" NPT female inlet and outlet thread.

One (1) Telescoping Waterway, TFT 18" "Extend-A-Gun" #XG18VL-XL (For Crossfire Monitor)

40-10-1030

EXTEND-A-GUN

A Task Force Tips (TFT) model XG18VL-XL, 18.00 inch "Extend-A-Gun" unit and mounting kit shall be provided and installed on the deluge discharge to elevate a deck gun 18.00 above the travel position.

One (1) Deck Gun Monitor, TFT #XFC-52 Kit - Crossfire

40-15-0120

DECK GUN MONITOR

A Task Force Tips (TFT) "Crossfire" model #XFC-52 monitor package shall be provided and installed on the deluge discharge outlet.

The monitor package shall be furnished with the following components:

- One (1) Ground Base with two (2) 2.50 inch inlets (XFH-2NJ)
- One (1) Flow Master Stream Nozzle (M-RS1000-NJ)
- One (1) 10.00 inch Stream Straightener (XF-SS10)
- One (1) Quad Stacked Tips (MST-4NJ)
- One (1) "Crossfire" storage bracket (XF-B)

One (1) 40-25-0330 Hale Smart Foam 5.0 (A or B) Foam System w/ Control Panel

FOAM SYSTEM

A Hale "SmartFOAM" 5.0 GPM foam system shall be supplied on the apparatus. The apparatus shall be equipped with an automatic electronically controlled, direct injection, rotary gear pump, discharge side foam proportioning system. Foam proportioning operation shall be based on direct measurement of water flow and remain consistent within the specified flows and pressures.

SYSTEM REQUIREMENTS

The complete foam proportioning system shall include the following:

1) Foam Pump
2) Class 1 UltraView SmartFOAM Controller
3) Foam Concentrate Strainer
4) Integral Check Valve/Injector Fitting
5) Flow meter
6) Control Cables
7) Low Tank Level Switch
8) Water Discharge Check Valves

FOAM PUMP

The foam proportioning system shall be compatible with Class A and B foam concentrates. The foam proportioning system shall be capable of delivering the rated foam concentrate flow with the above-mentioned foam concentrate type. The foam proportioning system shall be based on an electric motor driven, rotary gear foam concentrate pump, rated at 5.0 GPM (19 LPM) foam concentrate flow rate with maximum operating pressure of 250 PSI (17.2 bar).

The pump is close coupled to the electric motor thereby eliminating maintenance of an oil-filled gearbox. A relief valve mounted on the foam pump that is constructed of stainless steel, protects the foam pump and foam concentrate discharge hoses from over pressurization and damage. This valve is set to 300PSI (21 bar).

FOAM CONCENTRATE STRAINERS

Field serviceable foam concentrate strainers shall be provided in the foam concentrate suction line. When the strainer shall not be subject to flushing water pressure a plastic bodied in-line strainer shall be used. The strainer body shall be constructed of plastic with a stainless-steel mesh screen. A shutoff valve shall be provided to enable isolation of the strainer for service. The strainer shall be mounted in the pump compartment. The strainer shall be a low-pressure device and shall not be subject to flush water pressure.

Where strainers are subject to flush water pressure, panel mounted field serviceable foam concentrate strainers rated at 500 PSI (34 BAR) minimum shall be installed on the pump panel. The strainer body shall be constructed of brass with a chrome cap and an easily removable stainless steel mesh screen for field servicing. The valve inlet offers ½ inch NPT threads with a fitting to connect a ½ inch ID foam concentrate suction hose.

INJECTOR FITTING AND CHECK VALVES

To prevent contamination of the foam concentrate supply, foam concentrate shall be injected into the water pump discharge stream through an integral check valve/injector fitting. The check valve/injector fitting shall be of one-piece construction of brass and stainless steel. To prevent contamination of the water pump and apparatus booster tank wafer type check valves shall be installed in the water pump discharge piping prior to the foam injection point.

FLOWMETER

A paddlewheel type flow meter shall monitor water flow in foam capable discharges. The flow meter body shall be constructed of bronze and the sensor assembly shall be locked into the tee with a pin and screw on cap. The flow meter shall have a 500 PSIG (34 BAR) pressure rating per NFPA requirements.

One (1) flow meter is required for proper operation of the foam proportioning system. Power for the flow meter sensor shall be provided through the electrically shielded cable set from the control unit. Flow meters having NPT threaded and Victaulic connections shall be used in the water discharge piping.

The flow meter selected shall be sized to adequately monitor the minimum and maximum flow expected in the foam capable discharges.

CONTROL CABLES

The cables for connection of the control unit, distribution box, flow meter sensor, flow meter display units, pressure transducers and feedback sensor shall be 100% electrically shielded molded male by female cordsets. The cordsets shall have the ability to connect together and total length shall not exceed 40 feet (12 meters). The connections shall be keyed to prevent mis-connection and improper system operation. Shielding shall be provided by an aluminized mylar shield within the PVC outer jacket. A drain wire shall be tied to one of the pins on each end of the cable. No externally attached ferrite beads shall be installed for the purpose of electrical shielding. Coupling nuts on the cordset ends shall be constructed of nickel coated brass. When properly connected the connections shall be sealed to NEMA 4X or equal.

LOW TANK LEVEL SWITCH

A low tank level switch shall be installed in the foam concentrate tank. The low tank level sensor shall be connected to the foam proportioning system to provide protection against dry running of the foam pump. The low tank level sensor shall be mounted on the side of the foam concentrate tank. The low tank level sensor and electrical connections shall be sealed to prevent infusion of foam concentrate into the wiring and possible short circuit of the tank level sensor.

FOAM SUPPLY

The foam proportioning system shall be supplied from a separate apparatus mounted foam concentrate storage tank. The tank shall be constructed of materials compatible with foam concentrates being used in the system. Provision shall be made for installation of low tank level sensors and routing of the wiring for the sensors. Tank capacity, venting, fill opening and foam outlet plumbing connections shall be in accordance with NFPA requirements.

DOCUMENTATION

The foam proportioning system when delivered to the end user shall include a foam concentrate compatibility list and two (2) Description, Installation and Operation Manuals. The foam proportioning system shall have a one (1) year limited manufacturer's warranty.

One (1) 40-25-2010 Foam System Plumbed to 1 tank

FOAM SYSTEM SUPPLY

The system shall be supplied by a single foam tank that shall be monitored by the control display. The display shall flash a "low concentrate" warning for two minutes when the foam tank runs low. In the event that no additional concentrate is added to the tank, the foam concentrate pump shall be deactivated.

One (1) 40-25-3030 Single Foam Tank - 30 gallons, Class A

FOAM TANK

A thirty (30) gallon polypropylene foam concentrate tank shall be provided. The foam tank shall have an anti-foaming fill stack and removable screen located in an accessible area. The foam tank fill tower shall be equipped with a latch, pressure/vacuum vent and have a sealed airtight cover.

The foam tank shall be plumbed to the on board "Class A" foam system.

The following labels shall be attached to the foam tank:

"CLASS A FOAM TANK FILL"
"WARNING: DO NOT MIX BRANDS AND TYPES OF FOAM"

One (1) 40-25-4010 Foam Tank Integral of Booster Tank

FOAM TANK LOCATION

The foam tank shall be integral with the booster water tank provided with a color coded decal provided on the foam fill tower to identify the fill tower as foam.

One (1) 40-25-5010 Single Tank 1" Drain Per Foam Tank

FOAM TANK DRAIN

There shall be a 1.00 inch (25.4 mm) quarter turn drain valve installed at the lowest point to drain the foam tank. The foam tank shall drain directly to the surface below the apparatus without contacting other body or chassis components.

The drain line shall be labeled.

One (1) 40-25-6020 Foam Tank Refill System, HME System

SINGLE TANK FOAM TANK REFILL SYSTEM

A truck mounted 12-Volt foam tank refill system shall be provided and installed on the apparatus. The refill system shall provide the ability to automatically refill the foam tank from the ground without carrying foam solution up to the foam cell in the hosebed.

The refill system shall be activated by an on/off rocker switch provided on a control panel installed on the pump panel. The foam refill system will automatically shut off when the foam tank is full. The refill system quick connection shall be located beneath the pump panel running board to prevent foam from spilling onto the running board during connection operations.

System features:

- Weather proof on/of rocker switch with integral green power on indicator light
- Red refill PUMP ON indicator light
- Automatic tank fill shutoff, vertical or side mount float switches
- Thermally protected 12-volt motor
- Relay operated motor power circuit
- 5 gpm capacity @ 8 foot lift
- Self priming pump, can run dry and re-prime itself automatically
- Composite pump head with Buna-N diaphragm
- All corrosion resistant components
- Compatible with Class A or Class B foam concentrates
- Quick connect inlet hose with wand
- Suction inlet strainer

One (1) 40-25-7020 Class 1 (UltraView SmartFOAM) Foam System Control

FOAM SYSTEM CONTROL

The system shall be equipped with a Class 1 UltraView SmartFOAM electric control unit installed at the pump operator panel as the single point of operation for the foam proportioning system.

The SmartFOAM Controller will show the water flow per minute, foam percentage, total water flowed, and total foam flowed on the main screen without having to press any buttons. The controller will maintain a running total of the amount of water and foam used during the current power cycle.

The SmartFOAM Controller will allow push-button modification of the foam proportioning rate from 0.1% to 10.05 in 0.1% increments. The controller will always begin operation at the preset foam proportioning rate which is configured with a password protected set-up screen. There are six (6) customizable presets for foam injection rates for a specific fire ground scenario.

The SmartFOAM Controller shall provide on-screen tutorials to assist during calibration.

Foam concentrate injection rate is controlled by a computer chip in the control unit for accurate, repeatable, reliable foam concentrate injection. A water flow sensor constantly monitors water flow through the discharge piping. The information from the flow sensor is provided to the control unit by a shielded cable. When the SmartFOAM system is activated at the control unit a signal is sent through the control cable to the motor controller to begin foam concentrate injection. The motor controller then provides power to the electric motor. The electric motor rotates the foam pump and foam concentrate flows through the foam pump discharge to the one-piece check valve/injector fitting into the water discharge stream.

The distribution box shall receive 12-Volt direct current power from the apparatus electrical system as the only source of power to operate the system and power component sensors. Control power shall be

distributed to the control unit, flow meter sensor and foam concentrate feedback sensor through a conductor in the 100% electrically shielded cable sets provided by the foam proportioner manufacturer. The microprocessor in the control unit shall process input signals from the flow meter sensor and foam feedback sensor to determine the proper duty cycle for the electric motor to run. The distribution box shall provide power to the electric motor, based on signals received from the control unit, at a variable rate to ensure that the correct proportion of foam concentrate, preset by the pump operator on the control unit, is injected into the water pump discharge stream. The distribution box shall have a main power control switch and over current protection for the foam proportioning system. All primary electrical wires for the foam concentrate system shall be type SXL or GXL (SAE J1128) per NFPA requirements.

One (1) 40-40-0020 Foam System Outlets - Max (4) ONLY - CORE Pumper {MUST SELECT}

FOAM SYSTEM OUTLETS

The foam system shall be distributed into the following discharge outlets:

One (1) 40-40-0220 Foam Outlet, (1) 2-1/2" Crosslay

One (1) 2.50 inch crosslay discharge.

One (1) 40-40-1130 Foam Outlet, (2) 1-1/2" Speedlays

Two (2) 1.50 inch speedlay discharges.

One (1) 40-40-2020 Foam Outlet, (1) Front Jumpline

One (1) front jumpline discharge.

One (1) 40-45-0120 Innovative Controls - Soft-Glo Foam Gauge, Class A Foam - Operator's Panel

FOAM TANK LEVEL INDICATOR

An Innovative Controls Soft-Glo foam tank level gauge for Class A foam shall be provided and installed at the pump operators panel.

The display modules are divided into four (4) distinct sections that show the volume of foam in the corresponding tank using multi-color RGB superbright LEDs. Tank level indication is enhanced by a 180° wide-angle diffusion lens in front of the LEDs. The LEDS are diffused by a proprietary method that creates an illumination effect that remains bright and visible in sunlight but eliminates the typical irritation to an operator’s eyes traditionally caused by bright LEDs at night.

One (1) 40-45-5005 Chrome Bezel - Foam Gauge

BEZEL - CHROME

A chrome bezel shall be provided for the gauge.

One (1) 60-55-5110 (2) Grab Handles, Access Dunnage Compartment, Mounted L/R Side

DUNNAGE COMPARTMENT GRAB HANDLES

Two (2) extruded aluminum grab handles shall be provided and installed, one (1) on each side of the pump compartment module. The grab handles shall be mounted on the side of the dunnage compartment just below the top edge mounted horizontally to provide easy access to the dunnage compartment.

Molded rubber gaskets shall be installed under each grab handle to protect the surface of the dunnage compartment.

One (1) (2) Grab Handles, Above Speedlays - Top Mount

60-55-5120

WALKWAY GRAB HANDLES

Two (2) extruded aluminum grab handles shall be provided and installed, one (1) on each side of the pump compartment module above the top speedlay to provide easy access to the walkway.

Molded rubber gaskets shall be installed under each grab handle to protect the surface of the dunnage compartment.

One (1) (2) Walkway Grab Rails, Mounted L/R Side Rear Cab Wall

60-55-5220

WALKWAY GRAB RAILS

Two (2) extruded aluminum grab rails shall be provided, one (1) each side of the cab rear wall to provide easy access to the pump panel walkway.

Molded rubber gaskets shall be installed under the grab handles to protect the painted surface of the cab.

One (1) Grab Handles - Bright Finish

60-55-6110

GRAB HANDLES - BRIGHT FINISH

The grab handles shall have a bright finish with chrome stanchions.

One (1) Grab Handles - Bright Finish

60-55-6110

GRAB HANDLES - BRIGHT FINISH

The grab handles shall have a bright finish with chrome stanchions.

One (1) Grab Handles - Bright Finish

60-55-6110

GRAB HANDLES - BRIGHT FINISH

The grab handles shall have a bright finish with chrome stanchions.

One (1) (2) LED Strip Lights, Armor Guard, Pumphouse Runningboard

70-15-0115

RUNNINGBOARD LIGHTING

Two (2) white LED armor protected, strip lights shall be provided one (1) each side of the pump module mounted to the underside of the runningboard(s).

The lights shall be activated with the vehicle ground light circuit.

One (1) (2) LED Lights, Top Mount Walkway

70-15-0215

WALKWAY LIGHTS

Two (2) white LED lights shall be provided and installed at the front forward face of the pump compartment module to provide lighting to the walkway. One (1) light shall be mounted outboard on each side of the module.

One (1) Step Light Activation - Parking Brake

70-15-9010

STEP LIGHT ACTIVATION

The step light shall be activated when the park brake is set.

One (1) == CORE Pumper 22 - Body - 7.001 06/01/23 ==

One (1) UPF Water Tank Warranty - Lifetime - Pumper
00-25-5305

TANK WARRANTY

A lifetime tank warranty will be provided by the tank manufacturer, United Plastic Fabricating (UPF).

One (1) Body & Compartment Design and Construction, Stainless Steel - Pumper
50-00-0010

APPARATUS BODY DESIGN AND CONSTRUCTION

The apparatus body shall be built of stainless steel and shall be designed exclusively for Fire Service use. All metal work shall be free of sharp edges, objects or corners. No exceptions are allowed to this requirement.

The body design shall be fully tested with proven engineering and test techniques such as finite element analysis, stress coating, and strain gauging. Engineering and test techniques shall have been performed with special attention given to fatigue life and structural integrity of compartments and body support system.

The apparatus body shall be designed with the use of parametric modeling engineering software to ensure proper design of panel cuts and alignment of holes in mating parts. The entire apparatus body shall be a precision laser machined, bolted construction, properly reinforced with integral flanges eliminating the need for additional structural shapes. Hose body fabrications shall be free of all internal projections which might injure personnel or fire hose.

MODULAR BODY REQUIREMENTS

The body shall be completely modular in design allowing transfer of body components to a new chassis in the event of an accident or wear. Body components shall be removable from chassis without cutting or bending. The modular design shall also facilitate ease of repair or replacement of major or minor body parts. The mounting of the apparatus body shall be separate and distinct from the water tank mounting and the pump compartment mounting.

All body panels are to be laser machined on a CAM controlled laser to ensure accuracy (+/- .010"). This shall greatly enhance assembly and matching of repair parts. The body compartment floors, rear walls and roof areas shall be constructed of 12-gauge austenitic stainless steel. The vertical front and rear walls are designed with 14-gauge stainless steel. These front and rear walls are designed as a structural beam with the inclusion of the design encompassing a front an rear design that allows for installation of telescoping lights.

Interior and unexposed stainless steel panels shall be #4B finish to eliminate the need for high maintenance painted surfaces in the compartments. All exterior stainless steel panels shall have #4B finish.

The entire body shall be fabricated using precision holding fixtures to ensure accurate dimensions. Body front and rear vertical flanges shall be triple broken, providing a mounting area for rear hand rails. Major body components shall consist of right and left body sides, and rear facing compartments.

The front and rear vertical corners of the apparatus body shall be recessed to provide a mounting area for vertical hand rails and telescoping light poles.

COMPARTMENT ROOF CONSTRUCTION

Each compartment top shall have a bolt in 12-gauge stainless roof section for supporting roof loads of up to 500 pounds per square foot without permanent roof deformation. The stainless roof sections shall attach the compartment rear wall and compartment vertical sides through a fastened joint creating a full perimeter compartment attachment of the stainless roof section.

COMPARTMENT DESIGN AND CONSTRUCTION

All compartments shall be manufactured from 12-gauge stainless steel with the vertical front and rear corner walls from 14-gauge, shall be of sweep out design and shall be bolted together. Stainless recessed round head bolts and stainless aircraft style "ESNA" nuts shall be applied with proper torque rating for each fastener. This type of construction shall greatly enhance the strength and ease of parts replacement in the event of damage and future modifications. Wherever possible, body bolts shall be hidden from plain view for appearance and ease of apparatus cleaning.

One (1) Body Mounting - Pumper
50-05-0010

BODY MOUNTING SYSTEM

The front body support system shall be an integral design with .25 inch thick steel deep section cross member across the top of the chassis frame. The deep section cross member shall be attached to the right side and the left side lower front compartment weldments with eight (8) grade 8; 3/8 inch diameter bolts on each side of the apparatus. The front cross member shall be attached to the chassis by means of an elastomer spring mounting system with limited travel.

The lower portion of this spring mounting system shall be an integral part of the pump compartment frame mounting system. This design allows for maximum chassis flexing without undue stress transfer to the apparatus body.

The right and left side rear compartments shall be attached to a stainless steel rear body support. The stainless steel support shall be attached to the chassis frame extensions by means of an elastomer spring mounting system to form a modular integral body support system.

The apparatus body shall not rest upon the chassis truck rails and must be separated entirely from the steel frame of the chassis to prevent galvanic action.

Loose fitting u-bolt body mounting systems are not acceptable due to the likeliness of the apparatus body shifting or becoming detached from the chassis upon rear end impact.

One (1) Frame Extension, Rear
50-10-0010

REAR CHASSIS FRAME EXTENSIONS

There shall be a rear chassis drop frame extension to provide frame support for the rear of the apparatus body. This extension is to be bolted to the truck chassis as an integral part of the truck frame assembly and is to include rear tow eyes, crossmember and tailboard reinforcement.

The rear chassis frame extension system shall consist of a interwoven dual .625 inch thick steel drop frame extensions with a transverse 4.00 inch x 3.00 inch x .375 inch thick structural channel, and dual laminated .188 inch thick rear compartment and tailboard support tapered angles on each side of apparatus.

The rear frame extension shall be bolted to the chassis frame utilizing Grade 8 bolts and Grade C locknuts with hardened washers. For ease in replacement of damaged components in an accident there shall be no welding of components to the chassis frame.

Two (2) tow eyes with an eye diameter of not less than 3.50 inches shall be attached directly to the chassis frame extensions. The tow eyes shall be fabricated of .625" thick steel.

One (1) Rear Tow Eyes
50-10-0110

REAR TOW EYES

Two (2) tow eyes with an eye diameter of not less than 3.50 inches shall be attached directly to the chassis frame extensions. The tow eyes shall be fabricated of .625" thick steel.

One (1) Rear Frame Extension and Body Mounts, Hot Dip Galvanized
50-10-0510

REAR FRAME EXTENSION FINISH

The rear frame extension and rear floor body mounting pads shall be hot dip galvanized for corrosion resistance.

One (1) Fastener Finish - Zinc
50-10-0610

FASTENER FINISH

Attachment fasteners for the frame extension to the main frame rails to the main frame cross-members shall be Zinc plated to reduce the effect of harsh road chemicals.

One (1) 20 Year Frame Extension Corrosion Warranty
50-10-0710

20 YEAR TANK FRAME EXTENSION CORROSION WARRANTY

The galvanized parts shall have a warranty covering structural failure due to corrosion perforation. This warranty shall be in effect for 20 years after delivery of the apparatus to the end user.

One (1) Painted Apparatus Body - CORE Pumper
50-20-0110

STAINLESS STEEL APPARATUS BODY PAINTED

The following apparatus body components shall be painted job color.

One (1) Painted Apparatus Body, Wheel Well Fender Panels
50-20-0220

The rear wheel fender panels.

One (1) Painted Hosebed Exterior Side Walls
50-20-0520

The exterior surface of the hosebed side walls.

One (1) Painted Hosebed Exterior Front Wall
50-20-0620

The exterior surface of the hosebed front wall.

One (1) Compartment Interior Finish - Uncoated
50-25-0110

COMPARTMENT INTERIOR FINISH

For better interior visibility, to reflect light better, ease of maintenance and prevent the masking of poor welds and questionable workmanship the interior of the body compartments shall remain uncoated.

One (1) Compartment Exterior Top/Roof - Brushed SST - NOT a Step Surface
50-35-0110

EXTERIOR COMPARTMENT ROOF FINISH

The exterior top of the body compartments shall be brushed stainless steel material.

There shall be a label on each surface that shall state 'Not a Stepping Surface'.

One (1) 50-40-0110 Compartment Ventilation w/Filtration (L1, L3, R1 and R3)

COMPARTMENT VENTILATION

Each compartment shall be provided with a laser cut louver to provide adequate ventilation.

VENT FILTRATION

There shall be filters provided for compartments L1, L3, R1 and R3. The protective louver covering the filer shall be removable to allow for filter changing.

The filter shall be 100% virgin nylon fiber in an open web design that is USDA approved. The filter shall be chemically treated with Dimethyl Benzyl Ammonium Saccharinate to aid in the reduction of bacteria and fungi.

One (1) 50-45-0020 100" Wide Body

BODY STRUCTURE WIDTH

The width of the apparatus body from the outside of the left compartments to the outside of the right compartments shall be 100.00 inches (2.54 m) excluding any attached peripherals such as rub rails, fenderettes, grab handles, etc.

One (1) 50-55-3022 22) 82"/82" - Vert. Ladder Compt - LS=Full Dep, RS=Split Dep (56"/52"/51") CORE

COMPARTMENTATION

The following compartments shall be supplied on the apparatus:

FORWARD OF WHEEL WELL - L1

There shall be one (1) full height and full depth compartment ahead of the rear wheels on the left side of the apparatus.

It shall have approximate dimensions of 56.00 inches wide x 63.00 inches high x 24.00 inches deep.

ABOVE WHEEL WELL - L2

There shall be one (1) high side compartment centered over the rear wheels on the left side of the apparatus.

It shall have approximate dimensions of 52.00 inches wide x 33.00 inches high x 24.00 inches deep.

REAR OF WHEEL WELL - L3

There shall be one (1) full height and full depth compartment behind the rear wheels on the left side of the apparatus.

It shall have approximate dimensions of 51.00 inches wide x 63.00 inches high x 24.00 inches deep.

Due to the rear body inset above the tailboard, the interior right rear corner of the compartment shall have a notch that extends from the floor to the ceiling that is 5.50 inches wide x 12.00 inches deep. This notch shall reduce the storage capacity of the compartment with a usable width of 45.50 inches to the notch.

FORWARD OF WHEEL WELL - R1

There shall be one (1) full height and split depth compartment ahead of the rear wheels on the right side of the apparatus.

It shall have approximate dimensions of 56.00 inches wide x 33.00 inches high x 12.00 inches deep in the upper section and 30.00 inches high x 24.00 inches deep in the lower section.

ABOVE WHEEL WELL - R2

There shall be one (1) high side compartment centered over the rear wheels on the right side of the apparatus.

It shall have approximate dimensions of 52.00 inches wide x 33.00 inches high x 12.00 inches.

REAR OF WHEEL WELL - R3

There shall be one (1) full height and split depth compartment behind the rear wheels on the right side of the apparatus.

It shall have approximate dimensions of 51.00 inches wide x 33.00 inches high x 12.00 inches deep in the upper section and 30.00 inches high x 24.00 inches deep in the lower section.

Due to the rear body inset above the tailboard, the interior left rear corner of the compartment shall have a notch that extends from the floor to the ceiling that is 5.50 inches wide x 12.00 inches deep. This notch shall reduce the storage capacity of the compartment with a usable width of 45.50 inches to the notch.

One (1) Cubic Ft, Body Side Compts 198, 164" Body OAL (22 Pumper Body)
50-65-3022

BODY SIDE CAPACITIES

The total compartment volume capacity of the body exterior compartments shall be 198 cubic feet.

BODY LENGTH

The apparatus body module shall have an overall length of 164.00 inches, excluding rear tailboard.

One (1) Non-Locking Roll-Up Doors - (6) Side Compartments
50-70-0060

SIDE COMPARTMENT DOOR CONSTRUCTION

All horizontal and vertical side compartment doors shall be non-locking roll-up style doors.

One (1) R.O.M. (Roll-Up Doors)
50-70-1010

R·O·M ROLL-UP DOOR

A R•O•M Corporation Series IV roll-up shutter doors shall be installed for each body compartment specified with a roll-up door. Each shutter slat, track, bottom rail, and drip rail shall be constructed from anodized 6063 T6 aluminum.

Shutter slats shall feature a double wall extrusion 0.315 inches thick with a concave interior surface to minimize loose equipment jamming the shutter door closed. Shutter slats shall feature an interlocking end shoe to prevent side to side binding of the shutter door during operation. Slats must have interlocking joints with an inverted locking flange. Slat inner seal shall be a one piece PVC extrusion; seal design shall be such to prevent metal to metal contact while minimizing dirt and water from entering the compartment.

Shutter door track shall be one piece design with integral overlapping flange to provide a clean finished look without the need of caulk. Door track shall feature an extruded Santoprene rubber double lip low profile side seal with a silicone co-extruded back to reduce friction during shutter operation.

Shutter bottom rail shall be a one piece double wall extrusion with integrated finger pull. Finger pull shall be curved upward with a linear striated surface to improve operator grip while operating the shutter door. Bottom rail shall have a smooth contoured interior surface to prevent loose equipment from jamming the shutter door. Bottom rail seal shall be made from Santoprene; it will be a double “V” seal to prevent water and debris from entering compartment. Bottom rail lift bar shall be a one piece “D” shaped aluminum extrusion with linear striations to improve operator grip during operation. Lift bar shall have a wall thickness of 0.125 inches. Lift bar shall be supported by no less than two pivot blocks; pivot blocks shall be constructed from Type 66 Glass filled reinforced nylon for superior strength. Bottom rail end blocks shall have incorporated drain holes which will allow any moisture that collects inside the extrusion to drain out.

Shutter door shall have an enclosed counterbalance system. Counterbalance system shall be 4.00 inches in diameter and held in place by 2 heavy duty 18 gauge zinc plated plates. Counterbalance system shall have 2 over-molded rubber guide wheels to provide a smooth transition from vertical track to counterbalance system.

One (1) Paint Finish, Roll-Up Doors Side Compartments
50-70-2020

SIDE COMPARTMENT DOOR PAINT FINISH

The side compartment roll-up doors shall be a painted finish with body job color.

One (1) Paint Finish - Track and Trim
50-70-3020

ROLL-UP DOOR TRACK & TRIM - PAINT FINISH

The track and trim for each roll-up door specified shall be painted finish to match the door shutters.

One (1) Door Open Switch/Warning Light - Roll-Up Doors (ROM)
50-70-5010

DOOR OPEN INDICATOR

Each roll-up door shall have an integral door open indicator magnet in the lift bar.

If the door is not properly closed and the parking brake is released, it shall activate the “hazard light” in the cab to alert the crew.

One (1) RR1, Rear Ext Compartment, 62" H x 48" W x 22" D (Full Height) - CORE
55-05-0210

REAR CENTER COMPARTMENT

There shall be one (1) full height compartment, RR1, located at the rear of the apparatus below the hosebed access area.

It shall have approximate dimensions of 48.00 inches wide x 62.00 inches high x 22.00 inches deep.

One (1) Cubic Ft, Body Rear Center Compartment (RR1) - 38.5
55-05-5110

REAR CENTER COMPARTMENT CAPACITY

The total compartment volume capacity of the body exterior rear center compartment (RR1) shall be 38.5 cubic feet.

One (1) RR2, RS Vertical Ladder Storage Compt - CORE Pumper 22
55-10-0210

RR2 - LADDER STORAGE - ON BEAM

There shall be a ladder storage compartment provided at the rear of the apparatus on the right side of the body beside the water tank.

The ladders shall be placed into the body from the rear of the apparatus sliding into the compartment on beam. The compartment shall have approximate dimensions of 30.00 inches high x 12.00 inches wide.

This compartment shall extend from the rear of the apparatus completely through to allow the ladders to extend into the pump house for storage.

The ladder compartment shall be constructed of 12 gauge stainless steel material.

The compartment shall have storage for one (1) 24 foot two-section ladder, one (1) 14 foot roof ladder, one (1) 10 foot folding ladder, and three (3) pike poles.

One (1) Non-Locking Roll-Up Door - Rear Compartment
55-20-0150

REAR CENTER COMPARTMENT DOOR CONSTRUCTION

The rear center compartment door shall be non-locking roll-up style door.

One (1) Satin Anodized Finish, Rear Compartment Door
55-20-3010

REAR COMPARTMENT DOOR SATIN ANODIZED FINISH

The rear compartment roll-up door shall be satin anodized finish.

One (1) Door Open Switch/Warning Light - Roll-Up Door (ROM)
55-20-4010

DOOR OPEN INDICATOR

The rear roll-up door shall have an integral door open indicator magnet in the lift bar.

If the door is not properly closed and the parking brake is released, it shall activate the “hazard light” in the cab to alert the crew.

One (1) Ladder Compartment Door (RR2) (Material Match Rear Body)
55-30-0110

LADDER COMPARTMENT DOOR

A vertically hinged door shall be provided to access the rear ladder storage compartment.

The door material shall match the rear overlay material and shall include chevron material matching the rear of the apparatus.

If the door is not properly closed and the parking brake is released, it shall activate the “hazard light” in the cab to alert the crew.

One (1) Non-Locking "D" Ring Latch, Chrome
55-30-2010

REAR COMPARTMENT DOOR LATCH

The door handle shall be a polished stainless steel non-locking "D"-ring latch with a 5-degree bend for easier grasping with a gloved hand.

It shall be installed centered on the door.

One (1) HME Prov Duo-Safety Ladder Pkg On Beam Beside Tank - 10-Fold, 14-Roof, 24-2 Sec
55-35-0110

LADDER COMPLEMENT

The following ladders shall be supplied with the apparatus:

One (1) Rear Tailboard - Inset - CORE Pumper
55-40-0020

INSET REAR TAILBOARD

The rear of the apparatus body shall be inset in design with the rearmost body side compartmentation extended rearward to provide a larger door opening and increase compartment storage space.

The rear tailboard shall be fabricated of the same tubular materials as used in the apparatus body.

The tailboard shall be an independent assembly and shall be bolted to the rear body structural framing to provide body protection and a solid rear stepping platform.

The tailboard shall provide protection for the side body compartments and shall provide mounting for the rear ICC marker lights.

On the rear body surface, a sign shall be attached that states: "DO NOT RIDE ON REAR STEP WHILE VEHICLE IS IN MOTION, DEATH OR SERIOUS INJURY MAY RESULT"

The rear tailboard and body shall be constructed such that the angle of departure shall be no less than 8 degrees at the rear of the apparatus when fully loaded (NFPA) 1901, Standard for Automotive Fire Apparatus.

One (1) Step - 12" Laser Grip Stainless Steel
55-40-1020

REAR TAILBOARD LENGTH

The inset area of the tailboard shall be approximately 12.00 inches (305 mm) deep. The step shall be fabricated from "Laser Grip" stainless steel meeting (NFPA) 1901 step requirements.

One (1) Rear Tailboard - Bright Finish
55-40-2010

REAR TAILBOARD - BRIGHT FINISH

The rear tailboard shall have a bright finish.

One (1) Rear Wheel Well Area, Single Axle - CORE Pumper
55-50-0010

REAR WHEEL PANEL FENDER SIDE SKIRTS

There shall be stainless steel fender side skirts located in the area of the rear wheels of the body.

One (1) Wheel Wells, Liners
55-50-0110

WHEEL WELL LINERS

The apparatus body wheel well liners shall be made from 16 gauge stainless steel and shall be rolled, die stamped and fully removable for access to suspension assembly.

The liners shall be fastened with stainless bolts and ESNA nuts to the outer fender panel.

One (1) Rear Fenderettes, Polished Stainless Steel
55-50-1110

FENDERETTES

Two (2) polished stainless steel fenderettes shall be provided and installed on the body rear wheel well panels, one (1) each side.

One (1) Mud Flaps, Rear
55-50-1210

REAR AXLE MUD FLAPS

There shall be two (2) black, anti-sail mud flaps provided and installed behind the rear wheels.

One (1) SCBA Tubes, (7) Rear Wheelwell, (3) L/S - (4) R/S, Sngl Axle {CUSTOM CHASSIS}
55-55-0070

SCBA BOTTLE COMPARTMENTS

There shall be seven (7) SCBA bottle tube compartments provided and installed, three (3) in the left side rear wheel well area and four (4) in the right side wheel well area.

Each compartment shall be constructed of gray roto molded storage compartment to provide SCBA scuff protection. A door seal shall be provided at the perimeter of the SCBA compartment.

The doors shall be stainless steel with a stainless finger latch.

One (1) Fuel Fill, Left Side Rear Fndr w/Door, Label, Vent Line
55-55-1010

FUEL FILL - LEFT SIDE BODY

The fuel fill shall be located in the rear fender area on the left side of the apparatus body.

The spring loaded fuel fill door shall have "Diesel Fuel" laser cut in the face of the door. There shall be a vent line from the fuel tank to beneath the fuel cap to aid in fueling of the truck.

One (1) Fuel Fill and SCBA Tube Doors - Bright Finish
55-55-2020

FUEL FILL AND SCBA DOORS - BRIGHT FINISH

The fuel fill and SCBA doors shall have a bright finish.

One (1) SCBA Bottle Retention Straps
55-55-3020

SCBA BOTTLE RETENTION STRAP

There shall be one (1) 1.00-inch wide loop of red webbing installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in the event the door is not latched for travel. The loop shall be mounted, centered in the compartment and shall hang within 1.00-inch of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

One (1) Water Tank - 1000 Gallons
55-60-0410

TANK CAPACITY

The water tank shall be 1000 gallons (3785 liters) in capacity.

One (1) Water Tank Construction - UPF
55-60-2010

WATER TANK CONSTRUCTION

The tank shall be constructed of .50 inch thick Polypropylene & Mac226 sheet stock. This material shall be non-corrosive stress relieved thermoplastic, black in color and UV stabilized for maximum protection. The tank shall be of a special configuration and is so designed to be completely independent of the body and compartments. All exterior tank joints and seems shall be extrusion welded and/or contain the Bent Edge™ and tested for maximum strength and integrity. The top of the tank is fitted with removable lifting eyes designed with a 3-to-1 safety factor to facilitate easy removal.

The transverse and longitudinal swash partitions shall be manufactured of Polypropylene & Mac226 material. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow and meet NFPA rules. All swash partitions interlock with one another and are welded to each other as well as to the walls and floor of the tank.

One (1) Tank Mounting, Cradle Mtd, 8" x 8" x 4" x .250"
55-60-3010

TANK MOUNTING

A tank mounting cradle shall be provided. The tank mounting cradle shall consist of a minimum of seven (7) crossmembers and two (2) full tank length longitudinal members.

The water tank shall rest on the tank mounting subframe, and shall be insulated from the sub-frame with a 2.50 inch wide rubber insulator. The water tank shall sit cradle-mounted using four (4) corner angles of 8.00 inch x 8.00 inch x 4.00 inch x .25 inch welded directly to the tank sub-frame. The angles shall keep the tank from shifting left to right or front to rear.

The water tank is designed on the free-floating suspension principal and shall not require the use of hold downs. The water tank shall be completely removable without disturbing or dismantling the apparatus body structure.

The hosebed cross-braces shall act as water tank retainers. The water tank cradle shall be designed to be completely independent of the apparatus body to eliminate torsional stress loading in the body. No exception will be permitted to the tank mounting requirements.

One (1) Tank Cradle - Painted to Match Axles Color
55-60-3110

TANK CRADLE FINISH

The tank cradle shall be finish painted to match the chassis axles.

One (1) Fill Tower, 10" x 14" - Overflow 4"
55-60-4110

TANK LID & FILL TOWER

The tank shall have a combination vent and fill tower. The fill tower shall be constructed of .50 inch thick Polypropylene & Mac226 and shall be a minimum dimension of 10.00 inch x 14.00 inch outer perimeter. The tower shall have a .25 inch thick removable Polypropylene & Mac226; screen and a Polypropylene & Mac226 hinged-type cover. Inside the fill tower, there shall be a combination vent overflow pipe. The vent overflow shall be a minimum of schedule 40 pipe with a minimum ID of 4.00 inches that is designed to run through the tank, and shall be piped behind the rear axle beneath the tank.

The tank cover shall be constructed of recessed .50 inch thick Polypropylene & Mac226, stress relieved, UV stabilized material. A minimum of two (2) lifting dowels shall be drilled and tapped to accommodate the lifting eyes.

OVERFLOW AND VENT PIPE

The fill tower shall be fitted with an integral 4.00 inch ID, Schedule 40 PVC combination overflow/vent pipe running from the fill tower through the tank to a 4,00 inch coupling flush mounted into the bottom of the tank to allow water to overflow beneath the chassis.

One (1) Fill Tower Location - Front of Hosebed/Center location
55-60-4810

FILL TOWER LOCATION

The fill tower shall be located at the front of the hose bed, toward the center location side to side.

One (1) Single Tank Sump Verbiage (USE only for 1 TTP Valve)
55-60-6010

SUMP

There shall be a single sump provided with the water tank.

The sump shall be constructed of white Polypropylene & Mac226 and be located in the left front corner of the tank, unless specified otherwise. On all tanks that require a front suction, a schedule 40 polypropylene pipe shall be installed that will incorporate a dip tube from the front of the tank to the sump location. All tanks shall have an anti-swirl plate located above the dip tube.

One (1) Sump 3" Plug (no valve)
55-60-7010

SUMP PLUG

The sump shall have a 3.00 inch (77.00 mm) plug for use in draining and cleaning out the tank.

One (1) Tank Outlets and Pass-Thru Verbiage
55-60-8010

OUTLETS

In addition to the tank suction valve outlet located in the sump, there shall be an outlet provided for the tank fill valve. If there are any additional options selected (such as an extra tank suction or direct tank inlets), there shall be additional outlets provided to accommodate these items.

PASS-THRUS

If there are any options selected (such as rear discharges or ladder storage), there shall be pass-thru sleeves and notches provided into the tank design to accommodate these items.

One (1) Hosebed Description - CORE

55-70-0010

BODY HOSEBED

A hosebed shall be provided with the minimum capacity as required by (NFPA) 1901, Standard for Automotive Fire apparatus.

The hosebed and walls shall be manufactured from stainless steel and shall be constructed in such a manner that will prevent damage to fire hose. The interior of the hosebed shall be free of projections such as nuts, sharp edges or brackets that may damage hose. No exceptions to this requirement are allowed.

An aluminum extrusion shall be installed over the rear opening of the hosebed to protect the body and hose from wear when loading and unloading hose. The hosebed floor shall be fitted with removable slatted, ribbed 6.00 inch heavy-duty extruded aluminum floorboards.

One (1) Hosebed Riser Height, 21.75"

55-70-0160

HOSEBED RISER HEIGHT

The height of the hosebed risers shall be approximately 21.75 inches (552 mm) measured from the top of the high side compartments to the top of the body side walls.

One (1) Hosebed Front Bulkhead, Stainless Steel

55-75-0110

HOSEBED BULKHEAD

A stainless steel bulkhead shall be installed between the front of the body and the hose storage area of the hosebed creating a hosebed dunnage storage area.

The bulkhead shall be the same height and design as the hosebed side walls.

No hosebed flooring shall be provided in the space between the bulkhead and the front wall of the hosebed.

Two (2) {Qty} Adjustable Hosebed Dividers, Smth Alum w/ Radius crnr, w/ Hand Holes

55-75-0510

ADJUSTABLE HOSEBED DIVIDERS

Two (2) adjustable hosebed dividers shall be provided and installed. Each divider shall be fabricated from .25 inch thick smooth aluminum plate, 5052-H32 alloy.

The rear end of each divider shall have a 3.00 inch radius corner and shall be sanded and deburred to prevent damage to hose.

There shall be two (2) hand hold openings provided. One (1) at the rear in a vertical position and one (1) approximately 24.00 inches in from the rear in a horizontal position at the top of the divider.

One (1) Hose Load - Specify {DEALER MUST EDIT HOSE LOAD INTO SPECS}

55-75-1020

HOSE LOAD

The hosebed shall accomodate the following hose loads:

One (1) Vinyl Hosebed Cover - Top & Rear

55-75-6020

HOSEBED COVER

A vinyl hosebed cover shall be provided and installed that is designed to cover the entire main hosebed area. The cover shall be installed with "stretch cord type" fasteners along each side of the hosebed.

A weighted flap shall be incorporated into the rear edge of the cover.

The hosebed cover rear flap shall also include a positive locking device to meet the requirements of (NFPA) 1901.

One (1) Vinyl Color - Midnight Black
55-75-7010

HOSEBED VINYL COLOR

The vinyl color shall be Midnight Black.

One (1) Tray Finish - Gray Powder Coat
60-10-2010

HARD SUCTION TRAY FINISH

The hard suction trays shall have a gray powder coated finish.

One (1) (2) Suction Hose Trays (6" x 10') - Vertical R/S Inside Hosebed
60-10-4010

SUCTION HOSE STORAGE

Suction hose shall be stored on a formed aluminum tray. The tray shall employ a design without fasteners or clamps to hold the suction hose in place in the tray.

Two (2) trays shall be mounted vertically in the hosebed of the apparatus on a mounting system on the hosebed inside right wall.

One (1) HME Provided Suction Hose
60-10-8020

SUCTION HOSE

The following suction hose shall be provided with the carrier.

One (1) Rub Rails, White/Red LED Strip for Ground/Warning Lighting, Armor Guard - CORE
60-30-0010

BODY RUB RAIL / LIGHTING SYSTEM

The apparatus body shall have bolt on extruded aluminum rub rails affixed to the side beneath each compartment door fore and aft of the rear wheel well panel.

Each rub rail shall be attached to the apparatus body with stand off spacers made from 1.00 inch diameter UHMW Polyethylene bar stock.

The rub rails shall be designed with integral white and red LED strip lights. The white light shall be downward facing for ground lighting and the red light shall be outward facing for additional warning lighting.

The white light shall be activated with the chassis ground lighting and the red lights shall activate as a red flashing warning light when the warning lights are active.

One (1) Rub Rails - Bright Finish
60-30-1010

RUB RAILS - BRIGHT FINISH

The rub rails shall have a bright finish.

One (1) INNOVATIVE CONTROL FOLDING STEPS w/ Integrated LED - CORE Pumper (22)
60-40-0020

FOLDING STEPS

Innovative Control folding steps made of high strength die cast aluminum with integrated LED illumination and conforming to current (NFPA) 1901 step requirements shall be provided and installed on the apparatus as specified.

The steps shall be mounted with no more than 18.00 inches between each approved step area.

One (1) Step Light Activation - Park Brake
60-40-0210

FOLDING STEP LIGHT ACTIVATION

The folding step lighting shall be activated when the park brake is set.

One (1) Step(s) - Bright Finish
60-40-0610

FOLDING STEPS - BRIGHT FINISH

The folding step(s) shall have a bright finish.

One (1) (3) Left Front Folding Steps
60-40-1040

STEP LOCATION

Three (3) folding steps shall be installed on the left forward vertical wall of the front compartment.

One (1) (3) Right Front Folding Steps
60-40-3040

STEP LOCATION

Three (3) folding steps shall be installed on the right forward vertical wall of the front compartment.

One (1) (4) Intermediate Lower/Mid Fixed Rear Steps, 2 Ea Side, Laser Grip, 8" D
60-45-1020

INTERMEDIATE REAR FIXED STEPS - LOWER AND MID

There shall be four (4) rear corner intermediate fixed steps, two (2) each side, provided and installed adjacent to the rear compartment. The steps shall be positioned in the lower and mid positions above the rear tailboard.

The steps shall be no less than 8.00 inches in depth and fabricated of "Laser Grip" stainless steel to meet (NFPA) 1901 step requirements.

One (1) Step - Bright Finish
60-45-3010

REAR INTERMEDIATE STEP - BRIGHT FINISH

The rear intermediate step(s) shall have a bright finish.

One (1) (1) Zico Quic-Ladder (Watch Handrail locations/qtys, remove steps)
60-45-8110

ZICO QUIC-LADDER

A Zico model #RL QUIC-LADDER shall be installed on the apparatus as specified. The ladder shall provide access to the top of the apparatus.

The ladder handrails shall be constructed of 1.25 inch (3.1mm) heavy walled aluminum tubing covered in a black, rough-grip powder coat.

The bottom two (2) rungs of the ladder shall fold out and down to the ground for ease of access. The ladder rungs shall be constructed of cast aluminum with a non-skid surface to provide traction and safety.

The upper section shall be permanently secured to the body with a locking mechanism toward the lower section that allows the ladder to extend down and out to the ground from the apparatus body when released. Allowing the ladder to be parallel to the body when in a stowed position. The ladder shall automatically latch. When deployed, the fold-down steps shall create a safe and comfortable climbing angle.

The number of rungs will be configured accordingly to the rear apparatus layout.

If the step is not properly stowed and the transmission is placed into drive or reverse mode with the parking brake released, it shall activate the hazard light in the cab to alert the crew.

One (1) Ladder located at left rear position
60-45-8610

ACCESS LADDER LOCATION

The ladder shall be installed at the rear of the apparatus on the left side.

One (1) (2) Rear Handrails - (1) 24" Vertical / (1) 69" Horizontal
60-55-0220

REAR HANDRAILS

Two (2) extruded aluminum handrails shall be supplied and installed at the rear of the apparatus body.

There shall be one (1) 24.00 inch long vertical handrail installed, on the right side at the rear area of the body inset or on the flat back pending configuration and one (1) 69.00 inch long handrail installed horizontally below the hosebed.

One (1) Handrails - Bright Finish
60-55-1010

HANDRAILS - BRIGHT FINISH

The handrails shall have a bright finish with chrome finish stanchions.

One (1) Lighting, Rear Horizontal Handrail
60-55-2010

LIGHTING - REAR HORIZONTAL HANDRAIL

The horizontal handrail adjacent to the hosebed shall contain integrated LED lighting. The lighting shall be integrated into the grab bar, directed toward the hosebed.

One (1) Handrail Lighting Activation - w/ Ground Lighting
60-55-3010

LIGHTING - ACTIVATION

The handrail lighting shall be activated with the ground lighting.

One (1) Dri-Dek Matting, ALL Compartment Floors - CORE Pumper
60-60-0030

COMPARTMENT FLOOR MATTING

The floor of each compartment shall be covered with Dri-Dek floor tiles that do not have a floor mount tray installed. The tile shall be custom fitted to the interior compartment floor construction to protect the entire floor surface from equipment damage and for improved ventilation.

One (1) Black Floor Matting
60-60-1020

FLOOR MATTING COLOR

The floor matting shall be black in color.

Four (4) {QTY} Full Width x Full Depth - Shelf {Add Locations w/ Pkg Opt Ind} CHECKQTY
60-95-0130

FULL DEPTH ALUMINUM SHELVING - ADJUSTABLE

The full depth shelving shall be made out of .190 inch smooth aluminum sheet material and shall have a flange 1.50 inches deep.

Each shelf shall be adjustable in height and held in place by extruded uprights.

There shall be a total quantity of four (4) provided:

Three (3) {QTY} Floor Mnt Tray, 250#- CORE PMP22 {Add Locations w/ Pkg Opt Ind} CHK QTY
65-05-0030

FLOOR MOUNT ALUMINUM TRAYS - PULL-OUT

Each floor mount pull-out tray shall be made out of .190 inch smooth aluminum sheet material with four (4) side flanges.

The floor mounted tray shall be secured to Grant slides and a gas shock mechanism to hold the tray in both the in and out positions with a 250# capacity.

There shall be a total quantity of three (3) provided:

One (1) {QTY} HD Floor Mnt Tray, 500#- {Add Locations w/ Pkg Opt Ind} CHECK QTY
65-05-1030

HEAVY DUTY FLOOR MOUNT ALUMINUM TRAYS - PULL-OUT

Each floor mount pull-out tray shall be made out of .190 inch smooth aluminum sheet material with four (4) side flanges.

The floor mounted tray shall be secured to Grant slides and a gas shock mechanism to hold the tray in both the in and out positions with a 500# capacity.

There shall be a total quantity of one (1) provided:

Two (2) {QTY} Wall Mnt Toolboard(s), Pac Trac- {Add Locations w/ Pkg Opt Ind} CORE Pmpr
65-20-0030

FLOOR MOUNT ALUMINUM TRAYS - PULL-OUT

Each floor mount pull-out tray shall be made out of .190 inch smooth aluminum sheet material with four (4) side flanges.

The floor mounted tray shall be secured to Grant slides and a gas shock mechanism to hold the tray in both the in and out positions with a 250# capacity.

There shall be a total quantity of two (2) provided:

Two (2) {QTY} P-Out Toolboard(s), Pac Trac- {Add Locations w/ Pkg Opt Ind} CORE Pmpr

65-25-0030

FULL HEIGHT PULL OUT VERTICAL TOOL BOARD - ALUMINUM

A full height aluminum pull-out vertical tool board shall be installed in the compartment as specified.

The tool board shall be made from .25 inch aluminum and attached at the floor and ceiling of the compartment with slide assemblies and a locking device at the bottom to hold the board in both the stored and extended position.

Each tool board may be fully adjustable across the width of the compartment dependent on the layout of the compartment.

There shall be a total quantity of two (2).

One (1) {Qty} R1 Compartment
65-40-0110

-One (1) located in the R1 compartment.

Four (4) Dri-Dek Mat, Shelving
65-45-0110

SHELF MATTING

Any shelf provided shall have Dri-Dek matting installed for improved ventilation that shall also provide a non-slip surface.

Three (3) Dri-Dek Mat, Pull-Out Trays
65-45-0120

SHELF MATTING

Any pull-out tray provided shall have Dri-Dek matting installed for improved ventilation that shall also provide a non-slip surface.

One (1) Dri-Dek Mat, Pull-Out Trays
65-45-0120

SHELF MATTING

Any pull-out tray provided shall have Dri-Dek matting installed for improved ventilation that shall also provide a non-slip surface.

Four (4) Black Matting
65-45-1020

MATTING COLOR

The matting shall be black in color.

Three (3) Black Matting
65-45-1020

MATTING COLOR

The matting shall be black in color.

One (1) Black Matting
65-45-1020

MATTING COLOR

The matting shall be black in color.

One (1) Light, Rear Intermediate, Lower/Mids (NO Intermediate Step), LED Strip Lights
70-15-1110

REAR INTERMEDIATE STEP LIGHTING

There shall be an LED strip light with integral guard provided and installed with each fixed step at the rear of the apparatus to provide lighting to the lower and mid position steps.

One (1) 70-15-9010 Step Light Activation - Parking Brake

STEP LIGHT ACTIVATION

The step light shall be activated when the park brake is set.

One (1) 70-20-0110 (1) Maxxima LED Hose Bed Light, Mount Front R/S Hose Bed

HOSE BED FLOODLIGHT

There shall be one (1) Maxxima MWL-36, 2100 Lumen LED hose bed floodlight with swivel and folding handle provided and installed at the front right corner of the hosebed.

There shall be a weather resistant switch on the light head.

One (1) 70-20-1010 Hose Bed Light Activation - Parking Brake

HOSE BED LIGHT ACTIVATION

The hose bed light shall be activated when the park brake is set.

One (1) 70-25-0110 (2) Lights Per Compartment, LED Strip, Armor-Protected - White/Red

BODY COMPARTMENT LIGHTING

Two (2) White/Red LED, armor protected, strip lights shall be provided and installed, one (1) each side of the compartment, at the door frame for each body compartment.

Each body door shall have an automatic compartment light switch.

There shall be a white/red color selector switch in the cab that controls the color of this lighting.

One (1) 80-15-0010 Chevron, Diamond Grade, Rear Body - NFPA - 6"

REAR BODY DIAMOND GRADE CHEVRON STRIPING

A minimum of 50 percent of the rear-facing vertical surface, visible from the rear of the apparatus, shall be equipped with diamond grade retro-reflective striping in a chevron pattern sloping downward and away from the centerline of the vehicle at an angle of 45 degrees.

The stripe shall be 6.00 inches (152.40 mm) wide alternating in colors.

One (1) 80-15-2010 Chevron Color - Red and Fluorescent Green Reflective

REFLECTIVE STRIPE COLOR

Each stripe in the chevron shall be a single color alternating between red (3M #983-72) and fluorescent green (3M # 983-23).

One (1) 90-20-0030 Duo Safety 10' Aluminum 585 - Attic

One (1) Duo-Safety 10 foot (3.0 m) aluminum attic ladder(s), model 585A.

One (1) 90-25-0050 Duo Safety 14' Aluminum 775-A - Roof

One (1) Duo-Safety 14 foot (4.0 m) aluminum roof ladder(s) with folding hooks, model 775-A.

One (1) 90-30-0060 Duo Safety 24' Solid Beam Aluminum - 900A - 2 Section Extension

One (1) Duo-Safety 24 foot (7.0 m) two (2) section solid beam aluminum extension ladder(s), model 900A.

One (1) 90-50-0010 Fire Department Supplied Pike Poles

PIKE POLES

All NFPA required pike poles will be supplied and installed by the Fire Department before the truck is placed into service.

Two (2) 90-60-6030 {Qty} 6" x 10', Lightweight PVC Suction Hose w/ NH Cplng

There shall be two (2) 10 foot length(s) of 6.00 inch lightweight PVC flexible suction hose(s) with long handle female end and rocker lug male end couplings provided with the above specified storage.

One (1) 90-65-0010 Fire Department Supplied Suction Strainer(s)

STRAINERS

The suction hose strainer(s) will be supplied and installed by the Fire Department before the truck is placed into service.

One (1) == CORE Pumper 22 - Electrical - 7.001 06/01/23 ==

One (1) 70-00-0010 Electrical System, 12V, Body, Multiplexed w/ Circuit Protection - Class 1 Es-Key

APPARATUS BODY ELECTRICAL SYSTEM

All body electrical shall conform to NFPA 1901 latest edition standards. The apparatus shall be equipped with a heavy-duty 12-Volt negative ground system.

All 12-Volt apparatus wiring shall pass through a heavy duty power disconnect solenoid. The 12-Volt control of the power disconnect switch is to be triggered by the Master Battery Disconnect.

The apparatus shall be equipped with a Class1 Es-Key Management System for complete control of the electrical system devices.

The right rear compartment shall house Power Distribution Module (PDM). The PDM shall be mounted on a removable panel in the left rear compartment with sufficient harness length to allow a technician the ability to remove the PDM and place it on a compartment shelf for diagnostics and service.

All wiring shall be color-coded and function coded to assist the technician in servicing the electrical system. All circuits shall be divided and balanced for proper load distribution. Where possible, wiring shall be routed in looms as a single harness. Heat resistant convoluted loom shall be used. Only solderless, insulated crimp automotive electrical connectors shall be used.

One (1) 70-35-1110 Body -LED - ICC Lighting - Whelen OS Series

APPARATUS ICC MARKER LIGHTING

Two (2) amber Whelen OS Series LED side clearance lights shall be provided and installed, one (1) each side, ahead of the forward body compartment.

Five (5) red LED clearance lights shall be provided and installed at the rear of the apparatus.

Two (2) red LED clearance lights shall be provided and installed, one (1) each side, facing the sides of the apparatus.

A red diamond shaped reflector shall be mounted on each lower rear corner of the apparatus body.

An amber diamond shaped reflector shall be mounted on each lower front corner of the apparatus body.

ICC lighting utilized and lighting positions shall be in conformance with FMVSS 108.

One (1) Body Side Turn Signal, Whelen LED, Wheelwell Mounted, req'd>30' OAL
70-35-5010

SIDE MOUNTED TURN SIGNAL LIGHTS

There shall be two (2) Whelen, model RSA02ZCR, linear amber LED turn signal lights provided and installed, one (1) each side, in the rear wheel well area.

One (1) Bezel - Bright Finish (Marker Light)
70-35-6010

MARKER LIGHTING - BRIGHT FINISH

The ICC lights are to be mounted in a chrome flange.

One (1) Bezel - Bright Finish (Turn Signals)
70-45-2010

TURN SIGNAL HOUSING - BRIGHT FINISH

The turn signals shall be mounted in a chrome bezel.

One (1) Whelen Upper Zone Lighting Package - CORE Pumper {NO Upper Storage Specified}
70-50-0110

UPPER LIGHTING PACKAGE

The following NFPA lighting package, manufactured by Whelen, shall be supplied and installed in the upper areas of the vehicle.

One (1) Whelen Lower Zone Lighting Package - CORE Pumper
70-50-1110

LOWER LIGHTING PACKAGE

The following NFPA lighting package, manufactured by Whelen, shall be supplied and installed in the lower areas of the vehicle.

One (1) Zone A - Front Lightbar, Whelen - Freedom F4NV 72" LED - Fully Populated
70-55-0060

UPPER ZONE A - ROOF MOUNTED LIGHTBAR

There shall be a Whelen Freedom model F4N7VLED, 72.00 inch lightbar provided and installed on the cab roof, as far forward as possible.

This lightbar system shall be supplied with sixteen (16) LED modules, ten (10) red linear LEDs and six (6) white linear LEDs. The outer lenses shall be clear.

Any white lights in the lightbar shall be disabled automatically for the “Blocking Right of Way” mode.

One (1) Zone C - (2) Whelen R416*F Rota Beam Beacons
70-65-0010

UPPER ZONE C - REAR WARNING LIGHTS

There shall be two (2) Whelen Super-LED warning lights, model R416*F LED Rota-Beam beacons, provided and installed.

One (1) each side at the rear of the apparatus, one (1) on each side.

One (1) Beacon Lights are Red with Red Lenses
70-65-1110

BEACON LIGHTS COLOR

The upper rear beacon lights shall be red with red lenses.

One (1) (2) Polished Stainless Steel Light Stanchions - Upper Zone C
70-65-2110

POLISHED STAINLESS STEEL LIGHT STANCHIONS

Two (2) light stanchions shall be mounted in the upper rear corners of the body sides, one (1) each side.

Each light stanchion shall be made of polished stainless steel and shall be large enough to accommodate the Upper Zone C beacon specified.

One (1) Zone A - (4) Whelen 600 Series Super LED, QUADS
70-70-0110

LOWER ZONE A - FRONT WARNING LIGHTS

There shall be four (4) Whelen 600 Series Super-LED lightheads with bezels, two (2) on each side, at the front of the chassis in a separate housing than the headlights.

One (1) Zone B & D - (2) Whelen 600 Series Super LED (Cab)
70-75-0110

LOWER ZONE B & D- SIDE WARNING LIGHTS

There shall be two (2) Whelen 600 Series Super-LED lightheads with bezels, one (1) on each side, provided and installed on the sides of the cab.

One (1) Zone B & D - (2) Whelen 600 Series Super LED (Body)
70-75-1010

LOWER ZONE B & D- SIDE WARNING LIGHTS

There shall be two (2) Whelen 600 Series Super-LED lightheads with bezels, one (1) on each side, provided and installed on the sides of the body.

One (1) Zone C - (2) Whelen 600 Series Super LED
70-80-0010

LOWER ZONE C- REAR WARNING LIGHTS

There shall be two (2) Whelen 600 Series Super-LED lightheads with bezels, one (1) on each side, provided and installed on the rear of the apparatus.

One (1) Whelen 600 Series LED - Rear Stop/Tail/Turn Assembly
70-85-0110

REAR STOP/TAIL/TURN/BACKUP LED LIGHTS

There shall be Whelen model 600 series, 4x6, LED rear taillight assemblies provided and installed with the apparatus, one (1) each side at the rear.

The following shall be provided and installed in the order as specified from top to bottom:

One (1) red stop/tail light
One (1) amber turn signal light populated in the shape of an arrow

One (1) white back up light

One (1) 4 Position Vertical Housing, Whelen 600 Series, Bright Finish, Low Pos. Warning
70-85-1110

MOUNTING ASSEMBLY

There shall be Whelen 4-position vertical chrome plated housing provided for each taillight assembly.

The lower most open cavity shall be filled with the specified warning light for the rear of the apparatus.

One (1) Taillights with Clear Lenses
70-85-2110

REAR TAILLIGHTS COLOR

The taillights mounted at the rear shall have clear lenses.

One (1) Lights are Red with Clear Lenses
75-95-0110

WARNING LIGHTS COLOR

The warning lights shall be red with clear lenses.

One (1) Lights are Red with Clear Lenses
75-95-0110

WARNING LIGHTS COLOR

The warning lights shall be red with clear lenses.

One (1) Lights are Red with Clear Lenses
75-95-0110

WARNING LIGHTS COLOR

The warning lights shall be red with clear lenses.

One (1) Lights are Red with Clear Lenses
75-95-0110

WARNING LIGHTS COLOR

The warning lights shall be red with clear lenses.

One (1) Bezel - Bright Finish
75-95-1110

BRIGHT FINISH BEZEL

The warning lights shall have a chrome bezel.

One (1) Bezel - Bright Finish
75-95-1110

BRIGHT FINISH BEZEL

The warning lights shall have a chrome bezel.

One (1) Bezel - Bright Finish
75-95-1110

BRIGHT FINISH BEZEL

The warning lights shall have a chrome bezel.

One (1) (2) Side Warning Lights Located - Chassis Bumper Tail
76-00-0110

CAB SIDE WARNING LIGHTS LOCATION

The warning lights on the sides of the cab shall be mounted at the chassis side bumper location.

One (1) (2) Side Warning Lights Located - Centered Rear Body Wheel Panel
76-00-1010

BODY SIDE WARNING LIGHTS LOCATION

The warning lights on the sides of the body shall be mounted on the body over the rear wheels.

One (1) (4) Stationary Scene lights located side of body, (2) each side
77-10-1110

SIDE SCENE LIGHT LOCATION

There shall be four (4) scene lights installed on the sides of the apparatus, two (2) on each side.

One (1) located at the front and one (1) located at the rear corner.

One (1) (2) Stationary Scene lights located rear of body, (1) each side
77-10-2110

REAR SCENE LIGHT LOCATION

There shall be two (2) scene lights installed on the rear facing vertical surface of the apparatus, one (1) on each side.

One (1) (1) Brow lights located front of cab, centered
77-10-3110

FRONT SCENE LIGHT LOCATION

There shall be one (1) brow light mounted center on the front brow of the cab.

One (1) (2) Stationary Scene lights located side of cab, (1) ea side {Raised Roof Req'd}
77-10-4110

CAB SIDE SCENE LIGHT LOCATION

There shall be two (2) scene lights installed on the side of the cab of the apparatus, one (1) on each side.

One (1) (2) Side Mount Telescoping Scene lights located front of body, (1) each side
77-10-5110

TELESCOPING SCENE LIGHT LOCATION

There shall be two (2) telescoping side mount lights installed on the front corners of the body, one (1) each side.

Four (4) Whelen 900 Series LED, Surface Mount Scene Lights w/ flange
77-15-0010

SCENE LIGHT MODEL

Whelen 900 Series Super LED gradient scene lighting with flange shall be provided and surface mounted on the apparatus at the locations specified.

One (1) Whelen 900 Series LED, Surface Mount Scene Lights w/ flange
77-15-0010

SCENE LIGHT MODEL

Whelen 900 Series Super LED gradient scene lighting with flange shall be provided and surface mounted on the apparatus at the locations specified.

Two (2) Whelen 900 Series LED, Surface Mount Scene Lights w/o flange
77-15-0015

SCENE LIGHT MODEL

Whelen 900 Series Super LED gradient scene lighting shall be provided and surface mounted on the apparatus at the locations specified.

Two (2) FRC, Spectra, Ultrabright LED, 20,000 Lumens, 12Vdc
77-15-1010

SCENE LIGHT MODEL

Fire Research Spectra LED model SPA100-Q20 lamphead shall be provided and installed for the specified side mount, bottom raise telescoping scene light(s).

Each lamphead shall have eighty four (84) ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 12 Volts DC, draw 18 amps, and generate 20,000 lumens of light.

Each lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamphead angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamphead shall be no more than 5.875 inches high x 14.00 inches wide x 3.50 inches deep and shall have a heat resistant handle. The lamphead and mounting arm shall be powder coated.

One (1) HiViz - Hi Output LED Brow Light, 72" Long
77-15-2130

SCENE LIGHT MODEL

HiViz LED brow light model FT-B-72 lamphead shall be provided and installed.

Each lamphead shall have fifty-seven (57) Cree XP-G2 white LEDs, none (9) for a center spot light beam pattern, eighteen (18) for flood lighting, and thirty (30) for scene lighting.

The lamphead shall be no more than 2.063 inches high by 72.00 inches wide by 2.50 inches deep.

Four (4) Chrome Finish Bezel
77-25-0010

LIGHT BEZEL FINISH

Each light shall be installed with a chrome plated bezel.

One (1) Chrome Finish Bezel
77-25-0010

LIGHT BEZEL FINISH

Each light shall be installed with a chrome plated bezel.

One (1) Black Light Housing
77-25-0075

LIGHT HOUSING

Each lamphead shall be powder coated with a black finish.

Two (2) FRC, Side Mount & Bottom Raise Pole w/ Hazard Switch
77-25-0210

TELESCOPING POLE

Each lighthead shall be mounted to a side mount push up telescopic pole. The light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The

extension pole shall rotate 360 degrees. The outer pole shall be a grooved aluminum extrusion and qualify as an NFPA compliant handrail.

The pole mounting brackets shall have a 3.50 inch offset. Wiring shall extend from the pole bottom with a 4.00 foot' retractile cord.

The scene light pole shall be equipped with an "up" indicator switch. When the parking brake is released, it shall activate a flashing hazard light in the cab to warn the crew if the light is in the raised position.

Two (2) Lamphead ON / OFF Switch
77-25-1020

LAMPHEAD SWITCH

Fire Research -ON option switch shall be installed on the lamphead. The weatherproof on-off toggle switch shall be mounted on the lamphead.

One (1) Body Side Scene Light Activation - Cab - Single Switch
77-25-1130

SCENE LIGHT ACTIVATION

The body side scene lighting shall be activated simultaneoulsy by one (1) smart switch installed in the driver's side switch panel in the cab.

One (1) Rear Body Scene Light Activation - Cab - Single Switch
77-25-1230

SCENE LIGHT ACTIVATION

The rear scene lighting shall be activated simultaneoulsy by one (1) smart switch installed in the driver's side switch panel in the cab.

One (1) Cab Brow Scene Light Activation, Hi Viz - Cab - Three Switches
77-25-1340

SCENE LIGHT ACTIVATION

The cab forward brow lighting shall be activated by three (3) switches in the driver's area of the cab to control the brow light.

The switches shall be wired and labeled as follows according to these functions:

- Brow Spot
- Brow Flood
- Brow Scene

Ignition power shall be used to power each of the brow light switches. These lights shall be independent and not be interfaced with the warning light system and parking brake interface.

One (1) Cab Side Scene Light Activation - Cab - Single Switch
77-25-1430

SCENE LIGHT ACTIVATION

The cab side scene lighting shall be activated simultaneoulsy by one (1) smart switch installed in the driver's side switch panel in the cab.

One (1) Body Side Scene Light Activation - Pmp Panel - (1) Single Switch
77-25-2130

SCENE LIGHT ACTIVATION

The body side scene lighting shall be activated simultaneoulsy by one (1) smart switch installed in the pump opeartor's panel switch panel.

One (1) Rear Body Scene Light Activation - Pmp Panel - (1) Single Switch
77-25-2230

SCENE LIGHT ACTIVATION

The rear scene lighting shall be activated simultaneoulsy by one (1) smart switch installed in the pump opeartor's panel switch panel.

One (1) Cab Side Scene Light Activation - Pmp Panel - (1) Single Switch
77-25-2430

SCENE LIGHT ACTIVATION

The cab side scene lighting shall be activated simultaneoulsy by one (1) smart switch installed in the pump opeartor's panel switch panel.

One (1) 3000 W Inverter - L1 location
78-00-0110

INVERTER

A Xantrex 3000W - 120V inverter shall be provided and installed in the L1 compartment.

- **Power Inverter / Charger**
- All-In-One functionality
- 3000W
- - 50A Transfer Switch
- Multi-Stage Charging
- High Efficiency
- 2X Surge
- Compact & Lightweight Design
- Input: 12 VDC
- Output: 120 VAC
- **Watts: 3000W**
- Ignition Control
- Programmable AC Under-Voltage Shutdown
- Battery Output Current: 5 - 50A
- Battery Equalization
- Maximizes Flooded Battery Life
- Built in 50A AC Transfer Relay
- Dead Battery Charging Down To 0 VDC
- Power Share
- Prioritizes AC Loads

The Xantrex Freedom XC Pro 3000 Inverter-Charger has many exciting features for users of all types. It's one of FactoryOutletStore's best selling Freedom XC True Sine. You can extend the lifetime of your Xantrex Freedom XC Pro 3000 Inverter-Charger with the purchase of a FactoryOutletStore Factory Protection Plan. FactoryOutletStore stocks a full line of accessories like Xantrex Freedom X GFCI Option, Xantrex Freedom X-XC Remote Panel, and Xantrex Freedom Xand XC Remote Panel for the Xantrex Freedom XC Pro 3000 Inverter-Charger. The Xantrex Freedom XC Pro 3000 Inverter-Charger is sold as a Brand New Unopened Item.

One (1) Load Center Panel, Square D, Inverter Hardwired

78-00-0210

LOAD CENTER PANEL

A Square D Homeline circuit breaker panel shall be provided in the apparatus body. All breakers shall be properly labeled. The inverter shall be hard wired to the circuit breaker panel. The circuit breaker panel shall be mounted so as to not interfere with shelves or trays, if specified. The load center panel cover shall be accessible with hand tools.

One (1) Transfer Switch - Shoreline/Inverter

78-00-0310

SHORELINE / INVERTER TRANSFER SWITCH

A shoreline/inverter transfer switch shall be provided to automatically switch the cab 120-volt AC loads from shoreline power to inverter power by starting the onboard inverter. The transfer switch is rated at 120-volt AC 30 amps.

One (1) (2) 120V Recetpacles-15amp Duplex, (1) eac h in L1 and R1

78-00-0410

120 VAC RECEPTACLES

Two (2) 120-volt AC receptacles shall be provided with the apparatus.

The receptacles shall be located in the upper rear of the L1 nd R1 compartments and shall be mounted in a weather proof box with a self closing weatherproof cover. The outlets shall be wired to the inverter.

The electrical outlets shall be a NEMA 5-15, rated at 120-volt AC, 15-amp, duplex straight blade receptacle.

One (1) == CORE Pumper - Extras - 7.001 06/01/23 ==

One (1) Striping, 6" Scotchlite, Reflective, Vehicle Perimeter

80-00-0160

REFLECTIVE SAFETY STRIPE

There shall be a 6.00 inch wide 3M brand Scotchlite reflective stripe shall be affixed to the perimeter of the vehicle.

The striping shall be placed up to 60.00 inches above ground level and shall conform to NFPA reflectivity requirements. At least 60% of the perimeter length of each side and width of the rear and at least 25% of the perimeter width of the front of the vehicle shall have reflective stripe.

One (1) Body Stripe Flare, 45 Degree Up and Over Rear Axle

80-05-0015

STRIPE PATTERN

The stripe on each side of the apparatus shall run straight back from the cab to the body, then angle up at approximately a 45 degree angle on the front body door and then run straight back from there to the rear of the body.

Lettering & Emblems, Fire Department Provided

One (1) Rear License Plate Bracket w/ LED Light

OWOSSO FIRE DEPARTMENT

90-00-0020

LICENSE PLATE MOUNTING

One (1) license plate mounting bracket and LED light shall be provided and installed at the rear of the apparatus.

One (1) 1 Set - Wheel Chocks, Worden HWGY

90-05-0110

WHEEL CHOCKS

One (1) set of NFPA compliant Worden wheel chocks model # HWGY shall be supplied with the apparatus.

The wheel chocks measure 7.75 inches high x 8.50 inches wide x 15.00 inches long and shall have a bright yellow powder coat finish for high visibility, safety and corrosion resistance.

One (1) 1 Set - Wheel Chocks Horizontal Mtg Brackets - LF Body

90-05-0310

WHEEL CHOCKS

One (1) set wheel chock holders shall be provided and installed on the left side of the apparatus below the front body compartment.

One (1) Miscellaneous Loose Equipment - Fire Department Provided - CORE Pumper

90-10-0010

MISCELLANEOUS EQUIPMENT

The following loose equipment as outlined in (NFPA) 1901 sections 5.9.3 and 5.9.4 shall be provided by the Fire Department:

- Supply Hose
- Nozzles
- Axes
- Rechargeable (Portable) Flashlights
- Fire Extinguishers
- SCBA(s) For Each Assigned Seating Position
- SCBA Cylinders
- First Aid Kit
- AED
- Spanner Wrenches
- Adapters
- Handheld Tools
- Salvage Covers
- Traffic Vests
- Traffic Cones
- Flares

MEMORANDUM

Building Department 301 W. Main St. Owosso, MI 989-725-0535

DATE: 09/22/2022
TO: Mayor Teich and the Owosso City Council
FROM: Tanya Buckelew, Planning & Building Director
SUBJECT: Lot Split Application
Parcel No: **050-537-000-051-00**
Address: **1400 W OLIVER STREET**

RECOMMENDATION:

Staff recommends approval of the application for the lot split at 1400 W Oliver Street.

BACKGROUND:

1400 W Oliver Street currently has a four (4) - story industrial building and a pole barn. This split would separate the pole barn from the industrial building. It is anticipated that both lots will then be sold.

An easement for ingress and egress will be filed with the Register of Deeds and includes an easement for the water line running through the parcels.

LEGAL DESCRIPTION: **SEE ATTACHED**

EASEMENTS: **SEE ATTACHED**

The attached lot split request, received on August 28, 2023, from Wallace Real Estate, has been reviewed by the various departments. The proposed splits will conform to present city ordinances.

Therefore, approval by the City Council for this lot split is recommended.

FISCAL IMPACTS:
N/A

P2023-005
08/28/2023

Application Fee:
Single - $250
Multiple - $250 each + $50/resulting lot

APPLICATION TO DIVIDE PLATTED CITY LOTS

The State of Michigan Land Division Act and City of Owosso Subdivision Regulations prohibit the division of platted City lots without prior approval of the City Council.

Step-By-Step Guide

1. Staff will assist the applicant by explaining the parcel split process, provide site information, review the application and inform that a survey may be required
2. Applicant submits application with fee
3. Departmental review of application
4. Staff prepares memo for next City Council meeting
5. Send notice to applicant with the date of the City Council meeting
6. City Clerk notifies the Building Department and Assessor of Council approval or denial
7. Final approval or denial notice sent to applicant

- Requests for parcel splits can only be approved if the request meets the requirements of the Zoning Ordinance. The resulting split cannot create a parcel that does not meet the minimum dimensional requirements for the district (street frontage and parcel area). If there are structures on the parcel they must meet the side yard and/or rear yard setback as applicable.

- It is the owner's responsibility to verify that there are no issues/objections to the request by any persons, firms, or corporations having a legal or equitable interest in the land. **The City does not conduct a title search for the property.**

- If the parcel involves a principal residence or homestead it is up to the applicant to notify the City Assessor to update their Homestead Exemption.

- The applicant is responsible to provide a survey and legal descriptions of the proposed parcels (unless waived by the Zoning Administrator). If buildings or structures are located on a parcel a site plan showing set-backs is required. Requests are reviewed for compliance with the Zoning Ordinance. The Zoning Administrator reserves the right to require additional information necessary to meet the requirements of the Zoning Ordinance.

- **ALL DELINQUENT TAXES/SPECIAL ASSESSMENTS/LIENS MUST BE PAID ON ANY PARCEL BEFORE THE DESCRIPTION OF THE PARCEL CAN BE CHANGED.**

Applicant Information

Name: Wallace Realestate LLC
Affiliation if Not Owner:
Address: 1400 W. Oliver St Owosso Mi 48867
Phone: 989-725-2405

Land Division Information

Parcel Address:	Parcel Number:
1400 W Oliver	050-537-000-051-00

Proposed Use

☐ Residential	☒ Commercial	☒ Industrial	☐ Institutional	☐ Other

Describe the division being proposed

Split from parent parcel #050-537-000-051-00

Affidavit and Permissions:

- I agree the statements made on this document are true, and if found not to be true, this application and any approvals will be void
- I agree to give permission for officials of the municipality to enter onto property involved in this application for purposes of inspection, to verify that the information provided on the application is correct
- I understand that any approval hereunder only constitutes approval of requested legal descriptions and does not provide, constitute, infer or imply build ability or compliance with any applicable statute, law, building code, deed restriction, or property right
- I agree to comply with the conditions and regulations provided with this parcel division
- I understand that the land division application may take up to 30 days to be processed
- I understand that property tax bills may be issued using the parent parcel(s) and I agree to have the tax bills and other city of Owosso liens charged/billed during this period paid by the appropriate party
- I understand that if property is being conveyed between the parties, requested land division will only take place on city records after recording of deed
- **Divisions require all taxes, special assessments and outstanding invoices be paid in full before the division can be processed**

Daniel W Allen 6-19-23

Applicant Signature **Date**

City of Owosso Lot Split Ordinance Sec. 30-5. - Lot division.

The division of a lot in a recorded plat is prohibited, unless approved following application to the city council. The application shall be filed with the city clerk and shall state the reasons for the proposed division. The city council may request review and comment by the city planning commission. The division to be approved by the city council shall have the suitability of the land for building purposes approved by the city zoning administrator, who may require submission of a professionally prepared boundary survey report. No building permit shall be issued, nor any building construction commenced, prior to the city council's approval. No lot in a recorded plat shall be divided into more than four (4) parts, and the resulting lots shall be not less in area than permitted by the city zoning ordinance. The division of a lot resulting in a smaller area than prescribed herein may be permitted but only for the purpose of adding to the existing building site or sites. The application shall so state and shall be in affidavit form. (Ord. No. 456, § 1, 12-19-88)

City of Owosso Division of Platted City Lots Departmental Review

1. Building Official Recommends: BH	☒ Approval	☐ Denial
Comments:		
Signature:		
2. Assessor Recommends:	☒ Approval	☐ Denial
Survey Required	☐ Yes	☒ No
Attach current and proposed legal description ✓		
New Address: 1400 + 1500 W Oliver		
New Parcel Number:		
Comments:		
Signature:		
3. Treasurer Tax Information:	☐ Approval	☐ Denial
County Drain Office Special Assessments: N/A	☐ Paid	☐ Unpaid
County Treasurer's Office Delinquent Taxes:	☒ Paid	☐ Unpaid
Special Assessments: N/A	☐ Paid	☐ Unpaid
Comments: 2023 Summer Taxes Due $2701.84 (Amount good thru 8/31/23) PAID 8/31/2023		
Signature:		
4. Public Utilities Recommends:	☒ Approval	☐ Denial
Comments:		
Signature:		
5. Engineering Recommends:	☒ Approval	☐ Denial
Comments: Driveway + water line easement to be included in sale documents.		
Signature:		
6. Zoning Administrator Recommends:	☒ Approval	☐ Denial
Comments:		
Signature:		

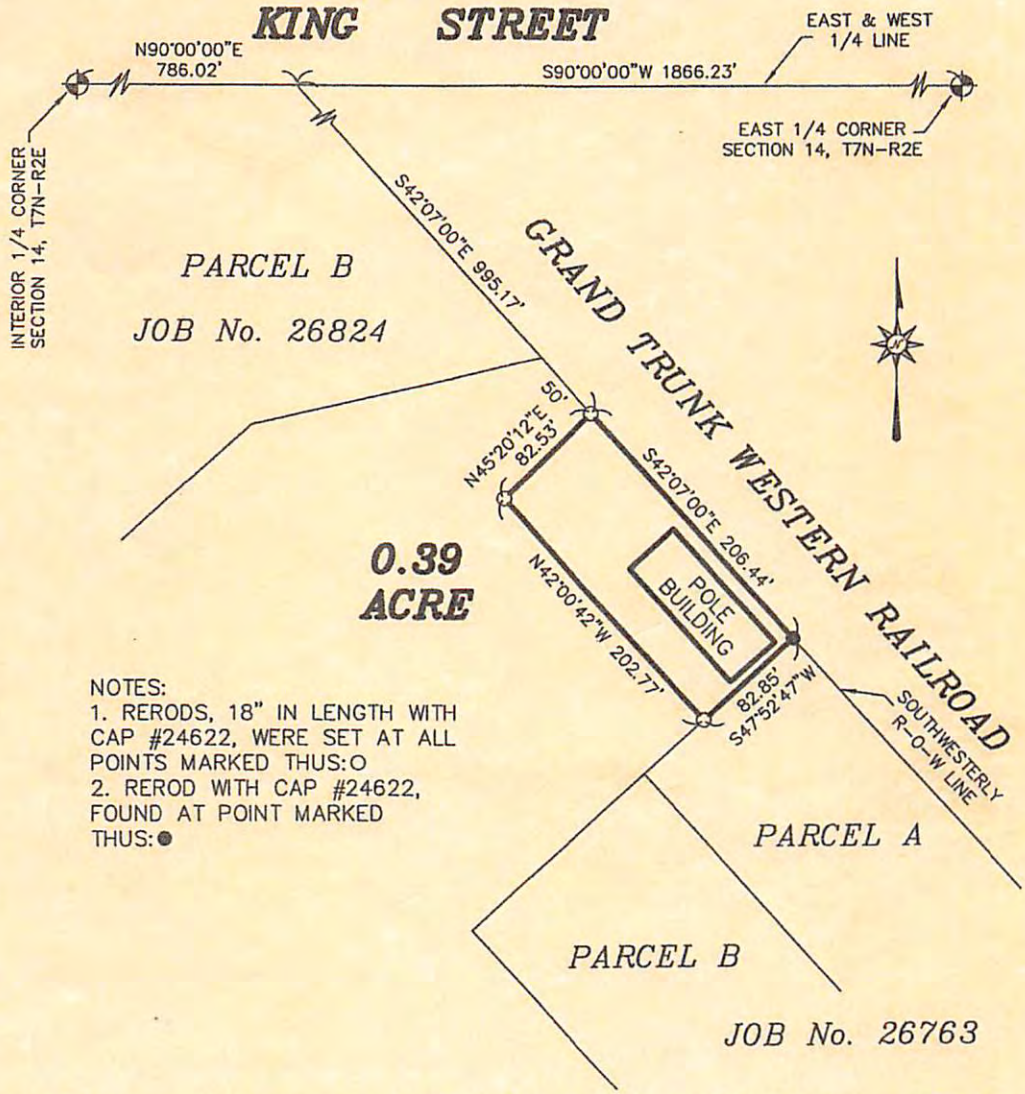
Rev June 2022

Date for City Council Review:	10/02/2023	Date notice sent to applicant:	09/25/2023
City Council action:	☐ Approved as submitted	☐ Denied	☐ Approved with attached conditions
Date results sent to applicant:			

Building Department Checklist

Application Reviewed	☑
Fee paid	☑
Return all materials to Building Department	☑
Send copy of application to applicant with date of Council Meeting	☑
Prepare memo and submit with original application to Clerk's Office	☑
After Council approval or denial, notify applicant with copy of completed application	☐
Notify Assessor of approval or denial	☐
Scan to BS&A file and file hard copy	☐
Staff Initials	

CERTIFICATE OF LAND SURVEY



NOTES:
1. RERODS, 18" IN LENGTH WITH CAP #24622, WERE SET AT ALL POINTS MARKED THUS:O
2. REROD WITH CAP #24622, FOUND AT POINT MARKED THUS:●

DESCRIPTION: Part of the Southeast ¼ of Section 14, T7N–R2E, City of Owosso, Shiawassee County, Michigan, described as beginning at a point that is S90°00'00"W on the East and West ¼ line of said Section 14 a distance of 1866.23 feet and S42°07'00"W on the Southwesterly right of way line of the Grand Trunk Western Railroad, a distance of 995.17 feet from the East ¼ corner of said Section 14; thence continuing S42°07'00"E 206.44 feet; thence S47°52'47"W 82.85 feet; thence N42°00'42"W 202.77 feet; thence N45°20'12"E 82.53 feet to the point of beginning. Containing 0.39 of an acre, more or less. Subject to all easements and restrictions of record.

CLIENT: Darell Wallace
DATE: June 9, 2023
SCALE: 1 = 100' JOB NO. 28513

SE 1/4 – Section 14
City of Owosso
Shiawassee County
Michigan

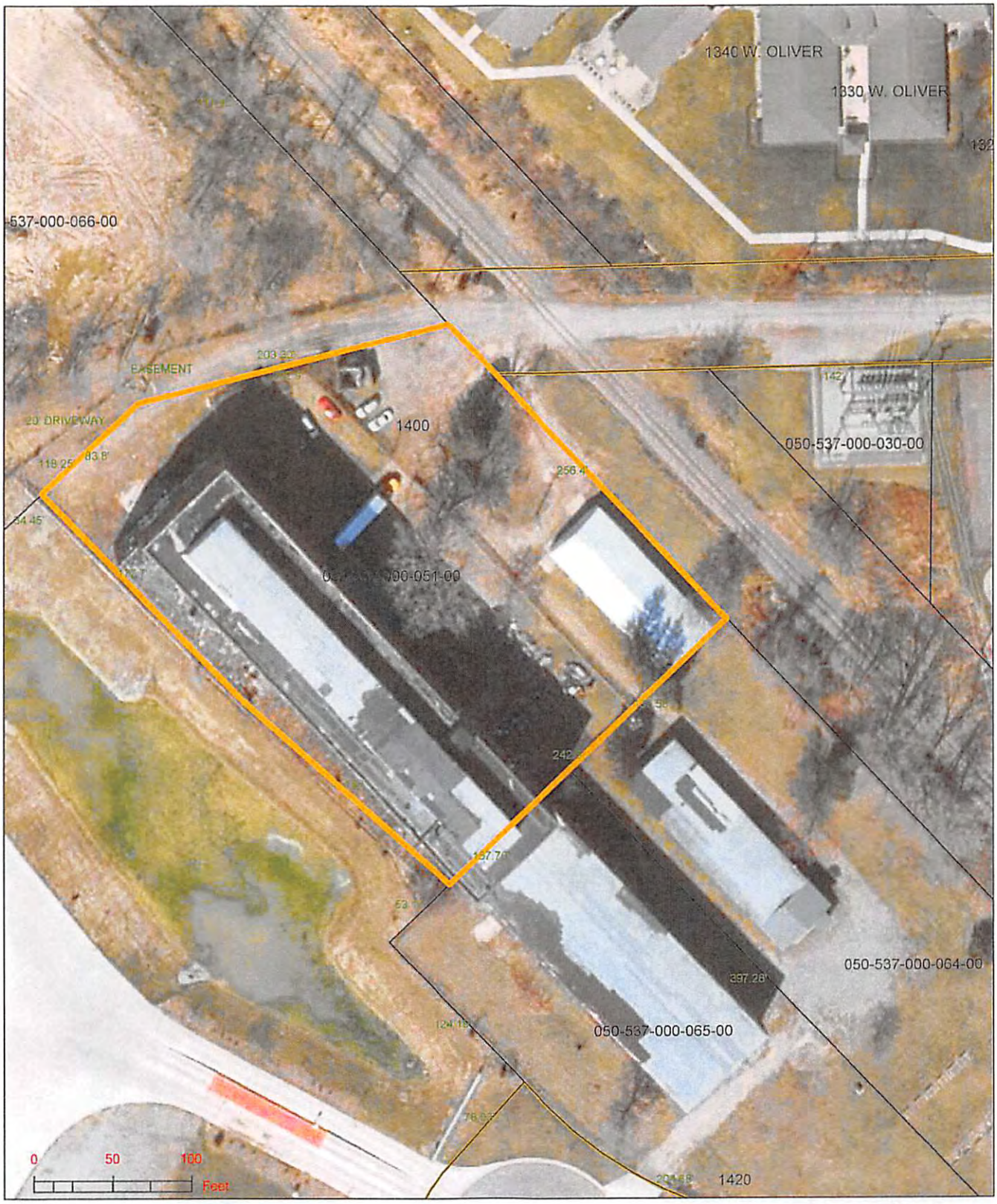
I hereby certify that I have surveyed and mapped the land above platted and/or described on June 6, 2023 and that the relative positional precision of the corners identified for this survey and shown on the map are within the limits accepted by the practice of professional surveying, and that the requirements of P.A. 132, MCL 54.213 have been met.

LANDMARK SURVEYING
204 N. SHIAWASSEE ST.
OWOSSO, MI 48867
(989) 725-8725
(810) 659-1053
FAX (989) 725-2452
landmark@michonline.net

STATE OF MICHIGAN – MARK LESLIE VANRAEMDONCK – PROFESSIONAL SURVEYOR – LICENSE NO. 4001024622

Mark L. VanRaemdonck, Michigan PS 24622

OWOSSO


1340 W. OLIVER
1330 W. OLIVER
537-000-066-00
EASEMENT
20' DRIVEWAY
1400
050-537-000-030-00
050-537-000-064-00
050-537-000-065-00
1420
0
50
100
Feet

LANDMARK SURVEYING
Professional Corporation

204 N. Shiawassee St. (M-52)
Owosso, MI 48867

Tel: (989) 725-8725
(810) 659-1053
landmark@michonline.net

PREPARED FOR: Rich Harsh
Rich Harsh & Associates
816 Campbell Dr.
Owosso, MI 48867

FILE #28513
DATE: August 23, 2023

DESCRIPTION OF EASEMENT FOR INGRESS & EGRESS: Part of the Southeast 1/4 of Section 14, T7N-R2E, City of Owosso, Shiawassee County, Michigan, described as beginning at a point that is S90°00'00"W on the East and West 1/4 line of said Section 14 a distance of 1866.23 feet and S42°07'00"W on the Southwesterly right-of-way line of the Grand Trunk Western Railroad, a distance of 945.17 feet from the East 1/4 corner of said Section 14; thence continuing S42°07'00"E 50.00 feet; thence S45°20'12"W 82.53 feet; thence N42°00'42"W 50.00 feet; thence N45°20'12"E 82.45 feet to the point of beginning.

PERMANENT EASEMENT

KNOW ALL MEN BY THESE PRESENTS, That Wallace Real Estate LLC, whose address is 1400 W Oliver St, Owosso, MI 48867 and Kyle DeVoogd, whose address is 11263 Connell Dr, Dexter, MI 48130, County of Shiawassee, in the State of Michigan, hereinafter called Grantor(s) in consideration of One Dollar and no/100 ($1.00) to them paid receipt of which is hereby acknowledged do hereby grant, convey and warrant to the City of Owosso, Michigan, a Michigan municipal corporation, whose address is 301 W Main St, Owosso, MI 48867 hereinafter called Grantee, their successors and assigns, the permanent easement and right-of-way to make surveys, lay, construct, maintain, operate, alter, replace and repair and remove at any time hereafter any Water Line on, over, and across the following described parcel of land and depicted in legal description below:

The following described land situated in the City of Owosso, County of Shiawassee, and State of Michigan, and more particularly described as follows:

Part of the Southeast 1/4 of Section 14, Town 7 North, Range 2 East, City of Owosso, Shiawassee County, Michigan, described as beginning at a point that is South 90°00'00" West on the East and West 1/4 line of said Section 14 a distance of 1866.23 feet and South 42°07'00" West on the Southwesterly right of way line of the Grand Trunk Western Railroad, a distance of 995.17 feet from the East 1/4 corner of said Section 14; thence continuing South 42°07'00" East 206.44 feet; thence South 47°52'47" West 82.85 feet; thence North 42°00'42" West 202.77 feet; thence North 45°20'12" East 82.53 feet to the point of beginning. Together with and subject to the following description for ingress and egress:

DESCRIPTION OF EASEMENT FOR INGRESS & EGRESS: Part of the Southeast 1/4 of Section 14, Town 7 North, Range 2 East, City of Owosso, Shiawassee County, Michigan, described as beginning at a point that is South 90°00'00" West on the East and West 1/4 line of said Section 14 a distance of 1866.23 feet and South 42°07'00" West on the Southwesterly right-of-way line of the Grand Trunk Western Railroad, a distance of 945.17 feet from the East 1/4 corner of said Section 14; thence continuing South 42°07'00" East 50.00 feet; thence South 45°20'12" West 82.53 feet; thence North 42°00'42" West 50.00 feet; thence North 45°20'12" East 82.45 feet to the point of beginning.

More commonly known as:
1400 W Oliver Street
Owosso, MI 48867

Tax Parcel No.: Part of 050-537-000-051-00

Together with the right of ingress and egress for all purposes incident to said permanent easement as shown in the legal description above. It being expressly understood that no building or other structures will be placed over said water line without the written consent of said Grantee and the non-use or limited use of this permanent easement by Grantee shall not prevent Grantee from later making use of the permanent easement to the full extent herein authorized. Grantee agrees to pay for any damage which it does to Grantor(s) buildings, or other structures, in its exercise of the rights herein granted, and to bury and maintain any water line and appurtenances so as not to interfere with normal use of said land. Grantee agrees to replace any disturbed area in kind with similar material.

It is expressly understood that the permanent easement of rights herein granted may be assigned by the Grantee. It is also understood that this agreement constitutes all of the terms, conditions and understandings between the parties hereto.

IN WITNESS THEROF, the parties have hereunto set their hands and seal this _____ day of _____, 20__.

Signed, Sealed and Delivered in Presence of:
Wallace Real Estate LLC, a Michigan Limited Liability Company

By: _____
Russell E Wallace, Member

IN WITNESS THEROF, the parties have hereunto set their hands and seal this _____ day of _____, 20__.

Signed, Sealed and Delivered in Presence of:
Wallace Real Estate LLC, a Michigan Limited Liability Company

By: _____
Darell L Wallace, Member

IN WITNESS THEROF, the parties have hereunto set their hands and seal this _____ day of _____, 20__.

Signed, Sealed and Delivered in Presence of:

_____
Kyle DeVoogd

STATE OF MICHIGAN
COUNTY OF SHIAWASSEE

On this _____ day of _____, 20____, before me, a Notary Public, in and for said County, personally appeared Russell E Wallace, Member, Wallace Real Estate LLC, a Michigan Limited Liability Company, Darell L Wallace, Member, Wallace Real Estate LLC, a Michigan Limited Liability Company and Kyle DeVoogd , to me known to be the same person named in and who executed the foregoing instrument and acknowledged the execution of the same to be his/their free act and deed.

_____

_____
Notary Public _____ County of _____ State of _____
My Commission Expires _____

PREPARED BY AND RETURN TO:
Russell E Wallace, Member
Wallace Real Estate LLC, a Michigan Limited Liability Company
1400 W Oliver St
Owosso, MI 48867

MEMORANDUM

301 W. MAIN ▪ OWOSSO, MICHIGAN 48867-2958 ▪ WWW.CI.OWOSSO.MI.US

DATE: September 25, 2023

TO: Owosso City Council

FROM: Brad Barrett, Finance Director

SUBJECT: Monthly Financial Report – August 2023

RECOMMENDATION:

Receive and file communication from Finance Department.

BACKGROUND:

Per Section 8.6(c) of the Owosso City Charter….

> *During each month, the City Manager shall submit to the Council data showing the relation between the estimated and actual revenues and expenditures to the end of the preceding month;….*

A revenue and expenditure report and cash summary report is included for the period ending August 31, 2023.

Revenue Expense Report

The column labeled “Activity for month” reflects revenues received and expenses paid during the specific month and the column labeled “YTD Balance reflects revenues received and expenses paid since the beginning of the fiscal year (July 1st.)

FISCAL IMPACTS:

None.

Document originated by:

Revenue and Expenditure Report for City of Owosso – Period ending 08-31-2023
Cash Summary by Account for City of Owosso – 08-01-2023 through 08-31-2023

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 101 - GENERAL FUND							
Revenues							
101-000-402.000	GENERAL PROPERTY TAX	3,748,866.00	3,748,866.00	555,766.90	923,523.34	2,825,342.66	24.63
101-000-402.500	OBSOLETE PROPERTY REHAB TAXES(O	2,732.00	2,732.00	0.00	0.00	2,732.00	0.00
101-000-404.000	PA 298 OF 1917	295,374.00	295,374.00	43,786.86	72,760.24	222,613.76	24.63
101-000-432.000	PAYMENT IN LIEU OF TAXES (PILT)	1,079.00	1,079.00	0.00	0.00	1,079.00	0.00
101-000-434.000	TRAILER PARK TAXES	1,000.00	1,000.00	1,122.00	1,122.00	(122.00)	112.20
101-000-437.000	INDUSTRIAL/COMMERCIAL FACILITIE	14,082.00	14,082.00	0.00	0.00	14,082.00	0.00
101-000-439.000	MARIJUANA TAX DISTR.	207,000.00	207,000.00	0.00	0.00	207,000.00	0.00
101-000-445.000	INTEREST & PENALTIES ON TAXES	17,465.00	17,465.00	(4.00)	(5.42)	17,470.42	(0.03)
101-000-447.000	ADMINISTRATION FEES	102,017.00	102,017.00	16,874.91	24,789.71	77,227.29	24.30
101-000-476.000	LIQUOR LICENSES	10,500.00	10,500.00	0.00	0.00	10,500.00	0.00
101-000-477.000	CABLE TELEVISION FRANCHISE FEES	93,168.00	93,168.00	0.00	0.00	93,168.00	0.00
101-000-478.000	ROW LICENSES	1,000.00	1,000.00	120.00	180.00	820.00	18.00
101-000-491.000	PERMITS (GUN)	500.00	500.00	20.00	60.00	440.00	12.00
101-000-502.000	GRANT-FEDERAL	850,000.00	850,000.00	0.00	0.00	850,000.00	0.00
101-000-502.100	FEDERAL GRANT - DEPT OF JUSTICE	200,000.00	200,000.00	0.00	0.00	200,000.00	0.00
101-000-540.000	STATE SOURCES	2,100.00	2,100.00	0.00	0.00	2,100.00	0.00
101-000-573.000	LOCAL COMMUNITY STABILIZATION SI	34,000.00	34,000.00	0.00	0.00	34,000.00	0.00
101-000-574.000	REVENUE SHARING	1,611,431.00	1,611,431.00	0.00	0.00	1,611,431.00	0.00
101-000-574.050	REVENUE SHARING - STATUTORY	528,144.00	528,144.00	0.00	0.00	528,144.00	0.00
101-000-605.200	CHARGE FOR SERVICES RENDERED	132,400.00	132,400.00	2,416.75	3,732.75	128,667.25	2.82
101-000-605.250	DUPLICATING SERVICES	1,000.00	1,000.00	35.00	188.50	811.50	18.85
101-000-605.300	FIRE SERVICES	3,000.00	3,000.00	250.00	1,250.00	1,750.00	41.67
101-000-628.000	RENTAL REGISTRATION	1,500.00	1,500.00	0.00	0.00	1,500.00	0.00
101-000-638.000	AMBULANCE CHARGES	338,912.00	338,912.00	36,257.64	67,300.31	271,611.69	19.86
101-000-638.100	AMBULANCE MILEAGE CHARGES	149,744.00	149,744.00	18,325.59	27,830.56	121,913.44	18.59
101-000-638.200	AMBULANCE/ ADVANCED LIFE SUPPOR	381,012.00	381,012.00	55,202.74	86,579.37	294,432.63	22.72
101-000-642.000	CHARGE FOR SERVICES - SALES	3,870.00	3,870.00	270.00	510.00	3,360.00	13.18
101-000-652.200	PARKING LEASE INCOME	1,680.00	1,680.00	0.00	0.00	1,680.00	0.00
101-000-657.000	ORDINANCE FINES & COSTS	10,000.00	10,000.00	920.92	1,368.57	8,631.43	13.69
101-000-657.100	PARKING VIOLATIONS	1,000.00	1,000.00	425.00	695.00	305.00	69.50
101-000-665.000	INTEREST INCOME	50,000.00	50,000.00	14,657.15	25,496.00	24,504.00	50.99
101-000-665.100	MERS INTEREST INCOME	10.00	10.00	0.00	0.00	10.00	0.00
101-000-665.200	ICMA INTEREST INCOME	10.00	10.00	0.00	0.00	10.00	0.00
101-000-667.100	RENTAL INCOME	500.00	500.00	0.00	0.00	500.00	0.00
101-000-675.000	MISCELLANEOUS	20,000.00	20,000.00	5,259.46	19,114.43	885.57	95.57
101-000-676.200	WASTEWATER UTIL. ADMIN REIMB	199,752.00	199,752.00	0.00	0.00	199,752.00	0.00
101-000-676.300	CITY UTILITIES ADMIN REIMB	835,156.00	835,156.00	0.00	0.00	835,156.00	0.00
101-000-676.400	DDA TIF CHARGE BACK	15,453.00	15,453.00	0.00	0.00	15,453.00	0.00
101-000-676.500	ACT 51 ADMIN REIMBURSEMENT	199,870.00	199,870.00	0.00	0.00	199,870.00	0.00
101-000-687.000	INSURANCE REFUNDS	88,000.00	88,000.00	0.00	0.00	88,000.00	0.00
TOTAL REVENUES		10,153,327.00	10,153,327.00	751,706.92	1,256,495.36	8,896,831.64	12.38
Expenditures							
101	CITY COUNCIL	5,560.00	5,560.00	0.00	550.00	5,010.00	9.89
171	CITY MANAGER	294,181.00	294,181.00	25,503.86	50,141.58	244,039.42	17.04
201	FINANCE	242,732.00	242,732.00	19,089.16	32,260.27	210,471.73	13.29
210	CITY ATTORNEY	120,000.00	120,000.00	0.00	5,132.96	114,867.04	4.28
215	CLERK	292,291.00	292,291.00	26,104.17	38,334.10	253,956.90	13.12
228	INFORMATION & TECHNOLOGY	294,655.00	294,655.00	38,276.29	39,377.89	255,277.11	13.36

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 101 - GENERAL FUND							
Expenditures							
253	TREASURY	180,703.00	180,703.00	16,486.01	28,637.44	152,065.56	15.85
257	ASSESSING	214,803.00	214,803.00	15,632.59	27,714.41	187,088.59	12.90
261	GENERAL ADMIN	354,925.00	354,925.00	49,134.60	61,339.48	293,585.52	17.28
265	BUILDING & GROUNDS	199,985.00	199,985.00	9,756.99	14,436.35	185,548.65	7.22
270	HUMAN RESOURCES	218,345.00	218,345.00	16,451.82	27,982.62	190,362.38	12.82
301	POLICE	3,019,525.00	3,019,525.00	193,332.49	408,247.77	2,611,277.23	13.52
336	FIRE	3,120,374.00	3,120,374.00	158,653.88	284,883.53	2,835,490.47	9.13
371	BUILDING AND SAFETY	29,880.00	29,880.00	2,785.39	3,988.87	25,891.13	13.35
441	PUBLIC WORKS	616,753.00	616,753.00	36,994.79	49,719.93	567,033.07	8.06
528	LEAF AND BRUSH COLLECTION	299,315.00	299,315.00	16,569.73	23,784.86	275,530.14	7.95
585	PARKING	37,444.00	37,444.00	1,229.06	2,075.32	35,368.68	5.54
720	COMMUNITY DEVELOPMENT	80,376.00	80,376.00	1,883.53	3,532.82	76,843.18	4.40
751	PARKS	421,956.00	421,956.00	28,968.94	50,252.99	371,703.01	11.91
966	TRANSFERS OUT	81,921.00	81,921.00	0.00	0.00	81,921.00	0.00
TOTAL EXPENDITURES		10,125,724.00	10,125,724.00	656,853.30	1,152,393.19	8,973,330.81	11.38
Fund 101 - GENERAL FUND:							
TOTAL REVENUES		10,153,327.00	10,153,327.00	751,706.92	1,256,495.36	8,896,831.64	12.38
TOTAL EXPENDITURES		10,125,724.00	10,125,724.00	656,853.30	1,152,393.19	8,973,330.81	11.38
NET OF REVENUES & EXPENDITURES		27,603.00	27,603.00	94,853.62	104,102.17	(76,499.17)	377.14

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 202 - MAJOR STREET FUND							
Revenues							
202-000-502.000	GRANT-FEDERAL	692,500.00	692,500.00	128,014.49	128,014.49	564,485.51	18.49
202-000-540.000	STATE SOURCES	45,000.00	45,000.00	0.00	0.00	45,000.00	0.00
202-000-541.000	TRUNKLINE MAINTENANCE	41,585.00	41,585.00	0.00	0.00	41,585.00	0.00
202-000-542.000	GAS & WEIGHT TAX	1,461,387.00	1,461,387.00	0.00	0.00	1,461,387.00	0.00
202-000-665.000	INTEREST INCOME	10,000.00	10,000.00	10,861.54	18,467.71	(8,467.71)	184.68
TOTAL REVENUES		2,250,472.00	2,250,472.00	138,876.03	146,482.20	2,103,989.80	6.51
Expenditures							
451	CONSTRUCTION	1,956,250.00	1,956,250.00	119,343.14	119,343.14	1,836,906.86	6.10
463	STREET MAINTENANCE	516,594.00	516,594.00	9,783.92	19,163.14	497,430.86	3.71
473	BRIDGE MAINTENANCE	100,500.00	100,500.00	0.00	0.00	100,500.00	0.00
474	TRAFFIC SERVICES-MAINTENANCE	16,750.00	16,750.00	11.88	11.88	16,738.12	0.07
478	SNOW & ICE CONTROL	169,048.00	169,048.00	2,863.00	5,371.88	163,676.12	3.18
480	TREE TRIMMING	76,239.00	76,239.00	6,454.54	11,432.02	64,806.98	14.99
482	ADMINISTRATION & ENGINEERING	208,153.00	208,153.00	4,948.33	8,849.15	199,303.85	4.25
485	LOCAL STREET TRANSFER	350,000.00	350,000.00	0.00	0.00	350,000.00	0.00
486	TRUNKLINE SURFACE MAINTENANCE	200.00	200.00	0.00	0.00	200.00	0.00
488	TRUNKLINE SWEEPING & FLUSHING	2,000.00	2,000.00	0.00	0.00	2,000.00	0.00
490	TRUNKLINE TREE TRIM & REMOVAL	200.00	200.00	0.00	0.00	200.00	0.00
491	TRUNKLINE STORM DRAIN, CURBS	1,000.00	1,000.00	0.00	0.00	1,000.00	0.00
492	TRUNKLINE ROADSIDE CLEANUP	400.00	400.00	0.00	0.00	400.00	0.00
494	TRUNKLINE TRAFFIC SIGNS	100.00	100.00	52.00	52.00	48.00	52.00
497	TRUNKLINE SNOW & ICE CONTROL	8,000.00	8,000.00	0.00	0.00	8,000.00	0.00
TOTAL EXPENDITURES		3,405,434.00	3,405,434.00	143,456.81	164,223.21	3,241,210.79	4.82
Fund 202 - MAJOR STREET FUND:							
TOTAL REVENUES		2,250,472.00	2,250,472.00	138,876.03	146,482.20	2,103,989.80	6.51
TOTAL EXPENDITURES		3,405,434.00	3,405,434.00	143,456.81	164,223.21	3,241,210.79	4.82
NET OF REVENUES & EXPENDITURES		(1,154,962.00)	(1,154,962.00)	(4,580.78)	(17,741.01)	(1,137,220.99)	1.54

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MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 203 - LOCAL STREET FUND							
Revenues							
203-000-502.000	GRANT-FEDERAL	175,000.00	175,000.00	0.00	0.00	175,000.00	0.00
203-000-540.000	STATE SOURCES	15,000.00	15,000.00	0.00	0.00	15,000.00	0.00
203-000-542.000	GAS & WEIGHT TAX	537,320.00	537,320.00	0.00	0.00	537,320.00	0.00
203-000-665.000	INTEREST INCOME	5,000.00	5,000.00	3,892.89	6,340.86	(1,340.86)	126.82
203-000-699.202	MAJOR STREET TRANSFER	350,000.00	350,000.00	0.00	0.00	350,000.00	0.00
TOTAL REVENUES		1,082,320.00	1,082,320.00	3,892.89	6,340.86	1,075,979.14	0.59
Expenditures							
451	CONSTRUCTION	535,250.00	535,250.00	118,098.05	118,098.05	417,151.95	22.06
463	STREET MAINTENANCE	612,287.00	612,287.00	16,099.96	26,642.36	585,644.64	4.35
474	TRAFFIC SERVICES-MAINTENANCE	1,500.00	1,500.00	10.62	10.62	1,489.38	0.71
478	SNOW & ICE CONTROL	71,592.00	71,592.00	1,272.58	2,387.35	69,204.65	3.33
480	TREE TRIMMING	125,669.00	125,669.00	5,550.54	14,779.09	110,889.91	11.76
482	ADMINISTRATION & ENGINEERING	116,047.00	116,047.00	4,998.16	9,578.66	106,468.34	8.25
TOTAL EXPENDITURES		1,462,345.00	1,462,345.00	146,029.91	171,496.13	1,290,848.87	11.73
Fund 203 - LOCAL STREET FUND:							
TOTAL REVENUES		1,082,320.00	1,082,320.00	3,892.89	6,340.86	1,075,979.14	0.59
TOTAL EXPENDITURES		1,462,345.00	1,462,345.00	146,029.91	171,496.13	1,290,848.87	11.73
NET OF REVENUES & EXPENDITURES		(380,025.00)	(380,025.00)	(142,137.02)	(165,155.27)	(214,869.73)	43.46

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GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 208 - PARK/RECREATION SITES FUND							
Revenues							
208-000-665.000	INTEREST INCOME	0.00	0.00	179.71	335.31	(335.31)	100.00
208-000-674.100	PRIVATE DONATIONS	0.00	0.00	3,945.97	3,945.97	(3,945.97)	100.00
TOTAL REVENUES		0.00	0.00	4,125.68	4,281.28	(4,281.28)	100.00
Expenditures							
751	PARKS	0.00	0.00	217.98	511.48	(511.48)	100.00
TOTAL EXPENDITURES		0.00	0.00	217.98	511.48	(511.48)	100.00
Fund 208 - PARK/RECREATION SITES FUND:							
TOTAL REVENUES		0.00	0.00	4,125.68	4,281.28	(4,281.28)	100.00
TOTAL EXPENDITURES		0.00	0.00	217.98	511.48	(511.48)	100.00
NET OF REVENUES & EXPENDITURES		0.00	0.00	3,907.70	3,769.80	(3,769.80)	100.00

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MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 239 - OMS/DDA REVLG LOAN FUND							
Revenues							
239-000-644.000	PENALTIES - LATE CHARGES	250.00	250.00	41.43	64.89	185.11	25.96
239-000-665.000	INTEREST INCOME	5,000.00	5,000.00	1,264.69	1,976.45	3,023.55	39.53
239-000-670.000	LOAN PRINCIPAL	0.00	0.00	8,253.13	16,482.82	(16,482.82)	100.00
239-000-670.100	LOAN INTEREST	20,000.00	20,000.00	1,381.16	2,785.76	17,214.24	13.93
TOTAL REVENUES		25,250.00	25,250.00	10,940.41	21,309.92	3,940.08	84.40
Expenditures							
200	GEN SERVICES	1,130.00	1,130.00	550.00	550.00	580.00	48.67
TOTAL EXPENDITURES		1,130.00	1,130.00	550.00	550.00	580.00	48.67
Fund 239 - OMS/DDA REVLG LOAN FUND :							
TOTAL REVENUES		25,250.00	25,250.00	10,940.41	21,309.92	3,940.08	84.40
TOTAL EXPENDITURES		1,130.00	1,130.00	550.00	550.00	580.00	48.67
NET OF REVENUES & EXPENDITURES		24,120.00	24,120.00	10,390.41	20,759.92	3,360.08	86.07

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GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 243 - OBRA #12 WOODWARD LOFT							
Revenues							
243-000-402.300	OBRA:TAX CAPTURE	128,996.00	128,996.00	0.00	0.00	128,996.00	0.00
243-000-665.000	INTEREST INCOME	100.00	100.00	0.00	0.00	100.00	0.00
TOTAL REVENUES		129,096.00	129,096.00	0.00	0.00	129,096.00	0.00
Expenditures							
721	PROFESSIONAL SERVICES	1,000.00	1,000.00	0.00	0.00	1,000.00	0.00
964	TAX REIMBURSEMENTS	127,996.00	127,996.00	0.00	0.00	127,996.00	0.00
TOTAL EXPENDITURES		128,996.00	128,996.00	0.00	0.00	128,996.00	0.00
Fund 243 - OBRA #12 WOODWARD LOFT:							
TOTAL REVENUES		129,096.00	129,096.00	0.00	0.00	129,096.00	0.00
TOTAL EXPENDITURES		128,996.00	128,996.00	0.00	0.00	128,996.00	0.00
NET OF REVENUES & EXPENDITURES		100.00	100.00	0.00	0.00	100.00	0.00

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GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 248 - DOWNTOWN DEVELOPMENT AUTHORITY							
Revenues							
248-000-402.000	GENERAL PROPERTY TAX	35,926.00	35,926.00	6,324.69	8,344.22	27,581.78	23.23
248-000-402.100	TIF	220,053.00	220,053.00	0.00	0.00	220,053.00	0.00
248-000-573.000	LOCAL COMMUNITY STABILIZATION SI	5,436.00	5,436.00	0.00	0.00	5,436.00	0.00
248-000-665.000	INTEREST INCOME	500.00	500.00	592.49	1,120.75	(620.75)	224.15
248-000-670.000	LOAN PRINCIPAL	4,312.00	4,312.00	355.65	709.53	3,602.47	16.45
248-000-670.100	LOAN INTEREST	1,844.00	1,844.00	157.34	316.45	1,527.55	17.16
248-000-674.400	INCOME-PROMOTION	25,000.00	25,000.00	1,638.00	3,488.00	21,512.00	13.95
248-000-674.700	EV STATION REVENUE	1,620.00	1,620.00	99.58	99.58	1,520.42	6.15
248-000-699.101	TRANFERS FROM GENERAL FUND	33,921.00	33,921.00	0.00	0.00	33,921.00	0.00
TOTAL REVENUES		328,612.00	328,612.00	9,167.75	14,078.53	314,533.47	4.28
Expenditures							
200	GEN SERVICES	159,632.00	159,632.00	4,513.58	9,048.66	150,583.34	5.67
261	GENERAL ADMIN	84,802.00	84,802.00	6,694.81	11,818.28	72,983.72	13.94
704	ORGANIZATION	3,000.00	3,000.00	14.36	14.36	2,985.64	0.48
705	PROMOTION	18,766.00	18,766.00	1,364.76	1,439.76	17,326.24	7.67
706	DESIGN	7,000.00	7,000.00	69.51	69.51	6,930.49	0.99
707	ECONOMIC RESTRUCTURING	0.00	0.00	110.00	110.00	(110.00)	100.00
905	DEBT SERVICE	70,236.00	70,236.00	452.65	905.30	69,330.70	1.29
TOTAL EXPENDITURES		343,436.00	343,436.00	13,219.67	23,405.87	320,030.13	6.82
Fund 248 - DOWNTOWN DEVELOPMENT AUTHORITY:							
TOTAL REVENUES		328,612.00	328,612.00	9,167.75	14,078.53	314,533.47	4.28
TOTAL EXPENDITURES		343,436.00	343,436.00	13,219.67	23,405.87	320,030.13	6.82
NET OF REVENUES & EXPENDITURES		(14,824.00)	(14,824.00)	(4,051.92)	(9,327.34)	(5,496.66)	62.92

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GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 249 - BUILDING INSPECTION FUND							
Revenues							
249-000-476.100	MARIJUANA LICENSE FEE	80,000.00	80,000.00	0.00	15,000.00	65,000.00	18.75
249-000-490.000	PERMITS-BUILDING	106,000.00	106,000.00	10,157.60	23,083.49	82,916.51	21.78
249-000-490.100	PERMITS-ELECTRICAL	27,000.00	27,000.00	2,415.00	5,740.00	21,260.00	21.26
249-000-490.200	PERMITS-PLUMBING & MECHANICAL	60,000.00	60,000.00	6,090.00	8,950.00	51,050.00	14.92
249-000-628.000	RENTAL REGISTRATION	70,000.00	70,000.00	200.00	400.00	69,600.00	0.57
249-000-665.000	INTEREST INCOME	1,000.00	1,000.00	890.65	1,661.50	(661.50)	166.15
TOTAL REVENUES		344,000.00	344,000.00	19,753.25	54,834.99	289,165.01	15.94
Expenditures							
200	GEN SERVICES	106,752.00	106,752.00	9,120.26	15,043.58	91,708.42	14.09
371	BUILDING AND SAFETY	156,563.00	156,563.00	11,745.56	11,745.56	144,817.44	7.50
TOTAL EXPENDITURES		263,315.00	263,315.00	20,865.82	26,789.14	236,525.86	10.17
Fund 249 - BUILDING INSPECTION FUND:							
TOTAL REVENUES		344,000.00	344,000.00	19,753.25	54,834.99	289,165.01	15.94
TOTAL EXPENDITURES		263,315.00	263,315.00	20,865.82	26,789.14	236,525.86	10.17
NET OF REVENUES & EXPENDITURES		80,685.00	80,685.00	(1,112.57)	28,045.85	52,639.15	34.76

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GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 254 - HOUSING & REDEVELOPMENT							
Revenues							
254-000-502.400	GRANT-MSHDA:HO	105,000.00	105,000.00	0.00	0.00	105,000.00	0.00
254-000-502.550	GRANT - MSHDA: NEP	75,000.00	75,000.00	0.00	0.00	75,000.00	0.00
254-000-540.000	STATE SOURCES	0.00	0.00	23,612.23	23,612.23	(23,612.23)	100.00
254-000-665.000	INTEREST INCOME	0.00	0.00	578.86	578.86	(578.86)	100.00
254-000-675.000-114116MAIN	MISCELLANEOUS	0.00	0.00	50,000.00	50,000.00	(50,000.00)	100.00
TOTAL REVENUES		180,000.00	180,000.00	74,191.09	74,191.09	105,808.91	41.22
Expenditures							
200	GEN SERVICES	180,000.00	180,000.00	50,000.00	50,137.50	129,862.50	27.85
TOTAL EXPENDITURES		180,000.00	180,000.00	50,000.00	50,137.50	129,862.50	27.85
Fund 254 - HOUSING & REDEVELOPMENT:							
TOTAL REVENUES		180,000.00	180,000.00	74,191.09	74,191.09	105,808.91	41.22
TOTAL EXPENDITURES		180,000.00	180,000.00	50,000.00	50,137.50	129,862.50	27.85
NET OF REVENUES & EXPENDITURES		0.00	0.00	24,191.09	24,053.59	(24,053.59)	100.00

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GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 259 - OBRA-DIST#15 -ARMORY BUILDING							
Revenues							
259-000-402.300	OBRA:TAX CAPTURE	46,953.00	46,953.00	0.00	0.00	46,953.00	0.00
TOTAL REVENUES		46,953.00	46,953.00	0.00	0.00	46,953.00	0.00
Expenditures							
721	PROFESSIONAL SERVICES	6,007.00	6,007.00	4,292.00	4,292.00	1,715.00	71.45
964	TAX REIMBURSEMENTS	40,946.00	40,946.00	0.00	0.00	40,946.00	0.00
TOTAL EXPENDITURES		46,953.00	46,953.00	4,292.00	4,292.00	42,661.00	9.14
Fund 259 - OBRA-DIST#15 -ARMORY BUILDING:							
TOTAL REVENUES		46,953.00	46,953.00	0.00	0.00	46,953.00	0.00
TOTAL EXPENDITURES		46,953.00	46,953.00	4,292.00	4,292.00	42,661.00	9.14
NET OF REVENUES & EXPENDITURES		0.00	0.00	(4,292.00)	(4,292.00)	4,292.00	100.00

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GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 272 - OBRA FUND-DISTRICT #17 CARGILL (PREV #8)							
Revenues							
272-000-402.300	OBRA:TAX CAPTURE	199,180.00	199,180.00	0.00	0.00	199,180.00	0.00
TOTAL REVENUES		199,180.00	199,180.00	0.00	0.00	199,180.00	0.00
Expenditures							
721	PROFESSIONAL SERVICES	11,369.00	11,369.00	10,720.00	10,720.00	649.00	94.29
905	DEBT SERVICE	167,999.00	167,999.00	0.00	0.00	167,999.00	0.00
TOTAL EXPENDITURES		179,368.00	179,368.00	10,720.00	10,720.00	168,648.00	5.98
Fund 272 - OBRA FUND-DISTRICT #17 CARGILL (PREV #8):							
TOTAL REVENUES		199,180.00	199,180.00	0.00	0.00	199,180.00	0.00
TOTAL EXPENDITURES		179,368.00	179,368.00	10,720.00	10,720.00	168,648.00	5.98
NET OF REVENUES & EXPENDITURES		19,812.00	19,812.00	(10,720.00)	(10,720.00)	30,532.00	54.11

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 273 - OBRA #9 ROBBINS LOFT							
Revenues							
273-000-402.300	OBRA:TAX CAPTURE	4,267.00	4,267.00	0.00	0.00	4,267.00	0.00
273-000-665.000	INTEREST INCOME	100.00	100.00	0.00	0.00	100.00	0.00
TOTAL REVENUES		4,367.00	4,367.00	0.00	0.00	4,367.00	0.00
Expenditures							
721	PROFESSIONAL SERVICES	1,200.00	1,200.00	0.00	0.00	1,200.00	0.00
TOTAL EXPENDITURES		1,200.00	1,200.00	0.00	0.00	1,200.00	0.00
Fund 273 - OBRA #9 ROBBINS LOFT:							
TOTAL REVENUES		4,367.00	4,367.00	0.00	0.00	4,367.00	0.00
TOTAL EXPENDITURES		1,200.00	1,200.00	0.00	0.00	1,200.00	0.00
NET OF REVENUES & EXPENDITURES		3,167.00	3,167.00	0.00	0.00	3,167.00	0.00

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 276 - OBRA FUND DISTRICT #16 - QDOBA							
Revenues							
276-000-402.300	OBRA:TAX CAPTURE	11,278.00	11,278.00	0.00	0.00	11,278.00	0.00
276-000-665.000	INTEREST INCOME	10.00	10.00	0.00	0.00	10.00	0.00
276-000-674.200	DONATIONS	17,434.00	17,434.00	0.00	0.00	17,434.00	0.00
TOTAL REVENUES		28,722.00	28,722.00	0.00	0.00	28,722.00	0.00
Expenditures							
721	PROFESSIONAL SERVICES	550.00	550.00	587.00	1,224.50	(674.50)	222.64
905	DEBT SERVICE	28,172.00	28,172.00	0.00	0.00	28,172.00	0.00
TOTAL EXPENDITURES		28,722.00	28,722.00	587.00	1,224.50	27,497.50	4.26
Fund 276 - OBRA FUND DISTRICT #16 - QDOBA:							
TOTAL REVENUES		28,722.00	28,722.00	0.00	0.00	28,722.00	0.00
TOTAL EXPENDITURES		28,722.00	28,722.00	587.00	1,224.50	27,497.50	4.26
NET OF REVENUES & EXPENDITURES		0.00	0.00	(587.00)	(1,224.50)	1,224.50	100.00

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 277 - OBRA FUND DISTRICT #20 - J&H OIL							
Revenues							
277-000-402.300	OBRA:TAX CAPTURE	52,072.00	52,072.00	0.00	0.00	52,072.00	0.00
TOTAL REVENUES		52,072.00	52,072.00	0.00	0.00	52,072.00	0.00
Expenditures							
721	PROFESSIONAL SERVICES	1,000.00	1,000.00	2,808.50	2,808.50	(1,808.50)	280.85
TOTAL EXPENDITURES		1,000.00	1,000.00	2,808.50	2,808.50	(1,808.50)	280.85
Fund 277 - OBRA FUND DISTRICT #20 - J&H OIL:							
TOTAL REVENUES		52,072.00	52,072.00	0.00	0.00	52,072.00	0.00
TOTAL EXPENDITURES		1,000.00	1,000.00	2,808.50	2,808.50	(1,808.50)	280.85
NET OF REVENUES & EXPENDITURES		51,072.00	51,072.00	(2,808.50)	(2,808.50)	53,880.50	5.50

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 280 - OBRA FUND-DISTRICT #21 - 152 E HOWARD ST							
Revenues							
280-000-402.300	OBRA:TAX CAPTURE	512.00	512.00	0.00	0.00	512.00	0.00
TOTAL REVENUES		512.00	512.00	0.00	0.00	512.00	0.00
Fund 280 - OBRA FUND-DISTRICT #21 - 152 E HOWARD ST:							
TOTAL REVENUES		512.00	512.00	0.00	0.00	512.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		512.00	512.00	0.00	0.00	512.00	0.00

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 283 - OBRA FUND-DISTRICT#3-TIAL							
Revenues							
283-000-402.300	OBRA:TAX CAPTURE	15,005.00	15,005.00	0.00	0.00	15,005.00	0.00
TOTAL REVENUES		15,005.00	15,005.00	0.00	0.00	15,005.00	0.00
Expenditures							
721	PROFESSIONAL SERVICES	750.00	750.00	0.00	0.00	750.00	0.00
905	DEBT SERVICE	22,407.00	22,407.00	0.00	0.00	22,407.00	0.00
TOTAL EXPENDITURES		23,157.00	23,157.00	0.00	0.00	23,157.00	0.00
Fund 283 - OBRA FUND-DISTRICT#3-TIAL:							
TOTAL REVENUES		15,005.00	15,005.00	0.00	0.00	15,005.00	0.00
TOTAL EXPENDITURES		23,157.00	23,157.00	0.00	0.00	23,157.00	0.00
NET OF REVENUES & EXPENDITURES		(8,152.00)	(8,152.00)	0.00	0.00	(8,152.00)	0.00

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 284 - OPIOID SETTLEMENT FUND							
Revenues							
284-000-665.000	INTEREST INCOME	1,000.00	1,000.00	0.00	0.00	1,000.00	0.00
284-000-685.000	OPIOID SETTLEMENT REVENUE	0.00	0.00	2,725.46	2,725.46	(2,725.46)	100.00
TOTAL REVENUES		1,000.00	1,000.00	2,725.46	2,725.46	(1,725.46)	272.55
Fund 284 - OPIOID SETTLEMENT FUND:							
TOTAL REVENUES		1,000.00	1,000.00	2,725.46	2,725.46	(1,725.46)	272.55
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		1,000.00	1,000.00	2,725.46	2,725.46	(1,725.46)	272.55

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 287 - ARPA - AMERICAN RESCUE PLAN ACT							
Revenues							
287-000-665.000	INTEREST INCOME	5,000.00	5,000.00	2,970.45	5,920.59	(920.59)	118.41
TOTAL REVENUES		5,000.00	5,000.00	2,970.45	5,920.59	(920.59)	118.41
Expenditures							
966	TRANSFERS OUT	1,100,000.00	1,100,000.00	0.00	0.00	1,100,000.00	0.00
TOTAL EXPENDITURES		1,100,000.00	1,100,000.00	0.00	0.00	1,100,000.00	0.00
Fund 287 - ARPA - AMERICAN RESCUE PLAN ACT:							
TOTAL REVENUES		5,000.00	5,000.00	2,970.45	5,920.59	(920.59)	118.41
TOTAL EXPENDITURES		1,100,000.00	1,100,000.00	0.00	0.00	1,100,000.00	0.00
NET OF REVENUES & EXPENDITURES		(1,095,000.00)	(1,095,000.00)	2,970.45	5,920.59	(1,100,920.59)	0.54

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 297 - HISTORICAL FUND							
Revenues							
297-000-540.000	STATE SOURCES	0.00	0.00	257.00	257.00	(257.00)	100.00
297-000-643.000	SALES	2,500.00	2,500.00	577.00	1,153.00	1,347.00	46.12
297-000-665.000	INTEREST INCOME	500.00	500.00	299.43	558.60	(58.60)	111.72
297-000-665.100	ENDOWMENT SPENDABLE FUNDS	1,010.00	1,010.00	0.00	0.00	1,010.00	0.00
297-000-667.100	RENTAL INCOME	14,000.00	14,000.00	1,400.00	2,100.00	11,900.00	15.00
297-000-674.100	PRIVATE DONATIONS	13,000.00	13,000.00	3,703.00	5,006.00	7,994.00	38.51
297-000-674.200	DONATIONS	1,000.00	1,000.00	450.86	550.86	449.14	55.09
297-000-699.101	TRANFERS FROM GENERAL FUND	20,000.00	20,000.00	0.00	0.00	20,000.00	0.00
TOTAL REVENUES		52,010.00	52,010.00	6,687.29	9,625.46	42,384.54	18.51
Expenditures							
797	HISTORICAL COMMISSION	25,958.00	25,958.00	2,148.71	3,216.41	22,741.59	12.39
798	CASTLE	16,420.00	16,420.00	609.06	778.09	15,641.91	4.74
799	GOULD HOUSE	8,817.00	8,817.00	1,433.39	4,130.25	4,686.75	46.84
800	COMSTOCK/WOODARD	500.00	500.00	104.61	104.61	395.39	20.92
TOTAL EXPENDITURES		51,695.00	51,695.00	4,295.77	8,229.36	43,465.64	15.92
Fund 297 - HISTORICAL FUND:							
TOTAL REVENUES		52,010.00	52,010.00	6,687.29	9,625.46	42,384.54	18.51
TOTAL EXPENDITURES		51,695.00	51,695.00	4,295.77	8,229.36	43,465.64	15.92
NET OF REVENUES & EXPENDITURES		315.00	315.00	2,391.52	1,396.10	(1,081.10)	443.21

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 301 - GENERAL DEBT SERVICE (VOTED BONDS)							
Revenues							
301-000-402.000	GENERAL PROPERTY TAX	782,750.00	782,750.00	127,102.75	186,923.30	595,826.70	23.88
301-000-665.000	INTEREST INCOME	5,000.00	5,000.00	0.00	0.00	5,000.00	0.00
TOTAL REVENUES		787,750.00	787,750.00	127,102.75	186,923.30	600,826.70	23.73
Expenditures							
905	DEBT SERVICE	782,750.00	782,750.00	0.00	0.00	782,750.00	0.00
TOTAL EXPENDITURES		782,750.00	782,750.00	0.00	0.00	782,750.00	0.00
Fund 301 - GENERAL DEBT SERVICE (VOTED BONDS):							
TOTAL REVENUES		787,750.00	787,750.00	127,102.75	186,923.30	600,826.70	23.73
TOTAL EXPENDITURES		782,750.00	782,750.00	0.00	0.00	782,750.00	0.00
NET OF REVENUES & EXPENDITURES		5,000.00	5,000.00	127,102.75	186,923.30	(181,923.30)	3,738.47

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 469 - CAPITAL PROJECTS-BUILDING AUTHORITY							
Revenues							
469-000-665.000	INTEREST INCOME	0.00	0.00	54.46	108.55	(108.55)	100.00
TOTAL REVENUES		0.00	0.00	54.46	108.55	(108.55)	100.00
Expenditures							
901	CAPITAL OUTLAY	0.00	0.00	244.00	244.00	(244.00)	100.00
TOTAL EXPENDITURES		0.00	0.00	244.00	244.00	(244.00)	100.00
Fund 469 - CAPITAL PROJECTS-BUILDING AUTHORITY:							
TOTAL REVENUES		0.00	0.00	54.46	108.55	(108.55)	100.00
TOTAL EXPENDITURES		0.00	0.00	244.00	244.00	(244.00)	100.00
NET OF REVENUES & EXPENDITURES		0.00	0.00	(189.54)	(135.45)	135.45	100.00

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 494 - CAPITAL PROJECTS FUND-DOWNTOWN							
Expenditures							
271	ADMINISTRATIVE	20,000.00	20,000.00	0.00	0.00	20,000.00	0.00
TOTAL EXPENDITURES		20,000.00	20,000.00	0.00	0.00	20,000.00	0.00
Fund 494 - CAPITAL PROJECTS FUND-DOWNTOWN:							
TOTAL REVENUES		0.00	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		20,000.00	20,000.00	0.00	0.00	20,000.00	0.00
NET OF REVENUES & EXPENDITURES		(20,000.00)	(20,000.00)	0.00	0.00	(20,000.00)	0.00

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 588 - TRANSPORTATION FUND							
Revenues							
588-000-665.000	INTEREST INCOME	1,000.00	1,000.00	0.00	0.00	1,000.00	0.00
588-000-699.101	TRANFERS FROM GENERAL FUND	28,000.00	28,000.00	0.00	0.00	28,000.00	0.00
TOTAL REVENUES		29,000.00	29,000.00	0.00	0.00	29,000.00	0.00
Expenditures							
200	GEN SERVICES	89,119.00	89,119.00	50.00	83,308.68	5,810.32	93.48
TOTAL EXPENDITURES		89,119.00	89,119.00	50.00	83,308.68	5,810.32	93.48
Fund 588 - TRANSPORTATION FUND:							
TOTAL REVENUES		29,000.00	29,000.00	0.00	0.00	29,000.00	0.00
TOTAL EXPENDITURES		89,119.00	89,119.00	50.00	83,308.68	5,810.32	93.48
NET OF REVENUES & EXPENDITURES		(60,119.00)	(60,119.00)	(50.00)	(83,308.68)	23,189.68	138.57

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 590 - SEWER FUND							
Revenues							
590-000-491.000	PERMITS	0.00	0.00	100.00	200.00	(200.00)	100.00
590-000-643.100	METERED SALES	3,229,118.00	3,229,118.00	1,928.13	(22,539.88)	3,251,657.88	(0.70)
590-000-644.000	PENALTIES - LATE CHARGES	41,727.00	41,727.00	13,285.41	13,285.41	28,441.59	31.84
590-000-665.000	INTEREST INCOME	10,000.00	10,000.00	6,202.90	11,330.88	(1,330.88)	113.31
590-000-675.000	MISCELLANEOUS	1,000.00	1,000.00	0.00	0.00	1,000.00	0.00
TOTAL REVENUES		3,281,845.00	3,281,845.00	21,516.44	2,276.41	3,279,568.59	0.07
Expenditures							
200	GEN SERVICES	2,092,248.00	2,092,248.00	156,118.28	320,210.95	1,772,037.05	15.30
549	SEWER OPERATIONS	234,137.00	234,137.00	8,836.12	15,846.31	218,290.69	6.77
901	CAPITAL OUTLAY	625,000.00	625,000.00	0.00	0.00	625,000.00	0.00
905	DEBT SERVICE	126,553.00	126,553.00	63,526.47	63,526.47	63,026.53	50.20
TOTAL EXPENDITURES		3,077,938.00	3,077,938.00	228,480.87	399,583.73	2,678,354.27	12.98
Fund 590 - SEWER FUND:							
TOTAL REVENUES		3,281,845.00	3,281,845.00	21,516.44	2,276.41	3,279,568.59	0.07
TOTAL EXPENDITURES		3,077,938.00	3,077,938.00	228,480.87	399,583.73	2,678,354.27	12.98
NET OF REVENUES & EXPENDITURES		203,907.00	203,907.00	(206,964.43)	(397,307.32)	601,214.32	194.85

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CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 591 - WATER FUND							
Revenues							
591-000-491.000	PERMITS	1,000.00	1,000.00	50.00	300.00	700.00	30.00
591-000-493.000	PERMITS-OWOSSO TOWNSHIP	0.00	0.00	0.00	7,572.05	(7,572.05)	100.00
591-000-538.000	CAPITAL CONTRIBUTION-FEDERAL	5,045,000.00	5,045,000.00	514,803.45	514,803.45	4,530,196.55	10.20
591-000-540.000	STATE SOURCES	180,000.00	180,000.00	0.00	0.00	180,000.00	0.00
591-000-605.100	WATER MAIN REPLACEMENT CHARGE	771,783.00	771,783.00	505.64	546.30	771,236.70	0.07
591-000-605.350	MATERIAL & SERVICE	10,000.00	10,000.00	0.00	5,076.92	4,923.08	50.77
591-000-643.100	METERED SALES	3,623,370.00	3,623,370.00	1,874.51	(29,686.58)	3,653,056.58	(0.82)
591-000-643.200	METERED SALES-WHOLESALE-USAGE	330,000.00	330,000.00	28,224.72	59,150.04	270,849.96	17.92
591-000-644.000	PENALTIES - LATE CHARGES	65,000.00	65,000.00	18,133.14	18,133.14	46,866.86	27.90
591-000-665.000	INTEREST INCOME	20,000.00	20,000.00	16,061.96	26,868.11	(6,868.11)	134.34
591-000-667.100	RENTAL INCOME	1,440.00	1,440.00	120.00	240.00	1,200.00	16.67
591-000-667.300	HYDRANT RENTAL	27,555.00	27,555.00	0.00	0.00	27,555.00	0.00
591-000-670.000	LOAN PRINCIPAL	6,171.00	6,171.00	42,291.73	42,678.82	(36,507.82)	691.60
591-000-670.100	LOAN INTEREST	72.00	72.00	166.00	332.64	(260.64)	462.00
591-000-675.000	MISCELLANEOUS	1,500.00	1,500.00	0.00	0.00	1,500.00	0.00
591-000-675.200	MISCELLANEOUS WATER CHARGES	1,000.00	1,000.00	225.00	745.00	255.00	74.50
591-000-699.287	ARPA TRANSFER IN	1,000,000.00	1,000,000.00	0.00	0.00	1,000,000.00	0.00
TOTAL REVENUES		11,083,891.00	11,083,891.00	622,456.15	646,759.89	10,437,131.11	5.84
Expenditures							
200	GEN SERVICES	1,241,156.00	1,241,156.00	19,216.69	61,701.69	1,179,454.31	4.97
552	WATER UNDERGROUND	2,955,684.00	2,955,684.00	215,512.62	307,840.16	2,647,843.84	10.42
553	WATER FILTRATION	1,369,348.00	1,369,348.00	93,484.07	136,243.64	1,233,104.36	9.95
901	CAPITAL OUTLAY	5,115,502.00	5,115,502.00	76,933.50	76,933.50	5,038,568.50	1.50
905	DEBT SERVICE	581,159.00	581,159.00	160,513.39	160,513.39	420,645.61	27.62
TOTAL EXPENDITURES		11,262,849.00	11,262,849.00	565,660.27	743,232.38	10,519,616.62	6.60
Fund 591 - WATER FUND:							
TOTAL REVENUES		11,083,891.00	11,083,891.00	622,456.15	646,759.89	10,437,131.11	5.84
TOTAL EXPENDITURES		11,262,849.00	11,262,849.00	565,660.27	743,232.38	10,519,616.62	6.60
NET OF REVENUES & EXPENDITURES		(178,958.00)	(178,958.00)	56,795.88	(96,472.49)	(82,485.51)	53.91

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 599 - WASTEWATER FUND							
Revenues							
599-000-540.000	STATE SOURCES	16,230,624.00	16,230,624.00	0.00	0.00	16,230,624.00	0.00
599-000-602.100	OP & MAINT CHRG - OWOSSO	1,237,218.00	1,237,218.00	104,079.37	205,079.55	1,032,138.45	16.58
599-000-602.200	OP & MAINT CHRG - OWOSSO TWP	231,595.00	231,595.00	18,710.15	41,019.88	190,575.12	17.71
599-000-602.300	OP & MAINT CHRG - CALEDONIA TWS	111,194.00	111,194.00	10,248.06	18,947.85	92,246.15	17.04
599-000-602.400	OP & MAINT CHRG - CORUNNA	225,096.00	225,096.00	21,182.41	43,972.71	181,123.29	19.54
599-000-603.100	REPLACEMENT CHRG - OWOSSO	131,884.00	131,884.00	22,245.97	43,904.86	87,979.14	33.29
599-000-603.200	REPLACEMENT CHRG - OWOSSO TWP	24,687.00	24,687.00	5,252.26	11,082.03	13,604.97	44.89
599-000-603.300	REPLACEMENT CHRG - CALEDONIA TW	11,853.00	11,853.00	3,350.32	6,452.23	5,400.77	54.44
599-000-603.400	REPLACEMENT CHRG - CORUNNA	23,995.00	23,995.00	4,361.46	8,980.89	15,014.11	37.43
599-000-606.100	DEBT SERVICE CHRG - OWOSSO	184,840.00	184,840.00	15,403.39	30,806.78	154,033.22	16.67
599-000-606.200	DEBT SERVICE CHRG - OWOSSO TWP.	73,239.00	73,239.00	6,248.55	12,497.10	60,741.90	17.06
599-000-606.300	DEBT SERVICE CHRG - CALEDONIA T	55,801.00	55,801.00	4,737.27	9,474.54	46,326.46	16.98
599-000-606.400	DEBT SERVICE CHRG - CORUNNA	31,388.00	31,388.00	2,673.80	5,347.60	26,040.40	17.04
599-000-665.000	INTEREST INCOME	10,000.00	10,000.00	6,066.80	11,062.17	(1,062.17)	110.62
599-000-675.000	MISCELLANEOUS	5,000.00	5,000.00	119.62	361.58	4,638.42	7.23
TOTAL REVENUES		18,588,414.00	18,588,414.00	224,679.43	448,989.77	18,139,424.23	2.42
Expenditures							
200	GEN SERVICES	30,946.00	30,946.00	2,409.01	4,713.84	26,232.16	15.23
548	WASTEWATER OPERATIONS	1,982,730.00	1,982,730.00	181,925.12	225,125.41	1,757,604.59	11.35
901	CAPITAL OUTLAY	16,533,124.00	16,533,124.00	7,800.45	7,800.45	16,525,323.55	0.05
905	DEBT SERVICE	348,753.00	348,753.00	133,784.20	133,784.20	214,968.80	38.36
TOTAL EXPENDITURES		18,895,553.00	18,895,553.00	325,918.78	371,423.90	18,524,129.10	1.97
Fund 599 - WASTEWATER FUND:							
TOTAL REVENUES		18,588,414.00	18,588,414.00	224,679.43	448,989.77	18,139,424.23	2.42
TOTAL EXPENDITURES		18,895,553.00	18,895,553.00	325,918.78	371,423.90	18,524,129.10	1.97
NET OF REVENUES & EXPENDITURES		(307,139.00)	(307,139.00)	(101,239.35)	77,565.87	(384,704.87)	25.25

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 661 - FLEET MAINTENANCE FUND							
Revenues							
661-000-665.000	INTEREST INCOME	10,000.00	10,000.00	8,892.73	15,981.11	(5,981.11)	159.81
661-000-667.200	EQUIPMENT RENTAL	794,596.00	794,596.00	68,049.85	120,710.93	673,885.07	15.19
TOTAL REVENUES		804,596.00	804,596.00	76,942.58	136,692.04	667,903.96	16.99
Expenditures							
594	FLEET MAINTENANCE	422,135.00	422,135.00	19,613.39	29,945.35	392,189.65	7.09
901	CAPITAL OUTLAY	1,182,461.00	1,182,461.00	0.00	0.00	1,182,461.00	0.00
TOTAL EXPENDITURES		1,604,596.00	1,604,596.00	19,613.39	29,945.35	1,574,650.65	1.87
Fund 661 - FLEET MAINTENANCE FUND:							
TOTAL REVENUES		804,596.00	804,596.00	76,942.58	136,692.04	667,903.96	16.99
TOTAL EXPENDITURES		1,604,596.00	1,604,596.00	19,613.39	29,945.35	1,574,650.65	1.87
NET OF REVENUES & EXPENDITURES		(800,000.00)	(800,000.00)	57,329.19	106,746.69	(906,746.69)	13.34

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 858 - 2013 SPECIAL ASSESSMENT							
Revenues							
858-000-451.000	SPECIAL ASSESSMENTS	1,000.00	1,000.00	0.00	0.00	1,000.00	0.00
TOTAL REVENUES		1,000.00	1,000.00	0.00	0.00	1,000.00	0.00
Fund 858 - 2013 SPECIAL ASSESSMENT:							
TOTAL REVENUES		1,000.00	1,000.00	0.00	0.00	1,000.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		1,000.00	1,000.00	0.00	0.00	1,000.00	0.00

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 864 - 2016 SPECIAL ASSESSMENT							
Revenues							
864-000-451.000	SPECIAL ASSESSMENTS	4,000.00	4,000.00	0.00	0.00	4,000.00	0.00
TOTAL REVENUES		4,000.00	4,000.00	0.00	0.00	4,000.00	0.00
Fund 864 - 2016 SPECIAL ASSESSMENT:							
TOTAL REVENUES		4,000.00	4,000.00	0.00	0.00	4,000.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		4,000.00	4,000.00	0.00	0.00	4,000.00	0.00

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 865 - 2017 SPECIAL ASSESSMENTS							
Revenues							
865-000-445.000	INTEREST & PENALTIES ON TAXES	100.00	100.00	0.00	0.00	100.00	0.00
865-000-451.000	SPECIAL ASSESSMENTS	12,000.00	12,000.00	0.00	0.00	12,000.00	0.00
TOTAL REVENUES		12,100.00	12,100.00	0.00	0.00	12,100.00	0.00
Fund 865 - 2017 SPECIAL ASSESSMENTS:							
TOTAL REVENUES		12,100.00	12,100.00	0.00	0.00	12,100.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		12,100.00	12,100.00	0.00	0.00	12,100.00	0.00

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 866 - 2018 SPECIAL ASSESSMENTS							
Revenues							
866-000-445.000	INTEREST & PENALTIES ON TAXES	500.00	500.00	0.00	0.00	500.00	0.00
866-000-451.000	SPECIAL ASSESSMENTS	65,000.00	65,000.00	100.00	100.00	64,900.00	0.15
TOTAL REVENUES		65,500.00	65,500.00	100.00	100.00	65,400.00	0.15
Fund 866 - 2018 SPECIAL ASSESSMENTS:							
TOTAL REVENUES		65,500.00	65,500.00	100.00	100.00	65,400.00	0.15
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		65,500.00	65,500.00	100.00	100.00	65,400.00	0.15

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 867 - 2019 SPECIAL ASSESSMENTS							
Revenues							
867-000-445.000	INTEREST & PENALTIES ON TAXES	250.00	250.00	0.00	0.00	250.00	0.00
867-000-451.000	SPECIAL ASSESSMENTS	25,000.00	25,000.00	0.00	0.00	25,000.00	0.00
TOTAL REVENUES		25,250.00	25,250.00	0.00	0.00	25,250.00	0.00
Fund 867 - 2019 SPECIAL ASSESSMENTS:							
TOTAL REVENUES		25,250.00	25,250.00	0.00	0.00	25,250.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		25,250.00	25,250.00	0.00	0.00	25,250.00	0.00

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 868 - 2020 SPECIAL ASSESSMENTS							
Revenues							
868-000-445.000	INTEREST & PENALTIES ON TAXES	500.00	500.00	0.00	0.00	500.00	0.00
868-000-451.000	SPECIAL ASSESSMENTS	25,000.00	25,000.00	0.00	0.00	25,000.00	0.00
TOTAL REVENUES		25,500.00	25,500.00	0.00	0.00	25,500.00	0.00
Fund 868 - 2020 SPECIAL ASSESSMENTS:							
TOTAL REVENUES		25,500.00	25,500.00	0.00	0.00	25,500.00	0.00
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		25,500.00	25,500.00	0.00	0.00	25,500.00	0.00

*NOTE: Available Balance / Pct Budget Used does not reflect amounts encumbered.

CITY OF OWOSSO

MONTHLY REVENUE AND EXPENDITURE REPORT

GL NUMBER	DESCRIPTION	2023-24 ORIGINAL BUDGET	2023-24 AMENDED BUDGET	ACTIVITY FOR MONTH 08/31/23 INCR (DECR)	YTD BALANCE 08/31/2023 NORM (ABNORM)	AVAILABLE BALANCE NORM (ABNORM)	% BDGT USED
Fund 869 - 2021-20XX SPECIAL ASSESSMENTS							
Revenues							
869-000-445.000	INTEREST & PENALTIES ON TAXES	500.00	500.00	66.58	213.30	286.70	42.66
869-000-451.000	SPECIAL ASSESSMENTS	31,000.00	31,000.00	2,400.14	7,835.13	23,164.87	25.27
TOTAL REVENUES		31,500.00	31,500.00	2,466.72	8,048.43	23,451.57	25.55
Fund 869 - 2021-20XX SPECIAL ASSESSMENTS:							
TOTAL REVENUES		31,500.00	31,500.00	2,466.72	8,048.43	23,451.57	25.55
TOTAL EXPENDITURES		0.00	0.00	0.00	0.00	0.00	0.00
NET OF REVENUES & EXPENDITURES		31,500.00	31,500.00	2,466.72	8,048.43	23,451.57	25.55
TOTAL REVENUES - ALL FUNDS		49,638,244.00	49,638,244.00	2,100,355.75	3,026,184.13	46,612,059.87	6.10
TOTAL EXPENDITURES - ALL FUNDS		53,075,280.00	53,075,280.00	2,193,864.07	3,244,518.92	49,830,761.08	6.11
NET OF REVENUES & EXPENDITURES		(3,437,036.00)	(3,437,036.00)	(93,508.32)	(218,334.79)	(3,218,701.21)	6.35

CASH SUMMARY BY ACCOUNT FOR CITY OF OWOSSO
FROM 08/01/2023 TO 08/31/2023
FUND: ALL FUNDS
CASH AND INVESTMENT ACCOUNTS

Fund Account	Description	Beginning Balance 08/01/2023	Total Debits	Total Credits	Ending Balance 08/31/2023
Fund 101 GENERAL FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	21,431.38	1,066,235.84	752,268.42	335,398.80
001.204	HUNTINGTON LIQUIDITY PORTAL	55,512.77	321.52	0.00	55,834.29
001.205	THE STATE BANK	2,520,269.93	9,435.30	0.00	2,529,705.23
001.300	FRANKENMUTH CREDIT UNION ACCOUNTS	1,649,246.18	4,900.33	0.00	1,654,146.51
001.306	DORT FEDERAL CREDIT UNION ACCOUNTS	1,560,517.86	0.00	0.00	1,560,517.86
002.203	AMBULANCE PAYMENT BANK ACCOUNT	52,095.34	103,567.62	50,037.32	105,625.64
004.000	PETTY CASH	1,925.00	0.00	0.00	1,925.00
	GENERAL FUND	5,860,998.46	1,184,460.61	802,305.74	6,243,153.33
Fund 202 MAJOR STREET FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	742,735.60	125,630.09	337,466.95	530,898.74
001.201	MI CLASS ACCOUNT	1,118,188.31	5,217.92	0.00	1,123,406.23
001.204	HUNTINGTON LIQUIDITY PORTAL	411,755.01	304,120.43	0.00	715,875.44
001.300	FRANKENMUTH CREDIT UNION ACCOUNTS	512,652.82	1,523.19	0.00	514,176.01
	MAJOR STREET FUND	2,785,331.74	436,491.63	337,466.95	2,884,356.42
Fund 203 LOCAL STREET FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	550,136.77	44,868.30	164,628.13	430,376.94
001.201	MI CLASS ACCOUNT	60,788.02	283.70	0.00	61,071.72
001.204	HUNTINGTON LIQUIDITY PORTAL	360,324.73	2,086.00	0.00	362,410.73
001.300	FRANKENMUTH CREDIT UNION ACCOUNTS	512,652.82	1,523.19	0.00	514,176.01
	LOCAL STREET FUND	1,483,902.34	48,761.19	164,628.13	1,368,035.40
Fund 208 PARK/RECREATION SITES FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	(2,419.17)	3,945.97	217.98	1,308.82
001.204	HUNTINGTON LIQUIDITY PORTAL	31,056.61	179.71	0.00	31,236.32
	PARK/RECREATION SITES FUND	28,637.44	4,125.68	217.98	32,545.14
Fund 239 OMS/DDA REVLG LOAN FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	70,935.81	8,779.70	550.00	79,165.51
001.204	HUNTINGTON LIQUIDITY PORTAL	113,236.27	655.43	0.00	113,891.70
001.300	FRANKENMUTH CREDIT UNION ACCOUNTS	205,060.79	609.26	0.00	205,670.05
001.306	DORT FEDERAL CREDIT UNION ACCOUNTS	204,811.29	0.00	0.00	204,811.29
	OMS/DDA REVLG LOAN FUND	594,044.16	10,044.39	550.00	603,538.55
Fund 243 OBRA #12 WOODWARD LOFT					
001.201	MI CLASS ACCOUNT	1,850.71	0.00	0.00	1,850.71
Fund 248 DOWNTOWN DEVELOPMENT AUTHORITY					
001.200	POOLED CASH (HUNTINGTON BANK)	15,592.56	8,435.68	17,380.39	6,647.85
001.201	MI CLASS ACCOUNT	25,926.99	120.98	0.00	26,047.97
001.203	MAIN STREET OWOSSO / DDA CHECKING	1,535.07	170.08	0.00	1,705.15
001.204	HUNTINGTON LIQUIDITY PORTAL	81,438.06	471.51	0.00	81,909.57
	DOWNTOWN DEVELOPMENT AUTHORITY	124,492.68	9,198.25	17,380.39	116,310.54
Fund 249 BUILDING INSPECTION FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	60,732.77	18,862.60	20,865.82	58,729.55
001.204	HUNTINGTON LIQUIDITY PORTAL	153,843.81	890.65	0.00	154,734.46
	BUILDING INSPECTION FUND	214,576.58	19,753.25	20,865.82	213,464.01
Fund 254 HOUSING & REDEVELOPMENT					
001.200	POOLED CASH (HUNTINGTON BANK)	105,258.55	99,599.73	151,507.50	53,350.78
001.204	HUNTINGTON LIQUIDITY PORTAL	0.00	100,578.86	0.00	100,578.86
	HOUSING & REDEVELOPMENT	105,258.55	200,178.59	151,507.50	153,929.64
Fund 259 OBRA-DIST#15 -ARMORY BUILDING					
001.200	POOLED CASH (HUNTINGTON BANK)	4,293.45	0.00	4,292.00	1.45
Fund 272 OBRA FUND-DISTRICT #17 CARGILL (PREV #8)					

CASH SUMMARY BY ACCOUNT FOR CITY OF OWOSSO
FROM 08/01/2023 TO 08/31/2023
FUND: ALL FUNDS
CASH AND INVESTMENT ACCOUNTS

Fund Account	Description	Beginning Balance 08/01/2023	Total Debits	Total Credits	Ending Balance 08/31/2023
001.200	POOLED CASH (HUNTINGTON BANK)	20,401.38	0.00	10,720.00	9,681.38
Fund 273 OBRA #9 ROBBINS LOFT					
001.200	POOLED CASH (HUNTINGTON BANK)	3,036.71	0.00	0.00	3,036.71
001.201	MI CLASS ACCOUNT	48,728.12	0.00	0.00	48,728.12
	OBRA #9 ROBBINS LOFT	51,764.83	0.00	0.00	51,764.83
Fund 276 OBRA FUND DISTRICT #16 - QDOBA					
001.200	POOLED CASH (HUNTINGTON BANK)	7,801.44	0.00	587.00	7,214.44
Fund 277 OBRA FUND DISTRICT #20 - J&H OIL					
001.200	POOLED CASH (HUNTINGTON BANK)	2,809.00	0.00	2,808.50	0.50
Fund 283 OBRA FUND-DISTRICT#3-TIAL					
001.200	POOLED CASH (HUNTINGTON BANK)	9,114.02	0.00	0.00	9,114.02
Fund 284 OPIOID SETTLEMENT FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	20,737.15	2,725.46	0.00	23,462.61
Fund 287 ARPA - AMERICAN RESCUE PLAN ACT					
001.201	MI CLASS ACCOUNT	636,558.55	2,970.45	0.00	639,529.00
001.306	DORT FEDERAL CREDIT UNION ACCOUNTS	772,151.14	0.00	0.00	772,151.14
	ARPA - AMERICAN RESCUE PLAN ACT	1,408,709.69	2,970.45	0.00	1,411,680.14
Fund 297 HISTORICAL FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	9,649.67	5,357.00	4,613.66	10,393.01
001.202	HC CHECKING ACCOUNT	3,347.93	1,170.86	118.93	4,399.86
001.204	HUNTINGTON LIQUIDITY PORTAL	51,731.98	299.43	0.00	52,031.41
004.000	PETTY CASH	100.00	0.00	0.00	100.00
	HISTORICAL FUND	64,829.58	6,827.29	4,732.59	66,924.28
Fund 301 GENERAL DEBT SERVICE (VOTED BONDS)					
001.200	POOLED CASH (HUNTINGTON BANK)	172,144.86	127,102.75	0.00	299,247.61
Fund 469 CAPITAL PROJECTS-BUILDING AUTHORITY					
001.200	POOLED CASH (HUNTINGTON BANK)	0.00	0.00	244.00	(244.00)
001.201	MI CLASS ACCOUNT	11,679.62	54.46	0.00	11,734.08
	CAPITAL PROJECTS-BUILDING AUTHORITY	11,679.62	54.46	244.00	11,490.08
Fund 588 TRANSPORTATION FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	0.03	0.00	50.00	(49.97)
001.201	MI CLASS ACCOUNT	(17,242.30)	0.00	0.00	(17,242.30)
	TRANSPORTATION FUND	(17,242.27)	0.00	50.00	(17,292.27)
Fund 590 SEWER FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	187,176.92	404,110.43	237,061.11	354,226.24
001.201	MI CLASS ACCOUNT	397,448.10	1,854.63	0.00	399,302.73
001.204	HUNTINGTON LIQUIDITY PORTAL	619,932.24	3,588.93	0.00	623,521.17
001.300	FRANKENMUTH CREDIT UNION	255,540.98	759.34	0.00	256,300.32
001.306	DORT FEDERAL CREDIT UNION ACCOUNTS	517,588.84	0.00	0.00	517,588.84
004.000	PETTY CASH	200.00	0.00	0.00	200.00
	SEWER FUND	1,977,887.08	410,313.33	237,061.11	2,151,139.30
Fund 591 WATER FUND					
001.200	POOLED CASH (HUNTINGTON BANK)	893,865.36	1,963,482.11	1,414,697.34	1,442,650.13
001.201	MI CLASS ACCOUNT	1,532,415.76	7,150.68	0.00	1,539,566.44
001.204	HUNTINGTON LIQUIDITY PORTAL	739,290.16	808,911.28	0.00	1,548,201.44
	WATER FUND	3,165,571.28	2,779,544.07	1,414,697.34	4,530,418.01
Fund 599 WASTEWATER FUND					

CASH SUMMARY BY ACCOUNT FOR CITY OF OWOSSO

FROM 08/01/2023 TO 08/31/2023

FUND: ALL FUNDS

CASH AND INVESTMENT ACCOUNTS

Fund Account	Description	Beginning Balance 08/01/2023	Total Debits	Total Credits	Ending Balance 08/31/2023
001.200	POOLED CASH (HUNTINGTON BANK)	303,160.40	471,953.63	343,512.55	431,601.48
001.201	MI CLASS ACCOUNT	372,634.05	1,738.79	0.00	374,372.84
001.204	HUNTINGTON LIQUIDITY PORTAL	616,418.80	3,568.67	0.00	619,987.47
001.300	FRANKENMUTH CREDIT UNION ACCOUNTS	255,540.98	759.34	0.00	256,300.32
001.306	DORT FEDERAL CREDIT UNION ACCOUNTS	312,777.00	0.00	0.00	312,777.00
	WASTEWATER FUND	1,860,531.23	478,020.43	343,512.55	1,995,039.11
Fund 661	FLEET MAINTENANCE FUND				
001.200	POOLED CASH (HUNTINGTON BANK)	696,786.62	66,433.78	119,677.40	643,543.00
001.201	MI CLASS ACCOUNT	627,733.83	2,929.15	0.00	630,662.98
001.204	HUNTINGTON LIQUIDITY PORTAL	10,444.21	100,639.38	0.00	111,083.59
001.205	THE STATE BANK	1,008,107.79	3,774.04	0.00	1,011,881.83
001.300	FRANKENMUTH CREDIT UNION ACCOUNTS	521,728.82	1,550.16	0.00	523,278.98
	FLEET MAINTENANCE FUND	2,864,801.27	175,326.51	119,677.40	2,920,450.38
Fund 703	CURRENT TAX COLLECTION FUND				
001.200	POOLED CASH (HUNTINGTON BANK)	(321,310.03)	6,354,812.74	4,501,417.82	1,532,084.89
001.204	HUNTINGTON LIQUIDITY PORTAL	978,000.00	3,200,000.00	0.00	4,178,000.00
	CURRENT TAX COLLECTION FUND	656,689.97	9,554,812.74	4,501,417.82	5,710,084.89
Fund 866	2018 SPECIAL ASSESSMENTS				
001.200	POOLED CASH (HUNTINGTON BANK)	0.00	100.00	0.00	100.00
Fund 869	2021-20XX SPECIAL ASSESSMENTS				
001.200	POOLED CASH (HUNTINGTON BANK)	5,581.71	2,466.72	0.00	8,048.43
Fund 956	GASB 34 LONG TERM DEBT				
005.200	MMRMA CASH - RESTRICTED	276,795.29	0.00	0.00	276,795.29
	TOTAL - ALL FUNDS	23,763,993.24	15,453,277.80	8,134,722.82	31,082,548.22